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1963

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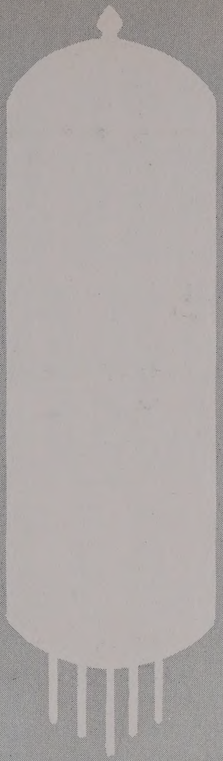

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1963 Foreign Tube Interchangeability Guide

SEE PAGE 1670

1963

27th EDITION

THE RADIO ELECTRONIC MASTER

OFFICIAL Parts & Equipment Catalog of the Electronic Industry for products sold by distributors.

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THE
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MASTER

1963
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THE RADIO-ELECTRONIC MASTER

GUIDE TO PRODUCT SECTIONS

As publishers of The Radio-Electronic MASTER, we take great pride in the fact that this publication has reflected the changes and growth of the electronic industry for more than 25 years.

The 32 Product Sections listed below broadly categorize related electronic products and services so that you can quickly compare similar items within the sections. However, to locate specific products within the catalog pages, always refer to the General Index. NOTE: Manufacturers' pages are arranged alphabetically within each section.

Sec. 1200 Pages 25 thru 71	Antennas & Accessories
Sec. 1300 Pages 72 thru 128	Audio: High Fidelity Tuners, Amplifiers, Sound Systems, Intercoms, Kits
Sec. 1320 Pages 130 thru 197	Audio: Speakers & Systems, Enclosures, Microphones, Headphones, Accessories
Sec. 1340 Pages 198 thru 237	Audio: Recording & Playback Equipment, Accessories
Sec. 1400 Pages 238 thru 329	Cabinets, Chassis, Racks, Boxes, etc.
Sec. 1500 Pages 330 thru 617	Capacitors (All Types)
Sec. 1600 Pages 618 thru 630	Chemicals (Acids, Coatings, Paints, Varnishes, Lubricants, etc.)
Sec. 1700 Page 631	Circuits (Encapsulated, Embedded, Printed, Plug-In)
Sec. 1800 Pages 632 thru 645	Coils (Inductors, Toroids), Assemblies, Forms
Sec. 1900 Pages 646 thru 688	Communications Equipment (Broadcast, Television, Amateur, Facsimile)
Sec. 2000 Pages 690, 691	Computing, Data Handling Equipment & Accessories
Sec. 2100 Pages 692 thru 814	Connectors (Plugs, Jacks, Receptacles, Sockets, Clips)
Sec. 2200 Pages 815 thru 821	Controls, Timers, Control Components & Systems
Sec. 2300 Pages 822, 823	Crystals & Accessories
Sec. 2400 Pages 824 thru 833	Dials, Knobs, Handles, Panel Components
Sec. 2600 Pages 834 thru 837	Fans & Blowers; Air Conditioners; Environmental Chambers

Sec. 2800 Pages 839 thru 893	Hardware (Bolts, Nuts, Screws, Washers, Terminals, Terminal Boards, etc.)
Sec. 2900 Pages 894 thru 985	Instruments (Electrical Measuring & Test)
Sec. 3100 Pages 986 thru 991	Insulators, Insulating Material & Parts
Sec. 3500 Pages 992 thru 995	Motors, Rotating Components, Accessories
Sec. 3700 Pages 996 thru 1003	Photoelectric Equipment & Components
Sec. 3900 Pages 1004 thru 1022	Pilot & Signal Lamps, Lights & Accessories
Sec. 4000 Pages 1023 thru 1078	Power Supplies, Converters, Inverters, Vibrators, Batteries, Flashlights, etc.
Sec. 4200 Pages 1079 thru 1088	Publications (Textbooks, Reference Handbooks, etc.)
Sec. 4500 Pages 1089 thru 1130	Relays, Solenoids
Sec. 4700 Pages 1131 thru 1231	Resistors (All Types)
Sec. 4800 Pages 1232 thru 1255	Semiconductors (Diodes, Transistors), Semiconductor Devices, Rectifiers (Non-Tube Types)
Sec. 5100 Pages 1256 thru 1319	Switches, Circuit Breakers, Fuses, Counters
Sec. 5400 Pages 1320 thru 1381	Tools (Hand & Power), Supplies
Sec. 5600 Pages 1382 thru 1527	Transformers, Chokes, Reactors, etc.
Sec. 5700 Pages 1528 thru 1551	Tubes, Tube Parts, Shields, Inserts, etc.
Sec. 6000 Pages 1553 thru 1669	Wire, Cable, Harnesses, etc.

GENERAL INDEX

A

Page

- **ADC PRODUCTS,** Div. of Magnetic Controls Co.
  - Plugs, Jacks, Jack Panels ... 692-694
  - Transformers, Inductors, Coils ... 1383-1389
- **ATR ELECTRONICS, INC.** ... 646-649, 1024-1030
- **ARRL** ... 1079
- **ACCURATE INSTRUMENT CO., INC.** ... 894, 895
- **ACME ELECTRIC CORP.** ... 1023
- **ACOUSTONE** (Div. of Newcastle Fabrics) ... 130
- Acoustic Materials (See Materials, Acoustic)
- Acrylic Sprays (See Insulating Compounds, Lacquer)
- **Acoustifoam** Sound Insulation ... 144
- Actuators ... 1287
- **ADAM ALECTRONICS, INC.** ... 1382
- Adapters (See Connectors, Plugs, Sockets, Etc.)
- Adapters, FM Multiplex (See Receivers, FM Stereo (Multiplex)
- **Adashaft** Controls ... 1153-1155
- **Ad-A-Switch** Controls ... 1149
- **Add-A-Rack** Cabinet Racks ... 244, 245
- **Adjust-A-Volt** Autotransformers ... 1068, 1069
- **Admiral** Headset ... 139
- **AERO INSTRUMENT FACILITY, NORTHROP VENTURA** ... 896
- **Aerofilm** Capacitors ... 339
- **AEROGAP DISTRIBUTING CO.,** Tranceptor Sales Div. ... 25
- **Aerotan** Capacitors ... 338
- Air Cleaners and Filters ... 226
- Alarms, Alarm Systems (See Controls, Alarm System)
- **AEROVOX CORP. DISTRIB. DIV.**
  - Capacitor, Filters, Printed Circuits ... 330-364
  - Resistors ... 1136, 1137
- **AKRO-MILS, INC.** ... 238, 239
- **Al-Cab** Cabinets ... 258
- Alligator Clips (See Clips, Alligator)
- **ALCO ELECTRONIC PRODS., INC.**
  - Test Equipment, Panel Meters ... 897
  - Semiconductors ... 1234
  - Toggle Switches—Microminiature ... 1256
- **ALLIED CONTROL CO., INC.** ... 1089-1093
- **Almag** Magnet Wire ... 1559
- **Alnico** Headset ... 139
- **ALPHA WIRE CORPORATION**
  - Temperature Indicators ... 618
  - Wire, Cable, Tubing ... 1553-1567
- **Alpha-Tempil** Temperature Indicators ... 618
- **Alphlex** Tubing ... 1562-1565
- Alternators (See Generators, Motor Driven)
- Altitude Chambers (See Chambers, Environmental)
- Amateur Equipment (See Receivers, Transmitters, Antennas, Etc.)
- **American Beauty** Scoldering Irons ... 1320
- **AMERICAN COMMUNICATIONS CORP.** ... 72-83
- **AMERICAN ELECTRICAL HEATER CO.** ... 1320
- **AMERICAN RADIO RELAY LEAGUE (ARRL)** ... 1079
- Ammeters (See Meters, Ammeter)
- **AMPEREX ELECTRONIC CORP.**
  - Semiconductors ... 1232, 1233
  - Tubes—Industrial & Special Purpose ... 1528, 1529
- **AMPERITE CO., INC.**
  - Ballast Tubes, Regulators ... 1530, 1531
  - Thermostatic Delay Relays ... 1094, 1095
- Amplifiers
  - A-F, All Types ... 72-128 (Sec. 1300), 220, 631, 684, 1314
  - Antenna ... 26, 42, 43, 45, 65, 650, 651, 653
  - Compressor ... 663
  - Distribution ... 42, 43, 45, 215, 650, 651, 653
  - High Fidelity (See Amplifiers A-F, All Types)
  - Industrial & School Systems ... 76, 85-87, 97, 112-116, 120
  - Limiting ... 42

Amplifiers (continued) Page

  - Line (See Amplifiers Distribution)
  - Magnetic ... 1023, 1072, 1428-1430, 1521
  - Master Antenna (See Amplifiers, Distribution)
  - Microphone (See Amplifiers, A-F and Amplifiers, High Fidelity)
  - Mobile ... 104, 118
  - Portable ... 97, 102, 115, 116, 118
  - Power ... 85-87, 102, 104, 105, 127, 681
  - Preamplifier (See Preamplifiers)
  - Public Address ... 84-87, 96, 97, 102, 104, 105, 112-118, 120
  - Recording ... 220
  - R-F ... 676, 681, 1096
  - Single Sideband ... 663
  - Stereophonic (See Amplifiers, A-F, All Types)
  - Transistorized ... 98, 104, 631, 1431
  - Transmitter ... 663, 676, 681
  - Video ... 686
  - Wideband ... 42, 43
- **AMPROBE INSTRUMENT CORP.** ... 898, 899
- Analyzers
  - Capacitor (See Testers, Capacitor)
  - Crystal ... 924, 950
  - Transistor (See Testers, Transistor)
- Annunciators (See Indicators, Annunciators)
- Antenna Coils (See Coils, Antenna)
- Antenna Couplers (See Couplers, Antenna)
- Antenna Dummy Loads (See Dummy Load)
- Antenna Housings (See Housings, Antenna)
- Antenna Insulators (See Insulators, Antenna)
- Antenna Position Indictor (See Indicators, Antenna Position)
- Antennas
  - Amateur ... 26, 28, 32, 34, 48-51, 53-58, 69, 71, 657
  - Citizens Band ... 25-71 (Sec. 1200), 657, 687, 688
  - Dummy Load ... 657
  - Feed Systems ... 26
  - Ground Plane ... 28, 29, 32-34, 50, 51, 55, 58, 61, 69, 657, 687
  - Helical ... 28
  - Indoor, F-M and TV ... 37, 39, 200, 1664
  - Marine ... 26, 28, 50, 51, 58, 59, 687
  - Master Community ... 26, 74
  - Mobile ... 26, 28, 29, 32-34, 48-51, 54-59, 66, 67, 71, 687
  - Outdoor, F-M and TV ... 34, 36, 37, 60, 64, 65, 67, 74
  - Parabolic ... 60, 61
  - Rotary Beam ... 26, 32, 49, 51, 53, 54, 69, 657
  - Rotators (See Rotators)
  - Satellite ... 69
  - Scatter Propagation ... 69
  - Telescopic ... 58, 59, 66, 67, 70
  - Towers and Supports ... 28-32, 35-37, 52, 53, 58, 59, 62, 63, 67
  - Transmitting ... 28, 32-34, 48, 49, 53, 58, 60, 61, 69
  - Tuning Units ... 49, 50
  - VHF, UHF ... 32, 34, 50, 55, 58, 60, 61, 64, 65, 67, 69
- **ANGLER INDUSTRIES, INC.**
  - Spacers, Posts, Handles ... 839
  - Test Leads, UHF Connectors ... 900
- **ANTENNA SPECIALISTS CO.** ... 26
- Antistatic Compounds (See Compounds, Antistatic)
- **ARCO ELECTRONICS, INC. (Elmenco)**
  - Capacitors (Arcolytic & Elmenco) ... 366-396
  - Fused Plugs ... 1257
  - H.S.T. Transformers ... 1391-1401
- **Arcolytic** Capacitors ... 386-394
- **ARGONNE ELECTRONICS MFG. CORP.** ... 1390
- **ARGOS PRODUCTS CO., INC.** ... 131
- Arms, Phono, Transcription ... 213, 218, 228, 230, 231, 685

Page

Arresters, Electrical Surge (Also See Suppressors, Arc and Protectors, Surge) 1076, 1159, 1242
Arresters, Lightning 36, 1159
Assemblies, Packaged Electronic (See Circuits, Packaged Electronic)
ASSOCIATED SPECIALTIES CO. 1031
ASTATIC CORP. 132
ASTRON CORP. 397-408
Astronaut Antenna 51
Astrorelay 1105
ATLAS SOUND CORP. 134-137
Atom Capacitors 573, 574
Attache Microphones 171
Attend-A-Phone Telephone Systems 90
Attenuators
    A-F 157, 201, 232, 740, 1150, 1155,, 1161, 1193, 1199, 1319
    Coaxial 652, 1319
    Decade 1161, 1319
    Fixed 1161, 1319
    I-F 1319
    Impedance Matching 1161, 1390
    Logarithmic 1319
    R-F 46, 47, 65, 77, 82, 631, 652, 1161, 1188, 1319
    Turret 1319
Audio Equipment (See Amplifiers, Microphones, Speakers, Etc.)
Audiotester Tape 200
AUDIOTEX 198-202
Audiotrol Modulator 44
AUTOTRON, INC. 996-999
Autocon Capacitors 603
Auto Equipment (See Antennas, Receivers, Etc.)
Autoformer Transformers 1503
Autopass Capacitors 340
Auto-Poise Automatic Tonearm 218
Autotransformers (See Transformers, Autotransformer)
Autotutor Instruction Course 784
Axiohm Resistors 1227

B

Baby-Com Intercom 92
Baffles, Acoustic Materials (See Materials, Acoustic)
Baffles, Speaker (See Enclosures, Speaker, Cabinet)
Ballast Tubes (See Tubes, Ballast)
Baluns (See Transformers, Matching)
Bantam Capacitors 336
BARCO, INC. 410
Bases, Antenna 28, 33, 54, 63, 71, 1045-1047
Bases, Phono 128
Batteries
    Dry, Flashlight, Etc. 233, 1032-1035, 1043, 1044, 1050, 1054-1058
    Mercury 1032, 1050
    Nickel-Alkaline 1035, 1043, 1050
    Nickel-Cadmium 233, 1033, 1043
    Photo Flash 1035, 1054, 1055
    Solar 1240
    Transistor 1032, 1034, 1043, 1045-1047, 1054-1058
Battery Charger (See Chargers, Battery)
Battery Clips (See Holders, Battery)
Battery Eliminators (See Eliminators, Battery)
Battery Holders (See Holders, Battery)
Battery Testers (See Testers, Battery)
Beads, Insulation (See Insulation Parts)
Bearings 673, 783, 843
Beaucap Connectors 705
Beauplug Connectors 703-705

Page

BEEDE ELECTRICAL INSTR. CO., INC. 902, 903
BELDEN MFG. CO. 1569-1597
Bells and Buzzers 821, 1128
Belts, Dial (See Cords, Dial & Cable)
Benches, Tables—Lab, Service, Etc. 269
Beta Cable Markers 1641
Bezels 677, 867, 868
Bi-Electric Capacitors 339
Big Look Panel Meters 920-923
Binding Posts (See Posts, Binding)
Biraco Tubing 1599, 1601
Birflene Wire 1608
Birflex Tubing 1599
Birflon Tubing 1600, 1601
BIRNBACH RADIO CO., INC.
    Connectors, Clips 696-705
    Hardware 840-843
    Insulators 986, 987
    Switches 1258-1261
    Wire, Cable, Tubing 1599-1625
Birntex Wire 1615
Birsil Wire 1608
Black Beauty Capacitors 602, 603
Black Cat Capacitors 440
BLONDER-TONGUE LABS., INC. 650-655
Blowers & Fans—Accessories 247, 313, 834-837
Blue Beaver Capacitors 416, 417
Blue Chip Transistor Transformers....1385
Blue Jacket Resistors 1213, 1214
BLUM & CO., INC., JULIUS 990
Boards, Plug-In 813
Boards, Terminal 693, 735, 787, 800-802, 809, 814, 845, 869-871, 876
BOGEN COMMUNICATIONS DIV. LEAR SIEGLER INC.
    Intercoms, Sound Systems 84-90
    Presto Tape Equipment 215
BOKER, H. & CO., INC. In-Dus-Tronic Div. 1322-1325
Bolts 36, 786, 893
Books (See Technical Books)
Booms, Microphone 137
Booster Cable Battery (See Cable, Battery Booster)
BOSCO, DON ELECTRONICS, INC. Subs. of Howell Elec. Motors....901
BOURNS, INC. 1131-1134
Boxes
    Decade (See Decades, Boxes and Standards)
    Junction 185
    Metal, Plastic or Waterproof 81, 249, 251, 256-259, 271, 272, 309, 310, 329, 825, 1129, 1337
    Wall Plates (See Wall Plates, Boxes)
Brackets, Antenna 32, 33, 36, 50-52, 62, 63, 29, 656
Brackets Hardware ....36, 79, 88, 104, 105, 170, 233, 238-329 (Sec. 1400), 293, 521, 744, 786, 843, 845, 856, 871, 1134, 1199
BRADY, W. H., CO. 1626, 1627
Braid, Copper Shielding 1561, 1596, 1602
Brazing Flux (See Flux, Brazing)
Breadboard Kits (See Kits, Breadboard)
Breakdown Testers (See Testers, Insulation Breakdown)
Breakers, Circuit (See Switches, Circuit Breaker)
Bridges
    Antenna 676
    Capacitance 904, 906, 909, 916, 951
    Inductance 913, 915, 916
    Resistance 904, 906, 909, 916, 933
    Wheatstone 933
Brighteners, TV Tube 1231
BRISTOL MOTOR DIV. of Vocaline Co. of Amer., Inc....816-819

Page

BRITISH INDUSTRIES CORP.
  Record Changers, Speakers 204
  Solder, Tubes 1321
Brown Devil Resistors 1206
Brush Headphones 138
BUD RADIO INC. 240-251
Bulbs (See Lamps)
Bulplate R-C Networks 612-614
Bumper Feet 777, 856, 860, 893
Bunch-Pin Plugs 759
BURGESS BATTERY CO.
  Magnetic Tape 203
  Batteries, Flashlights 1032-1035
BURNELL & CO., INC. 476-478
BURTON-ROGERS CO., Sales Div.
  Hoyt Electrical Instr. Works, Inc. 930, 931
Bushings, Plastic, Metal 633, 682, 777, 783, 842, 843, 860, 1155, 1189
Business Forms 1084
BUSSMAN MFG. DIV. McGraw-Edison Co. 1263-1269
Buzzers (See Bells & Buzzers)

C

C-Bam Antennas 67
Cabinets & Accessories, Metal .... 119, 238-329 (Sec. 1400)
Cabinets, Plastic 238, 239
Cabinets, Speaker (See Enclosures, Speaker, Cabinet)
Cable (Also See Wire) .... (Sec. 6000)
  Battery Booster 747
  Coaxial .... 33, 53, 78, 750-753, 900, 1552-1669 (Sec. 6000)
  Dial (See Cords, Dial Cords & Cables)
  Hi-Fi Interconnecting .... 202, 224, 740, 742, 743, 804, 1552-1669 (Sec. 6000)
  Low Capacitance 1573, 1575, 1577, 1582-1587, 1628, 1629, 1657
  Microphone .... 742, 750-753, 1552-1669 (Sec. 6000)
  Multi-Conductor .... 78, 1552-1669 (Sec. 6000)
  Rotator, TV-FM 32, 1584, 1619, 1633, 1658, 1664
  Shielded .... 78, 742, 750-753, 900, 1552-1669 (Sec. 6000)
  Solid Dielectric 1575, 1585-1587
  Stereo (See Cables, Hi-Fi, Interconnecting)
  TV Camera 1575
  Telephone 1558, 1574, 1634
  Transmission Line .... 40, 53, 78, 1552-1669 (Sec. 6000)
  UHF 29, 900, 1583, 1587, 1612, 1628, 1660
Cable Assemblies .... 29, 33, 56, 66-67, 70, 183, 202, 224, 692-814 (Sec. 2100), 900, 1314-1316
Cable Clamps and Clips (Also See Ties, Wire) 729, 734, 782, 783, 786, 802, 843, 847, 849, 855, 890, 893, 1283, 1581, 1619, 1640, 1649
Cable Testers (See Testers, Cable)
Cables, Patch (See Cords, Patch)
Cadet Foot Switches 1298
Cage, Printed Circuit Card 725
CAIG LABORATORIES, INC.
  Cramolin Cleaners, Chemicals 619
  Ersa Soldering Equip. 1328
Calculators, Slide-Rule, Etc. 1208
Calibration Consoles 957
Calibrators
  Crystal 663
  Meter (See Testers, Meter)
  Voltage 907
CALIFORNIA CHASSIS CO. 252-256
Calling Systems (See Intercommunication Systems)
Cambric, Varnished (See Insulation Materials)
CAMBRIDGE THERMIONIC CORP.
  Cambion Coils, Hardware 632, 633
  Cambion Terminals, Hardware 844, 845
Cameras, Television & Accessories 655, 686
Cannon-Ball Headset 139

Page

C.F. CANNON COMPANY 139
CANNON ELECTRIC COMPANY 695
Cans 222, 1128, 1664
Cap and Shield, Connector 1011
Cap, Grid, Plate (See Clips & Caps, Grid, Plate)
Capacitance Comparators (See Bridges, Capacitance)
Capacitor Analyzers (See Testers, Capacitor)
Capacitor Tester (See Testers, Capacitor)
Capacitors, Fixed
  Bathtub .... 330-617 (Sec. 1500)
  Button 412, 459, 551
  Ceramic 353-359, 380, 381, 411-413, 429-431, 448, 450-454, 458, 459, 526, 608-611, 617
  Decade 364, 904, 906, 919, 932
  Electrolytic, All Types .... 330-617 (Sec. 1500), 1076, 1236, 1446
  Feed Through 357, 381, 413, 443, 458, 526, 566, 600, 607
  Film 339, 395, 396, 465, 467, 492, 558, 598, 599, 601, 605
  Glass 444
  High Capacitance, Low Voltage .... 330-617 (Sec. 1500)
  High Temperature 368, 375, 376, 414, 440-442, 444, 464, 495, 497, 501, 502, 524, 617
  High Voltage .... 330-617 (Sec. 1500)
  Laboratory Standard 497
  Metallized Paper (See Paper, Metallized)
  Mica .... 330-617 (Sec. 1500)
  Mil Type .... 330-617 (Sec. 1500)
  Miniature and Subminiature .... 330-617 (Sec. 1500)
  Motor Run 557
  Motor Starting 541
  Mylar 339, 375, 396, 438-441, 446, 474, 475, 491, 492, 496, 525, 558, 559
  Mylar, Metallized 465, 536
  Oil Filled 342, 351, 352, 405, 414, 497-499, 606
  Oil Impregnated 342-345, 351, 352, 405, 414, 496-499, 552-557, 594, 595, 603, 606
  Paper .... 330-617 (Sec. 1500)
  Paper, Metallized 345-350, 403, 406-408, 442, 495-497, 596, 597, 601
  Photoflash 336, 428, 521
  Plastic 395, 396, 464, 465, 467, 534, 558, 559, 596 598, 599, 601-605
  Polystyrene 395, 396, 411, 464, 534, 558, 598
  Porcelain, Enamel 617
  Power Factor 557
  Precision 395, 396, 444, 453, 534, 542-549, 617
  Printed Circuit .... 330-617 (Sec. 1500)
  Pulse Forming Network 537
  Selenium Rectifier (See High Capacitance, Low Voltage)
  Silicone-Filled 415
  Silvered Mica 360, 361, 367-374, 383, 384, 432-434, 459, 500, 501, 503-505, 543, 546, 551, 615
  Solid Dielectric 338, 401, 402, 444, 446, 447, 488, 523, 560, 561, 566, 603, 617
  Tantalum 338, 401, 402, 410, 445-447, 476-478, 488, 507, 522-524, 527-529, 560-569
  Teflon 414, 464, 558
  Temperature Compensated 355, 356, 358, 381, 413, 429, 430, 452, 526, 605, 608, 611
  Vacuum 515
  Vibrator, Buffer 340, 358, 431, 526, 603, 609
Capacitors, Variable
  Air 508-511, 640, 665-667, 679, 680, 685
  Ceramic 381, 412, 456, 457, 513, 526
  Glass 512, 513
  Mica 378, 379, 382
  Padder 378, 382, 385, 640
  Piston 512, 513
  Printed Circuit 665

Capacitors, Variable (continued) — Page

- Quartz 512, 513
- Temperature Compensated 512, 513
- Trimmer, All Types 378, 381, 385, 412, 444, 456, 457, 502-513, 526, 640, 665, 666, 679
- Vacuum 514

- **Cappot** Potentiometers 1141
- **Carbo-Film** Resistors 1136, 1137
- **Carbomold** Resistors 1136, 1137
- **Carbon-X** Control Restorer 623
- **Cardmatic** Tube Tester 926
- Card Receptacle (Also See Connectors, Printed Circuit) 724
- **Cardiline** Microphone 140
- Carrier Current Systems (See Comm. Sys., Carrier Current)
- Carts, Instrument, Scope (See Dollies)
- Cartridges, Microphone 183
- Cartridges, Phono (See Pickups)
- **CARLING ELECTRIC INC.** 1270-1273
- **CARTER MOTOR CO.** 1036
- **Cartrij-Dry** Capacitors 486
- **Cartwheel** Capacitors 358
- Cases
  - Instrument & Meter 249-251, 257, 258, 266, 271, 272, 329, 778, 825, 954, 958
  - Portable Equipment 88, 98, 104, 131, 111, 249, 250, 292, 329
  - Relays (See Relay Covers, Cases, Enclosures)
- Casters 245, 270, 289, 311, 320, 322
- **Catalina** Loudspeaker 131
- Cathode-Ray Equipment (See Shields, Testers, Tubes, Etc.)
- Cathode-Ray Tube Testers (See Testers, Cathode-Ray Tubes)
- Cells, Photoelectric, All Types 1001
- Cells, Solar (See Batteries, Solar)
- **Celluline** Transmission Lines
- Cements, Radio 623, 627, 629, 1231
- **CENTRALAB** The Electronics Div. of Globe-Union
  - Ceramic Capacitors, Kits 411-413
  - Package Electronic Circuits 631
  - Controls & Accessories 1153-1157
  - Switches 1262
- **Century** Microphone 143, 1288
- **Cerafil** Capacitors 354
- **Ceramicon** Capacitors 448-453, 458
- Ceramics (See Insulation Materials, Ceramic)
- **Ceramike** Microphones 187
- **Cera-mite** Capacitors 609-611
- **Cerol** Capacitors 353
- **CESCO** (Continental Electronics & Sound Co.) 656, 657
- Chambers, Environmental 621
- **CHAMPION DeARMENT TOOL CO. (Channellock)** 1326, 1327
- **Change-A-Volt** Dynamotors 1036
- Changers, Automatic Record (See Record Changers, Automatic)
- **Channellock** Tools 1326, 1327
- Chargers, Battery 687, 908, 1030, 1049, 1077, 1078
- Chassis 246, 248, 253, 254, 257-259, 267, 272, 273 293, 310, 322-325, 327
- Checkers (See Analyzers or Testers)
- **CHEMICAL ELECTRONIC ENGRG. INC.** 620
- Chemicals, Degreasing (See Solvents)
- **Chem-Oil** Penetrating Oil 621
- **CHEMTRONICS, INC.** 621
- **CHICAGO MINIATURE LAMP WORKS** 1004
- **Chief** Headset 139
- **Chief** Intercom Systems 125
- Chokes
  - AF .... 1382-1527 (Sec. 5600)
  - Filter .... 1382-1527 (Sec. 5600)
  - Power 1073, 1076, 1246, 1384, 1397, 1403, 1411, 1446, 1483, 1496, 1503, 1505, 1527
  - RF 633-638, 643, 644, 672, 673, 680, 681, 1159, 1207
  - Swinging 1411, 1468, 1483, 1520, 1524, 1526

Page

- **Christmas Tree** Antenna 69
- **Chrom-Aligner** Color Bar-Dot Generator 929
- **CINCH-JONES DIST. SALES DIV.** Cinch Mfg. Co.
  - Plugs, Sockets, Connectors 706-721
  - Terminals Strips & Blocks 846-850
- Circuit Breakers (See Switches, Circuit Breakers)
- **Circitracer** Signal Tracer 905
- Circuits
  - Computer Packs 612-614
  - Packaged Electronic 612-614, 631
  - Printed, Etched 876
  - Printed,Plated 444, 813, 883
- Citizens Band Radio Equipment (See Transceivers)
- **CLAIREX CORP.** 1001
- Clamps, Clips, (See Cable Clamps)
- Clamps, Ground 36, 747
- Clamps (See Holders)
- **CLAROSTAT MFG. CO., INC.** 1138-1151
- **Clarodial** Turns Counting Dials 1139
- **Classic** Speaker Systems 195
- **Classic** Twin Lead 1660
- Cleaners (Also See Solvents) 199, 222, 223, 225, 619-626, 628-630, 1231, 1336
- Cleaning Fluids (See Solvents)
- Cleaners and Filters, Air 226
- **Cleaps** Wire Splices 775
- **CLEGG LABS. DIV., TRANSISTOR DEVICES INC.** 658
- **CLEVITE ELECTRONIC COMPONENTS** 138
- **Clipper** Foot Switches 1298
- Clips
  - Alligator 685, 701, 731, 746, 747, 759, 765, 766, 876, 1022, 1336, 1345, 1373
  - Battery, Component, Crystal, Diode, Transistor (See Holders)
  - Dial Cord 833, 855
  - Fahnestock, Spring Wire 786, 855
  - Tape End 199, 223, 843
  - Test 36, 685, 701, 722, 728, 746, 747, 750, 751, 759, 765, 766, 876, 1022
- Clips ~~and~~ Holders, Fuse 36, 29, 785, 855, 876, 1264-1269, 1301-1303
- Clips and Caps, Grid/Plate 643, 678, 738, 786, 856, 1338
- Cloths, Speaker Grille 130, 830
- **Cloverleaf** Antenna 49
- Coatings
  - Anti-Static (See Compound Anti-Static)
  - Fluorescent 624
  - Insulating 620, 621, 623, 625, 627-629, 833
- **Coax-Projector** Speakers 135
- **Cobra-Jector** Speakers 135
- Code & Tab Markers (See Markers, Wire, Code & Tab)
- Coil Assemblies and Forms 632, 634-640, 643, 644, 679, 680, 682, 728
- Coils
  - A-F 644, 1384, 1387, 1388, 1458-1462, 1468, 1516
  - Antenna 32, 49, 50, 54, 55, 58, 639, 640-642, 645, 1664, 1667
  - Broadcast, S. W. 784
  - Choke (See Chokes, Filter and R-F)
  - Dope Insulation (See Insulating Compounds)
  - FM 641
  - High Q, Low Frequency 1384, 1396, 1399, 1413, 1458-1462, 1490, 1510, 1516, 1522
  - Hybrid & Repeat 1388, 1405
  - I-F 680
  - Metallized Glass 512, 513
  - Miniature & Subminiature 634-637, 640, 641, 644, 681, 682, 1387, 1396, 1412, 1458-1462, 1516, 1522
  - Oscillator, Phono, Test 639
  - R-F 512, 513, 633-637, 640, 642-644, 672, 680, 681, 1063, 1159, 1207, 1412

Coils (continued) Page
  - Saturable Reactor 1073, 1468
  - Solenoid 1101
  - Telephone Pickup 200, 206, 223
  - Toroidal 1073, 1159, 1384, 1396, 1399, 1418-1427, 1447, 1458-1462, 1489, 1510, 1522
  - TV, All Types 638, 641, 645
  - Variable 49, 50, 444, 635-637, 644, 672, 1412

COLUMBIA PRODUCTS CO. 28

COLUMBIA WIRE & SUPPLY CO. 1628, 1629

CONANT LABORATORIES 1235

CONDENSER PRODUCTS COMPANY
  - Capacitors 414, 415
  - Power Supplies 1040

Coloramic Speaker Baffles 165

Columnair Speakers 134

Commaire Citizen's Band Transceivers 688

Commander P.A. Amplifiers 104

Commando Microphones 179

Commentator Microphones 132

Communication Systems
  - Amateur 662
  - Carrier Current 92, 107, 121, 123
  - Citizens Band (See Transceivers, Citizens Band)
  - Intercom (See Intercommunication Systems)
  - Systems, Portable 192
  - Selective Paging 75, 80, 125
  - Telephone 77, 90, 93, 98, 656
  - TV 76, 655

Compact Foot Switches 1299

Companion Speaker Systems 195

Comparators
  - Capacitance (See Bridges, Capacitance)
  - Inductance (See Bridges, Inductance)
  - Phase 949
  - Resistance (See Bridges, Resistance)

Compentrol Controls 1156

Compounds
  - Antistatic 198, 623, 625, 627, 628
  - Cleaning and/or Polishing 222, 619-621, 626, 627
  - Weatherproofing 37, 200, 624, 627

Computer Type Indicator (See Indicator, Computer Type)

Computers, Input Equipment (See Programmers)

Computers, Pack Circuits (See Circuits, Computer Packs)

Computing Equipment (See Converters, Counters, Printers, Etc.)

Conalert Conelrad Receiver 625

Concert Loudspeakers 154

Conhex R. F. Connectors 760, 761

Connector Adapters 47, 224, 657, 688, 743, 749-752, 806

Connectors
  - Anode 711
  - Antenna 29, 33, 40, 44, 45, 50, 656, 711, 739, 740, 744, 745, 785
  - Audio 224, 692, 693, 695, 727, 729, 733, 741, 759, 779, 809, 1314
  - Battery 708, 785, 850, 1642
  - Cable 695, 703-705, 712-720, 723, 725, 745, 759-761, 806, 1011, 1644
  - Caps (See Clips & Caps, Grid Plate)
  - Chassis 702-705, 712-720, 723, 810, 811
  - Coax Cable 47, 654, 721, 735, 749, 758, 760, 761, 774, 808, 809, 1096, 1660
  - Cord 1310
  - Fuse (See Clips & Holders, Fuse)
  - Hermetically Sealed 810
  - High Voltage 719, 942
  - Interlock 739, 784
  - Microphone 132, 202, 695, 702, 729, 733, 759, 799, 1011, 1314, 1315

Connectors (continued) Page
  - Miniature 702, 727, 760, 761, 810-812, 1314, 1318
  - Power 719, 739, 740, 776, 806, 810, 811, 1310
  - Printed Circuit 709, 724, 727, 811
  - Quick Disconnect 695, 758, 759-761
  - R-F 760, 761, 774, 1096, 1314
  - Rack & Panel 723, 725, 810, 811
  - Screw Lock 721, 725, 758, 760, 761, 810, 811, 1314
  - Solderless 36, 47, 761, 774, 810, 811, 882, 886-889
  - Speaker 739, 744, 759
  - Subminiature 724, 745, 760, 761, 810, 811
  - Twin Lead 40, 654, 721, 745
  - Wall 40, 75, 80, 82, 655, 688, 695, 721, 740, 744, 748

Consoles, Cabinets (See Cabinets, Metal)

Consoles, Calibration (See Calibration Consoles)

CONSOLIDATED WIRE & ASSOCIATED COMPANIES 1630-1639

Consulting Services (See Services, Consulting)

Contactene Contact Cleaner 629

CONTINENTAL ELECTRONICS & SOUND CO. (Cesco) 656, 657

CONTINENTAL-WIRT ELECTRONICS CORP.
  - Resistors, Controls 1152
  - Switches 1277

CONTROL SWITCH DIV. Controls Co. of America
  - Indicator Lights 1013
  - Switches 1274-1276

Controls
  - Alarm System 76, 77, 820, 1002, 1003
  - Constant Impedance (See Pads, L & T)
  - Counting & Sorting 996-999, 1002, 1003
  - Density 996-999
  - Door 996-999
  - Flame Failure 1002, 1003
  - Frequency 936
  - Hardware, Shafts & Accessories 673, 700, 782, 843, 861, 1149, 1156, 1190, 1336
  - Illumination 1002, 1003
  - Level, Dry Material 996-999
  - Level, Liquid 996-999
  - Loudness (Mono & Stereo) 1188
  - Oscillator 936
  - Photoelectric 996-999, 1002, 1003
  - Printing 997
  - Register 996-999
  - Remote 88, 99, 119, 201
  - Smoke and Combustion-Electronic 996, 998, 999, 1003
  - Speaker 80, 1161, 1315
  - Stepping Motor 995
  - Switches (See Switches)
  - Timing 997-999
  - Tower Lighting 1002, 1003
  - Voltage Regulating 1072, 1074, 1075
  - Volume & Tone (See Potentiometers)
  - Wire Wound (See Potentiometers, Rheostats)

CORNELL-DUBILIER ELECTRONICS DIV. Federal Pacific Elec. Co.
  - Antenna Rotators 27
  - Capacitors 416-443
  - Decades & Instruments 904
  - Vibrators, Power Supplies 1037-1039

CORNING ELECTRONIC COMPONENTS Corning Glass Works
  - Glass Capacitors 444
  - Resistors 1160

Converters
  - Frequency to DC 104
  - High Frequency 659
  - Power Frequency, Rotary 1036
  - Power Frequency, Vibrator 1037, 1038, 1078
  - Single Sideband Receiver 662
  - Television 38, 46, 652, 653, 684

- Converters (continued) — Page
  - UHF to VHF ... 38, 46, 652, 653, 684
  - Vibrator Type (See Converters, Power Frequency, Vibrator)
- Copper Clad Laminates (See Laminates, Metal Clad)
- Cords
  - Dial Cords & Cables ... 830
  - Line & Set, Extensions ... 1231, 1559, 1561, 1584, 1612, 1616, 1639, 1642, 1658, 1665-1667
  - Patch ... 80, 224, 692, 702, 742, 743, 750-754, 757, 774, 775, 808, 814, 900, 1316
  - Retractile ... 183, 1560, 1616
  - Speaker Extension ... 740, 742, 743, 750, 753, 804, 1316, 1582
- Cords & Tapes, Lacing ... 775, 833, 1563, 1617, 1640, 1641, 1647
- Cores, Delay Line (See Delay Lines)
- Counters
  - Directional ... 833
  - Electro-Magnetic ... 1287
  - Electronic ... 918
  - Frequency ... 918
  - Impulse, Electronic ... 918, 1287
  - Mechanical ... 1287
  - Photoelectric ... 1287
- **Couplate** Circuits ... 631
- Couplers
  - Antenna ... 29, 40, 43, 44, 46, 65, 82, 83, 652, 654
  - Directional ... 652, 654
  - Multi-Set ... 25, 39, 40, 43, 45, 65, 82, 83, 653, 654, 745
- Couplings, Shaft, Rigid & Flexible ... 508, 643, 673, 678, 682, 782, 783, 843, 859, 861, 1155, 1199
- Covers
  - Chassis ... 226, 248, 254, 267, 273, 310, 326
  - Jack (See Jack Covers)
- **COYNE ELECTRICAL SCHOOL** Book Publishing Div. ... 1081
- **Cradle Clip** Cable Clamps ... 1640
- **Cramolin** Chemicals, Contact Cleaners ... 619, 1330
- Crossover Networks (See Networks, Crossover)
- **Crusader** Twin Lead ... 1660
- Crystal Analyzers (See Analyzers, Crystal)
- Crystals
  - Color TV, Frequency Control ... 822
  - Frequency Control ... 687, 805, 822, 823
  - Mount (See Mounts, Crystal)
- Cushions, Headphones (See Headphones)
- Cushions, Mats-Phono Turntable ... 198, 225
- **CUTLER HAMMER, INC.** ... 1278-1281
- Cutters, Hole ... 1342, 1343
- Cutters, Wire ... 1320-1381 (Sec. 5400), 1666

D

- **DALE ELECTRONICS, INC.** ... 1158, 1159
- **Dandee** Capacitors ... 334
- **Dart** Soldering Iron ... 1367
- Data Display Indicators (See Indicators, Data Display)
- Data Recorders ... 899
- **DAVEN,** Div. of General Mills, Inc.
  - Resistor Controls ... 1161-1163
  - Switches ... 1282
- **DAVIES MOLDING CO., HARRY** ... 824, 825
- Decade Boxes
  - Capacitance ... 364, 904, 906, 919, 924, 932
  - Inductance ... 364, 919, 1475, 1522, 1527
  - Resistance ... 364, 904, 906, 924, 932, 1146
- Decalcomania ... 805
- **Deca-Tran** Ammeter Multipliers ... 898
- **Deci-Gram** Stylus Pressure Gage ... 199
- Degaussers (See Magnetizers and Demagnetizers)
- Degreasing Chemicals (See Solvents)
- Delay Lines
  - Cable Type ... 681
- Delay Lines (continued) — Page
  - Distributed Constant, Fixed ... 681
  - Lumped Constant, Fixed ... 681
  - Ultarsonic, Liquid or Solid ... 444
- Delays, Time (Also See Delay Lines) ... 815
- Demagnetizers (See Magnetizers and Demagnetizers)
- **De-Noiz** Contact Cleaner ... 623
- **De-Ox-Ide** Contact Cleaner ... 623, 625
- **De-Snower** Preamplifiers ... 41
- **DESCO MFG. CO.**
  - Circuitracer ... 905
  - Miniature Tools ... 1329
- Detection & Fighting Equipment, Fire ... 820, 821
- Detectors, Vibration (See Indicators, Vibration)
- Dial Locks (See Locks, Dial & Shaft)
- **DIALIGHT CORP.** ... 1005-1011
- **DIAMOND TOOL & HORSESHOE CO.** ... 1331
- Dials, Instrument, Metal, Plastic, Etc. ... 643, 673, 679, 741, 779, 1199, 1290
- Dials, Turns Counting ... 673, 831, 1139
- **Diamalloy** Pliers ... 1331
- **Diddle Sticks** Alignment Tools ... 1333
- Dielectrics (See Insulation Materials)
- Dies & Taps ... 786, 1332, 1347, 1372
- **Diffaxial** Speakers ... 195
- **Difilm** Capacitors ... 596, 602-604
- **Digitec** Digital Voltemter ... 975
- Digital Modules (See Circuits, Computer Packs)
- Diode Testers (See Testers, Diode)
- Diodes
  - Gallium Arsenide ... 1237
  - Germanium ... 1233, 1240, 1247-1249, 1252
  - Microwave Mixer ... 161
  - Selenium (See Rectifiers, Selenium)
  - Silicon ... 1233, 1239, 1241, 1244, 1245, 1251, 1255
  - Tunnel ... 1248, 1249
  - Zener ... 1234, 1238, 1239, 1244, 1251
- Direction Finders ... 662
- Directional Couplers (See Couplers, Directional)
- **Directron** Selenium Rectifiers ... 1246
- Discriminators ... 1434
- **Disk-O-Kleen** ... 198
- Dissipators, Heat (Also See Transistor Heat Dissipators, and Tube Heat Dissipators)
- **Dividohm** Resistors ... 1205, 1206
- **Dixie** Headset ... 139
- Dollies, Instrument Carts, Etc. ... 289, 308, 321, 326
- **DON BOSCO ELECTRONICS, INC.** Subs of Howell Electric Motors ... 901
- Dope, Coil (See Insulating Compounds)
- **Double Ten** Twin Lead ... 1660
- **DOW-KEY CO., INC.** ... 1096, 1097
- **DRAKE MFG. CO.**
  - Computor, Indicator Lights, Lamps ... 690, 691
  - Indicator Lights, Holders ... 1014-1021
- **Dramatone** Speaker Baffle ... 160
- Drills and Accessories ... 786, 1332, 1376, 1377
- **Drilsaw** ... 1332
- Drivers, PM (See Speakers, Driver Units)
- Drives, Dial ... 643, 677, 783, 859
- Drives & Drive Mechanisms ... 643, 677, 859
- Drives, Phono, Tape ... 226, 236
- **Dub-L-Plug** Connectors ... 806
- Dummy Loads ... 657, 912, 1160, 1230
- **Duo-Kap** Capacitors ... 411
- **Duovolt** Motor-Generators ... 1036
- Duplicators, Magnetic Tape ... 205
- **Duralytic** Capacitors ... 1236, 1446
- **Duramic** Capacitors ... 341
- **Dur-Mica** Capacitors ... 371
- **Duronite** Capacitors ... 340

Page

Durotherm Soldering Iron Tips 1345
Dust-Bug Record Cleaner 198
Dynamic Microphones 142
Dynamic Tube Testers 939
Dyna-Mite Miniature Capacitors 478
Dynamotors 1036
Dynaquad Transistors 1254
Dyna-Tan Capacitors 476

E

E-Z-Code Wire Markers 1669
E-Z HOOK TEST PRODUCTS 722
E-Z-Mate Sockets 726
E-Z-Off Antenna Connector 50
E-Z Strip Twin Lead 1660
E-Z-Tite Wrenches 1020
E-Z-Trim Potentiometers 1133
E-Z WAY TOWERS, INC. 30, 31
Earphones (See Headphones, Headsets)
Ease-It Lubricant 1231
Econoglo Indicator Lights 691, 1018
Economy Twin Lead 1660
Econom-ie Antenna Mounts 37
8-Ball Antenna 70
EDITORS & ENGINEERS, LTD. 1080
EICO ELECTRONIC INSTR. CO., INC. 906-908
EIMAC (See Eitel-McCullough)
EITEL-McCULLOUGH, INC. (Eimac) 1538, 1539
Elasticable Elastic Cable 643
ELCO SALES DIV 723-727
Eldorado Hi-Fi Speaker 131
Electra Antenna Amplifier 1165
ELECTRA MFG. CO. 1164, 1165
Electrical Surge Arresters (See Arresters, Electrical Surge)
ELECTRO IMPULSE LAB., INC. 912
ELECTRO-MECHANICAL INSTR. CO. (Emico) 910, 911
ELECTRO PRODUCTS LABS 1041
ELECTRO-VOICE, INC. 140-149
Electromite Capacitors 421
ELECTRONIC APPLICATIONS, INC. 150
ELECTRONIC CHEMICAL CORP. 622
Electronic Lectern 76
ELECTRONIC MEASUREMENTS CORP. .... :909
ELECTRONS, INC. 1532
Electroplating Equipment 1049, 1077
ELECTROVERT, INC. 1640, 1641
Elements, Sensing (See Transducers)
Eliminators, Battery (Also See Power Supplies) 908, 924, 1026, 1030, 1039, 1041, 1048, 1049, 1077, 1250
ELMENCO (See Arco)
Empire Headset 139
Enamels 626
Enclosures, Speaker, Cabinet & Kits 79, 88, 100, 102, 131, 135, 152, 153, 159-165, 170, 196, 251, 256, 307, 309, 323, 1667
Energizer Ammeter Multipliers 898
Engineering Reference Books (See Technical Books)
Engraving & Profiling Equipment 1366
Envelopes, Record 198, 225
Environmental Chambers (See Chambers, Environmental)
Envoy Speakers 171
Erasers, Magnetic Tape 199, 206, 223
ERIE RESISTOR CORP. 445-462
ERIKSON SPECIALIZED TOOL CO. 1332, 1333
Ersa Soldering Tools & Equip 1328
Escutcheons 81, 869
Even Dip Solder Pot 1367
Ever-Kleer Picture Tube Cleaner 620

Page

EVEREADY Batteries & Flashlights 1043-1047
Ever-Quiet Volume Control and Contact Cleaner 620
Executive Foot Switches 1298
Exel Loading Reactor 1073
Expand-A-Rack Cabinet Racks 320
Extension-Jax 1313
Eyelets 856

F

Fabricators, Plastic, Metal, Etc. (See Services, Fabrication)
FANON ELECTRONIC INDUSTRIES, INC. 92-98
Fans (See Blowers)
Fastach Controls 1153, 1154
Fasteners, All Types 36, 37, 311, 633, 643, 777, 783, 786, 842, 851-854, 856, 890-892
Feedthrus (See Terminals, Feedthru)
FERRANTI ELECTRIC, INC. 1402, 1403
Fieldometer Field Strength Meters 657
Files 1377
FILM CAPACITORS, INC. 464-467
Filmistor Resistor 1215-1217
Filmite Capacitors 598, 599, 601
Filtercon Filters 460, 461
Filterol Filters 607
Filters
  Appliance 443
  A-F 915
  Air (See Air Cleaners & Filters)
  Automotive Noise Suppression 29, 341, 443, 656, 785
  Band Elimination 65, 1436
  Band Pass 652, 915, 1433, 1435-1437, 1516, 1517, 1519
  Electric Wave Section 1519
  Fluorescent Lighting 443, 607
  High Pass 1435, 1436, 1517, 1519
  I-F 638
  Industrial, Heavy Duty 443
  Interference 41, 46, 341, 443, 607, 745
  Interstage & Line (See Filters, Telemetering)
  Light 1337
  Line 443, 607, 1435, 1436
  Low Pass 460, 461, 1434-1436, 1490, 1494, 1517, 1519
  R-F 443, 460, 461, 607, 636, 651
  Screenroom (See Screen Rooms)
  Telemetering 1433, 1434, 1519
  Television 41, 46, 638, 652
  Tone, Telegraph 1437, 1519
  Variable, Band Pass 915
Finders, Direction (See Direction Finders)
Finishes (See Paints)
FIRE CONTROL CO., INC. 820, 821
Fire Detection & Fighting Equip 820, 821
FISHER RADIO CORP. 99
5-Way Binding Posts 807
Fixtohm Resistors 1142
Flashers 1094, 1095
Flashlights 1035, 1044, 1059
Flat Plugs 1313
Flexiformer Transformer Primary 1073
Flexfoam Microphone Cable 1629
Flexo-Mast Antenna 66
Flex-O-Rod Antenna 66
Flex-Sol Spray Can Extension 625
Flushlite Indicator Lights 691, 1018
Flux, Brazing & Soldering 623, 624, 627
Footrol Foot Switch 1285
Forms, Coil (See Coil Assemblies & Forms)
Fotoceram Printed Circuit Boards 444

Page

FREED TRANSFORMER CO., INC.
  Test Equipment 913-919
  Transformers 1404-1445
Freeze-Mist Circuit Coupler 628
Frequency Indicator (See Indicators, Frequency)
Frequency Standards (See Standards, Frequency)
Frost Aid Component Cooler 621
Fuse Blocks, Panels (See Clips & Holders, Fuse)
Fused Plugs (See Plugs, Fused)
Fuses 1230, 1263-1269, 1300-1302, 1307
FUSETRON Fuses & Fuse Holders 1263-1269
Fyrguard Fire Detectors 821

G

GC ELECTRONICS CO. Div. Textron Electronics Inc.
  Audiotex Hi-Fi Accessories 198-202
  GC Antennas, Accessories 29
  GC Chemicals & Kits 623-625
  GC Electrocraft Components 729-735
  GC, Gee-Lar Knobs, Components 826-830
  GC Electronic Hardware 851-857
  GC Electrocraft Switches 1283
  GC Alignment Tools, Services Aids 1334-1339
  GC Tubing & Accessories 1642
  Globe Communications Equip. 659
  Globe Test Equipment 924
  Walsco Phono Drives 236, 237
  Walsco Chemicals 628, 629
  Walsco Decals, Dial Cords 832, 833
  Walsco Electronic Hardware 892, 893
  Walsco Chassis Punches, Alignment
    Tools & Service Aids 1370-1373
  Walsco Insulating Tubing 1668
GLP ELECTRONICS, INC. 476-478
Gauges, Stylus Pressure 199, 225
Galaxy P.A. Amplifiers 105
Galvonometers (See Meters, Galvonometers)
GARRARD (Br. Industries) 204
GATES ELECTRONIC CO.
  Power Supplies 1048, 1049
  Rectifiers 1236
  Transformers, Chokes 1446
Gear Mechanisms 859
Genalex Tubes 1321
Genemotor 1036
Generators
  A-M 928, 946
  A-M, F-M 928
  Audio 894, 909, 939, 940, 944
  Battery Operated 901
  Color TV Bar 894, 909, 929, 944, 957
  Color TV Dot 894, 929, 944, 957
  Cross Hatch 894, 944
  F-M, F-M Stereo 651, 927, 928, 948
  Frequency, Variable 939
  Keyed Video Signal 940
  Marker-Adder 894, 928, 929, 940, 947, 949
  Motor Driven 1036
  Multipurpose, Signal 901, 970
  Pulse 957
  R-F 894, 895, 908, 909, 924, 946, 947
  Signal, Standard Type 970
  Sine Wave 908, 939, 944
  Square Wave 908, 909, 939, 940, 944
  Sweep 908, 928, 940, 948
  UHF-VHF 928
  Ultrasonic 928
Geneflex Tubing 1642

Page

GENERAL CONTROL CO. 1284, 1285
GENERAL CONTROLS CO. (Automation Controls Div.) 1287
GENERAL DYNAMICS/ELECTRONICS-ROCHESTER 100-103
GENERAL ELECTRIC CO. Receiving Tube Dept.
  Capacitors 468-475
  Semiconductors 1237
  Tubes 1533-1535
GENERAL ELECTRIC CO. Industrial Sales Operation
  Meters 920-923
  Soldering Equipment 1340, 1341
GENERAL INSTRUMENT CORP. Capacitor Div. 479-505
Genometer Signal Generator 894
GERNSBACK LIBRARY, INC. 1082, 1083
Gibson Girl Tape Splicer 222, 223
GIRARD HOPKINS 1172
Glasseal Capacitors 493, 494
Glassmike Capacitors 415
GLOBE ELECTRICAL MFG. CO. 1109
GLOBE ELECTRONICS (GC)
  Communications Equip. 659
  Test Equip. 924
Gold-Standard Capacitors 491
GLP ELECTRONICS INC. 476-478
GOTHAM AUDIO CORP. 151
Grafoline Lubricant 623
Grampian Recording Heads 235
GRAYHILL, INC.
  Binding Posts, Clips, Jacks, Etc. 728
  Switches 1286
GREENLEE TOOL CO. 1342, 1343
Greenohm Resistors 1144, 1145, 1151
Grilles
  Metal 159, 162, 163, 291, 312, 830
  Molded Plastic 165
  Speaker 159, 162-165, 830
Grommets 777, 783, 856, 890, 893
GUARDIAN ELEC. MFG. CO 1098-1101
Guardian Parts Cabinet 239
Guards, Switch 1259

H

THE HALLICRAFTERS COMPANY 660
Ham-M Antenna Rotator 27
HAMMARLUND MFG. CO., INC.
  Variable Capacitors 508-511
  Communications Equip. 661-663
Hammers 1327
Hamswitch Selector Switch 1304
Hand Tools (See Cutters, Screwdrivers, Wrenches, Etc.)
Handles 240, 311, 781, 782, 839, 840, 845, 869, 1339
Handsets, Chestsets, Operators Sets 143
Handy-Bin Parts Cabinets 239
Handicheck Capacitor Tester 904
Handy-Pak Resistor Assortments 1176
Hardware, Antenna (See Brackets, Clamps, Ground Rods, Etc.)
Hardware, Electronic (See Bolts, Brackets, Clamps, Terminals,
  Screws, Washers, Etc.)
HARDWICK, HINDLE, INC. 1166-1171
HARMAN-KARDON, INC. 104, 105
Headphones, Headsets 110, 138, 139, 151, 153, 166, 184, 185, 189, 200, 685, 759, 784
Heads
  Erase 210, 211, 227, 233
  Recording Disc 235
  Recording, Tape 210, 211, 227, 233
Hearing Aids 139
Heat Dissipators (See Transistor Heat Dissipators, and
  Tube Heat Dissipators

Page

- Heat Sinks, Soldering 1336, 1345, 1373, 1377
- **Hercules** Foot Switches 1298
- **HEXACON ELECTRIC CO.** 1344, 1345
- **Hexclad** Soldering Iron Tips 1345
- **HICKOK ELECTRICAL INSTR. CO.** 926-929
- **Hi-Fidelity** Twin Lead 1660
- **Hi-Kap** Capacitors 411, 413
- **Hippo-Clip** 747
- **Hivomike** Capacitors 433
- **Hivolt** Power Supplies 1040
- Holders, Battery, Components 576, 739, 757, 845, 872, 873, 1231
- Holders
  - Crystal 740, 822
  - Diode, Transistor, Tube, Rectifier 633, 678, 728, 735, 776, 869, 876, 1241, 1303
  - Fuse (See Clips and Holders, Fuse)
- Hole Cutters (See Cutters, Hole)
- Holsters (See Tool Pouches)
- **Hook Switch** 1318
- **Hornet** Soldering Irons 1344
- Horns, Speaker & Accessories 100, 146, 147, 156, 190, 191
- Housings
  - Antenna 680
  - Instrument & Meter (Also See Cases) 247, 249, 250, 255, 256, 266, 271, 272, 292, 309, 324, 327, 329
  - Metal (See Cabinet, Metal)
  - Metal, Small (See Cans)
  - Plug-In 813
  - Speaker (See Enclosures, Speaker)
  - Weatherproof 149, 651
- **HOYT ELECTRICAL INSTRUMENT WORKS, INC.**
  - (Burton-Rogers) 930, 931
- **HUNTER SALES CO. INC., R.N.** 1346, 1347
- **HURST MFG. CORP.** 992
- **Hush** Tuner and Switch Cleaner 620
- **Hustler** Mobile Antennas 56
- **HY-GAIN ANTENNA PRODUCTS CORP.** 32-34
- **Hypass** Capacitors 607
- **Hypercon** Capacitors 609
- **Hy-A-Sil** Silicon Power Rectifiers 1246
- **Hy-Track** Antenna Towers 52
- **Hypex** Loudspeakers 156, 157

I

- **iE MANUFACTURING** 36, 37
- **I.E.H. MFG. CO. INC.**
  - Subs. of Industrial Electronic Hardware Corp. 736-739
- **IRC** (See Int'l Resistance Co.)
- **ITT DISTRIBUTOR PRODUCTS DIV.**
  - Tantalum Capacitors 507
  - Diodes 1244
  - Coaxial Cable 1643
- **IDEAL INDUSTRIES, INC.** 1348, 1349
- **ILLUMITRONIC ENGINEERING CORP.**
  - Air Wound Coils 642
  - Plastic Rod, Tube, Sheet 988, 989
  - Spiral Wrap 1645-1649
- **Imperial** Record Cutter 220
- **Imperial** Soldering Iron 1364
- Impregnating, Insulating Compounds (See Insulating Compounds)
- Indicator Lights (See Lights, Dial, Panel, Etc.)
- Indicators
  - Annunciators 72, 73, 75, 911, 1128
  - Antenna Position 32
  - Computer Type 690, 691, 1005, 1006, 1013, 1018, 1279
  - Data Display 690, 691, 1005
  - Fire (See Fire Detection & Fighting Equipment)
  - F-M Tuning 122

Indicators (continued) Page

  - Frequency 896, 934-936
  - Speed 963
  - SWR 656
  - Temperature 618, 937
  - Timing 815, 896, 923, 936
  - Vibration 901
- Inductance Comparators (See Bridges, Inductance)
- Inductances (See Coils)
- **INDUSTRIAL DEVICES, INC.** 1022
- **INDUSTRIAL INSTRUMENTS INC.** 932, 933
- **INDUSTRIAL SAFETY BELT CORP.** 1350
- **INDUSTRIAL TIMER CORP.** 815
- Industrial TV Equip. (See Television Systems, Closed Circuit)
- **In-Dus-Tronic** Tools 1322-1325
- Infrared Equipment (See Comm. Systems, Detectors, Lamps, Etc.)
- Inks, Marking 793
- Instrument Cases (See Cases, Instrument)
- Instruments, Elect. Measuring (See Analyzers, Bridges, Comparators, Meters, Etc.)
- Instruments, Ultrasonic (See Amplifiers, Analyzers, Controls, Transducers, Etc.)
- Insulating Compounds
  - Coil Dopes 623
  - Impregnating 627
  - Lacquer 626
  - Silicone Compounds 623-625
  - Varnish 623
- Insulation Materials
  - Ceramic 988
  - Glass Fibre 201
  - Paper 1642
  - Phenolic 1642
  - Plastic, Misc. 990
  - Rubber, All Types 200
  - Teflon 1645
  - Varnished Cambric 1642
  - Vinyl 1646
- Insulation Parts
  - Bead 987
  - Ceramic 643
  - Insulating Sleeves (See Insulation Parts Tubing)
  - Plastic, Rods 988, 990
  - Sheets 989, 990
  - Tubing (Also See Tubing) 473, 805, 857, 988, 990, 1562, 1564, 1565, 1599-1601, 1642, 1645, 1646, 1668
- Insulators
  - Antenna & Spring Assemblies 29, 32, 59
  - Bushing Metallized 783
  - Feeder Spreader 672, 987, 1661, 1665
  - Feed Through 36, 59, 672, 740, 745, 942, 986, 987
  - Standoff, Beehive Cone, Etc. 36, 40, 59, 672, 728, 986
  - Strain 36, 780, 785, 1661, 1662, 1666
  - Test & Battery Clip 746, 747, 765, 1337, 1642
  - Transmitting Antenna 32, 59, 672, 987
- **Insuloid** Cable Binding Straps 1640
- **Insulok** Cable Binding Straps 1641
- **Insul-Volt** Insulating Spray 628
- **Interceptor** Receiver 658
- Intercommunication Systems 89, 90, 92-95, 98, 103, 106-109, 121, 123-125, 688
- **INTERNATIONAL ELECTRONICS CORP.**
  - (Mullard Products) 1537
- **INTERNATIONAL INSTRUMENTS, INC.** 925
- **INTERNATIONAL RECTIFIER CORP.** 1238-1243
- **INTERNATIONAL REGISTER CO.** 1288

Page

INTERNATIONAL RESISTANCE CO. (IRC)
  Resistors, Controls 1173-1193
  Polystrip Wiring 1644
Inverters, DC-AC, DC-DC 1028-1030, 1036, 1039, 1053, 1077, 1078, 1430, 1431, 1501
Ion Traps 638
Irons, Soldering (See Soldering Irons)
Isofarad Capacitors 605
Isotap Isolation Transformer 948

J

J-B-T INSTRUMENTS, INC.
  Meters, Test Equip. 934-937
  Switches 1290-1295
JFD ELECTRONICS CORP. 512, 513
Jack Adapters 202, 224, 733, 743, 749-754, 804, 1313, 1315, 1339
Jack Covers 694, 1318
Jack Panel Assemblies & Accessories 75, 694, 784, 808, 1312
Jacks, All Types (Also See Connectors) .... 29, 75, 202, 224, 670, 671, 674, 685, 692-814 (Sec. 2100), 840, 841, 874 876, 1312-1314, 1318
JACKSON ELECTRICAL INSTR. CO. 938-940
JAN HARDWARE MFG. CO. INC. 859-869
JAVEX ELECTRONICS 740
JENNINGS RADIO MFG. CORP.
  Capacitors, Relays 514, 515
  Vacuum Switches 1289
JENSEN MFG. CO. Div. The Muter Co. 153-158
JERROLD ELECTRONICS CORP. (Industrial Prods. Div.) 38-47
  Harman Kardon, Inc. 104, 105
  Taco (Technical Appliance Corp.) 64, 65
Jerry Cans 1664
Jewels, Glass, Plastic 1011, 1021
Jiggle Sticks Probes 1333
E. F. JOHNSON CO. 665-674
JONTZ MFG. CO., INC. 35
Junction Boxes (See Boxes, Junction)

K

KTV TOWER & COMMUNICATION EQPT. CO. 52
KAAR ENGINEERING CORP. 675
KALPA SCIENTIFIC LABS. 942
Karadio Auto Radio 646, 648
KARLSON ASSOCIATES, INC. 152
KEDMAN CO. 1358
Keyers & Couplers 663
Keys, Telegraph 674, 784
KEYSTONE ELECTRONICS CORP. 870-873
Kits
  Antenna 1667
  Audio, High Fidelity 99, 127
  Breadboard, Experimental 684, 725, 757, 883, 951, 1225, 1317
  Power Supply, Transistorized 907, 908
  Receiver 126, 127, 684
  Speaker 99, 153
  Terminal 882
  Test Equipment 906-909, 944, 946
  Transmitter 659, 907
Kleen-O-Record 198
Kleen-Tape 199
Kleen-Tip Soldering Iron Sponge 1364
Kleen-Tune Tuner Cleaner 628
Kleen-Up Hand Cleaner 628
Kleen-Vue Anti-Static Spray 628
KLEIN & SONS, INC., MATHIAS 1351-1353
Klein-Kord Safety Strap 1353
Klein Kut Pliers 1352

Page

Klipzon Test Leads 730-732
Knives & Blades 1325, 1353, 1377, 1379
Knobpot Potentiometer 1133
Knobs 81, 643, 673, 679, 682, 741, 778, 779, 824-829, 862, 1022, 1204, 1292
Koolohm Resistors 1209-1212
KRAEUTER & CO., INC. 1354-1357
KRYLON, INC. 626
KURMAN ELECTRIC CO. 1102-1108
Kwick-Climb Antenna Towers 35
KWIKHEAT MFG. CO. 1359
Kwik-Kall Intercoms 108, 109
Kwikie Soldering Irons 1359
Kwikwork Soldering Irons 1359

L

L.M.B. (Heeger, Inc.)
  Boxes, Chassis & Enclosures 257-259
  Chemicals 627
Labels, Pressure—Sensitive 200, 222, 832, 1669
LAB-TRONICS, INC. 742, 743
LECTROHM, INC. 1194-1196
Ladders, Extension, Step, Etc. 63
Laminates, Metal Clad 883
Lamp-Jax Switchboard Lamp Jacks 1312
Lamps
  Also See Lights 690, 1004, 1006, 1018
  Dial 1004
  Glow 690, 691, 1004-1006, 1018
  Miniature, Subminiature 690, 1004, 1006
  Neon 691, 1004, 1018
  Pilot 1004, 1018, 1231, 1318
Lark Antenna 64
Leads, Test (See Test Leads)
Lectro-Lok Foot Switches 1299
Lecturer Microphones 132
LEE COMMUNICATIONS, INC. 106, 107
LEECRAFT MFG. CO., INC. 1012
Lenite Molded Plugs & Jacks 742, 743
Lev-R-Switches 1317
LICON SWITCH & CONTROL DIV. (Illinois Tool Works) 1296, 1297
Lifetime Recording Tape 216
Lighting & Power Equipment, Emergency 1027, 1030
Lightning Arresters (See Arresters, Lightning)
Lights
  Dial, Panel, Pilot & Accessories 672, 685, 690, 691, 776, 1006-1011, 1013-1022
  Neon Test 1022, 1338
  Test 1022
Limiters, Noise 663, 950
LINE ELECTRIC CO. 1110, 1111
Linemaster, Jr. Foot Switches 1298
LINEMASTER SWITCH CORP. 1298, 1299
Liners, Tube Shield (See Shields, Tube)
Line-Volt Neon Test Light 1022
Liquidope 623
Liqui-Taps Insulating Compound 627
Littel-Jax 1312
Littel Plugs 1313
Littel Switches 1317
Little Devil Resistors 1208
Littl-Lytic Capacitors 575
LITTLEFUSE, INC. 1300-1303
LITTON INDUSTRIES (Useco) 877-881
Loads, Dummy (See Dummy Loads)
Loc-Fit Terminals 877
Loc-Jaw Epoxy Cement 627
Lock Plug 1313

Page

- Locks, Dial & Shaft 251, 633, 643, 678, 679, 682, 700, 782, 860
- **LOGE ELECTRONICS, INC.** 108, 109
- **Lokmatic** Antenna 70
- **Lollypop** Plug-In Resistors 1162
- **Lo-Ten** Coaxial Cable 53
- Loudspeakers (See Speakers)
- Louvers, Ventilating Chassis 246, 256, 268, 291, 298
- **Lub-Rex** Lubricant 623
- Lubricants 199, 200, 621-624, 626, 1228-1231
- **Lubriplate** Lubricant 629
- **Lug Plug** 1313
- Lugs (See Terminals, Lug)
- **LOWELL MFG. CO.** 159-165
- **Lyticap** Electrolytic Capacitors 530, 531

M

- **M/M** Tape Heads 227
- Machines
  - Marking & Numbering 1626
  - Shock Testing 863
  - Terminal-Installing 47, 725, 761, 845, 882, 889
  - Wire Measuring 840
- **Maggie Mobile** Antenna 26
- **Magic Carpet** Antenna 39
- **Magic-Tip** Screw Holding Screw Driver 1346
- **Magic Wand** Antenna 51
- **Magnecord** Tape Recorder 205
- **MAGNECRAFT ELECTRIC CO.** 1112-1117
- **Magnereed** Relays 117
- **Magnastat** Soldering Irons 1375
- **Magnetic** Headset 139
- Magnetizers & Demagnetizers 199, 206, 223, 1337
- **Magregpak** Power Supplies 1077
- **P. R. MALLORY & CO. INC.**, Distributor Div.
  - Capacitors 516-526
  - Knobs, Dials, Jacks 741
  - Vibrators 1050, 1051
  - Resistors, Controls 1198-1201
  - Semiconductors 1245
  - Switches 1304, 1305
- **Marine Marvel** Antenna 51
- Marine Radio Equipment (See Receivers, Transmitters, Etc.)
- Markers, Identification (See Labels and Plates, Nameplates)
- Markers, Wire, Code & Tab 830, 1626, 1627, 1641, 1669
- Marking Inks (See Inks, Marking)
- **MASCO** (See Fanon-Masco)
- **Mask-N-Glas** Glass Cleaner 621
- **Master** Headset 139
- **MASTER MOBILE MOUNTS, INC.** 48-51
- **Mastercom** Intercom Master 121
- **Master Matcher** Antenna Matching Coil 49
- Masts, Antenna (See Antenna Towers and Supports)
- Materials, Acoustic 225
- **Mecap** Capacitors 503, 504
- **Medallion** Speaker Systems 195
- Megaphones, Electronic 98, 192
- **Megavox** Electronic Megaphones 98
- **Mercurt** Microphones 142
- **Mercury** Transmitter 658
- **Messenger** Transceiver 674
- **METAL WORKS, INC.** 260-269
- **Metalite** Capacitors 403, 406-408
- Meter Cases (See Cases, Instrument, Meter)
- Meter Testers (See Testers, Meter)
- Meters
  - Ammeter, AC ....894-985 (Sec. 2900)
  - Ammeter, DC ....894-985 (Sec. 2900)
  - Ammeter, R-F 950, 973

Meters (continued) Page

  - Capacitance 894, 927
  - Conductance 948
  - Darsonval 930, 943
  - Decibel, Audio 894, 895, 925, 945, 955, 956, 959, 965-968, 984
  - Digital 975
  - Distortion & Noise 917
  - Distortion, R-F 917
  - Dynamometer 961
  - Elapsed Time 815, 896, 923, 936, 958
  - Edge-Wise 903, 910, 911, 925, 953, 960, 971
  - Field Strength 47, 651, 657, 924, 950
  - Frequency 683, 896, 934-936
  - Galvanometer 959, 961
  - Grid Dip 676
  - Inductance 894
  - Kilovolt 515, 942
  - Light 985
  - Megohm 916, 917, 933, 984
  - Microampere ....894-985 (Sec. 2900)
  - Milliampere ....894-985 (Sec. 2900)
  - Millivolt 925, 930, 955, 956, 959-961, 972, 983
  - Miniature 925
  - Modulation 924, 950
  - Multitester 897, 925, 944, 954, 984
  - Null 914, 917
  - Ohm 894, 895, 897, 898, 906, 909, 925, 927, 928, 933, 940, 944, 953-956, 965-968, 984
  - Panel ....894-985 (Sec. 2900)
  - Pocket 953, 964, 968
  - Power, R-F 651, 657, 912, 924, 950
  - Pyrometer 937
  - Q 916
  - S Units 897, 950, 953
  - Snap Around 967
  - Standing Wave Ratio 656, 657, 924
  - Thermocouple 937
  - Thermometer 958
  - Vacuum Tube Volt 515, 895, 897, 898, 907, 909, 914, 915, 927, 928, 940, 945, 954, 956, 965, 968
  - Vibrating Reed 896, 934, 935
  - Volt ....894-985 (Sec. 2900)
  - Volt-Ammeter 898, 985
  - Volt-Ohm 894, 906, 909, 925, 928, 944, 954, 955, 965-968, 984
  - VU 105, 112, 223, 897, 925, 943, 953, 959-961, 971
  - Watt 651, 912, 954, 955, 961, 970, 981, 982
  - Wave 676, 907
- **Metohm** Resistors 1227
- **Micro-Gator** Clips 746
- **Micro-Jax** 1312
- **Micro-Mite** R.F. Chokes 634
- Microphone Accessories, Stands (See Stands and Accessories, Microphones)
- Microphones
  - Carbon 132, 144, 182, 189
  - Cardioid 133, 141-143, 150, 151, 171, 174, 176, 177, 178, 181, 194
  - Ceramic 101, 132, 133, 140, 142, 143, 171, 174, 175, 181, 187, 189
  - Condenser 150, 151
  - Contact 144, 759
  - Crystal 111, 132, 133, 142, 171, 181, 188, 189, 685
  - Differential 175
  - Dynamic ....101, 111, 129-197 (Sec. 1320), 235
  - Handsets, Headsets (See Headsets)
  - Lapel 132
  - Magnetic 175, 176, 179, 182
  - Noise Cancelling 141-144, 150, 175, 182, 759

Microphones (continued) — Page
- Pressure 180
- Ribbon 151, 178
- Throat 759
- Transistorized 143, 144

Micro-Plugs 1313
Microscopes 198, 225
Microscopes, Electron 1494
Microspec Transformers 1498, 1499
Microtester Meters 955
MICROTRAN CO., INC.
- Hi-Fi Accessories 206
- Transformers 1448-1467

MIDDLETOWN MFG. CO. 270-273
Midgetester Voltmeter 955
MIDWESTERN INSTRUMENTS, INC. (Magnecord) 205
Mighty Midget Antenna Coil 49
MILLEN MFG. CO., INC., JAMES 676-683
MILLER CO., J. W. 634-641
MILLER, SANFORD CO., INC. 1246
MILWAUKEE RESISTOR CO. 1197
Min-Cap Capacitors 412
Mineon Indicator Lights 691, 1018
Miniboxes 251
Mini-Con Microscope Connectors 1314
Mini-Gator Clips 746
Mini-Hold Screwdriver 1371
Minimite Capacitors 397
Mini-Mix Audio Mixer 1314
Minispace Indicator Lights 1019
Mini-Volt Volt Meter 1022
MINNESOTA MINING & MFG. 207
Miracle Filterol Line Filter 607
Mirrors All Types, Prisms, Optics 1334, 1338, 1371
Missilmite Capacitors 500
Mix-Amp Line Amplifier 1314
Mixers, Audio, Microphone 77, 87, 115-120, 1314
Mobile Equipment (See Receivers, Transmitters, Etc.)
Modulation Indicators (See Meters, Modulation)
Modulators
- A-M 659, 676, 681
- F-M, F-M Stereo 44
- RF 948
- TV 948

Modules (See Circuits, Cabinets, Etc.)
Mod-U-Rak Cabinets 307
Monitors
- Line and Program 111, 911
- Power, AC & DC 949
- Transmitter, TV 686
- Video 655

Monolythic Capacitors 608, 609
MOSLEY ELECTRONICS, INC.
- Antennas 53-55
- TV Installation Accessories 744, 745

Motor-Generator Sets (Also See Generators, Motor-Driven) 1036
Motors
- Hysteresis 817-819, 992
- Incremental, Stepping 994, 995
- Permanent Magnet Gear 994
- Speed Reducers 994
- Synchronous 817-819, 992, 994, 995
- Timing 817-819, 992, 1288

Mounts
- Antenna (See Antenna Towers & Supports)
- Mobile Antenna 29, 32, 33, 48, 49, 56, 58, 59, 67, 71
- Printed Circuit Card (See Cage)
- Shock & Vibration 145
- Thermistor 1225

Page

MUELLER ELECTRIC CO. 746, 747
MULLARD TUBES (Int'l Electronics) 1537
Multi-Comp R-C Networks 612-614
MULTICORE Div. British Industries 1321
Multidial Turns Counting Dials 831
Multiplexer Antenna 64
Multi-Switch 1318
MURDOCK CORP. 166
Musicaster Weatherproof Hi-Fi Speaker 148

N

Nail Breadboard Clips 722
Nameplates (See Plates, Nameplates)
Nanospec Transformers 1498
NATIONAL ELECTRONICS, INC.
- Sub. of Eitel-McCullough, Inc. 1540, 1541

NATIONAL RADIO CO., INC. 643
NATIONAL TEL-TRONICS CORP. 876
NATIONAL WIRE & CABLE CORP. 1650, 1651
Nautilus Foot Switches 1299
Needles (See Styli)
Ne-O-Prene Cement 623
Networks
- Crossover 122, 204
- Matching 1161
- Phase 676
- Resistance 1161

99'er Transceiver 658
NEWCASTLE FABRICS (See Acoustone)
NEWCOMB AUDIO PRODUCTS CO. 110-119
NEWMAN, M. M., CORP. 1361
- Neumann Microphones (See Gotham Audio)

NEW-TRONICS CORP. 56, 57
No-Arc Insulation Coating 621
Nobelette Precision Resistors 1152
Nobeloy Precision Resistors 1152
No-Noise Contact Cleaner 622
No-Ox Contact Cleaner 629
NORELCO (North American Philips Co.) 208, 209
Norseman Soldering Aids 1333
Nuts
- Metal 643, 726, 786, 812, 824, 842, 852, 853, 890, 892
- Plastic 708, 777, 824, 842

NORTH AMERICAN PHILIPS CO., INC. (Norelco)
- High-Fidelity Prods. Div. 208, 209

NORTH HILLS ELECTRONICS, INC.
- Coils & Coil Forms 644
- RF Transformers, Toroids 1447

NORSEMAN TOOLS (See Erikson)
NORTRONICS CO., INC. 210, 211
Nylon (See Plastic Materials)
Nylclad Magnet Wire 1597

O

OAKTRON INDUSTRIES, INC. 168-170
OELRICH PUBLICATIONS 1084
OHMITE MFG. CO.
- Capacitors 527-529
- Variable Transformers 1056
- Relays 1118, 1119
- Rheostats, Resistors, Knobs 1202-1208
- Diodes 1247
- Switches 1306

Omni-Glow Pilot Light 1022
Orange Drop Capacitors 604
Original Telephone Patch 656
ORYX CO. 1362, 1363

Page

- Oscillators
  - Audio ... 939, 940
  - Code ... 663, 674, 684, 784
  - Grid Dip ... 676
  - R-F ... 659, 681
- Oscilloscopes
  - General Purpose ... 677, 946, 957
  - Wide Band ... 907, 929, 939, 940, 957
- **OXFORD COMPONENTS,** Div. of Oxford Elec. Corp. ... 167
- **Ox-Nox** Contact Cleaner ... 628

P

- **PACE ELECTRICAL INSTR. CO.** ... 943
- **Pacemaker** Tube Caddy ... 131
- **Pacemaker** Distribution Amplifier ... 650
- **Pacer** Capacitors ... 601
- Packaged Electronic Circuits (See Circuits, Packaged Electronic)
- **Padohm** Trimmer Potentiometers ... 1140
- Pads, Turntable (See Cushions, Mats)
- Pads, L & T (Also See Attenuators) ... 46, 157, 201, 740, 1150, 1155, 1161, 1193, 1314
- Paging Systems (See Public Address Systems)
- Paints
  - Metallic ... 626
  - Protective ... 626
  - Ripple Finish ... 311, 623, 624, 629
- **PAMOTOR, INC.** ... 834
- **Panavise** Vise ... 1347
- **Pancake** Pulse Transformers ... 1475
- **Panelabels** ... 805
- Panel Equipment (See Dials, Connectors, Jacks, Lights, Etc.)
- Panels
  - Indicator ... 72, 75, 1005
  - Jack ... 694, 808, 1312
  - Metal ... 252, 255, 268, 271, 272, 312, 328
  - Meter ... 268, 312
  - Patch (See Panels, Jack)
  - Relay Rack ... 246, 255, 268, 271, 272, 290, 291, 298, 300, 312, 322, 327, 328
  - Speaker ... 312
- **Paraflector** Antenna ... 60, 61
- **PAR-METAL PRODUCTS CORP.** ... 274-293
- **Partyliner** Intercom ... 121
- Patch Cords (See Cords, Patch)
- **Peco** Patch Cords ... 751, 754
- **Pen-A-Lube** Lubricant Spray ... 628
- **Perfo** Breadboard Clips ... 722
- **Perma-Code** Wire Markers ... 1626
- **Permafoam** Coaxial Cable ... 1628
- **Permaline** Transmission Line ... 1628
- **Perma-Plug** Wall Socket Adapter ... 688
- **Permohm** Transmission Lines ... 1583
- **PENTA LABORATORIES, INC.** ... 1542, 1543
- **PERMACEL** ... 991
- **PETERSEN RADIO CO., INC.** ... 822
- **Petite** Loudspeakers ... 131
- Phenolics (See Plastics)
- **PHILMORE MFG. CO., INC.** ... 684, 685
- Phones (See Headphones)
- Phono Arms, Transcription (See Arms, Phono, Transcription)
- Phono Drives, Idler Wheels (See Drives, Phono)
- Phonographs and Access. ... 88, 89, 98, 104, 128, 110, 112, 113, 198-200, 624, 685
- Photocells & Phototubes (See Transducers, Cells, Photoelectric)
- **Photofact** Service Data Folders ... 1088
- Photoelectric Equipment (See Alarms, Controls, Counters, Etc.)
- Photomultipliers (See Tubes, Photomultiplier)
- **Pick-A-Shaft** Controls ... 1147-1149

Page

- **PICKERING & CO., INC.** ... 212, 213
- Pickups
  - Phono-Ceramic ... 133, 231
  - Phono-Crystal ... 133, 231, 685
  - Phono-Magnetic ... 212, 213, 230
  - Phono-Stereo ... 111, 133, 212, 213, 228, 229, 231
  - Photoelectric ... 1219
  - Telephone ... 657
- **PIERPONT INDUSTRIES, INC.** ... 686
- **Pigmy Clip** ... 747
- **Pigtailer** ... 1336
- Pilot Lamps (See Lamps, Pilot & Lights, Pilot)
- **Pin-Trim** Trimmer Capacitors ... 573, 854
- **PLANET SALES CORP.** ... 530-533
- **PLASTIC CAPACITORS INC.** ... 534-537
- Plastic Materials
  - Acrylics ... 988, 989
  - Nylon ... 988, 989
  - Phenolics ... 988, 989
  - Polyethylene ... 988, 989
  - Polystyrene ... 988-990
  - Teflon ... 805, 988, 989, 1600, 1601, 1668
- **Plasticon** Capacitors ... 414
- **Plasti-Grip** Terminals ... 788
- Plates
  - Metal ... 311
  - Nameplates ... 803, 847, 1626
  - Switch Mounting ... 40, 45, 268, 1155, 1262, 1292
- Players, Magnetic Tape ... 205, 235
- Players, Record and Transcription (See Phonographs)
- Pliers ... 785, 1320-1381 (Sec. 5400)
- **Pliobond** Cement ... 623
- Plug-In Circuits (See Circuits)
- Plug Caps & Shells ... 708, 779, 849, 854, 893
- Plugs
  - Adapters ... 29, 33, 194, 202, 224, 692-814 (Sec. 2100), 1022, 1313, 1315
  - Computer Board ... 749
  - Fused ... 1257
  - Jacks ... 29, 185, 201, 202, 224, 670, 671, 685 692-814 (Sec. 2100), 840, 850, 874, 876, 1312-1314, 1642
  - Miniature & Subminiature ... 670, 671, 685, 692-814 (Sec. 2100), 840, 876, 1313
  - Phone ... 81, 185, 202, 224, 685, 692-814 (Sec. 2100), 840, 876, 1313, 1315
- **Plus-50** Recording Tape ... 216
- **Plus-100** Recording Tape ... 216
- **Plus-100X** Recording Tape ... 216
- **Pocketphone** C-B Transceiver ... 659
- **Polycap** Capacitors ... 335, 339, 345, 440
- **Polychromatrans** Color Coded Transformers ... 1487
- Polyethylene (See Plastic Materials, Polyethylene)
- **Poly-Pedance** Transformers ... 1477, 1482
- **Polystrip** Wire ... 1644
- Polystyrene (See Plastic Materials, Polystyrene)
- **POMONA ELECTRONICS CO., INC.** ... 749-757
- Porcelain (See Insulation Materials, Ceramic)
- **Portaphone** CB Walkie-Talkie ... 684
- **Porta-Studios** ... 655
- **Postlite** Indicator Lights ... 1018
- Posts, Binding ... 633, 670, 678, 682, 692-814 (Sec. 2100), 840, 876
- Potentiometers
  - Carbon Film, Precision ... 1199, 1319
  - Coefficient ... 1319
  - Composition ... 1132, 1133, 1140, 1143, 1147, 1153-1157, 1184-1189, 1191, 1192, 1198, 1204
  - Lead Screw Actuated ... 1131-1133, 1159, 1319
  - Linear Motion ... 1319

Potentiometers (continued) Page
  Non-Linear, Precision, Wirewound 1319
  Rheostat 785, 1149, 1152, 1155, 1156, 1170, 1171, 1197, 1198, 1200, 1202, 1203, 1222, 1226, 1319
  Sine-Cosine 1139
  Trimmer 1131-1133, 1140, 1152, 1159
  Wirewound Precision 1132, 1133, 1138-1141, 1143, 1146, 1148, 1159, 1193, 1199, 1218
POTTER & BRUMFIELD 1121-1130
Pouches, Tool (See Tool Pouches)
Power-Fin Power Resistors 1197
Powerlytic Capacitors 578
Power-Master Antennas 55
Powermate Preamplifier 39
Powerstat Variable Transformers 1070-1072
Power Supplies
  AC 915, 1028-1030, 1036, 1039, 1065-1073, 1078
  Low Voltage to 100V Current Regulated 1048, 1049, 1053, 1077
  Low Voltage to 100V Voltage Regulated....1023, 1041, 1048, 1049, 1077, 1238, 1250
  Medium Voltage to 1000V Current Regulated 915, 1053
  Medium Voltage to 1000V Voltage Regulated 676, 677, 939, 1023, 1031, 1041
  High Voltage Above 1000V Current Regulated 1053
  High Voltage Above 1000V Voltage Regulated 1052, 1060-1062
  Low Voltage to 100V 104, 908, 924, 949, 950, 1023, 1026, 1039, 1041, 1048, 1073, 1077
  Medium Voltage to 1000V 676, 1023, 1031, 1039 1052, 1053, 1077
  High Voltage Above 1000V 464, 535, 1040, 1052, 1053, 1060, 1061, 1064
  DC Vibrator 1039
Preamplifiers
  Audio 84, 87, 99, 104, 105, 115-118, 120, 215, 230
  Receiver 38-41, 65, 1096
  Stereo 230
  TV 38-41
PRECISE MEASUREMENTS CO. 1052, 1053
Precision Soldering Iron 1361
PREMAX PRODUCTS Div. of Chisholm-Ryder Co., Inc. 58, 59
Prem-O-Kool Blowers & Fans 313
Prem-O-Rak Cabinets 294, 296-299, 302, 314, 315
Presistor Precision Resistors 1183
Press-Fit Terminals 874, 875
PRESTO TAPE EQUIP'T. (Lear Siegler, Inc.) 215
PREMIER METAL PRODUCTS CO., INC. 294-315
Printed Circuits (See Circuits, Printed)
Print-Kote Soldering Flux 623, 625
Probes
  Clamp-On 722, 732, 759
  Crystal 949
  High Frequency 731, 732, 907, 949, 958
  High Voltage 515, 731, 732, 740, 773, 907, 949, 954, 958
  Oscilloscope 907, 949, 958
  R-F 657, 949
  Temperature 958
  Test Leads 671, 698, 699, 722, 731, 735, 753, 759, 764, 772, 773, 874, 876, 907, 954
Professional Recording Tape 217
Programmers, Broadcasting 215
Programmers, Computer 875
Prokar Capacitors 600
Promatic Timers 1285
Propellon Instant Freeze 627
Protectors, Surge (Also See Arresters, Electrical Surge) 1076
Public Address Systems 76, 87, 101, 103, 111, 112
Pullers, Fuse 1338
Pullers, Tube 1337, 1338, 1347, 1372
Pulleys 855

Page
Punches 773, 1337, 1342, 1343, 1370
Pushbuttons (Also See Switches) 824
Pygmy Soldering Irons 1367
Pyrometers, Electrical 937

Q

Q-Dope (Coil Dope) 623
Quality Plus, Audio Transformers 1387
QUAM-NICHOLS CO. 172, 173
Quick-Snap Antenna Clip 1336
Quick-Wedge Screw Holding Screwdrivers 1358
Quietone Interference Filters 443
QUIETROLE CO. 630

R

Racks
  Cabinet ....119, 238-329 (Sec. 1400)
  Desk and Console ....238-329 (Sec. 1400)
  Relay, Channel 246, 253, 265, 270, 288, 289, 304, 323
Radar-Mate Flashlights 1035
Radio Comm. Systems (See Comm. Systems)
RADIO CORP. OF AMERICA, Electron Tube Div.
  Batteries 1054, 1055
  Citizens Band Radio, Antennas 687
  Manuals, Books 1085
  Semiconductors, Rectifiers 1248, 1249
  Sound Products, Intercoms 120, 121
  Speakers, Microphones 171
  Tape 214
  Test Equipment 944-949
  Tubes 1544-1547
RAY-O-VAC CO., Div. of Electric Storage Battery Co. 1057-1059
Reactors, Charging, Filter (Also See Coils) 1076, 1403, 1488 1492, 1503, 1505
Readers, Readout Devices 1005
Receivers
  AM 74, 95, 110, 119, 123, 126, 128, 646-648, 658, 660-663, 684, 688
  Automobile 646, 648
  Citizens Band 660-663, 674, 675, 684, 687, 688
  Civil Defense 660, 663, 675
  Communication & Amateur 53, 658-663
  Conelrad 675
  Direction Finding 662
  Fixed Frequency 74
  FM 74, 95, 99, 110, 122, 127, 128, 660
  FM Stereo Multiplex 99, 122, 127, 128, 215
  Home 110, 647, 649, 660, 663
  Microwave 126, 127
  Portable & Mobile 646, 648, 660, 662
  Single Sideband 658, 660, 661
  TV 649
  UHF, VHF 660, 661, 675
Receptacles (See Connectors, Jacks, Sockets)
Record Changers & Players, Automatic 128, 204, 218
Record Envelopes (See Envelopes, Record)
Record Players, Home 110, 120, 128, 218, 219
Recorders
  Disc 220, 235
  Graphic 899
  Magnetic Tape 114, 205, 208, 209
  Portable 208, 899
  Stereophonic Tape 114, 208, 209, 215
  Temperature, Electronic 899
Recor-De-Stat 198
Records, Instruction-Code, Language, Etc. 784
Records, Test 198

Page

- Rectifier Power Units ...1023, 1048, 1049, 1073, 1077, 1250
- Rectifiers
  - Copper Oxide ...1235, 1250
  - Electronic Tube (See Tubes, Rectifying)
  - Metal Oxide ...1250
  - Selenium ...1076, 1235, 1236, 1240, 1241, 1243, 1246, 1252, 1446
  - Silicon ...645, 1076, 1232-1255 (Sec. 4800), 1446
  - Silicon Controlled ...1234, 1238, 1248, 1249
- **Redi-Power** Intercom Systems ...125
- Reducers, Speed (Also See Gear Mechanisms) ...859
- **Red-X** Corona Dope ...623
- **Reel-Neat** Tape Clips ...199
- Reels, Recording Accessories ...199, 200, 203, 207, 222, 223, 1664, 1665
- **REEVES SOUNDCRAFT CORP.** ...216, 217
- Reference Books (See Technical Books)
- **Regency** Telephone Patch ...656
- Regulators
  - References, Silicon (Also See Diodes, Zener) ...1238, 1239, 1244
  - Current ...1530, 1531
  - Stabilizers, Voltage ...918, 1023, 1065-1069, 1072, 1074 1075, 1225, 1432
- **REK-O-KUT COMPANY, INC.** ...218-221
- **Rek-O-Magic** Antistatic Spray ...625
- Relay Covers, Cases, Enclosures ...1121, 1124, 1128, 1129
- Relay Switch Assemblies, Contacts ...1100
- Relays
  - Antenna ...1103, 1116, 1129
  - Audio Operated ...215
  - Coaxial ...515, 1096, 1097
  - Cross-Bar ...515
  - Crystal Can ...1115
  - Differential ...1123
  - Explosion Proof ...1123, 1125, 1126
  - Frequency Selective ...936
  - General Purpose ...1089-1092, 1098, 1100, 1109, 1110, 1112, 1118, 1119, 1124, 1127, 1128
  - High G ...1130
  - High Speed ...1090, 1105, 1125, 1126
  - High Voltage ...514, 515, 942, 1289
  - Impulse ...1128, 1129
  - Indicating ...1099, 1111, 1115, 1118, 1128
  - Industrial, Heavy Duty ...1105, 1109, 1110, 1124, 1127
  - Keying & Break-In ...1102
  - Latching ...515, 1098, 1109, 1111, 1115, 1116, 1118, 1119, 1128-1130
  - Mercury ...1125, 1126
  - Meter ...960, 1123
  - Miniature and Subminiature ...1089-1095, 1102, 1104, 1105, 1109, 1113,-1118, 1122, 1124, 1129, 1130
  - Multiple Leaf ...1093, 1111, 1121
  - Overload ...1098
  - Permanent Magnet ...1130
  - Photoelectric ...1002, 1003
  - Plate Circuit ...1091, 1098, 1099, 1102, 1112-1114, 1118, 1119, 1122, 1123
  - Plug-In ...1089, 1091-1095, 1099, 1102, 1103, 1105, 1109-1115,1117-1119, 1122-1128, 1130
  - Polarized ...1130
  - Power Control ...1089, 1090, 1092, 1098, 1100, 1103, 1109, 1115, 1116, 1122, 1124, 1127
  - Power Transfer ...514, 1092, 1096, 1097, 1100, 1103, 1111, 1124, 1129
  - Printed Circuit ...1109, 1110, 1116, 1117, 1124, 1130
  - R-F ...515, 1096, 1116, 1122, 1129
  - Reed ...1111, 1117, 1125, 1126
  - Rotary ...1115
  - Sensitive ...1078, 1091, 1098, 1099, 1102, 1104, 1109, 1119, 1122, 1123

Relays (continued) Page

  - Stepping, Ratchet ...1098, 1099, 1113, 1129
  - Telephone ...1093, 1104, 1105, 1109, 1111, 1113, 1114, 1121, 1122
  - Time Delay ...816, 1094, 1095
  - Vacuum Contact ...514, 515, 1289
  - Vibrating Reed ...936
- **Resist-O-Cabinet** Resistor Assortments ...1175
- **Resist-O-Caddy** Resistor Assortments ...1175
- **Resist-O-Chest** Resistor Assortments ...1176
- **Resiston** Potentiometers ...1132, 1166
- **Resist-O-Panel** Resistor Assortments ...1175
- **Resist-O-Pedia** Resistor Assortments ...1175
- Resistors
  - Adjustable (Also See Potentiometers ...1131-1231 (Sec. 4700), 1319
  - Adjustable, Miniature ...1219
  - Ballast Tube (See Tubes, Ballast)
  - Carbon, Deposited ...1136, 1137, 1142, 1152, 1158, 1159, 1183, 1215, 1217, 1224, 1231
  - Carbon, Film ...1136, 1137, 1152, 1164, 1165, 1224
  - Composition ...1172, 1174-1176, 1208
  - Decade ...364, 904, 906, 932, 1146, 1319
  - Encapsulated ...1142, 1152, 1160, 1162, 1163, 1224
  - Film, Metal ...1152, 1158-1160, 1163, 1165, 1216, 1227
  - Film, Precision ...1152,1160, 1164, 1165, 1227
  - Flexible ...1194
  - Fuse ...1181, 1197, 1208, 1230
  - Glass ...1231
  - High Frequency ...1160, 1162
  - High Temperature ...1158, 1160, 1166-1168, 1197
  - Mil Type ...1131-1231 (Sec. 4700)
  - Miniature and Subminiature ...1162-1165, 1172, 1223, 1224, 1227
  - Plug-In Tube (See Tubes, Ballast)
  - Power ...1131-1231 (Sec. 4700)
  - Silicon ...1197, 1223
  - Temperature Coefficient ...1159, 1160, 1163, 1165
  - Temperature Sensitive (See Thermistors)
  - Variable (See Potentiometers)
  - Vitreous Enamel ...1144, 1146, 1166-1169, 1195-1197, 1201, 1205, 1206, 1213, 1220-1221, 1223, 1227
  - Voltage Sensitive ...1225, 1251
  - Wire Wound, Precision ...1158, 1162, 1173, 1182, 1223, 1227
  - Wire Wound, R-F, Non-Inductive ...1158, 1162, 1209-1212
- Retractile Cords (See Cords, Retractile)
- Reverberation Units ...99
- R-F Equipment (See Ammeters, Amplifiers, Cables, Etc.)
- Rheostats (See Potentiometers, Rheostat)
- **RIDER PUBLISHER, INC., JOHN F.** ...1086, 1087
- **RIPLEY CO., INC.** ...835-837
- Rivets ...856
- **ROBINS INDUSTRIES CORP.** ...222-227
- **Rockette** Switches ...1279
- **Rock-Top** Power Supplies ...1052
- Rods, Clamps, Ground ...36, 59, 63, 1662
- Rods & Tubes, Metal ...63, 783
- **Rondine** Turntables ...218
- **Roof-Thru** Antenna Lead-in ...748
- Rooms, Screen (See Screen Rooms)
- Rotators ...27, 32, 69
- **Rotomite** Relay ...1099
- **RYE SOUND CORP.** ...759

S

- **SNC MFG. CO., INC.** ...1468-1471
- **Safe-T-Klip** Test Clip ...1022
- **Saf-Key** Antenna ...66
- **Sal-Met** Flux ...627
- **SAMS & CO., HOWARD W.** ...1088

Page

- Sanders 1376
- **SANGAMO ELECTRIC CO.** 538-559
- Saws 1332, 1376, 1377
- **SAXTON PRODUCTS, INC.**
  - UHF Connectors 758
  - Wire, Cable, Accessories 1653-1667
- **SCALA RADIO CO.** 60, 61
- Scales, Instrument Face 867, 868
- **SCHAUER MANUFACTURING CORP.** 1250, 1251
- Scissors 1353
- Scopes (See Oscilloscopes)
- **Scope-O-Trol** Power Supply 1023
- **Scotch** Magnetic Tape 207
- **SCOTCH TAPE** (MMM) 207
- Screen Rooms 341
- Screw Drivers 1329, 1333, 1335, 1346, 1347, 1358, 1368, 1369, 1371, 1372, 1377, 1378, 1380, 1381
- Screw Machine Products 860
- Screws (Also See Fasteners) 37, 311, 633, 643, 777, 783, 786, 842, 851-853, 860, 890-892
- **Seacoaster** Cable 1665
- **Sealcap** Trimmer Capacitors 512
- **SEALECTRO CORP.**
  - RF Connectors 760, 761
  - Teflon Terminals, Proto-Kit 874, 875
- **Sealectoboard** Program Boards 875
- **SECO ELECTRONICS, INC.** 950
- **Seizer** Locking Pliers 1379
- Semiconductor Assemblies, Multiple 1076, 1181, 1237, 1240, 1242, 1249
- Semiconductor Testers (See Testers, Diode)
- Semiconductors, Diodes (See Diodes)
- Semiconductors, Transistors (See Transistors)
- **SEMITRONICS CORP.** 1252
- **Senior** Speaker Systems 195
- **Series Sixty** Cabinet Racks 243, 244
- Services, Fabrication 269, 876
- Services, Printed Circuit 876
- Services, Towers, Erection & Maintenance 31
- **Shaft-Kut** Control Shaft Cutter 1156
- Shafts & Adapters, Flexible (Also See Couplings) 673, 678, 679, 682, 782, 783, 1380
- **Shakespeare Wonderod** Antennas 28
- **SHERWOOD ELECTRONICS LABS, INC.** 122
- **Shielded Jax** 1312
- Shields
  - Cathode-Ray Tube 681, 864-866, 868
  - Coil 680
  - Electrostatic 788
  - Magnetic 681, 864-866
  - Meter 255
  - Transformer 1391, 1393, 1398, 1511
  - Tube, Liners and Inserts 707, 726, 727, 776, 812, 1159
  - Wire (See Braid, Copper)
- Shock Mounts (See Mounts, Shock)
- Shunts, Meter 930
- **SHURE BROTHERS, INC.**
  - Microphones 174-183
  - Arms, Cartridges, Preamps 228-230
- **SHURITE METERS** 952, 953
- **SIGHTMASTER CORP.** 1307
- **Signal-Master** Antennas 55
- **Signal Optimizer** C-B Tester 924
- **Signal Sender** Twin Lead 1660
- Signal Tracers (See Testers, Signal Tracing)
- **SIGNAL TRANSFORMER CO.** 1472, 1473
- **Signet** P.A. Equipment 100-103
- **Signette** Intercom. Systems 103

Page

- **Silent Plug** 1313
- **Silhouette 62** Speaker System 128
- **Silicone-Lube** Lubricant 1231
- **Siltab** Rectifiers 1076
- **Silver-Mike** Capacitors 432, 434
- **SIMPSON ELECTRIC CO.** 954-961
- Sinks, Heat (See Transistor Heat Dissipators & Tube Heat Dissipators)
- **Skipper** Timers 1288
- **Skymaster** Antenna 51
- **SLAUGHTER COMPANY** 962, 963
- Slide Rules (See Calculators)
- Slides, Chassis 201, 225, 240, 248, 264, 280, 311, 314-316, 322
- Slides, Cabinet 201, 248, 264, 280, 311, 314-316, 322
- **Slimline** Hi-Fi Speaker 131
- **Slo-Syn** Synchronous Motors and Accessories 994, 995
- **HERMAN H. SMITH, INC.** Subs. of Kulka-Smith Electronics 762-805
- **Smitty** Socket Head Wrenches 1347
- **Snap-Lok** Antenna 64
- **Snap-Tite** Controls 1155
- **Snaptrol** Controls 1185, 1186
- Snips 1324, 1356, 1366
- Sockets
  - Adapter 755-757, 822
  - Air Systems Chimneys 668, 1538
  - Breadboard 755
  - Crystal 643, 673, 678, 700, 706, 727, 738, 740, 776, 822, 823
  - Mil Type 351, 669, 726, 727, 738, 1006-1008
  - Miniature 668, 678, 707, 736, 737, 755, 759, 776, 1006
  - Pilot Light Assemblies, Lamp 1006-1010, 1012
  - Printed Circuit 351, 709, 710, 726, 737, 738
  - Relay 710, 727
  - Subminiature 709, 726, 727, 737, 1006
  - Transistor 709, 726, 728, 737, 755, 757, 812, 1231
  - Transmitting, Industrial, Etc. 668, 669, 678, 1538, 1543
  - Tube & Adapter (Also See Holders, Tube) ....351, 643, 668, 669, 678, 692-814 (Sec. 2100), 1231, 1338, 1339, 1373, 1538
  - Turret 755, 756, 812
  - UHF Tube 668, 727, 1528
  - Vibrator 736, 756
  - Wiring Plug, Capacitors, Etc. 699, 706, 708, 740
- **Socket Savers** Tube Tester Sockets 755
- **SOLA ELECTRIC CO.** Div. of Basic Prods. Corp. 1065-1067
- Solder, All Types 1231, 1321, 1363
- Solder Pots 1328, 1363, 1367
- Soldering Equip., Printed Circuit 625, 833, 1231, 1320, 1328, 1333, 1341, 1344, 1345, 1349, 1359-1365, 1367
- Soldering Equip., Resistance 1320, 1349
- Soldering Guns 1344, 1374, 1376
- Soldering Irons & Accessories ....1320-1381 (Sec. 5400)
- Solenoids (Also See Coils) 1101
- **Solidstat** AC Voltage Control 1072
- **Solidstrand** Terminals 788
- **Sol-Vent** Cement Solvent 621
- Solvents 621, 623, 624, 628, 629, 833
- **Sonobar** Microphones 175
- **Sonoteer** Speaker Systems 221
- **SONOTONE CORP.**
  - Microphones 187
  - Cartridges, Needles, Tape Heads 231-233
  - Tubes 1550
- **Sound Caddy** Portable Speaker Cabinet 131
- Sound Recording Equip. (See Microphones, Recorders, Etc.)
- **Soundspot** Microphone 141
- Sound Systems, Complete (See Public Address Systems)
- Sources, Light, Stroboscopic (See Stroboscopes)

Page

- **SOUTH RIVER METAL PRODS. CO., INC.**
  - Antenna Mounts 62, 63
  - Chassis Slides 316
- Spacers 777, 778, 830, 839, 842, 843, 845, 856, 986
- Spaghetti (See Insulation Parts, Tubing)
- Speakers
  - Auto-Replacement, Accessories 154, 167, 168, 170, 172, 173
  - Baffles (See Enclosures, Speaker, Cabinet)
  - Blast Valve 156
  - Carrying Cases (See Cases Portable)
  - Driver Units 100, 135, 147, 156, 190
  - Dynamic, Electro 172, 173
  - Dynamic, P-M ....79, 80, 100, 105, 111, 129-197 (Sec. 1320), 204, 209, 221, 233, 659, 660, 663, 685
  - Enclosures (See Enclosures, Speaker)
  - Explosion & Flame Proof 135, 192
  - High Fidelity, Systems ....99, 122, 128, 129-197 (Sec. 1320), 204, 209, 221, 233
  - Horns (See Horns, Speaker)
  - Outdoor Theatre, Etc. (See Speakers, Weatherproof)
  - Pillow 74, 166, 185, 200
  - Sound Column 134, 147
  - Submergence-Proof 148, 192
  - Tweeters & Mid-Range 169, 195, 204, 233
  - Weatherproof 134, 135, 146-148, 157, 167, 169, 172, 190, 192, 193
- **SPECIALTIES MFG. CO.** 1308-1311
- **SPECTROL ELECTRONICS CORP.**
  - Dials 831
  - Potentiometers 1218, 1219
- **Speech-Master** Loudspeakers 158
- Speed Indicators (See Indicators, Speed)
- **SPELLMAN HIGH VOLTAGE CO., INC.** 1060-1064
- **SPEMCO** (See Specialties Mfg. Co.)
- **Spiralray** Antenna 69
- Splicing Equipment, Magnetic Tape 199, 222, 223
- **Spokesman** Microphones 132
- **Spongee** Twin Lead 1660, 1665
- **SPRAGUE PRODUCTS CO.**
  - Capacitors 560-616
  - Pulse Transformers, Decade Indicator 1475
  - Resistors 1209-1217
  - Test Equipment 951
  - Transistors 1253
- **Spra-Kleen** Contact Cleaner 625, 1336
- Springs, Antenna 28, 33, 48-50, 58, 67, 71
- Springs, Radio and Phono Hardware 855, 856, 1128
- **Stabiline** Voltage Regulators 1074, 1075
- **Stack-Pole** Antenna Tower 31
- **STACO, INC.** Standard Electrical Products Div. 1068, 1069
- **STANCOR ELECTRONICS, INC.** 1476-1495
- **STANDARD ELECTRICAL PRODUCTS CO.** 1068, 1069
- **Standard** Recording Tape 217
- Standards, Frequency 822
- Stands and Accessories
  - Microphone 111, 136, 137, 144, 145, 177, 179, 181, 183, 187, 194
  - Supports, Brackets, Speaker 79, 135, 149
  - Tester, TV, Hi-Fi, Etc. 321
- **STANTON** (Pickering) Phono Pickups and Transcription Arms 213
- **Stat-Elim** 198
- **Stati-Kleer** 198
- **Statrol** Magnetic Amplifiers 1072
- **Stereo Dynetic** Phono Cartridges 228, 229
- **Stere-O-Matic** Record Changer 128
- Stereophonic Equipment (See Amplifiers, Receivers, Recorders, Etc.)
- **Stereotable** Turntables 219
- **STERLING MFG. CO.** 964

Page

- **STERLING TRANSFORMER CORP.** 1496-1499
- **Stop-It** Commercial Silencer 185
- Straighteners, Tube Pin (See Tube Pin Straighteners)
- **Straplocks** Cable Clamps 1581
- **Stripmaster** Wire Stripper 1348
- **Stripohm** Resistors 1229
- **Strip-Pack** Terminal Boards 462
- Strippers, Wire
  - Chemical 623
  - Hand ....775, 1320-1381 (Sec. 5400), 1644
  - Thermal 1320, 1348, 1362
- Strips, Terminal 678, 682, 738, 739, 787, 800-802, 843, 846-850, 855, 876, 1339
- **Stripwright** Wire Stripper 1366
- **Strobolamp** 1315
- Stroboscopes 199, 223, 225, 963, 1315
- **STROMBERG-CARLSON** (Gen. Dynamics) 100-103
- Styli, Playback 132, 232
- **Styracon** Capacitors 598
- **Supercon** Connectors 806
- **Super-Flex** Coaxial Cable 1629
- **Superior** Headset 139
- **SUPERIOR ELECTRIC CO., THE**
  - Electrical Connectors, Binding Posts 806, 807
  - Motors 994, 995
  - Variable Transformers, Voltage Regulators 1070-1075
- **Super-Micapon** Capacitors 435
- **Super-Pencil** Soldering Irons 1344
- **Super-Powered** Soldering Irons 1344
- **Super Tester** Volt-onn Meter 894
- **Supervisor** Timers 1288
- Supplies, Power (See Power Supplies)
- Supports, Tube (See Holders, Tube)
- Suppressors
  - Arc 1240
  - Auto Ignition 1152
  - Noise 1152
- **Supreme** Telephone Patch 656
- Surge Arresters, Electrical (See Arresters, Electrical Surge)
- **Swidget Slide Switch** 1277
- **SWITCHCRAFT, INC.** 1312-1318
- Switches
  - Aircraft 1258-1260
  - Antenna Changeover 65, 745, 1096, 1156, 1289, 1304
  - Appliance—All Types 788, 1153, 1277-1279, 1283, 1667
  - Cam 1319
  - Circuit Breaker 1077, 1260
  - Coaxial Cable 1096, 1289
  - Cord 185, 1310, 1317
  - Decade 1304
  - Electronic 907, 1096
  - Foot—Pedal, Mat, Ribbon, Etc. 1285, 1298, 1299, 1310, 1349
  - Hermetically Sealed 1319
  - High Voltage 942, 1262, 1289
  - Interlock 1285, 1298, 1299, 1318
  - Key 733, 794, 1309
  - Knife 36, 1260
  - Lever 795-797, 1262, 1279, 1281, 1284, 1293, 1304, 1305, 1317, 1318
  - Limit 795-797, 1274, 1276, 1285, 1296, 1297, 1311
  - Lock 733, 794, 1280, 1281, 1317
  - Magnetic Reed 1309
  - Microphone 183
  - Mil Type ....793, 798, 799, 803, 1093, 1256-1319 (Sec. 5100)
  - Miniature ....685, 733, 759, 1256-1319 (Sec. 5100)
  - Momentary Contact ....733, 788, 793-799, 803, 1093, 1256-1319 (Sec. 5100)
  - Oil Immersed 942, 1292, 1297

Switches (continued) Page

- Plunger ... 1296, 1297
- Power ... 788, 793, 794, 1093, 1256-1319 (Sec. 5100)
- Printed Circuit ... 1277, 1285
- Pushbutton, All Types ... 685, 733, 793, 794, 797, 799, 1093, 1256-1319 (Sec. 5100)
- Rotary ... 733, 740, 794, 942, 1140, 1156, 1189, 1256-1319 (Sec. 5100)
- Selector—All Types ... 81, 740, 1097, 1140, 1281, 1282, 1284-1286, 1290-1293, 1304, 1305, 1315, 1319
- Sensors ... 1287
- Slide ... 739, 788, 1260, 1272, 1277, 1297, 1310
- Snap Action—All Types ... 795-797, 1093, 1265, 1270-1273, 1276, 1281, 1286, 1296
- Step Type ... 201, 1129, 1319
- Stereo Control ... 744, 1262
- Stop, Adjustable ... 1256, 1282
- Tap ... 1286, 1304, 1306, 1319
- Thermal ... 1307
- Time Delay (See Timers)
- Toggle ... 685, 733, 759, 788, 793, 794, 798-800, 1093, 1256-1319 (Sec. 5100)
- Trigger ... 1259, 1273, 1310
- Vacuum ... 1289, 1543

Switchlight ... 1276, 1279, 1285, 1286, 1318

Switchpak Limit Switch Kit ... 1297

Syl-O-Ette Speaker Systems ... 195

Synchroscopes ... 681

Systems, Communication (See Communication Systems)

SYLVANIA ELECTRIC PRODUCTS, INC. ... 1548, 1549

T

TACO (See Technical Appliance Corp.)

T-Bird Antenna ... 64

Tabcap Capacitors ... 1076

Tabpost Binding Posts ... 1076

Tabstat Inverters ... 1077

Tabtran Transformers and Chokes ... 1076

Tabtron Power Supplies ... 1077

Tachometers Stroboscopic ... 963

TALK-A-PHONE CO. ... 123-125

TANDBERG OF AMERICA ... 235

Tan-O-Mite Capacitors ... 527, 529

Tantacon Capacitors ... 445-447

Tantalex Capacitors ... 560, 562-566, 569

Tantapak Capacitors ... 566

Tape Duplicators (See Duplicators, Magnetic Tape)

Tape, Magnetic, Erasers (See Erasers)

Tape Mechanisms ... 114, 205, 215, 235

Taperaser ... 199

Tapes

- Electrical Insulation ... 991
- Pressure Sensitive ... 991, 1626
- Recording, Magnetic, All Types ... 203, 207, 214, 216, 217
- Test ... 200

Tappee Insulator ... 1661

Taps (See Dies & Taps)

TECH LABORATORIES, INC. ... 1319

TECH-MASTER CORP. ... 126, 127

TECHNICAL APPARATUS BUILDERS ... 1076, 1077

TECHNICAL APPLIANCE CORP. (TACO) Consumer Products Div. Subs. of Jerrold Electronics Corp. ... 64, 65

Technical Books ... 226, 1079, 1083, 1085-1088, 1225, 1237, 1535

Tee Tap Coax Cable Tap ... 1660

Teflon (See Plastic Materials)

Teksel Rectifiers ... 1076

Tel-Coil Antenna ... 29

Page

Telegraph Keys (See Keys, Telegraph)

Telephone Systems (See Comm. Systems, Telephone)

Telephones, Handsets (See Handsets)

Telephones, Sound Powered (See Comm. Systems, Telephone)

Teleslide Indicator Lights ... 1016

Telever Switches ... 1317

Television Equipment (See Antennas, Cameras, Coils, Monitors, Receivers, Etc.)

Television Systems, Closed Circuit ... 678, 686

Tel-Ohmike Capacitor Analyzer ... 951

Tel-O-Patch Telephone Patches ... 656

Tel-O-Record Telephone Recording Controls ... 657

TELREX LABS. ... 69

Tel Vac Pliers ... 1363

Temperature Indicators (See Indicators, Temperature)

TENNA MFG. CO., INC. ... 66, 67

Tenna-Clip Whip Antenna Holder ... 50

Tennahold Whip Antenna Holder ... 50

Tenna-Tube-Thru-Wall TV Antenna Connector ... 740

Tension-Tweezie Holding Tweezer ... 1347

TERADO CORP. ... 1078

Terminal Boards & Blocks (See Boards, Terminal)

Terminal Strips (See Strips, Terminal)

Terminals

- Feedthru ... 678, 740, 789, 790, 841, 844, 870, 874-876, 791, 792, 942
- Lug ... 773, 786-790, 802, 857, 884-888
- Miniature & Subminiature ... 790-792, 841, 870, 874-876
- Printed Board ... 844, 870, 874, 876
- Quick Disconnect ... 884, 886, 887, 889, 1012
- Solderless ... 786, 788, 790, 843, 857, 882, 884-889
- Standoff ... 682, 728, 789, 791, 792, 812, 841, 874-876

Terminations, Coaxial ... 44, 657, 760, 761

Test Equipment (See Analyzers, Bridges, Comparators, Meters)

Test Equipment, Color TV ... 944, 949, 957, 1337

Test Leads & Adapters ... 700, 701, 731, 732, 735, 740, 749-754, 772, 775, 900, 949, 954, 958

Test ~~Sets~~ (See Testers, Capacitor, Resistor, Tube, Etc.)

Testers (See Meters, Analyzers, Comparators, Bridges, Etc.)

Testers

- Appliance ... 970
- Battery ... 906, 954, 955, 964
- Cable ... 898, 962
- Capacitor ... 904, 906, 909, 940, 951, 957
- Cathode-Ray Tube ... 906
- Crystal (See Analyzers, Crystal)
- Diode, Semiconductor ... 909, 950, 969
- Filament, Series String ... 906
- Flyback & Yoke ... 904, 906
- Hi-Pot (See Testers, Insulation Breakdown)
- Insulation Breakdown ... 933, 962, 984, 1052
- Leakage ... 909, 933, 957, 962
- Meter ... 957
- Resistor ... 904
- Shock ... 863
- Signal Tracing ... 895, 901, 905, 908, 909
- Transistor ... 906, 909, 924, 926, 927, 950, 954, 969, 970, 1284
- Tube, Checkers, Preheaters ... 906, 909, 924, 926, 938, 939, 948, 950, 969
- Universal ... 895

TEXAS CRYSTALS, Div. of Westronix Corp. ... 823

Thermistors ... 1225

Thermocouples, Elements, Accessories ... 937, 958

Thermometers, Resistance ... 958

Thermo-Strip Thermal Wire Stripper ... 1348

Thermo-Tip Resistance Soldering Electrodes ... 1349

Page

- **Thinline** Speaker Baffles 131
- **Thin-Trim** Microphone 140
- **Thru-Pass** Capacitors 600
- Thyratrons (See Tubes, Thyratron)
- Ties, Wire, Cable 782, 1619, 1640, 1641
- Timers
  - Appliance 816, 1288
  - Automatic Reset 815, 1094, 1095
  - Cyclic 815, 1288
  - Electronic 1285
  - Interval 815-817, 1094, 1095, 1288, 1667
  - Motor-Operated 815, 1285, 1288
  - Sequence 815, 817
  - Thermal 1094, 1095
- **Tini-Jax** 1312
- **Tini-Plugs** 1313
- **Tiny-Glow** Pilot Light 1022
- **Tinylite** Indicator Lights 1016
- **Tinymike** Capacitors 430, 431
- **Tiny Switches** 1317
- **Tinytran** Transformers 1493
- **Tiplet** Soldering Iron Tips 1365
- **Tippette** Switch 1273
- **Titelite** Indicator Lights 1017
- **TODD ELECTRIC CO., INC.** 1515
- Tool Pouches, Holsters 1324, 1332, 1350, 1353, 1379
- Tools
  - Alignment 1231, 1332-1336, 1369, 1371, 1373, 1378
  - Crimping 82, 761, 788, 889, 1333, 1651
  - Hand or Mechanical (See Cutters, Screw Drivers, Wrenches, Etc.)
  - Pneumatic Assembly 1345
  - Probing 1336, 1338, 1373
  - Resistance Soldering (See Soldering Equip. Resistance)
  - Soldering (See Soldering Irons & Acces.)
- **Top-Liner** Antenna 64
- **Top Notch** Twinlead 1660
- **Tower Master** Antenna Towers 53
- Towers, Antenna (See Antennas, Towers)
- Towers, Services (See Services)
- Tracers, Signal (See Testers, Signal Tracing)
- **Trans-Aire** Blowers 247
- **Transcap** Capacitors 451
- Transceivers
  - Amateur 658, 662
  - Citizens Radio 659, 662, 663, 674, 675, 684, 687, 688, 907
  - UHF 675
- **Transceptor** Multi-Set Coupler 25
- Transcription Arms (See Arms, Phono, Transcription)
- Transducers, Cells, Photoelectric (Also See Tubes, Phototubes) 1001, 1240
- **Transfarad** Capacitor Testor 951
- Transformers
  - Antenna Matching 38, 46, 65, 641, 642, 654, 676, 745, 1447, 1667
  - Audio ....88, 104, 105, 155, 158, 167, 1382-1527 (Sec. 5600)
  - Audio, Very Low Frequency 1387, 1388, 1509
  - Autotransformer 158, 948, 1023, 1056, 1063, 1068-1072, 1440, 1486, 1495, 1503, 1504, 1515, 1524, 1527
  - Bias 211, 1485, 1490, 1524, 1526
  - Chopper 1454, 1509, 1525
  - Constant Voltage 155, 158, 1023, 1065-1067, 1432, 1473
  - Control 1328
  - Converters, DC-DC 1456, 1473
  - Current 982, 1073, 1415, 1416
  - Current Limiting 1473, 1487
  - Differential 1472

Transformers (continued) Page

  - Discriminator 142, 638, 640
  - Donut (See Transformers, Toroidal)
  - Driver ....1382-1527 (Sec. 5600)
  - Filament ....1053, 1063, 1065, 1067, 1382-1527 (Sec. 5600)
  - 400 Cps. 1383, 1397, 1402, 1455, 1463, 1492, 1497, 1505, 1518, 1520
  - Geophysical (See Transformers, Audio Very Low Freq.)
  - HV 1053, 1064, 1496
  - I-F 638-641, 645, 680, 685, 1159
  - Input ....88, 104, 105, 119, 1382-1527 (Sec. 5600)
  - Instrument 982, 1454
  - Interstage ....654, 1382-1527 (Sec. 5600)
  - Isolation ....948, 1065-1067, 1069, 1382-1527 (Sec. 5600)
  - Line 88, 145, 149, 155, 158, 170, 1478
  - Magnetic Amplifier (See Transformers, Saturable)
  - Matched, Precision 155, 183
  - Matching ....32, 81, 82, 134, 145, 149, 170, 190, 206, 1382-1527 (Sec. 5600)
  - Matrix 1072
  - Microphone 104, 105
  - Mil Type ....1382-1527 (Sec. 5600)
  - Miniature & Subminiature, Micro-Miniature ....639, 685, 1382-1527 (Sec. 5600)
  - Mixing 1393, 1404, 1408, 1409, 1441, 1502, 1516, 1517, 1523
  - Modulation 1469, 1476,1482, 1494, 1495, 1508, 1526
  - Output ....167, 206, 1382-1527 (Sec. 5600)
  - Photoflash Power 1486, 1527
  - Plate ....1382-1527 (Sec. 5600)
  - Power ....1065, 1067, 1382-1527 (Sec. 5600)
  - Printed Circuit ....639, 1382-1427 (Sec. 5600)
  - Pulse 1415, 1416, 1468, 1487, 1503, 1515-1517, 1521
  - R-F 639, 641, 1063, 1159
  - Saturable 1023, 1073, 1428-1430, 1432, 1491, 1517
  - Selenium Rectifiers 1076, 1236, 1246, 1446, 1472, 1473, 1482, 1504
  - Servo 1463
  - Silicon Rectifier 1076, 1236, 1446, 1455, 1472, 1473, 1482, 1489, 1499, 1506
  - Step-Down, Step-Up ....1023, 1053, 1065-1067, 1069, 1072, 1236, 1362, 1382-1527 (Sec. 5600)
  - Toroidal 931, 1073, 1418, 1500, 1503
  - Tube Checker 1485
  - Ultrasonic 1438
  - Variable 1023-1056, 1068-1071, 1527
  - Voltage Booster 1471
  - Voltage Regulating 1515
  - Wide Band 1447
- **Transicheck** R-F Power/SWR Meters 657
- Transistor and Diode Heat Dissipators 657, 709
- Transistor Testers (See Testers, Transistor)
- Transistorized Equipment (See Applicable Equipment Amplifiers, Receivers, Etc.)
- Transistors
  - Germanium, Power 1231, 1249, 1252, 1254
  - Germanium, R-F 645, 1233, 1234, 1249, 1252-1254
  - Germanium, Switching 1233, 1249, 1253, 1254
  - Silicon, Power 1231, 1237, 1252
  - Silicon, R-F 1233, 1252, 1253
  - Silicon, Switching 1233, 1253
- Transmission Line, Wire & Cable (See Cable, Transmission Line)
- Transmitters
  - Amateur 658, 659, 662, 674, 681
  - Citizens Radio 659, 662, 688
  - Mobile 675
  - Single Sideband 658, 662
  - UHF 675
  - VHF 658, 659

Page

Transports, Tape (See Tape Mechanisms)
Transtab Transient Indicator 1077
Trap-Ease Wave-Trap Filters 41
Trapmaster Antenna 53, 54
Trapmaster, Jr. Antenna 54
Trap-Mobile Antenna 54
Traps, Ion (See Ion Traps)
Treadlite Foot Switches 1299
TRIAD DISTRIBUTOR DIV., Litton Industries 1500-1514
Trigger, SCR (See Controls, SCR)
Tri-Band Antenna 69
Triclad Capacitors 442
Trijet Transformers 1500
Trimacon Capacitors 456, 457
Trimit Potentiometers 1133
TRIMM, INC.
  Headphones 184, 185
  Plugs, Jacks, Connectors 808, 809
Trimount Moulding Holders 855
TRIPLETT ELECTRICAL INSTR. CO. 965-973
Trimpot Potentiometers 1131-1134
Tri-Tap Combination Tap 1347
Trol-Aid Contact Cleaner 621
Tron Fuses 1266
Trophy Line Twin Lead 1660
Troubador P.A. Amplifiers 104
TRU-OHM PRODUCTS DIV. Model Eng. & Mfg. Co. 1220-1224
Tube Brighteners, TV (See Brighteners, TV Tube)
Tube Heat Dissipators 1543
Tube Pin Straighteners 776, 1338, 1372
Tube Pullers (See Pullers, Tube)
Tube-R-Cap RC Circuits 631
Tube Testers (See Testers, Tube)
Tubes
  Ballast 1530, 1531
  Cathode-Ray, Data-Storage 1544
  Cathode-Ray, Instrument Use 1544
  Cathode-Ray, Projection 1544
  CR, TV Picture & Color 1546, 1551
  Counting 1529
  Gas 1551
  Geiger-Mueller 1529
  Glow or Discharge (See Tubes, Gas)
  Ignitron 1544
  Image Converter 1529, 1540, 1547
  Industrial 1528, 1534, 1535, 1548-1550
  Klystron 1538, 1548
  Magnetron 1529, 1547
  Microwave 1547
  Photomultiplier 1529, 1547
  Phototubes & Photocells 1547
  Power Amplifier 1321, 1534, 1537, 1539, 1542, 1543, 1547, 1551
  Receiving 1321, 1529, 1533, 1537, 1544, 1545, 1550, 1551
  Rectifying, Gas Filled 1529, 1532, 1538, 1540, 1541, 1547, 1551
  Rectifying, Vacuum 1321, 1528, 1529, 1533, 1538, 1543-1545, 1547, 1551
  Television Camera Pickup 1544, 1547
  Thyratron 1529, 1532, 1540, 1541, 1544, 1547, 1551
  Thyratron, Hydrogen 1551
  Transmitting 1529, 1534, 1538, 1539, 1542, 1543, 1547, 1551
  Traveling Wave Amp. Type 1547
  Voltage Reference or Regulating 1529, 1551

Page

Tubing
  Glass Fibre Insulation 1599
  Heat Shrinkable 1564, 1565, 1601
  Plastic 745, 990, 1562, 1564, 1565, 1599, 1601, 1642, 1651
  Teflon 805, 1562, 1600, 1601, 1642, 1645, 1668
  Zipper 1563, 1649
Tuners
  A-M 122
  F-M 99, 122, 127
  F-M, A-M 44, 99, 122, 128
  Stereo 99, 122, 127, 128
  Television 126
  UHF, VHF 512, 513
Tuner-Tonic Tuner Cleaner and Lubricant 622
TUNG-SOL ELECTRIC, INC.
  Transistors, Rectifiers 1254, 1255
  Tubes 1551
Tuning Devices, Mechanical 512, 513
Tun-O-Lube Tuner Cleaner 621
TURNER MICROPHONE COMPANY 188, 189
Turnstile Antenna 64
Turntables, Recording and Transcription 204, 218-220
Tweeters (See Speakers)
Tweezers, Hand & Vacuum 1337, 1345, 1347, 1372, 1377
Twin Plugs 1313
Twist-Lok Capacitors 570, 571
Twist Master Screwdriver Handle 1336
Twist Tab Controls 1153
Twisto Wire Stripper 1372
Tynee-Dry Capacitors 485

U

UTC (See United Transformer Corp.)
U-Cut-It Air Filters 226
UHF Equipment (See Generators, Receivers, Transmitters, Etc.)
Ultra-Cap Capacitors 412
Ultra-Tap Antenna Coupler 45
Ultra-Vista UHF Converter 38
UNGAR ELECTRIC TOOLS
  Electronic Div. of Eldon Ind., Inc. 1364, 1365
Unidyne Microphones 176
Uniline Speaker Columns 193
UNION CARBIDE CONSUMER PRODUCTS CO.
  Div. of Union Carbide Corp. 1043-1047
Uniplex Microphones 174
Unipoise Phono Transcription Arm 213
Uni-Sol Solvent 628
UNITED SYSTEMS CORP. 975
UNITED TRANSFORMER CORP. (UTC) 1516-1527
UNIVERSITY LOUDSPEAKERS, INC.
  Div. of Ling-Temco-Vought, Inc. 190-195
Univerter TV Converter 652
U. S. COMPONENTS, INC. 810, 811
U. S. ENGINEERING CO.,
  Div. of Litton Industries, Inc. (Useco) 877-881
UTICA-HERBRAND TOOLS Div. of Kelsey-Hayes Co. 1366

V

V-M CORPORATION 128
V.T. Autotransformers 1056
VACO PRODUCTS CO.
  Solderless Terminals 882
  Tools 1368, 1369

Page

Varicell A-C/D-C Power Supply ...1073
Varicon Connectors ...723, 725
Varilok Contacts ...725
Varipak P-C Card Cage ...725
Varitwin-Pin Connectors ...724
Veco Thermistors and Varistors ...1225
VECTOR ELECTRONICS CO., INC.
  Sockets, Turrets, Shields, Boards ...812-814
  Terminals, Terminal Boards, Chassis Kits ...883
Velocitone Phono Cartridges ...231
Ventilation Equipment (See Blowers, Fans, Etc.)
Versadyne Microphones ...174
Versaplex Microphones ...175
Verti-Lytic Capacitors ...572
VHF Equipment (See Generators, Receivers, Etc.)
Vibra-Pull ...1372
Vibrator Power Supplies (See Power Supplies, Vibrator)
Vibrators ...1024, 1025, 1030, 1037, 1038, 1057
VICTORY ENGINEERING CORP. ...1225
Viking Loudspeakers ...154
Vipower A.C. Power Supplies ...1039
Vises ...1156, 1338, 1347, 1377
Vitamin Q Capacitors ...577, 579-585
Vitrohm Resistors ...1226, 1228, 1229
VITRAMON, INC. ...617
VOCALINE CO. OF AMER. (Bristol Motors) ...688
Vocatron Wireless Intercom ...688
Voicecaster Intercoms ...106
Voltab Circuit Breaker ...1077
Voltage Regulators (See Regulators, Voltage)
Voltbox A-C Power Supply ...1073
VULCAN ELECTRIC CO. ...1367

W

Wall Plates, Boxes ...740
WALSCO
  Phono Drives ...236, 237
  Chemicals ...628, 629
  Decals, Dial Cords ...832, 833
  Hardware ...892, 893
  Chassis Punches, Alignment Tools, Service Aids ...1370-1373
  Insulated Tubing ...1668
WALD, INC. ...196
WALDOM ELECTRONICS, INC. ...884-891
Walscolub-B Lubricant ...629
WARD LEONARD ELECTRIC CO. ...1226-1229
WARD PRODUCTS CORP. ...70, 71
Washers ...777, 786, 842, 853, 854, 873, 890, 893
Wave Traps (See Filters)
Wedge-Grip Lampholders ...1021
Weecon Capacitors ...450
Weldohm Transmission Lines ...1583
WELLER ELECTRIC CORP. ...1374, 1375
WEN PRODUCTS, INC. ...1376
WESTLINE E-Z CODE Div. of Western Lithograph Co. ...1669
WESTON INSTRUMENTS Div. Daystrom, Inc. ...976-985
Whips, Antenna (See Antennas, Mobile)
Windows, Dial ...869
Wipe-A-Way Hand Cleaner ...621
Wire
  Aluminum (Also See Cables) ...1584
  Annunciator, Bell (See Wire, Copper)
  Antenna—All Types ...1595, 1602, 1642, 1663, 1666
  Braid (Also See Braid, Copper Shielding) ...1561, 1596, 1597, 1602, 1638
  Copper, Bare, Enameled, Insulated ...78, 1552-1669 (Sec. 6000)

Wire (continued) Page
  Copper-Clad ...1663, 1666, 1667
  Fine, Specialties ...1609
  Glass Insulated ...1553, 1589, 1590, 1607
  Guy ...37, 63, 987, 1663, 1666,1667
  High Temperature ...1555, 1603, 1605, 1608, 1609, 1617, 1651, 1659, 1666
  High Voltage ...1586, 1587, 1592, 1596, 1607, 1608, 1614, 1657, 1666
  Hookup-Pushback, All Types ...1593, 1595, 1603-1607, 1609, 1614, 1615, 1617, 1637, 1653, 1666
  Lead-In & Ground ...37, 63, 1559, 1584, 1602, 1608, 1642, 1662, 1666
  Litz ...1597
  Magnet ...1555, 1559, 1597, 1615, 1636, 1666
  Mil Type ...1553-1555, 1559, 1561, 1602-1608, 1615, 1651, 1659
  Nickel-Chrome ...1636
  Plastic Insulated (See Wire, Copper)
  Radiation-Resistant ...1617
  Resistance and Filament ...1636
  Retractile, Cord Sets ...732, 1560, 1573, 1574, 1586, 1616
  Shielded ...804, 1552-1669 (Sec. 6000)
  Silver Plated ...1555, 1593
  Teflon Insulated ...1555, 1593, 1603, 1651, 1659
  Test Lead ...732, 775, 1560, 1586, 1614, 1616, 1638, 1657, 1666
  Transmission (See Cable, Transmission Line)
Wire Cutters (See Cutters, Wire)
Wireless Intercoms ...107
Wire Markers (See Markers, Wire, Code Tab)
Wire Marking Equipment ...1669
Wire Strippers (See Strippers, Wire)
Wire Ties (See Ties, Wire, Cable)
Wissh Cleaner ...1231
Wonderod Antennas ...28
WORKMAN ELECTRONIC PRODS., INC.
  Semiconductors, IF Transformers ...645
  Resistors, Miscellaneous ...1230, 1231
WORNER ELECTRONIC DEVICES ...1002, 1003
Wrap, Spiral ...1648
Wrenches ...782, 785, 1020, 1320-1381 (Sec. 5400)
WRIGHT-ZIMMERMAN, INC. ...197
WYCO METAL PRODUCTS ...317-329

X

X-ACTO PRECISION TOOLS, INC. ...1377
XCELITE, INC. ...1378-1381
Xela Knives and Scissors ...1353
Xtradur Soldering Iron Tips ...1345

Y

Yellow Jacket Capacitors ...605
Y-Ty Antenna Connector ...748

Z

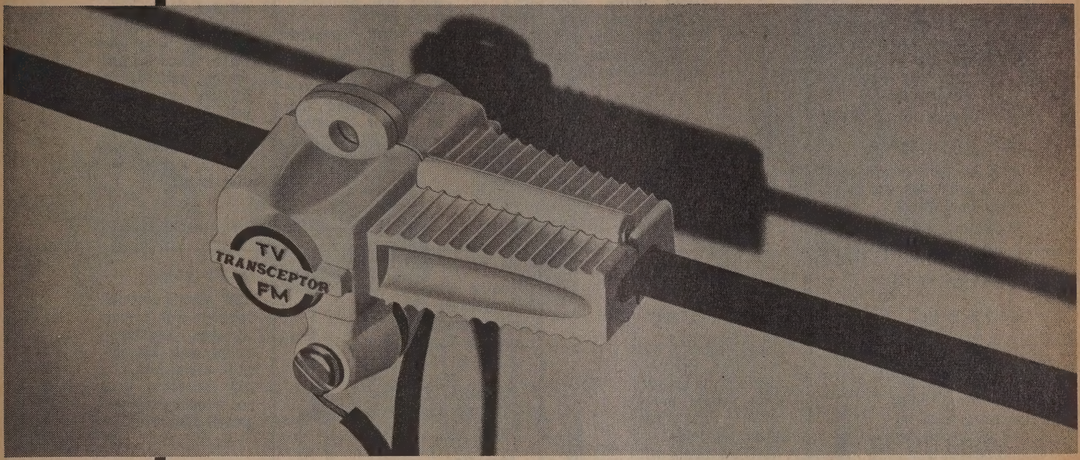
Zener Diodes (See Diodes, Zener)
Zero-Mist Component Coolant ...625
Zeus Transmitter ...658
Zipper Tubing (See Tubing, Zipper)
Zipp-Saw ...1376

15,000,000 MULTIPLE-SET OWNERS NEED

TRANSCEPTOR®

THE HOUSEHOLD SET COUPLER

ANYONE CAN INSTALL IN SECONDS



improves reception for additional TV, color TV, FM, stereo FM
provides most efficient signal delivery
automatically matches impedance
proved in more than 50,000 installations
snaps on without tools
eliminates extra antennas, rabbit ears
packaged and designed for consumer appeal
more than 2 million new customers annually

Foolproof, simple, rugged TRANSCEPTOR was designed especially for the fifteen million multiple-set owners in this country. Now, with easy-to-install TRANSCEPTOR, they can run any combination of TV and FM sets — two or more, one at a time or all at once — *off one antenna* without amplification in normal signal areas. And, because TRANSCEPTOR uses electro-magnetic pick-up instead of resistance splitting of the signal, the line is not cut, there is minimum signal loss, and better set-to-set isolation.

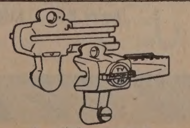
Result: More customer satisfaction. More sales. More profits.

* * * INDIVIDUALLY PACKAGED ON SELF-MERCHANDISING COUNTER DISPLAY CARDS. AVAILABLE FROM YOUR LOCAL DISTRIBUTOR

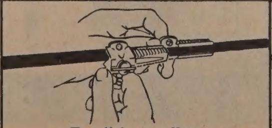
$2.98 RETAIL

ÆROGAP CORPORATION
WRITE FOR INFORMATION ABOUT THE WIZARD 300 & WIZARD 450—DESIGNED FOR THE MASTER ANTENNA SYSTEM INSTALLER

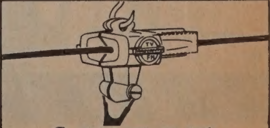
INSTALL IN SECONDS



1. slide apart



2. slide on line



3. connect to set

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the antenna specialists co.

• CLEVELAND 6, OHIO

THE FINEST BRAND FOR EVERY BAND

M-1D (102") (27 mc)

Chrome plated swivel base and spring, 102" stainless steel whip. One-piece Cycolac insulator. Complete with sealing gasket and mounting hardware. Official size.

Dealer net........$11.97

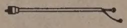
M-1 (102") (27 mc)

Same as M-1D except swivel ball is aluminum and spring is cadmium plated.

Dealer Net......................$8.97

MB24 (27 mc)

Double chain bumper mount. Cadmium plated spring, 102" stainless steel whip, 20' RG-58/U cable with PL-259 connector, and whip hold-down clip.



Dealer net........$19.05

M-49 (27 mc)

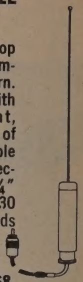
Center loaded cowl mount antenna provides best omnidirectional pattern. Low VSWR. Extended length 60", 43" collapsed Chrome Tubes. Rocker support assures positive ground and up to 35° mounting angle. 5' RG-58/U lead with PL-259 connectors.

Dealer net..........$9.96

MAGGIE-MOBILE

M-67 (27 mc)

Base loaded rooftop antenna. Excellent omnidirectional pattern. Only 44" long with waterproof mount, loading coil. 12' of RG-58/U coax. cable with PL-259 connector. Mounts in ¾" hole. Also available 30 thru 50 mc. (Exceeds 100 watts.)



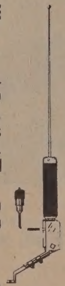
Dealer net........$15.68

MAGGIE-MOBILE

M-73 (27 Mc)

Trunk groove mount. Installs in seconds. No visible holes on car. Just two tiny 7/32" holes in groove of trunk lid. 12' RG-59/U cable and PL-259 connector.

Also available 30-50 mc. (Exceeds 100 watts.)



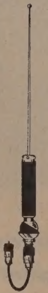
Dealer Net $17.06

MAGGIE-MOBILE

M-74 (27 Mc)

Cowl—Fender or Deck mounting. Only 44" high with professional type swivel mount allowing vertical positioning up to 35°. 12' RG-58/U cable with PL-259 on both ends.

Also available 30-50 mc. (Exceeds 100 watts.)



Dealer Net $19.32

M-36 (27 mc)

Coaxial antenna. ½ wave length. Offers excellent omnidirectional pattern. Composed of 9' radiator and 9' (2" dia.) skirt. All aluminum. Exceptionally neat appearance.

Dealer net........$19.95

MA-36

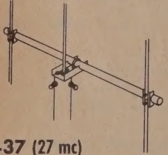
Same as M-36 but has jointed skirt and packaged for Parcel Post mailing.

Dealer net........$21.00

M-71 (27 mc)

"CB" Marine antenna. Complete with mounting pipe, "Lay-down" mount, and 15' RG-58/U cable with PL-259 connector. Does not require separate ground plate.

Dealer net........$34.05



M-37 (27 mc)

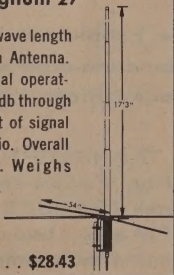
Vertical directional beam antenna. 7 db forward gain over ground plain with 5x power gain. 13.5 db front to back ratio. All aluminum, 18' high, 11' wide. Operates with 52 ohm cable.

Dealer net...................$45.00

M-81 (27 mc)

The "Magnum 27"

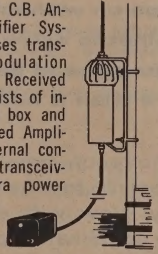
End fed, ½ wave length Base Station Antenna. Has an actual operating gain of 6 db through improvement of signal to noise ratio. Overall height 18'. Weighs only 10 lbs.



Dealer net . . . $28.43

M-82 (27 Mc)

"Black Box" C.B. Antenna Amplifier System. Increases transmitted modulation gain 10 db. Received 20 db. Consists of inside control box and Mast Mounted Amplifier. No internal connections to transceiver. No extra power line from control box to amplifier.



Dealer Net $79.95

G-1 (30-50 mc)

Professional antenna, includes 96" stainless steel whip, cadmium plated spring and black swivel base. Hardware furnished. Original Equipment acceptance.

Dealer net........$18.81

G-2 (30-50 mc)

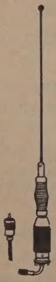
Same as G-1 except all elements are of stainless steel.

Dealer net........$35.44

ASPR177

(130-174 mc)

3 db gain rooftop antenna. Mounts in ¾" hole. Doubles transmitting power. Solderless, weather-tight mount. Sealed transformer. 12' RG-58/U cable and PL-259 connector. Engineered to handle in excess of 100 watts.



Dealer net........$24.00

ASPR203 (130-174 mc)

Kit to convert GE and RCA ¼ wave length rooftop antenna to 3 db ½ wave length gain antenna. Construction features same as ASPR177. Lead not included.

Dealer net........$19.50

ASPR206 (130-174 mc)

Same as ASPR203 except converts Motorola ¼ wave length antennas.

Dealer net........$19.50

ASP-271 (30-50 mc)

½ Wavelength, End-fed, 3 db Gain Omni-directional Base Station antenna. Direct ground provides lightning protection. A short length of RG-58/U coaxial cable terminated with a constant impedance Type N male weather-proof connector.

Dealer Net..... $100.00

ASP-298 (130-174 mc)

Heavy duty Colinear vertical omnidirectional antenna. Has 6 db gain and adequate lightning protection. Frequency must be specified when ordering. Max. power 1000 watts.

Dealer net......$149.79

ASP-313 (450-470 mc)

Same general design as ASP-298. Power 300 watts.

Dealer net........$80.00

Write for: Catalog SD-144 (Mobile Listings) • Catalog SD-152 (Base Station Antenna) • Catalog SD-149 (Standard Broadcast Auto Antennas) • Stripes of Quality

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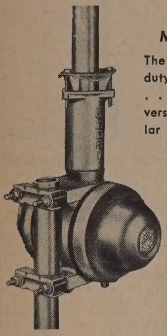
CORNELL-DUBILIER ELECTRONICS

CDR Antenna Rotors

Automatic ROTORS

THE INDUSTRY'S SHARPEST TUNING ROTORS

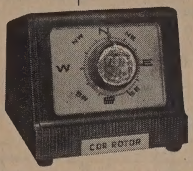


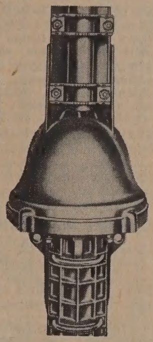
MODEL AR-1

The standard heavy duty economy model . . . the automatic version of the popular TR-11

MODEL AR-22

The rugged extra heavy duty, time tested and proven famous TR-2, NOW FULLY AUTOMATIC.





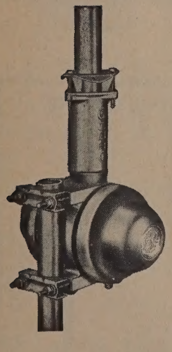
Mechanical Brake magnetically released
Quick Mounting Mast Collet
Minimum Wind Resistance
Takes Masts up to 1½″ O.D. — self-centering sawtooth clamps
Completely Weather Sealed . . . Factory Lubricated

AR-1 List Price $37.95*

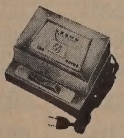
Powerful beyond any TV need
Handles loads to 150 pounds
Reinforced die cast housing
Mechanical Brake magnetically released
Will handle ⅞″ to 2″ masts
Mast, tower or platform mounting
Completely weather-sealed — factory lubricated

AR-22 List Price $45.95*

CDR TR-11A ROTOR



Mechanical Brake magnetically released
Quick Mounting Mast Collet
Takes Masts up to 1½″ O.D. — self-centering sawtooth clamps
Completely Weather Sealed . . . Factory Lubricated
This model is equipped to use the Ultrasonic Remote Control System AK-122.



TR-11A List Price $32.95*

CDR MODEL AK-122

ULTRASONIC REMOTE CONTROL SYSTEM

NO WIRES . . . NO TUBES . . . NO BATTERIES

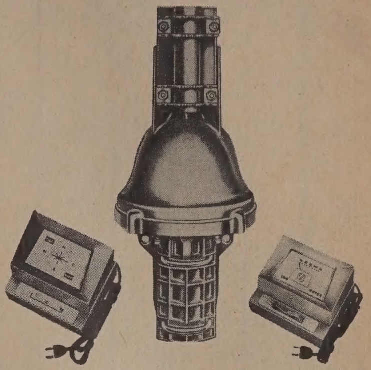
Hand held Actuator permits instantaneous control of rotor direction from any point in a room up to 30 feet. A must for multiplex FM and color TV reception.

FEATURES:
Precise rotor control in all directions
Negligible power consumption

Can be used with CDR Rotor Models TR-2A, TR-4A and TR-11A.

AK-122 Remote Rotor Control System (Ultrasonic Control Box and Actuator) ....List Price $54.95*

HEAVY-DUTY ROTORS



TR-2A TR-4A

CDR MODEL TR-4A . . . the most POWERFUL and dependable manually controlled DeLuxe Heavy Duty ROTOR on the market . . . complete with modern design METER CONTROL cabinet using 4-wire cable.

CDR MODEL TR-2A . . . same as TR-4A except furnished with COMPACT CONTROL cabinet with illuminated "compass pattern" dial. Uses 8-wire cable.

These models are equipped to use the Ultrasonic Remote Control System AK-122.

TR-2A List Price $37.95*
TR-4A List Price $39.95*

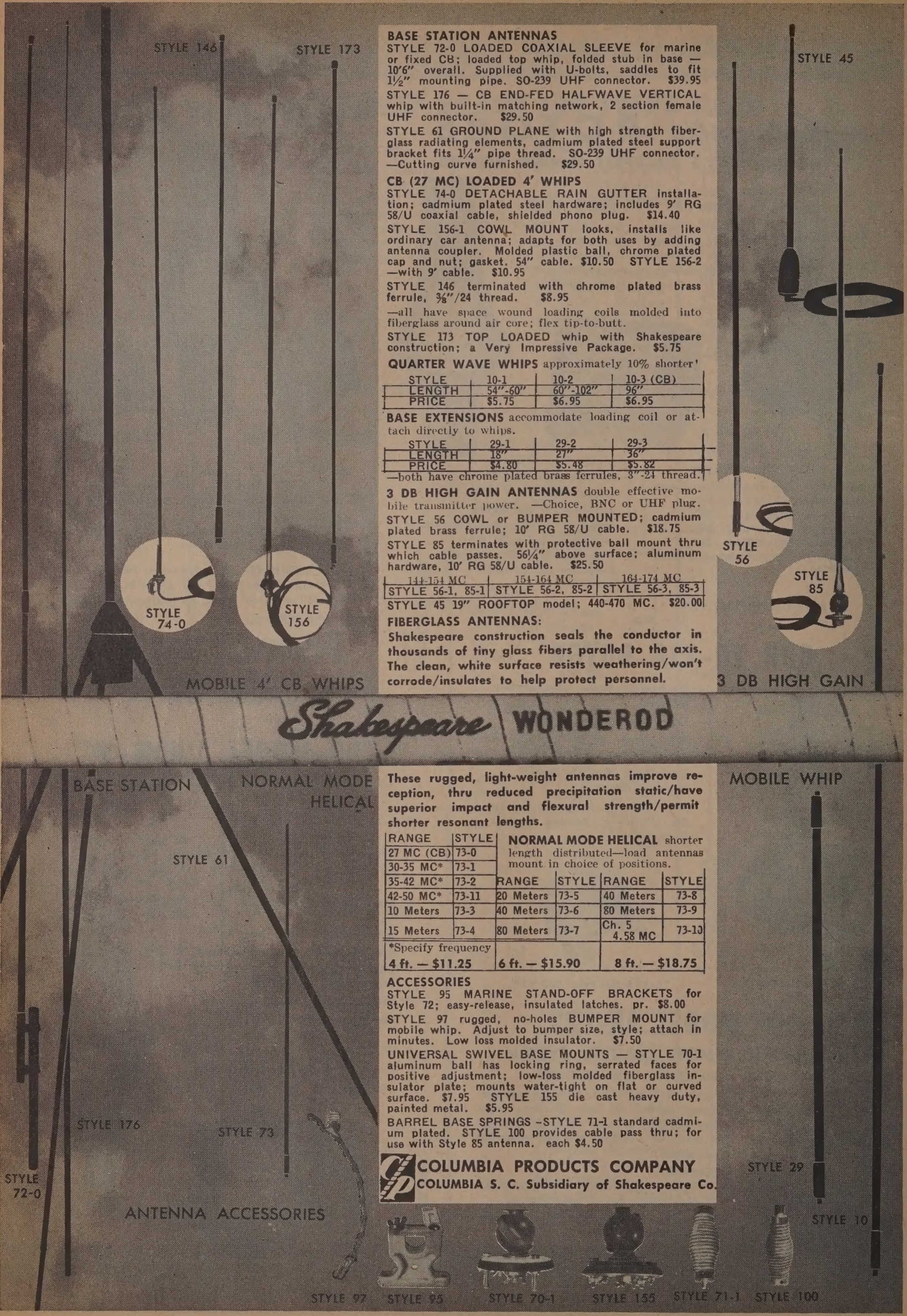
CDR MODEL "HAM-M"

DESIGNED EXCLUSIVELY FOR HAMS

- A complete rotational system
- Supports 1000 lbs. of dead weight
- Super-accurate calibration
- Double-stage switch permits instant direction reading without moving rotor
- Positive brake locks rotor in position against any wind
- Will support and operate heaviest beams commercially available

HAM-M User's Net $119.50

*List Prices are subject to Dealer Discount.



BASE STATION ANTENNAS

STYLE 72-0 LOADED COAXIAL SLEEVE for marine or fixed CB; loaded top whip, folded stub in base — 10'6" overall. Supplied with U-bolts, saddles to fit 1½" mounting pipe. SO-239 UHF connector. $39.95

STYLE 176 — CB END-FED HALFWAVE VERTICAL whip with built-in matching network, 2 section female UHF connector. $29.50

STYLE 61 GROUND PLANE with high strength fiberglass radiating elements, cadmium plated steel support bracket fits 1¼" pipe thread. SO-239 UHF connector. —Cutting curve furnished. $29.50

CB (27 MC) LOADED 4' WHIPS

STYLE 74-0 DETACHABLE RAIN GUTTER installation; cadmium plated steel hardware; includes 9' RG 58/U coaxial cable, shielded phono plug. $14.40

STYLE 156-1 COWL MOUNT looks, installs like ordinary car antenna; adapts for both uses by adding antenna coupler. Molded plastic ball, chrome plated cap and nut; gasket. 54" cable. $10.50 STYLE 156-2 —with 9' cable. $10.95

STYLE 146 terminated with chrome plated brass ferrule, ⅜"/24 thread. $8.95

—all have space wound loading coils molded into fiberglass around air core; flex tip-to-butt.

STYLE 173 TOP LOADED whip with Shakespeare construction; a Very Impressive Package. $5.75

QUARTER WAVE WHIPS approximately 10% shorter'

STYLE	10-1	10-2	10-3 (CB)
LENGTH	54"-60"	60"-102"	96"
PRICE	$5.75	$6.95	$6.95

BASE EXTENSIONS accommodate loading coil or attach directly to whips.

STYLE	29-1	29-2	29-3
LENGTH	18"	27"	36"
PRICE	$4.80	$5.48	$5.82

—both have chrome plated brass ferrules, ⅜"-24 thread.

3 DB HIGH GAIN ANTENNAS double effective mobile transmitter power. —Choice, BNC or UHF plug.

STYLE 56 COWL or BUMPER MOUNTED; cadmium plated brass ferrule; 10' RG 58/U cable. $18.75

STYLE 85 terminates with protective ball mount thru which cable passes. 56¼" above surface; aluminum hardware, 10' RG 58/U cable. $25.50

144-154 MC	154-164 MC	164-174 MC
STYLE 56-1, 85-1	STYLE 56-2, 85-2	STYLE 56-3, 85-3

STYLE 45 19" ROOFTOP model; 440-470 MC. $20.00

FIBERGLASS ANTENNAS:

Shakespeare construction seals the conductor in thousands of tiny glass fibers parallel to the axis. The clean, white surface resists weathering/won't corrode/insulates to help protect personnel.

These rugged, light-weight antennas improve reception, thru reduced precipitation static/have superior impact and flexural strength/permit shorter resonant lengths.

NORMAL MODE HELICAL shorter length distributed—load antennas mount in choice of positions.

RANGE	STYLE	RANGE	STYLE	RANGE	STYLE
27 MC (CB)	73-0				
30-35 MC*	73-1				
35-42 MC*	73-2				
42-50 MC*	73-11	20 Meters	73-5	40 Meters	73-8
10 Meters	73-3	40 Meters	73-6	80 Meters	73-9
15 Meters	73-4	80 Meters	73-7	Ch. 5 4.58 MC	73-10
*Specify frequency					
4 ft. — $11.25		**6 ft. — $15.90**		**8 ft. — $18.75**	

ACCESSORIES

STYLE 95 MARINE STAND-OFF BRACKETS for Style 72; easy-release, insulated latches. pr. $8.00

STYLE 97 rugged, no-holes BUMPER MOUNT for mobile whip. Adjust to bumper size, style; attach in minutes. Low loss molded insulator. $7.50

UNIVERSAL SWIVEL BASE MOUNTS — STYLE 70-1 aluminum ball has locking ring, serrated faces for positive adjustment; low-loss molded fiberglass insulator plate; mounts water-tight on flat or curved surface. $7.95 STYLE 155 die cast heavy duty, painted metal. $5.95

BARREL BASE SPRINGS -STYLE 71-1 standard cadmium plated. STYLE 100 provides cable pass thru; for use with Style 85 antenna. each $4.50

COLUMBIA PRODUCTS COMPANY
COLUMBIA S. C. Subsidiary of Shakespeare Co.

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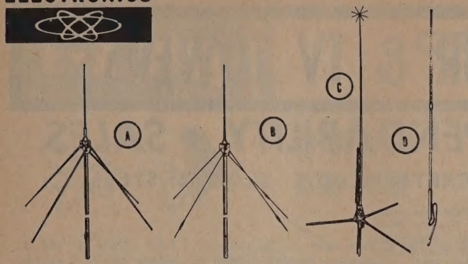
GC ELECTRONICS CITIZENS BAND ANTENNAS and ACCESSORIES

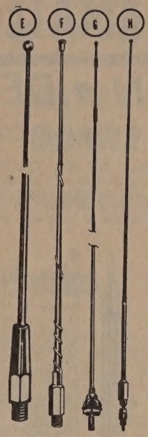


(A) GROUND PLANE ANTENNA KIT ROD RADIAL TYPE—Complete Base Station Antenna, pre-assembled and including mast, cable and all hardware. No guy wires. Radial elements are durable aluminum tubing. For use with chimney, wall or tripod mount.
Cat. No. 29-740 Net $25.50

(B) GROUND PLANE ANTENNA KIT RADIAL WIRE TYPE—Base station antenna kit—including mast, co-ax cable and all hardware. Most parts are pre-assembled average installation time is ½ hour. 4 guy wires act as "ground plane."
Cat. No. 29-730 Net $23.85

(C) COLINEAR GAIN GROUND PLANE ANTENNA—3.4 Db Gain: Doubles effective radiated power of your Citizens Band transceiver in all directions . . . achieves gain through concentration of power at lower angles to the horizon, both receiving or transmitting.
Cat. No. 29-748 Net $29.97

(D) END FED DIPOLE BASE STATION ANTENNA—Requiring no radial wires or elements. More economical and easier to install than most co-axial antennas. A full half-wave two section aluminum radiator, 17 ft. long for above average efficiency.
Cat. No. 29-734 Net $21.95



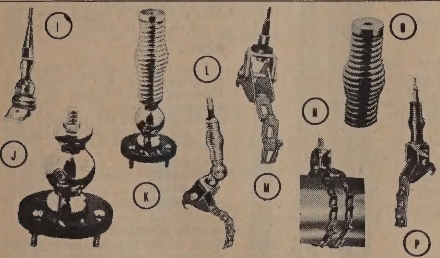
(E) 102" STAINLESS STEEL TAPERED WHIP—High-impact, flexible whip made of selected alloy. Standard threated fitting used with body mount or bumper mount.
Cat. No. 29-700 Net $6.90

100" STAINLESS STEEL TAPERED WHIP—Same as 102" Whip #29-700, but designed for use with flexing spring type body mount or bumper mount.
Cat. No. 29-702 Net $6.90

(F) "TEL-COIL" WHIP (Pat. Pend)—48" tapered fibre glass whip, "loaded" type. Step-taper wound helical conductor is superior to other "short" Whips which use base or center loading coils. Standard threaded fitting for any body or bumper mount, truck lid mount.
Cat. No. 29-710 Net $7.20

(G) TOP LOADED WHIP STAINLESS STEEL—Utilizes top loading to raise radiating portion of antenna to highest possible point. Raises radiation resistance to 52 ohms for perfect match to coax cable. Improved matching, increased effective height of radiating portion. Single hole, top-loading body mount and coaxial receptacle.
Cat. No. 29-704 Net $7.17

(H) CITIZENS WHIP—Chrome-plated whip designed for transceiver mounting. High effici.ncy base loading coil completely enclosed in polypropylene plastic. With PL-259 connector.
Cat. No. 29-708 Net $5.97



(I) TRUNK LID MOUNT—Unique mount requiring no outside holes on car. Designed specifically for "Telcoil" 29-710 antenna, but may be used with other short "whips." Cat. No. 29-716 Net $3.30

(J) BODY MOUNT—Heavy-duty, chrome plated body mount fastens to side, cowl, or fender. Ball swivel provides all angle adjustment, from vertical to horizontal.
Cat. No. 29-718 Net $4.80

(K) BODY MOUNT—Same as Body Mount #29-718 except this model is supplied with flexing spring #29-276. Cat. No. 29-720 Net $8.40

(L) BUMPER MOUNT—With swivel joint and spring for cars where bumpers do not protrude sufficiently for standard mount. Cat. No. 29-728 Net $15.45

(M) BUMPER MOUNT—Durable, chrome plated chain type bumper adjusts to most bumpers from sports car to truck. Cat. No. 29-722 Net $7.95

(N) BUMPER MOUNT—Double chain mount for greater stability.
Cat. No. 29-723 Net $19.80

(O) FLEXING ANTENNA SPRING—Tapered, heavy-duty, chrome plated steel spring built-in flexible center conducter. Cat. No. 29-726 Net $3.90

(P) BUMPER MOUNT—Same as Bumper Mount #29-724 except this model includes flexing spring #29-726. Cat. No. 29-724 Net $11.85

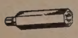
CABLE ASSEMBLIES — Made of RG 58/U cable, terminated on one end with PL 259 plug, other end stripped and terminated with lugs.

Cat. No.	Length	Net
29-760	6 ft.	$2.91
29-762	10 ft.	3.21
29-764	15 ft.	3.57

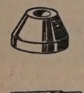
17 18 19 20
21 22 23 24
25 26 27 28
29 30 31 32

CALL LETTERS — Metal foil, pressure sensitive labels to mark mobile station with FCC call letters. Set of 78 numerals plus two "W"s Characters ¾" high.

Cat. No.	Descrip.	Net Per Set
29-776	Gold Letters on White	$1.20
29-778	Silver Letters on Black	1.20

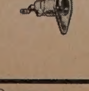


DIS-CON-NECT—Remove mobile whip antennas in two seconds—without tools. Incorporates bayonet lock device . . . made of stainless steel.
Cat. No. 29-772 Net $2.97



INSULATOR REPLACEMENT—Replacement insulator for Ground Plane Antennas No. 29-744 and 29-746. Also general purpose insulator.
Cat. No. 29-738 Net $ .60

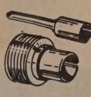
ANTENNA CONNECTOR—For connections on auto antennas and ground lines.
Cat. No. 1747 Net $ .16



AUTO ANTENNA PLUG—Shielded positive connector plug, same as used on Motorola and other radios.
Cat. No. 1740 Net $ .11

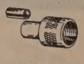
ANTENNA CONNECTOR JACK—Shielded type jack fits No. 1740 plug for auto antenna and phonograph connections.
Cat. No. 1741 Net $ .15

GENERATOR NOISE SUPRESSOR — Reduce generator noise when motor is accelerated. For Citizens and three Amateur bands. 3 minutes to install. Complete with Mounting Bracket and Instructions.
Cat. No. 65-510 Net $2.95

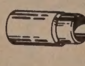


ADAPTERS—Adapts a PL 259 plug to a phono pin (RCA type) plug.
Cat. No. 29-784 Net $ .45

ADAPTER—Adapts a SO 239 Socket to a standard auto radio (Motorola type) socket.
Cat No. 29-786 Net $ .45

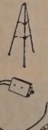


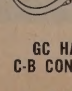
ADAPTER—Adapts a standard auto radio (Motorola type) plug to a phono pin (RCA type) plug.
Cat. No. 29-788 Net $ .24



GUTTER CLAMP—Holds long whip antennas down when not in use. Fastens easily to drain rails on any car.
Cat. No. 29-770 Net $ .99

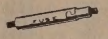
5 FT. TOWER—Self supporting. Made of electro galvanized tubing. Folds and unfolds like an umbrella.
Cat. No. 9143 Net $9.54





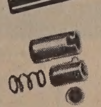
CITIZENS BAND COUPLER—Use any Citizens Band mobile antenna for both Citizens Band and AM broadcast. Complete with SO-239 coaxial chassis receptacle for attachment of Citizens Band antenna. 2-ft. lead and auto plug for connecting broadcast radio and two feet of lead with PL-259 coaxial plug for C-B transceiver.
Cat. No. 29-824 Net $8.97

GC HAS A COMPLETE LINE OF C-B CONDENSER AND SUPPRESSORS
Write for Catalog
GC ELECTRONICS, ROCKFORD, ILL.



FUSE CONNECTOR (Regular Type) — Same as used on auto radios and other equipment. 2½" long x ⅜" diam. For ¼" fuses.
Cat. No. 1749 Regular Fuse Connctor Net $ .18

JUMBO FUSE HOLDER—Large size fuse holder, 2¼" long x ½" dia. 14 amps.
Cat. No. 1748 Jumbo Fuse Holder Net $ .17



REPLACEMENT PARTS FOR ANTENNA AND FUSE CONNECTORS

Cat. No.		Net
1791	Sleeve of Fuse Connector	$.04
1792	Sleeve of Antenna Connector	.02
1793	End piece for Antenna and Fuse Connector	.03
1796	Spring for Antenna and Fuse Connector	.01
1795	Bakelite Bushing	.02

PL-259 CONNECTOR — To mate with Adapters 29-780, 29-782, 29-784, 29-786. For use with RG-/U cables 8-9-10-11-12-13-58-63-65.
Cat. No. 29-790 PL-259 Connector Net $1.05

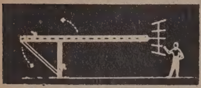
RIGHT ANGLE ADAPTER—For attaching Tel Coil Whip #29-710 or similar antenna to base station. Fits all transceivers using #PL 259 plug. Makes base station antenna where it is impractical to install a roof-top antenna or where base station has to be movable.
Cat. No. 29-780 Net $3.45

ADAPTER—Adapts a Pl 259 plug to a standard auto radio (Motorola type) plug.
Cat. No. 29-782 Net $ .45

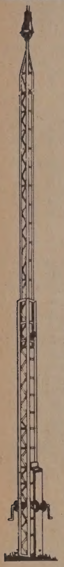
E-Z Way AMATEUR & TV TOWERS

First in • DESIGN • DEPENDABILITY • SALES

CRANKS UP & DOWN TILTS OVER NO CONCRETE NO GUYS 55,000 PSI STEEL



Wonder Ground Post: E-Z Way Ground Post mounting revolutionizes the installation of "tilt-over" towers. Minimum yard space, not concrete, stays plumb. Stabilizing fins below grade, insure a solid setting under most ground conditions. Eliminates use of concrete.



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MODEL HD-40

Maximum tower height, 38 ft.; minimum height 21 ft. Here is low cost E-Z Way quality. Supports light beams, ground planes, and quads in 60 mph winds when cranked up, 125 mph wind cranked down. No Guys! Rotor mounts above tower. Mounting stub and heavy-wall galv. steel mast 1.32 O.D. supplied. Two 20 ft. sections, top sect. #7, bottom sect. #9.

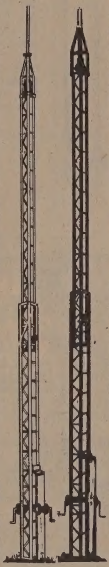
HD-40P	$ 99.50
HD-40G	134.50
GPK-D40 Ground post mounting kit w/hardware	$50.00
BAK-D Wall bracket mounting kit	$6.75

◆

MODEL RBS-40

Standard duty tower. Maximum height 41 ft., minimum height 24 ft. Supports triband beams or equivalent at 41 ft. in 60 mph wind cranked up and 125 mph wind cranked down. No Guys! Accepts CDR—Ham M rotor inside rotor head. 1.5 O.D. x 7 ft. steel mast supplied. Two 21 ft. sections. Top sect. #9, bottom sect. #12, plus rotor head.

RBS-40P	$169.50
RBS-40G	209.50
GPK-S40 Ground post mounting kit w/hardware	$75.00
BAK-S40 Wall Bracket mounting kit	$10.50



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MODEL RBX-40

Heavy Duty tower. Maximum height 41 ft., minimum height 25 ft. Supports 4 el. 20M full or 9 el. triband at 41 ft in 90 mph winds. No Guys! Stack 3 el. 15M & 3 el. 20M in winds up to 60 mph at 40 ft. Rotor mounts inside head. Two 21 ft. sections. Top sect. #12, bottom sect. #15 plus rotor head,

RBX-40P	$245.00
RBX-40G	315.00
GPK-X40 Ground Post mounting kit w/hardware	$105.00
BAK-X Wall Bracket mounting kit	$17.00

◆

MODEL RBS-50

Standard duty tower. Maximum height 51 ft., minimum height 30 ft. Supports a 3 el. Triband at 51 ft. in winds up to 60 mph. No Guys! Rotor mounts inside. Two 26 ft. sections. Top sect. #9, bottom sect. #12 plus rotor head.

RBS-50P	$224.50
RBS-50G	279.50
GPK-S50 Ground Post mounting kit w/hardware	$90.00
BAK-S Wall Bracket mounting kit	$10.50

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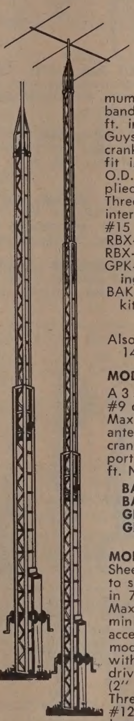


MODEL RBX-60-3

Super construction puts your beam where you want it. Maximum tower height 58 ft., minimum height 25 ft. Supports triband beams or equivalent at 60 ft. in winds up to 60 mph. No Guys! 140 mph winds when cranked down. CDR-Ham-M rotors fit in special head mount. 1.90 O.D. x 7 ft. galv. steel mast supplied.

Three 21 ft. sections. Top sect. #9, intermediate #12, bottom sect. #15 plus rotor head.

RBX-60-3P	$335.00
RBX-60-3G	410.00
GPK-X60-3 Ground Post mounting kit w/hardware	$120.00
BAK-X Wall Bracket mounting kit	$17.00

Also available in 70, 85, 100, 115, 145 & 175 ft. tower heights.

MODEL 6046

A 3 sect. tower using #7 top sect., #9 center sect., #12 bottom sect. Maximum tower height 55 ft. — antenna height 60 ft. Tower cranks down to 22 ft. Will support a 2 or 6 Meter beam at 60 ft. No Guys!

BA-6046P	**$199.50**
BA-6046G	**259.50**
GP-6046P	**264.00**
GP-6046G	**324.00**

MODEL TORBZ-66-3G

Sheer brute strength with plenty to spare. Stacked arrays at 66 ft. in 70 mph winds without guys! Maximum tower height 62 ft.; minimum height 25 ft. Rotor head accepts CDR-Ham-M rotor without modification. Comes complete with tilt-over post, 2 worm gear drive winches and all hardware. (2" O.D. mast additional.) Three sections. Top sect. 21 ft. #12, intermediate sect. 21 ft. #15, bottom sect. 25 ft. #20 plus rotor head. (Galvanized only.)

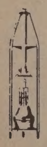
TORBZ-66-3G	$985.00

FINISHES

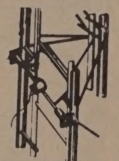
All towers are finished in a choice of dip paint Goodyear Pliolite S-5 or Hot Dipped Galvanized after fabrication. This method permits a permanent finish to coat inside tower members as well as outside. Galvanizing in accordance with American Society of Testing Materials, Designation A-123.

Write for free catalog, state make and model of antenna and rotor.

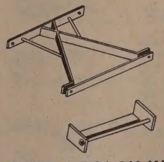
E-Z WAY ACCESSORIES



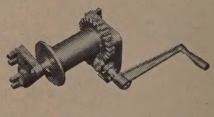
ROTOR HEAD



SAFETY REST



BUILDING ATTACH KIT



WORM GEAR WINCH

NEW! Motor driven worm gear winch with remote push button control permits raising and lowering of tower without leaving transmitter. Tower height is given in ft. on beautifully finished console height meter. Precision made finest material — compliments any ham shack. Hermetically sealed motor winch is located at base of tower. Special spring tension drums take up slack on coax and rotor leads. This unit is particularly suited for larger E-Z Way crank-up series but may be used on any E-Z Way crank-up tower. For present owners of E-Z Way Towers, adapter kit available. Specify model when ordering. Motor has 2 limiter switches.

E-Z WAY TOWERS, Inc. TAMPA 5, FLORIDA

© U.C.P., Inc.

E-Z Way

COMMERCIAL TOWERS

2 WAY **AM-FM** **RADAR** **MOBILE** **MICROWAVE** **BROADCAST**

55,000 PSI STEEL: All E-Z Way towers are made with 55,000 PSI steel tubing, coupled with proven E-Z Way design, to provide rugged, lightweight, dependability.

G-Series

G-10 . . . Tower is sturdy, economical and may be safely erected up to 40 ft. unguyed or 210 ft. guyed. Comes in 10 ft. sections that weigh 31 lbs. for easy 2-man erection. High strength 55,000 PSI Steel — is used throughout. Completely electric arc welded and Hot Dipped Gal. after fabrication. X-Type bracing and climbable ladder on 3 sides provide rugged resistance against twist & torque. Choice of 8 taper top sections and assorted base mounts and building brackets.

Dealer Net ________ **$16.95 per section**

THE G-40 TOWER IS PARTICULARLY SUITED FOR TWO WAY USE.

G-40 . . . Rugged construction. Particularly adapted for 2-Way. 10 ft. section weighs 51 lbs. Easily erected to 50 ft. unguyed or 300 ft. guyed. 55,000 PSI Steel, completely electric arc welded and Hot Dipped Gal. after fabrication. Diagonal bracing and climbable ladder on 3 sides. Choice of 8 top sections and assorted base and building mounts.

Dealer Net ________ **$30.95 per section**

C-Series

C-12 . . . Comes in 20 ft. sections and may be worked up to 40 ft. above guys, 25 ft. to 40 ft. guy spacing. Maximum height 190 ft. Fast easy erection with first 60-80 ft. which may be set as one unit. Continuous diagonal bracing resists twist and torque. Ladder on one side for easy access to top. Flange type connections have 3 bolts and can be welded for low resistance path from top to bottom of tower. 12″ cross sections.

20 ft. section ______ $48.50 painted
63.50 galvanized

C-15 . . . Similar to above but more ruggedly constructed for greater heights. Sections, 20 ft. lengths and may be worked 50 ft. above guys, 30 ft. to 45 ft. guys spacing. Maximum height 250 ft.—40# tower. Flange can be welded for low resistance path from top to bottom of tower. May be used as vertical raditor. 15″ cross sections.

20 ft. section ______ $65.00 painted
85.00 galvanized

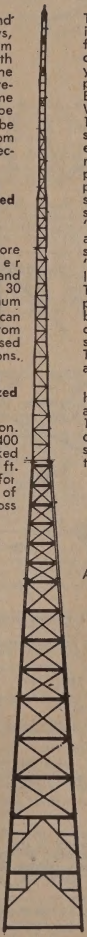
C-200 . . . Super construction. Designed for heights up to 400 ft. 20 ft. sections may be worked 60 ft. above guys. 40 ft. - 60 ft. guy spacing. Flange can be welded for low resistance path top to bottom of tower. Ideal vertical raditor. 20″ cross sections.

Write for quote.

Electric Arc Welded in accordance with the requirements of the American welding society standard code.

Hot Dipped Galvanized after fabrication in accordance with the American Society of Testing Materials A-123.

NEW Stack Pole

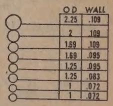


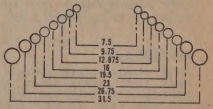
The new Stack Pole series tower is designed to cover a wide field of tower uses by using a combination of sections to fill your specific need. Self supporting up to 200 ft. Ideal for Broadcast, Microwave and Two Way. The eight top sections, 10 ft. each, are step type construction completely arc welded. These 10 ft. sections will nest together into a single 10 ft. package for shipping. Taper top portion is "knock down" construction in 20 ft. sections. All step sections and first three "knock down" taper sections are made of 55,000 PSI tubular steel. Larger taper sections, "KD" construction, of tubular legs and angle iron bracing. Tower can be assembled to support any size antenna and can be rated to withstand 30 lbs. or 40 lbs. of wind load. Specify size of antenna and wind load. The step sections are ideal items as stock items.

Towers are available in any height from 30 ft. to 200 ft., for any size antenna load up to 2 10 x 15 reflectors and either 30 or 40 lb. wind load. Prices shown below are for small antenna and 30 lb. wind load.

30′	**$ 81.35**
50′	**178.05**
80′	**421.45**
100′	**659.95**
120′	**935.45**
140′	**1285.95**
160′	**2060.45**

Above prices include foundation section.



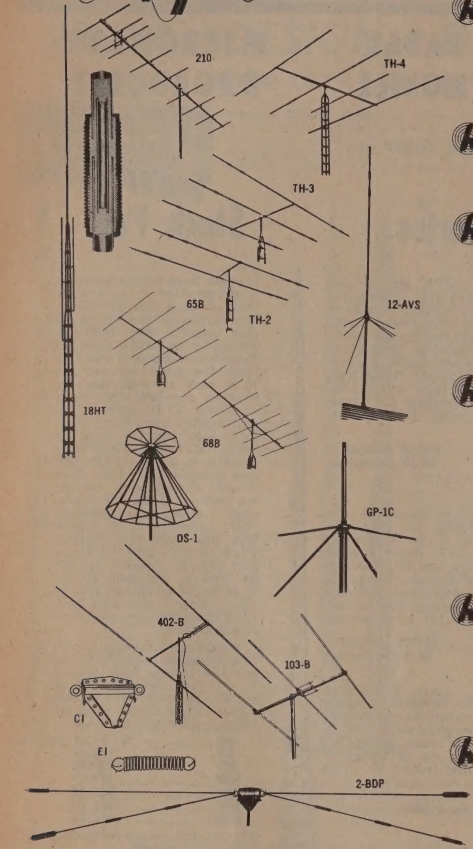


Erection Service in South East U.S.A.

E-Z WAY TOWERS, Inc. TAMPA 5, FLORIDA hy-gain ALL WEIGHTS SHOWN ARE SHIPPING WEIGHTS.

Amateur Communication Antennas

ALL PRICES SHOWN ARE HAM NET



BALUNS

Model BN-12. 52 ohm unbalanced to balanced 13-30mc, 1kw. 3 lbs. $13.50

Model BN-24. 52 ohm unbalanced to balanced 7-15mc, 1kw. 3 lbs. $13.50

HALOS

2M Halo. 14'' dia. heavy wall ½'' aluminum tubing, cycolac bracket. Factory pre-tuned. Model HH-2B. 1½ lbs. $5.95

6M Halo. High mechanical stability, 1'' dia. al. tubing. Model HH-6B. 5 lbs. $12.95

Mobile Mounting Mast for either halo. Model HMB. 3 lbs. $4.95

Stacking Kit for two 2-Meter Halos. Model HHS-2B. ⅓ lb. $4.95

ROTOBRAKE

Spring actuated, solenoid released braking unit. High capacity starting motor. Limit switches. Mounts internally in steel tower 10-18'' inside clearance. Great Circle wall map indicator, 16'' dia. Moving wedge of light shows beam direction. Available centered West, Midwest, East. Compass rose for other countries. Control box. Model RBX-1: 47 lbs. $199.95

Mounting Kit for tower less than 10'' dia. Model XK-1: 22 lbs. $34.50

Mounting Kit for pole or pipe masts. Model XK-2: 24 lbs. $34.50

Mounting Kit for telephone pole masts. Model XK-3: 26 lbs. $34.50

RC-9 9 Conductor Rotor Cable - 100 ft. spool. 8 lbs. $12.00

WRITE FOR LATEST FULL LINE HY-GAIN CATALOG

TRAP TRIBANDERS

4-Element Thunderbird. For 10-15-20M. 2'' OD, 1¼'' telescoping to ¾'' elements, aluminum. Longest element 32 ft. Full size elements, full size boom spacing 16 ft. Interlaced 4th element for higher gain and F/B. Model TH-4: 42 lbs. $117.50

3-Element Thunderbird. For 10-15-20M. Boom 14 ft:, longest element 26 ft. 2'' OD boom. Elements telescoping 1¼-¾''. 100% rustproof. Less than 2:1 SWR. Model TH-3: 36 lbs. $99.75

2-Element Thunderbird. For 10-15-20M. Light wt., easy to install most anywhere, but same top construction as the TH-3. Rotates easily with TV-rotator. Boom 6 ft., longest element 26 ft. Model TH-2: 23 lbs. $69.95

DUO-BANDERS

20-40M Beam. 3 Element 20, 2 Element 40, single 52 ohm feed. Linear loading, no traps. Longest element 44 ft.; Boom 20 ft. Model DB-24. 64 lbs. $169.50

6-2M Beam. 4 Element 6, 18 Element 2, single 52 ohm feed. Boom 10 ft.; longest element 10 ft. 8.0 db gain on 6, 15.0 db gain on 2. Model DB-62. 6 lbs. $32.95

10-15M Beam. 3 Element 10, 3 Element 15. 52 ohm feed. Model DB-10-15. **to be announced**

TRAP VERTICALS

10-20M Vertical. Self-supporting. 13.5 ft. high. Factory pretuned. SWR 2:1 or less. Weatherproof nylon base assembly. 52 ohm coax fed. Model 12-AVS: 9 lbs. $21.95

10-40M Vertical. Includes Hy-Gain Capacity Hat and nylon base mount. 21 ft. high. ¼-wave marconi resonance each band. Model 14-AVS: 10 lbs. $29.95

10-80M Hy-Tower. No traps. 52 ohm coax fed. 24 ft. tower, 2''-¾'' OD aluminum mast extends to overall 50 ft. Self-supporting. X-braced tower 15'' at base. Model 18HT: 105 lbs. $139.50

12AVS Roofmount Kit, Model 12 RMK: 7 lbs. .... $ 9.50

14AVS Roofmount Kit, Model 14 RMK: 9 lbs. $11.95

LC80, **80M Loading Coil** for 14AVS: ½ lb. .... $ 7.95

6MK, **6M Add Kit** (12 or 14AVS): 2 lbs. .... $ 4.95

VHF BEAMS

8-Element, 6M Beam with Beta Match for 12.1 db gain, 25 db F/B. Rotate with TV Rotator. Boom 18 ft. Longest element 9'8''. Factory pre-assembled. Model 68B: 13 lbs. $32.95

5-Element, 6M Beam with Beta Match for 9 db gain, 25 db F/B. Rotate with TV Rotator. Boom 9 ft. Longest element, 9'8''. Model 65B: 8 lbs. $18.95

5-Element, 2M Beam. Light weight. Factory pre-tuned. Coax or parallel fed. Boom 5'4''. Longest element 41¾''. 9 db gain. Model 25: 3 lbs. $8.95

10-Element, 2M Beam. 13.4 db gain with excellent F/B characteristics. Boom 12 ft. Longest element 41¾'. Coax or parallel. Model 210: 6 lbs. $14.95

11-Element, 1¼M Beam. 220mc beam, boom 12 ft. Longest element 27''. Folded ratio dipole. Hi-Q design. 14.2 db gain. Model 111: 5 lbs. $13.95

13-Element, ¾M Beam. Highest gain of 16.1 db. Boom 8 ft. Longest element 13¾'' Model 313: 3 lbs. $12.95

Dual Stacking Kit (2-VHF Beams) Model DS: 1½-3 lbs. .... $ 4.95

Quad Stacking Kit (4-VHF Beams) Model QS: 4-8 lbs. $15.95

Stacking Frame (for 4-Stacked Beams) Model SF: 30-45 lbs. $59.50

Specify Beam Model Number when Ordering

MONOBANDERS

10-Meter Monobander. Full size, easily installed and rotated by TV Rotator. Boom 8 ft. Longest element 17 ft. 8 db gain. 25 db F/B. Model 103-B: 12 lbs. $32.95

15-Meter Monobander. Full size, 2'' OD boom 12 ft. Longest element 23 ft. Rotate with heavy duty TV Rotator. 8 db gain 25 db F/B. Model 153-B: 19 lbs. $38.50

20-Meter Monobander. Full size, "full spacing". 16 ft. boom. Longest element 35 ft. Massive all-aluminum construction. 8 db gain. 25 db F/B. Model 203-B: 35 lbs. $65.95

40-Meter "Hy-Seven". 2-Element, longest element 42 ft. Boom 16 ft. High efficiency linear loading. No coils. Model 402-B: 40 lbs. $99.75

MULTIBAND DOUBLETS

15, 40 & 80M Doublet. Trapless. Unlimited power. Model 2BDP. 2 lbs. $19.95

10, 15 & 20M Doublet. Matched Slim Traps. 500w AM, 1kw PEP. Model 3BDT. 3 lbs. $17.50

10-40M Doublet. Slim Traps. 500w AM, 1kw PEP. Model 4BDT. 4 lbs. $24.50

10-80M Doublet. Slim Traps. 500w AM, 1kw PEP. Model 5BDT. 5 lbs. $34.95

Center Insulator. Model CI. 8 oz. $3.95

End Insulator. Model EI. 3 oz. $1.00

GROUND PLANES

Heavy duty commercial construction. Radiator and ground plane elements heat-treated aluminum alloy. Hardware iridite treated. Cycolac base insulators adjust to mast ¾''-1⅝''. Better than 1.2:1 SWR. Omni-directional radiation pattern ,unity gain. 52 ohms.

25-50mc Ground Plane. Easy assembly. Telescoping radiator and radials, ⅞''-¾''. Model GP-1C: 10 lbs. $32.70

50-88mc Ground Plane. Telescoping radiator and radials ⅞''-¾''. Model GP-2C: 7 lbs. $21.90

100-500mc Ground Plane. Radiator, radials solid ¼'' dia. aluminum rod. Model GP-3C: 4 lbs. $14.97

Discone. Vertically polarized, omnidirectional broad band antenna, 50-500 ohms, without adjustments. Unity gain, low angle radiation. SWR less than 1.5:1. Heat treated aluminum elements. Model DS-1: 9 lbs. $29.97

MOBILE

96'' Whip. Top quality stainless steel. ⅜-24 stud. Model W-96. 1¼ lbs. $6.90

72'' Whip. Top quality stainless steel. ⅜-24 stud. Model W-72. ¾ lb. $6.30

60'' Whip. Top quality stainless steel. ⅜-24 stud. Model W-60. ¾ lb. $6.00

Base Extension. 36'' Chrome plated ⅝'' OD steel tube for extending base of whip. Model M-36. 2 lbs. $5.25

Standard Body Mount. Cad. plated split ball type. Model BDYS. 1 lb. $3.03

Heavy Duty Mount. Chrome plated split ball type. Model BDY. 1½ lbs. $4.77

Standard Spring Mount. Taper ground, Cad. plated. Model SPGS. 1½ lbs. $2.04

Heavy Duty Spring. Taper ground, chrome plated. Model SPG. 2 lbs. $4.77

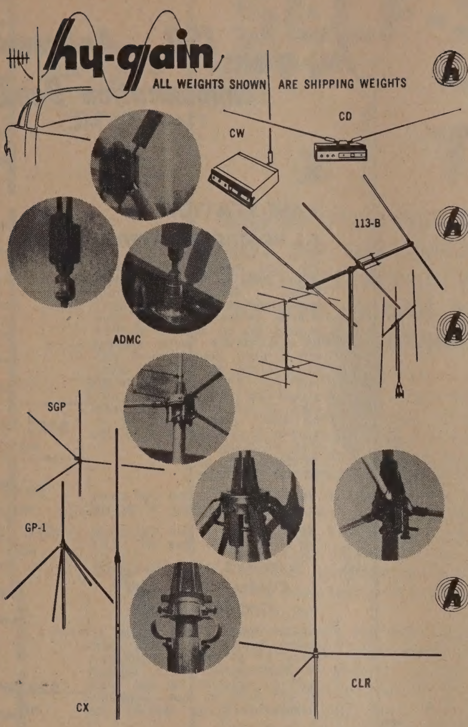
Bumper Mount. Heavy duty stainless steel strap. Model BPR. 1½ lbs. $6.57

HY-LITE

"On the Air" Indicator. 4x8'' oval plastic, bulb included. Model HL. 2 lbs. $8.95

Antennas for Citizens Band

ALL PRICES SHOWN ARE NET



CLOSE RANGE

Citizens Whip. Telescoping 45'' to 15'' chrome plated whip for transceiver mounting. Efficient polypropylene base loading coil. Swivel joint. Model CW. Wt: 1 lb.	$5.97
Auto Door Mount. Adapts Citizens Whip for mobile. Attaches to door top easily, quickly. 12 ft. RG-58/U coax. Model ADMC . Wt: 1 lb.	$8.97
Citizens Dipole. Efficient "Rabbit Ears", telescoping 45'' to 15''. Suction cup mounting on transceiver, windows, etc. Orients vertically or horizontally. L-matching network. Model CD. Wt: 1½ lbs.	$13.17

3-ELEMENT BEAM

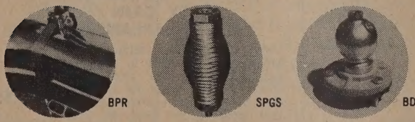
Highest gain (9 db) commercially manufactured antenna for Citizens Band. F/B Ratio: 25db. F/Side Ratio: 40db. 2'' OD aluminum boom 8 ft. long. 16½ ft. elements. Maximum weather resistance. Perfect 50 ohm match, factory pre-tuned. May be rotated by TV rotator. May be mounted vertically or horizontally. Model 113-B. Wt: 15 lbs.	$31.50
Stacking Kit. Includes cross boom phasing harness and assembly hardware for two vertical 113-B's. Wt.: 12 lbs. Model 113-S.	$59.85

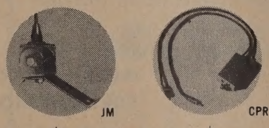
BASE STATION

Standard Ground Plane. Maximum efficiency, lowest cost. Radiator & radials ⅝'' OD aluminum tubing. Cycolac plastic base for masts up to 1⅝'' OD. Tuned & matched for 52 ohm coax. Model SGP. Wt: 5 lbs.	$16.17
Heavy Duty Ground Plane. Radiator & radials ⅞'' - ¾'' OD aluminum tubing. Departure angle adjusted for perfect 50 ohm match. Cycolac base assembly for masts up to 1⅝''. Model GP-1. Wt: 10 lbs.	$26.25
Coaxial Antenna. For inconspicuous roof or side mounting. Half-wave sleeve antenna, ⅝'' OD aluminum tubing radiator, 2'' OD aluminum sleeve. Easy to mount std. 1¼'' masting or 1'' ID plumbers pipe. Model CXL. Wt: 7½ lbs.	$19.95
Colinear Ground Plane. Three-quarter wave length ground plane concentrates power at lower angles to horizon and doubles radiated power (3.4db gain). Precision matched, tuned for 52 ohm coax. 20 ft. height. Radiator 1¼'' OD to ¾'' OD heavy wall aluminum tubing. Radials 9 ft. ⅝'' OD tubing. Cycolac base insulator. Model CLR. Wt: 15 lbs.	$29.97

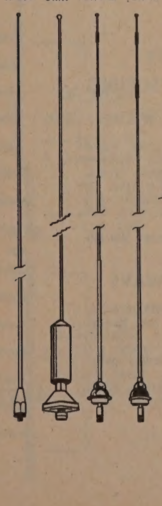
MOBILE

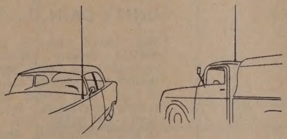
Base Mount/Spring/Whip Assembly. Cad Plated swivel mount, spring, and 106'' steel whip. Model BSW.	$8.97
Full Size Quarter Wave Whip. Stainless steel 102'' whip. ⅜-24 cad. plated base stud. Model W-102. Wt.: 1¼ lbs.	$4.35
Base Loaded Rooftop Whip. Includes mount and solderless connector. Model CMR. Wt.: 1 lb.	$8.97
Reduced Size "Topper" Whip. Top loaded stainless steel whip with polyethylene enclosed coil capsule fused to same diameter whip. 50'' overall. Radiation resistance 50 ohms for perfect match. Chrome plated, single hole top mounting body mount. Model TLW-M. Wt.: 1 lb.	$8.95
Same as Model TLW-M, but with ⅜x24 stud. Model TLW. Wt.: ¾ lb.	$6.96
Telescoping "Topper" Whip. Same as TLW-M, but with telescoping stainless steel, chrome plated brass whip sections. Telescopes down to 28''. Model TLWT-M. Wt. 1 lb.	$8.95
Same as Model TLWT-M, but with ⅜x24 stud. Model TLWT. Wt.: ¾ lb.	$7.20
Standard Spring. Cad plated, double tapered. Accepts ⅜x24 stud. Provided with ⅜x24 stud to fit other mounts. Model SPGS. Wt.: 1½ lbs.	$2.04
Deluxe Spring. Chrome plated. Model SPG. Wt.: 2 lbs.	$4.77
Standard Body Mount. Superior, cad plated split ball type, molded cycolac base. Model BDYS. Wt.: ¾ lb.	$3.03
Deluxe Body Mount. Heavily chrome plated split ball. Model BDY. Wt.: 1 lb.	$4.77
Jiffy Body Mount. Easily installed mount for trunk, door or hood. ¾x24 threaded female. Model JM. Wt.: ½ lb.	$3.15
Gutter Clip. Holds full length whip for easy garaging. Model GC. Wt.: 1/6 lb.	$1.17
AM-CB Coupler. Unique, isolating 2x3'' coupler with mounting bracket. No switching. Model CPR. Wt.: ¼ lb.	$8.97
Bumper Mount. Chrome plated, stainless steel strap. Model BPR. Wt.: 1½ lbs.	$6.57





W-102 CMR TLWT-M TLW-M

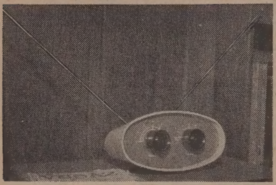




ACCESSORIES

Model PLSA adapts PL-259 coax plug to auto radio plug	$ .45
Model PLP adapts PL-259 coax to phono plug	$ .45
Model SOSA adapts SO-239 coax socket to auto antenna	$ .45
Model SAP adapts auto radio plug to phono type	$ .24
Model CC-5PL 5 ft. RG-58/U coax (PL-259 both ends). Use with TLW-M and TLWT-M	$3.45
Model CC-12. 12 ft. RG-58/U coax (PL-259 & solder lugs)	$3.45
Model CC-12PL. 12 ft. RG-58/U coax (PL-259 both ends)	$4.17
Model CC-25. 25 ft. RG-58/U coax (PL-259 both ends)	$5.97
Model CC-50. 50 ft. RG-58/U coax (PL-259 both ends)	$9.45

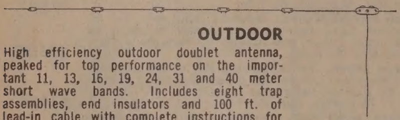
hy-gain SWL Antennas



INDOOR

Attractively housed in unbreakable plastic with chrome plated antennas, this Indoor SWL system is completely wired, covering frequencies from 5 through 30 megacycles and including all the important short wave and amateur bands. Greatly increases the performance of any short wave receiver. Easy to operate. Simply attach 6 ft. cable included to the receiver, extend "rabbit ears"' and adjust "match" and "tune" controls for maximum signal strength. Model SWI, Shpg. Wt.: 2½ lbs.

$14.75
Net

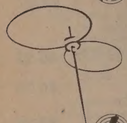


OUTDOOR

High efficiency outdoor doublet antenna, peaked for top performance on the important 11, 13, 16, 19, 24, 31 and 40 meter short wave bands. Includes eight trap assemblies, end insulators and 100 ft. of lead-in cable with complete instructions for rapid assembly. Mounts easily under eaves, in attic space, etc. Overall length: 40 ft. Model SWO, Shpg. Wt. 2½ lbs.

$14.75
Net

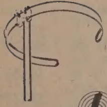
hy-gain FM Antennas



FM AUTO BUTTERFLY

Polished, anodized aluminum rings 6" dia., high impact cycolac plastic and chrome plated brass fittings. Rugged antenna converts existing AM whips to ¾-wave FM antennas. 3 db gain. Increases range, eliminates fading, decreases background noise. Attaches 30 sec. Model FMB: Shpg. wt. 1½.

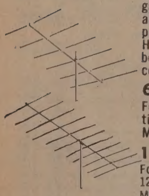
$5.97
Net



FM HALO

½-wave dipole in unique configuration for uniform omnidirectional pattern. Increases fidelity of home FM reception. Universal bracket for minute-mounting. Heat treated alloy aluminum tubing. Designed for std. 300 ohm twin-lead. Model FMH: Shpg. Wt. 2½ lbs.

$5.97
Net



FM HY-LOGS

Fringe area log periodic antennas employ revolutionary concept for tremendous forward gain. Uniform impedance characteristics 88-108mcs. Outperform equivalent-sized Yagis. Heavy wall 1¼" dia. aluminum boom, 7/16" elements. 72 ohm coax or 300 ohm twin lead.

6-ELEMENT

For medium fringe area reception. 9 db gain. Boom 7 ft. Model FM-6: 3½ lbs.

$13.77
Net

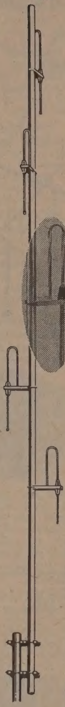
11-ELEMENT

For ultimate fringe reception. 12 db gain. Boom 12 ft. Model FM-11: Shpg. wt. 7½ lbs.

$22.50
Net

hy-gain 150 Antennas Communication Band

(144-174 MC)



BASE STATION

6.1 DB STACKED JAYPOLE

The first mass produced stacked jaypole array — the Hy-Gain Model SD-150 — available at amazingly low price. Produces highest gain (6.1 db) of any commercially manufactured 150 mc antenna. With 9.5 DB gain in one favored direction with a slight reorientation of staggered jaypole positions. All aluminum (wt.: 19 lbs.) complete factory preassembly. Constructed to withstand 100 mph winds with ½" radial ice load. Iridite treated for resistance to corrosion. Model SD-150: Shpg. Wt. 28 lbs.

SD-150A (144-159 mc.)
SD-150B (159-174 mc.)

$125.70
Net

Model MSD-150 — Mast side mounting kit for SD-150. Shpg. Wt. 11 lbs. **$9.57** **Net**

Model PSD-150 — Pole side mounting kit for SD-150. Shpg. Wt. 11 lbs. **$10.17** **Net**

⅝-WAVE - 3.4 DB GAIN COMMERCIAL DUTY GROUND PLANE

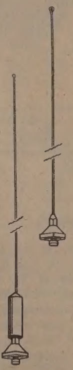
Hy-Gain Model **EC-150** is an extended ⅝-wave ground plane developing 3.4 DB omnidirectional gain. All aluminum (wt. 4 lbs.). Ruggedly built to withstand 100 mph winds at ½" radial ice load. Completely treated. Model EC-150 Shpg. Wt. 5 lbs.

$29.70
Net

¼-WAVE STANDARD UNITY GAIN GROUND PLANE

Lowest cost base station antenna available — yet built to commercial duty standards. All aluminum — iridite treated. Ideal for small two-way systems when price is important. Model GP-150: Shpg. Wt. 1 lb.

$5.40
Net



MOBILE WHIPS FOR ROOF MOUNTING

UNITY GAIN, ¼-WAVE

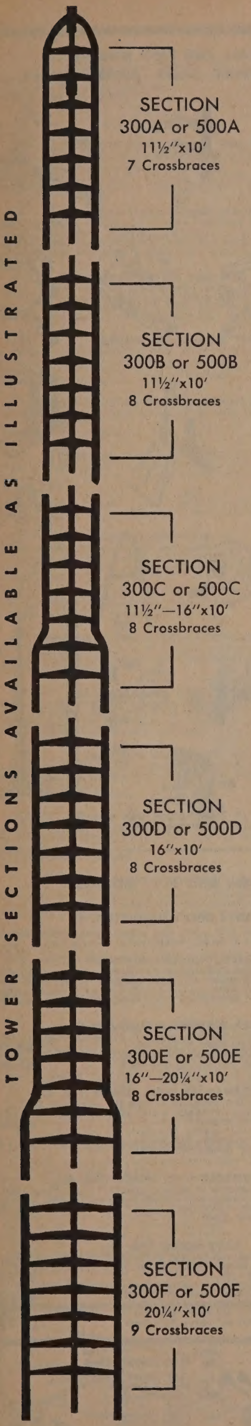
New design stainless steel Model MW-150 ¼-wave rooftop mounted vehicular whip. High impact cycolac molded base mounts easily from top of roof with unique positive grip locking mechanism. Solderless connector for RG58U cable. Whip only is easily replaceable. Model MW-150: Shpg.Wt.: ¼ lb.

$2.85
Net

3.4 DB GAIN, ⅝-WAVE

Double effective power both receiving and transmitting with the Hy-Gain MWG-150 mobile whip. Extremely flexible stainless steel whip only 52" high. Hermetically sealed matching inductor. Single hole top mounting base and solderless RG58U connector. Model MWG-150: Shpg. Wt. 1 lb.

$8.97
Net


TOWER SECTIONS AVAILABLE AS ILLUSTRATED
SECTION 300A or 500A
11½"x10'
7 Crossbraces
SECTION 300B or 500B
11½"x10'
8 Crossbraces
SECTION 300C or 500C
11½"—16"x10'
8 Crossbraces
SECTION 300D or 500D
16"x10'
8 Crossbraces
SECTION 300E or 500E
16"—20¼"x10'
8 Crossbraces
SECTION 300F or 500F
20¼"x10'
9 Crossbraces

JONTZ MFG. CO.

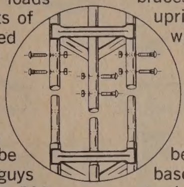
MISHAWAKA, INDIANA

SELF-SUPPORTING

Super Kwick-Climb

TOWERS

SELF-SUPPORTING UP TO 60 FEET HIGH
HOT DIP GALVANIZED HEAVY DUTY MODELS
ZINC ELECTROPLATED ECONOMY MODELS
NO LOST TOWER FOOTAGE
FAST, EASY SECTIONAL ERECTING



With these two Jontz Tower models you can fill any tower needs . . . from small suburban to heavy-duty commercial installations. Sectional construction and special drive-in bases make erection fast and simple. The Zinc Electroplated Economy Model No. 300 will easily withstand high wind loads normally encountered in most parts of the country. The Hot Dip Galvanized Heavy Duty Model No. 500 will withstand hurricane force winds having been tested at wind loads of 80 mph.

Both models are self-supporting up to 60 feet high. Model 300 can be extended to 200 ft. by use of guys every 20 feet and Model 500 up to 500 ft. by use of guys every 20 feet. There is no lost tower footage when mounting in either concrete or the special drive-in base. Since the tower is separate from the base, it may be moved to another location without impairing strength.

Both towers are fabricated in 10'0" sections and can be erected in one piece or by sections. Model 300 is made from ¼" x 18 ga. tubular uprights and is zinc electroplated and dipped in clear Butyrate lacquer. The Model 500 is made from 1¼" x 16 ga. tubular uprights and is hot dip galvanized. (Model 300 is also available galvanized.) New, extra-wide corrugated crossbraces give 75% more weld contact with uprights. Tower sections lock together with 2 self-locking ⅜" bolts in each leg. The splined bolts prevent thread damage and stop hole stretch when tower moves in the wind.

HOW TO ORDER: 1. Specify if to be mounted in concrete or drive-in base. 2. Order by specific sections, starting at the base. See illustration for section numbers. 3. If Model 300 is wanted with galvanized finish be sure to specify.

SHIPPING: For best freight rates, 40 ft. and over towers will be shipped in section combinations permitting 2 telescoped bundles, unless otherwise specified. (Example: a 60 ft. tower will consist of section A, C, D, E, and 2 F's.)

ZINC ELECTROPLATED ECONOMY MODEL NO. 300

Size	Ship Wt.
40'0"	130 lbs.
50'0"	172 lbs.
60'0"	215 lbs.
70'0"	245 lbs.
80'0"	292 lbs.

HOT DIP GALVANIZED HEAVY-DUTY MODEL NO. 500

Size	Ship Wt.
40'0"	160 lbs.
50'0"	211 lbs.
60'0"	262 lbs.
70'0"	302 lbs.
80'0"	357 lbs.

Add 15 lbs. per Tower for hardware.
Add approximately 3 lbs. per section for galvanized No. 300 Towers.

HEAVY DUTY DRIVE-IN BASE

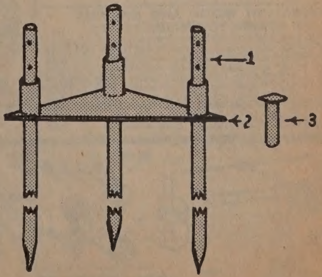
For Jontz self-supporting towers

Specifications:

1—Drive-in legs: 1¼" x 16 gauge x 36"

2—Base plate: 18" triangle x 11 gauge for 40' towers—22" triangle for towers 50' or higher —state tower height

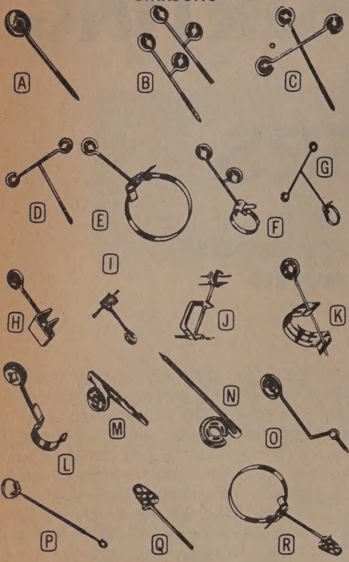
3—Driving cap: 2" x 1¼" to drive individual legs.



© U.C.P., Inc.

TV Mounting Accessories

STANDOFFS



Quality standoffs available in several styles to meet all requirements; flat line inserts unless otherwise specified.

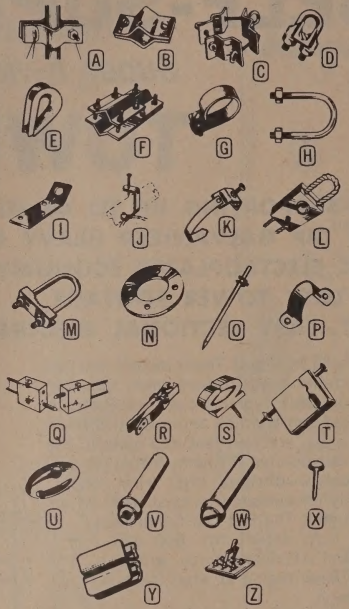
IE No.	Fig.	Description	Net 100
1330	A	3½″ wood screw	$ 2.50
1350	A	5½″ wood screw	3.50
1370	A	7½″ wood screw	4.00
1390	A	12″ wood screw	7.50
1222	B	7½″ machine screw inline double type	12.50
1320	B	7½″ wood screw inline double type	12.50
1345	C	7½″ wood screw 3-way type	17.50
1380	D	3½″ wood screw T-type	11.50
1343	D	5½″ wood screw T-type	12.00
1340	D	7½″ wood screw T-type	12.50
1230	E	3½″ machine screw, galvanized strap	8.50
1250	E	5½″ machine screw, galvanized strap	11.00
1270	E	7½″ machine screw, galvanized strap	16.50
1290	E	12″ machine screw, galvanized strap	17.50
1231	E	3½″ machine screw, stainless strap	12.50
1251	E	5½″ machine screw, stainless strap	15.00
1271	E	7½″ machine screw, stainless strap	17.50
1220	F	7½″ inline double, galvanized strap	15.00
1221	F	7½″ inline double, stainless strap	17.50
1280	G	3½″ T-type, galvanized strap	14.00
1243	G	5½″ T-type, galvanized strap	14.50
1240	G	7½″ T-type, galvanized strap	15.00
1281	G	3½″ T-type, stainless strap	16.50
1241	G	7½″ T-type, stainless strap	17.50
1245	......	7½″ 3-way, galvanized strap	22.50
1246	......	7½″ 3-way, stainless strap	30.00
1200	H	3½″ machine screw with gutter clamp	12.50
1210	H	7½″ machine screw with gutter clamp	17.50
1212	......	7½″ inline double with gutter clamp	20.00
1780	I	3½″ guy wire standoff	9.50
1790	I	7½″ guy wire standoff	12.50
1800	......	7½″ inline double, guy wire type	15.00
1880	J	3½″ mast and guy wire clamp type	12.50
1215	K	1¼″ "Lok-On" standoff	7.00
1216	K	1½″ "Lok-On" standoff	7.50
1234	L	1″ snap-on mast standoff	5.00
1235	L	1¼″ snap-on mast standoff	5.00
1260	M	Masonry type hot nail standoff	7.00
1310	N	3½″ nail-in standoff	4.00
1300	N	7½″ nail-in standoff	8.00
1305	O	Long arm mortar type, masonry nail	7.50
1720	P	Spring type rotator standoff	75.00
LL1330	Q	3½″ wood screw "Line-Lok" type	4.50
LL1350	Q	5½″ wood screw "Line-Lok" type	5.00
LL1370	Q	7½″ wood screw "Line-Lok" type	6.00
LL1230	R	3½″ machine screw "Line-Lok", galvanized strap	11.50
LL1250	R	5½″ machine screw "Line-Lok", galvanized strap	12.00
LL1270	R	7½″ machine screw "Line-Lok", galvanized strap	12.50

COMBINATION WOOD AND MACHINE SCREW STANDOFFS

Wood screw tip snaps off for machine screw use.

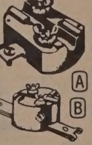
1332	A	3½″ combination screw "Plus" type	$ 2.50
1333	A	5½″ combination screw "Plus" type	3.50
1334	A	7½″ combination screw "Plus" type	4.00
1381	D	3½″ T-type combination screw "Plus"	11.50
1382	D	5½″ T-type combination screw "Plus"	12.00
1383	D	7½″ T-type combination screw "Plus"	12.50
1223	B	Inline double combination screw "Plus"	12.50
1163	E	9″ galv. strap for "Plus" standoffs	6.50
1165	E	9″ stainless strap for "Plus" standoffs	9.00

GUYING ACCESSORIES



IE No.	Fig.	Description	Net Ea.
1500	A	Guy wire clamp fits 1¾″ masts	$0.26
1510	B	Screw-on guy wire clamp fits 1¾″ masts	.20
1512	C	3-way guy clamp for 1¼–2¼″ masts	.32
1650	D	⅛″ zinc-plated cable clamp	.15
1651	D	³⁄₁₆″ zinc-plated cable clamp	.15
1660	E	Guy wire thimble, zinc-plated	.03
2320	F	3-piece mast clamp couples masts of equal or unequal size ¾″–1⅞″ dia.	.86
3800	G	Guy ring clamp for ¾″–1″ masts	.08
3810	G	Guy ring clamp for 1¼″–1⅜″ masts	.09
5090	H	2″ x 3⅝″ h. U-bolt for masts to 1¾″ dia.	.09
5095	H	1½″ x 3½″ h. U-bolt for masts to 1½″ dia.	.08
1670	I	Guy wire anchor bracket; can't fray wire	.17
1675	J	C-type ground clamp for pipe to 1⅜″ dia.	.14
1676	K	Strap ground clamp, copper-plated, ⅜″-3″	.13
1680	L	Guy clamp for ⅛″–¼″ wire	.10
5100	M	Positive grip U-clamp; lockwashers and nuts	.24
3900	N	Zinc-plated floating guy ring for 1″ masts	.11
3910	N	Same, for 1⅛″ mast	.11
3920	N	Same, for 1¼″ mast	.11
3940	N	Same, for 1½″ mast	.11
3941	N	Same, for 1⅝″ mast	.11
3942	N	Same, for 1¾″ mast	.15
3950	N	Same, for 2″ mast	.15
3951	N	Same, for 2¼″ mast	.15
3953	N	Same, for 2½″ mast	.15
4401	O	4′ x ⅜″ dia. copper-plated grnd. rod	.65
4402	O	6′ x ⅜″ dia. copper-plated grnd. rod	.85
4403	O	8′ x ⅜″ dia. copper-plated grnd. rod	1.20
4404	O	8′ x ½″ dia. copper-plated grnd. rod	2.10
1580	P	Mast and pipe strap for 1″ masts	.03
1590	P	Mast and pipe strap for 1¼″ masts	.05
1750	Q	Solderless twin lead connectors, pair	.34
1602	R	3-way solderless test clip	.13
1770	S	Rubber, twin-lead, wall standoff	.07
3000	T	Porcelain 300-ohm nail-in standoff	.13
3090	U	1½″ x ¾″ dia. porcelain strain insulator	.14
3100	U	1″ x 2″ dia. porcelain strain insulator	.17
3110	V	4″ UHF porcelain lead-in tube fits ¾″ hole	.30
3120	V	Same, but 6″ long	.31
3130	V	Same, but 8″ long	.39
3130	V	Same, but 8″ long	.39
3040	W	4″ VHF porcelain lead-in tube for ¾″ hole	.30
3060	W	Same, but 6″ long	.31
3080	W	Same, but 8″ long	.39
1771	X	Fiber-head wiring tack, box of 100	.60
1690	Y	TV fuse clip, insulation covered	.18
1603	Z	DPDT high-low antenna knife switch	.42

LIGHTNING ARRESTERS

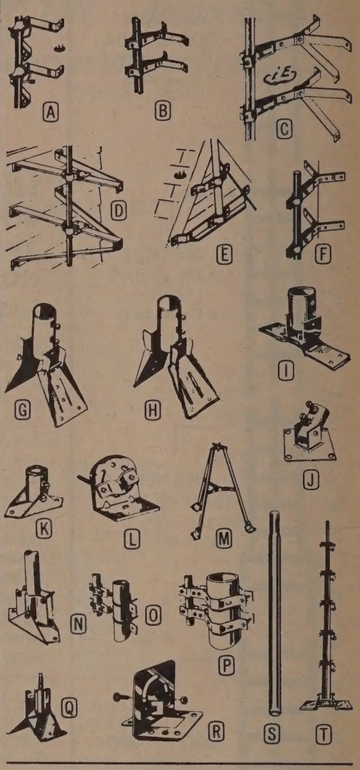


IE Model 4000 (Fig. A)—Multi-purpose design has perfect electrical path for all lead-ins. Quick, easy installation indoors or outdoors without wire stripping. Long teeth insure positive contact. Compact, sturdy construction; U/L approved. Net Each........ 63c

IE Model 4005—Same but with strap. Net 75c

IE Model 4001 (Fig. B)—Low cost unit takes hollow, oval, open or flat line. Mounts on wall or pipe. Net Each........................45c

WALL AND EAVE MOUNTS
TELESCOPING MASTS   ANTENNA MAST



WALL AND EAVE MOUNTS

DE LUXE UTILITY MOUNT (FIG. A)

Heavy gauge steel 1¼″ wide, zinc plated for long life. Heavy clamp fastens with U-bolts. Permits quick installations of masts to 1⅞″ diameter.

IE Model 1422—Has 2¼″ clearance. Net Each............ 74c
IE Model 1440—Has 4″ clearance. Net Each............ $1.02
IE Model 1421—Economy 4″ special made of 1″ wide steel. Has 2¼″ clearance. Net Each............ 45c
IE Model 1441—4″ clearance, 1″ wide steel. Net Each...... 48c

SNAP-ON WALL MOUNT (FIG. B)

Sturdy steel mount for quick installation. Kit includes two brackets and hardware. Holds masts to 1⅞″ dia.

IE Model 1460—6″ wall mount. Net Each............ $1.20
IE Model 1480—8″ wall mount. Net Each............ $1.96

DE LUXE SNAP-ON WALL MOUNT (FIG. C)

Preassembled for fast installation; has 16″ spread to fit 2 x 4 joists. Heavy gauge steel is zinc plated. Takes masts to 2¾″ dia. Third leg for added support.

IE Model 1430—13½″ mount. Net Each............ $2.45
IE Model 2180—18″ mount. Net Each............ $3.16
IE Model 2240—24″ mount. Net Each............ 4.17

ADJUSTABLE WALL MOUNT (FIG. D)

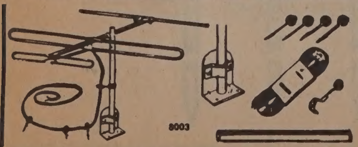
For difficult overhanging situations; permits 1″ to 20″ wall clearance. Rugged ⅛″ steel is zinc plated. Extra leg for firm support. Preassembled design takes masts to 1⅞″ dia.

IE Model 1450—Net Each............ $3.75

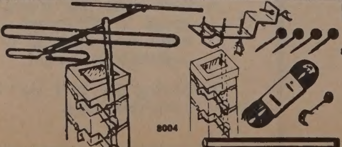
EAVE MOUNT (FIG. E)

Simple, long lasting mast support at eaves where roof-peak installation is desired. Rugged heavy gauge steel with carriage bolts holds masts to 1⅞″ dia.

IE Model 1469—For 25″ eaves. Net Each............ $1.74
IE Model 1470—For 30″ eaves. Net Each............ $2.37
IE Model 1471—For 36″ eaves. Net Each............ 2.97
IE Model 1472—For 48″ eaves. Net Each............ 3.30
IE Model 1473—For 60″ eaves. Net Each............ 4.77



Part No.	Description	Each
8003	1 BAY INLINE KIT ATTIC ANTENNA 1-8061 Snap Out Inline 1-1550 Mast Base 1-2627 1¼″ Dia. 5 ft. Mast 4-1330 3½″ Wood Screw Standoff 1-1235 Mast Standoff 50 ft. 300 Ohm Line	5.52



PART NO.	DESCRIPTION	Price Each
8004	1 BAY INLINE KIT ATTIC ANTENNA 1-8061 Snap Out Inline 1-1061 Chimney Mount 1-2627 1¼″ Dia. 5 ft. Mast 4-1330 3½″ Wood Screw Standoff 1-1235 Mast Standoff 50 ft. 300 Ohm Line	6.12

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iE® TV Mounting Accessories

CORNER WALL MOUNT (FIG. F)

Mounts quickly on any corner, wood or brick. Snap-on type for masts to 1⅞" dia. With hardware.
iE Model 1420—Net Each $1.56

ROOF MOUNTS

HINGE TYPE RIDGE MOUNT (FIG. G)

Popular design adjustable for flat roofs, walls or peak roofs of any slope. Permits one-man swing-up installation.
iE Model 1090—For masts to 1½" dia. Net Each $1.10
iE Model 1091 -For masts to 2" dia. Net Each $1.38

UNIVERSAL RIDGE MOUNT (FIG. H)

Assembled design for flat, or peaked roofs and walls. One man swing-up installation. Mast locks in place.
iE Model 1095—For masts to 1½" dia. Net Each $1.00
iE Model 1096—For masts to 2" dia. Net Each $1.26

HEAVY-DUTY SWIVEL BASE (FIG. I)

Mounts on roof ridge or flat surfaces easily. Permits swiveling mast to assure best reception; locks into position.
iE Model 1110—For masts to 2¾" dia. Net Each $1.70
iE Model 1120—Less tube, for masts to 2¾" dia. Net Ea. $1.13

PULL-UP BASE (FIG. J)

Can be used on slanted or flat roofs. Heavy duty construction for mast installation up to 30 ft.
iE Model 1114—For masts to 1½" dia. Net Each $1.00
iE Model 1115—For masts to 2" dia. Net Each $1.50

ECONOM-iE SWING-UP BASE MOUNT (FIG. K)

Economy design with permanent nut in tube to hold securely masts up to 1½" dia.
iE Model 1121—Net Each 45c

RIBBED MAST BASES (FIG. L)

Special slot arrangement permits "walk up" of mast; accommodates masts to 1⅞" dia. Complete with installation hardware.
iE Model 1560—
Net Each 33c
iE Model 1550—Similar to above but with extra screw holes instead of slots. Can also be mounted at any angle. Net Each .. 33c

TRIPOD MOUNT (FIG. M)

Angle iron construction opens and closes like an umbrella. Has flexible grippers to fit roof of any slope. Legs adjustable to 32" center. Fully assembled, riveted construction. Takes 1¾" masts.
iE Model 2702—2 ft. mount.
Net Each $2.93
iE Model 2703 -3 ft. mount. Net Each .... $ 3.93
iE Model 2705 -5 ft. mount. Net Each 6.93
iE Model 2710 10 ft. mount. Net Each 17.00

ECONOM-iE ANGLE BASE MOUNT (FIG. N)

For small installations, 5 to 10 ft. high. Accommodates masts to 1¼" dia. Clamp type. Zinc plated, heavy gauge steel.
iE Model 1123—Net Each 37c

DE LUXE ANGLE BASE MOUNT

Similar to Fig. K, designed for flat or slanted roofs of any pitch. Tilts 180°. Heavy gauge steel is zinc plated.
iE Model 1127—For 1½" masts. Net Each 86c
iE Model 1128—For 2" masts. Net Each $1.04

VENT PIPE MOUNT (FIG. O)

Features special U-bolt for holding vent pipes up to 2" dia. Simple, quick installation. Extra-strudy construction. Plated to withstand any weather condition.
iE Model 1405—Net Each $1.13

VENT PIPE MOUNT (FIG. P)

Quickly, simply attaches to any vent or round object. Adjustable bracket permits fitting to pipes 4" to 6" in diameter. Positive clamp action.
iE Model 1406—Net Each $1.43

UNIVERSAL MOUNT (FIG. Q)

Fits ridge roofs, chimneys and corners. Adjustable clamp mounts masts to either of two positions; takes masts to 1⅞" dia. Zinc plated steel construction. Complete with mast clamp and hardware.
iE Model 1540—Net Each $1.55

JUMBO UNIVERSAL RIDGE MOUNT (FIG. R)

Heavy duty base for large masts and telescoping towers up to 2¾" dia. Permits "walk-up" erection. Non-twisting clamp and carriage bolts for sure safety; one-hand installation.
iE Model 1080—Net Each $1.28

ANTENNA MAST (FIG. S)

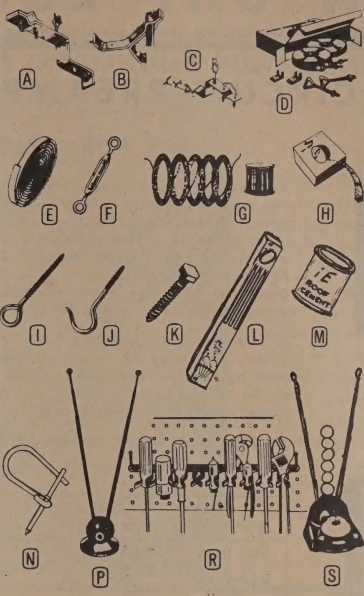
High carbon steel, hot dip galvanized inside and out for positive weather protection. Swaged end for positive lock.

Dia., In.	Gauge	5 Ft. Length		10 Ft. Length	
		iE No.	Net Each	iE No.	Net Each
1¼	16	2635	$1.25	2636	$2.35
1½	16	....	....	2637	2.50
1¼	18	2633	1.18	2634	1.95
1¼	20	2625	.89	2626	1.65

TELESCOPING MASTS (FIG. T)

Completely assembled with all hardware. High carbon steel is hot dip galvanized inside and out.

iE No.	Mast Lgth.	Description	Wt., Lbs.	Net Each
2822	20′	18 ga. telescoping mast	16	$ 4.30
2832	30′	18 ga. telescoping mast	23	8.00
2842	40′	18 ga. telescoping mast	31	10.50
2852	50′	18 ga. telescoping mast	41	14.00
2522	20′	16 ga. telescoping mast	19	6.50
2532	30′	16 ga. telescoping mast	28	9.70
2542	40′	16 ga. telescoping mast	31	13.00
2552	50′	16 ga. telescoping mast	50	17.00
1120	Base for any of above; add to Net			1.13



CHIMNEY MOUNTS

DELUXE "Z" TYPE (FIG. A)

Supports masts to 1⅞" dia. Longest made; 9¼" long, 1⅜" wide, using ⅛" steel. Ribbed construction prevents vibration; improves reception. Gussets prevent bending and loosening when triangle eyebolts are tightened. Complete with triangle eye bolt, factory assembled with strapping.

Strapping	With Galvanized Strap		With Stainless Strap	
	iE No.	Net Each	iE No.	Net Each
24′ x ¾" w.	1060	$1.44	1065	$2.25
20′ x ¾" w.	1060-SP	1.35	1065-SP	1.95
36′ x ¾" w.	1060-XL	2.28	1065-XL	2.80

SNAP-ON CHIMNEY MOUNT (FIG. B)

Designed for the most rapid assembly possible; requires no special tools; just snap brackets onto chimney and snap-on mast. Brackets are made of heavy gauge steel; support masts to 1⅞" dia. Angle gussets prevent bending and loosening when assembled. Ribbed design prevents vibration; improves reception. Solid rivet construction 9" long. Supplied complete with strapping. Factory assembled, strapping to eyebolts at one end; two brackets and hardware.

Strapping	With Galvanized Strap		With Stainless Strap	
	iE No.	Net Each	iE No.	Net Each
24′ x ¾" w.	1070	$1.89	1075	$2.55
20′ x ¾" w.	1070-SP	1.68	1075-SP	2.26
36′ x ¾" w.	1070-XL	2.40	1075-XL	3.32

ECONOM-iE CHIMNEY MOUNT (FIG. C)

Supports masts up to 1½" dia. Comes factory assembled with two U-bolts and strapping (¾" wide). Individually boxed.
iE No. 1061 -With 20′ galvanized strapping. Net Each $1.32
iE No. 1062 -With 20′ stainless strapping. Net Each $1.65
iE No. 1063 -With 24′ stainless strapping. Net Each 2.04

CHIMNEY STRAPPING REPAIR KIT (FIG. D)

Handy replacement kit for defective or worn-out strapping. Includes four eye-bolts, two clips, four nuts and 24 ft. of strapping. Eye bolts are factory assembled on ends.
iE No. 1645 -With galvanized strapping. Net Each 85c
iE No. 1646 With stainless strapping. Net Each $1.65

STEEL STRAPPING (FIG. E)

Available in galvanized, stainless steel or perforated, zinc-plated types. Strong and flexible. Weather resistant. Perforated type has ¼" holes, zinc-plated to resist rust.

Type	12-ft. Coils		100-ft. Coils	
	iE No.	Net Each	iE No.	Net Each
Perforated	1610	$0.43	1620	$2.93
Galvanized	1640	.55	1630	2.60
Stainless	1641	.58	1631	4.85

MISCELLANEOUS HARDWARE

HEAVY-DUTY, GALVANIZED TURNBUCKLES (FIG. F)

iE No.	Size, Inches		Take-up, Inches	Bolt Size	Net Each
	Closed	Open			
3330	3⅜	4⅝	1¼	5/16"	12c
3400	4	5⅝	1⅝	3/16"	13c
3450	4½	6⅜	1⅞	7/16"	14c
3550	5½	7⅝	2⅛	¼"	19c
3630	6¾	9¼	2½	5/16"	30c
3750	7½	10½	3	⅜"	44c

STEEL STRANDED GUY WIRE (FIG. G)

Heavily galvanized TV guy wire in non-tangling coils.

iE No.	Wire		Length and Put-Up	Net Per 1000 Ft.
	Strand	Size		
4600L	4	#20	50′ connecting	$4.50
4600M	4	#20	1000′ spool	4.50
4601L	6	#20	50′ connecting	5.65
4601M	6	#20	1000′ spool	5.65
4602L	6	#18	50′ connecting	8.50
4602M	6	#18	1000′ spool	8.50

TEN-SPOT FLAT PACK GUY WIRE (FIG. H)

Handy package keeps wire clean and free from tangling; can't roll away. Neat package of 1000 ft. marked in red every 10 ft. Six strands, #20.
iE No. 4601T—Net Each $5.65

ALUMINUM GROUND WIRE (FIG. G)

Uncoated; pliable and easy to use for grounding mast from lightning and electrical disturbances. Diameter, ⅛".

iE No.	Description	Net Each	iE No.	Description	Net Each
4604	50′ coil	$0.84	4606	500′ coil	$ 7.50
4605	100′ coil	1.69	4607	1000′ spool	13.80

SCREW EYES (FIG. I) AND HOOKS (FIG. J)

Screw Eyes					Screw Hooks				
iE No.	Long	Wire Dia.	Eye Dia.	Net Each	iE No.	Long	Wire Dia.	Opening	Net Each
4902	2"	7/32"	7/16"	3c	4916	3½"	7/32"	13/16"	4c
4901	3"	7/32"	7/16"	4c	4914	4"	¼"	13/16"	6c
4903	3½"	¼"	¾"	6c	4912	4½"	9/32"	15/16"	8c
4904	5"	¼"	¾"	7c	4910	5"	5/16"	1 1/16"	10c
4907	7"	¼"	¾"	11c					
4905	5"	5/16"	1"	10c					

HEX HEAD LAG SCREWS (FIG. K)

Fit standard socket and speed wrenches for fast assembly; zinc-plated.

iE No.	Size, Inches Dia. x Long	Net Each	iE No.	Size, Inches Dia. x Long	Net Each
4810H	¼ x 1	3c	4813H	¼ x 3	6c
4811H	¼ x 1½	4c	4819H	5/16 x 3	8c
4812H	¼ x 2	5c			

ANTENNA INSTALLATION KIT (FIG. L)

Complete accessory kit for TV antenna installation. Quick and easy to use. All steel parts are galvanized. Includes: Three 3′ mast sections; two mast standoffs; five wood screw standoffs; 20 ft. aluminum ground wire; a lightning arrester; and, 100 ft. 300-ohm twin lead. Single carton package is parcel post size.
iE Model 6307 Installation Kit Net Each $3.25

ROOF CEMENT (FIG. M)

Seals holes and cracks; prevents rusting around screws and fitting of antenna installations.
iE Model 6738 Pint can. Net Each 70c

DRIVE RINGS (FIG. N)

Fastens wire the easy, fast way. For communication systems, phone, doorbell, outdoor lighting, extension cords, etc. Galvanized to prevent rust and corrosion.

iE No.	Ring Size	Capacity	Net Per 100
05	⅞"	16 jacketed drop wires	$2.68
04	⅝"	6 jacketed drop wires	1.78
01	½"	....	1.08

INDOOR ANTENNAS

INDOOR VHF MODEL 6020 (FIG. P)

Eight-ball type. Mahogany base with 3-section telescoping aluminum dipoles. Ratchet grip locks dipoles in any position. Tip-proof. Complete with 300-ohm lead-in with lugs on end.
iE Model 6020—Net Each $1.42

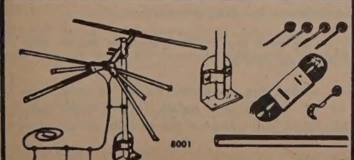
TOOL AND TUBE HOLDER (FIG. R)

For displaying tools on peg board. Use in Lab., Shop, Home, and Technician use. Bright nickel-plated. Holds tools under spring pressure. Used for holding tubes, prevents bent pins that occur when tubes are laid down. Can be used as a stamp rack.

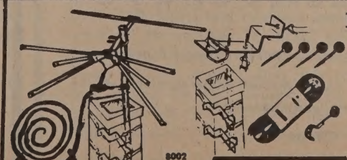
iE No. 4332—TOOL & TUBE HOLDER for peg board. Each .... .60¢
iE No. 4333—TOOL & TUBE HOLDER with 2 wood screws and holes in tool holder for wall mounting. Net Each .... .60¢

SIX-POSITION SWITCH ANTENNA (FIG. S)

Designed for clean reception of UHF, VHF and color TV. Fully assembled with twin lead. Can not tip. Covers all channels, 2 to 83. Handy, 6-position switch selects maximum signal pick-up on every channel. Mahogany finish base.
iE Model 6008 -Aluminum dipoles. Net Each $5.80
iE Model 6007 -Chrome-plated dipoles. Net Each $6.50



Part No.	Description	Each
	1 BAY CONICAL KIT	
8001	1-802 ǂ Snap Out Conical 1-1550 Mast Base 1-2627 1¼" Dia. 5 ft. Mast 4-1330 3½" Wood Screw Standoff 1-1235 Mast Standoff 50 ft. 300 Ohm Line	5.40



iE No.	Description	Net Each
	1 BAY CONICAL KIT	
8002	1-802 ǂ Snap Out Conical 1-1061 Chimney Mount 1-2627 1¼" Dia. 5 ft. Mast 4-1330 3½" Wood Screw Standoff 1-1235 Mast Standoff 50 ft. 300 Ohm Line	5.70

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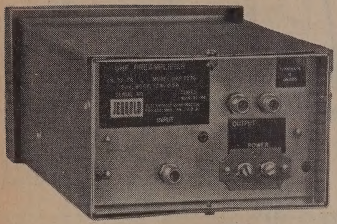
JERROLD® NEW UHF EQUIPMENT

SILVER-CIRCUIT PREAMPLIFIERS

FOR "SNOW-FREE" UHF

MODEL UAP-7276



MODEL UAP-7083

Jerrold's new Mast-Mounting UHF preamplifiers are available in five 300-ohm models covering the entire UHF range, and one 75-ohm model especially designed to cover MPATI channels 72 or 76. These preamplifiers are distinguished by an ultra-sensitive input, delivering a high gain of 15 db minimum for all 300-ohm models and 16 db minimum on MPATI model UAP-7276, at a noise figure unequalled by any other unit. Components employed, such as tuned silver-plated broad-face transmission elements, pure silver coil strips, frame-grid tubes in a two-stage amplifier circuit ,and stabilife design, create truly low-loss UHF circuitry at maximum output and long tube-life.

In addition, Model UAP-7276 has a dual output for feeding two mast-mounted converters, eliminating the need for a second antenna. All models are energized from the same type remote power supply, Model 409-P, doubly-filtered for maximum performance of the preamplifiers. A special voltage variation switch on the power supply insures proper preamplifier operating voltage when used with various types and lengths of cables.

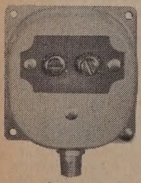
Shipping weight of each model is 5½ lbs.

MODELS AVAILABLE

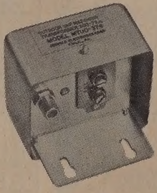
Model #	Output Impedance	Channels	Freq. Range	Net Price
UAP-1429	300 OHMS	14 to 29	470 to 566 mc	$57.00
UAP-2540	300 OHMS	25 to 40	536 to 632 mc	$57.00
UAP-4155	300 OHMS	41 to 55	632 to 722 mc	$57.00
UAP-5669	300 OHMS	56 to 69	722 to 806 mc	$57.00
UAP-7083	300 OHMS	70 to 83	806 to 890 mc	$57.00
UAP-7276	75 OHMS	72 to 76	818 to 848 mc	$75.00

NEW UHF MATCHING TRANSFORMERS

300 TO 75 OHMS



MODEL MTU-372 $3.60 Net



MODEL MTUO-374 $6.00 Net

Jerrold's new UHF Matching Transformers Models MTU-372 (for indoor mounting) and MTUO-374 (for outdoor mounting) are specially designed wide-band impedance matching units that eliminate the need for field construction of baluns. The transformers have a flat response over the entire UHF TV spectrum of 470 to 890 megacycles. Maximum insertion losses are from 0.6 db at 470 mc to 1.2 db or less at 890 mc.

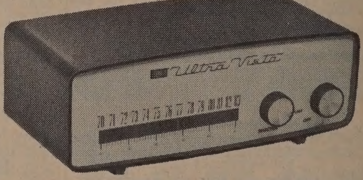
In addition, Model MTUO-374 passes ac (current rating 1.0 amp. max.).

Both models employ new type crown washer screw terminals at the 300-ohm side for fast no-strip twin-lead connection.

Shipping weight of either model is 8 oz.

ALL DATA AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE

NEW "ULTRA-VISTA" UHF/VHF CONVERTER FOR MPATI AND TRANSLATOR AREAS



"TOP OF THE SET" MODEL UVC-7083

THE ONLY UHF CONVERTER WITH

- RF PREAMPLIFICATION • NUVISTOR • TRANSISTOR
- FRAME-GRID TUBE • RADAR TYPE DIODE

CONVERTS UHF CHANNELS 70-83 TO VHF CHANNELS 7 or 8
The "ULTRA-VISTA" is the most advanced converter in its class featuring: built-in rf preamplification by a modern frame-grid tube — boosts antenna signals before they enter the mixer; an oscillator circuit with new type Nuvistor — for high stability; a mixer stage using a radar receiver type silicon diode — for low noise figure, reliable performance; a post-amplifier using a PADT type h.f. transistor — for long-life service.

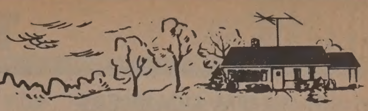
Minimum gain is 10 db over the entire translator band, and at least 11 db over channels 72-76.

Bandspread tuning makes the converter easier to tune than a radio. Housed in an exquisitely styled, high-impact plastic cabinet, the ULTRA-VISTA will enhance the interior of any home.

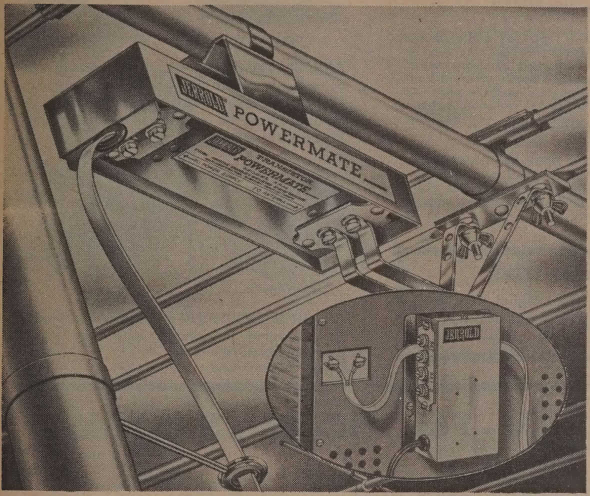
Shipping weight 6 lbs. **$34.95 Net**

JERROLD®

TV RECEPTION AIDS FOR THE HOME



NEW TRANSISTOR PREAMPLIFIER POWERMATE MODEL APM-101*



Jerrold's POWERMATE is a transistorized TV-FM preamplifier with exceptional high gain and excellent noise figure, far better than any single-tube or transistor amplifier in its class on the market. Ideal for fringe and weak signal areas, it works with any TV-FM antenna new or already installed, does away with tube replacements, needs no batteries and is fed from a remote power supply consuming only 3 watts (less than an electric clock). Compact, light-weight construction permits mounting directly on antenna boom for maximum transfer of antenna energy. The light metal case is weatherproof and serves as a shield against spurious signal interference. "No-strip sure-contact" terminals allow quick efficient hookup to antenna and receiver. Model APM-101 has dual outputs to feed two TV and/or FM sets, with Jerrold MF-type multi-couplers will feed up to five sets. Shipping weight 2 lbs. **$26.63 Net**

*Patent pending
UL APPROVED

JERROLD MAGIC CARPET* ANTENNA

THE INDOOR ANTENNA WITH OUTDOOR PERFORMANCE

magic carpet
TV-FM antenna

MODEL MK-1

This new antenna by Jerrold is the first full-scale printed-circuit antenna. Truly a "Magic Carpet" carrying quality TV/FM signals to receivers in the home, the MK-1 is easily installed (lay it on any flat, horizontal surface in the attic, under a rug, or staple to a ceiling) and simple to orientate (shift its position for best reception). Ideal for use with the Jerrold Amplified TV/FM Home System, the Magic Carpet eliminates the unsightliness and maintenance costs of outdoor antennas. When properly installed, the Magic Carpet provides reception comparable to an outdoor, conical-type antenna mounted in the same location. This means that the MK-1 will provide excellent reception of TV stations within a 30-mile radius and of FM stations within a much greater radius. The antenna is shipped complete with 6 plastic strap insulators (Model HS-36) and 25 feet of twin-lead for attachment to a home amplifier or to a TV receiver. Shipping Weight — 1¾ lbs.

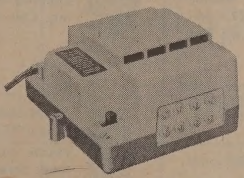
$5.97 Net

*Trademark Patent Pending

ALL DATA AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE

TV/FM 4-SET AMPLIFIED COUPLER

MODEL HSA-44

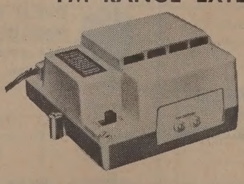


The new JERROLD amplified 4-set coupler Model HSA-44 is a printed circuit amplifier employing a 6DJ8 frame grid tube and is designed to feed up to 4 TV or FM receivers from a common antenna. Minimum gain is 0.5 db at each of the four outputs. Model HSA-44 operates on an input as low as 100 microvolts, has an excellent noise figure and high isolation (13 db) between outputs. Input and output impedances of 300 ohms and crown-washer screw terminals permit fast simple twin-lead installation. This compact (5½" x 4½" x 3") rugged unit plugs directly into a 117 volt 60 cps wall outlet and consumes only 10 watts.

Shipping weight 2 lb. 10 oz. **$18.95 Net**

Note: Where desired, use Jerrold's no-strip twin-lead outlets to create convenient plug-in locations.

FM RANGE EXTENDER MODEL FMX



Jerrold's latest FM preamplifier Model FMX has been especially designed with a high gain of 20 db minimum over the entire FM band, while eliminating unwanted background noise and drifting. A frame-grid tube (6DJ8), printed circuitry, and built-in power supply provide stable top performance and long life. Model FMX brings in many more FM stations, makes even inexpensive FM tuners and receivers sound like "a million." It is ideally suited for FM Multiplex reception, will increase to 46 miles the ordinary reception range of 23 miles from FM Multiplex transmitters. With Jerrold MF-type multi-couplers this powerful preamp will feed two, three or four FM sets. Housed in an appealing light-alloy case and equippped with "no-strip" twin lead connectors, Model FMX can be quickly installed anywhere in the home between antenna and receiver.

Shipping weight 1¼ lbs. **$18.95 Net**

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JERROLD® TV RECEPTION AIDS

MULTI-SET TV/FM COUPLERS

Jerrold Multi-Set Couplers provide the best method of connecting 2, 3 or 4 television and/or FM receivers to a common antenna array. Units feature positive matching, extremely low forward loss and high isolation. All models equipped with "No-Strip" serrated washers which bite into twin-lead to make positive, permanent connections.

(Each unit packed with special bracket, for outdoor mounting, and necessary hardware.)

MODEL M-2* TWO SET COUPLER FOR STRONG SIGNAL AREAS—inductively compensated with emphasis on positive matching for reduction of ghosting and smear. Color: blue grey. $2.10 Net

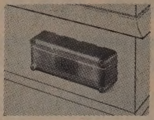
*Best for UHF

MODEL MF-2 TWO SET COUPLER FOR FRINGE AREAS—for use wherever extremely low forward losses are mandatory. Featuring a highly efficient transformer design and positive matching. Provides complete isolation between receivers. Color: ivory. $2.70 Net

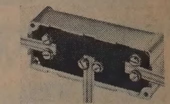
MODEL MF-4 FOUR SET COUPLER FOR ALL AREAS—designed with the same basic circuit as MF-2, but for use in feeding 3 or 4 sets from one antenna. Color: ivory. $3.45 Net

MODEL TX-FM SPECIAL TV-FM ANTENNA SPLITTER

Splits TV and FM signals frequency-wise and without loss to either signal from a common antenna. Gives complete isolation between TV and FM sets. Ideal for FM Multiplex Tuner or FM Radio. $3.57 Net

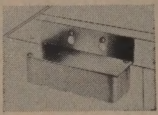


Baseboard

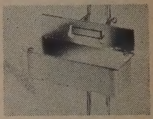


Attic & Basement

INDOOR MOUNTING—on the baseboard for a neat and attractive appearance, with connectors concealed and protected. For attic or basement use, the unit mounts with terminals exposed for ease of servicing.



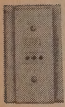
Outside



Mast

OUTDOOR MOUNTING—a bracket is supplied for strapping to antenna mast. The unit is weather resistant.

JERROLD'S AMPLIFIED TV-FM HOME SYSTEM

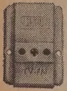


FLUSH MOUNTING OUTLET ASSEMBLY WITH PLUG
Model HS-140

Contains all items for flush mounting. One HS-21, one HS-22, one HS-23 and one HS-24. $1.65 Net

MODEL HS-140-J

Same as HS-140 but without isolating resistors. $1.50 Net

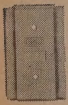


HOME OUTLET
Model HS-21

An efficient press-on tap unit for surface or flush-mounting (with HS-22 and HS-23). Provides 10 db isolation between receiver and 300-ohm line. $.87 Net

MOUNTING RING
Model HS-22

Plastic bracket used to adapt HS-21 for flush mounting in standard plastic outlet box. $.18 Net

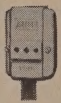


COVER PLATE
Model HS-23

Ivory cover plate to cover the outlet in flush-mounting applications. $.30 Net

PRESS-ON PLUG
Model HS-24

Male plug for simple attachment to 300-ohm twin-lead. No soldering. Inserts into HS-21 outlet $.30 Net



SURFACE MOUNTING OUTLET ASSEMBLY WITH PLUG
Model HS-135

Contains all items for surface mounting. One HS-21 and one HS-24. $1.17 Net

TWIN-LEAD INSULATORS
Model HS-36

Plastic insulators for attaching twin-lead throughout the home. $1.08/24 Net

OUTDOOR COVER PLATE
Model HS-37

Weather-proof flush-outlet plate. $1.13 Net

OUTLET BOX
Model HS-50

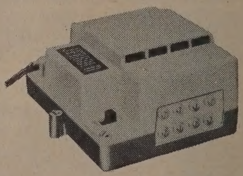
Non-metallic outlet box for new construction. $.30 Net

IVORY TWIN-LEAD
Model IV-300

A convenient 100' coil of ivory, 300-ohm twin-lead. $1.89 Net

AMPLIFIED 4-SET COUPLER

MODEL HSA-44



Jerrold's Model HSA-44 is a printed circuit amplifier employing a 6DJ8 frame grid tube and is designed to couple up to 4 TV or FM sets to a common antenna. This compact unit plugs directly into a 117 volt ac outlet and consumes only 10 watts. Ideal for simple home systems.

Shipping weight 2 lbs. 10 oz.

$18.95 Net

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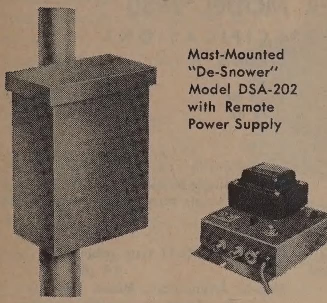
FOR THE HOME

"DE-SNOWER" PREAMPLIFIERS



Mast-Mounted "De-Snower" Model DSA-202 with Remote Power Supply

JERROLD "De-Snower" preamplifiers provide the high gain and low noise figure necessary to deliver "snow-free" TV pictures and "hiss-free" FM sound to your TV/FM receiver. These mast-mounted units bring your TV/FM set to the antenna to take full advantage of extremely weak signals by overcoming noise pick-up and antenna lead-in losses.

Each "De-Snower" is shipped with a remote power supply (to be placed at any easily-accessible location) which provides low-voltage ac power to the preamplifier and acts as a feed-thru for amplified signal from the preamplifier to the receiver. Only one cable is necessary to carry ac power up to and amplified signal down from the preamplifier to the power supply.

"De-Snower" preamplifiers will improve color TV reception and boost TV/FM signal strengths in all fringe areas. See SPECIFICATIONS chart to determine which model is best suited for your particular needs.

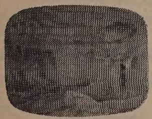
SPECIFICATIONS FOR "DE-SNOWER" PREAMPLIFIERS

PREAMPLIFIER MODELS	ALL BAND PLUS FM DSA-202	ALL BAND DSA-132	SINGLE CHANNEL DSA-*	FM ONLY DSA-FM
BANDWIDTH	54-108 mc, 174-216 mc	54-88 mc. 174-216 mc	6 mc any TV ch.	88-108 mc
GAIN-TV BAND	20 db min.	25 db min.	28 db any TV ch.	NA
GAIN-FM BAND	20 db 88-98 mc. 8 db min. at 108 mc	NA	NA	25 db min.
FREQUENCY RESP.	1½ db max. peak to valley	1 db max. peak to valley	½ db max. peak to valley	1 db max. peak to valley
NOISE FIGURE	4.5 db max. lo-ch. 6 db max. hi-ch.	6.5 db max. lo-ch. 8.5 db max. hi-ch.	6 db max. lo-ch. 7.5 db max. hi-ch.	NA
MAXIMUM INPUT	17,000 micro-volts pr. ch./3 lo chs. 11,000 micro-volts pr. ch./4 hi channels	5,500 microvolts	40,000 microvolts	NA
MAXIMUM OUTPUT AT 300 OHMS	.17 v/pr. ch. at each of 3 ch. lo .11 v/pr. ch. at each of 4 ch. hi	0.2 v/pr. ch. at each of 7 ch.	1.2 v rms lo 1.0 v rms hi	0.5 rms.
MAXIMUM OUTPUT AT 75 OHMS	.085 v/pr. ch. at each of 3 ch. lo. .055 v/pr. ch. at each of 4 ch. hi.	0.1 v/pr. ch. at each of 7 ch,	0.6 v rms lo 0.5 v rms hi	NA
INPUT IMPEDANCE	300 ohms			
OUTPUT IMPEDANCE	75 or 300 ohms			
TUBE COMPLEMENT	(2) 6DJ8	(3) 6BQ7-A (1) 6CB6 (1) 6AK5	Lo-band (1) 6BQ7-A (1) 6CB6 Hi-band (1) 6BQ7-A (1) 6AK5	(1) 6BQ7-A (1) 6CB6
FINISH	Iridite			
DIMENSIONS	4"x8½"x4"	5"x10¼"x 7¼"	2½"x5"x 10¼"	2½"x5"x 10¼"
POWER SUPPLY	407-P	405-P		
INPUT	117 V 60 cycle ac			
OUTPUT VOLTAGE	22-27 volts	24-32 volts		
POWER CONSUMPTION	25 watts	50 watts	30 watts	30 watts
DIMENSIONS	3½"x3½"x 6½"	2⅞"x6¾"x 5⅛"		
SHIPPING WEIGHT	5½ lbs.	12¾ lbs.	8¼ lbs.	8¼ lbs.
ACCESSORIES FURN. (All Models)	(3) F-59 Cable fittings, mounting screws for power supply, mast clamp and strap			
NET PRICE	$53.97	$71.70	$59.70	$59.70

NA = Not Applicable *Specify channel

"TRAP-EASE"

TUNABLE INTERFERENCE TRAPS



BEFORE

AFTER

Eliminate adjacent channel interference, permit reception of weak, distant stations normally blocked by a strong local channel.

"TRAP-EASE" KNOCKS OUT ADJACENT CHANNEL INTERFERENCE. This tunable "deep notch" antenna trap (greater than 50 db) permits TV viewers to remove "beat" or "herringbone" patterns caused by adjacent channel sound or video carriers. Permits clear reception of even weak distant stations.

Works with any TV receiver and any 300 ohm antenna that would normally bring in pictures from the distant stations if the interfering adjacent channel was not on the air. Does not affect reception of regularly viewed channels.

TWO MODELS AVAILABLE

$11.97 Net

LOW TRAP-EASE (Model HQ-91) covers Channels 2 to 6.

HIGH TRAP-EASE (Model HQ-92) covers Channels 7 to 13

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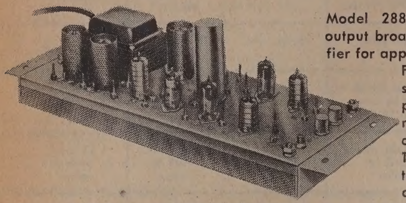
JERROLD® TV DISTRIBUTION SYSTEMS

as simple as A-B-C

A AMPLIFYING

NEW JERROLD DISTRIBUTION AMPLIFIER MODEL 2880



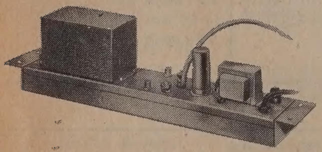
Model 2880 is a high-output broad-band amplifier for application in TV-FM distribution systems. Incorporating the newly developed Jerrold TJ-880 tube, this amplifier delivers a full 1 volt on both low and high band channels, at a minimum gain of 45 db. The unit is equipped with manual gain control and a receptacle for connecting the new automatic overload control Model OC-238. Model 2880 has an extended band-width that provides amplification of FM as well as TV. It is the ideal amplifier for distribution systems in apartment buildings, hotels, schools, hospitals and similar installations requiring extra long cable runs.

Shipping weight 16 lbs. **$178.80 Net**

SPECIFICATIONS

	Low Band	High Band
Gain:	45 db	45 db
Bandwidth:	54-92 mc	174 to 216 mc
Frequency Response:	± ¾ db	± ¾ db
Rated Output for ½ % Intermodulation Distortion:	+60 dbj with 3 ch. in	+60 dbj with 3 ch. in
Input:	75 ohm, single terminal	1.5 max. V.S.W.R.
Output:	75 ohm, single terminal, to work into 75 ohm load	
Tilt of Response in Factory Alignment:	For 950′ of RG-11 type cable	
Gain Control, Manual:	14 db	14 db
Equalization:	Plug-in Attenuators, Model PIP, used to provide low band equalization on long runs.	
Power Requirements:	105 watts, 117 volts, 60 cycles A.C.	
Tube Complement:	(1) 6EH7, (1) 6EJ7, (2) 6ES8, (2) 12BY7A, (3) TJ-880, (1) 6DJ8.	
Mounting:	19″ relay rack or surface	
Dimensions:	Panel 19″ x 7″	

NEW JERROLD AUTOMATIC OVERLOAD CONTROL MODEL OC-238



This new control unit has been especially designed for use with Model 2880 or Model 2300. Equipped with separate controls for the high and the low band, Model OC-238 permits setting the amplifier output at the optimum operational level. Once set, highest picture quality is maintained throughout the entire system regardless of fluctuations in signal strength. Model OC-238 is energized from the amplifier to which it is connected.

Shipping weight 6 lbs. **$112.80 Net**

SPECIFICATIONS

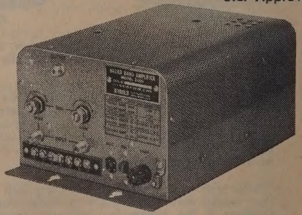
Gain requirement of Associated Amplifier:	35 to 50 db
Controlled Frequencies:	54 to 98 mc and 174 to 216 mc
Frequency Response:	±1½ db over stated range
Minimum Output Levels for Optimum Control per Band:	5 channels—40 dbj 3 channels—43 dbj 2 channels—46 dbj 1 channel —49 dbj
Maximum Output:	60 dbj
Input Impedance:	75 ohms at 1.2 max. V.S.W.R.
Output Impedance:	75 ohms at 1.2 max. V.S.W.R.
Insertion Loss:	0.5 db. max.
Gain Control:	Separate high and low band composite level adjustments
Power:	18 watts at 117 volts, 60 cycles A.C.
Mounting:	19″ relay rack or surface
Dimensions:	Panel 19″ x 3½″

THE JERROLD HIGH GAIN, HIGH OUTPUT TV DISTRIBUTION AMPLIFIER MODEL 2300

U.L. Approved

SPECIFICATIONS

Gain:	38 db min.
Gain Controls:	16 db range Hi and Lo bands.
Tilt Controls:	Hi and Lo bands.
Rated Output (Max.):	.3v/channel for 9 channel operation
Rated Input (Max.):	26000 uv
Tube Complement:	4-6BQ7-A, 2-12BY7A, 1-6CB6.
Cable Fittings:	75 ohms — (3) F-61; 300 ohms — screw terminals
Fuses:	Primary — 1 amp.
Finish:	Gray hammertone.
Dimensions:	11″ x 7¼″ x 5¼″
Shipping Weight:	10 lbs.
Power Requirements:	117 volts AC .58 amps.; 63 watts



COVERS CHANNELS 2 TO 6 AND 7 TO 13
The Jerrold high gain, high output TV distribution amplifier for large motels, hotels, apartment buildings and "neighborhood cable" systems.

$107.70 Net

TECHNICAL DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE

Above units shipped complete with coaxial fittings and hardware.

ALL JERROLD EQUIPMENT DESIGNED FOR COLOR

© U.C.P., Inc.

MODELS ABD-1 and 406A

Provide the key to superior television distribution for small economical systems. Combining latest cascode circuitry and superior mechanical design, these amplifiers deliver strong, snow-free pictures and keep installation costs to a minimum.

SPECIFICATIONS: MODEL ABD-1

COVERS CHANNELS 2 TO 6 and 7 TO 13

Gain: 25 db

Rated Output (Max.): 0.1 v/channel (7 channel operation)

Rated Input (Max.): 5500μv

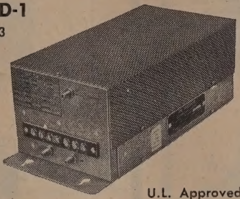
Noise Figure: 6 db low band, 7.5 db high band

Tube Complement: 3-6BQ7A, 1-6AK5, 1-6CB6

Cable Fittings: 75 ohms-(3)F-61; 300 ohms — screw terminals

Fuses: B+, 1/10 amp. Slo Blo; Pri. ½ amp. Slo Blo

Dimensions: 11″ x 4″ x 5″



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Shipping Weight: 7 lbs. 7 ozs.

Power Requirements: 117 v AC, 50-60 cps, 35 Watts

Includes coax connectors $65.67 Net

SPECIFICATIONS: MODEL 406A-*

COVERS ANY SINGLE CHANNEL FROM 2 TO 13

Gain: 28 db

Bandwidth: 6 mc. ±½ db

Rated Output (Max.): .6v RMS Lo band, .5 v RMS Hi band

Noise Figure: 6 db Lo band, 8 db Hi band

Tube Complement: Lo band, 1-6CB6, 1-6BQ7A; Hi band, 1-6BQ7A, 1-6AK5

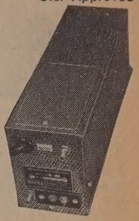
Housing: Gray hammertone finish

Dimensions: 3″ x 4″ x 10½″ overall

Shipping Weight: 4¼ lbs.

Power Consumption: 15 Watts

U.L. Approved



* Specify channel desired

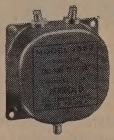
$41.97 Net
Includes coax connectors

BRANCHING

TWO-WAY SPLITTER
Model 1562

Hybrid two way splitter with only 3 db forward loss in each leg. Isolation between outputs is 15-20 db. B-59 coax bushings do not require cable connectors.

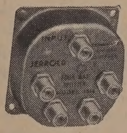
$4.95 Net



FOUR-WAY SPLITTER
Model 1514

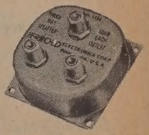
Four-way reactive splitter with only 6 db forward loss to each output. Isolation between outputs, 12 db. Complete with five F-59 cable connectors. (Unused outputs must be terminated with TR-72F terminating resistors.)

$8.70 Net



HYBRID DUAL SPLITTER
MODEL 1582

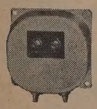
A low-loss, high-isolation, three-terminal directional coupler. VSWR 1.2 input, 1.3 output. JERROLD F-fittings for convenient cable connections. Connectors incl. **$7.50 Net**



CONNECTING

Connect the signal to TV receivers quickly and efficiently — using simple and rapidly installed Jerrold tap-off units. Designed for high isolation between receivers. Compensates for cable characteristics.

FOR INDOOR USE (Surface Mounting)



Model LT-310 — 300 ohm output

Taps RG-59/U line to 300 ohm receivers. Full AC isolation. B-59 coax bushings do not require cable connectors. Surface mounting, ivory radiation-proof steel case. Three color-coded attenuation values (specify R, Y or G). Terminate the last tap on feeder line with model TR-72B terminator.

$3.00 Net

Model LT-77 — 75 ohm output

Taps RG-59/U line to 75 ohm receiver or to 300 ohm in direct pick-up locations. B-59 coax bushings do not require cable connectors. Surface mounting, ivory radiation-proof steel case. Three color-coded attenuation values (specify R, Y or G). Terminate the last tap on a feeder line with model TR-72B terminator.

$3.00 Net

(Flush Mounting)

Model 1431 — 300 ohm output

Electrically identical to LT-310. Mounts in 2″ x 4″ electrical outlet box or 4″ x 4″ outlet box with single gang plaster ring. Specify R, Y or G. Terminate the last tap on a feeder line with model TR-72B terminator.

$3.00 Net

Model 1477 — 75 ohm output

Electrically identical to Model LT-77. Mounts in 2″ x 4″ electrical outlet box or 4″ x 4″ outlet box with single gang plaster ring. Specify R, Y or G. Complete with 75 ohm output plug. Terminate the last tap on a feeder line with model TR-72B terminator. Available in satin-finish stainless steel plate at slight additional cost. (min. order of 100)

$3.00 Net

TECHNICAL DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE

LOOK TO JERROLD FOR AIDS TO BETTER TELEVIEWING

JERROLD®

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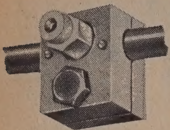
CONNECTING

FOR OUTDOOR USE



Model PT 1461 — For RG-11/U

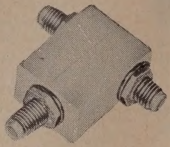
Pressure tap for RG-11/U type feeders. Surface mounting. Removable color coded isolation units. (Specify R, Y or GR.) Unique design minimizes shunt capacity. (Requires use of CD-11 Cutting Punch.) Complete with F-59 cable connector. Terminate the last tap on a feeder line with TR-72F terminator. (Use F101-59 cable adaptor.)

$4.50 Net

Model 1401 — For RG-59/U, RG-6/U

Surface mounting non-resistive line tap for RG-59/U type feeders. Color coded attenuation values permit use with highest gain amplifiers. Specify R, Y, GR. Complete with mounting bracket and three C-52 cable connectors. (Use C-56 connectors for RG-6 type feeders.) Terminate the last tap on a feeder line with TR-72 terminator.

$4.50 Net



TERMINATORS

Model TR-72B

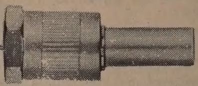
Inexpensive 75 ohm terminator for easy connection to B-59 type bushings.

$.90 Net

Model TR-72

Close tolerance 75 ohm resistor for line or equipment termination. Mates with C-61, C-81 or C-5911.

$.90 Net



Model TR-72F

Similar to TR-72. Mates with F-61, F-81, A-61 or F-101-59.

$.90 Net

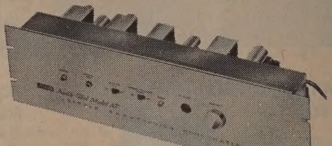
NEW DIMENSIONS IN TV SYSTEMS

NEW JERROLD AUDIOTROL MODEL AT-*

SPECIFICATIONS

RF Output:	Up to 55 dbj**, each carrier separately controlled at 75 ohms at each of the two outputs.
Frequency Stability:	Video carrier crystal controlled, sound carrier AFC controlled referenced to crystal.
Spurious Signals:	Down 50 db.
Frequency:	Any VHF TV channel.
Carriers:	One at video, unmodulated. One at sound, FM modulated with 25 kc max. deviation (TV standards).
Signal for Max. Deviation:	50 millivolts.
Input Impedance:	100,000 ohms.
Output Impedance:	75 ohms VSWR 1.2.
Distortion:	Less than 1%, 2nd harmonic and hum.
Regulation:	All critical voltages regulated.
Power Requirement:	45 watts at 117 volts, 60 cycles.
Mounting:	19" rack.
Dimensions:	19 x 5¼ x 5 inches.
Weight:	9 lbs.

*Specify TV channel desired.
**0 dbj = 1,000 microvolts across 75 ohms.



Jerrold's audio modulator Model AT-* utilizes the unused TV channels to transport music, voice, radio, etc. to every receiver in a TV distribution system. The audio source may be an FM tuner, an AM radio, records, tape or microphone. Any commercial TV receiver can be used to reproduce the audio program through the speaker. Simply installed at the head-end, there is no need for additional equipment or alterations in any room. Model AT-* presents a unique method to add audio to an existing or planned TV distribution system in Hotels, Hospitals, Schools and Apartment Houses.

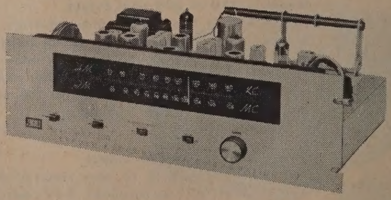
Shipping weight 9 lbs. **$195.00 Net**

*Specify channel when ordering.

NEW AM/FM TUNER MODEL AFT-300

SPECIFICATIONS

FM	
Sensitivity:	3.2 microvolts IHFM (usable sensitivity 0.95 microvolts for 20 db of quieting)
Image Rejection:	45 db
Frequency Response:	±1 db, 15-15,000 cps
Distortion:	unmeasurable at 30% modulation, less than 0.1% at 100% modulation
Limiter:	gated beam, constant output
Antenna Impedance:	300 ohms
AM	
Sensitivity:	80 microvolts per meter; terminal sensitivity 10 mV
Selectivity:	10 kc bandwidth; 6 db down
Image Rejection:	50 db
IF Rejection:	55 db
GENERAL	
Power Requirements:	50 w., 117 v. A.C., 60 cps
Dimensions:	19" W x 5¼" H x 11½" D (excluding knobs)
Shipping Weight:	25 lbs.

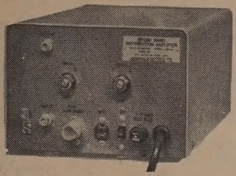


Jerrold's new Model AFT-300 is a highly selective and sensitive, drift-free tuner for converting any AM or FM broadcast signal into an audio source for Jerrold's "AUDIO-TROL" Model AT-*. Model AT-* in turn will distribute these sound signals over any unused channel in a TV distribution system. While absolutely independent in its function, Model AFT-300 is the perfect companion piece to Model AT-* and can be incorporated together with the Audio-Trol in a single cabinet, or can be rack-mounted separately.

$139.73 Net

JERROLD® NEW AMPLIFIERS AND OUTLETS

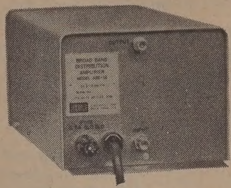
NEW LINE OF BROAD-BAND TV/FM AMPLIFIERS



MODEL 2300-A

Jerrold's new medium system distribution amplifier Model 2300-A provides a minimum gain of 39 db on the low band with a high output of 0.35 volts per channel for 3-channel operation. On the high band the minimum gain is 40 db with an output of 0.25 volts per channel for 4-channel operation (both rated at 0.5% distortion). Model 2300-A features excellent overload capabilities and employs seven tubes, four of which are frame-grid types. The design incorporates low-band equalization for long cable runs and a receptacle for connecting an automatic overload control unit. New heavy duty construction insures long life and reliable service at minimum maintenance.

Shipping weight 12½ lbs. **$107.70 Net**



MODEL ABD-1A

This is a small system distribution amplifier with a high output of 0.35 volts for 7-channel operation providing a minimum gain of 22 db on the low band and 20 db on the high band. This amplifier, too, employs new type frame grid tubes and is built for heavy duty service. Model ABD-1A is equipped to accommodate the new 8-way coaxial splitter Model G-1518.

Shipping weight 9 lbs.

$65.56 Net

MODEL ACL-200

Ideal for compact systems, dealers' show rooms and deluxe home installations. Employs two frame-grid tubes delivering minimum 20 db on the low band and 19 db on the high band.

Shipping weight 5 lbs.

$38.97 Net

NEW "ULTRA-TAP" ALL-PURPOSE TAP-OFF FOR TV-FM DISTRIBUTION

Jerrold's "ULTRA-TAP" combines in one basic unit all the features desired by architects and installers. The architect is free to select the material and finish of the cover plate to match any decor, and can choose to combine the ac and TV/FM outlet in one outlet box with one cover plate. The installer has a choice of either a 75 or 300-ohm receiver connecting plug to meet his specific job requirements. The basic Ultra-Tap handles either TV or FM and can be flush or surface mounted. A special combination model permits simultaneous connection of a TV and an FM set. New type push-on fittings allow quick connect and disconnect of receivers.

BASIC TAP-OFF UNIT FOR TV OR FM

Model UT-22 (W, R or Y)
Provides a choice of three isolation and feed-thru values and is used to tap TV or FM signals from RG-59 type feeder cables. Simple crimp-on bushings and new positive-gripping clutch provide fast solder-less connections to the feeder. Model UT-22 can be flush or surface mounted. For flush-mounting the unit fits a standard 2" x 4" (or combination) wall box and new cover plates are available in a variety of types. A special housing is also available for surface mounting. Equipped with a "Gamma" receptacle, the unit accepts the new 75 or 300-ohm push-on plugs.

ISOLATION AND FEED-THRU CHART
A—Isolation B—Feed-Thru
Values in db

MODELS UT-22 and UT-33
COLOR CODE

Ch.		White	Red	Yellow
2	A	35	27	22.5
	B	0.2	0.4	0.2
6	A	34	25	19
	B	0.2	0.4	0.3
7	A	31	21	13
	B	0.25	0.5	0.9
13	A	30	20	11.5
	B	0.25	0.5	1.0

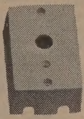
FLUSH COVER PLATES

Model UT-PI
Single outlet ivory cover plate, sturdy molded plastic.

Model UT-PS
Single outlet cover plate, brushed stainless steel.

Note: Other finishes, and double-sized cover plates are available on special order.

SURFACE HOUSING

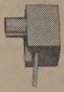


Model UT-SH
Single outlet ivory surface mounting box, sturdy molded plastic.
(Not for use with UT-33)

SPECIAL WALL TERMINAL UNIT

(Without Isolation or Feed-Thru)
Model UT-12 A wall terminal unit providing connection to a remotely mounted isolation unit such as G-1404, 1401, or PT-1461. Similar to Model UT-22 in all other respects.

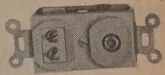
NEW PUSH-ON "GAMMA" PLUGS



Model G-300
A 75 to 300 ohm adapter plug for connecting 300 ohm lead from receiver directly to Ultra-tap outlet.

Model G-59
Male plug—For use where it is desirable to run RG-59 type cable to the TV/FM receiver. Features a built-on ferrule.†

†Pat. Pending



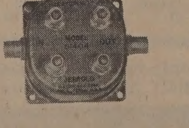
COMBINATION TAP-OFF UNIT FOR TV AND FM

Model UT-33 Available in the same isolation and feed-thru values as Model UT-22. It has additional isolation to separate TV and FM signals for simultaneous connection of a TV receiver and an FM receiver. The unit is flush mounted in the same manner as model UT-22. For surface mounting a standard wire mold box is required.

NEW "QUICK DISCONNECT" SPLITTER AND OUTLET

NEW 8-WAY COAXIAL SPLITTER
Model G-1518

No other Splitter like it on the market! Eight outputs compacted into a 9 cu. in. device! Uses new "Gamma" Series Push-On connectors!
Nine G-59 cable connectors included.
Dimensions: 3" L, 2$\frac{5}{16}$" W, 1$\frac{5}{16}$" H
Shipping Weight: ½ lb.
$17.70 Net



NEW 4-OUTLET ISOLATION NETWORK
Model G-1404

Jerrold's new Model G-1404 is a four-outlet tap-off. It comprises a network providing high isolation between the four outputs. Equipped with new "GAMMA" series chassis fittings the unit permits quick connect and disconnect of coaxial cables to the receivers. Line output and input terminals use F-59 connectors for permanent feed-thru continuity. Two F-59 and four G-59 cable connectors included. **$9.90 Net**

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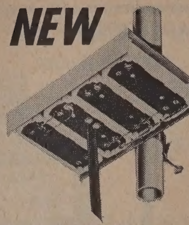
JERROLD TV SYSTEM ACCESSORIES

ANTENNA MIXING NETWORKS

NEW



Group of 4 Model TX-(†) Units on GP-4 Mount

For mixing single channel or broadband antennas into a common line. May be used in reverse as channel splitters.

INDOOR OR MAST MTG.—FIXED FILTER—300 OHM

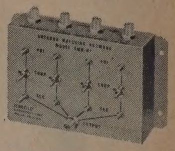
Complete with Matched Mixing Jumpers, and appropriate hardware.

	NET
TX-(†) Specify Channel Desired Ch. 2 thru 13	$3.57
TX-(FM) FM From TV Antenna With No Losses	$3.57
TX-(H-L) To Be used When Mixing Hi and Lo VHF Chs.	$3.57
TX-(VHF-UHF) Mix or Separate VHF and UHF Signals	$3.57
GP-4 GANG PLATE For Mounting 4 TX-(†) Complete With Hardware and Strap	$1.67

INDOOR MTG.—TUNABLE FILTER—75 OHM

AMN-HI Gray Hammertone Finish 4 ch. 7-13	$18.15
AMN-LO Gray Hammertone Finish 3 ch. 2-6	$18.15

† Specify channel desired.

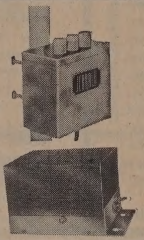


Model AMN-HI

UHF CONVERTER MODEL U2V

UHF Converter Model U2V

Pulling UHF pictures out of the snow where other converters haven't a chance, the U2V mast mounting mixer head converts right at the antenna. The UHF oscillator is mounted at the amplifier location (or at the TV receiver for individual home installation) and sends local oscillator signals up to the mixer, (a technique developed in radar installations). Signals leave the mixer as VHF so coaxial cable may be used. The U2V will convert any UHF channel to any VHF channel. Order by specifying UHF channel to be converted to a specific VHF channel. $82.17 Net



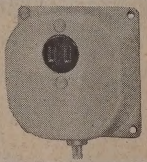
MIXER HEAD

UHF Input: double cavity tuned, 10 mc bandwidth, 75 ohms
VHF Output: 75 ohms
Mixer Crystal: CK 710 or CK 731
Dimensions: 4¼″ x 4$\frac{5}{16}$″ x 2$\frac{3}{16}$″
Weight: 1 lb. 13 oz.
Mounting: Mast mounted, brackets and straps supplied

OSCILLATOR

Tube complement: 1-6AF4, 1-OB2.
Oscillator Output: 1.0. v RMS
Power Requirements: 117v AC, 50-60 cps, 25 watts
Dimensions: 4½″ x 5½″ x 7″
Weight: 3½ lbs.
Mounting: May be mounted horizontally on a shelf or vertically on a wall.
Shipping Weight: 7 lbs. (Head & Oscillator).

WALL TERMINAL UNITS



Model ST 1611

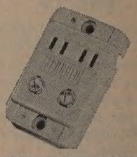
Features quick-disconnect receptacle.
Matches receiver to 75 ohm line. Terminates tap line. Isolates line from AC-DC receivers. Metal construction minimizes radiation. Male plug not included.
$2.49 Net

MODEL 1201

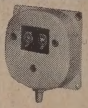
Matches receiver to 75 ohm line. Terminates line. Isolates line from AC-DC receivers. Molded plastic economy model. Surface mounting.
$1.59 Net

MODEL 1202

Same as model 1201 but mounts flush in 2 x 4 electric outlet box. Requires one Model 1202-P Cover Plate.
1202 $1.59 Net
1202P $.21 Net



MATCHING TRANS-FORMERS



Model T-372

Surface mounting. 6 db voltage gain between 75 ohm and 300 ohm line. Flat response 50-250 mc. VSWR 1.26. Isolates line from AC-DC receivers. C-52 male connector included.
$3.60 Net

Model T-373

Flush Mounting version of T-372.
$3.60 Net

Model TO-374

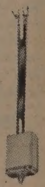
Antenna mounting. Outdoor version of T-372. Bypasses AC open line in long runs between De-Snower pre-amplifier and power supply. Matches 300 ohm broadband or yagi antennas to 75 ohm line. Complete with mounting strap and cable connector (F-59). $6.00 Net

Model T-375

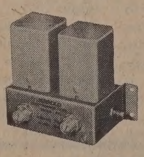
Receiver mounting. Economy version of T-372. Has B-59 crimp-on bushing in place of C-61 female 75 ohm connector, pre-connected 6″ 300 ohm lead instead of terminal strip for mounting directly to receiver.
$2.91 Net

Model T-377

Receiver mounting, miniaturized version of T-375. Complete with C-52 fitting for attachment to coaxial cable and a solidly connected length of twin-lead (with terminals) for attachment to receiver terminals.
$1.99 Net



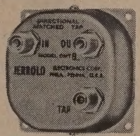
HIGH Q TRAPS



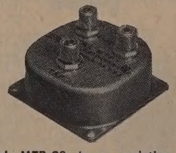
Each trap consists of two tunable L-C circuits in a modified bridged-tee network. Tuning is by Teflon-dielectric trimmers with screwdriver adjustment. With both circuits tuned to an interfering signal, rejection is 40 db minimum with insertion loss only 1 db at 1 mc off the interfering frequency. Complete with two F-59 connectors for RG-59/U cable $38.55 Net

Model TLB-1 59.75 — 83.75 mc
Model TFM-1 88-108 mc
Model THB-1 179.75 — 211.25 mc

MATCHED T PADS



Model DC-8 is a back-matched directional-coupler type tap unit with a band pass from 7 mc to 216 mc. The insertion loss is 1.5 db and tap loss is 8 db. Isolation between line and tap outputs is 30 db at channel 6. Excellent 75-ohm match on all three terminals. VSWR is 1.3. Shipped complete with 3 mating F-59 connectors. Shipping weight — 6 oz. $7.70 Net



Model MTP-20 is a resistive splitting device designed to match the trunk line in and out as well as the tap. The band width is 0-216 mc. Excellent 75-ohm match on all three terminals. VSWR is better than 1.2. Shipped complete with 3 mating F-59 connectors. Shipping weight — 6 oz. $6.50 Net

FIXED RF PADS

Model PDL — Fixed attenuator pad for 75-ohm circuits. Shipped with two F-59 connectors for in-line applications. For chassis mounting, order F-71 connectors. Specify 3, 6, 10, or 20 db.
$3.51 Net

Technical Data Sheets Available for Products Listed on this Page.
ALL DATA AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE

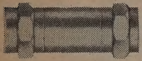
LOOK TO JERROLD FOR AIDS TO BETTER TELEVIEWING

JERROLD®

JERROLD *Solderless* COAXIAL CABLE CONNECTORS and ADAPTERS

JERROLD solderless connectors can be permanently bonded to all types of RG-59/U, RG-6/U and RG-35/U cables with simple crimping tools. JERROLD connectors are carefully machined of brass and all exposed surfaces are heavily silver plated. All the new JERROLD "F" series connectors are accurately matched to 75 ohm with a V.S.W.R. less than 1.05 up to 200 mc. "F" connectors can be wrench tightened and all sizes will adapt to each other.

NEW "F" SERIES (For RG-59/U and RG-6/U)



F-71 Male Coupling Adapter. Mates with F-61, F-81, F-101-59 or A-61. **$.96 Net**

F-61 Female Chassis Fitting. Accepts F-59, F-56 and TR-72F. Mounts in 3/8'' diameter chassis hole. **$.55 Net**

A-61 Adapter. Mates new F-59 or F-56 male connectors to older type C-61 female fittings. **$1.25/25 Net**

PF-59 Push-On Connector eliminates need for screwing an F-59 connector on an F-61 fitting in temporary equipment hook-ups. Simply pushes on and pulls off. Features a split-spring-tightened F-59 connector on one end and an F-61 fitting on the other. **$1.70 Net**

F-59 Male Cable Connector. For RG-59-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. **$.48 Net**

F-56 Male Cable Connector. For RG-6-type cables. Mates with F-61, F-81, A-61, F-101-59, F-201-59, AF-101-59, and AF-201-59. **$.62 Net**

F-81 Female Coupling. Accepts F-59 or F-56. Mounts in 3/8'' diameter panel hole 'for use as feed-thru. **$.75 Net**

NEW "F" SERIES (For RG-11/U)

Model F-101-59 ADAPTER ASSEMBLY

Connects RG-11/U type cables to F-59, F-56 or TR-72F. Requires Crimping Tool PL-602. **$1.46 Net**

Model AF-101 ADAPTA-FIT MALE CONNECTOR

For RG-11/U type cables. Mates with F-81, F-1159, F-61, F-101-59 and A-61. Requires Crimping Tool PL-602. **$1.26 Net**

AF-201. Same as AF-101, but for RG-11 Poly Foam Cable **$1.26 Net**

"C" SERIES

C-52 Male Connector mates with C-61 or C-5911. For RG-59/U type cables requires Crimping Tool PL-601 or PL-602. **$.48 Net**

C-56 Male Connector. Same as C-52 but for RG-6/U type cables. **$.62 Net**

C-61 Female Chassis Fitting. Accepts C-52, C-56 or A-61. Mounts in 5/16'' diameter chassis hole. **$.48 Net**

C-81 Female Coupling. Accepts two C-52, C-56 or A-61. Mounts in 1/4'' diameter panel hole and feed-thru. **$.60 Net**

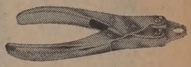
Ferrules — for use with Jerrold Solderless Fittings

1026 Ferrule—For use with RG-6/U type cables. **$2.86/100 Net**

1051 Ferrule—For use with RG-59/U type cables. **$1.43/100 Net**

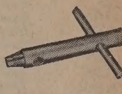
1095 Ferrule—For use with RG-11/U type cables. **$4.29/100 Net**

TOOLS



Crimping Tool PL-601 — Crimps type 1051 ferrules. For F-59, F-56 and C-52 connectors and B-59 bushings. Does not distort cable or cause impedance mis- **$4.29 Net**

Crimping Tool PL-602 — Crimps all three ferrules — 1051, 1026 and 1095. For F-59, C-52, F101-59, AF-101 and B-59 bushings. Does not distort cable or cause impedance mismatches. Made of hardened **$5.39 Net**



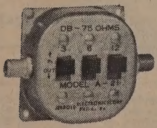
Cable Cutting Tool CD-11 — Cuts attenuator opening in coax cable for JERROLD pressure taps. Made of hardened steel. **$2.16 Net**

CT-1. Replacement cutting tip for CD-11. **$1.10 Net**

JERROLD TEST EQUIPMENT

VARIABLE ATTENUATOR

Model A-21



Model A-21

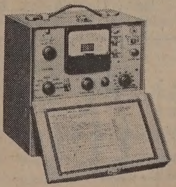
Switch type, Variable RF Attenuator providing precise attenuation over the frequency range of 0 to 250 megacycles. The unit is matched to 75 ohms with a VSWR of less than 1.05 and is capable of handling 500 milliwatts of power. Model A-21 attenuates from 0 to 21 db in 3 db steps. Two F-59 connectors included.

$12.87 Net

THE UTMOST IN RELIABILITY AND SENSITIVITY— The Incomparable

MODEL 704B FIELD STRENGTH METER

Reads Down to 5 Microvolts and Up to 3 Volts



Recognized throughout the industry as outstandingly accurate and reliable, the Model 704B—Jerrold's Top-of-the-Line in field strength meters—is a calibrated, direct reading instrument for TV and FM measurements. It is a professional quality instrument for making measurements of RF signal strength within the frequency range of 54 to 220 mc. Its specially-designed tuner assures increased selectivity, 75 ohm impedance and uniform gain—as required for highest accuracy. Extremely versatile, its range of uses includes field intensity surveys, orienting antennas, measuring RF attenuation of coaxial cables and balancing TV distribution systems.

FEATURES

- Reads down to 5 microvolts and up to 3 volts, in 8 ranges
- Bandwidth is 0.6 mc
- Separates audio carriers from adjacent video carriers.
- Precise readings in db or microvolts ±0.8 db over entire range
- Reads percent of amplitude modulation of FM carriers, percent of AM distortion of FM amplifiers and percent of AM of RF generators.
- Lightweight, durable aluminum cabinet with carrying handle
- Calibration card on hinged door panel for permanent reference
- Phone outputs for listening to FM signals
- Oscilloscope output for examining composite video

$395.00 Net

TECH DATA SHEETS AVAILABLE FOR PRODUCTS LISTED ON THIS PAGE
ALL DATA AND PRICES SUBJECT TO CHANGE WITHOUT NOTICE

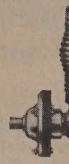
LOOK TO JERROLD FOR THE BEST IN EVERY TEST

JERROLD®

© U.C.P., Inc.

ANTENNAS *Master Mobile* MOUNTS

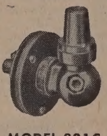
MODEL 232



MODEL 232C

MODEL 232C (COAXIAL TYPE)

(Coaxial Type Base Mounts Optional)



MODEL 321C

232 SERIES

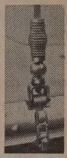
MODEL 140

MODEL 142

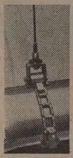
100 SERIES

SEPARATE SPRINGS FOR UNIV. MOUNTS

100W SERIES



No. 444 Universal $17.80



No. 445 Mount $7.95

No. 446 Mount $13.45

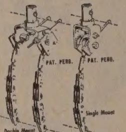
All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

MOUNT SPECIFICATIONS (All types are tapped for 3/8'' Stud Fitting on Antenna End. Shipping Weight Approx. 3 lbs.)

232	Base Mount—Double Tapered Spring—Swivel Base	$ 8.75
232C	Base Mount—Double Tapered Spring—Swivel Base Coax Conn.	8.75
232SS	Base Mount—Double Tapered Spring—Spec. Stainless	12.95
232SSC	Base Mount—Double Tapered Spring—Spec. Stainless—Coax. Conn.	12.95
232X	Base Mount—Heavy Duty—Double Tapered Spring—Swivel Base	9.85
232XC	Base Mount—Heavy Duty—Double Tapered Spring—Coax. Conn.	9.85
232XSSC	Base Mount—Heavy Duty—Double Tapered Spring— Spec. Stainless—Coax Conn.	14 95
232XSS	Base Mount—Heavy Duty—Double Tapered Spring—Spec. Stainless	14.95
232XX	Base Mount—Extra Heavy Duty Spring	10.85
232XXC	Base Mount—Extra Heavy Duty Spring—Double Tapered Spring—Coax Conn.	10.85
232XXSS	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless	15.95
232XXSSC	Base Mount—Extra Heavy Duty Spring—Double Tapered—Spec. Stainless—Coax Conn.	15.95
321 or 321C	Base Mount—Where no spring desired—with spec. rigid type ball joint	7.95
140	Universal Mount—Double Tapered Spring	6.95
140X	Universal Mount—Heavy Duty—Double Tapered Spring	7.95
140SS	Universal Mount—Special Stainless	9.65
140XSS	Universal Mount—Special Heavy Duty Stainless	10.95
140XX	Universal Mount—Extra Heavy Duty—Double Tapered Spring	8.95
140XXSS	Univresal Mount—Extra Heavy Duty—Stainless Steel	11.95
142	Universal Mount—Less Spring, with Insulators for Direct Mounting by Series 100 Ant. or 92 Ext. and 106 Antenna	3.95
446SS	Universal Mount—Special Stainless—Chain Mount	14.90
446XSS	Universal Mount—Heavy Duty—Special Stainless—Chain Mount	15.90
446XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Chain Mount	16.90
446	Universal Mount—Heavy Duty Spring—Chain Mount	13.45
446L	Universal Mount—Double Tapered Spring—Chain Mount	12 45
446XX	Universal Mount—Extra Heavy Duty Doubled Tapered Spring—Chain Mount	14.45
444	Universal Mount—Heavy Duty Spring—Swivel Base—Chain Mount	17.80
444L	Universal Mount—Double Tapered Spring—Swivel Base—Chain Mount	16.70
444XX	Universal Mount—Extra Heavy Duty Spring—Swivel Base—Chain Mount	18 80
444SS	Universal Mount—Special Stainless—Swivel Base—Double Tapered Spring—Chain Mount	20.90
444XSS	Universal Mount—Special Stainless—Heavy Duty—Swivel Base—Chain Mount	22.90
444XXSS	Universal Mount—Extra Heavy Duty—Special Stainless—Swivel Base—Chain Mount	23.90
445	Universal Mount—Threaded, 3/8"-24—Chain Mount	7.95

SEPARATE SPRINGS FOR BUMPER MOUNTS

	Net
100—Regular	$4.50
100-X—Heavy Duty	5.50
100SS—Stainless Steel	6.95
100XSS—Heavy Duty Stain. Steel	7.95
100WX —Hvy. Duty w/Male stud.	5.50
100XX—Extra Heavy Duty Spring	6.50
100WXX—Extra Heavy Duty Spring —Male Stud on one end	6.50
100XXSS—Extra Heavy Duty Spring —Stainless Steel	8.95



UNIVERSAL MOUNTINGS

Unique shaped links adjustable to fit any width surface. For use with spring and or whip. (3/8"-24 thread.) Easily attaches in minutes.

MM530	Deluxe Dbl. Mt. Stain. Steel	Net	$21.95
MM531	Deluxe Sgl. Mt. Stain. Steel	Net	11.95
MM520	Dbl. Mt. S-Cad. Plated	Net	7.95
MM519	Single Mt. S-Cad. Plated	Net	4.95

SILICON-CHROME WHIP ANT.

New 9 Series—with 3/8" Thr. Studs

Model No.	Overall Length	Net Price
9-60T	60"	$2.97
9-72T	72"	3.24
9-84T	84"	3.30
9-86T	86"	3.60
9-96T	96"	3.75

New 8 Series—without Studs

Model No.	Overall Length	Net Price
8-60	60"	$2.82
8-72	72"	3.07
8-84	84"	3.13
8-86	86"	3.42
8-96	96"	3.55

New Model No. 132-J Junior Body Mount—Same design as standard No. 232 Master Mount but smaller size. Built to approved Master spec. for quality, workmanship and finish.

Attractively priced at only **$4.17**

Model No. 132-JC—Same as above with Coax Connector ....**Only $5.17**

New Model No. 140-J Junior Bumper Mount—Same design as our standard No. 140 Master Mount but smaller spring—yet of same high quality construction and finish. **Net $4.17**

Coaxial Conversion Kit—No. 118 fits No. 232 and No. 118J fits No. 132J Models. **Net $1.00**

WHIP ANTENNA SPECIFICATIONS

MODEL St. Steel	Overall Length	Base Specifications	Net Price
100-60S	60"	Threaded 3/8" Stud to fit all Mounts	$4.95
100-72S	72"	Threaded 3/8" Stud to fit all Mounts	4.95
100-78S	78"	Threaded 3/8" Stud to fit all Mounts	5.00
100-86S	86"	Threaded 3/8" Stud to fit all Mounts	5.15
100-90S	90"	Threaded 3/8" Stud to fit all Mounts	5.20
100-96S	96"	Threaded 3/8" Stud to fit all Mounts	5.25
100-103S	103''	Threaded 3/8" Stud to fit all Mounts	6.95
106-60S		Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-72S	72"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.15
106-78S	78"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.20
106-86S	86"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.35
106-90S	90"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.40
106-96S	96"	Pl. End 3/16" Dia. (Fits Mod. 92 Ext.)	4.50
106-103S	103''	Pl. End 1/4" Dia. (Fits Mod. 92 Ext.)	6.45

Comb. 106-96" whip with #92 Ext. (18") gives up to 112" adj. ....**Net $8.00**

ORDER FROM YOUR JOBBER TODAY!

Master Mobile Mounts, Inc.
LOS ANGELES, CALIFORNIA

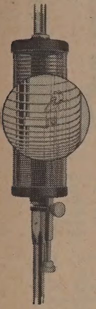
New Giant Catalog...Fully Illustrated...
Covering Full Line of Master Mobile Antennas
and Accessories...Fixed and Mobile.

© U.C.P., Inc.

ANTENNAS *Master Mobile* MOUNTS

THE GREAT NEW ADVANCEMENT IN VARIABLE ANTENNA COILS!

HY "Q" construction with wider spacing of turns for high frequency bands. Use as center or base loaded antenna with 60″ whip.



New! . . .

Silver-Plated Roller with Positive Action, Stay-Put Contact

No. 333
MASTER
MIGHTY
MIDGET
For 40-20-15-11-10 Meters

$9.95

No. 750
MASTER DELUXE ALL-BANDER

Covers 10 thru 75 and all intermediate frequencies.

Silverplated single turn contact, positive spring. Eccentric cam contact, easy selection of turn.

Automatic lock prevents damage to coil.

Net $14.95

Ultra-Hi "Q" COILS

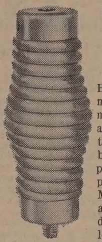
FOR 80-40-20 & 15, METERS

After many years of experimentation, here is the coil with the highest "Q" ever obtained. Tested and found to have a "Q" of well over 515. Use with 36″ base section, 60″ whip.

• Ruggedized construction • Greater efficiency • Precision made • 2¾″ Diameter

ANY BAND . . . AMATEUR

NET EA.
$5.25



HEAVY DUTY UNIVERSAL SPRINGS

Heavy duty flexible mounting spring mounts on the base and holds the antenna. Special flexible "give" spring prevents sharp impacts and breakage. Maintains vertical antenna position under normal wind loads.

⅜-24 tapped hole for antenna mast. ⅜-24 stud for antenna base. 5″ h. Tightening wrenches supplied.

Model MMW-7 ....$4.50
Cadmium plated with black painted ends. Lockwasher included.

Model MMW-7HC $5.50
Heavy Cadmium plated for extra protection. Lockwasher included.

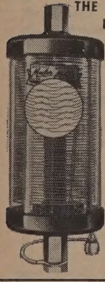
Model MMW-7SS $8.95
Deluxe—Stainless Steel spring high quality appearance. lockwasher included.

NEW MULTI-BAND
TRANS. ANTENNA COILS

New Plug-In Coils! Just plug into desired pair of jacks and presto! . . . your coil is ready for operation on the desired band. No switches, no sliding contacts, no loose connections. Built and tested for maximum resonance.

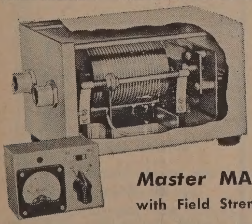
- **Rigidly tested and engineered—found to have a "Q" of 525**
- **Operates into a 52-ohm cable**
- **Positive contact—noisefree, trouble-free operation**
- **Weathersealed**
- **Ruggedized construction**
- **Factory pre-tuned—no adjustment is necessary**
- **Higher efficiency—lower loss**

YOUR CHOICE $14.95



THE ARISTOCRAT
No. 900
10-15-20-40-75 METERS

THE VICTORY
No. 999
10-15-20 METERS ONLY



Automatically tunes the band by remote control

Master MATCHER
with Field Strength Meter

Motor-driven variable inductance controlled by a switch from the operating position. Makes possible tuning the antenna to the exact resonant frequency. QSY in any particular band without moving to adjust anntena loading coil. All guess work is eliminated, and the field strength meter, with automatic panel light indicator, shows when roller is at minimum inductance position. With the Master Matcher maximum efficiency is possible with minimum effort.

For 6 volts: Model 2495-6
For 12 volts: Model 2495-12

Amateur Net
$24.95
Complete

DELUXE ULTRA-HI "Q" COILS

New design for higher "Q", top efficiency and lighter weight. No arcing with high power transmitters. For use with 3 ft. base section and 60″ whip.

15 meter	$ 6.95	2374 Kc.	$15.95
20 meter	6.95	2738 Kc.	15.95
40 meter	8.95	2768 Kc.	15.95
75/80 meter	9.95	4507.5 Kc.	10.95
160 meter	14.95	4585 Kc.	10.95
2251 Kc.	15.95	4325 Kc.	10.95

ULTRA HY "Q" C.A.P. COILS

Additional HY "Q" C.A.P. Coils to be used with HY "Q" C.A.P. Antennas according to frequency desired. These coils are interchangeable. Other freq. coils priced upon request.

	Net
UH "Q" 2374 KC.	$ 8.95
UH "Q" 2738 KC.	8.95
UH "Q" 2768 KC.	8.95
UH "Q" 4507.5 KC.	7.95
UH "Q" 4585 KC.	7.95
UH "Q" 4325 KC.	7.95
UH "Q" 160 Meters	12.95
UH "Q" 2251 KC.	12.95

BASE MOUNT

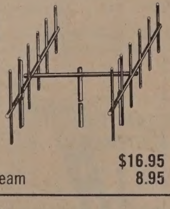
New design incorporating the last word in modern design for strength and service. Easy one-man installation, no special tools needed. Mounts watertight on flat or curved surface. Mounting template provided. ⅜-24 thread mounting hole for whips and antennas.

MMW-3 APS

Model MMW-3AE High gloss ebony finish	$6.95
Model MMW-3AP High gloss polished finish	7.95
Model MMW-3AES Ebony finish. Stainless Steel hardware	8.95
Model MMW-3APS Polish finish. Stainless Steel hardware	9.25

TWIN-SIX 2 METER BEAM

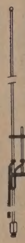
Sturdy, lightweight stacked beam. 12 db. forward gain. 25-30 db. front-to-back ratio. Easy to assemble for horizontal or vertical polarization. Complete with all hardware for stacking and assembly, balun, matching harness for 52 ohm coax, and 3-foot mast. Pre-tuned at factory. All heavy-duty aluminum.



Model AM-5 Amateur Net $16.95
Model AM-4 Six element beam 8.95

2 METER "J"
Mobile/Fixed
ANTENNA

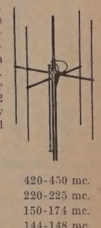
Provides 2 db. gain over standard co-axial antennas. Vertically polarized. Perfect impedance match for 52 ohm line. Factory-cut balun supplied. Overall height is 86″. Ideal antenna for 2-meter mobile or fixed station use.



Model AM-28
Amateur Net
$14.95

"CLOVERLEAF" ANTENNA

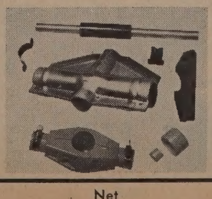
Provides 3 db. gain. VSWR less than 1.5:1. Omni-directional pattern with gain equal to 2 el. beam. Complete balun to match 52 ohm coax. Factory pre-tuned. All aluminum.



AM-23	420-450 mc.
AM-24	220-225 mc.
BR-1	150-174 mc.
AM-25	144-148 mc.

Amateur Net $12.95

Model AM-26—50-54 mc. $19.95



Design-It-Yourself
BEAM PARTS!

Everything you need, except the tubing, to build the tri-band or mono-band beam you want at great savings. Traps, boom clamps, element supports, etc., assuring you of a well-built beam. Send for beam data sheets, catalog and prices.

COMPLETE KITS ALSO AVAILABLE

3 el. 10, 15 or 20
No. AM-20—$22.95

2 el. 40 meters
No. AM-21—$22.95

3 el. Tri-Bander 10, 15 & 20
No. AM-22—$49.95

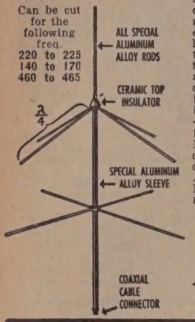
ANTENNAS *Master Mobile* MOUNTS

2 METER ANTENNAS — FIXED • MOBILE

GROUND PLANE ANTENNA

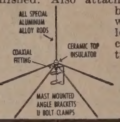
Model 300—Master DeLuxe . . . NEW! . . . brings in that DX. Outperforms any type of vertical dipole. "Drooping" Type Ground Plane plus four straight radials to give a low angle of radiation for general coverage, an almost perfect circle radiation pattern. Ideal for CD and defense nets. Covers complete Amateur and with Broad Band char. Matches 52 ohm coax cable through threaded coax fitting at end. Straight radials are adjustable (up or down) to eliminate standing waves on trans. lines. For medium or low-powered trans. Sturdily built of finest alloys to withstand corrosion, high winds and extreme icing. With 36″ length of ¾″ pipe for mounting purposes.

Model 300 Amateur's ..Net $12.95
MB-1—Mounting Bracket Net 1.00


ALL SPECIAL ALUMINUM ALLOY RODS
CERAMIC TOP INSULATOR
3/4
SPECIAL ALUMINUM ALLOY SLEEVE
COAXIAL CABLE CONNECTOR

Can be cut for the following freq.
220 to 225
140 to 170
460 to 465

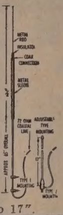
Model GP-4 — Four "Drooping" Radials for perfect match to 52 ohm coax cable. Complete amateur band coverage. Specify other frequencies. Attaches to Mast with U-Bolts. (U-Bolts and Mounting Brackets furnished. Also attachable to side of building. Sturdy, with special alloys, to withstand corrosion and extreme weather.


ALL SPECIAL ALUMINUM ALLOY RODS
COAXIAL FITTING
CERAMIC TOP INSULATOR
MAST MOUNTED ANGLE BRACKETS U BOLT CLAMPS

MODEL GP-4
Amateur's Net
$5.95

TWO METER COAX ANTENNAS

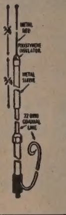
No. 214—MASTER DELUXE . . . ruggedly constructed, vertically polarized, frequency range 140 to 170 MC. Completely waterproofed. Highly polished chrome enhances appearance of any vehicle. Furnished with 10 ft. of 72 Ohm Coax Cable.
Type 1—On side with 2 brackets furnished. **$15.95**
Type 2 — Master Mount (No. 232X or 140X)— Mounts sold separately.
Complete $17.45
Adjustable mtg.—adjusts to 17″.



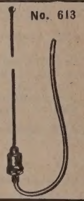
2 METER STANDARD MODEL

No. 114 COAX VHF ANTENNA — At a popular price! For OPEN TYPE VEHICLES using 140 MC to 165 MC. Mounts any convenient place with standard Master Mounts. Baked enamel finish. With 10 ft. Coax Cable and 18″ Adjustable Section.

Net, Only $9.95



232X
Sugg'd Mtg.



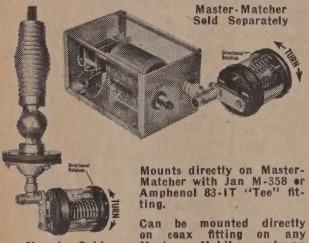
No. 613—NEW IMPROVED MASTER VHF ROOF TOP ANTENNA. This new high performance antenna features an improved type positive-lock coaxial connector. Designed for police, fire, taxi cabs and amateurs using 140 MC to 165 MC. Stainless steel wire with threaded fitting. Easily changed without disturbing mounting. Comes with 10 ft. coax cable........................**Net $4.95**

No. 113—ROOF TOP ANTENNA **without** De Luxe Connections	**Net**	**3.96**
No. 117—Extra Antenna for No. 113 and No. 114....	**Net**	**.97**
No. 116—Extra Antenna for No. 214 and No. 613....	**Net**	**1.70**

All products are for Universal Use—Mobile, Home, Marine, C.A.P., Civil Defense, Emergency, etc.

MICRO-Z-MATCH

MICROMETER IMPEDANCE MATCHING INDUCTANCE for MOBILE ANTENNAS



Master-Matcher Sold Separately

Mounts Sold Separately

Mounts directly on Master-Matcher with Jan M-358 or Amphenol 83-1T "Tee" fitting.

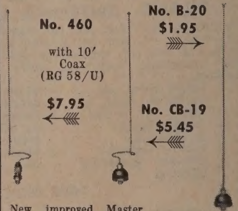
Can be mounted directly on coax fitting on any Master Mobile antenna mount.

- Used on all bands with any type coaxial cable to match any mobile antenna.
- Roller coil construction with rear cap rotating the inductance within the case. 4 microhenries maximum inductance.
- Silver plated coil and roller contacts for low loss.
- Micrometer type calibration permits infinite adjustment and positive resetting.
- Adjustability — Easily adjustable for minimum standing wave ratio (1:1).

Without coax adapter kit Micro-Z-Match may be connected between antenna connector and ground connection.

No. 925
Complete with Coax Adp. Kit
Net
$9.95

CITIZEN BAND 2 METER



No. 460
with 10′ Coax (RG 58/U)
$7.95

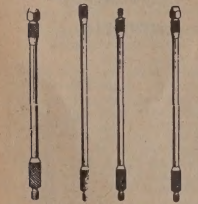
No. B-20
$1.95

No. CB-19
$5.45

New improved Master antennas for high performance.

Stainless steel and chrome plated brass. Self-tapping threads. Easy to install with one 7/16″ hole.

EXTENSIONS — with ⅜″-24 thread, fits all mounts and coils



Model 92 Model 90 Model 88 Model 115

EXTENSIONS			Net
88	36″	Lower Section for all Band Antennas..................	$4.05
88C		In Chrome Plate..	4.55
90	26″	Extension for 100 Series Whips..........................	3.55
92	18¼″	Extension for 106 Series Whips..........................	3 50
94	36¼″	Extension for 106 Series Whips..........................	4.05
115	36″	Extension for Models No. 114 and No. 214........	4.25
12*	12″	Base Section for AB Antenna (baked enamel)....	2.75
12C*	12″	Chrome Base Section for AB Antenna...............	3.25
18*	18″	Base Section for AB Antenna (baked enamel)....	2.75
18C*	18″	Chrome Base Section for AB Antenna...............	3.25
24*	24″	Base Section for AB Antenna (baked enamel)....	3.25
24C*	24″	Chrome Base Section for AB Antenna...............	3.65

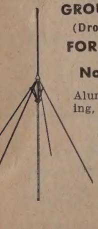
*NOTE: Base Sections for use with ALL-BANDER Antenna Coils.

NEW MASTER FLEX-'R

No. 711

Designed to relieve stress and strain and prevent damage that could be transmitted to the loading voil.

$1.95



GROUND PLANE

(Drooping Type)

FOR 6 METERS

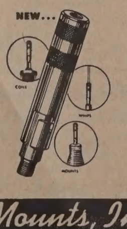
No. MGP-6

Aluminum alloy tubing, coax cable connector. For medium or low powered trans.

$14.95

E-Z-OFF

ANTENNA CONNECTOR



Noise-free. Connect or remove loading coils, whips, or mounts in a jiffy. No wrenches, pliers or screwdriver needed. High-grade stainless steel . . . will not corrode.

- Precision made
- Maximum efficiency
- Positive lock

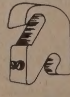
Model No. E-Z-295

Amateur Net
$2.95

No. 10-H
Tennahold
Fits all cars
Amateur Net........$1.00

TENNA-CLIP

Designed to store mobile whip in convenient "storage" position. Instant release. Fits all cars.
No. 20-C
Amateur



Net
$1.00

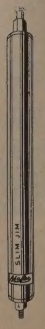
NEW

SLIM-JIM

All-Band
BASE LOADING
Antenna Coil

For 10, 11, 15, 20, 40, 80 Meters.

96″ S.S. Whip included. Positive locking action whip provides accurate and tight contact wherever set. Just slide in or out to final loading point and lock whip into position.



No. B-1080
$17.95

Master Mobile Mounts, Inc.
LOS ANGELES, CALIFORNIA

Net

© U.C.P., Inc.

ANTENNAS *Master Mobile* MOUNTS

MASTER FIBRE-GLAS WHIPS

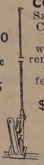
FLEXIBLE, INDESTRUCTIBLE UNIVERSAL ANTENNA

- **Completely Weatherproof** — permanent and rust resistant, corrosion proof.
- **Break-Proof** — specially designed flexibility prevents failure due to fatigue or breakage.
- **Safe**—permanent insulation featured in Master Whips make it absolutely safe, prevents burns.
- **Base Fitting**—⅜″ x 24 thread with male brass—chrome plated fittings.

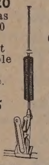
FG-60	**60″**	**Amateur Net**	**$4.95**
FG-72	**72″**	**Amateur Net**	**$4.95**
FG-84	**84″**	**Amateur Net**	**$5.15**
FG-96	**96″**	**Amateur Net**	**$5.25**
FG-103	**103″**	**Amateur Net**	**$6.95**

CLAMP-ON ANTENNAS

CG-360
108 to
470 Mc
Net
$8.95



CG-120
Same as
CG-360
but
without
removable
whip
feature.
Net
$5.95



CG-110
11 Met.
Cit. Bd.
27 Mc
Net
$10.30

SKYMASTER COAX ANTENNA

Skymaster gives you a lower "radiation angle" of your antenna for a better contact for vertically polarized stations in the citizens band. The Skymaster has a nominal impedance of 72 ohms, used with 72 ohm cable. Matches RG59/U coax cable for perfect match to most transmitters and improves receiving.

Both radiator and skirt are of heavy-gauge aluminum tubing, and a resilient machined polyethylene insulator is used for low weight and high strength. Silver-plated coax connector is used for easier connection and lowest SWR.

- **Easily installed on any existing mount**
- **Concentrated signal for best coverage**
- **Perfect match for transmitting and receiving.**
- **Highest quality components**
- **Tested and approved in Master Mobile's own laboratory**

SM-700- 2	**2 Meters**	**Net $10.95**
SM-700- 6	**6 Meters**	**Net $15.95**
SM-700-10	**10 Meters**	**Net $17.95**
SM-700-11	**11 Meters**	**Net $17.95**

MASTER MAGIC WAND
TUNABLE
Combination Coil & Whip

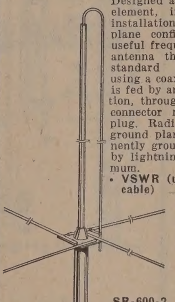
New Magic-Wand Top-Loaded Antenna Mounts On Any Standard Base Mount.

A newly designed single band coil and whip antenna in 1 compact and attractive unit. Top loaded to provide top performance and efficiency at the most useful radiation angle for communications. Built and tested in the Master Mobile Laboratories, the Master Magic-Wand provides a minimum wind resistance which minimizes detuning effects at high speeds. Antenna wound over tapered fiberglass whip for maximum strength.

Available in 5 ft. & 6 ft. Lengths

No. MM810—10 Meters—5 Ft. L.	**$8.95**
No. MM811—11 Meters—27 Mc.—5 Ft. L.	**8.95**
No. MM811-35—11 Meters—35″	**8.95**
No. MM811-45—11 Meters—45″	**8.95**
No. MM815—15 Meters—5 Ft. L.	**8.95**
No. MM820—20 Meters—5 Ft. L.	**8.95**
No. MM840—40 Meters—6 Ft. L.	**9.95**
No. MM880—80 Meters—6 Ft. L.	**9.95**

BASE STATION MONOPOLE ANTENNA



Designed around a folded radiating element, intended for service in installations requiring a ground plane configuration and a wider useful frequency range for a single antenna than is possible in the standard ground plane design using a coaxial stub tuner. Antenna is fed by an end seal type termination, through a Type SO.239 female connector mating with a PL.259 plug. Radiating elements and all ground plane elements are permanently grounded, hterefore, damage by lightning is reduced to a minimum.

- **VSWR (using 50 ohm cable)** **1.31**
- **Bandwidth (under 2.1 VSWR)** .... **±4%**
- **Max. power input** .... **750 watts**
- **Internal feed-line** **RG-8A/U**
- **Nominal input imped.** .... **50 ohms**
- **Termination** **SO. 239**

SR-600-2	**2 Meters**	**Net $14.95**
SR-600-6	**6 Meters**	**Net $16.95**
SR-600-10	**10 Meters**	**Net $24.50**
SR-600-11	**11 Meters**	**Net $24.50**

11 METER CITIZENS BAND ANTENNA

SB-27

A base-loaded stainless-steel whip antenna with an overall height of 40 inches.

The bottom of the whip has been wound into a coil which is potted in a pliable plastic to add rigidity to the coil.

The base of the whip is fitted with a ¼″ diameter brass slug, for use with a standard-broadcast 8-ball type cowl mount; also roof-top or trunk-lid type mounting.

The antenna is cut to offer very low standing-wave ratio over most of the band when fed with a 52-ohm coax.

8B-27

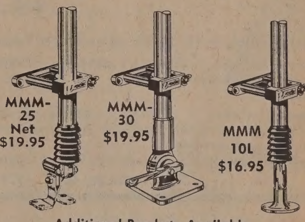
YOUR CHOICE EACH $12.95

ANTENNA WITH PL-259 PLUG

Model No. PL-259..$6.95

MARINE LAYDOWN MOUNTS

New deluxe series. Can be mounted on side of cabin or upright on deck. Mounts swivel, and are adjustable to any position. Chrome-plated brass with high impact waterproof-weatherproof phenolic insulator.



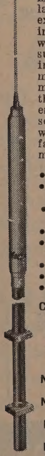
MMM-25
Net
$19.95

MMM-30
$19.95

MMM 10L
$16.95

Additional Brackets Available

MASTER MARINE MARVEL MARINE ANTENNA



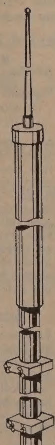
Designed, built and tested in Master Mobile's own floating laboratory, the new center-loaded Master Marine Antenna is the latest result of many years of experience in producing the finest in Antennas used throughout the world! The Marine Marvel, sea-sure and powerful, provides maximum power radiation on all marine frequencies from 2 to 3 megacycles. Here is the Antenna that was made for your boat! . . engineered to withstand the most severe type of marine service, with long life assurance by being fabricated of the highest quality material available.

- **10½ Ft. Overall Length.**
- **Capacity 4 Ft. Stainless Steel Plastic-Coated Whip**
- **18″ Center-Loaded Impregnated Coil.**
- **5 Ft. Anodized Base Section.**
- **Absolutely Waterproof - Weatherproof.**
- **No Electrolysis.**
- **Rugged Insulators.**
- **Adjustable Antenna Lead.**

COLORS AVAILABLE —

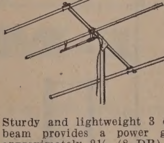
WHIP—Yellow, Blue or Black
COIL—Yellow, Blue or Black
BASE—Gold (Spec. Saltwater Anodized)

No. MMM-2710 Antenna & Solid Mounts—5 Ft. Base	**$29.95**
No. MMM-2715 Antenna & Solid Mounts—10 Ft. Base	**$35.95**
No. MMM-2700 Antenna—5 Ft. Base (less Mts.)	**$27.95**
No. MMM-2705 Antenna—10 Ft. Base (less Mts.)	**$33.95**
MMM-10 SOLID MOUNTS per set	**$5.50**



3 ELEMENT Beam Antenna

Handles up to 1 Kw. Input



Sturdy and lightweight 3 element beam provides a power gain of approximately 2½ (8 DB) in the forward direction and reduces interference from the sides and rear by approximately 10 to 1 (Front to back ratio 20 DB).

A coaxial gamma match is pretuned at the factory to give an excellent VSWR of 1.1 to 1 at band center when fed with a 52 OHM coax.

SR-500-2	**2 Meters**	**$10.95**
SR-500-6	**6 Meters**	**$12.95**
SR-500-10	**10 Meters**	**$24.95**
SR-500-11	**11 Meters**	**$24.95**

MASTER SUPER MARINE ANTENNA No. MMM-2750

MMM-2750

The Master Super-Deluxe Marine Antenna in 12 ft. anodized 1⅜″ tubing. Coil section is 35″ long. Impregnated coil covered with phenolic tubing. 8′ fibreglas whip. Here is the ultimate in Marine Antennas!

MMM-2750 Antenna & Solid Mounts	**$49.95**
Without Mounts	**$47.95**

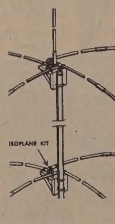
MMM-1

MMM-15

MARINE MOUNTING BRACKETS

	Net
MMM-1 for 1″ mast	**$5.95**
MMM-15 for 1½″ mast	**6.75**

CITIZENS BAND GROUND PLANE



Most popular of all Citizens Band ground planes. Precision engineered and fully tested. Provides the utmost in performance, efficient power . . . ideal for transmitting and receiving. All elements are of aircraft-type aluminum, heat treated for long life. Can be installed in a matter of minutes. Telescopic 2-section elements. Furnished with "U" clamps for mounting. Designed for 52 ohm match. Coax fitting accepts PL-259 plug.

MODEL CBGP5 Complete.. **$15.95**

MODEL CBGP-5C Complete with 50′ RG-58U coax $18.95

CBGP-5 Isoplane Kit—Isolating skirt. Aluminum radials mount below antenna to lower angle of radiation and minimize effect of surrounding structures. $10.95

ASTRONAUT ANTENNA for CITIZENS BAND

Can be resonated precisely to any frequency between approx. 20 and 30 mc. by means of the tip rod attached to top of antenna. Provides outstanding performance. Swivel connection permits installation either horizontally or vertically on curved or flat surfaces. Length approx. 60″.

MODEL CBV-6 **$15.95**

Master Mobile Mounts, Inc.

LOS ANGELES, CALIFORNIA

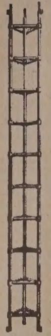
KTV Towers
and communications equipment

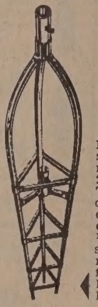
A TOWER OF *STRENGTH*

- *Safe in gales up to 80 mph without ugly, hazardous guy wires.*
- *Free-standing to 50 feet high.*
- *No rusting, ripping or weakening holes . . . safest by far!*
- *Big, husky, steel gird-around tubular ties for extra strength.*
- *Exclusive lateral load bearers take all strain off joints.*
- *Easy installation and dismantling on roof or ground.*
- *Free - drainage joints prevent trapped moisture and corrision.*

All communication towers are built of hot dipped tubing inside and out, then dipped and galvanized, baked in a bright aluminum after fabrication.

#820-K Straight Section. Used as bottom of free-standing 50 ft. tower and in other applications. Legs of 16 ga. cold rolled steel triangularly spaced on 10⅞" centers. Gird-around cross ties spaced at 12" intervals. Over-all length 10 ft. Complete with hardware 38 lbs. #818-K. same quality, but cross ties are spaced at 15" intervals. Wt. 34 lbs. #816-K, Cross ties spaced 20" apart. Wt. 30 lbs.





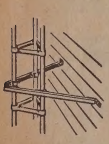
#710K Top Section. Equipped with 21" spaced mast socket rings to take 1½" to 2½" dia. mast. Threaded external receptacle securely welded to each ring gives extra bearing for 2" x ½" set screw. Hi-tensile bolts, washers, hex nuts and set screws furnished. Over-all length 10 ft. Wt. 28 lbs.

packages available in 10, 20, 30, 40 and 50 ft. Towers

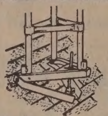
40 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K tower sections and all connecting hardware. Shipping wt. 126 lbs. Order concrete base or roof mount separately.

50 ft. Tower *Includes:* 1 #710-K; 1 #816-K; 2 #818-K and 1 #820-K tower sections; all connecting hardware. Shipping wt. 164 lbs. Order concrete base or roof mount separately.

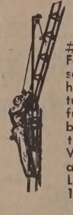
DEALER NET PRICES—10 FT.—$21.20, 20 FT.—$39.00, 30 FT.—$55.50, 40 FT.—$74.00, 50 FT.—$92.50



#864-H *Wall or House Bracket.* Adjustable to 20 inches.



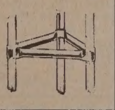
#863H *Roof Mount.* Assures a strong, accurately vertical installation of one or more tower sections. Adjusts up to 45° roof pitch. Takes full advantage of KTV's lateral load support. Wt. 8 lbs.



#852-J *"Gin Pole".* For easy tower assembly. Has 1¼" heavy duty steel tubing with powerful strap-steel grab brackets. Fits all tower sections. With forged ring and iron pulley. Length 12 ft. Wt. 18 lbs.

Gird-Around Tubular Cross Ties

Bigger, safer, stronger. Actually grip around vertical tubing. Take all outward strain. The tower itself takes none.



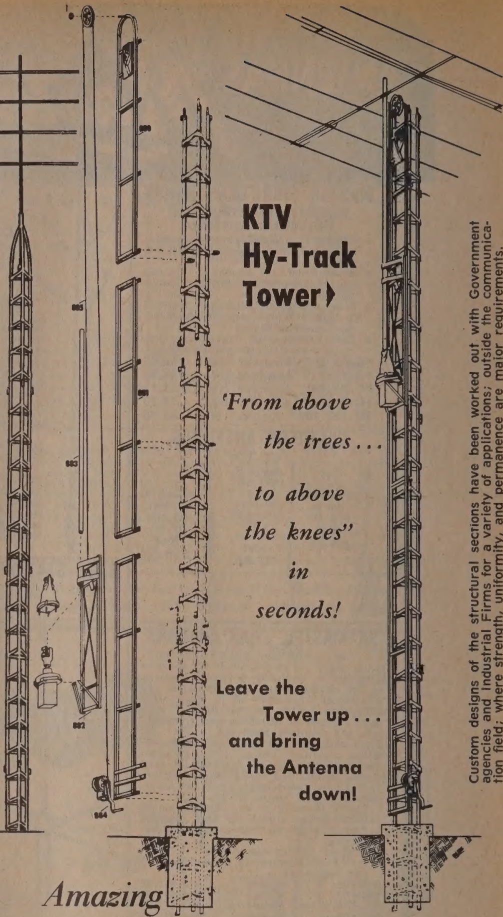
#862H: Concrete base mount. The recommended installation.
#857-F: Mast 10 ft. x ¼" O.D.
#859-F: Mast 15 ft. x 1¼" O.D.
#865-H: Rotor post brackets—adjustable
#866-H: Tower mast bushing. 1¼" I.D.1½" O.D.
#867-H: Base plate for drive-in base.

900 Series —130 Ft.—16 Ga.—Single Lateral Load Bearers
1200 Series —175 Ft.—14 Ga.—Double Lateral Load Bearers
1200xx Series—200 Ft.—14 Ga.—Double Lateral Load Bearers
1600 Series —200 Ft.—14 Ga.—Double Lateral Load Bearers
1600xx Series—250 Ft.—14 Ga.—Double Lateral Load Bearers

1600 and 1600xx are towers with legs of 14 ga. cold roll steel triangularly spaced at 16 inches center to center; tubular gird around cross ties spaced at 12 inch intervals. New 18 and 24 inch triangular sizes are being tooled for Communication and Microwave applications.

Engineering available for special towers for radiation and special antennas.

COMMERCIAL and HAM TOWERS AVAILABLE TO 250 FEET



KTV Hy-Track Tower

"From above the trees . . . to above the knees" in seconds!

Leave the Tower up . . . and bring the Antenna down!

Custom designs of the structural sections have been worked out with Government agencies and Industrial Firms for a variety of applications; outside the communication field; where strength, uniformity, and permanence are major requirements.

Amazing

KTV Hy-Track Tower

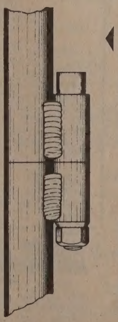
"You Crank the Antenna Up the Tower"

PERFECT FOR

Research • Antenna Testing • Survey Work • VHF-UHF Commercial or Private Receiving — Retransmitting applications.

Dealer Net, 30 ft. tower — Complete. $229.50

Write for details today.

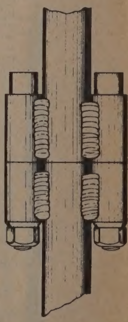


Exclusive SINGLE LATERAL LOAD BEARERS

No dangerous rust. Arrow (X) shows open joint section. Assures free drainage and ventilation, less corrosion. • • • *No hazardous holes.* Arrow (Y) shows lateral load bearers lifetime welded to side of each section leg with twin 1⅛" fillets. Sections are bolted vertically. Bear 100% of the load. No load on joints. No horizontal bolts to tear through. Nothing safer Only KTV has it!

DOUBLE LOAD BEARERS

Exclusive!! Double Lateral Load Bearers welded to both sides of each section leg with twin 1⅛th inch filllets—Sections are bolted vertically to bear 100% of the load. No load on joints, nothing safer, nothing so easy to assemble —only KTV has it.

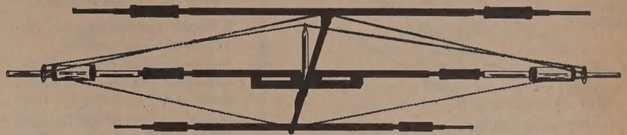


KTV Tower and Communications Equipment Company
Sullivan, Illinois

© U.C.P., Inc.

Mosley **Mosley**

TA-40K



ADDS 40 METER OPERATION TO THE TA-33 TRAPMASTER

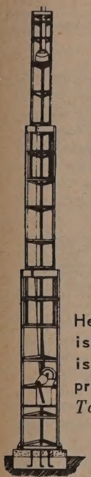
- SWR 1.5/1 or better at resonant frequencies.
- Maximum element length 38 ft. 7 in.
- Turning radius 19 ft. 6 in.
- Assembled weight 10 lbs.
- Hardware, mast and line for guying is supplied.
- Shipping weight 13 lbs.

Only a few minutes are required to convert the Mosley TA-33 Trapmaster Beam for operation on 40 meters. When installed on the driven element, the TA-40K will exhibit a typical figure eight pattern obtained from a half wave antenna yet 10, 15 and 20 meter operation is totally uneffected. TA-40K incorporates the famous construction and design features used in the Mosley Trapmaster Antennas which assure years of trouble-free performance. Because of the mechanical strength of some antennas as well as the differences in electrical design, the TA-40K is not recommended for use on any antenna other than Mosley Trapmaster.

Mosley TA-40K 40 meter adapter only Net $ 39.95

Mosley TA-3340 TA-33 w/TA-40K complete . . . . Net $ 139.70

Mosley TA-40K can be used with the TA-32 and TA-31 Trapmaster Antennas with performance equal to the performance of the TA-40K and TA-33.



Mosley TOWERMASTER

- Low friction section guides!
- Heavy steel safety clips!
- Ball bearing metal pulleys!
- Hinged steel base plate!
- Pre-drilled rotor plates!
- Heavy duty geared raising/lowering winches!

Here is a complete line of towers with built-in satisfaction and dependability. *Mosley Towermaster* is available in many designs, configurations and prices to fit every need. Write Mosley for complete *Towermaster* information.

Mosley Lo/Ten Coaxial Cable

- Light Weight!
- Higher Tensile Strength!
- 30% Lower Attenuation!
- 20-Year Life Expectancy!
- Suitable For Direct Burial!

prices shown are for 1-99 ft.
price decreases with quantity

Mosley Type	Similar To	Net Resale Per Foot East of Rockies	Net Resale Per Foot West of Rockies
MT 4-50	RG- 8/U	$ .155	$ .160
MT 5-50	RG-58/U	$ .087	$ .092
MT10-50	RG-17/U	$ .584	$ .615

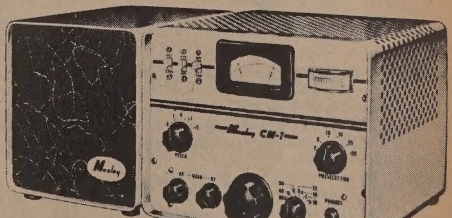
Lo/Ten is manufactured for Mosley by *Times Wire and Cable Company*, division of International Silver Company, and is familiar to coaxial cable users as T-Line. Lo/Ten is distributed by Mosley through exclusive arrangement with *Times Wire and Cable Company*.

Mosley CM-1

- SELECTIVITY: 2.5 kc. at -6 db.
- SENSITIVITY: ½ microvolt for 10 db. signal-to-noise ratio on ten meters.
- STABILITY: Less than 500 cycles drift after one-minute warm-up. Less than 200 cycles change for 10% line voltage change. Temperature compensated and voltage regulated.
- IMAGE and IF REJECTION: 35 db. minimum.
- AUDIO OUTPUT: ½ watt at 6% distortion.

Features:

- Double conversion with crystal controlled first oscillator.
- Diode detector for AM and product detector for SSB and CW.
- Covers complete range of 80 through 10 meter amateur bands.
- Frequency calibration every 5 kc. WWV reception at 15 mc.
- S-meter functions on AM, CW or SSB, with or without BFO.
- Five dual-purpose tubes and two semi-conductor diodes function as 12 tube sections.



CM-1 Receiver . . . . . . Net $182.70

CMS-1 Speaker Net 16.95

CM-1 Complete Net $199.65

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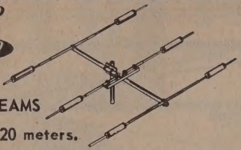
AMATEUR RADIO ANTENNAS

TRAP MASTER



3 BAND BEAMS

10 – 15 – 20 meters.

3 ELEMENT beam provides outstanding performance on 10, 15 and 20 meter bands. Up to 8 db., forward gain with 25 db., or better, front-to-back. 1.1/1 or less, SWR at resonant frequencies.

Model TA-33 . . . . Amateur Net, $99.75

2 ELEMENT version of the famed TRAP MASTER Beam rated to a full KW. 5.5 db. forward gain with 20 db. front-to-back. 7' boom and 28' maximum element length.

Model TA-32 . . . . . Amateur Net, $69.50

3 BAND DIPOLE is rated to 1 KW. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the Famous TA-33 "Trap-Master" Beam.

Model TA-31 . . . . . Amateur Net, $25.85

Conversion Kit to make the TA-31 a TA-32.

Model TA-31-32 . . . . . Amateur Net, $43.65

Conversion Kit to make the TA-32 a TA-33.

Model TA-32-33 . . . . . Amateur Net, $30.25

"JR" FOR 300 WATTS or LESS

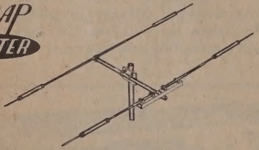
10 – 15 – 20 meter bands.

Trap-Master "Junior" Beams provide the same fine performance as the world famous Model TA-33. Traps are rated to 300 watts (AM).

3 ELEMENT "JUNIOR" with up to 8 db. forward gain and 25 db. front-to-back. SWR is usually less than 1.5/1 at resonant frequencies. Aluminum boom is 1¼" OD. x 12'. Maximum element length, 26' 8". Turning radius is 14' 9". Wind load, 86 pounds. Assembled weight, 20 pounds. Recommended feed-line, RG-8/U.

Model TA-33 Jr. . . . . Amateur Net, $69.50

TRAP MASTER



2 ELEMENT "JUNIOR" with 5.5 db. forward gain with approximately 20 db. front-to-back. Aluminum boom is 6' long and maximum ele-length is 26' 8". Has turning radius of just 13' 9". Assembled weight, 14 pounds. Wind load, 62 pounds.

Model TA-32 Jr. . . . . Amateur Net, $49.50

3 BAND DIPOLE rated to 300 watts. For the Ham who wants to begin with an inexpensive three band dipole and in two additional steps have the famous TA-33 Jr. "Trap-Master" Beam.

Model TA-31 Jr. . . . . Amateur Net, $19.75

Conversion Kit to make the TA-31 Jr. a TA-32 Jr.

Model TA-31-32 Jr. . . Amateur Net, $29.75

Conversion Kit to make the TA-32 Jr. a TA-33 Jr.

Model TA-32-33 Jr. . . Amateur Net, $25.85

"TRAP-MASTER" VERTICAL ANTENNAS

3 BAND VERTICALS for 10, 15 and 20 meter bands. Weatherproof traps need no adjusting and provide automatic band-switching. One quarter wave operation for low angle radiation. Requires 4 or more 16' radials. With guy rope and base. The V-3 is rated to a full KW (AM), the V-3 Jr. is rated to 300 watts (AM).

Model V-3 . . . Net, $22.95

Model V-3 Jr. . Net, $17.95

Six meter adapter kit for V-4-6 and V-3 Antennas.

Model AK-6 . . . . Amateur Net, $3.04

10 thru 40 Meters

Automatic bandswitching with this vertical. Electrical ¼ wavelength each band with low angle radiation makes this an excellent low cost DX antenna. Low SWR with exceptionally flat response over full bandwidth. Traps are weather and dirt proof for long, reliable service. Will handle full KW (AM). Sturdy aluminum construction. Requires 4 radial wires, 30' each. With guy rope and base.

Model V-4-6 . . Amateur Net, $27.95

80 Meter **BASE LOADING COIL.** Base loading coil for operating V-4-6 Vertical on 75 and 80 meter bands. Space wound on heavy ceramic form. Handles full KW (AM). Mounts on base section of vertical. With coax connectors.

Model D-4BC . . . . . . Amateur Net, $15.67

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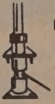
5 BANDS!

Work 10, 15, 20, 40 and 80 with one antenna . . . one RG-8/U feed line. Designed and built to meet United States Air Force electrical and structural specifications. The V-5 is 100% rust proof and performs brilliantly on each of the 5 bands. It is capable of handling power of 1 KW to the antenna! Weather proof trap assemblies are used throughout . . . no external loading coil needed. Maximum length of antenna is 43 ft., 8 in. Supplied complete with polyethylene guy rope, heavy duty base with internal coax fitting and all necessary hardware.

Model V-5 . . . Amateur Net, $118.50



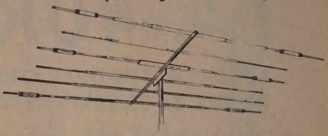
HEAVY DUTY BASE MOUNT
Supplied with the V-5 and V-4-8 Antennas.

2 BANDS!

For 40 and 80 meter bands. ¼ wavelength vertical on each band. Oversize trap assembly handles 1 KW(AM). Maximum overall length of antenna is 52' 3". Requires 12 radials each 64' in length. Complete with base mount (heavy duty), polyethylene guy rope and hardware.

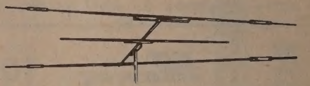
Model V-4-8 . . Amateur Net, $85.00

. . . the 3 BAND BEAM that will give your signal that DX punch.



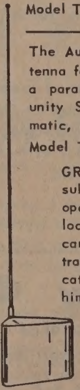
This wide spaced, six element configuration employs 4 operating elements on 10 meters, 3 operating elements on 15 meters and 3 operating elements on 20 meters. Automatic bandswitching built for operation at maximum legal amateur power. Forward gain on 10 meters is 9 db., on 15 meters is 8.5 db. and on 20 meters is 8 db. Front-to-back is 20 db. or better on all 3 bands. SWR is 1.5/1 or better at resonance. Maximum element length is 29'. Boom is 24'. Turning radius is 19' 3". Assembled weight is 69 lbs. Just one coaxial feed line needed. 52 ohm, RG-8/U is recommended.

Model TA-36 . . . . Amateur Net, $129.50



3 ELEMENT BEAM for 20 and 40 meters. Forward gain on 20 meters, 8 db.; on 40 meters, 5.0 db.; front-to-back on 20 meters, 25 db.; on 40 meters, 20 db.; maximum element length, 54' 8"; turning radius, 29'; boom length, 20'. Antenna weight (with Tilting Head), 150 lbs. Just one coaxial feed-line is needed. 52 ohm, RG-8/U is recommended.

Model TA-20-40 . . Amateur Net, $337.50



The AutoWhip-5 is a 5 band mobile antenna for 10, 15, 20 and 40 meters with a parallel network that achieves near unity SWR on 80 meters. Fully automatic, changes bands without switches.

Model TM-5 . . . . Amateur Net, $73.45

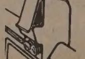
GROUND SYSTEM KIT serves as a substitute for your automobile when operating from a fixed or portable location such as an apartment roof, campsite, fishing cottage, house trailer, boat or any of the many locations the active Ham may find himself and his equipment. Easily assembled and installed.

Model TM-5-AK . . Amateur Net, $26.62

"TRAP-MOBILE" for 10, 15 and 20 meters.

Automatic Bandswitching! 3 Band Mobile Antenna functions without switches. Overall length of 7' 8" provides electrical ¼ wavelength on each band assuring excellent performance with low SWR over full bandwidth. Stainless steel whip sections permit antenna to lay forward over car for garaging. Stainless steel base stud, 3/8"–24, fits standard mounts. Feed with RG-8/U coax, preferably 22½ feet in length.

Model MA-3 . . . . . Amateur Net, $20.96

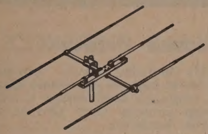


Whip-Klip – Universal clip for mobile whip antennas.

Model MWK . . Amateur Net, $ .98

AMATEUR RADIO ANTENNAS

"POWER-MASTER" BEAM ANTENNAS



"Power-Master" Antennas are full sized arrays, each designed for a single band, 10, 15, or 20 meter. All are 100% rust-proof, stainless steel hardware, high impact polystyrene insulators with aluminum elements and boom. "Power-Master" is fed with 52 ohm coax.

Forward gain - 8.9 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 18' 7", boom - 12' x 1¼" OD x .058, turning radius - 11' 1", wind load - 69 lbs.

Model A-310 . . . . Net, $39.39

Forward gain - 8.5 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 23' 4", boom - 12' x 1¼" OD x .058, turning radius - 13' 2", wind load - 87 lbs.

Model A-315 . . . . Net, $44.63

Forward gain - 8.0 db., front-to-back - 25 db., SWR - 1.1/1, maximum element length - 35' 4", boom - 14' x 1½" OD x .125, turning radius - 18' 9", wind load - 200 lbs.

Model A-320 . . . . Net, $81.10

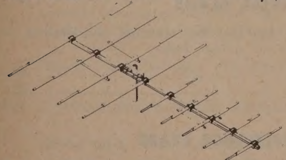
VHF "POWER-MASTER" ANTENNAS

14 element, 2 meter beam. Forward gain - 13 db., front-to-back - 20 db., SWR - 1.1, maximum element length 3' 5", boom - 1¼" x .058" x 12', turning radius - 6' 5", wind load 37 lbs., assembled weight - 11½ lbs. element sections are 5/8" OD and ½" OD establishing an extremely low ratio of length-to-diamerer.

Model A-142 . . . . Net, $51.18

5 element, 6 meter beam. Forward gain - 11 db., front-to-back - 20 db., SWR - 1.1, maximum element length - 9' 8¾", boom - 1¼" x .058" x 12', turning radius - 8' 5", wind load - 38 lbs. assembled weight - 11½ lbs. "Power-Master" VHF Antennas combine superlative performance with the most rugged construction to be found in any VHF antenna for amateur use!

Model A-56 . . . . Net, $44.05



5 element, 2 meter beam and 4 element, 6 meter beam. Forward gain - (2M) 11.4 db., (6M) 9.6 db., front-to-back - (2M) 11.5 db., (6M) 16.3 db., SWR - (2 and 6M) 1.1, maximum element length - (2M) 3' 5", (6M) 8', boom - 1½" x .125" x 14', turning radius - 8' 9", wind load - 50 lbs., assembled weight - 20 lbs. 100% rust proof.

Model A-2N6 . . . . Net, $70.40

STACKING KITS

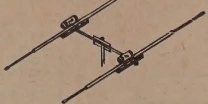
Stacking Kit for A-142, vertical or horizontal.

Model SK-2 . . . . Net, $24.94

Stacking Kit for A-56, vertical or horizontal.

Model SK-6 . . . . Net, $34.39

"SIGNAL-MASTER" ANTENNAS



This 2 element Signal-Master is the antenna for 40 meters. Rated to 1 KW. 100% rust proof. Forward gain — 5 db., Transmission line — 52 ohm coax (RG-8/U), Boom — 2" OD x .110" wall x 20', Maximum element length — 44' 3", Turning radius — 24' 4", Wind load (EIA Standard) — 200 lbs., Antenna weight — 58 lbs. F/B — 20 db.

Model S-402 . . . . . Amateur Net, $124.50

"VEST-POCKET" ANTENNAS

2 element, 40 meter "Vest-Pocket" beam with 5 db. forward gain. Front-to-back, 19 db., SWR; 1.1/1, boom, 15'; maximum element length, 36' 1"; turning radius, 19½'. Assembled weight, 68 lbs.

Model VPA40-2 . . . . Net, $82.45

TRAP DIPOLES

Resonates at 40 and 80 meters. ½ wavelength on each band. Rated to 1 KW. Antenna length, 114' 11". Ideal where a bidirectional pattern is desired. Antenna weight, 7 lbs.

Model TD-2 . . . . Net, $37.54

Will operate on 10, 15 and 20 meters. Rated to 300 watts AM. Overall wire length of 24 feet. ½ electrical wavelength on each of three bands. Antenna weight, 1¾ lbs.

Model TD-3 Jr. . . . . Net, $13.13

DIPOLE LOADING COILS

Coils are space-wound with plated No. 12 copper wire and are rated to 1 KW.

Type 40-D . . . . Net, $8.36

Type 75/80-D . . . . Net, $8.36

MAST PLATE ADAPTER KIT

Mast Plate Adapter for 2" OD Mast complete with Aluminum Angle and hardware.

Model AK-60 . . . . Net, $4.78

CITIZENS BAND ANTENNAS

DELUXE LINE

3 element beam for best point-to-point communication. 9.3 db. gain. Use the A-311 on each end to develope 80 watts ERP. Less mast, coax line and rotor.

Model A-311 . . . . Net, $37.50

Coaxial ground plane vertical antenna. 100% rust and corrosion proof. Can be mounted on tower, pole or chimney mount. Excellent base station antenna.

Model CA-27 . . . . Net, $36.70

CITIZENS BAND ANTENNAS

DELUXE LINE

Cardioid Vertical Antenna provides a cardioid shaped radiation pattern with gain over an azimuth of 180 degrees. The gain in the direction of maximum signal is 3 db. plus or minus 90 degrees from the axis of the main forward lobe. Front-to-back ratio is 15 db. and VSWR is 1.5/1 maximum. The cardioid vertical is ideal for mobile services operating along city or state borders, shorelines, or back-to-back with other services.

Model VGR-27 . . . . Net, $45.85

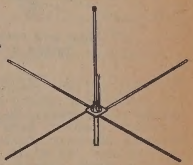
Ground Plane Vertical is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. High impact polystyrene base with internal coax fitting, less coax line.

Model V-27-GP . . . . Net, $34.95

102" stainless steel vertical whip antenna designed for high efficiency mobile operation. Antenna may be mounted on bumper or rear fender. Base has 3/8" threaded stud to fit any standard mobile base mount.

Model V-102-SS . . . . Net, $6.84

STANDARD LINE



The V-11-UGP is ideal as base station antenna. 360 degree pattern and vertical polarization for effective communication with mobiles. Rugged, 6061-T6 aluminum. 100% rust and corrosion proof.

Model V-11-UGP . . . . . . Net, $21.95

A 57" telescoping three section disguise antenna. Designed to be mounted on front fender of vehicle. Complete with coax matching system and M-1200 connector.

Model LC-57-A . . . . Net, $15.70

Chrome plated 4 section disguise antenna that telescopes from 100 inches to 39 inches. Designed to be mounted on rear fender. Use standard mobile whip mount, not supplied.

Model LC-100 . . . . Net, $8.94

A 57" three section telescoping vertical antenna, designed for mounting on transceiver, window or desk. Mounting is achieved by means of a large suction cup at the antenna base. Loading coil is enclosed in a molded plastic cover. Complete with coax and M-1200 connector.

Model LC-27-V . . . . Net, $7.35

for SHORT WAVE LISTENERS

A seven band receiving dipole that offers real "DX-Ability" on 11, 13, 16, 19, 25, 31 and 49 meters. Made of No. 16 tinned copper wire with glazed porcelain insulators. Entire antenna weighs just 2 lbs. and is 40 feet in length. 75 ohm twin-lead transmission line supplied.

Model SWL-7 . . . . Net, $14.75

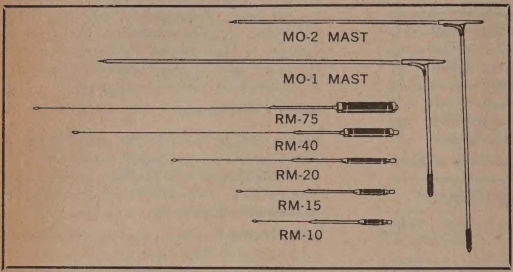
A receiving dipole for 10, 15, 20, 40 and 75/80 meters. Antenna is 69 feet in length. Has all the same mechanical construction as the Model SWL-7.

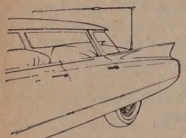
Model RD-5 . . . . Net, $15.75

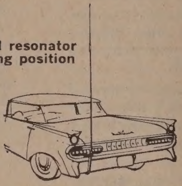
NEW-TRONICS MOBILE COMMUNICATION ANTENNAS

HUSTLER MOBILE ANTENNA

10-15-20-40-75 METERS




Mast and resonator folded over

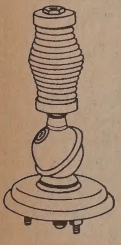

Mast and resonator in mobiling position

One mast and five resonators permit operating on any of five bands with exceptional results. Fold over aluminum mast is 54″ long. When opened to full length, the two sections of the mast are rigidly held in a vertical position. Each resonator has a special coil for maximum radiating efficiency. Tuning for center frequency is by the adjustable stainless steel rod of the resonator. Mast has ⅜-24 base stud to fit all standard mobile mounts. SWR is less than 2 to 1 for any center frequency setting within the band as follows: 10m., 100 to 120 kc; 15m., 100 to 120 kc; 20m., 80 to 100 kc; 40m., 40 to 50 kc; 75m., 25 to 30 kc (all approximation). Power rating: AM-DC input 75 watts; SSB-DC input 150 watts PEP. NO NEED FOR MATCHING DEVICES, USE ANY FEED LINE LENGTH OF 52 OHM CABLE.

Model	Description	Mount or Height	Net
MO-1	54″ mast folds at 15″ Fr. Base	Rear deck or fender	$7.95
MO-2	54″ mast folds at 27″ Fr. Base	Bumper	7.95
RM-10	10 meter resonator	80″ max.—75″ min.	5.95
RM-15	15 meter resonator	81″ max.—76″ min.	6.95
RM-20	20 meter resonator	83″ max.—78″ min.	7.95
RM-40	40 meter resonator	92″ max.—87″ min.	9.95
RM-75	75 meter resonator	97″ max.—91″ min.	11.95

ANY MAST OR RESONATOR MAY BE PURCHASED SEPARATELY

COMMERCIAL MOBILE ANTENNAS



No exposed mounting bolt heads. One man installation. Lighter weight. Reduced spring assembly length. Tough, molded mounting pad.

Engineered and built to meet the most critical standards, the improved design embodied in the ball, base and spring has no equal in appearance and performance.

ALL STAINLESS MODELS

Stainless 2″ ball, stainless spring. (17-7-PH) THE ONLY ALL STAINLESS ASSEMBLY ON THE MARKET.

NTS-1	Base, ball and spring assembly	$19.44
NTS-2	Base and ball assembly only	8.97
NTS-3	Spring only	10.47

CADMIUM PLATED MODELS

Same as stainless models except all elements are heavily cadmium plated.

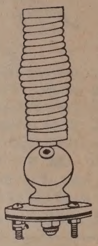
NTC-1	Base, ball and spring assembly	$11.34
NTC-2	Base and ball assembly only	6.87
NTC-3	Spring only	4.47

CHROMIUM PLATED MODELS

Same as stainless models except all elements are triple chrome plated.

NT-1	Base, ball and spring assembly	$8.49
NT-2	Base and ball assembly only	5.01
NT-3	Spring only	3.51

PROFESSIONAL MOBILE ANTENNA



C-29-32	Assembly includes heavily chrome plated 1½″ die cast ZAMAK ball, ⅜-24 female thread. Adjustable to 180°. Stainless steel spring sturdily built to withstand sharp impacts. Gray Cycolac insulator and cadmium plated hardware	$5.07
C-30-32	Same as C-29-32 except has chrome plated spring	$4.11
C-32	Base ⅜-24 female thread	$2.01
C-29	Stainless steel spring only. Has ⅜-24 threaded stud	$3.06
C-30	Chrome plated, oil-tempered spring only	$2.10

BUMPER MOUNTS

Model BM-1 Flat alloy steel strap fits tightly against any shape large and small bumpers.

Will fit any car where clearance between top of bumper and car body is as low as ¼″.

Whip receptacle is a heavy chrome plated 1½″ die cast ZAMAK swivel ball with ⅜-24 thread. All metal parts are heavy cadmium plated $6.95

MODEL BM-2 Same as Model BM-1 except without swivel ball base $4.95

WHIPS

STAINLESS STEEL WITH REMOVABLE ADAPTOR

Made of 17-7PH taper ground stainless steel; the best available for this purpose. Adaptors are heavy cadmium plated. Two hex hollow head screws firmly seize whip. ⅜-24 male thread. Wrench included.

SW60R	60″ Stainless Whip	$3.27
SW96R	96″ Stainless Whip	$3.93
SW102R	102″ Stainless Whip	$4.23
SW108R	108″ Stainless Whip	$4.50

CADMIUM PLATED WITH FIXED ADAPTOR

Made of special alloy cadmium plated oil tempered steel. Taper ground. Heavy cadmium plated adaptor permanently attached to whip. ⅜-24 male thread.

TW60	60″ Cadmium Plated Whip	$2.85
TW96	96″ Cadmium Plated Whip	$3.45
TW102	102″ Cadmium Plated Whip	$3.75
TW108	108″ Cadmium Plated Whip	$3.90

GUTTER CLIP:

Model GC-1 Plastic holder swivels on cadmium plated clamp. Attaches firmly to gutter. Since whip is contained in plastic, it will not rattle $.90

LEADS

COAXIAL LEADS

RG-58/U with PL-259 on one end and live terminal and ground terminal on other end, split end.

L-14-60	5 ft.	$2.43
L-14-144	12 ft.	$3.12
L-14-240	20 ft.	$3.90

HIGH IMPEDANCE LEADS

With Pin Plug on one end and live terminal and ground terminal on other end, split end.

L-13-60	5 ft.	$1.23
L-13-144	12 Ft.	$1.56
L-13-240	20 ft.	$1.95

SPECIAL LEADS

RG-58/U with PL-259 and specially designed end to fit CB-27 and NB-40.

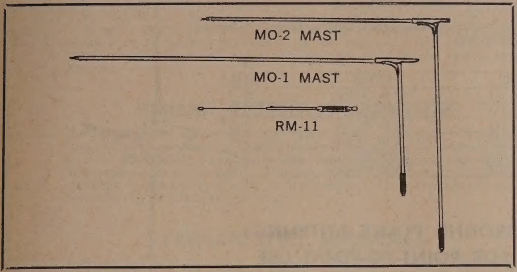
BL-14-60	5 ft.	$2.70
BL-14-144	12 ft.	$3.35
BL-14-240	20 ft.	$4.00

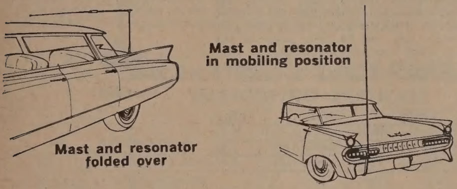
NEW-TRONICS CORPORATION Cleveland, Ohio

©U.C.P., Inc.

NEW-TRONICS MOBILE COMMUNICATION ANTENNAS

CITIZENS BAND ANTENNAS




Mast and resonator in mobiling position
Mast and resonator folded over

FOLD-OVER TYPE FOR FENDER OR BUMPER MOUNT:

Sturdy mast and an 11 meter tunable center loaded resonator provides exceptional results with every CB transceiver. Less signal fading when car is in motion. Total extended height is only 83 inches.

The 54-inch aluminum mast folds over to permit assembly to clear openings in garages, etc. When opened to full height, the two sections of the mast are held rigidly in a vertical position. Mast has ⅜-24 stud to fit standard mobile mounts. SWR less than 2 to 1.

Model CB-111 for Rear Deck or Fender: 54″ aluminum mast with 11 meter resonator. Mast folds over 15″ from base **$13.90**

Model CB-211 for Bumper Mount: 54″ aluminum mast with 11 meter resonator. Mast folds over 27″ from base **$13.90**

RM-11 11 meter resonator **$5.95**

FOR COWL OR FENDER MOUNT:

Model CB-27 23 channel coverage . . . tunable . . . low SWR. 4 section, heavy duty chrome plated brass tubing assembly. Opens to 60″. Collapses to 27″. Swivel base, mounts on any car surface. Fits any hole 15/16″ or 1″. Sealed loading coil solidly affixed to tubing. Stainless tuning rod with etched tuning scales. 5 feet of detachable RG-58/U coaxial cable with PL-259 connector........ **$10.44**

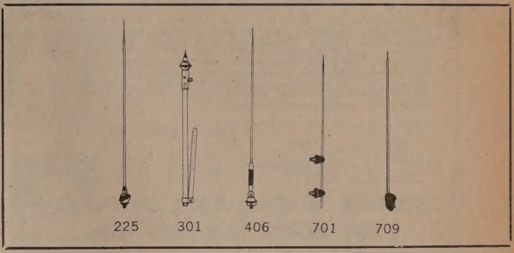
Assembly may be used for Amateur (28-30 MC.)

Model CB-2 This mast has same features as mast on Model CB-27 except has standard ⅜-24 male threaded stud. It may be used in combination with Model CB-1 or any other standard base **$8.64**

Model CB-1A Base has chrome plated split ball to meet severe angle requirements of fender beyond 30°. ⅜-24 female thread. Ball swivels up to 180° **$1.80**
(Series BL lead required)

Model AD-1 Adapter to convert Model CB-1A to accept PL-239 .... **$1.10**

AUTOMOBILE ANTENNAS



No. 225 Hi-ball black plastic base with chrome hood, 3-section mast, 48″ detachable lead. Extends to 40″; collapses to 17″ **$3.95**

No. 226 Same as No. 225 except with 2-section mast. Extends to 40″; collapses to 21″ **$3.95**

No. 227 Same as No. 225 except with 54″ detachable lead. Mast extends to 57¼″; collapses to 22¼″ **$4.50**

No. 301 Disappearing type antenna with 54″ permanent lead. 3-section antenna extends to 53¼″ and collapses completely **$6.95**

No. 303 Same as No. 301 except with 36″ lead. 3-section mast extends to 25″ and collapses to 3¾″ **$5.95**

No. 410 Flex-O-Matic Ball-Tronic Antenna. Adjustable to any angle up to 180°. 23⅝″ stainless steel whip. 48″ detachable lead **$5.95**

No. 406 Same as No. 410 except has 3-section mast which extends to 56¼″ and collapses to 24″. 54″ detachable lead **$7.95**

No. 701 Side-cowl antenna with 2 plastic insulators and 36″ detachable. 3-section mast extends to 57½″ and collapses to 22½″ **$6.95**

No. 709 Volkswagen side cowl antenna with single stanchion and molded insulator. 36″ detachable lead. 3-section mast extends to 56½″ and collapses to 20½″. **$5.95**

ABOVE PRICES FOR BOX PACKAGING

AMATEUR ANTENNA

6 Meter and Noise Blanker Antenna (39-51 MC)

NB-40 Similar in appearance and construction as the CB-27, however, electrical characteristics of this tunable antenna and low SWR permit extensive coverage on the 6 meter band. Ideal for use with the Collins' Noise Blanker. Includes 5 feet of detachable RG-58/U cable with split end. 52 ohm match **$10.44**

NB-2 Mast has same features and appearance as mast on Model NB-40 except has ⅜-24 male thread stud. May be used with Model CB-1A or any other standard base to meet individual requirements **$8.64**

NEW-TRONICS CORPORATION Cleveland, Ohio

©U.C.P., Inc.

PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

SERIES C CENTER-LOADED MARINE ANTENNAS

A Center-Loaded Collapsible type Antenna, consisting of two telescoping, adjustable base sections on which the loading coil is mounted, with a tapered top whip section, giving a total extended length of about 19 feet. This Antenna collapses to a single unit with the whip section telescoping through the coil into the lower section, making a collapsed length of 7 feet. The sections are of seamless aluminum, or stainless steel and the coil is wound on low-loss bakelite tubing and treated after assembly with weatherproof coating.

No.	Type	Base O.D.	Base I.D.	Wt. Lbs.	List Price
CLA-619	Aluminum	1.000″	.834″	5	$50.00
CLS-1119	Stainless	1.000″	.900″	7	110.00

SERIES C

SERIES B CENTER-LOADED ANTENNAS FOR MOBILE & MARINE USE

Center-Loaded Whip-Type Antennas consist of a standard base section or spring-type on which is mounted a special Premax coil. The top is a taper-ground stainless steel whip 6 ft. in length, giving a total overall height of 9 ft. Various coils are available or the standard 75-meter coil can be adapted by shorting out turns on the coil. Antennas can be used with any of the Standard Premax Mountings shown below, or will fit any 3/8″ x 24-thread mounting.

NO.	FREQ.	PRICE
BXS-14	14,000 kc. (20M.)	$15.00
BXS-23	2374 kc. (CAP)	15.00
BXS-31	3105 kc. (APT)	15.00
BXS-38	3800 kc. (75M)	15.00
BXS-43	4325 kc. (CAP)	15.00
BXS-46	4585 kc. (CAP)	15.00
BXM-25	2000 to 3000 kc. (Marine)	15.00
	(Same as BXS but with Spring)	
BSS-14	14,000 kc. (20M.)	25.00
BSS-23	2374 kc. (CAP)	25.00
BSS-31	3105 kc. (APT)	25.00
BSS-38	3800 kc. (75M.)	25.00
BSS-43	4325 kc. (CAP)	25.00
BSS-46	4585 kc. (CAP)	25.00
BSM-25	2000 to 3000 kc. (Marine)	25.00

SERIES B COILS

Premax also supplies the Series "B" coils in the standard frequencies above. Special frequencies available on request.

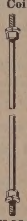
List Price..**$9.00 ea.**

MAST EXTENSIONS

Polished Stainless Mast Extensions—threaded ⅜″-24 on both ends and supplied with stainless nuts and lockwashers. Available in 12″, 18″, 24″, 30″ and 36″ lengths.

Prices range from $4.00 to $8.00 list each

Style B Coil



BX Mast Extension

Type BXS

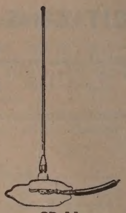
Type BSS

MOBILE VHF WHIPS

Style CD-11 Series—Permanent type. Porcelain insulator mounts thru ½″ hole in rooftop.

Style CD-21 Series—Emergency type. Attaches by heavy duty suction cup.

NO.	FREQ.	PRICE
CD-112	108 to 120 mc.	$4.00
CD-114	144 mc.	4.00
CD-115	152 to 162 mc.	4.00
CD-212	108 to 120 mc.	2.80
CD-214	144 mc.	2.80
CD-215	152 to 162 mc.	2.80



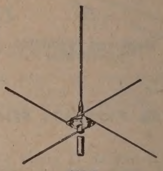
CD-11

CD-21

GROUND PLANE ANTENNAS FOR POINT-TO-POINT USE

For point-to-point installations, Premax has two VHF Antennas: The Style GP-3 which has elements of heavily-plated spring steel with skirt wires that can be bent down to any angle to match coax cable. Mounting is within a water-proof housing that fits standard 1/2″ pipe. Cable carries down thru pipe.

NO.	FREQ.	USE	PRICE
GP-312	120 mc.	For aircraft and CAP.	$8.00
GP-314	140 mc.	For 2 meter and CD.	8.00
GP-315	150 mc.	For police and taxi	8.00

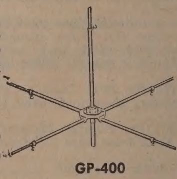


GP-3

PREMAX ADJUSTABLE GROUND PLANE ANTENNAS 20-60 mc

Another low-cost type Ground Plane Antenna is adjustable from 20 to 40 mc. or 40 to 60 mc. Standing wave ratio matching to 52-ohm line is 1.07 to 1.13 and to 72-ohm line is 1.27 to 1.23 depending on type of transformer cable. All-aluminum construction employing adjustable tubular elements.

GP-430	Adjustable 20-40 mc.	$50.00
GP-450	Adjustable 40-60 mc.	40.00



GP-400 Series

MOBILE MOUNTINGS FOR USE WITH WHIPS WITH ⅜″—24 MALE THREAD

Type CA

CA BUMPER MOUNTING

"Chain Style — clamps on any bumper with 1″ clearance; no drilling; theft-proof.

Price..**$11.00**

Type SA-2

SA-2 SPRING ADAPTOR

Stainless steel Spring Adaptor—can be attached to types R-2, R-3, L-1, CA and NA-1 to provide greater flexibility. Height 4¼″, diameter 2⅜″.

Price..**$12.50**

Type R-2

R-2 UNIVERSAL COAX TYPE MOUNTING

Solid Polished Aluminum split-ball can be adjusted to any angle. Has shielded coax connection and stainless hardware.

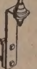
Price..**$15.00**

Type R-3

R-3 UNIVERSAL MOUNTING

Solid Polished Aluminum Swivel Ball. Heavy stainless steel back-up plate with grounding screws. Stainless steel hardware.

Price..**$15.00**



Type NA-1

TYPE NA-1

Bumper mounting with ceramic cone insulator and steel bracket.

Price..**$8.50**

Type L-1

TYPE L-1

Bumper mounting, 2 pairs ceramic cone insulators with steel bracket. 10″ adjustment.

Price..**$14.00**

Type RS-2

TYPE RS-2 COMBINATION

Similar to R-2 except has spring as shown under SA-2.

Price..**$25.00**

Type F

TYPE F

30° adjustable mounting for fender, cowl or gravel pan. Chrome-plated brass with phenolic insulation.

Price..**$13.50**

Type V

TYPE V

Thru-deck mounting designed for Style BX and BS Center-Loaded Marine Antennas. White porcelain cones with a maximum opening for 1-1/2″ deck. Stud threaded 7/16″-24.

Price..**$9.00**

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

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PREMAX ANTENNAS--MOUNTINGS--ACCESSORIES

VERTICAL TELESCOPING ANTENNAS
PREMAX STAINLESS STEEL ANTENNAS

Premax stainless steel antennas, fully telescoping and adjustable, have a locking device that holds the sections firmly at any desired point insuring a perfect electrical contact. Made of a high grade polished stainless steel tubing, hard-drawn to an extremely high tensile and yield strength, they are well suited for the most severe strains from high seas or winds.

PREMAX ALUMINUM ANTENNAS

Premax aluminum antennas are lightweight, corrosion resistant and have adequate strength to meet practically all needs for marine, commercial and mobile installations that demand convenience in erecting and dependable performance. They are constructed of highly polished, specially tempered aluminum tubing engineered to withstand wind velocities up to 60 miles per hour.

PREMAX STEEL ANTENNAS

Inexpensive, popular, fully adjustable telescoping steel antennas for commercial, amateur, civil defense or other installations, made of high-tensile copper-nickel steel tubing, are heavily cadmium-plated. A positive locking device insures proper electrical contact between sections. *Not recommended for marine use on salt water.*

SPECIFICATIONS & DESCRIPTIONS OF TELESCOPING VERTICALS

NO.	DESCRIPTION	EXTD.	COLL.	BASE O.D.	BASE I.D.	WGT.	LIST PRICE
SS-1118	3-Sec. Stainless	18′4″	6′3″	.750″	.680″	6	$ 90.00
SS-1124	4-Sec. Stainless	24′3″	6′3″	1.000″	.900″	9	135.00
SS-1130	5-Sec. Stainless	30′0″	6′4″	1.250″	1.120″	13	185.00
SS-1135	6-Sec. Stainless	35′7″	6′4″	1.500″	1.370″	19	255.00
AL-312	2-Sec. Aluminum	12′4″	6′4″	.500″	.334″	1½	15.00
AL-518	3-Sec. Aluminum	18′5″	6′4″	.750″	.584″	3	25.00
AL-324	4-Sec. Aluminum	24′4″	6′4″	1.000″	.834″	5	35.00
AL-530	5-Sec. Aluminum	30′0″	6′5″	1.250″	1.084″	7	55.00
AL-535	6-Sec. Aluminum	35′8″	6′5″	1.500″	1.310″	12	75.00
112-M	2-Sec. Steel	11′8″	6′0″	.656″	.556″	4	12.00
318-M	3-Sec. Steel	17′3″	6′2″	.875″	.775″	7	18.00
224-M	4-Sec. Steel	22′9″	6′3″	1.063″	.963″	11	25.00
130-M	5-Sec. Steel	28′3″	6′4″	1.250″	1.150″	15	30.00
136-M	6-Sec. Steel	33′9″	6′5″	1.500″	1.400″	20	38.00

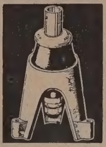
PROTECT YOUR EQUIPMENT WITH A PREMAX GROUND ROD!

Practical and efficient Ground Rods, costing so little that it doesn't pay to fuss with makeshifts! Of smooth, hard-drawn steel, chisel-pointed for easy driving and heavily copper-plated for rust prevention and to insure clean electrical contact. 4′ to 8′ lengths in ⅜″, ½″ and ⅝″ with screw clamp (illustrated) or in 6′ and 8′ lengths in pigtail wire, drilled hole or plain style, ½″ and ⅝″ only.

Size	Screw No.	Clamp List	Hole No.	Hole List	Pigtail No.	Pigtail List	Plain No.	Plain List
⅜″x4′	J-64	$ 80						
⅜″x6′	J-66	110						
⅜″x8′	J-68	165						
½″x6′	G-86	210	H-86	$200	P-86	$225	X-86	$180
½″x8′	G-88	250	H-88	240	P-88	265	X-88	220
⅝″x6′	G-106	300	H-106	290	P-106	315	X-106	265
⅝″x8′	G-108	380	H-108	370	P-108	395	X-108	345

(Prices are per 100 rods, bundled in 25s)

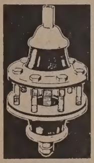
BASE MOUNTINGS FOR VERTICALS



TYPE 1 BASE INSULATOR

Heavy-duty type Base Mounting Insulator with compression rating up to 10,000 lbs. Has wet-process brown-glazed porcelain cones. Available in galvanized malleable iron, and chrome-plated brass, in rigid-post, hinged-post. Ht. to post base, 7 to 9 inches. Wt. 8 lbs.

List Price..............................$52.00 to $105.00



TYPE 6 BASE INSULATOR

For marine, mobile unit, roof-top or tower. Lead-thru construction permits connections below deck. Flanges 6″ in diameter with 6 bolts on a 5″ circle. For ½″ to 3″ deck. Available in galvanized malleable iron, and chrome-plated brass. Rigid post, and hinged post styles. Ht. from flange to post base, 3″ to 5″. Wt., 11½ lbs.

List Price ....$78.00 to $170.00

STANDOFF INSULATORS

TYPE 10-S

A heavy-duty Insulator with chrome-plated brass base and head caps—regular or hinged clamps. Insulator is brown-glazed porcelain in extra heavy style. Ht. to center of clamp, about 4½″. Wt., 3 lbs.

List Price..............................$60.00 to $72.00

TYPE 13-S

Heavy, rugged cast caps and base plates in aluminum, or chrome-plated brass. Heavy brown-glazed porcelain insulator, 3 inches in diameter. Ht. to center of clamp, 4¾″. Wt., 2½ lbs.

List Price .... $13.00 to $25.00

MOBILE WHIP ANTENNAS

HEAVY DUTY TAPERED STAINLESS—TYPE ES

Solid one-piece taper-ground whips, ¼″ at base tapering to 3/32″ at tip with top ball. High-tensile stainless steel fabricated by special formula, comparing favorably with the best spring steel, yet having excellent corrosion-resistant properties.

HEAVY DUTY TAPERED CHROME-SILICON—TYPE EC

Same as above only fabricated from chrome-silicon steel of exceptionally high-tensile strength and uniformity of temper, with high fatigue values developed by special heat treatment during fabrication.

STANDARD WEIGHT TAPERED STAINLESS WHIP WITH NON-REMOVABLE ADAPTOR—TYPE TS

Stainless steel whips of extremely high tensile strength with a permanent type stainless adaptor, with ⅜″ male thread.

STANDARD WEIGHT WHIP WITH REMOVABLE ADAPTOR—TYPE VS

Same whip as above except supplied with a removable adaptor locked in place by dual set screws.

NO.	LENGTH	PRICE
ES-760	60″	$6.00
ES-772	72″	6.00
ES-784	84″	7.00
ES-796	96″	7.00
EC-660	60″	5.50
EC-672	72″	5.50
EC-684	84″	6.50
EC-696	96″	6.50

AD-700 — Separate Stainless Adaptor with ⅜″ male thread for ES and EC series whips.

NO.	LENGTH	PRICE
TS-860	60″	$7.00
TS-872	72″	7.00
TS-884	84″	7.50
TS-896	96″	7.50
TS-8108	108″	8.00
VS-960	60″	8.00
VS-972	72″	8.00
VS-984	84″	8.50
VS-996	96″	8.50
VS-9108	108″	9.00

AD-900 Same as AD-700 except drilled for VS series whips.

ALL PRICES SHOWN ARE LIST PRICES SUBJECT TO USUAL COMMERCIAL DISCOUNTS.

PRICES EFFECTIVE AT TIME OF PRINTING AND ARE SUBJECT TO CHANGE WITHOUT NOTICE.

PREMAX PRODUCTS, DIV. CHISHOLM-RYDER CO., NIAGARA FALLS, N. Y.

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SCALA PRECISION TV ANTENNAS

* FOR TRANSLATORS & CABLE SYSTEMS
* TRANSMITTING & RECEIVING

5 & 10 ELEMENT YAGIS
Channels 2 to 13

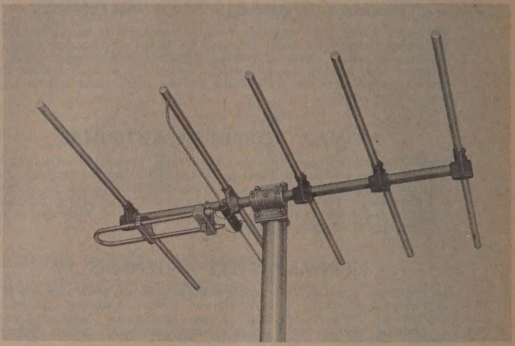
HIGH GAIN: Scala single channel yagis give maximum possible gain evenly distributed throughout the TV channel. They are designed to give flat response across the channel—no peaks that look good on a field strength meter at the sacrifice of signal information.

LOW NOISE LEVEL: Every precaution has been taken to eliminate the generation of noise within the antenna: welded feed points, one-piece boom and parasitic elements, no mechanical splices, no outside sleeving that can corrode causing noise generation later; the gain and low noise factor remain stable for the life of the antenna.

EXCELLENT MATCH TO TRANSMISSION LINE: VSWR is held within an average of 1.45 to 1. Yagis available with either 300 ohm balanced termination or 72 ohm coaxial termination (at additional cost). The 72 ohm antennas use Scala's exclusive trouble-free balun design. Choice of N type, UHF, or Jerrold connector on 72 ohm models.

PERFORMANCE CHARACTERISTICS: Horizontal beam width, 5-element models 48° to half-power point; 10-element models, 40°. Front to back ratio exceeds 18 db for all models. Beam width can be narrowed either vertically or horizontally by stacking two yagis; it can be further narrowed on one plane or narrowed on both planes by stacking four or more yagis.

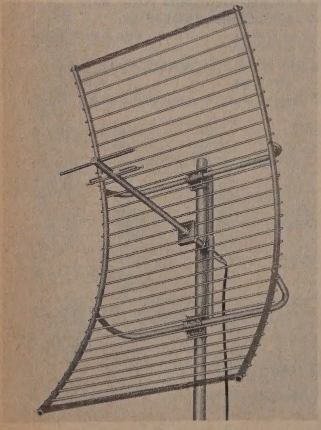
MAXIMUM DURABILITY: Scala HDCA models are heavy-wall seamless 6061-T6 aluminum: 3/4" OD tubing for parasitic elements, 1.050" OD pipe (0.113 wall) for boom. Terminals are stainless steel. Elements are mounted to boom by heavy machined castings, ribbed at stress points. The antenna to mast support clamp has two U-bolts. All castings have double set screws. No welds which can anneal and weaken aluminum are depended upon for mechanical support. Maple dowels are inserted for vibration damping in channels 2 through 6 aluminum yagis. For very extreme weather areas, Scala 5-element yagis can be ordered with machine steel elements and boom (Model HDCS-5).



HDCA-5 ALUMINUM YAGI, 72 OHM MODEL. Also available in steel (Model HDCS-5).

HDCA-10, 10-element model not shown, available in aluminum only, has same rugged construction features, added bracing where required.

EASY ASSEMBLY: All Scala antennas can be assembled in a few minutes. All necessary hardware is included. Steel yagis, 10-element yagis, and 5-element aluminum yagis for channels 2 to 6 are equipped with a 2-U-bolt clamp for fastening to a 2" to 2⅜" OD circular support. The 5-element channels 7 to 13 aluminum yagis have a single U-bolt clamp for mounting the antenna to a 1" to 1½" pipe (two U-bolt clamps for 2" to 2⅜" pipe available at extra cost).



PARAFLECTOR® Channels 14 to 83

THE SCALA MODEL PR-450 PARAFLECTOR® is a major contribution toward the improvement of antenna construction and performance in the 350 to 1000 Mc range. Essentially a parabolic section in one plane, the driver is positioned to approach a point source. Over the 350 to 1000 Mc range, the Paraflector® is equal to a parabolic dish of the same aperture and has the advantage of lower cost, lighter weight, ease of assembly, installation and rugged construction.

ELECTRICAL SPECIFICATIONS: Gain of the Paraflector® on channel 14 is 16 db higher than that of a half-wave dipole. At the higher frequency channels, this gain increases and exceeds 17.5 db at channel 83. Horizontally polarized, the horizontal beam width is 30 degrees to the half power point, and vertical beam width is 22 degrees. The antenna is available with a termination of 72 ohms or 52 ohms.

MECHANICAL SPECIFICATIONS: Aperture—36" x 67". Mounting—Antenna fastens to a 2" to 2⅜" circular support. Connectors—N type to mate to UG 21/BU or equal. Wind thrust at 100 mph with ¼" radial ice is 303.5 lbs. Net weight 25 lbs. (approx.). Shipping weight 75 lbs. (approx.).

SCALA RADIO COMPANY

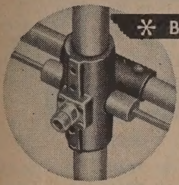
SAN FRANCISCO, CALIF.

© U.C.P., Inc.

UHF • VHF — *Complete Antenna Coverage* —

Precision Industrial Antennas by SCALA

Why you get better performance with Scala Antennas—



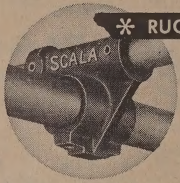
✻ BUILT-IN BALUN

(pat. pending)

Provides a balanced feed system assuring equal distribution of current to the driven element, greater electrical and mechanical stability. The balun allows the driven element to be supported by metal and eliminates the necessity of using the insulator as a mechanical support.

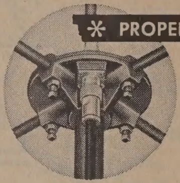
✻ BUILT-IN HEATER

Most of the antennas described below can be obtained with a 24 volt heating system for maximum weather protection and assured winter operation.



✻ RUGGED CONSTRUCTION

Elements are supported by machined castings providing a larger support area, damping vibrations and reducing the concentration of stress and metal fatigue. Mechanical splices are never used. All units are available in metals other than aluminum if desired.



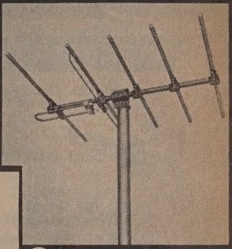
✻ PROPER STRUCTURAL DESIGN

A machined casting, webbed for extra strength and structural support is used to hold parasitic elements in the ground plane antenna. Set screws and lock nuts provide simple assembly and easy installation.

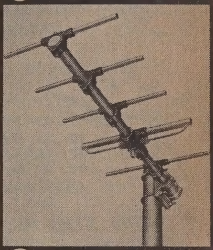
✻ TESTING AND INSPECTION

Each antenna is tested twice for impedance match—once during manufacture and again prior to dis-assembling for shipment. New models are field-tested for one year before released for production.

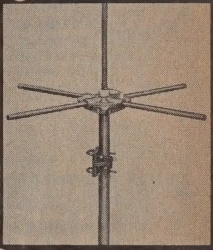
**Shipped complete—all U-bolt mounting clamps and brackets are included. Unit is ready for installation.*



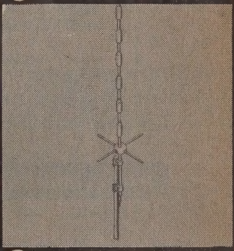
① MODEL CA5-150



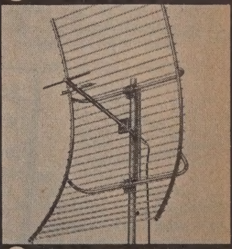
② MODEL CA5-450



③ MODEL GPC-150



④ MODEL OG-6



⑤ MODEL PR-450

① YAGI—VHF

The Scala Model CA5-150 is a 52-ohm 5 element yagi. Nine db gain on the major lobe is assured by careful design and Scala's exclusive feed system which eliminates radiation from the feed line and provides equal distribution of current to the driven element. The VSWR is less than 1.3 to 1. For complete weatherproofing and year-around operation, the boom can be provided with a 24 v heater. The unit is annodized and dichromate sealed.

② YAGI—UHF

The Scala Model CA5-450 general communications antenna is a product of years of extensive research. Its construction is possible only because of developments in foam plastics and Teflon insulated cable. A Teflon insulated balun is located within a chamber filled with a special foam plastic for complete moisture and corrosion protection. High strength 7/16" solid aluminum rod is used for the parasitic elements. VSWR is less than 1.3 to 1. Gain is 10 db. Two units may be mounted in an array for an increase in gain up to 3 db and greater directivity. Shipped completely assembled, the unit is annodized and dichromate sealed.

③ GROUND-PLANE—40-170 MC

The Scala Model GPC-150 ground-plane antenna is ideal for non-directional, all weather communications. It is the first ground-plane antenna that can be obtained with 24 v heaters throughout — including the radial elements, providing a completely weatherproof and safe year-round operating antenna. Another version of this unit, comes equipped with a reflector and provides a cardioid radiation pattern with increased gain. In all cases the VSWR is less than 1.3 to 1. The unit is annodized and dichromate sealed.

④ OMNI-DIRECTIONAL GAIN ANTENNAS

Scala's Omni-Directional Gain Antennas—150 Mc and 450 Mc—use half-wave independently fed radiators. Model OD-4 (150 Mc) provides 4 db plus gain over dipole; Model OD-6 (450 Mc) 6 db plus gain over dipole. All elements at DC ground supported by metal. Extremely rugged anodized aluminum construction. Shipped ready for installation.

⑤ PARAFLECTOR®—350-1000 MC

The Scala Model PR-450 Paraflector® is a major contribution toward the improvement of antenna construction and performance in the 350 to 1000 mc range. Essentially, a parabolic section in one plane, the driver is positioned to approach a point source. Over the 350 to 1000 mc range, the Paraflector® is equal to a parabolic dish of the same aperture and has the advantage of lower cost, lighter weight, ease of assembly, installation and rugged construction.

EXACTING DESIGN—TESTED MATERIALS—PRECISION MANUFACTURE

In addition to the antennas described above, and other standard communications, telemetering and community systems, Scala maintains a complete engineering service to design and manufacture special antennas to your specific requirements.

Write for complete catalog on Scala antennas and engineering services. Address Dept. EM 58.

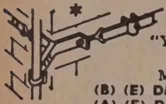
SCALA RADIO COMPANY

SAN FRANCISCO, CALIF.

South River THE COMPLETE QUALITY LINE OF ANTENNA MOUNTING ACCESSORIES

CHIMNEY MOUNTS

U.S. Pat. #2482575, Can. Pat. #463261

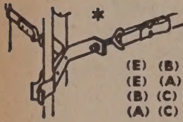


"Y" TYPE HOT DIP GALV. STEEL

MODEL	NET
(B) (E) DM-36	$2.25
(A) (E) DM-36-ST	3.15
(B) (C) "Y" Special	1.77
(A) (C) "Y" ST Special	2.25

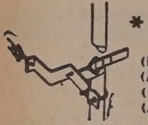
COMPLETELY ALL STAINLESSS

(A) ST-DM	4.59



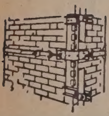
SNAP-IN TYPE

MODEL	NET
(E) (B) SN-50	$1.98
(E) (A) SN-50-ST	2.70
(B) (C) CM-20	1.77
(A) (C) CM-20-ST	2.25



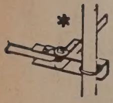
"Z" TYPE

MODEL	NET
(B) (C) ZM	$1.35
(A) (C) ZM-ST	2.07
(B) (C) ZM-2	1.23
(A) (C) ZM-2-ST	1.65



ONE PIECE TYPE

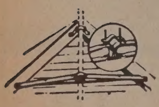
MODEL	NET
(E) (A) (One Strap) UM-1-ST	$3.99



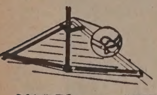
RATCHET TYPE

MODEL	NET
(B) RT	$2.64
(A) RT-ST	3.24

EAVE MOUNTS

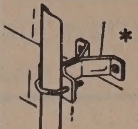


MODEL	NET
EM-1	$3.18



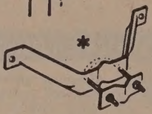
MODEL	NET
30" EM-30	$2.61
48" EM-48	3.66
60" EM-60	4.59

WALL BRACKETS

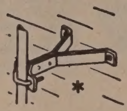


"U" BOLT TYPE

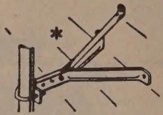
MODEL	NET
3" Alum. WB-3	$1.29



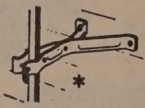
MODEL	NET
3" NT-3	$.78
4" NT-4	.90



MODEL	NET
6" WB-6	$1.32

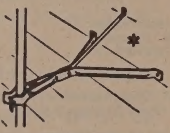


MODEL	NET
9" WB-9	$1.92
12" WB-12	2.67
15" WB-15	3.09
18" WB-18	3.48
24" WB-24	4.41

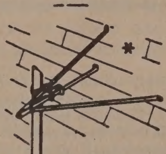


SNAP-IN TYPE

MODEL	NET
6" SN-6	$1.32

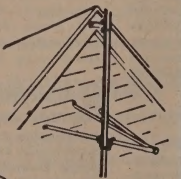


MODEL	NET
9" SN-9	$1.92
12" SN-12	2.67
15" SN-15	3.09
18" SN-18	3.48
24" SN-24	4.41



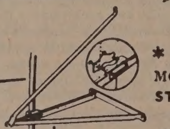
ADJUSTABLE

MODEL	NET
18" Alum. WB-18A	$4.53



MODEL	NET
Combination WB-3-18A	$3.24

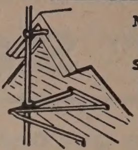
All Aluminum



MODEL	NET
ST-18A Assembled	$5.43
ADJ-18 Unassembled	3.96

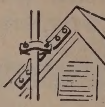
ALL STEEL

WALL BRACKETS



MODEL	NET
Combination Assembled ST-3-18A	$3.39
Combination Unassembled ADJ-3-18	2.97

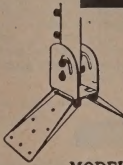
ALL STEEL



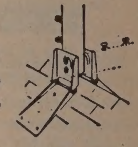
HEAVY SWIVEL GROUND UP TYPE

MODEL	NET
GU-3 (Fits Masts Up To 3⅜" O.D.)	$3.51 pr.
GU-7 Fits Masts up to 2⅝" O.D.	$2.10 pr.

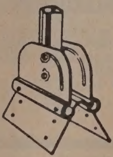
ROOF MOUNTS



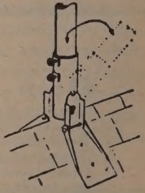
MODEL	NET
(F) (G) PFM-1	$2.16
(F) (H) PFM-1-LM	2.67



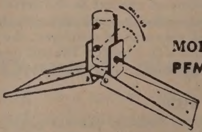
MODEL	NET
(F) (G) PFM-30	$1.89
(F) (H) PFM-30-LM	2.46



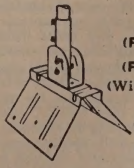
MODEL	NET
(F) (G) PFM-2 All Aluminum	$4.02



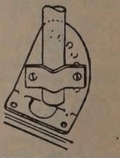
MODEL	NET
(G) PFM-90	$1.26
(H) PFM-90-LM	1.83
(C)(D)(G) SPF-9	1.14
(C)(D)(H) SPF-9-LM	1.32



MODEL	NET
PFM-XL (Fits Masts Up to 2¼" O. D.)	$3.21



MODEL	NET
(F) (G) PM-10	$2.76
(F) (H) PM-10-LM	3.18
(Without Patented Walk-Up Drop- Lock Feature)	
(D) (G) PM-12	1.68
(D) (H) PM-12-LM	2.07



MODEL	NET
(G) UR-1	$.36
(G)(D) UR-2 Slotted	.36
UR-3 Slotted—with U-Bolt & Saddle	.42

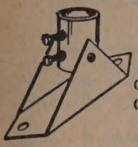
CODE:
- * TWO TO A SET
- (A) Stainless Steel Banding
- (B) Galv. Steel Banding
- (C) Economy Model
- (D) Not Illustrated
- (E) With Kwik Klip
- (F) U.S. Pat. # 2734708
- (G) Fits Masts Up To 1½"
- (H) Fits Masts Up To 2"

Complete descriptions and list of South River Products available in latest catalog. Write for your copy.

SOUTH RIVER METAL PRODUCTS CO., INC., South River, New Jersey

South River
THE COMPLETE QUALITY LINE OF ANTENNA MOUNTING ACCESSORIES

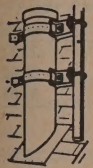
ROOF MOUNTS



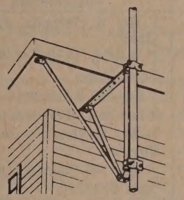
MODEL	NET
(G) RM-80	$ .72
(H) RM-80-LM	1.32
(C) (G) SRM-8	.54
(C) (H) SRM-8-LM	.84
(D) RM-XL*	1.95

*(Fits Masts Up To 2¼" O.D.)

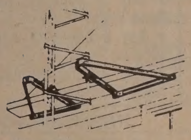
PIPE MOUNT



MODEL	NET
(B) P-1	$1.71
(A) P-1-ST	1.92
(D) P-2 Clamp Type	$1.38

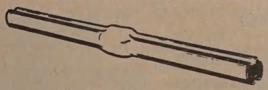


Under-Eave Mount Model #UE-1 $3.66 ea

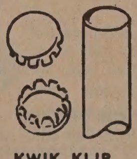


Tower Support Model TS-1 $5.01 pr.

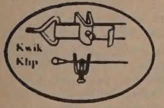
ACCESSORIES



Mast Coupler MC $.57



Mast Plug MP $.12

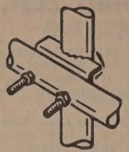


KWIK KLIP

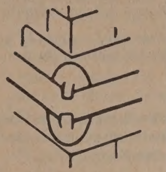
MODEL	NET
KK	$.17

Complete descriptions and list of South River Products available in latest catalog. Write for your copy.

ACCESSORIES



MODEL	NET
"U" Bolt & Saddle UBS	$.24

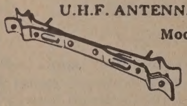


CORNER GUARD

MODEL	NET
CG	$.29

STRAP CLAMPS

MODEL	NET
(C)-Q Galv. Steel	$.05
(C)-QS Stainless Steel	.09

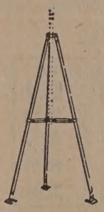


U.H.F. ANTENNA MAST ADAPTERS

Model UHB-15

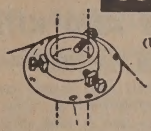
$2.01

BANTAM TOWERS



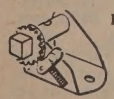
MODEL	NET
BT-5	$4.29
BT-10	6.00

GUY RINGS



(Universal Type Fits Masts up to 2") Model GR-1 $.93

MODEL	NET
1¼" MASTS GR-5	$.12
1⅜" MASTS GR-6	.18
1½" MASTS GR-7	.18
(D) Guy Ring Support RS-5 (For 1¼" Masts)	.15



RATCHET GUY WIRE TIGHTENER

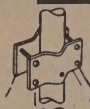
Model GW-RT

$.45

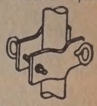
GROUND RODS

MODEL	NET
(D) 4 Ft. GND-4 CP	$.63
(D) 6 Ft. GND-6 CP	.93
(D) Gnd. Rod Clamp GRC-2	.10

GUY WIRE CLAMPS

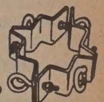


(G) Model GC-1 NET $.24



(G) Model GC-2 NET $.27

(H) Model GC-3 NET $.36



Model GC-4 NET $.48

(For Masts Up to 3")

ALUMINUM MAST TUBING

ALLOY: 6063 T832

NATURAL SILVER TYPE

WALL THICKNESSES–.042", .050", .054", .056"

LENGTHS: 5', 6', 7½', 10'

GOLDEN ANODIZED TYPE

WALL THICKNESSES—.042", .050"

LENGTHS: 5', 10'

ALUMINUM GUY WIRE

ALCLAD, STRANDED–#500 lb. TEST

7 STRAND 17 GAUGE

REGULAR, STRANDED–#400 lb. TEST

7 STRAND 18 GAUGE

50' INTER-CONNECTED COILS
100' INTER-CONNECTED COILS
1000' CONTINUOUS COILS

ALUMINUM GROUND WIRE

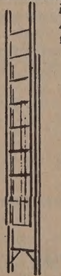
=8 E.C. Grade (Dead Soft)

50' INTER-CONNECTED COILS
100' INTER-CONNECTED COILS
1000' CONTINUOUS COILS

REPLACEMENT BANDING KITS

A	12 Ft. Straps	$1.11
AT	10 Ft. Straps	.81
C	12 Ft. S.S. Straps	1.95
CT	10 Ft. S.S. Straps	1.41
XLG	18 Ft. Straps	1.56
XLST	18 Ft. S.S. Straps	2.73

SOUTH RIVER SUPERLIGHT MAGNESIUM LADDERS



Magnesium: 1/3 Lighter than Aluminum, Strongest Metal Lb. for Lb. in existence.

EXTENSION LADDERS

Size	Weight	List Price
40'	57 Lbs.	$148.00
36'	51 "	122.40
32'	46 "	108.80
28'	32 "	95.20
24'	28 "	72.00
20'	23 "	60.00
Rubber Safety Feet		4.00 pr.

STRAIGHT LADDERS

Size	Weight	List Price
20'	22 Lbs.	$60.00
16'	18 "	48.00
14'	15 "	42.00
12'	13 "	36.00
10'	11 "	30.00
Rubber Safety Feet		pr. 4.00
Roof Hooks		pr. 6.00

STEPLADDERS

Size	Weight	List Price
8'	16 Lbs.	38.00
6'	12 "	28.00
4'	9 "	21.50
26" Jr.	5 "	9.98

These ladders furnished immediately from complete warehouse stocks in South River, N. J.

SOUTH RIVER METAL PRODUCTS CO., INC., South River, New Jersey

TACO WORLD'S FINEST VHF AND UHF ANTENNAS

TRANSISTORIZED T-BIRD ELECTRA

MODEL G990 series — most powerful electronic TV/FM antenna on the market. Unequalled in Gain, Directivity, Sensitivity, Front-to-Back Ratio, Color-Fidelity. Antenna-matched built-on transistor preamplifier — 1000% gain increase over non-powered antennas. Ideal for FM Multiplex reception beyond 23 miles of ordinary reception range. Energized from 117 v line — no battery replacements, no tube burn-outs. Twin outputs for 2 TV, or 1 TV + 1 FM set; with TACO multicouplers feeds several more sets.

Double-strength chrome-aluminum construction, wide-spaced iridited feed lines, fibre glass insulators; stainless steel mounting parts with chromate finish, entire array with heavy gold-chromate finish — 100% rust-proofed.

3 Models available: G990-5 — brings in stations from beyond ordinary reception range; **G990-6** — reception up to 100 miles. **G990-8** — reception from stations hundreds of miles distant.

All models shipped completely pre-assembled — ready for instant mounting. All components available from factory as replacement parts — even hurricane damaged antennas can be quickly repaired like new.

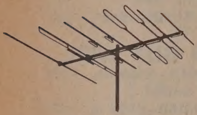
MODEL NO.	NET $
G990-5	47.28
G990-6	54.09
G990-8	64.32

T-BIRD ANTENNA — Non-Powered

707 Series — most rugged home TV/FM antenna. Has all the features of the T-Bird Electra, except preamplifier. 3 models (with or without gold-chromate finish) available — each designed to meet conditions of ordinary, fringe and problem areas respectively.

MODEL NO.	NET $	MODEL NO.	NET $
707-5	16.98	G707-5	20.13
707-6	23.91	G707-6	27.69
707-8	34.62	G707-8	39.03

TOP-LINER SERIES



Model 2500 series are compact, streamlined, powerful VHF Yagis, available in 4 different designs to cover metropolitan areas and suburbs, fringe areas, ultra fringe areas, and critical problem locations. All models can be used singly or stacked to meet any signal condition.

Uniform gain across all channels, high tensile strength aluminum tubing — 100% corrosion proofed. Rugged construction and high signal utilization capability insure excellent service for many years.

		GOLD-CHROMATE FINISH	
MODEL NO.	NET $	MODEL NO.	NET $
2540	9.99	G2540	11.85
2550	13.20	G2550	16.23
2560	16.98	G2560	20.13
2570	23.91	G2570	27.69

NEW "SNAP-LOK" CONICAL

Model 2200 series — newly designed high-gain conical antenna. Completely factory-preassembled featuring positive snap-locking elements for instant mounting — no loose hardware, no tools necessary to prepare antenna. Unique construction keeps antenna in permanent shape. Elements are of chrome-alloy aluminum — stronger and brighter than ordinary antenna tubing. Completely sealed against entry of moisture. Direct take-off terminals for maximum signal transfer.

MODEL NO.	DESCRIPTION
2211	1 Bay 6 Elements w/Hi Band Stubs
2212	2 Bay 6 Elements/Bay w/Hi Band Stubs
2221	1 Bay Fan 8 Elements
2222	2 Bay Fan 8 Elements/Bay
2231	1 Bay 6 Elements w/Hi Band Director
2232	2 Bay 6 Elements/Bay w/Hi Band Directors
2241	1 Bay 8 Elements w/Hi Band Stubs
2242	2 Bay 8 Elements/Bay w/Hi Band Stubs
2251	1 Bay 8 Elements w/Hi Band Director
2252	2 Bay 8 Elements/Bay w/Hi Band Directors
	STACKING HARNESSES
2208	2 Bay stacking line
2209	4 Bay stacking kit

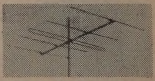
FM ANTENNAS AND KITS

The "LARK"

All directional S-dipole with matching network. Excellent gain for intermediate areas; gold-anodized finish; compact design. "LARK AD-A-KIT" includes antenna, 50 ft. lead-in and mounting hardware.

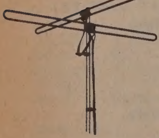
MODEL G626 NET $4.38
KIT MODEL KG626A NET $5.64

NEW BI-DIRECTIONAL FM YAGI



Entirely new design — meets frequency requirements for reception from two approx. opposite directions. Dual directors — one at each end — ideal for bi-directional stereo multiplex reception, eliminates need for rotor or two separate yagis. Shipped factory-preassembled.

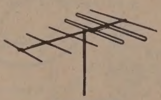
MODEL 615 NET $4.92



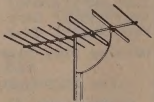
The "TURNSTILE"

All directional, golden anodized antenna with matching network. With kit includes: 5′ mast, basement, 50′ lead-in, guy wires and hardware.

MODEL G666 NET $5.82
KIT MODEL KG666 NET $9.93



6-ELEMENT MODEL 610



10-ELEMENT MODEL 644B

DIRECTIONAL FM YAGIS

Available in 6-element and in 10-element arrays, with or without gold-anodized finish. High gain, sharp directivity for extreme performance at great distances. Ideal for stacking and rotator use. Auto-Lok assembly permits quick installation.

MODEL 610 NET $18.42
MODEL 644B NET $12.72

"MULTIPLEXER"

Tuned Yagi series comes in 3, 5 and 10-element models (Model #681, 683, 686 respectively) — cut to specific fm frequencies. Designed for best possible sound reception — especially stereo multiplex — ideal for background music installations. 75-ohm gamma match connector for maximum signal transfer. Quick-rig construction for easy installation.

3-ELEMENT MODEL 681	NET $ 5.86
5-ELEMENT MODEL 683	NET $ 8.14
10-ELEMENT MODEL 686	NET $16.00

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TECHNICAL APPLIANCE CORPORATION, SHERBURNE, NEW YORK

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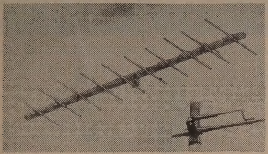
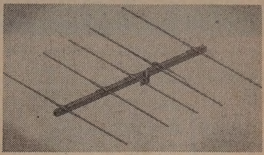


NEW MASTER ANTENNA YAGIS

"FOREVER" CONSTRUCTION



5-ELEMENT MODEL J55-*

TACO's new custom-designed **J-series Yagis** are distinguished not only by their high directivity and high gain, but foremost by their extra heavy duty construction of seamless double-strength iridited aluminum tubing with sand-loaded low-band elements and reinforced sleeves, all completely sealed to prevent danger of corrosion.

Cadmium plated, gold chromate mounting bracket and heavy U-bolt give full 6 inches of bearing surface against the mast.

*Specify channel required.

MODEL J55-* NET $25.00

10-ELEMENT MODEL J105-*

The **J-* series Yagis** come in 5-element assemblies for the lo-band and FM, and in 10-element assemblies for the hi-band. This antenna features exemplary workmanship in its welded and bolted construction, guarantees a long-lasting, maintenance-free, weather-resistant installation — the ideal Master Antenna.

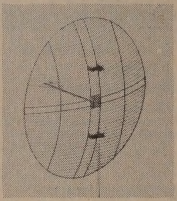
This relatively inexpensive antenna will last as long as the equipment to which it is connected. No longer is it necessary to feed a commercial TV distribution system from a home-type antenna.

MODEL J105-* NET $25.00

UHF ANTENNAS

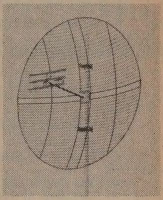
NEW UHF PARABOLIC ANTENNAS
SPECIAL FOR MPATI AND TRANSLATOR AREAS

3065 Series features spot-welded, all-aluminum, slot-fed elements mounted in front of a welded grid parabolic reflector. Unusually narrow (1 inch) grid-spacing for great mechanical strength and high front-to-back ratio of 20 db or more. All-welded construction and rear-mounting of dish with double U-bolts — for high resistance to distortion. Entire dish coated with vinyl plastic over anti-oxide primer — maximum protection from weather and corona effects.



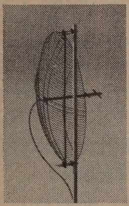
MODEL 3065ST-72

MODEL 3065T-300



Two basic models: **3065T-72** for 75-ohm, **3065T-300** for 300-ohm output impedance. Both models have undergone extensive field use in the MPATI and Translator Areas — are now recognized as proven best in their class.

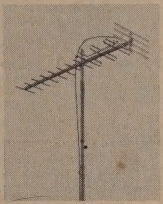
MODEL 3065T-72 NET $51.26 **MODEL 3065T-300 NET $35.98**



DIVERSITRON UHF PARABOLIC ANTENNA

High gain with minimum of 20 db at top of the band. The tuned dipole and the large capture area of the driver screen eliminate "shadow area" problems, assure constant picture quality.

DIVERSITRON
MODEL 3050
NET $14.97



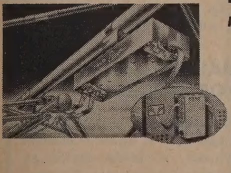
UHF YAGI — FOR TRANSLATOR AND ETV AREAS

Model 3025T — twelve-element, triple-driven UHF Yagi with 4-element grid reflector; specially designed for channels 70 thru 83. Very rugged construction assures long-life service. Stacking lines provided for multiple arrays.

MODEL 3025T NET $4.50

TACO ANTENNA ACCESSORIES

"ELECTRA" TRANSISTORIZED TV/FM PREAMPLIFIER MODEL 992



This preamplifier is the heart of the best electronic antenna. Combining highest gain with lowest noise figure Model 992 gives optimum TV/FM performance, is a **must** for color sets. Energized from a 117 volt line — no battery replacements, no tube burn-outs. Mounts on boom, mast, window, or wall. Twin outputs feed 2 TV or 1 TV and 1 FM set. With TACO multi-couplers feeds five or more sets. Can be used with any antenna.

MODEL 992 NET $26.63

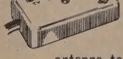
ANTENNA COUPLERS, VHF AND UHF

Large variety of Models are available for mixing hi and lo-band antennas, or VHF and UHF antennas to a single lead-in. Model 1465 — DUAL "MAGI-MIX" mixes two (ch. 14-42 with ch. 58-83) UHF antennas. Model 830-2 mixes any two UHF antennas. **Model 1465, Net $2.97; Model 830-2, Net $2.25.**

MULTI-SET COUPLERS

Models 820-2 (2-Set), 820-3 (3-Set), and 820-4 (4-Set); for indoor mounting. Designed for maximum transfer of signal to each set. **Model 820-2, Net $1.92; Model 820-3, Net $2.19; Model 820-4, Net $2.55. Models 825-2** (2 Set) and 825-3 (3-Set); weather-proof case for outdoor mounting. **Model 825-2, Net $2.55; Model 825-3, Net $2.70.**

MATCHING TRANSFORMERS TV and FM



Model 1570 — 72 to 300 ohm impedance match for connecting 72-ohm coax to 300-ohm set input. **Model 1570, Net $2.10. Model 1597** — matches 300-ohm antenna to 72-ohm coax cable. Shipped with cable plug and in weather-proof housing. **Model 1597, Net $3.21.**

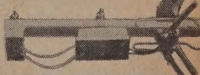
"SELECTRONIC" SWITCHES

Models 823 and 873; low-loss units for selective switching between antennas or sets. **Model 823, Net $1.32; Model 873, Net $2.37.**

SELECTIVE ATTENUATOR MODEL 835

3-way, 0-15-30 db, selective attenuator switch; prevents over-load.

Net $3.03



FM FILTER TRAP

Model 1435-FM — electronic filter, cuts out FM interference with TV reception. 20 db minimum attenuation of FM band. Mounts on TV antenna for maximum efficiency. **Net $4.77.**

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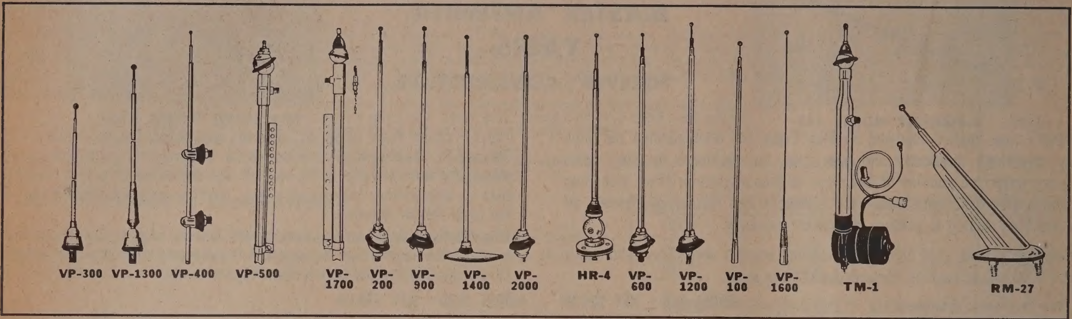
TECHNICAL APPLIANCE CORPORATION, SHERBURNE, NEW YORK

A subsidiary of The Jerrold Corporation

TENNA Auto Antennas and Mounts

THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

World's largest maker of Auto Aerials



SWIVEL BALL TYPE TOP COWL ANTENNAS

"DELUXE" SATELLITE

Ball rotates full 360° in any direction. Mast may be locked at any angle. Mounts from outside. Extends 23" to 57", with 48" cable.

Model VP-300*

"ECONOMY" SATELLITE

Same as VP-300, but with two sections. Extends 22" to 39", with 48" cable.

Model VP-2100*

"FLEXO-MAST" SATELLITE

Swing-back spring resists impact for maximum flexibility. Extends 23" to 57", with 48" cable.

Model VP-1300*

SIDE COWL AND CONCEALED ANTENNAS

"DELUXE" SIDE COWL

Triple chrome plated with chrome cap-nuts and screw-on connectors. Extends 23" to 57", with 48" polyethylene cable.

Model VP-400*

Model RAD-4—Four section, extends 29" to 92".

Model RAD-5—Five section, extends 29" to 112".

ECONOMY SIDE COWL

Same as VP-400, but with gray cap-nuts.

Model VP-1000*

"DELUXE" CONCEALED TYPE

Large seamless steel tube reduces capacity losses. Tilts 40° from vertical. Extends 0" to 50", with 48" radar-type cable.

Model VP-500*

Model FD-3A—Deluxe 3-section, extends 8" to 68".

Model VP-1000*—Economy type, extends 4" to 35".

SAF-KEY ANTENNA

Mast completely disappears. Breakproof! Mast can only be raised with combination key; key ring included with antenna. Sweeps back 40°. Extends 0" to 50", with 48" cable.

Model VP-1700*

3 SECTION TOP COWL ANTENNAS

"DELUXE" BALL AND ROCKER

Quick top mounting on cowl, rear deck or fenders. Diecast body; diecast rocker and chrome cover cap. Extends 23" to 57", with 48" radar-type cable.

Model VP-200*

Model MH-3C—Diecast body; diecast rocker and and chrome plated diecast ball. Extends 26" to 71", with 54" cable.

"LEADER" WITH SPLIT WASHER BASE

Similar to VP-200, but with black Tenite and split washer base for simple top mounting. Extends 23" to 57", with 48" cable.

Model VP-900*

Model VP-1800*—"Economy Shorty" extends 17" to 35", with 48" cable.

Model VP-1900*—"Leader Shorty" extends 23" to 50", with 48" cable.

"TEAR DROP" MAGIC MOUNT

Top mounting with streamlined tear drop base. Extends 23" to 57", with 48" radar-type cable.

Model VP-1400*

POPULAR BALL AND ROCKER

Triple chrome finish, sweeps back 40° and locks. Die cast rocker has positive grounding teeth. Extends 23" to 57", with 54" cable.

Model VP-2000*

Model VP-800*—Economy type. Same as 2000, but has stamped rocker design and 48" cable.

2 SECTION TOP COWL ANTENNAS

"DELUXE" ALL CHROME

"Ball and rocker" base, sweeps back 40°. Die cast rocker has positive grounding teeth. Has chrome cover cap. Extends 22" to 39", with 48" cable.

Model VP-600*

"LEADER" MAGIC MOUNT

Triple chrome plated, mounts easily by one person. Has split-washer base. Looks like 3 sections. Extends 22" to 39", with 48" cable.

Model VP-1200*

"ECONOMY" BALL AND ROCKER

Triple chrome plated with stamped rocker and plastic ball. Extends 22" to 39", with 48" cable.

Model VP-1500*

REPLACEMENT MASTS

"DELUXE" THREE SECTION

Installs instantly by slipping base over broken portion of old mast and tightening set screws. Weatherproof, anti-rattle construction with chrome finish. Extends 23" to 57".

Model VP-100*

Model VP-700*—Economy 2-section type extends 22" to 39".

FLEX-O-ROD MAST

Single section, chrome plated 26" rod bends to 90°. Polished, high tempered stainless steel spring.

Model VP-1600

SPECIALTY ANTENNAS

TENNAMATIC ELECTRIC ANTENNA

Universal design approved by all major auto manufacturers. Unconditionally guaranteed for one year. For 12-volt systems only. Mast extends 39"; collapses to less than 1". Patented motor design can't "burn out"; give positive 15 lb. thrust for free action in sub-zero weather. Comes with switch and bracket, 54" radar cable (copper shielded), 72" electric harness, cable clips, anchor brackets, metal screws and installation instructions.

Model TM-1—Front mount.

Model TM-2—Rear mount with 18' cable and 20' electric harness. Extra clips supplied. Rear mount adapter pad for crown rear fenders.

Model TM-3—Rear mount kit of 15' cable extension, 14' harness extension and rear mount adapter pad. Converts TM-1 to TM-3.

SNORKLE ANTENNA

Three-section rear fin antenna for dual or single mount. Die cast base; special mounting adapters. Triple chrome plated. Extends 3" to 27" With 18 ft. cable and 75 $\mu\mu f$ capacitor.

Model RM-27—Single

Model RMD—Dummy

Model RMT—Dual (1 dummy)

"HOT-ROD" POLICE ANTENNA

Police type antenna for the "hot-rod" enthusiast. Four sturdy sections. Ninety-two inches when extended. Fifteen-foot coaxial lead. Uses MB-2 swivel mounting base.

Model HR-4

RADAR TYPE LEAD CABLES

Radar type ultra high "Q" coaxial cables with polyethylene insulation and 100 per cent shielding. **Type L** has aircraft connector to areal and pin plug. Extension **Type LE** has male and female pin plug fittings.

Model	Length	Model	Length
LE-12	12"	**L-72**	72"
LE-18	18"	**LE-48**	48"
LE-24	24"	**LE-108**	108"
LE-36	36"	**LE-144**	144"
L-36	36"	**LE-180**	180"
L-48	48"	**LM-144***	144"
L-54	54"	**LM-180***	180"
L-60	60"	**MRC-54†**	54"

*Communication lead. † Universal replacement cable. Equipped with three different mounting nuts for all or any assemblies.

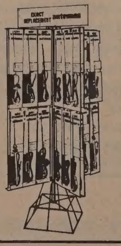
EXACT REPLACEMENT ANTENNAS

Complete Kit, Model ER-1

Kit contains handsome, gold finished, floor display stand with 3 each of 47 Exact Replacement models. Gives Distributor an exact replacement for every original equipment installation. Completely assembled, ready for quick and profitable installation. Skin packed on attractive display cards. Small display space required.

SMALLER STAND FOR DEALERS

Dealer gold finished, rotating counter display holds 12 antennas of dealer's choosing to suit local needs. Write for leaflet explaining full Exact Replacement Program. Multiplies sales at most attractive profits.



A SURE WAY TO INCREASE ANTENNA PROFITS!

RACK MODEL ER-1

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

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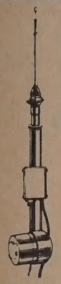
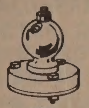
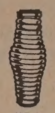
TENNA COMMUNICATION ANTENNAS

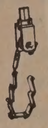
THE TENNA MANUFACTURING COMPANY, INC., CLEVELAND, OHIO

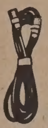
World's largest maker of Auto Aerials

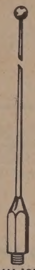

C-BAM-1


MB-6


MB-1


BM-1


RG-58-U-1


MM-102

C-BAM DUAL PURPOSE ELECTRIC ANTENNA

Receives CB, AM and FM. Top loaded coil eliminates need for long, cumbersome whips. Extends to 55″, collapses to 9½″, complete coil disappears. Completely automatic. Sturdy, 4 section. Installs front or rear. C-BEE model same as C-BAM but receives CB only.

C-BAM-1—front
C-BAM-2—rear
C-BEE-1—front
C-BEE-2—rear

COMMUNICATION GEAR

BASES

MB-4—Chrome plated Ball and Phenolic Base
MB-5—Cadmium plated, resistant painted black Ball and Phenolic Base.
MB-6—Same as above, except contains Cadmium plated Ball with plated hardware.

SPRINGS

SP-1—Stainless steel Spring
SP-2—Cadmium plated, black resistant painted Spring
SP-3—Cadmium plated Spring

STAINLESS STEEL WHIPS

MM Series. Number denotes length. **MM-40, MM-55, MM-60, MM-72, MM-84, MM-96, MM-102, MM-108**

Add following letters to **MM** numbers for type of adapter desired. **A** for non-removable. **B** for removable. **C** for set-screw type. **D** no adapter.

BUMPER MOUNTS

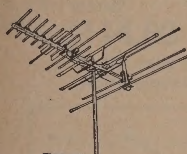
For any standard spring or whip assembly.

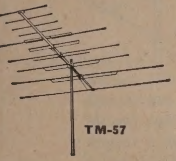
BM-1—Single Chain Mount
BM-2—Double Chain Mount

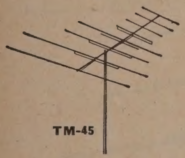
CABLES

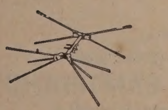
RG-58-U-1 Split end to PL-259
RG-58-U-2 PL-259 on each end. specify length; 5′, 12′, 15′, 22′

TENNA MIRACLE YAGI and CONICAL ANTENNAS


TM-78


TM-57


TM-45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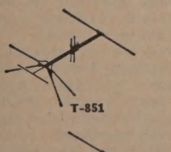
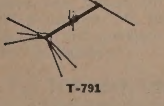

T-851


T-791

NEW MIRACLE REFLECTOR YAGIS

The finest, most powerful and best performing TV antennas on the market. Ideal for color reception. Covers all VHF channels, 2 through 13. The Miracle Reflector system consists of one reflector spaced 0.15 wavelength behind, and in the same plane as the rear driven element of the array; two reflectors are mounted above and below the driven element. 0.10 wavelength behind it. The two reflectors are spaced like the first two elements in a corner reflector, but are non-resonant and tuned for high directivity. In this way, the finest possible front-to-back ratio is achieved across the maximum number of channels. Antennas feature all-aluminum construction with 1″ boom and ¾″ dipoles with reinforced elements where required. Powerful "Sure-Grip" mast clamp and positive spring-loaded elements clamps. Reflector reinforced with aluminum dowels. Low wind resistance.

Tenna Model TM-711 Broadband Array—Ideal for low signal strength areas where co-channel interference occurs. Front-to-back ratio, 20:1; some channels 40:1. Aluminum finish. Shpg. Wt., 10 lbs.

Tenna Model TM-78A Broadband Yagi—Gold anodized finish, compound array with seven active low-band elements; eight active high-band elements. Front-to-back ratio 40:1. Shpg. wt., 8½ lbs.

Tenna Model TM-78—Same as above, but with aluminum finish.

Tenna Model TM-57A Broadband Yagi—Two driven elements (five total) on low band; seven active elements, high band. Gold anodized finish. Shpg. wt., 7 lbs.

Tenna Model TM-57—Same, but aluminum finish.

Tenna Model TM-45 Broadband Yagi—Economy design, ideal for stacking in difficult signal areas. Four active low-band elements; five high-band. Aluminum finish. Shpg. wt., 4½ lbs.

Tenna Model TM-24 Yagi—Replacement for any conical type in intermediate signal areas. Two elements, low band; four high band. Aluminum finish. Shpg. wt., 3 lbs.

Tenna Model TMR Reflector Unit—Reflector only for installation on any Miracle VHF antenna not already equipped; or, on many older type all-channel and cut-channel Yagis. Shpg. wt., 2 lbs.

LOW BAND YAGIS

Available with or without Miracle Reflector. Very high gain on channels 2 through 6. Quick rigged.

Without Reflector			With Reflector		
Tenna Model	Elements	Shpg. Lbs.	Tenna Model	Elements	Shpg. Lbs.
5E-26	5	3¾	TM-5E-26R	6	7
10E-26	10	6			

HIGH BAND YAGIS

Available with or without Miracle Reflector. Very high gain on channels 7 through 13. Durable, all aluminum construction.

6E-713	6	2	TM-6E-713R	6	3
10E-713	10	3	TM-10E-713R	10	3¾

CUT-CHANNEL YAGIS

With or without Miracle Reflector. Finest all-aluminum construction. Quick-rigged for easy installation. Factory assembly.

5-ELEMENT MODELS

	Without Reflector		With Reflector	
Channel	Model	Shpg.	Model	Shpg.
2	5E-2	4½	TM-5E-2R	5½
3	5E-3	4½	TM-5E-3R	5½
4	5E-4	3½	TM-5E-4R	5
5	5E-5	3½	TM-5E-5R	5
6	5E-6	3½	TM-5E-6R	5
7 thru 12	5E-7 thru -12*	1¾	TM-5E-7R thru -12*	2½

10-ELEMENT MODELS

22	10E-2	10	————	————
3	10E-3	9	————	————
4	10E-4	9	————	————
5	10E-5	9	————	————
6	10E-6		————	————
7 thru 12	10E-7 thru -12*	3	TM-10E-7R thru -12R″	3½

* Specify channel when ordering, using appropriate suffix.

UHF ANTENNAS

Tenna Model U-Z1—All-Aluminum construction, pre-assembled. Minimum wind resistance. Very high front-to-back ratio; increased gain. Covers channels 14 through 83. Shpg. wt., 3¼ lbs.

Tenna Model U-Z2—Horizontally stacked, highly directive. Pre-assembled all-aluminum construction. Low wind resistance. Covers channels 14 through 83. Shpg. Wt., 4 lbs.

CONICAL YAGI MIRACLE ANTENNAS

Deluxe antenna for areas where co-channel interference is a problem. Provide high gain, broad band width and high directivity for near fringe areas. Miracle Reflector System gives front to back ratio as high as 30 to 1. Usable on channels 2 through 13. All aluminum elements are completely preassembled.

Tenna Model CY-8R Yagi—Ten elements. Reflector system eliminates need for stacking. Shipping Weight, 6 lbs.

Tenna Model CY-8RA—Same, but gold anodized.

Tenna Model CY-7 Yagi—Seven elements. Includes "Presto" instant mount assembly and stacking bars. Shipping Weight 4½ lbs.

Tenna Model CY-7A—Same, but gold anodized.

Tenna Model CY-8 Yagi—Eight elements. With stacking bars. Shipping Weight, 5 lbs.

Tenna Model CY-8A—Same, but gold anodized.

CONICAL ARRAYS

Full size, all aluminum antennas cover all channels 2 through 13. Available with high-channel Director Bar for greatly improved reception on upper channels. Choice of four or six forward elements and two or four reflector elements. Stacked arrays consist of two bays with connecting bars for stacking. Completely pre-assembled with Instant Mount Assembly. Includes high impact molded polystyrene insulator.

SINGLE ARRAYS

Tenna Model	Forward Elements	Refl. Elements	HF Stubs	Director Bar	Shpg. Lbs.
T-751	4	4	————	1	3
T-801	4	2	————	————	2½
T-811	4	4	————	————	2⅞
T-741	4	4	2	————	3
T-851	4	2	————	1	2⅞
T-791	4	2	2	————	2⅝
T-771	6	2	————	————	2⅞
T-781	6	2	————	1	3⅛

STACKED ARRAYS

T-752†	8	8	————	2	6⅜
T-802†	8	4	————	————	5¼
T-812†	8	8	————	————	6
T-742†	8	8	4	————	6⅛
T-852†	8	4	————	2	5½
T-792†	8	4	4	————	5¼
T-772†	12	4	————	————	5½
T-782†	12	4	————	2	6

*Bulk-packed 6 per master carton; for individually boxed antennas, packed four per master carton, add suffix **A** to number (example: T-751**A**). †Bulk-packed three per master carton; for individually boxed units, packed four per master, add suffix **A**.

CONICAL ANTENNA KITS

Contain conical arrays, mount, masts, cable and all necessary hardware. "Do-It-Yourself" kits.

CHIMNEY MOUNT

Tenna Model	Array Type	Shpg. Lbs.	Tenna Model	Array Type	Shpg. Lbs.
DK-801	T801A	8½	DK-741	T741A	9
DK-802	T802A	13	DK-742	T742A	13¾
DK-811	T811A	8⅞	DK-751	T751A	9
DK-812	T812A	13¾	DK-752	T752A	14
DK-791	T791A	8⅝	DK-851	T851A	8⅞
DK-792	T792A	13¼	DK-852	T852A	13¼
DK-771	T771A	8⅞	DK-781	T781A	9⅛
DK-772	T772A	13¼	DK-782	T782A	13¾

SWIVEL MOUNT

DK-801-3	T801A	6½	DK-741-3	T741A	7
DK-802-4	T802A	11¼	DK-742-4	T742A	12
DK-811-3	T811A	6⅞	DK-751-3	T751A	7
DK-812-4	T812A	12	DK-752-4	T752A	12½
DK-791-3	T791A	6⅝	DK-851-3	T851A	6⅞
DK-792-4	T792A	11½	DK-852-4	T852A	11½
DK-771-3	T771A	6⅞	DK-781-3	T781A	7⅛
DK-772-4	T772A	11½	DK-782-4	T782A	12

WHERE PROGRESS IS A HABIT AND SALES LEADERSHIP AN ESTABLISHED FACT

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Thank you!

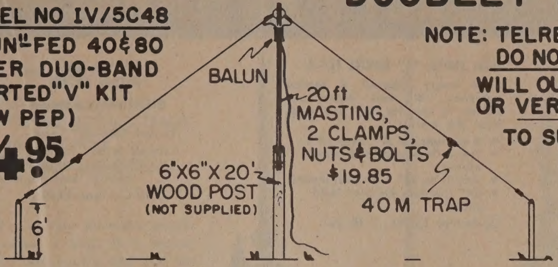
The
Radio-Electronic
MASTER

TELREX "BALUN"-FED INVERTED "V" DOUBLET ANTENNA KITS

MODEL NO IV/5C48

"BALUN"-FED 40 & 80 METER DUO-BAND INVERTED "V" KIT (1 KW PEP)

$24.95


BALUN
20 ft MASTING, 2 CLAMPS, NUTS & BOLTS $19.85
6"X6"X20' WOOD POST (NOT SUPPLIED)
6'
40M TRAP

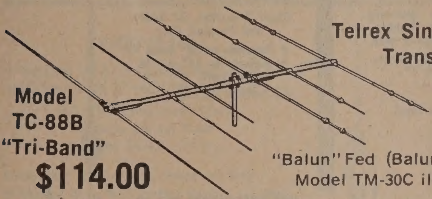
NOTE: TELREX INVERTED "V" DOUBLET KITS DO NOT REQUIRE RADIALS.

WILL OUTPERFORM ANY MULTI-BAND OR VERTICAL NOW ON THE MARKET.

TO SUIT EVERY POCKETBOOK
2 POWER RATINGS
1 KW PEP AND 3 KW PEP

TELREX MONO, DUO, TRI, QUAD AND 5 BAND INVERTED "V" KITS FROM $12.95 TO $108.00

MFG. UNDER TELREX PATENT 2,576,929



Telrex Single Transmission Line Arrays

Model TC-88B "Tri-Band" $114.00

"Balun" Fed (Balun Supplied)
Model TM-30C illustrated

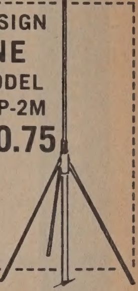
TC-88B thirty pounds of educated aluminum—World Renowned for performance, excellence and value. Also—

Model TC-99B	$174.50
Model TM-320B	$258.00
Model TM-30C	$378.00
Model BFDP-3 (10-15-20 Meter Dipole)	$ 56.00
Model 4B1524-BFD (10-15-20-40 Meter Dipole)	$159.50

Telrex ADVANCED DESIGN GROUND-PLANE

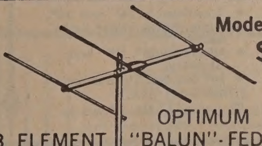
The VERY BEST GROUND PLANES MONEY CAN BUY!

MODEL CGP-2M $10.75



CGP-2M (2 Meters)	$10.75
CGP-6M (6 Meters)	$13.75
CGP-1011S (Citizen)	$19.95
CGP-15M (15 Meters)	$37.95
CGP-20M (20 Meters)	$65.00

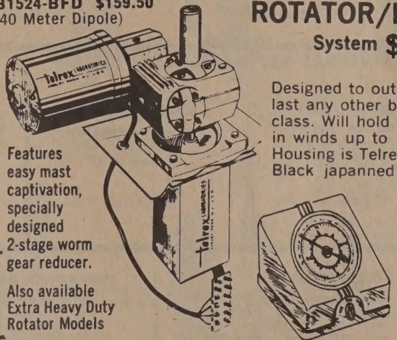
Model 2M-3C $6.95



OPTIMUM SPACED 3 ELEMENT "BALUN"-FED YAGI'S

Model 2M-3C	$ 6.95
Model 6M-309	$16.25
Model 10M-309	$31.50
Model 11M-309 (citizens-band)	$31.50

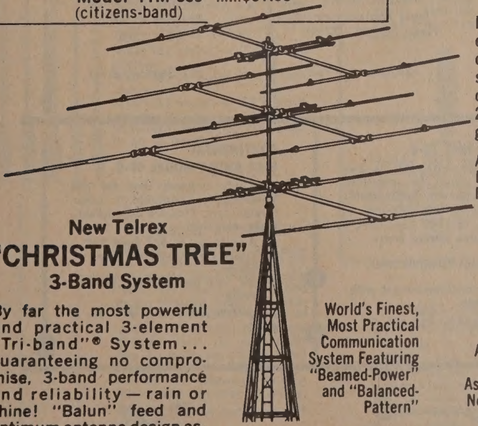
Telrex Model 175-RIS ROTATOR/INDICATOR System $198.50



Features easy mast captivation, specially designed 2-stage worm gear reducer.

Also available Extra Heavy Duty Rotator Models

Designed to out-perform and out-last any other beam rotator in its class. Will hold and rotate beams in winds up to 110 mph. Control Housing is Telrex quality thru-out. Black japanned aluminum housing. Tri-colored azimuth rose and reciprocal readings. Has selsyn indication and limit of rotation circuitry.



New Telrex "CHRISTMAS TREE" 3-Band System

By far the most powerful and practical 3-element "Tri-band"® System... guaranteeing no compromise, 3-band performance and reliability—rain or shine! "Balun" feed and optimum antenna design assures...maximum gain, and impedance bandwidth, plus pattern symmetry with minimum TVI, BCI and harmonic radiation qualities not possible with single transmission line "Tri-banders".

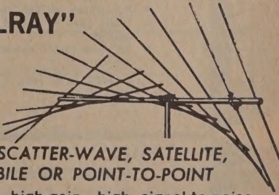
World's Finest, Most Practical Communication System Featuring "Beamed-Power" and "Balanced-Pattern"

All prices FOB Asbury Park, New Jersey, subject to change without notice.

"SPIRALRAY"

Model 2MSR-1114 illustrated

$19.50



FOR SCATTER-WAVE, SATELLITE, MOBILE OR POINT-TO-POINT

Extremely high-gain, high signal-to-noise, practically no fade, all radiation planes—horizontal, vertical or oblique! 9 models available on ¾, 1¼, 2 and 6 meters.

For TOP-MAN-ON-THE-FREQUENCY results...

Install a Telrex antenna... dollar for dollar better in every way! Antenna systems from $6.95 to $688.00

ANTENNAS SINCE 1921

telrex LABORATORIES

Communication and TV Antennas

ASBURY PARK, NEW JERSEY, U.S.A.

ward Highest Quality AUTO ANTENNAS

FRONT MOUNTS

LOKMATIC MODEL L-1000

Triple lock top mount. Fits all cars, including '60 — '61 models. Fits any hole ⅞" to 1¼". Installed in seconds by one man from the top — Water proof — Highest "Q" ever.

- 3 section to 56" from 19½".
- Triple chrome plated brass tubing.
- Adjusts to 43° LokMatic mount.
- 54" low loss Elektran lead cable.

12 cartons 12 lbs., 1 lb. ea.

NEW SUPER "8" MODEL TCF-4

Extra heavy. Rugged 4 section antenna. "8" Ball mount. Installed in minutes, by one man, from the outside.

- 4 sections, to 57" from 18".
- Triple Chrome plated brass tubing.
- Adjust to 35° "8" ball mount.
- 54" low loss Elektran lead cable.

12-carton: 13 lbs., 1 lb. ea.

SWIVEL BALL MODEL SB-98

3-Section Top Mount

Swivel Ball—48" Lead—
Extends to 56" from 22"
Triple Chrome Plated

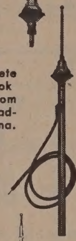
12-Carton: 11 *lbs.*

DISAPPEARING MODEL D-2000

Collapses to only 6½" — complete installation from the top and Lok Matic mount. Fits any hole from ⅞" to 1¼". A really major advance in disappearing antenna.

- 3 section.
- Extends to 52" from 6½".
- 54" low loss Elektran lead cable.

12 carton — 13 lbs.



MODEL M-182-D

The only disappearing antenna specifically designed for Foreign, Sports and American Compact cars.

- 3 section disappearing mount.
- Extends to 20½" from 1".
- No brackets needed — LokMatic mount.
- 48" low loss Elektron lead cable.

12 carton: 11 lbs.

MODEL M-171

Short 3 section for Sports and Foreign Cars

- Extends to 38" from 15".
- Adjusts to 35° — "8" ball mount.

12 carton: 9½ lbs.

SWIVEL BALL MODEL SB-100

3-Section Top Mount

Adjusts to 180°—
54" Lead Cable—
Extends to 57" from 21½"
Stainless Steel Top

12-Carton: 13 *lbs.*

3-SECTION FLEXIBLE TOP MOUNT MODEL SB-100-FL

Extends to 61½" from
26"—54" Lead Cable
Adjusts to 180°—
8" Ball Mount

12-Carton: 15 *lbs.*

"8" BALL MODEL TCF-3C

The ageless "8" Ball, rattle-proof, always modern. Installed in minutes by one man, from the outside.

- 3 sections, to 56" from 22".
- Triple chrome plated brass tubing.
- Adjusts to 35°. "8" ball mounting.
- 54" low loss Elektran lead cable.

12 carton: 12 lbs. 14 ozs. ea.

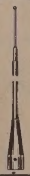
REPLACEMENT MASTS

UNIVERSAL REPLACEMENTS

MODEL TCFR-1

3 Section Telescopic
Extends to 57
from 24"

12-Carton: 4 *lbs.*



MODEL FR-1 FLEXIBLE

3 Section Telescopic
Extends to 64"
from 26½"

12-Carton: 9 *lbs.*

MODEL FR-2

Flexible Spring
Mast Replacement
Fixed Length—27½"

12-Carton: 4 *lbs.*

MODEL FR-3 FLEXIBLE

2 Section Telescopic
Extends to 42½"
from 25¾"

12-Carton: 8 *lbs.*

SIDE MOUNTS

SKY QUEEN MODEL SC-6

Clean, simple styling. Two chrome capped stanchions assure sturdy mounting. Trouble-free, rugged and rattle-proof. Adaptable to foreign cars.

- 3 sections, to 56" from 25"
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable.

12-carton: 12¾ lbs., 1 lb. ea.

LONG RANGER MODEL SC-8

Extra length for extra pull in low-signal areas. Ideal for over-the-road truck equipment. Rattle-proof. Adaptable to foreign cars.

- 4 sections, to 100" from 39".
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable.
- Sturdy 2 stanchion mount with chrome caps.

12-carton: 21 lbs., 1½ lbs. ea.

CONTINENTAL FLEX ANGLE MODEL CF-6

The only antenna that fits the Volkswagon. Adaptable to other foreign cars. Flexible adjustment. Locks vertically.

- 3 sections, to 56" from 22".
- Triple chrome plated brass tubing.
- 36" low loss Elektran lead cable

12 carton: 15 lbs., 1 lb. 7 oz. each

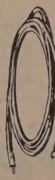
ACCESSORIES

CABLES

LEAD EXTENSIONS

C- 8	12" Length	6 to Box	Skin
C- 9	18" Length	6 to Box	Skin
C-12	24" Length	6 to Box	Skin
C-13	36" Length	6 to Box	Skin
C-43	48" Length	6 to Box	Skin
C-72	72" Length	6 to Box	Skin
C-96	96" Length	6 to Box	Skin
*C-41	9' Length	6 to Box	Skin
*C-40	12' Length	6 to Box	Skin
*C-42	15' Length	6 to Box	Skin
*C-63	18' Length	6 to Box	Skin

*Built in Capacitor ALSO BULK



REPLACEMENT LEADS

RL-36"	(Formerly 15-289)	Bulk Packed
RL-48"	(Formerly 15-291)	Bulk Packed
RL-54"	(Formerly 15-290)	Bulk Packed
RL-60"	....	Bulk Packed
RL-72"	....	Bulk Packed

3-WAY CONNECTOR MODEL C-50

To connect two lead cables and lead extensions of Twin Rear mounts. One 3-way Connector and 5 Clips.
12 on display card—1 lb.
ALSO BULK

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COMMUNICATION ANTENNAS by ward

for every mobile frequency and application

MODEL CB-1

LOW-COST COMMUNICATION ANTENNA FOR THE HOT ROD TRADE

96″ Steel Whip
Black painted swivel base
Cadmium steel spring
15′ lead

Each whip is in a very attractive plastic bag . . . packed 6 bags to a master carton . . . The base, spring and lead are packed together . . . also 6 to a master carton.

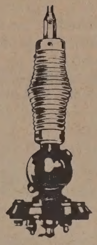
MODEL CB-2

ECONOMY CITIZEN BAND

WCA-310
Universal Swivel Base
Heavily Plated and Painted

WCA-3A
Triple cadmium plated spring

WCA-326-B
102″ stainless steel tapered whip



MODEL CB-1-A

DELUXE MOBILE COMMUNICATION ANTENNA FOR 27 MC CITIZEN BAND

102″ Stainless Steel Whip
Chrome Swivel Base
Chrome Deluxe Spring

Each whip is in a very attractive bag . . . packed 6 bags to a master carton . . . The base and spring are packed together . . . also 6 to a master carton.

MODEL CB-3

DELUXE CITIZEN BAND

WCA-315
Chrome plated swivel base
with stainless steel hardware

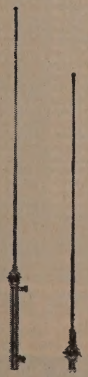
WCA-3ACH
Triple chrome plated, barrel type spring. Bends through 100 degrees.

WCA-326-B
102″ stainless steel tapered whip

HEAVY DUTY MASTS

Finest stainless steel: heavy-duty performance. 84½″ mast bends to bring tip and base 30″ apart without distortion. All base studs ⅜-24 threads. All taper ground with ball tip. WCA-320 series — 60″ long, choice of adapters: Chrome press fit, cadmium plated press fit; ⅝″ hex steel, cadmium plated with set screws; ½″ hex stainless steel with set screws.

WCA-321 series — 72″, same choices.
WCA-322 series — 84″, same choices.
WCA-323 series — 96″, same choices.
WCA-324 series — Fiberglass in all 4 lengths.



DISGUISE ANTENNAS

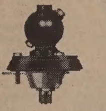
Look and mount like ordinary car antennas, with Ward "8" ball mount. The secret is in the lead: stub load type for 30-50 mcs.; standard leads for 144-174 mcs. WCAB-71 has triple chrome plated brass tubing and stainless steel tip rod. Looks like 3 section car antenna, but length fixed at 55½″. (Permanent at telescopic joints.) Has heavy mounting brackets.

WCA-235 same but with 70″ mast.
WCA-143 same but tapered stainless steel mast.
WCA-248 looks like 3 section, "8" ball mount.
WCA-249 55½″ tapered stainless steel, "8" ball mount.

NEW HEAVY DUTY DIE CAST MOBILE BASES

WCA-310—Universal swivel base. Plated & painted parts. Stainless steel mounting hardware.

WCA-312 — Chrome plated swivel base w/ stainless steel mounting hardware.



WCA-313 — Coaxial type. New rugged metal backup plate and shell is one unit. Connector mounted in the shell is PL-258 which accepts a PL-259.

WCA-315 — Same as WCA-313 except base is chrome plated. Mast Extension. Heavy chrome plated brass tubing with ⅜-24 thread at both ends. 3 lengths: WCA-330 in 12″ or 24″ or 36″

Adapters have ⅜-24 thread for use on any standard Ward mast. Lock washer and set screws included.
WCA-89-357 Stainless; ½″ hex.
WCA-89-358 cadmium plated; ⅜″ hex.

Spring protect car and mast. Shock mounting "gives" under impact. Normal vertical.
WCA-3A is cadmium plated with lock washers.
WCA-3AL is extra heavy cadmium plated with lock washers.
WCA-301 Deluxe has stainless steel spring and mounts.

LEADS FOR DISGUISE ANTENNAS

Available in various lengths with either RG-8/U or RG-58A/U cables. Stub type loading is employed for 30-50 mc. operations to compensate for the short length of the antenna mast. Regular coaxial cable leads are used for 144-174 mc. operation.

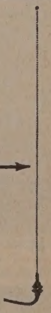
WALKIE TALKIE MODEL WCA-254

Expressly for 2-way radio. Greatest operating range, clearest reception. 19″ whip rod fits any adapter which accepts PL-259 connector.

ROOF TOP ANTENNAS

Three models with varing megacycle ranges. All mount from outside; only one ⅜″ hole required. 12′ cable. Weather proof, positive ground. Specify for fleets, police, taxi, fire, etc.

- WCA-250 — 144-174 mc.
- WCA-251 — 450-470 mc.
- WCA-A250 — 108-174 mc.



WARD PRODUCTS CORPORATION • AMSTERDAM, NEW YORK

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

INSTITUTIONAL FOR OVER 25 YEARS ELECTRONICS

RELIABILITY

AMERICAN COMMUNICATIONS CORPORATION now offers all the materials required to complete a wide variety of electronic Systems installations. Further, AMERICAN'S Professional Engineers will lay out these installations on architectural plans gratis, where AMERICAN'S equipment is used. Systems include: **Status Controls** — for hotel/motel rooms; hospitals; factory production, test, inspection, count-down; etc. **Closed-circuit TV** — for hotel and motor-inn registration and check-out; hospitals; apartment buildings; schools; industrial inspection and remote monitoring.

Additional Systems:

Signal Mail Rack
Message-at-Desk
Maid Call
Master Radio/TV Antennas
Centralized Radio
Room TV • Stereo Sound
Public Address
Background Music
Automatic Wake-up
Selective Paging
Motel-O-Phone
Area Sound/Lighting
Emergency Alert
Automatic Fire Alarm
Audio/Visual (silent) Call
Doctor's Call Board

ACC'S Newest — TV THEFT ALARM

STATUS CONTROLS—(ROOM TYPES)

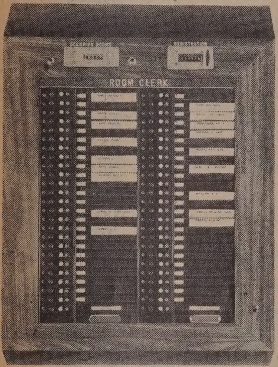


Fig. A. No. A-701-2/- Room Status Control — Automatic. This Room Clerk unit is 3-board type. Has room Maid control of status.

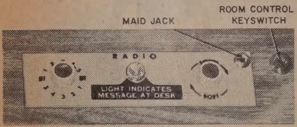


Fig. B. Room Unit for **A-707 Automatic** may include Radio controls, Message light. For **A-L3,** light under Jack allows Maid to monitor her signal to office; see Room Unit, facing page.

AMERICAN COMMUNICATIONS CORPORATION builds **Status Controls** to suit a variety of uses. Originally designed to speed room rentals in hotels and motels, special models may serve other needs for instantaneous sequential control and monitoring in hospitals (for bed status, between Head Nurse, Cashier and Houskeeper); factories, laboratories (production, process control); missile centers (data checkout); etc.

Operation of both Manual and Automatic types is exemplified in hotel/motel Guest Room Control units shown here. Both types show the renting status of rooms: **green** light indicates to Front Office, Cashier and Housekeeper that a room is Available; **yellow,** that room is Occupied; **red,** that room is Out of Order — awaiting change.

Color switching (status control) is accomplished by the flick of a switch (Manual types, Figs. C, D) or the touch of a luminous button (Automatic type, Fig. A). Each office may have its own Control, with 3 (or 4) lights and a switch for each room, Fig. A, or Front Office and Cashier may share a Combination Board, or panel, Fig. C; only Front Office section has name Registration File. Monitor Boards (lamps only) can show management the rental status at all times.

Where System wires into guest room a Room Unit (2-gang plate w/jack, and perhaps lamp) is supplied for each room; or, where the wiring of an existing facility is used, for economy, Room Unit may be made part of present plate, as Fig. B or the ultra-modern type for luxury occupancies, Fig. E.

Manual Room Status Control — Model Leamertronic.

This simple and efficient design is available in three types:

A-L1-2 (2 board), A-L1-3 (3 board), 3 light. Is not connected to rooms by wire.

NEW "BLINK LIGHT" MODEL features MAID control:

A-L2-2 (2 board), A-L2-3 (3 board), 4 light. Connected to guest rooms by wire. Room Unit has jack only; Front Office and Housekeeper Controls have a 4th light that shows "white" when Maid plugs into room jack (Maid can then be paged in this room, over room radio speaker, by Housekeeper or Front Office).

A-L3-2 (2 board), A-L3-3 (3 board), 4 light. Wired to guest rooms. Room Unit has jack **and** light; Front Office and Housekeeper Controls have a 4th light. **Both** lights blink "white" when Maid plugs into room jack (Maid can then be paged), and change to **steady** the instant Maid signals, **by plugging further into jack,** that room is ready. See Fig. B.

(†) **Manual** — A-L1-2/- , $35.00; A-L1-3/- , $40.00.
*A-L2-2/- , $44.90; *A-L2-3/- , $49.75.
*A-L3-2/- , $51.80; *A-L3-3/- , $56.95.

Automatic Room Status Control — Model 707. This facility includes relays which permit remote control of status on Control Boards: Inspectress or Maid, by room keyswitch or button, can change color to green when ready. Also, Front Office unit may include **Totalizers** that constantly show total occupancy and rental.

(†) **Automatic** — *A-707-2/- , $58.40;
*A-707-3/- , $63.40.

(†) Above **Net Prices,** per room, are less connecting cable, and labor, but including Power Supply — and, where necessary (*), Room Units — for 1 to 100 rooms. Applicable discount per any number of additional rooms upon request. Literature available.

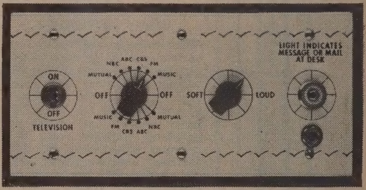


Fig. E. No. A-ELP1 Electroluminous Panel. Operates on A-C. Diffuses a night-light glow in room. Mounts on standard outlet box. Manufactured to order.

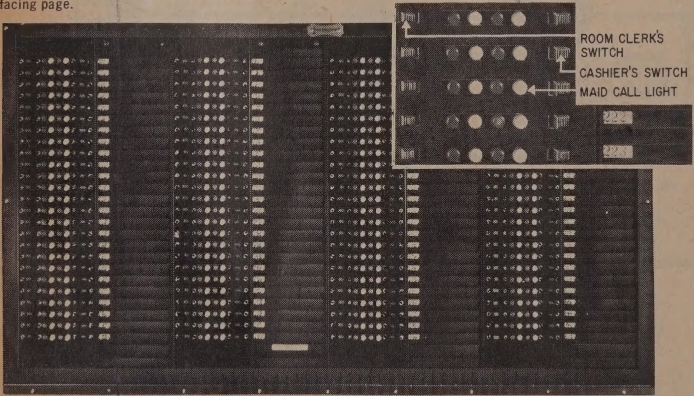


Fig. C. Leamertronic No. A-L2-2/100 Manual Status Control, 100 rooms. This Room Clerk/Cashier Combination Panel has two separate columns of switches, a Registration File, and Maid Call lights (see insert). Up to 1,000 or more, rooms can be accommodated, upon order. Steel panel is hinged.

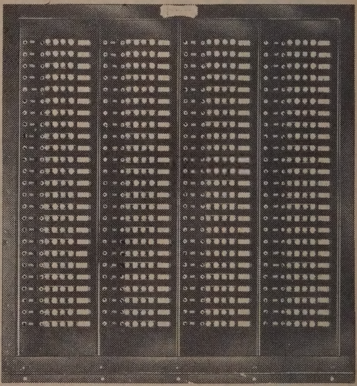


Fig. D. No. A-L2-2/100 — Housekeeper panel. Hinged at base of frame, like Combo. panel (left). **No. A-L3** would have almost identical appearance; **A-L1,** with only 3 lights, would be slightly less wide for same number of rooms. Panel is Console, Surface or Flush mounted.

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

AMERICAN RELIABILITY

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

SIGNAL MAIL RACK & MESSAGE-AT-DESK

AMERICAN COMMUNICATIONS manufactures two signal systems, either of which may be used to expedite message and/or mail handling in hotels, motels, schools, factories, hospitals, and other institutions.

The **Mail (and Message) Rack Signal System** is comprised of numbered pockets, one for each room (or other unit), and a lamp and switch for each pocket, Fig. A. Each pocket is wired to a guest-room. When clerk files mail (or messages) in pocket, he switches on a corresponding lamp; simultaneously, a duplicate lamp in the remote room lights, and remains lit until guest acknowledges the signal, Fig. B.

A new **2-Way model, No. A-MR2,** with access from either side and lamps and switches on both, enables Mail Clerk to insert mail from one side and silently signal guest, and for Telephone Operator to insert messages from the opposite side (and also signal the guest).

The **Message-at-Desk Signal System** is identical with the Mail Rack System, except that there are no pockets — only lamps and switches mounted on a control panel. Message clerk — usually the telephone operator — signals to guest that there is a message (or mail) by moving a switch as above described. Figs. C, D.

The Racks and Panels are available in a variety of constructions to suit individual requirements as to location and number of rooms, and in standard or special finishes as decor dictates. The Mail Rack is available with shelf at top of each pocket for room key, Fig. E.

If guest room is not wired for radio, a separate wall plate, Fig. B, is provided for the signal lamp; otherwise, it can be included on the radio control panel (See Room Unit at bottom of page).

Long-life lamps in Signal Mail Racks and Message-at-Desk units are easily replaced from front. A metal stop strip across the back of each row of pockets, in the standard or **No. A-MR3 Mail/Message Rack,** permits insertions only from front. Model shown in Fig. A is for 100 rooms, but units can be built to suit 1,000 or more.

They may be made for Flush-wall (recessed), Surface-wall or Desk (table-top) mounting. An easily removable end cover plate permits access to wiring. Power Supply unit (included) is controlled by a switch. House signal wiring carries only low, safe voltage.

AMERICAN'S No. A-22X/- Multi-conductor Cable is used between boards, and **No. A-19/2** Twisted-pair is used for house wiring to remote Room Units.

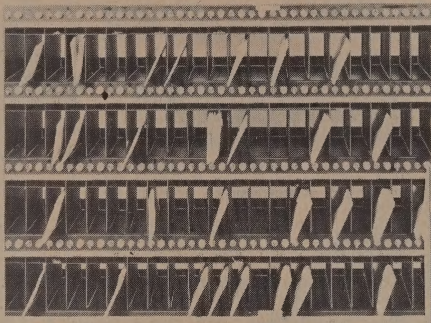


Fig. A. No. A-MR2/100 Mail/Message Rack, standard type, with stop strip and shelf at top of each pocket for room key. A designation strip below each row of lamps and switches identifies each room.

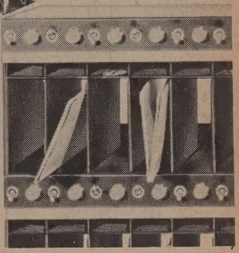


Fig. E. No. A-MR3 Mail/Message Rack has Key Shelf at top of pocket.

SPECIFICATIONS — Signal Mail/Message Racks

Standard finish, velvet black enamel. Material is steel. Standard pocket measurements: approx. 8″ deep x 7¾″ high (incl. 1⅛″ for Key Shelf, where used) x 2″ wide. Specify whether wiring termination board is to be placed at left or right end of Rack.

NET PRICES

A-MR2/- Signal Mail Rack System, 2-way type, *17.50.
A-MR3/- Signal Mail Rack System, 1-way type, standard, *12.50.
*Per pigeonhole.

Above **Net Prices** are less connecting wire and Room Unit, but including Power Supply, for up to 100 rooms. Discounts apply, on larger installations.

SPECIFICATIONS — Message-at-Desk

Standard finish, Flush or Surface mounting type, velvet black or gray enamel; Desk-top type, gray enamel. Other colors to suit decor are special. Material is steel.

NET PRICES

A-MD1/- Message-at-Desk System, Desk type; and, **A-MD2/ Message-at-Desk System,** Flush Panel type, **$7.50 per room** for up to 100 rooms. Above **Net Price** is less connecting wire and Room Unit, but including Power Supply.

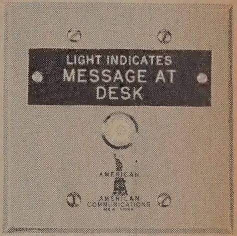

LIGHT INDICATES MESSAGE AT DESK
AMERICAN
AMERICAN COMMUNICATIONS NEW YORK

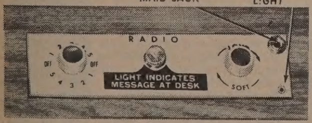
Fig. B. No. A-P20-3-A Signal Plate, in guest room, measures 4⅝″ sq.

MAID CALL SYSTEMS

No. A-MC-A/- is **Visual type.** Maid plugs into room jack, which lights a lamp on a Light Panel in Housekeeper's office. Maid can then be paged if installation includes paging facility. Light goes out when Maid removes plug from jack. This System includes Room Jacks, Maid Plugs, No. A-MC Light Panel (with lamps only), Power Supply and wiring.

No. A-MC-B/- *Blink Light type. This newest design makes room recovery extremely rapid, through its amazing Maid Monitor and Housekeeper "Blink Lights."

Soon as Maid enters guest room she plugs into Maid Jack on Room Unit. Immediately, a tiny light under the jack slowly blinks on and off; at the same time, a second light blinks on Housekeeper's Light Panel, indicating "Maid in room". Housekeeper can now page Maid if paging is provided.



Room Unit for **No. A-MC-B/- Maid Call System.** "Blink Light" confirms Maid's signals.

When Maid has readied room, she plugs all the way into room jack, then removes plug. Maid's light now goes out but Housekeeper's light changes to steady-on — "room ready"; she can switch light off at her convenience (but circuit will accept Maid's next signal).

Installation includes Room Jacks, Maid Plugs, No. A-MC1/- Light Panel (with lamps and switches), Power Supply, Blinker Unit, and wiring.

Room Clerk can use a **No. A-MC** Light Panel to monitor room status shown on Housekeeper panel.

SPECIFICATIONS

Maid Call Light Panels are built for Desk, Flush, or Surface mounting, in sizes to suit needs. Material: steel; standard finish: gray Hammertone enamel. Designation strips identify rooms. Lamps have long operating life, on 24 V. circuit.

Net Prices (Discounts on larger units.)

No. A-MC-A/- Maid Call System, w/No. A-MC Light Panel, Power Supply, and 1 Maid Plug per 10 rooms, but less Room Unit, **$5.00 per room.**

No. A-MC-B/- Maid Call System, w/No. A-MC1 Light Panel, Power Supply, Blinker Unit, and 1 Maid Plug per 10 rooms, but less Room Unit, **$8.50 per room.**

Prices are for up to 100 rooms.

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*Protected by Pending Patents.

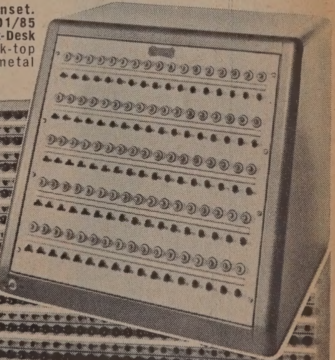


Fig. C — inset. No. A-MD1/85 Message-at-Desk unit, Desk-top type, in metal cabinet.

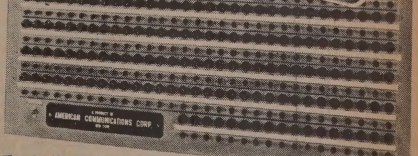


Fig. D. No. A-MD2-420 Message-at-Desk unit, Flush Panel type, 420 rooms. Has lamps, switches, designation strip.

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

MASTER RADIO OR TV ANTENNA SYSTEM (& CATV)

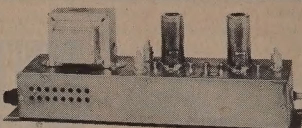
Installation requirements for an **AMERICAN COMMUNICATIONS Master Antenna System** whether for Radio or TV — or both — mainly depend upon field signal strength and local interference. A field-strength survey must be made to determine whether the received signals are sufficiently strong and reasonably "clean"

If TV signal strength in the area is low, a weatherproof **No. A-BA Broadband Booster Amplifier** (shown mounted on mast) located at the antenna may be used, for an additional 25 db gain on all VHF channels; power supply and Off-On control are a separate, remote unit, No. A-BAP (not shown), which may be up to 500 ft. distant. Input and Output, each 300 or 75 ohms. Terminals permit use as Broadband, High-band, or Low-band Amplifier.

The Radio signals are fed to the **Centralized Radio System**, and the TV signals are distributed to the various TV risers.

TV signals on UHF channels may be converted to unused non-adjacent VHF channels by means of a **No. A-U/V-C Converter** (not shown); its UHF Mixer head mounts at antenna, and delivers VHF signal to remote oscillator. Specify the UHF and VHF channels. Converters are also available to cover VHF High to VHF Low, **No. A-V/V-C.**

To deliver adequate signal strength at each TV outlet, it usually is necessary to use low noise, high gain, head-end amplifiers, one for each channel. A **No. A-CH/- TV Amplifier Strip** is shown here. A group of up to 7 such channel amplifiers can be assembled in one steel cabinet, **No. A-C/CH/-** (not shown here).


No. A-CH/- TV Channel Amplifier.

No. A-BA TV Booster Amplifier.

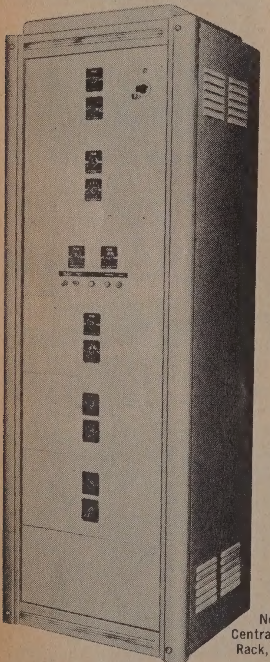
SPECIFICATIONS

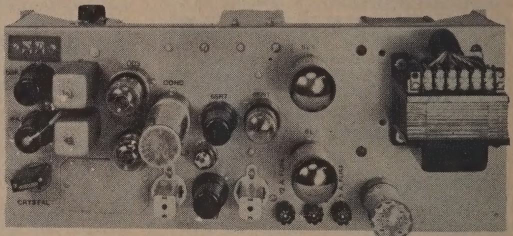
No. A-CH/- TV Channel Amplifier. Bandwidth, 6 mc.; gain, 45 db. Low-noise cascode input. Output, 1 V. per ea. two outputs.

No. A-BA Weatherproof Broadband TV Booster Amplifier, w/No. A-BAP Power Supply. **Net $79.50.**
No. A-U/V-C Converter, w/UHF Mixer Head. Specify UHF and VHF channels. **Net $75.00.**
No. A-V/V-C Converter, w/Mixer Head, for VHF to VHF. Specify channels. **Net $75.00.**
No. A-CH/- Channel Amplifier. Specify which of channels 2 to 13. **Net $44.00.**
No. A-C/CH/- Channel Amplifiers in Metal Cabinet. Specify channels. **Net,** Cabinet A (only) (for 1-3 Amplifier Strips), **$8.50**; Cabinet B (1-5), **$14.80**; Cabinet C (1-7), **$32.50.**

For **Community Antenna TV (CATV)** installations, special towers, high-gain directional antenna arrays, and low-noise amplifiers can be supplied. **For Coaxial Fittings,** see **last two pages.**

CENTRALIZED RADIO SYSTEM


No. A-CR Centralized Radio Rack, complete.


No. A-300C Radio Receiver.

The **control center** of **AMERICAN COMMUNICATIONS'** "Channelized" Radio System is the **No. A-CR Rack Unit** shown here. Signals from the Antenna System are fed to the Rack-and-Panel assembly, and then to remote speakers (guest rooms, public areas, etc.) through a system of properly selected cable and matching components as specified by the Supervising Engineer.

No. A-CR Rack can be modified to suit requirements. The standard Rack, however, is comprised of 4 **AMERICAN** No. A-300C AM Crystal-controlled Radio Receivers, 1 No. A-300T AM Tunable Radio Receiver, a panel-controlled No. A-P/M Preamplifier/Mixer (for mixing a high-impedance microphone and phonograph), Monitor Speaker, power supplies and controls, and Timer. The Radio Receivers deliver a minimum of 35 watts audio power. (Additional amplification, if needed, is incorporated in a second Rack.)

If the tunable receiver is a No. A-300F (for FM reception), the house manager may tune it, like the A-300A AM Radio Receiver, to a continuous-music station for background music, available to guest when he switches to this channel — within the operating hours automatically controlled by the Timer.

The Monitor Speaker (optional), hinged to Rack, has same response as room speakers for true check of programs as received in guest rooms. Switching permits its use on background-music, P.A., etc.

If Rack is to be used with **AMERICAN'S** Emergency Alert System, the standard model will include 8 hermetically-sealed relays — one each for the 5 radio receivers, one in preamplifier/mixer, one in the automatic timer circuit, and one in a booster amplifier circuit. These enable remote Emergency Alert equipment to assume control and deliver to all the loudspeakers a suitably high signal whenever needed, regardless of off-on status of Rack, room speaker channel-selector switch, or P.A. system.

Rack can include additional facilities, as for example switching into Muzak or other wire line, or use of tape or record player, for background music. For **Stereo FM reception,** using a multiplexed FM station as the source of both stereo channels, a Stereo Multiplex Adaptor is added to the existing FM receiver, and the two resulting audio channels are fed to stereo equipment.

Receivers are high-fidelity type, with push-pull output. The No. A-300C Radio Receiver is shown here; No. A-300T, and -F, have same physical dimensions and general appearance. Several features make these receivers exceptionally reliable and efficient: (A) the single electrolytic capacitor is plug-in type for servicing convenience; (B) circuits are triple-fused (one each for power line, filament supply, high-voltage supply); and, (C) voltage regulator tubes limit surge potentials to safe values. For trouble-free performance over long periods of continuous operation in commercial service, only close-tolerance, high-quality components are used, and operated within wide safety margins, in a ruggedized receiver design.

SPECIFICATIONS

Radio Receivers
Tuning range, 540-1,720 kc.; sets have 1 RF and 2 IF stages. Output transformer has taps that present balanced load impedances to the following lines: 4, 8, 16, 600 ohms, and 70 V. Rated audio output, 35 W. Each Receiver has a Selector Switch, knob-controlled from front of panel, for selection of (1) Radio; (2) Microphone or Phonograph; and, (3) Muzak, or other wire line.
Tube complement, No. A-300T: 1, 6SA7; 2, 6SK7; 2, OD3/VR150; 1, 6SR7; 1, 6SN7GTB; 1, 5AR4; 2, 6L6GC. No. A-300C has same complement, except 6K8 replaces 6SA7.

AMERICAN will supply Crystals in FT-243 holder.

Rack
The **No. A-CR Centralized Radio Rack** is made of cold-rolled steel 1/16" thick; panels are aluminum, 3/32" thick. Standard finishes, Rack and Panels, slate gray or black ripple enamel. Rack amply ventilated by louvers on 3 sides. Easy-access rear door has slip-joint hinges. Rack measures approx. 68 x 22 x 18" deep. Fully fused; use on 20 A. mains service, 115 V., 60 cy. Supplied completely equipped as described.
No. A-CR Rack, complete, **Net Price $250.00 per channel.**

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

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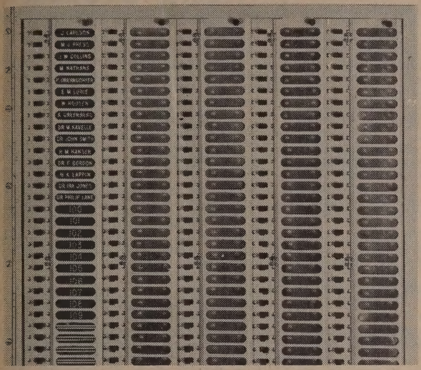
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

DOCTORS CALL BOARDS



No. A-DCB/- Doctors "IN" or Call Board. Also available w/Message Signal, Intercom, etc.

Shown here is AMERICAN'S Doctors Call Board, flush-mounting type. Sizes and mountings to order. May be used wherever rapid, convenient check-in and check-out are wanted.

A column of switches at left of a column of translucent designation strips permits doctors to indicate whether they are on duty. Upon arrival, each moves his respective switch to "On." This "IN" Board can be operated by a Receptionist, instead. As doctor may arrive at an Entrance door, and leave by an Exit door, a second or "OUT" Call Board must be provided at this Exit.

Call Boards less switches can be provided for Head Nurse and Superintendent's offices, to show doctors on-duty status.

Doctors Call Board is also available with Message-at-Desk facility — without requiring additional wall space! The lamps under a name strip slowly blink off and on until this message signal is acknowledged.

Another Call Board model provides Intercom facility. This allows physician to receive his message without delay; upon leaving, he can give special instructions to front desk (usually, remote from exit).

Still another model is double-sided, so illuminated name can be seen from both Doctor's side of Call Board and from Telephone Operator's side.

SPECIFICATIONS

No. A-DCB/- Doctors Call Board (illus.) is 3 ins. deep; other dimensions as required. Steel panel swings outward, as do the individual nameplate panels (for change of names or lamps).

No. A-DCB2/- Doctors Call Board includles Message Signal.

No. A-DCB3/- Doctors Call Board includes Intercom.

No. A-DCB4/- Doctors Call Board, double-sided, with names readable from both sides, but switches on only one side. **Net $8.50 per name.**

No. A-DCBX/- Doctors Call Board, less switches, for monitoring.

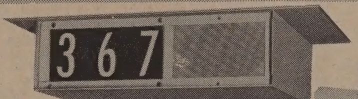
Net Price, A-DCB/100 Doctors Call Board, basic unit for 100 rooms, **$10.00 per room, per Board,** less connecting wire but w/Power Supply.

PILLOW SPEAKER CONTROLS

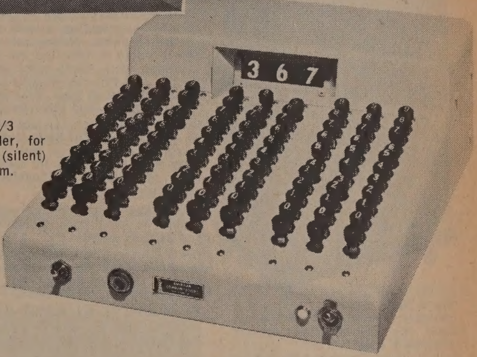
The **No. A-S/C-T Pillow Speaker and Remote Control** (illustrated) has dynamic earphone w/3.2 ohm voice coil. Unit connects to adaptor in TV set. Button controls set OFF-ON, and selects station; wheel adjusts volume. High-impact plastic case (ivory) w/suspension chain and bed-clip. Cord w/adaptor plug is 5 ft. long. Size: 4½ x 2½ x 1⅛ ins. deep. Use with GE Hospital-model TV set CBM620 VVY, or equal. **Net Price, $18.32.**

The **No. A-S/C/N-RT** (not illustrated) is a combination Radio and TV Pillow Speaker, Remote Control and Nurse Call. Operates in conjunction with stepper relay (not supplied). **Net Price, $29.32.**

AUDIO/VISUAL (SILENT) PAGING SYSTEM



No. A-A/VP-D Decoder, Audio/Visual (silent) Paging System. Has 4" numerals.



No. A-A/VP-E/3 3-bank Encoder, for Audio/Visual (silent) Paging System.

Designed for use with a Call Board, **AMERICAN'S** Audio/Visual Paging System presents an efficient means of personnel paging in hospitals, department stores, schools, hotels, factories, offices, etc.

In operation, a designated person (Telephone Operator, for instance, in a hospital) sets up on a desk-top Encoder, the call number assigned to a person (doctor or nurse) whose attention is wanted. This can be any number from 1 to 999 per bank of push-buttons. This number then instantly appears in the window of remote readout indicators or Decorders, wherever located. The called person can acknowledge the call in a variety of ways — house phone, Intercom, etc.

Encoder No. A-A/VP-E/3 shown here has two additional banks of buttons which permit two additional calls to be set up at the same time, and by automatic switching, each will be signaled, in sequence, 20 seconds after the preceding one. Or, by operating a switch, any one of the three sets of numbers can be held in view and shown steadily until acknowledged.

A jack on the front skirt, for microphone, permits audio paging, emergency instructions, etc. A pilot light indicates the "ON" condition. Encoders may be located in several offices, and Decorders at any number of remote points.

SPECIFICATIONS

Encoder No. A-A/VP-E/3, 3-bank, is a desk-top unit in metal housing. Dimen., approx. 11 x 5¾ x 14" deep. Operates on 115 V., 60 cy. A-C.

Decoder No. A-A/VP-D is a signal/speaker assembly in metal housing approx. 25 (incl. flanges) x 5¾ x 15½" deep. This unit is surface-ceiling mount type; other types of mounting can be supplied. Speaker is 5" PM type in an acoustic chamber designed for maximum intelligibility. Readout unit displays numerals 4" high that are readable at over 60 ft.

Standard finishes: Encoder, buff enamel; Decoder, flat polar white enamel.

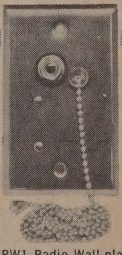
Net Prices:

Encoders: A-A/VP-E/1, **$450.00;** A-A/VP-E/2, **$550.00;** A-A/VP-E/3 (3 digits, as illus.), **$650.00.** Priced per # of digits, as below.

Decoders: A-A/VP-D/1, **$125.40;** A-A/VP-D2, **$234.40;** A-A/VP-D3 (3 lights, as illus.), **$354.40.** Priced per number of lights.

Auxiliary Equipment (for Paging) — A-PS Paging Set (Microphone and Amplifier, 1 each for paging — not illustrated), **Net $75.00/set.**

PATIENT'S RADIO WALL-PLATE



No. A-RW1 Radio Wall-plate.

Although designed for use by patients in hospitals, the No. A-RW1 Radio Wall-plate shown here, is a convenience wherever used. Operates by pull chain.

Has stepper switch and a jack. Switch has continuous rotation through "Off", 5 positions for selection of radio programs, and back to "Off", and so-on. Jack provides connection for pillow speaker.

SPECIFICATIONS

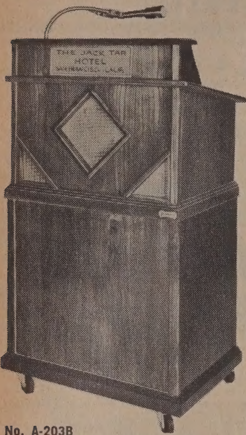
No. A-RW1 Radio Wall-plate. Switch is pull-chain actuated, continuous rotation, single-pole. 5 positions and "Off". Either single-circuit or seize-type jack can be supplied, for PL-55 plug; specify which desired. Plate is brushed steel, approx. 2¾ x 4½" high; overall depth, from front of plate, 2¼". Fits standard outlet box. Bead chain is steel, 3 ft. long; cut to desired length. Brass plate and chain optional. **Net Price, $6.85.**

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

PORTABLE ELECTRONIC LECTERN



No. A-203B
Portable Electronic Lectern is used in "the world's most electronic hotel."

AMERICAN'S No. A-203 (A, B and C) Electronic Lectern is **unified** — nothing else to buy (includes microphone, amplifier, loudspeaker, reading light, and provides for optional equipment). It is efficient and portable. When combined with base (as No. A-203B) it is sometimes referred-to as an Electronic Podium.

High-quality cardioid microphone, w/Off-On switch, is adjustable in height and position; side mounted, for maximum desk room. Amplifier is high-quality, reliable, and high-fidelity type, w/separate Bass and Treble controls to suit any acoustic situation of speaker or audience. Loudspeaker is in acoustic chamber designed for maximum voice fidelity and minimum feedback. Lumaline fluorescent reading light is shaded, and noise-filtered.

Housing is in two parts, with top or Lectern section lifting off lower or Base section; Lectern section, sold separately, contains appartus above-mentioned, and is suited to table-top use in hotels, clubs, banquet halls, industrials (sales meetings, etc.). Ample space under sloped reading desk for reference material; a ledge that will conveniently support a dust cover (not supplied) skirts junction of Lectern and its base. Base section, equipped with quiet, ball-bearing casters, is demountable, and folds for convenient storage.

Optional equipment: (1) jack with extra speaker for covering large audiences; (2) tape machine for background music or recording; (3) jack for patching into existing P.A. system; (4) jack, and neck microphone with long lead, for speaking away from Lectern (as for audience participation, etc.); (5) built-in or remote timer, and signal light. Engraved bakelite Nameplate is extra, **Net $10.00.**

SPECIFICATIONS

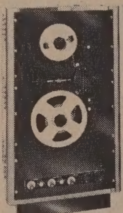
No. A-203A Lectern (only), equipped; **No. A-203B,** Lectern w/Base. Standard cabinet is solid wood, walnut-veneered, in rich furniture finish; other woods and finishes to order.

Overall dimen. (Lectern and Base), approx. 28″ x 19″ x 50″ high. Cardioid-pattern microphone has gooseneck stand. Amplifier audio output, 10 watts. PM type speaker. Junction box for plug and A-C linecord; specify cord length required. Operates on 115 V, 60 cycles.

No. A-203C, is No. A-203B (Lectern and Base) w/jack for second, auxiliary speaker (supplied; specify type and housing).

Net Prices: A-203A, $295.00; A-203B, $395.00; A-203C, $425.00.

BACKGROUND MUSIC MAKER



Where recorded tape is to be used for highest fidelity background music, **AMERICAN** manufacturers the **No. A-BM/- Background Music Maker** (illustrated). Unit is also available recessed in cabinet and closed-over by a front door.

Ideal for hotels, motor-inns, travel terminals, medical centers, bowling alleys, restaurants, shopping centers (one No. A-BM Background Music Maker can supply hi-fi sound to **all** the units in a Center), etc. Will play up to 16, 8 or 4 hours of original music; then automatically repeat. Can be supplied for stereo systems. Includes facilities for public address or paging.

Rack includes tape transport with 10½″ reels, preamplifier, standard 30 W hi-fi audio amplifier (other power outputs to order), phono and 2 microphone inputs, and controls (separate Bass and Treble tone controls, Phono Gain control, and 2 Microphone Gain controls).

SPECIFICATIONS

No. A-BM/- Background Music Maker. Cabinet overall dimen. approx. 48 (high, incl. footing) x 22 x 20″ deep. Rear (servicing) door has slip-joint hinges. Material is 1/16″ steel. Fully louvered for maximum ventilation. Standard finishes: slate gray or black ripple enamel.

No. A-RT/- Recorded Tape, long-play Background Music (choice of mood-music library).

Catalog of extensive library of mood-music supplied to purchasers. Model A-BM/- is supplied for 4- , 8- or 16-hour play.

Net Prices: A-BM/16, $1,400.00; A-BM/4-8, $985.00. Tapes: A-RT/16, $178.00: A-RT/8, $90.00; A-RT/4, $39.60.

BUILDING ALERT SYSTEM

AMERICAN'S Emergency Alert may also be used with AMERICAN'S **Building Alert System** (particularly suited to apartment building complexes), in which the warble tone is fed to outdoor speakers to summon the patrolman on the beat, if any emergency arises.

PRE-SIGNAL FIRE ALARM SYSTEM

The Emergency Alert warble-tone signal is also part of AMERICAN'S **Pre-signal Fire Alarm System** designed to protect hospitals, schools, hotels, etc., against panic due to sounding of general evacuation bells by operation of heat detectors or manual break-glass stations. A Control Panel Assembly connects these detectors or manual stations to the warble-tone signal box, allowing an attendant in the occupancy to exercise judgment as to the urgency of the alert before sounding the general alarm.

EMERGENCY ALERT SYSTEM

The undulating, siren-like tone of **AMERICAN'S** (patented) automatic electronic **Emergency Alert System** commands instant attention in an emergency.

The control center of the system is a conveniently located Emergency Alert unit resembling a Fire Box. In operation, operator breaks glass covering switch, and moves switch to SIREN or TALK. In either case, remote relays (usually about 7 in number) take over the amplifiers and loudspeakers in the related radio and P.A. systems, and the priority electronic siren or emergency instructions are heard at high level in guest rooms and public areas, regardless of the sound program previously being received, and even if set is off.

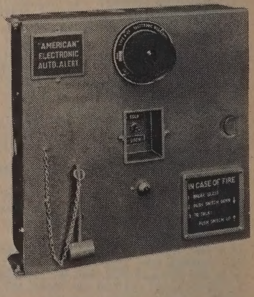
Mounted on the front of the Emergency Alert steel box are the SIREN-OFF-TALK switch in a glass-covered recess, a chained hammer, red pilot light, dynamic microphone (for issuing emergency instructions), and an instruction card. Within box are the electronic siren, audio power amplifier, spare tube, power supply, connecting strip, and a relay.

System operates in conjunction with AMERICAN'S Channelized Radio System, which contains the necessary remote relays and special wiring.

GENERAL SPECIFICATIONS

No. A-EA Emergency Alert unit. Steel signal box, enameled in Chinese Red, measures approx. 15 x 15 x 5″ deep; has knockouts for conduit. Supplied equipped as described. Fully fused at 5 A. Operates on 115 V., 60 cy. A-C.

No. A-EAR Relays, for Emergency Alert installations. Multipole, to suit audio circuits into which they connect. Coils operate on 24 V. D-C. Heavy contacts. Hermetically sealed. **System quotations upon request.**



No. A-EA Emergency Alert signal box has electronic siren with warble sound.

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CLOSED-CIRCUIT TELEVISION

CCTV may be combined with AMERICAN'S Status Control System, for instantaneous sequential control and monitoring of manufacturing processes from remote points.

Equipment is sold separately, or as a complete installation — either outright or rental. Prices depend upon installation requirements, and quotations will be supplied upon request.

FINANCING

AMERICAN COMMUNICATIONS CORPORATION can arrange financing of its Systems installation and/or equipment, including TV Receivers.

SPECIAL SERVICES FOR AMERICAN'S CUSTOMERS

Our Registered Professional Engineers will assist in planning installations anywhere. Also, technically-accurate drawings will be prepared for those who wish to accompany their quotations with drawings, but lack the facilities to prepare them.

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

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AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

ANNOUNCING — American's Newest Invention *TV THEFT ALARM

Newest contribution by AMERICAN of electronic facilities for more economical hotel/motel operation is the **TV Theft Alarm,** available in three models:

A-TV-TA/A, for use with portable TV sets using so-called "rabbit ear" or built-in antennas;

A-TV-TA/B, for use where signal is fed to set via a TV outlet and master antenna system.

Both above types employ a coded carrier radio alarm signal.

A-TV-TA/C, the third model, is for use where installation includes wiring to Front Office, as when Message-at-Desk system is available.

Basically, each operates on the same principle: any unauthorized attempt to remove a TV set from a guest room results in an alarm in the room and at the front office.

This alarm originates in and is controlled by an Alarm Control (illustrated) installed in each room. The TV set plugs into the Control which in turn will transmit either a carrier-RF alarm or a wire alarm the instant the plug of the TV set is removed from socket, the TV power cord is cut or the master antenna connection is removed from set.

The alarm signal is a loud, insistant, intermittent buzzing, from within the Room Control, which cannot be stopped until measures have been taken to check-out the alarm by management, which has been alerted by a duplicate signal at the front office.

This office signal is dual — the loud buzz above mentioned, and a flashing or blinking light. Where the occupancy employs AMERICAN'S Message-at-Desk system, the message light may be utilized as the intermittent light signal, as an added economy and convenience; otherwise, an RF carrier decoder and blink light are used.

In either case, re-set of the Alarm Control to "alert", after an alarm has been given, can be made only at the Control in the guest-room, after the Control has been unlocked. The Alarm Control mounts directly on the wall outlet box.

Purpose of the code is to identify the building in which the alarm is originating, where the installation involves two or more buildings.

Quotations upon request.

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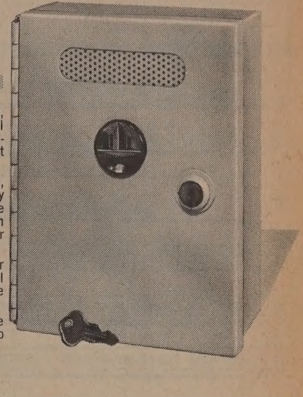
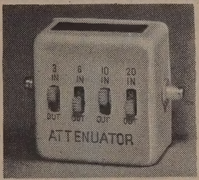
*Protected by pending patents.



DB ATTENUATORS



AMERICAN'S **A-DB/39** and (not illustrated) **A-DB/59 Attenuators** provide at low cost, quick and convenient means for determining losses in a number of essential tests in TV installations. These include measurement of amplifier gain, and of equipment losses.

SPECIFICATIONS

Insertion loss of the A-DB/39 is in fixed steps of 3 to 39 db, and, of the A-DB/59, 3 to 59 db, for TV frequencies, when used in 75-ohm circuits.

Switches are slide type. Housing is steel, ecru enameled; overall: 2 x 2 x 1" deep.

Net Prices: A-DB/39, **$5.04;** A-DB/59, **$19.90.**

MICROPHONE MIXERS

AMERICAN'S **A-6M Portable Microphone Mixer** has inputs for 6 low- or high-impedance microphones, individual gain controls (mixers) for each of the 6 microphones, master gain control, Cue jack for headphone monitoring of broadcast-quality program material, pilot light, separate Bass and Treble electronic tone controls, and "Off-On" switches for each of two power supplies (one for service and one for standby).

The 6 mixers work from individual low-noise preamplifiers into the master gain control; gain is adequate for remote operation.

Output is +15 dbm; gain, 55 db; frequency range, 30-15,000 cy./sec. ±1.db.

No. A-10M Portable Microphone Mixer (not shown) for 10 microphones is similar in construction.

SPECIFICATIONS

Slope-front metal cabinet (A-6M) measures approx. 22" x 7" x 8" high. Gray crackle finish. Carrying handle. Fused power supplies. Terminations at rear of cabinet. Instrument furnished w/Hubbell connectors.

Net prices, A-6M, **$495.00;** A-10M, **$825.00.**

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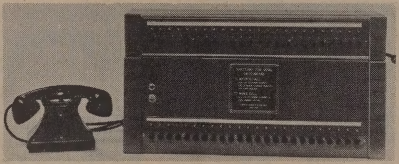
MASTER

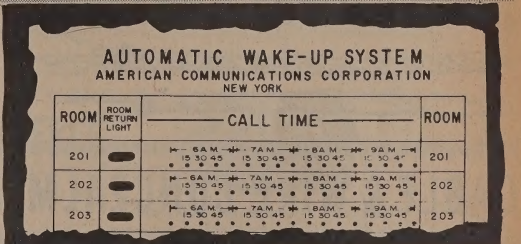
No. A-6M
6-channel Portable
Microphone Mixer

MOTEL-O-PHONE SYSTEM



AMERICAN developed this interior telephone System specially for Motels, Motor Inns, and small Hotels. This **Multiple Telephone Switchboard** is described as "selective ringing, common talking." Unit illustrated is for 48 telephones; add units for each 24 telephones. **Net Prices: A-MTS Basic Unit,** for 24 phones, w/115 V. A-C Power Supply, **$350.00; A-MTS-1 Add-A-Board,** for 24 phones, **$150.00;** A-FP French-style Desk Phones, **$25.00.**

*AUTOMATIC WAKE-UP ALARM



One of the newest of AMERICAN'S inventions in fully-automated electronic facilities especially designed for the hotel/motel trade is the **A-WA-1 Automatic Wake-up Alarm System;** a portion of its Master Control Panel is shown here.

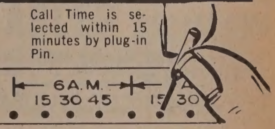
Smaller, less expensive and more versatile and efficient than its predecessor, the A-WA Wake-up Alarm, AMERICAN'S **A-WA-1** consists of a guest-room signal, and means for initiating this call signal at any quarter-hour within a 3-hour period — for example, 6 to 9 A.M.

Operation is simple: Room Clerk or Telephone Operator plugs into a guest-room Time Jack, on a small Master Control Panel, which corresponds (within 15 minutes) to the wake-up time requested by the guest. Operation is now fully automatic — Wake-up Alarm "remembers" calling time and sends a calling message at the proper time to the correct room.

The calling signal is both visible and audible: (a) at 2-second intervals a light blinks at both the office control panel, and in guest room; and, (b) in one model a recording advises guest to "shut me off" and in another a buzzer sounds. When guest pushes a button (alongside blink light on night stand), signal light goes out in guest room and on office panel, and audio signal stops.

Though guest's switch is now in his "off alarm" position it is still electrically in a circuit "on alarm" position so Clerk or Operator can signal next guest.

Call Time is selected within 15 minutes by plug-in Pin.



GENERAL SPECIFICATIONS

Standard **A-WA-1** installation includes Master Control Panel for 3-hour timing, complete set of Time-set Plugs, either an A-TD continuous Tape Deck and pre-recorded tape (not sold separately) or a Buzz Generator, 2-second timer, power supply, and guest-room signal facilities as necessary (installed by us or other labor as required). Long life, low current signal lamps are used. Call timing is available up to 6 hours.

Quotation upon request.

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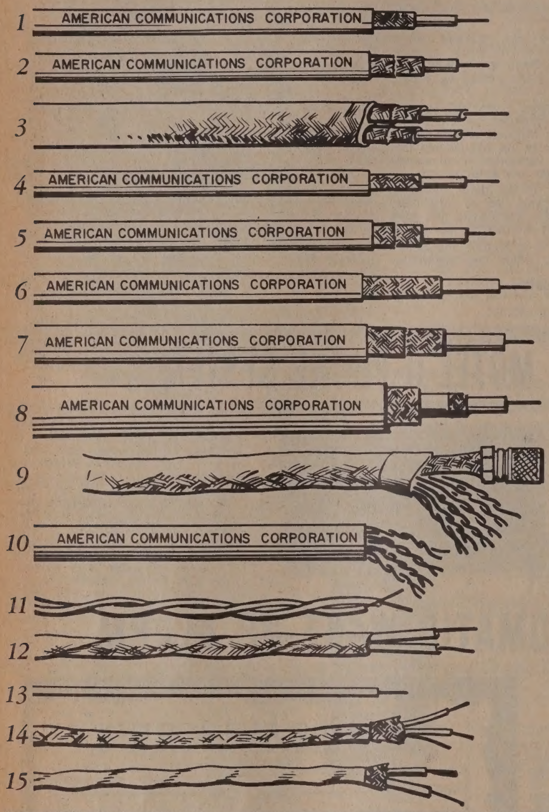
*This System protected by pending patents.

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

CABLE & WIRE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Special Wire and Cable combinations can be fabricated on quantity orders. Types here listed meet all specifications for the respective types, and are those used in making **AMERICAN'S** Systems installations. Specification sheets supplied upon request.

TV COAXIAL CABLE

	Net Per ft.
(1) A-TV91-S (RG-59/U w/1 shield)	$.04
(2) A-TV92-S (RG-59/U w/2 shields)	.06
(3) A-2TV92-S (twin A-TV92-S)	.20
(4) A-TV61-S (RG-6A/U w/1 shield)	.05
(5) A-TV62-S (RG-6A/U w/2 shields)	.07
(6) A-TV11-S (RG-11/U w/1 shield)	.09
(7) A-TV12-S (RG-11/U w/2 shields)	.10
(8) A-TV12-S-2J (A-TV12-S w/shields insulated from each other)	.20

TV & RADIO COMBINATION CABLE

(9) A-TV/R92-S/- (combo.: A-TV92-S w/4 to 7 twisted pr.) **Net/ft.:** -4/11¢; -5/12¢; -6/13¢; -7/14¢

*Request quotations for -91-S, -61-S, -62-S; or more pairs.

MULTI-CONDUCTOR RADIO CABLE

(10) A-22/2/- (4 to 9 twisted prs. No. 22, for Centralized Radio Systems) **Net/ft.:** -/4 5¢; -/5 6¢; -/6 7¢; -/7 8¢; -/9 10¢.

SPEAKER & SYSTEM WIRING

(11) A-19/2 (No. 19 twisted pr., black & White, no jacket)	$.02
(12) A-19/2/J (No. 19 twisted pr., black & white, white cotton jacket)	.03
(13) A-20/1 (No. 20, 1 conductor, red or black)	.01

MICROPHONE CABLE

(14) A-20/2-G-S (No. 20 2-conductor twisted pr. plus ground wire and shield, woven cotton jacket)	$.04
(15) A-20/2-S (No. 20 2-conductor twisted pr. w/shield & plastic sheath)	.04

MULTI-CONDUCTOR STATUS BOARD & MESSAGE CABLE

(16) A-22X/27 (No. 22 — also No. 24 or No. 26 — twisted pr. w/plastic jacket over 27 prs.)	†*
(17/20) (Ditto as No. 16, except 101, 201, 301 or 401 prs.)	†*

(†) Not illustrated

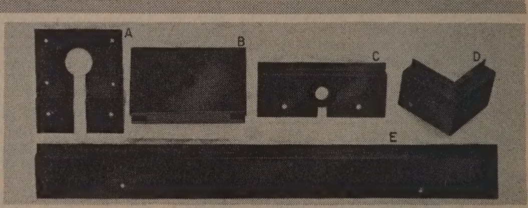
***Prices on request.**
Prices subject to change without notice.

CABLE & WIRE CONCEALMENTS

A simple, effective means of concealing television, radio and signal cable and wire, particularly in hotels, is by use of **AMERICAN COMMUNICATIONS CORPORATION'S** line of metal and wood Cable Mouldings pictured here. Finishes as required; wood mouldings, unfinished, are of hard, kiln-dried wood. Special mouldings to order. **QUANTITY DISCOUNTS.**

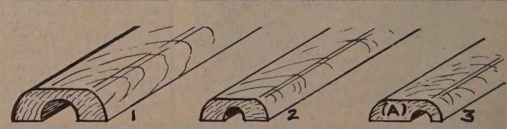
METAL

Fig. A. No. A-CM-MP Mounting Plate. Holds a variety of connecting, terminating and matching boxes. **Net: $1.12 each.**
Fig. B. No. A-CM-SB Splice Box. Access openings front, rear, and at two front corners for feedthrough. **Net: $1.65 each.**
Fig. C. No. A-CM-TP Termination Plate, w/rubber grommet for cable. **Net: $1.12 each.**
Fig. D. No. A-CM-CE Corner Elbow. Neatly carries concealed cable around corners. **Net: $1.78 each.**
Fig. E. No. A-CM-C. Concealment (moulding) in straight lengths. Standard length, 3 ft. **Net: $.40 per foot.**



WOOD

1. **No. A-CW1.** Wood moulding for concealing large cable. Center channel. **Net: $.20 per foot.**
2. **No. A-CW2.** Concealment for small cable. Center channel. **Net: $.17 ft.**
3. **No. A-CW3.** Conceals cable in offside channel, leaving area (A) for mounting brads alongside cable. **Net: $.19 per foot.**



AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

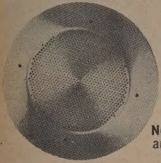
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS FOR HOTELS — MOTELS — INSTITUTIONS

LOUDSPEAKERS & ACCESSORIES

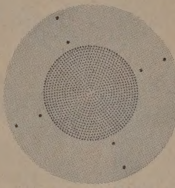
Standard Speakers and Accessories for **AMERICAN'S** sound systems are here illustrated. Baffles and cabinets in other constructions available on order. Control panels, shown here on some items, are extra (see listings of the various types elsewhere). **AMERICAN** will install control panels in customer's furniture upon Contractor's order.

No. A-S1/8 (8″), **No. A-S2/6** (6″) **Speakers.** Hi-fi model (left) has best response.

No. A-D Dust Bag. Use on Speakers.



No. A-B2/- Baffle. Standard style.



No. A-B1/- Baffle. New Sparton model.

No. A-B3/- Baffle. Sound is diffused.

No. A-S1/- High-fidelity Speaker, with dual cones, 6″, **Net $4.27;** 8″, **$6.05.**

No. A-S2/- Wide-range Speaker, 6″, **Net $3.08;** 8″, **$4.86.**

No. A-D Speaker Dust Bag, anti-fungus impregnated and verminproof. Sizes: 6″, **Net $.97;** 8″, **$1.12;** 12″, **$1.19.**

No. A-B1/8 Sparton model Baffle, for 8″ speaker (only). Enameled iron, white (standard), or colors to order. **Net $2.48** (Plastic Ring, for mounting in ceiling, **Net $1.49**).

No. A-B2/- Standard Baffle. Available in brushed aluminum. For 6″ speaker, **Net $2.55** (Plaster Ring, **Net $1.19**); 8″, **Net $2.67** (P.R., **Net $1.49**).

No. A-B3/- Ceiling Baffle. Popular model of sound diffuser. Enameled iron: white (standard), or colors to order. For 6″ speaker, **Net $4.15** (P.R., **Net $1.19**); 8″, **Net $5.35** (P.R., **Net $1.49**); 12″, **Net $7.43** (P.R., **Net $2.06**).

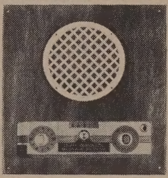
SPEAKER BAFFLES (WOOD)

The following Wood Baffles are available in various finishes. Monogram grilles (for hotel and motel rooms) upon order.

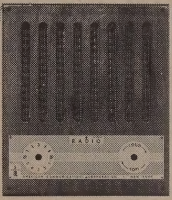
No. A-BW/1- Baffle has waffle-pattern white plastic grille on plywood panel in light mahogany finish. For 6″ or 8″ speaker, **Net $11.00.**

No. A-BW2/- Baffle is plywood, finished in light mahogany. This vertical-vent baffle is a popular number. List, for 6″ or 8″ speaker, **Net $11.88.**

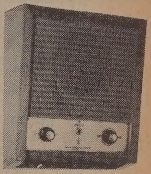
No. A-BW3/- Baffle Cabinet, surface mount, slanting front. Plywood light mahogany finish. Customer choice of grille cloth. For 6″ or 8″ speaker, **Net $14.55.**



No. A-BW1/- Baffle. Grille is plastic.

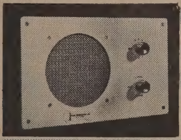


No. A-BW2/- Baffle. Wood, vertical vents.



No. A-BW3/- Baffle. Box directs sound.

DECORATOR-MODEL SPEAKER PANEL

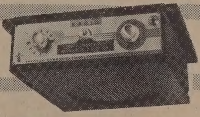


No. A-B4/- Baffle. Provides for controls.

No. A-B4 Baffle, in Decorator style, is brushed aluminum. Gold anodized available. For 6″ or 8″ speakers. **A-B4A/6-8, Net $11.23; A-B4G/6-8, $16.18.**

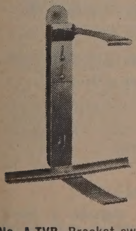
UNDER-TABLE SPEAKER BAFFLE

No. A-BW4 Baffle Cabinet mounts under table, has pressure-release vents on sides, projects sound downward. For 6″ or 8″ speakers, **Net $11.06.**



No. A-BW4/- Baffle. Mounts under table.

TV MOUNTS



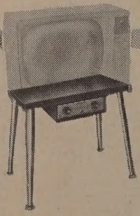
No. A-TVB. Bracket swivels for best TV viewing.

No. A-TVB Bracket. Swivel wall-mounted support for 19″ TV sets, particularly the Designer series, or equivalent, for hospitals, hotels, etc. Saves floor space. Set easily positioned for best viewing. **Net $6.78.**

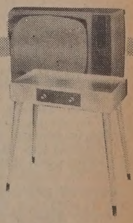
No. A-TVS. Roll-away TV Stand is easily positioned under, for example, a hospital bed. Shelf holds set over bed. Hard rubber casters, bolted ⅞-in. diam. steel tubing. Shipped KD. Bar holds pillow speaker cord or, as shown, TV Remote Control Cord. **Net $25.49.**

No. A-TVS. Stand holds TV set over bed.

TV TABLES



No. A-TVT-B Table. Speaker cabinet extra.



No. A-TVT-A Table. Provides for controls.

No. A-TVT-A Table. Holds standard Hotel-type TV sets. Control panel can be installed on front skirt, as illustrated. Standard finish is white, or color to order. Wood legs. **Net $12.77.**

No. A-TVT-B Table. For TV sets. Control panel and speaker (No. A-BW4 Baffle Cabinet, equipped) will fit underneath. Black, or other color to suit. Metal legs. **Net $10.14.**

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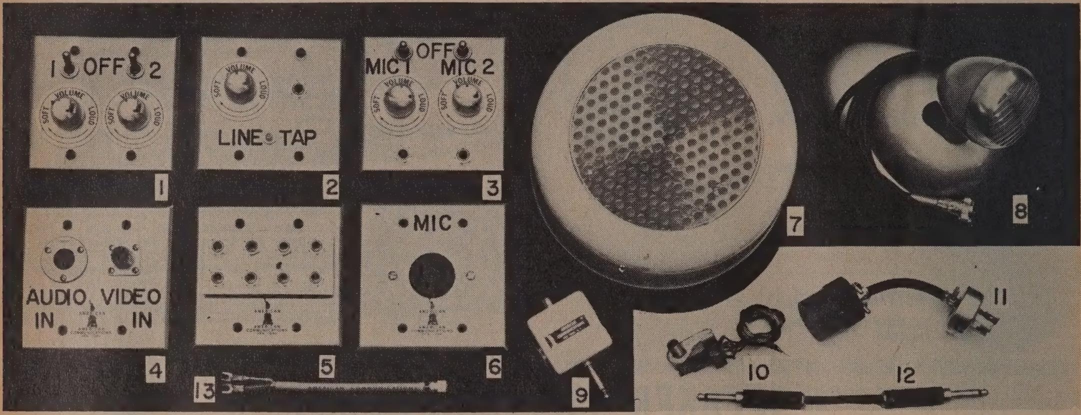
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

PUBLIC ADDRESS PARTS & ACCESSORIES



Following is description of the items shown above. Additional specifications will be supplied upon request.

(1) **No. A-SVC Speaker Volume Control.** Has 2 controls, w/dials, for 2 public areas, and switches to control background music. **Net $22.50.**

(2) **No. A-A/TVC Audio/TV Control.** Includes 3.3K ohm volume control w/dial, seize jack, and master antenna outlet. **Net $14.40.**

(3) **No. A-IC Integrating Control** on 2-gang plate, w/2 ea. center-off switches, Volume Control and seize jacks. **Net $22.20.**

Items 1, 2 and 3, above, operate on 70-volt lines. Other impedances available.

(4) **No. A-A/V-JP Closed-circuit unit** — Audio/Video Jack Plate — on 2-gang plate, w/Cannon XLR-314 socket for Audio In, and socket for PL-239 for Video In. **Net $11.88.**

(5) **No. A-PP-F Flush Patch Plate,** on 2-gang plate, w/4 circuit jacks. **Net $2.97 per circuit** (4 circuits shown).

(6) **No. A-MOP Microphone Outlet Plate,** flush type, on 2-gang plate, w/Hubbell Polarized socket. **Net $4.00.**

(7) **No. A-PAS-I Indoor P.A. Speaker,** surface mount type, 8″ (only). Metal is enamel finished. Supplied less speaker. **Net $5.81.**

No. A-PAS-O Outdoor P.A. Speaker (not illus.), on swivel mount, w/weatherproof housing and output transformer. **Net $23.71.**

(8) **No. A-DS Microphone,** Desk Stand w/press-to-talk switch, Cord, Plug, **Net $17.23.**

Also available (not shown): **No. A-MF Floor-stand Microphone. Net $25.54;** and, **No. A-MB Banquet-stand Microphone. Net $11.88.**

(9) **No. A-A Adaptor** — PL-55 one end, Amphenol 75-PC1M connector opposite end, to adapt seize jack to Amphenol adaptor, **Net $2.24.**

(10) **No. A-SJ-1 Seize Jack,** wired assembly, **Net $2.70.**

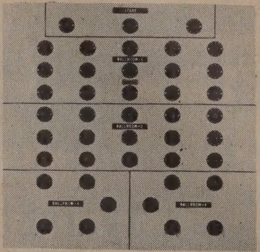
*(11) **No. A-MEC Microphone Extension Cord,** SJ cord w/Hubbell 7554 plug one end, 7555 other end, **Net $6.72.**

*(12) **No. A-MCPC Maid Call Patch Cord,** 2-conductor cord w/PL-55 ea. end, Net **$1.51.**

*(13) **No. A-TVH TV Hook-up Lead,** A-TY92-S Coax., w/lugs one end, A-C59 other end, **Net $2.50.**

* **Standard length 6 ft., other lengths — and constructions — to order.**

SPEAKER SWITCHING CENTER



Problem: Provide a means of controlling 43 high-fidelity loudspeakers in a large public room, so room can be partitioned into 5 acoustically isolated areas and specific sound programs directed only to these areas. **Solution: AMERICAN'S No. A-SC/43 Speaker Switching Center.** In this example, 43 5-position (and OFF) switches are shown mounted on a metal panel outline-marked to show the available 5 area divisions — a Stage and 4 Ballrooms — of a Main Ballroom. The switches are spotted on the layout in the same relative positions as the 43 (ceiling) speakers.

Designed to meet Convention needs, the No. A-SC/- Switching Center is located in the Radio Control Room. Its switches terminate in 3-circuit jacks, to permit patching into a jack field in associated Master Control Board. Connects speakers to any program source.

SPECIFICATIONS: No. A-SC/43 Speaker Switching Center, for 43 high-fidelity loudspeakers. Panel is 1/16″ sheet metal, approx. 40″ sq.; assembly is approx. 3½″ deep. Finish: gray Hammertone.

Speaker Switching Centers designed and built.

Quotations upon request.

MESSAGE & MUSIC/PAGING CENTER

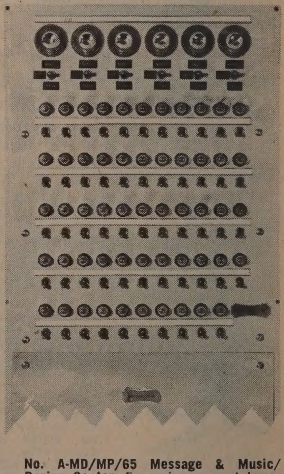
The unit shown here, **AMERICAN'S No. A-MD/MP/- combination Message-at-Desk and Music/Paging Center,** illustrates two useful design factors: (1) provision of an expansion area on the panel for the later addition of more room signals; and, (2) the integration of one facility with another. This design is applicable to any number of rooms.

In this No. A-MD/MP/65, a Message-at-Desk signal is provided to 65 rooms, plus control of speaker volume in 6 public areas, with choice of music or paging in these areas at controlled volumes.

SPECIFICATIONS

No. A-MD/MP/65 Message & Music/Paging Center, 65 rooms. Steel panel measures approx. 21 x 46 x 4″ deep. Supplied with or w/out rear housing. Finish, pearl gray Hammertone.

Designed, built to order. Quotations upon request.



No. A-MD/MP/65 Message & Music/Paging Center. Expansion area at lower end of panel, for additional controls.

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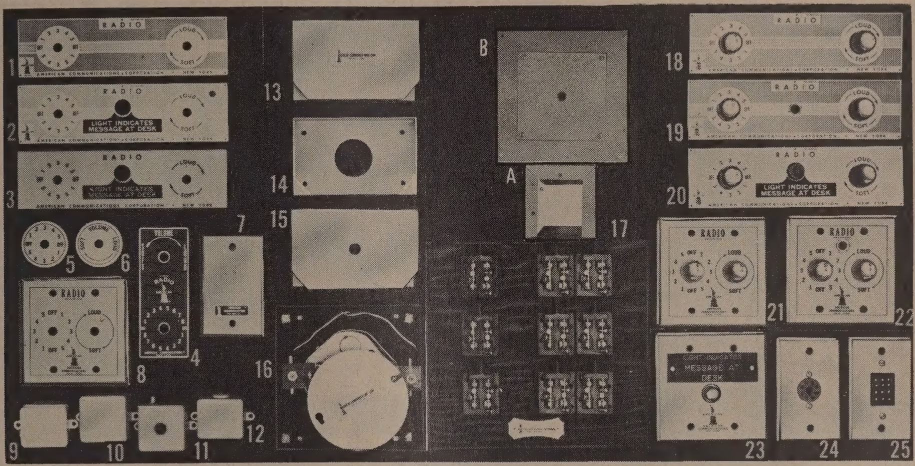
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

RADIO PARTS & ASSEMBLIES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RADIO
LOUD
SOFT
LIGHT INDICATES MESSAGE AT DESK
AMERICAN COMMUNICATIONS CORPORATION NEW YORK

BLANK (UNASSEMBLED) ESCUTCHEON PLATES

Measurements: No. 1 - No. 3, 9 x 2½"; No. 4, 2⅛" x 5 9/16"; No. 5, No. 6 (dials), 2" diam. (hole in latter is ⅜" diam.). No. 7, 2¾" x 4½". No. 8, 4⅝" sq.

(1) No. A-P1 Radio Escutcheon. Patterned bronze, clear lacquered. Lettered: Off — 1 (through) 5 — Off, and Loud-Soft. **Net $2.15.**
No. A-P2 Radio/Maid Call Escutcheon (not shown). Same as No. A-P1, except w/hole, centered between controls, for jack. **Net $2.18.**
No. A-P3 Radio/Message Escutcheon (not shown). Same as No. A-P1, except w/added hole in center for lamp socket, and wording: Light Indicates Message-at-Desk. **Net $2.23.**

(2) No. A-P4 Radio/Message/Maid Call Escutcheon. Same as No. A-P3, except w/added hole at upper-right for jack. **Net $2.27.**
No. A-P5 Radio/Message/Maid Call/Status Escutcheon (not shown). Same as No. A-P4, except w/added hole, below hole for jack, for Status Keyswitch or Status Maid Button. For room use w/Model 707 Room Status Control. **Net $2.67.**

(3) No. A-P3P Radio Escutcheon, plastic. Same as No. A-P3, except material is translucent plastic. For use with incandescent or luminescent light source. **Net $1.90.**

(4) No. A-P1V Radio Escutcheon, vertical. Brown enameled brass. Lettering same as No. A-P1, except radio numerals to 8. **Net $1.61.**

(5) No. A-D1/5 Selector Plate. Aluminum disc, black lettered Off — 1 (through) 5 — Off. **Net 66¢.**

(6) No. A-D2 Volume Plate. Aluminum disc, black lettered: Loud — Volume — Soft. **Net 59¢.**

(7) No. A-P10 Wall Plate, 1-gang, blank. Available in aluminum, stainless steel, plain steel and brass, in various finishes, to order. Standard finishes: brushed stainless steel, brushed aluminum. **Net 57¢.**
No. A-P20 Wall Plate, 2-gang, blank (not illus.). Materials and finishes as No. A-P10. **Net 63¢.**

(8) No. A-P20-1 Radio Wall Plate. Uses 2-gang plate No. A-P20. Same lettering as No. A-P1. **Net $2.15.**
No. A-P20-2 Radio/Maid Call Wall Plate (not shown). Same as No. A-P20-1, except w/added hole for Maid Call jack. **Net $2.30.**
No. A-P20-3 Message Wall Plate (not shown). Has hole for lamp socket, on 2-gang plate. **Net $2.10.**

COMPLETE
SYSTEMS FINANCING
by AMERICAN
AT BANK RATES

BLANK HOUSINGS

Standard finish: ecru enamel; material: steel.

Measurements: (small housings) No. 9, No. 12, 2" x 1¾" x ¾" deep; No. 10, No. 11, 2" sq. x 1⅛" deep; (large housings) No. 13 - No. 15, 5¼" x 3⅜" x 1 3/16" deep. Mounting tabs on No. 9 - No. 12.

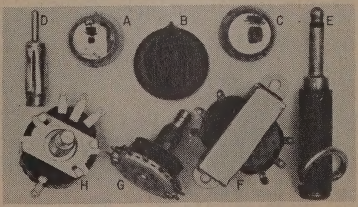
(9) No. A-BC1 Accessory Box, small, blank. **Net 36¢.**
(10) No. A-BC2 Accessory Box, large, blank. **Net 45¢.**
(11) No. A-BC2G1C Accessory Box, large, w/metal grommet and TV feedthrough No. A-FT-81. Used as TV Outlet and Cable Accessory Box. **Net $1.05.**
(12) No. A-BC1G2 Accessory Box, small, w/rubber grommet. **Net 42¢.**
(13) No. A-BC10 Termination (Accessory) Box, large, surface mounted. Open at 2 corners for feedthrough; back plate has opening (optional) for cable, and back-to-back mounting. **Net $1.16.**
(14) Shows opening at back of No. A-BC10.
(15) No. A-BC11 Radio Outlet Box, surface mounted. Has metal grommet in top. **Net $1.29.**

APPARATUS

(16) No. A-SB-R Radio Splice Box, on wood or masonite board 6" sq. x ¼" thick. Suspension wire is shown. Includes outlet box (shown open), 4 insulated cable clamps, and 2 No. A-1601 line taps. **Net $6.88.**
(17) No. A-RS-A Riser Switchboard. Has 9 D.P.S.T. knife switches (one switch per riser pair) on wood (or masonite) mounting approx. 9½" sq. x ½" thick. **Net $8.91 per circuit** (illus., 3 circuits).

PANEL ASSEMBLIES

(18) No. A-P1-A Radio Control Panel. This is No. A-P1 Escutcheon assembled with Radio Selector Switch and Volume Control. **Net $14.85.**
(19) No. A-P2-A Radio/Maid Call Panel. Same assembly as No. A-P1-A, except w/No. A-MJ Maid Call jack added, on No. A-P2 Escutcheon. **Net $15.30.**
(20) No. A-P3-A Radio/Message Panel. Switch, Control, and Message light, on No. A-P3 Escutcheon. **Net $15.60.**
No. A-P4-A Radio/Message/Maid Call Panel (not shown). Same items as on No. A-P3-A panel, plus Maid Call jack, all on No. A-P4 Escutcheon. **Net $18.41.**
(21) No. A-P20-1-A Radio Wall Plate assembly, w/Switch and Volume Control. On aluminum 2-gang plate. **Net $14.85.**
(22) No. A-P20-2-A Radio/Maid Call assembly. Same as No. A-P20-1-A, but w/Maid Call jack added. On aluminum 2-gang plate. **Net $15.30.**
(23) No. A-P20-3-A Message-at-Desk Wall Plate assembly, w/instructions and lamp. On aluminum 2-gang plate. **Net $2.92.**
(24) No. A-P10-TV-A TV Remote Plate assembly. On 1-gang plate, w/octal socket. **Net $1.05.**
(25) No. A-P10-C-A Connector Plate assembly. On aluminum 1-gang plate. Has Jones connector; specify number of connections. **Net $1.61.** (12-pin, illus.).
(A) No. A-CB-S Connection Box, surface mtg. Accessible from rear. Used for mounting control plates. Bushing on one side. Enameled steel. **Net $2.08.**
(B) No. A-CB-F Connection Box, flush mounting. Shown with bushed plate, for cable. Steel, Hammertone enameled. **Net $4.46.**



(A) No. A-K1 Knob, clear plastic. Gold insert, short pointer, 1 screw. **Net 17¢.**
(B) No. A-K3 Pointer Knob, black plastic. Has 1 screw. **Net 19¢.**
(C) No. A-K2 Knob, biege plastic. Gold insert, short pointer, 1 screw. **Net 17¢.**
(D) No. A-MP Plug, quick-disconnect type. **Net 13¢.**
No. A-MJ Jack (not shown), quick-disconnect type. **Net 14¢.**
(E) No. A-MSP Maid Call Plug, w/belt ring. **Net $1.60.**
(F) No. A-T3 Transformer, 70 ohms to 3.2 ohms. **Net $2.03.**
(G) No. A-CS Radio Selector Switch. Ceramic wafer, dual wiper, 5 positions, center off, 360° continuous rotation. **Net $3.03.**
(H) No. A-VC/50 Volume Control. A patented potentiometer with 360° continuous rotation. Standard resistance 50 ohms. **Net $2.87.**

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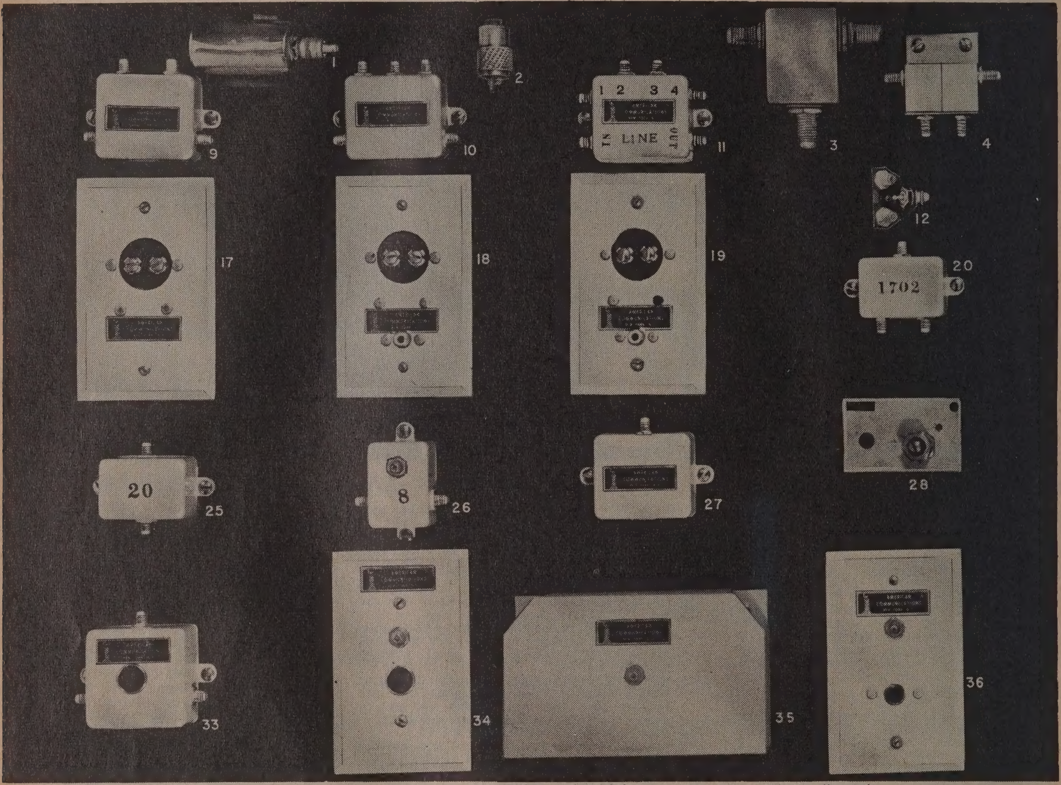
AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

TELEVISION & RADIO PARTS



TV & Radio Parts are continued on facing page. Descriptions and Net Prices are given below. Quantity discounts.

First Row (†)

(1) No. A-MT Matching Transformer, 75 to 300 ohms. Solderless connector for RG-59/U; connector for RG-11/U available. Up to 6 db voltage step-up. **Prices upon request.**
(2) No. A-PL259 Connector. **Net $2.26.**
(3) No. A-1601-1 Isolation Unit. A single-unit TV line tap. Attenuation color codes per Note 1. Outdoor housing; 75 ohms. **Net $2.20.**
(4) No. A-1602-1 Double-unit Line Tap, for 2 TV sets. (Note 2) **Net $3.70.**
(5) No. A-1603-1 Triple-unit Line Tap. **Net $4.20.**
(6) No. A-1604-1 Quad-unit Line Tap. **Net $5.70.**
(7) No. A-1601-2 Single-unit Tap, 75 ohms. (Notes 1, 3). Indoor housing. **Net $1.50.**
(8) No. A-1601-3 Single-unit Line Tap, 75 ohms, screw terminals. (Note 3) **Net $2.20.**

Second Row (†)

(9) No. A-1602-2 Double-unit Line Tap, same as No. 1601-2 except has 2 set taps, 75 ohms. (Note 3) **Net $2.75.**
(10) No. A-1603-2 Triple-unit Line Tap. Like No. 9 except has 3 set taps. **Net $4.00.**
(11) No. A-1604-2 Quad-unit Line Tap. Like No. 9, but w/4 set taps. **Net $5.25.**
(12) No. A-1601-G Single-unit Line Tap. Gem flush-mount, 75 ohms. (Note 1) **Net $2.20.**
(13) No. 1602-G Double-unit Line Tap. Like No. 12 except w/2 set taps. **Net $3.70.**
(14) No. A-1603-G Triple-unit Line Tap. Like No. 12 except w/3 set taps. **Net $4.20.**
(15) No. A-1604-G Quad-unit Line Tap. Like No. 12 except w/4 set taps. **Net $5.70.**
(16) No. A-1601-4 Single-unit Line Tap. TV outlet. (Note 4) **Net $2.20.**

Third Row (†)

(17) No. A-1601-5 TV Outlet, 300 ohms. (Note 4) **Net $2.25.**
(18) No. A-1601-6 TV Outlet, 75 ohms, screw terminals, FM outlet. (Note 4) **Net $2.25.**
(19) No. A-1601-8, Same as No. 18, except TV outlet 300 ohms (Note 4) **Net $2.25.**
(20) No. A-1702 Line Splitter, 2-way. Has 6 db forward attenuation. (Note 5) **Net $2.20.**
(21) No. A-1703 Line Splitter, 3-way. Has 10 db forward attenuation. (Note 5) **Net $3.30.**
(22) No. A-1601-7 Outlet, 75-ohm Tap, w/FM outlet. (Note 4) **Net $2.25.**
(23) No. A-1712 Line Splitter, hybrid 2-way. Has 3 db forward attenuation. (Note 3) **Net $4.75.**
No. A-1714 Line Splitter, hybrid 4-way (illustrated). Has 6 db forward attenuation. (Note 3) **Net $5.40.**

Fourth Row (†)

(25) No. A-DBLA DB Line Attenuator Pad, 3-5-10-20-30. (Note 5) **Net $2.17.**
(26) No. A-T/R-T Trunk/Riser Tap. Various db values of isolation. Creates Risers from Trunk Line. (Note 5) **Net $2.17.**
(27) No. A-CTVB Convenience TV Box, w/connector A-CH61. (Note 3) **Net 77¢.**
(28) No. A-VLC Volume Limiter Control. Mounted on plate w/access hole for TV cable. **Net $3.81.**
(29) No. A-CTVB/MJ Convenience TV Box, w/No. A-MJ jack. (Note 3) **Net 77¢.**
(30) No. A-WN Porcelain Wire Nut. **Net 2¢.**
(31) No. A-CC Cable Clamp, insulated. **Net 6¢.**
(32) No. A-RP Plastic Rawl Plugs. For mounting various radio and TV boxes. As illustrated, 5 per strip. **Net 5¢**, per strip of 5.

Fifth Row (†)

(33) No. A-1601/R-FT, 1601 & Radio Feedthrough — combination. Surface mount in Accessory Box No. A-BC2G. **Net $2.20.**
(34) No. A-1601/R, 1601 & Radio Plate. Wall plate grommeted for cable. **Net $2.25.**
(35) No. A-TV/R-SB, TV/Radio Splice Box, surface mount, w/1601. In No. A-BC10 Termination Box. **Net $3.54.**
(36) No. A-TV/75 Tap, 75 ohms, w/No. A-MJ jack. (Note 4) **Net $2.25.**

Additional Parts (not illustrated)

(37) No. A-P10-P Plate, punched. (Note 6) **Net 61¢.**
(38) No. A-R-BP Radio Plate, bushed. (Note 6) **Net 77¢.**
(39) No. A-TV/R-P TV or Radio Plate, blank. (Note 6) **Net 61¢.**
(40) No. A-CT-1 Crimping Tool, light duty. For F59 ferrules. **Net $4.29.**
No. A-CT-2 Crimping Tool, heavy duty. For F59 and F6 ferrules. **Net $5.39.**

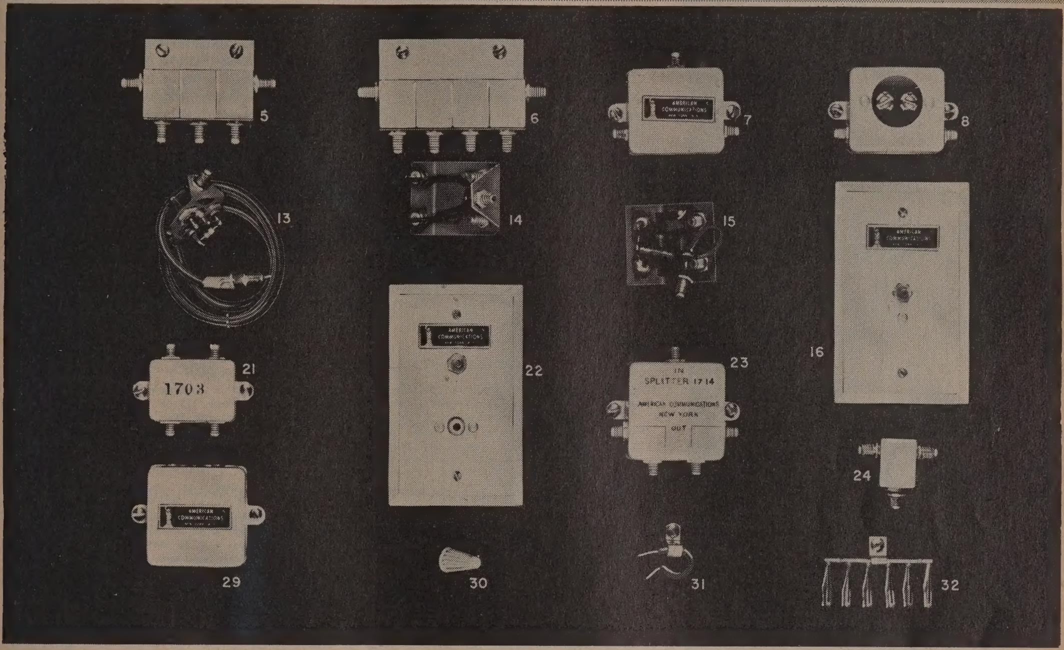
(Note 1) Attenuation coded red, yellow, green, blue.
(Note 2) On mounting bracket.
(Note 3) Surface mount, in No. A-BC1 Accessory Box.
(Note 4) Flush mount, on single-gang wall plate No. A-P10. Available in various finishes.
(Note 5) Surface mount.
(Note 6) Single or double gang, flush mount.

(†) All necessary hardware packaged with each unit.

AMERICAN COMMUNICATIONS CORPORATION
NEW YORK CITY 7, NEW YORK

AUDIO/VISUAL/SIGNAL SYSTEMS & PARTS
FOR HOTELS — MOTELS — INSTITUTIONS

TELEVISION & RADIO PARTS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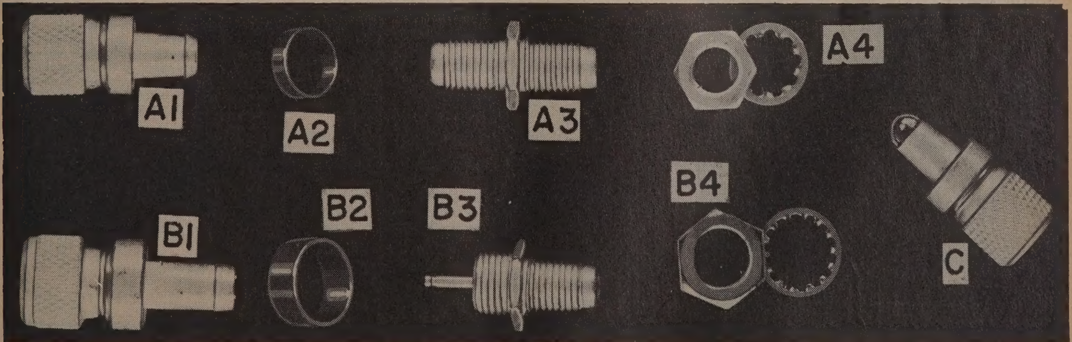
TV & Radio Parts, continued from facing page. Descriptions and Net Prices also on facing page. Quantity discounts.

TV COAXIAL CONNECTORS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(A1) **No. A-C59 Solderless TV Connector** for A-TV92-S (RG-59/U) cable. **Net 31¢,** w/A-F59.
(A2) **No. A-F59 Ferrule.** Crimping ring for A-C59. **Net $1.50/C.**
(A3) **No. A-FT81 Feedthrough TV Connector** or TV convenience connector. **Net** 42¢, w/¼" A-NW-FT81.
(A4) **No. A-NW-FT81 Nut & Washer,** ¼", for No. A-FT81. **Net 3¢.**

(B1) **No. A-C6 Solderless TV Connector** for A-TV62-S (RG-6A/U). **Net 39¢.**
(B2) **No. A-F6 Ferrule.** Crimping ring for No. A-C6. **Net $2.50/C.**
(B3) **No. A-CH61 Convenience Connector** — chassis mount. **Net 35¢,** w/⁹⁄₁₆" A-NW-CH61.
(B4) **No. A-NW-CH61 Nut & Washer,** ⁹⁄₁₆", for No. A-CH61. **Net $.047.**
(C) **No. A-TR72 Terminator,** 72 ohms. **Net 53¢.**

AMERICAN COMMUNICATIONS CORPORATION

NEW YORK CITY 7, NEW YORK

BOGEN
SOUND SYSTEMS

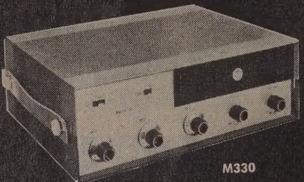
FLEX-PAK® PA AMPLIFIERS

Bogen's award winning Flex-Pak series PA amplifiers, the deluxe MX60 and MX30 and the superb M60 and M330. Features of the deluxe "MX" models: master gain control; built-in remote gain-control circuit allows changes in gain from distances up to 2,000 feet; 4 microphone channels (one converts to phono); plus all the other features listed below. Features of the superb "M" models: constant voltage output taps simplify calculations for speaker matching transformers; power stage screen regulation for higher output, greater efficiency; special filters to improve speech clarity; equalized phono input for all cartridges; separate bass and treble controls; plug-ins for low impedance transformers; quick maintenance (four thumbscrews remove cage); broadcast-type (Cannon XL Series) mic. connectors; pencil-in, erase-out identification strips for all channels; sturdy leather carrying handles; Memory Markers permit resetting of controls to previously determined levels; handsome, compact design, finished in silver, gray and black.

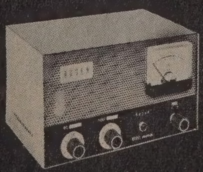
MX60

MX30

M60


M330

MXM


RP-2

MX60...DELUXE 60-WATT PA AMPLIFIER

Power Output: 60 w. at less than 2% distortion. **Power Consumption**: 270 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Gain**: Mic., 125 db; tuner, 85 db; mag. phono, 115 db. **Hum**: (below rated output) mic., −60 db. **Output Impedance**: 4, 8, 16 and 83 ohms; balanced 25-volt line, 70-volt line. **Inputs**: 4 mic. (one channel converts to phono or tuner). **Tubes**: total of 10 (3 — GZ34, 2 — G.E.7581A, 4 — 12AX7, 1 — 7247). **Tone Controls**: treble (10 kc) +10 db to −10 db; bass (50 c) +10 db to −10 db. **Dimen.**: 16¼" W, 13" D, 5⅜" H. **Ship. Wt.**: 37 lbs. **List Price**: **$295.00** (Zone 2: $300.25)

MX30...DELUXE 30-WATT PA AMPLIFIER

Power Output: 30 w. at less than 2% distortion. **Power Consumption**: 150 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Gain**: mic., 120 db; tuner, 80 db; Xtal phono, 80 db; mag. phono, 115 db. **Hum**: (below rated output) mic., −60 db. **Output Impedance**: 4, 8, 16 and 163 ohms; balanced 25-volt line, 70-volt line. **Inputs**: 4 mic. (one channel converts to phono or tuner). **Tubes**: total of 8 (1 — GZ34, 2 — 6L6GC, 4 — 12AX7, 1 — 7247). **Tone Controls**: treble (10 kc) +10 db to −10 db; bass (60 c) +10 db to −10 db. **Dimen.**: 16¼" W, 13" D, 5⅜" H. **Ship. Wt.**: 31 lbs. **List Price**: **$231.25** (Zone 2: $235.75)

M60...SUPERB 60-WATT PA AMPLIFIER

With 3 mic. channels (one converts to phono). **Power Output**: 60 w. at less than 2% distortion. **Power Consumption**: 270 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Gain**: mic., 125 db; tuner, 80 db; Xtal phono, 80 db; mag. phono, 115 db. **Hum**: (below rated output) mic., −50 db. **Output Impedance**: 4, 8, 16 and 83 ohms; balanced 25-volt line, 70-volt line. **Inputs**: 3 mic. (one channel converts to phono or tuner). **Tubes**: total of 9 (3 — GZ34, 2 — G.E.7581A, 3 — 12AX7, 1 — 7247). **Dimen.**: 16¼" W, 13" D, 5⅜" H. **Ship. Wt.**: 37 lbs. **List Price**: **$236.25** (Zone 2: $241.50)

M330...SUPERB 30-WATT PA AMPLIFIER

With 3 mic. channels (one converts to phono). **Power Output**: 30 w. at less than 2% distortion. **Power Consumption**: 150 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Gain**: mic., 120 db; tuner, 80 db; Xtal phono, 80 db; mag. phono, 115 db. **Hum**: (below rated output) mic., −60 db. **Output Impedance**: 4, 8, 16 and 163 ohms; balanced 25-volt line, 70-volt line. **Inputs**: 3 mic. (one channel converts to phono or tuner). **Tubes**: total of 7 (1 — GZ34, 2 — 6L6GC, 3 — 12AX7, 1 — 7247). **Dimen.**: 14½" W, 13" D, 5⅜" H. **Ship. Wt.**: 29 lbs. **List Price**: **$193.75** (Zone 2: $198.10)

VERSATILE BOGEN PREAMPLIFIERS

MXM...MIXER-PREAMPLIFIER

The self-powered MXM accommodates 5 microphones or 4 microphones and a tuner or phonograph (both crystal and magnetic cartridges). Features include: separate gain control for each channel; master gain control; individual speech filters for each channel, output level meter, sockets for plug-in low-impedance transformers; feedback-type distortion-free tone controls plus new Memory Markers which permit instant resetting of controls to previously determined levels. May be remote controlled with SR2 and SR4 remote controllers. **Output**: +18 db at less than 1% distortion. **Power Consumption**: 27 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Hum**: (below rated output) mic., −60 db. **Output Impedance**: Hi-impedance, cathode follower driven, 600 ohms with T161 or T165B (broadcast quality) accessory plug-in transformers. **Input Sensitivity**: Hi-impedance, 4 mv.; Lo-impedance, 0.4 mv.; mag., 4 mv.; Xtal, 0.2 v.; aux., 0.5 v. **Tubes**: total of 9 (4 — EF86, 2 — 12AX7, 1 — 6CG7, 1 — 6BF6, 1 — 6X4). **Tone Controls**: treble (10 kc) +12 db to −12 db; bass (60 c) +12 db to −12 db. **Dimen.**: 16¼" W, 13" D, 5⅜" H. **Ship. Wt.**: 21 lbs. **List Price**: **$246.25** (Zone 2: $250.00)

RP-2...LOW-NOISE PROGRAM PREAMPLIFIER

For use at remote pickup points. Features are: separate input channels for 1 microphone and 1 phonograph; separate volume controls for each channel permit input mixing; output feeds either booster amplifier or a low impedance line separately or simultaneously; bass cut-off switch for speech clarity. Enclosure with VU meter (as illustrated) is available. **Power Consumption**: 20 w.; 117 v. AC; 60 cps. **Gain**: mic., 76 db; phono, 35 db. **Sensitivity**: mic., 3.5 mv.; phono, 0.4 v. **Bass Cut**: 20 db. **Output Impedance**: Hi-impedance, catnode follower driven, minimum recommended load resistance 10,000 ohms; Lo-impedance, 600 ohms (50 and 200 ohms). **Input Impedance**: Hi-impedance, ½ megohm convertible to Lo-impedance by use of plug-in transformers for 50, 150-250 or 600 ohms. **Pilot Light**: #47. **Tubes**: total of 4 (2 — 6SF5, 1 — 6J5, 1 — 6X5GT). **Dimen.**: 11" W, 7⅜" D (excluding knobs), 5¼" H. With cage, height is 6½". **Ship. Wt.**: 7 lbs.

RP-2 (cage CAGVU2 optional extra) **List Price**: **$95.00** (Zone 2: $96.35)
CAGVU2 cage with meter **List Price**: **$38.75** (Zone 2: $39.50)

The outstandingly versatile Flex-Pak accessories include: matching, removable phono-top, wall mounting kit, control-guard locking plate, plug-in Lo-impedance transformers and more, see page 88.

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Ore., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

BOGEN SOUND SYSTEMS

BOGEN "MU" PA AMPLIFIERS

The handsomely styled new "MU" series amplifiers offer: 2 or more microphone inputs, a variety of auxiliary inputs, individual and master volume controls, separate bass and treble controls, Memory Markers for resetting controls to previously determined levels, constant voltage output taps and many more features as outlined below.

MU50M . . . UNIVERSAL MOBILE PA AMPLIFIER

Operates on 12-volt DC or 117-volt AC. Inputs for 2 microphones and 2 auxiliary. Will operate within a temperature range of −20 C. to +65 C. (−4 F. to +149 F.). **Power Output**: 50 w. at 10% (continuous). **Power Consumption**: 160 w. (117 v. AC), 7.5 A. (12 v. DC). **Frequency Response**: ±2 db, 30 to 15,000 cps. **Gain**: mic., 125 db; aux., 95 db. **Hum and Noise**: (below rated output) mic., −65 db; aux., −80 db. **Output Impedance**: 4, 8 and 16 ohms; 25-volt balanced line (16 ohms), 70-volt (122 ohms). **Inputs**: 2 mic. (Hi-impedance or Lo-impedance; no plug-in transformer is required with Lo-impedance mic.); 2 aux. (Hi-impedance, Hi-level). **Transistors and silicon rectifiers**: total of 12 (6 — 2N417, 2 — 2N1557, 1 — 2N669, 3 — MR322). **Tone Controls**: treble (10 kc) −17 db; bass (50 c) +10 db to −17 db. **Dimen.**: 15¾" W, 10" D, 6¾" H. **Ship. Wt.**: 15 lbs. **List Price: $237.50** (Zone 2: $240.60)

MU50M with phono top

MU30 . . . 30-WATT AMPLIFIER

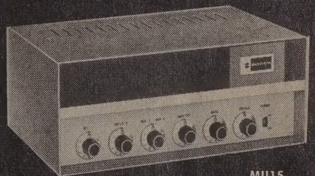
Inputs for 3 microphones (or 1 mic. plus 2 mag. phone/tape) and 2 auxiliary. Provision for remote control of 3 inputs. **Power Output**: 30 w. at 2% distortion. **Power Consumption**: 150 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 120 db; aux., 95 db; mag. phono, 110 db. **Hum and Noise**: (below rated output) mic., −65 db; aux., −85 db; mag. phono, −60 db. **Output Impedance**: 4, 8 and 16 ohms (16 ohm balanced); 25-volt balanced line, 70-volt line (163 ohms). **Inputs**: 3 mic. (Hi-impedance but can convert to Lo-impedance with T155/6/7 transformers), 2 mag. phono or tape (switch converts mic. 2 and mic. 3), 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 5 plus silicon rectifier (2 — 6EU7, 1 — 7247, 2 — 7868). **Tone Controls**: treble (10 kc) +12 db to −14 db; bass (50 c) +15 db to −9 db. **Dimen.**: 15¾" W, 10" D, 6¾" H. **Ship. Wt.**: 20 lbs. **List Price: $186.25** (Zone 2: $189.40)

MU30

MU15 . . . 15-WATT AMPLIFIER

Inputs for 2 microphones and 2 auxiliary. **Power Output**: 15 w. at 2% distortion. **Power Consumption**: 80 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 125 db; aux., 100 db. **Hum and Noise**: (below rated output) mic., −60 db; aux., −80 db. **Output Impedance**: 4, 8 and 16 ohms (16 ohm balanced); 25-volt balanced (42 ohms). **Inputs**: 2 mic. (Hi-impedance can convert to Lo-impedance with T155/6/7 transformers), 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 6 (1 — 6EU7, 1 — 12AX7, 1 — EZ81, 1 — 6C4, 2 — 6BQ5). **Tone Controls**: treble (10 kc) +12 db to −14 db; bass (50 c) +15 db to −9 db. **Dimen.**: 15¾" W, 10" D, 6¾" H. **Ship. Wt.**: 16 lbs. **List Price: $139.90** (Zone 2: $143.05)

see page 88 for accessories



MU15

BT25 . . . 25-WATT MOBILE TRANSISTOR PA AMPLIFIER

A fully-transistorized PA amplifier, compact enough to fit in the glove compartment of your car. Can be operated from either a 6-volt battery, providing 6 watts of power, or a 12-volt battery, providing 25 watts. Maximum power with minimum battery drain: only 3 amperes on a 12-volt battery at full output, 1.4 amperes on a 6-volt battery. It features 2 individually-controlled inputs: a microphone plus record player, radio tuner or tapedeck, permitting mixing. The small, high-powered, reliable BT25 has no tubes to burn out, no vibrator to replace . . . completely hum-free. **Dimen.**: 3¾" W, 4⅜" D, 6⅝" H. **Ship. Wt.**: 5 lbs. **List Price: $120.00** (Zone 2: $120.95)

BT25

"MO" SERIES BOOSTER AMPLIFIERS

Bogen's new "MO" series booster amplifiers embody the most advanced design and construction techniques. Ideal for use wherever undistorted high power is required. Exceptionally wide-range frequency response characteristics. Input signal of 2 volts or less will drive any of the boosters to rated output. Built-in provision for balanced low impedance line input and for paralleling several "MO" series power amplifiers to multiply power output. The MXM and RP-2 are ideal preamplifiers for these boosters.

MO100 . . . 100-WATT BOOSTER AMPLIFIER

Provision for remote control of standby operation. Industrial Rating: can be used as 100-watt source of continuous power between 50 and 20 kc (with distortion below 2%). **Power Output**: 100 w. at less than 5% distortion. **Power Consumption**: 275 w. **Frequency Response**: ±2 db, 50 to 50,000 cps. **Hum**: (below rated output) −80 db. **Sensitivity**: Hi-impedance, 2 v.; Lo-impedance (with T161 transformer), 0.5 v. **Output Impedance**: 1.6, 6.25 and 49 ohms; balanced 25-volt line, 70-volts, 115-volts. **Input**: (1) Hi-impedance, .1 megohm; with Lo-impedance transformer (T161), 500 ohms. **Tubes**: total of 7 (2 — GZ34, 1 — EZ81, 2 — 6550, 1 — 6C4, 1 — 12AX7). **Dimen.**: 17¼" W, 9" D, 7¾" H. **Ship. Wt.**: 35 lbs. **List Price: $215.75** (Zone 2: $221.00)

MO60 . . . 60-WATT BOOSTER AMPLIFIER

Provision for remote control of standby operation. **Power Output**: 60 w. at less than 2% distortion. **Power Consumption**: 260 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Hum**: (below rated output) −80 db. **Sensitivity**: Hi-impedance, 2 v.; Lo-impedance (with T161 transformer), 0.5 v. **Output Impedance**: 4, 8, 16 and 82 ohms; balanced 25-volt line, 70-volt line. **Input**: (1) Hi-impedance, .1 megohm; with Lo-impedance transformer (T161), 500 ohms. **Tubes**: total of 7 (3 — GZ34, 2 — G.E.7581A, 1 — 12AX7, 1 — 6C4). **Dimen.**: 17¼" W, 6½" D, 7¾" H. **Ship. Wt.**: 23 lbs. **List Price: $172.50** (Zone 2: $176.25)

MO30 . . . 30-WATT BOOSTER AMPLIFIER

Power Output: 30 w. at less than 2% distortion. **Power Consumption**: 150 w. **Frequency Response**: ±2 db, 35 to 20,000 cps. **Hum**: (below rated output) −80 db. **Sensitivity**: Hi-impedance, 2 v.; Lo-impedance (with T161 transformer), 0.5 v. **Output Impedance**: 4, 8, 16 and 163 ohms; balanced 25-volt line, 70-volt line. **Input**: (1) Hi-impedance, .1 megohm; with Lo-impedance transformer (T161), 500 ohms. **Tubes**: total of 5 (1 — GZ34, 2 — 6L6GC, 1 — 12AX7, 1 — 6C4). **Dimen.**: 17¼" W, 6½" D, 7¾" H. **Ship. Wt.**: 21 lbs. **List Price: $124.90** (Zone 2: $128.05)

MO100

LEAR SIEGLER, INC. / *BOGEN COMMUNICATIONS DIVISION*

BOGEN SOUND SYSTEMS

"CHB" SERIES PA AMPLIFIERS AND PACKAGE SYSTEMS

CHB100

CHB50 with phono top

CHB35

CHB1250 with phono top

CHB14

Models CHB35, CHB50 and CHB100 share these outstanding features: systems-tested circuitry for continuous, heavy-duty operation; protection against circuit damage caused by accidental shorting or disconnecting of loudspeaker lines; master volume control; separate bass and treble controls; no "double duty" control devices; built-in remote control circuit permits adjustment of volume from distances up to 2,000 feet; Memory Markers permit resetting controls to previously determined levels; more reserve power for volume peaks; wide frequency response for maximum clarity and intelligibility; fixed grid bias in push-pull output stage assures low distortion at maximum output; high input sensitivity; low noise and hum; simultaneous mixing of 3 input signals, 2 microphones and a tuner or phonograph; all models accept mag. phono cartridge and tape recorder; constant-voltage output taps simplify addition of matching transformers for multiple speaker systems; 2 loudspeaker plug-in sockets, plus screw terminals; compact, lightweight styling.

Model CHB1250 Mobile amplifier is similar to the above and differs only in the following respects: both high-impedance mic. inputs convert to low-impedance without transformers; no remote volume control circuitry or mag. phono input.

CHB100 . . . 100-WATT AMPLIFIER

Power Output: 100 w. at 5% distortion. **Power Consumption**: 300 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 125 db; aux., 100 db; mag. phono cartridge, 115 db. **Hum and Noise**: (below rated output) mic., 70 db; aux., 80 db. **Sensitivity**: mic., 5 mv., aux., .3 v.; mag. phono cartridge, 15 mv. **Output Impedance**: 4, 8 and 16 ohms; 25-volt line (6 ohm), 70-volt line (50 ohm); 2 speaker sockets and screw terminals. **Inputs**: 2 mic. (Hi-impedance), 1 mag. phono cartridge, 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 7 and selenium rectifier (1 – 6EU7, 1 – 12AX7, 4 – 7868, 1 – 6C4). **Tone Controls**: treble (10 kc) +12 db to −15 db; bass (50 c) +14 db to −9 db. **Dimen.**: 15¾'' W, 10'' D, 6¾'' H. **Ship. Wt.**: 26 lbs. **List Price: $187.40** (Zone 2: $191.35)

CHB50 . . . 50-WATT AMPLIFIER

Power Output: 50 w. at 5% distortion. **Power Consumption**: 150 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 120 db; aux., 95 db; mag. phono cartridge, 110 db. **Hum and Noise**: (below rated output) mic., 70 db; aux., 80 db. **Sensitivity**: mic., 5 mv.; aux., .3 v.; mag. phono cartridge, 15 mv. **Output Impedance**: 4, 8 and 16 ohms; 25-volt line (12 ohm), 70-volt line (100 ohm); 2 speaker sockets and screw terminals. **Inputs**: 2 mic. (Hi-impedance), 1 mag. phono cartridge, 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 5 and selenium rectifier (1 – 6EU7, 1 – 12AX7, 2 – 6L6GC, 1 – 6C4). **Tone Controls**: treble (10 kc) +10 db to −15 db; bass (50 c) +11 db to −10 db. **Dimen.**: 15¾'' W, 10'' D, 6¾'' H. **Ship. Wt.**: 21 lbs. **List Price: $137.40** (Zone 2: $140.60)

CHB35 . . . 35-WATT AMPLIFIER

Power Output: 35 w. at 5% distortion. **Power Consumption**: 125 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 125 db; aux., 100 db; mag. phono cartridge, 115 db. **Hum and Noise**: (below rated output) mic., 65 db; aux., 80 db. **Sensitivity**: mic., 4 mv.; aux., .2 v.; mag. phono cartridge, 12 mv. **Output Impedance**: 4, 8 and 16 ohms; 25-volt line (18 ohm), 70-volt line (143 ohm); 2 speaker sockets and screw terminals. **Inputs**: 2 mic. (Hi-impedance), 1 mag. phono cartridge, 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 6 (1 – 6EU7, 2 – 7868, 1 – 12AX7, 1 – 6CA4, 1 – 6C4). **Tone Controls**: treble (10 kc) +10 db to −16 db; bass (50 c) +14 db to −10 db. **Dimen.**: 15¾'' W, 10'' D, 6¾'' H. **Ship. Wt.**: 18 lbs. **List Price: $119.90** (Zone 2: $122.50)

CHB1250 . . . MOBILE AMPLIFIER

Operates from 12-volt battery. **Power Output**: 50 w. at 10% (continuous). **Power Consumption**: 7.5 A. **Frequency Response**: ±2 db, 30 to 15,000 cps. **Gain**: mic., 125 db; aux., 95 db. **Hum and Noise**: (below rated output) mic., −65 db; aux., −80 db. **Sensitivity**: mic., 1.5 mv. (Lo-impedance); .5 mv. (Hi-impedance); aux., 0.5 v. **Output Impedance**: 4, 8 and 16 ohms; 25-volt balanced (16 ohms), 70-volt (122 ohms). **Inputs**: 2 mic. (Hi-impedance or Lo-impedance), (no plug-in transformer required for Lo-impedance mic.); 2 aux., (Hi-impedance, Hi-level). **Transistors and silicon rectifiers**: total of 10 (6 – 2N417, 2 – 2N1557, 1 – 2N669, 1 – MR322). **Tone Controls**: treble (10 kc) −17 db; bass (50 c) +10 db to −17 db. **Dimen.**: 15¾'' W, 10'' D, 6¾'' H. **Ship. Wt.**: 12 lbs. **List Price: $187.25** (Zone 2: $189.95)

CHB14 . . . 14-WATT AMPLIFIER

Except for differences shown in the following specifications, the CHB14 offers all features of the CHB35, 50 and 100. **Power Output**: 14 w. at 5% distortion. **Power Consumption**: 70 w. **Frequency Response**: ±2 db, 20 to 20,000 cps. **Gain**: mic., 120 db; aux., 95 db. **Hum and Noise**: (below rated output) mic., 55 db; aux., 80 db. **Sensitivity**: mic., 4 mv.; aux., .4 v. **Output Impedance**: 4, 8 and 16 ohms; 25-volt line (45 ohms); 1 speaker socket and screw terminals. **Inputs**: 1 mic. (Hi-impedance); 2 aux. (Hi-impedance, Hi-level). **Tubes**: total of 4 (1 – 6AU6, 1 – 6V4, 2 – ECL86). **Tone Controls**: treble (10 kc) −15 db; bass (50 c) −17 db. **Dimen.**: 15¾'' W, 10'' D, 6¾'' H. **Ship. Wt.**: 15 lbs. **List Price: $75.00** (Zone 2: $77.25)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii are slightly higher.

LEAR SIEGLER, INC. LSi® *BOGEN COMMUNICATIONS DIVISION*

Trade Discount Applies To List Prices Only

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BOGEN
SOUND SYSTEMS

CHB10 . . . 10-WATT AMPLIFIER

An economy amplifier providing rugged dependability in all low-power applications . . . ideal for wired background music. Available with or without enclosure. **Power Output**: 10 w. **Power Consumption**: 50 w. **Frequency Response**: ±2 db, 40 to 12,000 cps. **Gain**: mic., 110 db; phono, 90 db. **Hum and Noise**: (below rated output) mic., 60 db; phono 75 db. **Sensitivity**: mic., 6 mv.; phono, .2 v. **Output Impedance**: 4, 8 and 16 ohms; 25-volt line (62 ohms); 1 speaker socket and screw terminals. **Inputs**: 1 mic. (Hi-impedance), 1 phono (Hi-impedance, Hi-level); provision for 500/600 telephone line input for wired background music. **Tubes**: total of 3 (1 - 12AX7/ECC83, 1 — 7868, 1 - 6V4/EZ80). **Tone Controls**: treble (10 kc) 24 db. **Dimen.**: 11¼" W, 8¼" D, 5¾" H. **Ship. Wt.**: Model CHB10, 12 lbs.; Model CHB10-LC (less cage), 10 lbs.

Model CHB10 **List Price: $64.75** (Zone 2: $66.50)
Model CHB10-LC (less cage) **List Price: $60.00** (Zone 2: $61.50)

see page 88 for accessories

CHB10

CHB PACKAGE SYSTEMS

CHB100T/outdoor system: 1 — CHB100 amplifier with tubes; 4 University PH trumpets, each with ID20 driver unit; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 105 lbs.
List Price: $449.50 (Zone 2: $467.00)

CHB100T-4/outdoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 113 lbs.
List Price: $487.25 (Zone 2: $505.25)

CHB50T/outdoor system: 1 — CHB50 amplifier with tubes; 2 University PH trumpets, each with ID20 driver unit; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship Wt.**: 65 lbs.
List Price: $281.25 (Zone 2: $292.10)

CHB50T-4/outdoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 73 lbs.
List Price: $319.00 (Zone 2: $330.35)

CHB1250T/mobile outdoor system: 1 — CHB1250 amplifier; 2 University PH trumpets with 2 ID30 driver units; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector.

CHB1250T-3/mobile outdoor system: same as above with 3-speed phonograph top (LPD-3).

CHB35P/portable system: 1 — CHB35 amplifier with tubes; 2 — 12" Alnico V PM speakers, each with 25-foot cable and plug, mounted in portable 2-piece speaker case which also accommodates amplifier; 1 Bogen-EV 727 ceramic mic. and stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 55 lbs.
List Price: $226.65 (Zone 2: $235.80)

CHB35P-4/portable system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 63 lbs.
List Price: $264.40 (Zone 2: $274.05)

CHB35B/indoor system: 1 — CHB35 amplifier with tubes; 2 — 12" Alnico V PM speakers, each with 25-foot cable and plug, mounted in hand-finished walnut wall baffles; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 47 lbs.
List Price: $200.50 (Zone 2: $208.35)

CHB35B-4/indoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 55 lbs.
List Price: $238.25 (Zone 2: $246.60)

CHB35T/outdoor system: 1 — CHB35 amplifier with tubes; 2 University PH trumpets, each with ID20 driver unit; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 59 lbs.
List Price: $263.75 (Zone 2: $273.60)

CHB35T-4/outdoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 67 lbs.
List Price: $301.50 (Zone 2: $311.85)

CHB14P/portable system: 1 — CHB14 amplifier with tubes; 2 — 12" Alnico V PM speakers, each with 25-foot cable and plug, mounted in portable 2-piece speaker case which also accommodates amplifier; 1 Bogen-EV 727 ceramic mic. and stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 51.5 lbs.
List Price: $181.75 (Zone 2: $190.35)

CHB14P-4/portable system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 59 lbs.
List Price: $219.50 (Zone 2: $228.60)

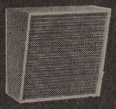
CHB14B/indoor system: 1 — CHB14 amplifier with tubes; 2 — 12" Alnico V PM speakers, each with 25-foot cable and plug, mounted in hand-finished walnut wall baffles; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 43.5 lbs.
List Price: $155.65 (Zone 2: $162.90)

CHB14B-4/indoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 51 lbs.
List Price: $193.40 (Zone 2: $201.15)

CHB14T/outdoor system: 1 — CHB14 amplifier with tubes; 1 University PH trumpet with ID20 driver unit; 1 Bogen-EV 727 ceramic mic. and stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 39 lbs.
List Price: $159.75 (Zone 2: $166.25)

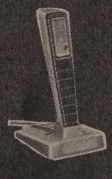
CHB14T-4/outdoor system: same as above with 4-speed phonograph top (LPC-4). **Ship. Wt.**: 47 lbs.
List Price: $197.50 (Zone 2: $204.50)

CHB10P/portable system: 1 — CHB10 (less cage) amplifier with tubes; 1 — 8" Alnico V PM speaker mounted in portable carrying case; 1 Bogen-EV 727 ceramic mic. with stand, 10-foot cable and MC1F connector. **Ship. Wt.**: 29 lbs.
List Price: $143.00 (Zone 2: $147.85)



12" Alnico V PM speaker mounted in hand-finished wall baffle

University PH trumpet



EV727 ceramic mic.

MX6A . . . MIXER-PREAMPLIFIER

Self-powered mixer and preamplifier; has provisions for mixing any combination of 4 of its 6 inputs, including 4 high impedance mic. inputs and 2 radio-phonograph inputs; can mix radio and/or phono signals with mic. signals for multi-microphone recordings of large groups and special recording effects. Ideal low-cost accessory for any PA amplifier with individual gain controls for each input channel; wide frequency response, low distortion and low hum; permits physical separation of MX6A from the amplifier of distances up to 400 ft. **Power**: 10 w., 117 v., 60 cps. **Frequency Response**: ±2 db, 50 to 15,000 cps. **Gain**: mic., 59 db; phono, 30 db. **Hum**: (below rated output) —70 db. **Output Impedance**: less than 1,000 ohms (cathode follower). **Input Impedance**: mic., .5 megohm; phono, .5 megohm. **Tubes**: total of 3 (2 — 12AX7, 1 — 12AT7). **Dimen.**: 8" x 5⅜" x 4¾". **Ship. Wt.**: 6 lbs. **List Price: $67.50** (Zone 2: $68.00)

MX6A

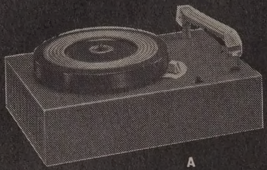
LEAR SIEGLER, INC.

BOGEN COMMUNICATIONS DIVISION

BOGEN SOUND SYSTEMS

PA AMPLIFIER ACCESSORIES FOR FLEX-PAK®, "MU" AND "CHB" SERIES

Maximum versatility, for all 3 Series of Bogen amplifiers, is assured by the wide-range of integrated accessories.


A

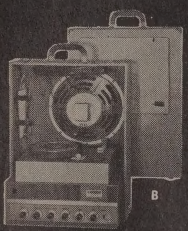
(A) MATCHING PHONO TOPS

LPC-4 Four-speed top with tone arm, cartridge, rubber turntable mat and built-in 45-rpm adapter. For use with: CHB14, CHB35, CHB50, CHB100, MU30 and MU15 amplifiers. **List Price: $37.75** (Zone 2: $38.25)

LPD-3 Three-speed top; same equipment as LPC-4. For use with: CHB1250 and MU50M amplifiers. **List Price: $49.00** (Zone 2: $49.80)

LPA-3 Three-speed top with tone arm, Ronette turnover cartridge, built-in 45-rpm adapter, mounting brackets and hardware. For use wth: M330 amplifier. **List Price: $49.90** (Zone 2: $50.65)

LPB-3 Three-speed top; same equipment as LPA-3. For use with: MX60, MX30, M60 and MXM. **List Price: $49.90** (Zone 2: $50.80)


B

(B) CARRYING CASES & SPEAKERS for portable systems.

With speakers installed, each half of split case acts as a baffle. Cases with speakers include 25-foot cable with plugs.

PC12 Carrying Case only. Accommodates the following amplifiers (with or without phono tops): MU50M, MU30, MU15, CHB100, CHB50, CHB35, CHB14 and CHB1250. **Dimen.:** 17¾" W, 12" D, 23¾" H. **Ship. Wt.:** 20 lbs. **List Price: $42.40** (Zone 2: $45.40)

PC12S Carrying Case with 2 — 12" Alnico V PM speakers. For use with same models as above. **Dimen.:** Same as PC12. **Ship. Wt.:** 25 lbs. **List Price: $81.10** (Zone 2: $84.85)

PC8 Carrying Case only. Accommodates the CHB10-LC **Dimen.:** 12¾" W, 9½" D, 13" H. **Ship. Wt.:** 10 lbs. **List Price: $44.90** (Zone 2: $46.40)

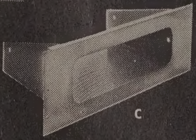
PC8S Carrying Case with 1 — 8" Alnico V PM speaker. Accommodates the CHB10-LC. **Dimen.:** Same as PC8. **Ship. Wt.:** 13 lbs. **List Price: $57.40** (Zone 2: $59.35)

LK12 Carrying Case only. Accommodates the M330. **Dimen.:** 16½" W, 15½" D, 19½" H. **Ship. Wt.:** 15 lbs. **List Price: $43.75** (Zone 2: $46.75)

LK12S Carrying Case with 2 — L123 speakers. Accommodates the M330. **Dimen.:** 16½" W, 15½" D, 19½" H. **Ship. Wt.:** 25 lbs. **List Price: $83.75** (Zone 2: $87.50)

LKP12 Carrying Case only. Accommodates the M330 with Phono Top. **Dimen.:** 16½" W, 15½" D, 21¾" H. **Ship. Wt.:** 16 lbs. **List Price: $49.25** (Zone 2: $52.55)

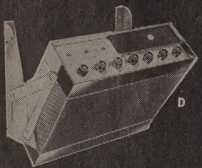
LKP12S Carrying Case with 2 — L123 speakers. Accommodates the M330 with Phono Top. **Dimen.:** 16½" W, 15½" D, 21¾" H. **Ship. Wt.:** 26 lbs. **List Price: $91.75** (Zone 2: $95.80)


C

(C) RACK PANEL MOUNTING KITS

with all hardware. When ordering kit, specify model number of amplifier or preamplifier to be mounted.

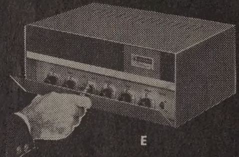
RPK-1 Kit for RP-2. **Dimen.:** 19" W, 7" H. **List Price: $17.40** (Zone 2: $18.30)
RPK-3 Kit for M330. **Dimen.:** 19" W, 7" H. **List Price: $21.90** (Zone 2: $23.10)
RPK-4 Kit for MX30, MX60, MXM, M60. **Dimen.:** 19"W, 7" H. **List Price: $21.90** (Zone 2: $23.10)
RPK-5 Kit for M030, M060, M0100. **Dimen.:** 19" W, 8¾" H. **List Price: $16.25** (Zone 2: $17.30)
RPK-13 Kit for CHB14. **Dimen.:** 19" W, 7" H. **List Price: $27.50** (Zone 2: $28.30)
RPK-14 Kit for CHB35, CHB50, CHB100. **Dimen.:** Same as RPK-13. **List Price: $27.50** (Zone 2: $28.20)
RPK-15 Kit for MU15. **Dimen.:** 19" W, 7" H.
RPK-16 Kit for CHB1250, MU50M, MU30. **Dimen.:** 19" W, 7" H.


D

(D) WALL-MOUNTING KIT

for use with M and MX amplifiers and MXM. Sets your equipment flat against wall when idle or at an angle for operation.

LWM Kit comes complete with all hardware, mounting template and instructions. **List Price: $18.75** (Zone 2: $19.20)


E

(E) CONTROL-GUARD LOCKING PLATES

protect your predetermined settings from tampering.

LK-1 for use with M330. **List Price: $13.10** (Zone 2: $13.40)
LK-3 for use with M330 when used on LWM wall mounting. **List Price: $16.25** (Zone 2: $16.70)
LK-2 for use with MX60, MX30, M60, MXM. **List Price: $13.75** (Zone 2: $14.05)
LK-4 for use with MX60, MX30, M60, MXM when used with LWM wall mounting. **List Price: $17.40** (Zone 2: $17.85)
LK-5 for use with CHB14, CHB35, CHB50, CHB100, CHB1250, MU50M, MU30, MU15. **List Price: $9.90** (Zone 2: $10.10)

F

(F) PLUG-IN TRANSFORMERS

for use with Bogen amplifiers.

Microphone Input Transformers:
- T155 (200 ohm) **List Price: $15.65** (Zone 2: $17.35)
- T156 (500 ohm) **List Price: $21.25** (Zone 2: $21.40)
- T157 (50 ohm) **List Price: $18.75** (Zone 2: $18.90)

Line Transformers
- T161 (500 ohm) **List Price: $16.25** (Zone 2: $16.40)
- T165B broadcast type (500 ohm) **List Price: $20.00** (Zone 2: $20.15)

WMT-1 WIRED MUSIC TRANSFORMER ASSEMBLY

for CHB10, provides 500/600 ohm telephone line input for wired music. **Dimen.:** 2" W, 1" D, 2½" H. **Ship. Wt.:** 1 lb. **List Price: $15.65** (Zone 2: $15.75)

CON-1 MICROPHONE CONNECTOR

For all Bogen amplifiers. **List Price: $1.98**

KR6 STANDBY CONTROLLER

lengthens amplifier life, reduces high-voltage power consumption. Plugs into M0100 and M060. **List Price: $40.00** (Zone 2: $40.45)

G

(G) REMOTE VOLUME CONTROL

allows mixing and fading of channels, adjusts amplifier volume from up to 2,000 feet away.

SR-2 for two channels. Use with CHB35, CHB50, CHB100, MU30, MU15, MX60, MX30, MXM. **Dimen.:** 6" W, 1¼" D, 3¼" H. **Ship. Wt.:** 2 lbs. **List Price: $13.75** (Zone 2: $14.05)

SR-4 for four channels. Use with MX60, MX30, MXM, MU30. **List Price: $19.90** (Zone 2: $20.35)

LEAR SIEGLER, INC. | *BOGEN COMMUNICATIONS DIVISION*

BOGEN
SOUND SYSTEMS

"VP" SERIES
PORTABLE TRANSCRIPTION PLAYERS

VP20 & VP40 – The ultimate in ready-to-play, portable, complete sound systems and transcription players.

Phono Mechanism: high-fidelity Bogen B50 turntable, noted for quality performance and silent operation; automatic tone arm cueing; continuously variable turntable speed from 29 to 86 rpm, plus four click-stop speed positions of 16, 33-1/3, 45 and 78 rpm; rubber turntable mat, removable for cleaning; heavy steel turntable accommodates up to 16″ records; separate phono motor power switch; tone arm comes complete with G.E. variable reluctance cartridge with dual sapphire-tipped styli; tone arm pressure adjustable; removable 45 rpm spindle adapter.

Amplifier: – **Power Output:** VP20 – 20 w. peak; VP40 – 40 w. peak. **Power Consumption:** VP20 – 90 w.; VP40 – 150 w. **Frequency Response:** ±1½ db, 50 to 15,000 cps. **Outputs:** VP20 – 2 speaker (8 ohms for 1 speaker, 2.5 ohms for 3); VP40 – 2 speaker (4 ohms for 2 speakers, 2 ohms for 4); tape recorder, monitor; aux. power receptacle (2.2 A.). **Inputs:** phono (internal connection), radio tuner (or tape recorder), 2 Hi-impedance microphones. **Tubes:** total of 5: VP20 (1 – 12AX7/ECC83, 1 – 7247, 2 – 6BQ5/EL84, 1 – EZ81); VP40 (1 – 12AX7/ECC83, 1 – 7247, 2 – 7355, 1 – GZ34). **Controls:** Master Power, Bass, Treble, Vol. Input 2, Vol. Mic. Input, Scratch Filter, Input 2 Selector (VP40 – Speech Filter).

VP20 in single portable case with heavy-duty 12″ speaker and 25′ cable mounted in removable cover. **Dimen.:** 16½″ x 15¾″ x 12¼″ (less handle and projections). **Ship. Wt.:** 40 lbs. **List Price: $187.90** (Zone 2: $193.05)

VP40 player and electronics in portable case, 2 heavy-duty 12″ speakers (with 2 25′ cables) mounted in portable "break-apart" case. **Dimen.:** (ampl./phono case) 18¼″ x 16½″ x 8½″ D; (speaker case) 16″ x 15¾″ x 11½″ D. **Ship. Wt.:** 55 lbs. (for 2 cases). **List Price: $273.25** (Zone 2: $280.20)
Accessories: SCC-12 Speaker Case (2 speaker units in "break-apart" case with 25′ cable for each speaker) 18 lbs. **List Price: $73.25** (Zone 2: $75.90); MON-1 Monitor Amplifier System (includes 10-watt high gain amplifier and 8″ Alnico PM speaker in carrying case). **List Price: $87.65** (Zone 2: $90.90). Several types of microphones are also available.

VP10 – budget-priced portable. **Phono Mechanism:** silent-operating, sturdy B41 record player with automatic motor start will play all records up to 12″ at 4 standard speeds (16, 33-1/3, 45 and 78 rpm).

Amplifier: wide-range 10-watt peak; speaker connector on front panel; power switch; bass & treble controls; volume controls for phono and microphone; input for mic. jack. **Tubes:** total of 4 (1 – 6AV6, 1 – EZ81, 1 – 12AX7, 1 – 7355). **Dimen.:** 15½″ x 14″ x 11½″. **Ship. Wt.:** 26 lbs. VP10 in single carrying case with 1 heavy-duty 12″ speaker and 25′ cable mounted in removable cover. **List Price: $129.10** (Zone 2: $133.10). Lectern Accessory LEC-1 is available.

"SA" SERIES
HIGH POWER INTERCOM-PAGING SYSTEM

The "SA" series — an ideal combination of selective paging and high power intercommunication. The 10-watt amplifier, in the SA master station, has provision for the connection of an external phonograph and radio tuner . . . makes an economical overall sound consolette. An external booster amplifier may be added. The master station may be set permanently for private or non-private operation (in private operation, no remote may be listened into unless desired).

Specifications for "SA" Series — **Power Output:** 10 w. **Power Consumption:** 70 w., 117 v., 50-60 cycles AC. **Tubes:** total of 4 (2 — 6SJ7, 1 — 6L6GA, 1 — 5Y3GT). **Dimen.:** 13¼″ W, 10¼″ D, 9″ H. **Ship. Wt.:** SA10 — 31 lbs., SA20 — 33 lbs., SA30 — 35 lbs., SA40 — 37 lbs.
Specifications for "IA" Annunciator Pedal Bases – **Dimen.:** IA10 & IA20 — 13¼″ W, 10¼″ D, 2½″ H; IA30 & IA40 — 13¼″ W, 10¼″ D, 5″ H. **Ship. Wt.:** IA10 — 10 lbs., IA20 — 12 lbs., IA30 — 23 lbs., IA40 — 25 lbs.

SA10 — Up to 10 remotes, with tubes **List Price: $194.88** (Zone 2: $200.05)
SA20 — Up to 20 remotes, with tubes **List Price: $228.00** (Zone 2: $233.50)
SA30 — Up to 30 remotes, with tubes **List Price: $257.25** (Zone 2: $263.10)
SA40 — Up to 40 remotes, with tubes **List Price: $287.25** (Zone 2: $293.45)
IA10 — Annun. Pedestal Base for SA10 **List Price: $ 81.65** (Zone 2: $ 83.30)
IA20 — Annun. Pedestal Base for SA20 **List Price: $123.40** (Zone 2: $125.35)
IA30 — Annun. Pedestal Base for SA30 **List Price: $179.00** (Zone 2: $182.75)
IA40 — Annun. Pedestal Base for SA40 **List Price: $220.75** (Zone 2: $224.85)
JU — Junction box (use 1 for each 10 remotes) **List Price: $8.36** (Zone 2: $8.66)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii are slightly higher.

VP40

VP20

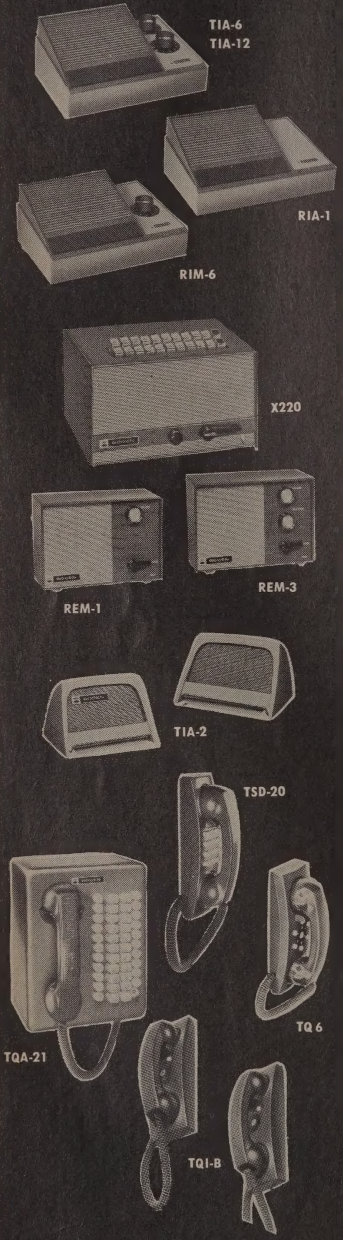
VP10

SA40

LEAR SIEGLER, INC.
BOGEN COMMUNICATIONS DIVISION

BOGEN
SOUND SYSTEMS

INTERCOMS



SERIES "T" INTERCOMS

Fully transistorized intercoms of unlimited flexibility, high intelligibility, simple installation and unique styling.

TIA-6 MASTER STATION (can call any other station). For systems up to 6 stations — all masters or one master plus remotes. Vol. control, talk-listen bar and 7-position selector (including "mute" and "all-call" positions). Operates from 117 v. AC; 7 w. power consumption, 8 ohm speaker impedance. **Dimen.:** 7¾" W, 7" D, 4" H. **Ship. Wt.:** 4 lbs. **List Price: $57.40** (Zone 2: $57.90)

TIA-12 MASTER STATION. For systems up to 12 stations. Similar to TIA-6 in design and operation but does not permit calling all stations simultaneously. **Dimen.** and **Ship. Wt.** same as TIA-6. **List Price: $63.75** (Zone 2: $64.25)

RIA-1 REMOTE STATION (can call only 1 pre-selected master and reply when called). Similar in appearance to TIA-6 with matching loudspeaker. **Dimen.:** same as TIA-6. **Ship. Wt.:** 3 lbs. **List Price: $17.40** (Zone 2: $17.55)

TIM-12 MASTER STATION. For intermix systems combining up to 12 masters and remotes in any combination. Same features as TIA-6 plus 12-position selector switch. Specifications, dimensions, and ship. wt.: same as TIA-6. **List Price: $78.40** (Zone 2: $78.90)

RIM-6 SELECTIVE REMOTE STATION (can call any of 6 pre-selected masters). Features, dimensions: same as TIM-12. **Ship. Wt.:** 3 lbs. **List Price: $39.00** (Zone 2: $39.50)

SERIES "X" INTERCOMS

Rugged utility intercoms, used in an 11 or 22 station system (all masters or mixed masters and remotes); featuring push-button convenience, high intelligibility, and simple installation; housed in steel cabinets. **Power Supply:** 117 v. AC, 35 w. **Output Impedance:** 50 ohms balanced. **Tubes:** 3 (1 — 12AX7, 1 — 6W6GT, 1 — 6X4). **Dimen.:** X120 & X220 — 10" W, 7½" D, 7" H.

X120 MASTER STATION can call up to 10 masters or remotes. 10 selector push-buttons, 60 ft. master cable ending in plug for solderless connections to junction box, complete with tubes. **Ship. Wt.:** 15 lbs. **List Price: $137.25** (Zone 2: $139.50)

X220 MASTER STATION can call up to 21 masters or remotes. 21 selector push-buttons, same features as X120. **Ship. Wt.:** 16 lbs. **List Price: $164.65** (Zone 2: $167.05)

REM-1 REMOTE with call-initiating switch to 1 master — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $28.75** (Zone 2: $29.15)

REM-3 REMOTE with selective call-initiating switch to 3 masters — with vol. control and 6-ft. cable. **Ship. Wt.:** 3 lbs. **List Price: $34.85** (Zone 2: $35.25)

TWIN-COM

TIB-2 TWIN-COM — 2-station battery-operated intercom, all-transistor, powered by 8 penlite batteries. Supplied complete with master, remote, 50 ft. of cable and battery box. **List Price: $49.95** (Zone 2: $50.80).

TIA-2 TWIN-COM — 2-station AC powered intercom. Same quality system as TIB-2. Supplied with master, remote, 50-ft. of cable, built-in AC power supply and plug. Operates on 117 v. **List Price: $54.95** (Zone 2: $55.85)

INTERNAL PHONE SYSTEMS

TSD BOGEN-PHONES — a unique and extremely flexible telephone system that provides private, multiple conversations without a costly central exchange. To call, lift phone, press selector button, then press ring button . . . buzzer sounds at called station . . . no switching, no dialing, no switchboard delay. System provides 100% trunkage; allowing many private, simultaneous conversations.

TSD-20 with 1 ring button and 19 selector station buttons. **Dimen.:** 9½" W, 3¼" D, 3¾" H. **Ship. Wt.:** 3½ lbs. **List Price: $53.25** (Zone 2: $53.60)

TSD-10 with 1 ring button and 9 station selector buttons. Same dimensions and ship. wt. as TSD-20. **List Price: $45.65** (Zone 2: $45.95)

TSD-1 single station remote with 1 ring button. **Dimen.:** 9½" W, 3¼" D, 3¼" H. **Ship. Wt.:** 3 lbs. **List Price: $33.25** (Zone 2: $33.55)

PRS-10 Power Supply (1 required for each telephone system). **List Price: $44.35** (Zone 2: $45.25)

TQ BOGEN-PHONES — low-cost telephone system. To call, lift phone, press station button . . . buzzer sounds at called station . . . bypassing the switchboard. Selective ringing with common talk line. Handset with base is 9½" x 3¼" x 3¼", weighs 5 lbs; comes supplied with 4' snarlproof cord and junction box.

TQ-1 (pair) for 2-station systems. **List Price: (pair) $51.45** (Zone 2: $52.05)

TQ-6 phone for up to 7-station system. **List Price: (each) $27.95** (Zone 2: $28.35)

TQ-12 phone up to 13-station system. **List Price: (each) $34.25** (Zone 2: $34.85)

PRS-1 Power Supply (1 required for each system) **List Price: $30.00** (Zone 2: $30.30)

TRA Phone-Page Adapter allows paging from Series TQ phones. **List Price: $42.20** (Zone 2: $42.50)

PRS-5 Multi-mix Power Adapter to combine TQ-12 or TQ-6 phones with trumpets and PA amplifier. **List Price: $147.37** (Zone 2: $148.25)

TQA ATTEND-A-PHONE System gives communication between a central location and each of a number of remote stations. May be used with TRA adapter for paging through amplifier and loudspeakers. Features: low-cost installation, easily expanded, simple to use, completely private.

TQA-21 Central Switchboard — master station with handset and 21 pushbuttons with signal lamps, signal bell and power supply which plugs into standard 110 v. AC outlet, 6' cables and plugs. **Dimen.:** 8½" W, 7½" D, 10¼" H. **Ship. Wt.:** 14½ lbs. **List Price: $270.25** (Zone 2: $271.10)

XQA-21 Expansion Board — used in connection with TQA-21 to provide switching facilities for additional 21 remote stations. No additional power equipment needed. **Dimen.:** 5¾" W, 5¾" D, 10¼" H. **Ship. Wt.:** 9 lbs. **List Price: $179.35** (Zone 2: $179.95)

TQX Remote Station Phone — composed of handset, coiled cord, base and junction box, which may be desk or wall mounted. **Dimen.:** 3¼" W, 3¼" D, 9½" H. **Ship. Wt.:** 4 lbs. **List Price: $31.85** (Zone 2: $31.95)

JB2 Junction Box (2 required for each TQA-21 and XQA-21). **List Price: $9.65** (Zone 2: $9.95)

TQ1-B TWIN-PHONE — 2-station battery-operated phone system. Requires 4 standard Type D Flashlight cells. Supplied complete with 2 instruments, 50' of cable, battery case and connectors. **List Price: $63.20** (Zone 2: $63.90)

All prices and specifications subject to change without notice. Zone 2 includes the states of Ariz., Ark., Cal., Col., Ida., La., Miss., Mont., Nev., N.M., Okla., Oreg., Tex., Utah, Wash. and Wyo. Alaska and Hawaii run slightly higher.

LEAR SIEGLER, INC.

LSi ®

BOGEN COMMUNICATIONS DIVISION

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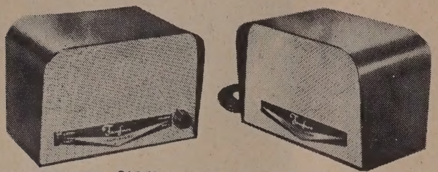
...the world's largest catalog
of electronic
products
sold through
distributors

The
Radio-Electronic
MASTER

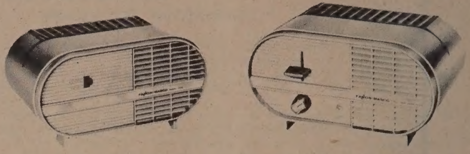
FANON-MASCO INTERCOMS

The complete intercom line styled for the modern office and home at economy prices.

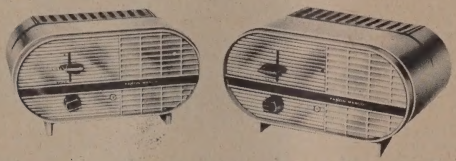
Excellent sensitivity and tonal quality. Each oval cabinet is 8¾'' x 4¾'' x 5¾'' deep of high impact styrene and are available in combination of beige, gold and black styling.



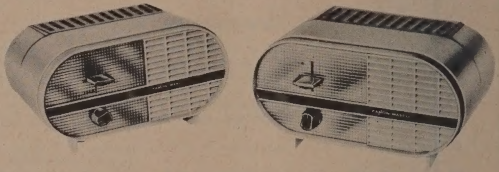
TAL, INTERCOM— $16.40 Economy, 2 station system, with 50 ft. cable. Remote is always open — no switch to operate. Smartly styled, metal cabinets—ideal for baby sitting and the home. Ready to operate—nothing more to buy. Gray only. Two Tubes. Weight: 6 lbs. Extra remote TR may be added: **$5.85**



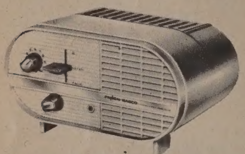
FX-2B TWIN—$23.90 Ultra-sensitive 2-station system with 50 ft. cable. Powerful amplifier picks up slightest noise. Three way Dictate-Talk-Listen switch. Remote has TALK-LISTEN switch to permit originating calls to master: Use it anywhere — home or business. Extra remote. FSB may be added: **$7.95** Weight: 6 lbs.

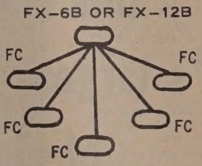


FW-50B Deluxe WIRELESS—$62.95 A complete 2 station system ready to operate. No wires—no installation—just plug into any AC or DC outlet. Four tubes plus silicon rectifier amplifier. Three way Talk-Listen Dictate switch. In brushed brass cabinets. Weight: 7 lbs. Model FW-51, additional single station for above, may be added. $32.25 4 lbs.



FW-40 Transistorized WIRELESS— $53.95 Economy 2-station wireless system plugs into any AC line. No wiring required. Instantaneous-no ''warm up'' necessary. 4 transistors. Three way talk-listen talk lock switch. Weight: 7 lbs. Model FW-41 additional single station to expand system $27.75 Weight: 4 lbs.





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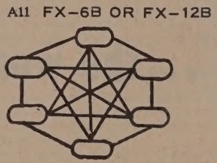
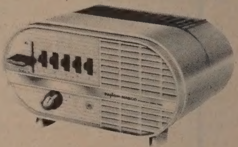
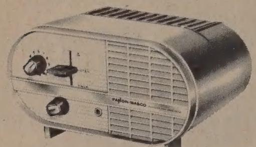
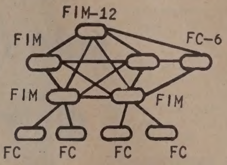


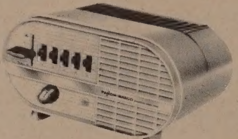


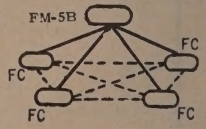
FX-12B MANAGER — $28.40 A dual purpose master for use with up to ten FC remotes, in a MASTER-TO-REMOTE system, or up to eleven masters in ALL MASTER system. Twelve position rotary selector switch with ''All-Call'' and ''Standby''. Dictate-Talk-Listen switch. Five private conversations may be held in an all master system. New: Masters can be non-private ''hands free'' operation. Weight: 4 lbs.

FX-6B EXECUTIVE—$23.90 A dual purpose master, for use with up to five FC remotes in a MASTER-TO-REMOTE system, or up to six masters in an ALL MASTER system. Five individual station selector switches. Dictate-Talk-Listen switch. In all master systems, 3 private conversations or conference of all stations may be held. Weight: 4 lbs.



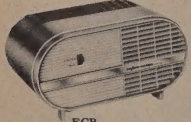




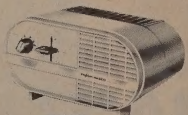


FIM-12B INTERMIX —$31.20 A deluxe twelve station intermix master which can be used in any combination of masters and/or remotes. Master has 3 position Talk-Listen-Dictate switch. Use in conjunction with two types of remotes: FC-6 which can selectively call any one of six masters, and FCB which can call only one master. Weight: 4 lbs.

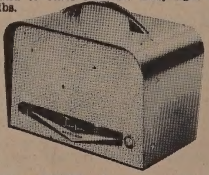
FM-5B MONITOR —$25.40 A master used with up to four FCB remotes in a MASTER-TO-REMOTE system. ''Switch-board'' feature provides direct remote-to-remote conversations. Master can monitor any or all remotes. Master can ''set-up'' remotes to monitor other remotes. Remotes can originate calls to master and to other remotes. Busy-light flashes during conversations. Weight: 4 lbs.



FCB



FC-6B



FCB, REMOTE —$8.40 Used in conjunction with **FM-5B, FX-6B, FIM-12B.**

FC-6B, REMOTE —$13.20 Six station selective remote used with **FIM-12B**

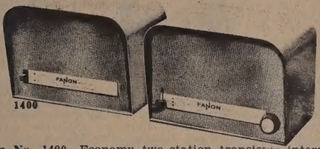
RB-1, BABY-COM— $14.95 A one-station, wire-less radio intercom. No installation, no wires required-merely plugs in to any AC or DC outlet and voice is heard through any radio (even car or battery radios). Ideally suited as a portable baby-sitter. Extremely sensitive, can be heard 300 ft. away. Blue & pink cabinets. Weight: 4 lbs.

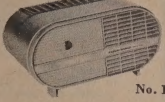
Prices shown are Dealer Net. Add 5% West of the Rockies.

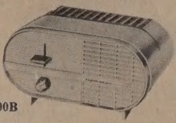
REFER TO CATALOG NO. 1 FOR COMPLETE SPECIFICATIONS ON ABOVE

FANON-MASCO ALL TRANSISTOR INTERCOMS

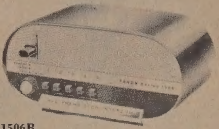
Handsome new line of transistorized Fanon intercoms that need no AC current and are battery operated. Special "battery saver" switch prolongs life for months. Batteries used only when talking. Features 4 transistors with push-pull output stage. Instantaneous operation—no warm up. Heavy-duty "talk-listen-standby" switch.







No. 1500B



No. 1506B

Fanon No. 1400—Economy two-station transistor intercom system. Ideal baby-sitter. Ivory and black only. 50′ of cable 6 lbs. Uses 4 penlite batteries. **$25.45**

Fanon No. 140—Additional remotes for 1400. 50′ of cable. 2 lbs. **$6.75**

Fanon No. 1500B—Deluxe two station transistor intercom in decorator style cabinets. Same features as 1400. 50′ of cable. 8 lbs. Uses 4 penlite batteries. **$29.95**

Fanon No. 152B—Additional remote for deluxe 1500A system. Complete with 50′ cable. Grey or tan. 2 lbs. **$7.95**

Fanon No. 1506B—(Not shown)—Six station master for use in All-Master. Master-to-Remote or Intermixed installations. Grey or tan. 4 lbs. **$29.95**

Fanon No. 1512B—Twelve station master for use in All-master, Master-to-Remote or Intermixed installations. Grey or tan. 4 lbs. **$32.95**

REMOTES FOR 1506B-1512B MASTERS

Fanon No. 156B—Remote with six station selector switch. 2 lbs. **$14.95**

Fanon No. 150B—Remote with call switch for private or non-private operation. **$9.60**

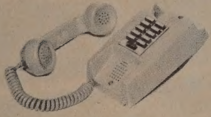
Fanon No. 151B—Remote for non-private operation only. 2 lbs. **$8.10**

FANON-MASCO TELEPHONE SYSTEMS

SELECTIVE TALKING
SELECTIVE RINGING

A complete line of telephone intercommunication equipment, designed to meet the needs of any home, office, factory and institution.

"88" SERIES PUSHBUTTON TELEPHONE SYSTEMS



Fanon-Masco's new telephone intercom system that provides multiple conversation lines (full trunkage) without a switchboard. Six, ten or single button masters may be intermixed within the system. Excellent voice quality and "soft tone" signalling. Sturdy high impact styrene construction in handsome beige with gold trim. Loud Buzzer optional. For wall or desk mounting. May be mounted to standard gem box for hidden wiring. Any multi-button master may be connected to an unlimited number of master or remote phones depending upon the situation requirement. Paging from any phone is possible with optional paging relay.

8811—An 11 station master telephone with 10 station buttons and one ringer button. With coiled cord and terminal box. **$38.95**

8807—A seven station master phone with 6 station buttons and one ringer button. With coiled cord and terminal box. **$31.50**

8801—Single station remote telephone for use with 6 or 10 button phones. Can ring one master only. With coiled cord. **$23.95**

PSA-88—12 volt DC power supply from 115 volt AC line to power above system. **$17.95**

PR-10—Special paging relay activated by a predesignated position on master phones that closes circuit to P.A. paging system. **$22.45**

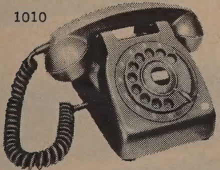
EB-88—Optional loud buzzer mounts inside phone, for noisy areas. **$2.25**

8820—Complete two station telephone system consisting of two telephones, 50 foot cable. Each operates on two standard "D" battery cells mounted inside the phone case. **$44.95**

SELECTIVE TALKING—SELECTIVE RINGING

1010 SERIES DIAL TELEPHONE SYSTEM

1010



Deluxe, precision-made telephones that permit as many separate simultaneous conversations as there are pairs of telephones in an all-master system. Conference calls possible. Up to 11 master phones or 1 master with 10 subs per installation. Masters and remotes may be intermixed. Supplied with junction cable and terminal box.

1010—Master dial telephone **$44.95**

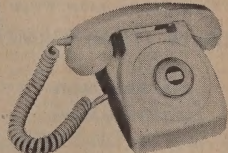
1010W—Wall mount master dial telephone **$52.50**

101—Sub station telephone **$28.50**

101W—Wall mount substation telephone **$31.50**

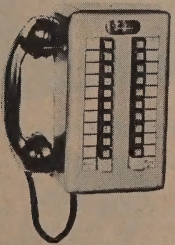
PSA-88—115v. AC power supply for above phone. **$17.95**

PR-10—Special paging relay activated by a predesignated position on master phones that closes circuit to P.A. paging system. **$22.45**



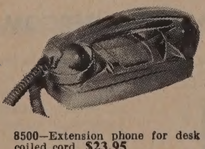
101

20 STATION SYSTEM, WITH SWITCHBOARD — IDEAL FOR BOWLING ALLEYS, MOTELS, HOSPITALS, AND SCHOOLS



FTS-20

FTS-20—A 20 line manual exchange which features selective ringing and a selective talking circuit—assures complete privacy. Each of the twenty push-buttons on the switchboard have busy-lamps as well as a buzzer (which may be shut-off). Stations call switchboard by lifting receiver. The switchboard may arrange for conferences between two or more substations, although only one private conversation may take place at a time. Size of FTS-20: 10½ x 9½ x 3¾" deep. Simple installation requires only 2 wires from each phone to switchboard. For more extensive installations, one FTS-20 switchboard may be ganged with one or two XT-22 extension boards to provide for a total of 42 stations or 64 stations.

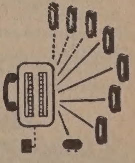


FTS-20............................**$179.95**
XT-22............................**$164.95**

PS-20—Transformer operated power supply. One required per installation. **$74.95**

8500—Extension phone for desk or wall use, molded in high impact polystyrene, with convenient coiled cord. **$23.95**

SW-85—Selector switch used with each 8500 telephone when two FTS-20's are used. **$3.75**



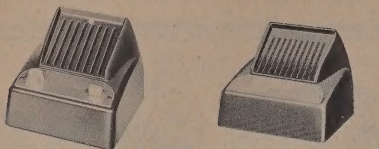
System can be expanded to 42 or 64 intercom stations.

Prices shown are Dealer Net. Add 5% West of the Rockies.

COMPLETE LINE OF PAX SWITCHBOARDS SHOWN ON LAST FANON PAGE

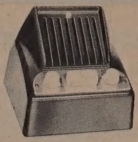
REFER TO CATALOG NO. 5 FOR COMPLETE SPECIFICATIONS ON TELEPHONES

FANON-MASCO INDUSTRIAL INTERCOMS

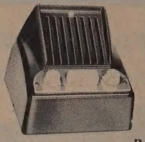


DELUXE JMR—Highly sensitive two-station intercom system in heavy duty die-cast metal cabinets with **durable enamel** finish. Rugged pushbar talk-listen switch on both master and remote. Remote can answer "hands free", or be completely private. Volume control and pilot light on master. 7½" x 6¾" x 5½" high. Weight of 2 station system with 50' of cable: 10 lbs. **$39..80**

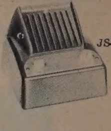
MODEL JR—Additional remote station for above. Weight: 5 lbs. **$11.35**



MF-5



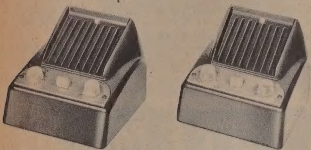
MF-10

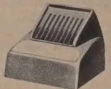


JS-6

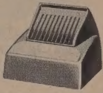
INTERMIXED SYSTEM MASTERS **BALANCED LINE**

Model **MF-5** six station master and MF-10 eleven station master units for use in combination with other remotes or other masters. Heavy duty, "big job" masters of die-cast metal in **durable enamel** Each has station selector switch, volume control and push-bar "talk-listen" switch. In an eleven station all-master system up to five separate conversation lines are available. A master may be called even though it is turned off. Cabinet size: 7½" x 6¾" x 5½". Weight per unit: 7 lbs. MF-5 six station master **$41.25** MF-10 eleven station master **$46.80**





JL



JR

SIX AND ELEVEN STATION MASTERS—IJM-5 and IJM-10. These famous dual-purpose masters are designed for both master-to-remote and master-to-master operation. No modification is required as units have built-in switch for immediate conversion. Heavy duty die-cast cabinets in **durable enamel** finish. **IJM-5** can be used with up to 5 other masters or remotes. **IJM-10** for use with up to 10 other masters or remotes. IJM-10 all-master system can carry on up to 5 separate conversations at the same time. Any master can be called even if its power is off. All have station selector switch, volume control and pushbar "talk-listen-lock" position. A paging horn can be added. Size each: 7½" x 6¾" x 5½".

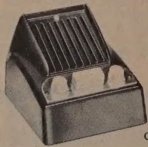
IJM-5 six station master **$33.00**

IJM-10 eleven station master **$38.25**

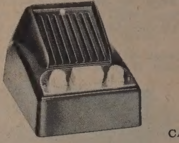
REMOTES FOR USE WITH ABOVE IJM-5 and IJM-10

JL remote, less talk-listen switch. Weight: 3½ lbs. **$10.65**

JR remote, with talk-listen switch. Weight: 3½ lbs **$11.35**



CAM-5



CAM-10

INTERMIXED SYSTEM MASTERS

AC POWER TRANSFORMER **BALANCED LINE**

MODEL CAM-5 six station master and **CAM-10** eleven station master similar to above but with higher audio power output and AC power transformer.

CAM-5 six station master weight: 7 lbs. **$51.75**

CAM-10 eleven station master weight: 7 lbs. **$57.75**

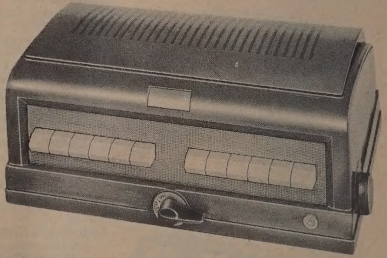
REMOTES

MODEL JL remote, less talk-listen switch. Weight: 3½ lbs. **$10.65**

MODEL JS remote, with talk-listen switch. Weight: 3½ lbs. **$13.75**

MODEL JS-6 six-station selective remote to call up to six masters in system. Talk-listen switch. Weight: 3½ lbs. **$22.70**

7 and 13 Station BALANCED LINE Masters

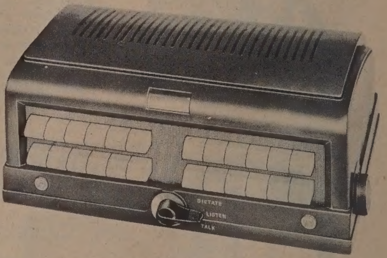


A completely flexible system designed for most comprehensive installations. The Model JMP-6B accommodates up to six master or remote stations and the Model JMP-12B can handle up to twelve additional masters or remotes. The masters can call any of the remotes in the system at the same time and can also page and receive replies from paging horns. Conferences can be arranged between masters and up to 6 separate conversation lines are available in a 13 station master-to-master system. Cabinet is heavy-duty die-cast metal with durable grey enamel finish. Size overall: 13" x 8½" x 5⅛" high.

JMP-6B Seven station master. Weight; 10½ lbs. **$71.70**

JMP-12B Thirteen station master. Weight: 10½ lbs. **$77.60**

AC POWER TRANSFORMER BALANCED INTERMIX SYSTEMS



MODEL AC-12B 13 Station Master.

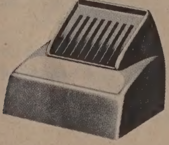
MODEL AC-24B 25 Station Master.

The Electronic Master stations can be used in all three types of installation. Up to 25 masters can be used in an all-master system and up to 156 stations when combining masters and remotes. Rugged pushbutton selector switches provide conference facilities and there can be as many separate conversations as there are masters in the system. Has all the flexibility and features of the above plus a higher audio output and AC powered circuit. Busy signal light flashes when station called is occupied

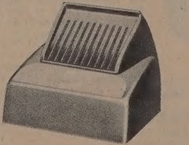
MODEL AC-12B Thirteen station. Weight: 12½ lbs. **$108.60**

MODEL AC-24B Twenty-five station. Weight: 12½ lbs. **$126.75**

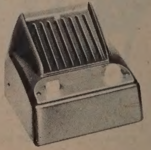
REMOTES FOR ABOVE BALANCED LINE MASTER INTERCOM SYSTEMS



MODEL JL – Rugged die-cast metal cabinet, durable grey enamel finish. 7½" x 6¾" x 5½". Less talk-listen switch. **$10.65**



MODEL JS—Handsome die-cast metal cabinet. durable grey Complete with talk-listen switch. Size: 7½" x 6¾" x 5½". **$13.75**



MODEL JS-6 - Selective remote with a six position master selector switch. Die-cast cabinet, durable grey 7½" x 6¾" x 5½". **$22.70**

REFER TO CATALOG NO. 2 FOR COMPLETE SPECIFICATIONS ON INDUSTRIAL INTERCOMS

© U.C.P., Inc.

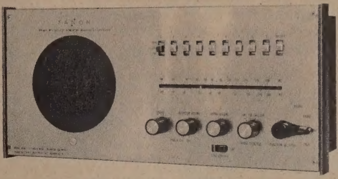
FANON-MASCO FLUSH-WALL INTERCOMS

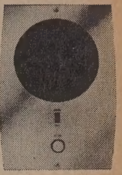
AM/FM, MUSIC AND INTERCOM SYSTEM FOR HOME

FANON MASCO 5509 Master provides up to nine remotes for AM or FM reception plus phono music or voice. Input accommodates record player or tape recorder Highly sensitive and selective AM and FM tuners and wide band noise free amplifier rated at 2 watts. AFC on tuner with AFC-OFF switch for tuning weak stations. Master and remote can call each other at any time. Remotes can call each other by switching at master. Master may monitor all remotes Each remote has volume control. Satin chrome or copper front panel: 15¼" x 7" x 1". Rough-in dimensions: 13⅞" x 5⅞". Ship wt.: 12½ lbs. **$104.95**

MODEL 56 INDOOR REMOTE—High styled indoor remote with talk-listen switch and volume control. Five inch speaker. Satin chrome or copper finish. 6" x 8½". Rough-in dimensions: 4⅞" x 8". Ship wt.: 2½ lbs. **$9.75**

MODEL BD OUTDOOR REMOTE—Weatherproof gasket sealed Weatherized speaker. Remote can originate call to master. Durable copper enamel finish. 4¾" x 6¾". Rough-in dimension: 3⅞" x 5¼". Ship wt.: 2 lbs. **$5.95**
BDR REMOTE same as above with pushbutton. **$7.50**



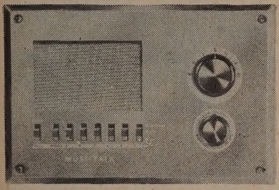


COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 55EK . . . 1 master, 3 Model 56 indoor remotes, 1 Model BD outdoor remote, hardware. Ship wt.: 24 lbs. **$119.95**

FANON MASCO 551K . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable for 55EK. Ship wt.: 8 lbs. **$14.95**

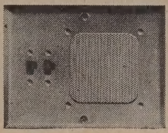
MUSI-TALK AM RADIO AND INTERCOM SYSTEM



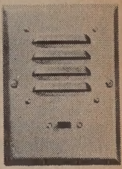
MC — MASTER CONTROL

FANON MASCO MC, MASTER CONTROL
A six tube, six-station master from which you may converse with any or all remotes. The master can "set-up" two or more remotes for **direct communication** with one another. "Monitor" feature enables master and remotes to eavesdrop any other locations. Powerful printed circuit radio can be "piped" to as many rooms as desired. Simultaneous radio and intercom operation is featured. Stylish satin copper panel is 11" x 7¾". **$52.50** Rough-in dimensions: 5½" x 10¼" x 3½".

FANON MASCO MCL, MASTER CONTROL
Has all the intercom features listed above, less the radio. A phono input jack enables you to plug in any external music source for complete muisc distribution. **$32.95**



BC — REMOTE



BD — REMOTE

BC, INDOOR REMOTE—Four indoor remotes provide instant 2-way conversation among themselves and the master, as well as radio-music throughout the home. Remotes can originate calls to the master, or to other remotes. Remotes may also "monitor" any other locations. Talk-Listen switch and Privacy switch. Satin copper panel is 6¼" x 4¾". **$5.95**

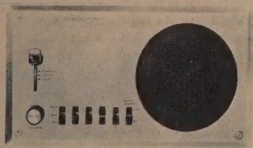
BD, DOOR REMOTE—Has weatherproof rubber gasket and "weatherized" speaker to withstand all types of weather. Door remote can originate calls to the master and any indoor remote. Enables you to answer the door from within the house and to "pipe" music to the porch or patio. Copper finish panel 6¾" x 4¾", **$5.95** BDR outdoor remote w/pushbutton **$7.50**

FANON MASCO EK (**Electronic Kit**) — Consists of 1 MC Master Control, (with radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. **$62.95**

FANON MASCO EKL (**Electronic Kit**) — Consists of 1 MCL Master Control, (less radio), 3 BC Indoor Remotes, 1 BD Door Remote and hardware. **$44.95**

FANON MASCO IK (**Installation Kit**) — Consists of 1 master plaster box, 4 remote plaster boxes, 200 ft. of wire and hardware. This installation kit is used in conjunction with either the EK or EKL electronic kits. **$11.95**

TRANSISTORIZED SIX STATION INTERCOM SYSTEM



COMPLETE SYSTEM CONSISTS OF:

FANON MASCO 44EK . . . One master, 3 model BC indoor remotes, 1 model BD outdoor remote, hardware. Ship wt.: 13 lbs. **$42.60**

FANON MASCO 441K . . . . complete installation kit of rough-in materials, plaster rings, 200 feet of cable. Ship. wt.: 5 lbs. **$11.25**

FANON MASCO 4405 —Built-in and battery operated the master provides for up to five remotes. Complete two-way communication from master to all remotes or master can set up remote to remote. Long battery life when master is in "standby" since no battery drain occurs until signalled with "beep" tone from remote. "Battery saver" switch limits drain when in monitor or baby-sitting position. Music can be added to system, by plugging radio or phono into jack on BJ remote. Satin chrome or copper front panel: 10½" x 5¾". Rough-in dimensions: 9⅝" x 4½" x 3½". Ship wt.: 5 lbs. **$35.25**

MODEL BC INDOOR REMOTE—Remotes may originate calls to master or monitor other remotes. Talk-listen switch and "privacy" switch. Satin chrome or copper finish panel: 6¼" x 4¾". Rough-in dimensions: 5¼" x 3⅞" x 2". Ship wt.: 2 lbs. **$5.95**

MODEL BJ REMOTE same as above with phono jack to add music source. **$8.95**

MODEL BD OUTDOOR REMOTE—Weatherized speaker in gasket sealed cover. Remote can call master. Baked copper enamel finish. 4¾" x 6¾". Rough-in dimensions: 3⅞" x 5½". Ship wt.: 2 lbs. **$5.95** **BDR** same w/pushbutton. **$7.50**

CENTRAL AMPLIFIER INTERCOM SYSTEM

Economical system requires only one central amplifier for all masters and remotes installed. Each master can accommodate 9 remotes and any combination of up to 6 masters and 24 remotes can be used in system. Masters can contact any station in the system with private conversation between masters.

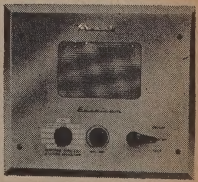
FANON MASCO MODEL 1109 —master accommodates up to five masters and four remotes. Selective switch, volume control and talk-listen-"pickup" lever. Gold baked enamel panel: 10½" x 9¼". Rough-in dimensions: 8⅝" x 7⅞". Ship wt.: 4½ lbs. **$28.10**

FANON MASCO MODEL 11A **CENTRAL AMPLIFIER** for all masters and remotes in system. Can be installed in closet or out of the way. ON-OFF switch and volume control for all stations. Gold enamel finish panel: 10½" x 9¼". Rough-in dimensions same as 1109 master. Ship wt.: 8½ lbs. **$44.95**

MODEL BCL INDOOR REMOTE less talk-listen switch. Specs same as BC remote. **$5.55**

MODEL BDL OUTDOOR REMOTE, L/talk-listen switch. Specs same as BD remote. **$5.55**

MODEL BDLR OUTDOOR REMOTE WITH BELL BUTTON 1/talk-listen switch. Specs same as BDR. **$7.05**



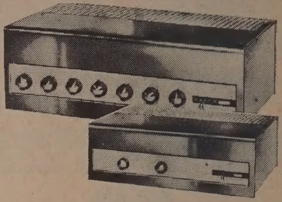
REFER TO CATALOG NO. 6 FOR COMPLETE SPECIFICATIONS ON FLUSH-WALL INTERCOMS

FANON-MASCO

PA AMPLIFIERS AND SYSTEMS

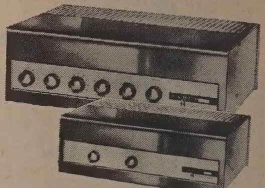
Featuring a wide-range of low distortion amplifiers for continuous-duty operation. All units incorporate point-to-point wired circuits and concealed tamperproof output and input connectors. Booster amp. output jack. All amplifiers and boosters suitable for rack mounting.

FANON MODEL 3370 — 70 WATT AMPLIFIER



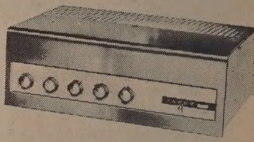
A dramatic new concept in high-power amplifier design that defies comparison in its class. Push-pull output circuit with negative feed-back and fixed bias circuit on the power output stage.
Power Output, (Rated): 70 watts at less than 4% distortion. **Peak Power Output** (Music Wave-Form Rating): 100 watts. **Frequency:** 20 to 20,000 cps. ±1 db. **Regulation: 70** volt line, no load-full load, 3 db at 1 kc. **Inputs: 4 microphone,** 2 phono (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 130 db microphone, 95 db phono. **Input Sensitivity:** Microphone 4 millivolts (magnetic low impedance 0.5 millivolts), phono 0.3 volts. **Hum and Noise:** Fundamental —75db, microphone —58db, phono —70db. **Tone Control: Bass:** 17 db boost at 50 cps, 14 db cut at 50 cps. Treble: 14 db boost at 15 kc. 15 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (7) 4 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 2 hum-buck. adj., 1 bias adj., 1 slide switch for magnetic cartridge input. **Power Consumption:** 200 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—6AV6, 1—7199, 1—5AR4/GZ34, 2—6CA7/EL34, 1—6CA4/EZ81, and 1 silicon rectifier. **Shipping Weight:** 32 lbs. **Dimensions:** 18⅝", 11⅛", 6¾" H. **$104.95**
MODEL 3070 70 watt **BOOSTER AMPLIFIER:** similar to above less microphone and tone controls; single high impedance input (sensitivity ½ volt input at full output). Volume and on-off controls. **$89.95**

FANON MODEL 3345 — 45 WATT AMPLIFIER



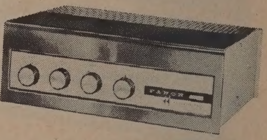
Here's a high powered audio amplifier that meets the most exacting standards. This compact, quality-engineered unit has the advanced push-pull circuit with negative feed-back and fixed bias circuit on the power output stage. **Power Output:** (Rated): 45 watts at less than 3.5 distortion. **Peak Power Output** (Music Wave-Form Rating): 52 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 70 volt line, no load-full load, 3 db at 1 kc. **Inputs:** 3 microphone, 2 phono (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 127 db microphone, 92 db phono. **Input Sensitivity: Microphone** 4 millivolts (magnetic low impedance 0.5 millivolts), phono 0.3 volts. **Hum and noise:** Fundamental —75 db, microphone —58 db. phono —69 db. **Tone Control:** Bass: 17 db boost at 50 cps, 14 db cut at 50 cps. Treble: 14 db boost at 15 kc, 15 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced and 200Ω balanced. **Controls:** (6): 3 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 1 slide switch for magnetic cartridge input, 2 hum-buck. adj., 1 bias adj. **Power Consumption:** 130 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—7199, 2—6L6-GC, 1—5AR4/GZ34 and 1 silicon rectifier. **Shipping Weight:** 26 lbs. **Dimensions:** 17⅛" W. 11⅛" D, 6¼" H. **$83.95**
MODEL 3045 45 watt **BOOSTER AMPLIFIER**: similar to above less microphone and tone controls: single high impedance input (sensitivity ½ volt input at full output). Volume and on-off controls. **$70.45**

FANON MODEL 3335 — 35 WATT AMPLIFIER



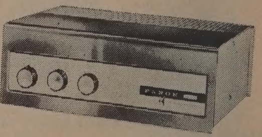
Dynamically styled medium-high power unit featuring the same advanced circuitry found in the 70 and 45 watt amplifiers. Push-pull output with negative feed-back for improved stability.
Power Output (Rated): 35 watts at less than 4% distortion. **Peak Power Output** (Music Wave-Form Rating): 40 watts. **Frequency Response:** 30 to 20,000 cps. ±1 db. **Regulation:** 70 volt line, no load-full load, 4 db at 1 kc. **Inputs:** 2 microphone, 2 phon (fader control). 1 microphone input convertible for phono magnetic cartridge. **Gain:** 125 db microphone, 90 db phono. **Input Sensitivity:** Microphone 3 millivolts (magnetic low impedance 0.5 millivolts), phono 0.25 volts. **Hum and Noise:** Fundamental —78 db, microphone —58 db, phono —70 db. **Tone Control:** Bass: 17 db boost at 50 cps, 16 db cut at 50 cps. Treble: 13.5 db boost at 15 kc, 12.3 db cut at 15 kc. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls** (5): 2 microphone volume, 1 phono-radio fader, 1 bass, 1 treble with AC switch, 1 slide switch for magnetic cartridge input, 1 hum-buck. adj., 1 bias adj. **Power Consumption:** 115 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 1—6AV6, 1—5AR4/GZ34, 2—6L6-GC, 1 selenium rectifier. **Shipping Weight:** 24 lbs. **Dimensions:** 17⅛" W, 11⅛" D, 6¼" H. **$68.95**

FANON MODEL 3320 — 20 WATT AMPLIFIER



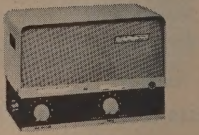
Ruggedly constructed advanced design amplifier ideally suited for medium power applications. Same push-pull negative feedback circuit found in higher power FANON amplifiers .Continuous heavy-duty performance dependability.
Power Output (Rated): 20 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 25 watts. **Frequency Response:** 20 to 20,000 cps. ±1 db. **Regulation:** 70 volt line; no load-full load, 3 db at 1 kc. **Inputs:** 2 microphone, 2 phono (fader control). **Gain:** 123 db microphone, 88 db phono. **Input Sensitivity:** Microphone 3 millivolts, phono 0.32 volts. **Hum and Noise:** Fundamental —78 db, microphone —57 db, phono —72 db. **Tone Control:** Treble cut: 2,500 cps. at 3 db; 10,000 cps. at 12 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50Ω unbalanced or 200Ω balanced. **Controls:** (4) Two microphone volume, one phono-radio fader, One tone with AC switch, one bias adjustment. **Power Consumption:** 70 watts at 117 volts, 60 cps. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one selenium rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. **$55.50**

FANON MODEL 3310 — 10 WATT AMPLIFIER



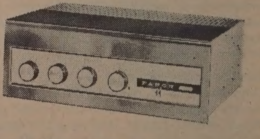
A new concept in engineering design for limited power output amplifiers. Economically priced high gain unit for continuous service in music, PA, or paging. Compactly constructed.
Power Output (Rated): 10 watts at less than 5% distortion. **Peak Power Output** (Music Wave-Form Rating): 14 watts. **Frequency Response:** 30 to 20,000 cps. ±2 db. **Regulation:** 70 volt line, no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 2 phono (fader control). **Gain:** 120 db microphone, 85 db phono. **Input Sensitivity:** Microphone 4 millivolts, phono 0.3 volts. **Hum and Noise:** Fundamental —75 db, microphone —56 db, phono —70 db. **Tone Control:** Treble cut: 2,500 cps. at 3 db; 10,000 cps. at 13 db. **Output Impedance:** 4, 8, 16Ω. 70 volt line. **Input Impedance:** High impedance 0.5 megohms, convertible to low impedance by use of screw-on input transformer for 50 ohms unbalanced or 200 ohms balanced. **Controls:** (3) One microphone volume, one phono-radio fader, One tone with AC switch. **Power Consumption:** 60 watts at 117 volts, 60 cps. **Tubes:** 1—12AX7/ECC8x, 1—6V4/EZ80, 1—6L6-GC. **Shipping Weight:** 13½ lbs. **Dimensions:** 13½" W, 10¼" D, 5¼" H. **$41.95**

FANON MODEL 3308 — 8 WATT AMPLIFIER



Dependable, economy model amplifier for limited power output applications. Made available less cage, (cage optional).
Power Output (Rated): 8 watts at less than 5% distortion. **Peak Power Output:** (Music wave form): 12 watts. **Frequency Response:** 100 to 15kc cps ±2 db. **Regulation:** 70 volt line, no load to full load, 3 db at 1,000 cps. **Inputs:** 1 microphone, 1 phono **Gain:** 120 db mic., 85 db phono. **Input Sensitivity:** Microphone —4 millovolts, phono —0.3 volts. **Hum and Noise:** Fundamental —70 db. Microphone —52 db, Phono —65 db. **Tone Control:** Treble cut is 3 db at 3,000 cps and 12 db at 10,000 cps. **Output Impedance:** 4 ohms, 8 ohms and 70 volt line. **Input Impedance:** High impedance 0.5 megohms. **Controls:** One mic., one phono volume, one tone control with "on-off" switch, one hum adjust (factory adjusted). **Power Consumption:** 60 watts at 117 volt AC. **Tubes:** 1—12AX7, 1—6V4/EZ80, 1—6L6-GC. **Shipping Weight:** 13½ lbs. **Dimensions:** 10¾" x 6¾" 6". **$34.50**
MODEL CG-8—Cage only for above amplifier. (shown in illustration). **$5.40**

FANON MODEL 3220 SPECIAL BACKGROUND MUSIC AMPLIFIER—20 WATTS



Especially designed 20 watt amplifier with a 600 ohm balanced input for background music operation with a high impedance, single-ended microphone input. Each channel is regulated by separate volume controls. Engineered for dependable service where music is desired in commercial and industrial establishments, the Model 3220 fills every medium power need. The same push-pull negative feed circuit used in higher power Fanon P.A. amplifiers is employed.
Power Output: (Rated): 20 watts at less than 5% distortion. **Peak Power Output:** (Music wave form rating): 25 watts. **Frequency Response:** 20 to 20,000 cps, ±1 db. **Regulation:** 70 volt line; no load-full load, 3 db at 1 kc. **Inputs:** 1 microphone, 1 background music. **Gain:** 123 db microphone, 52 db for background music. **Input Sensitivity:** Microphone 5 millivolts, 0.3 volts music. **Hum and Noise:** Fundamental —78 db, microphone —57, music —58. **Tone Control:** Bass is 16 db boost at 50 cps, 14 db cut at 50 cps. Treble is 17 db boost at 15 kc, 17 db cut at 15 kc. **Output Impedance:** 4, 8, 16, 70 volt line (245 ohm). **Input Impedance:** Mic impedance 0.5 megohms convertible to low impedance with screw-on transformer for 50 ohm unbalanced or 200 ohm balanced. Background music is 600 ohms balanced. **Controls:** 1 microphone volume, 1 music volume, 1 bass, 1 treble with AC switch. **Power Consumption:** 70 watts at 117 volts, 60 cycles AC. **Tubes:** 2—12AX7/ECC83, 2—7189A, 1—6CA4/EZ81 and one silicon rectifier. **Shipping Weight:** 14 lbs. **Dimensions:** 13½" W x 10¼" D x 5¼" H. **Fuse:** 1 amp. **$55.50**

REFER TO CATALOG NO. 3 FOR COMPLETE SPECIFICATIONS ON PA AMPLIFIERS & SYSTEMS

Prices shown are Dealer Net. Add 5% West of the Rockies.

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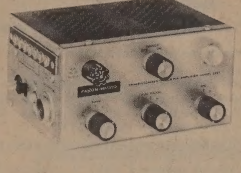
FANON-MASCO

PA AMPLIFIERS AND SYSTEMS

TRANSISTORIZED MOBILE AMPLIFIERS

Versatile, fully-transistorized mobile amplifiers ideally suited for continuous duty by Civil Defense, police, fire and other civic organizations where compact quality audio power is required. Their design and performance is unexcelled for every portable PA operation for carnivals, sporting events, yachting, buses and general mobile application.

MODEL 3527 27 WATT MOBILE AMPLIFIER

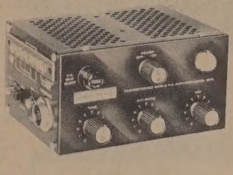


Exceptionally compact transistorized mobile amplifier for dash or glove compartment mounting where a high audio power is required. Operates on 12 volts DC with very low current drain in standby. Can be used with a 12 volt power supply from 110 volt AC. Complete with mounting fixtures. This unit is finished in black and satin chrome.

Power Output—27 watts at less than 10% distortion @ 1 kc. **Frequency Response:** 150 cycles to 10 kc. 3 db. **Inputs:** 1 microphone, 1 X-tal phono, 1 radio input (fed from radio receiver voice coil). **Gain:** 110 db—microphone; phono 70 db. **Input Sensitivity:** low impedance microphone (50-2,000 ohms) 0.5 millivolts for full output X-tal Microphone 3 millivolts full output. X-tal Phono 0.5 volts for full output. Radio 0.25 volts—for full output (from voice coil 3.2—16 ohms). **Hum** and **Noise:** 70 db.—below full output. **Tone Control:** Max. treble position—10 db, down at 4 kc. **Output Impedance:** 4, 8, 16 ohms. **Input Impedance**—Microphone 2,000 ohms, (aux), 50 K. ohms radio 3.2—16 ohms. **Controls:** (5): Microphone volume, radio or phono volume (mike-input may be mixed with radio or phono input), tone control, power on-off switch, radio-aux. selector slide switch (interaction between controls less than 1 db). **Power Consumption:** 3.5 amps @ 12.6 V for 27 watts output. **Transistors:** 2—2N408; 3—2N669. **Cable Connectors:** (not supplied) Microphone—Amphenol Plug #91-MC4M, phono—RCA type phono plug (Cinch-Jones #13A). Power plug and 7′ cable with battery clamps supplied. **Dimensions:** 6½″ W, 3⅛″ H, 4⅝″ D. **Shipping Wt:** 4 lbs. **$62.95**

Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **$37.50**

MODEL 3512 12 WATT MOBILE AMPLIFIER

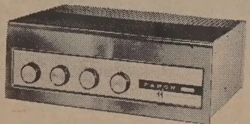


High power in a small package! Here's a fully transistorized mobile featuring high gain and a minimum of distortion. Can be used with 12 volt power supply from 110 volt AC.

Power Output (Rated): 12 watts at less than 10% distortion. **Frequency Response:** 150 cycles—10 kc, 3 db down. **Inputs:** One microphone, one X-tal phono, (aux.) radio input (to be fed from radio receiver voice coil). **Gain:** Microphone 105 db, phono 65 db. **Input Sensitivity:** Low impedance microphone (50-2000 ohms). 0.5 millivolts for full output. X-tal microphone 3 mv for full output. X-tal phono 0.5 volts for full output. **Hum and Noise:** 70 db below full output. **Tone Control:** Max. treble position: 10 db. down at 4 kc, 3 db down at 1.5 kc.**Output Impedance:** 4, 8 and 16 ohm. **Input Impedance:** Microphone 2000 ohms, Phono 50 K ohms, Radio 3.2—16 ohms. **Controls** (5): Microphone volume, aux. radio volume, tone control, power on-off switch, radio-aux. selector slide switch, (interaction between controls less than 1 db). **Power Consumption:** 24 watts at 12.6 volts (2A) for 12 w. output. **Transistors:** Two—2N408, one—2N669, two—3577. **Cable Connectors:** (not supplied) Microphone input: Amphenol #91-MC4M. **Phono:** RCA type phono plug (Cinch-Jones #13A). Power plug and 7 ft. cable with battery clamps supplied. **Shipping Wt:** 4 lbs. **Dimensions:** 6½″ W., 3⅛″ H., 4⅝″ D. **$52.50**

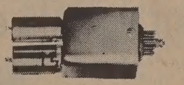
Power Supply — Model PS-27 with 117 volt AC primary and 12.6 volt output. **Ship. Wt.** 3¼ lbs. **$37.50**

MODEL 3535AD 35 WATT MOBILE AMPLIFIER WITH POWER SUPPLY



May be operated on 12 volts DC or 117 volts AC. A medium-high power transistorized amplifier designed to give maximum efficiency and dependable mobile service. Compactly styled with tamper-proof input and output connectors, the 3535 utilizes conservatively-rated transistors that operate at low temperature under continuous duty. **Power Output** (Rated): 35 watts at less than 10% distortion. **Frequency Response:** 150—10,000 cycle—3 db down. Inputs: (1) low imp. mic.; (1) 600 ohm balanced line (optional); (1) high impedance mic.; (1) phono. **Gain:** microphone: 105 db, phono, 85 db. **Input Sensitivity:** low impedance mic.—0.5 millivolts for full output; high impedance mic.—4 millivolts for full output; phono—0.5 volts for full output. **Hum and Noise:** Fundamental: 65 db below full output. Microphone: 55 db below full output. Phono: 62 db below full output. **Tone Control:** Treble cut 3 db at 2000 cps, 15 db at 1500 cycles. **Output Impedance** 4, 8, 16 ohms and 70 volt line. **Input Impedance:** low imp.—mic.—200 ohm; phone—0.5 meg.; high imp. mic.—0.5 meg. **Controls:** one microphone volume. One phono volume. One tone control with "power on-off" switch. **Transistors:** (7) 2 — 2N1544, 5 — 2N408. **Power Consumption:** 55 watts for maximum output. 117 volts AC at 0.5 amps. 12.6 V D.C. at 4.3 amps. **Shipping Wt:** 16 lbs. **Dimensions:** 13½″ W., 10¾″ D., 5¼″ H. **$104.95**

MODEL CS-33 "CIRCUIT-SENTRY" OVERLOAD PROTECTION CIRCUIT

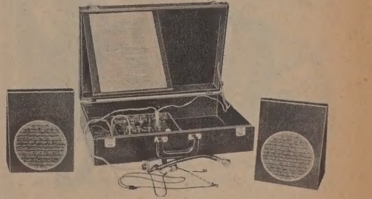


Optional "electronic fuse" circuit that protects the output tubes, against possible shorts in the speaker line. This exclusive FANON assembly consists of tubes 6FM8. 6AU6 and assosciated circuitry—merely plugs into socket provided on chassis. In case of intermittent short, "fuse circuit" will lock into protective condition. After fault is cleared, normal condition is restored without any adjustments being required. Patents applied For. Used with 3335, 3455 and 3370 Amplifiers. **$14.95**

ATTACHÉ CASE COMPLETE PORTABLE P.A. SYSTEMS

They can be set up in seconds and are complete with microphone, speakers, transistorized amplifier and lectern. Each is a perfect portable PA for sales meetings, speeches, church functions, square dances . . . anywhere you need "instant" sound.

MODEL FL-27 27 WATTS — DUAL SPEAKERS



Distinctively styled attaché case finished in black non-scuffing vinyl. System contains powerful 27 watt amplifier, two separate 8″ speakers in their own enclosures (each with 25′ cable) and high impedance crystal microphone with chest harness. Two separate speakers provide greater coverage. System has phono input for use with phonograph, tape recorder or radio tuner for dances, entertainment, etc. **Power Output:** 27 W at 1 kc at less than 10% distortion. **Frequescy Response:** 100 cycle—10 kc, 3 db down. **Inputs:** (1) microphone, (1) auxiliary (phono, tape, pre-amp or radio tuner). **Gain:** microphone 100 db; phono 70 db. **Input Sensitivity:** X-tal microphone, 3 millivolts for full output. **Auxiliary:** 0.5 volts for full output. **Hum and Noise:** 70 db below full output. **Tone Control:** max. treble position 10 db down at 4 K.C., 3 db down at 1.5 K.C. **Speaker**—(2) 8″ — 8 ohm — 3.16 oz. magnet — each speaker supplied with 25′ of extension cord. Microphone crystal, high impedance — neckband type with small gooseneck for close talking. 20 ft. of cable. **Controls:** (4) (1 mic. volume; (1) aux. volume) (1) power "on-off-external" switch; (1) tone control. **Transistors:** (5), (2) 2N408; (3) 2N669. **Cable Connectors:** Microphone plug, Amphenol #91-MC4M (supplied) auxiliary—RCA type phono plug (Cinch-Jones #13A). **Average Current Drain:** 0.5 Amps at 12.6 V. **Batteries:** (2) 6.0 volt Eveready #731 or equivalent (not supplied). **Case:** Portable wood case with adjustable lectern stand. **Dimensions:** 20¼″ W., x 5⅜″ H. x 12¾″ D. **Shipping Wt.:** 19 lbs. **Color:** Black vinyl. **$112.50**

Accessories Model PS-2: 117 V AC power supply. To eliminate need for batteries. **$37.50**

Model RMC — remote volume control for microphone. **$10.50**

12 WATTS — SINGLE SPEAKER MODEL FL-12

Handsomely styled attaché case in rich ginger brown non-scuffing vinyl equipped with a single 8″ speaker in matching enclosure with 25′ of extension cord. System is complete with transistorized 12 watt amplifier, high impedance microphone, chest harness and lectern. Case will accommodate an additional 8″ speaker enclosure. **Power Output:** 12W at 1 K.C. at less than 10% distortion. **Input Sensitivity:** X-tal microphone 3 mv. for full output. **Hum and Noise:** 70 db below full ouput. **Tone Control:** Max. treble position: 10 db down at 4 K.C.; 3 db down at 1.5 K.C. **Speaker:** 8″ — 8 ohm — 3.16 oz. magnet. Microphone: crystal, high impedance — neckband type with small gooseneck for close talking. 20 ft. cable. **Transistors:** (5) (2) 2N408; (2) 3577 (RCA); (1) 2N669. **Cable Connectors:** microphone plug — Amphenol #91-MC4M (srpplied). **Power Supply:** 12.6 volt DC. **Current Drain:** 0.5 amps aver. **Batteries:** (2) 6.0 volt Eveready #731 or equivalent (not supplied). **Case:** Portable wooden case with adj. lectern stand. **Dimensions:** 20¼″ W., 5⅜″ H., 12¾″ D. **Shipping Wt.:** 15 lbs. **Color:** Ginger Brown Vinyl. **Note:** Equipment supplied without batteries. **List: $154.95**

Accessories Model PS-2: 117 V AC power supply to eliminate need for batteries. **$37.50**

Model RMC — Remote volume control for microphone. **$10.50**

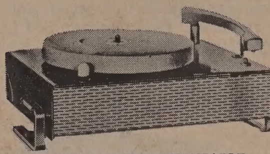
MODEL FLS-8 — ADDITIONAL LOUDSPEAKER

Companion 8″ speaker and enclosure with 25′ of connecting cable for speaker unit in Model FL-12 system. 8¾″ x 11¾″ x 4″ in matching ginger brown vinyl. Nests with other speaker in case. $10.50

REFER TO CATALOG NO. 3 FOR COMPLETE SPECIFICATIONS ON PA AMPLIFIERS & SYSTEMS

FANON-MASCO

PA ACCESSORIES AND ELECTRONIC SPECIALTIES



Model 3600 PHONO TURNTABLE

Phonograph attachment that may be used with all "33" series AC amplifiers. Easily mounts on top of amplifiers with 2 thumb screws or can be used separately. Four speed motor. Quality ceramic cartridge with dual stylus. 12" x 9¼" x 4½". Ship wt.: 10 lbs. **$27.00**

Model 3612 PHONO TURNTABLE (12 volt)

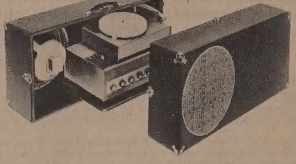
Same as above but with 3 speed 12 volt motor for use with **3512, 3527 & 3535AD. $34.50**

Model 3604 AUTOMATIC 4 SPEED CHANGER

BSR changer with base for use with "33" series PA amplifiers. **$37.50**

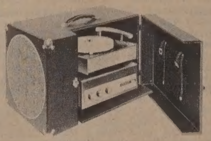
MODEL PHA-3
TRANSISTORIZED TELEPHONE AMPLIFIER with EXTENSION SPEAKER

Frees hands while telephoning and fills room with sound for conferences. 3 transistors. Uses one 9 v. battery included. 10" x 4½" x 3". Ship wt. 4 lbs. **$11.95**



Model S2
PORTABLE PA SYSTEM CASE (Dual speakers)

Handsome split carrying case with two 12" speakers, each with 25' connecting cable. Accommodates FANON amplifier models 3320, 3335, 3345 plus the model 3600 turntable. Durable fashion fabric covering. Size: 31" x 15" x 15". **$50.95**



Model S1
PORTABLE PA SYSTEM CASE (Single speaker)

Durable, compact carrying case with one 12" speaker and 25' connecting cable. Accommodates FANON model 3310 or 3320 amplifiers and 3600 turntable. Durable fabric. 23" x 15" x 15". **$29.95**

Refer to Catalog No. 4 for Complete Specifications on CB Transceivers.

FANON MEGAVOX MODEL MV-8
Transistorized Megaphone

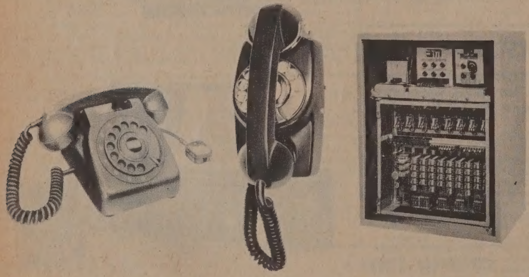
Fully portable lightweight megaphone with 600 yard range. Indispensable for police, fire, CD, industry communication. Lightweight aluminum, baked enamel finish, waterproof microphone, carrying strap. No connecting cables or power supply required. Pistol grip trigger and volume control.

Power Output: 5 watts-10 watts peak. **Amplifier:** Five transistors including 2 RCA 3577 in push-pull class B. **Current:** Eight 1½V flashlight batteries "C" size with life of 10 hours continuous average. **Weight:** 4.6 lbs. **Size:** 9" x 14". **$67.50**

MEGAVOX MODEL MV-1

Popular and compact, this megaphone has range of approx. 300 yds. Powered by 4 "D" size flashlight cells. Separate "low" and "high" volume switches. Over 6 hours continuous operation. Weight: 3¼ lbs. Size: 6½" x 12½". **$26.95**

PRIVATE AUTOMATIC EXCHANGE SYSTEMS



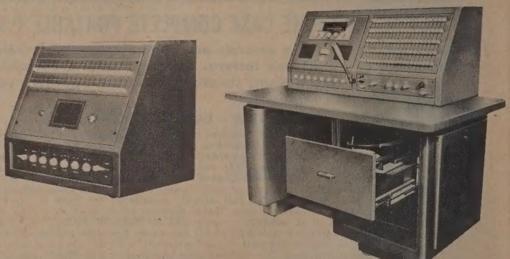
Designed to suit any phone application from 10 to a thousand. Standard equipment available from 16 to 50 line boards. More extensive equipment can be provided by our engineering division.

Each has selective ringing, private talking, dial and busy tones, automatic ring and ring back and instantaneous ring cut off. Optional: executive priority, secretarial extensions, conference and paging, dictation, code call, etc. Only two wires required between telephones and switchboard.

Model FAS-162	Switchboard—16 line capacity—2 trunks
Model FAS-304	Switchboard—30 line capacity—4 trunks
Model FAS-506	Switchboard—50 line capacity—6 trunks
Model FA-42	Modern styled desk type automatic dial phone
Model FA-42P	Same as FA-42 with priority button
Model FA-43	Modern wall mount automatic dial phone
Model FA-43P	Same as FA-43 with priority button

WRITE FOR COMPLETE SPECIFICATIONS AND PRICES

CENTRAL CONTROL SOUND, INTERCOM AND PROGRAM DISTRIBUTION EQUIPMENT.



Complete systems for the distribution programming controlled intercommunications. **27 Watt systems for 10, 20, 30, 40 Stations.** Individual selection of all stations and separate volume control for incoming intercommunication. **100 Watt systems for 20, 40, 60 and 80 stations.** Complete selectivity. All Call facility. Optional: Class session timer with signal as well as remote low impedance mike source.

27 WATTS	100 WATTS
SC-10 (10 station)	SCD-20 (20 station)
SC-20 (20 station)	SCD-40 (40 station)
SC-30 (30 station)	SCD-60 (60 station)
SC-40 (40 station)	SCD-80 (80 station)

WRITE FOR CATALOG #3600 FOR COMPLETE INFORMATION AND QUOTATIONS

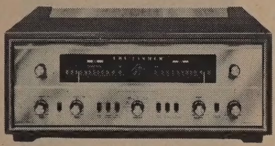
Prices shown are Dealer Net. Add 5% West of the Rockies. For complete details on speakers, microphones, stands, drivers, baffles, etc., write to the factory.

FANON ELECTRONIC INDUSTRIES, INC NEWARK NEW JERSEY
Warehouses in Los Angeles, San Francisco, Seattle and Toronto

FISHER

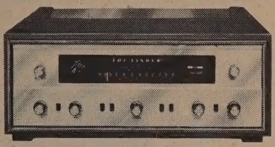
WORLD'S FINEST STEREOPHONIC HIGH FIDELITY COMPONENTS

FISHER Stereo Receivers



THE FISHER 800-B

65-Watt AM-FM Stereo Multiplex Receiver. STEREO BEAM instantly identifies stereo broadcasts. In Walnut, Model 30-UW, or Mahogany cabinets, Model 30-UM. Size: 17½" wide, 5¾" high, 13½" deep. Weight: 33 pounds $429.50



THE FISHER 500-B

65-Watt FM Stereo Multiplex Receiver. STEREO BEAM. In Walnut, Model 30-UW, or Mahogany cabinets, Model 30-UM. Size: 17½" wide, 5¾" high, 13½" deep. Weight: 31 pounds $359.50

FISHER Loudspeaker Systems

Available in Walnut, Cherry, Mahogany or Unstained Birch

THE FISHER XP-4A

Size: 14" wide, 24½" high, 12" deep. Weight: 50 pounds.

XP4A Walnut, Cherry or Mahogany	$199.50
XP4A Unstained Birch	$189.50

THE FISHER XP-1A

Size: 24" wide, 13¼" high, 11¾" deep. Weight: 40 pounds.

XP1A Walnut, Cherry or Mahogany	$129.50
XP1A Unstained Birch	$124.50

THE FISHER XP-2A

Size: 22" wide, 12" high, 11¾" deep. Weight: 30 pounds.

XP2A Walnut, Cherry or Mahogany	$84.50
XP2A Unstained Birch	$79.50

THE FISHER WS-1 WIDE-SURROUND® SPEAKER SYSTEM

Can be attached to any speaker terminals. $49.50 (pr)

FISHER PREAMPLIFIER PR-6

Self-Powered $12.95

FISHER REMOTE CONTROL RK-1

Remote Stereo control, for use with FISHER 400 CX, X-1000. With 30-ft. cable. $17.95

FISHER Wide-Band FM-Stereo-Multiplex Tuners

NEW! THE FISHER R-200 FM-AM Multiplex Tuner

Exclusive STEREO BEACON automatically indicates FM-Stereo-Multiplex and automatically switches to stereo. Walnut Cabinet, Model 10-UW, Mahogany, Model 10-UM, or Metal Cabinet in simulated leather, Model MC-2. Size: 15⅛" wide, 4-13/16" high, 12¾" deep. Wt: 20 pounds. $299.50

THE FISHER FM-1000

Features STEREO BEACON. Cabinets in Walnut, Model 20-UW, or Metal cabinet in simulated leather, Model TA-10. Size: 16-15/16" wide, 4-13/16" high, 12½" deep. Weight: 20 pounds $429.50

THE FISHER FMR-1

Network Relay FM-Multiplex Tuner Rack Mounted $439.50

THE FISHER FM-200-B

STEREO BEACON. Size: 15⅛" wide, 4-13/16" high, 13" deep. Weight: 19 pounds. $299.50

THE FISHER FM-100-B

STEREO BEACON. Size: 15⅛" wide, 4-13/16" high, 13" deep. Weight: 18 pounds. $249.50

THE FISHER KM-61

STEREO BEAM, instantly identifies stereo broadcasts. Size: 15⅛" wide, 4-13/16" high, 13" deep. Weight: 18 pounds $219.50

THE FISHER FM-50-B

STEREO BEAM. Size: 15⅛" wide, 4-13/16" high, 11⅞" deep. Wt: 14 pounds. $199.50

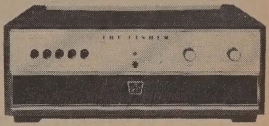
Cabinets for the FISHER FM-200-B, FM-100-B, KM-61 and FM-100-B are available in Walnut, Model 10-UW, Mahogany, Model 10-UM, or Metal Cabinets in simulated leather, Model MC-2.

FISHER SPACEXPANDER K-10

Reverberation, Plays Stereo or Mono. $69.50

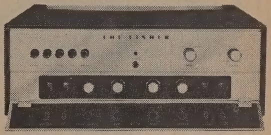
FISHER Stereo Master Control Amplifiers

NEW! The FISHER Hinged Control Cover



THE FISHER X-101-C

56 Watts. In Walnut, Model 10-UW, Mahogany, Model 10-UM, or Metal Cabinet in simulated leather, Model MC-2........ $199.50



Open View of the X-101-C

Frequently-used controls are in full view, for instant use. The occasionally-used controls are concealed behind the Hinged Control Cover. The FISHER X-101-C has a *full* complement of controls, including tape record and monitor, inputs for 2 phonos, and jacks for the FISHER Spacexpander®.

THE FISHER X-1000

110 Watts. Size: 16-15/16" wide, 4-13/16" high, 13¾" deep. Weight: 44 pounds. $339.50

THE FISHER X-202-B

80 Watts. Size: 15⅛" wide, 4-13/16" high. 12½" deep. Weight: 25 pounds...... $249.50

THE FISHER X-100-B

50 Watts. Size: 15⅛" wide, 4-13/16" high, 11⅞" deep. Weight: 22 pounds $159.50

All FISHER Stereo Master Control Amplifier cabinets are available in Walnut, Model 10-UW, Mahogany, Model 10-UM or Metal Cabinet in simulated leather, Model MC-2.

THE FISHER 400-CX

Stereo Master Audio Control........ $199.50

THE FISHER StrataKits

EASIEST TO BUILD! No technical skill is required to build any FISHER StrataKit. Each easy, error-proof stage (STRATA) corresponds to a specific illustrated page in the Instruction Manual and to a separate transparent, clearly identified packet of parts. Large, three-dimensional diagrams guide the builder every step of the way.

THE FISHER KM-60

FM-Stereo-Multiplex STEREO BEAM $169.50

THE FISHER KX-200

80-Watt Stereo Master Control Amplifier $169.50

THE FISHER KX-100

50-Watt Stereo Master Control Amplifier $129.50

THE FISHER KS-1

Slim-Line Loudspeaker System,

Unfinished Birch	$59.50
Unfinished Walnut	$64.50
Finished Birch	$84.50
Finished Walnut	$89.50

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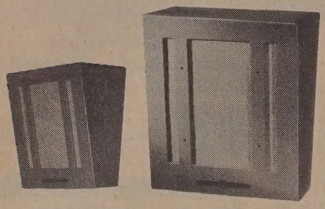
STROMBERG-CARLSON®

SOUND EQUIPMENT

SIGNET SPEAKER HOUSINGS



MODELS RH-34 and RH-54. Rugged tilt-type wall mounting cabinets in Desert Sand finish. RH-34 designed for 8″ speaker. RH-54 designed for 12″ speaker. RH-34 easily converts to two-way use by addition of RA-8 Back Panel.

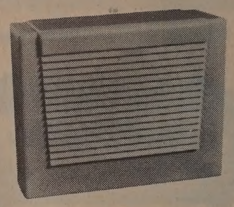
LIST PRICE: RH-34 $12.00
RH-54 $19.50

DRIVERS

Model RD-95. INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 150-10,000 cps. VOICE COIL: 16 ohms. Built-in transformer. **LIST PRICE: $41.00**

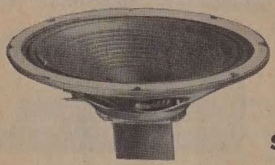
Model RD-94. INPUT CAPACITY: 40 watts. FREQUENCY RANGE: 140-11,000 cps. VOICE COIL: 16 ohms. **LIST PRICE: $40.00**

Model RD-93. INPUT CAPACITY: 30 watts. FREQUENCY RANGE: 150-10,000 cps. VOICE COIL: 16 ohms. **LIST PRICE: $31.00**

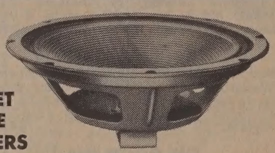


MODEL RH-28D. Modern plastic housing for 8″ cone speakers. Molded in solid Desert Sand color. Will withstand extreme abuse without breakage. Designed with sloping front and horizontal louvres. Bracket available for wall mounting. **LIST PRICE: $10.00**

SIGNET CONE SPEAKERS



MODEL RC-27 8″ PERMANENT MAGNET SPEAKER

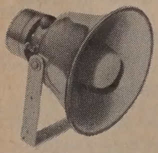


MODEL RC-58 12″ PERMANENT MAGNET SPEAKER

Both speakers employ high-efficiency Alnico V magnets, aluminum voice coil forms and one-piece ribbed molded diaphragm cones. Model RC-27: FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 10 watts (program); CONE RESONANCE: 105 cps; FLUX DENSITY: 8,000 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 88 db; SIZE: 8⅛″ dia., 3½″ deep; WEIGHT: 2 lbs. **LIST PRICE: $8.00**

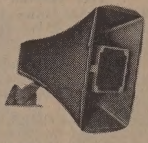
Model RC-58: FREQUENCY RESPONSE: 55-13,000 cps; POWER RATING: 16 watts (program); CONE RESONANCE: 80 cps; FLUX DENSITY: 8,500 gauss; VOICE COIL IMPEDANCE: 8 ohms; SENSITIVITY: 85 db; SIZE: 12⅛″ dia., 4¾″ deep; WEIGHT: 2½ lbs. **LIST PRICE: $14.00**

COMPLETE RE-ENTRANT SPEAKERS



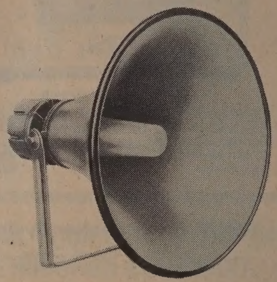
MODEL RPD-61 RE-ENTRANT PROJECTOR. For general purpose use, indoor or outdoor. Rugged, with removable driver and excellent voice reproduction. **LIST PRICE: $36.50**

Small re-entrant speakers ideal for paging & intercommunication under adverse weather and noise conditions.



MODEL RPD-91 PAGING SPEAKER. Attractive styling and unusually rugged. Excellent intelligibility. Replaceable driver, unique swivel mount. **LIST PRICE: $30.00**

Model	Size	EIA Pressure Rating	Power Handling Capacity	Voice Coil impedance	Frequency Response	Distribution Angle	Mounting	Weight	Finish
RPD-61	9⅞″ diameter x 8³⁄₁₆″ deep	56 db	30 watts program	8 ohms	250-13,000 cps	90°	Universal "U" bracket	5⅝ lbs.	Mesa Tan
RPD-91	9″ H x 6″ W x 9½″ D	58 db	15 watts program	8 ohms	350-13,000 cps	120°	Universal Swivel	4½ lbs.	Mesa Tan



SIGNET RE-ENTRANT HORNS

The Signet Line includes models of various sizes, distribution angles and low-frequency cutoffs.

Model RP-48. 9¼″ x 18½″ mouth (less driver). **LIST PRICE: $40.25**

Model RP-27. Bell 15½″, Length 12⅛″ (less driver). **LIST PRICE: $28.88**

Model RP-34. Bell 20″, Length 16¼″ (less driver). **LIST PRICE: $34.13**

Model RP-40. Bell 24¾″, Length 19½″ (less driver). **LIST PRICE: $47.00**

Model RP-44. Bell 25½″, Length 19″ (less driver). **LIST PRICE: $46.73**

Model RP-97. 21″ diameter, 17″ deep (less driver). **LIST PRICE: $34.00**

GD

GENERAL DYNAMICS | ELECTRONICS—ROCHESTER

In modern package sound . . . THERE IS NOTHING FINER THAN A STROMBERG-CARLSON®

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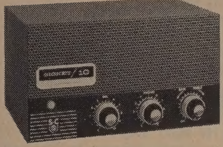
STROMBERG-CARLSON®
SOUND EQUIPMENT

SIGNET AMPLIFIERS

Audio perfection depends on careful selection of the right amplifier for the specific job. The wide selection, plus unsurpassed flexibility, quality, dependability and economy of Signet Amplifiers, assures the finest in audio.



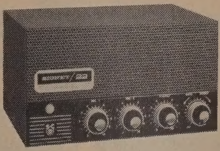
SIGNET/10

(illustrated with optional SAC-10 top cover) POWER OUTPUT: Rated 10 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 1 microphone, 1 phono-radio. GAIN: 115 db microphone, 77 db phono-radio. INPUT SENSITIVITY: Microphone 8 millivolts for rated output. Phono-radio 0.4 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—50 db, phono-radio—75 db. TONE CONTROL: Continuously variable, provides 18 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8 ohms, 25 volt line. POWER CONSUMPTION: 60 watts at 120 volts, 60 cps. TUBES: 1-6AV6, 1-6AU6, 1-6L6GB, 1-5Y3GT. SHIPPING WEIGHT: 12 lbs. 8 oz. DIMENSIONS: 11¼″ W, 8″ D, 6″ H.

LIST PRICE: $61.50 (without top cover)

SAC-10 top cover for Signet/10

LIST PRICE: $6.50



SIGNET/22

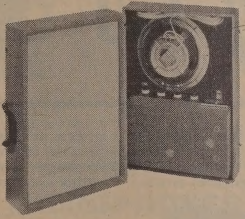
POWER OUTPUT: Rated 22 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 3.0 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance), 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Continuously variable, provides 15 db attenuation at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 75 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7/ECC83, 2-6BQ5/EL84, 1-5Y3GT. SHIPPING WEIGHT: 13 lbs. 8 oz. DIMENSIONS: 11¼″ W, 8″ D, 6″ H. **LIST PRICE: $90.00**

SIGNET/33

POWER OUTPUT: Rated 33 watts. RESPONSE: 30 to 20,000 cps ± 2 db. REGULATION: 2.5 db at 1 kc. INPUTS: 2 microphone (2 meg. input impedance); 1 phono-radio (0.5 meg. input impedance). GAIN: 122.5 db microphone, 80 db phono-radio. INPUT SENSITIVITY: Microphone 7 millivolts for rated output; Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass control: 13 db boost at 50 cps; 15 db cut at 50 cps. Treble control: 13 db boost at 10 kc.; 18 db cut at 10 kc. OUTPUT IMPEDANCES: 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 120 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6L6GB, 1-5U4GB. SHIPPING WEIGHT 24 lbs. DIMENSIONS: 16½″ W, 10″ D, 8″ H. **LIST PRICE: $110.00**

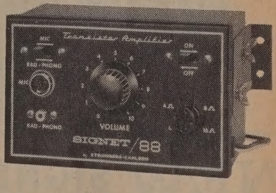
SIGNET/70

POWER OUTPUT: Rated 70 watts. RESPONSE: 20 to 20,000 cps ± 2 db. REGULATION: 3 db at 1 kc. INPUTS: 2 microphones (2 meg. input impedance). 1 phono-radio (0.5 meg. input impedance). GAIN: 127.6 db microphone, 85.9 db phono-radio. INPUT SENSITIVITY: Microphone 6 millivolts for rated output. Phono-radio 0.35 volts for rated output. HUM AND NOISE: Fundamental—75 db, microphone—55 db, phono-radio—70 db. TONE CONTROL: Separate continuously variable bass and treble controls. Bass Control: 15 db boost at 50 cps; 14 db cut at 50 cps. Treble Control: 13 db boost at 10 kc; 16 db cut at 10 kc. OUTPUT IMPEDANCES 4, 8, 16 ohms, 70 volt line. POWER CONSUMPTION: 180 watts at 120 volts, 60 cps. TUBES: 1-7025, 1-12AX7, 1-6U8, 2-6550, 1-5U4GB, 1-5Y3GT. SHIPPING WEIGHT: 31 lbs. DIMENSIONS: 16½″ W, 10″ D, 8″ H. **LIST PRICE: $170.00**



MODEL SPC-12 PORTABLE CASE

Includes 2 high-quality 12″ speakers in split portable baffles which double as a carrying case for amplifier. Mounts Signet "22" or "33". Includes 25 feet of cable for each speaker. 18″ W x 24½″ H x 11½″ D. **LIST PRICE: $84.00**



SIGNET/88 TRANSISTOR MOBILE

POWER OUTPUT: 8 watts, less than 5% distortion. RESPONSE: 100 to 10,000 cps ± 3 db. INPUTS: 1 microphone, medium impedance (150-600 ohms); 1 phono, high impedance (500,000 ohms). GAIN: 97 db. NOISE LEVEL: 65 db below rated output. CONTROLS: On-off Switch, microphone-phono selector switch, gain control. OUTPUT IMPEDANCES: 4, 8, 16 ohms. POWER SUPPLY: 12 volts car battery or dry battery pack, current drain 0.15 amperes standby, 0.3 amperes speech, 0.5 amperes music. Power leads, 3 feet, identified for polarity; positive lead has in-line fuse. TRANSISTORS: 1-2N214, 2-2N226, 2-2N257. MOUNTING: "L" brackets furnished for fastening to bulkheads. WEIGHT: 3 lbs. DIMENSIONS: 6⅝″ W, 4⅛″ H, 3⅛″ D. **LIST PRICE: $112.00**

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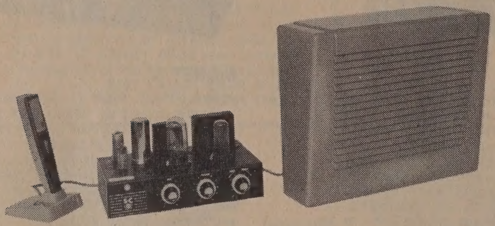
STROMBERG-CARLSON®
SOUND EQUIPMENT

SIGNET SOUND

NEW, LOW-COST, COMPLETE . . . THE MOST FLEXIBLE
Signet Sound Equipment is designed and engineered to provide economical sound reinforcement for many simplified applications in business and industry. These systems are complete, ready-to-use packages that offer tremendous flexibility, easy installation, and excellent fidelity.

SIGNET COMPONENT ASSEMBLIES
A FEW OF THE MANY POSSIBLE SYSTEMS:



SIGNET/10 ASSEMBLY

Budget-priced package for many applications. A few examples: restaurants, stores, meeting rooms, taverns, offices, warehouses. Unbeatable in its price range.

TYPICAL INDOOR SYSTEM:

• Signet/10 Ten-Watt Amplifier	**LIST PRICE: $61.50** without top cover
• SMC-75S High Impedance Microphone	**LIST PRICE: $20.00**
• RH-28D Speaker Housing	**LIST PRICE: $10.00**
• RC-27* 8″ Speaker	**LIST PRICE: $ 8.00**

*Four speakers may be used without line-matching transformers; up to 20 speakers with line-matching transformers.

SIGNET/22 ASSEMBLY

A perfect matching of high-quality components for any number of applications. A few of many possibilities include: freight docks, amusement parks, parking lots, gymnasiums, garages, bus terminals, railroad stations.

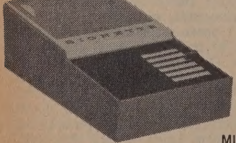
TYPICAL OUTDOOR SYSTEM:

• Signet/22 Twenty-two Watt Amplifier	**LIST PRICE: $90.00**
• SMC-75S High Impedance Microphone	**LIST PRICE: $20.00**
• RPD-61* Re-entrant Speakers with removable driver units	**LIST PRICE: $36.50**

*Four speakers may be used without line-matching transformers; up to 20 with line-matching transformers.

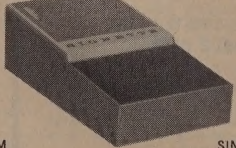
NEW SIGNETTE
LOUDSPEAKING INTERCOM.

Transistorized economies in space and cost produce a compact and modestly priced intercom of surprising quality. Ideal in stores, professional offices, small business, restaurants and grills, garages and auto dealers. Both master and sub-station units may be used in a variety of combinations. Accessory horns may be applied for extended coverage. Transistor operation provides instant warm-up and low current consumption.



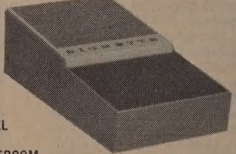
SIGNETTE MODEL
(SIC-7M)
MULTI-MASTER INTERCOM

Selects 6 stations, master-to-master, master-to-remote, or in mixed masters-and-remotes applications. Transistor amplifier, individual power supply, station selector, input volume control, talk-listen panel. **LIST PRICE: $49.95**



SIGNETTE MODEL
(SIC-1M)
SINGLE MASTER INTERCOM

Master to remote. Transistor amplifier, individual power supply, input volume control, talk-listen panel. Handsfree reply from remote station also provided. **LIST PRICE: $45.00**



SIGNETTE MODEL
(SIC-1R)
REMOTE INTERCOM

Remote station for use with SIC-7M or SIC-1M master stations. Built-in speaker-microphone. Talk-listen panel. Can operate as handsfree reply station. **LIST PRICE: $14.50**

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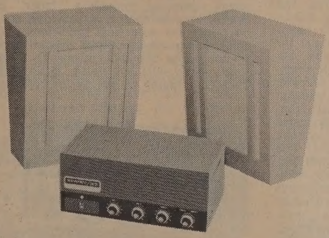
SIGNET/33 ASSEMBLY

Full fidelity performance, with superior audio reproduction. A few of many applications: industrial plants, hotels, motels, hospitals, auditoriums, field houses, churches.



Typical Indoor System:

• Signet/33 Thirty-three Watt Amplifier.	**LIST PRICE: $110.00**
• SMD-74C Dynamic Microphone.	**LIST PRICE: $32.50**
• MS-12 Floor Stand.	**LIST PRICE: $13.50**
• RH-54 Speaker Housings.	**LIST PRICE: $19.50**
• RC-58* 12" Speakers.	**LIST PRICE: $14.00**

*Four speakers may be used without line-matching transformers; up to 60 speakers with line-matching transformers.

SIGNET/70 ASSEMBLY

Practically unlimited applications, with power to spare for all situations. A few examples: stadiums, playgrounds, race tracks, athletic fields, schools, auditoriums, factories, airports.

Typical Outdoor System:

• Signet/70 Seventy-Watt Amplifier.*	**LIST PRICE: $170.00**
• MD-30C Dynamic Microphone.	**LIST PRICE: $60.00**
• RP-97 Re-entrant Horn with RD-93 Driver Units.	**LIST PRICE: $34.00 (RP-97)** **$31.00 (RD-93)**

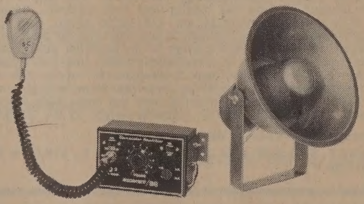
*Handles up to 25 horns with RD-95 Driver Units with built-in line-matching transformers.

SIGNET/88 MOBILE ASSEMBLY

Truly mobile-portable package which provides superb coverage over a wide area in countless applications. For example: police, civil defense, sports events, tour guides, field days, etc. Transistor operation provides instant warm-up and low current consumption.

System Features:

• Transistorized SAM-88 8-Watt Amplifier.	**LIST PRICE: $112.00**
• SMD-61 Dynamic Microphone.	**LIST PRICE: $34.00**
• RPD-61* Re-entrant Speaker with removable driver unit.	**LIST PRICE: $36.50**



*Additional RPD-61 Speakers may be used.

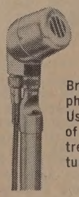
MICROPHONES

MODEL SMD-61 DYNAMIC

Close-talking, medium impedance, hand-held type. Designed for clear, natural voice reproduction. Ideal for mobile or portable use. Complete with coiled cord and connector.
LIST PRICE: $34.00

MODEL SMCC-73S CERAMIC

Small and slim. Excellent for public address and paging, and where random noise exists. Complete with desk stand and a floor adapter.
LIST PRICE: $26.50



MODEL SMD-74C DYNAMIC

Brings advantages of dynamic microphones to P.S. field at budget price. Use indoors and out without fear of damage from rough usage, extreme temperature or humidity. Virtually maintenance free.
LIST PRICE: $32.50

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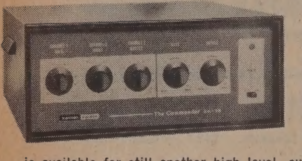
COMMANDER SERIES

MODEL DA-35

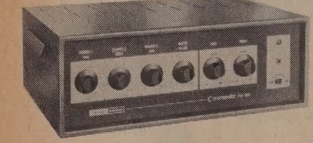
35 Watts — 4 Channels



Exceptional PA workhorse with unique input and control arrangements that provide remarkable installation and operation flexibility. Has two microphone channels, one of which incorporates a switched equalized input for magnetic phono cartridge and the other offers an alternate high sensitivity input (0.175V) for tuner, recorder or Xtal/ceramic phono. A third channel is available for still another high level, aux. program source (0.35V sensitivity); the control for this channel useable optionally as Master Volume. An **exclusive** fourth "MIX" channel permits **one-knob** fading and also **blending** of a microphone with any high level source such as tuner, recorder or Xtal/ceramic phono. Two high level programs can be similarly mixed. Ideal for lectures, demonstrations, entertaining, etc. where such convenience leaves the user free to operate additional equipment simultaneously. The DA-35 is rugged and built for continuous duty; stable under all conditions. Other valuable facilities include individual cut/boost treble and bass controls; there is an output to a tape recorder, independent of tone controls; separate on/off switch to avoid upsetting controls; 4/8/16/150 ohms and 25V bal., 70V unbal. constant voltage outputs; 2 speaker sockets plus screw terminals, switched AC convenience socket; fused. Response 20-20,000 cps ±2db, fundamental hum and noise 80 db below rated output. Dimensions 15⅛"W, 6"H, 10¾"D; shipping weight 23 lbs. **$119.95.**

MODEL DA-100

100 Watts — LoZ Microphone Input



No other popular price 100 watt amplifier like it! Has same input arrangements as described for DA-35, except that one of the microphone channels is equipped with a 3-pin mike receptacle (use Amphenol #75-MCIF plug) for use with either high or low impedance microphones; on-chassis socket for plug-in mike matching transformer. The output to a tape recorder is independent of both the master and tone controls. Separate master volume control is employed. Outputs are 4/8/16/50 ohms; also 25V and 70V constant voltages, **both** available unbalanced and balanced for greatest installation flexibility. Special circuitry prevents damage to the amplifier due to open or short-circuited loads, and performance is exceptionally stable under all operating conditions. All solid-state, full-wave voltage doubler power supply with 4 stages of filtering provides unsurpassed regulation, hum-free plate current and less heat. Response 20-20,000 cps ±2db; fundamental hum and noise 85db below rated output. Dimensions: 18¼"W, 6"H, 11¾"D; shipping weight 35 lbs. **$189.95.**

Microphone input transformers for DA-100:

XT-1 30-50 ohms C. T., $18.50 ■ XT-2 120-250 ohms C. T., $18.50 ■ XT-3 500-600 ohms C. T., $18.50 ■

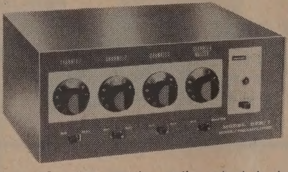
MODEL DA-12

12 Watts — 3 Channels

An excellent and highly reliable moderate-power amplifier. One microphone input (hi Z) with gain control, plus two inputs for tuner, tape recorder, Xtal/ceramic phono operating through a "fader" control for smooth electronic switch-over. Master Volume control is provided and a 4-position filter adjusts system to best operating and acoustical conditions, including an "anti-feedback" position to help achieve max. sound output. Special **high level** 500 ohm output for feeding local or remote power boosters, or may be used to record. Response 30-20,000 cps ±2db; fundamental hum and noise 75 db below rated output. Dimensions 15⅛"W, 6"H, 10¾"D; shipping weight 18 lbs. **$75.00.**

MODEL DPR-7 Mixer-Preamp

4 Channels — 7 Inputs



A **quality** mixer-preamplifier worth much more than its cost. Four channels, with multiple inputs all switchable at the front panel: 1st channel mic/mag. phono, 2nd channel mic/aux, 3rd channel mic/aux, 4th channel has mic input and its control can be optionally used as Master Volume. The DPR-7 has its own AC power supply; audio output is low impedance cathode follower permitting long line runs to the main amplifier when necessary. It can be flush mounted in a wall or panel; is also free-standing. Multi-stage filtering and DC on the tube filaments insure hum and distortion free response. The DPR-7 is the perfect instrument for expanding the number of inputs of a sound system, or for controlling several additional program sources from a remote location. It can also be used to directly drive a basic power amplifier. Dimensions: 5⅛"H, 11½"W, 5½"D; shipping weight 11 lbs. **$75.00.**

COMMANDER ACCESSORIES

Model PT-1 Phono Top — Fits top of DA-12, DA-35, DA-100 amplifiers. Speeds: 78/45/33⅓/16½ RPM, with special disengage position. Quality ceramic turnover cartridge. Shipping weight 8 lbs. **$37.50.**

Model DBK-1 Wall Mounting Brackets — For DA-12, DA-35, DA-100 amplifiers. Once installed, no screws or tools needed to mount or remove amplifier from brackets. Shipping weight 1½ lbs. **$7.25.**

Model LC-1 Locking Cover For DA-12 and DA-35. Shipping weight 2¼ lbs. **$8.50.**

Model LC-2 Locking Cover For DA-100. Shipping weight 2½ lbs. **$9.00.**

Model CS-1 Systems Carrying Case — Accepts DA-12 or DA-35 amplifier with or without PT-1 phono top and will mount one or two standard 12" cone speakers. Special harness for all type microphones. Sturdy; good-looking. Dimensions: 17¾"W, 13¾"D, 22"H. Shipping weight 21 lbs. **$42.00.**

ADVANCE DESIGN, ALL-TRANSISTOR, ALL-PURPOSE TROUBADOR SERIES

MODEL TR-1

For mobile and general purpose p.a. Exceptionally flexible — Produces full 15 watts @ 12VDC (25w @ 14VDC, 6w @ 6VDC). Unusually natural and highly articulate response. Has a channel for low or high impedance microphone (no matching transformer needed) and a channel for tuner, tape recorder or Xtal/ceramic phono. Both channels function **simultaneously** for complete mixing. Adapts to mag. phono cartridge or tape head with plug-in preamp module. Amplifier can be turned on and off remotely at mike or other location using optional plug-in relay. Complete electrical isolation and reverse polarity protection prevents accidental damage to amplifier. Also included: 4-position tone control filter; output to a tape recorder; D.C. convenience outlet; speaker socket and screw terminals for output connections, pilot light and individual on/off switch. Unit is free-standing and can also be flush **front-mounted** to panel, bulkhead, dashboard. Adjustable brackets available for universal mounting to any surface. Outputs: 4/8/16 ohms and 25V constant voltage. Response 80-15,000 cps; microphone, tape head and mag phono sensitivity less than 1 mv. Dimensions: 7"D, 9⅛"W, 3⅝"H; shipping weight 5 lbs. **$109.75.**

TROUBADOR ACCESSORIES

Model TPH-1 Plug-in preamp module. Built-in equalization for RIAA mag. cartridge and NARTB 3¾ ips tape head. **$22.10.**

Model TXR-1 Remote power relay. **$13.50.**

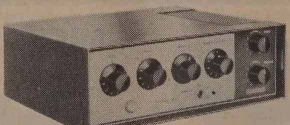
Model TXR-2 Emergency power relay (for TR-2 only). **$14.90.**

Model ACD-1 AC to DC converter, in separate housing. Connects **externally** to TR-1 or TR-2. **$62.50.**

Model ACD-2 Same as ACD-1, less housing; mounts directly into TR-2 chassis. **$52.50.**

Model LC-5 Carrying Cover, for TR-2. **$14.90.**

MODEL TR-2



For portable and general purpose applications, the TR-2 is the most complete and versatile transistor 30 watt p.a. amplifier available. Operates from 12VDC, or from regular AC power line using the optional model ACD-2 all solid-state converter that mounts directly into the amplifier chassis. Perfect for rental work. Provides two channels for low imp. microphones and two for high level, high imp. aux. equipment. A special relay is available that switches the TR-2 **automatically** to the DC source in the event of AC power failure; ideal for applications requiring uninterrupted service or use as an emergency or panic control system. Has sockets for plug-in remote on/off relay and preamp module for tape head or mag. phono cartridge; individual cut/boost treble and bass controls, master volume control; protection against incorrect polarity; tape output, independent of tone and master controls; D.C. convenience outlet; speaker socket and screw terminals for output connections. A locking cover with carrying handle is available. Outputs: 4/8/16 ohms, and 25V and 70V constant voltage both unbalanced and balanced, plus output for making tape recordings. Response 30-15,000 cps; fundamental hum and noise 72db below rated output. Microphone, tape head and mag. phono sensitivity less than 1 mv. Dimensions: 11¾"W, 4"H, 9⅛"D; shipping weight 15 lbs. **$175.00.**

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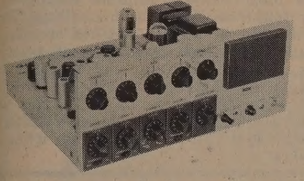
GALAXY SERIES

A new concept in public address amplifiers incorporating the advantages of modularization in compact packaged equipment and resulting in the flexibility and versatility of custom sound.

MODEL 40GA-12

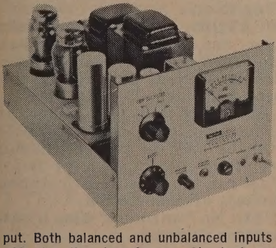
MODEL 75GA-12



These two professional quality yet moderately priced amplifiers are identical except for power ratings. Employing easily installed plug-in preamp modules, the number and type of channels, inputs and facilities can be tailored to precisely fit a specific application, and expanded or modified with future need without obsolescence or waste. Model 40GA-12 produces 40 watts @ 1% T.H.D. or 50 watts @ 2%; the 75GA-12 is 75 watts @ 1% and 85W @ 2%. Response 15 to 50,000 cps ±1db; fundamental hum and noise 90db below rated output. Both amplifiers come complete with modules 1 and 2 (described elsewhere) installed which thus provides 4 operating channels: two balanced or unbalanced high impedance for tuner, tape recorder, Xtal/ceramic phono or telephone line, and two channels for low or high imp. microphones, with input for tape head or magnetic phono cartridge. On-chassis sockets for plug-in equalizers and input transformers. Space is provided for two more modules to expand to a total of six channels. Other standard facilities **included:** "anti-feedback" Speech Filters; output to a recorder, independent of master and tone controls; individual cut/boost treble and bass controls; master volume control; low-cut filter (0/80/160/320 cps); monitor headset jack and volume control (on front panel); panel space for optional monitor speaker or VU meter; socket for plug-in remote on-off or standby relays; socket for remote gain control accessories; bridging connections; 2 speaker sockets, switched AC convenience outlet. Outputs: 4/8/16 ohms, and 25V, 70V constant voltages both balanced and unbalanced. Dimensions: 17¼"W, 7"H, 14½"D; shipping weight 31 lbs. for 40GA-12, 33 lbs. for 75GA-12. **40GA-12, $224.95; 75GA-12, $299.95.**

MODEL 150GA-13

Same as 40 and 75 watt versions except that modules 1 and 3 are provided installed and further expansion of channels not possible. Rated power 150 watts @ 1% T.H.D., 200 w @ 2%. Outputs: 1 ohm (12V) and 8 ohms (35V) unbalanced, 4 ohms (25V) balanced and unbalanced, 32 ohms (70V) balanced and unbalanced. Dimensions: 17¼"W, 7"H, 14½"D; shipping weight 45 lbs. **$350.00.**



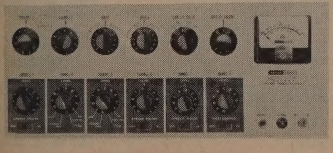
BOOSTER AMPLIFIERS

The basic power amplifiers used in the 40, 75 and 150 watt GA Series amplifiers are available as illustrated for use as booster amplifiers to expand a system, or to feed **directly** from any program source capable of a signal level of only 0.5 volts. Most tuners, recorders and Xtal/ceramic phono cartridges are capable of driving a Galaxy booster amplifier to full rated output. Both balanced and unbalanced inputs are provided, and a socket for plug-in 600 ohm line transformer. Standard equipment included; input level control, lo-cut filter, monitor headset jack and monitor volume control, space on front panel for optional monitor speaker or VU meter, bridging in and out connections. Outputs are same as the respective GA amplifier described.

BA-40 Dimensions — 8⅝"W, 7"H, 13½"D; Shpg. Wt. 24 lbs. **$137.50.**
BA-75 Dimensions — 8⅝"W, 7"H, 13½"D; Shpg. Wt. 27 lbs. **$174.95.**
BA-150 Dimensions — 13"W, 7"H, 13½"D; Shpg. Wt. 40 lbs. **$237.50.**

MODEL PR-1

Mixer-Preamp



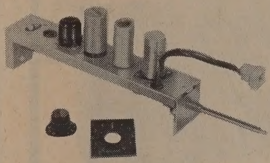
This unit incorporates a regulated power supply and line amplifier to feed any number of master amplifiers or booster amplifiers in a central bank or at distant locations. It provides for a total of eight operating channels (two high level, six low level) with services and facilities dependent only upon the assortment of modules installed. The PR-1 comes with Module 1 installed. The VU meter is also standard equipment. Tone controls, Master Volume, head-set monitoring, and recording facilities are included; output is 600 Ohms, balanced and unbalanced. Facilities are included for remote gain control of up to six low level channels, as well as AC power or plate voltage ("standby"). Dimensions: 17¼"W, 7"H, 14½"D; Shipping weight 17 lbs. **$162.50.**

BASIC MODULE No. 1

This module is "basic" and always supplied installed on the PR-1 and all the GALAXY integrated amplifiers. It contains high level inputs for channels 1 and 2, and a high or low impedance microphone input for channel 3 with Speech Filter. Front panel level controls are provided for each of the three channels. There is an input for 600 Ohm line, sockets for plug-in line and microphone transformers, an output to a tape recorder and connection facility for remote controls. Only one of this module is used in a system.

MULTIPLE INPUT

MODULE No. 2



This module is used to provide "standard" input facilities and is also supplied installed in channel 4 on the 40GA-12 and 75GA-12 amplifiers. Separate level control is provided. It offers a choice of inputs, selected at the time of installation: microphone, tape head or magnetic phono cartridge. Sockets are provided for plug-in transformer for low impedance microphone, as well as equalizers for tape head or magnetic phono. A speech filter is included (with front panel In-Out switch), utilizing Harmon-Kardon's exclusive "anti-feedback" network. Shipping weight 2 lbs. **$25.00.**

SWITCHED INPUT MODULE No. 3

This module also provides inputs for microphone, magnetic phono and tape head, but a 4-position switch on the front panel permits the selection of any of these program sources without further adjustment of chassis connections. In addition, equalization is built-in for magnetic phono, tape head 3¾" and for 7½/15". Socket for plug-in transformer for low impedance microphone; Channel Level Control. Shipping weight 2 lbs. **$33.75.**

COMPRESSOR/LIMITER MODULE No. 4

This module is used where it is desired to introduce compression and limiting action on any type of program. Complete input facilities are provided for a choice of microphone, tape head, magnetic phono, telephone line or other high level program sources such as tuner, recorder, crystal or ceramic phono. Front panel controls include the Channel Level Control and a 4-position compression switch: OFF/2:1/6:1/FULL. Shipping weight 2 lbs. **$67.50.**

PRECEDENCE MODULE No. 5

This is a "precedence" module, for use in channel 6 on the amplifiers and in channel 8 on the PR-1, when desired. It permits the introduction of emergency or commercial messages and time signals, taking precedence over the normal program, remotely or by means of a front panel switch. Inputs are provided for a choice of a microphone, tape head, magnetic phono and balanced or unbalanced high level sources. Sockets are included for plug-in line and microphone transformers and equalizers. A Channel Level Control is included, as well as a variable control for adjusting the relative level of the normal program when the precedence channel is in operation. Shipping weight 2 lbs. **$49.95.**

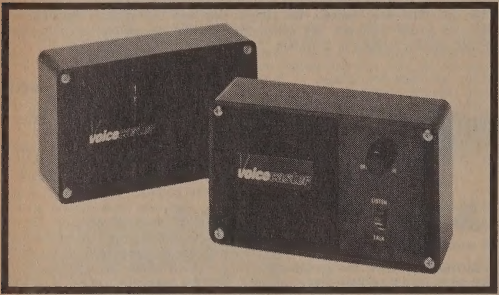
GALAXY ACCESSORIES

XT-1 Mic Input, 30-50 ohms C. T. Input Transformer, **$18.50.** XT-2 Mic Input 120-250 ohms C. T. Input Transformer, **$18.50.** XT-3 Mic Input, 500-600 ohms C. T. Input Transformer, **$18.50.** XT-4 Line Input, 600 ohms C. T. Input Transformer, **18.50.** XR-1 Standby relay, **$8.50.** XR-2 Remote on/off relay, **$8.50.** XE-1 RIAA equalizer, **$3.25.** XE-2 NARTB 7½/15 ips equalizer, **$2.75.** XE-3 NARTB 3¾ ips equalizer, **$2.75.** SP-1 Monitor Speaker, **$5.00.** VU-1 VU meter, **$22.50.** GC-1 Cage for 40GA-12, 75GA-12, 150GA-13, PR-1, **$22.50.** GC-2 Cage for BA-40, BA-75, **$17.50.** GC-3 Cage for BA-150, **$20.00.** RM-1 Rack mounting brackets for 40GA-12, 75GA-12, 150GA-13, PR-1, **$7.00.** LC-3 Locking cover for GC-1 cage, **$20.00.** PCCOM 5382 Knob reset indicator, **$.10.** RG-1 Remote gain control assembly, for flush wall mounting, **$8.25.** RS-1 Remote "standby" switch assembly, for flush wall mounting, **$5.60.** XP-1 Remote "on-off" switch & power pack assembly, for flush wall mounting, **$20.50.**

Voicecaster INTERCOM

VOICECASTER "SPECIAL" 2 STATION SYSTEM VC200 SERIES

THE VC200 SERIES is a completely transistorized two-station intercom system, consisting of 1 Master Station and 1 Remote Station, with 50 feet of connecting wire. Each unit is housed in a handsome bakelite cabinet with gold metal frontplate, thus fitting in with any decor. It is unusually adaptable for office, home, store, restaurant and any other commercial or private application where ambient noise levels are moderate.



SIMPLE TO INSTALL: Just run the wire between each station and attach to connectors on back.

EASY TO USE MASTER STATION has only 2 controls. An on-off volume control switch that regulates volume at both Master and Remote and a 2 position talk/listen switch—press down to talk—up to listen. If Master Station is in "listen" position it can receive calls from remote and monitor Remote Station.

REMOTE STATION can receive and answer Master without going to unit. Can call Master if Master is in "listen" position.

ALWAYS READY: Lee All-Transistor circuit requires no "warm-up" time.

CHOICE OF POWER SUPPLY: Model VC200A can be used if A/C outlet is available. Model VC200D operates on Standard 9 Volt Battery and can be used if no A/C outlet is available.

ADDITIONAL STATIONS: Additional Remote Stations can be added so that Master can call 2 or more Remote Stations at the same time.

3 YEAR GUARANTEE against all mechanical and electrical defects.

SPECIFICATIONS MODELS VC200A AND VC200D

	MASTER	REMOTE
SIZE	6¼ x 3¾ x 2	Same as Master
CABINET	Black bakelite with gold metal frontplate	Same as Master
CONTROLS	3-position talk/listen switch	
AMPLIFIER	3-transistor; push-pull; class "A"; transformer coupled	
SPEAKER	3½"; alnico 5 magnet	Same as Master
TERMINALS	2-position screw type	Same as Master
POWER	Model VC200A—110V AC, 60 cycle Model VC200D—9V Eveready #216, or equal (under normal use, battery will operate system for approximately 3 months)	

Model VC200A System. 1 Master, 1 Remote with 50′ connecting wire.	List Price $27.50
Model VC200D System Battery operated.	List Price 27.50
Wall mounting brackets each.	List Price 1.25
Extra Remote Model VC100P.	List Price 8.00
Extra Remote Model VC100W.	List Price 10.00
Extra Connecting wire per C′.	List Price 6.00

VOICECASTER "DELUXE" 2 STATION SYSTEM VC202 SERIES

A complete 2 station intercom system consisting of a Master and Remote Station with 50′ of connecting wire. Provides natural voice reproduction with startling tone fidelity. Featuring the most modern reliable means of communication usually found only in systems selling for many times its cost. Housed in walnut finished wooden cabinets, modernly styled to blend into decor of every type of business office, home, institution and factory. 2 Models are available to meet the requirements of every situation. Model VC202A for use where an AC outlet is available at Master Station location and Model VC202D which operates on a standard 9 Volt Battery for use where no AC outlet is available.

STAND BY
LISTEN
TALK
voicecaster

FINGERTIP CONTROL: Talk as you would face to face. Establish instant voice contact by mere pressure of key. Master Station has only 2 controls. An on-off volume control switch and a 3 position talk/listen switch. Press to talk—release to listen.

STANDBY POSITION insures privacy. No one can "listen-in."

MONITORING: Master can monitor Remote Station by leaving switch in "listen" position.

INCOMING CALL INDICATOR: When Remote calls Master audible signal sounds and indicator light flashes.

REMOTE STATION: Model 102W can receive and answer Master calls without touching station. Can call Master by operating calling switch. Additional Remote Stations can be added permitting Master to call all Remotes at same time. Remotes cannot call each other. Remote Privacy switch position can be used to prevent Master from monitoring.

SIMPLE TO INSTALL: Just run the wire to each station and attach to connectors on back of each station.

ALWAYS READY FOR USE: No "warm-up" time necessary, both models are transistor powered.

5 YEAR GUARANTEE against all mechanical and electrical defects.

SPECIFICATIONS MODELS VC202A AND VC202D

	MASTER	REMOTE
SIZE	8 x 4 x 4	Same as Master
CABINET	Wood, walnut finish with gold and black metal front	Same as Master
CONTROLS	3-position spring return talk/listen switch	3-position privacy/call switch
AMPLIFIER	4-transistor; push-pull; Class "A"; transformer coupled	
SPEAKER	3½" alnico 5 magnet	Same as Master
TERMINALS	3-position screw type	Same as Master
POWER	Model VC202A—110V AC, 60 cycle Model VC202D—9V Eveready #216, or equal (under normal use, battery will operate system for approximately 3 months)	

Model VC202A System, AC powered, 1 Master Station, 1 Remote Station 50′ of connecting wire ready for use.	List Price $42.50
VC202D System, Battery powered, 1 Master, 1 Remote Station 50′ connecting wire.	List Price 39.95
Wall mounting brackets each.	List Price 1.25
Extra Wire per 100′ Coil.	List Price 8.00
Additional Remote Model 102W.	List Price 14.00

Manufactured by LEE COMMUNICATIONS, INC., New York, N. Y.

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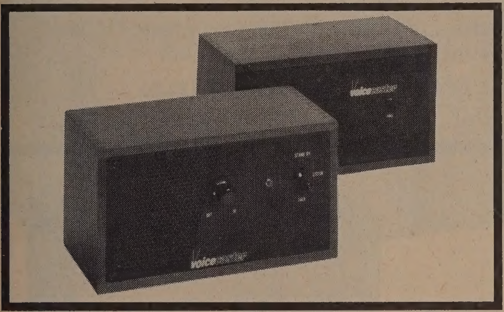
Voicecaster INTERCOM

"WIRELESS" 2 STATION SYSTEM

MODEL VC210W

A High Quality, Low Cost WIRELESS (Carrier Current) intercom system that provides reliable two-way communication. Especially adaptable where permanent or wired installations may not be practical.



NO INSTALLATION: Simply plug-in at the nearest electric outlet. Place the other unit wherever you wish. NO WIRES OR CABLING NECESSARY.

EASY TO USE: Press key to talk, release to listen.

ALWAYS READY: Transistor operation requires no "warm-up" time.

PORTABLE: Can be moved in seconds anywhere in office and home. Weighs less than 3 lbs.

ADDITIONAL STATIONS: Party-Line System can be had by adding additional stations. All stations will receive message originated at any point. (All units must be on same side of electric company transformer.)

ADJUSTABLE VOLUME CONTROL with A/C on and off switch provides efficient reception.

MONITORING KEY POSITION permits use for "listening-in" on conferences, as "baby-sitter," keeping an ear on invalids at home and other monitoring applications.

LOW POWER CONSUMPTION: Less than 1 watt drain.

5 YEAR GUARANTEE against all mechanical and electrical defects.

SPECIFICATIONS MODEL VC210W

SIZE	8 x 4 x 4
CABINET	Wood, walnut finish with gold and black metal frontplate
CONTROLS	3-position spring return talk/listen switch with monitor position volume control/on-off switch
AMPLIFIER	4 transistors; 1 diode; RF coil peaked at 200KC; push-pull; class "A"; transformer coupled
SPEAKER	3½" alnico 5 magnet
POWER	110V AC, 60 cycle

Model VC210W, 2 Stations Complete.	List Price	$67.50
Model VC210W-1, Additional Station.	List Price	38.75
Wall mounting brackets each.	List Price	1.25

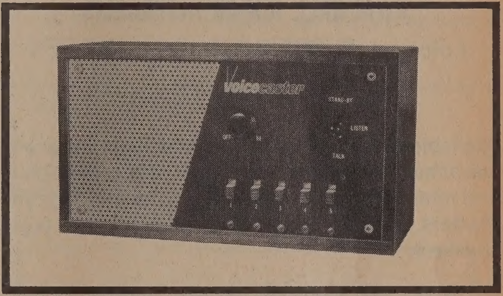
"ALL PURPOSE" MASTER STATIONS

MODEL VC500 5 CALL MASTER

MODEL VC1000 10 CALL MASTER

"All Purpose" Circuit provides a service to meet all types of communication problems.

1. Systems of up to 6 and 11 Master Stations with each station calling and receiving calls from every other station. Privacy circuit prevents any station listening in on existing conversation.
2. Systems of One 5 Call Master or One 10 Call Master calling and receiving calls from Remote Stations. (See types of Remote Stations available below.) Remotes cannot call each other.
3. Systems combining the use of both Master and Remote Stations. Masters can call and be called by other Masters. Any Master can call or be called by any number of Remotes. Remotes cannot talk to each other.



You can start with any combination and add either Master Stations or Remote Stations at any future time.

MODERNLY DESIGNED: Beautiful walnut finished wood cabinets fit in with any decor.

EASY TO USE: Individual selector keys to each station.

PRIVATE: All incoming calls announced by audible signal and light.

SECRET: No one can listen in to existing conversation.

PRIVACY SWITCH position prevents anyone from "listening-in."

ALWAYS READY: Transistor operation requires no "warm-up" time.

100% TRUNKAGE: As many conversations may be carried on at the same time as there are pairs of instruments. 6 Masters 3 conversations, etc.

INDICATOR LIGHT: Translucent bulb indicates when station is in "on" position.

5 YEAR GUARANTEE against all mechanical and electrical defects.

SPECIFICATIONS MODELS VC500 and VC1000

SIZE	8 x 4 x 4
CABINET	Wood, walnut finish with gold and black metal frontplate
CONTROLS	3-position spring return talk/listen switch volume control/on-off switch. Slide selector switches.
ANNUNCIATOR	Light and buzz for each selector
AMPLIFIER	4 transistor; push-pull; class "A", transformer coupled
TERMINALS	screw type
POWER	110V AC, 60 cycle

Model VC500.	List Price	$43.00
Model VC1000.	List Price	48.00
Wall mounting brackets each	List Price	1.25

REMOTE STATIONS

Model VC100P—Non-originating	Plastic case	List Price	$ 8.00
Model VC100W—Non-originating	Walnut finish case	List Price	10.00
Model VC101P—Originating	Plastic case	List Price	10.00
Model VC101W—Originating	Walnut finish case	List Price	12.00
Model VC102P—Originating—Privacy	Plastic case	List Price	12.00
Model VC102W—Originating—Privacy	Walnut finish case	List Price	14.00

Note: All remotes can be used with Models VC500, VC1000 Master Stations and Deluxe 2-Call System. Special 2-Call System can use only VC100P or VC100W.

Manufactured by LEE COMMUNICATIONS, INC., New York, N. Y.

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LOGE ELECTRONICS, INC. • KWIK-KALL® INTERCOMS

KWIK-KALL EXECUTIVE

Model L-506
or L-606

THE KWIK-KALL EXECUTIVE is designed for the executive . . . to keep his desk "SPACE saving" and efficient. This compact unit permits not only two-way conversation, but serves as a telephone stand as well.

Choice of 5 standard colors to match your telephone—AT NO ADDITIONAL COST—Black, green, beige, white and gray—

L-506 (6 station) **$137.00**

L-600 series—same as L-500 but adds larger P.M. speaker, full wave rectifier, plus more audio power—

L-606 (6 station) **$152.00**

KWIK-KALL JUNIOR INTERCOMS

Low cost versatile for smaller installations

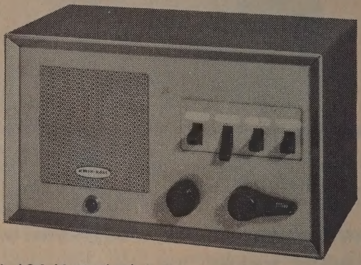
115 Volt A.C. (NOT A.C. - D.C.)

Available in 2, 4, 6 or 12 station Masters, with or without annunciators. Ideal for small offices and plants and interconnecting with Loge Senior and Executive Masters. Compatible with all Loge remote and paging speakers.

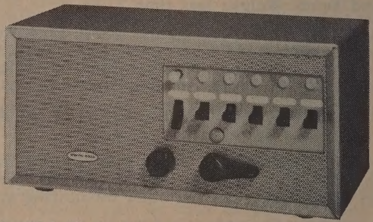
STURDY SPOT WELDED METAL CASE with baked hammertone finish. Patented lever switch assembly and other exclusive features. Small, compact and powerful.

Dimension of L-100, L-104—8″Wx5″Dx4½″H

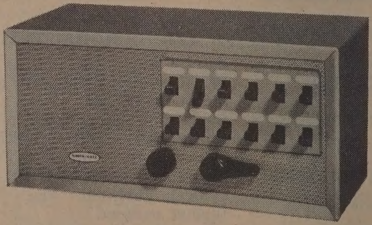
Dimension of L-106, L-112—9¾″Wx5″Dx4½″H



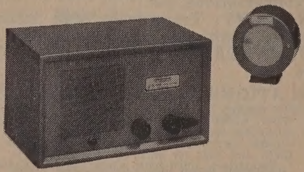
L-104 (4 station)
$84.50 List Price



L-106A (6 station annunciator)
$119.50 List Price



L-112 (12 station)
$119.50 List Price



$79.50
List Price

MODEL L-100-P System including L-100 Junior Master, one JR-3-45 remote speaker, and 50 ft. of cable.
(extra JR.-3-45 remote speaker **$10.50**)

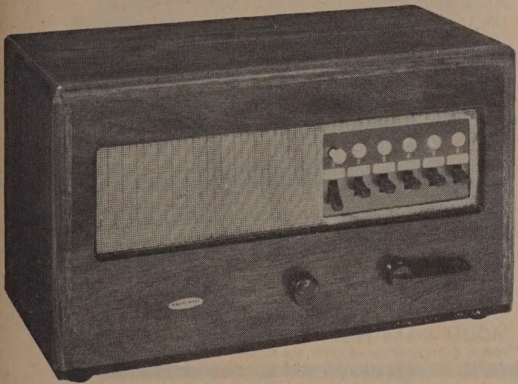
LOGE ELECTRONICS, INC. **Los Angeles, California**

PIONEERS IN THE DESIGN AND MANUFACTURE OF INTERCOMMUNICATION SYSTEMS FOR MODERN BUSINESS

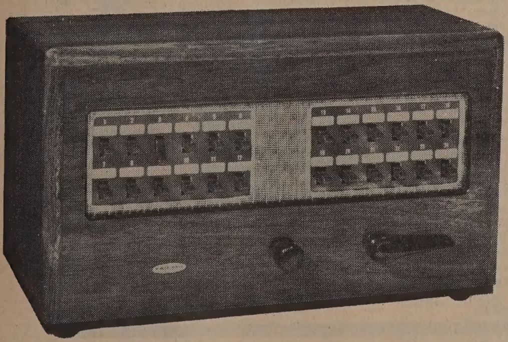
LOGE ELECTRONICS, INC. • KWIK-KALL® INTERCOMS

NEW

KWIK-KALL INTERCOM
L-800 SERIES
SOLID WALNUT



Model L-806A—6 station annunciator
$157.00 List Price



Model L-824—24 station
$197.00 List Price

Only Loge
offers all this quality . . .

- **ADAPTABLE** for every type of business and every size installation. Senior master units are available in 6, 12, 18 and 24 station units which can be interconnected with Loge Junior Masters, Executive Master remote stations, and paging speakers.
- **PRECISION BUILT** with exclusive Loge engineering features and extra power for wider range adaptability.
- **SOLID WALNUT** cabinets, beautifully styled and finished to harmonize with every office decor.
- **AVAILABLE WITH ACCESSORY FEATURES** including telephone handset, busy light signal, annunciators **AND BALANCED LINE ALL CALL FEATURE.**

THE L-400 series STILL remains in the line—same QUALITY and features—Busy lite, annunciators, ALL-CALL available.

L-406	6-station master unit	**$137.00**
L-412	12-station master unit	**$157.00**
L-418	18-station master unit	**$177.00**
L-424	24-station master unit	**$197.00**

KWIK-KALL "NOR" INTERCOMS *Revolutionary 1-pair wire system for secret 2-way intercom*

SECRET INTERCOM with absolute privacy between any two master stations, yet but a single pair of wires is needed. Conference calls are possible with only desired stations connected. Equipped with telephone handset as well as talk-back.

AUDIBLE AND VISIBLE ANNUNCIATORS. Each call announced by chime or buzzer, and also by plunger signal which acts as memo message until answered.

ONE PAGING KEY PER MASTER AVAILABLE at small additional cost. Power is automatically quadrupled when paging key is used.

UNLIMITED INTERCONNECTIONS. Standard master units available with 6, 12, 18 and 24 stations. Larger units available on special order. In solid walnut cabinet with exclusive Loge construction features. 4-station Junior "NOR" master available in metal cabinet. All units can be interconnected with Loge remote stations and paging speakers. Installations of NOR units can be made up to 10,000 feet with No. 22 wire.

ZERO LEVEL with dual amplification. Can be installed within telephone cable pairs on private or government-owned telephone systems.

MODEL L-406A-NOR $290.00

6-station master with annunciators, telephone, handset, and chime signal. If no handset is required deduct $55.00 from list price.

LOGE ELECTRONICS, INC. **Los Angeles, California**

PIONEERS IN THE DESIGN AND MANUFACTURE OF INTERCOMMUNICATION SYSTEMS FOR MODERN BUSINESS

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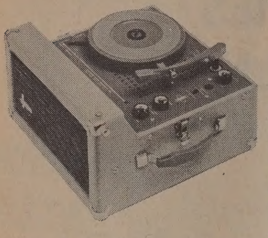
NEWCOMB | PORTABLE PHONOGRAPHS AND RADIOS

MODEL R-124V

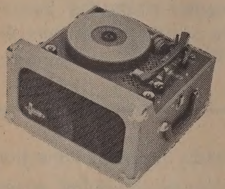


4 SPEED, VARIABLE SPEED, HI-FIDELITY PHONOGRAPH

A rare combination of ruggedness and high fidelity sound, the Newcomb R-124V is built with a host of features that make it the outstanding value among portable phonographs: New four speed, variable speed motor; big two-way, 9″ oval, dual cone speaker; new Bi-Coupled ® 10 watt peak output system; pilot light; "power point" type plug-in ceramic high fidelity cartridge; rubber record mat and "Twist-up" 45 center spindle; jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory; idler release interlocked with separate motor switch; spring-suspension feet, Hideaway cord compartment; new ultra wide range tone control; compensated volume control; Tempo Control that smoothly varies speed as much as 20%. Crackproof plywood case, glue-block reinforced, covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 8¼″ x 14¾″ x 14¾″; weight 20 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles A.C. PROF. NET **$85.95.** Plus excise tax.

MODEL R-124 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-124V. PROF. NET: **$69.50.** Plus excise tax.

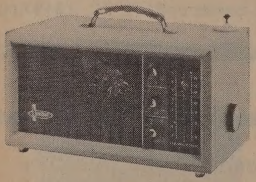
MODEL R12-C4



4 SPEED, FIXED SPEED HI-FIDELITY PHONOGRAPH

The Newcomb Model R12-C4 is a transformer powered, 10 watts peak utility model that offers safety, dependability, and high performance at low cost. It has a 10 watt inverse feedback controlled output system teamed up with a two-way 9″ oval, dual cone speaker. The R12-CA has a "Power Point" type plug-in ceramic high fidelity cartridge, automatic idler release, rubber record mat and "Twist-up" 45 center spindle, pilot light, A.C. power cord stowage, main power switch turns off everything including idler pressure, spring suspension feet, crackproof plywood case covered in washable gray fabrikoid. U.L. approved. DIMENSIONS: 8¼″ x 14⅛″ x 14⅛″; weight 19 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles a.c. PROF. NET: **$62.50.** Plus excise tax.

MODEL AFM-1500 FM & AM



HI-FI A.C. RADIO

Never before has such all-around excellence, high power, superb sound been built into a table model radio. The Newcomb AFM-1500 has a tuning section with the sensitivity, selectivity, and stability heretofore reserved for high fidelity tuner components costing more than this complete radio set. It has a.f.c., a 15 watt peak push-pull amplifier coupled with a 20 watt 9″ oval, dual cone speaker capable of making full use of amplifier power. The Newcomb AFM-1500 has a pull-up, telescoping rotating FM antenna, built in "Hi-Q" ferrite rod AM antenna, tuning eye, lighted lucite sliderule type dial with reference scale and Conelrad markings, reference AM and FM pilot lights, wide ranging tone control of new design, large tuning knob, compensated volume control, external antenna terminals, jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory, jack for external amplifier, public address system, or tape recorder. Neat power cord stowage on back. U.L. approved. DIMENSIONS: 16¾″ x 9¾″ x 8⅝″; weight 20¼ pounds: POWER CONSUMPTION: 70 watts, 117 volts, 60 cycles a.c. PROF. NET: **$164.50.**

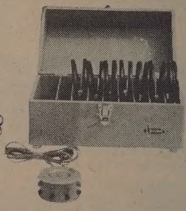
MODEL R-164V

4 SPEED, VARIABLE SPEED HI-FI, MEDIUM POWER, PORTABLE COMBINATION TRANSCRIPTION PLAYER-P.A. SYSTEM

This is a versatile, portable sound system of advanced design that will play any record size up to 17¼ masters. It has the new four speed, variable speed Newcomb motor. The R-164V has a big 12″ round, dual cone high fidelity loudspeaker with 25 foot cord and the new Bi-Coupled ® 10 watt pea output system. Speaker enclosure forms case lid. Jeweled pilot light and lighted operating panel, "Power Point" type plug-in ceramic high fidelity cartridge, rubber record mat and "Twist-up" 45 center spindle. Microphone input jack. Mixing volume controls. Bass tone control does not affect voice. Separate treble control. Output jack for speaker, headphones or Newcomb Headphone Listening Center Accessory. The R-164V has a long tone arm of cast metal, protective drop pad, Hideaway power cord, 4 speed settings — 78, 45, 33⅓, and 16⅔ r.p.m.; tempo control which smoothly varies speed as much as 20%; pickup stop post; pick up lock screw; separate motor power switch that automatically retracts idler. Crackproof plywood case covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 11″ x 15½″ x 15½″; weight 25 pounds. POWER CONSUMPTION: 55 watts, 117 volts, 60 cycles A.C. PROF. NET: **$107.50.**

MODEL R-164 FIXED SPEED, except for the absence of Tempo Control, is identical to the R-164V, PROF. NET: **$93.25.**

HEADPHONE LISTENING CENTER KITS

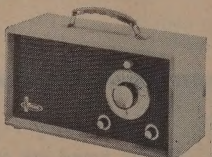


Designed for library use, language study, group-within-a-group listening, adapter plugs into output jack on all Newcomb radios, transcription players, phonographs. Up to 8 pair of headphones connect to adapter. Choice of phone connection: suffix "A" after model number indicates pin jacks, suffix "B" denotes standard phone jack. COMPLETE KIT includes adapter, 8 pairs of phones, plywood compartmented case covered with gray fabrikoid. PROF. NET: **MODEL LC8A — $59.55; MODEL LC8B — $67.30.**

ADAPTER ONLY, providing outlets for 8 pairs of headphones . . . PROF. NET: **MODEL 8A — $14.95; MODEL 8B — $17.50.**

HEADPHONE SET ONLY, sturdy, sensitive, double phones, with 6″ cord provide excellent reproduction. Colored bright red and black to identify them as public property. PROF. NET: **MODEL HDP** (with pin jacks) **— $3.95; MODEL HDPB** (standard phone jack) **— $4.60.**

MODEL AM-500 AM ONLY



HI-FIDELITY A.C. RADIO

A high performance, handsome, safe, rugged, economical continuous duty table model AM radio, the Newcomb AM-500 has a powerful 5 watt peak inverse feedback amplifier and big 8″ oval cone loudspeaker with special tweeter cone for improved distribution and high frequency response. It has a built in "Hi-Q" antenna and terminals for external antenna. A lighted index illuminates the dial and serves as a pilot light. Dial of satin finished aluminum has large numerals and Conelrad markings. Large tuning knob drives the dial directly through planetary vernier — no strings. Jack for external speaker, headphones, or Newcomb Headphone Listening Center Accessory. Jack for external amplifier, public address system, or tape recorder. When latter is used, the amplifier-speaker system of the AM-500 becomes a fully controllable power monitor. Neat power cord storage. Crack-proof plywood case covered in washable gray fabrikoid. Transformer powered. U.L. approved. DIMENSIONS: 6½″ x 8″ x 15½″; weight 10 pounds. POWER CONSUMPTION: 40 watts, 117 volts, 60 cycles a.c. PROF. NET: **$59.95.** Plus excise tax.

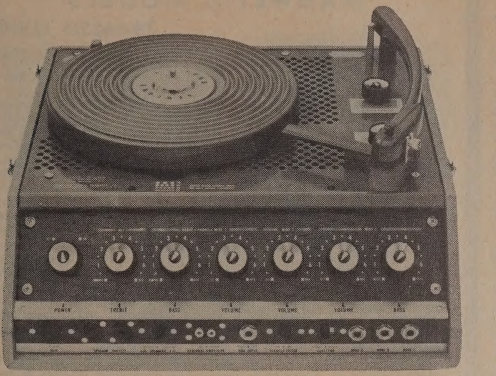
Specifications and Prices subject to change without noice. All parts used in Newcomb Equipment are made in U.S.A. All Newcomb Equipment Approved by Underwriters Laboratories.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB

TR SERIES HIGH POWER PORTABLE COMBINATION TRANSCRIPTION PLAYER/P.A. SYSTEMS

NEW DESIGNS! NEW MOTORS! NEW OUTPUT SYSTEMS! NEW REPRODUCERS!



New, American-Made 4 Speed Variable Speed Motor delivers full starting torque at any speed setting; no warm-up required. The motor is remarkably stable under all conditions of use, and requires no more attention than conventional fixed speed motors. No flutter producing friction discs or cone drives used.

Plays All Sizes of records up to 17¼" masters.

New Amplifiers are engineered for optimum performance with the particular types of speakers used with the different models to greatly improve acoustic output.

Sturdy Crackproof Plywood Case is glue-blocked for additional strength, covered with washable scratch-resistant fabrikoid in a very pleasing shade of warm gray.

Metal Corners greatly extend life of case. Non-scratch feet are spring-floated to prevent needle skip from bumps and jars.

Loudspeakers Are Protected by a kickproof, perforated metal grill.

Straps for Hanging speakers from wall provided with all standard split-case speakers. Back of speaker in most models is protected by an armored basket. 25 foot cord is provided with all speakers.

New Hideaway Cord Compartment. Power cord is coiled and tucked into compartment built into side of the case.

Readily Accessible. The top deck lifts for instant access to tubes and motor. **Bottom Plate Removes** for complete access to wiring.

Clear Plastic Card Holder for name of owner, room, instructor, building, or "home base".

New Sta-Kleen ® Rubber Mat has deep grooves that swallow up dust and grime, protects records, is clamped on. Easily cleaned.

Heavy Turntable — 10", 2 pounds — for flywheel stability, minimum wow.

Unbreakable Pop-Up 45 Spindle of nylon.

Dual-Lighted Neon Speed-O-Scope ® permits precise speed setting.

Sturdy, Full-Size Carrying Handle and handhold for assistant.

New Ceramic Cartridge on TR-1625 and TR-1640 series models is dual sapphire styli, high fidelity, plug-in, "power point" type, thoroughly proven for durability, dependability, fidelity.

GE Magnetic Cartridge, twist needle type with individually replaceable microgroove and standard sapphire styli; necessary preamplifier built in.

Drop Pad, rubber covered, protects stylus and cartridge.

Long, One Piece, Cast Metal Pickup Arm lifts to vertical position for inspection.

Rugged Stop Post prevents putting arm in wrong position.

Stylus Pressure Adjustment for 78's or LP's.

Separate Motor Power Switch automatically retracts idler.

Tempo Control varies speed from + 5% to — 15% of any standard setting.

Positive Lock Screw holds arm securely during transportation.

Two Jeweled Pilot Lights.

Dual Lighted Panel angled for most convenient operation.

Full Through Ventilation, louvers in bottom plate, holes in deck.

"All". Channel Output Jack to external amplifier permits monitoring entire output with M-9 Monitor.

Speaker Impedance Selector matches amplifier impedance to number of speakers being used.

Auxiliary Input Jack for signal from radio, tape machine, or stereo channel.

"Phono" Output Jack delivers only phono signal to external amplifier or Newcomb Model M-9 Amplified Music Monitor.

Transformer Powered, Safe, completely isolated from the power mains. All units have UL approval.

Positive Humidity Protection is given output transformers by cellulose acetate or mylar insulation.

AMPLIFIED MONITOR & ACCESSORY SPEAKERS

New Model M-12 Amplified Music Monitor

includes 10 watt amplifier & 12" full-range speaker. Has its own tone and volume controls. Connected to "Phono" output jack of any Newcomb transcription player, you monitor recorded music without feedback squeal or confusion with own voice. Plug into "All" and use as remote speaker. Plywood case covered with gray fabrikoid. 17⅞" x 13⅜" x 7½", 17¼ lbs. PROF. NET: **$79.50.**

Model M-9 is a 10 watt monitor with 9" oval speaker 13¼" x 10⅛" x 7". PROF. NET: **$69.50.**

SINGLE SPEAKERS IN CASE
16¾" x 16¼" x 13¼"

Model S-112 Extended range, 12", 30 watt, dual cone speaker. Additional speaker for TR-1625 or TR-1625M. 25' cable. 8 ohms. 14½ pounds. PROF. NET: **$43.95.**

Model S-112H Heavy Duty, extended range, 12", 50 watt speaker. Additional speaker for TR-1640. 25' cable. 8 ohms. 14¾ pounds. PROF. NET: **$50.00.**

Model S-112HF Two-way, 50 watt, reproducer. 12" woofer, crossover filter, 3½" tweeter. Additional speaker for TR-1640M-HF. 25' cable. 8 ohms. 15 pounds .PROF. NET: **$59.50.**

PORTABLE REFLEX REPRODUCERS
18½" x 24" x 12½"

Model R112 Reflex enclosure with 12" extended range, 30 watt, dual cone speaker. Additional speaker for TR-1625MR. 25' cable. 8 ohms. 23 pounds. PROF. NET: **$64.50.**

Model R-112HF Reflex enclosure with two-way, 50 watt speaker system — 12" woofer, crossover filter, 3½" tweeter. Additional reproducer for TR-1640M-HFR or wherever high efficiency, high fidelity, and high power handling capacity are desired. 25' cable. 8 ohms. 23¼ pounds. PROF. NET: **$88.50.**

2 SPEAKERS IN SPLIT CASE
16¾" x 16¼" x 13⅛"

Model S-212E Two 12" extended range, 30 watt, 8 ohm, dual cone speaker, each with 25' cord. 21 pounds. PROF. NET: **$64.50.**

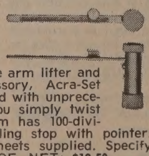
Model S-212HE Two 12" extended range, 50 watt, 8 ohm speakers (as used in TR-1640 models), each with 25' cord. 2½ pounds. PROF. NET: **$77.50.**

Model S-212HFE Two, two-way, 50 watt, 8 ohm speaker systems — 12" woofer, crossover filter, 3½" tweeter (as used in TR-1640MHF models) in each half case — each with 25' cord. 23 pounds. PROF. NET: **$88.50.**

Model S-212XE Split case assembly containing two super efficiency, 60 watt, 8 ohm speakers with large, aluminum-domed, 2" voice coils and integral tweeter cones, each with 25' cord, especially for use with the TR-1656M-X2. 25 pounds. All above are wired with sockets as extension speakers. PROF. NET: **$110.65.**

DIMENSIONS OF NEWCOMB TR PLAYERS: Single speaker TR players form a single case with the speaker case used as the lid. They measure 16¾" x 16¼" x 13¼". Multiple speaker models snap together to form two or three cases — audio unit with lid and speakers in split cases back to back. Audio units, closed, measure 16¾" x 16¼" x 8½". Dimensions of speaker assemblies are given above.

NEWCOMB ACRA-SET Model A-1



A precision-made tone arm lifter and record cueing accessory, Acra-Set lowers stylus to record with unprecedented gentleness. You simply twist the knob. Lifting arm has 100-division scale and traveling stop with pointer. Template and cue sheets supplied. Specify Newcomb model. PROF. NET: **$12.50.**

MICROPHONES AND ASSOCIATED EQUIPMENT

Model MS-23 Accessory Bag of heavy plastic, zippered, for microphones, etc., can be attached inside lid of speaker case. PROF. NET: (bag only) **$2.10.**

Model N-30 Crystal Microphone with lavalier cord, stand adapter, switch, and shielded plug. PROF. NET: **$13.95.**

Model N-30D. Desk Mounting for N-30 only. PROF. NET: **$1.85.**

Model N-36 Dynamic Professional Quality Microphone is the perfectionist's choice with any TR system, especially intended for use with TR-1640M and TR-1656M series models. Supplied with shielded cord and plug and on-off switch. PROF. NET: **$50.00.**

Model N-23 Dynamic Microphone of very high quality with switch and shielded plug, recommended for general purpose use with all TR series systems. PROF. NET: **$39.50.**

Model N-3766 Stand, a professional class, extremely stable, collapsible stand, beautifully finished in brushed chrome, extending from 37" to 66" for use with any standard microphone. PROF. NET: **$20.00.**

Model PP-61 Stereo Conversion Pickup Cartridge, plug-in type, for any TR series player equipped with stereo output jack and plug-in ceramic cartridge. PROF. NET: **$4.65.**

Model WC-64 Connecting Cable, four feet long with plugs for connecting two TR ceramic models together for stereo. PROF. NET: **$4.65.**

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NEWCOMB

TR SERIES HIGH POWER PORTABLE COMBINATION TRANSCRIPTION PLAYER/P.A. SYSTEMS

CERAMIC MODELS

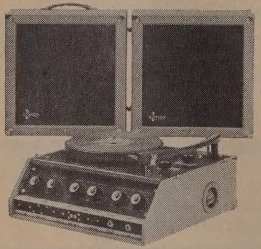
TR-1625 SERIES

25 WATTS PEAK

Successor to the widely used TR16, the Newcomb TR-1625 is capable of doing more jobs better. Four speed, variable speed model with "Power Point" type, dual sapphire styli, high fidelity pick-up. It has a treble tone control, a bass control that does not affect mike, phono volume mixer, mike volume mixer, scratch filter switch, voice filter switch, dual pilot light and lighted control panel, lift-up motor board access to tubes and motor. Pick-up lock nut, stop post, drop pad. Hideaway cord compartment. Crack-proof plywood case, glue blocked, covered with gray washable fabrikoid. Output jacks for stereo, for 2 speakers, and for monitoring "Phono" only or "All" using Newcomb M-9.

MODEL TR-1625 is in a single, split case with one 12" dual cone, 30 watt speaker. Weight 35 lbs. PROF. NET: **$139.50.**

MODEL TR-1625-2 is in two cases with two 12" dual cone, 30 watt speakers. Weight 50 lbs. PROF. NET: **$172.50.**



TR-1640 SERIES

40 WATTS PEAK

A completely new system with plenty of power to drive four loudspeakers, TR-1640 models are excellent choices for gyms, athletic fields, auditoriums. Start with a single speaker, or two speaker model; add additional speakers at any time. Provided with a treble tone control for all channels, separate bass for phono, separate bass for mike, phono volume mixer, mike volume mixer, scratch filter switch. Two pilot lights. Lighted operating panel. Crackproof plywood case, fabrikoid covered. Easy access to tubes and wiring. Spring suspension feet. Hideaway cord compartment.

MODEL TR-1640 is in a single split case with one 12", 50 watt loudspeaker. Weight 36 lbs. PROF. NET: **$169.95.**

MODEL TR-1640-2 is in two cases with two 12", 50 watt speakers. Weight 51½ lbs. PROF. NET: **$209.50.**

MODEL TR-1640-4 is in three cases with two 12", 50 watt speakers and two 12", 30 watt extension speakers. Weight 72½ lbs. PROF. NET: **$273.05.**

USE TWO CERAMIC MODELS FOR STEREO

TR ceramic models have stereo jacks. Replace the mono with a stereo cartridge, run a patch cord from the stereo jack to the auxiliary input jack on another player and you have a perfectly balanced, fully controllable stereo reproducer.

MODEL VU-1 PORTABLE VISUAL OUTPUT METER

A professional quality, self-contained accessory for setting the level of any Newcomb TR player, the Model VU-1 has a jeweled d'Arsonval movement and a scale calibrated in both decibels and volume units from 0 to 100 over the working range of the system. Meter input jack connects to player monitor jack. "Monitor all" jack on meter accepts plug from amplified monitor. 3¼" x 4¾" x 5⅛", 1½ lbs. PROF. NET: **$29.95.**

Specifications and Prices subject to change without notice. All parts used in Newcomb Equipment are made in U.S.A. All Newcomb Equipment Approved by Underwriters Laboratories.

MAGNETIC MODELS

TR-1625M SERIES

25 WATTS PEAK

When music reproduction is a major consideration, a Newcomb TR player equipped with a magnetic cartridge is the answer. The TR-1625M is furnished with a GE variable reluctance, twist needle cartridge with sapphire styli and necessary preamplifier built in. The 4 speed, variable speed motor is a new 4 pole, deluxe unit for minimum rumble. Pilot lights; lighted panel, crackproof plywood case. 2 speaker output jacks; "Phono" and "All" jacks to external amplifier or Newcomb M-9 Monitor. Input jacks for auxiliary equipment and microphone.

MODEL TR-1625M is in a single, split case with one 12" dual cone, 30 watt speaker. Weight 36 lbs. PROF. NET: **$154.50.**

MODEL TR-1625MR is in two cases with a single 12" dual cone, 30 watt speaker in a portable bass reflex enclosure. Weight 53 lbs. PROF. NET: **$187.50.**

MODEL TR-1625M-2 is in two cases with two 12" dual cone, 30 watt speakers. Weight 51 lbs. PROF. NET: **$187.50.**

TR-1640M SERIES

40 WATTS PEAK

A more powerful music model with ultra-linear amplifier output system, the TR-1640M systems have the GE cartridge with built in preamp. The phono circuit is convertible to a second mike channel by merely flipping the selector switch. New 4 speed motor is the deluxe, 4 pole unit. As on all TR models a dual lighted neon strobe permits precise speed setting for accurate pitch reproduction. Same output jacks as TR-1625M.

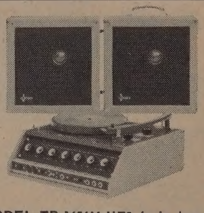
MODEL TR-1640M-HF is a single case model with a two-way speaker system including a 12", 50 watt woofer, crossover, and separate 3½" tweeter. Weight 36½ lbs. PROF. NET: **$205.00.**

MODEL TR-1640M-HF2 is a two case system with two, two-way, 50 watt speaker systems. Weight 54 lbs. PROF. NET: **$244.00.**

MODEL TR-1640M-HF4 is a three case system with two, two-way 50 watt speaker system and two 12" dual cone, 30 watt extension speakers. Weight 75½ lbs. PROF. NET: **$309.50.**

MODEL TR-1640M-HFR is in two cases with one two-way 50 watt speaker system in a bass reflex enclosure. Weight 54 lbs. PROF. NET: **$244.00.**

MODEL TR-1640M-HFR2 is in three cases with two, two-way 40 watt speaker systems in reflex enclosures. Weight 77 lbs. PROF. NET: **$333.00.**



TR-1656M SERIES

56 WATTS PEAK

Phenomenal output is achieved in these fully integrated systems. Phono channel converts to third microphone channel. First mike channel has separate bass attenuating control for voice clarity. Second mike channel is flat. The phono tone controls affect the third mike channel.

MODEL TR-1656M-HF2 is in two cases with two, two-way 50 watt speaker systems including a 12", 50 watt woofer, crossover, separate 3½" tweeter. Weight 57 lbs. PROF. NET: **$288.50.**

MODEL TR-1656M-HF4 is in three cases with four, two-way 50 watt speaker systems. Weight 80 lbs. PROF. NET: **$377.00.**

MODEL TR-1656M-X2 is in two cases with two 12", 60 watt, super-efficient, dual cone speaker. Weight 59 lbs. PROF. NET: **$311.00.**

MODEL TR-1656M-X4 is in three cases with four 12", 60 watt speakers. Weight 84 lbs. PROF. NET: **$421.50.**

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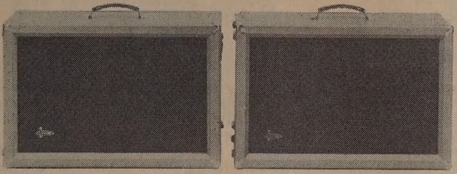
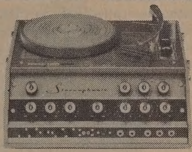
NEWCOMB

STEREOPHONIC Transcription Players and Phonographs





80 WATTS PEAK

Shown with Acra-Set, tone arm lifter accessory available at additional cost.

TRS-1680 SERIES STEREO/MONO

PORTABLE COMBINATION TRANSCRIPTION PLAYERS/P.A. SYSTEMS

Built with a great reserve of power for most uses — 40 watts peak per channel — the Newcomb TRS-1680 is probably the most complete and flexible portable sound unit ever built. It is stereo or mono at the flick of a switch. In addition, you are offered a wide choice of reproducers to fit specific assignments with extraordinary efficiency. The big 10", 2 lb. turntable is covered with a deep-grooved rubber mat and is driven by a 4-speed, variable-speed, cool-running American-made motor of advanced design. Hi-fidelity ceramic cartridge with turnover, jeweled styli. Dual neon Sped-O-Scope is located out where it can be seen. Unit has 3 mike channels, inputs for L & R radio, tape, & aux. Lighted panel has separate mixers for each mike and phono. Separate tone controls for each channel, also "Blend" control. Outputs for 2 or 4 speakers with impedance-matching switch. Safe, transformer-powered, UL approved. Turntable-amplifier unit DIMENSIONS: 9¼" x 17⅞" x 18⅝"; 43 pounds. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles a.c.

MODEL TRS-1680-L2 is a three-case model with two extended frequency L-300 two-way, three-driver, full crossover network reproducers. Weight 101 lbs.......................PROF. NET: **$538.50**

MODEL TRS-1680-L4 is a five-case model with four L-300 reproducers. Weight 159 lbs.......................PROF. NET: **$777.50**

MODEL TRS-1680-NF2 is a two-case model with audio unit in one case and two speakers in split case. Each NF high efficiency reproducer has 12" woofer, 3½" tweeter, cross-over network. Weight 70 lbs.......................PROF. NET: **$429.00**

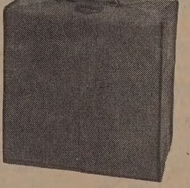
MODEL TRS-1680-NF4 is a three-case model with four NF reproducers. Weight 97 lbs.......................PROF. NET: **$558.50**

MODEL TRS-1680-KN2 is a three-case model with two KN-200 reproducers each of which contains 1 12" woofer with horn, tweeter and control, fully enclosed with ducted port. Weight 113 lbs.......................PROF. NET: **$565.00**

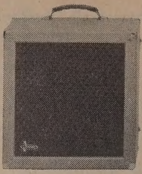
MODEL TRS-1680-KN4 is a five-case model with four KN-200 reproducers. Weight 183 lbs.......................PROF. NET: **$830.50**

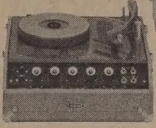
CANVAS COVERS

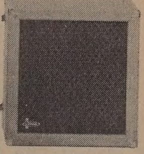
to protect most popular Newcomb TR players and reproducers from dust, mud, and moisture are now available. They are made of tightly-woven, rubberized mackintosh, fleece-lined, closed with stout zippers. Protective flap tucks under handle. Plastic slot for identification.



Catalog No.	for Use with:	Prof. Net
CA-102	Newcomb TR-1625, TR-1640, TR-1640M, TR-1656M amplifier sections only	$5.95
CA-103	Newcomb S-212 type split case speaker assemblies and all TR Series systems with single speaker in case lid	$5.95
CA-104	Newcomb TRS-1680 amplifier section only	$5.95
CA-110	Newcomb K-200 or K-400 reproducers	$6.63
CA-111	Newcomb C-100 or J-200 reproducers	$5.95







20 WATTS PEAK

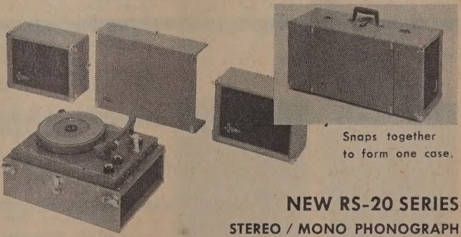
Shown with Acra-Set, tone arm lifter accessory available at additional cost.

NEW RS-1620V SERIES STEREO/MONO

PORTABLE COMBINATION TRANSCRIPTION PLAYERS/P.A. SYSTEMS

These are simple to operate, durable economical systems that will grow in usefulness as stereo becomes more widespread. The RS-1620V player provides true stereo or monophonic high fidelity at the flip of a switch. The Bi-Coupled output system delivers 10 watts peak per channel. Choice of 3 speaker systems which have been carefully matched to the amplifier. A turnover ceramic stereo cartridge with jeweled styli is plugged into the one-piece cast-metal tone arm which is mounted on an acoustical filter. Turntable has rubber mat and twist-up 45 spindle. Any size record up to 17¼" masters can be played an any speed. Tempo control varies speed from +5% to −15% without the use of any rumble or flutter-producing device. Neon strobe is built in. There are two mike inputs and input jacks, left & right, for radio or tape machine. On the illuminated, slanted operating panel are separate mixers for each mike and phono. Separate voice filters. Separate bass and treble tone controls ganged for both channels, but bass does not affect voice. Safe, transformer-powered, UL approved. Player unit DIMENSIONS: 8" x 15½" x 16½", 26½ lbs. For use with 117 volts, 60 cycles a.c. Fixed speed models, identical to variable speed but without strobe or tempo control, are available.

	Variable Speed Model No.	Prof. Net	Fixed Speed Model No.	Prof. Net
With S-212 split case containing two 12" dual cone hi-fi drivers. Closed case: 16¾" x 16¼" x 13⅛", 21 lbs.	RS-1620V-2	**$215.00**	RS-1620-2	**$205.00**
With S-212HF split case containing two 2-way systems — 12" woofers, 3½" tweeters. Closed: 16¾" x 16¼" x 13⅛", 23 lbs.	RS-1620V-HF2	**$239.00**	RS-1620-HF2	**$229.00**
With 2 C-100 2-way reproducers each in separate enclosure. Each measures 10¼" x 14¾" x 20", 19½ lbs.	RS-1620V-C2	**$309.50**	RS-1620-C2	**$299.50**



Snaps together to form one case.

NEW RS-20 SERIES

STEREO / MONO PHONOGRAPH

The highly portable and compact Newcomb RS-20 has two full-range 9" oval, dual-cone speakers that can be extended to create a realistic illusion of dimensional sound. Machine is stereo or mono at the flip of a switch. It plays any record size, up to 12", at any standard speed. Rubber-matted turntable has twist-up 45 spindle. Separate turntable on-off switch retracts idler. Dual-acting bass-treble tone control, volume control, jeweled pilot light. Hideaway cord compartment. DIMENSIONS: 8½" x 11⅛" x 24¾", 28 lbs. For use on 117 volts, 60 cycles a.c. PROF. NET: **$149.50.**

PLAYER UNIT OFFERED WITH OTHER SPEAKERS:

Model **RS-20-2** in 2 cases with 2 S-212 speakers, PROF. NET: **$184.00**

MODEL RS-20-C2 in 3 cases with 2 C-100 speakers, PROF. NET: **$278.50.**

MODEL RS-20-KN2 in 3 cases with 2 KN-200 speakers, PROF. NET: **$385.00.**

All specifications and prices are subject to change without notice.

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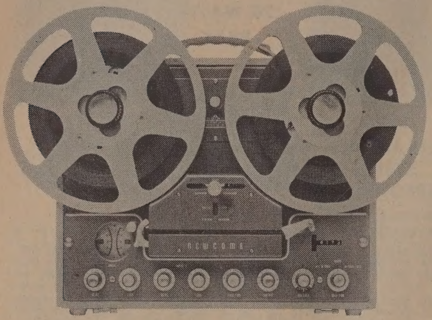
NEWCOMB

STEREO TAPE RECORDERS AND PORTABLE STEREO AMPLIFIER—REPRODUCER SYSTEMS

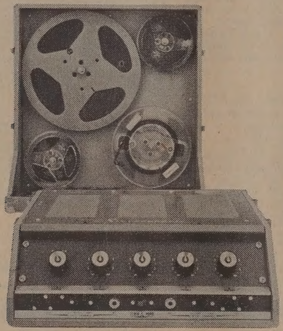
Cybernetically Engineered STEREO TAPE RECORDERS



MODEL SM-310-4B QUARTER-TRACK

MODEL SM-310B HALF-TRACK

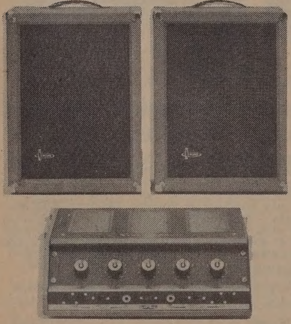
With tape transport control centered in a joy stick, operation of the Newcomb Stereo Tape Recorder is intuitive . . . the natural thing to do is the right thing to do. Handling is fluid-smooth, effortless, positive . . . tape is treated with extraordinary gentleness, stretching obviated. The SM-310-4B records quarter track and will play back either quarter track or half track. The SM-310B records and plays back half track. Both record live, broadcast, or recorded stereo program material. Monophonically, you may record on either one or two channels in the same direction. The Newcomb Stereo Tape Recorder is virtually a studio in a suitcase. It operates vertically or horizontally, takes from 3" to 10½" reels, has two tape speeds — 7½ or 3¾ inches per second with automatic compensation for 3¾" speed, separate mixing controls — mike and line — for each channel, two lighted recording level meters arranged pointer-to-pointer for easy comparison of channel levels, straight line tape loading, dual acting tape tensioning device keeps tape always under control even with the larger reels, automatic shut-off switch, four digit counter pinpoints desired position, without repeating, on any size reel, all pre-amplification needs for recording and playback, balance control, microphone input sockets take Cannon XLR-3-12C male connectors. 12¾" x 16¾" x 9½"; 34 pounds. POWER REQUIREMENTS: 90 watts, 117 volts, 60 cycles a.c. PROFESSIONAL USERS NET (BOTH MODELS): **$569.50.**



MODEL SA-80

2 CHANNEL POWER AMPLIFIER WITH TONE, VOLUME, AND BALANCE CONTROLS

The Newcomb SA-80 is a two channel, stereo/monaural, portable, power amplifier designed especially for use with either the Newcomb SM-310-4B or Newcomb SM-310B Tape Recorder. The amplifier puts out 40 watts peak per channel, a total of 80 watts peak. The controls are conveniently grouped on a slanted operating panel that is brightly illuminated by two pilot lights. Controls are ganged. They consist of a bass boost and attenuation control, treble boost and attenuation, volume control, and a balance control. There is an input jack for each channel, a stereo-monaural selector switch, output impedance selectors, and two-speaker sockets for each channel. The removable cover carries tape reels of all sizes up to and including 10½". A plastic zippered bag for miscellaneous cords is included. Frequency response — 20-20,000 cycles ±1 db. Distortion per channel at 20 watts r.m.s. — less than 1%. Hum below —65 db. Output impedances per channel — 16, 8, 4 ohms. 8½" x 16¾" x 16⅜"; 32 pounds. PROFESSIONAL USERS NET: **$199.50.**



PORTABLE AMPLIFIER-REPRODUCER SYSTEMS

MODEL SA-80-J2 consists of one SA-80 and two Model J-200 Reproducers. Latter are two-way speaker systems with tweeter level controls, enclosed in compact cases, use latest techniques to provide excellent, full-range coverage in music rooms and small auditoriums. Each measures 14¾" x 20" x 10¼". Three-case system weighs 71 pounds. PROFESSIONAL NET: $368.40.

MODEL SA-80-L2 consists of one SA-80 and two Model L-300 Reproducers. Latter are two-way, three-driver loudspeaker systems in open-back cases designed to cover large audiences with outstanding quality and yet retain reasonable portability. Each measures 17⅛" x 26⅛" x 9¼". Three-case system weighs 90 pounds. PROFESSIONAL NET: $448.40.

MODEL SA-80-C2 consists of one SA-80 and two Model C-100 Reproducers. Latter are designed with high efficiency combined with compactness and light weight as leading objectives. Each measures 14¾" x 20" x 10¼". Three-case system weighs 71 pounds. PROFESSIONAL NET: $368.40.

MODEL SA-80-K2 consists of one SA-80 and two Model K-400 Reproducers. Latter are three-way loudspeaker systems developed for those who seek the very best possible reproduction that can be provided by translating advanced engineering concepts into portable form, and yet who do not need the tremendous conversion efficiency of the L-300. Each measures 16⅞" x 23½" x 10¼". Three-case system weighs 102 pounds. PROFESSIONAL NET: $468.40.

All specifications and prices are subject to change without notice.

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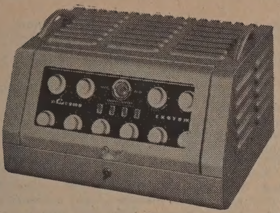
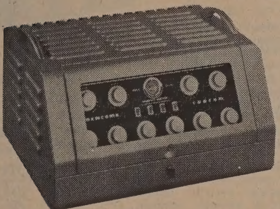
NEWCOMB | AMPLIFIERS • CUSTOM SERIES (K)


KX-25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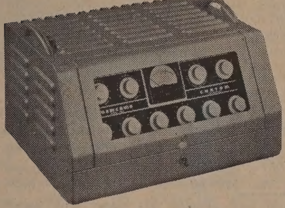
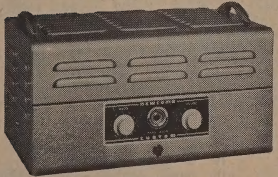

KX-6A


K-50B

Without equal at any price. The best examples why the name Newcomb is so revered by Engineers and Owners alike. Will improve any system. A must when using the new 2-way wide range speakers. Check these important features and specifications.

- 20-20,000 cycles ± 1 db
- Less than 3% distortion
- 90% of rating at less than 1%
- Full power any output tap
- Audio bandwidth selectors
- Hum and noise level — 80 db.
- Remote control provision — all inputs
- U/L Approved
- Continuous duty — longer life parts
- Key locked control cover
- Sensitive volume and overload indicators
- Wired for plug-in input transformers

Full audio power, 50 to 5000 cycles (region of all major power requirements) within ± ¼ db. less than 5% distortion. Separate tone controls for Bass and Treble Boost or Attenuation of advanced design for better curve shape, greater range. Feedback controlled, 2 stage mike pre-amplifiers. Hum balancing control, all models but booster. Linear mixer frequency response. All but Pre-Amplifier have output impedance of 4, 8, 16, 250, 500 ohms, PLUS a 70 volt "constant voltage" tap, with convenient, simple, impedance selector. Multistage inverse feedback. Large, heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installation. A. C. convenience outlet in rear, all models except booster. CABINETS: Heavy gauge welded steel beautifully styled. FINISH: Silver Grey Hammertone Baked Enamel. PANELS: Etched metal, illuminated. KNOBS: Round, large, skirted type, for easy operation. Additional specifications given under specific model numbers.

KX-25: 25 watts power output design center, rating, 30 watts max. at less than 3% distortion any output tap. PEAK POWER: 40 watts design center, 48 watts max. INPUTS (6): 5 mike (2 meg.), gain 123 db; 1 phono either Magnetic input gain 99 db based on 27000 ohm input, bass equalization +10 db or Crystal input ½ meg. gain 90 db. REMOTE CONTROL: Use RC-6 remote control unit. BASS TONE CONTROL: Range — 16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —75 db crystal phono. —65 db mike and magnetic pickup inputs (Referred to rated output). CONTROLS (15): 5 mike, 1 phono, 1 bass, 1 treble, 4 bandwidth, 1 master, 1 volume indicator (all under keylocked control cover) A.C. power switch. TUBES (15): 6-6SC7, 2-6J5, 1-6J7, 1-6SQ7, 1-6SN7, 2-6L6G, 1-6AF6G, 1-5U4G. POWER CONSUMPTION: 135 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜″ x 17¾″ x 14¾″ WEIGHT: 38½ lbs. LIST: (with tubes) **$456.92.** Use Cannon XL3-11 type microphone connectors.

KX-50: 50 watts power output design center rating, 60 watts max. at less than 3% distortion any output tap. PEAK POWER: 80 watts design center, 90 watts, max. BOOSTER COUPLING JACK for connecting K50B Boosters for 100 watts or more. All other characteristics identical with KX-25 except gains, which are all 3 db higher than KX-25. TUBES (18): 6-6SC7, 2-6J5, 1-6SQ7, 1-6J7, 1-6SN7, 4-6L6G, 1-6AF6G, 2-5U4G. POWER CONSUMPTION: 235 watts, 117 volts 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9⅜″ x 17¾″ x 14¾″, WEIGHT: 46 lbs. **LIST:** (with tubes) **$532.03.** Use Cannon XL3-11 type microphone connectors.

KX-6A: A 6 channel mixer pre-amplifier designed to feed broadcast lines or boosters for finest quality. OUTPUT: +31 VU, less than 3% distortion, +30 VU at less than 1%. Has built in power supply and genuine VU meter with meter range extension switch. INPUTS: for 5 mikes (2 meg.) gain 97 db and 1 phono either crystal (½ meg.) gain 64 db or magnetic (27,000 ohms) gain 73 db. Use RC-6 Unit for remote control. Includes Master Volume Control and same fine Dual Tone Controls and Audio Bandwidth Selectors as in KX-25 and KX-50. BASS TONE CONTROL: Range —16 to +25 db. TREBLE TONE CONTROL: Range —30 to +20 db. HUM: —80 db controls off, —80 db crystal —75 db mike and magnetic. CONTROLS (12): 5 mike, 1 phono, 1 bass, 1 treble, 1 master, 1 four position bandwidth (all under key locked cover), 1 A.C. power switch, 1 VU meter range switch (in rear). TUBES (12): 6-6SC7, 4-6J5, 1-6J7, 1-6X5. POWER CONSUMPTION 35 WATTS, 117 volts 60 cycles A.C. MAX. Input 129 volts. DIMENSIONS: 9⅜″ x 17¾″ x 14¾″. WEIGHT: 30 lbs. LIST: (with tubes) **$400.29.** Use Cannon XL3-11 type microphone connectors.

K50B: Booster Amplifier. Performance, power and output impedance same as KX-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Built for continuous duty with long life parts, separate plate, and filament power transformers, individually fused, permits dependable plate power switching. Includes volume and overload indicators as in KX-50. Ample multistage feedback to minimize effects of speaker load variations. Etched metal panel. TUBES (10): 1-6SJ7, 1-6SN7, 1-6SQ7, 5-6L6G, 1-6AF6G, 2-5U4G, POWER CONSUMPTION: 230 watts 117 volts 60 cycles. 129 volts max. DIMENSIONS: 9⅜″ x 17¾″ x 12¼″. WEIGHT: 41 lbs. LIST: (with tubes) **$225.00.** PLUG KIT: **$2.50.**

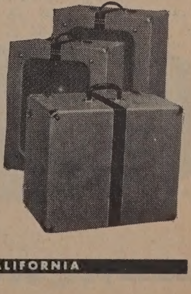
NEWCOMB | PORTABLE SYSTEMS • CUSTOM SERIES (K)

KX-2512X: Portable system with KX-25 amplifier and two heavy duty, extremely efficient speakers, each with 50′ cable. System is carried in two cases: Model KA for the amplifier, size 19″ x 11¾″ x 16⅞″; Model K-212X for two speakers, size 18½″ x 12½″ x 22½″. Speakers face inside for maximum protection when split case is closed. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$645.57.**

KA: Amplifier case fits all model K amplifiers. LIST: **$35.00.**

KX-25R12X: Portable system identical to KX-2512X but with each speaker mounted in an individual portable reflex baffle. Model KR-112X, for utmost tone quality. Speaker cases size, 18½″ x 12½″ x 24½″. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$716.82.**

All Prices and Specifications Subject to Change Without Notice.



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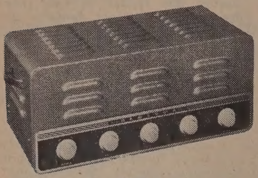
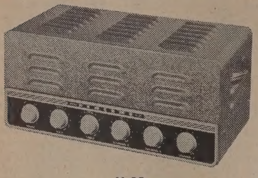
NEWCOMB

AMPLIFIERS • DELUXE SERIES
PORTABLE SYSTEMS

H


H-15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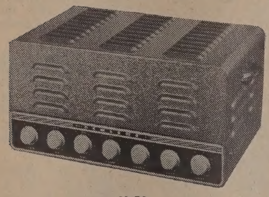
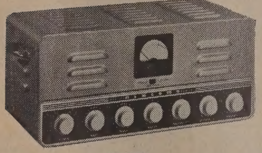
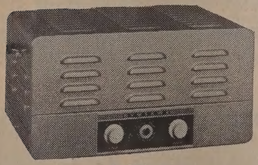

H-50


H-4VU


H-25B

For Performance, Dependability and Value check these features and specifications:

- 20-20,000 cycles ± 2 db
- Full Power any output top
- Less than 5% distortion
- 90% of rated power at less than 2%
- Remote Control provision — all mikes
- U/L Approved
- Continuous duty—longer life parts
- Wired for plug-in input transformers

Full Audio Power, 50 to 5000 cycles (region of all major power requirements) within ± ½ db. less than 5% distortion. Individual boost and attenuate type bass and treble tone control in new distortion free circuit. Linear mixer frequency response. All models but pre-amplifier have output impedances of 4, 8, 16, 250, and 500 ohms PLUS a 70 volt "constant voltage" tap, with easily-operated impedance selector. Multi-stage inverse feedback. Large heavy duty power and output transformers thoroughly impregnated against moisture. Rear connections avoid unsightly wires, simplify rack installations. A. C. convenience outlet in rear, all models except boosters. CABINETS: Heavy gauge welded steel beautifully styled in modern functional simplicity that endures. FINISH: Silver Grey Hammertone Baked Enamel. PANEL: Etched metal, illuminated. KNOBS: Large, round, skirted type, for ease of operation. Additional specifications under specific model numbers.

H-15: 17 watts power output design center rating, 20 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 26 watts design center, 31 watts max. INPUTS (3): 2 mike (2 meg.), gain 120 db; 1 phonograph (½ meg.), gain 80 db. BASE TONE CONTROL: Range −16 to +14 db. TREBLE TONE CONTROL: −34 to +13 db. HUM: −72 db phono input, −62 db mike inputs (referred to rated output). CONTROLS (5): 1 mike-phono, 1 mike, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-2 remote control unit. TUBES (7): 2-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5Z4. POWER CONSUMPTION: 85 watts, 117 volts 60 cycles. A.C. Max. input 129 volts. DIMENSIONS: 8¼″ x 19″ x 10⅛″. WEIGHT: 20 lbs. LIST: (with tubes) **$183.59**. Use Cannon XL3-11 type microphone connectors.

H-25: 25 watts power output design rating, 30 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 40 watts design center, 48 watts maximum. INPUTS (4): 3 mike (2 meg.), gain 124 db; 1 phonograph (½ meg.), gain 80 db. BASS TONE CONTROL: −18 to +15 db. TREBLE TONE CONTROL: Range −27 to +10 db. HUM: −72 db phono input, −62 db mike inputs (referred to rated output). CONTROLS (6): 2 mike, 1-mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-3 remote control unit. TUBES (8): 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5U6G. POWER CONSUMPTION: 125 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8½″ x 19″ x 10⅛″. WEIGHT: 24 lbs. **LIST:** (with tubes) **$215.03.** Use Cannon XL3-11 type microphone.

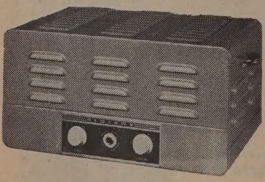
H-50: 50 watts power output design center rating, 60 watts max. at less than 5% distortion, **any output tap.** PEAK POWER: 80 watts design center, 90 watts max. INPUTS (5): 4 mike (2 meg.), gain 124 db. 1 phono (½ meg.), gain 81 db. BOOSTER COUPLING JACK for connecting H-25B or H-50B Boosters for 75 to 100 watts or more. BASS TONE CONTROL: Range −21 to +16 db. TREBLE-TONE CONTROL: Range −27 to +10 db. HUM: −72 db phono input, −62 db mike inputs (referred to rated output). CONTROLS (7): 3 mike, 1 mike-phono, 1 bass, 1 treble, 1 A.C. power switch. REMOTE CONTROL: Use RC-4 remote control. TUBES (12): 4-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 225 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 9¼″ x 19″ x 12½″. WEIGHT: 37 lbs. **LIST:** (with tubes) **$285.60.** Use Cannon XL3-11 type

H-4VU: Mixer Pre-Amp. with built-in power supply. Extremely low hum. Suitable for feeding telephone lines or booster amplifiers such as the H-25B or H-50B. Output +22 db at less than 5% distortion. +21 db at less than 2%. INPUTS for three mikes (2 meg.), gain 90 db, 1 phono (½ meg.), gain 51 db. HUM: Better than, −80 db from phono input or −75 db, mike inputs. Use RC-3 Unit for remote control. Includes master control and genuine VU meter with meter range extension switch. BASS TONE CONTROL: Range −16 to +14 db. TREBLE TONE CONTROL: Range −27 to +13 db. TUBES (7): 3-6SF5, 1-6SJ7, 1-6SN7, 1-6J5, 1-6X5, POWER CONSUMPTION: 30 watts, 117 volts, 60 cycles A.C. Max Input 129 volts. DIMENSIONS: 8½″ x 19″ x 10⅛″. WEIGHT: 17½ lbs. **LIST:** (with tubes) **$228.44.** Without UV meter **$182.94.** Use Cannon XL3-11 type microphone connectors.

H-25B: Booster Amplifier — Performance Power and Output Impedances same as H-25 with but one input of ½ meg. impedance, gain 68 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. power switch and volume control. Ideal for use with H-4 Pre-amplifier. Built for long life. TUBES (5): 1-6SJ7, 1-6J5, 2-6L6G, 1-5U4G POWER CONSUMPTION: 120 watts, 117 volts. 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 8⅛″ x 19″ x 10⅛″. WEIGHT: 22 lbs. LIST: (with tubes) **$149.50. PLUG KIT: $1.69.**

H-50B: Booster Amplifier — Performance, Power and Output Impedances are same as H-50 with but one input of ½ meg. impedance, gain 71 db. Provision for plug-in bridging or low impedance transformer. Etched metal panel with pilot light, A.C. switch and volume control. Built for long life. Ideal for use with H-4 Pre-Amp. TUBES (8): 1-6SJ7, 1-6J5, 4-6L6G, 2-5U4G. POWER CONSUMPTION: 220 watts, 117 volts, 60 cycles A.C. Max. Input 129 volts. DIMENSIONS: 9¼″ x 19″ x 12½″. WEIGHT: 33½ lbs. LIST: (with tubes) **$189.50. PLUG KIT: $1.69.**

NEWCOMB DELUXE PORTABLE SYSTEMS


H-50B

H-1512R: Portable system with H-15 amp. and two 12″ speakers, each with 25′ cable, in split case Model EH-212R, size 11⅛″ x 20½″ x 21″, covered in washable fabricoid. Kickproof metal grills protect speakers. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$283.09.**

H-2512R: Portable system with H-25 amp. and two 12″ speakers, each with 25′ cable in split case, Model EH-212R. Size, 20½″ x 11⅛″ x 21″. Mikes and mountings not included as requirements vary. LIST: (less mikes and stands) **$314.53.**

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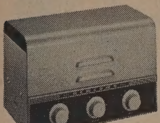
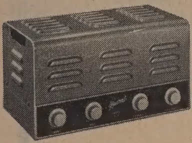
NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

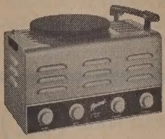
NEWCOMB | AMPLIFIERS • SPECIAL SERIES (E)

The same fine workmanship and materials as the incomparable KX- and H-Series. Designed to lead the low-price field. For performance, dependability and economy the E-Series is today's best combination of high quality and low cost. All models U/L Approved.



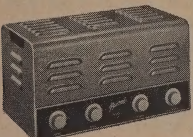
E-10A: Delivers 10 watts from push-pull 6V6 tubes. Separate mike and phono controls. Multistage inverse feedback circuit. POWER OUTPUT: 10 watts at less than 5%. FREQUENCY RESPONSE: 40 to 15,000 cycles ± 2 db. INPUTS: (2) 1 mike (2 meg.) gain 116 db. Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. TONE CONTROL: Range 0 to —24 db. OUTPUT IMPEDANCES: 4, 8, 16 and 500 (70 Volt Tap) ohms to octal socket. TUBES: (5) 1-6SC7, 1-6SJ7, 2-6V6GT, 1-6X5GT. FINISH: Silvergrey hammertone baked enamel. PANEL: Genuine etched enamel. POWER CONSUMPTION: 60 watts at 117 volts, 60 cycles A.C. SIZE: 5¾" x 10⅜" x 6¾". WEIGHT: 9½ lbs. Less cover, 7½ lbs. LIST: (with tubes, without cover) $69.50. Cover $7.21. PLUG KIT: $1.71.

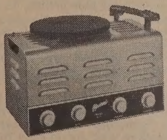




E-17P3: A conservative 17 watt model with 3 speed phono. Separate bass and treble controls, phono bass boost, multi-stage inverse feed-back circuit. Input controls for mike and phono. POWER OUTPUT: 17 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 40 to 15,000 cycles. INPUTS: 1 mike (2 meg.) gain 115 db, Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. OUTPUT IMPEDANCES: 4, 8, 16, 290 (70 Volt Tap) and 500 ohms. TUBES: (5) 1-12AX7, 1-6SJ7, 2-6L6G, 1-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, lighted. POWER CONSUMPTION: 75 watts at 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 15½ lbs. LIST: (with tubes) $149.87. PLUG KIT: $2.28.

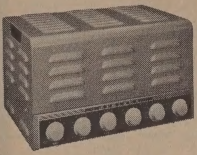
E-17: A 17 watt amplifier without 3 speed phono. Otherwise identical to model E-17P3. LIST: (with tubes and cover) $107.50. PLUG KIT: $2.28.

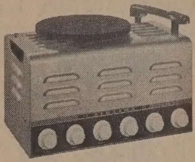




E-25: A dependable, full 25 watts with inputs for 2 mikes and 1 phono, separate bass and treble controls, phono bass boost, multi-stage inverse feedback circuit. POWER OUTPUT: 25 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 40 to 15,000 cycles. INPUTS: (3) 2 mike (2 meg.) gain 117 db, Wired for plug-in input transformers. 1 phono (½ meg.) gain 77 db. OUTPUT IMPEDANCES: 4, 8, 16, 196 (70 Volt Tap) and 500 ohms. TUBES: (6) 1-12AX7, 1-6SC7, 1-6J5, 2-6L6G, 1-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, lighted. POWER CONSUMPTION: 90 watts, 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 18¼ lbs. LIST: (with tubes and cover) $139.50. PLUG KIT: $3.24.

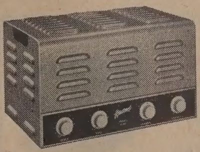
E-25P3: A 25 watt amplifier with 3 speed phono. Otherwise identical to model E-25. LIST: (with tubes) $181.50. PLUG KIT: $3.24.



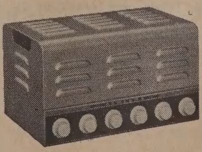


E-254P3: A highly versatile, yet economical 4 channel, 25 watt amplifier with 3 speed phono. FEATURES: High gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback circuit. Pickup is high-grade turnover crystal. POWER OUTPUT: 25 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. 3 MIKE INPUTS: 2 meg., gain 123 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 83 db. OUTPUT IMPEDANCES: 4, 8, 16, 196 (70 Volt Tap) and 500 ohms. TUBES: (8) 3-6SF5, 1-6SJ7, 1-6SN7, 2-6L6G, 1-5V4G, FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 105 watts at 117 volts, 60 cycles A.C. SIZE: 8⅜" x 14⅛" x 8". WEIGHT: 18¼ lbs. LIST: (with tubes) $211.50. PLUG KIT: $3.90.

E-254: A 25 watt amplifier without 3 speed phono. Otherwise identical to model E-254P3. LIST: (with tubes and cover) $169.50. PLUG KIT: $3.90.



E-50: A distortion-free, conservatively rated 50 watts using push-pull parallel 6L6 tubes and multi-stage inverse feedback circuit. Has inputs for 2 mikes, 1 phono, separate bass and treble controls, phono bass boost. Same as E-25 except as follows: POWER OUTPUT: 50 watts at less than 5%. Mike gain 120 db, Wired for plug-in input transformer Phono gain 79 db. OUTPUT IMPEDANCES: 4, 8, 16, 98 (70 Volt Tap) and 250 ohms. TUBES: (9) 1-6SJ7, 1-12AX7, 1-6J5, 4-6L6G, 2-5V4G. POWER CONSUMPTION: 170 watts at 117 volts, 60 cycles A.C. SIZE: 11¼" x 14¾" x 8½". WEIGHT: 29 lbs. LIST: (with tubes and cover) $196.50. PLUG KIT: $3.24.



E-504: A 4 channel 50 watt amplifier featuring; high gain, inputs for 3 mikes and 1 phono, separate bass and treble tone controls, phono bass boost, multi-stage inverse feedback, push pull parallel output system for lowest distortion at all power levels. POWER OUTPUT: 50 watts at less than 5% distortion. FREQUENCY RESPONSE: ± 2 db, 40 to 15,000 cycles. THREE MIKE INPUTS: 2 meg., gain 126 db. Wired for plug-in input transformers. PHONO INPUT: ½ meg., gain 86 db. OUTPUT IMPEDANCES: 4, 8, 16, 98 (70 Volt Tap) and 250 ohms. TUBES: (11) 3-6SF5, 1-6SJ7, 1-6SN7, 4-6L6G, 2-5V4G. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal, illuminated. CONTROLS: 3 mike, 1 phono, 1 bass, 1 treble and power switch. POWER CONSUMPTION: 180 watts, 117 volts, 60 cycles A.C. SIZE 11¼" x 14¾" x 8½". WEIGHT: 30 lbs. LIST: (with tubes and cover) $239.50. PLUG KIT: $3.90.

All prices and specifications subject to change without notice.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

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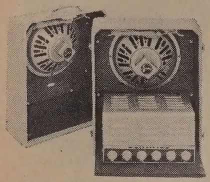
NEWCOMB | PORTABLE AMPLIFIERS (E) SERIES

E-1010S: A 10 watt basic portable consisting of one E-10 amplifier with plugs and one E-110S case assembly with efficient 10" P.M. speaker protected by a kick-proof metal grill. Speaker cable 25'. Overall size: 12¼x15¾x8¾".

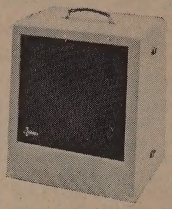
Weight: 19 lbs. LIST: (less mike and stand) **$126.82.**



E-1712R: A 17 watt dual speaker portable system consisting of one E-212R split speaker and amplifier case assembly with two 12" high quality P.M. speakers, each with 25' cable, protected by kick-proof grills, and one E-17 amplifier with plugs. Size: 11⅛ x 20½ x 21". Weight: 40 lbs. LIST: (less mike and stand) **$209.28.**

E-2512R: A 25 watt dual speaker portable system with model E-25 amplifier. Weight 42½ lbs. LIST: (less mikes and stands) **$242.24.**

E-25412R: A 25 watt dual speaker portable system consisting of one E-212R split case assembly with two 12" P.M. speakers each with 25' cable, and model E-254 four channel amplifier. LIST: (less mikes and stands) $272.90.



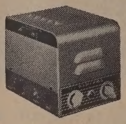
E-17P312R: A 17 watt dual speaker portable system with 3 speed phono. Consists of model E-17P3 amplifier in E-212R split case assembly. LIST: (less mike and stand) **$246.95.**

E-25P312R: A 25 watt dual speaker portable system with 3 speed phono. Model E-25P3 amplifier in E-212R split case assembly. LIST: (less mikes and stands) **$279.65.**

E-254P312R: A 25 watt dual speaker portable system with 3 speed phono. Same as E-25412R but with 3 speed phono top amplifier model E-254P3. LIST: (less mikes and stands) **$306.00.**

ALL NEWCOMB
tuners, amplifiers, phonographs
and sound systems are
U/L APPROVED

NEWCOMB | MOBILE AMPLIFIERS (E) SERIES



E-10M: A 10 watt mobile amplifier. For use on 6 V.D.C. or 117 V.60 cycles A.C. Features push-pull beam power output tubes with inverse feedback for low distortion, standby, battery saver switch, new freedom from vibrator hash, special mounting for easy removal of chassis, inputs for mike and phono, sturdy Jones connectors for battery and A.C. cables. POWER OUTPUT: 10 watts at less than 5%. FREQUENCY RESPONSE: ± 2 db. 50 to 15,000 cycles. INPUTS: Mike (2 meg.) gain 115 db. phono (1½ meg.) gain 75 db. OUTPUT IMPEDANCES: 4, 8, 16 ohms. TUBES: (5) 1-6SC7, 1-6SF5, 2-6V6GT, 1-6X5GT, POWER CONSUMPTION: 60 watts. 117 volts, 8 amps. at 6 V.D.C. FINISH: Silvergrey hammertone baked enamel. PANEL: Etched metal with pilot lamy. SIZE 6⅛x6⅜x8¼". WEIGHT: 9¾ lbs. LIST: (with tubes) $99.75. Plug Kit $1.39.

All Newcomb equipment U/L approved. Prices and specifications subject to change without notice.

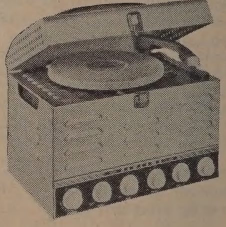
No matter what price level . . .

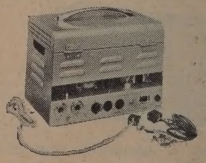
if it's a NEWCOMB,

it's DEPENDABLE!

Sound installations vary greatly in their needs of complexity as well as requirements of cost. Yet, one important feature is required of all —dependability. No matter how complex, or how simple and inexpensive your needs may be . . . you can enjoy utmost dependability by insisting on a Newcomb amplifier for your sound system. No product bears the name Newcomb unless it is inherently dependable, no matter on what price level you find it. Under the Newcomb name there is only one standard for quality . . . *the best!* Newcomb amplifiers vary in their complexity, but never in dependability. Quality of parts, materials or workmanship are never sacrificed here to gain lower price. Lower cost of one Newcomb model as compared to another is always entirely the result of greater simplicity.

12-VOLT



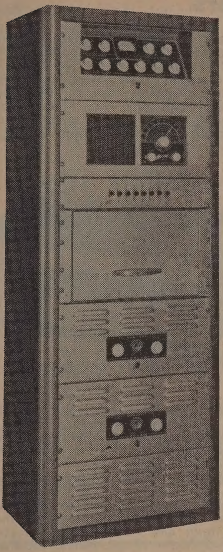


Newly developed E-253M Series Newcomb Amplifier designed for use anywhere. Ultra modern 25 watt unit available in several styles with and without turntable (see below). May be used on either 12-volt storage battery or 117 volt 60 cycle AC power source with equal effectiveness. Consumes as much as 20% less battery current, weighs up to 30% less. Separate bass and treble tone controls; two microphone channels each with the new standard broadcast type connectors and convertible to low impedance with Newcomb humless plug-in input transformers; high gain separate phono channel for ceramic pickups; extra input for tape; standby switch to reduce idle battery consumption more than 70%; new freedom from vibrator hash; heat resistant ceramic pickup and turret type motor in 3-speed phono top; completely U/L Approved.

POWER OUTPUT: 25 watts at less than 3% total harmonic distortion, peak power 40 watts. FREQUENCY RESPONSE: 30 — 20,000 cycles ± 2 db. HUM LEVEL: 70 db below 25 watts. INPUTS: Two mike (2 meg.) gain 122 db; one phono (2 meg.) gain 90 db; and one tape (2 meg.) gain 90 db. Mike inputs convertible to low impedance using Newcomb plug-in transformers. CONTROLS: One stand-by switch, one power switch and treble tone control, one bass tone, one phono, two microphone, one phono motor control (on phono top models), and one hum balance control. OUTPUT IMPEDANCE: 4, 8, 16, and 500 ohms and a 70 volt tap to impedance selector and two output sockets. POWER CONSUMPTION: On 117 volts 60 cycles AC, 100 watts. On 12 volts DC, 8.85 amps (with phono top, 10.3 amps.). Stand-by current less than 3 amps. SIZE: 14⅛x9½x8" high (with cover (height 10¼"). TUBES: 1-12AX7, 1-12AU6, 2-6L6G, 2-6X5GT, 1-12AV7, E-253M — plain top model, list price $214.50. (Weight, 24 lbs.). E-253M3 — 3-speed phono-top model, list price **$248.10.** (Weight, 28¼ lbs.). PC — Protective turntable cover with "king-sized" handle for use on Model E-253M3 only, list price $15.00. (Weight, 2¾ lbs.). Above prices include both battery and AC power cables.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

NEWCOMB | RACK AND PANEL ASSEMBLIES



Any standard Newcomb amplifier may be obtained panel mounted on special order in 19″ x 8¾″ panels, thus giving the custom designer a wide choice of equipment to meet any need.

MODEL 595-19 CABINET: (illustrated) Supplies a demand for a beautifully finished housing that is fully in keeping with the Newcomb tradition and reputation for quality. Panel space is 56″. Design accepts standard 19″ wide panels. Mounting holes are RMA standard 1¼″ and ½″ spacings. Panel mounting holes are tapped in ⅛″ stock. Fully ventilated rear door provides easy accessibility. Entire cabinet is a complete welded assembly ready for use as you receive it. Finish is dark grey hammertone. Provision is made in the rear for nine ½″ conduits. Included is a removable terminal strip mounting plate located near conduit inlets. OVERALL DIMENSIONS: 59½″ x 23″ wide x 16″ deep. SHIPPING WEIGHT: 92 lbs. LIST: **$189.50.**

MODEL 385-19 CABINET: Provides 35″ of panel space for standard 19″ panels. OVERALL DIMENSIONS: 38½″ x 23″ wide x 16″ deep. SHIPPING WEIGHT: 72 lbs. LIST: **$149.50.**

In addition to the panel mounted amplifiers Newcomb also provides a wide selection of other equipment designed for custom rack installations.

MODEL 1050-C PHONOGRAPH CHANGER PANEL is a practical solution to mounting a phono changer in cabinet 595-19. Ball bearing drawer with wood motor board is adaptable for mounting most popular changers. Panel size 19″ x 10½″. All panels are finished in silver-grey hammertone baked enamel. MODEL E2-525 PRE-AMPLIFIER answers the need for a simple, dependable but economical pre-amp for rack use. MODEL TB2-525 INTERCOM AMPLIFIER has built-in power supply, speaker, talk-listen switch and separate talk and listen volume controls.

MODEL B-100-875 AM RADIO is the Newcomb B-100 radio mounted on an 8¾″ panel. (See listing page B-7.) MODEL 700-MP MONITOR is available for installation of any 6″ speaker. LEVER KEY PANELS are provided for use with CRL keys, 3½″ deep with slots for 6, 8, 10 or 12 keys. LOUVERED PANELS for additional ventilation and BLANK PANELS are made in assorted sizes.

SPECIAL PANELS are made to order to fit special equipment. Templates or suitable drawings must accompany order for any special sheet metal work. Full details of Newcomb rack and panel equipment available on request.

NEWCOMB | ACCESSORIES FOR Ⓗ AND Ⓚ SERIES

REMOTE CONTROLS

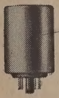
For mixing and fading all H Series mike inputs. With K Series amplifiers all mikes and phono may be controlled. Up to 2000 feet of cable may be used. No inductive pickup.

RC-2 for H-15 amp. Requires ordinary 3 wire cable, 2¾″ x 6″ x 2⅛″. WEIGHT: 1 lb. LIST: (less cable) **$10.50.**

RC-3 for H-25 or H-4 amps. Requires ordinary 4 wire cable. 2¾″ x 6″ x 2⅛″. WEIGHT: 1 lb. LIST: (less cable) **$15.50.**

RC-4 for H-50 amp. Requires ordinary 5 wire cable. 2¾″ x 7⅝″ x 2⅛″. WEIGHT: 1¼ lbs. LIST: (less cable) **$19.50.**

RC-6 for KX-25, KX-50, KX-6 amps. Requires ordinary 7 wire cable. 2¾″ x 11¼″ x 2⅛″. WEIGHT: 2 lbs. LIST: (less cable) **$27.50.**



PLUG-IN TRANSFORMERS

TR-91: Features sextuple alloy and copper shielding for quiet operation right in amp. proper. Alloy core and specially designed windings for extended frequency response from 20 to 20,000 cycles. Plug base for easy installation. For use between 30-50 or 200-250 ohm mikes and grid. WEIGHT: 1¼ lbs. LIST: **$32.50.**

TR-92: Input impedance 5,000 ohms to grid for bridging a 500-600 ohm line. When plugged into sockets on K50B, H50B, H25B it converts for use as bridging amps. WEIGHT: 1¼ lbs. LIST: **$29.50.**

TR-100: Identical to TR-91 but for use between 125-150 or 500-600 ohm mikes and grid. LIST: **$32.50.**

All prices and specifications subject to change without notice.

COMPLETE BID SPECIFICATIONS AVAILABLE

Available from Newcomb are complete bid specifications for public address amplifiers, phonographs, transcription players, and radios. A must for schools, states, or federal governments as well as commercial institutions requiring specifications to be shown. These Newcomb bid specifications spell out the proper details and may be included directly on prints or purchase orders.

All Newcomb equipment approved by Underwriters Laboratory.

NEWCOMB AUDIO PRODUCTS CO. • HOLLYWOOD 38, CALIFORNIA

SOUND PRODUCTS

The RCA CONSUL SERIES Sound Amplifiers

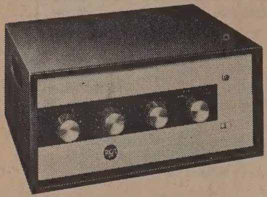
The Consul Series represents the ultimate in flexibility and versatility in moderate priced sound equipment, for conventional applications as well as those requiring a wider choice of installation and operating facilities.

Whatever the application, you will find the correct choice in an amplifier from among those shown on this page. The three amplifiers described here provide a choice of power rating from 12 to 100 watts, all engineered to RCA's traditionally high standards of quality and performance to assure life-like reproduction from microphone, radio, record player, or tape input.

The phonograph top and combination mixer/preamplifier are custom engineered to work in perfect harmony with any Consul Amplifier or with your present sound system.

The Consul Series is the result of sound but imaginative engineering resulting in a product which represents a departure from the usual limitations and restrictions commonly associated with other than "deluxe" or custom engineered sound systems. Ruggedly constructed for continuous duty, the Consul Series is capable of performance and dependability far beyond that expected of such moderately priced equipment.

CONSUL 12



12 WATT PA AMPLIFIER
Type 17649

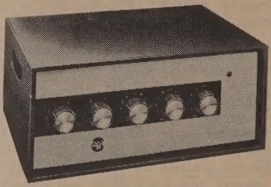
Dependable high quality sound reproduction is offered from this efficient unit. Rugged, versatile, and economical, the Consul 12 is ideal for use in low power public address systems, paging, garages, taverns, auctions, churches, amusement parks, and outdoor facilities.

The Consul 12 provides a low level, high gain channel, with gain control, for microphones of either the high impedance or quality dynamic type. Transformers are available for matching to low impedance microphones and telephone lines.

A second channel is provided for connection to a high impedance phono cartridge, tuner or tape recorder output. Since it employs a "fader" type gain control, two such program sources may be connected to this channel and controlled individually with a single knob for rapid switchover between two program inputs, further simplifying control action. A master volume control is also included for adjustment of amplifier power output without disturbing the gain settings. A four-position switch adjusts system frequency response for best characteristics for music, voice, program noise, and acoustical feedback conditions. A special signal source is available to drive a line or booster amplifier or tape recorder. Separate on-off switch permits the system to be turned off without disturbing control settings.

$88.50*

CONSUL 35



35 WATT PA AMPLIFIER
Type 17650

The Consul 35 is an attractively styled, medium power amplifier, designed for simple operation and reliable performance. Excellent for speech reproduction, music, or paging, the Consul 35 will perform admirably both indoors and out, in auditoriums, ballrooms, churches, and schools.

Two low level, high gain channels and one high level channel are provided. Channel 1 may be used for a magnetic phono cartridge or a microphone of the high impedance or dynamic type, and line transformers are available for matching to low impedance microphones and telephone lines. A gain control is included.

Channel 2 affords a choice of microphone, or input from a tuner, tape recorder or phono cartridge. By means of a special combination mixer/fader/gain control, this may be mixed with another program source (channel 3) from a tuner, tape recorder or phono. It is thus possible to "fade" between channels 2 and 3 as well as mix and blend the two programs with one hand.

A master volume control is included, to preserve program source balance and gain settings when adjusting system power output. Individual, completely variable Bass and Treble cut/boost controls make it possible to meet practically any operating contingencies. A signal source is also provided for tape recording independent of the amplifier master volume and tone controls.

$135.00*

CONSUL 100

100 WATT PA AMPLIFIER
Type 17651

The Consul 100 is an extremely versatile, highly efficient, high power amplifier designed to provide maximum sound amplification in hospitals, industrial plants, auditoriums, hotels, churches, etc.

This superb amplifier incorporates the same features, facilities, and operational advantages found in the Consul 35, with two low level, high gain channels and one high level channel.

Unique input and control arrangements permit an unusual degree of operational and installation flexibility.

For example, the Consul 100 features three channels which will accept inputs from a magnetic phono cartridge, tuner, tape recorder, or microphones of the high impedance or dynamic type. It will also accept inputs from low microphones and telephone lines through use of available line transformers.

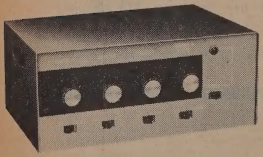
In addition, inputs from two channels (2 and 3) may be mixed by means of a special mixer/fader/gain control making it possible to "fade" between channels as well as mix and blend two programs with one hand, single control action.

The Consul 100 also features a master volume control, individual, completely variable Bass and Treble cut/boost controls, separate power switch and pilot light. A signal source is also provided for tape recording independent of the amplifier master volume and tone controls.

The extra reserve power of the Consul 100 insures cool-running, trouble-free performance under any load condition; permits future expansion without resorting to additional booster amplifiers. A real work-horse, the Consul 100 provides 100 watts of power at a much lower price than you would expect.

$208.00*

CONSUL COMBINATION
Mixer-Preamplifier Type 17654



This exceptional combination unit is designed for use with any sound system, fulfilling the need for additional channels and providing a practical way to expand a sound or recording installation. Completely self-contained, the Consul Combination permits remote control of multiple program sources.

Seven inputs are provided, five low level high gain, and two high level. Channel 1 offers a choice of microphones or magnetic cartridge input; Channels 2 and 3 each provide a choice of microphone or input from tuner or tape recorder and crystal or ceramic phono player. All are switchable from the front panel, thereby making it possible to use these inputs at will without having to rearrange input connections. Channel 4 is another microphone channel, which is convertible to a master volume control for the entire mixer by a front panel switch.

The Consul Combination features adjustable re-set indicators for all controls eliminating the need to log or remember previous settings. Low impedance output permits long line runs to the main amplifier or to a basic power amplifier, and delivers sufficient voltage to drive several amplifiers simultaneously. Output to a tape recorder is also available and an auxiliary AC power receptacle is included.

$86.50*

*Optional List Price

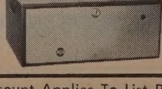
CONSUL PHONOGRAPH TOP Type 17653

This excellent unit, designed for the rugged dependability required of all public address system components, will mount directly on top of the amplifier, or by itself at some remote location. It provides four playback speeds and has a built-in 45 r.p.m. adaptor.

The Consul Phonograph Top features a turnover ceramic cartridge for maximum resistance to high humidity, temperature, and salt laden air. The tonearm can be secured to the base for safer portability when not in use and standard stylii are used for easy replacement in the field. A separate power switch is used to turn the phonograph on and off.

$44.00*

PANEL LOCK COVERS



Attractive, sturdy metal panel covers are available, complete with lock, for each of the Consul Series Amplifiers. These covers are a must to guard critical system balance and volume settings against accidents and tampering. The amplifier pilot light may be viewed at all times with the cover in place and locked on the front panel. No screws or other adjustments are necessary to install.

Type 17652 for 12 & 35 watt models **$ 9.60***
Type 17655 for 100 watt model **$10.00***

INTERCOMS

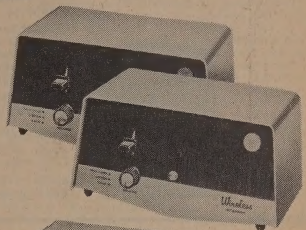
RCA offers a complete line of quality intercoms designed for office, home, farm or factory use at an economical price. Manufactured at RCA's traditionally high standards of engineering and design, the intercoms shown here are suitable for almost any possible application from simple wireless 2-way talk listen systems to flexible multi-unit systems with a variety of talk-listen-monitor options. The unsurpassed styling of these fine intercoms will harmonize beautifully with any decor. Installation, in all cases, is simple and inexpensive. Complete instructions are furnished with all units.

WIRELESS INTERCOM SYSTEM

Type 17641

The RCA Wireless Intercom makes use of the existing power lines for the transmission of voice. Just plug the units into any standard home electrical outlet and the installation is complete. Ideal for use anywhere . . . home, office, farm or factory, the RCA Wireless will operate between rooms, office floors and even between adjacent buildings if on the same power line.

2 station system	**$99.50***
Add'l. station (17646)	**$49.75***

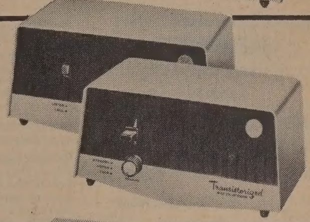


TRANSISTORIZED INTERCOM SYSTEM

Type 17642

The ultimate in low-cost installation. Battery operated (inexpensive penlight cells) it can be installed anywhere independent of ac current. Ideal outdoor system for farms, camps, storage yards, warehouses. Comes complete with master, remote and 50 feet of cable. As many as four additional remotes may be added to system.

1 master and 1 remote	**$52.95***
Add'l. remote (17648)	**$15.50***

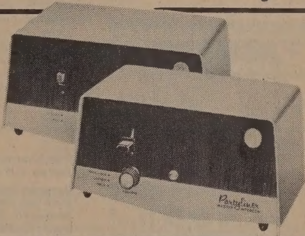


PARTYLINER INTERCOM SYSTEM

Type 17640

Ultra-sensitive "Partyliner" system comes complete with master, remote and 50 feet of cable. Powerful amplifier picks up the slightest noise. Remote can answer calls from a distance without operating switch making the "Partyliner" ideal for use as an electronic baby sitter. As many as four additional remotes can be added to system. Range of master to any remote is about 500 feet.

1 master and 1 remote	**$39.00***
Add'l. remote (17647)	**$15.50***

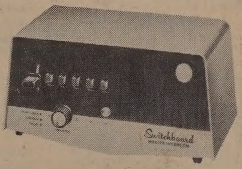


SWITCHBOARD MASTER INTERCOM

Type 17643

Used with as many as four remotes, the switchboard feature provides direct remote-to-remote conversations. Master can monitor any or all remotes or can set-up remotes to monitor other units. Remotes can originate calls to master and other remotes. Busy light flashes during conversation.

Master only	**$49.95***

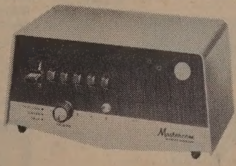


MASTERCOM MASTER INTERCOM

Type 17644

A dual-purpose master, the "Mastercom" can be used with as many as five remotes in a master-to-remote system or with as many as five additional masters in an all-master hook-up. In all-master systems, three private conversations can be held simultaneously or a conference may be held using all six stations.

Master only	**$49.95***

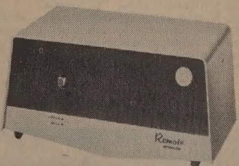


REMOTE STATION

Type 17645

The RCA Intercom Standard Remote Station can be used with either the RCA Mastercom or Switchboard unit. It can be installed for private or non-private operation. When private, its Call switch must be used to converse, but there's no interception by Master. When non-private, the Remote may reply to the master from a distance without using its switch, but its Call switch must be used to originate calls to its master. The RCA Remote Station can also be installed so that the call switch is inoperative and thereby unable to originate calls.

$15.50*



*Optional List Price

SHERWOOD TUNERS·AMPLIFIERS·SPEAKERS

MOST HONORED OF THEM ALL

S-8000

SR-3

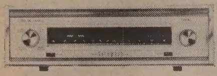
32+32 WATT FM/MX STEREO RECEIVER. A triumph in engineering, combining in one unit the famed performance of Sherwood's FM tuner circuitry along with an FM stereo adapter, two 32 watt amplifiers, two complete phono preamplifiers and stereo control amplifiers. In spite of the compact size, 16¼ x 14 x 4½ inches high, the S-8000 features "acro-beam" tuning eye, balanced flywheel tuning knob, friction-locked stereo bass and treble controls, ganged loudness control, phono level control, stereo balance control, stereo function and input-selector switch. Six slide switches control scratch and rumble filters, FM AFC, FM Inter-Channel Hush, phase reverse, and tape monitor. Inputs are provided for tape playback, tape monitor, phono, and two auxiliary. Outputs are for recording and 4, 8, 16 ohm speakers.

General Specifications—Power Output: Stereo 32 + 32 watts (64 watts mono) at 1½% IM distortion. Frequency Response: 20-20,000 cps. ± 1 db @ 32 watts. Hum and Noise: phono input, 60 db below 32 watts. DC filament supply. Phono sensitivity 1½ mv. Typical Sensitivity: FM: 0.95µv for 20 db quieting: IHFM Sensitivity: 1.8 µv for −30 db noise and distortion below 100% FM; Typical Selectivity: 195 kc @ −3 db; FM discriminator; 950 kc peak-to-peak. 21 tubes plus 4 rectifiers and 2 diodes. Power Consumption: 150 watts. Shipping Weight: 32 lbs. (with case).

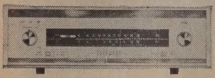
S-8000S (less case) Fair Trade Net..$299.50
S-8000D brown leatherette case: Fair Trade Net..$307.00

"RAVINIA" 3-WAY SPEAKER SYSTEM features peak-free response (±2½ db.)—45 to 17,500 cps. High compliance 12" woofer, 8" fibre-glass back fill mid-range, 3½" ring-radiator tweeter. Crossovers at 600 and 3,500 cps. Size: 15" x 26¼" x 13" deep.

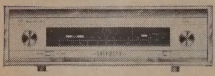
SR3W (Walnut finished)..$139.50
SR3U (unfinished Fir, less grill)..$119.50



S-3000 IV, S-3000 III



S-2000 II



S-2100

Sherwood is best known for its outstanding FM tuners; the first ever to achieve 0.95 µv sensitivity. All four models **S-3000 IV, S-3000 III FM/MX STEREO, S-2000 II FM/AM,** and **S-2100 FM/MX STEREO/AM** feature:

FM Interchannel Hush, a new noise-muting system which automatically eliminates noisy "hash" between FM channels to make FM tuning easier than ever, **FM Automatic Frequency Control** (AFC), which corrects electronically by 80% any mistuning of an FM station thereby simplifying accurate tuning of FM stations, velvet flywheel tuning, and single or dual tuning eyes. The built-in FM MX Stereo circuitry of model S-3000 IV is same as described in adapter at bottom of page. Adapters may be used with models **S-3000 III, S-2000 II.**

In addition, Model S-3000 III also features self-contained provision for FM multiplex adapters complete with all necessary stereo controls. S-3000 III specifications same as S-2100 FM specifications.

General Specifications—Typical Sensitivity: FM: 0.95 µv for 20 db quieting; 1.8 µv for 30 db quieting; IHFM Sensitivity; 1.8 µv for −30 db noise and distortion below 100% FM; AM −2 µv @ 60% mod. for 0.5v output, 6 db S/N; Typical Selectivity: FM—195 kc @ −6 db; AM—(wide) 15 kc @ −6 db, (narrow) 5 kc @ −6 db; FM Discriminator: 950 kc peak-to-peak; Frequency Response: FM 20-20,000 cps ± ½ db, AM-(wide) 20-7,500 cps @ −6 db; Distortion: FM—less than 1/3% IM @ 100% mod. Hum and Noise Level: FM −60 db below 100% mod., AM −55 db below 100% mod.; FM Drift: ± 2 kc w/AFC: AFC Correction: 15 db; Audio Output: 2.0 volts output @ 100% FM; Tuning indicators: EM84 light-bar tuning eye; Tube Complement: 14 plus rectifier. Power Consumption: 65 watts, 110-120v, 50-60 cps; Dimensions 14" x 12½" x 4" high. Shipping Weight: 20 lbs.

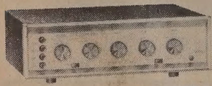
S-3000 IV Fair Trade Price—chassis less case*..$160.00
S-2100 Fair Trade Price—chassis less case*..$199.50
S-3000 III (same as **S-3000 IV** without stereo adapter installed). Fair Trade Price—chassis less case*.......$110.50
S-2000 II Specifications same as S-2100 without FM-AM Stereo reception feature.
Fair Trade Price—chassis less case*..$150.50

S-5000 II, S-5500 II

The Sherwood "Top Rated" **S-5000 II STEREO DUAL AMPLIFIER-PREAMPLIFIER** offers the maximum flexibility in stereo and monophonic operation.

General Specifications—Bass and treble controls have friction type dual knobs to adjust one channel separately from the other or together. Power Output: Stereo, 40 + 40 watts music power (80 watts mono IHFM music power). Frequency Response: 20-20,000 cps ± db at 36 watts. IM Distortion: 1½% at rated output. Hum and Noise: phono input, 60 db below rated output. DC filament supply. Sensitivity: Radio, 0.25 volt; phono, 1½ mv. Inputs: Phono (RIAA); tapehead (NAB) and 6 high-level. 2 cathode follower recording outputs. Controls include: 12 db/octave scratch and rumble filters and presence rise switch. Tubes: 4—7868, 6—12AX7/ECC83, 4 silicon rectifier. Power Required: 110 watts, fused. Size: 14" x 14" x 4". Shipping Weight: 29 lbs.

S-5000 II Fair Trade Price—chassis less case*..$199.50
S-5500 II Same as S-5000 II except 32 + 32 watts, no presence rise feature..$164.50



S-1000 II

S-360

The famous Sherwood "Music Center" monophonic amplifier-preamplifier offers music power output of 40 watts. This amplifier design is recognized for providing the many features and flexibility appreciated by the high-fidelity expert, yet offering the utmost in simplicity of operation.

General Specifications, S-1000 II—same as one channel of S-5000 II. Six tubes. Size: 14" x 10½" x 4" high. Shipping Weight: 24 lbs.

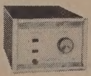
S-1000 II Fair Trade Price—chassis less case*..$109.50
MODEL 360 BASIC 40 WATT AMPLIFIER—Fair Trade Price—(case $6.00 additional)..$59.50
*Add $3.00 West of Rockies—see below for case prices.

ONE-YEAR WARRANTY—Every Sherwood product is covered by a full one-year warranty against defects in material and workmanship. Tubes carry the standard EIA 90-day warranty.

CASES: "A"—Brown Flextone or **"B"**—Black Flextone case or **"L"**—Walnut tone leatherette...........$7.50

STEREO LITE MODEL SL-1. Gives instant identification when FM/Stereo is tuned. Special sensing circuitry prevents false indications (frequent with some other identification devices) due to noise impulses. Operates with any type FM tuner. Size: 2½" x 2¼" x 7½" deep.

SL-1.............................$29.50



Model **S3MX** and **A3MX Stereo FM-MX** adapters converts FM tuners to receive FM stereocasts; has 19 kc filter, 67 kc filter, 38 kc sub-carrier eliminated for tape recording. Four tubes plus rectifier. 4" x 5¾" x 10½"—8 lbs.

S3MX-S (self-powered) without case......$69.50
A3MX same as **S3MX** but plug in type without power supply for use in S-3000 III tuner..$49.50
Units supplied with brown or black Flextone case at $5.00 additional. West of Rockies, add $1.00 to all prices.

Request technical data sheet showing other models.

CROSSOVER NETWORKS—The Sherwood line of crossover networks features performance precise enough for the finest 2, 3 or 4-way high-fidelity speaker system at a cost within the reach of the budget-wary experimenter. All networks feature 12 db/octave attenuation.

Model	Crossover Frequency	Speaker Application	Dimensions	Shipping Weight	Net Price
SFX35	300 c, 5 kc	3-way	4½x10x4½	5 lbs.	**$19.50**
SX36	3500 cps	2-way	4x5x3	1¼ lbs.	**6.50**
SX8	800 cps	2-way	4x7½x3	2 lbs.	**15.50**
SX55	500 c, 5 kc	3-way	4½x10x4½	4 lbs.	**18.50**

Sherwood Electronic Laboratories, Inc. Chicago, Illinois

NEW TALK-A-PHONE WIRELESS AND HOME INTERCOM SYSTEMS

TWO NEW WIRELESS SYSTEMS

Two NEW, high-quality wireless intercoms, featuring the exclusive TALK-A-PHONE "SONIC GATE" circuit. Provides dependable communication where permanent, wired systems are not practical. Ideal for use in offices, factories, stores, homes, apartments, nurseries, farms, etc. Distinctively styled cabinets combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray with brushed chrome side panels. Each station has a translucent indicator which illuminates when "On." All stations must be connected to outlets on the **same electric company service transformer.** Built-in Ground Adapter provides greater sensitivity where electrical wiring is routed over long paths. U.L. Approved.

NEW TALK-A-PHONE 12-STATION SELECTIVE WIRELESS* SYSTEM

- **6 Separate 2-Way Conversations Simultaneously**
- **Selective Paging with Reply** • **Push-Button Channel Selector**
- **Start a System with any number of Masters and Staffs**

Provides selective communication. Each Master is equipped with a 6 or 12-channel selector; can converse with any other station selectively; can receive calls on any channel Master elects to use. As many as 6 separate conversations may be held simultaneously, with 12 Masters. Masters can talk with any station in system; can also set up conferences.

Wireless Staff Stations are for use where calls need not be originated, but where reply must be made. They are available for operation on any single channel desired—to match that of Master. They also can be used to receive Paging Calls from any Selective Wireless Master in the system . . . use as many Wireless Staffs as needed (all Staffs must operate on same channel for this purpose). Two or more Wireless Staffs on the same channel will function as a 2-Station System (without Master); they can originate calls and reply to each other.

Start a system with any number of Masters and Staffs. Where up to 12 stations are used, each on a separate channel, Master can converse selectively with any channel. If more than 12 stations are used, channels must be *shared*; stations on same channel will receive all calls to that channel. To change location, merely pick up unit and move . . . no rewiring or new installation is necessary. All stations are equipped with the original TALK-A-PHONE UNI-TRANS feature, which permits continuous one-way transmission for periods when you wish to dictate or "listen-in."

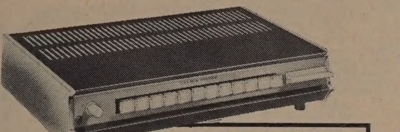
T-LCM-8912. 12-Station Selective Wireless Master. Complete, with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size 14″wx8¾″dx3⅛h. Shipping weight, 12½ lbs.
List Price Per Station $154.00..........Net **89.80**

T-LCM-8906. 6-Station Selective Wireless Master.
As above except for 6-Station Capacity. Shpg. Wt. 10 lbs.
List Price Per Station $136.00..........Net **79.50**

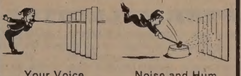
Wireless Staff Stations. Receive and reply on a single channel only.

T-LCS-901 Channel 1
T-LCS-902 Channel 2
T-LCS-903 Channel 3
T-LCS-904 Channel 4
T-LCS-905 Channel 5
T-LCS-906 Channel 6

Complete with tubes and instructions, ready to use. Operates on 110-120 volts, AC or DC. Size, 10½″wx8¾″dx3⅛″h. Shipping weight, 7 lbs.
List Price Per Station $77.00..........Net **45.00**



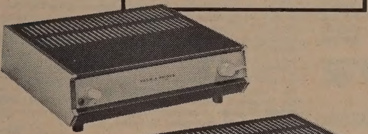
Featuring the TALK-A-PHONE "SONIC-GATE".



Your Voice Goes Through . . .
Noise and Hum are Screened Out . . .

The Sonic Gate circuit effectively suppresses line noises and hum by 30 db while system is in actual operation, as well as when in Stand-By position.

- **No Installation**
- **No Wiring**
- **No Cables**
- **Just Plug-in and Talk**



NEW TALK-A-PHONE 2-STATION WIRELESS* SYSTEM

A complete system of 2 stations, ready to use. Simply place each unit where desired, plug each into nearest electrical outlet, and talk! Add more stations anytime. All stations will receive any messages transmitted from any point. Move units anywhere, plug into electrical outlet and use—no re-wiring or new installation necessary. The original TALK-A-PHONE UNI-TRANS is built in—provides continouous one-way transmission; ideal for dictation, or listening-in on baby. 110-120 V. AC-DC. Size, 10½″wx8¾″dx3⅛″h.

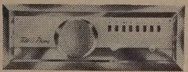
T-LC-33. Complete with tubes and instructions. Weight 16 lbs. List Price Per System $138.00 ...Net **79.90**

T-LC-17. Additional Single Station. Weight 8 lbs. List Price Each $69.00..........Net **39.95**

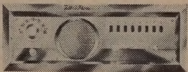
CRADLEPHONE—Optional for all units above. Add H to model No. when ordering.
List Price per Station add $59.95..........Net add **$35.00**

*Carrier Current

NEW TALK-A-PHONE All-Transistor HOME INTERCOM-RADIO SYSTEMS



HI-9 or HI-8



HI-9R or HI-29R

Housing Assembly with HI-17 or HI-16

HI-4

HI-1

T-LR-2R

This new TALK-A-PHONE Intercom System saves the housewife and home-owner miles of tiresome steps, hours of time . . . Makes home life easier, more comfortable and more enjoyable . . .

LISTEN-IN ON BABY, CHILDREN OR SICK ROOM . . . from any room in the house, day or night • ANSWER OUTSIDE DOORS FROM ANY ROOM . . . in any part of the house—without opening doors to strangers • TALK FROM ROOM TO ROOM . . . back and forth, upstairs or downstairs, any time, day or night • YOUR FAVORITE RADIO PROGRAMS . . . follow you throughout the house with the flick of a switch.

TALK-A-PHONE All-Transistor Home Intercom units are beautifully finished in gold, polished and satin silver tones. All Masters and Staff Stations are designed for flush mounting; or with optional Housing Assembly, these stations can be mounted on walls, cabinets, or set on tables, shelves, etc. Plaster Ring included for 8 and 16-Station units require 14 1/16″w, 4⅜″h, 3½″d wall opening. Front panel size: 15¼″w, 5¼″h. HI-4 requires 4⅛″w, 6½″h, 2″d wall opening. Front Panel size: 4 13/16″w x 7 3/16″h. Sub-Stations are designed for flush mounting only, do not need Plaster Ring. Requires 2″ square wall opening, 2″ deep. Front Panel size: 3⅝″w, 5⅝″h. Stations do not plug into electrical outlet. Operates from Battery or HI-PS Power Supply Unit. Total capacity: up to 16 stations including Central Master. With full instructions.

CENTRAL MASTER STATIONS. Only one used per system. Contains the All-Transistor Amplifier (and radio when built-in). Place in any room. Master can call and converse with any other station (or stations) in system; can listen-in to any Station that user makes "non-private". If system has Model HI-9R Central Master (built-in radio), the Master and any Staff can listen to standard AM radio broadcasts. "Additional" Masters can be used in rooms where it is desired to listen to AM radio programs different from those tuned in at Central Master.

HI-9 Central Master Station. Without radio, less battery.
List Price, Each, $99.50..........Net Each **58.00**

HI-9R Central Master Station. With built-in radio. Less battery.
List Price. Each, $154.00..........Net Each **89.50**

HI-17 Central Master Station. Same as HI-9 except has total 16 station capacity. Without built-in radio.
List Price Each $146.00..........Net Each **85.50**

HI-29R Additional Master Station. With built-in radio. Less battery.
List Price, Each, $154.00..........Net Each **89.50**

STAFF STATIONS. 4, 8 and 16-Station Capacity Staff Stations can be combined within the same system and used with choice of one 8-station capacity or one 16-station capacity Central Master Station. (When HI-9R is used, any HI-4, HI-8 and HI-16 staff, can listen to radio of HI-9R).

HI-4 Staff Station. Provides same facilities as HI-8 but has 4-Station capacity. For flush mounting in wall. With accessory T-SM-L, can be surface mounted.
List Price Each $29.95..........Net Each **17.50**

HI-8 Staff Station. Use as needed to call and converse with one or more Staff, Master or Sub-Stations. Can be switched to "private" or "non-private" operation as desired. When "non-private", as in baby or sick room use, another Staff or Master can listen in. Staff can listen to standard AM radio programs of HI-9R Central Master.
List Price Each $54.00..........Net Each **31.50**

HI-16 Staff Station. Same as HI-8 except has total 16 station capacity.
List Price Each $99.95..........Net Each **58.50**

HI-SM HOUSING ASSEMBLY. For enclosing any 8 or 16-Station Capacity Master or Staff, to permit mounting on walls or cabinets, or placing on tables, shelves, etc.
List Price Each $19.00..........Net Each **11.00**

HI-1 OUTDOOR SUB-STATION. For front and rear entrance applications. Complete with push-button for connection to regular house chime, bell or buzzer. Has illuminated nameplate. When caller rings bells, any Master or Staff may reply and converse with caller. Caller operates no controls.
List Price Each $27.50..........Net Each **15.95**

T-LR-2R ALTERNATE OUTDOOR SUB-STATION. For flush mounting. Requires wall opening 4⅛″ square, 2″ deep. Stainless steel front panel measures 4 13/16″ square Complete with plaster ring. Without push button or illuminated nameplate.
List Price Each $21.00..........Net Each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall.
List Price Each $6.80..........Net each **4.00**

Model TSM-L Optional accessory for Surface mounting HI-4 Staff on wall.
List Price Each $7.80..........Net Each **4.60**

HI-JB8 JUNCTION BOX for connecting Masters and Staffs up to a total of 8 stations. See #2 of "How to Determine Cable Needs."
List Price Each $7.00..........Net Each **4.00**

HI-JB16 JUNCTION BOX Same as above except for up to 16 stations.
List Price Each $9.95..........Net Each **5.95**

BATTERY. Use any 9-volt dry battery, such as ignition or telephone battery; or six standard #6 dry cells in series—available from local sources. *Note: When battery is used, power supply is not required.*

HI-PS POWER SUPPLY UNIT. One required per system (only when battery is not used). Plugs into any 110-120 volt, 60 cycle AC electrical outlet in basement, attic, etc.
List Price Each $27.50..........Net Each **15.95**

HOW TO DETERMINE CABLE NEEDS

Masters and Staff Stations. Use #6226 cable in one of 2 ways: (1) Measure from 1st unit to 2nd unit only; from 2nd unit to 3rd unit only, etc., until last unit is reached—then total. Cable between last and 1st unit not needed. (2) Place a Common Junction Box (Model HI-JB) in attic, basement, closet, etc. Measure from each Master and Staff to Junction Box and total. Double length #6226 required for 16-Station units. Connect HI-4 to nearest 8 or 16-Station unit or to HI-JB with #6214 cable.

Outdoor Sub-Stations: Connect to nearest Master or Staff only with #6202 cable.

Battery or Power Supply Unit: Connect with #6202 cable to Master Stations only.

CABLE. For indoor or outdoor use.

Type No.	No. Pairs	Approx. O.D.	LIST, Per Ft.	NET, Per Ft.
6226	13	⅝″	.47c	28c
6214	7	7/16″	.24c	14c
6202	1	3/16″	.06¢	3½¢

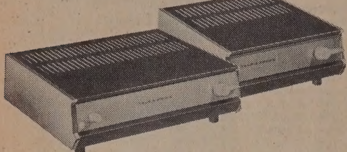
All Prices Slightly Higher West of Rockies All Prices and Specifications Subject to Change Without Notice.
Manufactured under exclusive TALK-A-PHONE Patents

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

NEW TALK-A-PHONE Deluxe Intercom Systems

Quality intercommunication systems designed for the Office, Business, Plant, House, Farm, Professional Man, or any other private or commercial application. A flick-of-a-finger gives you instant and direct two-way conversation between any two points—anywhere. Masters have translucent indicator which illuminates when system is "on." In cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Beautifully finished in charcoal gray and brushed chrome. Resists industrial liquids and atmospheres. Size: Masters, 10½"w x 8¾"d x 3⅛"h.; Subs, 7½"w x 8¾"d x 2⅞"h. U.L. Approved.

2-way voice communication between any two points



TALK-A-PHONE 2-STATION SYSTEM

T-LC-2 A complete, high-quality intercommunication system. Includes a Master Station, a Sub-Station and 50 feet of interconnecting cable. Additional cable available for distances up to 2000 feet. Easy to install and operate. Master and Sub-Station can originate calls to each other and carry on a 2-way conversation. Sub-Stations can be used "privately" or "non-privately". When "private", Master cannot listen-in on Sub-Station; yet Sub can answer and originate calls. When "non-private", persons at Sub-Station can answer calls at a distance without operating controls, as well as originate calls. Master is equipped with a translucent indicator, illuminated by permanent-type bulb, to show when system is "on". Rugged, high-gain amplifier is built to withstand continuous use and to require a minimum of maintenance. Adjustable Volume. Only Master plugs into electrical outlet, 110-120 volts, AC or DC. Master in deluxe cabinet finish, Sub-Station cabinet is of same style and color, but is in grained, baked enamel finish. U.L Approved.

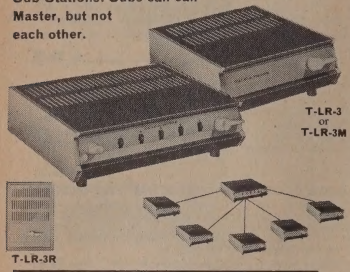
Model T-LC-2 2-Station System complete with tubes, easy-to-follow instructions, and 50 feet of cable. Wt. 13 lbs.
List Price complete $62.00..............Net complete **36.00**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use where additional lengths are required between the Master and Sub-Station.
List Price per foot 6¾c..................Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c....................Net per foot **.03**

Optional Wall Mounting Brackets for Model T-LC-2 Sub-Station are available. See description below.

A system of one Master Station which can communicate with from one to ten Sub-Stations. Subs can call Master, but not each other.



TALK-A-PHONE MASTER SELECTIVE SYSTEMS

T-LM A new system consisting of one Master Station and from one to ten Sub-Stations. Master Station can talk and listen to any one Sub-Station, several Sub-Stations or with all Subs simultaneously. Sub-Stations do not communicate with each other. Only the Master Station plugs into an electrical outlet. You may start with only one Master and one or two Sub-Stations and then add later when necessary. Installation of system has optional feature whereby Sub-Stations can be connected "privately," or "non-privately" and still originate calls to the Master under either application. Once a conversation has been initiated with a "non-private" system, persons at Sub-Stations need operate no controls and can reply from a distance. When the system is connected "privately," Master unit cannot "listen in" on Sub-Stations. However, they can reply when called, and also originate calls to the Master. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-5406 and T-AC-5411 Master Stations operate as above with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for paging. Operates on 110-120 volts, AC only.

Use only one Master in each System.

Optional Wall Mounting Brackets for Models T-LR-3 and T-LR-3M are available. See description below.

Model T-LM-5 Master selective Station for 5 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95......................Net each **34.95**

Model T-LM-10 Master Selective Station for 10 Sub-Stations, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00......................Net each **44.00**

Model T-AC-5406 Master Station. 5 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $75.00......................Net each **44.00**

Model T-AC-5411 Master Station. 10 sub-station capacity. High Volume Output. Wt. 8 lbs.
List Price each $89.95......................Net each **52.50**

Model T-LR-3 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50......................Net each **15.95**

Model T-LR-3M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00......................Net each **11.95**

Model T-LR-3R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4¹³⁄₁₆" W. x 7³⁄₁₆" H. Complete with plaster ring.
List Price each $21.00......................Net each **11.95**

Model T-SM-L Optional accessory for surface mounting T-LR-3R on wall.
List Price each $7.80......................Net each **4.60**

Model T-HP-3 Hi-Power Staff Station for wall mounting. Charcoal Gray metal case. Wt. 8 lbs.
List Price each $28.00......................Net each **16.50**

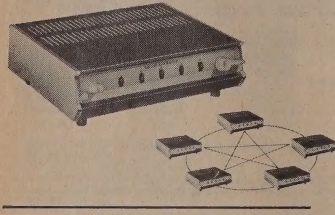
Model T-C-20 Nine-inch weatherproof re-entrant horn. Charcoal Gray color. Wt. 5 lbs.
List Price each $44.95......................Net each **26.50**

T-S-100 Wall Switch for origination of call through T-C-20 or T-HP-3.
List Price each $6.00......................Net each **3.50**

No. 6303 (3 conductor) cable. 175° F. individually covered conductors with overall plastic jacket and milar shield. Provides noise-free cable lines in Industry, Office and Home. For indoor and outdoor use to connect Sub-Station to Master.
List Price per foot 6¾c.................Net per foot **.04**

No. 5303 (3 conductor) cable for indoor use.
List Price per foot 5c....................Net per foot **.03**

A system of up to ten Master Stations. Each station can call and communicate with any other.



TALK-A-PHONE SUPER SELECTIVE SYSTEMS

T-LS A new system of all Master Stations. Any Station can call any other Station in system. Several completely private 2-way conversations are possible at same time. A versatile, low cost intercom system offering extreme flexibility, meeting many requirements in industry, offices, homes, etc. Any Station can call and carry on a conversation with any other Station or Stations in the system with absolute "privacy." Have a visitor in your office and your mind is at ease that no one can eavesdrop on your conversation. Stations can be located even 1000 feet apart. Variable volume, adjustable at each unit, controls incoming voice. You can start with two or three masters, and then add later as required. Operates universally on 110-120 volts, AC-DC. U.L. Approved.

T-AC The T-AC-505 and T-AC-510 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-505 and T-AC-510 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-LS-5 Super Selective Station for five Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $59.95......................Net each **34.95**

Model T-LS-10 Super Selective Station for ten Masters, complete with tubes and easy-to-follow instructions. Wt. 8 lbs.
List Price each $75.00......................Net each **44.00**

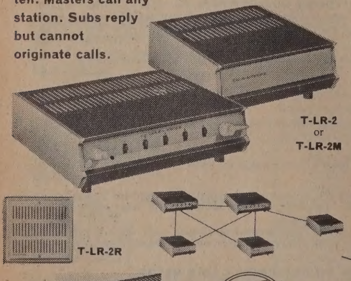
Model T-AC-505 Super-Selective Station for 5 Masters. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price $75.00...........................Net each **44.00**

Model T-AC-510 Same as T-AC-505 except for 10 Masters.
List Price each $89.95......................Net each **52.50**

No. 5506 (6-conductor) Cable for connecting T-LS-5 or T-AC-505 Masters.
List Price per foot 13c..................Net per foot **.07½**

No. 9911 (11-conductor) Cable for connecting T-LS-10 or T-AC-510 Masters.
List Price per foot 24c..................Net per foot **.14**

A system combining one or more Master Stations with one or More Sub-Stations up to a combined total of ten. Masters call any station. Subs reply but cannot originate calls.



TALK-A-PHONE COMBINATION SYSTEMS

T-CL For the more flexible type of communication system requiring the operation of more than one Master Station, along with Sub-Stations which need not originate calls. Personnel can answer incoming calls even though they are 25 to 40 feet from their unit. Master Stations may talk to each other and to all Sub-Stations in the system selectively; or you can have one or more Sub-Stations which are exclusive to only one Master Station (as illustrated in the diagram at left). Master Stations have the option of making themselves "private" or "non-private" at will. You can begin with two stations (at least one must be a Master) and add other units as required. Model T-CL-5 Master Station has a total inter-connecting capacity of five stations, including Masters and Sub-Stations; while Model T-CL-10 Master Station has a total capacity of ten stations. Sub-Stations are not plugged into electric current. U.L. Approved. 110-120 volts. AC-DC.

Optional Wall Mounting Brackets for Models T-LR-2 and T-LR-2M are available. See description below.

T-AC The T-AC-605 and T-AC-610 Master Stations operate as above but provides a system with the added feature of 10 times volume output. A desirable feature for large or noisy areas and for calling many stations at once. T-AC-605 and T-AC-610 Masters cannot be intermixed with any other master. For 110-120 volts, AC only.

Model T-CL-5 Combination Master for five station use, complete with tubes and easy-to-follow instructions, Wt. 8 lbs. List Price each $72.00.............Net each **42.00**

Model T-CL-10 Combination Master for ten station use, complete with tubes and easy-to-follow instructions. Wt. 8 lbs. List Price each $87.00.............Net each **51.00**

T-AC-605 Combination Master for 5-Station use. Hi-Volume Output. Wt. 8 lbs. Complete with instructions.
List Price each $87.00......................Net each **51.00**

T-AC-610 Same as T-AC-605 except for 10-Station use.
List Price each $102.00.....................Net each **59.95**

Model T-LR-2 Sub-Station (in same deluxe finish as Masters) for use with any of above Masters. Wt. 6 lbs.
List Price each $27.50......................Net each **15.95**

Model T-LR-2M Sub-Station (in cabinet of same style, color and size as above, but in grained, baked enamel finish) for use with any of above Masters. Wt. 6 lbs.
List Price each $21.00......................Net each **11.95**

Model T-LR-2R Flush mounted Sub-Station for use with any of above Masters. Requires wall opening 4⅛" square. Stainless steel front panel measures 4¹³⁄₁₆" square. Complete with plaster ring.
List Price each $21.00......................Net each **11.95**

Model T-SM Optional accessory for surface mounting T-LR-2R on wall. List price each $6.80....Net each **4.00**

Model T-HP-3 Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price each $28.00......................Net each **16.50**

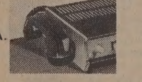
Model T-C-20 Nine-inch weather proof re-entrant horn. Charcoal gray color. List Price each $44.95....Net each **26.50**

No. 6210 (5 pair) Cable for interconnecting T-CL-5 or T-AC-605 Masters.
List Price per foot 24c..................Net per foot **.14**

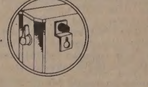
No. 6226 (13 pair) Cable for interconnecting T-CL-10 or T-AC-610 Masters.
List Price per foot 47c..................Net per foot **.28**

No. 6902 (2-conductor) Cable for connecting Sub-Station to T-CL-5, T-CL-10, T-AC-605 or T-AC-610.
List Price per foot 3½c..................Net per foot **.02**

A.



B.



A. CRADLEPHONE—Optional for any unit above (except T-CL-5, T-CL-10, T-AC-605, T-AC-610, T-C-20, T-HP-3, T-LR-3R and T-LR-2R.) Add "H" to Model No. when ordering.
List Price Per Station, add $59.95..................Net, add **35.00**

B. WALL MOUNTING BRACKETS—Optional accessory for use with TALK-A-PHONE Models T-LR-3, T-LR-3M, T-LR-2, T-LR-2M, T-C-41, T-C-41M, T-C-42, T-C-42M, and T-LC-2 Sub Station to enable mounting on wall, side of desk, etc. One pair required per station. Permits mounting with front panel upward, downward or sideward.

Model T-W1 Mounting Brackets, per pair. List Price $1.25. Net **.75**

HOW TO DETERMINE CABLE REQUIREMENTS

For **Master Selective Systems** measure from each Sub-Station to the Master and order total. For **Super Selective Systems**—measure from first Master to second Master only, from second Master to third Master only, etc., and total. Cable between first and last Master not necessary. For **Combination Systems**—Master cable; measure from first Master to second Master only, from second Master to third Master only, etc., and total; Sub-Station cable; measure from each Sub-Station to nearest Master only.

TALK-A-PHONE CO., CHICAGO 25, ILLINOIS

All Prices Slightly Higher West of Rockies—All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

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THE ALL-NEW, ALL-TRANSISTOR TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" INTERCOMMUNICATION SYSTEMS

UL
"Has Everything . . . Does Everything"

One Model Meets Every Requirement

Setting a new standard in quality, design and performance, the new TALK-A-PHONE "CHIEF" and "CHIEF REDI-POWER" meets every intercom need of office, factory, institution, or any other commercial or private application. "CHIEF" Master Stations of 6, 12, 20, 30, 40 or 50 station capacity can be intermixed with "CHIEF REDI-POWER" Masters of different capacities, together with Staff Stations and Horns within the same system in any desired combination. Masters can talk with any other Master or Staff . . . page . . . and can utilize other optional equipment shown as well. Staffs can answer any Master and can originate calls to one Master, or to two Masters selectively.

ONLY THE TALK-A-PHONE "CHIEF" AND "CHIEF REDI-POWER" GIVE YOU ALL THESE FEATURES

- **DISTINCTIVELY STYLED**—Less than 3-inches high. In cabinets that combine the look and feel of fine-grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome.
- **"PRIVATE" OR "NON-PRIVATE" MASTERS AND STAFFS**—Exclusive Dynasonic Design enables stations to perform "privately" (so no one can listen-in), or "non-privately" (for reply without use of controls). The same station can be "private" to one or more Masters and "non-private" to others, and retain full communication facilities.
- **INCOMING CALL CHIME**—A standard feature of Masters. Indicates that your station is being called. Caller talks, you reply.
- **MONITORING SIGNAL**—A standard feature of Masters and Staffs. Visually indicates to a "non-private" station that it is being monitored.
- **BUSY SIGNAL**—A standard feature of Masters and Staffs. Visually indicates when station you call is "busy." All units have facility to override "busy signal" for important calls.
- **DYNASONIC SELECTOR**—An exclusive TALK-A-PHONE feature that permits intermixing of stations and variation of performance. Add to system at anytime without discarding original equipment.
- **MULTI-MAGIC STATION SELECTOR**—A patented, exclusive TALK-A-PHONE feature that enables selection of up to 30 stations with only 12 push buttons . . . 40 and 50 stations with 14 push buttons . . . in the same attractive cabinet style and size.
- **UNI-TRANS DICTATION CONTROL**—No need to operate or hold down controls when one-way transmission is desired or when Cradle Phone is used.
- **EXTERNAL RELAY CONTROL**—A standard built-in feature of Masters. Enables Master to activate external relays for operating siren, gong, light, etc. For use in extremely high noise level areas to signal personnel, who can then communicate with caller from Master in quieter location or in sound booth.
- **RECIPROCAL POWER SUPPLY**—Each Master operates on 110-120 volts, AC only, and should be plugged-in. Where no electrical outlet is available, up to 30% of the Masters in the system can operate without being plugged-in.
- **NOISE-FREE VOICE RANGE POWER**—The rugged, all-transistor high-gain amplifier provides unsurpassed clarity and naturalness of tone. The exclusive, patented TALK-A-PHONE circuit enables performance without noise, hum or distortion when used with TALK-A-PHONE cable.
- **HI-POWER STAFF STATIONS AND HORNS**—For use with any TALK-A-PHONE Master where exceptionally high volume at Staff locations is needed. Ideal for paging speakers. T-HP-3 provides more than twice the volume of universal Staff; T-C-20 provides about 4 times greater volume . . . more with REDI-POWER Masters.
- **WALL SWITCH**—Combine with TALK-A-PHONE Horn or Hi-Power Staff to add origination-of-call feature.
- **"LD" LONG DISTANCE**—(optional accessory on "CHIEF" Masters). For use over cable lines of 2,000 ft., 5,000 ft., 10,000 ft. or more without loss of volume. Functions only between Masters with LD . . . not between an LD Master and Staff. Built-in at factory at additional cost.
- **CRADLE PHONE**—(optional accessory on Masters or Staffs). Has live microphone. Provides listening privacy and greater speaking convenience. Diminishes background noises in noisy areas. Eliminates use of controls in conversation between Masters. Cuts off incoming voice from loudspeaker when in use.
- **RIGHT-OF-WAY RELAY**—(optional accessory). Use with "CHIEF REDI-POWER" Masters to page any group of stations with a single button. Paged stations can also be used for intercommunication. RW-10 capacity, 10 stations. For greater capacity use more RW-10's. Connects to one Master, other Masters also utilize facilities.
- **POWER PAGING BOOSTER**—(Optional accessory). Use with "CHIEF" Masters to page a group of speakers with a single button. 30 watts output. Requires its own paging speakers (as T-C-20, T-HP-3). Provides paging facility only . . . paged stations cannot reply or originate calls through paging speakers. Connects to one Master, other Masters can also utilize facilities.

All "CHIEF" and "CHIEF REDI-POWER" Master Stations come complete with junction box and built-in power supply attached by 6' flexible cable. Master size: 14"w, 3⅛"h, 8¾"d. For 110-120 volts, AC only. U.L. Approved.

T-C-4906 Master 6 station capacity. Wt. 13 lbs.
List Price Per Station $136.00........Net **79.50**

T-C-4912 Master 12 station capacity. Wt. 14 lbs.
List Price Per Station $154.00........Net **89.80**

T-C-4920 Master 20 station capacity. Wt. 17 lbs.
List Price Per Station $184.00........Net **107.40**

T-C-4930 Master 30 station capacity. Wt. 20 lbs.
List Price Per Station $214.00........Net **125.00**

T-C-4940 Master 40 station capacity. Wt. 23 lbs.
List Price Per Station $244.00........Net **142.60**

T-C-4950 Master 50 station capacity. Wt. 26 lbs.
List Price Per Station $274.00........Net **160.20**

How to Determine Cable Requirements. To inter-connect Master Stations, measure from first Master to second Master only, from second to third Master only, etc., until the last unit in the system is reached, and total. For T-C-4920 and T-C-RP-5920, use two lengths of 6226 Cable; and for T-C-4930 use three lengths of 6226 Cable, etc. To connect T-C-41, T-C-20, T-C-42 or T-HP-3 Staff Stations, measure from Staff Station to the one Master to which Staff Station originates calls. To connect the T-C-42 Staff Station measure a separate length of cable from Staff Station to each Master Station to which Staff originates calls (for each T-C-41 or T-C-42, follow same procedure).

TALK-A-PHONE ALL-TRANSISTOR "CHIEF REDI-POWER" MASTERS These units have all the operational features of the "CHIEF," plus the additional feature of built-in extra power (up to 20 watts) for use when and as needed. Provides additional volume for calling many stations at once, or noisy locations singly. Needs no separate power booster, which would eliminate return speech. Return speech is received at normal room volume. REDI-POWER Masters have a self-compensating amount of volume, whether you call 2, 10 or 20 stations simultaneously. Each station receives its pre-determined volume with no division of output as you call more stations at once. Use REDI-POWER Masters with "CHIEF" Masters and Staffs in same system. Add RW-10 and REDI-POWER Masters can page any group of stations with a single selector button. Paged stations can also be used for intercommunication. Operates on 110-120 volts, AC only. U.L. Approved.

T-C-RP-5912 Redi-Power Master 12 station capacity. Wt. 18 lbs.
List Price Per Station $235.00........Net **138.00**

T-C-RP-5920 Redi-Power Master 20 station capacity. Wt. 21 lbs.
List Price Per Station $265.00........Net **155.00**

T-C-42, T-C-42M

T-C-41, T-C-41M

T-C-41R

TALK-A-PHONE "CHIEF" UNIVERSAL STAFF STATIONS For use with any "CHIEF" or "CHIEF REDI-POWER" Master. Like Masters, Staff Stations can be connected "privately" or "non-privately", and can originate calls. When "non-private", calls can be answered at a distance from Staff without using controls. Persons at "non-private" Staffs may reply to all Masters in the system (whether directly connected to them or not) and can originate calls to one Master or two Masters, depending upon Staff's capacity. Connected "privately" no one can listen-in to Staff, but any Master can call. "Private" Staffs can originate calls and reply to one or two Masters. Each Staff has "busy signal" and "monitoring signal" features. Staffs do not connect to an electrical outlet . . . are distinctively styled in modern cabinets that combine the look and feel of fine grained leather with the strength and rigidity of steel. Attractively finished in charcoal gray and brushed chrome. Size: 7½"w x 8¾"d x 2⅞"h.

T-C-41. Staff Station for origination-of-call to one Master. Wt. 8 lbs.
List Price, Each $36.50........Net **21.50**

T-C-41M. Same operation as T-C-41 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $29.95........Net **17.50**

T-C-42. Staff Station for origination-of-call to two Masters. Wt. 8 lbs.
List Price, Each $45.00........Net **26.50**

T-C-42M. Same operation as T-C-42 and in cabinet of same style, color and size, but in grained baked enamel finish. Wt. 8 lbs. List Price, Each $38.50........Net **22.50**

T-C-41R Flush mounted Staff Station for use with any of above Masters. Requires wall opening 4⅛" W. x 6½" H. Stainless steel front panel measures 4¹³⁄₁₆" W. x 7³⁄₁₆" H. Complete with plaster ring. List Price Each $29.95........Net each **17.50**

T-SM-L Optional accessory for surface mounting T-C-41R on wall.
List price each $7.80........Net each **4.60**

T-HP-3. Hi-Power Sub-Station for wall mounting in charcoal gray metal case. Wt. 8 lbs.
List Price, Each $28.00........Net **16.50**

T-C-20. Nine-inch weatherproof re-entrant horn. List Price, Each $44.95 . . Net **26.50**

Optional Wall Mounting Brackets for Models T-C-41, T-C-41M, T-C-42 and T-C-42M are available. See description on preceding page.

Optional Equipment

Cradle Phone Available on all Models. Add "H" to Model No. when ordering.
List Price, Each—add $59.95........Net add **35.00**

LD—Long Distance Feature Available on "Chief," Master Stations. Add "LD" to Model No. when ordering. List Price, Each—add $20.00........Net add **11.75**

T-S-101 Wall Switch For origination of call to one Master through T-C-20, or T-HP-3 in Chief systems. List Price, Each $11.95........Net **6.95**

T-S-102 Wall Switch For origination of call to two Masters through T-C-20, or T-HP-3 in Chief systems. List Price, Each $19.95........Net **11.70**

T-RW-10 Right-of-Way Relay. List Price, Each $63.00........Net **37.00**

T-HP-30 Power Booster. List Price, Each $138.00........Net **81.00**

Cable (For Indoor and Outdoor Use)

6206 Cable for connecting T-C-41, T-C-42, T-HP-3, T-C-20 with origination of call.
List Price per Ft. 14c........Net per Ft. **8½c**

6214 Cable for inter-connecting T-C-4906 Masters. List Price per Ft. 24c. Net per Ft. **14c**

6226 Cable for inter-connecting T-C-4912, T-C-4920, T-C-4930, T-C-4940, T-C-4950, T-C-RP-5912 and T-C-RP-5920 Masters. List Price per Ft. 47c........Net per Ft. **28c**

6902 Cable for connecting T-HP-3, T-C-20 without origination of call.
List Price per Ft. 3½c........Net per Ft. **2c**

All Prices Slightly Higher West of Rockies-All Prices and Specifications Subject to Change Without Notice. Manufactured under exclusive TALK-A-PHONE Patents

New "Built-in Business Intercom" for offices, stores, medical centers, etc. can be supplied on request. Write today for details.

TALK-A-PHONE CO.
CHICAGO 25, ILLINOIS

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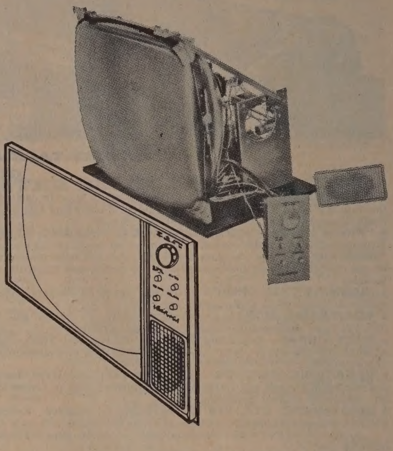
TECH-MASTER CUSTOM-QUALITY TELEVISION

TECH-MASTER Custom-Crafted Constellation T. V. Chassis

A magnificient tribute to fine television design and engineering. Extremely versatile! Perfect for custom installations in newly designed cabinetry or for replacing worn out sets in existing consoles. Especially desirable for use in family heirloom or antique cabinets.

The Tech-Master Custom-Crafted Constellation T.V. Chassis is truly a star performer. This A.C. transformer powered model is not commercially mass-produced, but hand crafted with the same care as our highest priced receivers. Super sensitive for fringe or troublesome areas, the custom crafted receiver operates efficiently with any standard indoor antenna in normal signal area. 15 tubes, 2 silicons, 3 diodes, power-packed circuit delivers bright, sharp, rock steady picture and clean, undistorted static-free sound. Rarely will you find a comparable, quality receiver such as this.

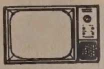


FEATURES:

- Advanced and latest super-sensitive turret tuner with PRE-SET fine tuning (set it once and forget it.)
- Deflection 110-114 degrees.
- Operates new low-voltage electrostatic focus kinescopes 17″ to 27″.
- High Voltage 18-20 KV.
- Full power transformer for SAFE chassis operation. No Shock Hazard.
- Power THERMISTOR for line surge elimination.
- Silicon full wave power rectifiers.
- Sensitivity 8 UV for 20 Vpp.
- Audio output 4.7 watts.
- 3 stage video I.F. stagger-tuned bifilars.
- Bandwidth 3.25 MC. at 3 DB.
- Video detector transformer with diode and tweet filter built in (minimum radiation.)
- DC coupled video Amplifier stage.
- Adjacent channel video and sound traps.
- Keyed A.G.C. continuously adjustable for local to fringe area.
- Automatic noise cancellation circuit continuously adjustable for area characteristics.
- Bright spot eliminator circuit.

TUBES: 6GK5, 6CG8, 2-6BZ6, 6CB6, 12BY7, 6U8, 6DT6, 6BQ5, 6BU8, 6DE7, 6CG7, 6DQ6, 6AX4, IK3, 2 Silicon rectifiers, 3 Diodes

Accessory Units for Model No. 6115



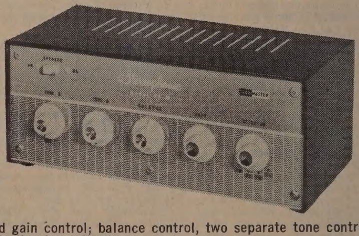
MK23B-23″ mask (bonded tube)....**$10.00**
MK23-23″ mask (unbonded tube)..**$10.00**

BR23-23″ bonded tube mounting brackets **$10.00**

Model No. 6115 (Shown above) Chassis, speaker, and knobs, less picture tube with mtg. hardware....................................**Price $199.00**

PA 39 — A Most Versatile 14 Watt Stereo Amplifier and Preamplifier.

Ideal for 90% of All Hi-Fi Stereo Layouts



This highly adaptable system is as elegant to the eye as the ear . . . beautiful blue and white front panel with blue-gray case (also in gold and suntan panel with walnut case.) Two channels of faithful audio faultlessly designed, skillfully produced. TECH-MASTER'S diversified background and experience make the low price possible. Servicemen recommend it for its ease of installation. The simple sandwich type panel-mount eliminates unnecessary fuss and cost.

FEATURES:

Completely hand wired, dual channel, crystal or ceramic phono and tuner inputs; ganged gain control; balance control, two separate tone controls; monaural-stereo switch; speaker reversing switch; transformer power supply for complete line insolation.

TUBES: 2-EL 84, 12AX7, EZ80 **DIM:** 10⅝″ W x 5⅜″ D x 4$\frac{5}{16}$″ H

PA 39 Blue & White..**NET PRICE $49.50**

PA 39G Two Tone Gold..**NET PRICE $49.50**

PA 39 + For Magnetic Cartridge — Uses Hum Free 2 Transistor Preamplifier....................**NET PRICE $69.50**

P3 39G + For Magnetic Cartridge — Uses Hum Free 2 Transistors Preamaplifer..........................**NET PRICE $69.50**

MODEL 23A — TECH-MASTER'S DUO MASTER TV PLUG-IN TUNER.

A Super Sensitive Black & White or Color TV Remote Control System.

An ideal self-contained remote-control system for all TV sets. Just plug a single, thin coaxial lead into your TV receiver and you can select your station, fine-tune both picture and sound, and adjust picture intensity . . . right from your armchair, from up to 50 feet from the set. There is a separate loudspeaker in the handsomely styled DUO-MASTER cabinet . . . or you can use the speaker in your TV set or hi-fi system . . . or any extension speaker . . . or plug headphones right into the DUO-MASTER for private listening.

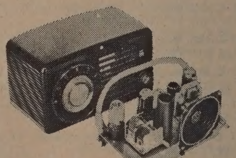
FEATURES: 3 IF stages; 2 audio stages; jacks with low impedance connections for external amplifier or tape recorder take-off; a complete television sound receiver. Positive or negative going video signal output.

TUBES: 9 plus rectifier; separate audio detector; improved color response thru isolation circuit design.

SIZE: 12½″ x 8″ x 6″; **WGT.:** 15 lbs. Net Price..............................**$79.50**

Also **Model 23B.** Industrial model as used on commercial basis by broadcasters. Price on request.

DELUXE AC-DC SUPERHET RADIO KIT



MODEL 3B5-K — Complete with modern, handsome Bakelite cabinet (10″ x 5½″ x 5½″), station selector and control knobs. Tunes AM broadcasts from 550-1720 KC. Super-sensitive, high gain circuit for best reception. Built-in loop antenna. Automatic volume control circuit eliminates blasting or fading.

TUBES: 12SA7, 12SK7, 12SQ7, 50L6 and 25Z5 rectifier. Schematic and pictorial diagram with clear assembly instructions supplied for simple assembly.

POWER: 115-125 V, 50/60 cy. or D.C. Wgt.: 6 lbs.

NET PRICE (less wire and solder)..**$19.95**

TECH-MASTER corporation—Brooklyn, New York

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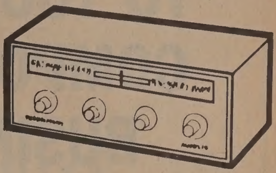
TECH-MASTER QUALITY KITS AND COMPONENTS

SUPER QUALITY COMPACT TUNER AND AMPLIFIERS

The ultimate in sensitivity and superb performance. Specifications equivalent to that of the very finest equipment available. Engineered to be electronically trouble-free. Maximum quality in minimum space. Meets every critical standard. Incorporates every modern technical feature.

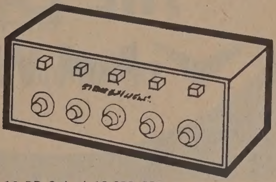
MODEL 43 FM TUNER WITH MULTIPLEX
Sensitivity: .9 Microvolts for 20 DB Quieting
1.6 Microvolts for 30 DB Quieting
I.F. Band Width: 280 KC at −3 DB
Foster-Seeley Discriminator Band Width: 900 KC Peak to peak
Frequency Response: 10-55,000 CPS ±1 DB
117 Volts 60 CPS 40 Watts

2 I.F. Stages and 2 Limiters • Variable Interchannel Noise Muting • AFC, AFC Defeat • Electron-Ray Tuning Indicator • Balanced Fly Wheel Tuning • Voltage Regulator for AFC Control • Multiplex Switch • 7 Tubes, Silicon Rectifier, AFC Diode
Size: 11⅝″ W x 4⅜″ H x 7″ D
Weight: 6 lbs. without case



Model 43X — Same as above but without Multiplex Adapater
FM Multiplexer Model 430 Included in Model 43 Tuner
Time Division System • 2 Tubes • 6 Diodes • 34 DB Separation • Unity Gain • Power Input: 8 Watts

MODEL #43..........**$129.50** **MODEL #43X**..........**$ 99.50**



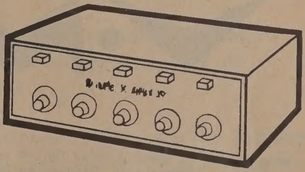
MODEL 45 STEREO AMPLIFIER
Power Output: 30 Watts Stereo
Frequency Response: 15 to 70,000 Cycles ±1 DB
Harmonic Distortion: .3% at 20w
Hum Level: 65 DB Below Rated Output at Low Level Input

117 Volts 60 CPS 80 Watts
Size: 11⅝″ W x 4⅜″ H x 7″ D
Weight: 9 lbs. without case.

Individual Bass Controls: 15 DB Boost, 12 DB Cut at 40 CPS • Individual Treble Controls: 14 DB Boost, 16 DB Cut at 10,000 CPS • Balance Control • Volume Control • Inputs: Magnetic, Ceramic, Tuner and Auxiliary • Loudness Switch • Channel Reverse Switch • Rumble Filter Switch • Stereo-Monaural Switch • Tubes: 3-7025; 2-7199; 4-EL84; 1-EZ81 •
MODEL #45..........**$89.50**

MODEL 46 STEREO AMPLIFIER
Power output: 50 Watts Stereo
Frequency Response: 15-80,000 CPS ±½DB
Negative Feedback: 20 DB
Harmonic Distortion: .5% at full output
Hum Level: 80 DB Below Rated Output

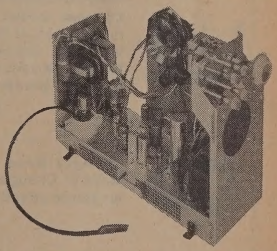
117V 60 CPS 130 Watts
Size: 15¼″ W x 5½″ H x 9⅛″ D



DC Filaments in Low Level Stages • Individual Bass Controls: 15 DB Boost, 12 DB Cut at 40 CPS • Individual Treble Controls: 14 DB Boost, 16 DB Cut at 10,000 CPS • Inputs: Tape Head, Magnetic, Ceramic, Tuner, Auxiliary • Balance Control • Volume Control • Loudness Switch • Stereo-Monaural Switch • Channel Reverse Switch • Rumble Filter Switch • Tubes: 3-7025; 1-12AU7; 1-6CG7; 4-7189; 1-GZ34 •
MODEL #46..........**$129.50**

VIDEOLA TV Craft Kit By Tech-Master

The most up-to-date TV kit, with the latest improvements in tubes and circuitry. Ideal for student work or home project. This kit not only provides excellent training in television, but builds into a first-class, top quality modern receiver that anyone would be proud to own. Coils are preadjusted and tuned at the factory. Quality components, carefully selected and packed by personnel experienced in the TV-kit field insure satisfaction. Step-by-step instructions with pictorial and schematic diagrams are easy to follow —leave nothing to the imagination. Sockets, terminal strips and connectors riveted on chassis.



FEATURES:

• Advanced and improved, super-selective, 12-channel tuner • Full power transformer for **safe** cold chassis operation • Operates new low-voltage electrostatic-focus kinescope (17″ to 27″ — including 19″ and 23″ sizes) — 110° to 114° deflection • 18 to 20 KV anode voltage • High-efficiency circuit-sensitivity of 9uv at 20V peak-to-peak • High power audio output • Three-stage stagger-tuned IF using high-gain bi-filar coils • Keyed Automatic gain control • Adjustable noise cancellation circuit • Bright spot eliminator circuit — removes bright spot when set is turned off • Ceramic core horizontal output transformer with beam power amplifier • 6″ x 17″ x 1¾″ chassis size — Weight 21 lbs.

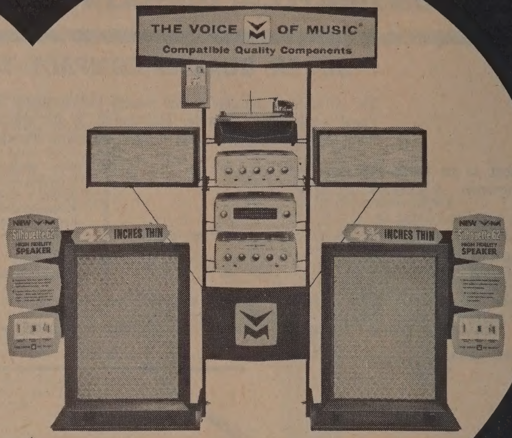
MODEL 1561..........**PRICE $99.95**

TUBE COMPLEMENT:
6CY5 RF Amplifier; 6AT8 RF Oscillator and converter; 2-6BZ6 1st, 2nd IF Amplifier; 6CB6 3rd IF Amplifier; 12BY7 Video Amplifier; 6U8 4.5 mc Amplifier, Sync Splitter; 6DT6 Sound detector; 6BQ5 Audio Output; 6BU8 Noise cancellation, sync separator, keyed AGC; 6DE7 Vertical oscillator, vertical output; 6CG7 Horizontal oscillator; 6DQ6 Horizontal output; 6AX4 Damper; 1K3 H.V. rectifier; 2 Silicon rectifiers for low voltage supply; 2 Diodes horizontal phase detector; 1 Diode Video detector.

QUANTITY PURCHASES — TV kits and wired chassis available for schools, export (in all voltages) and other special applications. Quotations and specifications supplied on request.

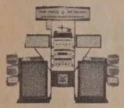
TECH-MASTER corporation—Brooklyn, New York

ADD NEW PROFITS TO YOUR HI-FI COMPONENTS BUSINESS THE EASY V·M WAY!

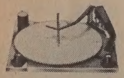


V·M

- Priced to attract new customers, this complete line of quality components is effectively displayed and demonstrated in only 5 square feet.
- Convenient one-source buying . . . backed by V·M's national network of Service Centers.

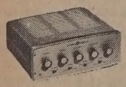


The store display fixture is complete with literature, and "Silhouette 62" speaker feature posters. It actually displays 9 V·M products:

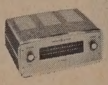


'Stere-O-Matic'® 4-Speed Automatic Record Changer Model 1571. 11" turntable. Automatic Manual-Play. Extra-long, dynamically balanced, non-resonant Tone Arm. Diamond Needle. Shadowlite stylus pressure. Precise, balanced turntable bearing system.

Changer Base Model 1438. For 'Stere-O-Matic'® Changers. Wired output receptacles for stereo sound; AC power.

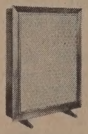


Stereophonic High-Fidelity Component Amplifier Model 1428. Push-pull output, 60 watts (peak); 30 watts per channel. Frequency response, 20-30,000 cps. Five stereo inputs.



High-Fidelity FM Stereo, FM, AM Component Radio Tuner Model 1465. FM-AFC. Armstrong FM circuit with limiter. Foster-Seeley discriminator. Superheterodyne AM circuit with AVC.

Precision-Built AC Stereo Amplifier Model 1448. Push-pull output, 40 watts (peak); 20 watts per channel. Frequency response, 40-25,000 cps. Integral controls. Input panel for ceramic or crystal cartridge Phono, Radio Tuner, Auxiliary or Tape Recorder.



"Silhouette 62" High-Fidelity Component Speaker System. Three speakers: 10" woofer, 6" mid-range, 3.5" tweeter. Frequency response, 30-16,000 cps. Power rating, 25 watts.

High-Fidelity Component Speaker Model 32. Three speakers. Two 6", one 3". Frequency response, 60-12,000 cps. Power rating, 10 watts.

Your V·M Distributor is ready now to give you all the details and point out the many advantages of this new V·M Components line. Call him Today!

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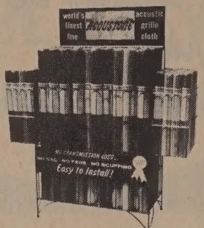

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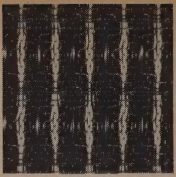
212	Mahogany with Beige Threads	3.50	1803	Woven Cane-Brown/Tan/Gold	4.25
213	Mahog with Gold Rayon Threads	3.50	1809	Woven Cane-Walnut/Tan	4.25
321A	Walnut/Gold Threads	3.50	1826A	Woven Cane-Brown/Tan/Wht	4.25
450	Solid Black	3.50	2470	Hexagon Cane-Walnut/Tan/Bge	4.25
452B	Black with Gold Threads	3.50	2475	Hexagon Cane-Walnut/Tan	4.25
511	Blonde with Brown Threads	3.50	2477	Hexagon Cane-Fruitwood/Tan	4.25
615	White with Gold Threads	3.50	300	Mahog & Gold Metal Cobweb	5.00
625	Grey with Black & White Threads	3.50	453	Black with Gold Metal Cobweb	5.00
811	Tan with Bronze Threads	3.50	454	Black with Silver Metal Cobweb	5.00
812	Tan with White Threads	3.50	618	White with Gold Met Cobweb	5.00
1216A	Beige/Gold with Brown Threads	3.50	619	Wht/Blk & Gold Met Cobweb	5.00
215M	Mah/Beige & Met Gold Threads	4.25	805	Bge with Brn & Gold Met Cobweb	5.00
412M	Wht/Black & Met Gold Threads	4.25	388	Walnut/Beige & Met Gold Threads	5.00
413M	Wht/Black & Met Gold Threads	4.25	814BM	Bge/Varied Wht & Met Gold Threads	5.00
512M	Beige/Bronze & Met Gold Threads	4.25	1011	Solid Gold	5.00
515M	Blonde/Blk & Met Gold Threads	4.25	1012	Solid Silver	5.00
611	Solid White	4.25	2016A	Walnut/Bge/Fruit'd & Gld Threads	5.00
616M	White/Blk & Met Gold Threads	4.25	2025A	Tan/Bn Cane & Met Gold Threads	5.00
617M	White with Met Gold Threads	4.25	3227	Mahog/Tan Cane & Gold Threads	5.00
711M	Lt Walnut/Wht & Met Gold Threads	4.25	3240	Walnut/Beige & Met Gold Threads	5.00
804BM	Beige Straw & Met Gold Threads	4.25	3852	Walnut Oval with Met Gold Threads	5.00
813	Beige with Beige Straw	4.25	3881	Tan/Brown Novelty Cane	5.00
857	Beige with Lt Beige Straw	4.25	4440	Blk/Cop/Bge & Met Gold Threads	5.00
1214M	Brn/Bge & Met Gold Threads	4.25	7104	Tan/Var Wht & Met Gold Threads	5.00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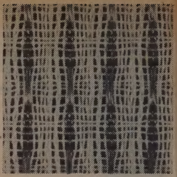
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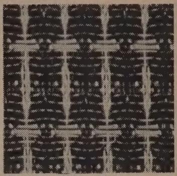
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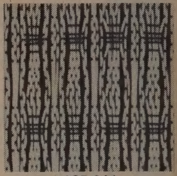
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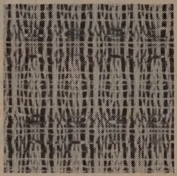
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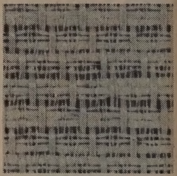
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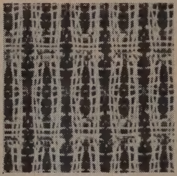
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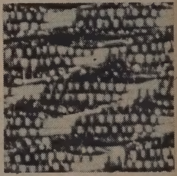
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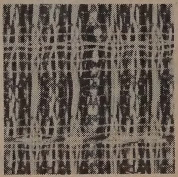
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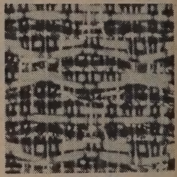
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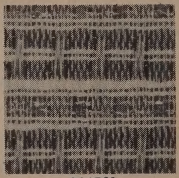
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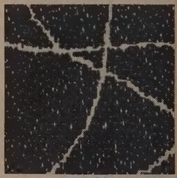
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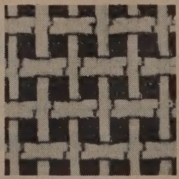
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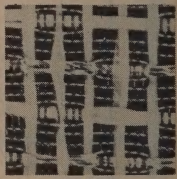
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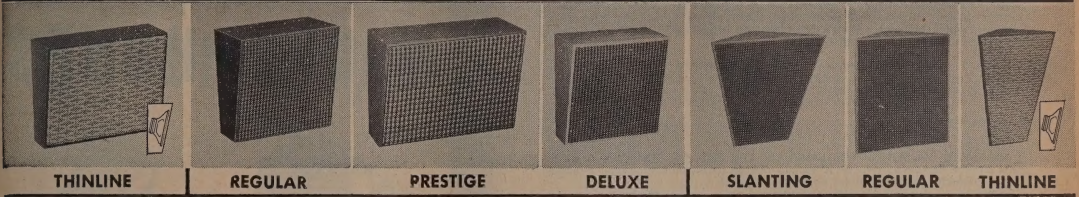

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⅓ Thinner with same Heavy Duty PA Quality . . . Jensen Profile Speakers

New, thinner, wider, better looking. Heavy duty ceramic magnet speakers give space-saving thinness. Available with L Pad and/or Transformer, installed and wired. 8-ohm screw terminals. Argos Speedy Mounting clip for fast installation. Heavy wood-grained pyroxylin covering—blond or walnut.

Baffles with 8″ Jensen Spkr. 6 oz. mag., 15 watts. 12 x 9½ x 4¼ in.

WB-208S—Baffle, spkr. Wt. 4½ lbs. ...... **List $16.90**
WB-208SL—Baffle, spkr. L pad. 4½ lbs. **$21.00**
WB-208ST—Baffle, spkr. trans. 4¾ lbs. **$21.00**
WB-208SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 4¾ lbs. .... **List $25.15**

Baffles with 12″ Jensen Speaker, 10-oz. magnet, 18 watts. 16 x 13¾ x 6¼ in.

WB-212S—Baffle, spkr. Wt. 8 lbs. ....**List $24.60**
WB-212SL—Baffle, spkr. L. pad. 8 lbs............**$28.75**
WB-212ST—Baffle, spkr. trans. 8 lbs. **$28.75**
WB-212SLT—Baffle, spkr. L pad, and 70.7v transformer. Ship. wt. 8¼ lbs. ....**List $32.90**
WB-208—8″ Baffle only. Wt. 2 lbs. ....**List $7.15**
WB-212—12″ Baffle only. Wt. 4 lbs. ....**List $9.75**

New EFFICIENCY Baffle. Same Thinline cabinet with lightweight speaker for lower sound levels or where cost is important. 8″ Jensen Spkr. 1-oz. mag., 6 w.
WB-108AS—Ship. wt. 3½ lbs. ....**List $11.90**

REGULAR, PRESTIGE, & DELUXE BAFFLES

Regular Wall Baffles—WB-4/5C, etc. Standard of Industry for quality. Wood-grained pyroxylin, blond or walnut. Argos Speedy Mounting Clip.
Prestige Wall Baffles—PB-8A, etc. Wider shape for better appearance, more volume. Same pyroxylin covering and Mounting Clip as WBs.
DeLuxe Wall Baffles—DWB-8A, etc. Beautiful natural hardwood, American Walnut or Whited Birch finish. Satin-smooth appearance. Mounting Clip.

Model	Spkr. Size	Width, Height Depth, In.	Cubic In.	Ship. Wt. Lbs.	List Each
WB-4/5C	4/5	6¼x 6⅛x 4	100	2 *	4.95
WB-6C	6	7⅞x 8½x 5	210	3 *	6.00
WB-6/9C	6x9	9¾x10½x 6½	400	5 *	7.15
WB-8C	8	9¾x10½x 6½	400	5 *	7.15
WB-10C	10	11⅞x12⅜x 7¾	800	6½*	8.50
WB-12C	12	13⅝x14 x 9⅛	1180	8½*	9.75
PB-8A	8	14 x10⅜x 7	690	4¾	9.75
PB-12A	12	18¼x13¾x 9	1580	6½	13.75
DWB-8A	8	9⅜x10½x 6½	400	5½*	10.00
DWB-12A	12	13¼x14¼x 9	1180	9 *	14.00

* Shipping wt. of 2 in carton

NEW CORNER BAFFLES

New Design Hangs as Easily as a Wall Baffle . . . "Clip-In" Front Comes Off in 9 Seconds . . . Exterior Screw Terminals

The best looking, easiest-to-install corner baffles we've ever seen. No more unsightly screws through the grille! Two automatic clips at top and one screw through bottom hold front panel tightly in place. New slots on back of baffle permit hanging on two Argos Speedy Mounting clips . . . as easily as a wall baffle. Screw terminals (with lead wires inside for speaker) Bass reflex, acoustic padding. Wood-grained pyroxylin, walnut or blond, same price.

Slanting Corner Baffles. Aim sound down for best performance.

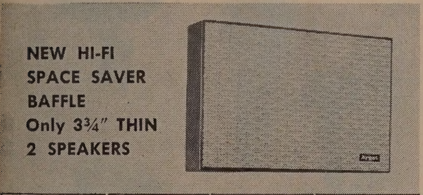
SCB-8D—For 8″ spkr. Vol. 680 cy. in Size 17¾ x 15 x 9 in. deep. Ship. wt. 6 lbs. ....**List $13.90**
SCB-12D—For 12″ spkr. Vol. 1240 cu. in. Size 20¾ x 20 x 10½ in. deep. Ship. wt. 8 lbs.....**List $18.75**

Regular Corner Baffles
Long a favorite of Sound contractors

CB-8D—For 8″ spkr. Vol. 525 cu. in. Size 12¼ x 14 x 6½ in. deep. Ship. wt. 4½ lbs. ....**List $12.50**
CB-12D—For 12″ spkr. Vol. 1520 cu. in. Size 17¾ x 20 x 9 in. deep. Ship. wt. 8½ lbs. **List $18.00**

Thinline Corner Baffle

New space-saving thinness, with 8″ Jensen Profile Speaker, installed and wired. 6-oz. ceramic magnet, 15 watts, 8 ohms. Size 12½ x 18 x 6¾ in.
SCB-208S—Ship. wt. 5½ lbs. ....**List $22.75**



Hotels **Kitchen** **Dining Room** **Family Room**

Also for Schools, Auditoriums, Restaurants, Stores, Club Lounges
The Ideal extension speaker for music. Actually has sound of hi-fi . . . almost as good as bookshelf enclosure, far superior to regular PA wall baffle. 8″ Jensen Profile woofer and 3½″ tweeter wired in crossover network to 8-ohm screw terminals. 6-oz. ceramic magnet. Beautiful natural hardwood, American Walnut or Whited Birch finish. Size 18 x 12 x 3¾ in. thin.
HFWB-8S — Ship. wt. 6½ lbs. ....**List $29.95**

New Vinyl-Clad Tube Caddies
TC-4
TC-5
TC-201

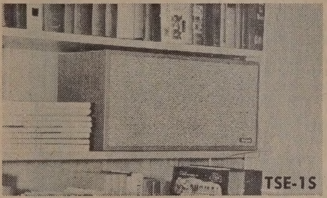
TC-5 $21.95 SUPER TUBE CADDY. Our largest Tube Caddy . . . a real man-size case with space for everything. Has over 3300 cu. in. volume, roughly ⅓ larger than TC-4. Designed for the man who believes in carrying a full load to save extra trips. Holds countless tubes and tools, soldering gun, meter, accessories. Tool tray clearance 2¾ in. Handsome, new brown vinyl covering. Size 24″ W x 16½″ H x 8½″ D. Ship. wt. 19 lbs.

TC-4 $15.95 CARRY-ALL TUBE CADDY — most popular Tube Caddy ever made. Gives quick availability to all sections. Holds up to 262 tubes . . . less with tools and meter. Durable, new brown vinyl covering. Size 21″ W x 15″ H x 8″ D. Ship wt. 12 lbs.

TC-100 $12.75 THE PACEMAKER TUBE CADDY (Not illust.). Same size as TC-4, but built for the thrifty buyer. Popular break-away design gives quick access to all sections. Holds up to 262 tubes . . . less with tools and meter. Durable, new, brown vinyl covering. Size 21″ W x 15″ H x 8″ D. Ship. wt. 11½ lbs.

TC-201 $9.95 THE PACEMAKER JUNIOR. Smaller, easy-to-carry size for quick trips or as a matched companion to other Argos Tube Caddies. Holds up to 143 tubes . . . less with tools and meter. Durable, new, brown vinyl covering. Size 15¾″ W x 12½″ H x 8″ D. Ship. wt. 9 lbs.

***Registered TM of Argos Products Co.**
Prices slightly higher west of Rockies



The 8″ Catalina Hi-Fi Speaker

For bookshelf or floor . . . one of the most efficient, economical small speaker systems ever built. 8″ Jensen woofer and 3½″ tweeter in crossover network, 8-ohm terminals. Overall response 50-17,000 cycles. Legs for floor use. Wood-grained pyroxylin, Walnut or Blonde. Size 24 x 11 10½ in. deep. Sup. wt. 19 lbs.
TSE-1S—With 2 speakers..........Audiofile **Net $24.95**
TSE-1—Cabinet only. Wt. 17 lbs...............**Net $16.50**

DeLuxe Catalina (Not shown). Similar to above but built of ¾ inch hand-rubbed, oiled Walnut. Ship. wt. 20 lbs.
TSE-2AS—With 2 speakers........Audiofile **Net $39.95**
TSE-2A—Cabinet only. Wt. 18 lbs...........**Net $26.50**
TSE-8KS—Same specifications as DeLuxe Catalina above, in simplified kit form of selected birch. Includes speakers and all hardware. Ship. wt. 19 lbs. Audiofile **Net $27.95**
TSE-8K—Kit, same as above less speakers. Ship. Wt. 16 lb. ....Audiofile **Net $16.95**

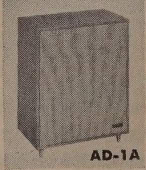
SOUND CADDY® WITH TWO SPEAKERS

Has 2 12-in., heavy-duty, 18-watt PA speakers (6.8 oz. mag.). Accomodates most amplifiers with turntable up to 30 w.

Size: 17¾″ w. x 13⅛″ d. x 22″ h. Shipping Wt. 29 lbs.

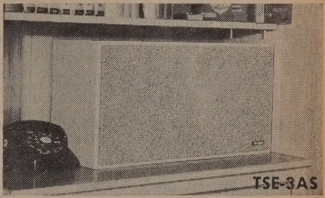
SC-2CS — Net **$36.00**

SC-2C — Same less speakers. Ship. wt. 20 lbs. Net **$21.55**



Slimline HI-FI CONSOLE

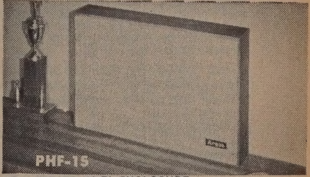
Wood - grain pyroxylin covering in blonde or walnut finish. Exceptional full bass and tonal balance. Two matched Jensen speakers —12″ woofer and 3½″ tweeter.
AD-1AS — Enclosure. Ship. wt. 27 lbs. Audiofile **Net $39.95**
AD-1A—Enclosure only (no speakers). Maximum speaker depth 8½ inches. Ship. wt. 22 lbs. Audiofile **Net $24.95**



The 12″ Eldorado Hi-Fi Speaker

Exceptionally fine hi-fi response in a bookshelf or table enclosure. 12″ Jensen tweeter and **two** 3½″ Jensen tweeters in crossover network, 8-ohm terminals. Overall response 40-17,000 cycles. Wood-grained pyroxylin, Walnut or Blond. Size 27½ x 14¼ x 10 in. deep. Ship. Wt. 23 lbs.
TSE-3AS—With 3 speakers.......Audiofile **Net $39.95**
TSE1-3A—Cabinet only. Wt. 21 lbs.........**Net $22.50**

DeLuxe Eldorado (not shown). Same as above but built of ¾″ handrubbed, oiled Walnut.
TSE-4S—3 Jensen speakers. Ship. wt. 28 lbs......................Audiofile **Net $59.95**
TSE-4—Enclosure only. Ship wt. 22 lbs.........................Audiofile **Net $37.50**
TSE-12Ks—Same specifications as DeLuxe Eldorado above, in simplified kit form of select white birch. Includes 3 speakers and hardware—complete. Ship. wt. 28 lbs....................................Audiofile **Net $39.95**
TSE-12K—Kit same as above less speakers. Ship. wt. 22 lbs....................................Audiofile **Net $24.95**



NEW **PETITE** HI-FI ENCLOSURE with two custom-designed Jensen speakers

Small wonder the brilliant new "Petite" outperforms basic reproducers many times larger and more expensive. Remarkable range—50-17,000 cycles—from unbelievably rich, resonant bass to clean, high trebles. Two-way system—high-compliance woofer (custom designed by Jensen for Argos) and tweeter with matching network. Genuine selected American Walnut veneer, oiled and hand-rubbed to an elegant satin finish. Recessed volume control. Screw terminals (polarized for stereo) and wall hangers on back. 8-ohm input.
PHF-1S—Enclosure with 2 Jensen speakers. Size: 18″ x 12″ x 3¼″ thin. Ship. wt. 10 lbs.
Audiofile **Net $24.95**

© U.C.P., Inc.

[F] **Model GD-104**—Complete with Astatic G Stand. List Price—**$51.20.** Shipping weight 3¾ lbs. Model GD-104C—Complete with Astatic G Stand. List Price—**$51.20.** Shipping weight 3¾ lbs.

[G] **Model 10C, 10D:** The tailored response, the more sensitive talk power make these microphones outstanding for SSB and AM transmitter use. They also serve perfectly for industrial paging, semi-directional. Pressure cast body. Model 10C—ceramic element is immune to temperature and humidity. Finish: Bright chrome. Output —52 db. Frequency Range 300-3000 cps. Models G10C and G10D same as above except complete with G Stand.

List Prices	Shipping weight
10C—**$29.70**	1 lb. 4 oz.
10D—**$39.70**	1 lb. 10 oz.
G10C—**$49.90**	2 lb. 12 oz.
G10D—**$59.90**	3 lb. 2 oz.

[H] **GS SERIES GOOSENECK FOR LANGUAGE LAB AND P.A. COMMUNICATIONS.** Satin chrome flexible gooseneck 13 inches long on permanent mounting. 7 inches single conductor shielded cable. Shipping weight 1¾ lbs.

332GS Crystal—See specification for 332, Fig. D. List price **$24.50.**

333GS Ceramic—See specification for 333 Fig. D. List price **$24.50.**

335H-GS Dynamic Hi-impedance—See specification for 335H, Fig. D. List price **$33.00.**

335L-GS Dynamic Lo-impedance—See specification for 335L, Fig. D. List price **$30.00.**

MOBILE AND COMMUNICATIONS MICROPHONES

[I] **Model 10M5A:** "The Communicator"—Approved, accepted rugged, yet lightweight carbon microphone. High sensitivity. Built-in RF filter. Ideal for police, fire department, taxi and other protable or mobile communications. Heavy-duty thumb switch. Pressure-cast housing. Finish: Opalescent Grey. 5 feet of self-recoiling cable, includes anti-rattle hang-up bracket. Power level 2 db above 6 mw. List price—**$29.50.** Shipping weight—1 lb., 3 oz.

TAPE RECORDING MICROPHONES

[J] A fine performing, value priced high output wide range microphone. **Model 150**—(Crystal) Grey plastic body, aluminum anodized grille. Output level —44 db. (1 volt/dyne/cm²). Output impedance high (1-5 megohms). Frequency response range 30-10,000 cps. 5-ft. extra flexible single-conductor shielded cable. List price—**$6.50.**

[J] **Model 151**—(Ceramic) Plastic grey body, black metal grille. Output level —48 db (1 volt/dyne/cm²). Output impedance high (1-5 megohms). Frequency response range 30-8,000 cps. 5-ft. extra flexible single-conductor shield cable. DIMENSIONS: 2³⁄₁₆ square x 1¼" deep. NEW WEIGHT: 3 ounces. List Price **$6.50**

NOTE: PROFESSIONAL RECORDISTS WILL BE INTERESTED IN ASTATIC MODELS SUCH AS THE 330 SERIES, 77 AND 788

ALL-PURPOSE CRYSTAL MICROPHONES

[K] **Model 200:** "Velvet Voice" — A versatile, low priced, hand-held, desk floor stand. Crystal high impedance microphone. Pressure-cast gold finish housing, chrome grille. Complete with 8 feet of cable. Model 200—wide range, output —50 db. Frequency Range 30-10,000 cps. Model 200-S—wide range with switch. Model 241-S rising characteristics, from 1500 to 5500 cps.

MODEL 200—List Price—**$19.50.** Shipping weight 2 lbs.

MODEL 200S and 214S—List Price—**$21.50.** Shipping weight 2 lbs.

[L] **Model T-3:** "The Pioneer"—Industry approved. High output —52 db, Frequency Range 30-10,000 cps. Tilting head provides for semi or nondirectional pickup. Pressure-cast housing. Finish bright chrome body and grille. 10 feet of single-conductor cable. Model GT-3 includes Astatic G Stand, with 6 feet two conductor shielded cable.

MODEL T-3—List Price—**$29.30.** Shipping weight 2 lbs.

MODEL GT-3—List Price—**$49.50.** Shipping weight 3 lbs.

[M] **Model JT-30** (Crystal), **JT-30C** (Ceramic): **"The Spokesman"**—High quality, low cost, specially designed for PA recording and communications. Pressure-cast body and base. Finish: Opalescent Grey, Chrome Grille.

[M] **Model JT-30** (Crystal), 8 feet of cable. Output —49 db, Frequency Range 30-10,000. **Model JT-30C** (Ceramic), 5 feet of cable. Output —54 db, Frequency Range 30-10,000 cps.

[M] **Model JT-30**—List Price **$18.40.** Shipping weight 1 lb.

[M] **Model JT-30C**—List Price **$18.90.** Shipping weight 2½ lbs.

[M] **Model JT-30F** (Same as JT-30 except head only. Without handle and base.) List Price **$15.90.** Shipping weight 1 1/5 lbs.

[M] **Model JT-30CF** (Same as JT-30C except head only. Without handle and base.) List Price **$16.40.** Shipping weight 1 1/5 lbs.

[N] **Model L-1**—"The Lecturer"—Small, efficient, high quality invisible crystal microphone. Spring attachment clip for coat lapel or other garment. Precision-built, wide-range performance. Wire mesh front and rear grilles. Black melamine finish. 15-ft. small-diameter, single-conductor shielded cable. High impedance. Output —62 db. Range 30-10,000 cps. Shipping weight 1 lb. List Price **$27.35.**

ALL DIRECTIONAL DYNAMICS

[O] **Model DN-5D, DN-HZ** "The Commentator". Highly reliable preferred Astatic dynamic microphones for communication and general purpose use. Rugged construction, tilting head, pressure-cast body. Opalescent grey finish with bright chrome grille. Model DN-50—Low impedance. Output —51 db. Frequency Range 50-10,000, 10 feet of 2-conductor shielded cable. Model DN-HZ—High impedance. Output —52 db. Frequency Range 50-10,000 cps. 10 feet of single conductor shielded cable.

[O] **Model DN-50**—List Price **$33.50.** Shipping weight 2 lbs.

[O] **Model DN-HZ**—List Price **$39.70.** Shipping weight 2½ lbs.

[O] **Model GDN-50**—Low impedance with Astatic G Stand. List Price **$52.70.** Shipping weight 3 lbs.

[O] **Model GDN-HZ**—High impedance with Astatic G Stand. List Price **$59.90.** Shipping weight 3 lbs. 8 oz.

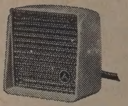
[O] **Model UGDN-50**—Low impedance with Astatic UG Stand (balanced line). List Price **$56.00.** Shipping weight 3 lbs. 8 oz.

[P] **SWITCH CONNECTORS** with standard receptacles to receive the interchangeable connector used on many Astatic microphones. Also have connection for standard concentric cable connector. Model SC-11 used with Astatic microphones T-3, DN-HZ, 10-C, 10-D, and D-104. SC-12 for use with Astatic microphone DN-50. List Prices: SC-11 (Bright chrome, less cable), **$9.00;** SC-12 (Bright chrome, less cable), **$11.25.**

COMPLETE LINE REPLACEMENT MICROPHONE CARTRIDGES AND STANDS

ASTATIC
QUALITY
MICROPHONES

I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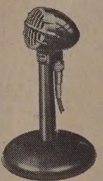
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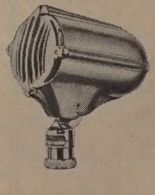
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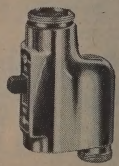
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ASTATIC PHONO NEEDLES

Needle for needle, Astatic always has the highest quality with the most complete stocks of any maker anywhere. No matter who the original equipment maker of the phonograph, Astatic has just the needle made for that particular cartridge on hand, ready for immediate delivery.

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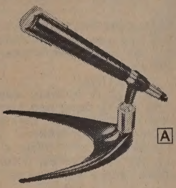
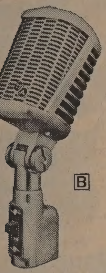
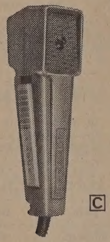
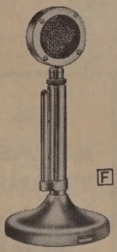
ASTATIC

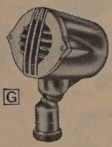
QUALITY MICROPHONES

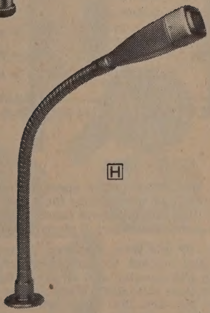












ASTATIC PHONO CARTRIDGES

For over 25 years Astatic has maintained its number one position as the world's leader in supplying the most complete line of phonograph pickup cartridges for both original equipment manufacturers and distributors.

PROFESSIONAL, HIGH RELIABILITY DYNAMIC MICROPHONES FOR SOUND STAGE—TAPE RECORDING —TV AND BROADCAST

Modern design, outstanding performance. Omnidirectional, widest range, pop and blast proof Mylar diaphragm. Pressure cast body. Complete with lavalier assembly, swivel adaptor and 20 feet of 2-conductor shielded cable.

[A] **Model 988:** Extended range (40-20,000) professional microphone for TV broadcast, group pickup. High output —57 db. Frequency response 40-20,000 cps, multi-impedance selection 50-150-250 ohms. Finish—satin black body with satin gold trim. List price—**$150.00.** Shipping weight—3 lbs.

[A] **Model 888:** Diversified applications; sound stage, tape recording, TV and broadcast. High output —55 db. Frequency response 50-15,000 cps, multi-impedance selection. Finish—black body with chrome trim. List price—**$110.00.** Shipping weight—1½ lbs.

[A] **Model 788:** Ideal for tape recording, orchestras and PA. Dual impedance 150 ohms and high. High output —55 db. Frequency response 60-13,000 cps. Built-in on-off switch. Finish—satin black body, satin gold trim. List price — **$79.50.** Shipping weight—12 oz.

CARDIOID DYNAMIC MICROPHONES FOR PUBLIC ADDRESS AND INDUSTRIAL APPLICATIONS, RECORDING, TV AND BROADCAST

THE MOST POSITIVE ANTI-FEEDBACK MICROPHONE EVER BUILT. A high fidelity unidirectional dynamic cardioid microphone. New, advanced design. Front to back pickup, differential of 18 db. Cartridge is suspended in rubber-like material, no need for external shock mount. Built-in impedance selector switch. Low impedance 30 to 50 ohms, Medium 150 to 250 ohms, High 40,000 ohms. Output —52 db. Frequency response 30-15,000 cps all models. Satin chrome or gold finish.

[B] **Model 77**—Complete with off-on switch, with provision for locking in on position. List (in chrome) **$82.50**—(in gold) **$92.50.** Shipping weight—2 lbs., 14 oz.

[B] **Model 77L**—Head only for mounting on Astatic G Stand. List (in chrome) **$72.50**—(in gold) **$82.50.** Shipping weight—1 lb., 14 oz.

[B] **Model G77**—Includes Astatic G Stand. List—**$97.45.** Shipping weight—3 lbs., 10 oz.

INDUSTRIAL "RUGGEDIZED" DYNAMIC MULTI-IMPEDANCE MICROPHONE

[C] **Model 551:** A specially designed, extremely heavy duty dynamic multi-impedance microphone with blastproof feature, high intelligibility and low background noise pickup. Internally sealed against dust, grit and moisture. Low impedance (Rmr) = 150 ohms; High Impedance (Rmr) = 40,000 ohms. Leaf type internal switch with bar actuator external switch for convenient, either-thumb handling. Cable extends to 8′ — recoils to 15″. Housing of high impact "Delrin®". List Price—**$69.50.** Shipping weight 2 lbs.

MINIATURIZED PROFESSIONAL QUALITY MICROPHONES FOR PUBLIC ADDRESS, COMMUNICATIONS, RECORDING, STUDIO AND INDUSTRIAL APPLICATIONS

[D] **DYNAMIC MODELS 335H AND 335L:** Unusual response unformity from 60-12,000 cps, both models. High Impedance (335H) and Low Impedance (335L) 30-50 ohms. Output 335H —56 db; 335L —57 db. Die-cast housing in TV grey finish with chrome cap and grille. 8 foot single conductor cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List prices (335L)—**$23.50** (335H)—**$26.50.**

[D] **CERAMIC MODEL 333:** Exceptional response uniformity from 30-10,000 cps, High Impedance Output —58 db. Die-cast housing in black finish with black grille and chrome cap. 8 foot single conductor cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List Price **$17.90.**

[D] **CRYSTAL MODEL 332:** Exceptionally uniform response from 30-15,000 cps. High impedance. Output —54 db. Die-cast housing in satin chrome with chrome cap and black grille. 8 foot single-conductor cable. Complete with lavalier and stand adaptor with ⅝″-27 thread. Shipping weight 1¼ lbs. List price **$17.90.**

[D] **CERAMIC MODEL 331:** A voice range unit for communications applications, paging and 27 megacycles citizens' band use. With built-in momentary-on, spring-return switch. Die-cast black housing and grille with chrome cap. Complete with hang-up bracket. Output —56 db. Frequency range 300-5,000 cps. High impedance. Cable provides for audio and relay connections. Shipping weight—1 lb. List Price **$17.90.**

CERAMIC AND DYNAMIC MOBILE MICROPHONES OF HIGH IMPEDANCE AND UNUSUALLY WIDE RANGE OF APPLICATIONS INCLUDING CITIZENS' BAND AND COMMUNICATIONS.

[E] **Model 511:** Tailored response with limited range characteristics, with wide temperature range ceramic element from —40° F. to + 300° F. Output: —50 db below 1 volt/dyne/cm^2. Press-to-talk leaf type switch in body center for either thumb operation. 3-conductor cable shielded coiled cable extends to 5½′ from recoil of 11″. Housing of high impact plastic in 2-tone grey and spun aluminum grille. Back handle ridges provide sure hand fit. Uniquely designed mounting bracket permits vertical or horizontal mounting. Shipping weight—1¼ lbs. List Price—**$19.95.**

[E] **Model 513:** Virtually identical to Model 511 except for Dynamic Element; wide temperature range from —40° F. to +150° F. Shipping weight—1½ lbs. List Price—**$34.50.**

FOR SSB-AMATEUR-AM-PAGING AND INDUSTRIAL USE

[F] **Model D-104, D-104C:** "The Premier"—An established first among radio amateurs. Balanced performance for maximum intelligibility throughout the voice range. Machine brass parts. Bright chrome finish. 5′ single-conductor cable. Note: Frequency range 30-7500 cps, D-104 Crystal —46 db, D-104 Ceramic —51 db. List Price—**$31.00.** Shipping weight 1¾ lbs.

THE **ASTATIC** CORP.

CONNEAUT, OHIO • U.S.A.

MANUFACTURERS OF PHONOGRAPH CARTRIDGES • NEEDLES • PICKUPS • MICROPHONES
RECORDING TAPE • ELECTRONIC DEVICES

ATLAS SOUND

ATLAS PAGING AND TALK BACK SPEAKERS

All speakers approved by Federal Civil Defense Administration.

All New Designs of **HU** and **CJ** type speakers are now equipped with the versatile "Versalock" mounting bracket. This new rigid, rugged and reliable bracket is completely adjustable on both a horizontal and vertical plane: Efficient: these speakers are especially efficient in the voice frequency range and provide the extra "punch" that overrides high level background noise. Talk Back: designed to offer a maximum of efficiency in talk back application. All **HU** type speakers are constructed of aluminum. All parts are chemically processed prior to final finish in gun metal grey, high gloss, high temperature baked enamel. The **CJ** type speaker horns are constructed of non-resonant indestructible fiber glass. All models are 100% weatherproof under all climatic conditions.

Type **HU** speakers are excellent for all paging and talk back systems where the utmost in efficiency is to be obtained. Ideal as replacements for inefficient cone type speakers that are usually inadequate for inter-com systems. ATLAS driver unit type paging speakers can be depended upon to offer at least three times the sound level of a small cone speaker at a given power input.

All models are double sealed against all weather conditions in all climates. The response is flat and uniform and free from peaks that often cause acoustic feed back and poor intelligibility. The larger type **HU** speakers such as the **HU-24N** offers an advantage in improved low frequency response and as a result is often adequate for the reproduction of music in non-critical industrial and amusement park areas.

Type **CJ** speakers are similar to the **HU** type but have the advantage of a wide angle sound dispersion characteristic. The one piece fibre glass horns are non-resonant and will resist the most adverse weather conditions.

Type **TP** two-way speakers offer bi-directional sound coverage from a single source. The universal mounting permits the dual horns to be faced downwards or outwards from a wall surface at a 10° angle. Excellent for long corridors where one driver unit can do the work of two. Saves on installation costs. The larger **TP-24N** with oversized horns offers lower response and added efficiency.

Model **DU-12** DéCor speaker combines the intelligibility, directivity and high efficiency of a driver unit type speaker with modern high styling that will harmonize with the most ultra modern décor. Finished in natural brushed aluminum.

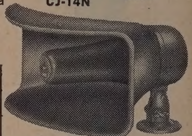
Model **DC-5** DéCor speaker is identical in outward appearance, size and mechanical details to the **DU-12** described above. However, this model is equipped with an efficient 5" diameter cone speaker in place of the driver unit type reproducer. The cone type radiator will reproduce low level voice and music in a pleasing and natural manner. Fine for use in churches, hotel lobbies, restaurants and all quiet locations where appearance must be carefully considered.

The "positive lock" bracket of the **DU-12** and **DC-5** permits the speaker to be directed on either a horizontal or vertical plane. Connections feed thru the bracket and all wiring, transformer, etc. are concealed behind the canopy. The canopy is equipped with adaptor strap for electrical outlet box or for direct mounting on a wall or ceiling surface.

HU-12N

HU-15N
HU-24N

CJ-14N


CJ-30N

TP-15N
TP-24N

DU-12
DC-5

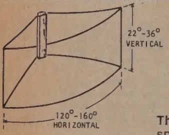
MODEL	HU-12N	HU-15N	HU-24N	CJ-14N	CJ-30N	TP-15N	TP-24N	DU-12	DC-5
Power*	7-5 w	25 w	25 w	7.5 w	25 w	25 w	25 w	7.5 w	6 w
Impedance†	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm	8 ohm
Frequency C.P.S.	350-10,000	250-10,000	200-10,000	400-10,000	250-10,000	250-10,000	200-10,000	400-10,000	120-7,000
Length Overall	7¼ in.	8¾ in.	12 in.	8 in.	11¼ in.	16½ in.	23 in.	14 in.	14 in.
Bell Diameter	7½ in.	9¾ in.	11¼ in.	9½" x 5½"	14" x 6"	9¾ in.	11¼ in.	7 in.	7 in.
Sound Level#	115 db	123 db	124 db	115 db	120 db	120 db each horn	121 db each horn	114 db	105 db
Dispersion	120°	100°	95°	120° x 60°	120° x 60°	100° each horn	95° each horn	110°	—
Ship. Weight	3½ lbs.	6 lbs.	6 lbs.	3½ lbs.	7 lbs.	7½ lbs.	8 lbs.	4 lbs.	3 lbs.
Net Price	$16.80	$20.70	$23.10	$18.60	$26.10	$32.10	$35.70	$21.60	$14.25

Note: Add 90¢ to net price of all models if 45 ohm impedance is required.

Measured at 4 ft. on axis rated power.

* Input range limited to frequencies above horn cut off.

† All models available in 45 ohms—add 45 ohms after model No. (Example: HU-15N-45)



Average Dispersion Pattern

ATLAS Columair SOUND COLUMN

(with exclusive EASY-MOUNT Universal Bracket)

The "Columair" consists of an in-line array of six frequency adjusted cone speakers. The in-line configuration produces a sound pattern having a broad horizontal and narrow vertical distribution. Provides uniform sound intensity even at varying distances from the sound column. EASY-MOUNT swivel bracket permits optimum adjustment of critical beam pattern. Transformer cover plate located at top of enclosure. Constructed of heavy gauge steel finished in light beige two tone spatter. Plastic grill cloth in contrasting shade covers front plywood panel. Interior lined with "Tufflex" acoustic padding. Fine appearance blends with most décors.

C-46

C-66

SPECIFICATIONS

Model	C-46	C-66
Speaker Array	Six, Four-Inch	Six, Six-Inch
Frequency Range	200-10,000 cps	125-10,000 cps
*Power Capacity	20 Watts	40 Watts
**Vert. Distribution Angle	26-36 Degrees	22-32 Degrees
**Hor. Distribution Angle	120-160 Degrees	120-160 Degrees
Impedance (Total)	16 Ohms	16 ohms
Dimensions	28" x 5¼" x 5"	42" x 7¾" x 6"
Net Weight	8¼ Lbs.	18½ Lbs.
Net Price	**$37.50**	**$57.00**

*Constant Program Material Input.

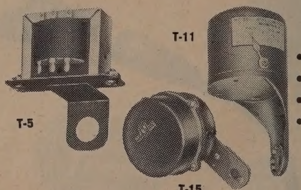
**Distribution varies with frequency and environment.

ATLAS SUPPORT STAND

Model **SS-4** support stand for portable and permanent application. Requires use of MK-1 attachment kit to mount Column to stand—designed for quick and easy removal of Column from stand. Upright polished chrome, heavy cast iron base in beige shrivel finish. Adjusts to more than six feet in height, weight 20 lbs.

Model SS-4 Loudspeaker Support Stand .... Net Price $12.60
Model MK-1 Columair Attachment Kit .... Net Price $ 1.20

ATLAS LINE MATCHING TRANSFORMERS



- **convenient**
- **efficient**
- **low loss**
- **weather proof**

T-5 for DU-12 and DC-5 DéCor speakers equipped with bracket to mount under wall canopy for a neat installation. Primary marked in impedance and power steps from 7.5 to .31 watts in six steps. Secondary 8 ohms...... **Net Price $3.00**

T-11 for HU, CJ, TP and WT-6 speakers. Completely weather proof, includes bracket for simple attachment to the speaker, varnish impregnated and all soldering lugs clearly marked. Primary from 45 to 8,000 ohms in nine impedances. Also marked for 70v. and 25v. Power ratings from 15 to .65 watts. Secondary 4, 8, 16 ohms.................. **Net Price $5.55**

T-10 for "Columair" C-46 and all general use. Same specs as T-11 above, less weatherproof housing.... **Net Price $3.90**

T-15 for CJ-44 Cobra-Jector and all high power driver units. Includes weather proof housing and universal mounting bracket. Primary from 100 to 2,000 ohms in seven steps. Also marked for 70v. line from 50 to 2.5 watts. Secondary 4, 8, 16 ohms.................. **Net Price $9.90**

T-16 for "Columair" C-66 and for general application. Specs same as T-15 above, less weatherproof housing.
Net Price $5.10

ATLAS SOUND DIVISION American Trading and Production Corp., Brooklyn, N. Y.

ATLAS SOUND

ATLAS COBRA-JECTOR

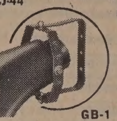
MODEL CJ-44 ALL PURPOSE WIDE ANGLE PROJECTOR—COMPLETE WITH SUPER POWER DRIVER—POLYESTER FIBRE GLASS CONSTRUCTION

All weather speaker with "Acousti-Matched" built in driver unit. The projector and reproducer is a single package, matched design resulting in maximum conversion efficiency. (Power input in watts versus sound pressure output.) The CJ-44 controlled response has been carefully restricted within frequency limits most useful in PA and high level music reproduction. As a result, speaker output energy is not wasted in the reproduction of frequencies that do not contribute to efficient performance.
Net Price $47.70

Input Power (cont.)	40 watts
Power Equalized Response*	60 watts
Input Impedance	16 ohms
Response	150-10,000 cps
Dispersion	120° x 60°
Dimensions—Bell	23″ x 13″
Overall length	19″
Weight	16 lbs. net 19 lbs. shipping

*Input range limited to frequencies above horn cut off.

CJ-44


GB-1

DR-54
DR-42
DR-32

All speakers approved by Federal Civil Defense Administration.

ATLAS DR PROJECTORS

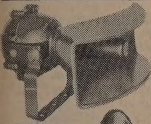
NON-RESONANT—STURDY—WEATHERPROOF

Atlas DR projectors are the result of many years of acoustic research. This costly engineering and elaborate tooling has resulted in projectors that are without acoustical or mechanical equal. All acoustical sound paths are clean and uniform without steps or pockets to disturb the normal function of the horn. These critical design features eliminate conditions of turbulence, frequency cancellation and resultant signal distortion. All models are equipped with a heavy duty "U" bracket. This bracket is securely fastened to a main body casting which will not fail when subjected to extreme conditions of stress, strain and vibration.

SPECIFICATIONS	DR-54	DR-42	DR-32
Air Column	4½ ft.	3½ ft.	2½ ft.
Low Frequency	115 cps	140 cps	190 cps
Bell Diameter	26 inches	21 inches	15 inches
Length (less driver)	19 inches	16 inches	14 inches
Shipping Weight	23 lbs.	14 lbs.	10 lbs.
Net Price	$29.40	$21.60	$18.00

MOUNTING BRACKET FOR CJ-44 AND ALL DR PROJECTORS

MODEL GB-1 For all Atlas projectors using "U" type bracket mounting. It permits the speaker to be quickly adjusted in both a horizontal and vertical plane and securely locked in position. Average adjustment limits 160° on the horizontal and 65° on vertical direction. Bonderized steel, baked enamel finish, all hardware supplied. Shipping weight 3 lbs. ...... **Net Price $3.30**


HLE-1-30
HLE-2-30

HLE-1-42
HLE-2-42

ATLAS EXPLOSION-PROOF HIGH EFFICIENCY SPEAKERS

APPROVED BY UNDERWRITERS LABORATORIES FOR USE IN HAZARDOUS LOCATIONS WHERE EXPLOSIVE ATMOSPHERES EXIST

Highly efficient due to exclusive design of explosion barrier. **Class 1** speakers for use in atmospheres containing ethyl ether, cyclopropane, gasoline, naphtha, benzine, butane, acetone, lacquer, natural gas, etc. **Class 2** can be used in Class 1 conditions as well as in atmospheres containing dust of magnesium, coal, coke, flour, starch, grain, etc.

HLE-30 type speaker preferred where space limitations exist; excellent for paging and talk back applications. **HLE-42** type more efficient due to larger horn size—where maximum coverage is required.

SPECIFICATIONS	HLE (1 or 2) 30	HLE (1 or 2) 42
Power Input	30 watts	30 watts
Voice Coil Impedance	16 ohms*	16 ohms*
Freq. Response	300 to 10,000 cps	150 to 10,000 cps
Overall Length	17½ inches	25 inches
Bell Opening	14 in. x 6 in.	21 inch diameter
Cable Entrance	½″ conduit	½″ conduit
Shipping Weight	22 lbs.	29 lbs.
Net Price	HLE-1-30 $73.50 HLE-2-30 $85.50	HLE-1-42 $84.00 HLE-2-42 $96.00

*Available with 45 ohm V.C. add $1.50 to net price. T-16 line trans. mounting facilities available within explosion-proof housing. For details see description of T-16.

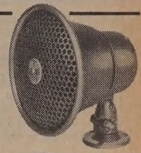
ATLAS "SPECIAL DUTY" SPEAKERS

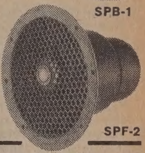
These "special duty" weatherproof speakers are ruggedized for tough-spot service, compact in size for limited mounting area installations. Protective screen over bell openings adds structural strength and prevents entry of foreign material into bell opening. Constructed of heavy gauge aluminum and die castings finished in high temperature baked grey enamel.

Model **SPB-1** equipped with "Versalock" bracket for all directional adjustment. Bell dia. 7¼ in., overall length 6⅛ in. Weight 5½ lbs. .... **Net Price $29.10**

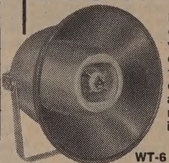
Model **SPF-2** for flange mounting in panels, bulkheads, etc. Outside dia. 7¼ in., overall length 6⅛ in. Weight 5 lbs. .... **Net Price $28.50**

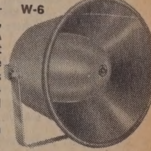
See model **HU-15N** for detailed electrical and acoustical specifications.


SPB-1


SPF-2

ATLAS "COAX-PROJECTOR" ALL WEATHER HI-FI SPEAKER


WT-6


W-6

Model WT-6—Two-way system—two individual drivers, two individual horns, with built in electronic crossover. A cone type driver with six inch throat for the "lows"; a compression type driver for the "highs". Both drivers are loaded with separate horns to minimize acoustic phase distortion and inter-modulation effects.
Net Price $36.00

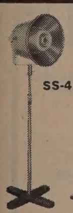
WT-6 SPECIFICATIONS	
Power	15 Watts (cont.)
Frequency	100-15,000 cps
Impedance	8 ohms
Dispersion	120° average
Sound Level*	118 db
Crossover	1,000 cps prox.
Bell Opening	15 inches
Overall Depth	12 inches
Shipping Weight	16 lbs.

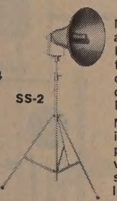
*Measured at 4 ft., 800 to 1300 cps sweep at rated power.

Model **W-6**, identical in size and appearance to WT-6 but does not include high frequency "tweeter". High end response limited to 8,000 cps, but entirely adequate where good musical reproduction is desired and where the ultimate in high frequency response is not a requirement.
Net Price $27.00

General: Both models are constructed of aluminum finished in a new modern shade of beige, all weather, baked enamel. Leading edge of bell protected and damped with a plastic beading. Rugged steel "U" type bracket is fully adjustable for all applications. All metal parts chemically treated prior to finishing.

ATLAS SUPPORT STANDS

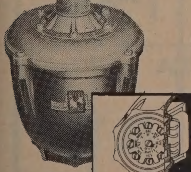

SS-4


SS-2

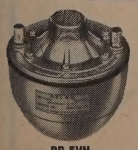
Model **SS-4** for permanent and portable use, for all types of speakers of medium weight and size. Easy-Off top fitting supplied for convenient attachment of speaker. Cast iron base offers adequate stability for average use. Upright polished chrome steel tubing adjustable to over 6 ft. Beige shrivel base. Weight 20 lbs. **Net Price $12.60**

Model **SS-2.** Heavy duty, all purpose support. Maximum stability due to wide surface spread. All parts plated steel and paint finish. Equipped with Easy-Off top adaptor to facilitate removal of speaker. Height extension 5 to 10 ft. Weight 29 lbs. .... **Net Price $25.50**

ATLAS DRIVER UNITS • SUPER POWER—SUPER EFFICIENT


PD-60T

PD-4V


PD-5VH

PD-5VT

Will offer years of satisfactory performance under full power application. The ultimate in frequency response, conversion efficiency and trouble free performance. Specify the new **PD-60T** for the "tough-spots". All models, except the **PD-4V** are equipped with self-aligning diaphragms easily replaceable in the field; all driver units double sealed against all climatic conditions.

SPECIFICATIONS	PD-60T	PD-5VT	PD-5VH	PD-4V
Power (continuous)*	60 watts	40 watts	40 watts	30 watts
Power (equalized response)†	100 watts	60 watts	60 watts	50 watts
Voice Coil Impedance	16 ohms	16 ohms	16 ohms	16 ohms
Sound Intensity#	136 db	131 db	131 db	128 db
Frequency Response cps	70-10,000	80-10,000	80-10,000	75-7,000
Transformer Imp. ohms	85, 125, 250, 500, 1000, 2000	125, 250, 500, 1000, 2000		
Trans. Power Taps, Watts 70 Volt Line	60, 40, 20, 10, 5, 2.5	40, 20, 10, 5, 2.5		
Shipping Weight	8 lbs.	7 lbs.	5 lbs.	4 lbs.
Net Price	$37.20	$30.60	$22.50	$17.70

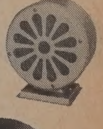
PD-60 Same as PD-60T Less Transformer $30.60

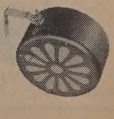
* Integrated speech and music full range. † Input range limited to frequencies above horn cut off.
# Measured 4 ft. on axis, 6 ft. air column with integrated full power input.

ATLAS "TWO-WAY" BAFFLES

Model **TW-9.** Bi-directional baffle for wall or ceiling surfaces. Excellent for corridors. Universal mounting plate attaches canopy to electrical outlet box or to any flat surface. All steel, beige enamel finish, plastic grill cloth. Dia. 9 in. depth 5 in., for all standard 8 in. cone speakers. Weight 4 lbs.
Net Price $8.40

Model **TW-8.** Economy model similar to above with quick-mount universal bracket. Finished in neutral grey enamel for 8 in. cone speakers. Weight 3½ lbs. .... **Net Price $6.60**


TW-9


TW-8

ATLAS SOUND DIVISION American Trading and Production Corp., Brooklyn, N. Y.

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ATLAS SOUND

ATLAS "FULL GRIP-VELVET ACTION" MICROPHONE STANDS

NO SLIPPING—NO RATTLE—NO NOISE—NO SCRATCHING—NO WEAR

The "Full Grip" clutch is standard on all models—it offers an extended length clutch body, permitting a secure, full hand grip. The clutch mechanism of all "Velvet Action" stands is inner-lined with a wear-proof bakelite locking collet which grips without jamming, slipping or sudden dropping. All chrome plated surfaces are carefully polished prior to plating to assure a uniform "Super-Chrome" wear resistant, lifetime finish. All threads on tube assemblies are individually inspected to assure a perfect fit when assembled to the base castings. All bases are functionally designed to offer maximum stability for a given base weight. The maximum base mass is located at the outer periphery of the casting where the concentrated weight is most effective. All bases include self leveling, shock absorbing base pads, plus three additional "anti-tip" points located between the base pads. All models terminate with a 5⁄8"-27 thread at the microphone end.

MS-10C Economy model suitable for most applications where a low cost stand is required. Offers adequate base stability for average weight microphone.

MS-12C Similar to above but increased base weight offers an added advantage. Flat design of base is modern in appearance and is finished in a dark gun metal shrivel finish. Equipped with base pads to absorb shock.

MS-11C Full chrome design. Entire stand base and upright tube assembly completely finished in "Super-Chrome." Excellent for use where fine appearance is a requirement. An excellent choice for use with full chrome plated microphones. Equipped with base pads.

MS-4 Three section telescoping microphone stand permitting a wide variation of adjustment. Can be adjusted from 26 inches to 61 inches in height. Excellent for use in schools, etc. where it is necessary to adjust the stand over a wide range of height adjustment. Minimum collapsed length offers convenience in transportation.

MS-20 DeLuxe model: Maximum stability suitable for use with heavy, expensive microphones. Large oversize tube assembly, 7⁄8" diameter telescoping tube, 1 1⁄8" diameter base tube, base diameter 12 inches. Oversize clutch assembly assures secure locking adjustment. Top adaptor included for 5⁄8"-27 microphones.

MS-25 Professional Microphone Stand. The ultimate in microphone stands. Features the "Safety Air Lock Cushion," This sensational feature prevents any accidental or sudden slippage of the telescoping section. If the clutch mechanism is accidently released the stand cannot suddenly crasn down—thus prevents damage to the microphone from severe mechanical shock. The telescoping section is at all times "cushioned on air" and the controlled escapement of air will only permit a slow smooth and quiet collapse of the stand. Base finished in a combination of chrome and shrivel. Heavy duty tube assembly, 1 1⁄8" and 7⁄8" combination—5⁄8"-27 top adaptor.

MS-11S - MS-12S Automatic "Sleeve Action" models. A fully automatic means of adjusting the height of the stand. A slight downward pressure on the "Sleeve Action" control permits the telescoping section to be lowered—cannot change its position without a deliberate pressure on the actuating sleeve control. Two models full chrome base or shrivel finish.

CS-1 Fully collapsible, portable stand quick and simple to set up. Collapsible to a minimum overall length of 23 inches.

CS-42 Collapsible base stand. All the advantages of portable type stand without the loss of stability inherent in cast iron base types. When legs are extended they are securely locked in position. Upright tube assembly full chrome, base finished in grey shrivel, base pads provided. **Packed: One complete stand to a single shipping carton.**

Model	Weight	Base Finish	Tube Finish	Height Adj.	Base Dia.	Net Price
MS-10C	10 lbs.	Grey Shrivel	Full Chrome	35" to 64"	10 inches	$ 6.00
MS-12C	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$ 6.45
MS-11C	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$ 8.25
MS-4	11 lbs.	Grey Shrivel	Full Chrome	26" to 61"	10 inches	$ 9.45
MS-20	15 lbs.	Grey Shrivel	Full Chrome	37" to 66"	12 inches	$10.20
MS-25	22 lbs.	Chrome & Grey	Full Chrome	37" to 66"	17 inches	$16.80
MS-11S	13 lbs.	Full Chrome	Full Chrome	35" to 65"	10 inches	$15.00
MS-12S	12 lbs.	Grey Shrivel	Full Chrome	35" to 65"	10 inches	$13.50
CS-1	5 lbs.	Chrome & Cad	Full Chrome	23" to 62"	collapsible	$11.40
CS-42	9 lbs.	Grey Shrivel	Full Chrome	34" to 62"	16 inches	$ 7.80

CS Type Demountable Microphone Floor Stands—with full grip—"Velvet Action," fully collapsible—quick and simple "Come Apart" base design. This new and revolutionary design in microphone stands is ideal for fixed as well as portable applications. Excellent for use when it is desired to contain the stand within the amplifier or speaker carrying case. The stability of the assembled stand is equal to many types employing heavy cast iron base construction. The base legs are easily removed to permit minimum size, lightweight transportation. The spring lock leg-holding mechanism of this ingenious design offers a quick and simple "Come Apart" feature. No tools or screw fastenings are required to hold the base assembly together. No small parts to become lost. The self-leveling legs are chrome plated, tipped with skid-proof rubber shock absorbent bumpers —eliminates vibrational conductivity . . . protects polished floor surfaces against damage.

Model	Finish	Height Adj.	Shipping Weight	Net Price
CS-32	Full Chrome	36" to 64"	5 lbs.	$ 7.50
CS-33	Full Chrome	26" to 64"	4 lbs.	$ 8.70

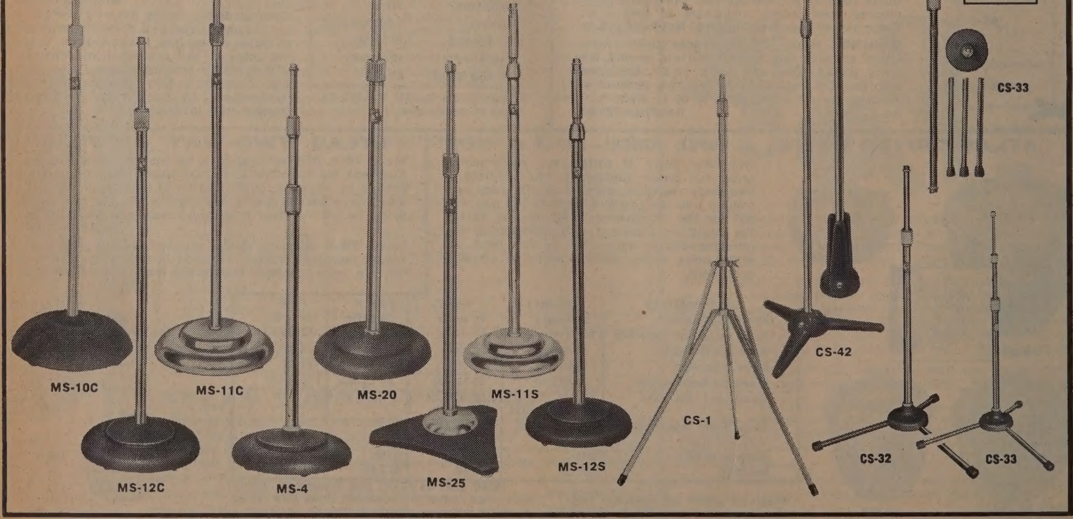
Each stand is individually packed complete in a single carton.
Model CS33 can be collapsed to a total length of only 22½".

VM-1 SHOCK MOUNT The VM-1 shock mount will eliminate or greatly reduce microphone pick up of external mechanical shock and stand vibrations.

The shock mount is equipped with male and female 5⁄8"-27 threads permitting convenient insertion between the microphone and the microphone stand.

The VM-1 is constructed of die castings and brass turnings finished in bright polished chrome — overall length 4¾", diameter 1" .... **Net Price $4.50**

VM-1



ATLAS SOUND DIVISION American Trading and Production Corp., Brooklyn, N. Y.

ATLAS SOUND

ATLAS MICROPHONE DESK STANDS AND ACCESSORIES

DS-4 Highly polished molded phenolic base is light beige in color with chrome upright tube. The smooth base will not scratch or mar table tops. Upright tube can be easily removed from base. Base diameter 4", height of tube 4", thread size 5/8"-27. Shipping Weight 1/2 lb.......................................**Net Price $1.50**

DS-5 Non-Adjustable Desk Stand. Base cast iron, finished in gun metal shrivel. Stable base is equipped with pads to prevent damage to desk or table tops. Base diameter 6", tube height 4" chrome finish. Shipping Weight 2 lbs. **Net Price $1.95**

DS-7 Same as above but equipped with upright adjustable from 8 to 13 inches. Equipped with standard "Velvet Action" clutch adjustment. Thread 5/8"-27. Shipping Weight 3 lbs.......................................**Net Price $3.30**

DS-10 "Stream Liner" Desk Stand. Features "Rear Cable Exit". Mike cable is concealed under center section of chrome trim and directed out at rear of base; results in added stability and improved appearance. Constructed of precision die castings, finish gun metal grey, bright chrome trim. Rubber bumpers prevent damage. 5/8"-27 thread. Shipping Weight 1 1/2 lbs. **Net Price $3.30**

TS-6 Adjustable Banquet Stand with "Velvet Action" adjustment from 14 1/2" to 26". All parts including base finished in full "super-chrome," base diameter 8 inches. Shipping Weight 6 lbs.......................................**Net Price $5.85**

SW-1 Gyromatic Swivel permits microphone to be adjusted to any angle, up, down, around. Locks in any position. Die cast finished in chrome. **Net Price $2.85**

SO-1 "Snap On"—A two-section "Snap On" spring sleeve attachment permits the microphone to be attached or removed instantaneously. One section is attached to the microphone and one section permanently fastened to the stand. For use where the microphone must be occasionally removed from the stand as often occurs in sports announcing, floor show use, etc. All parts are of brass, finished in "super-chrome"..........................**Net Price $1.65**

SB-1 Dispatcher and Switchboard Mike Support. For use over telephone switchboards, dispatcher's desk, dais, banquet table, etc. 12 inch long, flexible, chrome plated "goose neck" arm is mounted on a spring loaded swivel, can be swung aside when not in use. A feed thru hole is located at the mike end of the "goose neck" so that the mike cable can be concealed within the flexible arm. Base casting is rear loaded so that the base will not tip forward. Finish grey shrivel. Shipping Weight 13 lbs.....**Net Price $9.45**

GN "Goose Necks" can be attached to any microphone stand or fixture; ends have 5/8"-27 male and female threads—all finished in bright chrome, model numeral indicates overall length of "goose neck" in inches. **Net Price GN-6 $1.20, GN-13 $1.65, GN-19 $2.40**

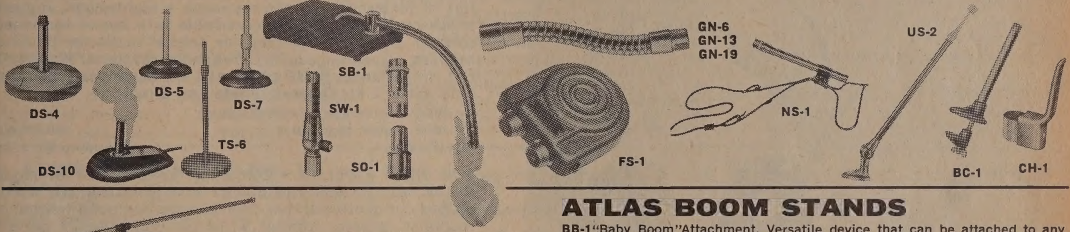
FS-1 Microphone Foot Switch—for use with mikes having single ended inputs. Shielded, grounded, noise free. Primarily for foot operation; used as a hand operated switch on top of a table or switchboard. Long life shielded micro-switch of a "press to open" circuit type. When switch is depressed the short is removed from the mike circuit and the mike becomes operative. Can be easily rewired internally for "press to close" circuit application. Measures 2 1/2" x 3"...**Net Price $7.80**

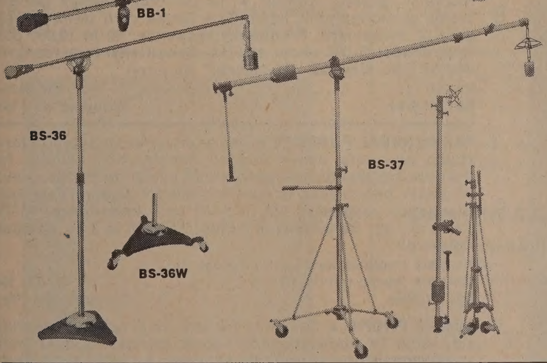
NS-1 "The Chesty" Neck Supported Mike Holder. Permits a quick and simple "three way" adjustment. Mike is always in a suitably "close talking" position reducing acoustic feedback problems. Wide comfortable chest support prevents rolling due to sudden movement. Cool and lightweight, weighing only 6 oz. ....**Net Price $3.30**

US-2 The Atlas US-2 Multi-Purpose microphone support. Excellent for use with language laboratories, dispatcher desks, telephone switchboards, pulpits, etc. The boom arm vertical adjustment and the rotation motion is spring loaded and will "float" the mike in the desired position without requiring a locking adjustment. The microphone cable may be concealed within the boom arm and will feed thru the swivel assembly and base flange. A small opening is provided at the microphone end of the boom for cable entry. Finished in "super-chrome". Specifications—Boom arm length 12 3/4"; vertical adjustment of boom 180°; rotation 360°; base length 2 5/8".....**Net Price $5.70**

BC-1 Bracket Clamp. A multitude of useful applications. Can be used with a boom arm, goose neck, etc. Chrome tube 6" long. Clamp can be removed and top flange screwed or bolted in position. 5/8"-27 thread.....**Net Price $2.10**

CH-1 Cable Hanger. Fits all tubes 7/8" to 1 1/4" diameter. The mike cable can be quickly coiled and looped over the cable hanger when moving, storing or transporting the mike and stand. Finished in polished chromium. **Net Price $1.65**





ATLAS BOOM STANDS

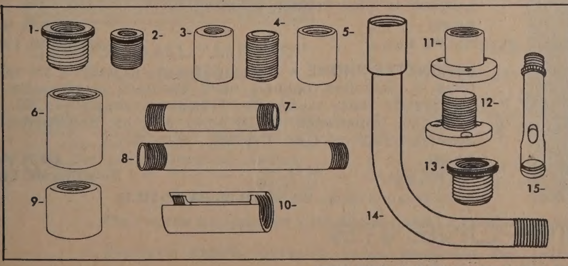
BB-1 "Baby Boom" Attachment. Versatile device that can be attached to any type of floor stand. All swivel parts are precision die castings resulting in smooth operation and secure positioning. Length of boom 31"—Chrome plated 5/8"-27 thread. Shipping weight 3 1/2 lbs..........................**Net Price $4.80**

BS-36 Professional Boom Stand with "Safety Air Lock Cushion" offers all the advantages of "Floating Action" plus a secure and dependable locking adjustment. The Air Lock built into the vertical section prevents any accidental or sudden slippage of the upright section. A gyromatic swivel joint is provided at the microphone end. The base casting is equipped with shock absorbent chrome plated, "domes of silence". Specifications: Boom length 62" (extension may be added). Vertical extension from 48" to 72". All tubular sections super-chrome plated. Base finished in polished chrome and gun metal. Shipping weight 36 lbs.......................................**Net Price $39.90**

BS-36W Mobile Model. Identical to the BS-36 except that the base is supplied with ball bearing swivel casters, permitting the entire stand to be wheeled to various positions in the studio. Shipping weight 40 lbs.....**Net Price $45.90**

BS-37 Porto Boom. For most exacting TV studio, sound motion picture application, etc., ideal for portable service. Fully collapsible down to dimensions permitting its transportation in all automobiles. Air check prevents any accidental collapse of the upright. Detailed description sheet available. Specifications: Upright retracted 5 1/4 ft., extended 9 ft. Boom retracted 7 ft., extended 18 ft. All tubular sections aluminum processed in "Alumilite" Counter weight cast iron with bronze locking mechanism. Base casters 4" swivel type. Base spread 42" on radius. Shipping weight 73 lbs. **Net Price $390.00**

ATLAS MICROPHONE ADAPTORS AND FITTINGS



Model	Description	Net Price
AD- 1	5/8"-27 female to 1/2" pipe thread male (RCA Adaptor)	$ .54
AD- 2	1/8" pipe female to 5/8"-27 male	.39
AD- 3	1/8" pipe female to 5/8"-27 female	.39
AD- 4	3/4" long, 5/8"-27 male running thread	.21
AD- 5	5/8"-27 female to 5/8"-27 female, coupling	.39
AD- 6	7/8"-27 female to 7/8"-27 female, coupling	.72
AD- 7	3" long tube 5/8"-27 male each end	.42
AD- 8	6" long tube 5/8"-27 male each end	.48
AD- 9	7/8"-27 female to 5/8"-27 female	.45
AD-10	5/8"-24 female to 5/8"-27 female (W. E. Adaptor)	.78
AD-11	Flange, 5/8"-27 female. Base Diameter 1 1/4"	.45
AD-12	Flange, 5/8"-27 male. Base holes on 7/8" mounting centers	.45
AD-13	7/8"-27 male to 5/8"27 female	.51
AD-14	Right angle bent tube: 5/8"-27 male and female each end	.90
AD-15	Cable "Feed-Thru" adaptor: 5/8"-27 male and female each end	.90

Note: Thread sizes specified as 1/8" pipe is I.P.S. (Electrical fitting) Measures Approx. 3/8" dia. All adaptors chrome plated.

ATLAS SOUND DIVISION American Trading and Production Corp., Brooklyn, N. Y.

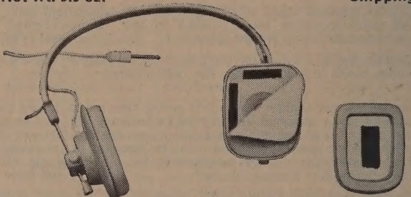
CLEVITE *brush* Headphones

CLEVITE brush

NEW STANDARDS IN FIDELITY

FOR ELECTRONIC TEACHING ▪ Designed for modern language training labs ▪ Unmatched for comfort, convenience, appearance, performance ▪ Fit any head or hair style ▪ Lightweight, yet exceptionally durable ▪ Available in coral, suntan, spruce green or black. **Frequency response:** exceptionally flat, 50 to 10,000 cps. **Impedance:** 50,000 ohms at 1,000 cps. **Sensitivity:** 8 dynes/cm²/volt at 1,000 cps. **Motor:** piezoelectric "Bimorph"®.

ED-300 (supplied with blanket ear cushions;
add $1.00 per pair for donut cushions) . . . . . **$28.00 Net**
Net Wt. 9.9 oz. **Shipping Wt. 2 lbs.**



A **FOR COMMERCIAL AND AMATEUR LISTENING** ▪ Possesses wide range response, uniform output. Furnishes close-comfort fit for excellent bass response ▪ Lightweight, rugged, shock-proof construction ▪ Available with eyelet terminals, molded plastic phone plug, or special cords for binaural listening (double impedance). **Frequency response:** 50 to 10,000 cps. **Impedance:** 50,000 ohms at 1 kc. **Sensitivity:** 8 dynes/cm²/volt at 1 kc. **Crystal:** "Metalseal Bimorph"

BA-206-1 (molded plastic phone plug)
BA-206-2 (eyelet terminals) . . . . **$30.90* Net**
Net Wt. 8 oz. **Shipping Wt. 2 lbs.**

B **FOR HIGH FIDELITY** ▪ Combines performance of Model BA-206 with flexibility of a high fidelity instrument ▪ Furnished complete with ear cushions for improved frequency response, greater comfort ▪ Simple plug change permits stereo or monophonic listening ▪ Single cord permits freedom of movement. **Frequency response:** 50 to 10,000 cps. **Impedance:** 50,000 ohms at 1 kc. **Sensitivity:** 8 dynes/cm²/volt at 1 kc. **Crystal:** "Metalseal® Bimorph".

BA-220 . . . . **$34.50 Net**
Net Wt. 8 oz. **Shipping Wt. 2 lbs.**

C **FOR GENERAL PURPOSE** ▪ Designed for general laboratory, studio or home use ▪ Rugged construction ▪ Ideal for multiple installations. Available with eyelet terminals, molded plastic phone plug, or special cords for binaural listening. **Frequency response:** 100 to 5,000 cps. **Impedance:** 45,000 ohms at 1 kc. **Sensitivity:** 6 dynes/cm²/volt at 1 kc. **Crystal:** "Bimorph".

→**BA-200-1** (molded plastic phone plug)
BA-200-2 (eyelet terminals) . . . . **$17.25* Net**
Net Wt. 6 oz. **Shipping Wt. 2 lbs.**

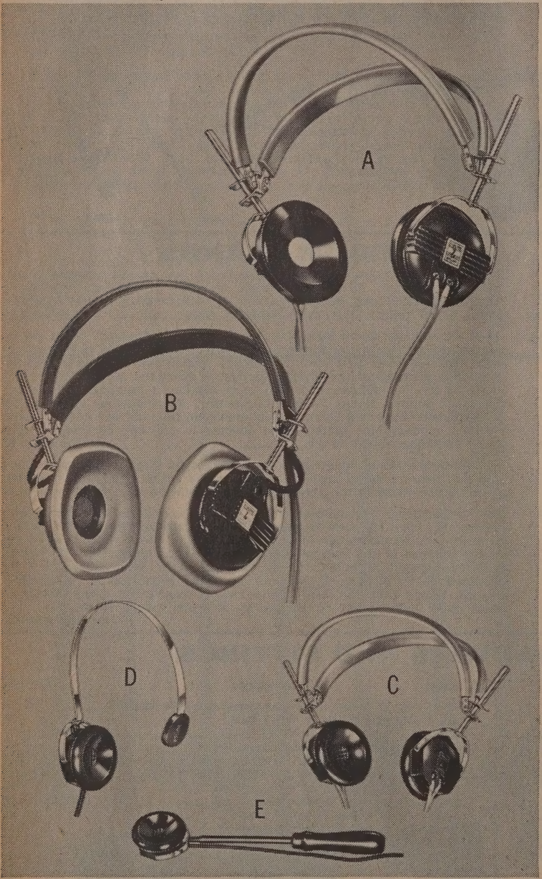
D **SINGLE PHONE** ▪ Designed for individual or group hearing aid, radio-TV applications ▪ Allows listener to hear both audio signals and surrounding sounds ▪ Lightweight, comfortable, good ear seal. **Frequency response:** 100 to 5,000 cps. **Impedance:** 90,000 ohms at 1 kc. **Sensitivity:** 6.3 dynes/cm²/volt at 1 kc. **Crystal:** "Bimorph".

BA-201 . . . . **$14.95 Net**
Net Wt. 3 oz. **Shipping Wt. 1 lb.**

E **LORGNETTE PHONE** ▪ Designed for group hearing aid systems in churches, concert halls, theaters, auditoriums ▪ Lightweight, easy to handle. **Frequency response:** 100 to 6,000 cps. **Impedance:** 90,000 ohms at 1 kc. **Sensitivity:** 6 dynes/cm²/volt at 1 kc. **Crystal:** "Bimorph".

BA-202 . . . . **$18.75 Net**
Net Wt. 5 oz. **Shipping Wt. 1 lb.**

* with binaural cords, BA-206 **$33.20**, BA-200 **$19.50**



CLEVITE ELECTRONIC COMPONENTS
DIVISION OF CLEVITE BEDFORD, OHIO

HEADPHONES By C. F. CANNON CO.

THE "CHIEF"
Cannon-Ball Bakelite Headset

A high quality headset of durable molded black plastic. Attractive in appearance, it is a sensitive and practical phone for every headset use. Inside terminals. Diameter of diaphragm is 2⅛". Double coils, two in each receiver. Alnico permanent magnets. Supplied with vinyl plastic covered headband with permanent adjustment and no removable parts. Cotton covered cord, 4½ ft. long.

CC-2—2000 ohms D.C.	**List $4.15**	**Net $2.49**
CC-3—3000 ohms D.C.	**List 4.40**	**Net 2.64**
CC-5—5000 ohms D.C.	**List 5.75**	**Net 3.45**
CC-11—11 ohms D.C.	**List 4.15**	**Net 2.49**

BRANDES "SUPERIOR"
Matched Tone Headset

A rugged headset, millions of which are in use all over the world. Large size diaphragms of 2⅛" diameter assure efficient performance. Outside terminals, with polished aluminum cases and bakelite caps. Double coils, two in each receiver. Chrome steel magnets. Steel headband with permanent adjusment. 4½ ft. cotton covered cord.

BS-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**

BRANDES "ADMIRAL"
Matched Tone Headset

The Brandes "Admiral" is of the same general construction as the Brandes Superior, but has terminals on the inside.

BA-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**
BA-3—3000 ohms D.C.	**List 4.80**	**Net 2.88**
BA-5—5000 ohms D.C.	**List 6.00**	**Net 3.60**

CANNON-BALL ALNICO MAGNETIC No. 25

A New Headset of Unusual Quality, Efficiency and Durability, powered by Alnico V magnets.

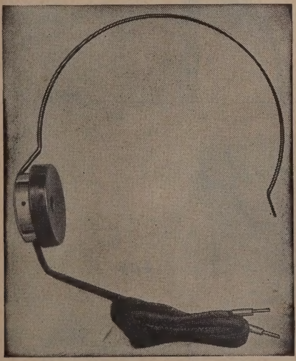
The headband is covered by attractive black extruded vinylite and provides utmost wearing comfort. Limits turn of phone to prevent twisting of cord. Cap and case of molded plastic. Large size diaphragm 2⅛". Equipped with sanitary moisture-resistant plastic cord with riveted crotch piece.

AM-25-2	**List $6.50**	**Net $3.90**
AM-25-3	**List 7.00**	**Net 4.20**
AM-25-5	**List 8.50**	**Net 5.10**

ALNICO MAGNETIC No. 15

A new, small size, extra sensitive double headset, light in weight. Diameter of diaphragm 1⅞". Molded cap and case. Steel adjustable headband. 4½ ft. cord.

AM-15-2	**List $3.65**	**Net $2.19**
AM-15-3	**List 3.90**	**Net 2.34**



CANNON-BALL "ALNICO"
Single Headphone

Equal in clarity and volume to most double headsets, efficient and attractive. Permits listening while being addressed by others. Concealed terminals. Diaphragm 1⅞". Bakelite case and caps. Alnico magnet, double coils. 4½ ft. cord. Spring steel headband permanently attached.

AM-15-1—1000 ohms D.C.	**List $2.00**	**Net $1.20**

THE "MASTER"
Cannon-Ball Headset

Used extensively in hospitals and other institutions as well as for general purposes, and is especially recommended for institutions. Inside terminals Aluminum cases with black bakelite caps. Spring steel adjustable headband with no removable parts. Diaphragm 2⅛" diameter. Double coils. Chrome steel magnets. 4½ ft. cotton-covered cord.

MC-2—2000 ohms D.C.	**List $4.30**	**Net $2.58**
MC-3—3000 ohms D.C.	**List 4.65**	**Net 2.79**
MC-5—5000 ohms D.C.	**List 5.75**	**Net 3.45**

CANNON-BALL "EMPIRE"
Lightweight Headset

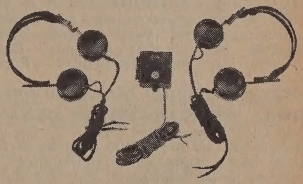
A low-priced light-weight headset with large magnet and double coils. Reproduces with clarity and good volume. Diameter of diaphragm is 1⅞". Polished aluminum cases with bakelite caps. Steel adjustable headband. 4½ ft. cord. Inside terminal connections.

EC-2—2000 ohms D.C.	**List $3.80**	**Net $2.28**
EC-3—3000 ohms D.C.	**List 4.05**	**Net 2.43**

THE "DIXIE"
Cannon-Ball Headset

The "Dixie" is of the same general construction as the "Master" headset except that the terminals are on the outside. Bakelite case Alnico magnets.

CD-2—2000 ohms D.C.	**List $3.90**	**Net $2.34**
CD-3—3000 ohms D.C.	**List 4.15**	**Net 2.49**



CANNON-BALL HEARING AID FOR TELEVISION

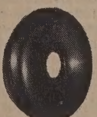
Provides private listening without disturbing others. Excellent for persons hard of hearing. Can be attached to any television set and permits listening to phones alone, speaker alone, or both together.

FOR TELEVISION

Kit complete with 15 foot cord, phone volume control and two sets of phones

	List $16.50	**Net $9.90**
With one headset	**List 12.50**	**Net 7.50**

MOLDED RUBBER CUSHIONS



Fit standard size headsets. Molded-in air chamber provides maximum wearing comfort.

• per pair	**List $1.00**	**Net $ .60**

Phones can be supplied with any resistance required or with variations to meet special requirements.

Sanitary plastic covered cords available for institutional use. Write for special quotation.

© U.C.P., Inc.

Electro-Voice

BC-TV-RECORDING MICROPHONES-DYNAMICS

Cardiline® Unidirectional Microphones

MODEL 642—A highly directional dynamic microphone combining the best characteristics of cardioid and distributed front-opening designs. Essentially cardioid unidirectional up to 500 cps; highly directional over balance of range. Working distance is 2 to 3 (or more) times that of conventional types. Excellent for boom use with Model 356 shock mount. Minimum mechanical shock transfer and wind noise interference. Response: Flat from 30 to 10,000 cps or choice of 5 or 10 db low frequency reduction steps by screwdriver adjustment. Impedance: 50, 150 and 250 ohms. externally adjustable. Output level: —48 db. Cast aluminum case with non-reflecting gray epoxy. Supplied with Cannon UA-3-14 connector, 20′ 3-conductor shielded broadcast cable and UA-3-11 Cannon connector. Length, 17⅞″; max. diameter, 3³⁄₁₆″. Net weight, 3 lbs., 4 oz. List Each.........**$390.00**

MODEL 643—Similar to Model 642 above but designed for more specialized and extended long-range pickup. Applications: Provides cardioid pickup pattern to 100 cps and is highly directional over balance of range. Includes integral 2-position tilt-down and 100 cps cutoff filters. Impedance: 50, 150 or 250 ohms changed by screwdriver adjustment. Lightweight cast and extruded aluminum case with integral shock mount and removable wind filter. Output level: —47 db; Response: 30 to 10,000 cps. Length, 7′ 2″; max. diam. 4″. Cannon UA-3-14 and UA-3-11 connectors; supplied with 20′ cable and storage case. List Each..**$1560.00**

Cardioid Unidirectional Microphones

MODEL 666 SUPER CARDIOID—Variable-D® principle for high discrimination against sounds from back. Permits close talking without bass accentuation. Working distance increased by 1.7:1 over pressure microphones. Single moving element is exclusive, rugged Acoustalloy® diaphragm. Response: 30 to 16,000 cps. Output: —58 db. Internal connector pin impedance change. Wired for 150 ohms. taps at 50 and 250 ohms. Non-reflecting gray epoxy aluminum cast case. Built-in Cannon UA-3 connector. Clamp-on stand mount with ⅝″-27 thread and ½″ pipe thread adapter, 20′ cable. Length, 7¾″; diameter, 1¾″. Net weight, 11 oz. List Each...........................**$255.00**

MODEL 666R RISING RESPONSE CARDIOID—Like Model 666, but with response which rises 4½ db from 100 to 2,000 cps, reducing pickup of low frequency reverberations, room "rumble" and prop noise. Particularly suited to boom use. Output: —55 db. List Each..**$255.00**

MODEL 665 CARDIOID—Similar in design and function to the Model 666, but for less exacting applications. Uniform response 50 to 14,000 cps. Recessed switch provides 50 or 250 ohms. Pressure-cast zinc case. Non-reflecting gray epoxy. Diameter, 1⅞″; length, 7³⁄₁₆″; 18′ cable. Net weight, 1 lb. 10 oz. List Each...............**$150.00**

Omnidirectional Microphones

MODEL 655C SLIM-TRIM TV DYNAMIC—Frequency response, 40 to 20,000 cps. Output level, —55 db. Excellent level affords high signal-to-thermal noise ratio. Can be used on stand, in hand or on boom. Easily concealed in studio props. Acoustalloy® diaphragm. Pop-proof grille. Impedance: 50, 150 and 250 ohms. Impedance easily changed. Non-reflecting gray epoxy. Cannon UA-3 connector. Clamp-on stand mount included with ⅝″-27 thread and ½″ pipe thread adapter. Size: Length, 10½″ w/o connector; diameter, 1″; 20′ cable. Net weight, 7 oz. List Each..............................**$200.00**

MODEL 654A SLIM-TRIM BROADCAST DYNAMIC—Frequency Response, 50 to 16,000 cps. Output level: —55 db. Can be used stand-mounted, hand-held or as lavalier. Matches all low impedance. Built-in Cannon XL-3 connector. Acoustalloy diaphragm. ⅝″-27 thread, 18′ cable. Length, 6¹⁵⁄₁₆″; diameter, 1⅛″. Non-reflecting gray epoxy. Net weight, 16 oz. Supplied with Model 300 clamp and lavalier neck cord. List Each..**$100.00**

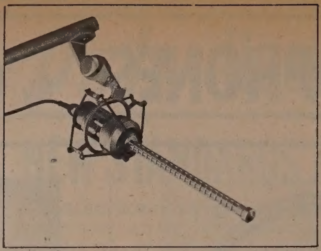
MODEL 649B MINIATURE LAVALIER—Smallest dynamic lavalier—weighs only 31 grams without cable; length, 2¼″; diameter, ¾″ Ideal for programming where unobtrusive or concealed microphone placement is desirable. Frequency response: 60 to 12,000 cps. Output: —61db. Omnidirectional. Matches all low impedance. 30′ shielded cable. Aluminum case finished in non-reflecting gray epoxy. Complete with neck cord assembly. List Each......................**$105.00**

New "Thin-Trim" Dynamic Microphones

MODEL 652—New design for an almost invisible dynamic microphone. Microphone is mounted on the end of the semirigid tube bringing the moving coil element closer to the user for full range, pop free response. Breath and wind filter is an integral part of the microphone. Two clear plastic baffles provided to give either 8 db or 5 db boost in the brilliance range of 5,000 cps for added articulation. The microphone without the baffles gives a smooth response of from 80 to 8,000 cps. The Model 652 is mounted on a ³⁄₁₆″ steel tube and finished in non-reflecting gray epoxy. Output level, —60 db. Matches all low impedances. Furnished with 3-conductor shielded 20′ cable. Model 300 stand coupler. Length of microphone, 25″. Weight 11 oz. List Each..**$120.00**

MODEL 652A—Same as Model 652 except 15″ long. List Each **$120.00**

All above microphones except 642 & 643 are eligible for FCDA purchases.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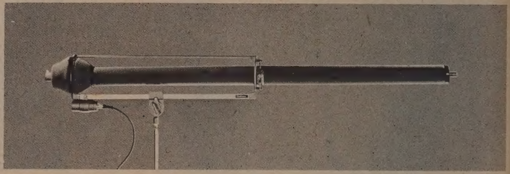
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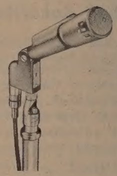
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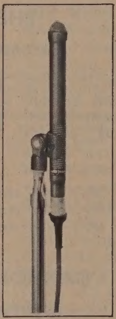
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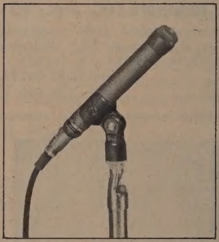
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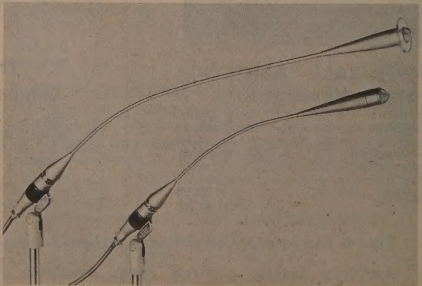
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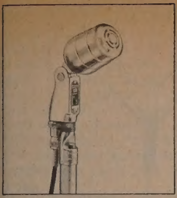

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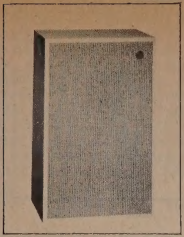
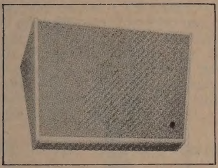
MODEL 635 BROADCAST DYNAMIC—Compact, rugged, versatile. Omnidirectional. Response: 60 to 13,000 cps. Output level: —55 db. 50-250 ohms impedence selector. Head tilts through 90° arc. Cannon XL-3 connector. ⅝"-27 thread; size 2" x 6¼". Satin chrome finish, 18' cable. Net weight, 1 lb. List Each..................**$82.00**



SENTRY II



SENTRY I

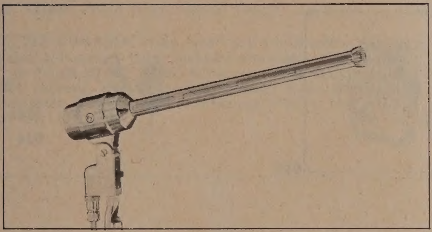
New Sentry Series Studio Monitor Speaker Systems

SENTRY I WALL OR CEILING MODEL—The first loudspeaker system designed specifically for monitor use. Precision components include 12" Radax loudspeaker, diffraction high frequency driver and crossover. Provides smooth peak free response from 30 to 20,000 cps. Impedance taps for 16 - 150 - 600 ohms. Hardwood cabinet, sanded and sealed, ready for finishing in your choice of colors. Measures 17"D x 37"H x 21¾"W. Net weight, 82 lbs. List Each......**$231.67**

SENTRY II FLOOR MODEL—Same specifications as those shown for Sentry I. Measures 32"D x 20"W x 13"H. Net weight, 68 lbs. List Each **$248.33**

Electro-Voice®

GENERAL PURPOSE MICROPHONES



644

Unidirectional Line Microphone

MODEL 644 SOUND SPOT®—Another Electro-Voice revolutionary development, the Sound Spot Model 644 is a combination cardioid and distributed front opening, making it the most directional microphone ever. The Model 644 has the farthest front pickup, or better than 2.5 times the working distance of pressure types. Work close or far away without change of frequency response.

Cancellation from the rear and sides exceeds 20 db giving practically complete rejection of unwanted sound. This feature gives the most rejection of random noise in any microphone commercially available except E-V Model 643. Reverberation and feedback are vastly lower than any other microphone, allowing much greater leeway in loudspeaker placement.

The effective front acceptance angle is 45° each side of center giving best isolation of individual performers. The Model 644 is 9 db better on the reduction of wind noise and has far less response to shock than all other microphones.

Frequency response is smooth from 40 to 12,000 cps. High output: —53 db. Dual high and low impedance selected by changing one tap on MC4M cable connector. The case is high-pressure diecast zinc with ¾" aluminum tube. Rear diameter 2⁵⁄₁₆", length 16". Cable is 18'. Weight, 2 lbs. 9 oz. List Each..........................**$110.00**

633

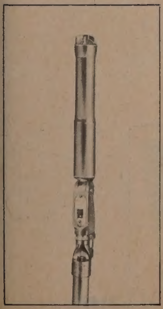
634

Cardioid Unidirectional Dynamic Microphones

MODEL 664 CARDIOID DYNAMIC—Similar to Model 666 in function, but designed specifically for PA. Cardioid pattern at all frequencies. Permits close talking without "booming" or bass accentuation. Provides better discrimination against unwanted sound. Less feedback than any cardioid PA microphone built. Blast filter minimizes wind effect. Acoustalloy diaphragm shielded from dust and magnetic particles. Response 40-15,000 cps. Output —55 db, On-Off switch. 150-ohm and high impedance. Impedance changed by moving one wire in MC4 cable connector. Pressure-cast case. Chrome finish. 18' cable. Size 7³⁄₁₆" long, less stand coupler, 1⅞" diameter. Net weight, 1 lb. 10 oz. List Each.............................**$85.00**

MODEL 664G—Gold finish. List Each....................**$90.00**

664



636

Omnidirectional Microphones

MODEL 633—Modern two-tone design dynamic microphone. High output level, wide range response. For public address, home recording, communications, electronic teaching aids, paging systems. Integral "on-off" switch, wide frequency response. 70 to 10,000 cps, output level, -57 db. Omnidirectional. 6 foot cable. Case is chrome plated diecast zinc and gray high impact plastic. Standard ⅝"-27 stand connector. Hi-Z or balanced 150 ohms (matches standard low impedances). Shipping weight: 1 lb. List Each..................**$35.00**

MODEL 634—Identical to Model 633 (above) except furnished without fixed-tilt stand coupler. Fits any stand boom or gooseneck with complete cable concealment. Ideal for desk mounting on electronic teaching aids, amateur and commercial communications and switchboard mounting for paging systems. Built-in "on-off" switch, 6 foot cable and standard ⅝" -27 threads in rear of case. Hi-Z or balanced 150 ohms (matches standard low impedances).
List Each **$31.50**

MODEL 636 "SLIMAIR" DYNAMIC—Exceptionally fine for PA, recording and general use. Response 60-13,000 cps, output —58 db. Pop-proof head. Wide pickup range. On-Off switch. Satin chrome finish. Tiltable head. Built-in MC-4 connector. ⅝"-27 thread. Hi-Z or Lo-Z by changing one wire in connector. 18' cable. 10¼" long including stud, 1⅛" max. diameter. List Each...................**$72.50**

MODEL 636G—Gold finish. List Each....................**$77.50**

All above microphones except crystals are eligible for FCDA purchases.

© U.C.P., Inc.

MODEL 630 HIGH FIDELITY, HIGH-OUTPUT DYNAMIC—Famous for quality at low cost. Response 60-11,000 cps; output level —55 db. Unaffected by heat or humidity. Acoustalloy diaphragm. Tiltable head. Built-in MC-3 connector. On-Off switch. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250 ohms). Lo-Z balanced to ground. Size: 2″ x 6¼″. 18′ cable. Net weight, 1 lb. List Each **$52.50**

MODEL 647A DYNAMIC LAVALIER—Smallest high quality microphone in the entire public address field delivers big microphone performance. Extremely rugged dynamic construction assures long life. Frequency response, 60 to 12,000 cps. Impedance Hi-Z or balanced 150 ohms, selected from free end of cable. Size 2¼″ long, ¾″ diameter, net weight 2 oz. Output level -58 db, finish is non-reflecting gray epoxy. 18′ cable attached. Shipped complete with neck cord. List Each **$82.50**

MODEL 623 SLIM DYNAMIC—Ideal for PA, recording and general use. Use on stand or in hand. Omnidirectional. Response 60-12,000 cps; output level —56 db. Hi- or Lo-Z by changing one wire in connector. Pressure cast; satin chrome finish. Tiltable head. On-Off switch. Built-in MC-4 connector. ⅝″-27 thread. 7½″ x 1 5/16″. 18′ cable. Net Weight, 15 oz. List Each.......................**$57.00**

MODEL 611 "MERCURY" DYNAMIC—Traditional styling, fine performance for general sound pickup. Response 50-9000 cps; output level—55 db. Omnidirectional. Acoustalloy diaphragm. Tiltable head. On-Off Switch. Built-in MC-3 connector. ⅝″-27 thread. Satin chrome finish. Available in Hi-Z or 150 (matches 50-250 ohms). Lo-Z balanced to ground. 2⅜″ x 3⅛″ x 6¼″ inc. stud. 18′ cable. Net Weight 1¼ lbs. List Each...**$45.00**

MODEL 624 DYNAMIC LAVALIER—Most economical dynamic lavalier on the market. For chest or hand use. Supplied with neck cord, support clip and 18′ cable. Non-reflecting gray epoxy finish. Wire mesh head acoustically treated for wind and moisture protection. Output — 56 db, response 100-7,000 cps. Hi-Z or 150 ohm, not balanced to ground. 3 5/32″ x 1 7/32″. Cable has integral strain relief. Net Weight, 14 oz. List Each................................**$42.50**

MODEL 615 "CENTURY" DYNAMIC—Incomparable for paging, home recording, amateur, or any low-cost applications. Can be used in hand, on table, on stand, or overhead. Omnidirectional. Acoustalloy® diaphragm. Withstands extreme temperature, humidity, corrosion and shock. Response: 80-8,000 cps. Output: —55 db. Lo-Z (matches 50-250 ohms) or Hi-Z. Lo-Z not balanced to ground. 5′ cable. Pressure cast case, Metalustre gray. Rugged, lightweight. Size 3″ x 2 3/16″ x 1″. With ⅝″-27 thread stand adapter. AC-DC insulated. List Each **$25.50**

Electro-Voice®

Crystal and Ceramic Microphones

MODEL 951 CARDIOID CRYSTAL—Uses same new Variable-D® principle as E-V's BC-TV cardioids to obtain uniform directivity at all frequencies, high discrimination against unwanted sound. The 951 is an excellent wide-range, all-purpose PA microphone for a great variety of acoustic conditions, and especially useful where background noise and reverberation are a problem. Response 50-11,000 cps. Output —60 db. Hi-Z. On-Off switch. Pressure-cast case. Metalustre gray finish. 18′ cable. MC-1 connector. 5⅜″ l. (excluding stud), 1¾″ dia. overall. Net wt., less cable, 1¼ lbs. List Each.............**$54.50**

MODEL 911 CRYSTAL—Same smart design and fine performance as Model 611. Response 50-9000 cps. Output—50 db. Metal Seal Crystal. MC-1 connector. Hi-Z. 18′ cable. Net weight 1½ lbs. List Each **$32.50**

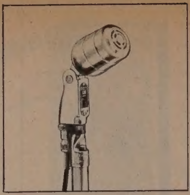
MODEL 926 SLIM CRYSTAL—Level and response ideal for general purpose use. Response 60-8000 cps; output level —60 db. Hi-Z. Pressure cast case, satin chrome finish. Tiltable head. ⅝″-27 thread. 6¾″ x 1 5/16″. 18′ cable with integral strain relief. Net Weight 11 oz. List Each **$29.50**

MODEL 920 "SPHEREX" CRYSTAL—All-direction pick-up. Response 60-7000 cps; output level —50 db. Strong wire-mesh head acoustically treated for wind and moisture protection. High capacity, moisture sealed crystal. Hi-Z. Satin chrome. ⅝″-27 thread. Diam. 2¼″, 18′ cable. Net Weight 8 oz. List Each...............**$27.50**

MODEL 924 LAVALIER CRYSTAL—Unique crystal lavalier for chest or hand use. Supplied with neck cord, support clips and 18′ cable. Non-reflecting gray epoxy finish. Wire mesh head acoustically treated for wind and moisture protection. Output—60 db. Response 60-8000 cps. Hi-Z. 3 5/32″ x 1 7/32″. Cable has integral strain relief. Net Weight 8 oz. List Each...................................**$20.00**

MODEL 714SR—A new high output, ceramic mobile communications microphone for paging, ham radio, and citizen's band use. Molded, tough beige Cycolac case, usually found only in most expensive mobile microphones, assures long life and protection from accidental shock damage. Response tailored for maximum intelligibility. High level, high impedance output—55 db over range of 60 to 7,000 cps. DPDT switch shorts microphone in "off" position and closes relay circuit in "on" position. 2½″ x 1 7/16″ x 3⅝″, 3-conductor coiled cord 10″ retracted. Net weight is 8 oz. including cable. Shipped complete with hang-up bracket. List Each..........................**$16.50**

All above microphones except crystals are eligible for FCDA purchases.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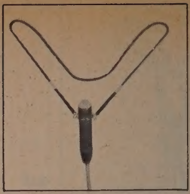
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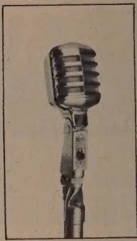
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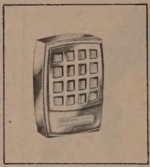
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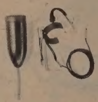
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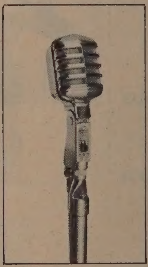
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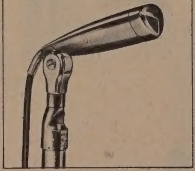
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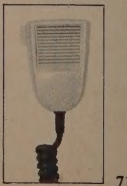

714SR

MODEL 729 CERAMIC CARDIOID—The Model 729 is the lowest priced cardioid ever built. Random noise, reverberation and feedback reduced by a factor of 67%. Front pickup range nearly double that of pressure microphones. For public address, call and paging systems, home recorders, especially stereo, and general communications. Discriminating against sound from the rear makes the 729 excellent for amateur radio VOX operations. Tailored for single sideband. Output: —60 db. Response: 60 to 8,000 cps. High impedance only. Available with or without "on-off" switch. Metalustre gray front with medium gray back. Attractive desk stand and floor stand adapter supplied. Net weight, less cable and stand, 9 oz. List Each **$24.50**

MODEL 729SR—With relay control switch. List each........**$26.50**

MODEL 727 SLIM CERAMIC—A new approach to the design of ceramic microphones for PA, recording and general use; similar in appearance to Model 729. Withstands extremes of temperature and humidity. Response 60-8000 cps. Output —55 db. High impedance only. 5′ cable. Available with or without "on-off" switch. Metalustre gray front with medium gray back. Size: 7¾″ x 1⅜″ x 1½″. Supplied with attractive desk stand and floor stand coupler. Net Weight less cable, stand, 9 oz. List Each........................**$18.00**

MODEL 727SR—With relay control switch. List each........**$20.00**

MODEL 715 "CENTURY" CERAMIC—Use in any position—in hand, on table, on stand or overhead. Ceramic element. 60-7000 cps; output —55 db. Hi-Z. 5′ cable. Nondirectional. Metalustre gray finish. Rugged, lightweight. 3″ x 2³⁄₁₆″ x 1″. With ⅝″-27 adapter. AC-DC insulated. 6 oz. List Each..............................**$13.00**

MODEL 715S—With switch. List Each...................**$15.00**

MODEL 715SR—With relay control switch. List Each......**$17.50**

MODEL 718 CERAMIC—An improved replacement for home recording microphones. 5′ cable includes a molded-on phono plug, with adapter, to match all late model home recorders. Improved high-level (—55 db) ceramic element resists damage from temperature, humidity extremes. Response: 60 to 6000 cps. 3⁹⁄₁₆″ x 1¾″ x 1¹³⁄₁₆″. Net Weight 8 oz. List Each..............................**$12.00**

MODEL 712 CERAMIC—Low cost ceramic microphone. Fits need of low cost PA, home recording, paging and general use. Handheld. Moisture sealed ceramic. Response 70-7000 cps. High output —55 db. Hi-Z. Attractive gray Styron case. Size 3″ x 2¼″ x 1⅜″. 5′ cable. Net Weight 4 oz. List Each...............................**$7.50**

Electro-Voice®

Differential And Special Purpose Microphones

MODEL 622SKK DYNAMIC HANDSET—For paging, intercom and communications. Sturdy bakelite, 150-ohm magnetic receiver with response 200-4000 cps. Switch closes mike and relay circuit. Response: 100-5000 cps. Output level: —55 db. Impedance: 250 ohms. 6′ 5-conductor coiled cord. List Each........................**$78.00**

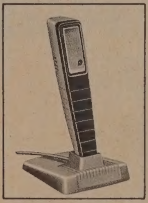
MODEL 622TRSKK—With 2-stage transistor amplifier.
List Each **$94.50**

MODEL 625SKK DYNAMIC DIFFERENTIAL HANDSET—Noise-cancelling microphone designed for use where background noise is at high level. Similar to Model 622SKK. Supplied with five-conductor, unshielded cable. DPST switch will handle relay or remote control and turn on mike. Press button to talk. Size: 8½″ x 3″ x 2⅝″. Net Weight, 1½ lbs. List Each **$85.00**

MODEL 625TRSKK—With 2-stage transistor amplifier. FAA type certificate 3R42-2. List Each..........................**$122.50**

MODEL 606 DIFFERENTIAL DYNAMIC—Close talking, noise cancelling. Accepts sounds of close origin (¼″) and rejects sounds of distant origin. Response: 100 to 5,000 cps. Output at ¼″: —55 db. Acoustalloy diaphragm. ⅝″-27 thread. Built-in MC-1 connector. Satin Chrome. 2″ x 3¼″ x 2½″ including stud. Lo-Z (matches 50-250 ohms) or Hi-Z. Low impedance not balanced to ground. 18′ cable. List Each **$52.50**

All above microphones except crystals are eligible for FCDA purchases.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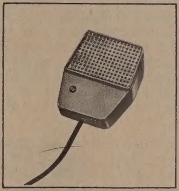
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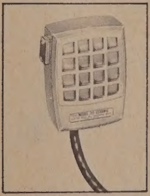
727SR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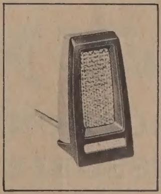
715SR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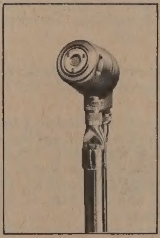
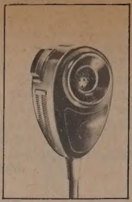
622SKK


606

MODEL 600D DYNAMIC MOBILE MIKE—Reliability factors have been improved over all previous designs. High-impact Bakelite case and rugged dynamic construction assure protection against shock damage. Easy-action switch provides years of use—shorts microphone in "off" position to eliminate electrical noise pickup and closes relay circuit when depressed. High output level—55 db. Response 100 to 7,000 cps specifically matched to high intelligibility requirements. Size 2½" x 1½" x 4" long; color, communications black. Coiled cord 1′ retracted, 6′ extended. Weight 10 oz. Complete with hang-up bracket. 150 ohms or Hi-Z. List Each............................**$47.50**

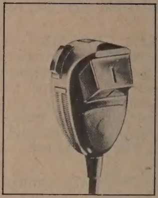


600D

MODEL 210KK CARBON—Similar to Model 600E but single-button carbon. Output —50 db. Press-to-talk switch. 6′ coiled cord. List Each..**$35.00**

MODEL 602—A noise-cancelling dynamic microphone for use in areas of heavy background noise. It accepts sounds of close origin (¼") and rejects sounds of a distant origin. Output level: —55 db, 100-7,000 cps. Press-to-talk switch. Acoustalloy diaphragm. 1′ retracted coiled cord, 6′ extended. Available in Hi-Z or balanced line. 50 or 250 ohm. Weight, less cable, 8 oz. List Each.........**$57.50**

MODEL 205KK DIFFERENTIAL CARBON—Close-talking, noise-cancelling, single button carbon. For private aircraft and emergency communications. Blastproof, waterproof, shock resistant. Output at ¼": —50 db. Black phenolic case. Press-to-talk switch. Mounting bracket. 6′ coiled cord. Size: 2¼" x 2¼" x 4". Net Weight less cable, 8 oz. List Each...**$45.00**



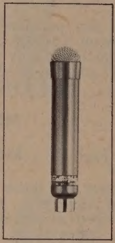
205KK

MODEL 205KKP—Same, with PJ-068 plug. List Each......**$49.75**

MODEL 205STCKK—FAA Type approved certificate No. 1040 with coiled cord. Designed for commercial aircraft. List Each.....**$56.50**

MODEL 205STCKKP—Same as above with PJ068 plug. List Each..**$61.25**

MODEL 648 INTERCOM MICROPHONE—Extremely versatile paging, intercom, or PA mike. Response: 50-10,000 cps. Output —58 db. Choice of Lo-Z (matches 50-250 ohms) or high impedance. Omni-directional. Acoustalloy diaphragm. Non-reflecting gray. Less Cable. Size: $6\frac{1}{16}$" x 1" (including ⅝"-27 thread adapter). Net Weight (with adapter), 8½ oz. List Each...........................**$56.00**



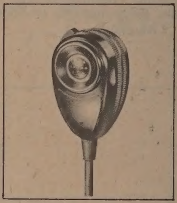
648

MODEL 805 CONTACT—For guitar, banjo, other stringed instruments. Hi-Z. Sealed crystal. Chrome finish. 15′ cable. List Each **$20.00**

805

MODEL 600TR MICROPHONE—Has compact, two-stage transistor amplifier built into case. Complete circuit including transistor, transformers, and associated equipment. Coiled cord, four-wire lead, press-to-talk switch may also actuate relay to control transmitter. Same sensitivity as carbon mike without change in auxiliary equipment. Output: —23 db. Amplifier power gain approximately 34 db. Size: 2¼" x 2" x 4". Black phenolic case with mounting bracket, 6′ cable. Net Weight less cable, 13 oz. FAA type certificate 3R42-1. List Each **$82.50**

MODEL 602TR MICROPHONE—Similar in type and appearance to Model 600TR, but designed for close-talking, noise-cancelling work. Speech is clear, crisp, distinct. May be used to replace carbon microphone with no change in auxiliary equipment. Net Weight less cable 13 oz. FAA type certificate 3R42-1. List Each.... .. ..**$93.00**

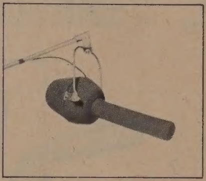


600TR
602TR

Electro-Voice®

MICROPHONE ACCESSORIES

MODEL 327 WINDSCREEN—Designed for use with Model 642 microphone. Fabricated of Acoustifoam*, eliminates "blast" caused by fast panning of boom, or when used outdoors. Includes 356 shock mount. Net weight, 1 lb., 8 oz. List Each................**$100.00**



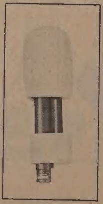
327

MODEL 335A WINDSCREEN—Acoustifoam* windscreen fits 605, 630, 635 microphones. Net weight, ½ oz. List Each..........**$12.50**

335A

MODEL 355 WINDSCREEN—Designed to reduce or eliminate wind noise, this windscreen is constructed of Electro-Voice Acoustifoam*, a material which will not alter frequency response or polar characteristics of a microphone. Also protects microphone against mechanical shock damage and pickup of dust and magnetic particles. For use with models 655C, 654A, 646, 636, 623, 647 and 926. Size, 9" x 3¼". Shipping weight, ½ oz. Color: gray. List Price...................**$11.00**

MODEL 524A WINDSCREEN—Designed specifically for use with Model 666 microphone. Minimizes wind effect on boom operation or when used outdoors. Made of Acoustifoam.* Weight, ½ oz. List Each **$8.00**



524A

355

MODEL 300 DETACHABLE MICROPHONE CLAMP—Light weight adapter fits any 1″ cylindrical microphone providing positive mounting to either ½″ or ⅝″-27 stand. List Each..........$10.00

MODEL 345 SHOCK MOUNT—Dual-type external shock mount prevents reproduction of external shocks and stand vibrations. Permits tilting microphone head. ⅝″-27 thread. Easily attached or removed. Satin chrome. 1½″ x 3⅞″. Net Weight, 10 oz. List Each $15.00

MODEL 346 SHOCK MOUNT—Designed specifically for use with Model 666 microphone. Similar in every feature to Model 345, but constructed for 11 oz. microphone. List Each................$15.00

MODEL 356 SUSPENSION SHOCK MOUNT—For use with Model 642 on boom or floor stand. Excellent isolation. List Each....$50.00

MODEL 366 SUSPENSION SHOCK MOUNT—Extremely light. Designed for use with 666 microphone. Installs without tools. Pigtail cable connection with UA-3 connectors provides cable loop isolating boom shock noises. For any microphone with 1″ diameter. List Each..$40.00

MODEL 448 SWIVEL BOOM MOUNT—Designed specifically for use with Model 648 microphone. Holds mike 11⅞″ off mounting surface. 62° elbow bend. MC-2M connector. Satin chrome finish. Extends 4″ below mounting surface, 2½″ diam. mounting base. Net Weight, 1 lb. 5 oz. List Each..............................$24.00

MODEL 502A MATCHING TRANSFORMER—Designed for use in series with mike line. Transformer windings have low distributed capacity and are amply shielded against inductive hum by a shield inside pressure cast case. Designed for 50, 150, 250 and 500 ohms—to Hi-Z. Broadcast fidelity response 40-20,000 cps ±1 db. MC-4 input connector. 2⅞″ x 1$\frac{15}{16}$″ diameter. List Each...............$17.50

MODEL 513 FILTER—Designed for use with low impedance microphones, has switch to match 50, 150 or 250 ohms. When used in line between microphone and preamp., it rejects unwanted noise below 100 cps. 2¼″ diameter, 5⅝″ long. Net weight 1 lb. 10 oz. List Each..$70.00

Microphone Stands

MODEL 415 RECLINING DESK STAND—Mounts 615, 715, 715S at 15° tilt. Metalustre gray. Size 2⅝″ x 2¾″ x 1″. Net Weight, 4 oz. List Each..$1.75

MODEL 416 STAND—For semipermanent mounting of 646, 654A microphones. Black rubber. Size 3⅛″ diameter, 1″ high. Net Weight, 2 oz. List Each..$5.00

MODEL 418 DESK STAND—Use with microphones using small-type stud such as Models 611, 623, 630, 635, 636, 911, and 951. Die cast base. Gray finish. List Each..........................$10.00

MODEL 418-S—With switch. List Each..................$15.00

MODEL 419 DESK STAND—Similar to Model 418 but for use with microphones using large-type stud such as Models 644, 664 and 665. List Each..$10.00

MODEL 419S—With switch. List Each...................$15.00

MODEL 420 DESK STAND—Heavy cast iron stand finished in TV gray. Specifically designed for use with E-V 666, 655C, 654A, 652, 652A or microphones with 1″ diameter. Clamp attachment for mounting 1″ cylindrical mikes, without tools. Base holds mike in position when subjected to ordinary strain. Net Weight, 3 lbs. List Each..$20.00

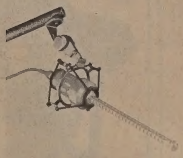
MODEL 423A DESK STAND—Sturdy smartly styled, round die-cast base, 5⅛″ diameter. Rests firmly on rubber base buttons. Rich satin chrome. ⅝″-27 thread. Choice of 3″ or 5″ matching stem riser. Net Weight, 1 lb. List Each..................................$5.00

MODEL 428 TOUCH-TO-TALK STAND—Fits standard ⅝″-27 thread. Lever-type DPDT switch for relay operation or microphone On-Off—closes or opens instantly or locks in "talk" position. Satin chrome; gray plastic switch lever with locking button. 7″ x 5⅛″ base diameter. Net Weight, 1¾ lbs. List Each..................$17.50

All above accessories are eligible for FCDA purchases.

Electro-Voice® ELECTRO-VOICE, INC., BUCHANAN, MICHIGAN

300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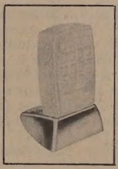
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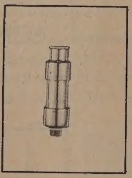
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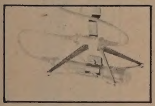
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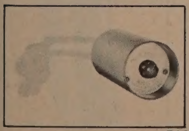
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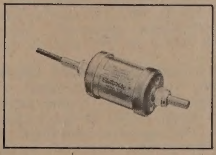
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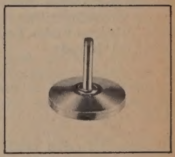

423A

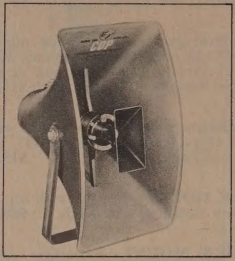
Electro-Voice®

PUBLIC ADDRESS HORNS AND DRIVERS

Compound Diffraction Projector

MODEL 848—Combines FC100 Compound Diffraction Horn plus DC30 Compound Driver for finest wide-angle sound, lowest distortion, highest quality of any projector. Specifications: Frequency response, 150-10,000 cps; impedance, 16 ohms; dispersion, 90° x 120°; power handling capacity, 30 watts; sound pressure level, 117 db; dimensions, 10½" x 20½" x 20". Net Weight, 13½ lbs.; Shpg. Wt. 15 lbs. Complete—List Price $82.50

MODEL 848-45—With 45-ohm voice coil. List Price $84.00



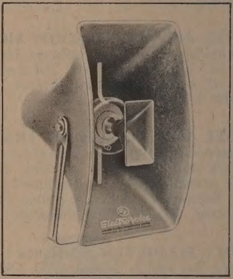
848

Projector Horns

Completely new designs assure finest performance with Electro-Voice projector horns. Two basic types from which to choose . . . compound and reentrant.

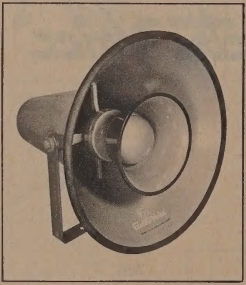
EXCLUSIVE COMPOUND HORNS permit widest range at lowest distortion, plus complete directional control of both highs and lows. Best wide-angle coverage with exclusive diffraction horns means better sound through entire coverage area for uniform coverage. Concentrating compound horn provides highest efficiency at lowest distortion. Natural voice and music reproduction result in higher intelligibility without annoying peaks.

MODEL FC100—Similar to the famous CDP, the FC100 provides two diffraction horns for uniform wide-angle coverage. Frequency response is not compromised since both horns are ideally designed to handle a specific portion of the range. Compound horn reduces distortion far below any other projector design. Flexible coverage control provided by individual adjustment of each horn, or concentrating high-frequency horn (HC1000) can be substituted for small diffraction horn. Large horn is of fiberglass with Mesa Tan finish molded in. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 90° x 120° High frequency sound distribution, 90° x 120°; crossover, 1,000 cps. Mouth size, 10½" x 20½", depth (less driver), 20". Net Wt. (less driver), 10¾ lbs. Shpg. Wt., 12¼ lbs. List $50.00



FC100

MODEL AC100—Concentrating version of CDP. Has all of the quality advantages of FC100, except utilizes round horns for most concentrated coverage with greatest efficiency. Retains compound design for lowest distortion—widest range. Diffraction high-frequency horn (HD1000) can be substituted for concentrating horn for flexible coverage control. Use any E-V convertible driver. Specifications: Low-frequency horn—cut-off, 100 cps; taper, 100 cps; air column length, 58"; sound distribution, 80°. High-frequency sound distribution, 30°; crossover, 1,000 cps. Diameter, 21"; depth (less driver), 21"; Net Wt. (less driver), 11 lbs. 6 oz. Shpg. Wt., 13½ lbs. List Price $47.00

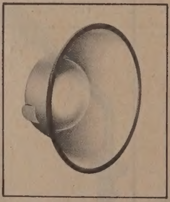


AC100

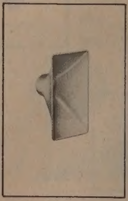
MODEL HD1000—Diffraction horn for converting AC100 to wide-angle (60° x 120°) coverage above 1,000 cps. Shipping Weight, 1½ lbs. List Price $6.00

MODEL HC1000—Concentrating horn for converting FC100 to concentrated (30°) coverage above 1,000 cps. Shipping Weight, 4 lbs. List Price $10.00

NEW REENTRANT HORNS provide wider range than ever before at lowest cost. Unique E-V ring reflector design provides better balanced highs than possible with conventional exponential designs, by reducing high frequency losses often encountered in reentrant horns. Smoother response plus added useful range increases intelligibility and adds to more natural sound. Rugged aluminum die cast mounting plate plus precision die cast reentrant tubes assure long-lasting performance. Heavy spun aluminum round bell or fiberglass rectangular horn provides either concentrated coverage or medium angle coverage. Electro-Voice Reentrant Horns accept any standard driver with 1⅜"-18 threads.



HC1000



HD1000

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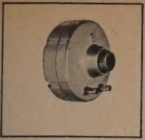
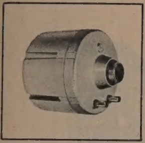
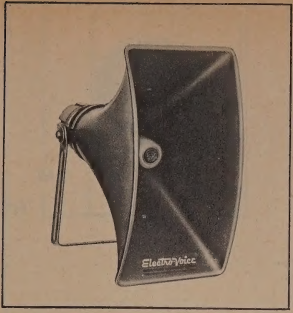


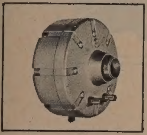
DC30A



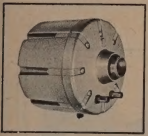
DC30T



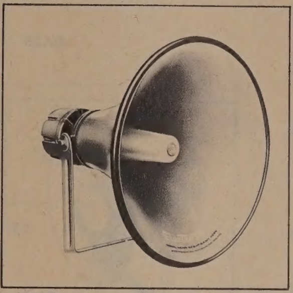
FR150



DC40
DC50



DC40T
DC50T



AR150

MODEL FR150—Reentrant Horn. Medium-angle low-cost rectangular horn provides good coverage at low cost. Virtually indestructible fiberglass horn has Mesa Tan color molded in. Adjustable mounting angle allows best coverage. Can be stacked for multiple speaker applications. Ideal for car-top installation or wherever low silhouette is needed, and where bass response cannot be sacrificed. Accepts Electro-Voice convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency cut-off, 150 cps; taper, 150 cps; air column length, 45″; sound distribution, 70° x 100°; mouth size, 10½″ x 20½″; depth (less driver), 21″; Net Wt. (less driver), 9½ lbs. Shpg. Wt., 12 lbs. List **$39.00**

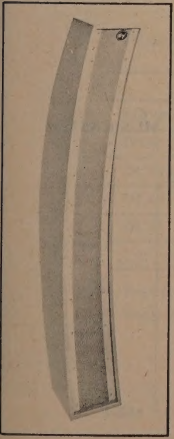
MODEL AR150—Reentrant Horn. Round concentrating horn for maximum penetration at lowest cost. E-V ring reflector plus precision new exponential design contributes to widest range yet achieved from this horn type. Smoother curve results in high intelligibility, and remarkably natural voice and music quality. Rubber edge-damping ring eliminates resonances. High-efficiency design allows more useful volume from driver over entire range. Accepts Electro-Voice Convertible drivers or any standard driver with 1⅜″-18 thread. Specifications: Low-frequency horn—cut-off, 150 cps; taper, 150 cps; air column length, 41″; sound distribution, 85°; diameter, 21″; depth (less driver), 17″. Net Weight (less driver), 6½ lbs. Shipping Weight, 8 lbs. List Price **$34.00**

Versatile Convertible Drivers

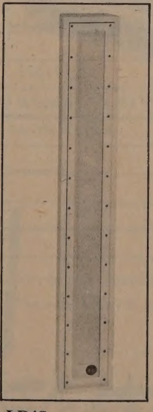
Now, for the first time, here are drivers that can be used interchangeably in compound or reentrant horns. Used on either type of horn, the new Electro-Voice Convertible Drivers feature highest efficiency available. Increased power handling plus extra increased efficiency make the 40 and 50-watt drivers uniquely useful where high power at minimum cost is essential. The high efficiency of all E-V Convertible Drivers is achieved without resorting to "peaked" response which may increase loudness, but does reduce intelligibility. The smooth response of these drivers insures most natural reproduction of voice and music for more satisfying quality with vastly reduced feedback problems and greatly increased tonal range. Double flux ceramic magnets provide long-lasting high efficiency in entirely new low-loss magnetic circuits. Edgewise-wound ribbon voice coils give 18% more efficiency.
The drivers are rugged and weatherproof; conversion to either reentrant or compound use can be made instantly in the field. Voice coils are also field replaceable, thus reducing repair costs to a minimum. E-V Convertible Drivers are available with 16 or 45-ohm voice coils or with built-in 70.7-volt line constant voltage transformers. This entirely new design concept gives better performance at minimum cost, making E-V Drivers your best buy.

		DC30A	DC30T	DC40	DC40T	DC50	DC50T
Frequency Response††		150–10,000	150–10,000	140–11,000	140–11,000	140–11,000	140–11,000
Program Power Capacity		30	30	40	40	50	50
Sound Pressure	FC100 Compound Horn	117 db	117 db	120 db	120 db	124 db	124 db
Level†	AR150 Reentrant Horn	126 db	126 db	129 db	129 db	133 db	133 db
Voice Coil Impedance		16**	16	16**	16	16**	16
Transformer Impedances, Ohms		. . . .	167, 333, 1000, 2000	. . . .	125, 250, 500, 1000	. . . .	100, 143, 200, 500
Transformer Power Taps, Watts		. . . .	30, 15, 5, 2.5	. . . .	40, 20, 10, 5	. . . .	50, 35, 25, 10
Dimensions (overall)		5½″ dia. 3″ l.	5½″ dia. 5½″ l.	6¼″ dia. 4¼″ l.	6¼″ dia. 6″ l.	6¼″ dia. 4¼″ l.	6¼″ dia. 6″ l.
List Price		**$31.00**	**$41.00**	**$40.00**	**$52.50**	**$52.50**	**$63.50**

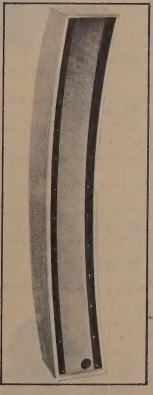
†Measured at 4′ on-axis with full rated power from 750–1250 cps.
**Available with 45-ohm voice coil at $1.50 list additional.
††Measured on-axis with FC100 horn.



LR7



LR4S



LR4

Electro-Voice®

Line Radiator* Loudspeakers

Three new, wide-angle speaker designs permit wide horizontal dispersion while almost eliminating sound output above or below speaker. Superb for voice-reinforcement systems. Unusually wide frequency range coverage.

MODEL LR4—Curved design overcomes unwanted high-frequency dispersion at ends, eliminating echo and feedback. Contains twelve 4″ cone speakers, 160° horizontal dispersion; 60° vertical dispersion. Frequency response: 200–10,000 cps. Power handling capacity: 25 watts program, 50 watts peak. Nominal impedance: 8 ohms. Size: 49″ h. x 7″ w. x 13″ d. Mesa tan finished wooden enclosure. List Price **$115.00**

MODEL LR4S—Electrical filter removes end speakers from circuit as frequencies increase, eliminating high-frequency lobes at ends. Specifications like LR4, except that dispersion is 160°, horizontal; 30°, vertical. All-metal, weatherproof enclosure with mesa tan finish. Size: 52″ h. x 7 9/16″ w. x 4⅝″ d. List Price **$125.00**

MODEL LR7—The newest of the revolutionary line of Electro-Voice Line Radiators*. Both low and high frequency response extended. Utilizes nine 5″ x 7″ loudspeakers and two T35 vhf drivers for frequency range of 100 to 20,000 cps. Full half-section crossover at 3500 cps. Horizontal coverage 160°, vertical coverage 45°. Power handling capacity 50 watts, impedance 8 ohms. Non-resonant, curved wood enclosure finished in Mesa Tan. Universal mounting brackets supplied. Dimensions: 60″ high x 11″ wide x 14″ deep. Net weight, 70 lbs. List Price **$215.00**

*TRADEMARK

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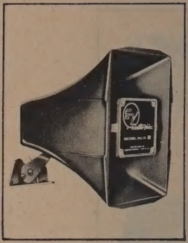
Electro-Voice®

Paging Speakers

MODEL PA7 REENTRANT PROJECTOR—Attractively styled horn is constructed completely of Cycolac—virtually indestructible. Non-resonant horn won't dent, finish can't wear off. Electro-Voice exclusive ring diaphragm eliminates loading problems, achieves cleanliness of reproduction never before achieved in small projectors. Handles 7½ watts over a range of 400 to 13,000 cps. Wide 120° dispersion angle provides excellent coverage. Mounting bracket allows horn to be positioned at any angle. 6¾″ diameter by 6″ deep. Weight 3¼ lbs. List Price **$27.00**

PA7

MODEL PA15—A compact speaker of rugged, die-cast construction finished in mesa tan. Smooth, rising response provides high intelligibility and efficiency. Field-replaceable driver. Universal swivel mount. Frequency response: 350–13,000 cps. Power handling capacity: 15 watts program. Nominal impedance: 8 ohms. Dispersion: 120°. Size: 9″ h. x 6″ w. x 9½″ d. Weight, 4¼ lbs. net. List Price **$30.00**

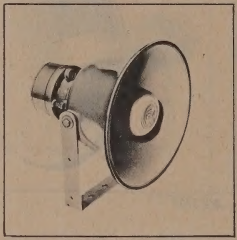


PA15

MODEL PA15T—Same, but with matching transformer for 70.7-volt lines. Transformer taps: 1.5, 2.5, 5, 10, 15 watts; 3300, 2000, 1000, 500, 350 ohms. Weight, 4½ lbs. List Price **$36.00**

MODEL PA15-45—Same, but with 45-ohm impedance. List Price **$31.25**

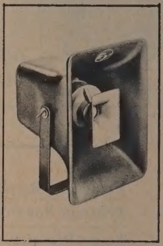
MODEL 844—For medium-angle sound distribution. Features smoothest response in its class with better lows to provide natural paging without feedback. Handles 30 watts—to reduce costs. Rugged diecast horn, plus field-replaceable voice coil keeps service costs at a minimum. Frequency response, 250–13,000 cps; power handling capacity, 30 watts; nominal impedance, 8 ohms; dispersion, 90°; EIA sensitivity rating, 51 db; sound pressure level, 120 db; dimensions, 9⅞″ diameter x 8 3/16″ deep; Net Weight, 5 lbs. 10 oz.; Shipping Weight, 8½ lbs. List Price **$36.50**



844

MODEL 844-45—Same as standard 844, but with 45-ohm voice coil for simple installation in intercom systems. List Price **$38.00**

MODEL 847—Utilizing the famous CDP Principle—this wide-angle speaker provides higher articulation without annoying "peaked" response over a uniform 120° x 90° area. Low distortion results from use of TWO diffraction horns. 25-watt power handling capacity. Fiberglass horn has mesa tan color molded in. Frequency response, 250–10,000 cps; power handling capacity, 25 watts; sound pressure level, 114 db; dispersion, 90° x 120°; impedance, 16 ohms; dimensions, 11¾″ x 7¾″ x 10 7/32″; Net Weight, 8 lbs.; Shipping Weight, 10 lbs. List Price **$51.00**

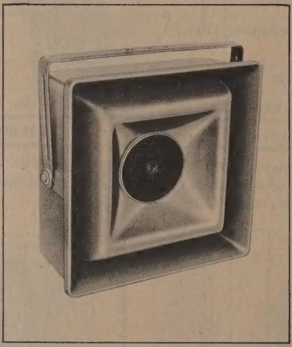


847

MODEL 847-45—Same as standard 847, but with 45-ohm voice coil for simple installation in intercom systems. List Price **$52.50**

E-V Musicaster Hi-Fi Outdoor Weatherproof Speaker Systems

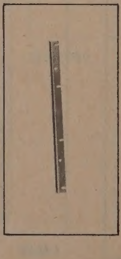
Musicaster—Provides high fidelity performance in a compact, portable system. Sturdy aluminum diecast housing protects weatherproof cone speaker and extends bass response through back-loaded folded horn. Dual Radax cone radiates smooth useful highs through 120° angle. Provision for mtg. 70.7-volt line transformer inside. Specifications: Frequency response, 60–13,000 cps; nominal impedance, 8 ohms; dispersion, 120°; power handling capacity, 30 watts program; sound pressure level, 110 db; dimensions, 21½″ x 21½″ x 8½″; Net Weight, 31 lbs.; Shipping Weight, 34 lbs. List Price **$90.00**



MUSICASTER

Musicaster II—Same fine performance as the Musicaster except has added brilliance and wider coverage from Very-High-Frequency Range Extender. Smooth response to 18,000 cps. Complete with crossover. Net Weight, 33 lbs. Shipping Weight, 36 lbs. List Price **$125.00**

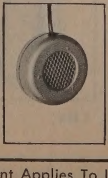
MODEL MB-1—Surface mounting bracket allows mounting of any Musicaster flat against wall for neat unobtrusive installation. Replace standard "U" bracket. Shipping Weight, 1 lb. List Price **$4.50**



MB-1

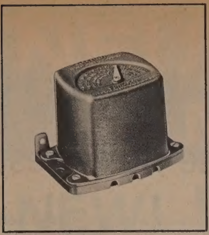
Underwater Loudspeakers

MODEL DU30—Pool Speaker. For use in swimming pools to provide voice and music audible underwater. May be mounted at any depth down to 4 feet. Specifications: Impedance, 16 ohms. Power handling capacity, 30 watts. Frequency response, 40 to 10,000 cps. Size, 5¾″ diameter x 2⅜″ deep. Weight (with cable), 8 lbs. 4 oz. Twelve-foot underwriters approved cable. Resistant to chlorine, bromine, salt water, oil, grease, gasoline. List Price **$87.50**



DU30

All E-V public address speakers are eligible for FCDA purchases.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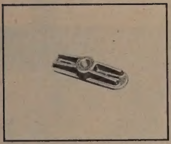
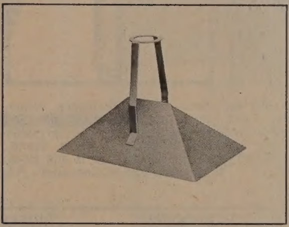
TR5


AP-1


RA-1

PA Transformers and Accessories

MODEL TH—Transformer Housing. Provides neat weatherproof mounting of any E-V transformer. Mount vertically or horizontally on any flat surface or on horn bracket. Excusive wattage indicator tells power setting at a glance. No soldering required with E-V transformers. Size: 4″ h., 5″ w., 3½″ d. Net Weight, 1 lb. 11 oz. Shipping Weight, 2½ lbs. List Price................................**$8.50**

MODEL 598—Mounting Bracket. Facilitates easy mounting of transformer housing to standard wall box. List Price..............**$2.50**

MODEL TR5—5-watt 70.7-volt line transformer. Primary impedance taps 1000, 2000, 4000, 8000 ohms; 5, 2.5, 1.25 and .675-watt line power taps. 4, 8 and 16 ohms secondary impedances. Accepts solderless terminals in TH housing. Frequency response ± 2 db, 35–20,000 cps. Insertion loss 0.8 db. Overall dimensions 2″ x 1¹¹⁄₁₆″ x 1⅜″. Mounting hole centers, 1¾″. Shipping Weight, 1 lb. List Price..**$5.00**

MODEL TR15—Same as TR5 except 15-watt capacity with primary impedances of 333, 500, 1000, 2000 ohms and 15, 10, 5, 2.5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2⁵⁄₁₆″ d. List Price..**$6.00**

MODEL TR30—Same as TR5 except 30-watt capacity with primary impedances of 167, 250, 500, 1000 ohms and 30, 20, 10 and 5-watt line power taps. Overall dimensions 1¾″ h., 2⅞″ w., 2⁵⁄₁₆″ d. Mounting hole centers, 2⅜″. Shpg. Wt., 1½ lbs. List Price............**$7.00**

MODEL TR50—Same as TR5 except 50-watt capacity with primary impedances of 100, 125, 200, 333 ohms and 50, 40, 25 and 15-watt line power taps. Overall dimensions 2¼″ h., 2⁵⁄₁₆″ w., 2¼″ d. Mounting hole centers, 2⅜″. Shpg. Wt., 2 lbs. List Price............**$9.00**

MODEL AP-1—Pipe stand adapter for mounting any E-V speaker "U" bracket to standard ½″ pipe. Shipping Weight, 1 lb. List Price..**$2.50**

MODEL AD-1—Driver adapter allows use of E-V Convertible Driver on horns with 1⁷⁄₁₆″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. List Price......................**$3.00**

MODEL AD-2—Horn adapter allows use of E-V reentrant horns with drivers having 1⁷⁄₁₆″-16 thread (W.E.—RCA) for improved performance. Shipping Weight, 1 lb. List Price......................**$3.00**

MODEL RA-1—Radial Adapter instantly converts FC100 horn or 848 projector to "radial" applications. Superior to typical "360°" projectors. Diffraction horns give better spread and adapter reflects sound off-axis, to eliminate hot spot. No tools required. Extends 2½″ in front of FC100 horn with DC30A. Shipping Weight, 1 lb. List Price..**$6.00**

MODEL 879—Joining Kit for two or more 848, FR150 or FC100 horns in multiple array. One kit required for each junction of two horns. Shipping Weight, 1 lb. List Price....................**$2.75**

All E-V public address speakers are eligible for FCDA purchases.

Diaphragm Replacement Kits allow easy field maintenance or conversion of E-V Drivers.

DRIVER	8 Ohm	16 Ohm	45 Ohm
828 or DC30 (Used on Model 848)	....	82016	82015
DS30 (Used on Model 844)	8642	....	8643
DC30A	....	82087	8617
DC40	....	82088	8618
DC50	....	82089	8619
List Price	**$10.00**	**$10.50**	**$12.00**

Replacement kits not available for DC30T, DC40T or DC50T.

Note: Sound Pressure Level is measured as 4′ on-axis with full rated power from 750 to 1250 cps.

Electro-Voice®

ELECTRO-VOICE, INC., BUCHANAN, MICHIGAN

AKG
VIENNA

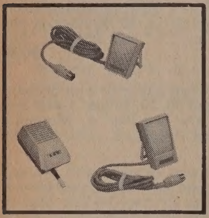
MICROPHONES

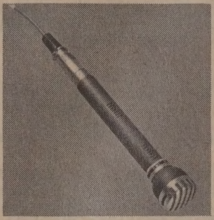
work best, because **built** best!

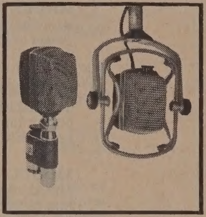
Every AKG Microphone is hand-fabricated and -assembled under white-room conditions with continuous quality control. Each is numbered and response-tested, with a permanent factory record of its performance.

One vital and unique characteristic of all AKG cardioids is that their directional characteristic holds deep into the bass — where it's needed most for crisp recording.

Below is a representative selection of AKG products. In addition to many more microphones of every type, there is a full range of accessories such as windscreens, table and floor stands, power supplies, transformers, and remote-control units. Full technical and service facilities are maintained by the USA import agents, Electronic Applications, Inc. Write for the complete AKG Catalog and advice on specific applications.


D7 A left, **D7 Sp** center, **D11** right — economical, quality mikes for dictation and amateur tape work.

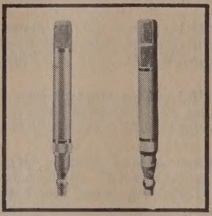

D19 E — high-performance, economical, for pickup, announce, and semi-pro tape. Bass-cut switch.


D20 B left, **D25 B** right — two mountings of quality wide-range studio mike with bass-cut switch.

D58 — close-talking announce/-intercom mike, dust-proofed. For noisy environments. See **K58.**

D24 B—studio-quality voice and music recording; bass-cut switch, anti-magnetic shielding.

D110 — compact, rugged low-noise; for use in hand, lapel, lavalier. Radio, TV, stage, film, and pro tape recording. Excellent under high humidity and extremes of temperature.


C12 left, **C24** right — for the most exacting professional recordings. **C12** mono, **C24** for MS and XY stereo, capsule rotatable thru 180°. Patterns remotely variable omni thru hypercardioid.

K50 — dynamic phones. Perfect bass without earmuffs; light, cool, comfortable for extended monitoring. Wide frequency and dynamic ranges, high sensitivity. Convertible mono/stereo.

C60 — high-performance miniature, interchangeable omni and cardioid capsules. Rechargeable battery-pack as table stand; neck-strap for use in the field; transistorized DC-Converter.

K58 Boom Set — DK58 mike and K50 phones for use in language labs, intercom, announcing, control, field-remotes. For close talking. Light, rugged, comfortable, clean sound, for extended use.

MODEL	RANGE cps	SENSITIVITY mv/μbar	CARDIOID DISCRIM db @ 1 kc @ 180°	IMPEDANCE ohms	DIMENSIONS inches	PRICE User Net
dynamic						
D 7A	100 — 10k	0.23 — 2.8*	omni	200 — 50k	3½ x 2¼ x 1½	$ 14.50
D 7Sp			same specifications as D 7A; different housing			
D 11Sp	80 — 12k	0.18 — 2.5*	12	200 — 50k	3½ x 2¼ x 1½	14.50
D 17	50 — 15k	0.25	18	200	4¹⁄₁₆ x 1¾	66.00
D 19E	40 — 16k	0.18 — 2.5*	18	50/200/50k	7 x 1⅜	52.00
D 20B	30 — 15k	0.12	25	60	7⁵⁄₁₆ x 2⅞	175.00
D 24B	30 — 16k	0.18	20	200	6³⁄₁₆ x 1½	165.00
D 25B			same specifications as D 20B; shock-mounted for boom use			195.00
D 58	50 — 12k	0.1	(1)	200	1⅛ x ¾	42.00
D 110	70 — 17k	0.12	omni	50 — 200	3⅜ x 1⅛	60.00
condenser						
C 12	30 — 20k	1.0	variable	50 — 200	16⅞ x 1⅝	$585.00**
C 24			same specifications as C 12; two units stacked for stereo			840.00**
C 28-29-30	30 — 20k	1.0 — 1.3*	20	50 — 200	6⅞ x 1	495.00***
C 60	30 — 20k	1.3	20	50/200/500	3¹⁵⁄₁₆ x ¾	259.50**
headphones						
K 50	30 — 20k	156 μw/95 phon	—	400-200-15 per unit	3 oz.	22.50
K 58			Boom Set: see D 58 and K 50 for specifications			46.80

(1) — close-talking only; noise-cancelling means

* — Values are for High and Low Impedances respectively

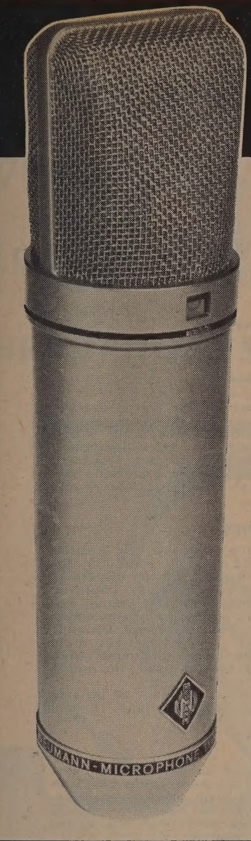
** — Price includes all necessary cables, power supplies, etc

*** — Complete Set; individual units priced somewhat lower

ELECTRONIC APPLICATIONS, Inc.

WILTON, CONN.

NEUMANN MICROPHONES



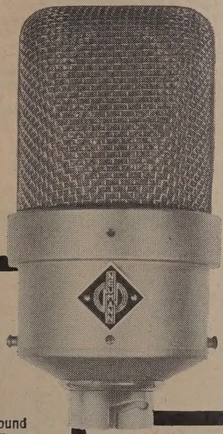
NEW! U-67 CONDENSER MICROPHONE

CULMINATION OF OVER 30 YEARS OF ELECTRONIC LEADERSHIP!

Contains the following advanced features:

1. Electronically switched directional characteristics: Cardioid, Omni-directional, Figure-8.
2. Frequency response with virtually no peak at the high end.
3. Separate "Voice-Music" switch raises the roll-off starting point from 40 cps to 100 cps.
4. Sensitivity switch on microphone prevents overload of amplifier from close placement to sound source.
5. "Calibrating input" permits direct testing of microphone preamplifier with oscillator.
6. Uses regular EF-86 tube, readily replaceable.

Complete system includes: Microphone, Power supply, Interconnect cable and stand mount.



NEUMANN M-49B CONTINUOUSLY ELECTRONICALLY VARIABLE DIRECTIONAL PATTERN MICROPHONE SYSTEM

This microphone permits remote control of the directional characteristic. A smooth, continuous fader-control selects any of the basic directional patterns (non-directional, bi-directional, and cardioid) and any intermediate pattern. Wide frequency response with extremely low distortion—0.6% 40-15 kc up to 110 db absolute.

Complete microphone system consists of microphone, power supply and MZ-49 Swivel mounting harness.

NEUMANN KM-54A/KM-53A

The KM-54a is a super cardioid miniature microphone that has been designed with tv and film in mind. This ⅞" diameter by 5" long, 3½ ounce marvel, when mounted in the Z-38 full elastic suspension, can be aimed at the sound and provide more than 25db rejection of extraneous sounds in the studio.

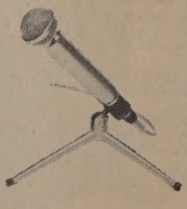
Complete microphone system consists of microphone, power supply, inter-connect cable full elastic suspension, connector.

NEUMANN KM-56 MINIATURE CONDENSER MICROPHONE SYSTEM

The KM-56 satisfies a great demand for a microphone of modern, miniature styling of unexcelled reliability and performance. It is a true self-contained condenser microphone incorporating electronic switching of the directional characteristic (U.S. Pat. No. 2,678,967) to all three patterns: omni-directional, bi-directional, and cardioid. It uses a pure nickel double diaphragm capsule offering high resistance to temperature and humidity effects.

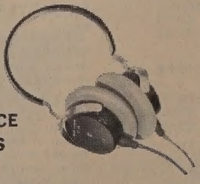
Complete microphone system consists of microphone, power supply, interconnect cable, full elastic suspension, connector.

BEYER M-160 DYNAMIC RIBBON MICROPHONE (ULTRA-DIRECTIONAL)



An ultra-directional characteristic has now become possible in a ribbon microphone. The warm, transparent classical ribbon quality—in a miniaturized form, with response approaching near theoretical limits through miniaturization of the vibrating system. Close tolerances in manufacture assure uniformity of characteristic between microphones, permitting paired use for Stereo.
Overall response: 20-20,000 cps.
Impedance: 50/200 ohms.
Dimensions: 1½" x 6". Weight: 6 ozs.

BEYER DT-48 DYNAMIC PEAK-PERFORMANCE HEADPHONES



A hand-built, high-fidelity transducer used in critical evaluation of recorded and transmitted sound, yet in a reasonable price class. Frequency range: 30-15,000 cycles, down no more than 7 db at 15 kc, and perfectly flat at 30 cycles. Comfortable exchangeable foam rubber pads and separate cords for each ear for stereo application. Impedance: 5 ohms each side; input voltage required: 0.1 volt; peak power demand: 0.4 watt; weight 12½ ozs.

COMPLETE TECHNICAL SPECIFICATIONS WILL BE PROMPTLY FURNISHED UPON PROFESSIONAL REQUEST.

GOTHAM AUDIO CORPORATION

NEW YORK, N. Y.

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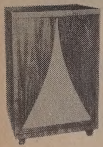
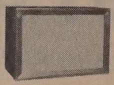
Karlson

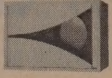
Stereosonic SPEAKER ENCLOSURES, SYSTEMS & KITS

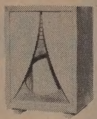
NONE BETTER


15-WX
Karlson
Front

12-WX
Walnut


8-WX
Walnut


8-BSC-K
Basic
Unfinished.


12-U
Unfinished
Deluxe

15WXG
Full
Grille

GENERAL DESCRIPTION

The Karlson enclosures are designed and perfected to meet the requirements for the latest and most advanced stereosonic techniques. They provide highly effective acoustic transformers improving the bass, transient response, dispersion, dynamic range, and definition far beyond the ordinary capacities of your speaker. They have consistently outclassed all other approaches in their ability to satisfy the most discriminating. As a result they are without a doubt the most highly recommended loudspeaker enclosures available at any price. Unexcelled for stereo use. Will outperform systems many times their size.

RELATIVE SIZES AND APPLICATIONS

KARLSON '15'—Enclosures for 15" Speakers

33" high, 22½" wide, 18" deep, wt. 80 lbs.
This is the outstanding choice of the real experts. Better bass than even a horn 30 feet long with a 12½ foot mouth diameter—PLUS—unexcelled tonal definition and wide area presentation makes this the finest enclosure available at any price. Use for finest home and professional stereo and monophonic high fidelity systems. Excellent for electronic organs, musical instruments, theatres, studio monitors, music festivals and wherever the very best is required.

KARLSON '12'—Enclosures for 12" Speakers

24¾" high, 16¾" wide, 13¾" deep, wt. 44 lbs.
This enclosure is ideal for those who want the biggest and best stereo sound available in a compact system. Its dynamic range in bass is only slightly less than the Karlson '15' and certainly much greater than mammoth systems costing many times more. Very efficient, doesn't need super power amplifiers for good bass. Suitable for almost all types of installation, including built-ins due to their small size.

KARLSON '8'—Enclosures for 8" Speakers

17¼", wide 11¾", high 10" deep, wt. 14 lbs.
These very small enclosures will actually fit in the average bookshelf, and will give a quality of reproduction and extended bass totally beyond the normal capabilities of a one cubic foot enclosure. Especially good for the small apartment, den or playroom or as an addition to your larger system. May be built into other cabinetry or used as a portable system as well. Provides professional quality at competitive prices.

SPECIFICATIONS AND FEATURES

All Karlson enclosures employ the basically new Karlson acoustic transducer (Pat. nos. 2,816,619 and 2,896,736) for greatly extended bass, ultra-uniform wide angle dispersion for all speakers in excess of 120°, and highly improved transient response, efficiency, dynamic range and signal definition. Cone break up and distortion is practically eliminated. Amplifier loading is resistive giving excellent control. Dynamic range in bass varies with size, with the larger units quite capable of filling the largest auditoriums with sound. High frequency response only limited by tweeter used. No tuning required with any speaker.

All enclosures may be mounted either vertically or on side with suitable loose footing provided for the Karlson '15' and '12' enclosures.

SELECTING A SPEAKER

The Karlson enclosures are designed for use with the finest extended range, coaxial, and triaxial speakers. Works best with high compliance speakers having a good linear suspension, strong magnets and smooth very extended tweeters. Separate tweeters may be mounted in the larger enclosures. Mechanical resonance not critical, no tuning is required.

MODELS AVAILABLE

FINISHED ASSEMBLED: Select wood veneers in mahogany (MX), walnut (WX), and blonde oak (BX). Standard taper front for 15" and 12" models, full grille on special order at 5% additional charge. Full grille only on 8" models.

15-MX, 15-BX, 15-WX	ea.	$129.00
12-MX, 12-BX, 12-WX	ea.	99.60
8-MX, 8-BX, 8-WX	ea.	42.60

DELUXE UNFINISHED ASSEMBLED: Birch veneer exterior footings and front mouldings included.

15-U Karlson "15" Unfinished	ea.	$99.50
12-U Karlson "12" Unfinished	ea.	69.50
8-U Karlson "8" Unfinished	ea.	29.95

BASIC UNFINISHED ASSEMBLED: Finest quality, high density particle board, no footing or moulding, finishable.

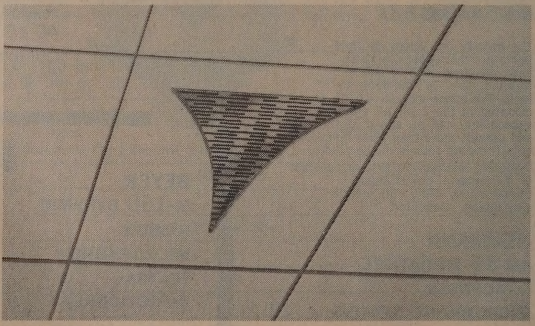
15-BSC-U Basic Karlson '15'	ea.	$69.50
12-BSC-U Basic Karlson '12'	ea.	49.50
8-BSC-U Basic Karlson '8'	ea.	21.95

DELUXE KITS: Birch veneer exteriors, footing and mouldings included.

15-K Karlson '15' Kit	ea.	$69.50
12-K Karlson '12' Kit	ea.	49.50
8-K Karlson '8' Kit	ea.	21.95

BASIC KITS: Finest quality, high density particle board, no footing or front mouldings.

15-BSC-K Karlson '15' Basic Kit	ea.	$44.95
12-BSC-K Karlson '12' Basic Kit	ea.	31.95
8-BSC-K Karlson '8' Basic Kit	ea.	14.95



NEW!—KARLSON AP PROJECTORS for BETTER QUALITY, COVERAGE, AND ECONOMY

Flush Mtg. Ceiling AP Projector—Projects a broad fan-like pattern in horizontal plane and special pattern in elevation for max. efficiency. Asymmetric projection improves intelligibility, coverage, and introduces much lower installation costs. Replaces as many as six ordinary ceiling speakers.

SPECIFICATIONS: Complete, ready for quick installation, 10 W. cap., freq. res. 60-15,000 cps, single unit covers up to 2500 sq. ft., full coverage—no blasting or dead spots, anti-feedback forward projection permits relatively close mike placement behind projector. Dim. 12" x 12" face plate, 6¼" max. height and 1½" rear ext. above and beyond edge of face plate. Wt. approx. 6 lbs. shipped. Fin.: Ceiling Tile White.

KARLSON AP-9C FLUSH MTG. CEILING PROJECTOR	$29.50
KARLSON AP-9W WALL MTG PROJECTOR	$34.95

Size: 13"x9¾"x8¼". Wt.: 8 lbs. Fin.: Pastel beige. Specs. as for Karlson AP-9C

KARLSON ASSOCIATES INC. • West Hempstead, New York

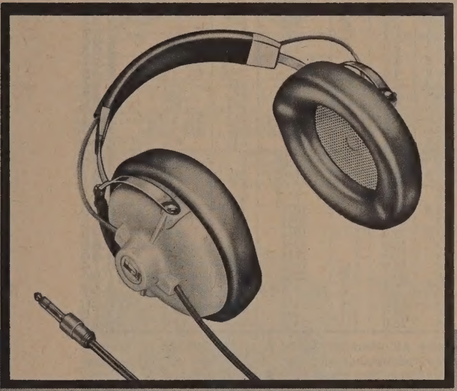
jensen ... HEADQUARTERS FOR HIGH FIDELITY SPEAKERS

UNITARY LOUDSPEAKERS / LOUDSPEAKER SYSTEM KITS

LOUDSPEAKER SYSTEMS SHELF... SLIM... AND COMPACT MODELS

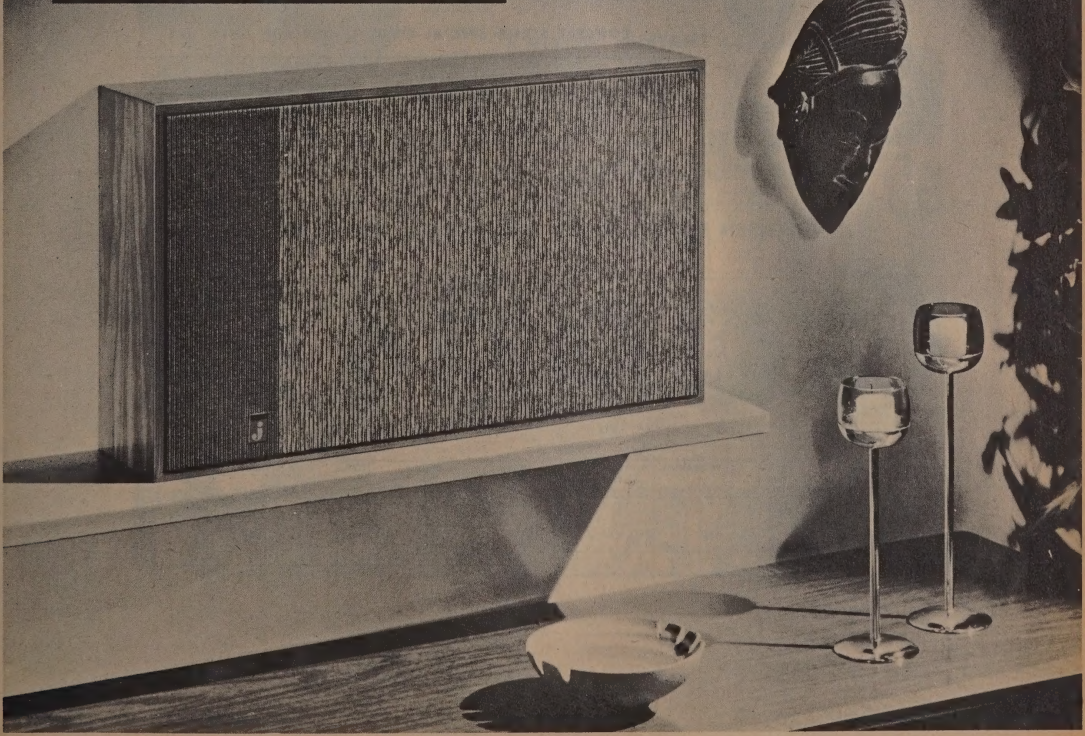
*HEADPHONES / STEREO HEADPHONE CONTROL CENTER WITH SPACE PERSPECTIVE**

**T.M. Licensed by CBS LABORATORIES, Div. COLUMBIA BROADCASTING SYSTEM, Inc.*



. . . We'd like to send you HIGH FIDELITY CATALOG 165-H. Why not write for it TODAY?

jensen MANUFACTURING COMPANY
Division of The Muter Co.
CHICAGO, ILLINOIS



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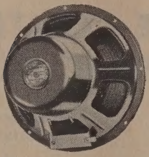
Jensen Concert & Viking Speakers

P314-T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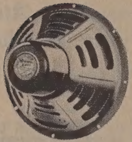
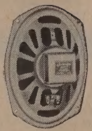
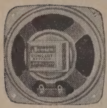
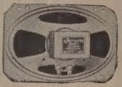

C10-S


P69-V

P57-U

P275-Y


P4-W


P46-W

JENSEN CONCERT SERIES SPEAKERS

CONCERT SERIES PM SPEAKERS

Nom. Size, Inches	Jensen No.	Mag. Wt., Oz.	Voice Coil			Dimensions, Inches			Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. & W.	Depth	Baffle Opening	
2¾	P275-Y	0.65	16	0.15	9/16	2¾	1.1	2⅜	$ 2.85
3	P3-W	1.00	3.2	3.5	9/16	3	1⅞	2⅝	2.85
3½	P35-W	1.00	3.2	4.0	9/16	3½	2⅛	3⅛	2.61
4	P4-W	1.00	3.2	4.5	9/16	4 3/16	2¼	3½	2.61
4	P4-WV	1.00	45	4.5	9/16	4 3/16	2¼	3½	2.70
4	P4-V	1.47	3.2	5.0	9/16	4 3/16	2¼	3½	2.82
4 x 6	P46-W	1.00	3.2	4.5	9/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	3.09
4 x 6	P46-V	1.47	3.2	5.0	9/16	4¼ x 6⅛	2 5/16	3 11/16 x 5 11/16	3.30
5	P5-W	1.00	3.2	5.0	9/16	4¾	2 5/16	4	2.67
5	P5-WV	1.00	45	5.0	9/16	4¾	2 5/16	4	2.79
5	P5-V	1.47	3.2	5.5	9/16	4¾	2 5/16	4	2.91
5	P5-T	3.16	3.2	6.0	¾	4¾	2 11/16	4	4.32
5¼	P525-W	1.00	3.2	5.5	9/16	5¼	2 9/16	4½	2.85
5¼	P525-V	1.47	3.2	6.0	9/16	5¼	2 9/16	4½	3.03
5 x 7	P57-W	1.00	3.2	5.5	9/16	5 x 7¼	2 15/16	4¼ x 6½	3.24
5 x 7	P57-V	1.47	3.2	6.0	9/16	5 x 7¼	2 15/16	4¼ x 6½	3.48
6	P6-W	1.00	3.2	6.0	9/16	6⅛	2¾	5¼	2.94
6	P6-V	1.47	3.2	6.5	9/16	6⅛	2¾	5¼	3.27
6	P6-T	3.16	3.2	7.5	¾	6⅛	3 3/16	5¼	4.68
6 x 9	P69-W	1.00	3.2	7.0	9/16	6⅜ x 9⅛	3⅜	5¼ x 8⅛	3.84
6 x 9	P69-V	1.47	3.2	7.5	9/16	6⅜ x 9⅛	3⅜	5¼ x 8⅛	4.35
7	P7-V	1.47	3.2	7.0	¾	7	3⅛	6⅜	4.20
8	P8-U	1.73†	3.2	9.0	1	7 11/16	3	6¾	4.32
8	P8-UV	1.73†	45	8.5	1	7 11/16	3	6¾	4.50
8	P8-T	2.5‡	3.2	10.0	1	7 11/16	3¼	6¾	5.04
8	C8-S	6.0*	8	11.0	1	7 11/16	3	6¾	6.21
8	C8-R	10.0*	8	12.0	1	7 11/16	3 1/16	6¾	7.50
10	P10-T	2.5‡	3.2	11.0	1	10⅛	4 1/16	8¾	6.45
10	C10-S	6.0*	8	12.0	1	10⅛	5¼	8¾	8.10
12	P12-T	2.5‡	3.2	12.0	1	12⅛	6 1/16	10½	6.90
12	C12-S	6.0*	8	13.0	1	12⅛	6 1/16	10½	8.85
12	C12-R	10.0*	8	14.0	1	12⅛	6 1/16	10½	9.60
12	P12-P	14.6	8	18.0	1½	12⅛	6 7/16	10½	20.16
12	C12-N	27.0*	8	20.0	1½	12 1/16	6 1/16	10½	31.50
14 x 3	P314-T	3.16	3.2	7.5	¾	3½ x 14 3/16	3⅛	2¾ x 13 3/16	9.57
15	P15-RJ§	6.8	8	17.0	1½	15⅛	6½	13¼	19.20
15	P15-P	14.6	8	20.0	1½	15⅛	8	13¼	27.15
15	C15-N	27.0*	8	25.0	1½	15⅛	7¼	13¼	36.90

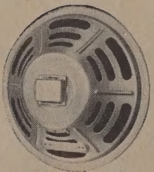
*SYNTOX-6® ceramic magnets. All others DP Alnico 5. All 10″, 12″ and 15″ speakers equipped with magnet covers. ‡Performance equivalent to EIA 3.16 oz. †Performance equivalent to EIA 2.15 oz. §Has extra long travel for heavy duty applications.

CONCERT SERIES SPECIAL OVAL GROUP FOR AUTO USE

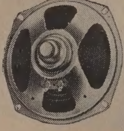
Nom. Size, Inches	Jensen No.	Mag. Wt.,* Oz.	Voice Coil			Dimensions, Inches			Net Each
			Imp., Ohms	Power Watts	Dia., In.	H. & W.	Depth	Baffle Opening	
5 x 7	P57-U	1.73†	3.2	8.0	1	5 x 7¼	2½	4¼ x 6½	$4.05
5 x 7	P57-TX§	2.5‡	3.2	9.0	1	5 x 7¼	2¾	4¼ x 6½	5.01
6 x 9	P69-U	1.73†	3.2	9.0	1	6⅜ x 9⅛	3⅛	5¼ x 8⅛	4.74
6 x 9	P69-TX§	2.5‡	3.2	10.0	1	6⅜ x 9⅛	3 5/16	5¼ x 8⅛	5.40

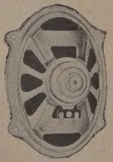
§High Fidelity Model. *All Magnets DP Alnico 5. †Performance Equivalent to EIA 2.15 oz. ‡Performance Equivalent to EIA 3.16 oz.

JENSEN VIKING SERIES REPLACEMENT SPEAKERS


12J10, 10J10

7J9


8J9


57J9

525K7

46K7

35K7

Nom. Size, In.	Jensen No.	Mag. Wt., Oz.†	Pwr., Watts	V.C. Dia. In.#	Dimensions, Inches			Net Each
					H. & W.	Depth	Baffle Opening	
3	3K7	.68	3.5	9/16	3	1⅜	2⅝	$2.28
3½	35K7	.68	4.0	9/16	3½	1¾	3⅛	2.10
4	4K7	.68	4.5	9/16	4 3/16	1⅞	3½	2.10
4 x 6	46K7‡	.68	4.5	9/16	4⅛ x 6⅛	1⅞	3 11/16 x 5 11/16	2.73
5	5K7	.68	5.0	9/16	4 11/16	1 15/16	4	2.40
5¼	525K7	.68	5.0	9/16	6 1/16	2 3/16	4¼	2.46
5 x 7	57J9‡	1.47	6.0	¾	5 x 7¼	2½	4¼ x 6¼	3.24

Nom. Size, In.	Jensen No.	Mag. Wt., Oz.†	Pwr., Watts	V.C. Dia. In.#	Dimensions, Inches			Net Each
					H. & W.	Depth	Baffle Opening	
6	6K7	.68	6.0	9/16	6 1/16	2⅜	5¼	$2.61
6 x 9	69J9‡	1.47	7.5	¾	6⅜ x 9⅛	2 15/16	5¼ x 8⅛	3.84
7	7J9	1.47	7.0	¾	7	2¾	6⅜	3.84
8	8J9	1.47	8.0	¾	7 11/16	2 15/16	6¾	3.84
10	10J10	1.73	10.0	1	10⅛	4	8¾	5.40
12	12J10	1.73	11.0	1	12⅛	4¾	10½	6.30

#3.2 ohm voice coils. †Alnico 5 magnets. ‡Oval design.

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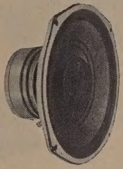
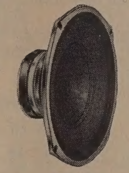
Jensen Professional Series Speakers

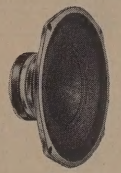
8″ SPEAKERS FOR DISTRIBUTED SOUND

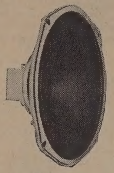
VALUE ENGINEERED FOR LOWEST INSTALLED COST

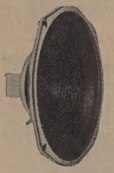
K-950


C-855


C-850

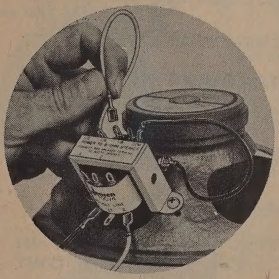

C-840


P-830


P-810

This new line of Jensen 8-inch Professional Series loudspeakers is specially designed to meet the exacting rigorous demands of commercial sound service. The 8-inch size is ideal for the majority of all distributed sound systems giving more than adequate low frequency range with a minimum of enclosure and mounting complications.

A **complete line** of speakers **value engineered** for lowest **installed cost** with such features as the handy 10-pack, preattached transformers, exclusive solderless connectors, weather and corrosion resistant designs . . . and many more. A wide selection of models to meet every need—from the lowest cost highly competitive application to the most sophisticated, highest quality system. Four conventional type speakers with varying sensitivity and power rating (magnetic energy) with the typical 90° coverage angle. One model has dual cone radiating system with 95° coverage angle and unusual high frequency range. A sixth basic model is an 8″ coaxial with 110° coverage angle and unusual frequency range and smoothness for the finest quality and intelligibility. This 110° coverage angle provides approximately **twice** the coverage area, so **fewer** are required for a given installation.



PREATTACHED TRANSFORMERS

The six basic models mentioned above are all available with preattached 25-volt or 70.7-volt "constant voltage" transformers, Models 25CV4 or 70CV4. Factory attachment insures lower cost to the end user.

AVAILABLE IN HANDY 10-PACK

All of these speakers are available at added savings and convenience bulk-packed ten per carton (with or without transformers). These handy 10-pack cartons have individual sleeves for each speaker thus giving speaker protection of odd lots until actual installation.

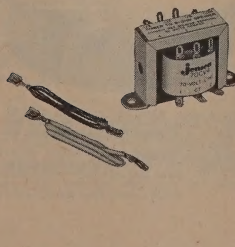
KWIKON* INSTANT CONNECTORS

Simply twist bare ends of two 12″ input leads supplied for each speaker to incoming signal cable leads, insulate with wire-nut or tape. Slide sleeve clips onto input terminal lugs of speaker or preattached transformer as speaker assembly is raised into place. KWIKON* instant connectors also provide simple fast power tap readjustment on transformer.

*T.M.

Model	Type	Power Rating[2]	Sensitivity[3]	Magnet[4] Wt., Oz.	Freq. Range, CPS	Nom. V.C. Dia.	Max. Depth	W/O Transformer List	W/O Transformer Net Ea. Boxed	W/O Transformer Net Each in 10-Pack	Transformer Preattached List	Transformer Preattached Net Ea. Single	Transformer Preattached Net Each in 10-Pack
K-950	Coaxial[1]	16	85.5 db	10.0	30–14,000	1″	3¼″	$24.50	**$14.70**	**$13.23**	$29.25	**$17.55**	**$15.80**
C-855	Dual Cone	12	85.0 db	10.0	30–18,000	1″	3 1/16″	13.50	**8.10**	**7.29**	18.25	**10.95**	**9.86**
C-850	Conventional	12	85.5 db	10.0	30–13,000	1″	3″	12.95	**7.77**	**6.99**	17.70	**10.62**	**9.56**
C-840	Conventional	11	84.5 db	6.0	30–13,000	1″	2 15/16″	10.95	**6.57**	**5.91**	15.70	**9.42**	**8.48**
P-830	Conventional	10	84.0 db	2.5	40–13,000	1″	3¼″	7.25	**4.35**	**3.91**	12.00	**7.20**	**6.48**
P-810	Conventional	9	82.0 db	1.47	60–13,000	¾″	3¼″	5.80	**3.48**	**3.13**	10.55	**6.33**	**5.70**

[1] V.C. and magnet information pertain to L-F unit only. [2] Maximum speech and music level as indicated on standard VU meter (peak power is substantially higher). [3] Axial free field sound pressure level at a distance of 10 ft. for an input of 1.0 watt 800–1,250 cps warble frequency band (re .000204 dynes/cm²). [4] All magnets are Jensen Syntox-6® ceramic except P-810 and P-830 with DP-Alnico-5.



"CONSTANT VOLTAGE" TRANSFORMERS

Specially designed for use with the popular "constant voltage" distribution systems. Primary (input) windings are center-tapped for balanced-to-ground input circuits or for special circuit needs. Tapped secondary windings provide adjustment of power to the 8-ohm speaker in 3 db steps from ⅛ watt to 4 watts. Nominal core size ⅝″ x ⅝″. Two 5/16″ dia. mounting holes on 2⅜″ centers. Available separately or preattached to these special 8-inch speakers.

Model	Line	Packing	List	Net	Net Ea. 50-Pack
25CV4	25-volt	Single	**$4.75**	**$2.85**	....
25CV4B	25-volt	50-Pack	**4.75**	**2.85**	**$2.57**
70CV4	70-volt	Single	**4.75**	**2.85**	....
70CV4B	70-volt	50-Pack	**4.75**	**2.85**	**2.57**

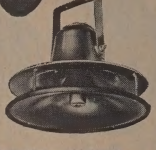
Jensen Professional Series Speakers

JENSEN HYPEX* PROJECTOR HORNS

These projector horns are acoustically coordinated in design for best performance with Hypex* Driver Units D-30, D-40 and DD-100A, any one of which may be used on any the of horns. The horn expansion formula is the hyperbolic exponential (U. S. Patent 2,338,262) providing low frequency reproduction superior to that obtained with conventional horns of the same mouth size. Horns (with the exception of RT-20) are spun aluminum with weather-resistant baked tan enamel finish. Horns are threaded 1⅜"-18 and may be used with any driver units with this thread. Sturdy steel mounting "U" brackets allow horn to point in any desired direction; horn locks in desired position by means of new positive action trunnion clutches.

(See separate description and specifications on RT-20 Rectangular Horn).

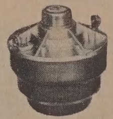
H-150
H-200
H-240

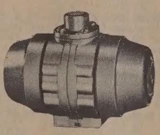

R-242

Specifications	H-150 (15")	H-200 (20")	H-240 (24")	R-242 (20" Radial)
Mouth diameter, over all	15¾"	20¾"	25¼"	20½"
Length, over all (less driver)	12"	15½"	20⅜"	14⅜"
Air column length	31"	41"	59"	40"
Low frequency cutoff	200 cycles	150 cycles	120 cycles	140 cycles
Rated coverage angle	95°	85°	75°	360°
Net weight (less driver)	6 lbs.	8½ lbs.	12¾ lbs.	10½ lbs.
Shipping weight	7¾ lbs.	12¾ lbs.	19¾ lbs.	14½ lbs.
List Price	**$29.00**	**$34.50**	**$46.75**	**$47.00**
Net Each	**17.40**	**20.70**	**28.05**	**28.20**

*T.M. Reg. Jensen Mfg. Co.

D-30


D-40


DD-100A

HYPEX* LIFETIME DRIVER UNITS

Jensen Hypex Lifetime Driver Units have many features which contribute to increased performance and reliability. As a result **Lifetime Guarantee** is extended against failure under normal conditions of use!

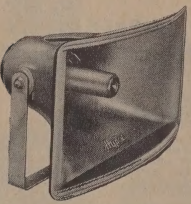
All driver units are threaded 1⅜"-18 and may be used with all Hypex Projector Horns. They also make ideal replacements for other driver units, improving efficiency and power rating.

Specially shaped reinforced plastic diaphragms. Voice Coils are varnish wound and baked, resulting in a rigid assembly that is indestructible in normal use. Models D-40 and DD-100A have precision self-centering moving system assemblies. External leads connect to heavy binder screw terminals; strain reliefs on all units.

Model	Power Rating†	Impedance	Frequency Range	Length	Diameter	Weight, lbs.		List Price	Net Each
						Net	Shpg.		
D-30	30 w.	16 ohms	75-7,000 cps	4¹⁄₁₆"	4½"	3¼	3½	**$27.50**	**$16.50**
D-40	40 w.	16 ohms	75-10,000 cps	4½"	4½"	4	4¼	**36.00**	**21.60**
DD-100A	100 w.	12.5/50* ohms	75-10,000 cps	6³⁄₁₆"	4¾"x7¾"	7½	8	**96.50**	**57.90**

†Integrated speech and music program material. For sine wave or siren signal input, reduce ratings one-half. Ratings apply only for frequencies above horn cutoff. *Series connection (50 ohms) for direct connection to 70.7-volt line.

MODEL RT-20 RECTANGULAR HORN



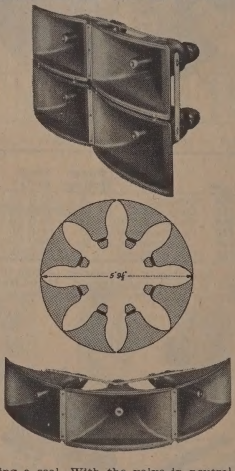
These versatile horns may be used in a variety of ways to provide projector systems of almost any desired directional characteristics and total power rating. They may be used singly just as round horns are used and in such cases, the rectangular shape is frequently an advantage in appearance, minimizing obstruction to vision, and facilitating mounting.

RT-20 Horns are designed so that they may be stacked in plane or circular arrays. Eight units, each with a geometric sector angle of 45 degrees, form a complete circle with a diameter of 5' 9½", giving 360° horizontal coverage. Fewer units are used where less than 360° coverage is required as indicated below:

Number of Units	Horizontal Coverage Angle
1	80°
2	125°
3	170°
4	215°
5	260°
6	305°
8	360°

Horns may be "double decked," which will concentrate the sound in a narrower angle in the vertical plane. A stack two units high will give a vertical coverage angle of approximately 30 degrees; at the same time, there is a gain in sound pressure on the axis of 2.5 db, due to the restricted angle of radiation.

The horn is molded of high impact strength glass fibre reinforced polyester. Natural molded finish in Modern Tan color.



SPECIFICATIONS—RT-20

Mouth Size: 26" wide by 13½" high.

Horn Length, overall, less driver: 16⅞".

Air Column length: 41".

Low Frequency cutoff: 140 cycles.

Rated Coverage angle: 80° horizontal. (See data for arrays).

Net Weight, less driver unit: 10¾ lbs.

Shipping Weight: 15 lbs.

RT-20—Horn only. List Price............ **$46.50**

Net Each........................... **$27.90**

ACCESSORIES

MA-1 PIPE ADAPTER

A sturdy malleable iron casting which bolts to the "U" bracket of Hypex* Projector Horns and provides ¾" pipe thread for pipe mast mounting. Baked tan enamel finish.
Net weight: ¾ lb.
Shipping Weight: 1 lb.
MA-1—List Price **$2.30.**
Net Each................. **$1.38**

MA-3 STACKING HARDWARE

Complete set of hardware for joining two RT-20 horns side by side.
Net weight: 2¼ lbs.
Shipping Weight: 2¾ lbs.
MA-3—List Price **$5.30.**
Net Each................. **$3.18**

MA-4 STACKING HARDWARE

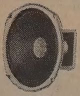
Complete set of hardware for joining two RT-20 horns double decked.
Net weight: 1½ lbs.
Shipping Weight: 2 lbs.
MA-4—List Price **$4.60.**
Net Each................. **$2.76**

*T. M. Reg. Jensen Mfg. Co.

BV-1 BLAST VALVE

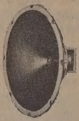
The BV-1 Blast Valve is an accessory device for protecting the driver unit from high pressures due to explosive forces. Valve is the same as used in Jensen military blastproof loudspeakers. Under the positive blast pressure phase, the valve moves inward to seal off the driver unit from the horn throat. On the negative phase the valve moves outward, again effecting a seal. With the valve in neutral position, attenuation of sound is negligible. Screws between horn and driver unit. Overall diameter 3". Fits all Jensen driver units and horns.
Net weight, ½ lb. Shipping Weight, ¾ lb.
BV-1—List Price **$15.00.** Net Each **$9.00**

Jensen Professional Series Speakers


P5-TC

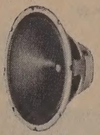
P6-TC

P8-PC


P10-SC

C12-SC

C12-RC

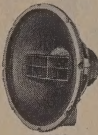

C12-NC

EXTENDED RANGE HIGH FIDELITY LOUDSPEAKERS

Here is a complete line of unitary loudspeakers to complement the special group of 8-inch speakers designed especially for distributed sound. Same ruggedized construction with special weather and corrosion resistant techniques and materials. Suitable for all protected outdoor locations.

H-225C COAXIAL 2-WAY HIGH FIDELITY SPEAKER

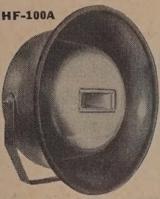
H-225C is a coaxial 2-way assembly for high efficiency, controlled directivity applications typical of "live" auditoriums-control feedback with controlled angle of coverage! Extended range single-element designs from 5-inch to 12-inch size in choice of magnetic structure.


H-225C

Nominal Size	Model No.	Power Rating Watts	Magnet Wt., Oz.,	Relative Loudness Efficiency	Im-ped., Ohms	V. C. Dia. Inches	Baffle Cutout Dia., In.	Overall Dia. Inches	Depth Inches	Ship. Wt., Lbs.	List Price	Net Each
12″	**H-225C**	28	27*	+6 db	16	1½*	10½	12¹⁄₁₆	7⁵⁄₁₆	10½	$81.50	**$48.90**
12″	**C12-NC**	20	27†	+5½ db	8	1½	10½	12¹⁄₁₆	5³⁄₁₆	8¼	51.00	**30.60**
12″	**C12-RC**	14	6.8†	+3 db	8	1	10½	12⅛	4½	6	16.00	**9.60**
12″	**C12-SC**	13	4.64†	+2 db	8	1	10½	12⅛	4⁷⁄₁₆	6	14.75	**8.85**
10″	**P10-SC**	12	4.64	+2 db	8	1	8¾	10⅛	4⅝	4	13.75	**8.25**
8″	**P8-PC**	15	14.6	+3½ db	8	1½	6¾	8⅛	4	5½	31.80	**19.08**
6″	**P6-TC**	7½	3.16	0 db	4	¾	5¼	6¹¹⁄₁₆	3³⁄₁₆	2	8.50	**5.10**
5″	**P5-TC**	6	3.16	0 db	4	¾	4	5	2¹¹⁄₁₆	2	8.15	**4.89**

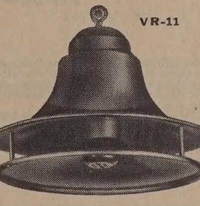
*Woofer only. †Syntox-6 ceramic magnet. All others DP-Alnico-5.

HF-100A



VH-91A

VR-11



JENSEN COMPLETE HYPEX* PROJECTORS

HF-100A WEATHERPROOF TWO-WAY HIGH FIDELITY PROJECTOR

Here is a real high fidelity projector for use indoors or out, under all weather conditions. Consists of a heavy duty 8″ "woofer" feeding a folded horn plus a horn-loaded compression driver "tweeter". Low frequency unit feeds horn by a combination of direct radiation and phase-inversion bass reflex ports for superior efficiency in the low frequency region. The high frequency horn has a 90° fold and is mounted so that the driver unit is at the top, thus providing self-draining and making it impossible for rain, sleet or snow to reach the driver unit.

Horn outer section is spun aluminum with baked enamel finish. Central enclosure is glass fibre reinforced polyester in matching natural molded Modern Tan finish. Sturdy "U" mounting bracket is fully adjustable and positive locking.

SPECIFICATIONS: HF-100A PROJECTOR

Type: Coaxial assembly of separate low and high frequency units.
Frequency Range: 60 to 15,000 cycles.
Power Rating: 25 watts.
Impedance: 16 ohms.
Rated Coverage Angle: 120°.
Overall Diameter: 24⅜″.
Overall Depth: 11⅝″.
Net Weight: 23 lbs.
Shipping Weight: 30 lbs.
HF-100A—List Price **$129.50.** Net Each **$77.70**

*T. M. Reg. Jensen Mfg. Co.

Jensen VH-91A and VR-11 Hypex* projectors are the most compact in the line and their use is indicated where speech reproduction is the only important consideration and where size or cost are controlling factors. Designed for maximum efficiency in the upper frequency range, these units provide excellent penetration of noise. Small in size, they can also be located near areas of extreme noise. Magnetic structures are highly efficient, using Alnico-5 magnets in ample soft iron structures. Corrosion-resisting finishes and materials such as plastic cloth base diaphragms insure long life under outdoor and industrial atmospheric conditions. For further protection driver units are completely enclosed inside the rigid outer shell.

MODEL VH-91A HYPEX* PROJECTOR

Equipped with new universal mounting bracket for adjustment in any direction and secure locking with a single wing nut. Extremely rigid vibration-proof clamping allows three hole flange mounting on flat surface, single hole mounting with ¼″ lag or machine screw through center, or mounting on top of standard ½″ pipe.

MODEL VR-11 HYPEX* RADIAL PROJECTOR

For application requiring 360° coverage in horizontal plane, such as low ceiling industrial areas. Equipped with sturdy eye-bolt for clamping or suspension from above.

SPECIFICATIONS

Model	Power Rating Watts	Imped-ance Ohms	L-F Range	Mouth Dia. Over All	Over All Lgth.	Air Col-umn Path Lgth.	Rated Cover-age Angle	Net Wt. Lbs.	Shpg. Wt. Lbs.	List Price	Net Each
VH-91A	15	8 or 45	300	8⅞″	7⅝″	16″	100°	3¼	4¼	$35.80	$21.48
VR-11	15	8	280	11″	10⅜″	18″	360°	4	5	49.00	29.40

These level controls are of the two-section L-pad type with practically constant input impedance for any knob position. Designed for use in voice coil or line circuits of similar nominal impedance. Provide continuously adjustable level without disturbance of other circuit levels or total impedance. Rugged construction with special alloy windings and solder lug terminals. Single-hole panel mounting. Complete with lock nut, small bakelite pointer knob and flat metal escutcheon plate.

LEVEL CONTROLS

Model No.	Impedance, Ohms	Power, Watts	Shipping Wt., Lbs.	Net Each
ST-760	4	15	1	**$2.91**
ST-276	8	15	1	**1.95**
ST-837	16	35	1	**3.45**

Jensen Professional Series Speakers

JENSEN SPEECH-MASTER LOUDSPEAKERS

AP-10

JENSEN Speech-Master loudspeakers are specialized units designed for applications where highly intelligible speech reproduction is a prime requisite. Good basic design and sturdiness of construction as well as pleasing appearance and functional styling are outstanding features of these units. All loudspeakers in this group use high efficiency direct radiator driver units of the permanent magnet type.

MODEL AP-10 SPEECH-MASTER

Attractively styled desk type unit. Heavy cast base with felt pad. Specially designed for superior intelligibility in the presence of static and acoustic background noise. Excellent "talk-back" characteristics. Driver Unit, a sturdy 5″ speaker, fully enclosed with protective front screen. Mounting facility for ½″ x ½″ transformer (inside cover) locking tilt adjustment. Power rating, 5 watts maximum speech signal. 36″ rubber cable. 6¾″ H.; 5⅛″ D.; 5″ W. Gray Hammer finish. Shipping Weight 5¼ lbs.

ST-590. 3-4 ohms. List Price **$22.00.** Net . . **$13.20**

ST-591. 45-50 ohms. List Price **$23.00.** Net. **13.80**

RK-61

MODEL RK-61 "CORRIDOR" SPEECH-MASTER

Designed for two-direction sound in corridor or office. Heavy steel case perforated on both sides for high quality speech coverage in both directions protected heavy duty 6″ loudspeaker driver unit. Sturdy mounting bracket welded to case provides flexibility in installation. Standard ¾″ conduit (not supplied) can be used. 24″ heavy SJ cable for connections. Transformers up to ⅝″ x ⅝″ mount on speaker frame inside case. Excellent "talk-back" characteristics. Quality on music is also acceptable for many areas. Power rating 8 watts. Case diameter 8″; thickness 3¼″; overall distance from wall 9¼″. Modern Tan finish.

ST-850. 3-4 ohms. List Price **$15.00.** Net. . . . **$9.00**

P5-VC

MODEL P5-VC SPEAKER

This loudspeaker is offered for installation in radio communications, intercom and paging equipment. May be panel mounted, wall mounted or installed in a small case as required with excellent results. Provides the performance of the AP-10 Speech-Master in your equipment. Power rating, 5 watts. Depth, 2 7/16″; OD, 5″; baffle opening 4″; Shipping Weight 1 lb.

ST-916. 3-4 ohms. List Price **$5.30.** Net. **$3.18**

JENSEN PROFESSIONAL SERIES TRANSFORMERS

CONSTANT VOLTAGE TRANSFORMERS

These transformers are designed especially for the distribution systems commonly referred to as 70-volt constant voltage systems. They are designed to draw a predetermined amount of power from a 70-volt line as indicated in the tables. All are mountable in W-1 Weatherproof Transformer Case.

Models ZC-100, ZC-200, ZC-300, and ZC-400 are equipped with terminal board with pin jack adjustment for the desired input power. Heavy duty screw terminals are provided for speaker and line connection. Completely impregnated and dip processed for operation in outdoor and industrial atmospheres.

Model ZC-3514 is similar except color coded pigtail leads replace the terminal board. Non-weatherproof, recommended for indoor and less severe locations.

Models 25CV4 and 70CV4 are especially designed for direct attachment on distributed sound direct radiator loudspeakers. Primary center-tapped for balanced and special input circuits. All terminals are lugs for unique Jensen KWIKON* instant connectors. Speaker-to-transformer leads provided.

ADJUSTABLE IMPEDANCE TRANSFORMERS

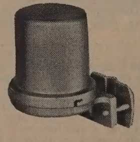
The Type ZY adjustable impedance transformers have long been popular for use on 500-ohm line systems. Equipped with sturdy terminal board with pin jack adjustment of impedance. Type ZL transformers are similar except for solder lug terminals for impedance adjustment and pig-tail secondary leads. Vacuum wax impregnated for general purpose applications. Can be installed in Model W-1 Weatherproof Transformer Case.

TYPE "Z" TRANSFORMERS

Model Z-3422 is a high fidelity autotransformer for interconnecting 4, 8 or 16 ohm circuits. Model Z-3345 is particularly designed to properly match 8 ohm loudspeakers and projectors to 45-50 ohm intercommunication systems. Vacuum wax impregnated and mountable in Model W-1 Weatherproof Transformer Case.

Model No.	Nom. Core Size	Input Power, Watts	Input Impedance, Ohms	Sec. Imped., Ohms	Mtg. Centers	Shipping Wt., Lbs.	List Price	Net Each	Net Each in 50-Pack
25CV4	⅝″ x ⅝″	4/2/1/½/¼/⅛	156/313/625/1250/2500/5K	8	2⅜″	9 oz.	$ 4.75	**$2.85**	**$2.57**
70CV4	⅝″ x ⅝″	4/2/1/½/¼/⅛	1250/2500/5K/10K/20K/40K	8	2⅜″	9 oz.	4.75	**2.85**	**2.57**
ZC-100	1″ x 1″	30/15/7½	167/333/667	16/8/4	3⅛″	2 lbs. 5 oz.	11.50	**6.90**	. . . .
ZC-200	1″ x 1″	25/10/5	200/500/1000	16/8/4	3⅛″	2 lbs. 5 oz.	13.00	**7.80**	. . . .
ZC-300	⅞″ x ⅞″	20/10/5	250/500/1000	16/8/4	3⅛″	1 lb. 6 oz.	9.65	**5.79**	. . . .
ZC-400	⅝″ x ⅝″	5/2½/1¼	1000/2000/4000	16/8/4	2⅜″	9 oz.	7.00	**4.20**	. . . .
ZC-3514	1″ x 1¼″	16/8/4/2	313/625/1250/2500	16/8	2″ x 2″	3 lbs.	13.00	**7.80**	. . . .
ZL-2021	½″ x ½″	3½	500/1000/1500/2000	4	2″	5 oz.	3.75	**2.25**	. . . .
ZL-2022	⅝″ x ⅝″	6½		8	2⅜″	6 oz.	4.65	**2.79**	. . . .
ZY-2002	¾″ x ¾″	10	500/1000/1500/2000	8	2 13/16″	6 oz.	8.25	**4.95**	. . . .
ZY-2003	⅞″ x ⅞″	16		8	3⅛″	1 lb. 6 oz.	9.92	**5.95**	. . . .
ZY-2005	1″ x 1″	25		8	3⅛″	2 lbs. 5 oz.	11.85	**7.11**	. . . .
ZY-4002	⅝″ x ⅝″	6½		4	2⅜″	6 oz.	6.15	**3.69**	. . . .
ZY-4004	¾″ x ¾″	10		4	2 13/16″	1 lb.	8.25	**4.95**	. . . .
ZY-4005	⅝″ x ⅝″	6½		8	2⅜″	6 oz.	6.15	**3.69**	. . . .
Z-3345	⅝″ x ⅝″	6½	45–50	8	2⅜″	6 oz.	3.25	**1.95**	. . . .
Z-3422	1″ x 1″	25	4/8/16	. . . .	3⅛″	2 lbs. 3 oz.	11.59	**6.95**	. . . .

MODEL W-1 WEATHERPROOF TRANSFORMER CASE



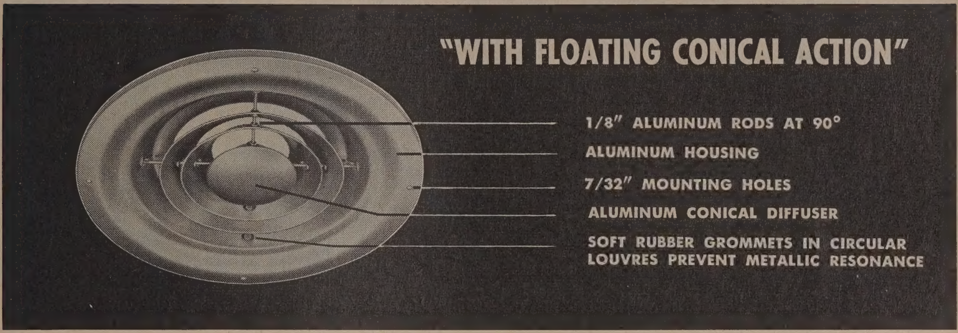
Thoroughly weatherproof for permanent outdoor installations for maximum protection to transformers. Designed for upright mounting on Jensen HYPEX* horns, on pipe, or screw mounting to side wall or other flat surface. Accommodates transformers of core sizes ⅝″ x ⅝″ to 1″ x 1″ with maximum transformer height of 4″. Cast aluminum base and spun aluminum cover with bayonet locking. Net Weight 1 lb., shipping weight 1¼ lbs.

W-1. List Price **$10.50.** Net Each. **$6.30**

*T.M. Reg. Jensen Mfg. Co.

LOWELL STL SERIES

New Low Ceiling Type Baffles


"WITH FLOATING CONICAL ACTION"
1/8" ALUMINUM RODS AT 90°
ALUMINUM HOUSING
7/32" MOUNTING HOLES
ALUMINUM CONICAL DIFFUSER
SOFT RUBBER GROMMETS IN CIRCULAR LOUVRES PREVENT METALLIC RESONANCE

Patented in U.S.A. and Canada

Model No.	Speaker Size	Will Mount to
STL-6	6"	CP8, XCP8, PR8
STL-7	7"	STP8, XSTP8, XSTPR8
STL-8	8"	STP8, XSTP8, XSTPR8
STL-10	10"	STP1012, XSTP1012, XSTPR12
STL-12	12"	STP1012, XSTP1012, XSTPR12

These new, unusual additions to the Lowell line of speaker baffles are top quality heavy 18 gauge spun aluminum in a buffed satin finish. Designing assures controlled 360° dispersion of undistorted sound. Echo and feedback are at the minimum. Louvres and conical diffuser "float" on very small soft rubber grommets. Baffles are coated with clear lacquer which also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request.

Shipped complete with hardware and instructions for mounting to Lowell Protective Speaker Enclosures illustrated.

From architecture to acoustics, Lowell STL series meets every requirement — in ultra-modern design . . . for even, undistorted low-level sound distribution throughout 360°. Recommended baffle placement is usually 25′ from center to axis. Where straight line placement is impossible, triangulating the baffles in the ceiling is highly effective.

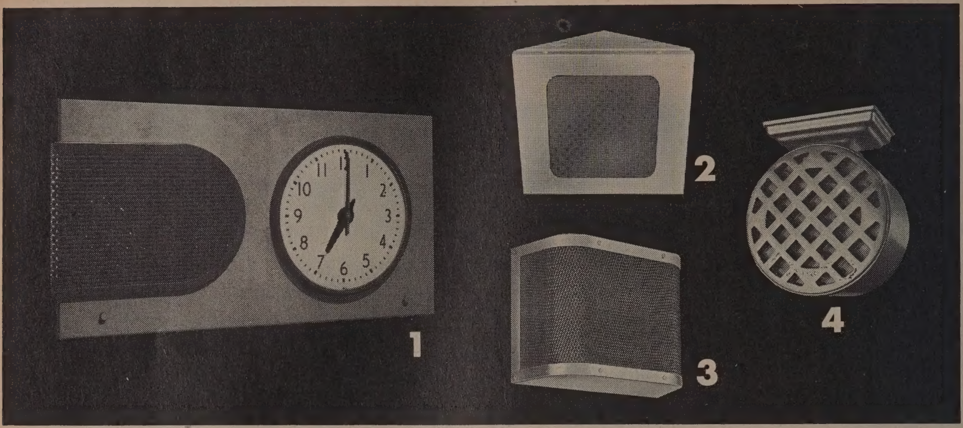
STP SERIES

XSTP SERIES

XSTPR SERIES

HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

LOWELL SPECIAL APPLICATIONS



1. LOWELL SC SERIES

Designed as a single unit clock and speaker system, the LOWELL Model SC-100 simplifies installation and maintenance. Fire alarm and civil defense warning equipment may also be incorporated in this unit.

Both the clock and speaker are mounted to the front panel. The front panel is hinged at the top, providing quick access to the interior of the unit without disassembling.

LOWELL model SC-100 will mount a variety of standard classroom clocks smaller than 12 inch sizes. Please order 12 inch size special.

Shipped complete with all mounting hardware. Colors are contrasting light and dark grey.

2. MODEL LI-8, a new steel corner speaker baffle, especially suited for use in schools, restaurants, offices or wherever an attractive corner installation is desired. Grille, corner adaptor, mounting bracket and hardware packed unassembled. Desert Sand finish.

3. THE 'DRAMATONE' BASS REFLEX WALL BAFFLE

Especially designed for installations where a modern trend is desired. Beautiful plastic grille cloth mounted directly in back to conceal the loudspeaker. Baffle operates with a bass reflex principle. Interior completely lined with jute to prevent metallic resonance.

4. HEAVY-DUTY PENAL INSTITUTIONAL BAFFLE

Bi-directional type mounts to any standard single or double electrical outlet box. Tamper-proof machine screws, which fasten the baffle together, cannot be removed without a special screwdriver. Rugged construction withstands severe punishment. Both speaker face plates are covered from behind with perforated metal to prevent sharp objects from piercing the speaker cone.

The entire baffle is prime coated and finished in silver grey hammertone.

Order screwdriver with 6-32 and 8-32 tip.

SPECIFICATIONS

Model SC-100 front panel is 25¾" x 13" x 1", made of 18 gauge steel painted light gray. The speaker grille is made of 22 gauge steel painted dark gray. The protective enclosure is 24" x 12" x 3", made of 18 gauge steel painted with zinc chromate to prevent rust and undercoated to prevent resonance. It contains twelve ½", ¾", 1" and 1½" conduit knockouts.

MODEL LI-8

Any standard 8" speaker mounts to grille by means of four lugs welded to rear of grille. Dimensions overall: 13¼" wide, 11½" high.

'DRAMATONE' BASS REFLEX WALL BAFFLE

DIMENSIONS: 13¾" x 5⅝" depth x 9¾" height.

MODELS: DD6-A
DD7-A
DD8-A

PENAL INSTITUTIONAL BAFFLE

MODELS	SPEAKER SIZE
BRLK-5	5"
BRLK-6	6"
BRLK-7	7"
BRLK-8	8"

Model RLK series is very similar to Model BRLK with the exception that these models do not have a cradle base. Mount to ceiling or wall or standard electrical outlet boxes.

MODELS	SPEAKER SIZE
RLK-5	5"
RLK-6	6"
RLK-7	7"
RLK-8	8"

NOTE: Order only by model numbers.

HEARD EVERYWHERE
Lowell ® MANUFACTURING COMPANY

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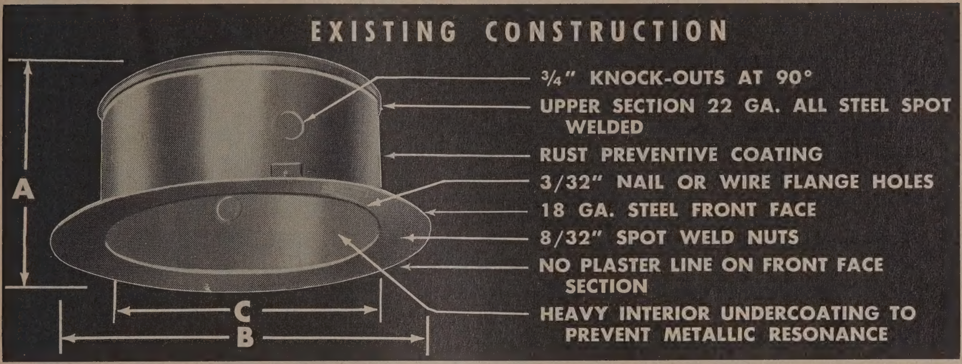
LOWELL XCP SERIES

Back Cover Protective Speaker Enclosure


EXISTING CONSTRUCTION
¾″ KNOCK-OUTS AT 90°
UPPER SECTION 22 GA. ALL STEEL SPOT WELDED
RUST PREVENTIVE COATING
3/32″ NAIL OR WIRE FLANGE HOLES
18 GA. STEEL FRONT FACE
8/32″ SPOT WELD NUTS
NO PLASTER LINE ON FRONT FACE SECTION
HEAVY INTERIOR UNDERCOATING TO PREVENT METALLIC RESONANCE
A
B
C

Model	A	B	C	Speaker Size Accommodation
XCP6	4″	10¼″	7⅜″	6″
XCP8	2½″	11¾″	8½″	8″
XCP8	4¼″	11¾″	8½″	8″
XCP8	7″	11¾″	8½″	8″
XCP8	10″	11¾″	8½″	8″
XCP1012	7″	16″	12⅜″	10″ & 12″
XCP15	10¾″	21¼″	14⅝″	15″
XSTP8	7″	13¾″	12½″	8″
XSTP1012	10″	17½″	14½″	10″ & 12″

USES: Designed for quick labor-saving wall or ceiling installation of sound systems in EXISTING CONSTRUCTION, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ½″ and ¾″ knockouts at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete mounting hardware and mounting instructions furnished to meet problems of various types of installations.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loading" may be ordered at slightly higher price.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath:

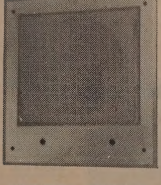
Model XCP6—7¼″ dia.
Model XCP8—8⅝″ dia.
Model XCP1012—12⅝″ dia.
Model XCP15—14¾″ dia.
Model XSTP8—12⅝″ dia.
Model XSTP1012—14⅝″ dia.

FOR SUSPENDED CEILINGS:
Mount XCP Series back enclosures to Model SS24 or 48 Steel Support Channels for positive strength.

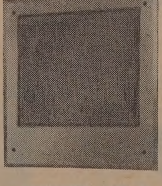
FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Installation time reduced.

Speaker Baffles That Will Mount to XCP Series Protective Speaker Enclosures:

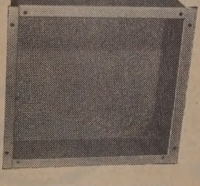
Enclosure Model No.	Speaker Baffle Model No.
XCP6	AL6-A, RS5-A, RS6-A,
XCP8	AL7-A, AL8-A, RS7-A, RS8-A, CE, JG8, M-8 PS8, STL6
XSTP1012	AL10-A, AL12-A, RS10-A, RS812-M, AL812-M, RS12-A, JG12
XCP15	AL15, RS15-A
XSTP8	STL8
XCP1012	STL10 STL12



MODEL MTH-8



MODEL MT-8



MODEL P104X

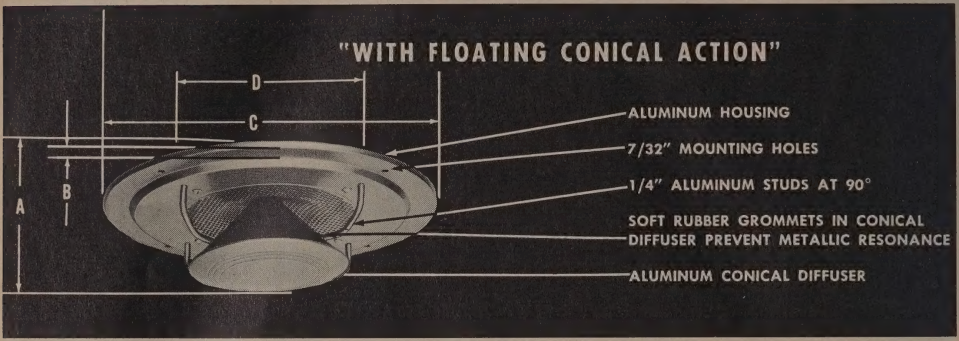
NEW HOTEL/MOTEL SPEAKER GRILLES

Designed for wall mounting, these distinctive grills are ideal for motel and hotel installations. Constructed of 18 gauge steel, they will accommodate 8″ speakers. They will mount easily to Lowell enclosure P104X.

HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

LOWELL AL SERIES

Flush Mounting Low Ceiling Baffles


"WITH FLOATING CONICAL ACTION"
D
C
A
B
ALUMINUM HOUSING
7/32" MOUNTING HOLES
1/4" ALUMINUM STUDS AT 90°
SOFT RUBBER GROMMETS IN CONICAL DIFFUSER PREVENT METALLIC RESONANCE
ALUMINUM CONICAL DIFFUSER

Patented in U.S.A. and Canada

Speaker Baffle Model	Size Speaker Accommodated	Mount to Speaker Enclosure Models	Dimensions A	Dimensions B	Dimensions C	Dimensions D	Baffle Flange	No. of Flange Mtg. Holes	Dia. of Required Hole In Ceiling	Weight (lbs.) Net	Weight (lbs.) Shpg.	No. per Shipping Carton
AL6-A	6"	CP6, XCP6, PR6 PS	2½"	½"	10¾"	5¼"	1"	4	7"	½	¾	12
AL7-A	7"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	5¼"	1"	4	8½"	¾	1	15
AL8-A	8"	CP8, XCP8, PR8 PS	2½"	½"	12⅝"	6⅜"	1"	4	8½"	¾	1	15
AL10-A	10"	CP1012, XCP1012 PR10	3"	½"	16⅞"	8½"	1"	4	13"	1	1½	6
AL12-A	12"	PR12, CP1012, XCP1012	3"	½"	16⅞"	10⅜"	1"	4	13"	1	1½	6
AL15-A	15"	PR15, XCP15 CP15	5"	2"	21¾"	13"	1¾"	8	15½"	3	3½	1
AL812-M	8"	PR12, CP1012 XCP1012	2½"	½"	16⅞"	6¼"	2"	4	8½"	¾	1	6

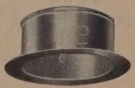
Top quality, heavy gauge satin finished spun aluminum. Assures controlled 360° diffusion of undistorted "ear-level" sound with minimum of echo and feedback. Conical diffuser "floats" on soft rubber grommets forming a press fit to aluminum support studs which thread to speaker housing ring. Clear lacquer coating also serves as prime coat for on-the-job painting. Wide choice of colored lacquer finishes available on request. Shipped complete with hardware for mounting to Lowell Protective Speaker Enclosures illustrated.

360° Coverage Low "Ear-Level" Sound

Even undistorted sound. Recommended baffle placement 25′ from center of axis. Where straight line placement is impossible, triangulating baffle in ceiling is highly effective.

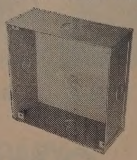
CP SERIES

XCP SERIES



PR SERIES

P875X ENCLOSURE



HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

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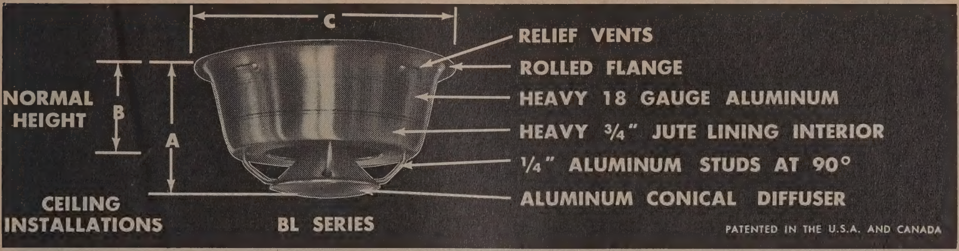
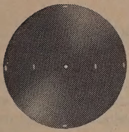
SURFACE MOUNTING CEILING BAFFLES

"WITH FLOATING CONICAL ACTION"



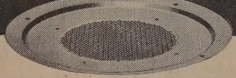
Model No.	Speaker Size	A	B	C	Will Mount To
BL6-A	6"	7¼"	4¼"	12 9/16"	PL6
BL7-A	7"	8⅛"	5"	14¾"	PL7
BL8-A	8"	8⅛"	5"	14¾"	PL8
BL10-A	10"	9¼"	6¾"	18⅝"	PL10
BL12-A	12"	9¼"	6¾"	18⅝"	PL12



PL Series Steel Discs for mounting BL Series to concrete ceilings. Heavy 18 gauge steel. All holes punched for standard electrical outlet boxes.

GENERAL INFORMATION: Designed for surface mounting constructed of heavy gauge aluminum. Accurately engineered for normal ceiling sound reinforcement. Perfect speaker cone loading holds feed-back to minimum. Exclusive "Floating Conical Action" assures controlled 360° sound coverage. High frequency diffuser supported to housing by four ¼" aluminum studs and threaded on one end mounted to housing. Press fit to diffuser through soft rubber grommets prevents metallic resonance. Recommended placement of baffles under normal ceiling heights is 25′ off center of axis in straight line placement. All models finished in brushed satin and coated with colorless lacquer. Acts as excellent base coat or primer for on-the-job painting. All models available in colored lacquers at slightly higher price. Complete information on request.

TYPE RS recessed wall type directional speaker baffles



TYPE RS RECESSED WALL TYPE DIRECTIONAL SPEAKER BAFFLES:

Excellent speaker trim for modern installations. Especially recommended for Dress Shops, Department Stores, Night Clubs. Provides concealment of speaker. Easily installed.

DESCRIPTION: Made of aluminum with ½" mounting flange. Standard finish — satin-aluminum. Improved one-piece construction. Four screws are supplied to mount speaker. Mounts to LOWELL TYPE CP or XCP enclosures where speakers must be protected. The RS7-a, RS8-a, RS10-a and RS12-a are now one-piece construction.

Model No.	Speaker Size	Dimensions	Wall Hole Size
RS4-A	4"	7½" dia. x 7`16" depth	5" dia.
RS5-A	5"	10¾" dia. x 7/16" depth	7" dia.
RS6-A	6"	10¾" dia. x 7/16" depth	7" dia.
*RS7-A	7"	12⅝" dia. x 7/16" depth	8½" dia.
RS812-M	8"	16⅞" dia. x 1/2" depth	8½" dia.
RS8-A	8"	12⅝" dia. x 1/2" depth	8½" dia.
RS8-A (1½" deep)	8"	12⅝" dia. x 1½" depth	8½" dia.
RS10-A	10"	16⅞" dia. x 1/2" depth	12½" dia.
RS12-A	12"	16⅞" dia. x 1/2" depth	12½" dia.
RS15-A	15"	21¾" dia. x 3" depth	17" dia.

* For RCA 7'' Accordian Speaker. Information on colored lacquer furnished on request for both models.

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Lowell MANUFACTURING COMPANY

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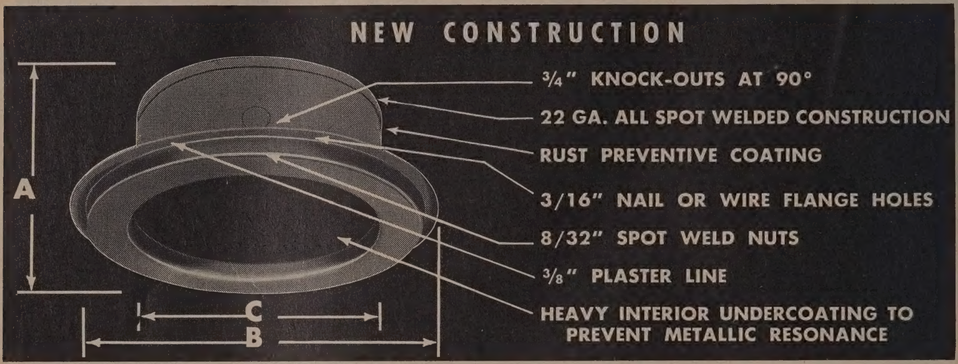
LOWELL CP SERIES

Back Cover Protective Speaker Enclosure


NEW CONSTRUCTION
¾" KNOCK-OUTS AT 90°
22 GA. ALL SPOT WELDED CONSTRUCTION
RUST PREVENTIVE COATING
3/16" NAIL OR WIRE FLANGE HOLES
8/32" SPOT WELD NUTS
⅜" PLASTER LINE
HEAVY INTERIOR UNDERCOATING TO PREVENT METALLIC RESONANCE
A
C
B

Model	A	B	C	Speaker Size Accommodation
CP6	4"	11¼"	7"	6"
CP8	2½"	13⅛"	8½"	8"
CP8	4½"	13⅛"	8½"	8"
CP8	7"	13⅛"	8½"	8"
CP8	10"	13⅛"	8½"	8"
CP8	12"	13⅛"	8½"	8"
CP1012	7"	17⅛"	12½"	10" & 12"
CP15	11"	21½"	14⅝"	15"
STP8	7"	14⅞"	12⅜"	8"
STP1012	10"	18⅞"	14¾"	10" x 12"

USES: Designed for quick, labor-saving wall or ceiling installation of sound systems in NEW CONSTRUCTIONS, ready for plastering.

DESCRIPTION: All-steel, spot-welded construction of heavy 22 ga. metal complete with plaster ring attached. ¾" and ½" knock-outs at 90°. Rust preventive coating on exterior. Very heavy undercoating on interior to prevent metallic resonance. Sufficient speaker back pressure relief assures high speaker efficiency. Excellent for high fidelity installations. Complete with mounting hardware and mounting instructions to meet problems of various types of installation.

Note: Special overall depths (where space in walls and ceilings allow) and additional "loadings" may be ordered at slightly higher price. Available with removable cylinder and stationary front plaster ring in adjustable face models—DCP series.

IMPORTANT: When mounting back enclosures in wall or ceiling for slip fit, cut hole to following size in diameter as per model ordered and nail to lath.

Model CP6—7" dia.
Model CP8—8½" dia.
Model CP1012—12½" dia.
Model CP15—14¾" dia.
Model STP8—12½" dia.
Model STP1012—14½" dia.

FOR SUSPENDED CEILINGS:

Mount CP Series back enclosures to Model SS 24 or 48 Steel Support Channels for positive strength.

FEATURES: Protects speaker cone from fire, falling mortar and dust. Prevents rodents from damaging speaker cone. Easily serviced without damage to wall or ceiling. Reduces installation time.

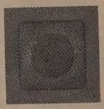
Speaker Baffles That Will Mount to CP Series Protective Speaker Enclosures:

Enclosure Model No.	Speaker Baffle Model No.
CP6	AL6-A, RS5-A, RS6-A
CP8	AL7-A, AL8-A, RS7-A, RS8-A, JG8, M-8, PS8, STL6
CP1012	AL10-A, AL12-A, RS10-A, RS12-A, JG12, RS812-M, AM812-M
CP15	AL15, RS15-A
CTP8	STL8
STP1012	STL10, STL12

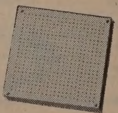
AL SERIES

RS SERIES

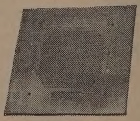
JG SERIES



M SERIES



YM8-A CEILING BAFFLE
(for Acoustic Tile Ceilings)



HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

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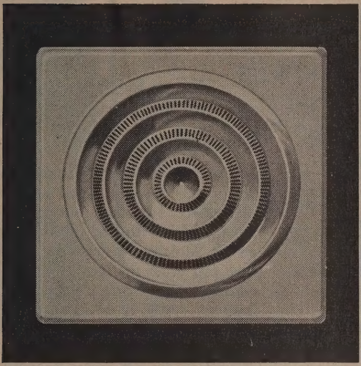
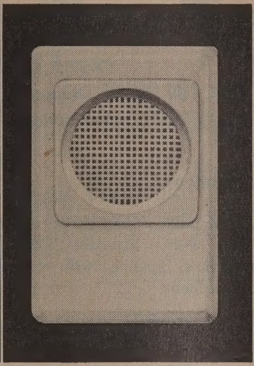
LOWELL 'COLORAMIC' PLASTIC BAFFLES

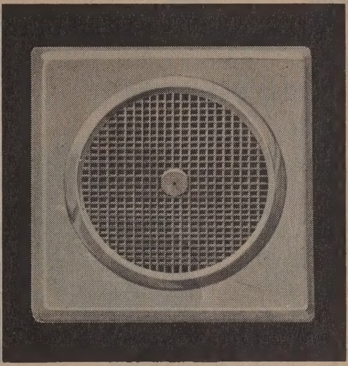
NEW IN-CEILING AND IN-WALL INTER-COM BAFFLES



MODEL ADS80-P



MODEL L35-P



MODEL CR80-P

Acclaimed for New Sound Fashion . . . New Sound Fidelity!

Here is the complete merger of beauty and unique design! Lowell "Coloramic" Baffles are new, lightweight, precision-designed, acoustically-perfect, sound projecting baffles deftly molded of amazingly effective HT-88 High-Impact Styrene*

FOR EFFECTIVE USE *EVERYWHERE!*
HOSPITALS • SCHOOLS • PUBLIC BUILDINGS
HOMES • SHIPS • PLANES

'Coloramic' Baffles by Lowell offer complete ease of installation . . . respond to any good Latex spray or paint treatment . . . fit flush in ceilings or walls. Their practical, pleasant room-filling qualities make them the ultimate for low-level, ear-level sound. Inter-Com applications are equally as distinct!

'COLORAMIC' IN-WALL INTER-COM BAFFLE — MODEL L35-P

Highest grade Styrene will not chip or warp. Sound installers never worry about holes lining up . . . mounting holes are always true! Color runs completely through the material and may be painted with any good Latex paint. Available in rich looking neutral colors of White or Beige. Accommodates a 3½" speaker.

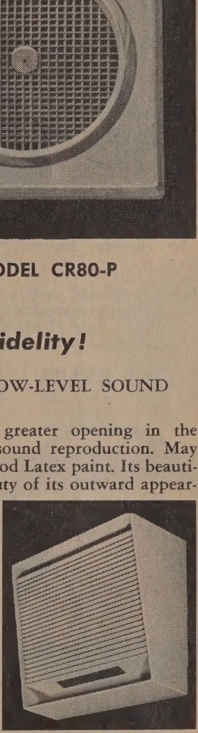
'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL ADS80-P

Ruggedly constructed of High-Impact Styrene material for strength and durability. By means of unique slots located in the circular deflectors in the grille, complete 360° sound dispersion is attained. Thus the best possible sound reproduction is accomplished! This dramatic model gives long, long years of dependable service! White or Beige.

'COLORAMIC' IN-CEILING LOW-LEVEL SOUND BAFFLE — MODEL CR80-P

New and different! The 60% greater opening in the grille affords the best possible sound reproduction. May be sprayed or painted with any good Latex paint. Its beautiful sound qualities equal the beauty of its outward appearance. White or Beige.

'COLORAMIC' ON-WALL BASS REFLEX BAFFLE— MODEL EHF 80-P
Unique speaker-mounting facilities accommodate a 6", 7" or 8" speaker. Special bracket included permits mounting baffle directly to single or two-gang electrical outlets. Made of HT-88 High Impact Styrene.



*Research & Development by Monsanto Chemical Co., Inc.

SPECIFICATIONS

MODEL ADS80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.

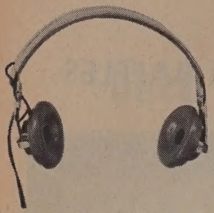
MODEL L35-P—
Inter-Com Baffle
DIMENSIONS: 7" x 4½"
WEIGHT: 1¾ oz.
COLOR: White or Beige
Mounts to durable speaker box. Model P22X.

MODEL CR80-P—
Ceiling Baffle
DIMENSIONS: 10" x 10"
WEIGHT: 5½ oz.
COLOR: White or Beige
Mounts to P875X Speaker Box.

MODEL EHF80-P—
Wall Baffle
DIMENSIONS: 13" w. x 11½" h. x 6¼" d.
COLOR: Beige

HEARD EVERYWHERE
Lowell MANUFACTURING COMPANY

MURDOCK HEADPHONES



P-23 Aviation Headphone

C.A.A.T.C. 1200

Specifications:

Receivers: "Solid-Built" type. Best quality Alnico magnets. Moulded bakelite coil forms impregnated to resist moisture. Moulded bakelite case and cap. Standard impedance 600 ohms. Lightweight sponge rubber cushions.

Headband: All metal parts stainless steel and passivated to prevent corrosion. Headband and earphones are easily adjusted by cleverly designed guide and plate.

Cord: Phones connected within band, making a single cord to instrument panel. Standard set has 5 foot plastic-covered tinsel cord with phone plug attached.

LIST $12.00

No. 131 "CW" *Designed for Code Communication*

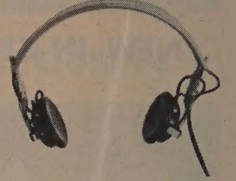
Specifications:

Receivers: Same "Solid-Built" construction as P-23. Standard impedance 10,000 ohms. Equipped with wafer-thin rubber cushions.

Headband: Double stainless steel bands with plastic covering. Stainless steel guides and yokes permit adjustment on vertical and horizontal planes.

Cord: Six foot Y type plastic-covered tinsel cord with phone plug attached.

LIST $12.00



Type P-50 Headset

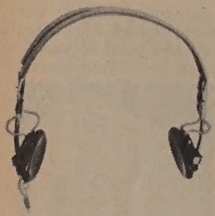
Specifications:

Receiver: Type C-57. Flat response from 300 to 4,000 cycles. Total deviation less than 8DB. Minimum output 105DB at 1,000 cycles with one milliwatt constant power. Moisture and tamper proof. Concave cap to fit the ear eliminates use of cushions. Units meet the following specifications: MIL-E 17884-A and Radio Commission for Aeronatres Paper 257-58/DO-90. Approved for use on all Civil Aircraft of United States Registry T.S.O. C-57.

Headband: Type HB-75B.

Comments: Cushions are optional.

LIST $17.00



Type 171 Headset Language Lab

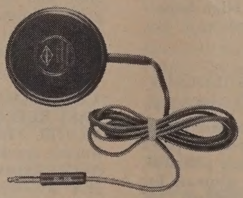
Specifications:

Receiver: Type M67 — extremely lightweight, approximately 1 ounce, wide response, moisture and tamper proof—ideal for language lab use.

Headband: HB-75.

Cord: Unique new design—designed for rough handling yet can be replaced in minutes—molded plugs and strain relief.

LIST $20.00



Magnetic Underpillow Speaker

Specifications:

Speaker: Rugged, durable bakelite case in walnut or gray finish. 3½" diameter. Alnico V magnet.

Cord: Six foot plastic extension cord and phone plug. Mounting jack supplied with switch in jack. Available in impedances from 5 ohms to 10,000 ohms or higher.

LIST $10.95

Type 181 Headset Language Lab

Specifications:

Receiver: Type M67—see headset #171.

Headband: Stainless steel band covered with vinyl plastic. Guides and yokes are brass nickel plated.

Cord: Same new design as on headset #171 off-the-shoulder type for ease in writing. All molded design with easy replacement feature.

LIST $18.00

HEADSET impedances are available up to 17,000 ohms. Cotton-covered or other special cords and special terminals are available to meet individual requirements.

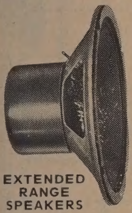
Write today for complete information and FREE CATALOG.

Military Headphones and Accessories

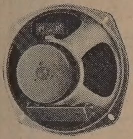
Headset HS-33-A   Headset NT 49985A   Headset H-32/U
Headset HS-16-A Cushion MC-162   Cushion MC-162-A
Headband HB-7   Headband NT 49028   Receiver ANB-H-1
Receiver NT 49016-A

THE MURDOCK CORPORATION
Chelsea, Mass.

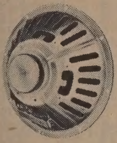
FULL RANGE SPEAKERS



EXTENDED RANGE SPEAKERS



PUBLIC ADDRESS CERAMIC SPEAKERS



STANDARD REPLACEMENT SPEAKERS

Size	Model No.	Mag. Wt.	V.C. Size	V.C. Imp.	Watts
2" Square	2AMS	.68 oz.	9/16"	3.2 ohm	1-2
2½" x 10" Rect.	2510CMS	1.47	9/16"	3.2	2-4
2¾" Round	27ATS	.68	9/16"	12	.25
3" Square	3CMS	1.47	9/16"	3.2	2-3
4" Square	4AMS	.68	9/16"	3.2	2-3
5" Round	5ECS	2.15	9/16"	3.2	2-4
5¼" Pin. Cush.	52BMS	1.00	9/16"	3.2	2-4
5¼" Square	55CMS	1.47	9/16"	3.2	2-4
6" Pin Cush.	6BMS	1.00	9/16"	3.2	3-5
7" Pin Cush.	7CVS	1.47	¾"	3.2	4-6
8" Round	8FOS	3.16	¾"	3.2	4-6
10" Round	10HBS	4.64	1"	3.2	8-10
12" Round	12EVS	2.15	¾"	3.2	4-6
15" Round	15JBS	6.80	1"	3.2	15

ELLIPTICAL SPEAKERS

We have a complete range including 2" x 6", 3" x 5", 4" x 6", 4" x 8", 2" x 10", 5" x 7", 6" x 9"—in various magnet weights and voice coil sizes—or, can custom design an elliptical speaker for special needs.

COMPRESSION HORN TWEETER

Size	Model No.	Mag. Wt.	V.C. Size	V.C. Imp.	Watts
2" x 6" Rect.	CH26E16	2.15 oz.	1"	16	20

VOICE COIL IMPEDANCES

Oxford's various size and type speakers are available with the following voice coil impedances: 3.2, 8, 12, 16 and 45 ohms.

MAGNET WEIGHT SELECTION

.45 oz. to 20 oz. Alnico V.

TRANSFORMERS

A complete line of audio output transformers is available from stock. Special transformers can be designed to your special requirements.

when you think of speakers..
think of

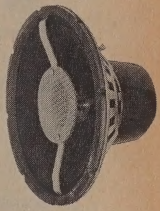
OXFORD

the world's most complete line of Standard Speakers for all applications

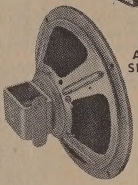
Write for literature illustrating and listing our complete line—also available catalog, dimensional data booklet, performance specifications and engineering brochure.

We invite inquiries on your special units currently in use; send us a sample of your present unit or specifications.

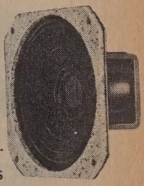
DUAL CONE HI-FI SPEAKERS



COAXIAL SPEAKERS



PUBLIC ADDRESS SPEAKERS



WEATHER-PROOFED SPEAKERS

EXTENDED RANGE SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts	Frequency Range C.P.S.
8" Round	HF8JB	6.8	1"	8	10	50-12,000
10" Round	HF10JB	6.8	1"	8	10	50-10,000
12" Round	HF12JB	6.8	1"	8	10	50-10,000
12" Round	HF12LN	14	1½"	8	25	40- 9,000
15" Round	HF15LN	14	1½"	8	25	30- 7,000

FULL RANGE SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	Ohms	Watts
3" Round	T3C208*	1.47	9/16"	8	3-5
5" Round	T5C208*	1.47	9/16"	8	3-5
8" Round	F8J408	6.80	1"	8	15
12" Round	F12J408	6.80	1"	8	15
12" Round	F12L608	14.70	1½"	8	25

*Tweeters

INTERCOM SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
3" Square	3BM-S45	1.00	9/16"	45	2-3
4" Square	4BM-S45	1.00	9/16"	45	2-3
5" Round	5BM-S45	1.00	9/16"	45	2-4
8" Round	8EV-S45	2.15	¾"	45	4-6

WEATHERPROOF SPEAKERS

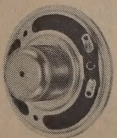
Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
3" Square	3CMWS	1.47	9/16"	3.2	2-3
4" Square	4AM-65	.68	9/16"	3.2	2-3
4" Square	4CM-27	1.47	9/16"	3.2	2-3
5" Round	5BA-3	.68	9/16"	3.2	2-4
5" Round	5CM-51	1.47	9/16"	3.2	2-4
6" Pin Cushion	6CMWS	1.47	9/16"	3.2	3-5

PUBLIC ADDRESS SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
8" Round	8JBS-7	6.80	1"	6-8	6-8
10" Round	10JBS-7	6.80	1"	6-8	8-10
12" Round	12JBS-7	6.80	1"	6-8	8-10

CERAMIC SPEAKERS

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
6" P.C.	6F3S7	4 oz.	¾"	8	6-8
8" P.C.	8F3S7	4 oz.	¾"	8	6-8
8" P.C.	8J4S7	10 oz.	1"	8	8-12
12" Rd.	12J4S7	10 oz.	1"	8	8-12



2" MINIATURE TRANSISTOR SPEAKER

Size	Model No.	Mag. Wt. Oz.	V.C. Size	V.C. Imp. Ohms	Watts
2" Rd.	2P42-S12	½ Oz.	½"	12	.15

OXFORD Components,

Division of OXFORD ELECTRIC CORPORATION

Chicago, Illinois

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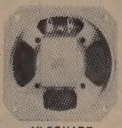
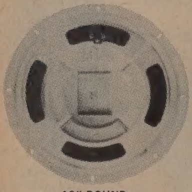
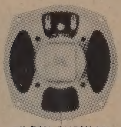
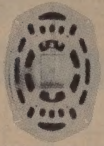
OAKTRON REPLACEMENT SPEAKERS

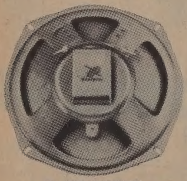
- ALUMINUM VOICE COILS
- ALNICO V MAGNETS
- SPECIALLY TREATED-BLUE CONES
- ATTRACTIVE BLUE LUMINESCENT BAKED ENAMEL FINISH ALL ON STEEL PARTS

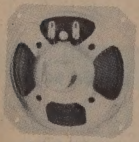

4″ SQUARE


12″ ROUND


5″ PIN CUSHION


STANDARD 6″ x 9″


8″ PIN CUSHION


4″ CUP HOUSING

See 6″ x 9″ Weatherproof Speakers Listed Under Weatherproof Section on next page.

NOTE — Transformer Mounting Boss on all 4″, 5″ Round, 8″ and 12″ Speakers.

EIA WARRANTY APPLIES TO ALL OAKTRON SPEAKERS.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL		Power in Watts	Sugg. Dealer Price
			Dia. Inches	Impedance (Ohms)		
2¼″ Round	23A8	.53 cup	⁹⁄₁₆	8	1	$2.88
2¾″ Round	28A8	.53 cup	⁹⁄₁₆	8	2	2.62
3″ Square	3A3	.53 cup	⁹⁄₁₆	3.2	2	2.16
3″ Square	3B3	.68	⁹⁄₁₆	3.2	2	2.28
3″ Square	3C3	1.00	⁹⁄₁₆	3.2	3	2.45
3½″ Square	35A3	.53 cup	⁹⁄₁₆	3.2	2	2.16
3½″ Square	35B3	.68	⁹⁄₁₆	3.2	2	2.28
3½″ Square	35C3	1.00	⁹⁄₁₆	3.2	3	2.45
4″ Square	4AA3	.46 cup	⁹⁄₁₆	3.2	2	1.98
4″ Square	4A3	.53 cup	⁹⁄₁₆	3.2	2	2.13
4″ Square	4B3	.68	⁹⁄₁₆	3.2	2	2.31
4″ Square	4C3	1.00	⁹⁄₁₆	3.2	3	2.43
4″ Square	4D3	1.47	⁹⁄₁₆	3.2	3	2.79
4″ Square	4E3	2.15	⁹⁄₁₆	3.2	4	3.15
5″ Pin Cushion	5A3	.53 cup	⁹⁄₁₆	3.2	2	2.19
5″ Pin Cushion	5B3	.68	⁹⁄₁₆	3.2	2	2.34
5″ Pin Cushion	5C3	1.00	⁹⁄₁₆	3.2	3	2.52
5″ Pin Cushion	5D3	1.47	⁹⁄₁₆	3.2	3	2.88
5″ Pin Cushion	5E3	2.15	⁹⁄₁₆	3.2	4	3.18
5″ Round	R5A3	.53 cup	⁹⁄₁₆	3.2	2	2.19
5″ Round	R5B3	.68	⁹⁄₁₆	3.2	2	2.34
5″ Round	R5C3	1.00	⁹⁄₁₆	3.2	3	2.52
5″ Round	R5D3	1.47	⁹⁄₁₆	3.2	3	2.88
5″ Round	R5E3	2.15	⁹⁄₁₆	3.2	4	3.18
5¼″ Pin Cushion	53B3	.68	⁹⁄₁₆	3.2	2	2.46
5¼″ Pin Cushion	53C3	1.00	⁹⁄₁₆	3.2	3	2.64
5¼″ Pin Cushion	53D3	1.47	⁹⁄₁₆	3.2	4	3.03
6″ Pin Cushion	6B3	.68	⁹⁄₁₆	3.2	3	2.70
6″ Pin Cushion	6C3	1.00	⁹⁄₁₆	3.2	4	2.82
6″ Pin Cushion	6C3C	1.00 cup	¾	3.2	4	2.82
6″ Pin Cushion	6D3	1.47	⁹⁄₁₆	3.2	5	3.21
6″ Pin Cushion	6E3	2.15	⁹⁄₁₆	3.2	6	3.63
6″ Pin Cushion	6E3C	2.18 cup	1	3.2	7	3.63
8″ Pin Cushion	8C3	1.00	⁹⁄₁₆	3.2	4	3.75
8″ Pin Cushion	8C3C	1.00 cup	¾	3.2	4	3.75
8″ Pin Cushion	8D3	1.47	⁹⁄₁₆	3.2	5	4.15
8″ Pin Cushion	8E3	2.15	¾	3.2	6	4.74
8″ Pin Cushion	8E3C	2.18 cup	1	3.2	6	4.74
8″ Pin Cushion	8F3	3.16	¾	3.2	8	5.28
8″ Pin Cushion	8G3	4.64	1	3.2	10	6.90
8″ Pin Cushion	8H3	6.80	1	3.2	12	7.50
8″ Pin Cushion	8C8C	1.00 cup	¾	8	4	3.75
8″ Pin Cushion	8D8	1.47	⁹⁄₁₆	8	5	4.15
8″ Pin Cushion	8E8	2.15	¾	8	6	4.74
8″ Pin Cushion	8E8C	2.18 cup	1	8	6	4.74
8″ Round Flat	8E8CF	2.18 cup	1	8	6	4.74
8″ Pin Cushion	8F8	3.16	¾	8	8	5.28
8″ Pin Cushion	8G8	4.64	1	8	10	6.90
8″ Pin Cushion	8H8	6.80	1	8	12	7.50
10″ Round	10D3	1.47	¾	3.2	5	5.79
10″ Round	10F3	3.16	¾	3.2	8	6.69
10″ Round	10H3	6.80	1	3.2	12	9.42
10″ Round	10F8	3.16	¾	8	8	6.69
10″ Round	10H8	6.80	1	8	12	9.42
12″ Round	12D3	1.47	¾	3.2	5	6.65
12″ Round	12E3	2.15	¾	3.2	6	7.02
12″ Round	12E3C	2.18 cup	1	3.2	7	7.02
12″ Round	12F3	3.16	¾	3.2	8	7.62
12″ Round	12G3	4.64	1	3.2	10	9.30
12″ Round	12H3	6.80	1	3.2	12	10.31
12″ Round	12D8	1.47	¾	8	5	6.65
12″ Round	12E8	2.15	¾	8	6	7.02
12″ Round	12E8C	2.18 cup	1	8	7	7.02
12″ Round	12F8	3.16	¾	8	8	7.62
12″ Round	12F8X	3.16	1	8	10	8.10
12″ Round	12G8	4.64	1	8	10	9.30
12″ Round	12H8	6.80	1	8	12	10.31
15″ Round	15H8	6.80	1	8	14	14.58
3″ x 5″	135A3	.53 cup	⁹⁄₁₆	3.2	2	2.34
3″ x 5″	135C3	1.00	⁹⁄₁₆	3.2	3	2.64
3″ x 5″	135D3	1.47	⁹⁄₁₆	3.2	4	3.03
2½″ x 10″	210C3	1.00	⁹⁄₁₆	3.2	4	4.49
2½″ x 10″	210D3	1.47	⁹⁄₁₆	3.2	5	4.91
2½″ x 10″	210E3	2.15	⁹⁄₁₆	3.2	6	5.28
4″ x 6″	46A3	.53 cup	⁹⁄₁₆	3.2	2	2.46
4″ x 6″	46B3	.68	⁹⁄₁₆	3.2	3	2.67
4″ x 6″	46C3	1.00	⁹⁄₁₆	3.2	4	2.85
4″ x 6″	46D3	1.47	⁹⁄₁₆	3.2	5	3.18
4″ x 10″	410E3C	2.18 cup	1	3.2	6	4.61
5″ x 7″	57A3	.53 cup	⁹⁄₁₆	3.2	2	2.70
5″ x 7″	57B3	.68	⁹⁄₁₆	3.2	3	3.15
5″ x 7″	57C3	1.00	⁹⁄₁₆	3.2	4	3.30
5″ x 7″	57C3C	1.00 cup	¾	3.2	5	3.30
5″ x 7″ Flat	57C3CF	1.00 cup	¾	3.2	5	3.30
5″ x 7″	57D3	1.47	⁹⁄₁₆	3.2	5	3.66
5″ x 7″	57E3	2.15	⁹⁄₁₆	3.2	6	4.05
5″ x 7″	57E3C	2.18 cup	1	3.2	7	4.05
5″ x 7″	57F3X	3.16	1	3.2	8	5.18
5″ x 7″	57C8C	1.00 cup	¾	8	5	3.30
6″ x 9″	69A3	.53 cup	⁹⁄₁₆	3.2	2	3.15
6″ x 9″	69B3	.68	⁹⁄₁₆	3.2	3	3.54
6″ x 9″	69C3	1.00	⁹⁄₁₆	3.2	4	3.69
6″ x 9″	69C3C	1.00 cup	¾	3.2	5	3.69
6″ x 9″	69D3	1.47	⁹⁄₁₆	3.2	5	4.09
6″ x 9″	69E3	2.15	¾	3.2	6	4.61
6″ x 9″	69E3C	2.18 cup	1	3.2	7	4.61
6″ x 9″ Flat	69E3CF	2.18 cup	1	3.2	7	4.61
6″ x 9″	69F3	3.16	¾	3.2	7	5.16
6″ x 9″	69H3	6.80	1	3.2	10	7.68
6″ x 9″	69E8C	2.18 cup	1	8	7	4.61
6″ x 9″ Flat	69E20CF	2.18 cup	1	20	7	4.85
6″ x 9″ Flat	69E40CF	2.18 cup	1	40	7	4.85

Net

© U.C.P., Inc.

PUBLIC ADDRESS SPEAKERS

8 OHM VOICE COIL - BLUE CONES - ALNICO V MAGNETS
SPECIALLY TREATED ALUMINUM VOICE COILS
BLUE LUMINESCENT BAKED ENAMEL FINISH

12" ROUND TWIN CONE

6" x 9" TWIN CONE

4" WEATHER-PROOF

TWIN CONE SPEAKERS

Twin Cones can be supplied on any standard speaker at slight additional cost.

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Sugg. Dealer Price
8" Pin Cushion	8D8W	1.47	9/16	8	5	$4.56
8" Pin Cushion	8E8W	2.15	3/4	8	6	5.13
8" Pin Cushion	8E8WC	2.18 cup	1	8	6	5.13
8" Pin Cushion	8F8W	3.15	3/4	8	8	5.66
8" Pin Cushion	8H8W	6.80	1	8	12	7.80
12" Round	12F8WX	3.16	1	8	10	8.69
12" Round	12H8W	6.80	1	8	12	10.89
5" x 7"	57D8W	1.47	9/16	8	5	4.02
5" x 7"	57E8W	2.15	9/16	8	6	4.44
6" x 9"	69D8W	1.47	9/16	8	5	4.44
6" x 9"	69E8W	2.15	3/4	8	6	4.95
6" x 9"	69E8WC	2.18 cup	1	8	6	4.95
6" x 9"	69F8W	3.16	3/4	8	7	5.51

WEATHERPROOF SPEAKERS

SPECIALLY IMPREGNATED CONES, GASKETS AND DUST CAPS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Sugg. Dealer Price
3½" Square	35D8M	1.47	9/16	8	3	$3.18
4" Square	4A8M	.53 cup	9/16	8	2	2.52
4" Square	4D8M	1.47	9/16	8	3	3.18
5" Round	R5D8M	1.47	9/16	8	3	3.21
6" Pin Cushion	6D8M	1.47	9/16	8	4	3.93
8" Pin Cushion	8F8M	4.16	3/4	8	6	5.52
6" x 9"	69C3CM	1.00 cup	3/4	3.2	4	3.91
6" x 9"	69E3CM	2.18 cup	1	3.2	6	4.85
6" x 9" Flat	69E3CFM	2.18 cup	1	3.2	6	4.85

INTERCOM SPEAKERS

Size and Shape	Part No.	Magnet Weight Ounces	VOICE COIL Dia. Inches	VOICE COIL Impedance (Ohms)	Power in Watts	Sugg. Dealer Price
3½" Square	35A45	.53 cup	9/16	45	2	$2.40
4" Square	4A45	.53 cup	9/16	45	2	2.40
4" Square	4C45	1.00	9/16	45	3	2.64
4" Square	4D45	1.47	9/16	45	3	3.03
5" Pin Cushion	5C45	1.00	9/16	45	3	2.76
5" Pin Cushion	5D45	1.47	9/16	45	3	3.09
8" Pin Cushion	8F45	3.16	3/4	45	8	5.52

NOTE—Transformer Mounting Boss on all 4", 5" Round, 8" and 12" Speakers

HIGH FIDELITY SPEAKERS

6" x 9" COAX

12" COAX

8" FREE EDGE

COAXIAL SPEAKERS

All Coaxial type speakers are attractively finished with a glossy Royal Blue luminescent enamel. This is matched with Blue cones in both the Woofer and the Tweeter. The crossover network is housed in the dust cover on the rear of the speaker. Both speakers in the Coaxial unit use our specially processed Aluminum voice coils in Alnico V Magnets. Tweeters are solid basket compression type.

Size In Inches	Impedance	Part Number	Magnet Weight	V.C. Dia.	Power Watts	Dealer Price
8	8 Ohms	CA-8	8" Woofer 3.16 oz. 3" Tweeter .53 oz.	3/4" 9/16"	8	$ 7.70
8	8 Ohms	CA8-HD	8" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	12	9.10
12	8 Ohms	CA-12	12" Woofer 6.80 oz. 3" Tweeter 1.00 oz.	1" 9/16"	12	11.70
15	8 Ohms	CA-15	15" Woofer 6.80 oz. 5" Tweeter 1.00 oz.	1" 9/16"	14	15.60
6 x 9	8 Ohms	CA-69	6"x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	3/4" 9/16"	6	6.54
6 x 9	3.2 Ohms	CA-69-3	6"x9" Woofer 2.15 oz. 3" Tweeter .53 oz.	3/4" 9/16"	6	6.54
6 x 9	8 Ohms	CA-69-HD	6"x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	9.10
6 x 9	3.2 Ohms	CA-69-3-HD	6"x9" Woofer 6.80 oz. 3" Tweeter .53 oz.	1" 9/16"	10	9.10

FREE EDGE CONE SUSPENSION

SAME GENERAL APPEARANCE AS COAXIAL SPEAKERS

Size in Inches	Impedance	Part Number	Magnet Weight	V.C. Dia.	Power Watts	Dealer Price
6 x 9	8 Ohms	FE-69C	2.18 oz.	1"	8	$6.85
8	8 Ohms	FE-8	6.80 oz.	1"	12	7.95
8	8 Ohms	FE-8W Twin Cone	6.80 oz.	1"	12	8.40

SYSTEMS

MATCHED TRIO FOR MULTI-SPEAKER APPLICATION

Size In Inches	Impedance	Part Number	Magnet Weight	V.C. Dia.	Power Watts	Dealer Price
12 6 x 9 4 x 6 Harness with Crossover	8 Ohms	ST-124	12" Woofer 6.80 oz. 6" x 9" Mid Range 3.16 oz. 4" x 6" Tweeter 1.47 oz.	1" 3/4" 9/16"	12	$15.90

MID-RANGE SPEAKERS

ENCLOSED BASKET AND CURVILINEAR CONE DESIGNED FOR MID-RANGE FREQUENCIES 8 OHM VOICE COIL

Size and Shape	Part Number	Magnet Weight	V.C. Dia.	Power Watts	Sugg. Price
6" x 9"	69F8MR	3.16 oz.	1"	7	$5.28

TWEETER SPEAKERS

These speakers are true compression type, using totally enclosed baskets and molded curvilinear cones for maximum high frequency radiation, 8 ohm aluminum voice coils and alnico V magnets — Blue luminescent enamel finish.

Size and Shape	Part Number	Magnet Weight	V.C. Dia.	Response	Power Watts	Dealer Price
3" Square	3C8T	1.00 oz.	9/16"	3000-15,000	4	$2.61
3½" Square	35D8T	1.47 oz.	9/16"	3000-15,000	5	3.00
4" Square	4D8T	1.47 oz.	9/16"	3000-15,000	5	3.00
5" Round	5D8T	1.47 oz.	9/16"	2000-15,000	5	3.09
4" x 6"	46D8T	1.47 oz.	9/16"	1500-15,000	6	3.24

OAKTRON INDUSTRIES, INC., MONROE, WISCONSIN

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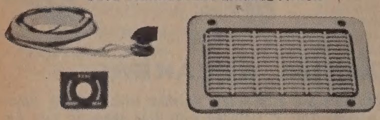
REAR SEAT SPEAKER KITS

AND ACCESSORIES

ALL KITS INDIVIDUALLY BOXED
ALNICO V MAGNETS
ALUMINUM VOICE COILS
BLUE LUMINESCENT ENAMEL FINISH



6" x 9" CUP

TWIN CONE

Model	Speaker	Grille	Control	Magnet Size	Sugg. Dealer Price
RK57	5 x 7	Gray	3 Pos. Switch	1.0 oz. cup	$4.75
RK57C	5 x 7	Chrome	3 Pos. Switch	1.0 oz. cup	5.06
RK57F	5 x 7	Gray	Fader	1.0 oz. cup	5.06
RK57CF	5 x 7	Chrome	Fader	1.0 oz. cup	5.37
AK69	6 x 9	Gray	3 Pos. Switch	.53 oz. cup	4.76
AK69C	6 x 9	Chrome	3 Pos. Switch	.53 oz. cup	5.06
AK69F	6 x 9	Gray	Fader	.53 oz. cup	5.06
AK69CF	6 x 9	Chrome	Fader	.53 oz. cup	5.37
RK69	6 x 9	Gray	3 Pos. Switch	1.0 oz. cup	5.40
RK69C	6 x 9	Chrome	3 Pos. Switch	1.0 oz. cup	5.60
RK69F	6 x 9	Gray	Fader	1.0 oz. cup	5.60
RK69CF	6 x 9	Chrome	Fader	1.0 oz. cup	5.90
WK69	6 x 9 Twin Cone	Gray	3 Pos. Switch	2.18 oz. cup	6.12
WK69C	6 x 9 Twin Cone	Chrome	3 Pos. Switch	2.18 oz. cup	6.39
WK69F	6 x 9 Twin Cone	Gray	Fader	2.18 oz. cup	6.39
WK69CF	6 x 9 Twin Cone	Chrome	Fader	2.18 oz. cup	6.65

ACCESSORIES	List Prices
Fader Control with Presoldered wire and hardware	$2.55
Switch Control with Presoldered wire and hardware	2.10
Chrome Grill with hardware	2.25
Grey Grill with hardware	1.80

NOTE—Kits can be supplied with other Oaktron speakers. Please request quotation from factory.

LINE TRANSFORMERS

CONSTANT VOLTAGE: UNIVERSAL IMPEDANCE—MATCHING TYPES—Individually Boxed

CONSTANT VOLTAGE LINE TRANSFORMERS for matching speakers to 70.7V or 25V constant voltage line. This method greatly simplifies matching several speakers to an amplifier, especially when the speakers must produce different amounts of power. The most complicated matching problem can be solved by adding the power required by all speakers and comparing to the rated power of the amplifier. These transformers are of the highest quality of response and efficient use of power.

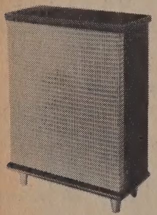
Part Number	Primary Impedance/ Power	Secondary Impedance (Ohms)	Nominal Watts	Core Size	DIMENSIONS Height	Width	Depth	Mtg. Ctrs.	Shpg. Wt., Lbs.	Sugg. Dealer Price
70.7 CONSTANT VOLTAGE LINE										
T-71	2/1/.5	8/4	....	3/8x3/8	1¼	1½	1¼	1¾	½	$1.92
T-72	5/2.5/1.25 .62/.31	8/4	....	½x5/8	1⅜	1¾	1⅜	2	¾	2.46
25 VOLT CONSTANT VOLTAGE LINE										
T-25	2/1/.5	8/4	....	3/8x3/8	1¼	1½	1¼	1¾	½	1.92
T-26	5/2.5/1.25 .62/.31	8/4		½x5/8	1⅜	1¾	1⅜	2	¾	2.46
UNIVERSAL IMPEDANCE										
T-501	500/1000 1500/2000	8/4	4	½x½	1 5/16	1 11/16	1¼	2	½	1.92
T-502	500/1000 1500/2000	8/4	8	5/8x5/8	1⅝	1 15/16	1⅜	2⅜	¾	2.46

Transformers Can Be Mounted at Factory—Add 10c Per Unit.

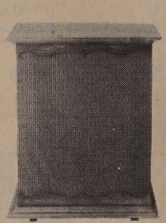
TRANSFORMER MOUNTING BRACKET

Number	Transformer Size	Punching	Dealer Price
#1	⅜" x ⅜"	2 holes	$ .14
#2	⅜" x ⅜" and ½" x ½"	3 holes	.19
#3	½" x ½" and ⅝" x ⅝"	3 holes	.24

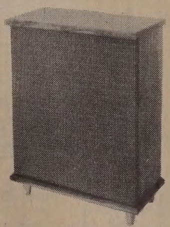
ENCLOSURES AND SPEAKER ENCLOSURE COMBINATIONS



EBONY



EARLY AMERICAN



WALNUT, MAHOGANY

These cabinets are made in two pieces, the cabinet itself, and the easily removable front panel. This construction, while essential for proper performance, allows for easy removal or installation of the speaker, as well as the changing of the grille cloth to fit the decor. The specially designed sound curtain will not deteriorate with use as many other materials will. Also this curtain retains its proper position and configuration even after excessive handling, for it is held in place by the mounting bolts and the struts on the back of the cabinet. These enclosures are specifically designed for optimum reproduction with the Oaktron coaxial speakers Models CA8-HD and CA-12.

ALL ¾" CONSTRUCTION **TAPERED 2" LEGS**

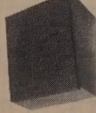
Model	Finish	Size	Sugg. Dealer Price
8" OAKTRON ENCLOSURE WITH CA-8-HD INSTALLED			
SM8-E	Ebony	14" x 18" x 6½" plus 2" Legs	$36.95
SM8-W	Walnut	14" x 18" x 6¼" plus 2" Legs	36.95
SM8-M	Mahogany	14" x 18" x 6¼" plus 2" Legs	36.95
SM8-EA	Early American	14" x 18" x 6¼" plus 2" Legs	39.95
8" OAKTRON ENCLOSURE LESS SPEAKER			
M8-E	Ebony	14" x 18" x 6½" plus 2" Legs	$27.95
M8-W	Walnut	14" x 18" x 6¼" plus 2" Legs	27.95
M8-M	Mahogany	14" x 18" x 6¼" plus 2" Legs	27.95
M8-EA	Early American	14" x 18" x 6¼" plus 2" Legs	29.95
12" OAKTRON ENCLOSURE WITH CA-12 INSTALLED			
SM12-E	Ebony	16" x 20" x 8" plus 2" Legs	$43.95
SM12-W	Walnut	16" x 20" x 8" plus 2" Legs	43.95
SM12-M	Mahogany	16" x 20" x 8" plus 2" Legs	43.95
SM12-EA	Early American	16" x 20" x 8" plus 2" Legs	46.95
12" OAKTRON ENCLOSURE LESS SPEAKER			
M12-E	Ebony	16" x 20" x 8" plus 2" Legs	$32.95
M12-W	Walnut	16" x 20" x 8" plus 2" Legs	32.95
M12-M	Mahogany	16" x 20" x 8" plus 2" Legs	32.95
M12-EA	Early American	16" x 20" x 8" plus 2" Legs	35.95

QUALITY WALL BAFFLES

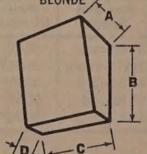
Oaktron's Furniture Finish wall baffles are of the most rigid construction utilizing one-half inch cabinet quality hardwood and have a beautiful, true satin lustre appearance. Truly a masterful combination of the qualities necessary to insure maximum performance, utmost in appearance and the best in value.

BIRCH WHITE

BLONDE



WALNUT



SOMETHING NEW IN BAFFLES. This entirely new approach combines unique design with optimum sound quality. These baffles are engineered to possess extreme strength under all conditions of humidity or dryness. The sides, top and bottom are formed of one piece of tempered presdwood, riveted together at the top to a steel plate, which also acts as a wall hanger. The front baffle board is secured to the sides by riveted steel angle brackets. This highly rigid construction eliminates all vibration.

OUTLINE DIMENSIONS and LIST PRICES

Sp'ker Size	Model	Finish	A	B	C	D	Material	Std. Pack	Sugg. Dealer Price
8	WB8-BW	Brushed Aluminum	6¼"	10⅜"	9½"	3½"	Tempered Presdwood	8	$3.10
8	WB8-B	Blonde	6¼"	10⅜"	9½"	3½"	Cabinet Hardwood	8	4.45
8	WB8-W	Walnut	6¼"	10⅜"	9½"	3½"	Cabinet Hardwood	8	4.45
12	WB12-BW	Birch White	9⅛"	14⅛"	13¾"	5⅜"	Tempered Presdwood	4	4.45
12	WB12-B	Blonde	9⅛"	14⅛"	13¾"	5⅜"	Cabinet Hardwood	4	5.80
12	WB12-W	Walnut	9⅛"	14⅛"	13¾"	5⅜"	Cabinet Hardwood	4	5.80

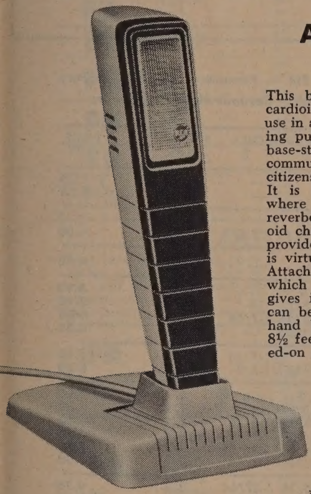
OAKTRON INDUSTRIES, INC.

RCA SOUND PRODUCTS

The RCA ATTACHE SERIES—General Purpose Microphones

With the versatile Attache Series, RCA makes available three inexpensive general-purpose microphones designed for use in a wide variety of commercial, industrial, and home applications where rugged mechanical construction coupled with excellent fidelity are essential.

Whether your requirements call for a good public-address microphone for use in a church, school, or auditorium, or for a call and paging system, dictating machine, amateur or citizens' band radio, general communications service for mobile or base-station operation, or for a home recorder . . . there's a performance-proved RCA microphone designed to meet your needs.



ATTACHE 608

Type 17658

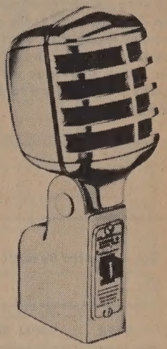
This beautifully styled ceramic-type cardioid microphone is designed for use in a variety of applications including public address, call and paging, base-station operation of a mobile-communications network, high-level citizens' band radio or amateur radio. It is especially useful in locations where high-level random noise and reverberation are present. The cardioid characteristic of the Attache 608 provides wide-angle front pickup, but is virtually dead from the rear. The Attache 608 has a slim, trim shape which makes it easy to handle and gives it an attractive appearance. It can be used with the desk stand or hand held. It comes complete with 8½ feet of shielded cable with molded-on phono plug and adapter.

$26.50*

*Optional List Price

ATTACHE 508

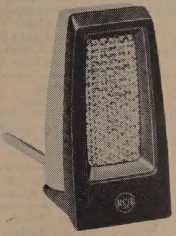
Type 17659



The Attache 508 is an attractive, traditionally styled pressure-type dynamic microphone which combines compact, sturdy, construction with high-level output. With a frequency response of 50 to 8,000 cps. it is excellent for reproduction of both music and speech and is designed especially for public address use in hotels, theaters, auditoriums, schools and churches, as well as general communications work.

The Attache 508 features a non-metallic corrosion-resistant diaphragm capable of withstanding high humidity, extreme temperatures, and severe mechanical shock. It utilizes a rugged, pressure-cast metal case and has a tiltable head. It comes complete with 18 feet of shielded cable with molded-on phono plug and adapter.

$45.00*



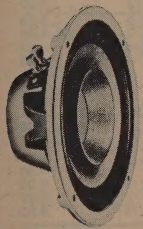
ATTACHE 606

Type 17657

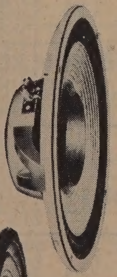
The attractive styling and small size of the Attache 606 makes it the ideal replacement microphone for home recorders or as a utility microphone in low-cost public-address applications. Designed for hand or table use, the Attache 606 has sufficient sensitivity for any modern amplifier input. It comes complete with 5 feet of cable with molded-on phono plug and adapter to match all late-model home recorders.

$12.00*

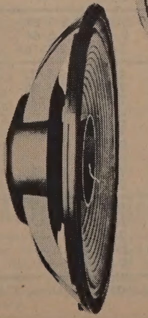
The RCA ENVOY SERIES — High Fidelity, Multi-Purpose Loudspeakers



ENVOY 8
8″ Loudspeaker
Type 17660
$30.00*



ENVOY 12
12″ Loudspeaker
Type 17661
$32.50*



ENVOY 15
15″ Loudspeaker
Type 17662
$40.85*

*Optional List Price

Whatever your sound requirements, whether it be for a high-fidelity home music system, or for public address work in a school, church, factory or office, RCA's new multi-purpose Envoy Series Loudspeakers provide a truly practical solution to your problem.

The crisp, wide-range response of these high-quality speakers provides realistic performance from your high-fidelity stereo or monophonic equipment.

For public address applications, the Envoy Series Loudspeakers deliver room-filling sound, faithfully reproduced from record, tape, or voice input. Their low-silhouette frames permit installation in walls or ceilings, making them ideal for building into new construction.

Check these outstanding features:

DUAL-CONE CONSTRUCTION for optimum bass reproduction and efficient high-frequency performance.

EDGEWISE-WOUND RIBBON-WIRE VOICE COIL for increased efficiency (18% over conventional coils).

SEALED POLYESTER REINFORCED FIBERGLASS COIL FORM maintains shape for life of speaker—prevents shorts and distortion-causing rubs.

LONG, MEDIUM-DIAMETER VOICE COILS, assure linear operation.

HEAVY-DUTY DIE-CAST FRAMES assure permanent centering of all elements.

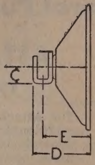
FUNGUS-PROOFED CONES AND SPIDERS treated to prevent moisture absorption even in areas of high humidity.

© U.C.P., Inc.

Trade Discount Applies To List Prices Only

QUAM *Quality Line* SPEAKERS

These speakers are engineered and manufactured solely for replacement, public address, high fidelity and outdoor applications. EIA standard dimensions. Fully dust-proofed. Baked gold enamel finish. EIA service guarantee. Only Quam speakers have the U shaped coil pot construction which provides an unbroken flux path of sufficient cross section to carry the full energy of the magnetic field.



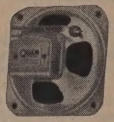


Fig. A

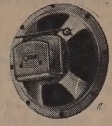


Fig. B

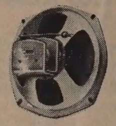


Fig. C

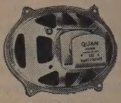


Fig. D

ANY QUAM SPEAKER CAN BE SUPPLIED WITH VOICE COIL IMPEDANCES OTHER THAN THOSE LISTED FOR AN ADDITIONAL $1.00 LIST

REPLACEMENT SPEAKERS

Voice coil impedance 3.2 ohms ± 10%

ED — *Electro Dynamic Speakers*

PM — *Permanent Magnet Speakers*

BF — *Ceramic Magnet Speakers*

TYPE	MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DIMENSIONS IN INCHES C	D	E	SHIP WT., LBS.	PRICE LIST
PM	22A06Z8**	2¼"	J	.45 oz. Alnico V	.25	19/32	1	—	1/4	$ 4.75
	22A06Z100**	2¼"	J	.45 oz. Alnico V	.25	19/32	1	—	1/4	5.25
PM	25A05	2½"	I	.55 oz. Alnico V	1.5		1-1/8	—	1/4	3.15
	25A07	2½"	A	.65 oz. Alnico V	1.5	11/16	1-1/4	7/8	1/4	4.00
PM	27A06Z12**	2¾"	J	.55 oz. Alnico V	.25	19/32	1	—	1/4	4.70
PM	30A05	3"	I	.55 oz. Alnico V	2		1-3/8	—	1/2	3.15
	3A05*	3½"	I	.55 oz. Alnico V	2	7/16	1-13/32	—	1/4	3.15
	3A07*	3½"	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-7/64	1/2	4.00
	35A05*	3"x5"	L	.55 oz. Alnico V	2	7/16	1-21/32	—	1/2	4.20
ED	4E45	4"	A	450 Ohms	3	1-1/4	2	1-7/16	1	6.25
	4E62	4"	A	55-65 Ohms	3	1-1/4	2-5/16	1-5/8	1	6.25
PM	4A05*	4"	I	.55 oz. Alnico V	2.5	7/16	1-1/2	—	1/4	2.95
	4A07*	4"	A	.65 oz. Alnico V	3	3/4	1-23/32	1-5/16	1/2	4.30
	4A07R*★	4"	B	.65 oz. Alnico V	3	3/4	1-23/32	1-5/16	1/2	4.30
	4A1	4"	A	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.60
	4A1R★	4"	B	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.60
	4A15	4"	A	1.47 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	5.05
PM	46A07*	4"x6"	E	.65 oz. Alnico V	3.5	3/4	1-15/16	1-27/64	3/4	4.75
	46A1	4"x6"	E	1.0 oz. Alnico V	3.5	1	2-1/4	1-9/16	1	5.10
	46A15	4"x6"	E	1.47 oz. Alnico V	3.5	1	2-1/4	1-9/16	1	5.50
PM	48A2*	4"x8"	K	1.4 oz. Alnico V	4.5	7/8	2-3/16	—	1	7.95
	410A2*	4" x 10"	M	1.4 oz. Alnico V	6	—	2-11/16	—	1¼	8.95
ED	5E45	5"	C	450 Ohms	3.5	1-1/4	2-1/8	1-19/32	1	6.50
	d5E10	5"	C	1000 Ohms	3.5	1-1/4	2-1/8	1-19/32	1	6.50
	d5E62	5"	C	55-65 Ohms	3.5	1-1/4	2-7/16	1-19/32	1-1/4	6.50
	d5E90	5"	C	85-95 Ohms	3.5	1-1/4	2-7/16	1-19/32	1-1/4	6.50
PM	5A05*	5"	I	.55 oz. Alnico V	3	7/16	1-11/16	—	1/2	3.50
	5A07*	5"	C	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.50
	5A07R*★	5"	B	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.50
	5A1	5"	C	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	4.85
	5A1R★	5"	B	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	4.85
	5A15	5"	C	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.25
	5A15R★	5"	B	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.25
ED	d52E50	5¼"	C	45-55 Ohms	4	1-1/4	2-17/32	1-27/32	1-1/2	7.00
	d52E90	5¼"	C	85-95 Ohms	4	1-1/4	2-17/32	1-27/32	1-1/4	7.00
PM	52A1	5¼"	C	1.0 oz. Alnico V	4	1	2-25/64	1-25/32	1	4.95
	52A1SQ¶	5¼"	A	1.0 oz. Alnico V	4	1	2-25/64	1-25/32	1	4.95
	52A21	5¼"	C	2.15 oz. Alnico V	4	1-1/8	2-21/32	1-25/32	1-1/4	6.05
	52A21SQ¶	5¼"	A	2.15 oz. Alnico V	4	1-1/8	2-21/32	1-25/32	1-1/4	6.05
BF	52C10	5¼"	N	10.0 oz. Ceramic	10	—	2-1/4	—	2-1/8	9.95
PM	57A1	5"x7"	D	1.0 oz. Alnico V	5	1	2-11/16	2-5/64	1	5.50
	57A15	5"x7"	D	1.47 oz. Alnico V	5	1	2-11/16	2-5/64	1	6.10
	57A21	5"x7"	D	2.15 oz. Alnico V	5	1-1/8	2-61/64	2-13/64	1-1/4	6.75
ED	d6E10	6½"	C	1000 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
	d6E62	6½"	C	55-65 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
	6E90	6½"	C	85-95 Ohms	5	1-1/4	2-23/32	2-1/32	1-1/2	7.50
PM	6A1	6½"	C	1.0 oz. Alnico V	5	1	2-5/8	2	1	5.30
	6A1R★	6½"	B	1.0 oz. Alnico V	5	1	2-5/8	2	1	5.30
	6A15	6½"	C	1.47 oz. Alnico V	5	1	2-5/8	2	1	5.75
	6A15R★	6½"	B	1.47 oz. Alnico V	5	1	2-5/8	2	1	5.75
	6A21	6½"	C	2.15 oz. Alnico V	5	1-1/8	2-7/8	2-1/8	1-1/4	6.45
	6A31	6½"	C	3.16 oz. Alnico V	6	1-3/8	3-11/64	2-9/32	1-3/4	7.60
PM	69A1*	6"x9"	D	1.2 oz. Alnico V	6	7/8	2-3/4	—	1-1/4	6.00
	69A1S*	6"x9"	D	1.2 oz. Alnico V	8	7/8	2-1/8	—	1	8.50
	69A2*	6"x9"	D	1.4 oz. Alnico V	8	7/8	2-15/16	—	1-1/2	7.50
	69A2Z20CT†	6"x9"	D	1.4 oz. Alnico V	8	7/8	2-15/16	—	1-1/2	8.40
	69A3	6"x9"	D	3.2 oz. Alnico V	10	1-1/4	3-5/16	—	2	9.20

* Very shallow unit. ★ Round basket. ¶ Square basket. **Impedance of 22A06Z8 is 8 ohms, 22A06Z100 is 100 ohms, 27A06Z12 is 12 ohms.
d Will be discontinued when current stocks are depleted † 20 ohms, center tapped

QUAM *Quality Line* SPEAKERS

Fig. E

Fig. F

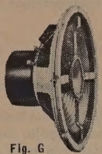


Fig. G

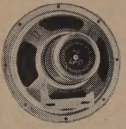


Fig. H

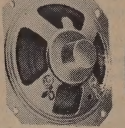


Fig. I

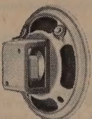


Fig. J

Fig. K

Fig. L

Fig. M

Fig. N

Fig. O

Replacement Speakers (Cont'd) Voice coil impedance 3.2 ohms ± 10%

TYPE	MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	DIMENSIONS IN INCHES C	D	E	SHIP WT., LBS.	LIST PRICE
PM	7A21*	7″	F	1.4 oz. Alnico V	6	7/8	2-31/32	—	1	$ 7.25
	7A31	7″	F	3.16 oz. Alnico V	9	1-1/4	3-1/32	—	2	8.75
ED	d8E10	8″	C	1000 Ohms	7	1-1/4	3-9/32	—	1-1/2	8.50
	d8E90	8″	C	85-95 Ohms	7	1-1/4	3-9/32	—	1-1/2	8.50
PM	8A1	8″	C	1 oz. Alnico V	6	1	3-1/2	—	1	5.95
	8A21	8″	C	2.15 oz. Alnico V	7	1-1/8	3-13/32	—	1-1/2	7.75
	8A31	8″	C	3.16 oz. Alnico V	9	1-3/8	3-21/32	—	2	9.00
PM	10A31	10″	B	3.16 oz. Alnico V	9	1-3/8	4-1/2	—	2-3/4	11.50
	10A4A	10″	B	4.64 oz. Alnico V	10	1-3/8	4-1/2	—	3-3/4	12.95
	10A6A	10″	B	6.8 oz. Alnico V	12	1-7/16	4-5/8	—	3-1/2	14.50
ED	d12E10	12″	B	1000 Ohms	12	1-3/4	5-5/8	—	5	16.00
PM	12A31	12″	B	3.16 oz. Alnico V	10	1-1/4	4-19/32	—	3-3/4	11.95
	12A4A	12″	B	4.64 oz. Alnico V	12	1-3/8	5-1/8	—	3-3/4	14.25
	12A6A	12″	B	6.8 oz. Alnico V	14	1-7/16	5-1/4	—	4-1/2	15.95

OUTDOOR SPEAKERS Voice coil impedance 3.2 ohms ±10%

These long-life speakers have the improved Humi-Gard Cone which utilizes a Mylar plastic film to provide maximum resistance to moisture and dirt and sand abrasion, yet does not interfere with response characteristics. Air gap surfaces cadmium plated and enameled. Quantity quotations on request.

All Quam speakers are available weather-proofed for an additional 70c list. When ordering weather-proofed speakers use part numbers appearing in this catalog and add suffix "OT" to part number. (Humi-Gard Cone available only on 3½″, 4″ 5″, and 6½″ speakers.)

TYPE	MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	C	D	E	SHIP WT., LBS.	LIST PRICE
PM	3A07 OT*	3½″	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-3/16	1/2	$ 4.00
	4A1 OT	4″	A	1.0 oz. Alnico V	3	1	2-3/16	1-9/16	3/4	4.65
	5A15 OT	5″	C	1.47 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.35
	6A15 OT	6½″	C	1.47 oz. Alnico V	5	1	2-5/8	2	1	6.00

PUBLIC ADDRESS SPEAKERS Voice coil impedance 8 ohms ± 10%

TYPE	MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	C	D	E	SHIP WT., LBS.	LIST PRICE
PM	8A1PA	8″	C	1 oz. Alnico V	8	1-9/64	3-1/2	—	1-1/4	$ 5.95
	★8A21PA	8″	C	2.15 oz. Alnico V	10	1-3/8	3-9/16	—	2	8.20
	★8A31PA	8″	C	3.16 oz. Alnico V	10	1-3/8	3-9/16	—	2	9.50
	8A4PA	8″	B	4.64 oz. Alnico V	12	1-3/8	3-3/4	—	2-3/4	11.00
	8A6PA	8″	B	6.8 oz. Alnico V	12	1-7/16	3-7/8	—	3-1/4	13.00
BF	8C6PA	8″	O	6.0 oz. Ceramic	12	—	3	—	2-1/2	11.00
	8C10PA	8″	O	10.0 oz. Ceramic	12	—	3-1/8	—	3	13.00
PM	10A31PA	10″	B	3.16 oz. Alnico V	12	1-3/8	4-13/32	—	2-3/4	11.50
	10A4PA	10″	B	4.64 oz. Alnico V	14	1-3/8	4-1/2	—	3-1/4	12.95
	10A6PA	10″	B	6.8 oz. Alnico V	14	1-7/16	4-5/8	—	3-1/2	14.50
	10A10PA	10″	B	10 oz. Alnico V	20	1-3/8	4-21/64	—	3-3/4	18.00
PM	12A31PA	12″	B	3.16 oz. Alnico V	12	1-3/8	5	—	3-1/4	11.95
	12A4PA	12″	B	4.64 oz. Alnico V	15	1-3/8	5-1/8	—	3-3/4	14.25
	12A6PA	12″	B	6.8 oz. Alnico V	15	1-7/16	5-1/4	—	4	15.95
	12A10PA	12″	B	10 oz. Alnico V	25	1-3/8	4-15/16	—	4	19.95
BF	12C10PA	12″	O	10.0 oz. Ceramic	15	—	4-3/8	—	4	15.95

HIGH IMPEDANCE SPEAKERS Voice coil impedance 45 ohms ± 10%

Speakers with voice coil impedances other than those listed are supplied at an increase of $1.00 list. Those catalogued are most frequently used but any other model can be supplied with special voice coil impedance.

TYPE	MODEL No.	SIZE	FIGURE	MAGNET WEIGHT OR FIELD	POWER HANDLING WATTS	C	D	E	SHIP WT., LBS.	LIST PRICE
PM	3A07Z45*	3½″	A	.65 oz. Alnico V	2.5	3/4	1-33/64	1-3/16	1/2	$ 4.25
	4A07Z45*	4″	A	.65 oz. Alnico V	3.0	3/4	1-23/32	1-5/16	1/2	4.55
	4A1Z45	4″	A	1.0 oz. Alnico V	3.0	1	2-3/16	1-9/16	3/4	4.85
	5A07Z45*	5″	C	.65 oz. Alnico V	3.5	3/4	1-7/8	1-7/16	3/4	4.75
	5A1Z45	5″	C	1.0 oz. Alnico V	3.5	1	2-5/16	1-11/16	1	5.10

HIGH FIDELITY SPEAKERS

TYPE	MODEL No.	SIZE	FIGURE	SPEAKER TYPE	FREQUENCY RESPONSE CPS	Pwr Hndlg Watts	V.C. Impedance	Shippg Wt. Lbs.	LIST PRICE
PM	15A10CO	15″	G	Coaxial, 2000cps. Xover	25-15,000	20	8	8	$52.50
	12A6CO	12″	G	Coaxial, 2000cps. Xover	50-15,000	14	8	6-1/2	34.50
	8A4CO	8″	G	Coaxial, 2000cps. Xover	50-15,000	10	8	2-3/4	22.95
	12A10X	12″	H	Extended range dual cone	50-15,000	15	8	4-3/4	26.00
	10A10X	10″	H	Extended range dual cone	50-15,000	12	8	4-1/8	24.00
	8A10X	8″	H	Extended range	50-12,000	10	8	3-1/4	20.00
	69C6X	6″x9″	D	Extended Range dual cone	50-15,000	12	8	2-1/2	13.95
	6A21X	6½″	C	Extended Range dual cone	75-15,000	5	8	1-1/2	8.95
	15A10L	15″	H	Low frequency woofer	30-5,000	10	8	7	35.00
	12A10L	12″	H	Low frequency woofer	40-5,000	10	8	4-3/4	26.00
	5A15T	5″	B	High frequency tweeter	2,000-15,000	10	14	1	6.50
	3A15T	3½″	A	High frequency tweeter	2,000-15,000	10	14	3/4	5.75
	CO2-50			Crossover Unit for use with 5A15T, 3A15T				1/2	2.00

REAR SEAT AUTO SPEAKER KITS

These kits contain everything required for the installation of the speaker. They include a dash-mounting fader control, cable, flocked screen grill, baffle plate, all necessary hardware and complete installation instructions. Kits AS-2 and AS-2C have sponge rubber baffle plate gaskets.

MODEL NUMBER	SIZE	FIELD OR MAGNET WEIGHT	POWER HANDLING WATTS		SHPG. WEIGHT POUNDS	LIST PRICE
AS-1	6½″	1.47 oz.	5		2	$ 9.95
AS-2	6″x9″	2.15 oz.	9		3½	13.95
AS-2C	6″x9″	2.15 oz.	9	chrome plated grill	3½	15.15
AS-3	5″x7″	1.47 oz.	5		2¼	11.95
AS-4	6″x9″	1.2 oz.	6		1¾	7.50

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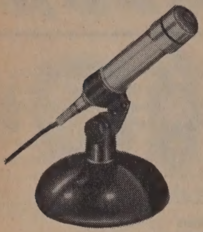
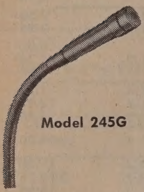
* Very shallow construction. ★ Pin-cushion basket. ¶ Square basket. d Will be discontinued when current stocks are depleted

SHURE

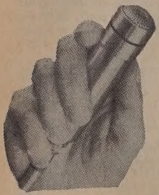
NEW MICROPHONES



Model 245 with A25B Swivel, S38B Desk Stand



Model 245G



Model 245 Hand Held

UNIPLEX, UNIDIRECTIONAL CERAMIC

The lowest priced probe-type ceramic microphone with *truly* unidirectional characteristics . . . provides exceptional performance at moderate cost.

The Shure "Uniplex" employs the same "Uniphase" principle found in higher priced Shure unidirectional microphones. Its wide, useful pickup angle at the front and effective elimination of pickup at the rear provide the ideal solution to feedback problems in low-cost P.A. systems.

The 245 is a natural for home recording, particularly in stereo; excellent for base-station usage, paging, and language laboratories. The 245 is lightweight and versatile, comes complete with stand adapter to permit instant conversion from stand to hand-held use and back again. Reliable, rugged ceramic cartridge performs at temperatures from —40° to +170°F. Available in four models, all with metal, die-cast zinc case.

SPECIFICATIONS FOR MODEL 245

LIST PRICE: Model 245—$35.00. Includes A25B Swivel-Stand adapter and removable cable.

Model 245S—$37.00. Includes "On-Off" switch, A25B Swivel-Stand adapter and removable cable.

Model 245G—$30.00. Gooseneck mounting version of 245 with fixed cable, no swivel-stand adapter.

Model 245GS—$32.00. Gooseneck mounting version of 245S with "On-Off" switch, fixed cable, no swivel-stand adapter.

FREQUENCY RESPONSE: 50 to 7,000 cps.

OUTPUT LEVEL: 1.10 mv per microbar at end of 7 ft. (2.1m) cable across 1 to 5 megohms. This is equivalent to 59 db below 1 volt per microbar.

IMPEDANCE: High—Recommended load impedance: 1 to 5 megohms

POLAR PATTERN: Cardioid (unidirectional) Response at rear down 15 db from front.

CABLE AND CONNECTORS: Models 245 and 245S provided with 15 ft. (4.6m) single-conductor shielded cable with a plug (equivalent of Amphenol MCI F) for attaching cable to microphone.

Models 245G and 245GS—7 ft. (2.1m) single-conductor shielded cables attached to microphone.

SWITCHES: Models 245S and 245GS have built-in "on-off" switch

STAND THREAD: Models 245 and 245S provided with Model A25B swivel adapter with ⅝"-27 thread.

Models 245G and 245GS for use with flexible goosenecks having a ⅝"-27 thread.

DIMENSIONS: (Microphone only) 4¾" high, 1⅛" diam.

LOW COST, WIDE-RANGE "VERSADYNE" MICROPHONES

Models 275-375

Smooth response makes these units a "best-buy" for general public address, home recording and call-system use where both performance and economy are important. High-performance dynamic cartridge is unaffected by temperature and humidity variations. Choice of high or low impedance dynamic or high impedance ceramic models each complete with switch plus stand adaptor and lavalier cord. Small size and light weight, this unit is equally adaptable to hand-held, stand-mounted or lavalier use. Model 575S and 275S feature high impedance and high output, for applications where only a moderate length of cable is required. The low impedance, Model 575SB is designed for use in installations where long cable lengths are required, or for use with transistor amplifiers requiring a medium or low impedance microphone.

SPECIFICATIONS

	MODEL 575S	MODEL 575SB	MODEL 275S
LIST PRICE	$24.00	$21.00	$15.00
TYPE	DYNAMIC		CERAMIC
FREQUENCY RESPONSE	40 to 15,000 CPS		40 to 12,000
OUTPUT LEVEL	Down 59 db from 1 volt per microbar	—62 db (0db=1 Milliwatt per microbar)	Down 59.5 db from 1 volt per microbar
POLAR PATTERN	OMNI-DIRECTIONAL		
IMPEDANCE	High: 100,000 Ohms Recommended	150-250 Ohms	High: 1 to 5 Megohms Recommended
FINISH	Black high-impact plastic body with satin anodized cap and stainless steel grill		
DIMENSIONS	4¾" long x 1¼" diam.		

See Section 1340 for additional Shure Products.

Trade Discount Applies To List Prices Only

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SHURE COMMUNICATIONS MICROPHONES

"SONOBAR" NOISE CANCELLING MICROPHONES

Model 488

Provides highly intelligible speech communication in mobile and fixed station use where high volume background noise is found, such as airplanes, helicopters, motorcycles, trucks, fire engines, sporting events, drop forges and boiler factories. The 488 incorporated the patented Shure Controlled Reluctance cartridge into a differential type microphone that effectively cancels background noise. Rugged, impact-resistant "Armo-Dur" case is lightweight, easier to handle in extremes of temperature. Three versions available: 488A — high impedance; 488B — low impedance; and 488T — transistorized for direct replacement of carbon microphones (FAA Certified for Aircraft applications). All models equipped with coiled-cord and long-life heavy-duty push-to-talk switches, mounting brackets.

SPECIFICATIONS

	488A High Impedance	488B Low Impedance	488T Transistorized* (FAA Certified)
LIST PRICE	$57.50	$57.50	$72.50
FREQUENCY RESPONSE	200-4000 CPS ESPECIALLY TAILORED BEST INTELLIGIBILITY		
NOISE DISCRIMINATION	FAR SUPERIOR TO STANDARD COMMUNICATIONS MICROPHONE		
OUTPUT LEVEL	—58.0 db (1 volt per microbar)	—56.0 db (1 milliwatt with 10 microbars)	—45.0 db (1 volt per microbar) Using 6V and 500 ohm load
IMPEDANCE	High: Recommended load 100,000 ohms or more	150-250 ohms	Recommended load 100 to 800 ohms AC; 6 to 18 VDC across loaded microphone
CONNNECTOR	NONE	NONE	PJ-068
SWITCH MIC CIRCUIT	Normally Closed	Normally Open	Normally Open
RELAY CIRCUIT	NORMALLY OPEN		
DIMENSIONS	3¹¹⁄₁₆" high x 2⅝" wide x 2½" deep		

MODEL 488T FINISHED IN ULTRA-VIOLET PAINT

LOW COST PALM MICROPHONE FOR CB, AMATEUR, MOBILE

Model 201-401

Loaded with features—yet priced unusually low. "Shaped" voice response is patterned after professional mobile and SSB amateur response curves . . . assures maximum intelligibility. Professional design and construction. Long-life slide-switch, guaranteed full year. Virtually indestructible "Armo-Dur" wonder plastic case: shock-, shatter-, corrosion-, rust-, and weather-proof. Coiled-cord won't kink. "Lifetime" hang-up bracket. Choice of ceramic (model 201) or controlled magnetic (model 401A and 401B) elements. (401B recommended for parallel balanced line operation where long cable lengths are required.)

SPECIFICATIONS

	Model 201	Model 401A	Model 401B
LIST PRICE	$18.00	$22.00	$22.00
TYPE	CERAMIC	CONTROLLED MAGNETIC	
FREQUENCY RESPONSE	200 to 4000 cps. free from undesirable peaks.		
OUTPUT LEVEL	55.5 db below 1 volt per microbar	49 db below 1 volt per microbar	—48 db (0db=1 milliwatt per 10 microbars)
IMPEDANCE	High—Recommended load impedance; 1 to 5 megohms	High—Recommended load impedance 100,000 ohms or more	Low—Recommended load impedance; 150-250 ohms
POLAR PATTERN	OMNI-DIRECTIONAL		
DIMENSIONS	4" High x 2¾" Wide x 1⅝" Deep.		

"VERSAPLEX" CB IMPROVEMENT MICROPHONE

Model 275SK

Citizen's Band broadcasters will find this new ceramic unit ideal for replacing original equipment crystal or ceramic type microphone. Comes complete with wall or panel bracket for handy hanging, and coiled-cord. "Momentary" push-to-talk switch activates relay circuit. Smooth response from ceramic cartridge that is resistant to extremes of temperature and humidity. Lightweight impact-resistant "Armo-Dur" case with black finish and anodized satin-finish cap.

FREQUENCY RESPONSE: 40 to 10,000 cps. free from undesirable peaks
OUTPUT LEVEL: 59.5 db below 1 Volt per Microbar
IMPEDANCE: High—recommended load ½ to 5 Megohms
CABLE: Coiled Cord extends to 5 feet. 3 Conductors, one shielded
FINISH: Black high impact plastic body with satin anodized cap and grill
DIMENSION: 4¾" long x 1⅔" diam.

SPECIFICATIONS FOR MODEL 275SK

List Price: **$16.50**

See Section 1340 for additional Shure Products.

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SHURE

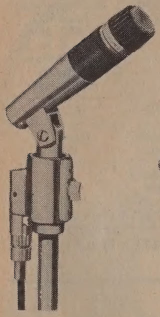
FAMOUS UNIDYNE MICROPHONES

UNIDYNE III SERIES

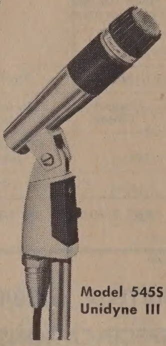
Model "545"
Unidyne III

The Shure Model 545 "Unidyne III" is a new addition to the famed family of Unidyne microphones. This striking-looking, compact, slender, uni-directional, moving-coil microphone features wide-range reproduction of voice and music and flexibility of uses as a hand or stand microphone. The 545 is ideal for installations where it is desired to keep microphone size and weight to a minimum and still retain maximum operating efficiency. Recommended for dependable use in fine quality P.A. systems, tape recording, fixed-station communications, etc. Provides highly satisfactory operation under adverse acoustic conditions — reduces or eliminates problems due to feedback and background noise pickup. Permits placement at a distance from the performer 75% greater than possible with omni-directional microphones.

TYPE: Dynamic. FREQUENCY RESPONSE: 50-15,000 cps. POLAR PATTERN: Cardioid (Uniform with frequency, symmetrical about axis). MAGNETIC CIRCUIT: uses Alnico V magnet. CASE: Die cast zinc and "Armo-Dur". FINISH: Satin chrome and black. CABLE CONNECTOR: Equivalent to Amphenol MC4M plug. CABLE: 18 ft., 3 conductor shielded. STAND THREAD: 5/8" — 27 thread. DIMENSIONS: Length — 5 7/16", Diam. — 1 15/64". NET WEIGHT: 6/10 lb., Shipping Weight 2 7/8 lbs. FURNISHED ACCESSORIES: A25 type swivel adapter. OPTIONAL ACCESSORIES: A86A cable type transformer, S33B desk stands.



Model 546
Broadcast
Unidyne III



Model 545S
Unidyne III

BROADCAST UNIDYNE III

MODEL 546. Ultra compact, unidirectional, distinctive design, weighs only 1 lb.! Recommended for critical broadcast and theater-stage sound system operation and highest quality public address and recording applications. Truly uniform cardioid pick-up pattern, symmetrical about axis. Special live-rubber vibration-isolating shock mount. Improved self-adjusting lifetime swivel permits tilting of head 180°. Cannon XL-3-11 connector. 20 ft. 2-conductor shielded broadcast type cable. Head only 1 15/64" diam., 5 7/16" long. 50-15,000 cps frequency response.

SWITCH VERSION OF UNIDYNE III

MODEL 545S. Same basic specifications as Unidyne III (above) but equipped with reliable on-off switch. Increases the versatility. Improved swivel same as model 546 (above). With 18 ft. 3-conductor shielded cable; equivalent of Amphonel MC4M plug.

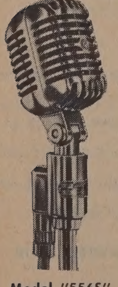
IMPEDANCE TABLE	OUTPUT LEVEL
30-100 ohms 100-250 ohms	55db below 1 milliwatt per 10 microbars
L-50-250 ohms	57db below 1 milliwatt per 10 microbars
H-High	55db below 1 volt per microbar

MODEL	LIST PRICE
546	$135.00
545	$ 85.00
545S	$ 89.95

UNIDYNE II SERIES

Model "55S"
Unidyne

The Unidynes are the largest selling microphones throughout the world — used consistently by famed celebrities for those important events where the faithfulness of sound reproduction is critical. A sturdy construction provides immunity of the moving-coil system to abnormal atmospheric conditions and severe mechanical shock. Model 55S is highly recommended for fine quality public address, theater-stage sound systems, recording and remote broadcasting, and low-gain tape recording. It is also the field-proved standard for fixed station use in the police, fire, transportation, forestry and commercial services. Smooth frequency response from 50 to 15,000 cps. Furnished with an 18-foot cable and plug assembly. Model 55SW is same as Model 55S except it has On-Off switch.



Model "556S"
Broadcast

Model 556S is specially constructed and tested to meet the requirements of the broadcast and television studio, and is held within close tolerances in frequency response and directivity. It is a moving-coil type microphone with a frequency range of 40 to 15,000 cps, production uniformity guaranteed to plus or minus 2½ db. As a further precaution against mechanical vibration pickup, the 556S is provided with an additional isolation unit, of live rubber construction in combination with the stand connector and a built-in high quality cable connector. Furnished with a 20-foot, high quality, shielded, 2-conductor cable with Cannon plug attached. Both the 55S and the 556S feature the world-renowned patented "Uniphase" network system.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	54 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	55 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

MODEL	LIST PRICE
556S	$135.00
55S	$ 83.00
55SW	$ 85.00

See Section 1340 for additional Shure Products.

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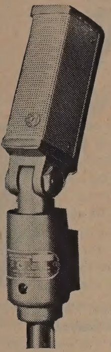
SHURE

STUDIO MICROPHONES

UNI-DIRECTIONAL RIBBON MICROPHONE



Model "333"
Studio Uni-Ron

Here is the dependable "333," a truly fine and rugged microphone created for discriminating users with the most exacting professional requirements. Here, indeed, is a major advance in microphone development and design! This small, ultra-cardioid "333" is highly recommended for motion-picture studios, TV studios, radio stations, professional recording, and all other uses where quality requirements are of the highest. Here is performance never before achieved in such a small and slender microphone! Here is ruggedness and reliability! Here is matchless beauty and striking design to appeal to users who demand the finest! The "333" is ultra-cardioid, uni-directional—reduces the pickup of random noise energy by 73%——prevents the pickup of moving props, scuffling feet and moving "dollies," so common when conventional broadcast microphones are used. Following are the features that make the "333" Studio so outstanding in performance, so dependable in operation: (1) patented, world-famous "Uniphase" system; (2) a true ultra-cardioid pickup pattern; (3) horn-loaded ribbon transducer provides extended smooth response, production uniformity guaranteed to plus or minus 2½ db, 30-15,000 c.p.s.; (4) multi-impedance switch; (5) voice-music switch; (6) anti-"Pff" filter screen; (7) Shure self-adjusting "lifetime" swivel; (8) high output; (9) sturdy, one-piece metal case; (10) vibration-isolation unit mounted in live rubber; (11) Cannon XL connector. All these important features, plus the striking design of the Studio "333," make it ideal for critical studio applications that call for the highest possible broadcast quality, small size and matchless beauty——plus the ability to withstand the rough work-a-day handling by the sound crew. The "333" has two-tone "Baked Bronze" non-reflecting finish. Head dimensions: Width, 1 1/8"; height, 3 9/16"; depth, 1 3/4".

IMPEDANCE TABLE	OUTPUT LEVEL
Low—50 ohms	60 db below 1 Milliwatt per 10 microbar signal
Medium—150 ohms	59 db below 1 Milliwatt per 10 microbar signal
High-Medium—250 ohms	

Model S33
Broadcast
Desk Stand
For use with Models
300, 333, 525, 535
and 556S
List Price $15.00

MODEL	LIST PRICE
"333"	$250.00

OMNI-DIRECTIONAL DYNAMIC MICROPHONE

Model "525"
Studio Slendyne

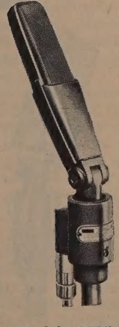
The new Studio "525" is an exceptionally fine probe microphone of broadcast quality. It features: (1) frequency response 40-15,000 c.p.s., production uniformity guaranteed to plus or minus 2½ db; (2) a moving-coil mounted in a highly efficient magnetic structure; "Alnico V" magnet; (3) multi-impedance switch; (4) high output; (5) long life "Duracoustic" diaphragm——specially designed to withstand moisture, heat, cold and physical shock. The "525" is furnished with a 20 ft., two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached; swivel adapter; adjustable lavalier assembly (cord and clip), and a belt clip assembly. The "525" Studio has a non-reflecting "Baked Bronze" finish——which makes it blend into the background, giving the spotlight to the performer. Body diameter, 1"; length, 8 17/32".

IMPEDANCE TABLE	OUTPUT LEVEL
50 ohms	61 db below 1 Milliwatt per 10 microbar signal
150 ohms	
250 ohms	

Model S33
Broadcast
Desk Stand
List Price: $15.00

MODEL	LIST PRICE
"525"	$200.00

BI-DIRECTIONAL GRADIENT[1] MICROPHONE



Model "300"
Studio Gradient[1]

This rugged, high fidelity, multi-impedance microphone is widely used for television, radio broadcasting, professional recording and high-fidelity uses. The "300" reduces reverberation and the pickup of random noise by 66%. The "300" combines the best features of conventional velocity microphones with advanced acoustic design—including an anti-"PFF" filter screen. Its bi-directional polar pattern is effective over a broad frequency range. It provides sound pickup at the front and rear of the microphone, but greatly reduces pickup at the sides. One of the outstanding features of the "300" is the fact that the microphone can be placed at a 73% greater distance from the performer than is possible with omni-directional microphones! The "300" has a non-reflecting "Baked Bronze" finish, so it blends into the background, gives the spotlight to the performer. The "300" has a readily accessible Voice-Music switch, vibration-isolation unit mounted in live rubber, and a multi-impedance switch, providing low medium and high impedance. Extended response, production uniformity guaranteed to plus or minus 2½ db, 40-15,000 c.p.s. Furnished with a 20-foot two-conductor, rubber-covered, shielded cable with Cannon XL-3-11 connector attached.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

Model S33
Broadcast
Desk Stand
List Price: $15.00

MODEL	LIST PRICE
"300"	$150.00

See Section 1340 for additional Shure Products.

SHURE GENERAL PURPOSE MICROPHONES

OMNI-DIRECTIONAL DYNAMIC MICROPHONES

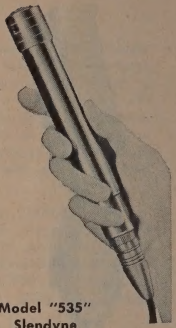
The versatile Slendyne 535 is a moving-coil dynamic microphone built to provide wide range reproduction of music and voice. Actually five microphones in one . . . can be used for indoor or outdoor applications: (1) in the hand, (2) on a floor stand, (3) on a desk stand, (4) hung around the neck on a lavalier cord. Add to this an on-off switch adapter and dual-impedance switch and you have the most completely versatile fine quality probe ever developed. Frequency response is 60 to 13,500 c.p.s. Ideal for high quality public address, theater-type sound systems, and all recording applications where an omni-directional microphone is desired. Ruggedly built to withstand hard usage. Unaffected by temperature and humidity variations. The 18-foot, high quality, shielded, two-conductor cable is supplied with a microphone plug equivalent to the Amphenol 91-MC3M plug. Finished in rich satin chrome. A self-adjusting swivel adapter is supplied with the microphone, and permits it to be tilted from 90° from vertical to horizontal, making it possible to tilt the microphone at the source of sound. Also includes on-off switch adapter.

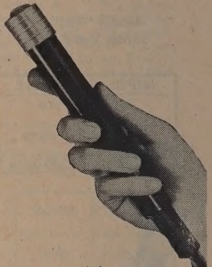
The Model 530 Slendyne is the deluxe broadcast Slendyne, finished in an attractive black and gold anodized finish. It has a frequency range of 50 to 15,000 c.p.s., and is furnished with a 20-foot, high quality, two-conductor shielded cable with a Cannon XL-3-11 cable connector. Furnished with swivel adaptor, deluxe lavalier cord and belt clip, on-off switch adaptor.

LAVALIER ASSEMBLY Model A28L for use with Slendyne model 535.
MODEL A28L ....LIST PRICE $4.50

MODEL	IMPEDANCE TABLE	OUTPUT LEVEL
"535"	L—50-250 ohms	61 db below 1 Milliwatt per 10 microbar signal
	H—High	61 db below 1 volt per microbar
"530"	L—50-250 ohms	61 db below 1 Milliwatt per 10 microbar signal
	H—High	61 db below 1 volt per microbar

MODEL	LIST PRICE
"535"	$72.50
"530"	$110.00


Model "535"
Slendyne

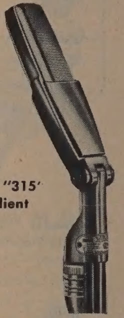

Model "530"
Broadcast Slendyne

BI-DIRECTIONAL GRADIENT[1] MICROPHONE

This rugged high fidelity multi-impedance microphone features a frequency response of 50 to 12,000 cps — will reproduce voice and music in a clear, natural tonal quality, which makes it ideal for use in auditoriums, night clubs, schools and churches. Provides unusual freedom of motion on the platform — making it possible for the user to stand at a 73% greater distance from the microphone than with omni-directional microphones. Bi-directional "Fig. 8" pickup pattern extends over a broad frequency range — and it permits the sound system to be operated at a level almost 6 db higher than is possible with non-directional (omni-directional) microphones! Picks up voices and music from front to back — is "dead" at the sides, reduces reverberation and the pickup of random noises by 66%. It is "PFF"-proof — filters out the "PFF"-type noises often heard over conventional microphones. Dimensions: height 6"; width $1\frac{7}{16}$"; depth $1\frac{3}{32}$". The "315" is furnished with an 18-foot, high quality, two conductor, shielded cable, supplied with the equivalent of the Amphenol 91-MC3M plug. Model "315S" is same as model "315" but it has On-Off switch.

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	59 db below 1 Milliwatt per 10 microbar signal
M—150-250 ohms	60 db below 1 Milliwatt per 10 microbar signal
H—High	57 db below 1 volt per microbar

MODEL	LIST PRICE
"315"	$89.50
"315S"	$91.50

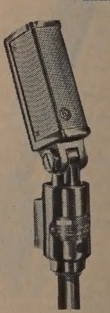

Model "315"
Gradient

UNI-DIRECTIONAL RIBBON MICROPHONE

Similar to "333" studio microphones, the 330 "UNI-RON" Microphone has been designed to meet the exacting requirements of professional tape recording and highest quality indoor public-address systems where highest quality is essential, yet cost is a factor. Supercardioid pickup pattern reduces pickup of undesired random noise energy by 73%! Smooth, peak-free response from 30 to 15,000 cps. The Professional "Uni-Ron" is equipped with multi-impedance (50, 150 and 250 ohms) switch, life-time swivel, and special vibration-isolation shock mount, as well as Cannon XL-3-11 cable connector and 20 ft. 2-conductor shielded broadcast-type cable. Finished in beautiful satin-chrome with natural anodized aluminum grille.

IMPEDANCE TABLE	OUTPUT LEVEL
L — 50 ohms	59 db below 1 milliwatt per 10 microbars
M — 150 ohms	57 db below 1 milliwatt per 10 microbars
H — 250 ohms	58 db below 1 milliwatt per 10 microbars

MODEL	List Price
"330"	$120.00


Model "330"
"Professional Uni-Ron"

See Section 1340 for additional Shure Products.

Trade Discount Applies To List Prices Only

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SHURE

GENERAL PURPOSE MICROPHONES

"COMMANDO" ALL-PURPOSE MICROPHONES

The new Commando series represents a significant achievement in providing quality performance at nominal cost. These dramatic looking, rugged microphones can be used indoors or outdoors. Models 415 and 430 provide practical versatility of operation. They can be held in the hand, set on a floor stand or on a desk stand — can be inserted or withdrawn from the stand in a second, without the use of any tools. Model 420 is of more compact design and is intended primarily for use as a lavalier microphone. It is readily detachable from its lavalier clip for use as a hand held unit. Coupled with this versatility of usage, the Commandos are ideal for general-purpose applications where both voice and music reproduction are of critical importance. Commandos can be used for tape recording in the home; theater-restaurant public address systems; lecturing; paging and dispatching systems; interview-type shows; outdoor public address systems for carnivals, picnic and special events.

All three units are ruggedly constructed of attractive, non-reflecting gray, impact resistant polystyrene. The lower part of Models 415 and 430 are of die cast zinc with a satin chrome finish.

The Commandos are omni-directional units with a frequency response of 60-10,000 cps. They are controlled magnetic units and are unaffected by extremes of temperature and humidity. Models 420 and 430 are equipped with readily changeable pin jacks for a choice of two impedances (L — 150 to 250 ohms and H — High), without soldering.

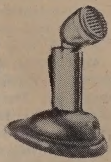
Model 430	includes on-off switch, dual-impedance feature and Amphenol MC2M cable conductor. Furnished with 15 Ft. of 2-conductor shielded cable, black Model A25-type swivel adapter and switch locking plate for keeping switch in "on" position.	List Price: $38.50
Model 420	includes dual impedance feature and A34L lavalier cord and clip assembly. Furnished with 20 ft. of non-detachable 2-conductor shielded cable.	List Price: $30.00
Model 415	includes black Model A25-type swivel adapter and 7 ft. of non-detachable single-conductor shielded cable. High impedance only.	List Price: $27.50
S38B	Desk Stand for use with Models 415 and 430.	List Price: $4.50
A34L	Lavalier for use with Models 415, 420, 430.	List Price: $3.50

Model 430 in the Hand

Model 430 on Floor Stand

IMPEDANCE	OUTPUT LEVEL
150-250	—54 db below 1 volt per microbar
HIGH	—55 db below 1 milliwatt per 10 microbars

Lavalier Model 420


Model 430 on S38 Desk Stand

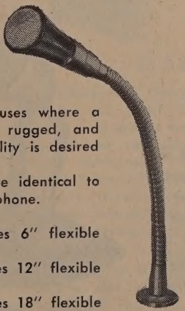
Model 415 in the Hand

425 SERIES "COMMANDO"

Designed for faithful voice and music reproduction. Ideal for recording on tape, wire or disc, fixed or mobile public address systems, *language laboratory systems*, intercommunications systems, amateur communications and similar uses where a flexible arm is required. The 425 is rugged, and recommended for use where high quality is desired at low cost.

Electrical specifications for the 425 are identical to those for the 420 "Commando" microphone.

LIST PRICE: Model 425 — $30.00
Model 425-G6 — $33.00. Includes 6" flexible gooseneck and mounting flange.
Model 425-G12 — $33.75. Includes 12" flexible gooseneck and mounting flange.
Model 425-G18 — $35.00. Includes 18" flexible gooseneck and mounting flange.


Model 425 Flexible Gooseneck Mounting

CASE: Impact resistant polystyrene — brass.
FINISH: Bright Chrome and non-reflecting gray.
CABLE: 7 ft., 2-conductor, non-detachable, shielded.
DIMENSIONS: Length 3$\frac{11}{16}$", diameter 1¾".
OPTIONAL ACCESSORIES: Model A86A Cable Type Transformer.
Model A25 Swivel Adapter.

"COMMANDO" PAGING MICROPHONE

MODEL 430SL

Latest addition to the famed Shure "Commando" Line. Special "momentary" press-to-talk locking or non-locking switch controls *both microphone circuit and external relay or control circuit.* Specially designed for public address, call systems, background music paging systems and similar applications. Model 430SL comes with an S38B Desk Stand and an A25B swivel adaptor that permits tilting of microphone through 90° from vertical to horizontal . . . enables you to "aim" microphone at the source of sound. Can be used in stand or hand held, or adaptable to gooseneck mounting.

Electrical specifications same as for the "420" Commando listed above. Complete with 15 ft. non-detachable 3-conductor (one conductor shielded) cable.

MODEL 430SL LIST PRICE: $49.95

See Section 1340 for additional Shure Products.

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SHURE GENERAL PURPOSE MICROPHONES

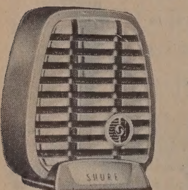
SONODYNE II

Model 540S

MODEL 540S. A compact, modernistic microphone with high output dynamic element at moderate cost. The "Sonodyne II" features **adjustable frequency response** which allows the user to tailor the microphone to the application—One of the most versatile microphones on the market! High output Dynamic element. Omni-directional pick-up pattern. Frequency response: 60 to 10,000 cps with provisions for alternate response for voice intelligibility in paging and communications systems. Reliable on-off switch. Improved positive action lifetime swivel permits tilting head 150°. 15 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M connector.

IMPEDANCE TABLE	OUTPUT LEVEL	LIST PRICE
L-50-250 ohm	57db below 1 milliwatt per microbar	$49.95
H-High	52.5db below 1 volt per microbar	

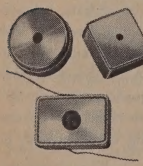
THE "HERCULES"



The "Hercules" is a hand-held unit, ideal for general purpose use in tropical countries and in all coastal areas where heat and humidity are a problem. The "510" provides the ruggedness, clear reproduction and high output for public address, communications and recording where high speech intelligibility is vital. It is recommended for Announcing; Mobile Public Address Systems; Communications; Home Recording, and High Quality Intercommunication. The Hercules can be used either Indoors or Outdoors, fits snugly in the hand, sits firmly on a desk. High impedance. Frequency response 100 to 7000 c.p.s. Furnished with 7 ft. shielded cable. Green metallic finish. Diecast case. Furnished with stand adapter. Dimensions: 2 2/3" wide, 3 1/4" high, 1 1/2" thick. Model 510 Series designed to be used with S34B or S36A Desk Stands. (See page D-7)

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
510C	52.5 db below 1 volt per microbar	HIGH	$17.00
510S (with switch)	52.5 db below 1 volt per microbar	HIGH	$19.00

MINIATURE MICROPHONES



Small microphones specially designed for use in vacuum-tube devices such as small, compact amplifiers, transmitters, dictating equipment—wherever size and weight are important factors. They also are highly recommended for use in small transistor-type devices. They are immune to varying conditions of heat and humidity.

Model MC11 (Circular)	Model MC20 (Rectanglar)	Model MC30 (Rectangular)
Impedance: 1,000 ohms	Impedance: 1,100 ohms	Impedance: 1,850 ohms
Frequency Response: 400 to 3,000 cps	Frequency Response: 400 to 4,500 cps	Frequency Response: 400 to 3,500 cps
Output Level: −75 db (0 db - 1 volt per microbar)	Output Level: −75 db (0 db - 1 volt per microbar)	Output Level: −76 db (0 db - 1 volt per microbar)
Dimensions: Dia. 1 1/64", thickness 25/64"	Dimensions: width 10/16", thickness 5/16", length 15/16"	Dimensions: width .5", length .5", thickness .265"
List Price: $12.50	**List Price: $14.00**	**List Price: $20.00**

SONODYNE

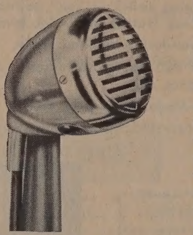
Model "51" "Sonodyne"

The "Sonodyne" is ideal for all general purposes, including public address, wire and tape recording, and similar applications. Ideal high-quality, moderately-priced replacement for the conventional microphone supplied with tape recorders. The wide range frequency response is 60 to 10,000 cps. This rugged microphone is of the pressure type, with conventional semi-directional characteristics, and it may be used for close-talking without undue low frequency emphasis. Multi-impedance,—for low, medium and high impedance. Has built-in receptacle and a 15-foot, two-conductor shielded cable with microphone plug attached. Satin chrome finish. Model 51S is same as Model 51 except it has On-Off switch.

Model "51" List Price $49.50
Model "51S" List Price $51.50

IMPEDANCE TABLE	OUTPUT LEVEL
L—35-50 ohms	53.0 db below 1 Milliwatt for 10 microbar signal
M—150-250 ohms	52.5 db below 1 Milliwatt for 10 microbar signal
H—High	52.0 db below 1 volt per microbar

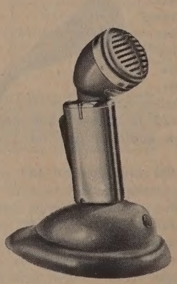
THE "GREEN BULLET"



Designed to provide quality music and speech reproduction at moderate cost. Rugged! Practically immune to the effects of high temperatures and humidity. Features: high output, good response, high impedance without the need of a transformer. Modern metallic green finish with plated grille. Frequency response is 100 to 7000 c.p.s. Furnished with 7 ft. single-conductor shielded cable. High Impedance. Use with Shure Model S34B or S36A Desk Stands.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520	52.5 db below 1 volt per microbar	HIGH	$22.50
520B	51 db below 1 milliwatt per 10 microbars	150-250 ohms	$22.50

THE "DISPATCHER"



MODEL 520SL

Model 520SL recommended for mobile and fixed station use, also for public address, recording, call systems, radio telephone and amateur use. Model 520SLB recommended where low impedance microphones are used in parallel, balanced-line operation and where long cable lengths are required, or under conditions of severe hum disturbances.

MODEL 520SL equipped with grip-to-talk switch DPST—normally closed-normally open, and 7 ft. 2-conductor shielded cable, equivalent to Amphenol MC3M plug. MODEL 520SLB has grip-to-talk switch DPST—normally open-normally open, 7 ft. 4-conductor (2 conductors shielded) cable, equivalent to Amphenol MC4M plug.

MODEL	OUTPUT LEVEL	IMPEDANCE	LIST PRICE
520 SL	52.5 db below 1 volt per microbar	High	$45.00
520 SLB	51.0 db below 1 millivolt per 10 microbars	150-250 Ohms	$49.25

See Section 1340 for additional Shure Products.

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SHURE

CRYSTAL MICROPHONES

THE VERSATILE "SLIM-X" ALL-PURPOSE MICROPHONE

FOR:

- **Low Cost P. A. Systems**
- **Home Recording**
- **Hams**
- **General Purpose**

In Cradle On S38 Desk Stand

On S38 Desk Stand (With A25 Swivel)

In Cradle On Floor Stand

In the Hand

The "777" Slim-X Microphones are rugged little microphones weighing only 6 ounces! They are designed for good-quality voice and music reproduction. Their versatility and "hand-ability" make them ideal for use by lecturers, announcers, instructors, and Hams; for audience participation shows; carnivals; panel and quiz shows; and use with home-recorders. When mounted on either cradle or swivel, the "777" can be removed in a flash (no tools necessary)—simply by lifting it out of the holder. This makes it an ideal "walk-around" hand-held microphone.

TECHNICAL INFORMATION: Smooth frequency response—60 to 10,000 c.p.s.; Moisture-proof "Metal Seal" crystal for long operating life; high impedance; 7 ft. single-conductor cable, disconnect type. Dimensions: (Microphone only) Length, 4½"; Diameter, 1". Finish: Rich satin chrome overall.

Note: All Models are furnished with Lavalier Cord, for suspension of microphone around neck.

"SLIM-X" ASSEMBLIES

MODEL 777A includes 777 Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord.
Model: 777A List Price: **$33.00**

MODEL 777SA includes 777S Microphone; A-25 Swivel Adaptor; S-38 Desk Stand; Lavalier Cord.
Model: 777SA List Price: **$35.00**

ACCESSORIES FOR "777"

MODEL S-38 STAND is a heavy die-cast base. Includes metal screw machine stud for connecting microphone adaptor to stand base.
Model: S-38 List Price: **$4.50**

MODEL A-25 SWIVEL ADAPTOR features a long-life, high-quality swivel connector. Is lined with a long-life nylon sleeve—for noise-free and scratch-free insertion and removal of microphone.
Model: A-25 List Price: **$5.50**

Model	Output	List Price
777*	62 db below 1 volt per microbar	$25.00
777A		$33.00
777S* With Switch		$27.00
777SA With Switch		$35.00

*(Price includes cradle for mounting on stand.)

"MONOPLEX"

The only Super-Cardioid Crystal Microphone made—far superior to conventional Crystal Microphones! Excellent for high-quality public address, communications, recording, and similar applications. The 737A operates under adverse conditions of background noise and reverberation—where a conventional microphone would be practically useless! Reduces pickup of random sound by 73%! Moisture-proof 'Metal Seal" crystal for long operating life. Case pivots at rear, can be pointed toward desired sound or upwards for horizontal plane pickup. Has 15 ft. shielded cable. Rich satin chrome finish. High impedance.

MODEL	OUTPUT	LIST PRICE
737A	53 db below 1 volt per microbar	$46.00

Model 215 and 715

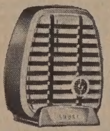
"STARLITE"

Beautifully designed. Excellent for voice and music. Extremely low price and good quality make them a "natural" for home recording, intercom systems and inexpensive P.A. systems. Can be held in the hand, or used on a desk by simply releasing a built-in retractable stand. Semi-directional, high impedance; impact resistant polystyrene cases.

Model 215, a *ceramic unit*, has a response from 50-8000 cps; Model 715, a *crystal unit*, has a response range from 50-10,000 cps. Both supplied with 5 ft. fabric covered single conductor shielded cable.

MODEL	OUTPUT	LIST PRICE
215 Ceramic	56.5 db below 1 volt per microbar	$8.00
715 Crystal	50 db below 1 volt per microbar	$8.00

THE "REX"



Model 710A and 710S

Model 707A

A natural for "Hams" and low-cost public address system. A rugged unit designed for high speech intelligibility. Broad "tip-proof" table top base, with floor stand adapter. Die cast case. Frequency response 60 to 9,000 c.p.s. 5 ft. shielded cable. Burgundy-red metallic finish. Only 2⅔" wide, 3¼" high, 1⅛" thick. High impedance.

MODEL	OUTPUT	LIST PRICE
710A	50 db below 1 volt per microbar	$12.00
710S (with switch)	50 db below 1 volt per microbar	$14.00

MODEL 707A

Ideal for low-cost P.A. systems, amateur 'phone transmitters and similar applications. Good quality at low cost. Has typical semi-directional pickup. 7 ft. shielded cable. High impedance. Pearl Gray case, satin chrome finish on front grille. Diam. 2⅜". (Use with Shure Model S34B or S36A Desk Stands.)

MODEL	OUTPUT	LIST PRICE
707A	50 db below 1 volt per microbar	$19.50

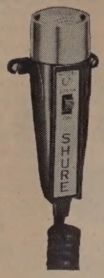
See Section 1340 for additional Shure Products.

SHURE COMMUNICATIONS MICROPHONES

NEW! SHURE COMMUNICATIONS MICROPHONES

MODEL 488

MODELS 201-401



MODEL 275SK

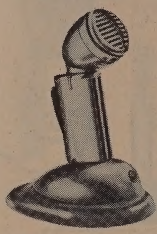
NOISE CANCELLING MICROPHONE — Model 488 "Sono-Bar". A real breakthrough in microphone design. Suppresses background noise more effectively than any other microphone!

CITIZENS BAND IMPROVEMENT MICROPHONES — Models 201, 401, 275SK. A great line-up of excellent quality, low cost CB and mobile microphones.

SEE THE FIRST TWO PAGES OF THIS SHURE MICROPHONE SECTION FOR FULL DETAILS AND SPECIFICATIONS.

FOR AMATEUR RADIO

MODEL 440 SL



Response characteristic tailored to meet the demands of radio communications. Ideally suited for single-sideband. Rising response characteristic with sharp cutoff below 300 and above 300 cps. eliminates the need for audio filters. Rugged, time-proven controlled magnetic element, with high output equalling that of a crystal unit. Ideal for use with all types of amateur transmitters. Frequency response: 300 to 3000 cps. High impedance, output level 52.5 db below 1 volt per microbar. 7 ft. 2-conductor shielded cable with equivalent to Amphenol MC3M plug, switch and desk stand.

MODEL 440 SL ....LIST PRICE: $47.50

MODEL 440

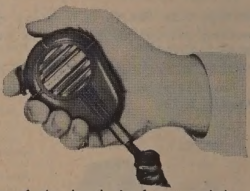
Basic microphone same as above but with 7 ft. single conductor shielded cable. Less switch, stand, connector. Use with S34B or S36A stand.

MODEL 440 ....LIST PRICE: $25.00

A87K MODIFICATION KIT. Modifies 440 SL to obtain maximum flexibility between either VOX or push-to-talk operation. List: $3.25.

THE "404" WITH HIGH IMPACT "ARMO-DUR" CASE

MODEL	OUTPUT LEVEL	IMPEDANCE	CABLE LENGTH, TYPE DESCRIPTION	SWITCH (NORMALLY) MIC CIRC.	SWITCH (NORMALLY) RELAY CIRC.	LIST PRICE
404 B	50 db below 1 milliwatt per 10 microbars	150-250 Ohms	5½ ft. Coiled cord, Copper, 4 conductor (2 shielded)	CLOSED*	OPEN	$33.00
404 C	50.5 db below 1 volt per microbar	High	5½ ft. Coiled cord, Copper, 3 conductor (1 shielded)	CLOSED*	OPEN	$33.00
405 T ***	1 db loaded with 500 ohms	100-500 ohms	5 ft. extended 4 conductor stranded coiled cord	——	OPEN	$48.50



The Shure Controlled Magnetic "404" is recommended for those applications where a rugged hand-held microphone is needed. It is ideal for outdoor public address (sports arenas, athletic fields, carnivals, etc.) and for mobile communications. The "404" is designed for high speech intelligibility. Easy to use, fits snugly in the palm of the hand. Leaf-type switches control the mic. circuit and an external relay or switching circuit. Omni-directional. Freq. response 200 to 8000 cps. Only 3 11/16" high, 2 5/8" wide, 1 49/64" deep. Includes mounting bracket.

*Provision for simple change to normally open.

**Replacement for General Electric EM10A.

***Transistorized for direct replacement of carbon microphones.

MODEL "100" SERIES CARBON MICROPHONES

Used around the world for police, taxi, bus, truck, and commercial applications — *more than all other makes combined!* Rugged unit with clear, crisp voice response and high output. Heavy duty switch for push-to-talk performance. Furnished with bracket for wall mounting, plus coiled-cord cable. Adopted as standard microphone by G.E., Link, Motorola, R.C.A. and others for 2-way radio communications equipment. Output level: 5db below 1 volt for 100 microbar speech signal.

REPLACEMENT CHART

MANUFACTURERS MODELS	REPLACEMENT MODEL
CB10, CB10B, CB10C, CB10D, CB15, CB15D,	101C
CB10E	101E
CB12, CB12A, CB12C, CB12D	102C
CB12E	102E
CB15F	103

ARMO-DUR MODELS

Model	Cable	Switch Arrangement	List Price
104A (replaces 102C, 102E)	Copper coiled cord with trimmed and tinned leads	Relay normally open, Microphone normally open	$30.00
104B (replaces 101C, 101E, 103)	Copper coiled cord with trimmed and tinned leads	Normally open relay switch (No microphone switch)	$30.00

DIE CAST MODELS

Model	Cable	Switch Arrangement	List Price
101C	Standard Coiled Cord 11" retracted; 5' extended	Two Wire Relay Switch normally open. (No microphone switch)	$30.00
101E	Tinsel Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector		$33.00
102C	Standard Coiled Cord 11" retracted; 5' extended	Relay normally open. Microphone switch normally open.	$30.00
102E	Tinsel Coiled Cord 11" retracted; 5' extended with spade lugs		$33.00
103	Standard Coiled Cord 11" retracted; 5' extended with Amphenol MC4M Connector	Two Wire Relay Switch normally open. (No microphone switch)	$31.00

See Sec. 1340 for additional Shure Products.

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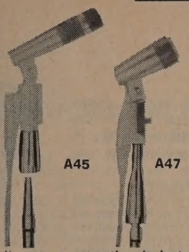
SHURE

MICROPHONE ACCESSORIES

QUICK DISCONNECT MICROPHONE ISOLATION UNITS



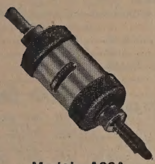
Designed for use with microphones normally mounted on desk or floor stands but which must be periodically removed from stand for hand-held or carry-around use. In addition, because of a molded rubber insert, the adaptors effectively isolate the microphones from mechanical vibration, shocks and noises carried to the microphone through the desk or floor stand. Quick disconnect operation is instant, easy, and silent. Made of aluminum and anodized for beauty and long wear despite frequent handling.

Model A45 is designed for microphones incorporating an isolation assembly such as the Shure Models 556, 330 and 546.

Model A47 is designed for microphones with connectors such as Shure Models 55S, 51, 545S, 540S, 737A or nearly all microphones with a standard 5/8"-27 thread.

	A45	A47
LIST PRICE	$12.00	$12.00
DIMENSIONS	3½" high x 1⅝" diam. assembled	5½" high x 1⅝" diam. assembled
WEIGHT ADDED TO HAND HELD MICROPHONE	2.3 oz.	3.6 oz.
NET WEIGHT	3.3 oz.	4.6 oz.

CABLE TYPE TRANSFORMER



Model—A86A

Model A86A is a high-quality, cable-type transformer which makes it convenient to run a long microphone line from a low impedance microphone (35-50 ohm and 150-250 ohm) to a high impedance amplifier. It is housed in a compact, sturdy and magnetically-shielded case. Connection terminals are easily accessible, and compression fittings crimp the microphone and amplifier inputs. This type of system usually solves the problem of excessive high frequency loss and objectionable hum pickup when long lengths of microphone cable are necessary. For use with Shure Models 51, 51S, 55S, 55SW, 556S, 575S, 300, 315, 315S, 330, 333, 525, 530, 535, 540S, 545, 545S and 546 Dynamic and Ribbon Microphones. Model A86A may also be used in specialized applications requiring high impedance to low impedance circuit connections. Attractive two-tone gray furnished with 2-foot cable. Frequency response: 20 to 20,000 c.p.s., plus or minus 1 db.
List Price: **$17.50**

MICROPHONE REPLACEMENT CARTRIDGES

CARBON REPLACEMENT CARTRIDGE—MODEL R10

Rugged microphone cartridge replacement for "CB", "100", and "120" Series Carbon Microphones. Includes mounting hardware, installation instructions. **Model R10** **List Price $8.50**

Model 99A149 replacement cartridge for microphone models: CB20, CB21, CB50 and 115. **Model 99A149** **List Price $8.50**

CRYSTAL CARTRIDGE — MODEL R7

Available as a replacement for the cartridges in the Shure Crystal Microphones of the 707A and 708A Series, and other microphones of similar design. High output — 48 db below 1 volt per microbar. Supplied with rubber mounting rings and installation instructions.
Model R7 **List Price $8.25**

SLIM-X MICROPHONE CARTRIDGE

The Model 99A186 replacement cartridge assembly for the 777 Series Slim-X Microphones. Crystal element metal-sealed for long life under adverse conditions of heat and humidity. Requires only one solder connection. **Model 99A186** **List Price $10.00**

CONTROLLED MAGNETIC CARTRIDGE — MODEL R5

Direct replacement for cartridges used in the following Shure microphone models: 510C, 510MD, 510S, 520, 520SL, 505C, 505K, 404C, 405C and 405K. Also ideal for replacement of crystal cartridges in Shure cases of the Model 707A and 708A Series, where heat and humidity are a problem. Supplied with rubber mounting ring.
Model R5 **List Price $11.00**

LOW IMPEDANCE CARTRIDGE — MODEL R5B

Model R5B is the replacement cartridge for cartridges used in microphone models 505B, 505T, 404B, 405B, 405T, 510SLB, 520SLB, and 520B. Model R5B is physically identical to Model R5; but low impedance (150 to 250 ohms). Can be used in any R5 applications which require a low impedance cartridge.
Model R5B **List Price $11.00**

MODEL R4M FOR SHURE "COMMANDOS"

The Model R4M controlled magnetic cartridge assembly is the direct replacement cartridge for use in the models 430, 425, 420 and 415 Shure "Commando" microphones. **Model R4M** **List Price $15.00**

MODEL R5T CONVERSION KIT

Includes a controlled magnetic cartridge and transistor amplifier to convert carbon microphones into improved controlled magnetic transistorized microphones. Conversion takes only minutes with a screw-driver, long-nose plier, soldering iron.

SPECIFICATIONS: Controlled magnetic with transistor amplifier. 200 to 4,000 cps, semi-directional. Output Level: 1 db loaded with 500 ohms (0 db — 1 milliwatt per 100 microbars). **List Price: $25.00.**

COILED CORD SETS

Tinsel Coiled Cord with trimmed and tinned leads and Amphenol MC4M connector attached (3 conductor shielded) for use with General Electric EM10A and 505K microphones.
Model: C10C List Price **$12.00**

Tinsel Coiled Cord with Amphenol MC4M plug for use with General Electric EM10A-2 and Shure 405K and 405 KB Microphones.
Model: C11C List Price **$12.00**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404C, 488A microphones.
Model: C12C List Price **$9.75**

Standard Coiled Cord with trimmed and tinned leads for use with Shure 404B, 488B microphones.
Model: C14C List Price **$10.00**

Standard Copper Coiled Cord with trimmed and tinned leads. Used in "CB" and "100" Series Microphones.
Model: C15C List Price: **$6.25**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with General Electric equipment.
Model: C16C List Price **$9.50**

Tinsel Coiled Cord with spade lugs for use in Motorola equipment. **Model: C17C** List Price **$7.75**

Standard Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment.
Model: C18C List Price **$9.50**

Tinsel Coiled Cord with Amphenol MC4M Connector for use with Motorola equipment. **Model C19C** List Price **$9.50**

Tinsel Coiled Cord For use with Shure 201, 401A
Model: C20C List Price **$7.00**

Tinsel Coiled Cord For use with Shure 401B
Model: C21C List Price **$7.75**

Tinsel Coiled Cord with PJ-068 connector for use with Shure 488T. **Model: C22C** List Price **$15.00**

Tinsel Coiled Cord For use with Shure 275 SK
Model: C23C List Price **$16.50**

TAKE-APART STAND

Model S34B. Handy low-cost stand for desk or hand use. One twist of handle locks it securely in base for use as a table stand, or releases handle for use in hand. Metal base, wood handle.
Model: S34B List Price: **$4.50**

"GRIP-TO-TALK SLIDE-TO-LOCK" SWITCH

Heavy-Duty Switch withstands the most severe field requirements of paging and dispatching systems. Ideal for Police, Taxi-Cab, Railroad, Airport, Bus, Truck, and all emergency communications work. Can be used with Shure connector-type crystal, dynamic and carbon microphones of any impedance. Fits handily on Shure S36A Desk Stand. Rich satin chrome finish.
Model: A88A **List Price: $12.50**

Model A88A

ON-OFF PRESS-TO-TALK SWITCHES

Model A83B. Rotary-type "On-Off" switch. Quickly attached to any cable-connector type Shure microphone.
Model: A83B List Price: **$11.00**

Model A84B. Momentary Press-to-Talk "On-Off" switch.
Model: A84B List Price: **$11.00**

Model A85C. Momentary Press-to-Talk Relay-Type Switch.
Model: A85C List Price: **$11.50**

MODERN DESK STAND

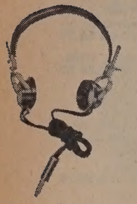
Model S36A

Model S36A. Streamlined Desk Mount fits all Shure connector-type microphones. Adapter provided for mounting other type microphones. Ideal for use with A88A switch.
Model: S36A List Price: $6.50

See Section 1340 for additional Shure Products.

—TRIMM—

HEADSETS AND ACCESSORIES

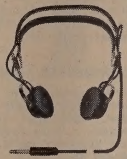


*Extended Frequency Range

"L" TYPE WITH *EFR

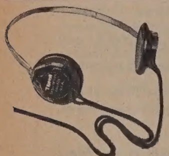
TRIMM'S most popular headset with *"extended frequency range". For use in communications, language labs and wherever high-quality performance is required. No. 50 series has a black neoprene covered handband and 5 ft. black nylon braided cord with plug, as shown at left. No. 56 series has an adjustable vinyl covered double headband with integral "over-the-head" neoprene cord and plug, as shown below. Impedances as listed.

	List
No. 50-08 —8 ohm	**$23.00**
No. 50-2M —2M ohm	**23.00**
No. 50-5M —5M ohm	**23.00**
No. 50-12M—12M ohm	**24.00**
No. 56-08 —8 ohm	**27.65**
No. 56-2M —2M ohm	**27.65**
No. 56-5M —5M ohm	**27.65**
No. 56-12M—12M ohm	**28.65**



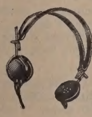
SEE FACING PAGE FOR STEREO TYPES

FEATHERWEIGHT



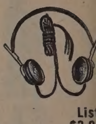
The original light-weight headset. Used by amateurs, commercial operators, etc. Bakelite shell and cap; 5 ft. braided waterproof cord; concealed terminals. No. 100 series and No. 106 type have adjustable nickel plated steel headband as illustrated at left. No. 104 series and No. 107 type have fabric covered double wire headband with spring clip for adjustment as pictured below. Leather, vinyl, and rubber covered headbands available.

STANDARD TYPES	List
No. 100-03—3.2 ohm	**$11.00**
No. 100-06—600 ohm	**11.00**
No. 100-2K—2K ohm D.C.	**11.00**
No. 100-4K—4K ohm D.C.	**11.00**
No. 104-03—3.2 ohm	**11.00**
No. 104-06—600 ohm	**11.00**
No. 104-9-03—3.2 ohm w/plug	**11.80**
No. 104-9-2K—2K ohm D.C. w/plug	**11.80**
No. 104-9-4K—4K ohm D.C. w/plug	**11.80**
No. 104-2K—2K ohm D.C.	**11.00**
No. 104-4K—4K ohm D.C.	**11.00**
SPECIAL AMATEUR TYPES	
No. 106 —24M ohm	**11.00**
No. 106-9 —24M ohm w/plug	**11.80**
No. 107 —24M ohm	**11.00**
No. 107-9 —24M ohm w/plug	**11.80**



SEE FACING PAGE FOR STEREO TYPES

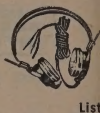
ACME



A superior low-cost, light-weight headset, used on crystal sets, educational electronic kits, Geiger counters, etc. Cap and shell of molded bakelite. Double headsets have 4½ ft. long braided cord; single earphones supplied with 4½ ft. long vinyl cord. Concealed terminals.

		List
DOUBLE HEADSETS		
No. 24-03—3.2 ohm	Vinyl covered headband	**$3.9**
No. 24-9-03—3.2 ohm w/plug	Vinyl covered headband	**4.7**
No. 24-15—1500 ohm	Vinyl covered headband	**3.9**
No. 24-2K—2K ohm D.C.	Vinyl covered headband	**4.0**
No. 24-4K—4K ohm D.C.	Vinyl covered headband	**4.3**
No. 24-9-2K—2K ohm D.C. w/plug	Vinyl covered headband	**4.9**
No. 25-03—3.2 ohm	Metal headband	**3.4**
No. 25-15—1500 ohm	Metal headband	**3.5**
No. 25-2K—2K ohm D.C.	Metal headband	**3.6**
No. 25-4K—4K ohm D.C.	Metal headband	**3.9**
SINGLE EARPHONES		
No. 27-03—3.2 ohm	Metal headband	**2.0**
No. 27-9-03—3.2 ohm w/plug	Metal headband	**2.9**
No. 27-15—1500 ohm	Metal headband	**2.1**
No. 27-1K—1K ohm D.C.	Metal headband	**2.2**
No. 27-2K—2K ohm D.C.	Metal headband	**2.3**

DEPENDABLE



When a high grade headset is desired, but price must be considered, choose the Dependable. Used by institutions, on general radio applications, etc. Bi-polar construction, bakelite cap and shell. Forged magnet. Tinsel conductor braided cord, 5 ft. long, concealed terminals. Vinyl covered wire headband, adjustable.

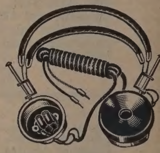
	List
DOUBLE HEADSETS	
No. 70-03 —3.2 ohm	**$5.1**
No. 70-06 —600 ohm	**5.2**
No. 70-9-03—3.2 ohm w/plug	**5 9**
No. 70-9-2K—2K ohm D.C. w/plug	**6.2**
No. 70-9-4K—4K ohm D.C. w/plug	**6.8**
No. 70-2K —2K ohm D.C.	**5.4**
No. 70-4K —4K ohm D.C.	**6.0**
SINGLE EARPHONE w/HEADBAND	
No. 72-03 —3.2 ohm	**3.5**
No. 72-1K —1K ohm D.C.	**3.6**
No. 72-2K —2K ohm D.C.	**3.7**

SEE FACING PAGE FOR STEREO TYPES

REX

The lowest cost TRIMM bi-polar headset. Bakelite shell and cap. Double headsets have 4½ ft. braided cord; single earphones have 4½ ft. vinyl covered cord. Concealed terminals. Adjustable headband.

	List
DOUBLE HEADSETS	
No. 30-03—3.2 ohm	**$4.50**
No. 30-9-03—3.2 ohm w/plug	**5.35**
No. 30-2K—2K ohm D.C.	**4.70**
No. 30-3K—3K ohm D.C.	**5.00**
No. 30-9-2K—2K ohm D.C. w/plug	**5.55**
SINGLE HEADSETS	
No. 32-03—3.2 ohm	**2.50**
No. 32-1K—1K ohm D.C.	**2.60**

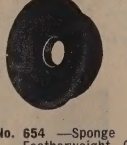


COMMERCIAL

Originally developed for marine and aircraft service. Recommended for commercial radio, amateur radio, etc. A light-weight, comfortable headset. High-impact bakelite cap and shell. Cord is 5 ft. waterproof mercerized cotton with pin tips except on No. 155, 156 and 157 which have TRIMM No. 501 plug attached. No. 151 has adjustable metal headband with over-the-head cord; No. 152 has black fabric covered headband with over-the-head cord; No. 155 has vinyl covered headband; No. 156, 157, 158 and 159 have neoprene covered headbands.

No. 151-03—3.2 ohm	**$12.10**
No. 151-06—600 ohm	**12.10**
No. 151-2K—2K ohm D.C.	**12.10**
No. 152-03—3.2 ohm	**12.10**
No. 152-06—600 ohm	**12.10**
No. 152-2K—2K ohm D.C.	**12.10**
No. 155-03—3.2 ohm w/plug	**13.00**
No. 155-06—600 ohm w/plug	**13.00**
No. 155-2K—2K ohm D.C. w/plug	**13.00**
No. 156 —600 ohm w/plug	**15.00**
No. 157 —17M ohm w/plug	**15.00**
No. 158 —600 ohm	**13.50**
No. 159 —17M ohm	**13.50**

EAR CUSHIONS



Provide the user with maximum comfort when wearing headsets and excludes outside disturbing noises.

	List
No. 654 —Sponge rubber; fits TRIMM Featherweight, Commercial, Acme, Rex, and "L" types	**$1.60**
No. 655 —Solid rubber, military type MC-162A. Fits TRIMM "L", "S", Permo-flux headsets and military type ANB-H-1 units	**3.00**
No. 656 —Sponge rubber face, solid rubber back, military type MX-41/AR. Fits same types as No. 655	**4.20**
No. 658 —Chamois donut face, solid rubber back, military type NAF 4849-1. Fits same types as No. 655	**13.35**
No. 658-2—Similar to No. 658. Fits Brush type "A" headset	**16.95**
No. 660 —Sponge rubber. Fits TRIMM Dependable, Army-Navy, Brush type "A" and Brush type "BA" headsets	**2.50**

In code number listing, the impedance at 1000 c.p.s. is indicated unless shown as D.C. resistance.

ARMY-NAVY

Built for severe use. Design has been accepte standard in years past. Bakelite cap, metal shell Rubber covered headband. Waterproof cord. Avail able in two impedances.

	List
No. 28(W)—Double, 600 ohm impedance	**$20.0**
No. 29(K)—Double, 20M ohm impedance	**20.0**

See Facing Page for TRIMM Group Hearing Ai Components and other Headsets and Accessories

See Section 2100 for listing of TRIMM Plugs Jacks, Patch Cords, and Jack Panels.

Prices and specifications subject to change without notice.

—TRIMM—

HEADSETS AND ACCESSORIES

GROUP HEARING AID COMPONENTS

Single Earphones

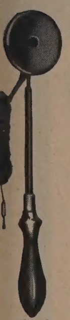


Fig. A

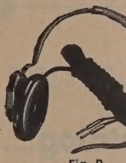


Fig. B

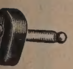
The most widely used single earphones for group hearing aid systems in churches, theatres, mortuaries, etc. are of the TRIMM Featherweight type. Lorgnette handle and single headband types available. Normally used as indicated below. Phone plug such as No. 512 is requred when phones are used with outlet boxes described below.

300 ohm Imped. Low imped. line (up to 50 ohms)
4500 ohm Imped. (1K D.C. ohms) Medium-high imped. line (200-500 ohms)
9000 ohm Imped. (2K D.C. ohms) Large installation on high imped. line.

	List
No. 110-3; 110-1K; 110-2K—Fig. B	$7.60
No. 113-3; 113-1K; 113-2K—Fig. B w/4 ft. cord and 512 plug	8.50
No. 114-3; 114-1K; 114-2K—Fig. B w/6 ft. cord and 512 plug	8.50
No. 120-3; 120-1K; 120-2K—Fig. A	10.00
No. 124-3; 124-1K; 124-2K—Fig. A w/512 plug	10.90

Note: -3=300 ohm imped.; -1K=1K ohm D.C.; -2K=2K ohm D.C.

FLAT PLUGS



TRIMM No. 512 provides a compact, non-protruding design widely used in group hearing aid installations. Bakelite body practically non-breakable. Fits standard jacks. Cord pin tips held by set screws.

	List
No. 512 —Black	$.87
No. 512-1—Red	.87
No. 512-2—Black with hook for hanging headset	1.32

VOLUME CONTROL — OUTLET BOXES

ontrol boxes No. 460 and 461 are recommended for the ajority of group hearing aid systems, etc. Combine, in a ngle unit, volume control, phone jack, and terminal strip r incoming line. Box measures 3¾″ x 2⅛″ x 1¼″. All lges and corners rounded. Units available in brown or ay hammertone enamel finish as listed below. Also available in glossy ivory enamel to improve visibility in theatres. vo standard ohmages: 1000 ohms for low impedance lines;),000 ohms for high impedance lines. 25,000 and 50,000 ims used on large installations; also 100,000 and 500,000 ims used with crystal type phones; these values available slightly higher cost but not listed below:

LUME CONTROL—OUTLET BOXES	List
o. 460-1K —Brown Hammertone	$5.50
o. 460-10K—Brown Hammertone	5.50
o. 461-1K —Glossy Ivory	5.50
o. 461-10K—Glossy Ivory	5.50
o. 462-10K—Gray Hammertone	5.50
DUAL JACK OUTLET BOXES (No Control)	
o. 477—Brown Hammertone	3.85
o. 478—Glossy Ivory	3.85
SINGLE JACK OUTLET BOXES (No Control)	
o. 484—Brown Hammertone	3.30
o. 485—Glossy Ivory	3.30

"S" HEADSET

Originally designed for Air Corps service and other military applications. For commercial, high fidelity, and language laboratories, use the new "L" headset (see preceding page). Shell and cap of molded plastic. Alnico V magnet. Supplied with No. 656 cushion (except 35-5 and 35-6; military types HS-33/A) but other types available. Leather covered headband with mounting for unit providing restricted rotation. Over-the-head cord arrangement with No. 501 plug attached to end of cord.

	List
No. 35-06 —600 ohm impedance	$28.00
No. 35-08 —8 ohm impedance	28.00
No. 35-4M—4M ohm impedance	28.00

STEREO HEADSETS AND CONTROL BOXES

Headsets

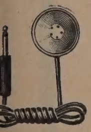
A variety of TRIMM stereo headsets are available, depending on quality and response desired. The stereo headsets listed below are the most commonly produced; all are supplied with plug. The "L" type has frequency range up to 10,000 C.P.S.

	List
DEPENDABLE	
No. 70-14-03 —3.2 ohm Impedance	$7.00
No. 70-14-2K—2K ohm D.C.	7.90
"L"	
No. 50-14-08 —8 ohm impedance	27.00
No. 50-14-16 —16 ohm impedance	27.00
No. 50-14-6M—6M ohm impedance	28.00
No. 56-14-08 —8 ohm impedance	31.65
No. 56-14-16 —16 ohm impedance	31.65
No. 56-14-6M—6M ohm impedance	32.65
No. 57-14-08 —8 ohm impedance	29.00
No. 57-14-16 —16 ohm impedance	29.00
No. 57-14-6M—6M ohm impedance	30.00
FEATHERWEIGHT	
No. 104-13-03—3.2 ohm impedance	13.60
No. 104-14-1K—1K ohm D.C.	13.60
No. 104-14-2K—2K ohm D.C.	13.60

Control Boxes

TRIMM stereo control boxes are similar to other types illustrated on this page, except supplied with two volume controls and one stereo connected jack. Boxes can be supplied with rubber jacketed cord upon request.

	List
No. 464-1C—100 ohm (Brown Hammertone)	$9.40
No. 465-1C—100 ohm (Glossy Ivory)	9.40
No. 465-1C—100 ohm (Gray Hammertone)	9.40



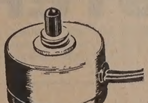
PILLOW-PHONE

Designed for use as a miniature speaker for under-pillow use at home, in hospitals, etc. Very thin, disc-shaped, 2″ dia. x 27/64″ thick.

ealed unit is entirely moisture-proof and tamper-proof. ace of stainless steel, back of molded high-impact rown bakelite. Flexible, brown plastic covered cord, ft. long, is anchored to unit under terminal cover hat can not be readily removed by user. Normally furished with TRIMM No. 514 plug. May be cleaned in isinfecting solutions.

	List
o. 85-03 —3.2 ohm impedance	$11.50
o. 85-3 —300 ohm impedance	11.50
o. 85-2M—2M ohm impedance	11.50

CONTACT FACTORY FOR ADDITIONAL NFORMATION ON HEADSETS, ACCES-SORIES AND REPLACEMENT PARTS.

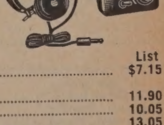


"STOP-IT" COMMERCIAL TRIMMER

Permits user to turn off audio signal of TV or radio set without getting up from chair, giving listener freedom to choke off unwanted commercials. Other uses that suggest themselves are to suppress loudspeaker when phone rings, etc.

No. 639—"STOP-IT" (Illustrated at left) consists of housing containing switch to which is attached 20 ft. cord ready to install in accordance with instructions with each unit	$3.40

HEADSET KITS FOR TV AND RADIO



Kits described provide simple means of attaching headset or extension speaker to TV or radio sets. Consists of one of several types of headsets, including plug, and a small control-outlet box with attached 15 ft. cord. Box has remote on-off switch for loudspeaker and volume control for headset. Two jacks provided for multiple listening.

	List
CONTROL BOX, only	
No. 631	$7.15
KITS, including control box and headset or earphone, with plug.	
No. 632 —With No. 24-9-03 double Acme Headset	11.90
No. 632-1—With No. 27-9-03 single Acme Earphone	10.05
No. 633 —With No. 70-9-03 double Dependable Headset	13.05
No. 634 —With No. 104-9-03 double Featherweight Headset	18.95
No. 635 —With No. 115-03 single Featherweight earphone (Recommended for hard of hearing)	15.60
No. 637 —With No. 85-03 Pillow-Phone	18.65

SEE GENERAL CATALOG FOR ADDED INFORMATION ON "STOP-IT" AND HEADSET ATTACHMENT KITS

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When ordering products shown in this book or writing for additional information, please be sure to specify:

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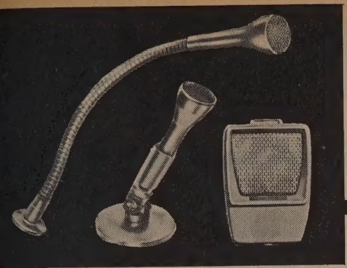


SONOTONE
CERAMIKE MICROPHONES

rugged, reliable mikes for mobile and fixed communications, A-V and tape recordings

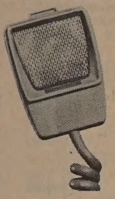


Fig. A

Fig. B

SONOTONE CERAMIKE 'CM-30.' Perfect for mobile units. Intelligibility unsurpassed. Sensitivity curve favors voice frequency range. Ruggedly built to take the punishment of mobile use. Lightweight, shatter-proof plastic case. Convenient "push-to-talk" button and dashboard mounting bracket. Spring-spiraled 4-conductor shielded cable, net **$8.40.** Fig. A

SONOTONE CERAMIKE 'CM-30M.' With new dashboard magnet mount — no holes to drill, no brackets to attach, net **$9.90.** Fig. B

Response:	60 to 7,000 cps
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

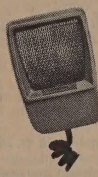


Fig. C

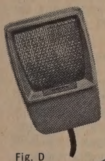


Fig. D

SONOTONE CERAMIKE 'CM-31.' Rugged mobile communications microphone. This budget-priced model in shatterproof plastic case features excellent intelligibility. Mike has two-conductor coil cable — no switch, net **$8.10.** Fig. C

SONOTONE CERAMIKE 'CM-31M.' Available wih new dashboard magnet mount — no holes to drill, no brackets to attach. Less switch, net **$9.60.**

Response:	90 to 6,000
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

SONOTONE CERAMIKE 'CM-32.' Ideal, low cost mike for tape recording. Lightweight, shatterproof case. Equipped with standard plug and phone jack. CM-32, net **$7.50.** Fig. D

Response:	80 to 9,000
Sensitivity:	−49 db ±2 db
Case:	Shatterproof plastic
Transducer:	Ceramic element

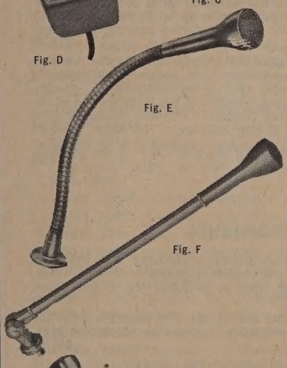


Fig. E

Fig. F

SONOTONE CERAMIKE 'CM-17A.' Omnidirectional high impedance model provides natural sound reproduction and long-term, trouble-free service in audio-visual labs, language labs, PA systems. 13" flexible gooseneck keeps hands free for writing and taking messages. Excellent for all speech needs. 6' shielded cable, net **$14.70.** Fig. E

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping Grid:	Lanced, louvered metal grid

Models utilizing the CM-17A element available in a variety of mountings as follows:

SONOTONE CERAMIKE 'CM-17B' — 13" boom mike. Fixed boom mounted with 350° swivel. 7' mike cable, net **$17.10.** Fig. F
SONOTONE CERAMIKE 'CM-17C' — 6" flexmike. Flexible gooseneck with fixed base mount. 7' mike cable, net **$13.50.** Fig. E
SONOTONE CERAMIKE 'CM-17D' — 6" boom mike. Solid boom with fixed base mount. 7' mike cable, net **$13.50.** Fig. F
SONOTONE CERAMIKE 'CM-17E' — 3" boom mike. Solid boom with fixed base mount. 7' mike cable, net **$12.30.** Fig. F

SONOTONE CERAMIKE 'CM-18A' — 13" flexmike. Low impedance omnidirectional microphone with push-to-talk button to keep audio control at the user's fingertips. Ideal for transistorized system, net **$20.70.** Fig. E with switch
SONOTONE CERAMIKE 'CM-18' — 13" flexmike with same electrical characteristics as the CM-18A except that it has no push-to-talk switch, net **$19.50.** Fig. E

Response:	200 to 8,000 cps
Sensitivity:	−63 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

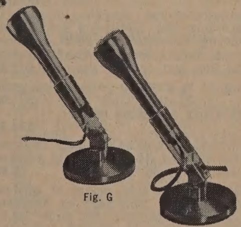


Fig. G

SONOTONE CERAMIKE 'CM-T10A' (Matched Twin) — Ideal for taping the new FM stereo broadcast "off-the-air" and other stereo taping applications. Every CM-T10A set is electronically matched at the factory to a tolerance of ±2 db to eliminate the risk of distortion. 7' shielded cable and phone plug. Per pair, net **$21.30.** Fig. G
Shown with optional CMS10 stand.

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-T11A' (Matched Twin) — For use where greater sensitivity is desired. Per pair, net **$21.30.** Fig. G
Shown with optional CMS10 stand.

Same specifications as the CM-T10A except:

Response:	80 to 9,000 cps ±2 db
Sensitivity:	−53 db

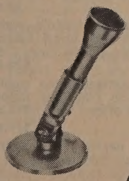


Fig. H

MATCHING TABLE STAND CMS-10 available with 5/8 No. 27 thread for floor stand mounting, net **$3.00.**

SONOTONE CERAMIKE 'CM-10A' — Natural, clean reproduction over the full audible range. Ideal for tape recording, also excellent for home movie, PA systems and conference pickups. 7' shielded cable with phone plug, net **$10.50.** Fig. H
Shown with optional CMS10 stand.

Response:	50 to over 11,000 cps
Sensitivity:	−56 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

SONOTONE CERAMIKE 'CM-11A' — Where greater sensitivity is desired, the CM-11A is the ideal solution, net **$10.50.** Fig. H
Shown with optional CMS10 stand.

Has same specifications as the CM-10A except for:

Response:	80 to 9,000 cps
Sensitivity:	−53 db ±2 db

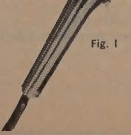


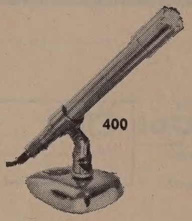
Fig. I

SONOTONE CERAMIKE 'CM-12A' — For PA systems in long lead installations. Low impedance with push-to-talk buttons, net **$17.70.** Fig. I

Response:	200 to 8,000 cps
Sensitivity:	−63.5 db ±2 db
Transducer:	Ceramic element
Damping grid:	Lanced, louvered metal grid

MICROPHONES BY TURNER

58



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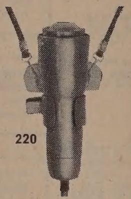
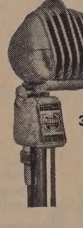


220

U9S

304C



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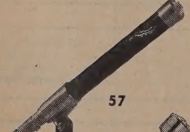

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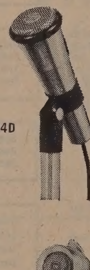
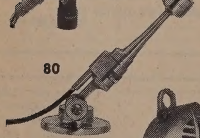


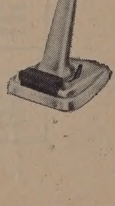
204D



80

95D

9D



250

BROADCAST MICROPHONES

TURNER 400 SERIES MICROPHONES. High quality broadcast type microphones featuring adjustable impedance and response. Wide response pressure operated moving coil dynamic, essentially non-directional. Recommended for motion picture studio, TV, broadcast and high fidelity recording applications. Positive grip cam lock allows instant insertion or removal of microphone without disconnecting.

MODEL 401—Screwdriver, impedance and response adjustment. Response from 40 cps to 20,000 cps. Output level: —60 db. at high impedance. Cable is three conductor shielded plastic jacketed 20 ft. long. Slate blue, non-reflecting finish. Net price **$75.00**

MODEL 402—Same as Model 401, except with line shorting switch. Net price **$78.00**

MODEL 403—150 ohms or high impedance with impedance selection at end of cable. Response from 50 cps to 13,000 cps. Output level: —60 db. at high impedance. Bright chrome epoxy finish. Net price **$48.00**

MODEL 404—Same as Model 403, except with line shorting switch. Net price **$51.00**

MODEL 58—A dynamic lavalier microphone that's a natural for any application requiring freedom and mobility—panel shows, interview, sportscasting, etc. Only 4″ long. Weight, 3½ oz. Choice of either high or 150 ohms impedance selected at the free end of the cable. Response from 60 to 13,000 cps at high impedance. Output level: —60 db. Net price **$34.20**

MODEL 58A—Same as Model 58, but is combination 50 or 200 ohm selected at free end of cable. Net price **$34.20**

MODEL 220—A high-quality dynamic lavalier microphone designed for am., fm., and TV broadcast use. Combination output impedance of 50 or 200 ohms selected at the terminal end of the cable. Response from 60 to 20,000 cps. Output level: —90 db. at 50 ohm. Cable is 25 ft. attached rubber covered, three conductor shielded. Net price **$75.00**

MODEL 57—A dynamic microphone designed for broadcast work, P.A., speech or music, indoor or outdoor, panel discussions, court rooms, or high-fidelity recording. Not sensitive to wind or shock, heat or humidity. Non-directional. Combination impedance of high or 150 ohms selected at the terminal end of the cable. Cable is 20 ft. rubber covered three conductor shielded. Response from 50 to 13,000 cps. Output level: —60 db. at high impedance. Net price...... **$45.00**

MODEL 57A—Same as Model 57 except combination impedance is 50/200 ohm. List price **$75.00**

PUBLIC ADDRESS AND GENERAL PURPOSE MICROPHONES

MODEL 33X—Excellent for paging, communications, announcing, P.A. use, ham radio. Satin chrome finish, 90 degree swivel coupler, supplied with 20 ft. cable. A crystal type microphone with response from 60 to 9,000 cps. Output level: —52 db. High impedance. Net price **$16.50**

MODEL 33D—Dynamic type. Same as Model 33X except with response from 100 to 9,000 cps. Output level: —54 db. Combination impedance—50, 200 or high. Net price **$21.00**

MODEL U9S—A rugged, dependable multi-impedance dynamic for use in "tough" P.A., mobile, announcing and recording jobs. Adjustable saddle, gunmetal lustre finish, three pin polarized locking connector and 20 ft. balanced line cable. Response from 80 to 9,000 cps. Output level: —52 db. at high impedance. Multi-impedance—switch for 50, 200, 500, or high. Net price **$31.80**

MODEL 204D—A dynamic microphone designed to give top performance under hard use conditions. Response from 60 to 13,000 cps. Output level: —53 db. High impedance. Comes with lavalier, desk stand, and stand adapter. Net price **$24.30**

MODEL 304C—Provides four-in-one versatility to perform as a P.A. or intercom microphone. Accessories: desk stand, lavalier clip and string, and stand adapter. Response from 60—10,000 cps; output level, —60 db. Net price **$9.90**

MODEL 80—A crystal microphone ideal for home recording, paging or amateur use. Small and graceful with satin chrome finish. 7 ft. cable supplied. Response from 80 to 7,000 cps. Output level: —54 db. High impedance. Net price....**$9.57**

Matching C-4 stand Net Price........ **$3.90**

MODEL 95D—A dynamic P.A. microphone for use in churches, schools, nightclubs, and high quality recording applications. Available with on-off switch. Complete with 20 ft. cable. Response from 100 to 10,000 cps. Output level: —58 db. Choice of 50, 200 or high ohms. Net price **$22.50**

MODEL 9D—A dynamic microphone designed for P.A., amateur, and mobile use. Comes with slide on-off switch. Response from 150 to 7,000 cps. Output level: —52 db. Specify impedance; 200 ohm or high. Net price........ **$19.50**

Model P-9D (with push to talk switch) Net price **$19.50**

MODEL 250—A dynamic microphone ideal for dispatch, paging, P.A., control tower and amateur use. Wired to operate both relay and mike circuits at a touch. Features on-off push-to-talk and lock switch. Also features Turner's "lift-switch". Response from 60 to 10,000 cps. Output level: —52 db. Complete with single unit satin chrome case and 20 ft. three conductor (one shielded) cable. Net price **$29.70**

MODEL 251—Same as Model 250 except 150 ohms. Net price **$29.70**

MODEL 256—A crystal version of the 250. Response from 60 to 8,000 cps. Output level: —48 db. Net price **$21.00**

Trade Discount Applies To List Prices Only

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MICROPHONES BY TURNER

CITIZENS BAND MICROPHONES

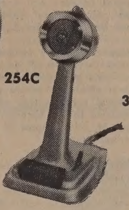
MODEL 350C—A ceramic mobile microphone with on-off switch, ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. Rugged plastic case. Complete with hanger button and standard dash bracket for easy mounting. Equipped with 11″ retracted, 5 ft. extended, rubber jacketed, coiled cord. Response from 80 to 7,000 cps. Output level: —54 db. Net price....**$10.08**

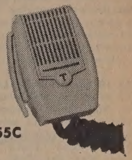
MODEL 350R—A carbon version of the 350C. Response: 200 to 4,500 cps. Output level: —38 db. Net price **$11.40**

MODEL 254C—A ceramic base station microphone with on-off push-to-talk and lock switch. Durable grey hammertone finish. Response from 80 to 7,000 cps. Output level: —54 db. Cable is 7 ft., three conductor (one shielded) wired for relay operation. Net price **$14.10**

MODEL 355C—A new style microphone ideal for citizens band, amateur use, mobile rigs and paging. Wired for relay operation. New hand-ease switch for grip-to-talk action. Complete with hanger button and standard dash bracket for easy mounting. Equipped with 11″ retracted, 5 ft. extended, rubber jacketed, coiled cord. Response from 80 to 7,000 cps. Output level: —50 db. Net price **$7.50**

350C


254C


355C

LANGUAGE LAB MICROPHONES

MODEL 585—An attractive chrome microphone on a 16″ goose neck with a three hole mounting flange. All threaded joints are "pinned" to discourage tampering. Available with crystal, ceramic or dynamic (high or 150 ohms) interior.

MODEL 58500 (Crystal)—High impedance. Response from 50 to 10.000 cps. Output level: —56 db. Net price **$18.00**

MODEL 58501 (Ceramic)—High impedance. Response from 50 to 10,000 cps. Output level: —62 db. Net price **$18.00**

MODEL 58502 (Dynamic)—High impedance. Response: 50-12,000 cps. Output level: —58 db. Net price **$25.00**

MODEL 58503 (Dynamic)—150 ohm. Response: 50-12,000 cps. Output level: —81 db. Net price **$25.00**

MODEL 588—Comes on a 13″ steel shaft with friction swivel base. Exclusive shock mount base reduces extraneous noise caused by auxiliary equipment. Fold down height is 1¾″. Secures with one bolt. Same specifications as Model 585.

MODEL 58800 (Crystal)—Net price	**$24.00**
MODEL 58801 (Ceramic)—Net price	**$24.00**
MODEL 58802 (Dynamic High)—Net price	**$32.00**
MODEL 58803 (Dynamic 150 ohm)—Net price	**$32.00**

MODEL 260—Features crystal head phones, and a selection of crystal, ceramic or high or low impedance dynamic microphone. Microphone is available with or without headset. Same specifications as comparable 585 Models.

MODEL 2600 (Crystal) Microphone—Net price	**$13.00**
MODEL 26001 (Ceramic) Microphone—Net price	**$13.00**
MODEL 26002 (Dynamic low) Microphone—Net price	**$23.00**
MODEL 26012 (Dynamic high) Microphone—Net price	**$23.00**
MODEL 26003 (Crystal) Headset—Net price	**$51.00**
MODEL 26004 (Ceramic) Headset—Net price	**$51.00**
MODEL 26013 (Dynamic High) Headset—Net price	**$59.00**
MODEL 26005 (Dynamic low) Headset—Net price	**$59.00**

MODEL 265—A rugged, dependable, top performing dynamic microphone specially designed for the language lab. Distinctive new style. Heat and moisture resistant. Adapts quickly and easily to the ED-300 Headset to form Headset Boom combination. Specify when ordering 10 ohms, 500 ohms or hi impedance. Net price, Hi impedance **$23.00**

Net price, Low impedance **$19.00**

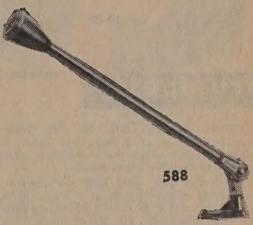
MODEL 270 HEADSET—Distinctively styled for comfort, ease of operation, performance and durability. A dynamic (8 ohms, 250 ohms, hi impedance) headset. Double headband fits away from the head for comfort and neatness. Net price **$35.50**

MODEL 275—Combination of the 265 Microphone and the 270 Headset. Both are moving coil dynamics for maximum response and reproduction over the entire voice range. Single cable carries both microphone and headset audio signals. Net price, Hi impedance **$55.00**

Net price, low impedance **$50.00**

Please write for full specifications and prices on Turner Language Lab Microphones.

585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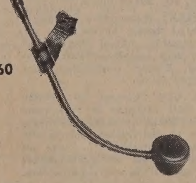
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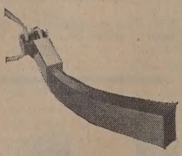
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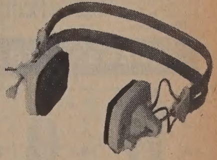
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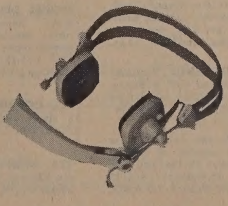
275

CUSTOM AUDIO DEVICES

Turner has complete facilities for designing and manufacturing custom audio devices of all kinds. Special application microphone interiors, soft speakers for dictating machines, anything you need. Write for full information on this service.

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UNIVERSITY: PUBLIC ADDRESS AND HIGH-FIDELITY

A Division of Ling-Temco-Vought, Inc.

drivers

MODEL ID-20 (20 watts) For speech and music systems requiring moderate sound power output, and where performance with economy is a primary consideration. Designed to deliver maximum output, the ID-20 utilizes its efficiency to the best advantage, producing a substantial "punch" with clear, penetrating sound.

MODEL ID-30 (30 watts) Redesigned version of the world famous MA-25—ideal for installations requiring single medium power units or multiple driver/horn arrangements. The ID-30, with its unusually wide upper midrange response (up to 7500 cycles), produces musical balance and noise penetration far in excess of higher-cost competitive models. Completely weatherproof with tropicalized 2″ voice coil and breakdown-proof linen base diaphragm. A top value!

MODEL ID-40 (40 watts) Latest, maximized version of the famous, earlier Model SA-HF, often referred to as the "workhorse" of the sound industry, and widely used by high fidelity manufacturers and audio hobbyists as well. Extended high frequency response and excellent efficiency assure an essentially uniform response characteristic for pleasing, natural reproduction of speech and music, while delivering that extra "punch" needed to cut through heavy noise. Tropicalized and weatherproofed, the ID-40 can be relied upon to give continuous top-flight performance under adverse weather conditions.

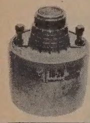
MODEL ID-40T (40 watts) Offers the same power capacity, efficiency and frequency response as the ID-40, and incorporates a built-in line-matching transformer. The transformer terminal plate is inside the rugged, die cast aluminum housing; entrance is made through an exclusive watertight dural gland nut, assuring positive weatherproofing after connections have been made. Terminals are labeled in impedances and in wattage consumed on "constant voltage" lines. Transformer impedances: 45/122/250/500/1000/2000 ohms. 70 V. line power taps: 40/20/10/5/2.5 watts.

MODEL ID-60 (60 watts) The premium compression driver in the world famous University line. Ideally suited to applications requiring the greatest power handling capacity, maximum efficiency, widest range frequency response, and rugged construction that will withstand a lifetime of hard use. Extra large, super-power all-Alnico V exclusive "W" magnet eliminates full 50% of reluctance losses normally present in other designs. Minimum gap width gives lowest leakage, and maximum gap flux density, resulting in peak electromechanical efficiency. Use of rugged outercase assures utmost durability even when abused or in hazardous environment. Watertight voice coil terminals are located at the base of the housing, for added convenience and greater dependability. Without question, the ID-60 is the finest wide range, high power Public Address driver unit ever offered.

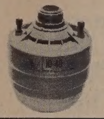
MODEL ID 60T (60 watts) Similar to the ID-60, but with high-impact plastic outercase, the ID-60T includes a husky built-in line matching transformer, with its terminals immediately available at the base of the driver housing. Ideal for rental work requiring repeated set-up and dismantling of equipment, and for semi-permanent systems where changes in the number or location of speakers are likely to affect line impedance requirements. Transformer impedances: 16/80/165/250/500/1000/2000 ohms. 70 volt line power taps: 60/30/20/10/5/2.5 watts.

specifications

DRIVER MODEL	FREQUENCY RESPONSE	POWER RATING	VOICE COIL IMPEDANCE	DIMENSIONS (Overall)	SHIP. WT.
ID-20	120-6500 cps	20 watts	16 ohms	3½″ dia. 3¾″ d.	2½ lbs.
ID-30	85-7500 cps	30 watts	16 ohms	4⅛″ dia. 3¾″ d.	3 lbs.
ID-40	80-12,000 cps	40 watts	16 ohms	4½″ dia. 4⅞″ d.	4¼ lbs.
ID-40T	80-12,000 cps	40 watts	16 ohms	5″ dia. 6¼″ d.	5¼ lbs.
ID-60	70-12,000 cps	60 watts	16 ohms	4¹¹⁄₁₆″ dia. 5″ d.	4¼ lbs.
ID-60T	70-12,000 cps	60 watts	16 ohms	6¾″ dia. 6¾″ d.	6½ lbs.

ID-20


ID-30

ID-40


ID-40T

ID-60

ID-60T

trumpets

DIRECTIONAL MODELS GH, LH, PH, SMH For maximum penetration of distance and noise. Reflex construction assures maximum conversion efficiency, full weather protection. Baked finish.

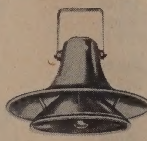
RADIAL MODELS RLH, RPH, RSH For uniform 360° overhead sound distribution from a single projector. Fewer speakers needed to cover high-ceiling factories, hangars, church interiors, etc. Baked finish.

WIDE ANGLE COBREFLEX† Outstanding feature is pair of folded exponential horns having twin air columns in a single assembly. "Dual Exponential Flare" design results in very smooth radiation pattern and high efficiency. Rugged construction. Use singly or in clusters. Baked finish.

WIDE ANGLE MODEL CLH† Longest air column length and wide-angle bell designed for maximum low frequency response. Omni-directional mounting bracket permits speaker to be rotated horizontally and vertically for optimum projection . . . tune out reverberation, dead spots. Perfect for multi-speaker cluster arrays. Can be "stacked" in any configuration. Fiberglas bell.

MODEL L30-1 CLH Horn Stacking Kit for clamping bell rims together in any desired configuration. Each kit clamps two horns. Shpg. wt., 6 oz.

PH, SMH
GH, LH,

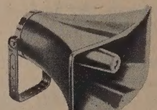


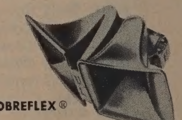
RLH, RPH, RSH

SPECIFICATION NOTE: Low frequency limit based on capability of driver unit. If horn cut-off is higher than rated low frequency limit of driver, horn will be determining factor.
†*Patented.*

specifications

HORN MODEL	LOW FREQUENCY CUT-OFF	SOUND DISTRIBUTION	AIR COLUMN LENGTH	HORN LENGTH	BELL DIA.	SHIP. WT.
GH	85 cps	65°	6½ ft.	28″	31″	22 lbs.
LH	120 cps	75°	4½ ft.	19″	25¾″	16½ lbs.
PH	150 cps	85°	3½ ft.	15¾″	20⅜″	11¾ lbs.
SMH	200 cps	95°	2½ ft.	12″	16¼″	8 lbs.
RLH	120 cps	360°	5 ft.	18½″	28⅛″	25 lbs.
RPH	140 cps	360°	4 ft.	13¾″	25⅛″	19 lbs.
RSH	180 cps	360°	3 ft.	11″	19″	13 lbs.
COBREFLEX†	200 cps	120° x 60°	2½ ft.	10¼″	18½″ x 9¼″	10¼ lbs.
CLH†	120 cps	120° x 60°	4½ ft.	20″	21½″ x 11½″	13¼ lbs.

CLH



COBREFLEX®

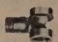
accessories

CTR

PB-1

5433

5434

2YC


RTA

WEA

SPA

ST

SB

MODEL CTR TRANSFORMER/JUNCTION HOUSING Die cast aluminum. Weatherproof. Houses models 5433, 5434, or other transformers up to 2⅜″ x 2⅞″ x 2⅞″. Adjustable slotted adapter mounts transformers with centers 1½″ to 2⅞″. Junction box for speaker lines. Bar strap for mounting to "U" brackets. Screws to wall. Also holds University paging speakers. Shpg. wt., 1½ lbs.

MODEL PB-1 TRANSFORMER HOUSING Weatherproof. For MIL-A, CMIL-A. IB-A and CIB-A paging speakers. Use Model 5434 transformer, or other type with 2″ mounting center and 1-15/16″ h. x 1⅝″ w. maximum dimensions. Shpg. wt., ½ lb.

MODEL 5433 TRANSFORMER 30 watt capacity. Use with ID-20, ID-30 or to feed a number of smaller paging speakers. Primary impedance: 45/165/200/250/500/1000/2000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 30/25/20/10/5/2.5 watts. Dimensions: 1-15/16″ x 2-5/16″ x 1¾″. Mtg. hole centers: 2⅜″. Shpg. wt. 1 lb.

MODEL 5434 TRANSFORMER 15 watt capacity. Primary impedance: 45/325/500/1000/2000/4000/8000 ohms. Secondary impedance: 4/8/16 ohms. 70 v. line power taps: 15/10/5/2.5/1.25/.65 watts. Dimensions: 1⅝″ x 1-15/16″ x 1⅝″. Mtg. hole centers: 2″. Fits CTR and PB-1. Shpg. wt., ½ lb.

2YC CONNECTOR Allows use of two driver units on a single radial, directional, or wide-angle trumpet. Shpg. wt., 1 lb.

RTA ADAPTER Fits University trumpets to Western Electric and RCA drivers having 1-7/16-16 threads. Shpg. wt., ½ lb.

WEA ADAPTER Fits University drivers to Western Electric and RCA trumpets having 1-7/16-16 threads. Shpg. wt., ½ lb.

SPA ADAPTER Replaces standard triangular base used on all University CR and MM-2 paging speakers for mounting to ½″ IPS threaded pipe. Shpg. wt., ½ lb.

MODEL ST Transformer/Junction Box Adapter. Fits MM-2, ES-50. Weatherproofed. For bulkhead, wall, ceiling mounting. Houses transformers up to 2¼″ x 2¼″ x 2¾″, with 2″ and 2⅜″ mounting centers. Use as terminal or junction box. Shpg. wt., 1 lb.

MODEL SB Bulkhead Mounting Adapter. Fits MM-2, ES-50. 3 mounting holes 120° apart on 5-13/16″ mounting circle diameter. For flush-fit mounting onto bulkhead, wall, ceiling. Shpg. wt., 1 lb.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

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University
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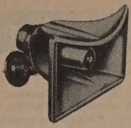
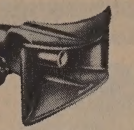
paging / talk-back

MIL-A New version of the MIL, with higher power capacity (7.5 watts continuous duty) and improved lower frequency. High conversion efficiency for perfect operation in low power systems. OLB*.



CMIL-A Similar to CIB-A, but for use in lower power operations where excessive sound would be wasted. Offers high efficiency, maximum intelligibility. OLB*.

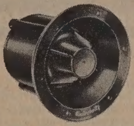
IB-A New version of world's most widely used medium power speaker. 25 watts continuous duty power capacity. Lower frequency response improved to 250 cps. High efficiency, special rising frequency characteristic. OLB*.



CIB-A Exclusive University wide-angle horn for uniform sound pattern with optimum vertical dispersion. Ideal for wide area coverage where ambient noise level not excessive. Design minimizes feedback problems. OLB*.

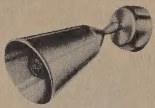
*Exclusive patented swivel mounting OMNI-LOK BRACKET; also fastens to ½″ pipe without additional fixture.

IBR-A Small radial speaker with built-in driver. Economical solution where total number of speakers must be kept to a minimum but where wide coverage is required.

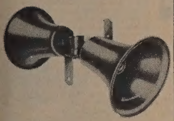


MIS Compact reflex speaker designed for flange or flush mounting in cabinets, walls, etc. Ideal replacement for less efficient cone speakers. Tropicalized and weatherproof. High-impact plastic housing.

CR Big power in a small package. Built-in driver with heavy duty 2″ voice coil. High intelligibility in noisy areas. Frequency response ideal for music reproduction.

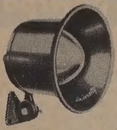


LIL-8 In appearance, a handsome, functional lamp—in performance, a truly superior paging speaker. Compact, yet offers high power handling capacity, wide frequency range and high conversion efficiency for improved results with low power systems.



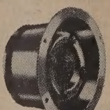
2WP Bi-directional paging projector covers two opposite areas effectively, efficiently with one driver. (Takes any University driver except ID-60T.) Supplied less driver.

multi-duty

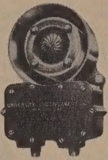


ES-50 Versatile, high power speaker, especially developed for electronic siren applications. Rated full 50 watts for typical siren signal above 400 cps. As general-purpose speaker, full power rating applies over entire 250-10,000 cps range of integrated program material.

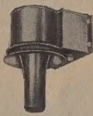
MM-2 Power capacity and frequency response ideal for clear, noise-cutting reception. Screws permit removal from front to expose diaphragm for cleaning. Serrated swivel mounting bracket.



MM-2F Flush mounting version of MM-2. Performance and specifications identical to MM-2. These speakers are the ruggedest in the P.A. field. Completely weather-proof. Performance unaffected even after being completely drenched (as on boats).



MM-2TC Complete speaker, using cast aluminum bell and weatherproof housing with space for a line matching transformer and/or volume control which can be mounted right into position. For bulkhead, wall or ceiling mounting, the MM-2TC-T comes with multi-impedance transformer and pad attenuator built in.



MSR All die-cast reflexed air column speaker with radial deflector for 360° horizontal dispersion. Hermetically sealed driver easily removed. Provisions for line matching transformer and volume control. Wall/ceiling bulkhead mounting. MSR-T comes with multi-impedance transformer and pad attenuator built in.

specifications

MODEL	FREQUENCY RESPONSE	POWER RATING	IMPEDANCE (specify when ordering)	DISPERSION	*SOUND PRESSURE LEVEL	†SENSITIVITY AS MICROPHONE	DIMENSIONS	SHIPPING WEIGHT
IB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	90°	123 db	—26 DBM	10¼″ dia. 9″ deep	4 lbs.
CIB-A	250-13,000 cps	25 watts	4, 8, 45 ohms	120° x 60°	123 db	—22 DBM	7⅜″ hi. 14″ wide 12″ deep	5½ lbs.
MIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120°	115 db	—23 DBM	7¹³⁄₁₆″ dia. 6⅞″ deep	3¼ lbs.
CMIL-A	350-13,000 cps	7.5 watts	4, 8, 45 ohms	120° x 60°	115 db	—20 DBM	6¼″ hi. 9½″ wide 8½″ deep	4 lbs.
MIS	500-13,000 cps	5 watts	4, 8, 45 ohms	150°	111 db	—22 DBM	5½″ o.d. 4⁷⁄₁₆″ deep 6 holes on 4⅞″ mtg. dia.	2½ lbs.
CR	250 -8000 cps	20 watts	16 ohms	90°	119 db	—22 DBM	11½″ dia. 11½″ deep	8¾ lbs.
IBR-A	300-10,000 cps	25 watts	4, 8, 45 ohms	360°	108 db	—32 DBM	13″ dia. 10¼″ deep	5¼ lbs.
2WP	350 cps horn cut-off	Depends upon driver used	Depends upon driver used	120° each horn	Depends upon driver used	Depends upon driver used	8½″ dia. each bell 20½″ long	4 lbs.
MM-2	350-10,000 cps	25 watts	16 ohms	150°	117 db		6″ o.d. 5″ deep	5¼ lbs.
ES-50	250-10,000 cps	50 watts**	16 ohms	120°	123 db		6¹³⁄₁₆″ o.d. 6⅞″ deep	5½ lbs.
MM-2F	350-10,000 cps	25 watts	16 ohms	150°	117 db		7¼″ o.d. 3″¾ deep	5¼ lbs.
MM-2TC	350-10,000 cps	25 watts	16 ohms	120°	117 db		10″ high 6⁷⁄₁₆″ w. 4⁷⁄₁₆″ deep	**MM-2TC—8½ lbs.** **MM-2TC-T—9¾ lbs.**
MSR	250-10,000 cps	25 watts	16 ohms	360°	114 db		10¾″ hi. 7¾″ w. 8¼″ deep	**MSR—10¼ lbs.** **MSR-T—11¼ lbs.**
LIL-8	300-10,000 cps	15 watts	8 ohms	110°	119 db	—27 DBM	15½″ long 6⅞″ dia.	4½ lbs.

*Sound pressure readings taken at 4 ft. with "Full Range" power input. Reduce by 6 db each time distance is doubled. Reduce by 3 db each time power input is halved; increase by 3 db when power input is doubled.

**See ES-50 description above.

†DBM re 10 dynes/cm^2.

Note: MIS and all MM speakers are patented.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

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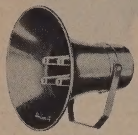
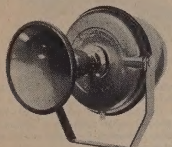
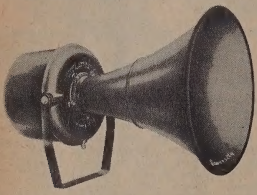
superpower



4A4 Versatile, powerful, compact. Use with any University driver except ID-60T, according to capacity, response and impedance needed. Four individually reflexed center assemblies united in acoustically correct mixing chamber. Single bell combines entire output, assuring maximum penetration and reserve power. Maximum: 240 watts.



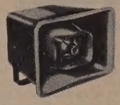
B-6P† Takes 6 drivers of the ID-30, ID-40 or ID-60 types. Amazingly compact, high-power—up to 360 watts. Designed for installations requiring super-power speakers in smallest size: military, carillons, civil defense, etc. Drivers screw into mixing chamber. Separate bell assembly attaches to mixing chamber. Maximum: 360 watts.



B12P† Takes 12 drivers of the ID-30, ID-40 or ID-60 types. Fantastic power range and reserve power. Drivers screw into patented mixing chamber of heavy cast aluminum. Separate bell assembly easily attaches to mixing chamber. Spun aluminum coverall protects drivers and connections. Use for military, civil defense, church towers, stadiums, etc. Maximum: 720 watts.

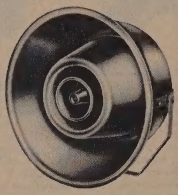
†Patented

weatherproof



MLC Ideal for coverage of moderate-size areas or crowds—or for sound reinforcement where smooth, clean, wide-range musical reproduction and even distribution are important. Fiberglas reinforced polyester housing. 2000 cps crossover. Patent pending.

BLC Sets a new standard for voice and music reproduction. Light in weight, shallow in depth, easy to handle. May be used in place of public address trumpet/driver units except where maximum penetration is required. All metal construction. 200 cps crossover.



WLC Finest outdoor system made. For over a decade has brought full range high fidelity sound to auditoriums, concert halls, parades, stadiums, over the world. Achieves full bass response down to 50 cps. All metal construction. 1000 cps crossover.

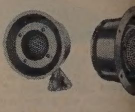
explosion-proof

7101, 7102 UL approved for 100% safe systems where flammable liquids, gases, dust, etc., are present. Shipped assembled with built-in line matching transformer to comply with govt. safety regulations. Required conduit entrance provided as part of driver housing casting. 7101 for Class I, Groups C & D; 7102, same plus Class II, Groups E, F, G.

underwater

MM-2UW, MM-2FUW Completely waterproof. Can be left submerged indefinitely. Stainless steel cover for special Unilar* diaphragm. Silicone treated gaskets. Fully guaranteed for six months. MM-2UW for bracket mounting, MM-2FUW for flush mounting. Shpg. wt., 6¼ lbs.

*Trademark



portable powrpages**

PP-1T Fully transistorized, self powered, 25 watt speaker-amplifier system. Low distortion, high stability in all operating conditions. Rugged dynamic microphone has controlled response curve. Press-to-talk switch. Auxiliary input jack. Talk/listen switch for highly directional, sensitive listening. Uses lantern batteries. Shpg. wt. (less batteries), 12¼ lbs.

PP-1 Non-transistorized lower powered version of PP-1T. Similar in operation. Spg. wt., 8 lbs.

PP-2T Lightweight hand-held package. 3-transistor, temperature stabilized circuit delivers 7 watts (14 watts peak). Adjustable gain. Acoustic feedback suppression system allows indoor use without howling. Low standby current. Uses 6 penlight cells or 10 RM601R mercury cells. Shpg. wt. (less batteries), 5 lbs.

PP-2 Non-transistorized lower powered version of PP-2T. Similar in operation. Shpg. wt., 5⅛ lbs.

specifications

MODEL		FREQUENCY RESPONSE	POWER RATING	DISPERSION	IMPEDANCE	DIMENSIONS		SHIPPING WEIGHT
						DIAMETER (overall)	DEPTH (overall)	
MLC		150-15,000 cps	15 watts	120°	8 ohms	12¾″ x 9⅛″	10⅝″	10 lbs.
BLC		70-15,000 cps	25 watts	120°	8 ohms	22¾″	9¼″	21 lbs.
WLC		50-15,000 cps	30 watts	90°	8 ohms	33½″	20″	68 lbs.
7101 and 7102†		200-10,000 cps	30 watts	95°	16 ohms	15¾″	19″	23¾ lbs.
4A4 Used With 4 Drivers of Types	ID-30	120- 7,500 cps	120 watts	80°	4, 16, 64	30¾″	28⅞″	46 lbs. less drivers
	ID-40	120-12,000 cps	160 watts		4, 16, 64			
	ID-40T	120-12,000 cps	160 watts		wide variation			
	ID-60	120-12,000 cps	240 watts		4, 16, 64			
B-6P Used With 6 Drivers of Types	ID-30	200- 7,500 cps	180 watts	100°	2.7, 10.7, 24, 96 ohms	12½″	21⅜″	55 lbs. less drivers
	ID-40	200-12,000 cps	240 watts					
	ID-60	200-12,000 cps	360 watts					
B-12P Used With 12 Drivers of Types	ID-30	100- 7,500 cps	360 watts	80°	1.3, 5.3, 12, 21.3, 48, 192 ohms	31½″	47″	60 lbs. less drivers
	ID-40	100-12,000 cps	480 watts					
	ID-60	100-12,000 cps	720 watts					

**POWRPAGES, as well as all other University P.A. Loudspeakers, are approved for Civil Defense matching funds.

†Transformer impedances, 7101 and 7102: 45/165/200/250/500/1000/2000 ohms. 70 V. line power taps, 7101 and 7102: 30/25/20/10/5/2.5 watts.

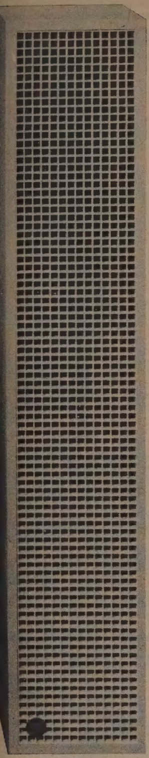
HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

© U.C.P.,

"UNILINE"*SOUND COLUMN SPEAKER SYSTEMS

University
A Division of Ling-Temco-Vought, Inc.

NEW UNIVERSITY UNILINE *ACOUSTICALLY TAPERED* SOUND COLUMNS REDUCE ACOUSTIC FEEDBACK AND REVERBERATION TO INSIGNIFICANT LEVELS . . .


UCS-6

application:

UNILINE Sound Columns have been designed to provide complete sound coverage in large outdoor and indoor environments, solving difficult microphone and speaker placement problems by virtually eliminating the possibility of acoustic feedback and reverberation. UNILINE Sound Columns feature **High 'A'** (high audibility), optimum fidelity for music and speech, plus exclusive **acoustic tapering** to assure uniform sound volume from the front-row of an auditorium to the last row.

concerning sound columns in general:

Essentially, a sound column is a series of "point" sound sources each of which radiate equally in all directions —an in-line radiator using multiple speakers, one above the other, to provide broad horizontal dispersion and narrow vertical dispersion. The shape of the beam, therefore, is similar to that of a fan held horizontally, its apex representing the source of the sound. As a result of its restricted vertical dispersion pattern, the sound is placed only where it is needed, avoiding reflections from the floor and ceiling to reduce acoustic feedback and reverberation.

concerning UNILINE sound columns in particular:

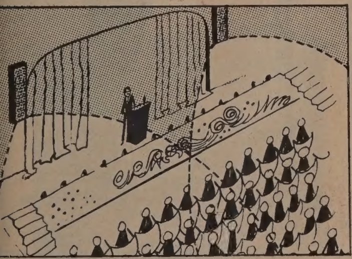
Theoretically, then, all sound columns should perform with equal success—but only theoretically. There are two reasons why UNILINE Sound Columns can outperform all other types. Reason number one — the quality and the design of the UNILINE's speakers. By means of specially designed transducers, University has resolved the conflict arising from the simultaneous requirements of large speakers for high power handling capacity on the one hand, and small speaker diameter for optimum point source behavior and widest horizontal dispersion on the other. By so doing, University can offer sound columns with the highest power handling capacity in the industry, while maximizing the advantageous directional characteristics of sound column design.

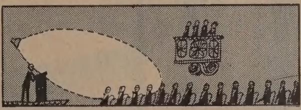
Reason number two—**acoustic tapering.** The vertical directionality of conventional sound columns tends to become too narrow at high frequencies, making it difficult to place the speaker so as to produce equal volume at all frequencies. Because the length of conventional sound columns is "increased," acoustically, at higher frequencies, and because the longer the column the narrower the vertical beam, some method must be used to "decrease" the length. University's exclusive acoustic tapering, the most perfect method yet devised to prevent excessive high frequency beaming — completely eliminates this imperfection. By using speakers whose response rolls off at high frequencies at the ends of the sound column, the effective length of the column at high frequencies is reduced, so that the proper amount of vertical dispersion is maintained at all frequencies. The result is uniform coverage in **breadth,** and in **depth.**

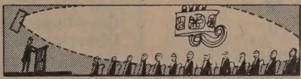
Another characteristic of UNILINE Sound Columns is High 'A'—high audibility—as evidenced by the considerable decrease in distortion UNILINE provides to improve intelligibility and greatly increase listener comfort. This is particularly noticeable when standing or sitting close to the sound source. More conventional high powered speakers tend to blast under similar circumstances.

Therefore . . . for optimum dispersion at all frequencies, for uniform sound level within the beam, for music and speech indoors and out . . . for all high reverberation areas . . . specifications and performance reveal that there is only one best line of sound columns—it is UNILINE.

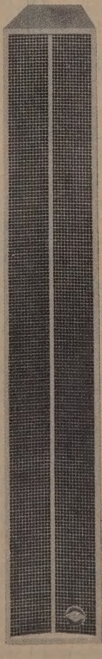
*Reg. Trade Mark

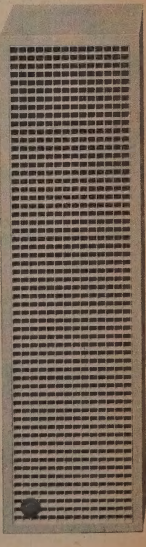

Wide horizontal dispersion—the UNILINE, delivering sound in depth over a large area.


Conventional speaker contour.


UNILINE column contour.

Constant loudness contours shown for a UNILINE column versus a conventional speaker, illustrating the situation that exists at representative midrange frequencies, where most of the 'punch' of the sound is concentrated. With UNILINE, loudness is the same for a listener located anywhere in the auditorium.


CS-3


CS-4

specifications

	UCS-6 Full Range Music and Speech	CSO-6* Full Range Music and Speech	CS-4 Full Range Music and Speech	CS-3 Music and Speech
speakers	6 extended range 8″	6 extended range 8″	4 extended range 8″	8 special multi-design
frequency range	55-17,000 cps	55-17,000 cps	70-17,000 cps	150-10,000 cps
power capacity	150 watts IPM**	150 watts IPM**	80 watts IPM**	25 watts IPM**
impedance	16 ohms	16 ohms	8 ohms	16 ohms
vertical angle	16°	16°	22°	22°
horizontal angle	120°	120°	120°	120°
dimensions	59¼″ x 10⅞″ x 9 1/16″	59¼″ x 10⅞″ x 9 1/16″	40⅜″ x 11″ x 9 1/16″	48″ x 7½″ x 8¾″
shipping wt, lbs.	61	61	46	33

*Completely weatherproof.
**Integrated program material.

HIGH 'A' . . . HIGH AUDIBILITY . . . exclusive with **UNIVERSITY LOUDSPEAKERS**

UNIVERSITY †MODULAR MICROPHONES†

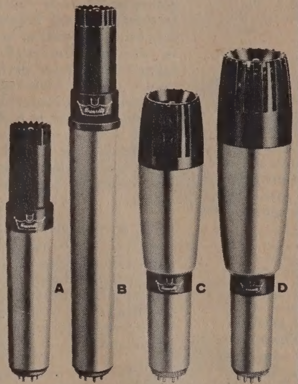
...for the professional, for TV, radio, recording, general purpose

A Division of Ling-Temco-Vought, In

WORLD'S ONLY MICROPHONES WITH MODULAR FLEXIBILITY!*

University's professional microphones bring new dimensions in quality and utility for hypercritical applications requiring the ultimate in full-range pick-up. The omni-directional models open new frontiers in over-all uniformity of response and in extension of the bass range. The cardioid models span the complete frequency range, free of peaks and with consistently high front-to-back discrimination. The lavalier models have low frequency characteristics tailored for the most natural response under their special conditions of use. For TV, FM and high fidelity AM—from church to night club—from school to industrial PA—they may well change your way of thinking about the selection, installation and use of high quality professional microphones.

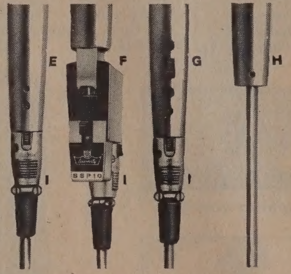
†Trade Mark



A) MODEL 401
Omni-Directional Dynamic Modular

Ideally suited for every sound system application: broadcast, TV, church, school, commercial, industrial PA and the like.

SPECIFICATIONS
Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—55 db/1mw/10 dynes/cm²;
—148db EIA sensitivity rating;
20,000 ohms, into high impedance input:
16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions 1⅛" maximum diameter
6⅜" maximum length without adapter
Shipping weight: 2 lbs.
Finish: acrylic silver-gray and
non-reflecting black.
Furnished with cloth carrying bag.



B) MODEL 402S
Omni-Directional Dynamic Modular Shock Mounted

Offers professional flexibility and styling in broadcasting, telecasting and recordings—group pickup, orchestras, public address, interviews.

SPECIFICATIONS
Frequency response: 30-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms:
—55 db/1mw/10 dynes/cm²;
—148 db EIA sensitivity rating;
20,000 ohms, into high impedance input:
16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1⅛" maximum diameter
8¾" maximum length without adapter
Shipping weight: 2¼ lbs.
Finish: acrylic silver-gray and
non-reflecting black.
Furnished with cloth carrying bag.

C) MODEL 501
Cardioid Dynamic Modular

Affords ultra-high discrimination against unwanted sound—virtually eliminating background noise. Performers can work a greater distance away from it.

SPECIFICATIONS
Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms;
—54 db/1mw/10 dynes/cm²;
—147 db EIA sensitivity rating;
20,000 ohms into high impedance input:
17 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1½" maximum diameter
6⅜" maximum length without adapter
Shipping weight: 2¼ lbs.
Finish: acrylic silver-gray and
non-reflecting black.
Furnished with cloth carrying bag.

D) MODEL 502S
Cardioid Dynamic Modular Shock Mounted

Its directional characteristics yield superior results in noisy or reverberant locations. Features the unique University internal shock mounting arrangement which isolates it from spurious sound and eliminates extraneous noises.

SPECIFICATIONS
Frequency response: 30-16,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50, 150/250 ohms;
—54 db/1mw/10 dynes/cm²;
—147 db EIA sensitivity rating;
20,000 ohms into high impedance input:
17 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1¾" maximum diameter
7⅜" maximum length without adapter
Shipping weight: 2½ lbs.
Finish: acrylic silver-gray and
non-reflecting black.
Furnished with cloth carrying bag.

TV AND BROADCAST LAVALIERS

MODEL 403L
Omni-Directional Dynamic (TV Lavalier)

Ultra-compact, lavalier for soundcasting applications in nightclubs, churches, school and location broadcasting of AM, FM and television.

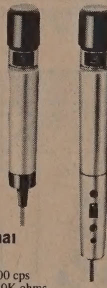
SPECIFICATIONS
Frequency response: 60-20,000 cps
Impedance: 30/50; 150/250 ohms
Ouptut level: —30/50 and 150/250 ohms: 55 db/1 mw/10 dynes/cm²
—148 db EIA sensitivity rating:
Hum reference: —120 db/.001 gauss
Dimensions: 1 3/32" maximum diameter
3⅜" maximum length
Shipping weight: 2¼ lbs.
Finish: antique bronze
Furnished with adjustable neck cord
and clip, integral 25 foot flexible
plastic cable and cloth carrying bag.

MODEL 404L
Omni-Directional Dynamic (Broadcast Lavalier)

Fulfills all the critical requirements of a professional broadcast microphone and incorporates every feature of the larger omni-directional professional microphones.

SPECIFICATIONS
Frequency response: 50-20,000 cps
Impedance: 30/50; 150/250; 20,000 ohms
Output level: 30/50 and 150/250 ohms:
—55 db/1 mw/10 dynes/cm²;
148 db EIA sensitivity rating;
20,000 ohms into high impedance input;
16 mv/10 dynes/cm²
Hum reference: —120 db/.001 gauss
Dimensions: 1⅛" maximum diameter
5⅝" maximum length
Shipping weight: 2¼ lbs.
Finish: antique bronze
Furnished with adjustable neck cord
and clip, integral 25 foot flexible
cloth-covered cable and cloth
carrying bag.

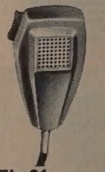
FOR HOME TAPE RECORDING, AMATEUR & CB RADIO, & PUBLIC ADDRESS



MODELS 70 and 71†
Omni-Directional Dynamic

Freq. Resp.: 50-14,000 cps
Impedance: 30/50; 20K ohms
Output: Lo Z: −50 db/1 mw/10 μ bar
Hi Z: 28 mv/10 μ bar
Dim.: 70 — 1 1/16" dia. x 6"
71 — 1 1/16" dia. x 8⅝"
Finish: Silver gray and matte black
Furnished w/15′ shielded cable
and stand adaptor

†Includes on-off slide switch.



MODEL 61
Dynamic Mobile Communications Microphone
MODEL 61HF
Extended Range Version of Model 61

Freq. Resp.: 61 — 95-9,500 cps
61HF — 70-14,000 cps
Impedance: 25,000 ohms
Output: 18 mv/10 dynes/cm²
Dim.: 4″ h, 2¼″ w, 1¾″ d
Color: Gray
Cable: Coiled, 14″; extended 6′

RUGGED, VERSATILE MICROPHONE DESK STAND FOR PROFESSIONALS & HOBBYISTS

MODEL DS10
Desk Stand

Modern, heavy cast iron desk stand with handsome crackle black non-reflecting finish. Perfectly balanced to prevent tipping of even the largest microphones. Quick-action knurled lock washer. Accommodates all microphones with standard 5/8-27 thread, as well as University SA10 and SSP10 stand adapters.

Dimensions: 4½" x 7⅞" x 4⅝"
Shipping weight: 3½ lbs.

MODEL SA10
Slide-on
Stand
Adaptor

Dimensions: 2⅞" x 2" x 1½"
Shipping weight: ¼ lb.

The completely interchangeable modular adapters

E) MODEL PA10
Cannon Plug
Adaptor, less switch

Dimensions: 3⅛" x 1"
Shipping weight: ¼ lb.

F) MODEL SSP10
Stand Adaptor
with switch and
Cannon Plug Receptacle

Dimensions: 3 7/16" x 2¾" x 1⅛"
Shipping weight: ½ lb.

G) MODEL SP10
Cannon Plug
Adaptor with switch

Dimensions: 3⅛" x 1"
Shipping weight: ¼ lb.

H) MODEL CC10
Cable Adaptor
with 18 foot cable

Dimensions: 1 15/16" x 1"
Shipping weight: 1¼ lbs.

I) MODEL CA10
Cannon Plug
with 18 foot cable

Dimensions: 2 1/16" x ¾"
Shipping weight: 1¼ lbs

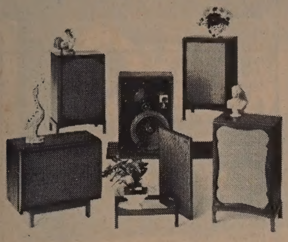
© U.C.P., Ir

HIGH FIDELITY SPEAKERS AND SPEAKER SYSTEMS

CONDENSED LISTING

University
A Division of Ling-Temco-Vought, Inc.

SYSTEMS



MEDALLION XII 12" 3-WAY SYSTEM First truly different speaker system in years! Magnificent sound and tonal separation for the discriminating listener, *plus* the unique "Select-a-Style" grilles that snap on to convert the Medallion to any of five styles—Contemporary, Swedish Modern, Italian Provincial, French Provincial and Early American. Ideal choice for decorators. High efficiency enclosure design operates with amplifier of 10 clean watts upwards.

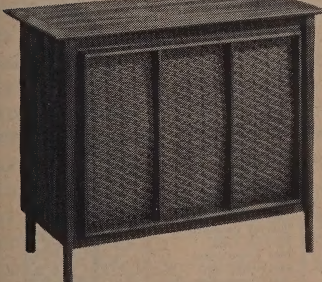
Available in all popular finishes.

SENIOR II 12″ 3-SPEAKER SYSTEM Ultra-compact high compliance unit features smooth, full-range performance from 35 cps to beyond audibility. Features sensational Sphericon Super Tweeter.

COMPANION II 10″ 3-SPEAKER SYSTEM (not shown) Amazing performance for its diminutive size. Newly engineered 10″ high compliance woofer produces bass down to below 40 cps.

S-80 8″ SYSTEM (not shown) Solves space and budget problems. Perfect paired for stereo or as 'add-on' or extension speakers. 21¾″ x 11¼″ x 9¼″ D.

Each finished on all four sides for use as highboy or lowboy. Senior and Companion in Oiled Walnut or unfinished. S-80 in Mahogany, Walnut, Fruitwood or unfinished.

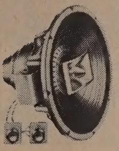


CLASSIC MARK II 15″ 3-WAY HIGH COMPLIANCE SYSTEM The Classic Mark II is the "bridge" between the giant monaural speaker systems of yesterday and the compact stereo bookshelf types of today. Advancing the technology that produced the bookcase compacts, the new Classic brings you that sense of presence and of spaciousness in sound which places you in the concert hall, but with a cabinet designed to fit *effortlessly* into modern environments. Though only 35″ wide, the Classic will lend magnificence to the most elegant interiors. Its simplicity of line and styling permits it to be perfectly integrated with other fine furniture, of *any* period. It is the Classic, a name inspired by the timelessness of its design and the fidelity of its sound.

The Classic features a heavy duty 15″ high compliance woofer with exceptionally rigid diaphragm and extremely compliant surround . . . delivering optimum bass undistorted to below 20 cps, a high compliance 8″ mid-range, crossing over at 150 cps, with virtually linear response to 3000 cps, using a viscous treated cone to roll off unwanted peaks, and the renowned Sphericon super tweeter extending the system's amazingly smooth response to 40,000 cps . . . with extremely wide and uniform dispersion. Overall system response: 20 to 40,000 cps.

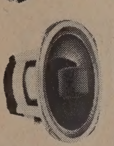
SERIES 200 PREMIER WIDE-RANGE SPEAKERS

Hand-built at every stage, these high compliance speakers offer many outstanding design features that achieve the finest high fidelity sound, even in smallest enclosures.



MODEL 315-C SUPER 15" 3-WAY DIFFAXIAL Theatre-type woofer cone features high excursion dual-spider piston and low-resonance bass down to 25 cps. Diffusicone mid-range and heavy duty H-600/T-50 tweeter extend response to inaudibility. 50 watts* rating. Shpg. wt., 34½ lbs.

MODEL 312 12" 3-WAY DIFFAXIAL Acclaimed as greatest advance in speaker design for many years. Award-winning diecast basket. Patented Diffusicone mid-range. Coaxially mounted Sphericon Super Tweeter. Built-in network and adjustable brilliance control. Response: 28-40,000 cps. 35 watts* rating. Shpg. wt., 10¼ lbs.



MODEL 6201 12" COAXIAL New improved version of the most popular top quality speaker ever made. Heavy duty woofer with cloth surround cone for extended bass, and superb, new compression type tweeter. Built-in network with adjustable brilliance control. Response: 28-18,500 cps. 35 watts* rating. Shpg. wt., 9 lbs., 8 oz.

ADDITIONAL SPEAKERS IN THIS SERIES INCLUDES:

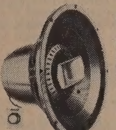
DIFFUSICONE-12
12" DIFFAXIAL

MODEL 308
8" 3-WAY DIFFAXIAL

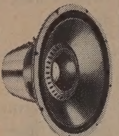
DIFFUSICONE-8
8" EXTENDED RANGE

SERIES 100 WIDE-RANGE SPEAKERS

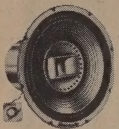
Engineered to the highest specifications from the finest materials available, these moderately priced speakers offer the top values in the high fidelity field.



MODEL UC-153 15" 3-WAY DIFFAXIAL Features high efficiency tweeter and deluxe, multi-element Diffusicone mid-range. Response from below 30 cps to inaudibility. 30 watts* rating. Shpg. wt., 12 lbs.



MODEL UC-152 15" 2-WAY DIFFAXIAL Patented Diffusicone element provides dual horn loading at apex of cone to extend mid and high frequency response. Response from below 30 to 14,000 cps. 30 watts* rating. Shpg. wt., 8¼ lbs.



MODEL UC-123 12" 3-WAY DIFFAXIAL Patented Diffusicone element. UXT-5 super-tweeter with "reciprocating flare" horn. Crosses over at 1000 cps mechanically, 5000 cps electrically. Response: below 45 cps to 17,500 cps. 25 watts* rating. Shpg. wt., 9 lbs.

ADDITIONAL SPEAKERS IN THIS SERIES INCLUDES:

MODEL UC-122
12" 2-WAY DIFFAXIAL

MODEL UC-121
12" EXTENDED RANGE

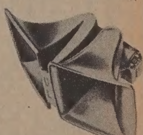
MODEL UC-82
8" WIDE-RANGE

SYL-O-ETTE — the only ultra-thin speaker system that does not compromise bass response for size!

Unique! Low 500 cps crossover for rich, resounding bass response matched by no other ultra-thin system. *Unique!* Specially made and treated woofer diaphragm to solve cone break-up and distortion problems inherent in other ultra-thin enclosures. *Unique!* An Ultra-Thin designed to look like a magnificent framed painting! *Unique!* Available with imported, hand-embroidered *petit point* floral grilles, silk-screened Neo-Classic art, or Decorator Cane grilles. Response: 40-17,000 cps. May be used on floor or wall. Size: 29″ h x 23″ w x 4″ d. Shpg. Weight: 20 lbs.

WOOFERS
TWEETERS

WRITE FOR COMPLETE HIGH FIDELITY CATALOG
. . . containing full information on all University products: systems, enclosures, kits, high compliance and high efficiency woofers, mid-range speakers, horn-loaded tweeters, compression drivers and accessory networks. Desk X-2, University Loudspeakers, Inc., 80 So. Kensico Ave., White Plains, N. Y.



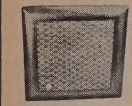
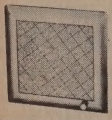
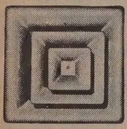
MODEL	WOOFER	MID-RANGE	TWEETER	NETWORK	SIZE: H x W x D	SHPG. WT.
CLASSIC MARK II	15″ high compliance	8″ high compliance	Sphericon	3-Way	28½ x 35 x 17½	98 lbs.
MEDALLION XII	12″ high compliance	Spec. 8″ mid-range	Sphericon	3-Way	24 x 17 x 12½	40 lbs.
SYL-O-ETTE	8″ high compliance	6½ mid-range with subsidiary high frequency radiator		6 db per octave	29 x 23 x 4	20 lbs.
SENIOR II	12″ high compliance	3½″ direct radiator	Sphericon	6 db per octave	25 x 15⅝ x 12½	44 lbs.
COMPANION II	10″ high compliance	Spec. 3″ mid-range	3½″ direct radiator	6 db per octave	24 x 13½ x 11½	30 lbs.

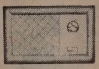
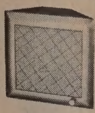
*Integrated program. All 8-16 ohms. "Diffaxial" is a registered trademark.

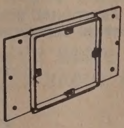
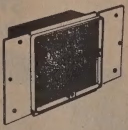
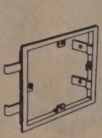
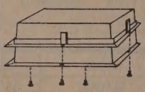
Write for complete catalogs **UNIVERSITY LOUDSPEAKERS, INC.,** White Plains, N. Y.

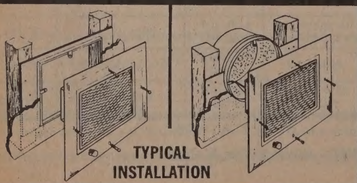
© U.C.P., Inc.

Wald inc. THE ALL NEW COMPLETE LINE OF SPEAKER BAFFLES AND ENCLOSURES

	CAT. NO.	DESCRIPTION	SPEAKER SIZE	SUG. LIST
	R8F	ROYALTY BAFFLE and FRAME (Impact Plastic) Finished in White, Beige, Ivory, Brass, Copper	6, 7, 8	8.20
	N8B	NOBLEMAN BAFFLE (Impact Plastic) Finished in White, Ivory, Beige	6, 7, 8	4.20
	G8	GUARDSMAN BAFFLE (Aluminum) Finished in Chrome, Brass	8	8.20
	100-8	ROUND TRIM RING (Steel) Finished in Brush Steel, Painted White	8	3.80
	100-12	ROUND TRIM RING (Steel) Finished in Brush Steel, Painted White	12	6.30
	101-8	ROUND TRIM RING (Aluminum) Finished in Brush Alum., Painted White	8	4.55
	101-12	ROUND TRIM RING (Aluminum) Finished in Brush Alum., Painted White	12	7.10
	200-8	CONIC DIFFUSER (Steel) Finished in Brush Steel, Painted White	8	9.35
	200-12	CONIC DIFFUSER (Steel) Finished in Brush Steel, Painted White	12	13.50
	201-8	CONIC DIFFUSER (Aluminum) Finished in Brush Steel, Painted White	8	10.40
	201-12	CONIC DIFFUSER (Aluminum) Finished in Brush Steel, Painted White	12	15.00
	400-8	ROUND LOUVERED (Steel) Finished in Painted White or Beige	8	8.20
	400-12	ROUND LOUVERED (Steel) Finished in Painted White or Beige	12	16.00
	500-8	SQUARE LOUVERED (Steel) Finished in Painted White or Beige	8	10.70
	500-12	SQUARE LOUVERED (Steel) Finished in Painted White or Beige	12	21.25
	600-8	ACOUSTICAL TILE (Perforated Grill Steel) Finished in Painted White	8	5.25
	600L8	ACOUSTICAL TILE (Louvered Grill Steel) Finished in Painted White	8	10.70

	CAT. NO.	DESCRIPTION	SPEAKER SIZE	SUG. LIST
	A8C	RECTANGULAR BAFFLE (Aluminum) Assembled with 6x9 Speaker Pot & Switch Finished in Beige	6x9	15.20
	A8	RECTANGULAR BAFFLE (Aluminum) Finished in Beige	6x9	6.50
	A5C	INTERCOM BAFFLE (Impact Plastic) Assembled with 5" Speaker Pot & Switch Finished in Beige	4 or 5	9.60
	A5	INTERCOM BAFFLE only (Impact Plastic) Finished in Beige	4 or 5	4.20
	A3C	OUTSIDE INTERCOM BAFFLE (Impact Plastic) Assembled with 3½ Speaker Pot & Switch Finished in Beige	3½	8.75
	A3CB	SAME AS ABOVE with Bell Hole Finished in Beige	3½	8.75
	C9-SP	INDOOR AND OUTDOOR CORNER/WALL BAFFLE Prewired Assembled with Water Proof 8" 2.15 Speaker		19.20
	C9P	INDOOR AND OUTDOOR CORNER/WALL BAFFLE With Volume Control Finished in Chrome, Brass		12.00
	C9-S	INDOOR AND OUTDOOR CORNER/WALL BAFFLE Prewired Assembled with 8" 2.15 Water Proof Speaker Finished in Chrome, Brass		17.80
	C9	INDOOR AND OUTDOOR CORNER/WALL BAFFLE Finished in Chrome, Brass		10.70

	CAT. NO.	DESCRIPTION	FOR SPEAKER	FITS BAFFLES MODEL	SUG. LIST
	50-8	PLASTER RING (New Construction)	8"		2.30
	E50-8	ENCLOSURE RING UNIT (New Construction)	8"		8.80
	X50-8	PLASTER RING (Existing Construction)	8"	Nobleman N8B	2.30
	EX-50-8	ENCLOSURE UNIT (Existing Construction)	8"		8.50
	60-8	PLASTER RING (New Construction)	8"		2.30
	E60-8	ENCLOSURE UNIT (New Construction)	8"	100 Series	8.80
	X60-8	PLASTER RING (Existing Construction)	8"		2.30
	EX60-8	ENCLOSURE UNIT (Existing Construction)	8"	200 Series	8.80
	60-12	PLASTER RING (New Construction)	12"		3.30
	E60-12	ENCLOSURE UNIT (New Construction)	12"	400 Series	12.25
	X60-12	PLASTER RING (Existing Construction)	12"		3.30
	EX60-12	ENCLOSURE UNIT (Existing Construction)	12"		12.25
	70-8	PLASTER RING (New Construction)	8"		2.30
	E70-8	ENCLOSURE UNIT (New Construction)	8"	Royalty R8F	8.80
	X70-8	PLASTER RING (Existing Construction)	8"		2.30
	EX70-8	ENCLOSURE UNIT (Existing Construction)	8"		8.80
	70-12	PLASTER RING (New Construction)	12"	Guardsman G8	3.30
	E70-12	ENCLOSURE UNIT (New Construction)	12"		12.25
	X70-12	PLASTER RING (Existing Construction)	12"	500 Series	3.30
	EX70-12	ENCLOSURE UNIT (Existing Construction)	12"		12.25
	80-8	PLASTER RING (New Construction)	8"	600 Series	3.30
	E80-8	ENCLOSURE UNIT (New Construction)	8"		8.80
	AP8	PLASTER RING (New Construction)	6x9	Intercom A8	2.30
	AP5	PLASTER RING (New Construction)	4, 5	Intercom A5	1.25
	AP3	PLASTER BOX (New Construction)	3½	Intercom A3	1.50


TYPICAL INSTALLATION

PACKAGE SYSTEMS any baffle completely pre-wired and preassembled with components of your choice—ready to install a less than your cost of bulk components.

Wald inc. BURBANK, CALIFORNIA

Protected under Patent No. 2523802

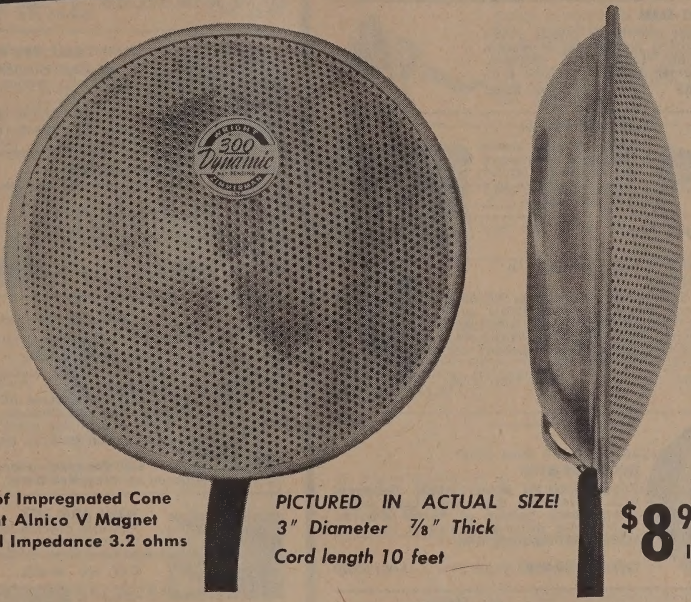
MODEL 300

DYNAMIC PILLOW SPEAKER and MICROPHONE

ORIGINATED AND PATENTED BY

Wright Zimmerman Inc.

NEW BRIGHTON, MINN.


300 Dynamic

Waterproof Impregnated Cone
Permanent Alnico V Magnet
Voice Coil Impedance 3.2 ohms

PICTURED IN ACTUAL SIZE!
3″ Diameter 7/8″ Thick
Cord length 10 feet

$8.95 list

A compact speaker-microphone with a thousand uses.

The Wright-Zimmerman Model 300 Dynamic Reproducer is virtually indestructible, attractively styled and light as a feather. Ideal for personalized pillow speaker use with excellent tone, and as a dynamic microphone requiring only 2 stages of amplification.

DYNAMIC PILLOW SPEAKER and MICROPHONE

ATTRACTIVELY AND INDIVIDUALLY PACKAGED

...as a compact speaker

. . . as a dynamic microphone

audiotex®

HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

PHONO ACCESSORIES

RECORD BRUSH

Camel hair brush clips on tone arm; sweeps grooves while record is playing. Adjustable swivel permits use with any record player.

CAT NO. 30-000..............................**List: $.75**

ATOMIC STAT-ELIM

Anti-static dust eliminator drains static charge by ionizing air surface of record. Contains mildly radio-active element; lightweight holder attaches to tone arm.

CAT NO. 30-002............................**List: $3.95**

STYLUS BRUSH

Automatically cleans stylus each time tone arm is moved from rest position. Self-adhesive bottom attaches to turntable; adjustable to any height.

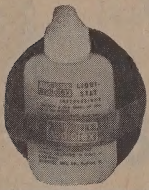
CAT. NO. 30-004..............................**List: $1.40**

Record Spray
STATI-KLEER

Cleans, Destaticizes and Lubricates in One Easy Operation

New Audiotex Stati-Kleer, with Miracle Silicone. The finest record cleaning spray available. Just spray on and wipe off. Cleans and lubricates all plastic records. One application eliminates harmful dirt and dust in record grooves for hours and hours.

CAT. NO. 30-007..**List: $1.65**



RECOR-DE-STAT

Squeeze bottle of anti-static detergent with velvet pad applicator. Long velvet fibers reach bottom of record grooves. Anti-static detergent cleans records; leaves dust-repelling film.

CAT NO. 30-010..........................**List: $2.00**

DUST BUG

Four-in-One Record Cleaner & Static Eliminator

Applies cleaning fluid, brushes dirt from grooves, picks up loosened dirt, eliminates static charge automatically while record is playing. Anti-static cleaning fluid included.

CAT. NO. 30-014 (changer model)..................................**List: $7.90**
CAT. NO. 30-012 (player model)......................................**List: $9.60**
CAT. NO. 30-016 (fluid refill)...**List: $2.00**
CAT. NO. 30-018 (plush pad replacement)....................**List $1.40**

45-RPM RECORD ADAPTOR

Plastic adaptor slips over standard spindle to play any 45 RPM disc.

CAT. NO. 30-034..............................**List: $.25**

DISK-O-KLEEN

Silicone treated record cleaning cloth eliminates static charge. Specially woven velvet material has extra length nap to reach bottom of grooves.

CAT. NO. 30-022..**List: $1.25**

KLEEN-O-RECORD

Triple action cloth, Anti-Static Record Cleaning Cloth, silicone impregnated, which cleans, lubricates and de-staticizes records. Long lasting.

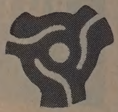
CAT. NO 30-024..**List: $.75**

RECORD SAVERS

Heavy-duty polyethelene envelopes protect records when not in use.

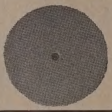
CAT NO.	SIZE	LIST
30-062	For 12" records. Pkg. of 5	$.49

45-RPM RECORD INSERTS



Plastic snap-in inserts adapt large hole 7" records for play on 3 speed changers. Spring-like construction holds insert firmly in place.

CAT NO. 30-030 (Pkg. of 6)............**List: $.30**



TURNTABLE RECORD CUSHIONS

Thick plastic sponge cushions eliminate record slip, reduce magnetic pull, prolong record life.

CAT. NO. 30-040 (10")....................**List: $1.25**
CAT. NO. 30-042 (12")....................**List: $1.40**

TURNTABLE RUBBER MAT KIT

Heavy rubber mat fits any 12" turntable. Has tapered ridges 7", 10", and 12" in diameter. Supports any size record by its blank outside rim, keeping grooves from touching. Strobe disc and 45 RPM adaptor included.

CAT. NO. 30-044..........................**List: $4.25**

PHONO COVERS

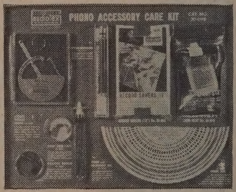
Heavy duty embossed vinyl covers for turntables and changers.

CAT. NO.	SIZE & USE	LIST PRICE
30-048	13¼" x 12½" x 8" For Webcor, V-M, Garrard RC-121, Mirracord, etc.	$2.50
30-050	17" x 15" x 8½" For Garrard RC-88, RC-98, 4HF; Glaser-Steers, Thorens Changer, Pickering	2.50
30-052	17½" x 16½" x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut Metzner	3.00
30-054	2½" x 16" x 8½" For many phono & transcription players such as: Gray, Rek-O-Kut, Metzner	3.00

TONE ARM LIFT

Provides precise control of tone arm. Made of spring metal, plastic coated; attaches to tone arm.

CAT. NO. 30-066.................................**List: $.50**



PHONO ACCESSORY KIT

Complete phono and record care kit contains record brush, recor-de-stat, 12" record savers, tone arm lift, stylus microscope, stylus weight gauge, strobe disc, and phono and recorder oil.

CAT. NO. 30-098 List: $9.95

AUDIOTESTER

AUDIOTESTER TEST RECORD

12" plastic LP has stereo tests on Side 1; mono on Side 2. Side 1: metronome balance, pickup alignment, channel separation, frequency response, RIAA equalization, turntable rumble. Side 2: stylus wear, frequency response, RIAA equalization, IM distortion, turntable rumble, tone arm resonance.

CAT. NO. 30-200 .... **List: $4.98**

STYLUS MICROSCOPE

Optical instrument for checking stylus wear. Has adjustable focus and magnifying power of 50. Complete with pen-type pocket clip.

CAT NO. 30-218 .... **List: $2.50**

PHONO LEVEL

Bubble-type gauge for precise measurement of phonograph level. Accurate to better than 1°.

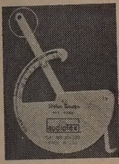
CAT NO. 30-224 .... **List: $2.50**

audiotex®

HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

PHONO ACCESSORIES (Continued)

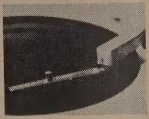


STYLUS WEIGHT GAUGE

Measures force needed to lift tone arm from record. Calibrated in bands with an expanded scale at low force. Accurately gauges correct stylus pressure.

CAT. NO. 30-220 .... List: $2.80

DECI-GRAM STYLUS PRESSURE GAUGE



Precisely calibrated, 1 to 10 gram pressure gauge measures stylus pressure within ½ gram. The sturdy DECI-GRAM is built to close tolerances to give you years of accurate service. Use it often . . . your records will last longer, sound better.

CAT. NO. 30-222................ ....List: $1.65

PHONO LEVEL KIT

Includes bubble-type phono level and four adjustable feet for balancing of any phonograph or turntable.

CAT NO. 30-226 ...... List: $3.25

STROBE DISC

New design shows not only correct speed but also ± 2% and ± 4% deviations.

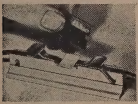
CAT. NO. 30-228 (Cardboard) .... List: $ .55
CAT. NO. 30-230 (Plastic)... List: $1.65

PHONO SPEED TEST KIT

Complete outfit for checking turntable speed. Includes plastic scrobe disc and handy neon lamp.

CAT. NO. 30-232 .... List: $2.90

TAPE ACCESSORIES



TAPE SPLICER — EZE SPLICE MODEL

For fixing broken tape and editing. Provides easy-to-repair mitre cut.

CAT. NO. 30-100 .... List: $2.75

TAPE SPLICER—PROFESSIONAL MODEL

Easy to use, precise cutter/splicer with pair of curved cutting blades. Leaves tape edges free of adhesive. For use with any ¼" tape.

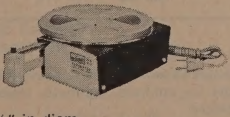
CAT. NO. 30-104....................List: $9.95

SPLICING TAPE

For use with any tape splicer. Special cold setting, non-flowing arhesive on Mylar* base. 100 spool, ½" width. Enough for 200 splices. *TM of Dupont

CAT. NO. 30-110 .... List: $.50

TAPERASER



Removes all traces of signal and noise from audio tapes and 16 or 35 mm magnetic sound film. Powerful erase action (to —52 db) lowers residual noise level below that of some virgin tape. Erases tape on reels up to 10½" in diam. Complete operation takes only 30 seconds.

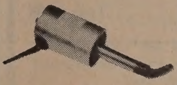
CAT. NO. 30-114 .... List: $33.00

LANGUAGE LAB ACCESSORY AND SERVICE KIT

Have all your professional Audiotex service aids and accessories in one compact container. Includes tape and record labels, splicing tape, tape threading leader, Hi-Fi service tool kit, tape strobe, head cleaner, head lubricant, kleen-tape, head demagnitizer, and a professional model tape splicer.

CAT. NO. 30-099..List: $54.95

HEAD-DEMAG TAPE HEAD DEMAGNETIZER



Safely removes all trace of magnetism from recording heads. Curved, flat tip is plastic-covered — can't scratch or damage. Reaches most heads with cover left on; on-off switch eliminates unplugging when device is not in use.

CAT. NO. 30-112......................List: $9.95

TAPE END CLIPS

Stops straying tape ends. Reusable plastic clip, works with any reel.

CAT. NO. 30-116 (Pkg. of 18)........List: $.60

REEL-NEAT TAPE CLIPS

Works on full or partially full reels. Keep tape neatly wound for convenience in storage. Snap-on clips, fit any reel, full or partially empty. Made of non-magnetic stainless steel. Fits snugly on wheel—does not interfere with placing reel back into storage carton. Package of 5.

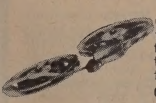
CAT. NO. 30-130 .... List: $1.25/Pkg.

TAPE AND RECORD LABELS

36 pressure-sensitive ½" x 2" labels provide handy index to the music library. Space for title, date, and number.

CAT. NO. 30-118 .... List: $.55

TAPE CUEING LABELS



Color coded, pressure-sensitive numbered tabs for marking selections anywhere on a tape. Package contains five sheets, six tabs to a sheet, and includes identification labels for the reel or box.

CAT. NO. 30-120 .... List: $1.65

TAPE THREADING LEADER

For easy threading of tape on reel. 24" Mylar leaders with pressure sensitive adhesive. A small foam rubber ball at one end drops into hub of take-up reel. On fast rewind, the ball releases without damaging tape.

CAT. NO. 30-122 (Pkg. of 10)............List: $1.40

LUBRICANT
CLEANER

TAPE HEAD CLEANER AND LUBRICANT

For cleaning and lubricating tape heads. Remove harmful dirt and grease. Lubricant contains silicone. Stops tape squeel reduces friction. Tapes last longer, give better fidelity.

CAT. NO. 30-124-1
2 oz. Cleaner ....List: $1.00

CAT. NO. 30-124-1
2 oz. Lubricant ....List: $1.00

KLEEN-TAPE

30' of specially impregnated cloth tape on 3" reel for cleaning tape heads. "Plays" through any standard tape recorder in less than 2 minutes.

CAT. NO. 30-126...List: $3.50

Pat. No. 3008852

HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

TAPE ACCESSORIES (Continued)

TAPE RECORDER ACCESSORY KIT

Complete set of essentials for proper care and operation of tape recorders. Contains "EZE-Splice" tape splicer, roll of splicing tape, package of tape labels, box of tape end clips, package of tape starting leaders, reel of Kleen-Tape and Vial of Phono and Recorder Oil.

CAT. NO. 30-148..................List: $9.95

TELEPHONE PICK-UP

Records both sides of a telephone conversation — suction cup attaches to any phone. Plugs into tape recorder.

CAT. NO. 30-150 (plug not included)...............List: $5.95

CAT. NO. 30-152 (with standard phone plug)....List: $6.95

AUDIOTESTER TAPE

STEREO AND MONOPHONIC AUDIOTESTER

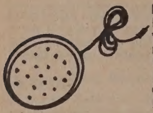
For checking performance of stereo and mono tape machines and associated equipment. Tests include head alignment, resonance, frequency response, NAB equalization, intermodulation, flutter, metronome balance, and distortion. 7.5 ips tape comes with detailed instruction.

CAT. NO. 30-206 (Standard tolerance) ...List: $6.50

CAT. NO. 30-208 (Precise tolerance) ....List: $8.25

CAT. NO. 30-210 (4 track test tape)..............................List: $6.50

PILLOW SPEAKER



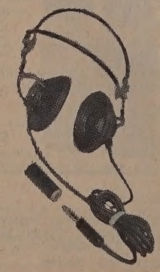
Personal Instrument for Private Listening. For use with transistor radios or across voice coil leads of any speaker. Electro-magnetic element for maximum sensitivity and widest possible tone range. For private listening, without disturbing others. Comes with cord and miniature phone plug to fit transistor radios.

CAT. NO. 30-160.........................List: $4.95

MISCELLANEOUS

HI FI ACCESSORIES

PROFESSIONAL HEADPHONES



High quality instruments for stereo and monophonic play. Frequency range 50-15,000 cps. Moving coil elements contain dual 16 ohm voice coils and lightweight plastic diaphragms. Supplied with connecting cable and plugs. Impedance: 16/16 ohms (stereo) or 8 ohms (mono).

CAT. NO. 30-158...............List $49.00

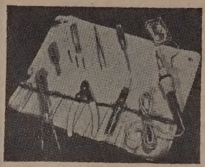
MINIATURE EARPHONE

For private listening to radios, TV, and hi-fi. Electro-dynamic type with frequency range 50-4000 cps. Lightweight metal clip holds phone to either ear.

CAT. NO. 30-154 (15 ohm)......List: $2.95

CAT. NO. 30-156 (2000 ohm)..List: $2.95

ENGINEER'S HI-FI SERVICE TOOL KIT

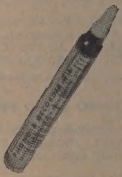


CAT. NO. 30-244

List: $16.50

Special tools for the audiophile or professional for repair, installation and adjustment of hi-fi and music equipment. Heavy duty plastic pouch contains miniature-tip soldering iron; precision tweezer; neolite circuit tester; phono & recorder oil; set of jeweler's screwdrivers; Phillips screwdriver; miniature screw holding screwdriver ("Minihold"); wire stripper and cutter, and a package of solder.

PHONO AND RECORDER OIL



Specially compounded non-gumming oil in handy plastic drop-by-drop applicator. Contains rust inhibitor.

CAT. NO. 30-250 .... List: $.65

SPEAKER CONE WEATHERPROOFING

Special silicone compound weatherproofs speakers for outdoor use. 8 oz. in aerosol-type spray can; enough to protect several speakers.

CAT. NO. 30-252 .... List: $2.50

FM INDOOR ANTENNA

Folded Dipole for local or strong signal locations. Comes ready to install with 6′ lead wire and spade lugs.

CAT. NO. 30-270 .... List: $2.10

VIBRATION PADS

Resilient pads made of foam plastic and sponge rubber. Laminations reduce rumble, minimize feedback, and protect cabinets. Four available sizes to fit wide variety of units.

CAT. NO.	SIZE	LIST
30-162	6″x12″	$0.90
30-164	9″x12″	1.25
30-166	12″x12″	1.60
30-168	13″x16″	2.25

HI FI DECALS

Jumbo assortment of attractive labels. Includes identification tabs for controls, cabinets, chassis parts and remote control devices.

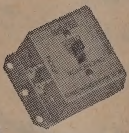
CAT. NO. 30-314 .... List: $1.50

audiotex® HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

MISCELLANEOUS HI FI ACCESSORIES (Continued)

STEREO/MONOPHONIC SWITCHBOX



Parallels two stereo channels for noise-free play of monophonic records with stereo cartridge. Two-position switch for stereo or mono play. 3 ft. shielded cables with male phono plugs included.

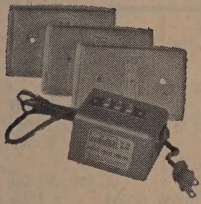
CAT. NO. 30-290 (surface mounting) List: $4.85
CAT. NO. 30-292 (panel mounting) List: $5.25

DUO JACK SWITCH BOX

Connects two units such as tuner and record player or tape machine to single input. Automatically switches signals. Contains two inputs that accept phono jacks and 18″ output cable with phono plug.

CAT. NO. 30-294 (surface mounting)	**List: $3.00**
CAT. NO. 30-296 (panel mounting)	**List: $3.75**

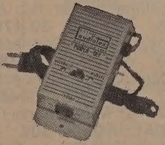
REMOTE POWER CONTROL



Operates like a light switch; provides remote control of electrical equipment at any location, with any number of switches. Contains low voltage signal power supply and relay switch. Remote switches fit standard electrical outlet box or may be built into a cabinet. Uses 3 conductor low voltage wire. 10 amp at 117.5 volt capacity.

CAT. NO. 30-300 (includes 3 switches)	**List: $23.00**
CAT. NO. 30-302 (with 3 pilot light switches)	**List: $28.00**
CAT. NO. 30-304 (additional switches without pilot light)	**List: $2.25**

POWEROFF



Shuts-off power to automatic record changers when last record has been played. Automatic shut-off may be switched to manual control. Complete with line cord and two receptacles.

CAT. NO. 30-310 (for changers drawing 30-45 watts) List: $11.95

DRAWER SLIDES

For mounting record players, tape machines or other equipment in storage walls or cabinets. Support up to 50 lbs.; fit any drawer up to 17″ long. Nylon rollers provide smooth operation.

CAT. NO. 30-350 (one pair)	**List: $3.30**
CAT. NO. 30-348 (Ball bearing slides)	**List: $5.00/pr.**

ACOUSTIC PADDING

Spun fiberglass eliminates standing sound waves, reduces reverberation inside speaker cabinets. May be used for any application to control or absorb sound.

CAT. NO. 30-356 (24″x60″x1″)	**List: $ 2.25**
CAT. NO. 30-358 (Roll 24″x150′x1″)	**List: $56.15 (30c lin. ft.)**

SPEAKER SELECTOR SWITCH

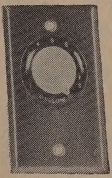
Dial switch provides control of 1 to 3 speakers anywhere in the house. Finished in attractive brush lacquered solid brass. Terminals on rear.

CAT. NO. 30-360
(surface mounting or free standing)
List: $5.50

CAT. NO. 30-362
(wall plate type) List: $3.50

CAT. NO. 30-388
(Stereophonic speaker selector Wall plate type)
List: $4.95

SPEAKER VOLUME CONTROLS



Terminal-type controls for mounting on standard electrical wall plates. Also fit standard conduit box or may be mounted in any panel or cabinet. 10 watt power capacity (20 watt peak); "L" pad design.

CAT. NO.		List
WALL PLATE TYPE		
30-364	**(for 8 ohm speakers)**	**$4.95**
30-366	**(for 16 ohm speakers)**	**$4.95**
30-368	**(for 8 ohm speakers with output jack for plug-in of extension speaker)**	**$5.25**
30-370	**(for 16 ohm speaker with jack as above)**	**$5.25**
30-372	**(for two 8 ohm speakers)**	**$8.50**
30-374	**(for two 16 ohm speakers)**	**$8.50**

SURFACE MOUNTING (in self-contained box)

30-376	**(speaker volume control 8 ohm)**	**$ 7.00**
30-378	**(speaker volume control 16 ohm)**	**$ 7.00**
30-380	**(dual stereo speaker 8 ohm)**	**$10.50**
30-382	**(dual stereo speaker 14 ohm)**	**$10.50**

CABINET TYPE

30-384	**(speaker volume control 8 ohm)**	**$ 3.50**
30-386	**(speaker volume control 16 ohm)**	**$ 3.50**

"T" PAD, PANEL MOUNTING

30-390	**(8 ohm, 25 watt peak audio)**	**$6.75**
30-392	**(16 ohm, 25 watt peak audio)**	**$6.75**

SOLDERLESS PHONO PIN PLUGS

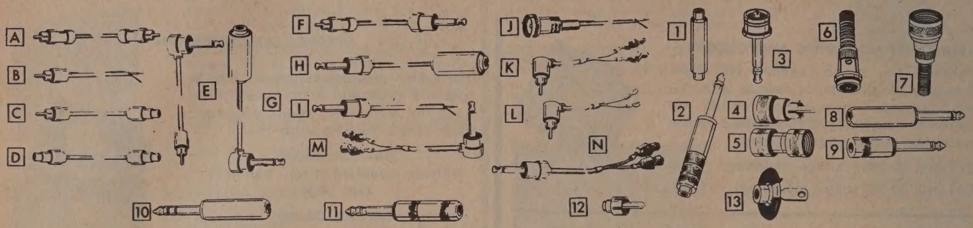
Completely new design requires only stripping of cable inserting in plastic shell and assembly with two screws. Right angle style.

CAT. NO. 30-530	**List $.90 pk/2 grey plugs**
CAT. NO, 30-532	**List: $.90 pk/2 black plugs**

audiotex HI-FI ACCESSORIES

AUDIOTEX MFG. CO., DIV. of G-C TEXTRON, INC.
ROCKFORD, ILL. • LOS ANGELES 18, CALIFORNIA

CONNECTING CABLES, ADAPTORS, PLUGS AND JACKS A full assortment of Interconnecting Cables, Adaptors and connectors for connecting Hi-Fi sets. Cables come in a variety of lengths for any application.



SHIELDED CABLES

Phono Pin Plugs on both ends.

A CAT. NO.	LENGTH	LIST
30-400	18″	$1.00
30-402	36″	1.25
30-404	72″	1.50
30-406	144″	2.00

Phono Pin Plug on one end, other end stripped and tinned.

B CAT. NO.	LENGTH	LIST
30-412	18″	$ .90
30-414	36″	1.00
30-416	72″	1.25
30-418	144″	1.75

Phono Pin Plug on one end; Phono Pin Jack on other end.

C CAT. NO.	LENGTH	LIST
30-424	18″	$1.25
30-426	36″	1.35
30-428	72″	1.75
30-430	144″	2.25

Phono Pin Jacks on both ends.

D CAT. NO.	LENGTH	LIST
30-434	18″	$1.55
30-436	36″	1.80
30-438	72″	2.25

Phono Pin Plug on one end, 90° Phone Plug on other.
E CAT. NO. 30-442 (72″) List: $2.00

Phono Pin Plug on one end, Std. Phone Plug on other.
F CAT. NO. 30-444 (72″) List: $2.00

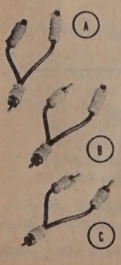
90° Phone Plug on one end, Phone Jack on other.
G CAT. NO. 30-446 (10′) List: $5.00

Std. Phone Plug on one end, Phone Jack on other end.
H CAT NO. 30-448 (10′) List: $5.00

Phone Plug on one end, other end stripped and tinned.
I CAT. NO. 30-450 (6′) List: $1.90

Microphone Connector on one end, other end stripped and tinned.

J CAT. NO.		List
30-452	(10′)	$2.70
30-464	(8′)	2.80
30-466	(15′)	3.90



FLEXIBLE "Y" ADAPTERS

Phono Jack and Plug Type

These new Flexible "Y" Adapters are used in converting stereo record players to monaural and may also be used as a Tap-in Meter Monitor connection. Also required on some tape recorders.

Part No. List Price
CAT. NO. LIST

(A) CAT. NO. 30-510 Phono Plugs to 2 Phono Jacks .... **List: $2.00**
(B) CAT. NO. 30-512 2 Phono Plugs to 1 Phono Jack ....**List: $2.00**
(C) CAT. NO. 30-514 3 Phono Plugs connected together .... **List: $2.00**

TWO-CONDUCTOR CABLES

Alligator Clips on one end; 90° Phono Pin Plug on other end.
K CAT. NO. 30-456 (10′) List: $2.25

Spade Lugs on one end; 90° Phono Pin Plug on other end.
L CAT. NO. 30-458 (10′) List: $1.85

Alligator Clips on one end; 90° Phone Plug on other end.
M CAT. NO. 30-460 (10′) List: $2.40

Standard Phone Plug on one end; Alligator Clips on other end.
N CAT. NO. 30-462 (10′) List: $2.40

ADAPTORS

Phono Pin Jack, for connecting two Phono Pin Plugs.
1 CAT. NO. 30-470 List: $1.00

Phono Pin Plug to Standard Phone Plug
2 CAT. NO. 30-472 List: $1.95

Female Microphone Connector to Standard Phone Plug.
3 CAT. NO. 30-474 List: $ .45

Microphone Connector to Phono Pin Plug.
4 CAT. NO. 30-476 List: $1.00
30-500 Phono Pin Plug to 2 Phono Jacks 1.75
30-502 (3 phono pin jacks) 1.75
30-504 (2 pin jacks) 1.90
30-506 Phone Plug to 2 Microphone Connector 1.90

MISCELLANEOUS

Connector for two Male Microphone Connectors.
5 CAT NO. 30-478 List: $1.00

Microphone Connector, Single Contact, Male.
6 CAT. NO. 30-480 List: $ .50

Microphone Connector, Single Contact, Female.
7 CAT. NO. 30-482 $ .70

Three Microphone Connectors.
CAT. NO. 30-508 List: $1.65

Standard Phone Plug, 2 Contact, Plastic handle.
8 CAT. NO. 30-484 List: $ .80

Standard Phone Plug, 2 Contact, "Stubby" Metal handle (shielded).
9 CAT. NO. 30-486 List: $1.00

Phone Plug, 3 Contact, Plastic handle.
10 CAT. NO. 30-488 List: $1.50

Phone Plug, 3 Contact, Metal handle (shielded).
11 CAT. NO. 30-490 List: $1.50

Phono Pin Plugs, Package of 4.
12 CAT. NO. 30-492 List: $ .55

Phono Pin Jacks, Package of 3.
13 CAT. NO. 30-494 List: $ .55

Phono Pin Plug with Removable Shielded Handle.
CAT. NO. 30-534 List: $1.00 (pkg./2)

Phono Pin Jack, Package of 2
CAT. NO. 30-536 List: $1.20

Speaker Wires, 22 Ga, 2 Conn for connecting loud spkr.
CAT. NO. 30-550 (20′) Speaker Wire List: $ .70
30-552 (40′) Speaker Wire 1.25

© U.C.P., In

BURGESS

MAGNETIC RECORDING TAPE

by the makers of BURGESS BATTERIES

40 years of successful developments in acoustics, coatings and coating processes, and solid state physics have enabled Burgess engineers to produce a superlative magnetic tape characterized by these quality features . . .

- **SUPERB FREQUENCY RESPONSES**
- **LOW NOISE LEVEL** • **HIGH SENSITIVITY**
- **UNIFORM, TROUBLE-FREE PERFORMANCES ASSURED BY BURGESS QUALITY CONTROL**

BURGESS
plastic all purpose
MAGNETIC RECORDING TAPE
SUPERIOR BURGESS QUALITY for
MAXIMUM OUTPUT and PLEASURE

BURGESS CATALOG NO.	TAPE LENGTH	REEL SIZE	LIST PRICE	DESCRIPTION
111-1.5	150′	3″	$ .70	**SERIES NO. 111 1.5 mil ¼″** **ALL-PURPOSE PLASTIC—** 1.5 mil cellulose acetate for all general recording needs. Recognized throughout the recording industry as perfect for flawless recordings at minimum cost. The popular standard series tape.
111-3	300′	4″	1.35	
111-6	600′	5″	2.25	
111-8.5	850′	5¾″	2.85	
111-12	1200′	7″	3.50	
111-24R	2400′	10½″	10.90	
111-24H	2400′	10½″	8.50	
150-2.25	225′	3″	1.00	**SERIES NO. 150 1.0 mil ¼″** **EXTRA-PLAY POLYESTER MYLAR*** 1.0 mil polyester mylar* for trouble-free operation in all weather. Performs brilliantly, unaffected by heat or humidity. 50% more recording time per reel.
150-9	900′	5″	3.60	
150-12	1200′	5¾″	4.65	
150-15	1500′	7″	5.15	
150-18	1800′	7″	6.20	
150-36R	3600′	10½″	14.40	
150-36H	3600′	10½″	12.00	
102-6	600′	5″	2.65	**SERIES NO. 102 1.5 mil ¼″** **ALL PURPOSE MYLAR*—** 1.5 mil mylar* for super toughness, flawless performance under all conditions. Immune to heat or humidity, will not dry out or become brittle.
102-12	1200′	7″	4.25	
102-24R	2400′	10½″	11.20	
102-24H	2400′	10½″	8.80	
190-9	900′	5″	3.50	**SERIES NO. 190 1.0 mil ¼″** **EXTRA-PLAY PLASTIC—** 1.0 mil cellulose acetate for maximum economy. Superb reproduction with full frequency response and 50% more recording time.
190-15	1500′	7″	4.50	
190-18	1800′	7″	5.50	
190-36R	3600′	10½″	12.85	
190-36H	3600′	10½″	10.00	
200-3	300′	3″	1.60	**SERIES NO. 200 .5 mil ¼″** **DOUBLE LENGTH TENSILIZED POLYESTER MYLAR*—** .5 mil double length tensilized polyester mylar* gives double the recording time of conventional tape. Twice the strength of conventional thin tape. Ideal for use under adverse conditions. Won't stretch or become brittle.
200-6	600′	4″	3.05	
200-12	1200′	5″	5.45	
200-17	1700′	5¾″	7.05	
200-24	2400′	7″	9.50	
200-48RPS	4800′	10½″	22.00	
131-12	1200′	7″	4.40	**SERIES NO. 131 1.5 mil ¼″** **LOW PRINT THROUGH PROFESSIONAL QUALITY PLASTIC—** 1.5 cellulose acetate, all-purpose professional grade, low print-through tape. Provides absolute minimum layer-to-layer signal transfer.
131-24R	2400′	10½″	12.40	
131-24H	2400′	10½″	10.00	
138-12	1200′	7″	5.10	**SERIES NO. 138 1.5 mil ¼″** **LOW PRINT THROUGH PROFESSIONAL QUALITY ALL-PURPOSE MYLAR*—** 1.5 mil mylar* insures good strength and storage characteristics. Provides minimum layer-to-layer signal transfer.
138-24R	2400′	10½″	13.50	
138-24H	2400′	10½″	11.10	

ACCESSORIES

BURGESS CAT. NO.	SIZE	LIST PRICE	DESCRIPTION
LT-15	150′ L. ¼″ W.	$1.10	Mylar Leader Tape
ST-5	150′ L. ½″ W.	.39	Splicing Tape
RB-3	Clear Plastic 3″ Reel	.25	Empty Reel, Boxed
RB-4	Clear Plastic 4″ Reel	.55	Empty Reel, Boxed
RB-5	Clear Plastic 5″ Reel	.65	Empty Reel, Boxed
RB-7	Clear Plastic 7″ Reel	.75	Empty Reel, Boxed

BURGESS CAT. NO.	SIZE	LIST PRICE	DESCRIPTION
B-3	For 3″ Reel	$ .15	Empty Box
B-4	For 4″ Reel	.20	Empty Box
B-5	For 5″ Reel	.20	Empty Box
B-7	For 7″ Reel	.20	Empty Box
MB-4	For 4″ Reel & Box	.15	Corrugated Mailing Carton
MB-5	For 5″ Reel & Box	.15	Corrugated Mailing Carton
MB-7	For 7″ Reel & Box	.20	Corrugated Mailing Carton

*Trade Mark of DuPont

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B.I.C. ENDORSED QUALITY

Garrard

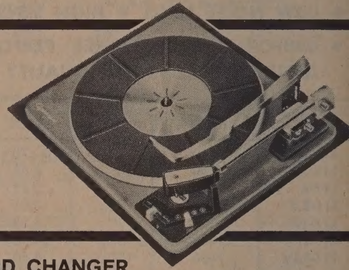
WORLD'S FINEST RECORD-PLAYING EQUIPMENT

TYPE A AUTOMATIC TURNTABLE

A magnificent record player, designed to satisfy the most critical d mands of the knowledgeable music lover—fulfills the requirements the finest music system. Dynamically-balanced counterweight-adjuste transcription tone arm with plug-in shell. Built-in calibrated stylus force gaug Double shielded 4-pole motor. Heavily weighted balanced cast turntable is full-siz and non-magnetic. Interchangeable spindles. GARRARD's exclusive pusher platfor record changer mechanism, for automatic play when desired. New and exclusi Amplock plug and twin audio sockets facilitate instant connect and disconnect all cables.

MODEL AT6 AUTOMATIC TURNTABLE

A new automatic turntable modestly priced but distinguished by features and performance unequalled except by Garrard's own TYPE A. Dynamically-balanced, counterweighted tubular tone arm, with bayonet fitted plug-in shell. 4 speeds, center spindle intermix with separate manual and automatic controls. Built-in stylus force scale. Double shielded 4-pole motor. Oversized heavy-duty turntable. Rapid connect/disconnect Amplock plug and twin audio sockets. Compact size fits all player compartments.



AUTOSLIM/P AUTOMATIC RECORD CHANGER

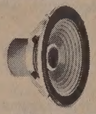
A new standard of styling and performance in a budget-priced reco changer. Exceptionally compact. Auto/manual operation—intermixes in a sequence. Die cast aluminum tone arm has plug-in shell—bayonet fitting, feature expected only in more expensive units. Dynamically balanced 4-po "Induction Surge" motor—Unified Control Panel has separate manual ar automatic play positions. Amplock plug and twin audio sockets for quic connect and disconnect of all cables.

Wharfedale

ACHROMATIC SPEAKER SYSTEMS

COMPONENT LOUDSPEAKERS

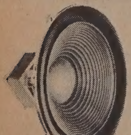
SUPER 8 FS/AL
Full Range 8"



SUPER 10 RS/DD
Full Range 10"

SUPER 12 RS/DD
Full Range 12"

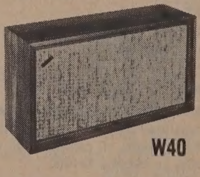
W12/RS Woofer



W15/RS Woofer

SUPER 3 Tweeter

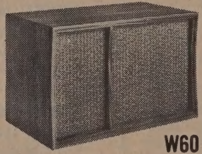
3-WAY
CROSSOVER NETWORK



W40

The first ultra-compact full range two-speaker system in exclusive sand-filled enclosure. Achromatic principle. Remarkable wide range with excellent bass response.

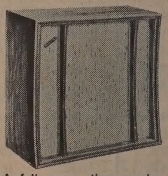
In Oiled or Polished Walnut and Mahogany true wood veneer; also in sanded Birch hardwood utility model without curved molding.



W60

A full range, two-speaker system in exclusive sand-filled enclosure. The original Achromatic unit which has established a new standard for complete speaker systems regardless of size or price. Speakers are matched and tuned to a craftsman's cabinet — ¾" genuine hardwood.

In Oiled or Polished Walnut and Mahogany true wood veneer; also in sanded Birch hardwood utility model without curved molding or divider.



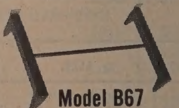
W70

A full range, three-speaker system in exclusive sand filled enclosure. This magnificent Achromatic Speaker System is, in truth, a fine musical instrument. Its reproduction can be compared only to a live performance. Speakers are matched and tuned to a craftsman's cabinet—¾" genuine hardwood.

In Oiled or Polished Walnut and Mahogany true wood veneers; also in sanded Birch hardwood utility model without curved molding or dividers.

W60PR W70PR

Fine quality Provincial versions of the W60 and W70 Achromatic speaker systems. Both models are beautifully crafted in genuine Fruitwood. In equipment and interior construction, they are identical with the W60 and W70 systems.



Model B67

Universal mounting base for the W60 or W70 speaker systems. In Oiled or Polished Walnut or Mahogany true wood veneers; also in sanded Birch hardwood.

BRITISH INDUSTRIES CORPORATION - PORT WASHINGTON, N. Y.

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Magnecord THE ULTIMATE IN AUDIO TAPE RECORDING

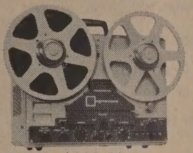
THE ONLY RECORDER AT ANY PRICE THAT DOES EVERYTHING — BEST!

728

748

PROFESSIONAL SERIES

- Model 728 Tape Speeds—7½ & 15 ips
- Model 748 Tape Speeds—3¾ & 7½ ips
- Stereo Record / Stereo Playback
- 4 Separate Heads — Plays 2 and 4 track tapes (¼ track optional)
- Handles 10½ inch and 7 inch Reels
- 2 Illuminated VU Meters
- Superior Specifications in All Areas
- Sound on Sound
- Every Feature the Sound Perfectionist Desires is Included
- Weight, Approximately 50 Pounds



Model 728-4 As Shown From **$909.00**

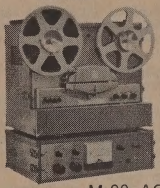
THE MIGHTY

M-90

SERIES

THE MIGHTIEST OF THEM ALL!

- Designed for the Broadcaster and Professional Recording Studio
- All Functions can be Remotely Operated
- Unsurpassed Performance Characteristics
- Handles 10½ inch Reels
- Available for Rack Mounting, In Portable Case or in Studio Console
- Weight, 80 Pounds



M-90 AC As Shown From **$1460.00**

PERFECT FOR EDITING

the P 75

EDITOR SERIES

- Incorporates Most of the Excellent Features of the M-90
- All Specifications Meet Highest Professional Standards
- 3 Motor Drive with Hysteresis Synchronous Direct Drive Capstan
- Handles 10½ inch Reels
- Monaural
- Weight, 69 Pounds

P 75 AC As Shown From **$930.00**

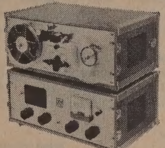
THE

PT 6

SERIES

WORKHORSE OF THE BROADCAST INDUSTRY

- 7 inch Reels
- 3 Speeds
- Monitor Speaker
- 50 Ohm Microphone and Hi-Z Bridging Inputs
- 4, 16 and 600 Ohm
- Balanced Output Synchronous Motor
- Available Full or Half Track
- Total Weight, 47 Pounds

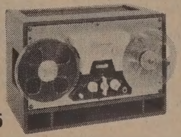


PT 6-6AJ As Shown From **$735.00**

THE N35B

CITATION SERIES

- Compact-Complete
- VU Meter
- Microphone (Hi-Z)
- Power Amplifier
- Speaker
- Portable
- 8 Ohm External Speaker Connection
- 3.75 & 7.5 ips Tape Speeds

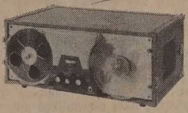


As Shown (½ Track) From **$319.95**

THE S 36

UTILITY

- Record/Playback/Pre-amplifier
- Weight, 40 Pounds
- Full Track Only
- Inputs Hi-Z Mic.
- Output 600 Ohms
- Monitor Phone Jack
- VU Meter
- 7 inch Reels

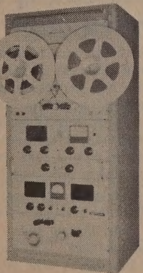


S 36 B As Shown From **$405.00**

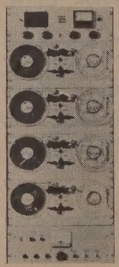
AUTOMATIC LONG TERM STORAGE RECORDER

THE 817 DL

- 8 Hours Continuous Recording or Play
- Delay Loop Insures Complete Recording
- No Accidental Erasure
- Automatic Standby
- For Speech Monitor Only
- Handles 14 inch Reels



817 DL As Shown (Equipment Only) From **$1809.00**



THE

D-3

TAPE DUPLICATING SYSTEM

- 3 Copies Simultaneously
- Master Motor Control
- Broadcast Quality
- VU Meter for Correct Record Level
- Calibration Circuit

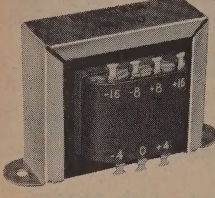
As Shown (Equipment Only) From **$2200.00**

- *Represented by leading audio dealers and industrial distributors*

Magnecord SALES DEPARTMENT
MIDWESTERN INSTRUMENTS, INC.
TULSA, OKLAHOMA

MICROTRAN

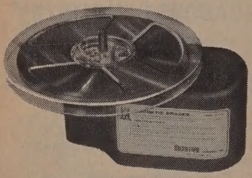
PRECISION HI-FI ACCESSORIES



stereo 3rd channel — output matching transformers model HM-90

This precision transformer has been designed for the Audiophile who wishes to convert his Monaural System to Stereo or who wishes to modify or enlarge his Stereo system.

- Permits "hole-in-the-middle" fill in with 3rd Channel Speaker.
- Two HM-90 permits construction of Single cabinet, Single location, stereo system.
- Permits addition of any combination of Monaural or Stereo speakers, regardless of ratings.
- Permits these changes to be made and still maintain matched impedances, required polarities, and desired power levels.
- Power: 30 watts: Peak Power 100 watts.
- Frequency Response (Power): 40 to 20,000 cycles.
- Impedance Range: +16, +8, +4, 0, −4, −8, −16 ohms (Minus sign refers to reversed polarity.)
- Insertion Loss: Less than 1 db. in most hookups. When used on +4Ω and in −4Ω and in −4Ω out Taps, 3 db.
- Simple Connections: Easy to follow instructions show connections to be made to numbered solder lugs for each type of stereo system.
- Finish: Vacuum Varnish impregnation.
- Size: 3¾" x 2½" x 2⁵⁄₁₆" hi; 3⅛" Mtg. ctrs.
- Weight: 2 lbs.
- Model HM-90—USER NET: $6.33



Magnetic Tape Eraser — Model HD-11M Epoxy Molded

A heavy duty bulk tape demagnetizer that develops a high intensity magnetic field. Erases recorded signals and noise from magnetic tape without rewinding. Saves unnecessary wear on heads and tape. Noise level reduced below level of standard erase heads. Restores tape up to ½" to like new condition or better.

- Spindle mounting of reel permits rapid thorough coverage without missed spots.
- Reel Size Range: 5" x 7" x 10½".
- Spindle removable for use with other reel sizes.
- Accessory: Adapter hub for use with N.A.B. 10½" reels.
  (Model HD-11-AD . . . User Net $2.30)
- Universal Use: May also be used for Demagnetizing record Playback-Erase Heads, watches and other metal objects.
- Rating: 117 Volts AC, 5 Amps.
- Finish: Case Epoxy — High impact.
- Size 7" L x 3½" W x 3¼" H.
- Weight: 9 lbs.
- Model HD-11M—USER NET: $18.95

A MUST FOR STEREO RECORDING
Most stereo recorders do not provide facilities for pre-erasing both tracks

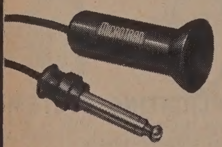
Tape Head Demagnetizer — Model HD-40M *(For Tape Recording Heads)*

Permanent magnetizing of recording heads during normal use of tape recorders is a common occurrence. Magnetized heads cause high noise level and harmonic distortion.

The HD-40M Head Demagnetizer, when properly used, removes any residual permanent magnetism from the heads. It consists of a heavy duty alternating current electromagnet with an extended pole piece designed for easy access to the recording heads of most tape recorders. When energized, contact of the demagnetizer pole piece with the pole tip of the recording head causes the head to be saturated by an alternating magnetic field. Gradual removal of the head from this saturating field neutralized any residual permanent (DC) magnetism in the recording head.

- Removes permanet magnetism
- Reduces noise level
- Reduces harmonic distortion
- Improves signal to noise ratio
- Insures high frequency response
- Reduces hum of tape head
- Special finish on pole piece prevents marring recording head surfaces
- Rating 117 volts AC, 1 AMP.
- FINISH: High impact molded epoxy
- SIZE: 4" Long x 1¼" Diameter
- WEIGHT: 7 ozs.
- Model HD-40M—USER NET: $5.25

telephone pick-up coil — model HP-61



For transcribing telephone conversations with recorder or making messages audible on amplifier. May also be used as probe for locating sources of hum.

- Equalized Level: Local and distant conversations recorded with more constant signal level than base mounted units.
- Suction Cup: Mounting on telephone receiver.
- Universal Model: One unit suitable for all types of telephones.
- Plug-in Use: Supplied with 68" shielded cable, terminated with standard phone plug for mike input of recorder or amplifier.
- Finish: Optical Black.
- Compact: Size only ⅝" diameter x 2" long.
- Weight: 1½ ounces.
- Model HP-61—USER NET: $4.77

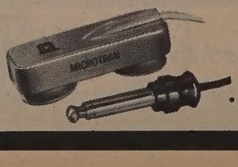
hum-bucking telephone pick-up coil — model HP-70

For transcribing telephone conversations, this coil is designed for use with high impedance input tape recorders, amplifiers and dictating machines. This deluxe unit has been designed with symmetrical hum cancelling pick-up coils. Ruggedly constructed of high impact plastic.

- Eliminates high stray hum pick-up usually encountered with conventional pick-up coils.
- Color: Grey.
- Size: 2½" L x ⅞" W x ⅝" H.
- Model HP-70—USER NET: $6.95

- Mounting: Double Suction Cup
- Cable Length: 5 Feet.
- Termination: Tinned Leads
- Shipping Weight: 2 ozs.

MICROTRAN company inc.
Valley Stream, New York



As above with Molded Phone Plug Termination.

- Shipping Weight: 3 ozs.
- Model HP-71 USER NET: $7 50.

Scotch
magnetic tape
ALL PURPOSE

No. 111 All Purpose: For all general recording. International standard of the recording industry—provides flawless sound reproduction at low cost. 1½ mil plastic backing.

No. 102 All Purpose, Extra Strength: For all general recording—especially suited for irreplaceable recordings or long term storage. On super-tough, weather balanced 1½ mil polyester backing.

No. 190 Extra Play: 50% more tape—as much recording time as 1½ reels of standard tape. High potency oxide offers complete purity of sound. 1 mil plastic backing.

No. 150 Extra Play, Extra Strength: 50% more playing time—withstands temperature and humidity extremes. High potency oxide on 1 mil polyester backing.

No. 200 Double Length, Double Strength: As much playing time as two reels of standard tape—enough to record an entire opera, concert or conference. High potency oxide on tensilized polyester backing.

No. 120 High Output: Over 100% more output, greater dynamic range and freedom from distortion on signal peaks. 1½ mil plastic backing.

No. 131 Low Print: Reduces print-through (signal transfer from layer to layer) to a point below the noise level of most professional machines. Has excellent recording characteristics and allows long time storage. 1½ mil plastic backing.

No. 138 Low Print, Extra Strength: Same recording qualities as No. 131 on strong 1½ mil polyester backing.

No. 175 Tenzar® Backing: For applications requiring frequent repeat, continuous play, fast stops and starts. High quality—economical—with 16 times greater tear resistance than plastic to resist breaking when edges are nicked. Non-drying 1½ mil TENZAR tape available on Red, Blue, Green, Yellow or Clear (standard) reels.

No. 282 Sandwich: With exclusive micro-thin protective plastic shield over oxide coating. Eliminates oxide rub-off, wears up to 30 times longer, drastically reduces machine maintenance and provides superb sound fidelity. Strong, weatherproof 1½ mil polyester backing.

ACCESSORIES

No. 10 Tape Library Labels: Self-sticking labels give front and edge box identification with tear-off tabs for reels. Fits all boxes in Red, Yellow, Blue, Green or White colors. List Price—50 labels $2.75.

No. 24 Colored Leader & Timing Tapes: Used to identify ends of tape and selections within a roll. Red, Blue, Green, Yellow and White in handy dispenser packages. List Price—¼" x 100'—$.90.

No. 41 Splicing Tape: A self-sticking tape expressly made for neat noiseless splices. In metal dispensers. List Price—½" x 150" $.39.

No. 51 Conductive Sensing Tape: For recorders with electronic sensing controls. Sticks tight, stays clean. On dispenser card. List Price—7/32" x 150" $1.89.

TC-12 End-of-Reel Tape Clips: One clip packed free in each box. Prevents tape spilling. 10 clips per package—$.35.

STOCK NO.	DESCRIPTION	REEL	LIST PRICE
*111-1.5	¼" x 150'	3"	$ .70
111-3	¼" x 300'	4"	1.35
111-6	¼" x 600'	5"	2.25
111-12	¼" x 1200'	7"	3.50
111-25H	¼" x 2500'	HUB	7.35
111-25R	¼" x 2500'	10½"	10.15
*102-6	¼" x 600'	5"	2.65
102-12	¼" x 1200'	7"	4.25
102-25H	¼" x 2500'	HUB	8.55
102-25R	¼" x 2500'	10½"	11.35
*120-3	¼" x 300'	4"	1.35
120-6	¼" x 600'	5"	2.25
120-12	¼" x 1200'	7"	3.50
120-25H	¼" x 2500'	HUB	7.35
120-25R	¼" x 2500'	10½"	10.15
†190-9	¼" x 900'	5"	3.50
190-18	¼" x 1800'	7"	5.50
190-36H	¼" x 3600'	HUB	9.25
190-36R	¼" x 3600'	10½"	12.05
†150-2.25	¼" x 225'	3"	1.00
150-9	¼" x 900'	5"	3.60
150-18	¼" x 1800'	7"	6.20
150-36H	¼" x 3600'	HUB	10.70
150-36R	¼" x 3600'	10½"	13.50
*131-12	¼" x 1200'	7"	4.40
131-25H	¼" x 2500'	HUB	8.65
131-25R	¼" x 2500'	10½"	11.45
*138-12	¼" x 1200'	7"	5.10
138-25H	¼" x 2500'	HUB	11.10
138-25R	¼" x 2500'	10½"	13.90
200-3	¼" x 300'	3"	1.60
200-6	¼" x 600'	4"	3.05
200-12	¼" x 1200'	5"	5.45
200-24	¼" x 2400'	7"	9.50
200-48RPS	¼" x 4800'	10½"	22.00
175-6	¼" x 600'	5"	2.40
175-12	¼" x 1200'	7"	3.75
282-6	¼" x 600'	5"	3.10
282-12	¼" x 1200'	7"	4.95

EMPTY REELS AND BOXES

RB3	3"	.25
RB4	4"	.55
RB5	5"	.65
RB7	7"	.75

**Also available 4800' on hub or 14" reel.*
†Also available 7200' on hub or 14" reel.

Magnetic Products Division 3M COMPANY

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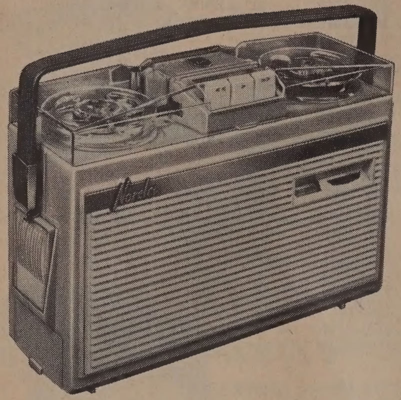
Norelco®

'CONTINENTAL' TAPE RECORDERS

developed and guild-crafted by Philips of the Netherlands

Whether you are a music lover, a recordist or a high fidelity enthusiast, we are confident you will find one of the justly famous Norelco 'Continental' family of professional quality tape recorders ideally suited to your specific recording requirements.



The CONTINENTAL "100"

(EL 3585)

100% Transistorized, Battery Operated PORTABLE TAPE RECORDER

Ultra-light — ultra-simple — ultra-rugged

It's here — Exactly the portable you've been waiting for, for candid, on-the-shoulder, split-second recordings of any sound, any voice, anywhere, every time

Nothing approaches this newest addition to the Norelco family of tape recorders wher it comes to on-the-fly, extra-fidelity recordings of interviews, inventories, lectures theatrical and musical performances, parties, nature walks, ball games and singin gondoliers. Enclosed in a handsome high-impact polystyrene case, and with its full complement of 6 low cost, (20 hr. recording life) "D" cell batteries, the Continental "100" weighs a mere 8 lbs. It readily handles both 3" and 4" reels and hence, provides up to 2 hours of recording and playback time per reel

OTHER FEATURES AND SPECIFICATIONS: Instantaneous operation, minimum battery drain, small size, superior circuitry — thanks to 100% transistorize construction; **Compatibility** — tapes are fully interchangeable with all constant-speed 1⅞ ips, 2-track A.C. line-powered recorders; **Simple operation** — 3 self-locking push-buttons handle all recording and playback functions; **Self-contained** — with Norelco 4" speaker; **Combined Indicator** — for modulation level and batter life; **Combined volume control** — for recording and playback; **Storage space** — for microphone and cables; **Input** — for mike/radio/phonograph; **Output** — fo external amplifier; **Tape speed** — 1⅞ ips, constant-speed, capstan-drive; **Frequency response** — 100-6000 cps; **Signal-to-noise ratio** — better than —40 db **Dimensions** — 10½" x 3¾" x 7½".

†Suggested list price: $129.50 complete with Norelco high quality "dynamic" microphone

The CONTINENTAL "400"

4-Track Stereo Record-Playback

4-Track Mono Record-Playback

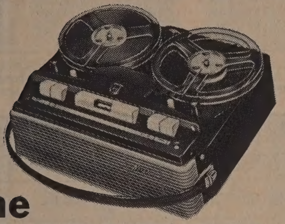
Model EL 3536

◆ fully self-contained with unique dynamic stereo microphone, plus two speakers (one in the removable cover for perfect stereo separation), dual hi-fi preamps, recording and playback amplifiers ◆ fully compatible with conventional pre-recorded magnetic tapes ◆ self contained phono/P.A. system ◆ mixing facilities ◆ 'sound on sound trick switch ◆ interlocking pause button ◆ can also play through external hi-fi amplifier.

SPECIFICATIONS: Three Speeds — 7½, 3¾, and 1⅞ ips; **Tracks** — stereo 2 (dual); monophonic 4; **Heads** — Stacked; **Frequency Response** — at 7½ ips 50-18,00 cps; at 3¾ ips, 60-14,000 cps; at 1⅞ ips, 60-7,000 cps; **Signal-to-Noise Ratio** — 46 db or better; **Wow and Flutter** — less than .3% at 3¾ ips; **Modulatio Indicator** — Magic Eye (Type EM84); **Program Indicator** — Built-in, 4-digit adjustable; **Pause Button** — instantaneous with locking device; **Fast Forward an Reverse** — Less than 2 minutes for 1200 ft. of tape; **Automatic Stop** — At ends of tape (with metalized strips); **Audio Facilities** — Self-contained, includin dual hi-fi preamps; recording and playback amplifiers, balance control and Norelco wide-range loudspeakers; **Inputs** — (1) for stereo microphone; (2) fo stereo phono or tuners; **Outputs** — (2) for extension speakers; (2) for external amplifiers; (1) for stereo headphones; **Microphone** — Stereophonic (dua elements); **Special Controls** — Two-channel volume, tone and balance; **Switches:** (1) 'sound on sound'; (1) 2-position for combining both stereo channels t single speaker output; (1) 4-position selector (channels 1 and 4, 2 and 3, stereo and P.A.); **Tube Complement** — EF86 (2), ECC83 (3), EL84 (2), EM84 (1) **Line Voltage** — 117 volts at 60 cycles; **Power Consumption** — 100 watts; **Dimensions** — 18½" x 15½" x 8½"; **Weight** — 43 pounds.

†Suggested list price: $399.5

Norelco



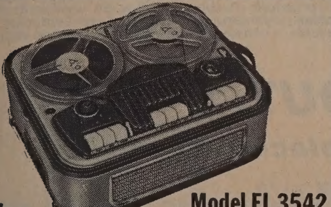
The CONTINENTAL "200"

Model EL 3541

Low-Cost 4-Track Stereo Playback and Mono Record-Playback

The top value, (7½ ips) recorder, available today! Frequency response 50 to 14,000 cps. Stereo head output for playback through external stereo preamplifier. 'Sound on sound' trick button. Interlocking pause button. Mixing facilities. Foot switch available. Self-contained, including microphone and wide-range Norelco speaker. Also suitable for use as a phono/P.A. system.

†Suggested list price: $179.50



Model EL 3542

The CONTINENTAL "300"

4-Track Stereo-Playback 4-Track Mono Record-Playback

◆ mixing facilities ◆ self-contained phono/P.A. amplifier and speaker system ◆ sound on sound trick button ◆ interlocking pause button ◆ headphone monitoring ◆ stereo head output for playback through your own stereo preamplifier ◆ footswitch available.

SPECIFICATIONS: Three Speeds—7½, 3¾, and 1⅞ ips; **Tracks** — stereo 2 (dual); Mono 4; **Heads** — Stacked; **Frequency Response** — at 7½ ips, 50 to 16,000 cps; at 3¾ ips, 60 to 13,000 cps; at 1⅞ ips, 60 to 6,500 cps; **Modulation Indicator** — Magic Eye (Type EM81); **Program Indicator** — Built-in, 4-digit adjustable; **Inputs** — (1) radio/phono; (1) microphone (with mixing facilities); **Outputs** — (2) stereo head; (1) for external speaker without controls (1) for headphone monitoring recording circuit; **Microphone** — High-impedance dynamic; **Line Voltage** — 117 volts AC at 60 cycles; **Power Consumption** — 80 watts; **Dimensions** — 15¾" x 13" x 6¾"; **Weight** — 30 pounds.

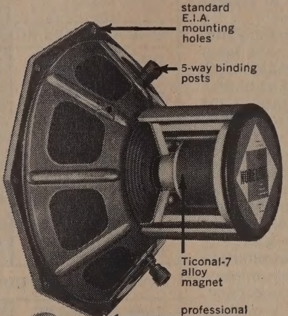
†Suggested list price: $269.50

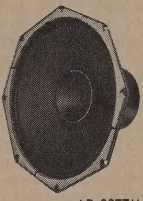
HIGH FIDELITY LOUDSPEAKERS

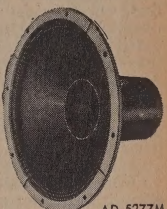
from the audio research center of the world

T-7 LOUDSPEAKERS

featuring the revolutionary TICONAL VIII *voice-coil magnets (30% more powerful than alnico V)*


standard E.I.A. mounting holes
5-way binding posts
Ticonal-7 alloy magnet
professional rigid frame construction


AD-3877M


AD-5277M

AD-4201M/77*

Truly among the world's most efficient loudspeakers, NORELCO T-7 units provide sound of **professional** calibre at **all** listening levels — and with less power (and subsequently, less distortion), than all other speakers of their type. Ticonal-7 steel alloy makes the big difference in efficiency; NORELCO-designed dual-cones and magnet systems let you **hear** the difference — unexaggerated bass and transient response, topped by clean, beautifully transparent high frequency reproduction. Listen to the sound — **then** examine the price tag. Only Philips of the Netherlands, the audio research center of the world, could have guild-crafted these speakers to give you the 'cleanest sound around' at such moderate cost.

NOTE: Where quality is the prime requisite but economy is an important factor, the NEW Norelco 12", Ferroxdure Ceramic AD-4201M/77* is the ideal solution.

Model	Size	Power (watts) Contin-uous	Peak	Efficiency at 400 cps	Total Flux (Maxwells)	Frequency Response	†Suggested List Price
AD-5277M	12"	20	30	14%	134,000	35-18,000	$48.75
AD-4277M	12"	20	30	7%	98,000	35-18,000	32.50
AD-4201M/77*	12"	10	15	7%	42,600	40-15,000	21.25
AD-4877M	8"	6	10	10%	58,300	50-20,000	23.15
AD-3877M	8"	6	10	6%	26,200	75-19,000	9.25
AD-3500M	5"	3	5	4%	26,200	130-19,000	4.95

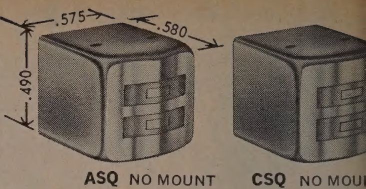
†The unit prices stated are for identification only and are not necessarily the regular or usual retail prices and are not to be represented as such.

NORTH AMERICAN PHILIPS COMPANY, INC.
High Fidelity Products Division
Hicksville, L. I., N. Y.

© U.C.P., Inc.

Nortronics®

MAGNETIC TAPE HEADS



ASQ NO MOUNT **CSQ** NO MOU

for stereo and monophonic equipment

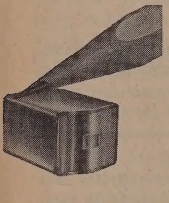
• RECORD/PLAY • RECORD • ERASE

4-Track, 2-Track and Full Track

NORTRONICS magnetic tape heads—original equipment on most major brands of tape recorders!

Designed to offer the highest quality performance and long, dependable service, Nortronics heads have long been "first choice" for most of the nation's major tape recorder manufacturers. Featuring the same sophisticated design and advanced production techniques as used on all Nortronics heads, these all-metal face heads provide: 1) Improved tape-to-head contact for increased high frequency response. 2). Smoother, harder surface to reduce friction, promoting more uniform tape motion and less flutter. 3). Reduction of magnetic oxide loading of head surface by the tape. 4). No build-up of static charge, since entire face is at ground potential.

PRODUCTION RUNS—Our capability and long experience as the Nation's largest manufacturer of laminated heads is your assurance of on schedule delivery of large production runs, consistent in quality to meet or exceed your specifications.

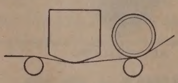


NEW! SERIES "L" MINIATURE HEAD

These compact, Series "L" miniature heads have a laminated core structure and all-metal face with hyperbolic contour. Face measures only 5/16" x 5/16"—head depth is just ⅜". Available in record, record/play, and erase types for track widths from .012" to .060"—inductances up to 500 MHY—and gap lengths from 50 micro-inches up. Base or rear mount types, available with terminals, or lead connections.

AVERAGE SPECIFICATION

NORTRONICS MODEL NO.	•ASQ4R CSQ4R (TLB4R)	•ASQ4K CSQ4K (TLB4)	•ASQ7K CSQ7K (TLB7)	•ASQ2K CSQ2K (TLB2)	•ASQ1K CSQ1K (TLB1)
TYPE OF HEAD	4-track stereo with laminated cores; "ASQ" models have hyperbolic metal face, "CSQ" models have cylindrical metal face.				
	RECORD ONLY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	PLAY BACK onl
INDUCTANCE, 1 KC	60 MHY	100 MHY	360 MHY	750 MHY	1.0 HY
IMPEDANCE, 1 KC	380 OHMS	630 OHMS	2.5 K	4.8 K	6.3 K
MAX. BIAS FREQ.	150 KC	100 KC	80 KC	60 KC	—
RESISTANCE, D.C.	140 OHMS	140 OHMS	270 OHMS	450 OHMS	650 OHMS
GAP SPACER	0.5-MIL	0.1-MIL	0.1-MIL	0.1-MIL	0.1-MIL
TRACK WIDTH	.043	.043	.043	.043	.043
TRACK SPACING	.136	.136	.136	.136	.136
MINIMUM CROSSTALK REJ.	50 DB	50 DB	50 DB	50 DB	50 DB
AVERAGE 7.5 IPS CONSTANT-CURRENT RECORD/PLAY CHARACTERISTICS					
PEAK BIAS 60 KC	0.7 MA	0.9 MA	0.45 MA	0.30 MA	—
RECORD CURRENT	.05 MA	.065 MA	.035 MA	.022 MA	—
1 KC OUTPUT	—	0.75 MV	1.5 MV	2.2 MV	2.7 MV
10 KC/1 KC RATIO	—	0 DB	0 DB	0 DB	0 DB



•NORTRONICS NEW HYPERBOLIC CONTOUR—Eli
inates need for pressure pad on record/play heads
machines which have sufficient tape tension a
wrap—greatly extends head life—increases tape co
tact pressure on the gap. May be used with norm
capstan power (and corresponding pressure roller forc
available in conventional pressure pad design recorde

TAPE HEADS DO WEAR OUT...

Make Big Profits Replacing Them!

WHERE can you get quality replacement heads? NORTRONICS offers the same premium quality tape heads they supply to original equipment manufacturers for the majority of popular tape recorders sold. Laminated core construction, precision lapping, ultra-fine gaps, metal faced . . . in other words, the best available.

HOW can you quickly and easily install the head? NORTRONICS new Quik-Kits contain everything you need, including detailed instructions and drawings . . . all hardware . . . even special mounting plates and brackets when required!

WHAT is the correct replacement head? NORTRONICS has researched, pre-tested and compiled this information for you! A copy of the detailed Replacement Head List is yours for the asking.

WHY should you stock this program? Mainly because the profit potential for YOU is tremendous. Dealers, distributors, service men and audiophiles have all demanded a COMPLETE head replacement program and NORTRONICS has the ONLY program that meets this requirement. Besides that, for upgrading of equipment, NORTRONICS also has the most comprehensive line of 4-Track Stereo Conversion Kits available anywhere.

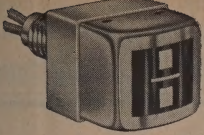
WHEN should you get in touch with your distributor? TODAY, of course! Ask him to supply you with this fast-moving, profitable line of replacement heads, Quik-Kits and 4-Track Stereo Conversion Kits.

The classic WHERE, HOW, WHAT, WHY and WHEN have all been answered by an intense, continuous research program by NORTRONICS and Sams Photofacts. All new Photofact Folders specify NORTRONICS tape heads for replacement, thus guaranteeing a continuing new demand for your NORTRONICS head stock. Write today for your copy of the detailed replacement head listing because tape heads DO WEAR OUT and YOU should be prepared to sell the replacements.

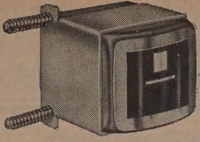
NORTRONICS national advertising and publicity campaign will pre-sell your customers on the need for replacing their worn tape heads and steer this pent-up demand directly to your door. Promotional material and detailed replacement information for popular tape recorders will make it easy to stock and profitable for you to handle.

WRITE TODAY to Thor Johnson, Distributor Sales Manager for complete information on how you can make big profits with Nortronics new replacement head program.

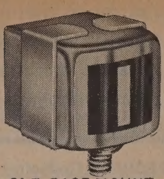
Nortronics®



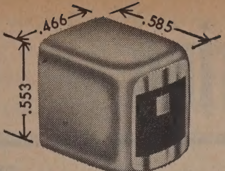
TLA REAR MOUNT



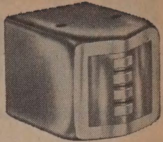
SLA SIDE MOUNT



SLF BASE MOUNT



SLS NO MOUNT



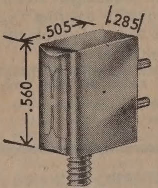
BQQ NO MOUNT

FOR RECORD/PLAY AND RECORD HEADS

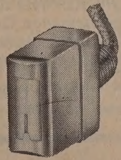
TLA5R SLA5R •TLAH5R •SLAH5R	TLA5L SLA5L •TLAH5L •SLAH5L	TLA4L SLA4L •TLAH4L •SLAH4L	TLA3L SLA3 L •TLAH3L •SLAH3L	SLF4R •SLFH4R	SLF4L •SLFH4L	SLF3L •SLFH3L	SLS4 GMH4L •KMH4L	SLS3 GMH3L •KMH3L	SLS1 GMH1L •KMH1L	•BQQ4L	•BQQ4R
2-track stereo (TLA) and mono. (SLA) with laminated cores; TLAH and SLAH have hyperbolic face.				Full-track with laminated cores; SLFH have hyperbolic face.			2-track mono with solid cores; "G" have cylindrical metal face, "K" have hyperbolic metal face.			4-channel with laminated cores; have hyperbolic metal face for ¼" tape.	
RECORD ONLY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ ONLY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	RECORD/ PLAY	RECORD ONLY
60 MHY	100 MHY	350 MHY	700 MHY	70 MHY	100 MHY	250 MHY	100 MHY	400 MHY	1.0 HY	65 MHY	50 MHY
380 OHMS	630 OHMS	2.2 K	4.5 K	400 OHMS	630 OHMS	1.5 K	630 OHMS	2.5 K	6.5 K	400 OHMS	320 OHMS
150 KC	100 KC	80 KC	60 KC	100 KC	80 KC	60 KC	100 KC	80 KC	60 KC	150 KC	100 KC
135 OHMS	120 OHMS	230 OHMS	380 OHMS	125 OHMS	125 OHMS	200 OHMS	42 OHMS	350 OHMS	625 OHMS	220 OHMS	220 OHMS
0.5–MIL	0.16–MIL	0.16–MIL	0.16–MIL	0.5–MIL	0.16–MIL	0.16–MIL	0.16–MIL	0.16–MIL	0.16–MIL	0.16–MIL	0.5–MIL
.080	.080	.080	.080	.260	.260	.260	.090	.090	.090	.037	.037
.160	.160	.160	.160	—	—	—	—	—	—	.071	.071
50 DB	50 DB	50 DB	50 DB	—	—	—	—	—	—	38 DB	38 DB
USING 3M190 TAPE, "PEAK 1 KC." BIAS, AND RECORDED AT A LEVEL OF 12 DB. BELOW TAPE SATURATION AT I KC.											
0.7 MA	0.8 MA	0.7 MA	0.7 MA	1.2 MA	1.5 MA	0.9 MA	2.5 MA	0.8 MA	0.55 MA	0.55 MA	0.6 MA
0.07 MA	0.07 MA	.045 MA	0.03 MA	0.11 MA	0.12 MA	0.09 MA	0.062 MA	0.03 MA	.018 MA	0.06 MA	0.06 MA
—	1.0 MV	2.0 MV	3.5 MV	—	2.5 MV	4.0 MV	1.2 MV	3.0 MV	5.0 MV	0.7 MV	—
—	0 DB	0 DB	0 DB	—	0 DB	0 DB	–10 DB	–10 DB	–10 DB	0 DB	—

Specifications subject to change without notice.

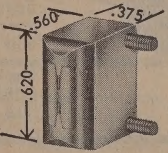
•For replacement purposes the standard cylindrical-face heads are supplied. Heads with the hyperbolic contour may be used in equipment designed or adapted for this feature.



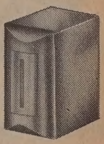
SEH
BASE MOUNT



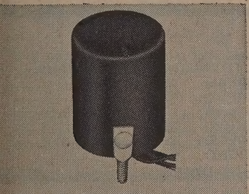
MEH
REAR MOUNT



SEQ
SIDE MOUNT



MEF
NO MOUNT



BIAS OSCILLATOR TRANSFORMER

For both transistor and vacuum tube circuits.

Ferrox-cube E-core and special low resistance windings insure maximum efficiency. Other features: High "Q" stable voltage and frequency; pure waveform.

T60-T2
For transistor circuits, push-pull or single-ended supplies erase and bias power up to 100 KC for low and high impedance heads.

T60-E
For vacuum tube circuits.

AVERAGE SPECIFICATIONS FOR ERASE HEADS

MODEL									
STEREO	SEH 1	SEH 2	SEH 4	SEQ 1	SEQ 2	SEQ 4		
MONO	MEH 1	MEH 2	MEH 4	MEQ 1	MEQ 2	MEQ 4	MEF 1	MEF 4
TYPE	2-TRACK STEREO 2-TRACK MONO		[Half Track]	4-TRACK STEREO 4-TRACK MONO		[Quarter Track]	FULL-TRACK	
INDUCTANCE 1 KC	80 MHY	.17 MHY	8 MHY	80 MHY	.13 MHY	10 MHY	40 MHY	3.6 MHY
RESISTANCE DC	205 OHMS	5 OHMS	35 OHMS	270 OHMS	5 OHMS	40 OHMS	88 OHMS	25 OHMS
*ERASE CURRENT OPERATING	4.5 TO 7.0 MA	100–150 MA	16 TO 24 MA	3 TO 5 MA	80–140 MA	10–15 MA	10 TO 15 MA	32 TO 48 MA
IMPEDANCE 60 KC	25 K	45 OHMS	2 K	30 K	40 OHMS	2.8 K	12 K	1 K
VOLTAGE, 60 KC OPERATING	100 TO 150 V	4.5 TO 7 V	32 TO 48 V	90 TO 150 V	3 TO 6 V	28 TO 42 V	100 TO 150 V	32 TO 48 V

*For 60 DB erasure of saturated tape.

Specifications subject to change without notice.

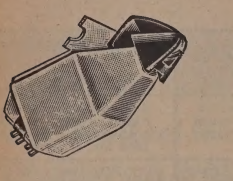
MINNEAPOLIS 27, MINNESOTA Nortronics®

© U.C.P., Inc.

Pickering*

For more than a decade the world's most experienced manufac-
turer of high fidelity pickups—supplier to the recording industry.
In terms of achieved performance . . . Pickering by far . . . is the
most economical and most practical of all high fidelity pickups.

PICKERING Collectors Series Stereo Fluxvalve*



PICKERING Model U38/AT Stereo Fluxvalve is designed especially for the new generation of **automatic turntables.** It combines hum shielding with high output for unequalled signal-to-noise ratio. High compliance is retained for turntable performance while providing the ruggedness demanded by automatic operation. Improved frequency response and low inductance make the new PICKERING U38/AT a truly universal cartridge to match the universal features of the **automatic turntable.**

IMPORTANT TECHNICAL SPECIFICATIONS:

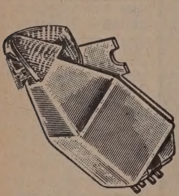
FREQUENCY RESPONSE:	**20 to 17,000 cps**
NOMINAL OUTPUT: (per cm of recorded level)	**2 mv**
CHANNEL SEPARATION:	**35 db**
TRACKING FORCE:	**2 to 5 grams**
WEIGHT:	**14 grams**

Supplied with diamond D4007AT V-GUARD stylus, mount ing hardware and installation instructions.

AUDIOPHILE NET PRICE $46.5

***U.S. Patent #2,917,590**

PICKERING Collectors Series Stereo Fluxvalve*



PICKERING 380 Series Stereo Fluxvalve—for the discriminating record collector. This pickup utilizes the exclusive V-GUARD easily replaceable stylus assembly; hermetically sealed and fully encapsulated in precious mu-metal for a lifetime of trouble-free and hum-free performance. Completely compatible for all records, mono or stereo. Miniature design fits all pickup arms, manual or automatic.

Supplied with V-GUARD diamond stylus, mounting hardware and installation instructions.
***U.S. Patent #2,917,590**

IMPORTANT TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE:	**20 to 15,000 cps**
NOMINAL OUTPUT: (per cm of recorded level)	**2.5 mv**
CHANNEL SEPARATION:	**35 db**
TRACKING FORCE:	**2 to 5 grams for "A" stylus** **4 to 7 grams for "C" stylus**
WEIGHT:	**14 grams**

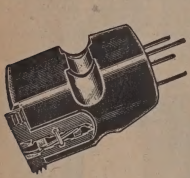
Model 380A PICKERING Stereo Fluxvalve—for manua tone arms.

AUDIOPHILE NET PRICE $36.0

Model 380C PICKERING Stereo Fluxvalve—for automatic record changers.

AUDIOPHILE NET PRICE $29.8

PICKERING MkII Professional Stereo Fluxvalve*



A professional pickup produced under rigid quality control. The choice of the leading recording companies for their own quality control of record masters and pressings. Traditional PICKERING design quality assures the finest performance. Contains the easily replaceable T-GUARD diamond stylus assembly.

Supplied with T-GUARD diamond stylus, mounting hardware and installation instructions.

***U.S. Patent #2,917,590**

IMPORTANT TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE:	**20 to 15,000 cps**
NOMINAL OUTPUT: (per cm of recorded level)	**1.3 mv**
CHANNEL SEPARATION:	**20 to 25 db**
TRACKING FORCE:	**3 to 5 grams for MkIIA** **4 to 7 grams for MKIIC**
WEIGHT:	**9 grams**

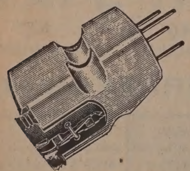
MkIIA PICKERING Stereo Fluxvalve—for manual tone arm

AUDIOPHILE NET PRICE $26.4

MkIIC PICKERING Stereo Fluxvalve—for automatic record changers.

AUDIOPHILE NET PRICE $24.0

PICKERING STEREO 90 Stereo Fluxvalve*



A fine magnetic stereo pickup for the audiophile. For installation in automatic record changers, or manual players. Contains the easily replaceable T-GUARD stylus asembly. Magnetic push-pull circuit, hum bucking coils.

Supplied with D3707C diamond V-GUARD stylus assembly, mounting hardware and installation instructions.

IMPORTANT TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE:	**20 to 12,000 cps**
NOMINAL OUTPUT: (per cm of recorded level)	**1.3 mv**
CHANNEL SEPARATION:	**20 db**
TRACKING FORCE:	**4 to 7 grams**
WEIGHT:	**9 grams**

AUDIOPHILE NET PRICE $16.5

***U.S. Patent #2,917,590**

*Only **PICKERING & CO., INC.** manufactures the genuine V-GUARD and T-GUARD stylus assemblies used in the Stereo Fluxvalve which is covered under the following patents: U.S. #2,917,590; Great Britain #783,372; Canada #605,673; Japan #261,203; and other patents are pending throughout the world.

PICKERING V-GUARD and T-GUARD Stylus Assemblies: To insure the very same quality of performance you have come to know in your PICKERING Stereo Fluxvalve, replace the stylus assembly with a genuine PICKERING V-GUARD or T-GUARD which contains the original moving system and the finest quality diamond precisely shaped to a perfect contour and highly polished to reduce record and stylus wear.

Use the chart below for convenient selection of the correct stylus for the application you require.

TYPE	MODEL	RADIUS	COLOR	Stereo U38/AT	Stereo 380A	Stereo 380C	Stereo MkIIA	Stereo MkIIC	Stereo "90"	Mono 350	Mono 370	Audiophile Net Price
V-GUARD	**D3805AA**	.5 mil	Clear		Stereo*							$17.50
V-GUARD	**D3807AT**	.7 mil	Black	Stereo								16.00
V-GUARD	**D3807A**	.7 mil	Yellow		Stereo							16.00
V-GUARD	**D3807C**	.7 mil	Red			Stereo						10.00
V-GUARD	**D3810A**	1 mil	Lt. Gray	Mono LP	Mono LP							16.00
V-GUARD	**D3810C**	1 mil	White			Mono LP						10.00
V-GUARD	**D3827**	2.7 mil	Dk. Blue	78 RPM	78 RPM	78 RPM						10.00
T-GUARD	**D3707A**	.7 mil	Yellow				Stereo					12.40
T-GUARD	**D3707C**	.7 mil	Red					Stereo	Stereo			10.00
T-GUARD	**D3710A**	1 mil	Lt. Gray				Mono LP					12.40
T-GUARD	**D3710C**	1 mil	White					Mono LP	Mono LP			10.00
T-GUARD	**D9007**	.7 mil	Black					Stereo	Stereo			7.50
T-GUARD	**D3727**	2.7 mil	Dk. Blue				78 RPM	78 RPM	78 RPM			10.00
T-GUARD	**D3505**	.5 mil	Dk. Green							Mono LP	Mono LP	18.00
T-GUARD	**D3510**	1 mil	Red							Mono LP	Mono LP	15.00
T-GUARD	**D3527**	2.7 mil	Yellow							78 RPM	78 RPM	15.00

NOTES: * AA V-GUARD is for use with ultra-lightweight tone arms capable of tracking within the range from ¼ to 3 grams. AT stylus is for use in automatic turntables, recommended tracking force is from 2 to 5 grams. "A" stylus is for use in manual tone arms. "C" stylus is for automatic record changers.

FOR THE THOSE WHO CAN HEAR THE DIFFERENCE

Pickering

PICKERING & COMPANY, INC., Plainview, N. Y.

EXPORT: AD. AURIEMA, INC., 85 BROAD ST. NEW YORK • CANADA: CHARLES W. POINTON LTD. 66 RACINE ROAD, REXDALE, ONTARIO

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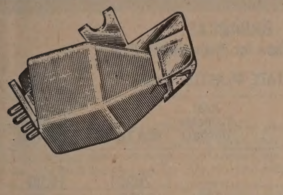
STANTON

Fine audio components——

Fine Audio components from the Professional Products Division of Pickering & Co., Inc., for more than a decade the world's most experienced manufacturer of high fidelity pickups —supplier to the recording industry.



Model 481 STANTON Calibration Standard Stereo Fluxvalve*

The 481 is more than a pickup—it is a precise measuring instrument used by leading record manufacturers for quality control and A&R evaluation. In short, it is the ultimate in pickups available to the professional music critic and the discriminating audiophile as well.

IMPORTANT TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE: 20 to 10,000 cps ± 1 db; 10 kc to 20 kc ± 2 db
NOMINAL OUTPUT: .8 mv for "A" stylus;
(per cm of recorded level) .5 mv for "AA" stylus
CHANNEL SEPARATION: 35 db
TRACKING FORCE: 2 to 5 grams for "A" stylus; 1/4 to 3 grams for "AA" stylus
WEIGHT: 11 grams

Model 481AA STANTON Stereo Fluxvalve—an ultra-linear professional pickup for use with ultra-light-weight tone arms capable of tracking within the range from 1/4 to 3 grams. Supplied with the D4005AA V-GUARD diamond stylus assembly.

AUDIOPHILE NET PRICE $49.50

Model 481A STANTON Stereo Fluxvalve—an ultra-linear professional pickup for use with manual tone arms, recommended tracking force is from 2 to 5 grams. Supplied with the D4007A V-GUARD diamond stylus assembly.

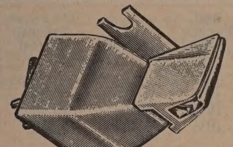
AUDIOPHILE NET PRICE $48.00

Model 481E STANTON Stereo Fluxvalve Set—same as the Model 481A but includes two additional V-GUARD styli: the D4010A 1 mil for LP's and the D4027 2.7 mil for 78's.

AUDIOPHILE NET PRICE $60.00

Supplied with diamond V-GUARD stylus, mounting hardware and installation instructions.
Note: Available in 500/600 ohm low impedance for broadcast or professional recording applications.

***U.S. Patent #2,917,590**



Model 400 STANTON Professional Stereo Fluxvalve*

The all-new STANTON Professional Stereo Fluxvalve for the discriminating record enthusiast. Exclusive V-GUARD diamond stylus assembly is easily replaceable. Hermetically sealed and fully encapsulated in precious mu-metal for a lifetime of trouble-free and hum-free performance. Miniature design fits all pickup arms, manual or automatic.

IMPORTANT TECHNICAL SPECIFICATIONS:

FREQUENCY RESPONSE: 20 to 20,000 cps
NOMINAL OUTPUT: 1.4 mv for "A" stylus;
(per cm of recorded level) .85 mv for "AA" stylus; 2.6 mv for "C" stylus
CHANNEL SEPARATION: 35 db
TRACKING FORCE: 2 to 5 grams for "A" stylus; 1/4 to 3 grams for "AA" stylus; 4 to 7 grams for "C" stylus
WEIGHT: 11 grams

Model 400AA STANTON Stereo Fluxvalve—an ultra-linear professional pickup for use with ultra-light-weight tone arms capable of tracking within the range from 1/4 to 3 grams. Supplied with D4005AA V-GUARD diamond stylus assembly.

AUDIOPHILE NET PRICE $40.50

Model 400A STANTON Stereo Fluxvalve—an ultra-linear professional pickup for use with manual tone arms, recommended tracking force is from 2 to 5 grams. Supplied with D4007A V-GUARD diamond stylus assembly.

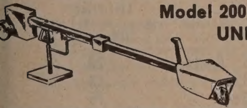
AUDIOPHILE NET PRICE $39.00

Model 400C STANTON Stereo Fluxvalve—an ultra-linear professional pickup for use in automatic record changers, recommended tracking force is from 4 to 7 grams. Supplied with D4007C V-GUARD diamond stylus assembly.

AUDIOPHILE NET PRICE $33.00

Supplied with V-GUARD stylus, mounting hardware and installation instructions.

***U.S. Patent #2,917,590**



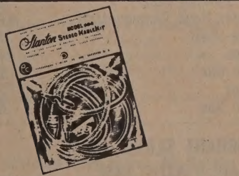
Model 200 STANTON UNIPOISE Arm*

THE PERFECT STEREO COMPLEMENT The ultra-lightweight Model 200 leads a trend to feather-weight tracking—extending life of both stylus and record. Only the Model 200 has the patented STANTON UNIPOISE single pivot bearing for friction free motion in all planes. Ultra-lightweight construction gives lowest possible mass **for tracking mono and stereo records at the remarkable feather-touch pressure of only ¼ gram!** Its design is classically simple, yet incorporates exclusive features for highest performance standards and dependability: Simple adjustments balance the arm in all planes ■ A sensitive calibrated stylus force adjustment has a range of 0 to 3 grams ■ Single hole installation requires no tools ■ No soldering needed; plug-in sockets provided ■ Built-in arm rest ■ Standard mounting centers accept most mono and stereo cartridges ■ Entire moving assembly weighs only 6 ounces ■ Mounts in minutes, supplied with template and complete instructions.

***U.S. Patent #2,993,698**

IMPORTANT TECHNICAL SPECIFICATIONS:

OVERALL ARM LENGTH: 11-3/8"
PIVOT TO STYLUS TIP: 8-11/16"
REAR OVERHANG: Pivot to rear arm is 2-1/4"
TURNTABLE SPINDLE TO ARM PIVOT: 8-1/8"
WEIGHT OF MOVING SYSTEM: 4-1/2 oz., 6 oz. with base and pivot assembly
SHIPPING WEIGHT: 2 lbs.
AUDIOPHILE NET PRICE $36.00



Model 604 STANTON Stereo KableKit

A low-cost stereo cable assembly quickly converts automatic mono changers or manual tone arms to stereo. Fully shielded harness has plugs and connector clips already soldered. Length of harness is 4 feet. Supplied with cable retention clips.

AUDIOPHILE NET PRICE $3.98

STANTON V-GUARD STYLUS ASSEMBLIES: To insure the very same quality of performance you have come to know in your STANTON Stereo Fluxvalve replace the stylus assembly with a genuine STANTON V-GUARD which contains the original moving system and the finest quality diamond precisely shaped to a perfect contour and highly polished to reduce record and stylus wear. The models listed below are for use in the STANTON 481 and 400 (Calibration Standard and Professional Series).

D4005AA	**.5 mil diamond**	**Clear V-GUARD**	**$19.50**
D4007A	**.7 mil diamond**	**Yellow V-GUARD**	**18.00**
D4007C	**.7 mil diamond**	**Red V-GUARD**	**12.00**
D4010A	**1 mil diamond**	**Lt. Gray V-GUARD**	**18.00**
D4010C	**1 mil diamond**	**White V-GUARD**	**12.00**
D4027	**2.7 mil diamond**	**Dk. Blue V-GUARD**	**12.00**

V-GUARD Styli are specially designed for the following purposes:

D4005AA—For use in ultra-lightweight tone arms capable of tracking within the range from ¼ to 3 grams.
D4007A and D4010A—for use in manual tone arms, recommended tracking force is from 2 to 5 grams.
D4007C and D4010C—for use in automatic record changers.
D4027—for 78 rpm records only.

Pickering

——from the Professional Products Division of

PICKERING & COMPANY, INC., Plainview, N. Y.

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RCA MAGNETIC SOUND TAPE

JUNE 29, 1962

RCA
RED SEAL
MAGNETIC RECORDING
SOUND TAPE

RED SEAL

For Highest Quality Stereophonic & Monophonic Recordings—The Same Tape Used for RCA Victor Masters

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
1.0 mil Long Play				
900	Standard Reel	5	10A-9	**3.50**
1800	Standard Reel	7	10A-18	**5.50**
1.5 mil Professional Grade				
150	Standard Reel	3	15A-1.5	**.70**
300	Standard Reel	4	15A-3	**1.35**
600	Standard Reel	5	15A-6	**2.25**
1200	Standard Reel	7	15A-12	**3.50**

MYLAR† (POLYESTER) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
560	Snap-Load Cartridge	—	264C1	4.50
Tensilized Extra-Long Play				
300	Standard Reel	3	5TM-3	**1.60**
600	Standard Reel	4	5TM-6	**3.05**
1200	Standard Reel	5	5TM-12	**4.75**
2400	Standard Reel	7	5TM-24	**8.75**
.5 mil Extra-Long Play				
1200	Standard Reel	5	5M-12	**4.55**
2400	Standard Reel	7	5M-24	**7.85**
1.0 mil Long Play				
225	Standard Reel	3	10M-2.25	**1.00**
900	Standard Reel	5	10M-9	**3.60**
1800	Standard Reel	7	10M-18	**6.20**
1.5 mil Professional Grade				
600	Standard Reel	5	15M-6	**2.65**
1200	Standard Reel	7	15M-12	**4.25**

BROADCAST

Sound Tape for Professional Use

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
1.0 mil				
3600	NAB Hub	—	269C1	**10.00**
3600	NAB Metal Reel	10½	270C1	**12.85**
3600	NAB Plastic Reel	10½	272C1	**12.85**
3600	EIA Plastic Reel	10½	271C1	**12.85**
1.5 mil				
2400	NAB Hub	—	265C1	**8.50**
2400	NAB Metal Reel	10½	266C1	**10.90**
2400	NAB Plastic Reel	10½	267C1	**10.90**
2400	EIA Plastic Reel	10½	268C1	**10.90**

MYLAR† (POLYESTER) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
.5 mil Tensilized				
4800	NAB Metal Reel	10½	273C1	**20.50**
4800	NAB Plastic Reel	10½	275C1	**20.50**
4800	EIA Plastic Reel	10½	274C1	**20.50**
1.0 mil				
3600	NAB Metal Hub	—	276C1	**12.00**
3600	NAB Metal Reel	10½	277C1	**14.40**
3600	NAB Plastic Reel	10½	279C1	**14.40**
3600	EIA Plastic Reel	10½	278C1	**14.40**
1.5 mil				
2400	NAB Metal Hub	10½	280C1	**8.80**
2400	NAB Metal Reel	10½	281C1	**11.20**
2400	NAB Plastic Reel	10½	283C1	**11.20**
2400	EIA Plastic Reel	10½	282C1	**11.20**

TAPE ACCESSORIES

RCA Type	Description	List Price* each (Optional)
501C1	5-Reel Tape Chest for 5″ Reels	**1.28**
506C1	5″ Standard Reel with Box	**.65**
507C1	7″ Standard Reel with Box	**.75**
508C1	5″ Empty Box	**.20**
509C1	7″ Empty Box	**.20**
510C1	Empty Box for Snap-Load Cartridge	**.20**
511C1	½″ x 100″ Splicing Tape	**.29**
512C1	½″ x 150″ Splicing Tape	**.39**
513C1	¾″ x 100″ Splicing Tape	**.42**
514C1	¾″ x 150″ Splicing Tape	**.51**
515C1	¼″ x 100″ Splicing Tape	**.22**
516C1	Tape Recorder Head Demagnetizer	**4.85**
517C1	12-Reel Tape shelf	**.98**
518C1	3″ Empty Box	**.15**
519C1	3″ Reel with Box	**.25**
520C1	4″ Empty Box	**.20**
521C1	4″ Reel with Box	**.55**

VIBRANT SERIES

ACETATE (PLASTIC) BASE

Tape Length (feet)	Description	Reel Diameter (inches)	RCA Type	List Price* (Optional) per reel
600	1.5 Mil x ¼″	5	701C1	**1.75**
1200	1.5 Mil x ¼″	7	702C1	**2.95**
900	1.0 Mil x ¼″	5	703C1	**2.50**
1800	1.0 Mil x ¼″	7	704C1	**4.25**
MYLAR† (POLYESTER) BASE				
900	1.0 mil x ¼″	5	707C1	**2.85**
1800	1.0 mil x ¼″	7	708C1	**4.95**
1200	Tensilized ¼″	5	709C1	**4.50**
2400	Tensilized ¼″	7	710C1	**7.95**

NAB reels have 3″ center holes; EIA reels have 5⁄16″ center holes.
†Du Pont Registered Trade Mark
*Prices higher in Alaska and Hawaii.

Prices exclude state and local sales and similar taxes and are subject to change without notice.

Check your authorized RCA magnetic tape distributor for 2-track and 4-track RCA prerecorded Living Stereo tapes.

PRESTO

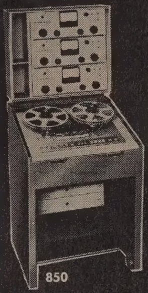
PROFESSIONAL BROADCAST AND TAPE EQUIPMENT

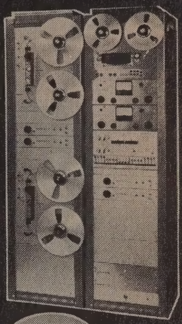
800 Series — a totally different concept in stereo and monophonic tape recorders. Efficiency . . . flexibility and operating ease . . . with the recording quality that has made Presto the world's foremost name in professional sound recording equipment. All models accept standard tape reels up to 10½″ and operate at 7½ and 15 ips or 3¾ and 7½ ips. The A908 amplifier has less than 1% total harmonic distortion at +20 dbm, from 25 to 20,000 cps.

Model 800 . . . basic, high quality, ¼″ monophonic recorder, easily converted to stereo by replacing the head assembly and adding another A908 amplifier.

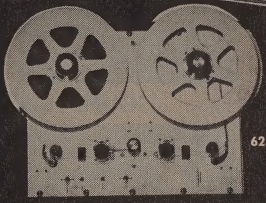
Model 825 . . . ¼″ recorder, quickly and readily convertible to accept ½″ tapes by merely interchanging recording heads and adding another A908 amplifier.

Model 850 . . . full convertible recorder, equipped with 3 or 4 stacked A908 amplifiers; for 4 channel ½″ tape recording; can be changed from ½″ to ¼″ operation (or vice versa) in a few minutes by changing the head assemblies. All 800 Series Recorders are available in portable, console and rack-mounted models.


850


BAS-101

BAS-101 — Stereo Broadcast Automation System. Starting-point of program tape cues in each selected transport. Maximum reliability; maximum of 24 hours uninterrupted stereo programming; automatic 3-transport system; provision for the 4th transport; completely factory wired and adjusted; install and operate in 10 minutes; record your own program tapes; 25-cycle tone sensing; broadcast automatically while recording; stereo-monaural operation; modular plug-in design; fail-safe operation; semi or full automation; master power switch.


625

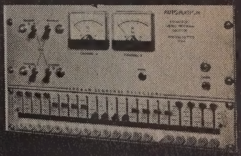
625 Series Tape Transports — for equipment requiring high-degree of accuracy in tape motion; maximum reliability; 12-hour stereo playback; modular design; 2-speed hysteresis drive; tape speed, 3¾ ips and 7½ ips; 3-motor transport; instantaneous start-stop; automatic bi-directional drive system; minimized maintenance; stereo-monaural playback; fast forward — fast rewind; remote control; automatic reversing; visual direction indicators; dual tape threading.

A915

A915 Tape Playback Preamplifier/Line Amplifier for use with 625 Series tape Transports or BAS-101 system; plug-in sensing modules; sensitivity and timing circuits; self-powered; plug-in output transformers; 2 tape head preamplifiers with relay switching; plug for external program clock. Will except the SS-2 Sensing Adapter Unit (plug-in) for sensing silence periods on the tape; SK-25 Sensing Adapter for sensing 25-cycle tone.

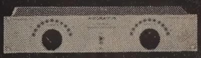
S916

S916 Program Senser to control external instruments; provides automatic switching; switching actuated by 25-cycles tones, silent periods or any external source; sensitivity control for signals from 5 mv. to 1 v.; timing control gives 1 to 30-second delays; self-powered; single portable unit; rack-mountable. Can fit in with ST914, S912 and S911 Interspersers as a step pulser. For 25-cycle tone sensing or silence sensing the SK-25 or the SS-2 Presto plug-in modules are used.


ST914

ST914 Stereo Program Selective Interspersser will step through total of 20 steps and recycle to repeat the same sequence; 4-transports; controlled programmer; visual memory indicators; stereo-monaural; additional programmer panels can be added to increase flexibility; manual/automatic operation; automatic electro/mechanical fail-safe circuitry; cue control circuits; VU meters. Either the S916, Program Senser or the A915 Sensing Amplifier provide the activating impulse.

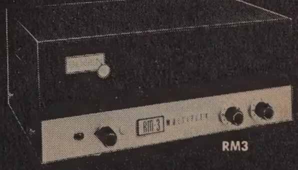
S-912


S-911

S-911 Two Transport Automatic Selective Programmer for use where any 2 Transports, 2 instruments or 2 mechanisms require control with preset conditions; 10 program preselections per transport (20 in all); counts single pulses or groups of pulses; count can be preset independently between 1 and 10 for each transport; pulsed by external sensing circuit; automatic audio cueing; visual memory indicators; switch for manual or automatic operation.

S-912 is identical to the S911 except there is no automatic audio cueing and no provisions for counting pulses.

RM-3 Crystal-Controlled Multiplex Receiver, especially for background music service. High quality reception of frequency-modulated signals where main channel and 1 sub-carrier channel are being transmitted; PA facility provided with mic. input jack, vol. control and mic. amplifier stage; bass and treble controls.


RM3

LEAR SIEGLER, INC. ®

BOGEN COMMUNICATIONS DIVISION

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REEVES SOUNDCRAFT CORP.

Main Office: Danbury, Conn.
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MAGNETIC RECORDING TAPE and ACCESSORIES

SOUNDCRAFT MAGNETIC RECORDING TAPES OF "MYLAR"

SOUNDCRAFT LIFETIME® RECORDING TAPE

1½ Mil "MYLAR" BASE
SUPER STRENGTH
DIMENSIONAL STABILITY
LIFETIME GUARANTEE

SOUNDCRAFT LIFETIME® tape of DuPont "Mylar" is the ultimate in strength in recording tape. Its dimensional stability is unaffected by temperature and humidity extremes, therefore LIFETIME will never embrittle or dry out even under extremely poor storage conditions. LIFETIME's exceptional strength gives greater protection against tape damage due to faulty equipment or improper handling. LIFETIME is a favorite among students and in areas of extreme weather conditions. Easily identifiable by the Yellow "S" and Yellow diamonds on the box.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
L-1	10435	150′	3″	10	$ .75
L-6	10436	600′	5″	10	2.65
L-12	10437	1200′	7″	10	4.25
L-24RM△	10442	2400′	10½″	10	10.40
L-24RF†	10443	2400′	10½″	10	10.40
L-24RF3‡	10444	2400′	10½″	10	10.40
L-24H	10439	2400′	HUB	10	8.30
L-48RM	10447	4800′	14″	1	24.50
L-48H	10445	4800′	HUB	1	16.60

SOUNDCRAFT PLUS-50® RECORDING TAPE

1 Mil "MYLAR" BASE
LONG PLAY WITH STRENGTH
LONG LIFE
DIMENSIONAL STABILITY

PLUS-50® gives 50% more playing time per reel. A superb combination of long-play and tape strength. PLUS-50® eliminates many of those annoying reel changes by giving the recordist half again as much recording and playback time. Because of its "Mylar" Base, PLUS-50 is assured of long-life and dimensional stability even if stored under the most unfavorable conditions. Identified by the Aqua "S" and Aqua diamonds on the box.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
PL-2	10385	225′	3″	10	$ .95
PL-9	10386	900′	5″	10	3.40
PL-12	10387	1200′	5¾″	10	4.65
PL-18	10388	1800′	7″	10	5.80
PL-36RF†	10392	3600′	10½″	10	13.75
PL-36RF3‡	10393	3600′	10½″	10	13.75
PL-36RM△	10391	3600′	10½″	10	13.75
PL-36H	10389	3600′	HUB	10	11.25
PL-72RM△	10397	7200′	14″	1	28.10
PL-72H	10395	7200′	HUB	1	22.50

SOUNDCRAFT PLUS-100® RECORDING TAPE

½ Mil "MYLAR" BASE
EXTRA LONG PLAY
THE EXPERTS TAPE

PLUS-100® offers twice the playing time because it's twice as long as ordinary tapes. This is possible because it's twice as thin. Because of its "Mylar" Base PLUS-100® is also immune to changes caused by temperature and humidity extremes. PLUS-100® is extremely thin and should be used only on equipment in perfect adjustment by an experienced recordist. Look for the Black "S" and Black diamonds on the box.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
XP-12	10626	1200′	5″	10	$3.50
XP-18	10627	1800′	5¾″	10	5.00
XP-24	10628	2400′	7″	10	6.50
XP-48RM△	10631	4800′	10½″	10	16.80
XP-48RF†	10632	4800′	10½″	10	16.80
XP-48RF3‡	10633	4800′	10½″	10	16.80
XP-48H	10629	4800′	HUB	10	15.50

SOUNDCRAFT PLUS-100X RECORDING TAPE

½ Mil TENSILIZED
"MYLAR" BASE
EXTRA-LONG PLAY
EXTRA-STRENGTH

The ultra-thin "Mylar" base of PLUS-100X has been Tensilized by DuPont to make it extremely strong and stretch-resistant. Twice the recording or playback time without fear of the tape stretching or breaking. Double-length, double-strength, PLUS-100X is an unbeatable combination for extra-long recording tapes. Identified by the Gold "S" and Gold diamonds on the package.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
XP-3X	10667	300′	3″	10	$1.60
XP-5X	10681	500′	3¼″	10	2.29
XP-6X	10680	600′	4″	10	2.65
XP-12X	10668	1200′	5″	10	5.45
XP-18X	10669	1800′	5¾″	10	7.48
XP-24X	10670	2400′	7″	10	9.50
XP-48XRM△	10672	4800′	10½″	10	22.00
XP-48XRF†	10673	4800′	10½″	10	22.00
XP-48XRF3‡	10674	4800′	10½″	10	22.00
XP-48XH	10671	4800′	HUB	10	19.50

COLORED REELS

Colored Reels for 5″ and 7″ sizes are available at no extra charge. Red, Blue, Yellow, Green. To order colored reels just add suffix (R), (B), (Y), (G) to SOUNDCRAFT Code No. For instance "S-12R" means 1200 ft. Standard tape on RED 7″ reel.

REEVES SOUNDCRAFT CORP.

Main Office: Danbury, Conn.
Branches: New York • Chicago • Los Angeles
Canadian Representatives: Toronto • Vancouver

MAGNETIC RECORDING TAPE and ACCESSORIES

SOUNDCRAFT ACETATE BASE MAGNETIC RECORDING TAPES

SOUNDCRAFT "STANDARD" RECORDING TAPE

1½ MIL ACETATE BASE PROFESSIONAL QUALITY . . . ECONOMY.

The all-purpose tape of the SOUNDCRAFT line, offering true professional quality at a sensible budget price. Retains its full dynamic range through endless recordings and playbacks. A durable, high performance tape that is the accepted standard for recording in non-specialized areas. Identified by the Red "S" and Red diamonds on the box.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
S-1	10251	150′	3″	10	$ .65
S-3	10252	300′	4″	10	1.25
S-6	10253	600′	5″	10	2.10
S-9	10294	900′	5¾″	10	2.73
S-12	10255	1200′	7″	10	3.50
S-25RF†	10297	2500′	10½″	10	8.50
S-25RF3‡	10298	2500′	10½″	10	8.50
S-25RM△	10299	2500′	10½″	10	8.50
S-25H	10295	2500′	HUB	10	7.35

SOUNDCRAFT "STANDARD-50" RECORDING TAPE

1 MIL ACETATE BASE LONG-PLAY . . . PROFESSIONAL QUALITY

"STANDARD-50" the long playing companion to SOUNDCRAFT "STANDARD" Tape — 1 mil Acetate Base gives 50% more playing time — SOUNDCRAFT'S quality gives Professional results every time. "STANDARD-50" is the choice of the recording industry whenever the application calls for longer play without added strength. Easily identifiable by the Silver "S" and Silver diamonds on the box.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
S5-2	10503	225′	3″	10	$ .90
S5-9	10485	900′	5″	10	3.29
S5-12	10486	1200′	5¾″	10	4.23
S5-18	10487	1800′	7″	10	5.17
S5-36H	10488	3600′	HUB	10	9.38
S5-36RF3‡	10491	3600′	10½″	10	12.04
S5-36RF†	10490	3600′	10½″	10	12.04
S5-36RM△	10492	3600′	10½″	10	12.04
S5-72RM△	10495	7200′	14″	1	24.40
S5-72H	10493	7200′	HUB	1	18.75

SOUNDCRAFT "PROFESSIONAL" RECORDING TAPE

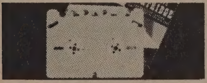
1½ MIL ACETATE BASE FOR PROFESSIONAL RECORDING STUDIOS . . .

The finest recording tape made. Engineered for professional use, this is the **only** tape sold with a performance guarantee. *Uniformity at 1000 cps ±¼ db in a reel and ±⅜ db from reel to reel. Minimum response at 10,000 cps guaranteed within 1 db of response at 1000 cps. Because of its near-perfect uniformity, it is the preferred tape for professional master recordings, inter-splicing and duplicating. The tape for the perfection-minded home recordist, for **all** super-critical applications.

*Tested on Ampex #307

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
P-12	10576	1200′	7″	10	$4.40
P-25RM△	10606	2500′	10½″	10	10.25
P-25RF†	10607	2500′	10½″	10	10.25
P-25RF3‡	10608	2500′	10½″	10	10.25
P-25H	10604	2500′	HUB	10	8.00
P-50RM△	10588	5000′	14″	1	20.75
P-50H	10586	5000′	HUB	1	12.50
½″ TAPE FOR PROFESSIONAL RECORDING STUDIOS					
5-P-25H	10611	2500′	HUB	8	$15.90
5-P-25RM△	10610	2500′	10½″	8	18.25

SOUNDCRAFT TAPE IN RCA TYPE CARTRIDGE

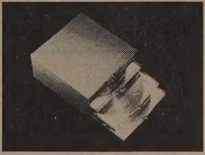


1 Mil "MYLAR" BASE

Engineered to withstand the rugged requirements of continuous use.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
CM-6	10704	600′		10	4.50

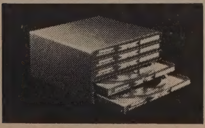
SOUNDCRAFT "MYLAR" BASE TAPES IN SOUNDCRAFT TAPE CHEST



All SOUNDCRAFT "Mylar" base recording tapes are available at no extra cost in the famous SOUNDCRAFT TAPE CHEST in the 5″ and 7″ reel sizes. Tapes are packaged five reels to a Tape Chest. This is the perfect method for tape storage and indexing.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
LC-5	10448	600′	5″	2	$13.25
LC-7	10449	1200′	7″	2	21.25
PLC-5	10398	900′	5″	2	17.00
PLC-7	10399	1800′	7″	2	29.00
XPC-5	10634	1200′	5″	2	17.50
XPC-7	10635	2400′	7″	2	32.50

SOUNDCRAFT ACETATE BASE TAPES IN SOUNDCRAFT TAPE CHEST



SOUNDCRAFT "STANDARD" and "Standard 50" are available in Tape Chests in 5″ and 7″ reel sizes. "Professional" tape is available only in 7″ size in Tape Chest. Both are packaged five reels to the chest.

CODE	CATALOG NO.	LENGTH	REEL	STANDARD PACKAGE	SUGGESTED CONSUMER NET
SC-5	10270	600′	5″	2	$10.50
SC-7	10271	1200′	7″	2	17.50
PC-7	10594	1200′	7″	2	22.00
S5C-5	10496	900′	5″	2	16.45
S5C-7	10497	1800′	7″	2	25.85

△ Metal Reel (3″ center opening)
® Registered SOUNDCRAFT Trademark
† Fiberglass Reel (5/16″ center opening)
‡ Fiberglass Reel (3″ center opening)

REK·O·KUT company

New RONDINE 2 Series

Model R 320A
Turntable with AP-320 Automatic Tonearm — factory installed
$169.95*

Model R 320
Turntable with S-320 Tonearm — factory installed
$129.95*

*Prices slightly higher West of the Rockies

Model R
33⅓ RPM—Turntable only $79.95*

R Base
Walnut finish—especially designed for Model R turntable. 15½"W, 15¼"D, 4½"H.
$14.95*

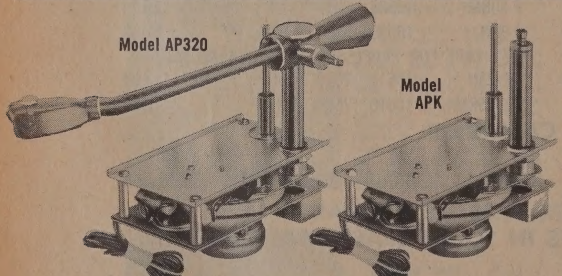
TECHNICAL SPECIFICATIONS

TURNTABLE

SPEED 33⅓ rpm
OPERATION Single push-button, on/off reject.
TURNTABLE MOTOR Custom-built hysteresis synchronous motor with sealed lifetime lubrication
REKOTHANE BELT Exclusive, lifetime non-stretchable belt. Special polyurethane compound not affected by temperature or humidity. Machine-finished to close tolerances.
NOISE LEVEL —57 db below average recording level
WOW AND FLUTTER 0.15%
TURNTABLE Massive aluminum casting, lathe-turned. Ridged rubber mat for easy disc handling
ACOUSTI-MOUNTS Built-in, adjustable, self-leveling spring-mounts for easy, drop-in installation on base or motorboard. Prevents acoustic feed-back and isolates extraneous vibrations.
SIZE Only 14⅞" x 14½", including tonearm overhang. Fits all cabinets. Requires 3½" above deck, 4¼" below deck for mounting
FINISH White and silver deck plate
POWER 117 volts 60 cycle AC, 30 watts

TONEARM

TONEARM MOTOR Special synchronous type motor for life time operation
TRACKING Less than one gram. Exclusive Micropoise di for micro-adjustment of cartridge tracking pressure fro a fraction of 1 gram to 6 grams
TRACKING ERROR Under 1°
RESONANCE Far below audibility-varying from 12 to 1 cycles depending on cartridge used
TONEARM STATIC BALANCE Acoustically isolated counte weight
TONEARM DYNAMIC BALANCE Exclusive Omni-Balance i easily adjusted to provide perfect dynamic balance wit any cartridge. Assures equalized output from both wal of stereo groove, eliminates "skating distortion" an excessive groove wear
CARTRIDGE SHELL Interchangeable, with plug-in connecto and positive twist-lock. Cartridge lugs pre-soldered
AMPLIFIER PLUGS Standard phono plugs for plug-in to am plifier. Separate spade-lug for ground avoids hum



Model AP320

Model APK

AUTO-POISE AUTOMATIC TONEARM

Only Rek-O-Kut AUTO-POISE, world's first automatic tonearm, c meet the critical requirements of the new, very high compliance ca ridges.

At the touch of a button, **Auto-Poise** (1) lifts the arm from t rest and places it on the record as the turntable starts; (2) disco nects completely from the tonearm during play so that the arm completely independent; (3) lifts the arm and returns it to the re after the record is finished and (4) shuts off the turntable.

- **MODEL AP-320 Auto-Poise Automatic Tonearm** ....net $74.9
- **MODEL APK Auto-Poise Converter only** ....net $49.9

*slightly higher west of the Rocki

Mechanism only, for those who already own Rek-O-Kut tonearm Easily installed. Makes any Rek-O-Kut tonearm fully automatic.

TECHNICAL SPECIFICATIONS

OPERATION AP-320 — fully automatic, powered by synchronous motor. Push-button for play and reject.
• S-320 — manual. • S-260 — manual.
CONSTRUCTION Tubular aluminum arm. Die-cast cartridge shell. Precision-machined throughout.
HORIZONTAL MOVEMENT Maximum freedom achieved by bearing made of inner and outer races and two rows of hardened steel balls into which shaft of arm fits.
VERTICAL MOVEMENT Friction-free motion is achieved by suspending arm in gimbal using a cross-shaft at each end of which are five 1mm chrome-steel balls.
CARTRIDGE SHELL Accepts all standard stereophonic or monophonic cartridges. Plugs into arm. Secured by twist-lock. Open front permits visible location of stylus in record groove. Lugs for cartridge factory-installed. 4-wire construction.
STATIC BALANCE Acoustically isolated counterweight.
DYNAMIC BALANCE Exclusive Omni-Balance provides perfect dynamic (lateral) balance with any cartridge.
TRACKING ERROR Under 1°.
RESONANCE Far below audibility — varying from 12 to 15 cycles depending on cartridge used.
VERTICAL HEIGHT ADJUSTMENT Permits setting tonearm parallel to record surface.

MODEL S-320
Tonearm with Omni-Balance net $34.95*
MODEL S-260
Professional 16" Tonearm
(less Omni-Balance).
$36.95* net

*slightly higher West of the Rockies

REK·O·KUT company

THE HYSTERESIS LINE OF . . . 3 SPEED STEREOTABLES

B-12H
$149.95* NET PRICE

B-12GH
$109.95* NET PRICE

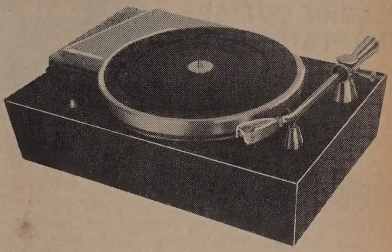
odel B-12H SPECIFICATIONS

ISE LEVEL: 57 db below average recording level.
W & FLUTTER: 0.12%,
TOR: Custom-built HYSTERESIS SYNCHRONOUS MOTOR.
EEDS: 33⅓, 45 and 78 rpm.
EED SELECTION: Single selector knob. Idler is disengaged in "off" position. "Off" positions adjacent to each speed permit turntable to be shut off without passing through other speeds.
RPM HUB: Built-in.
OT LIGHT: Jeweled neon light acts as "on/off" indicator.
NIMUM DIMENSIONS FOR CABINET INSTALLATION WITH REK-O-KUT TONEARM: 17¾" wide x 16" deep; Height above Deck 3"; Height below Deck 6¼".
RNTABLE: Solid Cast Aluminum Lathe Turned. Designed for easy disc handling.
ISH: Silvertone Aluminum.
IPPING WEIGHT: 19 lbs.

odel B-12GH SPECIFICATIONS

specifications are identical to the B-12H with the following exceptions:
ISE LEVEL: 55 db below average recording level.
W & FLUTTER: 0.13%
TOR: High efficiency HYSTERESIS SYNCHRONOUS motor built to Rek-O-Kut specifications. Sealed lifetime lubrication.
NIMUM DIMENSIONS FOR CABINET INSTALLATION WITH REK-O-KUT TONEARM: 17¾" wide x 16" deep; Height above Deck 3"; Height below deck 4¾".
IPPING WEIGHT: 18 lbs.

STEREOTABLE KITS



K-34H/K-33H

True Stereotables, in kit form! If you can handle a screwdriver, you can easily build these kits. Model K-34H is similar to Model N-34H. Model K-33H is similar to Model N-34H but is single speed. Both feature the same hysteresis synchronous motor and Rekothane belt drive system. Substantial savings in costly factory assembly are passed directy on to you! Enjoy REK-O-KUT's new look of beauty and superior performance, at an unbeatable price.

MODEL K-34H (illustrated) **33 AND 45 RPM**	NET PRICE . . .	$69.95
MODEL K33H—33 RPM	NET PRICE . . .	$59.95

MODEL B-16H

3 SPEED . . . 16" PRECISION TURNTABLE

SPECIFICATIONS:

SPEEDS: 33⅓, 45 and 78 rpm.

SPEED SELECTION: Mastermatic, self-locking, instantaneous shift. Engages either idler without stopping turntable or removing disc.

STARTING: From standing start to operating speed —
at 78 rpm .... ¾ turn
at 33⅓ and 45 rpm .... ¼ turn

MOTOR: Self-lubricating, CUSTOM-BUILT HYSTERESIS SYNCHRONOUS.

NOISE LEVEL: 50 db below average recording level.

45 RPM HUB: Built-in—retractable—requires no external adapter.

STROBE DISC: Permanently affixed—permits instantaneous checking of all speeds.

CHASSIS DECK: Radial-ribbed aluminum casting. Designed for flush mounting in rectangular cut-out. PRE-DRILLED: for ready mounting of Rek-O-Kut Turntable Arm Model S-260.
DIMENSIONS: 18¾" x 20". Fits existing consoles and cabinets with slight modification.
CLEARANCE REQUIRED: Above Deck—1½". Below Deck—6½".
FINISH: .... Wrinkle gray.
SHIPPING WEIGHT: .... 34 pounds

NET PRICE $275.00*

NOTE: All Rek-O-Kut Turntables are supplied for 110-120 volt, 60 cycle AC operation. Available in other voltages and frequencies at additional cost.

WO-SPEED - Model N-34H

-34H (illus)

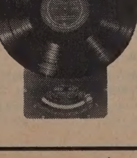
NOISE LEVEL: 57 db below average recording level.
WOW & FLUTTER: 0.15%
MOTOR: High efficiency hysteresis synchronous motor built to REK-O-KUT specifications. Sealed lifetime lubrication.
SPEEDS: 33⅓ and 45 rpm.
REKOTHANE BELT: Special molded belt made to REK-O-KUT specifications with variable adjustment for optimum tension.
CHASSIS DECK: 12⅝" x 19"
FINISH: White deck plate.
MINIMUM DIMENSION: 13" deep, 21" wide, height above deck 3", depth below deck 4¼"

NET PRICE $89.95*

*Prices do not include arm or base. All prices slightly higher West of Rockies.

VARIABLE-SPEED TURNTABLE

MODEL CVS-12



The CVS-12 permits continuous speed variation from 25 rpm to 100 rpm without resetting or stopping the record. It can therefore be used with 33⅓, 45 and 78 rpm records, and permits them to be slowed down to ⅓ normal tempo or speeded up to as much as 300%. It is standard equipment with the P-VC and P-VM players.

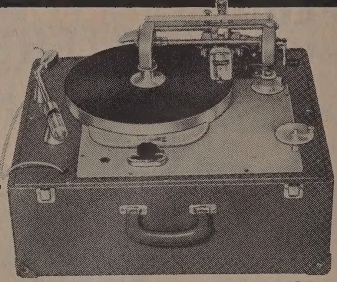
NET PRICE.................................. $89.95*

NOTE: This turntable operates at either 50 or 60 cycles. At 50 cycles speed can be varied from 20 rpm to 85 rpm.
Shipping Weight: 15 lbs.

REK·O·KUT company

NEW IMPERIAL II

RECORD CUTTER AND PLAYBACK UNIT



$725⁰⁰* net complete

IMPERIAL II SPECIFICATIONS

MOTOR: Custom built Hysteresis Synchronous motor fitted with lamitex drive pulley. Suspended in shock mounts to prevent transmission of motor vibration.

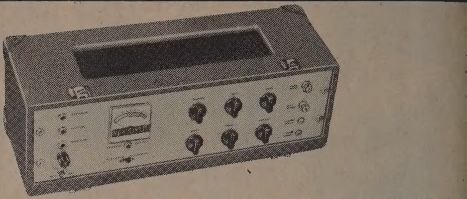
RECORDING AREA: Records from 6" up to 13¼" masters.

SPEEDS: Simple, finger-tip speed control. Records at both 33⅓ and 78 R.P.M. Includes Idler and Adapter for 45 R.P.M. recordings.

OVERHEAD RECORDING LATHE: Model M-12S Lathe. **HAND CRANK** for run-in and run-off spiral grooves. **PROVISION FOR INTERCHANGING LEADSCREWS** for Standard and Microgroove. Equipped with standard 120 line leadscrew. **LIFTOMATIC SAFETY CAM** prevents double cutting and stylus damage. Automatically raises cutter as center of disc is approached. **CALIBRATED SCALE FOR TIMING.**

RECORDING HEAD: Model RH-5 response from 30-13,000 cycles.

PLAYBACK ARM: Model S-120 for records up to 13¼"—with dual-sapphire magnetic cartridge.



RECORDING AMPLIFIER UNIT

R8B AMPLIFIER SPECIFICATIONS

OUTPUT: 20 watts.
RESPONSE: ±2db from 20 to 20,000 cps at full output.
HARMONIC DISTORTION: .3% @ 1,000 cps at full output.
INTERMODULATION DISTORTION: .8% at full output.
HUM LEVEL: (below rated output) Tape—60db; Mike—64db; Phone—61db.
4 INPUTS: Microphone, tape and phono-mixing, plus tuner (high level).
CONTROLS: Phono, microphone and tape level, master volume, bass ±22db @ 50 cps), treble (±20db @ 15 kc), playback-recording switch, power switch.
RECORDING LEVEL INDICATION: Damped volume unit type meter with special calibrated scale.
OUTPUTS: Speaker and cutter (16, 8 and 4 ohms). Monitor (for use with high impedance headphones), pre-amp (2,000 ohms).
TUBES: 2—6973; 1—6AN8.
TRANSISTORS: 3—2N408; 5—2N406.
RECTIFIERS: 1N2071 Silicon.
PREAMPLIFIER SECTIONS: Completely transistorized.
POWER REQUIREMENTS: 115 watts, 117 VAC, 50-60 cps.
VINYL COVERED CARRYING CASES with storage lid and handle.

Size:	Weight:
Height: 7"	
Depth: 10"	R8B Amplifier: 25 lbs.
Length: 20½"	Recorder: 45 lbs.

PRICES:

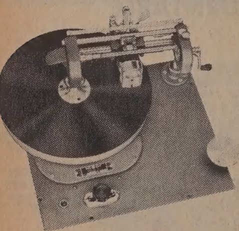
IMPERIAL II COMPLETE	net	$725.00*
Disc Recorder, less amplifier **MODEL DR**	net	$495.00*
Case for Model DR Disc Recorder **MODEL C-DR**	net	$ 50.00*
Recording Amplifier **MODEL R8B (can be rack mounted)**	net	$250.00*
Case for R8B Ampifier **MODEL C-B**	net	$ 25.00*

ACCESSORIES AVAILABLE:

Portable dual speaker set **MODEL SPK-44**	net	$ 79.95*

Also available are headphones and microphones.

MODEL TR-43H 2 SPEED (33-78)



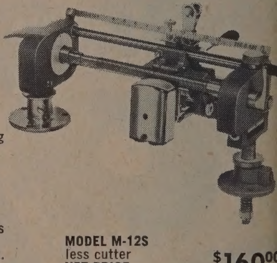
12" RECORDING TURNTABLE

With Accessory Idler for 45 rpm Speed

NET PRICE:
$159⁹⁵*
(Less Lathe & Cutter)

Design and construction of the Model TR-43H is similar to the Rek-O-Kut 16" professional recording tables. The Model M-12S Overhead Recording mechanism is mounted to the chassis in a few moments.
CHASSIS: Cast ribbed aluminum drilled to accommodate the M-12S Lathe.
IDLERS: Neoprene compound for maximum traction.
OILING: Shafts and bearings are self-oiling. Require infrequent lubrication.
SPEEDS: Instantaneous speed shift engages either 78 or 33⅓ rpm idlers.
FINISH: Gray wrinkle.
DIMENSIONS: Front to back 16½"; width 16"; height above motor board 1⅜"; depth below motor board 5".
SHIPPING WEIGHT: 20 bs.

MODEL M-12S 12" OVERHEAD LATHE



This professional lathe is designed to very exacting specifications and features the following:

- Interchangeable Leadscrews.
- Hand-crank for run-in and run-off Spiral Grooves.
- Timing Scale.
- Accommodate Standard Cutting Heads.
- Depth of Cut Adjustment.

LIFT-O-MATIC: Automatically lifts cutter from disc as it approaches end of lead-screw
Designed for instantaneous replacement of the M-12.
Supplied with 120-line leadscrew

MODEL M-12S
less cutter
NET PRICE............... **$160⁰⁰**

LEADSCREWS FOR OVERHEAD LATHES

Lines/inch	Model M-5S	Net Price	Lines/inch	Model M-12S	Net Price	Lines/inch	Model M-12	Net Price
120	MS-120	$39.95	120	M12S-120	$35.95	120	M12-120	$19.95
210	MS-210	49.95	210	M12S-210	44.95	210	—	—
216	—	—	216	—	—	216	M12-216	29.95
240	MS-240	49.95	240	M12S-240	44.95	240	M12-240	29.95
270	MS-270	49.95	270	M12S-270	44.95	270	—	—

Leadscrews of 210 lines/inch or more = microgroove.

MODEL RH-5 CUTTER . . . $115 net

For use with Rek-O-Kut overhead lathes. Designed for vertical mounting—can be fitted to standard lathe brackets other than Rek-O-Kut.

SPECIFICATIONS

Impedance: 8-15-500 ohms. **Sensitivity:** Approximately 1.8 watts at 1000 cycles for 6.3 cm/sec peak recorded velocity **Frequency Response:** ±2 db from 1000 to over 13,000 cycles. From 1000 down to 30 cycles. Built-in attenuation p R.I.A.A. curve within 2 db. **Distortion:** 1.2% at 1000 cps. **Mounting:** Univers mounting for most lathes. 1⅛" between mounting holes of cutter. **Stylu** Short shank steel or sapphire ⅝" overall stylus length. (Stylus not supplied

The policy of Rek-O-Kut Co., Inc., is one of continual improvement in design and manufacture. Hence, we reserve the right to change specifications and design without notice.

***All prices slightly higher West of Rockies**

REK·O·KUT company

SONoTEER

a remarkable new high fidelity 5 SPEAKER system

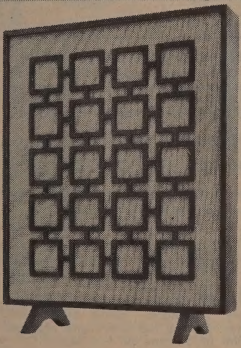
ONLY FOUR INCHES THIN

REK-O-KUT SONOTEER

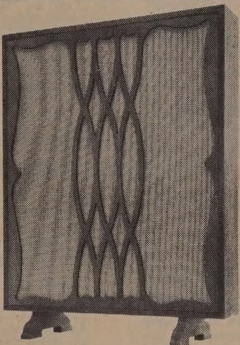
Phenomenal front-to-back dimension of only 4″ makes the Sonoteer **easiest to place** in today's home or apartment. It blends in perfectly with existing decor, or can be used to create exciting new interiors. Unique front **and** back radiation provides a feeling of spaciousness and clarity which can only be described as a new dimension in stereo fidelity. Big, clean sound comes from a precise blend of the voices of five speakers — two 8″ woofers, two 6″ mid-range speakers (which eliminate the hole in the middle) and a super-tweeter.

CA-70 MODELS
SPECIFICATIONS

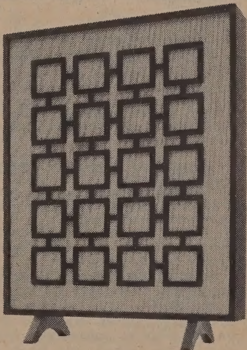
Speakers: 2-8″ woofers; 2-6″ mid-range; 1 super tweeter
Response: 40 to 18,000 cps
Sound Dispersion Angle: 360°
Impedance: 8 ohms
Power: 45 watts of integrated program material
Dimensions: 4″ x 21″ x 25″
Weight: 18 pounds



Model CA-70
Style: Contemporary
Finish: oil-rubbed, solid walnut
$\$79^{95}$



Model CA-70P
Style: Provincial
Finish: fruitwood
$\$89^{95}$



Model CA-70E
Style: Mandarin
Finish: satin ebony
$\$89^{95}$

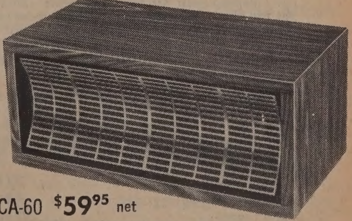
REK-O-KUT BOOKSHELF SPEAKER SYSTEM

3 SPEAKERS IN ONE COMPACT WALNUT ENCLOSURE

The Audax CA-60 is small enough to fit into existing compactly spaced bookshelves, yet can be used as a free-standing unit. True 2-way system (2 six-inch woofers and a separate tweeter) in an acoustically-engineered enclosure. Cabinet is finished in oiled, hand-rubbed walnut on 4 sides. Brushed aluminum grille in an attractive parabolic shape gives unit a character which blends with a variety of surroundings.

Although the CA-60 is true bookshelf size, it achieves quality of sound reproduction wholly consistent with the high fidelity reproduction of many larger systems. Unit is a "powerhouse" despite its size. Handles 20 watts of integrated program material. More clean bass than any structure of its size and price. Speaker delivers more than enough sound for any average living room with as little as 5 watts amplifier power.

Connects to amplifier—phonograph—radio or T.V.!



Model CA-60 $\$59^{95}$ net

SPECIFICATIONS

Model	CA-60
Impedance	8 ohms
Response	70-17,000 c.p.s.
Power	20 watts integrated program material
Contents	Two 6″ Woofers—One Tweeter
Size	9″ x 10″ x 18″
Shipping Wt.	15 lbs.
Net Price	$59.95

Gibson Girl® **ROBINS** Made In U.S.A.

ROBINS INDUSTRIES CORP. FLUSHING 54, N.Y.

GIBSON GIRL® TAPE SPLICERS & ACCESSORIES

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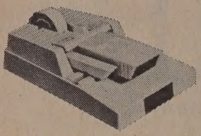

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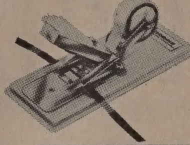

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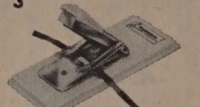

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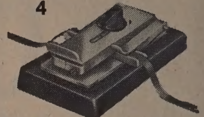

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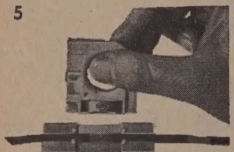

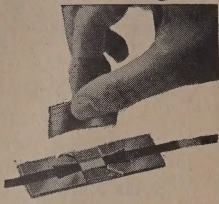

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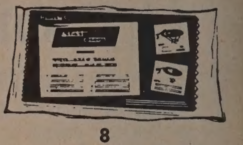

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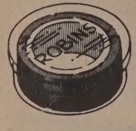

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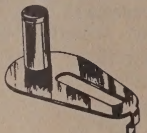

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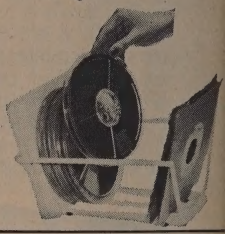

Robins Gibson Girl® Tape Splicers are the accepted standard of the professional and industrial users of recording tape. They have gained this reputation because of their ease of operation. The high standards of workmanship assures reliability. They are the only splicers which actually cut a diagonal joint in the tape and trim the splicing tape and tape edges with an indented trim cut, making **"THE SPLICE WITH THE GIBSON GIRL® SHAPE".** These slight "waists" formed in the tape prevent adhesive from contacting critical parts of the recording mechanism and prevent layer to layer adhesion. Adhesive deposited on tape guides, etc. is a frequent cause of wow, flutter, and erratic performance.

Gibson Girl® Tape Splicers are Available in Six Models.

GIBSON GIRL® "STEREO 4" • SERIES MAKES PROFESSIONAL SPLICES IN SECONDS!

NEW! Precision-engineered tape splicers that meet critical requirements of splicing 4-track stereo tapes. Operates equally well on single and 2-track tapes.

All "Stereo 4" splicers feature blade centering adjustment for lifetime accuracy, replaceable cutter cartridges, and miter and trim cut operating positions.

1. GIBSON GIRL STEREO 4 DELUXE—Our finest! The ultimate splicing unit with Space Age design. Features "See-Thru" windows, indicating "Cut" and "Trim" positions. Guide and fingers hold tape in position. Safety lock prevents accidents when not in use. Has roll of ½" splicing tape with integral dispenser.
#TS-8D. List $11.50

2. GIBSON GIRL STEREO 4 STANDARD—Our basic, moderately priced professional model. Has most features of TS-8D except position index windows and safety lock. Unit has roll of ⅜" tape. **#TS-4S. List $8.50**

3. GIBSON GIRL STEREO 4 JUNIOR—Low cost, professional model, similar to TS-4S without tape dispenser and splicing tape.
#TS-4J. List $6.50

RK-2 Replacement Kit for TS4A series splicers, RK-3 Replacement Kit for TS-4S and TS-4J and RK-8 Replacement Kit for TS-8D. Each kit contains replacement cutter cartridge and 2 cutter pads.
List $1.25

RP-2 Cutter Pads—only for TS4A series splicers. Package of 12 pads. **List $1.25**

4. GIBSON GIRL® INDUSTRIAL TAPE SPLICERS — For computer, TV industrial and special purpose tapes. Gibson Girl® Industrial Tape Splicers have all of the features of the TS-4S. They are ruggedly constructed for industrial use, mounted on a heavy cast base. Precise blade centering adjustment. Long life blades easily replaceable.

For ¼" tapes.	**#TS-250. Net $60.00**
For ½" tapes.	**#TS-500. Net $60.00**
For 1" tapes.	**#TS-1000. Net $60.00**

Custom Built Splicers For Special Tapes and Applications Available—Send for Quotation.

5. GIBSON GIRL® "SEMI-PRO"—This hand held splicer consists of three parts, a tape alignment guide, a cutting unit which has a diagonal cutter on one side and Gibson Girl® cutters on the other side, and a blade cover to protect the blades, designed for semi-professional use. **#SP-4. List $2.50**

6. GIBSON GIRL® "HOBBYIST" — An inexpensive tape splicer consisting of a tape and blade guide and a unique curved blade. It is designed to produce uniform **Gibson Girl®** type splices for hobbyists who require its services less frequently.
#H-4. List $1.25

7. ROBINS RECORDING HEAD CLEANER — A fast, efficient solvent for cleaning recording heads. In brush applicator bottle.
#HC-2. List $1.00

8. JOCKEY CLOTH FOR TAPES—Revitalizes tapes. Reduces head wear. Reduces tape wear. Eliminates "grime distortion". Reduces tape squeal and chatter. Cleans, lubricates and protects by depositing a microscopic film of Silicone on the tape.
#JCT-2. List $1.00

SPLICING TAPES

9. ROBINS SPLICING TAPE—(New formula white) Specifically made for splicing recording tape. Tackiness, thickness, strength and cold flow are carefully controlled. Individually packed in crystal clear plastic container.

¼" x 100" Mylar (New Formula white)	**#ST-234. List $.40**
⅜" x 100" Mylar (New Formula white)	**#ST-375. List $.45**
½" x 100" Mylar (New Formula white)	**#ST-500. List $.50**
¾" x 100" Mylar (New Formula white)	**#ST-750. List $.60**

10. TAPE STORAGE CANS — For safe storage of recording tapes. Reduces tape "ageing". Helps prevent accidental tape erasure. Ribs on cans nest for stacking.
#TC-5 (for 5" reels). List $.55
#TC-7 (for 7" reels). List $.75

11. ROBINS TAPE THREADER—The perfect solution to an old nuisance! No more awkward fumbling. Just place tape against the reel, slip on your threader to hold it in place, turn the crank and presto!—you're ready to use your recorder. **#TT-1. List $1.00**

12. TR-12 TAPE RACK — A modern browser rack which holds up to 12 boxed or unboxed 7" reels of tape. Compact only 5" x 8" x 9¾". Labels on side of boxes of pre-recorded tapes stored in the browser rack may be read without removing the boxes from the rack. May also be used for 7" records and movie film.
#TR-12. List $1.00

REEL LABELS—SELF-STICK ADHESIVE. (not illust.) Write on with pencil, pen, ball point, etc. Names can be typed on labels prior to removal from sheet. For Tape Reels, Parts, Record Service Calls, 1001 other uses. **#SL-30 (30 Labels). List $.45**

GIBSON GIRL® TAPE SPLICERS—U.S. PAT. No. 2,778,420 PATS. PENDING T.M. REG. U.S. PAT. OFF.

Gibson Girl®

ROBINS

Made in U.S.A.

ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

FOR MORE FUN & BETTER TAPE CARE

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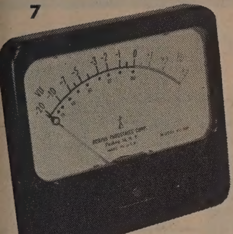

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STROBE & LIGHT KIT

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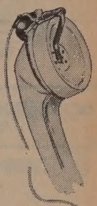

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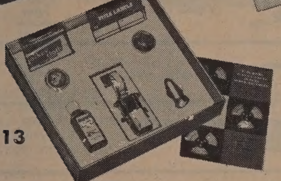

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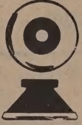

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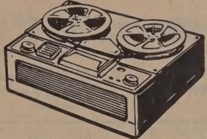

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ROBINS TAPE-KARE
Jockey cloth
FOR TAPES
New!
TAPE-KARE
Recording head cleaner, tape and head lubricant

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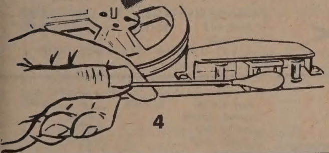

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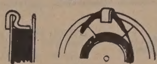

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NEW TAPE PRODUCTS

1. NEW! TELE-TAPE TELEPHONE PICK-UP COIL—Inductor pickup coil fastens to phone with Easy-On mechanical springs for easy telephone tape recording. Has 6 ft. shielded cable. **#TRP-1. List $6.00**

2. NEW! TELE-TAPE TELEPHONE PICK-UP COIL AND TRANSISTORIZED BEEPER—Transistorized battery-operated generator injects 1KC "Beep" into phone lines and recorder at 15 second intervals. Makes it easy to comply with most regulations. Has On-Off switch and 6 ft. cable to phone and 6 ft. cable to recorder. Easy-On spring fastens pick-up to phone. Uses standard 22½ v. battery.
#TRB-3 (battery not included) List $25.00

3. NEW! TAPE CLEAN—A 5" reel of chemically treated cloth tape, that threads like recording tape, cleans and lubricates tape heads and guides while being played. Deposits Silicone for friction-free performance. **#HC-5. List $2.75**

4. NEW! CLEAN TIPS—For damage-free cleaning and lubricating of tape recording heads. Made of finest surgical cotton (non-sterile) wound on 6" long sticks. Pkg. of 100 tips. **#Q-100. List $.75**

5. NEW REPLACEMENT TAPE RECORDER PRESSURE PADS—Replacement pressure pads of assorted sizes to fit almost all tape recorders, plus "U-Cut-It" pads for odd makes and models. Worn pads increase wow and flutter, induce loss of highs and tape squeal. Pkg. over 50 felt pads. **PP-1. List $1.00**

6. NEW! AUDIO-VISUAL GIBSON GIRL ACCESSORY KIT — Complete tape accessory kit for everyday maintenance and operating needs contains: Gibson Girl Stereo 4 Deluxe Tape Splicer's, UL approved Bulk Eraser, UL approved Head Demagnetizer, Tape Holding Clips, Reel Labels, Tape Cleaning Cloth, 6 Rolls of Special Mylar Splicing Tape, Tape Threader, Strobe and Light kit, Head and Guide Cleaner and Lubricant. (not illust.) **#AVK-1. List $65.00**

7. ROBINS VU METER—No more "guess work" with level control. Prevents overmodulation (overloading), recording on too low a level, et. Specifications: 4½ VU Meter, 2 color scale; Modulation calibrations, 0-100%; VU calibrations—20 to +3; Dual impedance inputs, (low or high impedance circuits). Sensitivity 200 Micro-amps (basic movement). VU operation: Shunts for 1.2 or 12 V; Mounts in 2¾" diameter hole; Depth 1½". **#VU-100. List $22.00**

8. REEL HOLDERS FOR TAPE RECORDERS—Damps wobbling, holds reels in place regardless of position of recorder.
#RH-2 (pair). List $.85

9. TK-5, TAPE STROBE & LIGHT KIT—Makes checking of recorder speeds a snap. It consists of a neon light source and five lengths of 25" non-magnetic leader tape with stroboscopic markings. The lamp flickers at the rate of 120 times per minute and indicates if operating speed is slow, fast or correct. The unit requires 110-120 volt, 60 cycle, AC current. **#TK-5. List $2.00**

10. MAGNETIC BULK ERASER—Completely erases recorded and unwanted signals from an entire reel of tape in seconds. Reduces background noise levels of tape from 3 to 6 db below normal erase head level. Accommodates tape up to ½" wide and reels up to 10½" diameter. Saves time and eliminates head and machine wear. 110 volts, 60 cycle A.C., U. L. listed. **#ME-99. List $33.00**

11. LOW COST BULK TAPE ERASER—Low cost version of ME-99. Reduces background noise levels of tape from 2 to 4 db below normal erase head level. For ¼" tape and reels up to 7". Weighs only 4 lbs. 110 volts, 60 cycle A.C. (not illust.) **#ME-77. List $22.00**

12. TAPE KARE KIT—Preserves valuable tapes and protects tape recorders. Contains: Robins Recording Head Cleaner. Jockey Cloth for cleaning tapes. **#TK-2. List $2.00**

13. NEW! GIBSON GIRL® "STEREO 4" ACCESSORY KITS — Everything you need for better tape recording and editing. This kit contains the famous Gibson Girl® tape splicer, splicing tape, tape threader, reel holders, head and guide lubricant, head cleaner, tape cleaning cloth, tape clips, reel labels and tape editing book. For professional results! For more pleasure! For better recordings! A perfect Hi-Fi gift! With Gibson Girl® Stereo 4 Deluxe Splicer.
#TK-8DLX. List $15.00

*With Gibson Girl Stereo 4 Standard Splicer.
(Illustrated) **#TK-4STD. List $12.00**

*With Gibson Girl Stereo 4 Junior Splicer
#TK-4Jr. List $10.00

*Without Reel Holders and Head and Guide Lubricant.

Tape Kare Kit with Gibson Girl Hobbyist Splicer, Tape Cleaning Cloth, Splicing Tape, Tape Holding Clips and Tape Editing Book.
#TK-4H. List $3.25

14. REPLACEMENT REELS—Sturdy 7" virgin styrene reels. With write-on surfaces and tape log index. Reels boxed individually in white, set-up boxes. **#TR-70. List 75c**

5" plastic reel in white set-up box	**#TR-50. List 60c**
3" reel in mailing box	**#TR-30. List 25c**

15. TAPE CLIPS—Keeps tape from unwinding from full or half empty reels. **#TC-12 (pkg. of 12). List 40c**

16. HEAD DEMAGNETIZER—Helps maintain "like new" performance of tape recorders by removing residual magnetism from tape heads. Reduces noise level, restores optimum signal-to-noise ratio. Has thin extended pole piece for easy access to recording heads of most tape recorders. 110 volts, 60 cycle A.C., U.L. listed.
#HD-6. List $10.00

17. LOW COST HEAD DEMAGNETIZER — A low cost version of HD-6, American made, with specially shaped probe for easy access to most tape heads without removing head cover. Plastic sleeve on tip of probe prevents accidental scratching of heads. (not illust.)
#HD-3. List $5.95

Gibson Girl®

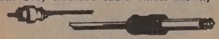
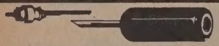
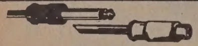
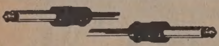
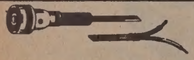
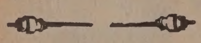
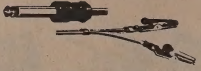
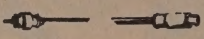
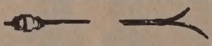
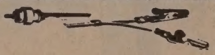
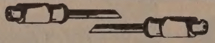
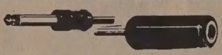
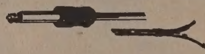
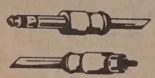
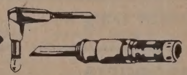
ROBINS

Made In U.S.A.

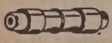
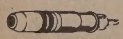
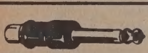
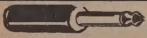
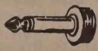
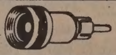
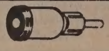
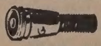
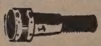
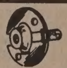
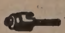
ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

PATCH CORDS

(All Grey shielded cable unless shown)

	Description	Cat. #	Length	List Price
	phono plug to telephone plug	MT-72 MT-120	72" 120"	2.00 2.50
	phono plug to phone jack	MJ-72	72"	2.50
	phone plug to phono jack	TF-72	72"	2.50
	phone plug to phone plug	TT-72 TT-120	72" 120"	2.00 2.50
	microphone connector to stripped and tinned ends	BS-120	120"	2.75
	phono plug to phono plug	MM-18 MM-36 MM-72 MM-120	18" 36" 72" 120"	$1.00 1.25 1.50 2.00
	phone plug to alligator clips	TC-72 TC-120	72" 120" (grey parallel cable)	2.00 2.50
	phono plug to phono jack	MF-18 MF-36 MF-72 MF-120	18" 36" 72" 120"	1.25 1.50 1.75 2.25
	phono plug to stripped and tinned ends	MS-18 MS-36 MS-72 MS-120	18" 36" 72" 120"	1.00 1.00 1.25 1.75
	phono plug to alligator clips	MC-120	120" (grey parallel cable)	2.25
	phono jack to phono jack	FF-72	72"	2.25
	phone plug to phone jack	TJ-120	120"	4.00
	phone plug to stripped and tinned ends	TS-72 TS-120	72" 120"	2.00 2.50
	3-cond. phone plug with internal resistor to phono plug. shielded cable Use with Webcor tape recorders.	XM-120	10"	4.00
NEW 	short R.C.A. 2-cond. phone plug to std. 2-cond. short ext. jax. Use with late models of Revere and Wollensak tape recorders.	XJ-180	12" (white shielded cable)	5.00

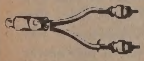
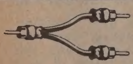
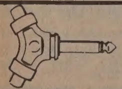
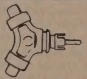
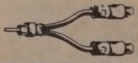
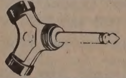
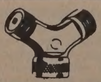
ADAPTORS

	Description	Cat. #	List Price
	Phono plug coupler mates with phono plug at each end. Grey plastic: completely shielded.	FF-1	$1.00
	Adapter, 2-conductor phone jack input to phono plug output.	JM-1	2.00
	Phone plug output with phono jack input. Grey molded housing, completely shielded.	FT-1	1.50
	Phone plug.	T-1	.75
	Male microphone input to phone plug output.	TD-1	.75
	Adapter phono plug one end with female microphone connector at other end.	BP-1	1.25
	Adapter, phono plug one end with male microphone connector at other end.	DP-1	1.50
	Male microphone connector.	D-1	.50
	Female microphone connector.	B-1	.75
	Phono jack pkg. of 3	F-1	.50
	Phono plug Pkg. of 4	M-1	.50

NEW

FLEXIBLE "Y" CONNECTORS (PHONO JACK AND PLUG TYPE)

For converting Stereo Player to Monaural. Can be used for a Tap-in Meter Monitor connection and many other uses. Also required on some Tape Recorders.

	Description	Cat. #	List Price
	"Y" adapter 2 phono plugs connected to 1 phono jack. Grey shielded cable.	YFMM-1	2.00
	"Y" adapter 3 phono plugs connected together. Grey shielded cable, 4" length.	YMMM-1	2.00
	"Y" adapter, two phono jacks connectors connected in parallel to a standard 2-cond. phone plug. Completely shielded.	YTFF-1	2.00
	"Y" adapter, two phono jack connectors connected in parallel to a standard phono plug, completely shielded.	YMFF-2	$2.00
	"Y" adapter phono plug connected to 2 phono jacks. Grey shielded cable 4" length.	YMFF-1	2.00
	"Y" adapter two male microphone connectors connected in parallel to a standard 2-cond. phone plug. Competely shielded.	YTDD-1	2.00
	Light weight die cast "Y" adapter makes it possible to connect 2 cables (with stad. microphone connectors) in parallel to one single connector.	YBDD-1	1.75

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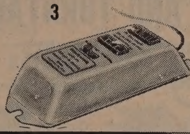
"EXTRA-PLEASURE" PHONOGRAPH AIDS

3



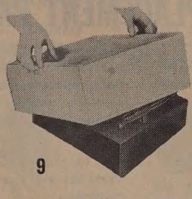
ROB-O-STAT
RECORD CLEANING KIT

2

1

8

5



9

11

ENGINEERED SOUND
STEREO & MONOPHONIC

10

NEW PHONOGRAPH AIDS

1. NEW! DISK-WHISK KIT—Cleans records automatically. Clips on to tone arm of changers and turntables. It loosens and removes dust and dirt from record grooves while record plays and deposits an anti-static agent on clean grooves to retard new dust deposits. Includes bottle of anti-static fluid with applicator. **#ESK-7. List $4.00**

Renewal Kit for ESK-7 contains bottle of anti-static fluid and two mohair cylinders. **#ESK-8. List $2.00**

2. NEW! ROB-O-STAT RECORD CLEANING KIT—An ideal record cleaning kit to preserve treasured records! Contains super-soft velvet and foam applicator mitt, 1½ oz. plastic bottle of anti-static detergent and lubricant, and a polyfoam pad for cleaning velvet mitt. **#ESK-6. List $2.00**

3. NEW! HI-FI STOP-O-MATIC—Automatically turns off both amplifier and changer when last record has played. Allows you to fall asleep to music without "burning up" equipment. Has switch control which permits use of amplifier without changer.

#HSF-1 for European changers. List $10.00
#HSF-2 for U.S. made changers. List $10.00

* **NEW! COMBINATION TONE-ARM LIFT AND RECORD BRUSH**—Clips on to tone arm for convenient finger lift. Its floating nylon brush gently sweeps dust from record grooves as record plays. **#RBL-1. List $1.00**

5. NEW! 45-RPM SPINDLE—Precision made, all metal spindle fits most changers with straight spindles, including V-M, Glaser-Steers, Zenith, Westinghouse, Motorola, Philco, R.C.A., Columbia, Sylvania, and many other "straight-spindle" changers. **#SA-55. List $3.95**

* **NEW! RIM-REST TURNTABLE MAT** — Polyethylene mat features 3 concentric ridges of graduated heights to support 7, 10 and 12″ records and protect record grooves from scratches. **#PC-22. List $2.50**

* **RACK HOLDER FOR 7″ RECORDS**—Holds up to 100 7″ LPS or 45's. Can be used for recording tape and movie film. Durable plastic. **#TR-12. List $1.00**

8. STROBE & LIGHT KIT. This easy-to-read strobe is precision-engineered to furnish listeners with the easiest, surest way to determine speed of their record player. Indicates clearly whether turntable is too slow, too fast, or irregular. **#ESK-5. List $1.50**

9. CHANGER COVERS. Rigid, collapsible and easy to set up.
#CC-678 12″x15½″x5″ Asst. colors **List $6.95**

RECORD CHANGER COVERS. Transparent plastic covers to fit many models.
#CC-1 12″x13½″x8″ Webcor, V-M, Miracord 200, Dual, Garrard "T" etc. **List $1.75**
#CC-2 13½″x15″x8″ Garrard RC80, 121, Thorens 134, 184, etc. **List $1.75**
#CC-5 17″x15″x8¾″ Garrard RC-88, 98, 4HF, Glaser-Steers GS-77, Pickering, etc. **List $1.75**

TURNTABLE COVERS:
#CC-3 22″x16½″x9″ Fairchild, Rek-O-Kut, Garrard, etc. **List $2.25**
#CC-4 17½″x17½″x8½″ Rek-O-Kut, L34, N33, Grey, Thorens TD-124 Metzner, etc. **List $2.25**

FOUR "ENGINEERED SOUND" RECORD KARE KITS

10. DELUXE ENGINEERED SOUND RECORD KARE KIT—Contains: Stylus Pressure Gauge SG-1, Hobbyist Stylus Microscope MX-40, Turntable Level TL-1, Jockey Record Cleaning Cloth JC-1, KleeNeeDle NB-1, Record Brush RB-75, Tone Arm Lift TA-1. **#ESK-3. List $5.00**

* **PROFESSIONAL ENGINEERED SOUND RECORD KARE KIT**—Contains: Stylus Microscope MX-40, Turntable Level TL-1, Stylus Pressure Gauge SG-1. **#ESK-2. List $3.00**

* **HOBBYIST ENGINEERED SOUND RECORD KARE KIT**—Contains: Stylus Pressure Gauge SG-1, Turntable Level TL-1. **#ESK-1. List $2.00**

* **ENGINEERED SOUND TURNTABLE LEVELING KIT**—Consists of: 4 adjustable rubber feet, mounts; Level. **#ESK-4. List $3.50**

11. ALUMINUM COMPONENT SLIDES—Easy-to-install, drawer slides for record players or other equipment. Load capacity 30 lbs. Length 13″, maximum extension 14″. **#CS-1311. List $4.50**

* **FIBERGLASS ACOUSTIC INSULATION**—For lining speaker cabinets, record changers, tape decks, etc. 36″x36″x1″thick. Reduces reverberations and standing waves. **#AM-90. List $2.50**

* **PHONO-CUSHION**—Polyester foam mat fits most changers and players. Cushions record fall, reduces motor rumble and magnetic pull of pickup, eliminates record slip, covers worn tables.
#PC-10 (10″) List $1.00 #PC-12 (12″) List $1.25

* **STYLUS PRESSURE GAUGE** — Spring tempered gauge measures stylus pressure accurately from 2 too 3 grams. **#SG-1. List $1.00**

* **TURNTABLE LEVEL**—Spirit level in attractive gold anodized aluminum case, sits easily on any turntable. **#TL-1. List $1.20**

* **ISOLATION PAD**—Scientifically designed dielectric foam for use under all Record Changer Bases. **#IP-16 (16½″x13½″) List $2.00**

* **JOCKEY CLOTH FOR RECORDS**—Anti-static Record cleaning cloth cleans, lubricates and eliminates static charges. **#JC-1. List $1.00**

* **KleeNeeDle**—Automatic Changer Needle Brush. Automatically removes "dust blob" each time tone arm passes over brush. Adjustable height. Pressure sensitive adhesive for mounting. **#NB-1. List $1.40**

ROBINS CHEMICALS

* **TAPE AND PHONO DRIVE OIL**—Highly refined lubricant for rotating and moving parts of tape and phono drives. 2 oz. **#RC-2-33. List $.75**

***NON-SLIP FOR TAPE AND PHONO DRIVES**—Stops slippage of idler wheels, pulley belts and cords. Fast drying material dries to a tack-free yet non-slip surface, 2 oz. **#RC-2-56. List $1.00**

* **RECORD BRUSH**—A fine haired brush that clips on tone arm and gently sweeps dust from record as it rotates. **#RB-75. List $.75**

* **TONE ARM LIFT**—Clips on tone arm for convenient finger lift. Reduces record scratching due to fumbling. **#TA-1. List $.35**

* **RECORD SPIDERS (PLASTIC) FOR 45 RPM RECORDS**—Clips into record to reduce hole diameter for fit on standard record spindle. Pkg. of 5. **#RA-45. List $.25**

* **ATOMIC JEWEL** — Anti-static device keeps records dust free, reduces record needle wear. Clips on arm. **SE-900, List $4.00**

* **STROBE-DISC**—Easiest and simplest way to check turntable speed and assure its accuracy. 3-speeds. **#SD-1. List $.35**

SD-4 STROBE DISC for all 4-speeds **$.50.**

* **HOBBYIST STYLUS MICROSCOPE**—Direct reading microscope with precision plastic lens. **#MX-40. List $1.25**

45 RPM METAL ADAPTERS—Easy to use, clips into record. 5 adapters. **#RA-45M. List $.30**

* **ROUND TURNTABLE LEVEL**—4-way. Levels your turntable for top performance, prevents record and needle wear. A must for stereo output balance. **#TL-2R. List $2.50**

* **PROFESSIONAL STYLUS MICROSCOPE**—Check stylus wear and protect against damage to records, precision ground lens, pen type pocket clip. **#MX-1. List $2.50**

* **SPINDLE ADAPTER FOR 45 RPM RECORDS**—Enlarges standard spindle diameter to take 45 RPM records. **#SA-45. List $.25**

* **DISCLOSURES**—Virgin polyethylene envelopes for record storage, round bottom. Protects records from dust, grime, lint, etc. **#E-15 (pkg. of 15) List $1.00**

* **NEW!** Protective square covers for standard 12″ record jackets or 12″ records. **#EJ-15 (pkg. of 15) List $1.00**

*Not illustrated.

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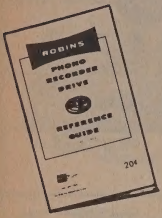
ROBINS INDUSTRIES CORP. FLUSHING 54, N. Y.

REPLACEMENT PARTS FOR PHONOS AND TURNTABLES

ROBINS REPLACEMENT PHONO AND TAPE DRIVE PARTS

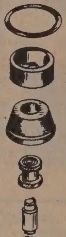


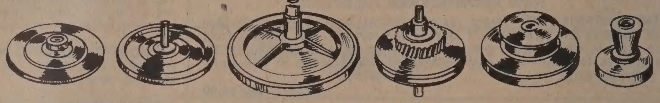
*A complete cross reference guide listing 73 manufacturers and over 500 models with manufacturers part number and Robins Replacement Number
#RRP-4. List $.20

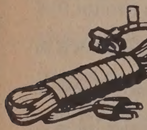
For servicemen, engineers, hobbyists, experimenters, and Do-it-yourself hi-fi enthusiasts who want to keep their equipment in top condition.

Ask for Robins Genuine Exact Replacement Parts for every popular make and model including:

Admiral, Aereo, Aircastle, Ampex, Ampro, Arvin, Bell and Howell, Bell Sound, Brush, Capitol, Collaro, Columbia, BSR, Concertone, Continental, Crescent, Crestwood, Decca, Dixieland, Dukane, Eicor, Ekotape, Elac, Electronic Teaching Lab, Emerson, Garrard, General Electric, General Industries, Glaser-Steers, Grundig, Heath, Knight, Lafayette, Magnetic Recording Industries, Magnavox, Milwaukee Stamping, Mirachord, Mitchell Monarch, Motorola, Olympic, Pentron, Philco, R.C.A., Radio Shack, Raytheon, Recordio, Revere, Roberts, Sentinel, Silvertone, Sonora, Sound, Steelman, Stereo-Phonic, TDC, Tape Master, Telectrosonic, Tower, Trifi, Trav-ler, V-M, Viking, Webcor, Westinghouse, Wilcox-Gay, Wollensak, Zenith.



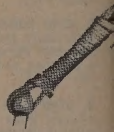




TV CHEATER CORD
6 ft. cord with molded male A.C. plug and TV molded-on connector at other end.
#CH-72. List $.80

FM INDOOR ANTENNA—FOLDED DIPOLE
Eliminates need for outdoor antenna in most locations. A big improvement over "built-in" antennas. Easily concealed under a rug or back of cabinet. #FMA-1. List $2.00

72" LINE CORD
Heavy insulation, U.L. Listed (SPT-2), with molded AC plug. White.
#LC-72. List $.55



EQUIPMENT COVERS

For Test Equipment, Amplifiers, Tuners, etc.

EC-2	14⅜"x10⅜"x5"	**List $1.85**
EC-4	10⅜"x 6¼"x7"	**List $1.85**
EC-8	10⅜"x 8¾"x7"	**List $1.85**
EC-10	6" x 5½"x8"	**List $1.85**
EC-12	12½"x 7¾"x8"	**List $1.85**
EC-14	12⅛"x 7¼"x10"	**List $1.85**
EC-18	16" x14⅝"x13½"	**List $2.50**
EC-20	22½"x13¼"x 16½"	**List $2.50**
EC-22	20" x14¾"x10¼"	**List $2.50**

ROBINS BOOK
how to get the most out of tape recording

ROBINS BOOKS

HOW TO GET THE MOST OUT OF TAPE RECORDING— (stereo edition) 128 pp. fully illust. Covers every aspect of tape recorder for the hobbyist and the professional. Tells you how to get the most out of your tape recorder, or if you don't have one, what to look for when purchasing one. **Cat. #TE-128. List $1.25**

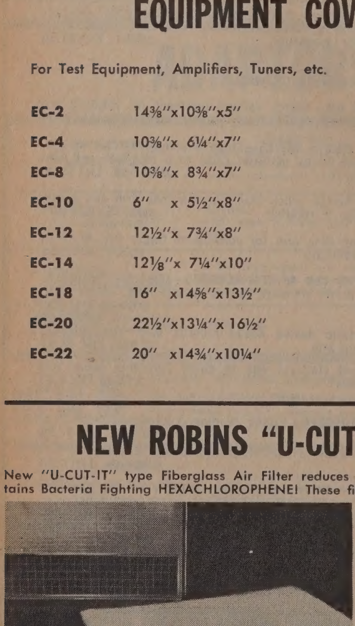
TAPE EDITING AND SPLICING — For the Professional and Amateur tape recordist by N. M. Haynes. 24 pp., illust. An authoritative work on the subject by an outstanding author. Contains a great deal of information which is not readily available elsewhere. **Cat #TE-24. List $.35**

TELEVISION TAPE RECORDING—by George B. Goodall (48 pp., illust.) A semi-technical book on methods and techniques in the amazing new field of Video tape recording. **Cat. #TE-48. List $1.00**

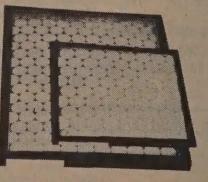
NEW ROBINS "U-CUT-IT" AIR FILTERS

New "U-CUT-IT" type Fiberglass Air Filter reduces allergy producing dust and pollen—contains Bacteria Fighting HEXACHLOROPHENE! These filters measure 15" x 24¼" and are easy to-cut-to-fit most room air conditioners. Requires no frame. To install, simply measure old worn out filter, cut new filter to desired size with scissor, and install. The "U-CUT-IT" Filters maintain peak conditioner efficiency with lower electrical consumption. Change your filters often to assure maximum cooling.

#GE-1. List $1.00



Individually packaged in attractive printed poly bag



ROBINS FILTER DIVISION MAKES OVER 500 SIZES OF VISCOUSE IMPREGNATED FIBERGLASS AIR FILTERS FOR HEATING, AIR-CONDITIONING, AIR CLEANNG, SPRAY PAINTING, AND INDUSTRIAL USES.

Write Robins Filter Division for quotation on your requirements.

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ROBINS M/M EXACT REPLACEMENT AND CONVERSION M/M RECORDING AND ERASE HEADS

- REPLACE WORN HEADS
- UPGRADE OLD EQUIPMENT
- CONVERT TO STEREO
- BUILD SPECIAL EQUIPMENT

WRITE FOR LATEST CONVERSION DATA BOOK RMM-4. LIST 35c

Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

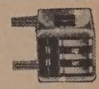


Fig. 7

Fig. 8

Fig. 9

Fig. 10

Fig. 11

Fig. 12

Fig. 13

Fig. 14

CROSS REFERENCE GUIDE

Cross Reference for Obsolete Michigan Magnetic Heads and Heads of Other Manufacture

M/M PART NO.	ROBINS M/M REPLACEMENT	MFR.	PART NO.	ROBINS M/M REPLACEMENT
08Q8	5Q17	NORTRONICS	TLDS	7B17
2L35	3L20-101	NORTRONICS	TLD-S3	7B17
2M40,G	3L20-101	NORTRONICS	TLD-L1	5Q17-105
3F20,L	3L20-101			
3FM20	3FM20-108	SHURE	815	5TRB+
3FM20-106	3F20-105**	SHURE	817	3L20-101
10FM20	3FM20-108	SHURE	TE-2	7EM12A
5B20	7B17	SHURE	TE-2C	40EM12A
5L20	7L17	SHURE	TE-11C	7EM12A
5L20U	7L17-108	SHURE	TR5	5TRB+
—	5QT17***	SHURE	TR5B	5TRB
3M20,A	3L20-101	SHURE	TR5D	5TRB+
5Q8	5Q17	SHURE	TR5H	5TRB+
5Q08	5Q17	SHURE	TR-16	7L17
7L17-105	7L17	SHURE	TR-16A	3L20-101
7L17U	7L17-108	SHURE	TR-21C	7L17
8BE30	9QE3	SHURE	TR-26	7L17
9L20S	7L17	SHURE	TR-35	3FM20-108
10L17	10L17-104			
10L17B	7L17	WORLD	EM50-3	7EM12A
10L17S	7L17	WORLD	ES25-1	9QE3
10L20S	7L17	WORLD	RM50-3	7L17
10M20A	7L17	WORLD	RS-25	5Q17
10L70	7L17	WORLD	RS-50	7B17
10M70A	7L17			
2120	3L20-101			

tereo head clip bottom leads to deactivate lower track. ***5QT17 identical to 5Q17 except ners of head beveled for easy insertion of cartridges. May be used as a replacement for 5Q17. +Combined Record and Erase head. Leads may have to shortened and plug changed.

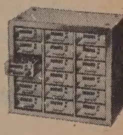
ROBINS M/M TAPE HEAD STEREO CONVERSION KITS

Converts 90% of all U.S. made, two track stereo recorders, to 4 track with only a screwdriver and pliers. Each kit contains 4 track record/play head, head alignment tape, hardware and instructions. For monaural units too, but an additional amplifier is required.

#5K17 5Q17 head ....**List $30.00**

#5K17U same as 5K17 kit, except head mounts from opposite side **(5Q17-105 head) List $30.00**

A COMPLETE BASIC KIT containing one each of 16 popular Robins M/M Heads. This assortment is ideal for laboratories and service organizations. Includes FREE 9"x10"x6" cabinet, (illustrated) and replacement data. **KIT #DD-6-1 List $298.00**



A SUPPLEMENTARY KIT containing an assortment of newer type heads and 4-track conversion kits not included in Kit #DD-6-1. Has new, popular record-play-erase combination heads. Includes FREE cabinet and replacement data. **Kit #DD-6-4. List $260.50**

COMBINATION KIT containing basic and supplementary kit head assortment of 27 heads. Includes FREE cabinet and replacement data. **KIT #DD-6-5. List $558.50**

SPECIFICATIONS — R/P HEADS

Part No.	Type	Tape Speed (IPS)	Imped (1KC)	Rec. Level (Below Sat.) (DB)	Audio Current (MA) A	Bias Current (M.A.)	Bias. Freq. (KC)	Play Level (1KC) (MV)	Play Level (10KC) Bel 1KC Level	Induct. (Nom.) (H)	Fig. No.	List Price
5AV17	¼ TRACK STEREO R/P & ERASE*	3.75	3600	—12	.020	0.25	80	1.8	—12	.5	7	32.00
7B17	½ TRACK STEREO R/P	7.5	5150	—12	.023	1.0	80	2.15	—11	.75	5	25.75
5B20LS	½ TRACK STEREO R/P	7.5	3520	—12	.026	1.2	80	1.8	—13	.5	8	27.00
10B20LS	½ TRACK STEREO R/P	7.5	7034	—12	.02	1.0	80	2.5	—13	1.0	8	27.00
2FM20-500	½ TRACK MONO R/P & ERASE*	7.5	1650	—12	—	—	—	2.15	—10			18.00
3F20-101	½ TRACK STEREO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	11	29.50
3F20-105	½ TRACK STEREO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	13	29.50
3FM20-104	½ TRACK MONO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	15.25
3FM20-108	½ TRACK MONO R/P	7.5	2000	—12	.043	1.0	62	1.8	—13	.3	12	15.25
3FM20-502	½ TRACK MONO R/P & ERASE*	7.5	2000	—12	—	—	—	2.7	—13	.3		30.00
3L20-101	½ TRACK MONO R/P	7.5	2460	—12	.03	1.25	50	1.64	—13	.35	6	13.50
7L17	½ TRACK MONO R/P	7.5	5150	—12	.023	1.0	80	2.15	—11	.75	6	13.50
7L17-108		SAME AS 7L17 EXCEPT MOUNTS OPPOSITE SIDE										
10L17-104	½ TRACK MONO R/P	7.5	7030	—12	.020	1.0	80	2.6	—12	1.0	6	13.50
5TRB	COMB. ½ TR. MONO R/P & ERASE*	7.5	1450	+	.05	1.5	50	+	+	+	14	16.50
5Q17	¼ TRACK STEREO R/P	7.5	3340	—12	.025	.5	80	1.9	— 8.0	.5	1	28.50
5Q17-105	¼ TRACK STEREO R/P	IDENTICAL TO 5Q17 (ABOVE) EXCEPT MOUNTING LUGS ON 5Q17-105 ON OPPOSITE SIDE										
5QT17	¼ TRACK STEREO R/P	5QT17 AND 5QT17-105 HEADS IDENTICAL TO 5Q17 AND 5Q17-105 EXCEPT CORNERS ON THE QT HEADS ARE CHAMFERED TO PERMIT EASY LOADING OF TAPE CARTRIDGES. "QT" HEADS CAN BE USED IN PLACE OF "Q" HEADS.										
5QT17-105	¼ TRACK STEREO R/P											
7H17	½ TRACK MONO R/P	7.5	5150	—12	.042	.8	80	3.0	— 8.0	0.75	9	13.50

NOTE: All series L (single track), B (two track) and Q (four track) are electrically and mechanically interchangeable for easy stereo conversion.
9QE3 erase head is ¼ track replacement for 5S1 and 5SS1 heads.
*ERASE AND RECORD SPECS IN SEPARATE CHARTS.

SPECIFICATIONS — ERASE HEADS

Part No.	Type (Erase)	Tape Speed	Imped. @ Erase Freq.	Erase Freq. (kc)	Erase Current (MA)	Erasure (DB) (200 cy. sat.)	Induct. (Nom.) (mh)	Fig. No.	List Price
5AV17	*	3.75	2,800	80	15	60	11.0	7	*
7EM12A	½ TRACK MONO	7.5	2,200	80	30	50	5.4	4	10.50
2FM20-500	*	7.5	1,750	62	17	55	5.0		*
3FM20-502	*	7.5	1,750	62	17	55	5.0		*
40EM12	½ TRACK MONO	7.5	10,000	52	10	50	40.0	4	10.50
9QE3	¼ TRACK STEREO	7.5	2,500	75	12.5	60	9.0	10	13.50
5S1	½ TRACK MONO	7.5	1,750	62	17	55	5.0	2	10.50
5SS1	½ TRACK STEREO	7.5	1,750	62	17	55	5.0	3	14.25
5TRB	*	7.5	780	25	27	50	+	14	*
5S1-103	½ TRACK MONO	IDENTICAL TO 5S1 EXCEPT MOUNTS FROM OPPOSITE SIDE							

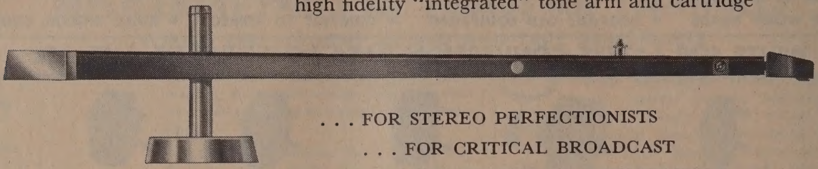
ROBINS M/M TAPE HEAD REPLACEMENT GUIDE

A complete cross reference and replacement guide book with installation instructions, information on stereo conversion and how heads are made. 16 pages with illustrated specs and diagrams.

#RMM-4. List 35c

new... improved *Shure studio* SERIES M222-M226 Stereo Dynetic

high fidelity "integrated" tone arm and cartridge



. . . FOR STEREO PERFECTIONISTS
. . . FOR CRITICAL BROADCAST
AND RECORDING APPLICATIONS

NOW! Improved Performance.

The overwhelming first choice of perfectionists who appreciate the full importance of "integrated" tone-arm and cartridge to optimum stereo performance. *Tracks at incredibly light ¾ to 1.5 grams—with unparalleled fidelity . . .* absolutely minimizes record wear, and CANNOT scratch records! We urge you to make listening tests of this unit before buying any stereo cartridge or arm—you'll hear the difference.

The Studio Stereo Dynetic has a special advantage for those music lovers who like to "index". The cartridge stylus is placed far in front, making it extremely easy for you to position the stylus on the exact spot of the record you want to play. Includes stereo cable.

Still another feature of the Studio Stereo Dynetic is the fact that the stylus can be changed in the home without tools—within ten seconds.

SPECIFICATIONS	STEREOPHONIC M226, M222	MONOPHONIC M16; M12
Tracking Force	1½-2½ grams	1-2 grams
Frequency Response	20-20,000 cps± 2½ db	20-20,000± 2 db
Channel Separation	over 22.5 db at 1000 cps	*
Sensitivity: Output at 1000 cps	6 mv per channel (On Westrex /4 Test Record)	14 mv for 10 cms/sec
Recommended load impedance	47,000 ohms	10,000 ohms
Compliance: (Vertical, *Lateral)	22 x 10^{-6} cms/dyne	8 x 10^{-6} cms/dyne
Inductance	600 millihenrys	130 millihenrys
D.C. Resistance	750 ohms	180 ohms
Stylus	.0005" diamond	.0007" diamond

* Applies to stereo units only.

Model M226—Studio Stereo Dynetic for records up to 16" including M21 cartridge with .0005" Diamond Stylus — Audiophile Net: $89.50

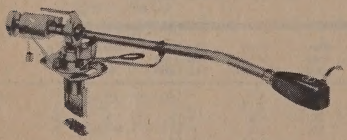
Model M272—Studio Stereo Dynetic for records up to 12" including M21 cartridge with .0005" Diamond Stylus — Audiophile Net: $89.50

Model M22—Studio Stereo Dynetic Cartridge with .0005" Diamond Stylus. — Audiophile Net: $49.50

Model N21—Replacement Stereophonic stylus assembly for Model M21, M216, M212; .0007" Diamond tip. — Audiophile Net: $24.75

Model N22—stylus improves performance, lowers tracking force for M212 and M216 arms. — Audiophile Net $24.75

Model A29R—Adapter Plate for use with Model M12 or M212 for mounting purposes with the Rek-O-Kut turntable. — Audiophile Net $ 2.40



NOW! THE ULTIMATE IN INDEPENDENT TONE ARMS

SHURE SME

MODELS 3009-3012 SERIES 2

The most remarkable independent tone arm ever made — by any standard. Brings out the very best from any high quality cartridge, mono or stereo. Virtually frictionless bearings, both horizontal and vertical . . . pivot friction at stylus tip measures less than .020 gram! Knife edge bearings are absolutely protected against dust. Manufactured to incredibly close tolerances for Shure by skilled British craftsmen. Unprecedented combination of adjustments: height, overhang, length (up to 1"!), tracking force (so accurate no pressure gauge is required, ever) . . . even bias (to counteract tendency of arm offset to pull toward center of record and "favor" one side of stereo groove over the other.) The result is an independent tone arm that carries the cartridge over the record surface with rock-like steadiness and precision — literally eliminates wear on the record and stylus. Lever operates arm through hydraulic damper. No resonances within audible spectrum! Complete with shell, alignment protractor, sockets.

Model 3009 Series 2 (for 12" records)	$89.50 net
Model 3012 Series 2 (for 16" records)	$99.50 net

NOTE: WHEN REPLACING STYLUS, use only genuine Shure replacement stylus with the certification, "Precision Made by Shure." Inferior imitations can seriously downgrade the performance of the cartridge.

See Section 1320 for additional Shure Products.

SHURE

NEW!

world acclaimed

Stereo Dynetic

CARTRIDGE SERIES — MODEL M33-5 — MODEL M33-7 — MODEL M77

MODELS M33
Magnificent cartridges for the very finest sound systems. Extraordinarily compliant stylus permits ultra-light tracking pressures with flawless tracking, outstanding channel separation, highest fidelity.

MODEL M33-5—for professional tone arms
Professional Stereo Dynetic Cartridge including N33-5 stylus assembly (Red) with .0005″ diamond. Tracks at ¾ to 1.5 grams.
Audiophile Net Price $36.50

MODEL M33-7—for automatic turntables
Professional Stereo Dynetic Cartridge including N33-7 stylus assembly (White) with .0007″ diamond. Tracks at 1.5 to 3 grams.
Audiophile Net Price $36.50

MODEL N33-5
Stereo Stylus Assembly for M33-5 (also fits M33-7). Features .0005″ diamond tip. (Red plastic grip)
Audiophile Net Price $19.50

MODEL N33-7
Stereo Stylus Assembly for M33-7 (also fits M33-5). Includes .0007″ diamond tip. (White plastic grip)
Audiophile Net Price $19.50

MODEL M77
An excellent, moderately-priced cartridge for use with tone arms that track at 3 to 6 grams. Higher output, superior hum shielding permits use of 2-pole motor and operation of amplifier at low gain. N77 .0007″ diamond included.
Audiophile Net Price $27.50

MODEL N77
Stereo Stylus Assembly for M77 Stereo Dynetic Cartridge. Includes .0007″ diamond tip. (Black plastic grip)
Audiophile Net Price $10.50

MODEL N78
Monophonic Stylus Assembly for M33 or M77 cartridges. .0027″ diamond tip; 30-15000 cps; Output 11.5 mv; Compliance 6 x 10^{-6} cm/dyne. 4 to 6 grams tracking.
Audiophile Net Price $8.55

SPECIFICATIONS	M33-5	M33-7	M77
Channel Separation (at 1000 cps)	Over 22.5 db	Over 22.5 db	More than 20.0 db
Frequency Response	20 to 20,000 cps	20 to 20,000 cps	20 to 17,000 cps
Output Voltage (per channel, at 100 cps)	6 mv	6 mv	9 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms	47,000 ohms
Compliance; Vertical & Lateral	22.0 x 10^{-6} cent. per dyne	20.0 x 10^{-6} cent. per dyne	6.0 x 10^{-6} cent. per dyne
Tracking Force	¾ to 1.5 grams	1.5 to 3 grams	4 to 6 grams
Inductance	600 millihenrys	600 millihenrys	600 millihenrys
D.C. Resistance	750 ohms	750 ohms	750 ohms
Terminals	4 terminals. (Furnished with adapter for 3-terminal stereo or monaural use.)		
Mounting Centers	Fits Standard ½″		
Stylus (Diamond)	.0005″	.0007″	.0007″

SHURE

Stereo Dynetic

CARTRIDGE SERIES—MODEL M3D—MODEL M3/N21D—MODEL M7D—MODEL M7/N21D

MODEL M3D

The M3D Stereo Professional Dynetic is the premium stereo phono cartridge. It reflects quality control of a high order, based on critical tolerances in all performance characteristics.

MODEL M3D WTH N21D TUBULAR STYLUS

New, higher compliance and frequency response cartridge-stylus combination designed for the perfectionist. For use with top quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

MODEL M7D

The M7D Stereo Custom Dynetic is designed for the economy-conscious consumer who wants a high quality Stereo Phono Cartridge at moderate cost.

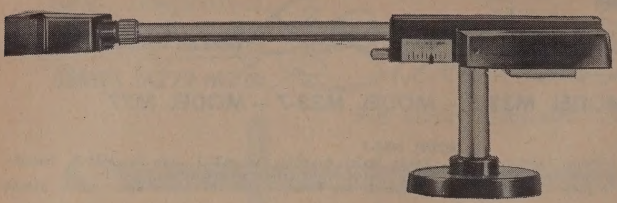
MODEL M7D WITH N21D TUBULAR STYLUS

Top-rated cartridge-stylus assembly. Extraordinarily high compliance and response at modest price. For use in finest quality independent tone arms or record changers capable of tracking at 2½ grams maximum.

SPECIFICATIONS	M3D	M3/N21D	M7D	M7/N21D
Channel Separation at (1000 cps)	Over 20 db	Over 20 db	Over 20 db	Over 20 db
Frequency Response	20 to 15,000 cps (±3 db)	20 to 20,000 cps (±2½ db)	20 to 15,000 cps	20 to 20,000 cps
Output Voltage (per channel, at 1000 cps)	5 mv	4 mv	5 mv	4 mv
Recommended Load Impedance (per channel)	47,000 ohms	47,000 ohms	47,000 ohms	47,000 ohms
Complance; Vertical & Lateral	4.0 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne	3.5 x 10^{-6} cent. per dyne	9.0 x 10^{-6} cent. per dyne
Tracking force	3 to 6 grams	2 gms. optimum (2½ max.)	4 to 7 grams	2 gms. optimum (2½ max.)
Inductance	420 millihenrys	420 millihenrys	420 millihenrys	420 millihenrys
D. C. Resistance	280 ohms	280 ohms	280 ohms	280 ohms
Terminals	4 terminals. Furnished with 3-terminal			
Mounting Centers	adapter. Fits both ½″ and 7/16″			
Audiophile Net Price	$45.00	$47.25	$24.00	$36.75
Replacement Stylus Only:	$22.50	$24.75	$12.00	$24.75

See Section 1320 for additional Shure Products.

SHURE HIGH FIDELITY STEREO PRODUCTS



PROFESSIONAL TONE ARM

for use with any quality cartridge, stereo or monophonic

The Shure M232 (and M236) Professional Tone Arm is a premium-quality independent tone arm that accepts practically all cartridges (Stereo and Monophonic) and permits their maximum potential performance characteristics to be utilized. Features precision ball bearings at all pivot points, plug-in head with positive-alignment lock, variable height adjustment. Pays for itself in reduced record wear and damage. Ingeniously simple and unprecedented combination of adjustments gives instant, positive, VISUAL control over balance (without altering overall arm length), tracking force (0-8 grams), and overhang. Floats the needle over the record . . . smoothly — without "drag" — without "skip" — without unnecessary (and ruinous) force. Furnished with cable having plug on each end to simplify and speed up installation (eliminates soldering).

SPECIFICATIONS: MODEL M232 — M236 PROFESSIONAL TONE ARMS

NET PRICE: TONE ARM M232, for 12" records	$29.95
TONE ARM M236, for 16" records	$31.95
Model A23H extra Plug-In Head	$ 2.40

FURNISHED ACCESSORIES: Arm rest, mounting template, mounting hardware, 4 ft. cable assembly.

DIMENSIONS: M232 — 12 11/16" long, M236 — 14½" long

MONOPHONIC PROFESSIONAL

Dynetic

STEREO PROFESSIONAL MONOPHONIC

For those who prefer monophonic cartridges with monophonic records, Shure offers the outstanding Model M5D Professional Dynetic.

SPECIFICATIONS:

Frequency Response: 20 to 20,000 cps.

Sensitivity: Output at 1,000 cycles—21 millivolts for 10 cms/sec.

Recommended Load Impedance: 27,000 ohms.

Compliance: 3×10^{-6} centimeters per dyne.

Tracking Force: 2 to 6 grams.

Inductance. 350 millihenrys

D. C. Resistance: 440 ohms.

Model M5D—has .001" diamond for use with micro-groove records, 33⅓, 45 r.p.m.

Model M6S—has .0027" sapphire for use with standard records, 78 r.p.m.

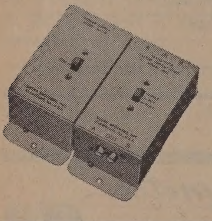
Model M5D Monophonic Professional Dynetic Phono Cartridge for LP records including N5D .001" diamond stylus. Audiophile Net: **$27.50.**

Model M6S Monophonic Professional Dynetic Phono Cartridge for 78 rpm records including N6S .0027" sapphire stylus. Audiophile Net: **$15.00**

Model N5D Monophonic Professional Dynetic stylus with .001" diamond tip. Audiophile Net: **$16.50**

Model N6S Monophonic Professional Dynetic stylus with .0027" sapphire tip. Audiophile Net: **$5.00**

TRANSISTORIZED STEREO PREAMPLIFIER MODEL M61



Compact, rugged, transistorized unit with choice of AC line or battery power supply. Slide-selector switch offers three equalization inputs.

(1) "phono" for conversion of ceramic phono inputs for use with magnetic cartridges;

(2) "tape" for equalization of tape playback directly from tape head through hi-fi control preamplifier; and

(3) "microphone" for flat amplification wherever a boost in microphone output is required.

SPECIFICATIONS:

Net Price: Model M61-1 (for 105-125 v. AC line)	$27.50
Model M61-3 (30 v. Battery, included)	$26.50

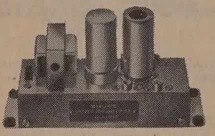
Gain: Phono: 45 db (5 mv input produces .88 v. output)
Tape: 40 db (2 mv input produces .20 v. output)
Microphone: 63 db (2 mv input produces 2.8 v. output)
Frequency Response: ±2.5 db of each function's nominal characteristic from 25 cps to 15,000 cps.

Equalization: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement most magnetic cartridges).
Tape: NARTB equalization.
Microphone: Flat response. ±3 db 20 to 15,000 cps.

Input Impedance: Phono and tape: approx. 50,000 ohms at 1,000 cps.
Microphone: Approx. 20,000 ohms.

Output Impedance: Low output impedance (less than 1,000 ohms at 10,000 cps for phono and tape functions).

Channel Separation: At least 50 db at 1,000 cps. Channel Balance: 2 db at 1,000 cps (for phono and tape functions). Hum Noise: 50 db below rated output. Overall Dimensions: Length 5"; Width 5¼"; Height 2".



STEREO LINE PRE-AMPLIFIER MODEL M60

High quality, low noise, stereo line pre-amplifier providing additional gain for use with magnetic stereo phono cartridges and microphones.

Additional gain also can be provided from tape recorder outputs on standard pre-amplifier to improve quality of recordings. Provides flat output response from 30 to 80,000 cps ± ½ db. Low output impedance permits use of longer cable lengths (up to 50 feet) without loss of gain or deterioration in response when used with magnetic phono cartridges, microphones, etc.

SPECIFICATIONS:

GAIN: 17 db or 7 to 1 (5 mv. input gives 35 mv. output). Circuit change information provided to give one-third and two-thirds output.

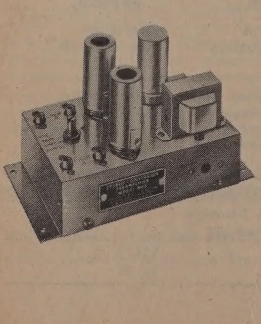
IMPEDANCE: Input—47,000 ohms—Output—5,000 ohms.

HUM & NOISE: 64 db below rated output.

DIMENSIONS: 5⅞" x 2⅛" x 3⅜".

NET WEIGHT: 2 lbs. NET PRICE: $19.95

STEREO CONVERSION PRE-AMPLIFIER MODEL M65



Provides equalization with amplification for conversion of ceramic inputs to magnetic inputs. Gives smoother, more natural sound. As an added feature, 60 db of amplification without equalization is also provided. Permits the use of a magnetic cartridge with "package" consoles supplied with a ceramic cartridge. Also provides pre-amplification and equalization functions for other inputs (phono, tape, microphone).

SPECIFICATIONS:

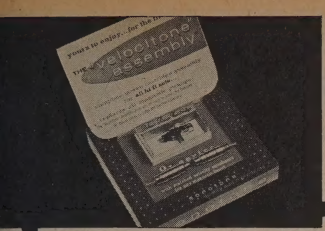
GAIN: Phono: 44 db (5 mv input produces .76 v. output).
Special: 45 db (5 mv input produces .88 v. output).
Tape: 40 db (5 mv input produces .50 v. output).
Microphone: 63 db (2 mv input produces 2.8 v. output)
Frequency Response: ± 1.5 db of each function's nominal characteristic from 25 cps to 15,000 cps. EQUALIZATION: Phono: RIAA equalization (with additional treble boost of approximately 3 db at 10,000 cps to complement the high frequency characteristic of most magnetic cartridges).
Special: A Shure-developed magnetic phono equalization circuit for use with high impedance amplifiers normally used with ceramic phono cartridges.
Tape: NARTB equalization.
Microphone: Flat response. ± 3 db from 20 to 12,000 cps.

INPUT IMPEDANCE: 47,000 ohms (all functions).

OUTPUT IMPEDANCE: low output impedance (less than 5000 ohms at 10,000 cps for phono, special and tape functions). CHANNEL SEPARATION: 40 db. CHANNEL BALANCE: ± 1 db at 1000 cps. HUM-NOISE: 50 db below rated output. OVERALL DIMENSIONS: Length 6⅞"; Width 3 15/16; Height 3¼".

NET PRICE: **$24.00**

See Section 1320 for additional Shure Products.



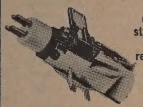
SONOTONE
REPLACEMENT CARTRIDGES
designed to bring out the best in record changers, turntables and phonographs

'VELOCITONE MARK II'
Deluxe ceramic stereo/mono cartridge, widely praised by hi-fi experts and audiophile-accepted. Provided with matched equalizers (no tools required) to feed directly into the "magnetic" phono input of any stereo preamp. Universal terminal plug virtually eliminates soldering or splicing, for fast, easy replacement.

SPECIFICATIONS (with equalizers):
Response: 20 to 20,000 cps (± ½ db 20 to 6,000 cps; ± 1 db to 17,000 cps)
Output voltage: 11 millivolts/channel
Compliance: 5.5×10^{-6} cm/dyne
Channel separation: 30 db
Recommended load: 47 k to 100 k
Tracking force: 2-4 grams for professional arms; 3-5 grams for changers

9TAS-V dual sapphire, net **$8.85**
9TASD-V diamond/ sapphire, net **$11.55**
9TAD77-V dual diamond, net **$13.35**

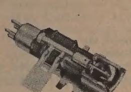
MODEL '9TA'
Ceramic stereo/mono cartridge features low stylus mass and high compliance for flawless, hum-free reproduction of stereo and mono records. New universal tonearm terminal plug virtually eliminates soldering or splicing tonearm wires for fast, easy replacement.



SPECIFICATIONS:
Response: 20 to 20,000 cps (± 1 db 20 to 17,000 cps)
Output voltage: 0.4 volt
Compliance: 5.5×10^{-6} cm/dyne
Channel separation: 30 db
Recommended load: 1 to 5 megohms for ceramic input
Tracking force: 2-4 grams for professional arms; 3-5 grams for changers

9TA-S dual sapphire, net **$5.01**
9TA-S-77 dual sapphire, net **$5.01**
9TA-D77 dual diamond, net **$9.60**
9TA-SD dual diamond/sapphire, net **$7.80**

MODEL '916TA'
Low-cost stereo cartridge employing some of the basic design features of the audiophile-accepted "Velocitone Mark II." Features new universal tonearm terminal plug for fast, easy replacement.



SPECIFICATIONS:
Response: 20 to 20,000 cps (± 2 db 20 to 15,000 cps)
Output voltage: 0.42 volts
Compliance: 4.5×10^{-6} cm/dyne
Channel separation: 28 db
Recommended load: 2.0 megohms
Tracking force: 3-5 grams professional arms; 4-6 grams record changers

916TA-S dual sapphire, net **$4.29**
916TA-S77 dual sapphire, net **$4.29**
916TA-SD diamond/sapphire, net **$6.75**

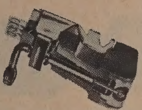
MODELS '16TA' AND '18TA' CERAMIC STEREO/MONO CARTRIDGES
Remarkable quality at a realistic price. Out-performs cartridges costing many dollars more.

'16TA' SPECIFICATIONS
Response: 20 to 12,000 cps (± 1 db, 20 to 10,000 cps)
Output voltage: 0.65 volt
Compliance: 2.4×10^{-6} cm/dyne
Channel separation: 25 db
Recommended load: 2.0 megohms
Tracking force: 4-6 grams for professional arms; 5-7 grams for changers

'18TA' SPECIFICATIONS:
Specifications for the 18TA same as 16TA except:
Output voltage: 1.0 volts
Compliance: 1.5×10^{-6} cm/dyne

16TA-S & 18TA-S, net **$3.60**
16TAS-77 & 18TAS-77 dual sapphire, net **$3.60**
16TA-SD & 18TA-SD diamond/sapphire, net **$5.85**

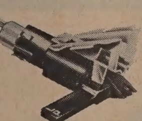
MODEL '8TA' CERAMIC STEREO/MONO TURNOVER CARTRIDGE
More than 30 leading manufacturers protect the quality of their hi-fi stereo phonographs with this cartridge. Unsurpassed frequency response, compliance, separation and rumble suppression. Free from hum.



SPECIFICATIONS:
Response: 20 to 20,000 cps (± 2.5 db, 20 to 15,000 cps)
Output voltage: 0.3 volt
Compliance: 3.0×10^{-6} cm/dyne
Channel separation: 20 db
Recommended load: 1-5 megohms
Tracking force: 4.6 grams for changers; 3-5 grams for professional arms

8TA4-S dual sapphire, net **$5.25**
8TA4-S77 dual sapphire, net **$5.25**
8TA4-SD diamond/sapphire, net **$7.80**

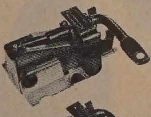
MODEL '10T2' CERAMIC STEREO/MONO CARTRIDGE
Excellent for those converting to stereo or replacing old stereo cartridges. Easy conversion with package which includes "fuse clip" mounting bracket and "jack-in" terminal plug with electrical contacts.



SPECIFICATIONS:
Response: 20 to 15,000 cycles ± 2.5 db
Output voltage: 0.5 volt
Compliance: 1.5×10^{-6} cm/dyne
Channel separation: 18 db
Recommended load: 1-5 megohms
Tracking force: 5-7 grams

10T2-S dual sapphire, net **$5.82**
10T2-S77 dual sapphire, net **$5.82**
10T2-SD77 diamond/sapphire, net **$7.80**
10T2-SD diamond/sapphire, net **$7.80**

MODEL '2TA'
Ceramic mono cartridge. Plays stereo records. An improved version of the famous Sonotone "2T series." New needle assembly, plus increased compliance and lower tracking force, make it ideal for both stereo and mono records.



SPECIFICATIONS:
Response: 20 to 20,000 cycles (flat to 12,000)
Output voltage: 1.0 volts
Compliance: 2.0×10^{-6} cm/dyne
Recommended load: 2-3 megohms
Tracking force: 6 grams

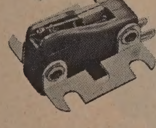
2TA-S dual sapphire, net **$3.39**
*2TA-LB-S dual sapphire, net **$3.39**
*2TA-LB-SD diamond/sapphire, net **$5.82**
2TA-SD diamond/sapphire, net **$5.82**

MODEL '3T'
Ceramic monophonic cartridge. Original equipment in many top quality phonographs. Available with or without brackets.

SPECIFICATIONS:
Response: 20 to 20,000 cps (flat to 15,000)
Output voltage: 0.5 volt
Compliance: 2.0×10^{-6} (minimum)
Recommended load: 2-3 megohms
Tracking force: 4-6 grams

*3T-LB-S & 3T-S dual sapphire, net **$4.65**
*3T-LB-SD & 3T-SD diamond/sapphire, net **$7.44**

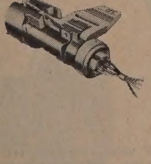
MODEL '1P'
Monophonic single-needle ceramic cartridge. Selected by leading high fidelity phonograph manufacturers to protect quality of their products.



SPECIFICATIONS:
Response: 20 to 20,000 cps (flat to 12,000)
Output voltage: 1.0 volt
Compliance: 1.0×10^{-6} cm/dyne
Recommended load: 1-5 megohms
Tracking force: 8-10 grams

*1P-LB-1S & 1P-1S sapphire, net **$2.91**
*1P-LB-2S & 1P-2S sapphire, net **$2.91**
*1P-LB-3S & 1P-3S sapphire, net **$2.91**
*1P-LB-1D & 1P-1D diamond, net **$5.70**
*1P-LB-3D & 1P-3D diamond, net **$5.70**

MODEL '12T'
Budget-priced stereo crystal cartridge. Improves the quality of stereo phonographs . . . and at such a low cost. Available in two versions — the "12THR" with high voltage output and the "12TLA" with low voltage output.



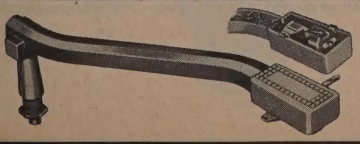
SPECIFICATIONS (Model 12THR):
Response: 20 to 15,000 cps (± 2 db to 10,000 cps)
Output voltage: 2.5 volts
Compliance: 1.4×10^{-6} cm/dyne in all directions of stylus motion
Channel separation: 20 db
Recommended load: ½ to 5 megohms
Tracking force: 9 to 11 grams

12THR-S dual sapphire, net **$3.51**
12THR-S77 dual sapphire, net **$3.51**

SPECIFICATIONS (Model 12TLA):
Response: 20 to 15,000 cps (± 2 db to 10,000 cps)
Output voltage: 1.5 volts
Compliance: 2.2×10^{-6} cm/dyne
Channel separation: 23 db
Recommended load: ½ to 5 megohms
Tracking force: 6-8 grams

12TLA-S dual sapphire, net **$3.51**
12TLA-S77 dual sapphire, net **$3.51**

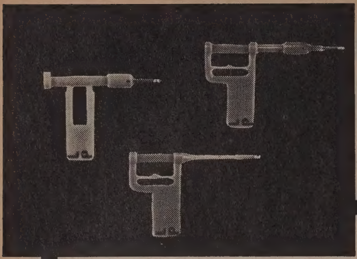
*LB denotes less bracket for very slim tonearms.



T1 SERIES TONEARM ASSEMBLY. Complete with "12T" crystal stereo cartridge as a single integrated unit. Provides remarkable performance from stereo and mono records at a remarkably low price. Each unit comes with plated fingerlift, arm rest and 21" leads for easy installation and compression spring mounting post. Available in neutral gray, brown and black for any type replacement.

(Complete with '12THR' Crystal Cartridge—High Output Voltage)
T81-12THR-S gray........net $4.47
T81-12THR-S77 gray......net $4.47
T11-12THR-S brown .... net $4.47
T11-12THR-S77 brown net $4.47
T01-12THR-S black....... net $4.47
T01-12THR-S77 black....net $4.47

(Complete with '12TLA' Crystal Cartridge — Low Output Voltage
T81-12TLA-S gray.........net $4.47
T81-12TLA-S77 gray......net $4.47
T11-12TLA-S brown........net $4.47
T11-12TLA-S77 brown....net $4.47
T01-12TLA-S black.........net $4.47
T01-12TLA-S77 black....net $4.47



SONOTONE
REPLACEMENT NEEDLES

CERAMIC-CRYSTAL STEREOPHONIC NEEDLES

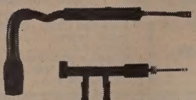


Fig. A

N-8TA-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-8TA-S77 dual 0.7-mil saph., net **$1.50.**
N-8TA-SD 0.7-mil dia., 3-mil saph., net **$3.30.**
Fig. A

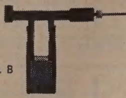


Fig. B

N-9T-S 0.7-mil saph., 3-mil saph., net **$1.65.**
N-9T-S77 dual 0.7-mil saph., net **$1.65.**
N-9T-SD 0.7-mil dia., 3-mil saph., net **$3.45.**
N-9T-D77 dual 0.7-mil dia., net **$5.55.**
Fig. B

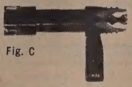


Fig. C

N-10T2-S less mounting bracket & terminal socket, 0.7-mil saph., 3-mil saph., net **$5.82.**
N-10T2-S77 less mounting bracket & terminal socket, dual 0.7-mil saph., net **$5.82.**
N-10T2-SD less mounting bracket & terminal socket, 0.7-mil dia., 3-mil saph., net **$7.80.**
N-10T2-SD77 less mounting bracket & terminal socket, 0.7-mil dia., 0.7-mil saph., net **$7.80.**
Fig.

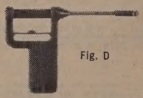


Fig. D

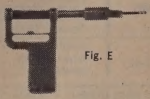


Fig. E

N-12THR-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-12THR-S77 dual 0.7-mil saph., net **$1.50.**
Fig. D

N-12TLA-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-12TLA-S77 dual 0.7-mil saph., net **$1.50.**
Fig. E

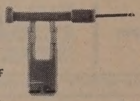


Fig. F

N-16T-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-16T-S77 dual 0.7-mil saph., net **$1.50.**
N-16T-SD 0.7-mil dia., 3-mil saph., net **$3.30.**
****N-9916-S** 0.7-mil saph., 3-mil saph., net **$1.50.**
****N-9916-S77 dual** 0.7-mil saph., net **$1.50.**
****N-9916-SD** 0.7-mil dia., 3-mil saph., net **$3.30.**
Fig. F

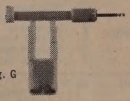


Fig. G

N-18T-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-18T-S77 dual 0.7-mil saph., net **$1.50.**
N-18T-SD 0.7-mil dia., 3-mil saph., net **$3.30.**
Fig. G

****Universal needle for 9T, 9TA, 9TAV, 16T, 16TA and 916 series**

CERAMIC-CRYSTAL MONOPHONIC NEEDLES

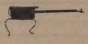


Fig. H

N-1P-1S 1-mil saph. for 1P cartridge, net **$1.35.**
N-1P-2S 2-mil saph. for 1P cartridge, net **$1.35.**
N-1P-3S 3-mil saph. for 1P cartridge, net **$1.35.**
N-1P-1D 1-mil dia. for 1P cartridge, net **$3.15.**
N-1P-3D 3-mil dia. for 1P cartridge, net **$3.15.**
N-3P-1S 1-mil saph. for 3P cartridge, net **$1.35.**
N-3P-3S 3-mil saph. for 3P cartridge, net **$1.35.**
N-3P-1D 1-mil dia. for 3P cartridge, net **$3.15.**
N-3P-3D 3-mil dia. for 3P cartridge, net **$3.15.**
Fig. H

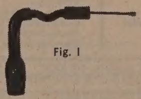


Fig. I

N-2T-S 1-mil, 3-mil saph. for 2T cartridge, net **$1.50.**
N-2T-SD 1-mil dia., 3-mil saph. for 2T cartridge, net **$3.30.**
N-2TA-S 0.7-mil saph., 3-mil saph., net **$1.50.**
N-2TA-SD 0.7-mil dia., 3-mil saph., net **$3.30.**
Fig. I

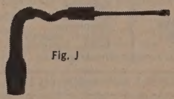
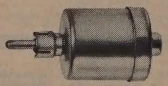


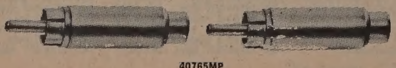
Fig. J

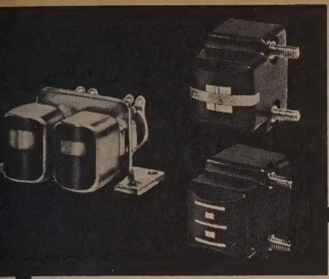
N-3T-S 1-mil, 3-mil saph. for 3T cartridge, net **$1.50.**
N-3T-SD 1-mil dia., 3-mil saph. for 3T cartridge, net **$3.30.**
Fig. J

CERAMIC PHONO CARTRIDGE EQUALIZERS FOR MAGNETIC INPUT


40592

40592 (single unit) magnetic input equalizer — for "2" and "3" series — single unit required, net $2.40
40592MP (matched pair) magnetic input equalizer — for "8" series — matched pair required, net $3.60.
40765MP (matched pair) magnetic input equalizer — for "9" series only — matched pair required, net $3
40765 (single unit) magnetic input equalizer — for "9" series only — single unit replacement, net $2.40.


40765MP



SONOTONE

MONO & STEREO TAPE HEADS

selected as original equipment by leading tape recorder manufacturers... ideal for replacement or stereo conversion

"RH-4 SERIES" RECORD/PLAYBACK/ERASE HEADS

Designed for the new 4-track stereo tape systems. Precise manufacture and holding to close tolerances assures top quality performance. Head dimensions and mounting system complies with the recent EIA standards proposal. Head provided with universal mounting stud insertion which allows for "off-or-on-center," left-right mounting stud protrusion. "EH-4 Series" available singly or with matching erase head. "RH-4 Series" direct Sonotone replacements in Telectro, Knight and Cousino.

"RH-2 SERIES" RECORD/PLAYBACK/ERASE HEADS

Head designed for monophonic half-track recording on 1/4" tape. Construction of head provides a high resolution gap of 120 micro-inches with accurately lapped located pole faces. Heads are of miniature size with 1/4" threaded rear mounted studs. Available singly or with matching erase head. Note: "RH-2" series used as original equipment in RCA, Steelman, Dictaphone and Code-A-Phone.

SPECIFICATIONS (record and play heads)

Model No.	Type	Tape Speed I.P.S.	Imped. @ 1 kc ohms	Audio Curr. MA	Rec. Level db below tape Sat.	Bias Curr. @ 65 kc MA	Output @ 1 kc mv	Frequency Response @ 10 kc	Net
RH-4A	1/4-Track Stereo	7½ 3¾	3000 3000	0.025 0.02	−12 −12	0.5 0.2	3.0 3.0	−5 −10	$17.10
RH-2A	1/2-Track Mono	7½ 3¾	6000 6000	0.025 0.02	−12 −12	0.6 0.6	3.0 3.0	−10 −15	6.00
RH-2B	1/2-Track Mono	7½ 3¾	1000 1000	0.04 0.04	−12 −12	0.7 0.7	1.0 1.0	−10 −15	6.00
RH-2C	1/2-Track Mono	7½ 3¾	2200 2200	0.03 0.03	−12 −12	0.6 0.6	1.0 1.0	−10 −15	6.00

SPECIFICATIONS (erase heads)

Model No.	Type	Tape Speed I.P.S.	Imped. at Erase Freq. Ohms	Erase Freq. kc	Erase Curr. MA	Erasure db 250 cycles Sat.	Net
EH-4A	4-Track Stereo (1/4-Track)	7½ & 3¾	2400	65	12.5	55	$8.10
EH-2A	1/2-Track Mono	7½ & 3¾	1750	65	30	55	5.40

The 'RH-2' and 'EH-2' series with mounting brackets (complete assemblies)

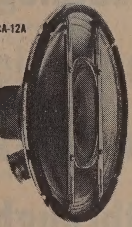
Model	Description	Replaces	Net
REH-1B	Mono-RH-2A and EH-2A on Bracket	Shure 815H	$13.80
REH-1C	Mono-RH-2B and EH-2A on Bracket	Shure 815	13.80
RH-2A7	Mono-RH-2A only on Bracket	Shure 816	7.20
RH-2B7	Mono-RH-2B only on Bracket	Shure 817	7.20

SONOTONE
RECHARGEABLE
FLASHLIGHT BATTERY

SONOTONE

RECHARGEABLE FLASHLIGHT BATTERY CARTRIDGES

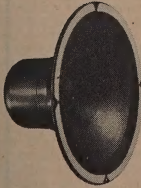
Long life for use with flashlights. Based on Sonotone's patented sintered-plate, nickel-cadmium battery cells now in use in U.S. space missiles and jet planes. Complete recharging unit incorporated in cartridge with the sealed cells. Fits any standard flashlight or other devices using two "D" cells end-to-end. Can be recharged by unscrewing cap and plugging the cartridge into any 110-120 AC outlet. Model FC-2, net $3.96. Model FC-3, net $8.50.



CA-12A

W-12

W-15



WR-8

T-64

SONOTONE LOUDSPEAKERS

Maybe you've seen such quality before, but never at such low prices. Five high quality speakers offering full frequency response, free of distortion to retain the full flavor of the original performance.

SONOTONE 'CA-12A' 12" COAXIAL LOUDSPEAKER, net $23.75

SPECIFICATIONS:

Frequency range: 35 to 20,000 cps
Resonant frequency: 50 cps
Crossover frequency: 2,000 cps
Power input: 40 watts continuous, 80 watts peak
Impedance: 16 ohms

SONOTONE 'W-12' 12" WOOFER FOR STEREO AND MULTI-SPEAKER MONO SYSTEMS, net $14.25

SPECIFICATIONS:

Frequency range: 35 to 7,000 cps
Resonant frequency: 50 cps
Power input: 40 watts continuous, 80 watts peak
Impedance: 16 ohms

SONOTONE 'W-15' 15" WOOFER FOR 2, 3, 4-WAY SYSTEMS, net $66.00

SPECIFICATIONS:

Frequency range: 20 to 7,000 cps
Resonant frequency: 30 cps
Power input: 25 watts continuous
Impedance: 16 ohms

SONOTONE 'WR-8' 8" SPEAKER BUDGET-PRICED FOR STEREO CONVERSION, net $10.13

SPECIFICATIONS:

Frequency range: 55 to 15,000 cps
Resonant frequency: 70 cps
Power input: 20 watts continuous average program, 40 watts peak
Impedance: 8 ohms

SONOTONE 'T-64' ELLIPTICAL CONE TWEETER, net $9.00

SPECIFICATIONS:

Frequency response: 2,000 to 20,000 cps
Power input: 20 watts continuous, 40 watts peak
Impedance: 16 ohms with suitable network

whatever electronic products
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RE Tandberg HIGH QUALITY GRAMPIAN DISC CUTTERHEADS & DP4 MICROPHONE

Grampian Feedback Cutterhead — Type B 1/D

echnical Data

requency Response—30 cycles to 15,000 ±2 db. Down no more than 4 db at 20 cycles and 20,000 cycles.

otal RMS Harmonic Distortion—Below 1% at 1000 cycles measured at 7 cm/sec. peak recorded velocity (NARTB standard level).

latching Impedance—16 ohms.

.C. Resistance — Main winding 3.7 ohms. Feedback winding 23 ohms.

nductance—Main winding 1.65 MH.

urns Ratio—Main winding to Feedback winding 2:5 to 1.

Audio Power Required — At 1000 cycles to record 7 cm/per sec. (2⅝ inches/sec.) peak recorded velocity (NARTB Standard Level) —1.26 watts or ±31 dbm.

tability—Change in level less than 1 db from 60°F. to 110°F.

tylus—Standard short shank ⅝ inches long.

amping—Dow-Corning Silicone Fluid.

lounting—Universal mounting for all lathes. Cover Plate tapped for mounting Fairchild Hot Thermo-Stylus.

*Frequency response measured with PFB-150WA Amplifier, balanced FM Modulator, and Buckman-Meyer Light Pattern.

LIST PRICE of Type B 1/D Feedback Cutterhead **$350.00**

Grampian Feedback Cutter System

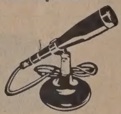
The Grampian cutterhead is incorporated in the Grampian Feedback Recording System which produces the highest quality disc recordings known to date. Complete in every detail of equalization, pre-emphasis, and level correction for all three speeds, this unique system comes ready for instant mounting, turn-on, and operation without the necessity of recalibration, experimentation, etc. To operate the system requires only the sound source on one end and the lathe on the other. Write for more information.

LIST PRICE Complete System........... **$1,265.00**

Grampian DP4 Dynamic Microphone

Professional type with 50 to 15,000 cycles frequency response. Complete with swivel stand for desk top use and 18 ft of cable.

LIST PRICE **$49.50**



Grampian Magnetic Cutterhead — Type C (Non-feedback)

Grampian Type C cutterheads are a development from our feedback cutterhead and have similar mechanical and electrical constants but are operated from a single winding. They may be used in conjunction with any high grade power amplifier.

Technical Data

SENSITIVITY—3 volts input for 1 cm/sec. at 78 R.P.M.

IMPEDANCE—15 ohms at 1000 c/s.

FREQUENCY RESPONSE — ±3 db — 50 c/s to 10 Kc. — 6 db at 20 Kc.

DISTORTION—2% at 1000 c/s.

WEIGHT—6½ ozs.

STYLUS HOLE—0.064" or 0.625" as required.

LIST PRICE **$225.00**

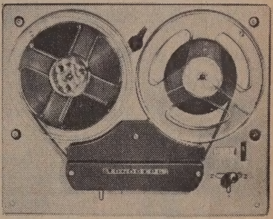
E Tandberg MODEL "65" STEREO PLAYBACK TAPE DECK

3 SPEED • 4 TRACK

proud new addition to the Tandberg family f precision crafted tape recording equipnent! This unusual playback deck offers uperb frequency response and is designed xclusively for installation into new or existng high fidelity systems with their own elecronics. Features include: playback head for & 4 track stereo and monaural tapes; starttop button; 2 outputs for plug-in preamplfiers; facilities for adding erase and record eads. Adaptable for language laboratory and ndustrial use. Up to 18 hours of listening leasure.

SPECIFICATIONS: 3 speeds; Frequency response — 7½ ips — 30-20,000 c. (±2 db., 30-16,000 c.) — 3¾ ips — 30-15,000 c. (±2 db., 40-11,000 c.) — 1⅞ ips — 50-7,000 c. (±2 db., 50-5,500 c.); **Power** — 110V, AC, 60 c., Hysteresis synchronous motor; **Operating lever knob** for playback, fast forward and fast reverse; **4 digit revolving counter; Complete mechanical drive;** 16 lbs.; 16" l. x 12" w. x 6" h. with mounting brackets.

MODEL 65 — $199.50



E Tandberg MODEL 6-44 STEREO TAPE DECK

3 SPEED • 4 TRACK RECORD AND PLAYBACK . . . RECORDS FM MULTIPLEX STEREOCASTS AT 3¾ AND 7½ ips DIRECT THROUGH SYSTEM VIA SPECIAL FM-MX FILTER INPUT . . . Has MICRO-SWITCH OPERATED AUTOMATIC TAPE STOP.

he Tandberg 6 Stereophonic Recorder/Reproucer provides full facilities for home, educaion, business, broadcast and professional ape recording use. Plays back 2 and 4 track tereo and monaural tapes. Exhibiting a wide ange of frequency response with high and ow input, it incorporates 3 separate heads, ach precisely gapped for record, playback nd erase. 4 separate pre-amplifiers are built-n; 2 each for record and playback. Also feaures military type print circuitry, D.C. tube eating, low noise precision resistors, and a lysteresis "Pabst" motor. May be incorported into present hi-fi systems or is a comlete portable stereo recorder. Operates via push-button controls with remote control ircuitry built-in and accessory foot pedal ptional. The unique pause control permits no lur, no click start or stop pick-up for record r playback. Also provides Sound-on-Sound imultaneous record or playback, direct monor, echo effects and full 4 track stereo and nonaural record or playback. Available in a hand rubbed cabinet with gun metal gray top panel and chrome trimmed black knobs. Measures 16" L x 12" W x 6" H. Total weight, 25 lbs.; with luggage carry case, 31 lbs.

BASIC SPECIFICATIONS — Playback Outputs 1.5V. cathode follower output.

FREQUENCY RESPONSE — 7½ ips ±2 db, 30 to 16000 c. 3¾ ips ±2 db, 40 to 11000 c., 1⅞ ips ±2 db, 50 to 5500 c.

WOW & FLUTTER—.1% RMS 7½ ips, .2% RMS 3¾ ips, .25% RMS 1⅞ ips.

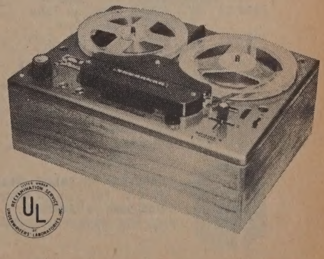
FOUR TRACK STACKED PLAYBACK HEAD — Gap Width . . . .00012"

FOUR TRACK STACKED RECORD HEAD — Gap Width . . . .0003"

CROSS TALK REJECTION — 60 db

POWER REQUIREMENTS—110 to 245 V., 60 c, 65 w. Substitute 60 c. pulley with 50 c. pulley for 50 c. operation.

LIST PRICE **$498.00**



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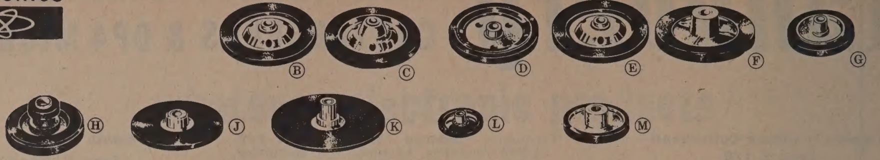
Walsco ELECTRONICS

PHONO DRIVES



(B) IDLER WHEEL—2⅛″ O.D. With bushing. Used on GE, Motorola, Philco, Webcor. Similar to Item No. 1440 but has .160″ tire thickness.
Cat. No. 1437 Net **$1.27**

(C) IDLER WHEEL—2⅛″ O.D. With bushing. Used on Columbia, GE, Motorola, Webcor.
Cat. No. 1438 Net **$1.27**

(D) IDLER WHEEL—2″ O.D. With bushing. For use on Webcor. Model 1134, 1136, 1151, 1121-1.
Cat. No. 1439 Net **$1.13**

(E) IDLER WHEEL—2⅛″ O.D. Comes with bushing. Similar to Item No. 1437 but has .140″ tire thickness at the outer edge. Use on Webcor Model 1135 record changer.
Cat. No. 1440 Net **$1.75**

(F) IDLER WHEEL—2⅛″ O.D. Used on most Webcor tape recorders.
Cat. No. 1441 Net **$2.00**

(G) IDLER WHEEL—1½″ O.D. With bushing. For use with Philco & Webcor.
Cat. No. 1443 Net **$ .73**

(H) MOLDED IDLER WHEEL — RCA 45 RPM. For use with RCA Series RP168 & RP190.
Cat. No. 1447 Net **$ .92**

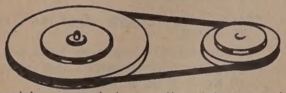
(J) IDLER WHEEL—2″ O.D. For use with Collaro record changers in the 520 Series.
Cat. No. 1448 Net **$2.00**

(K) IDLER WHEEL—2½″ O.D. For use with all Collaro record changers in the 54 and 530 Series.
Cat. No. 1449 Net **$2.00**

(L) IDLER WHEEL—1″ O.D. For use with Crescent. In Models of 550 Series.
Cat. No. 1450 Net **$1.10**

(M) IDLER WHEEL—1 9/16″ O.D. For use with VM Models 920 and 990, and Silvertone record changers.
Cat. No. 1452 Net **$ .77**

RECORDER DRIVE BELTS ROUND BLACK RUBBER DRIVES



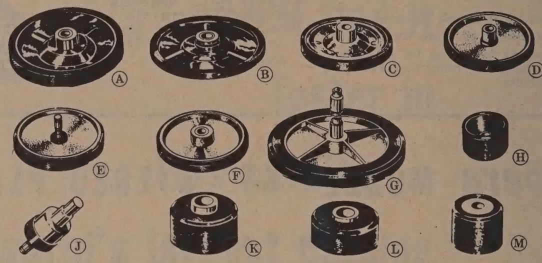
Precision ground to exacting tolerances for positive, non-slipping drive action. Will eliminate "wow" and "rumble".

Cat. No.	Insd. Circum.	Thickness	Used On	Dealer Net
1410-06	6.2″	.139″	Model VM-700, 701, 710, 711, 714 Tape Recorders	$ .45
1410-07	7.4″	.139″	RCA SRT 301, 401, 402, 403, Wilcox-Gay 3A10, 3A11	.52
1410-08	8.6″	.139″	Pentron, Crestwood & other tape recorders	.52
1410-10	10.6″	.139″	Crescent and other tape recorders	.58
1410-12	12.0″	.093″	Ampro and most Revere recorders	.58
1410-14	14.5″	.139″	Most Revere Recorders	1.07
1410-15	15.3″	.139″	Webcor Tape Recorders	1.07
1410-18	18.1″	.139″	Ampro Tape Recorders	1.42
1410-20	20.4″	.139″	Ampro Tape Recorders	1.75
1410-21	21.1″	.139″	Ampro, Gen. Ind., Webcor & other Tape Recorders	1.75
1410-50	10.75″	.085″	Webcor & Revere	.67
1410-51	11.3″	.063″	Viking Tape Recorders	1.17
	5.8″	.139″	Replaces Belts on	
1410-52	4.3″	.139″	Webcor 11 x 1736 pkg.	.95
1410-53	6.5″	.210″	Revere Tape Recorders	.52
1474	9.8″	.139″	Crestwood Tape Recorders	.62

Made of a tough, durable, specially treated fabric, to give years of service. Gives smooth, silent, non-slip action.

Cat. No.	Width	Inside Circum.	Used On	Net
1409-02	5/16″	17″	Pentron Tape Recorders	2.20
1409-03	5/16″	12¼″	Pentron, Crescent & other Tape Recorders	2.20
1409-04	5/16″	12 13/32″	VM 700, 701, 710, 711, 714 Tape Recorders	2.25
1409-05	3/16″	17″	Webcor Tape Recorders	2.25

CAPSTAN PRESSURE ROLLER—1″ O.D. For use on many Pentron tape recorders.
Cat. No. 1488 Net **$1.47**



(A) IDLER WHEEL—2½″ O.D. With bushing. Use on Gen. Ind., Seeburg, and other record players.
Cat. No. 1430 Net **$1.27**

(B) IDLER WHEEL—2½″ O.D. Used on Webcor Model 110 record players. Replaces Manufacturer's Part No. 45P1530.
Cat. No. 1431 Net **$1.38**

(C) IDLER WHEEL—2″ O.D. Use on Admiral, Columbia, Crescent, GE, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1432 Bushing I.D.—.215 Net **$ .73**
1487 Bushing I.D.—.183 Used on older Silvertone, etc. Net **$1.03**

(D) IDLER WHEEL—2″ O.D. With bushing. Use on VM and GE.
Cat. No. 1433 Net **$ .80**

(E) IDLER WHEEL—2″ O.D. With Shaft. Use on Admiral, Crescent, Motorola, Philco, RCA, Seeburg, Silvertone and VM.
Cat. No. 1434 Net **$ .88**

(F) IDLER WHEEL—2″ O.D. With bushing. Use on Milwaukee Stamping, Philco, Zenith and Westinghouse.
Cat. No. 1435 Net **$ .90**

(G) DRIVE WHEEL—3″ O.D. For use on Zenith Cobramatic Changers. Replaces Manufacturer's Part Nos. S-16922 and S-21754, which are inter-changeable.
Cat. No. 1473 Net **$3.58**

(H) DRIVE WHEEL—1″ O.D. For use on Crescent changers of the 550 series.
Cat. No. 1451 Net **$1.25**

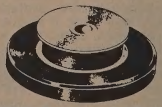
(J) 3-STEP DRIVE SLEEVE Used on Webcor Model 135, 136 and other late record changers.
Cat. No. 1469 Net **$1.17**

(K) PRESSURE ROLLER—⅞″ O.D. For use with certain Webcor tape recorders.
Cat. No. 1455 Net **$1.63**

(L) PRESSURE ROLLER—⅞″ O.D. For use on certain Webcor tape recorders, 220 series and 2614, 2615.
Cat. No. 1482 Net **$1.33**

(M) PRESSURE ROLLER—¾″ O.D. For use with VM Model 700, 701, 710, 711, 714 tape recorders.
Cat. No. 1458 Net **$1.20**

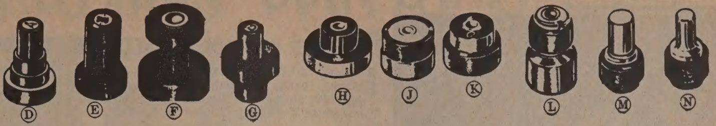
PRESSURE ROLLER—¾″ O.D. For certain RCA & Wilcox-Gay tape recorders.
Cat. No. 1457 Net **$1.75**



TAKE-UP DRIVER For use with VM tape recorder Model 700.
Cat. No. 1484 Net **$3.92**

SEND FOR FREE CATALOG of the complete UP-TO-DATE PHONO DRIVE LINE

Walsco ELECTRONICS PHONO DRIVES



(A) Cat. No. 1460 78 RPM Net **$ .95**
1470 78 RPM Net **1.07**
(B) Cat. No. 1461 45 RPM Net **$ .95**
1471 45 RPM Net **.92**
(C) Cat. No. 1462 33⅓ RPM
Net **$ .75**
1472 33⅓ RPM
Net **.92**

1460, 1461 and 1462 are a Turret Drive group that is used on Crescent, GE, Motorola, RCA, VM and other record changers.

The 1470 series is used on RCA, VM and other record changers.

NOTE: Drives No. 1460, 1461 and 1462 are the same as No. 1470, 1471 and 1472 except that the 1460 series is approximately 1/64" larger in rubber diameter than the 1470 series. If model number of changes or manufacturer's part number is not known, use 1460 series. For most purposes, these two series are interchangeable.

(D)33⅓RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors replaces Mfg.'s Part No. 102941.
Cat. No. 1495-01 Net **$ .95**

(E) 45 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102942.
Cat. No. 1495-02 Net **$ .95**

(F) 78 RPM PULLEY—½" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102943.
Cat. No. 1495-03 Net **$ .95**

(G) 16 RPM PULLEY—9/16" O.D. Used on RCA, R.P.-205/190 series motors. Replaces Mfg.'s Part No. 102944.
Cat. No. 1495-04 Net **$ .95**

(H) Cat. No. 1463 78 RPM Net **$1.83**
Standard Pack: 3

(J) Cat. No. 1464 45 RPM Net **$1.83**
Standard Pack: 3

(K) Cat. No. 1465 33⅓ RPM
Standard Pack: 3
Net **$1.83**

Above 3 items are turret drives for GE and Webcor record changers.

(L) Cat. No. 1466 78 RPM Net **$1.13**
(M) Cat. No. 1467 45 RPM Net **$1.13**
(N) Cat. No. 1468 33⅓ RPM
Net **$1.13**

For use on Crescent, Motorola, VM, RCA and other record changers.

(A) IDLER WHEEL—1 11/32" O.D. This is a molded rubber wheel for use on RCA Series RP-199 record changers.
Cat. No. 1454 Net **$1.58**

(B) IDLER WHEEL—1" O.D. For use with all Zenith Cobra-Matic record changers.
Cat. No. 1459 Net **$2.27**

(C) CAPSTAN IDLER—1¾" O.D. For use with VM tape recorders in the 700 series.
Cat. No. 1485 Net **$1.10**

(D) IDLER WHEEL—2" O.D. Used on certain Eicor Tape Recorders and Silvertone Record Changers.
Cat. No. 1475 Net **$1.77**

(E) IDLER WHEEL—2" O.D. For use with certain Pentron Tape Recorders.
Cat. No. 1483 Net **$1.33**

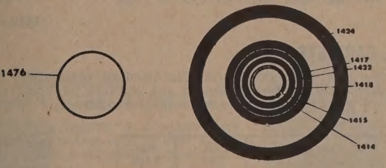
(F) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on VM Record Changers in 1200 series. Also used on other types.
Cat. No. 1453 Net **$2.08**

(G) IDLER PULLEY—1 5/16" O.D. A molder rubber wheel for use with VM Record Changers in the 1200 series having 4-pole motors.
Cat. No. 1456 Net **$2.17**

(H) IDLER PULLEY—1⅝" O.D. This is a molded rubber wheel for use on certain VM record changers.
Cat. No. 1486 Net **$2.17**

(J) INTER WHEEL—2" O.D. For use with Garrard Model RC-80 Record Changers.
Cat. No. 1444 Net **$2.08**

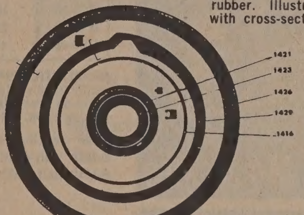
(K) INTER WHEEL—2" O.D. Has a ball-bearing hub cap. For use with Garrard T & TA record players.
Cat. No. 1445 Net **$2.08**



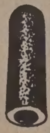
WALSCO TIRES & BELTS

Cat. No.	I.D.	Wall Thickness	Length	Used on	Net
1414	⅝"	1/32"	¼"	Admiral, GE, VM	$ .20 per pair
1415	21/32"	1/32"	¼"	Garrard, GE, Philco	.20 per pair
1416	2¾"	1/16"	3/16"	Zenith	.22 each
1417	1½"	5/32"	3/16"	Admiral, Garrard	.18 each
1418	⅞"	⅛"	3/16"	Genl. Ind., Wilcox-Gray	.15 each
1424	2⅞"	¼"	¼"	Admiral, Crescent, RCA	.40 each
1476	15/16"	1/32"	¼"	Admiral	.22 per pair

BELTS & CAM TIRES — Special Shapes. These belts and tires are made of highest quality abrasion-resistant neoprene rubber. Illustrations are actual size with cross-sections shown on tires.



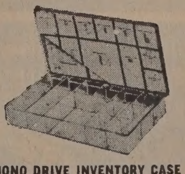
INDEX FINGER CUSHION
Used on Webcor 100, 121, 1124 series. Also on Webcor 110 and 114 series.
Cat. No. 1419
Net **$ .23** pr.



RUBBER BUMPERS—Used on VM Record Changers.
Cat. No. 1411
Net **$ .30** pr.

WALSCO RECORD ARM SLEEVE — For Garrard. Protects record arm and reduces vibration. Resilient, long-lasting neoprene rubber. (2 required).
Net **$ .20** pr.
Cat. No. 1412

WALSCO VELOCITY TRIP — For Webcor, precision-molded to manufacturers specifications.
Cat. No. 1413
Net **$ .22** pr.

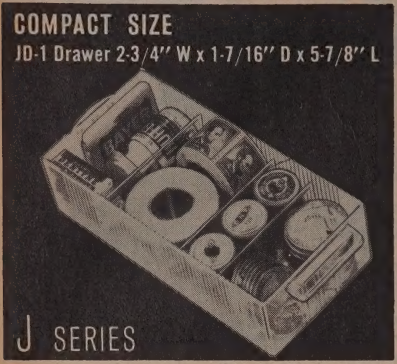


PHONO DRIVE INVENTORY CASE — The Walsco Phono Inventory Case enables dealers to give better service to their customers by providing space for 90% of all Phono Drive Replacement needs. Combination loading chart and Manufacturer's Cross Reference chart.
Cat. No. 1403 Net **$2.92**

WALSCO PHONO HARDWARE KIT — Kit contains over 60 parts, including phono jacks and plugs, assorted screws, spacers and springs, in transparent plastic box.
Cat. No. 1497 Net **$1.82**

A-M

Akro-Mils PARTS CABINET



J SERIES COMPACT CABINETS with JD-1 Drawers

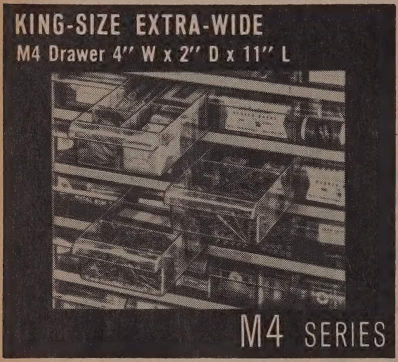
Welded all-steel cabinet. Hammertone silver-gray finish. "See-thru," spill-proof drawers. stacks, hangs on wall or can be integrated into shelving. Adjustable drawer dividers efficient storage for variety of small parts. Fully assembled. 2 labels per drawer and 1 lon crosswise dividers with every 4 drawers.

A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
J-32	32	12-1/2 x 6 x 15-1/4	12-1/2	$11.98
J-48	48	12-1/2 x 6 x 22-1/2	18	18.98
J-64	64	25-1/8 x 6 x 15-1/4	24	23.98
J-128	128	25-1/8 x 6 x 30-1/2	50	52.98

JD-1 DRAWER — Molded from crystal-clear styrene. Infinite flexibility of lengthwise or crisscross compartments. Measure scale on bottom for visual inventory.

D-JDA	Crosswise Dividers — Net pkg. 50	$1.25
D-JF	Lengthwise Dividers — Net pkg. 25	1.25

J-32



M4 SERIES KING-SIZE EXTRA-WIDE CABINETS

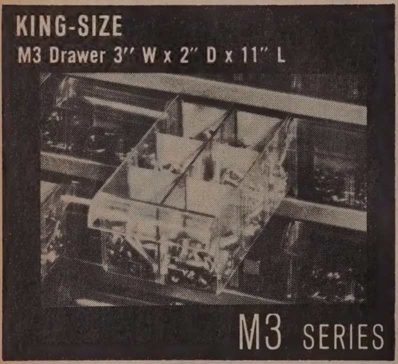
For electronic parts, hardware, office and laboratory supply storage. May be used anywhere, hung on walls or integrated into shelving. Welded, all-steel construction. Baked-on, silv chip-proof finish. Complete with 1 crosswise divider per drawer, 1 lengthwise and 10 half-width per cabinet; 2 sets of labels.

A-M Model	No. of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
M4B-12	12	17-7/8 x 11-1/16 x 9	14	$15.98
M4B-16	16	17-7/8 x 11-1/16 x 11-3/4	17-1/4	20.98
M4B-24	24	17-7/8 x 11-1/16 x 17-3/16	24-1/2	31.98
M4B-40	40	17-7/8 x 11-1/16 x 28	47	52.98

M4 PLASTIC DRAWER — Durable, molded one-piece clear plastic. Full width handle. Rear stop tab. Full length runners for easy movement. Press-on front labels, inside slot labels. Removable dividers lock in, making from 2 to 12 equal-size or many odd-sized compartments.

D-MF	Lengthwise Dividers — Net pkg. 10	$1.00
D-M4A	Full-Width Dividers — Net pkg. 25	1.00
D-M4G	Half-Width Dividers — Net pkg. 25	.70

M4B-40



M3 SERIES KING-SIZE CABINETS

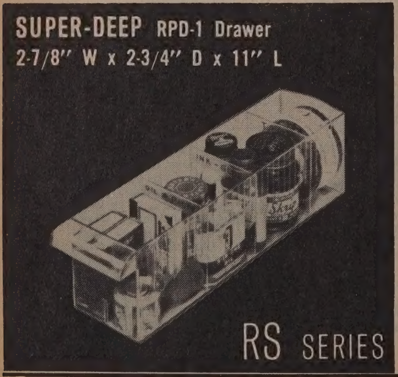
Provide unusual flexibility for small parts storage. Sturdy welded steel cabinet can be used stacked, hung on wall or integrated into standard shelving. Complete with 1 crosswise divi drawer; 1 lengthwise and 10 half-width dividers per cabinet; 2 sets of index labels.

A-M Model	No.of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
M3C-15	15	17-1/4 x 11-1/16 x 9	14	$17.00
M3C-20	20	17-1/4 x 11-1/16 x 11-3/4	18	22.50
M3C-30	30	17-1/4 x 11-1/16 x 17-3/16	26	33.50
M3C-50	50	17-1/4 x 11-1/16 x 28	38-1/2	56.50

M3 PLASTIC DRAWER — Durable, molded one-piece clear plastic. Full width handle. Rear stop tab prevents accidental spilling. Press-on front labels, inside slot labels. Full length runners. Removable steel dividers lock in, making from 2 to 12 compartments.

D-MF	Lengthwise Dividers — Net pkg. 10	$1.00
D-M3A	Full-Width Dividers — Net pkg. 25	1.00
D-M3G	Half-Width Dividers — Net pkg. 25	.70

M3C-50



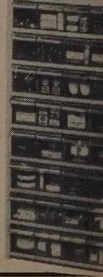
RS SERIES SUPER-DEEP CABINETS

All-steel frame. Baked-on hammer-tone silver gray finish. Can stand on any surface, stack from wall. Labels for quick, easy indexing. Perfect storage and inventory of office supplies ware, electronic parts, etc. Fully assembled. 2 crosswise dividers per drawer. 1 lengthwise per cabinet. 2 sets of labels.

A-M Model	No.of Drawers	Size, Inches W. x D. x H.	Wt. Lbs.	Net Each
RS-12	12	13-5/16 x 11-1/8 x 11	12-1/2	$13.50
RS-16	16	13-5/16 x 11-1/8 x 14-1/2	16	18.50
RS-32	32	13-5/16 x 11-1/8 x 28-1/2	28-1/2	37.00

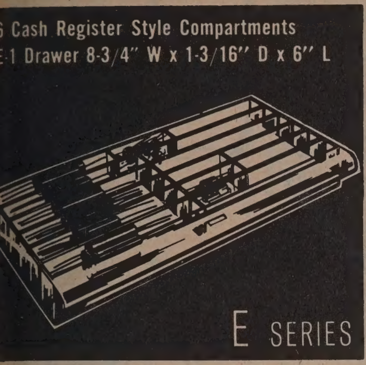
RPD-1 PLASTIC DRAWER — Lifetime guarantee. Safety catch prevents spilling. Full length runners. Removable dividers allow for creation of compartments every ¼" in a single drawer.

D-RA	Crosswise Dividers — Net pkg. 25	$1.25
D-MF	Lengthwise Dividers — Net pkg. 10	1.00


RS-32

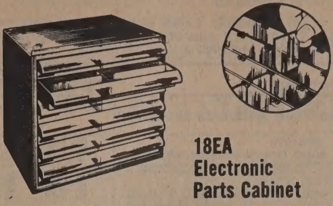
AKRO-MILS, Inc., Akron 9, Ohio 17-2C1

A-M Akro-Mils PARTS CABINETS



6 Cash Register Style Compartments
E-1 Drawer 8-3/4" W x 1-3/16" D x 6" L

E SERIES

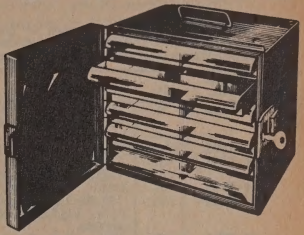


18EA Electronic Parts Cabinet

Perfect for resistors, capacitors, other delicate parts. Also coins, fishing items, jewelry, etc. Rigid welded steel frame with chip-proof enamel finish. 6 E-1 drawers with 2 labels and 9 removable dividers per drawer. List $6.75.

E-1 DRAWER — 6 full width cash register type compartments that divide at approx. ½" intervals. Easy to remove tiniest parts.

Model 18EA
10" W x 6" D x 9" H
5½ lbs.
Net ea. $5.06

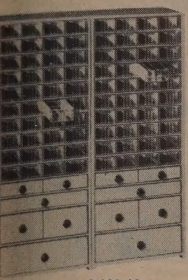


18ELA Portable Locking Cabinet

Includes steel door and lock. 4 E-1 drawers and 1 jumbo drawer . . . 8¾" W x 2½" H x 5¾" D 1 divider with jumbo drawer. 2 labels and 9 dividers per each E-1 drawer. List $8.25.

Model 18ELA
10" W x 6½" D x 9" H
6½ lbs. Net ea. $6.19

SERIES COMBINATION PARTS CABINET & TOOL CHEST



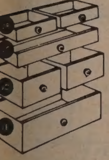
J-128-12

Permits storing together what you use together. JD-1 plastic drawers for small parts. Sturdy, seamless steel drawers for heavy tools, large parts. Labels for easy indexing. Welded steel cabinet stands, stacks or hangs on wall.

J32-6—8 JD-1, 2 JB, 1 JC, 2 JD and 1 JE drawers.
15¼" H x 6" D x 12½" W
12¾ lbs. **Net ea. $12.48**

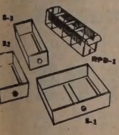
J48-6—24 JD-1, 2 JB, 1 JC, 2 JD and 1 JE drawers.
22½" H x 6" D x 12½" W
18½ lbs. **Net ea. $19.98**

J128-12—80 JD-1, 4 JB, 2 JC, 4 JD and 2 JE drawers.
30½" H x 6" D x 25⅛" W
52 lbs. **Net ea. $54.98**



DRAWER DIMENSIONS for J Combination Cabinets

A-M Model	Size, Inches, W x D x H	Material
JB	5-3/4 x 5-7/8 x 1-3/16	Steel
JC	11-1/2 x 5-7/8 x 1-7/16	Steel
JD	5-3/4 x 5-7/8 x 3-1/8	Steel
JE	11-1/2 x 5-7/8 x 3-1/8	Steel
JD-1	2-3/4 x 5-7/8 x 1-7/16	Plastic



DRAWER DIMENSIONS for RS Combination Cabinets

A-M Model	Size, Inches, W x D x H
S1	12 x 11 x 2¾
S2	6 x 11 x 2¾
S3	4 x 11 x 2¾
RPD-1	2⅞ x 11 x 2¾

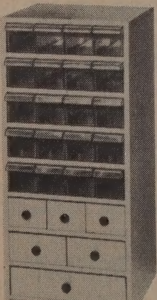
All S drawers are steel. RPD-1 of plastic.

S SERIES COMBINATION ARTS CABINET & TOOL CHEST

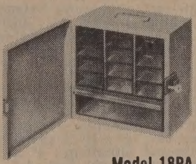
ore tools and parts together in one convenient ace. Welded steel cabinet may be used singly, acked, hung on wall or integrated into standard elving.

16-6—4 RPD-1, 1 S1, 2 S2 and 3 S3 drawers.
-1/2" H x 11-1/8" D x 13-5/16" W
lbs. **Net ea. $18.50**

32-6—20 RPD-1, 1 S1, 2 S2 and 3 S3 drawers.
-1/8" H x 11-1/8" D x 13-5/16" W
lbs. **Net ea. $37.00**



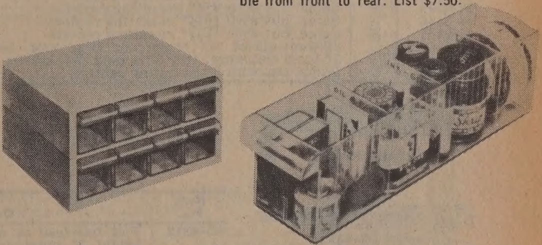
RS32-6



Model 18PA
10" W x 6" D x 9" H
6½ lbs.
Net each............$5.63

GUARDIAN LOCKING CABINET

The safe way to store, protect and transport small articles. Hangs on wall for small parts storage in the workshop or for locking up harmful drugs or hobby items. May also be used as a portable medicine chest or repair kit. Contents cannot spill. Locking, hinged door provides protection from dust, moisture and theft. Rigid, welded steel frame has silver gray finish that will not chip or rub off. Twelve small drawers, 2¾" W x 1¼" H x 5¾" D, and one jumbo drawer, 8¾" W x 2½" H x 5¾" D. One removable divider per drawer included. Fully adjustable from front to rear. List $7.50.



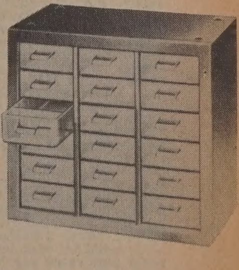
PP-8A PLASTIC FRAME CABINET with 8 Super Deep Drawers

RPD-1 Drawers: 2⅞" W x 11" D x 2¾" H

Extra storage capacity with RPD-1 plastic drawers. For office or desk use. Built-in safety catch prevents accidental spilling. 2 drawers with 16 dividers. Cabinet: 13-3/4" W x 11-1/8" D x 6-15/16" H. 6½ lbs. List $10.50.

Net each **$7.88**

HANDY BIN STEEL CABINETS



PM-1 Drawers: 2¾" W x 1¼" H x 5¾" D
For storing small parts where they are quickly accessible. Welded steel cabinet can be used singly, stack or hung on wall. Durable, molded one-piece plastic drawers can be divided into infinite variety of crosswise, lengthwise or criss-cross compartments. Index labels and 1 divider per drawer. List $5.98.

18HBA—18 drawers
10" W x 9-1/16" H x 6" D
5 lbs. **Net ea. $4.49**

D-PMA Crosswise Dividers — Net pkg. 50	$1.25
D-JF Lengthwise Dividers — Net pkg. 25	1.25

AKRO-MILS, Inc., Akron 9, Ohio

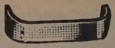
17-2C2

Cabinet Hardware

BUD HANDLES

Fabricated from steel, brass or cast aluminum. Durable finish provides long wear and attractive appearance. Packaged in pairs only with all necessary mounting hardware. Designed for rugged applications, they have unlimited use in electronic, electrical and other fields.

Bud No.	Fig.	Description	Net Per Pair, Lots of 1-49	50-99	100-149
H-9100	A	1″ x ¼″ chrome-plated solid brass; 4″ x ½″ mtg. cntrs.; 1″ hand clearance; four ½″ x 6-32 threaded screws	**$3.96**	**$3.56**	**$3.17**
H-9101	A	Same, but 8″ x ½″ mtg. centers	**6.15**	**5.54**	**4.92**
H-9102	A	⅝″ x ¼″ chrome-plated solid brass; 4″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 threaded screws	**3.15**	**2.84**	**2.52**
H-9103	A	Same, but has 6″ mounting centers	**3.60**	**3.24**	**2.88**
H-9110	B	⅜″ steel rod angular formed, chrome-plated; 6″ mtg. ctrs.; 1¼″ hand clearance; two ½″ x 10-32 threaded screws	**2.79**	**2.51**	**2.23**
H-9111	B	Same, but 4″ mtg. ctrs and 1″ hand clearance	**1.50**	**1.35**	**1.20**
H-9112	B	6″ mtg. center version of H-9111	**1.89**	**1.70**	**1.51**
H-9113	B	8″ mtg. center version of H-9111	**2.10**	**1.89**	**1.68**
H-9114	B	½″ steel rod, chrome-plated; 8″ mtg. centers; 1½″ hand clearance; two ½″ x ¼-28 thd. screws	**3.51**	**3.16**	**2.81**
H-9115	C	⅜″ steel rod, chrome-plated; 4″ mtg. ctrs.; 15/16″ hand clearance; two ¼-28 thd. nuts	**2.40**	**2.16**	**1.92**
H-9116	C	Same, but has 6″ mtg. centers	**3.00**	**2.70**	**2.40**
H-9120	D	Silver-anodized die-cast aluminum; 4⅜″ inside, 5⅜″ outside mtg. centers; 1″ hand clearance: four ½″ x 6-32 threaded screws	**3.51**	**3.16**	**2.81**
H-9121	D	Same, except chrome plated alloy	**4.95**	**4.46**	**3.96**
H-9123	D	Similar to H-9120 but 4½″ mtg. centers; 1″ hand clearance; two ½″ x 10-32 thd. screws	**2.61**	**2.35**	**2.09**
H-9122	E	Silver-anodized die-cast aluminum; hinged on ¼″ steel pins with 2 hinge blocks; 6½″ inside, 7¼″ outside mtg. centers; 1½″ hand clearance; four ⅜″ x 10-32 threaded screws	**5.94**	**5.35**	**4.95**
H-9130	F	Silver-anodized die-cast aluminum; 3″ mtg. centers; two ⅜″ x 10-32 thd. screws; size 4 15/16″ x 3″	**5.25**	**4.73**	**4.20**
H-9131	G	Silver-anodized die-cast aluminum; size, 4″ x 2⅞″; 2¼″ mtg. centers; two ¾″ x ¼-28 thd. raised, counter-sunk screws and nuts	**3.90**	**3.51**	**3.12**
H-9140	H	Silver-anodized die-cast aluminum; 3½″ mtg. centers; ¾″ hand clearance; two ½″ x 10-32 threaded screws	**2.34**	**2.11**	**1.87**
H-9150	I	Silver-anodized die-cast aluminum; 4″ x ⅝″ mtg. centers; 1¼″ hand clearance; four ½″ x 10-32 threaded screws	**3.15**	**2.84**	**2.52**
H-9151	J	Silver-anodized die-cast aluminum; 5 5/32″ x ⅝″ mtg. centers; 1⅜″ hand clearance; four ½″ x 10-32 threaded screws	**5.10**	**4.59**	**4.08**
H-9152	J	Similar to above except 3⅞″ mtg. centers; 1⅛″ hand clearance; two ½″ x 10-32 threaded screws	**4.14**	**3.73**	**3.31**
H-9160	K	Chrome-plated ⅜″ steel rod; 3½″ mtg. centers; 1 11/16″ hand clearance; two ¼″-28 hex nuts	**2.70**	**2.43**	**2.16**
H-9161	K	Same, but with 5¼″ mounting centers	**3.15**	**2.84**	**2.52**
H-9162	K	Same, but with 7″ mounting centers	**3.24**	**2.92**	**2.59**
H-9163	K	Same, but with 8¾″ mounting centers	**3.51**	**3.16**	**2.81**
H-9164	K	Same, but with 10½″ mounting centers	**3.96**	**3.56**	**3.17**
H-9165	K	Same, but with 12¼″ mounting centers	**4.35**	**3.92**	**3.48**
H-9166	L	Chrome-plated ¼″ brass rod; 1 29/32″ mtg. centers; 1″ hand clearance; two ½″ x 6-32 thd. screws	**1.20**	**1.08**	**.96**
H-9168	L	Same, but with 3″ mounting centers	**1.35**	**1.22**	**1.08**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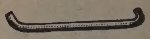
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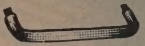
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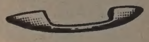
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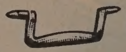
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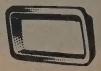
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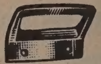
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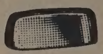
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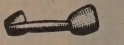
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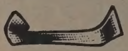
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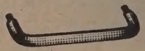
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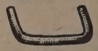
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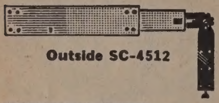
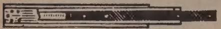

Outside SC-4512


Inside SC-4312

Precision built slides for smooth operation, long life under repeated movement conditions. Use with full 17″ chassis in std. 19″ panel rack or cabinet. Drilled for either panel rail bracket or direct slide rail mounting. Brackets and hardware supplied. "Quick detach" models permit change of instrumentation at point of use with infinitesimal delay in exchange. **"SC" Series:** For commercial uses where top quality and performance is required, but MIL specs are not. Load ratings conservative with plus factor of at least 2:1 under normal conditions. **"SI" Series:** Adhere to MIL specifications for industrial or military requirements. Channels 7075T6 aluminum extrusions per QQ-A-277; parts of 302 stainless steel per MIL-S-5059A; bearings are 440 stainless steel per QQ-S-763. Aluminum-parts anodized per MIL-A-8625A; stainless steel parts passivated per MIL-S-5002. Lubricant is hi-low temp. grease per MIL-G-3278. Load rating extra conservative with plus factor of at least 3:1 under normal conditions.

CHASSIS SLIDES

"SC" SERIES

Bud No.	Description	Load Cap. Per Pair	Net Each, Lots of 1-14	15-24	25-34
SC-4312	Full ball-bearing slide 12″ long; 12″ travel; height, 2″; inner members do not disconnect or tilt; aluminum extrusions of 2014T6 per QQ-A-261; precision broached for flawless operation	150 lbs.	**$27.15**	**$24.45**	**$21.70**
SC-4316	Same, but 16″ long; 16″ travel	110 lbs.	**29.10**	**26.20**	**23.30**
SC-4320	Same, but 20″ long; 20″ travel	95 lbs.	**31.80**	**28.60**	**25.45**
SC-4412	Same, but outer track ball bearing, inner track dry lubricated friction type; quick detach facility; locks in extended position; height 2″; 12″ long; 12″ travel	150 lbs.	**39.30**	**35.35**	**31.45**
SC-4416	Same as SC-4412 but 16″ long; 16″ travel	110 lbs.	**42.15**	**37.95**	**33.70**
SC-4420	Same as SC-4412, but 20″ long; 20″ travel	95 lbs.	**44.10**	**39.70**	**35.30**
SC-4512	Quick detach, tilting slide with lock in extended position. Permits 90° tilt of chassis below horizontal position in 45° increments; height, 3½″; 12″ long; 12″ travel	275 lbs.	**56.25**	**50.65**	**45.00**
SC-4516	Same, but 16″ long; 16″ travel	215 lbs.	**60.90**	**54.80**	**48.70**
SC-4520	Same, but 20″ long; 20″ travel	180 lbs.	**64.65**	**58.20**	**51.70**

"SI" SERIES

SI-4212	Ball-bearing; 12″ long; 12″ travel; 3½″ high	275 lbs.	**$41.25**	**$37.15**	**$33.00**
SI-4216	Same, but 16″ long; 16″ travel	225 lbs.	**45.00**	**40.50**	**36.00**
SI-4220	Same, but 20″ long; 20″ travel	180 lbs.	**48.75**	**43.90**	**39.00**
SI-4012	Same as SI-4212 except outer track ball bearing; inner, dry-lubricated friction type; quick disconnect; extended lock position; 12″ long; 12″ travel; 3½″ high	275 lbs.	**48.75**	**43.90**	**39.00**
SI-4016	Same, but 16″ long; 16″ travel	225 lbs.	**53.40**	**48.15**	**42.80**
SI-4020	Same, but 20″ long; 20″ travel	180 lbs.	**59.10**	**53.20**	**47.30**
SI-4112	Similar to SI-4012, but with tilting action 90° above and below horizontal in 45° increments; 12″ long; 12″ travel; 3½″ high	275 lbs.	**64.65**	**58.20**	**51.70**
SI-4116	Same, but 16″ long; 16″ travel	225 lbs.	**69.30**	**62.35**	**55.45**
SI-4120	Same, but 20″ long; 20″ travel	180 lbs.	**72.15**	**64.95**	**57.70**

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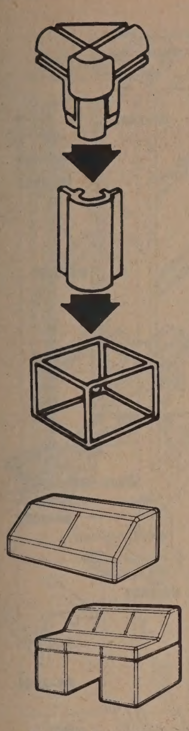
Imlok "Prototyper" Cabinets

System of metal cabinet construction, ideal for research and prototype work, permits quick assembly of cases, cabinets and racks using the simplest of tools. Complex structures may be built to your design using a variety of corner castings and extrusions held rigidly with friction clips or screws. Panels may be cut to size from sheet aluminum or steel, fitted grooves or screw fastened. No grinding or welding needed.



Typical Structures

EXTERNAL CORNER CONNECTORS

Bud No.	Description	Net Each, Lots of		
		1-14	15-24	25 Up
BI-1001	90° basic corner connector for rectangular cabinets. Use with BI-2004, BI-2014, BI-2024, BI-2034, BI-2044, BI-2054 or BI-2064 extrusions.	$0.96	$0.86	$0.77
BI-1016	67½° corner connector holds vertical wall and horizontal wall to a third rising at 67½° to the horizontal. One leg fits BI-2041 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1024	60° corner connector similar to BI-1016. One leg fits BI-2081; other legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1002	45° corner connector similar to BI-1016. One leg fits BI-2005, BI-2015, or BI-2025; other two legs fit any 90° external extrusion.	.96	.86	.77
BI-1020	30° corner connector similar to BI-1016. One leg fits BI-2061; other two legs fit any 90° external extrusion.	1.35	1.22	1.08
BI-1012	22½° corner connector similar to BI-1016. One leg fits BI-2021; other two legs fit any 90° external extrusion.	1.35	1.22	1.08

EXTERNAL STANDARD EXTRUSIONS

Bud No.	Description	Net Each, Lots of		
		1-9	10-14	15 Up
BI-2004	12 ft. long, 90° external extrusion most used; has panel retaining groove on each flange for 0.050″ panels. Ideal for small to medium sized structures with unbraced spaces up to 2 ft. long.	$ 7.44	$ 6.70	$ 5.95
BI-2004-3	3 ft. length BI-2004	2.18	1.96	1.74
BI-2004-6	6 ft. length BI-2004	4.13	3.72	3.30
BI-2004-9	9 ft. length BI-2004	5.93	5.34	4.74
BI-2064	12 ft. long, 90° extrusion with panel retaining flange to take 20 gauge panels.	8.27	7.44	6.62
BI-2064-3	3 ft. length BI-2064	2.40	2.16	1.92
BI-2064-6	6 ft. length BI-2064	4.58	4.10	3.64
BI-2064-9	9 ft. length BI-2064	6.53	5.88	5.22
BI-2041	12 ft. long, 67½° extrusion; companion to BI-1016 for unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2041-3	3 ft. length BI-2041	3.30	2.97	2.64
BI-2041-6	6 ft. length BI-2041	6.30	5.67	5.04
BI-2041-9	9 ft. length BI-2041	9.00	8.10	7.20
BI-2081	12 ft. long, 60° extrusion; companion to BI-1024 connector. For unbraced spans up to 3 ft. long.	11.37	10.23	9.10
BI-2081-3	3 ft. length BI-2081	3.30	2.97	2.64
BI-2081-6	6 ft. length BI-2081	6.30	5.67	5.04
BI-2081-9	9 ft. length BI-2081	9.00	8.10	7.20
BI-2005	12 ft. long, 45° extrusion used with BI-1002 connector; for spans up to 2 ft. long.	8.00	7.20	6.40
BI-2005-3	3 ft. length BI-2005	2.33	2.10	1.86
BI-2005-6	6 ft. length BI-2005	4.43	3.99	3.54
BI-2005-9	9 ft. length BI-2005	6.30	5.67	5.04
BI-2061	12 ft. long, 30° extrusion used with BI-1020 connector.	11.37	10.23	9.10
BI-2061-3	3 ft. length BI-2061	3.30	2.97	2.64
BI-2061-6	6 ft. length BI-2061	6.30	5.67	5.04
BI-2061-9	9 ft. length BI-2061	9.00	8.10	7.20
BI-2021	12 ft. long, 22½° extrusion used with BI-1012 connector.	11.37	10.23	9.10
BI-2021-3	3 ft. length BI-2021	3.30	2.97	2.64
BI-2021-6	6 ft. length BI-2021	6.30	5.67	5.04
BI-2021-9	9 ft. length BI-2021	9.00	8.10	7.20
BI-2014	12 ft. long, 90° strengthened extrusion similar to BI-2004 but stronger for use in unbraced spans up to 3 ft. long.	8.27	7.44	6.62
BI-2014-3	3 ft. length BI-2014	2.40	2.16	1.92
BI-2014-6	6 ft. length BI-2014	4.58	4.12	3.66
BI-2014-9	9 ft. length BI-2014	6.53	5.89	5.22
BI-2015	12 ft. long, 45° external strengthened extrusion used in place of BI-2005 in unbraced spans up to 3 ft. long.	9.65	8.69	7.72
BI-2015-3	3 ft. length BI-2015	2.78	2.50	2.22
BI-2015-6	6 ft. length BI-2015	5.33	4.80	4.26
BI-2015-9	9 ft. length BI-2015	7.65	6.89	6.12
BI-2054	12 ft. long, 90° strengthened extrusion with two 11/16″ extended flanges to take standard ⅛″; retaining groove at root of flanges.	12.78	11.50	10.22
BI-2054-3	3 ft. length BI-2054	3.68	3.31	2.94
BI-2054-6	6 ft. length BI-2054	7.05	6.35	5.64
BI-2054-9	9 ft. length BI-2054	10.13	9.12	8.10
BI-2024	12 ft. long, 90° strengthened extrusion with one flange extended ⅝″ to fit ⅛″ panel; other has normal panel-retaining groove.	10.25	9.23	8.20
BI-2024-3	3 ft. length BI-2024	3.00	2.70	2.40
BI-2024-6	6 ft. length BI-2024	5.70	5.13	4.56
BI-2024-9	9 ft. length BI-2024	8.10	7.29	6.48
BI-2025	12 ft. long, 45° strengthened extrusion with one ⅝″ extended flange for ⅛″ panel and one normal panel-retaining groove flange.	10.83	9.75	8.66
BI-2025-3	3 ft. length BI-2025	3.15	2.84	2.52
BI-2025-6	6 ft. length BI-2025	6.00	5.40	4.80
BI-2025-9	9 ft. length BI-2025	8.55	7.70	6.84
BI-2034	12 ft. long, 90° heavy-duty extrusion takes loadings for spans over 3 ft. long. Additional returns reinforce strength. Flanges are both ⅝″ deep.	16.79	15.11	13.43
BI-2034-3	3 ft. length BI-2034	4.88	4.39	3.90
BI-2034-6	6 ft. length BI-2034	9.30	8.37	7.44
BI-2034-9	9 ft. length BI-2034	13.28	11.95	10.62
BI-2044	12 ft. long, 90° reinforcing angle screws to return flanges of BI-2034 for extra rigid, boxed in section. Use with heavy-duty BI-1011 spacer bar and BI-2018 and BI-2028 extrusions to build almost any size structure.	6.66	5.99	5.33
BI-2044-3	3 ft. length BI-2044	2.45	2.21	1.96
BI-2044-6	6 ft. length BI-2044	3.68	3.31	2.94
BI-2044-9	9 ft. length BI-2044	5.25	4.73	4.20

SPECIAL CONNECTORS, ACCESSORIES

No. BI-1003—T-junction connector permits making "T" with 2 lengths of extrusions; also used for picture frame effect. Fits 90° external extrusions.

No. BI-1005—90° table-top or foot connector used in place of radiused corner; has well to hold glass or wood table-top. Used also as foot or as wall mount. One leg fits 90° external extrusion; other two fit BI-2009.

No. BI-1008—Stacking plate for use with BI-1005 to permit stacking.

No. BI-1009—90° spacer bar cruciform connector.

No. BI-4001—Package of 50 friction clips; for assembly without use of screws.

No. BI-4302—Concealed brass hinge fits 90° extrusions; 3 mounting holes take 6-32 or 10-32 screws.

No. BI-4601—Chrome plated ventilation ring for dress-up. Used in addition to slots and louvers. Clips (supplied) into 2⅝″ hole. Has stainless steel gauze.

Bud No.	Net Each, Lots of		
	1-14	15-24	25 Up
BI-1003	$0.96	$0.86	$0.77
BI-1005	1.26	1.13	1.01
BI-1008	.63	.57	.50
BI-1009	1.76	1.58	1.41
BI-4001	1.26	1.13	1.01
BI-4302	1.76	1.58	1.41
BI-4601	2.87	2.58	2.30

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BUD RADIO INC. • CLEVELAND, OHIO

Imlok "Prototyper" Cabinets

INTERNAL EXTRUSIONS

Bud No.	Description	Net Each, Lots of 1-9	10-14	15 Up
BI-2032	12 ft. long, 90° internal extrusion to fit BI-1028; has two panel retaining grooves; for unbraced spans up to 3 ft. long.	$12.81	$11.53	$10.25
BI-2032-3	3 ft. length BI-2032	3.75	3.38	3.00
BI-2032-6	6 ft. length BI-2032	7.05	6.35	5.64
BI-2032-9	9 ft. length BI-2032	10.15	9.14	8.12
BI-2051	12 ft. long, 67½° internal extrusion to fit BI-1017 connector. For use in unbraced spans up to 3 ft.	11.37	10.23	9.10
BI-2051-3	3 ft. length BI-2051	3.30	2.97	2.64
BI-2051-6	6 ft. length BI-2051	6.30	5.67	5.04
BI-2051-9	9 ft. length BI-2051	9.00	8.10	7.20
BI-2091	12 ft. long, 60° internal extrusion; fits BI-1025 connector.	11.37	10.23	9.10
BI-2091-3	3 ft. length BI-2091	3.30	2.97	2.64
BI-2091-6	6 ft. length BI-2091	6.30	5.67	5.04
BI-2091-9	9 ft. length BI-2091	9.00	8.10	7.20
BI-2006	12 ft. long, 45° internal extrusion has two ⅝" flanges, one with panel-retaining groove. For flat-topped, sloping front cabinets.	11.66	10.49	9.33
BI-2006-3	3 ft. length BI-2006	3.38	3.04	2.70
BI-2006-6	6 ft. length BI-2006	6.45	5.81	5.16
BI-2006-9	9 ft. length BI-2006	9.23	8.31	7.38
BI-2071	12 ft. long, 30° internal extrusion; fits BI-1021 connector.	11.37	10.23	9.10
BI-2071-3	3 ft. length BI-2071	3.30	2.97	2.64
BI-2071-6	6 ft. length BI-2071	6.30	5.67	5.04
BI-2071-9	9 ft. length BI-2071	9.00	8.10	7.20
BI-2031	12 ft. long, 22½° internal extrusion; fits BI-1013 connector.	11.37	10.23	9.10
BI-2031-3	3 ft. length BI-2031	3.30	2.97	2.64
BI-2031-6	6 ft. length BI-2031	6.30	5.67	5.04
BI-2031-9	9 ft. length BI-2031	9.00	8.10	7.20

SPACER BAR AND TABLE-TOP EXTRUSIONS

BI-2008	12 ft. long, spacer bar extrusion used to subdivide panels or act as cross-bracing members.	$20.33	$18.30	$16.26
BI-2008-3	3 ft. length BI-2008	5.85	5.27	4.68
BI-2008-6	6 ft. length BI-2008	11.18	10.06	8.94
BI-2008-9	9 ft. length BI-2008	16.13	14.52	12.90
BI-2009	12 ft. long, table-top extrusion for use at base of cabinet, as vertical member where double radius between cabinets is undesirable. Has flange with normal retaining groove; other is 1" deep to support table or bench top.	10.25	9.23	8.20
BI-2009-3	3 ft. length BI-2009	3.00	2.70	2.40
BI-2009-6	6 ft. length BI-2009	5.70	5.13	4.56
BI-2009-9	9 ft. length BI-2009	8.10	7.29	6.48

EXTERNAL SPACER BAR CONNECTORS

Bud No.	Description	Net Each, Lots of 1-14	15-24	25 Up
BI-1011	This connector specially designed for use with 90° external heavy duty extrusion BI-2034. One leg fits this extrusion as well as all other 90° external extrusions. The other two legs fit BI-2008.	$1.35	$1.22	$1.08
BI-1018	67½° external spacer bar connector; brace or sub-divide walls where BI-1016 is used at corners. One leg fits BI-2041; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1026	60° version of BI-1018. One leg fits BI-2081; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1007	45° version of BI-1018. One leg fits BI-2005, BI-2015 or BI-2025; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1022	30° version of BI-1018. One leg fits BI-2061 extrusion; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1014	22½° version of BI-1018. One leg fits BI-2021; other two fit any spacer bar extrusion.	1.35	1.22	1.08

INTERNAL CORNER CONNECTORS

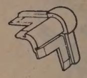
BI-1028	90° internal connector gives an included angle of 90° for L-shaped structures. One leg fits BI-2032 extrusion; other two fit any 90° external extrusion, (BI-2004, BI-2014, BI-2024, BI-2034, BI-2054).	$1.35	$1.22	$1.08
BI-1017	67½° internal connector used where two walls are to meet to include a 67½° angle. One leg fits BI-2051 extrusion; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1025	60° version of BI-1017. One leg fits BI-2091; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1006	45° version of BI-1017. One leg fits BI-2006; other two fit any 90° external extrusion. Helps make flat top, sloping front structure.	1.26	1.13	1.01
BI-1021	30° version of BI-1017. One leg fits BI-2071; other two fit any 90° external extrusion.	1.35	1.22	1.08
BI-1013	22½° version of BI-1017. One leg fits BI-2031; other two fit any 90° external extrusion.	1.35	1.22	1.08

INTERNAL SPACER BAR CONNECTORS

BI-1029	90° internal spacer connector permits bracing or sub-division of spans of BI-2032. One leg fits BI-2032 internal extrusion; other two fit BI-2008 spacer bar extrusion.	$1.35	$1.22	$1.08
BI-1019	67½° internal spacer bar connector is companion to BI-1017 for sub-dividing or cross-bracing. One leg fits BI-2051; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1027	60° version of BI-1019 above; companion for BI-1025. One leg fits BI-2091; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1010	45° version of BI-1019; companion for BI-1006. One leg fits BI-2006; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1023	30° version of BI-1019; companion to BI-1021. One leg fits BI-2071; other two fit any spacer bar extrusion.	1.35	1.22	1.08
BI-1015	22½° version of BI-1019; companion to BI-1013. One leg fits BI-2031; other two fit any spacer bar extrusion.	1.35	1.22	1.08

CUTTING JIGS

Bud No.	Description	Net Each, Lots of 1-4	5-9	10 Up
BI-3003	90° cutting jig permits easy mitering of any 90° external extrusion. Makes assembly quick, easy.	$15.80	$14.22	$12.64
BI-3002	45° cutting jig for mitering any 45° external extrusion.	15.80	14.22	12.64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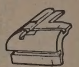
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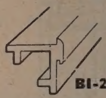
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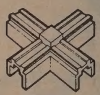
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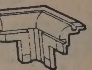
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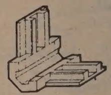
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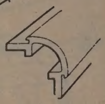
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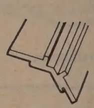
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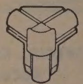
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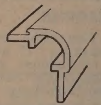
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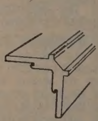
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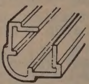
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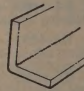
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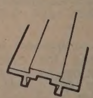
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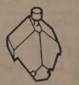
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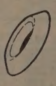
BI-4601

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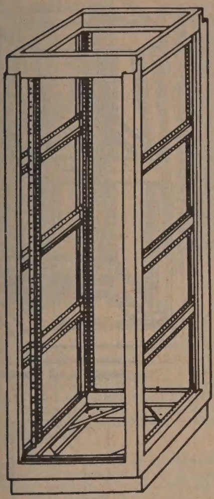
Series "60" Racks

Scientifically designed to meet all requirements for human needs as well as component physical specifications; the most practical cabinet rack developed for either a single piece of equipment or a large instrumentation system. Very economical to the user, units are shipped fully assembled and ready for immediate use.

Basic frame welded in a solid unit composed of 14-gauge cold-rolled steel channels. Sides have "U" braces with perforated channels for fastening vertical adjustable mounting rails. Rails also support other types of equipment such as brackets, shelves, slides, etc. Eliminates need of drilling holes in the rack. Sides and rear door made of 16 gauge steel. Door may be mounted to open left or right. Vertical channel, 6" wide, welded to door to prevent vibration or whip. Two pairs of panel mounting rails are supplied; fully adjustable. Panels may be mounted in front and rear at the same time. Front rails drilled and tapped 10-32 W.E. spacing. Rear rails are drilled according to universal spacing.

All Series Sixty enclosures may be quickly combined with each other to create units of any desired width as shown in the Add-A-Rack series. In addition, such accessories as desk tops, turrets, drawers, slides, sloping panel supports and front door are easily installed.

Standard finishes are smooth baked enamel over a primer. For two-tone gray, specify by adding suffix **SG.** For two-tone blue, add suffix **SB** to order number. Standard Bud relay rack panels are available for the Series Sixty racks in light gray and light blue; when ordering, add suffix **SG** for gray; **SB** for blue.



Upright Rack

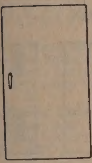
UPRIGHT CABINET RACKS

Completely assembled with sides, rear door and top. Standard units have plain sides and door; solid top. For greater ventilation, order units with louvered sides and/or rear door; both, with solid top. Width, 24 1/16", all units. Inside depth 20¼" clear on units with 22" outside depth; 23¾", all others. Top opening 18½" w. x 17" d. on units with 22" outside depth; 18½" w. x 20½" d., all others. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB**, for blue.

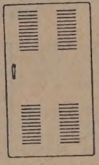
With Plain Sides and Door								Louvered Sides, Plain Door			
Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19	Height	Out-side Depth	Panel Space	Wt., Lbs.	Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2300	$106.30	$ 95.67	$ 85.05	29⅝"	22"	21"	118	2600	$112.00	$100.80	$ 89.60
2301	131.45	118.30	105.15	40⅛"	22"	31½"	156	2601	140.00	126.00	112.00
2302	146.05	131.45	116.85	50⅝"	22"	42"	173	2602	156.50	140.85	125.20
2303	166.25	149.60	133.00	61⅛"	22"	52½"	197	2603	179.00	161.10	143.20
2304	180.25	162.20	144.20	69⅞"	22"	61¼"	220	2604	194.75	175.28	155.80
2305	200.00	180.00	160.00	78⅝"	22"	70"	235	2605	216.50	194.85	173.20
2306	218.65	196.80	174.90	87⅜"	22"	78¾"	265	2606	235.15	211.64	188.12
2307	125.50	112.95	100.40	29⅝"	25½"	21"	156	2607	135.15	121.64	108.12
2308	151.20	136.10	120.95	40⅛"	25½"	31½"	176	2608	159.80	143.82	127.84
2309	168.00	151.20	134.40	50⅝"	25½"	42"	185	2609	178.00	160.20	142.40
2310	186.50	167.85	149.20	61⅛"	25½"	52½"	211	2610	203.70	183.33	162.96
2311	207.30	186.55	165.85	69⅞"	25½"	61¼"	240	2611	219.90	197.91	175.92
2312	230.30	207.25	184.25	78⅝"	25½"	70"	256	2612	244.20	219.78	195.96
2313	251.35	226.20	201.10	87⅜"	25½"	78¾"	267	2613	266.20	239.58	212.96
With Louvered Sides and Door								Plain Sides, Louvered Door			
2700	$110.20	$ 99.18	$ 88.16	29⅝"	22"	21"	118	2800	$108.50	$ 97.65	$ 86.80
2701	137.00	123.30	109.60	40⅛"	22"	31½"	156	2801	134.30	120.87	107.44
2702	153.40	138.06	122.72	50⅝"	22"	42"	173	2802	149.20	134.28	119.36
2703	175.30	157.77	140.24	61⅛"	22"	52½"	197	2803	169.70	152.73	135.76
2704	190.80	171.72	152.64	69⅞"	22"	61¼"	220	2804	184.10	165.69	147.28
2705	212.00	190.80	169.60	78⅝"	22"	70"	235	2805	204.30	183.87	163.44
2706	230.20	207.18	184.16	87⅜"	22"	78¾"	265	2806	223.40	201.06	178.72
2707	129.90	116.91	103.92	29⅝"	25½"	21"	156	2807	127.70	114.93	102.16
2708	156.90	141.21	125.52	40⅛"	25½"	31½"	176	2808	145.00	130.50	116.00
2709	174.70	157.23	139.76	50⅝"	25½"	42"	185	2809	171.10	153.99	136.88
2710	194.30	174.87	155.44	61⅛"	25½"	52½"	211	2810	190.00	171.00	152.00
2711	215.90	194.31	172.72	69⅞"	25½"	61¼"	240	2811	211.10	189.99	168.88
2712	239.80	215.82	191.84	78⅝"	25½"	70"	256	2812	234.60	211.14	187.68
2713	261.30	235.17	209.04	87⅜"	25½"	78¾"	267	2813	256.10	230.49	204.88

ACCESSORY PERFORATED TOP

Bud No.	Width	Depth	Fits Upright Rack	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2370	21 15/16"	17"	With overall depth of 22"	6	$5.65	$5.10	$4.50
60-2371	21 15/16"	20½"	With overall depth of 25½"	7	6.00	5.40	4.80



Plain Door

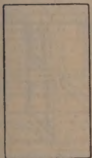


Louvered Door

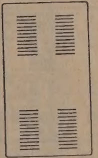
ACCESSORY DOORS

Doors are interchangeable; may be used for front or rear of rack. They may be mounted to open left or right.

Plain Type								Louvered Type			
Bud No.	Net Each, Lots of 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2340	$16.05	$14.45	$12.85	21 7/16"	18 15/16"	21"	8	60-2540	$18.35	$16.52	$14.68
60-2341	19.80	17.80	15.85	31 15/16"	18 15/16"	31½"	11½	60-2541	22.70	20.43	18.16
60-2342	21.90	19.70	17.50	42 7/16"	18 15/16"	42"	15½	60-2542	25.20	22.68	20.16
60-2343	24.30	21.85	19.45	52 15/16"	18 15/16"	52½"	19	60-2543	27.95	25.16	22.36
60-2344	27.05	24.35	21.65	61 11/16"	18 15/16"	61¼"	22¼	60-2544	31.05	27.95	24.84
60-2345	30.05	27.05	24.05	70 7/16"	18 15/16"	70"	25½	60-2545	34.50	31.05	27.60
60-2346	32.80	29.50	26.25	79 3/16"	18 15/16"	78¾"	29	60-2546	37.70	33.93	30.16



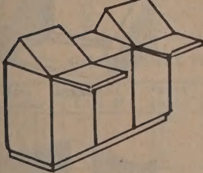
Plain Side



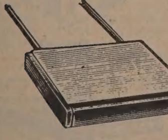
Louvered Side

ACCESSORY SIDES

Plain Type								Louvered Type			
Bud No.	Net Each Pair, Lots 1-9	10-14	15-19	Ht.	Width	Fits Rack With Panel Space of	Wt., Lbs.	Bud No.	Net Each Pair, Lots 1-14	15-24	25-34
60-2560	$24.10	$21.70	$19.30	26 55/64"	22"	21"	12½	60-2580	$28.10	$25.30	$22.50
60-2561	31.50	28.35	25.20	37 23/64"	22"	31½"	17½	60-2581	37.20	33.50	29.75
60-2562	36.65	33.00	29.30	47 55/64"	22"	42"	21	60-2582	44.20	39.80	35.35
60-2563	42.70	38.45	34.15	58 23/64"	22"	52½"	26¼	60-2583	51.95	46.75	41.55
60-2564	46.70	42.05	37.35	67 7/64"	22"	61¼"	30	60-2584	57.40	51.65	45.90
60-2565	51.45	46.30	41.15	75 55/64"	22"	70"	34	60-2585	63.60	57.25	50.90
60-2566	59.00	53.10	47.20	84 39/64"	22"	78¾"	38	60-2586	70.75	63.70	56.60
60-2567	30.15	27.15	24.10	26 55/64"	25½"	21"	14½	60-2587	34.70	31.25	27.75
60-2568	39.40	35.45	31.50	37 23/64"	25½"	31½"	20	60-2588	45.30	40.75	36.25
60-2569	45.85	41.25	36.70	47 55/64"	25½"	42"	24	60-2589	52.75	47.50	42.20
60-2570	53.35	48.00	42.70	58 23/64"	25½"	52½"	29½	60-2590	61.35	55.20	49.10
60-2571	58.35	52.50	46.70	67 7/64"	25½"	61¼"	34½	60-2591	67.10	60.40	53.70
60-2572	64.30	57.90	51.45	75 55/64"	25½"	70"	39	60-2592	73.95	66.55	59.15
60-2573	67.76	61.00	54.20	84 39/64"	25½"	78¾"	43½	60-2593	77.90	70.10	62.30



Typical Assembly



Desk Top

SERIES SIXTY DESK TOP

May be used in connection with any Series Sixty enclosure. Furnished completely assembled with wood-grained formica surface. Fastens to panel mounting rails by two pre-drilled channels. Will support in excess of 200 lbs. Available in two colors. **Specify Color When Ordering:** Add suffix **SG** for gray; **SB** for blue.

Bud No.	Size, Inches	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2360	24⅛ w. x 19½ d. x 3 1/16 h.	22	$36.05	$32.45	$28.85

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BUD RADIO INC. • CLEVELAND, OHIO

Series "60" Cabinets

INCLINED PANEL CABINET RACKS

Completely assembled with sides, rear door and solid top. Available in four combinations of plain or louvered sides and rear door. Size, 50⅝″ h. x 24 1/16″ w. x 22″ d., outside; 20¼″ d., clear inside. Weight, 165 lbs. **Specify Color When Ordering:** Add suffix **SG** to number for gray; suffix **SB,** for blue.

With Plain Sides and Door Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19	Incline Panel Hgt.	Vert. Panel Hgt.	Top Opening W. x D.	**Louvered Sides and Plain Door** Bud No. 60-	Net Each, Lots of 1-9	10-14	15-19
2330	$165.25	$148.70	$132.20	10½″	29¾″	18½″ x 11¾″	2630	$147.20	$132.48	$117.76
2331	175.15	157.65	140.10	15¾″	24½″	18½″ x 10″	2631	184.20	165.78	147.36
2332	175.15	157.65	140.10	17½″	22¾″	18½″ x 9⅜″	2632	184.20	165.78	147.36
With Louvered Sides and Door							**Plain sides, Louvered Door**			
2730	$170.90	$153.81	$136.72	10½″	29¾″	18½″ x 11¾″	2830	$168.50	$151.65	$134.80
2731	181.00	162.90	144.80	15¾″	24½″	18½″ x 10″	2831	178.40	160.56	142.72
2732	181.00	162.90	144.80	17½″	22¾″	18½″ x 9⅜″	2832	178.40	160.56	142.72

ACCESSORY FRONT DOORS

Plain Type Bud No.	Net Each, Lots of 1-9	10-14	15-19	Height	Width	Fits Rack Top Open. Size, In.	Wt., Lbs.	Louvered Type Bud No.	Net Each, Lots of 1-9	10-14	15-19
60-2350	$19.85	$17.85	$15.90	30 3/16″	18 15/16″	18½x11¾	11	60-2550	$22.80	$20.52	$18.24
60-2351	18.55	16.70	14.85	25 15/16″	18 15/16″	18½x10	9½	60-2551	21.30	19.17	17.04
60-2352	18.00	16.20	14.40	23 3/16″	18 15/16″	18½x9⅜	9	60-2552	20.70	18.63	16.56

ACCESSORY REAR DOORS

60-2342	$21.90	$19.70	$17.50	42 7/16″	18 15/16″	All sizes	15½	60-2542	$25.20	$22.68	$20.16

ACCESSORY SIDES

Specify "L" for left side or "R" for right side, determined when facing front of rack.

Plain Type Bud No.	Net Each Pair, Lots of 1-9	10-14	15-19	Height	Width	Fits Rack No., In.	Wt., Lbs.	Louvered Type Bud No.	Net Each Pair, Lots of 1-9	10-14	15-19
60-2574	$38.45	$34.60	$30.75	47 55/64″	22″	18½x11¾	11	60-2594	$44.20	$39.80	$35.35
60-2575	39.55	35.60	31.65	47 55/64″	22″	18½x10	9½	60-2595	45.50	40.95	36.40
60-2576	39.55	35.60	31.65	47 55/64″	22″	18½x9⅜	9	60-2596	45.50	40.95	36.40

ACCESSORY PERFORATED TOPS

Bud No.	Width	Depth	Fits Rack Top Size, In.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
60-2372	21 15/16″	11 13/16″	18½ x 11¾	4	$4.40	$3.95	$3.50
60-2373	21 15/16″	10″	18½ x 10	3	4.25	3.85	3.40
60-2374	21 15/16″	9 13/32″	18½ x 9⅜	3	4.20	3.80	3.35

ADD-A-RACK SERIES

Each assembly consists of frame, top, bottom, rear door and cowlings; used as an add-on unit to join any of the Series Sixty enclosures into a bank of two or more. One standard rack plus several Add-A-Racks make any desired number of racks combined for optimum width. Colors same as above Racks.

Plain Sides Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Louvered Sides Bud No. 60-	For Add-on to Rack No. 60-	Net Each, Lots of 1-9	10-14	15-19	Wt., Lbs.
2500	2300, 2700	$ 86.10	$ 77.50	$ 68.90	2900	2600, 2800	$ 88.40	$ 79.56	$ 70.72	92
2501	2301, 2701	104.75	94.30	83.80	2901	2601, 2801	107.65	96.89	86.12	113
2502	2302, 2702	114.70	103.25	91.75	2902	2602, 2802	118.00	106.20	94.40	115
2503	2303, 2703	125.30	112.75	100.25	2903	2603, 2803	128.95	116.06	103.16	145
2504	2304, 2704	140.00	126.00	112.00	2904	2604, 2804	144.00	129.60	115.20	148
2505	2305, 2705	156.00	140.40	124.80	2905	2605, 2805	160.45	144.41	128.36	152
2506	2306, 2706	167.35	150.60	133.90	2906	2606, 2806	172.25	155.03	137.80	158
2507	2307, 2707	100.00	90.00	80.00	2907	2607, 2807	102.30	92.07	81.84	120
2508	2308, 2708	117.25	105.55	93.80	2908	2608, 2808	120.15	108.14	96.12	132
2509	2309, 2709	128.00	115.20	102.40	2909	2609, 2809	131.30	118.17	105.04	138
2510	2310, 2710	139.60	125.65	111.70	2910	2610, 2810	143.25	128.93	114.60	142
2511	2311, 2711	156.10	140.50	124.90	2911	2611, 2811	160.10	144.09	128.08	164
2512	2312, 2712	174.00	156.50	139.20	2912	2612, 2812	178.45	160.61	142.76	168
2513	2313, 2713	192.50	173.25	154.00	2913	2613, 2813	197.40	177.66	157.92	172
2530	2330, 2730	132.90	119.60	106.30	2930	2630, 2830	136.20	122.58	108.96	119
2531	2331, 2731	142.10	127.90	113.70	2931	2631, 2831	145.40	130.86	116.32	119
2532	2332, 2732	142.10	127.90	113.70	2932	2632, 2832	145.40	130.86	116.32	125

SERIES SIXTY TURRETS

Made of 16 gauge steel; designed so that any one of three sides may be attached to a Series Sixty upright rack or any horizontal surface. Accommodate standard 19″ panels. All mounting rails have universal spacing. Sides easily removed when a series of interconnecting turrets are desired. **Specify Color When Ordering:** Add suffix **SG** for dark gray; **SB** for dark blue. For panels, order standard Bud panels with suffix **SG** for light gray; **SB** for light blue.

Bud No.	Width	Depth	Height	Sloping Panel Space	Bottom Panel Space	Rear Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2364	22 1/16″	17⅞″	12 5/16″	17½″	14″	8¾″	17	$39.05	$35.15	$31.25
60-2365	22 1/16″	14⅜″	10 3/16″	12¼″	10½″	7″	14	32.55	29.30	26.05
60-2366	22 1/16″	20 13/16″	14⅜″	21″	17½″	10½″	20	41.00	36.90	32.80

SERIES SIXTY DRAWER

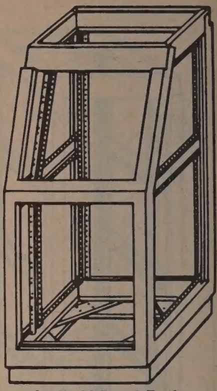
Fits into any Series Sixty cabinet rack. Slides easily on nylon rollers. Capable of supporting heavy loads. Drawer extends to full depth while stops prevent drawer from falling out. Slides are easily attached to panel supporting rails. Silver anodized handles. Shipped completely assembled. **Specify Color When Ordering:** Add suffix **SG** to stock number for gray; **SB** for blue.

Bud No.	Size (Inside), Inches	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
60-2368	16⅝ x 6¾ x 19¼	28	$32.05	$28.85	$25.65

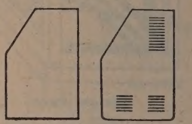
SERIES SIXTY SLIDING DESK TOP

Sliding desk top for use in standard racks provides a handy, smooth surface for writing, servicing or inspection. Surface of writing area is light gray Formica®, which resists most elements that might damage metal or wood surfaces. When fully extended, useable area is 11″ x 16⅞″. Tested to support 75 lbs. of distributed weight. Occupies only 1¾″ of panel space (height). Fits flush with front of unit when not in use. Mounts directly to uprights in Series 60 Cabinet Racks; brackets are included for mounting to rails in other Bud cabinets and consoles. Ball-bearing slide mechanism assures free, easy movement. Specify front panel finish: Black wrinkle (suffix **"B"**); gray wrinkle (suffix **"G"**), gray hammertone (suffix **"HG"**), smooth blue (suffix **"SB"**) or smooth gray (suffix **"SG"**). Weight, 8 lbs.

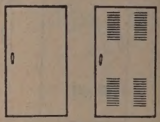
Bud No. 60-2361 Desk Top—Sliding desk top 16⅞″ w. x 15⅛″ d. x panel of 19″ x 1¾″.
Net Each, 1-14 .... $16.65
Net Each, 15-24 .... $14.99 Net Each, 25 and Over 13.32



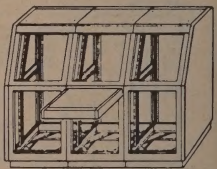
Inclined Panel Rack



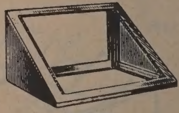
Side Panels



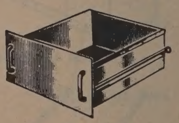
Doors



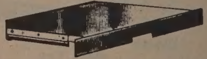
Add-A-Racks



Turret



Drawer



Sliding Desk Top

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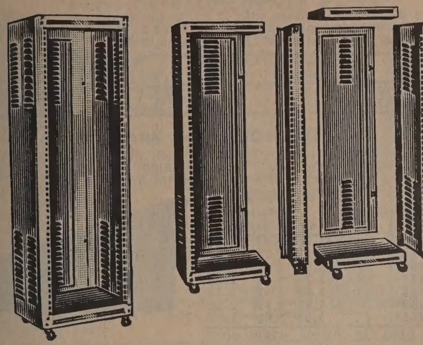
BUD THE MARK OF PERFECTION

Relay and Cabinet Racks

DELUXE RELAY RACKS WITH ADD-A-RACK



High quality relay racks made of 16-gauge steel with 7/64" panel supports. Panel mounting supports are recessed so that no panel edges will be exposed. Both back and sides are fully louvered for best ventilation. Snap catches are positioned on the door. Rounded corners and red-lined chrome trim give streamlined appearance. Base constructed with four special supports so that casters may be applied directly to base for mobility. All standard 19" panels will fit these racks.

Super Deluxe Series Relay Racks are equipped with adjustable panel mounting supports permitting forward and backward adjustment of panels for more efficient use of space. Adjustable points are at 1" intervals for 9" to 15" clearance behind panels. Super Deluxe Racks are fitted with both front and rear doors, the rear to cover any equipment behind the panel while making it easily accessible. The front door, not louvered, conceals controls on the front panel.

Add-A-Rack Series—Where relay racks are to be joined in series. Provides additional strength and improved appearance. Includes door, top, bottom and coupling unit, all that is needed to make a double relay rack out of a single Deluxe series.

All Racks Listed are shipped knocked-down with all necessary hardware and assembly instructions. Casters optional. When ordering specify finish. Add suffix **"HG"** for gray hammertone; suffix **"G"** for gray wrinkle; and suffix **"B"** for black wrinkle.

DELUXE RELAY RACKS

17⅛" Overall Depth

Bud Number	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-1774	42 1/16"	36¾"	82	$45.17	$40.65	$36.14
CR-1771	47 5/16"	42"	92	51.10	45.99	40.88
CR-1772	66 9/16"	61¼"	115	63.96	57.56	51.17
CR-1773	82 5/16"	77"	135	76.57	68.91	61.26

EXTRA DEEP DELUXE RACKS

Same as above, except 22" deep instead of 17⅛" deep. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

Bud Number	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2074	42 1/16"	36¾"	98	$ 63.10	$56.79	$50.48
CR-2071	47 5/16"	42"	102	71.40	64.26	57.12
CR-2072	66 9/16"	61¼"	137	89.35	80.42	71.48
CR-2073	82 5/16"	77"	159	106.13	95.52	84.90

SUPER DELUXE TWO-DOOR RACKS

Bud Number	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
CR-2174	42 1/16"	36¾"	102	$ 64.13	$ 57.72	$51.30
CR-2171	47 5/16"	42"	104	72.65	65.39	58.12
CR-2172	66 9/16"	61¼"	138	93.77	84.39	75.02
CR-2173	82 5/16"	77"	163	112.56	101.30	90.05

SPACE SAVER RELAY RACKS

Same as Deluxe Series, except only 10" deep (9" inside, clear) to save space but retain panel height and width. Suited for use with Bud panel mounting chassis as well as standard 19" relay rack panels; lend themselves to Add-A-Rack assembly. Gray hammertone finish standard; for black or gray wrinkle add 10% to price.

Bud Number	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-9	10-14	15-19
RR-1271	47 5/16"	42"	70	$36.60	$32.95	$29.28
RR-1272	66 9/16"	61¼"	91	45.85	41.26	36.68
RR-1273	75 5/16"	70"	100	53.75	48.37	43.00

ADD-A-RACK ASSEMBLIES

Includes door, top, bottom and coupling unit for add-on use with racks indicated.

Bud Number	For Use With Rack No.	Wt., Lbs.	Net Each, Lots of		
			1-9	10-14	15-19
AR-1275*	RR-1271	61	$ 34.90	$31.41	$27.92
AR-1276*	RR-1272	81	43.75	39.37	35.00
AR-1277*	RR-1273	94	51.25	46.12	41.00
AR-1778	CR-1774	70	44.34	39.91	35.47
AR-1775	CR-1771	74	49.01	44.11	39.21
AR-1776	CR-1772	100	60.96	54.86	48.77
AR-1777	CR-1773	113	74.90	67.41	59.92
AR-2278*	CR-2074	102	60.15	54.13	48.12
AR-2275*	CR-2071	86	68.06	61.25	54.65
AR-2276*	CR-2072	110	85.17	76.65	68.14
AR-2277*	CR-2073	130	103.75	93.38	83.00

*Gray hammertone standard; for black or gray wrinkle add 10% to price.

TRUCK CASTERS

Use with all Bud relay racks and other floor mounted units. Ball bearing wheels are hard tread composition. **RC-7756** is for heavy duty applications. **RC-7758** is for extra heavy duty use (Series 60 Racks).

Bud No.	Height	Weight (Set of 4)	Net Each, Lots of		
			1-49	50-99	100-149
RC-7756	2⅝"	1¾ lbs.	$0.90	$0.81	$0.72
RC-7757	2"	1 lb.	.40	.36	.32
RC-7758	3¼"	6 lbs.	2.17	1.95	1.74

DOOR HANDLES, CATCH SETS

No. 9347: Fits flush with top of cabinet; exposed parts chrome plated. **Nos. 9196 and 9223:** Lever-type handles are chrome plated with corrosion-resistant steel spindle and cam; fit Super Deluxe racks.

Bud No.	Description	Net Each, Lots of		
		1-49	50-99	100-149
9196	Non-locking handle	$2.66	$2.39	$2.13
9223	9196 with lock and key	5.00	4.50	4.00
9347	Flush-mount catch set	.98	.88	.78

TABLE-MOUNT TELEPHONE RACK

Sturdy rack with chassis type base mounts heavy components on table where enclosures are not required. Panel mount rails recessed for flush mount of 19" panels. Shipped knocked down. Specify black wrinkle (suffix **"B"**) or gray hammertone (**"HG"**).

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-14	15-24	25-34
RR-1248	24"	21"	15	$ 9.10	$ 8.19	$7.28
RR-1249	31"	28"	18	11.19	10.07	8.95

DELUXE CABINET RACKS

These cabinet racks have rounded corners and attractive red-lined chrome trim. There is a recessed, hinged door on the top with a snap catch. These racks are made of heavy gauge steel and are of sturdy construction. The five large sizes have a hinged rear door, while the small sizes have a welded panel in the rear. Adequate ventilation is assured by means of louvered sides and a 2½ inch opening in the bottom of the back extends the entire width. "NO-SCRATCH" EXTENDED METAL FEET ARE EMBOSSED ON THE BOTTOM TO MINIMIZE MARRING OF A TABLE TOP. Racks are furnished in black wrinkle (add suffix **"B"** to number when ordering), gray wrinkle (suffix **"G"**), and hammertone gray (suffix **"HG"**). **Size:** 14¾" x 22" w. Will fit standard 19" panels. **Aluminum relay rack panel covering complete panel space supplied at no extra cost.**

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of		
				1-14	15-24	25-34
CR-1726	8 25/32"	7"	24	$15.28	$13.75	$12.22
CR-1741	10 9/16"	8¾"	28	16.70	15.03	13.36
CR-1740	12 5/16"	10½"	31	19.12	17.21	15.30
CR-1742	14 1/16"	12¼"	32	20.12	18.11	16.10
CR-1739	15 13/16"	14"	35	21.96	19.76	17.57
CR-1743*	19 5/16"	17½"	40	26.22	23.60	20.98
CR-1727*	22 13/16"	21"	43	28.06	25.25	22.45
CR-1744*	28 1/16"	26¼"	51	30.14	27.13	24.11
CR-1728*	33 5/16"	31½"	58	31.98	28.78	25.58
CR-1745*	36 13/16"	35"	63	33.65	30.29	26.92

*These sizes have both top and rear doors.

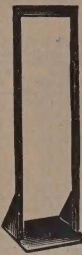
HEAVY-DUTY CABINET RACKS

Similar to above units with Add-A-Cab feature (similar to Add-A-Rack) for continuously expanding systems. Panel mounting rails are integral part of the sides. Removable rear door. Louvered sides and 2½" x 17⅞" opening in the bottom of the back assure adequate ventilation. Made of 16 ga. steel. Gray hammertone finish only; black or gray wrinkle finish available at 10% additional charge. **Size:** 17⅞" d. x 22" w.

CR-1736	24½"	19¼"	50	$26.65	$23.98	$21.32
CR-1737	31½"	26¼"	57	28.75	25.87	23.00
CR-1738	40¼"	35"	70	34.15	30.73	27.32
ACR-1936	Add-A-Cab for CR-1736		42	25.40	22.86	20.32
ACR-1937	Add-A-Cab for CR-1737		52	27.40	24.66	21.92
ACR-1938	Add-A-Cab for CR-1738		57	32.55	29.29	26.04

Racks, Panels, Chassis

TELEPHONE-TYPE RELAY RACKS



Standard Models. 3" channels and crossbars of 7/64" steel. Base has chassis type bottom with side angles. Base drilled for RC-7756 casters. Black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).
Heavy Duty Model RR-1265. Two 3½" x 5" x ¼", 20⅜" long angles form base. Steel channels are 3" x 1⅜", 72¼" long. Cross bars are ⅛" x 2 3/32" angles. Panel holes tapped 12-24 with W.E. space. Black wrinkle finish only. Usually bolted to floor.

Bud No.	Height, Overall	Panel Space	Net Each, Lots of 1-9	10-14	15-19
RR-1263	35 39/64"	31½"	$21.71	$19.53	$17.37
RR-1363	40 55/64"	36¾"	21.96	19.76	17.57
RR-1264	70 39/64"	66½"	24.80	22.32	19.84
RR-1364	75 55/64"	71¾"	25.13	22.62	20.10
RR-1366	81 7/64"	77"	29.98	26.98	23.98
RR-1265	72¼"	66½"	54.78	49.30	43.82

STANDARD RELAY RACK PANELS

Choice of steel or aluminum relay rack panels. Both steel and aluminum are ⅛" thick. All panels are 19" wide. Specify color when ordering, use letter suffix: **B** for black wrinkle; **G** for gray wrinkle; **HG** for gray hammertone; **SB** for smooth blue; **SG** for smooth gray. Aluminum panels are available in 3/16" thickness at 60% increase over the ⅛" aluminum panel prices.

Ht., In.	STEEL Bud No. PS-	Net Each, Lots of 1-49	50-99	100-149	ALUMINUM* Bud No. PA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1250	$0.84	$0.76	$0.67	1101	$1.09	$0.98	$0.87
3½	1251	1.00	.90	.80	1102	1.42	1.28	1.14
5¼	1252	1.25	1.13	1.00	1103	1.92	1.73	1.54
7	1253	1.42	1.28	1.14	1104	2.42	2.18	1.94
8¾	1254	1.75	1.58	1.40	1105	2.84	2.56	2.27
10½	1255	2.09	1.88	1.67	1106	3.59	3.23	2.87
12¼	1256	2.42	2.18	1.94	1107	4.09	3.68	3.27
14	1257	2.84	2.56	2.27	1108	4.76	4.28	3.81
15¾	1258	3.09	2.78	2.47	1109	5.34	4.81	4.27
17½	1259	3.51	3.16	2.81	1110	5.85	5.27	4.68
19¼	1260	3.84	3.46	3.07	1111	6.43	5.79	5.14
21	1261	4.26	3.83	3.41	1112	7.01	6.31	5.61

*Aluminum alloy 5005 H-36.

SURFACE SHIELD PANELS

Bright aluminum alloy 5005 H-36 panels have blemish-free mill finish. Covered on both sides with sturdy, pressure-sensitive, white paper; protects against damage and useful for marking for drilling, positioning, etc. Standard notched 19" wide sizes.

Ht., In.	⅛" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149	3/16" ALUMINUM Bud SFA-	Net Each, Lots of 1-49	50-99	100-149
1¾	1831	$0.97	$0.87	$0.78	3161	$1.79	$1.61	$1.43
3½	1832	1.34	1.21	1.07	3162	2.36	2.12	1.89
5¼	1833	1.80	1.62	1.44	3163	3.17	2.85	2.54
7	1834	2.21	1.99	1.77	3164	3.91	3.52	3.13
8¾	1835	2.66	2.39	2.13	3165	4.68	4.21	3.74
10½	1836	3.34	3.01	2.67	3166	5.90	5.31	4.72
12¼	1837	3.85	3.47	3.08	3167	6.80	6.12	5.44
14	1838	4.45	4.01	3.56	3168	7.85	7.06	6.28
15¾	1839	4.97	4.47	3.98	3169	8.76	7.88	7.01
17½	1840	5.47	4.92	4.38	3170	9.67	8.70	7.74
19¼	1841	5.99	5.39	4.79	3171	10.57	9.51	8.46
21	1842	6.50	5.85	5.20	3172	11.48	10.33	9.18

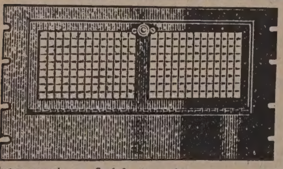
VENTILATING GRILLE PANELS

Substitute for solid panels for extra ventilation. Made of ⅛" steel with die-cut grille 13 13/32" wide. Standard notched 19" wide sizes. Specify black wrinkle (suffix **B**), gray wrinkle (suffix **G**), or gray hammertone (suffix **HG**).

Bud No.	Height, Overall	Grille Height	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-808	5¼"	3⅜"	2½	$3.26	$2.93	$2.61
PS-809	7"	4⅞"	3½	3.54	3.19	2.83
PS-810	8¾"	3⅜"*	5	4.26	3.83	3.41
PS-811	10½"	5⅞"*	5¾	4.51	4.06	3.61
PS-812	12¼"	7⅜"*	6¼	4.84	4.36	3.87

*Allows 3½" space for chassis mounting.

VENTILATED DOOR RACK PANELS



Generous perforated area in door provides adequate ventilation for adjacent units. Also features a newly designed plunger-type latch for positive locking and easy opening. Distance from hinged side of opening to bottom, 3½"; from lock side of opening to top, 1". Available in black or gray wrinkle finish or gray hammertone finish (specify when ordering). ⅛" steel, 19" long.

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-814	10½"	15⅜ x 6	6	$7.52	$6.77	$6.03
PS-815	12½"	15⅜ x 7½	7	8.27	7.44	6.62

NON-VENTILATED METAL DOOR PANELS

Bud No.	Height, Overall	Door Size, Inches	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PS-615	10½"	15⅜ x 6	7¼	$6.08	$5.47	$4.86
PS-616	12¼"	15⅜ x 7½	8¼	7.52	6.77	6.02

RACK SHELVES

Heavy gauge steel shelves with 1" flange for rigidity and strength. Mount on chassis supporting angles in rack to hold power supplies, modulators, etc. Width 19". Black enamel finish.

Bud No.	Depth, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1976	15"	6½	$3.47	$3.12	$2.78
CB-1977	12"	5½	2.64	2.38	2.11

CHASSIS MOUNTING BRACKETS

Mounts chassis to panels, essential when panel supports entire chassis weight. Heavy gauge steel 6½" high, cut away at bottom to mount flush to panel. Black enamel finish.

Bud No.	Depth, In.	Net Per Pair, Lots of 1-49	50-99	100-149
MB-458	8	$1.09	$0.98	$0.87
MB-448	10	1.35	1.22	1.08
MB-459	11	1.50	1.35	1.20
MB-449	12	1.75	1.58	1.40
MB-460	13	1.69	1.52	1.35
MB-450*	10	1.97	1.77	1.58
MB-451*	13	2.09	1.88	1.67

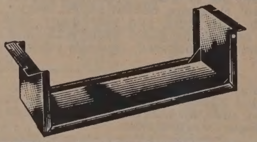
*8½" high for chassis height of 4".

TRIANGULAR MOUNTING BRACKETS

Ideal for rigid support of shelves to take heavy loads. Heavy gauge steel with ¾" flange. Black enamel finish only.

Bud No.	Height, In.	Depth, In.	Wt., Lbs.	Net Per Pair, Lots of 1-9	10-14	15-19
MB-1266	5	5	1	$1.00	$0.90	$0.80
MB-1267	7	7	1	1.17	1.05	.94
MB-1268	9	9	1½	1.42	1.28	1.14

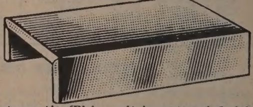
PANEL CHASSIS



Panel mounting chassis for vertical installation where depth is limited or front service is desired. Made of .062" aluminum alloy 5005 H-14 in natural finish. Front flange has standard notching. Fits standard 19" panel space.

Bud No.	Height, Inches	Weight, Lbs.	Net Each, Lots of 1-24	25-49	50-99
CB-1370	1¾	¾	$2.30	$2.07	$1.84
CB-1371	3½	1¼	2.59	2.33	2.07
CB-1372	5¼	1½	2.84	2.56	2.27
CB-1373	7	2	3.26	2.93	2.61
CB-1374	8¾	2¼	3.76	3.38	3.01
CB-1375	10½	2¾	4.43	3.99	3.54
CB-1376	12¼	3	4.84	4.36	3.87
CB-1377	14	3¼	5.34	4.81	4.27

OPEN-END CHASSIS



Primarily intended to be used with the various sizes and styles of Bud metal cabinets, these chassis are ideal for any type of small built-up unit such as a record amplifier, code oscillator, etc. U-shaped construction is used with ends folded over 3/8" for additional strength. This unit is natural finish aluminum alloy 5005 H-14.

Bud No.	Size, Inches D. x W. x H.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-38	7 x 6 x 2	C-1584	$1.00	$0.90	$0.80
CB-30	5 x 7 x 1½	....	.97	.87	.78
CB-41	7 x 7 x 1½	C-973	1.24	1.12	.99
CB-39	7 x 8 x 2	C-1585	1.17	1.05	.94
CB-996	5½ x 9 x 1½	C-993	1.09	.98	.87
CB-976	7½ x 9 x 1½	C-999, CD-1481	1.40	1.26	1.12
CB-40	7 x 10 x 2	C-1586	1.37	1.23	1.10
CB-997	7 x 11 x 1½	C-994, CD-1482	1.30	1.17	1.04
CB-998	7 x 13 x 1½	C-995, CD-1483	1.59	1.43	1.27

MINIATURE ALUMINUM CHASSIS

Small versions of above with ¼" flange on bottom for bottom plate or fastening. Ideal for limited space uses. Natural finish.

CB-1623	2⅝ x 2¾ x 1¼	....	$0.38	$0.34	$0.30
CB-1624	1¾ x 3⅛ x 1	CU-883	.42	.38	.34
CB-1625	3¼ x 4½ x 2	C-1788	.48	.43	.38
CB-1626	2¾ x 4⅛ x 1	CU-728	.45	.41	.36
CB-1627	3¾ x 4⅛ x 1½	CU-729	.45	.41	.36
CB-1628	3 x 6⅛ x 1¼	C-1788	.53	.48	.42
CB-1629	5¾ x 4⅞ x 1½	CU-1098	.57	.51	.46
CB-1617	4 x 3⅛ x 1	C-1606, C-1610	.41	.37	.33
CB-1618	4 x 4⅛ x 1	C-1607, C-1611	.50	.45	.40
CB-1619	4 x 5⅛ x 1	C-1608, C-1612	.53	.48	.42
CB-1620	4 x 6⅛ x 1	C-1609, C-1613	.55	.50	.44

WRITE FOR INFORMATION AND PRICES ON BUD CONSOLE AND TABLE ASSEMBLIES.

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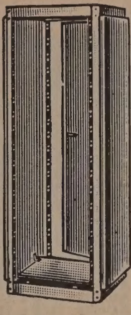
Racks, Cabinets, Blowers

PRESTIGE BALL CORNER RACKS



Attractive, practical housing for permanent or mobile instrumentation. Standard Prestige relay rack consists of framework, top, bottom, two ball cornered sides, and a ball corner door. Sides attach to frame by means of a tongue-and-slot arrangement at bottom and two screws at top. Sides easily removable for access. Drilled and tapped panel mounting rails on all four vertical members of frame. Doors mount from either left or right side. Slotted base takes ball-cornered side panels on any of the four sides. Door and side clearance permits covering of equipment without damage to knobs or controls. Provision made for recessed casters. Extra doors available for placing on any of the sides. Knockout holes provided for attaching two or more units together. Bottom will support 500 lbs., panel rails 200 lbs. suspended vertically between rails. Units take Bud SD-1717 sliding drawer assembly or CD-2210 console drawer. Shipped knocked-down, with necessary assembly hardware. **Gray hammertone finish only. Now furnished with adjustable panel mounting rails.**

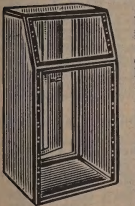
Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-9	10-14	15-19
CR-2280	69⁹⁄₁₆"	61¼"	179	$108.35	$ 97.51	$ 86.68
CR-2281	71¹³⁄₁₆"	66½"	186	115.55	103.99	92.44
CR-2282	82⁵⁄₁₆"	77"	213	129.75	116.77	103.80
DR-2290	Door for CR-2280		28	13.50	12.15	10.80
DR-2291	Door for CR-2281		33	14.40	12.96	11.52
DR-2292	Door for CR-2282		39	16.20	14.58	12.96

PRESTIGE ADD-A-RACKS

Where relay racks are to be joined in series the Add-A-Rack assembly is lower in cost yet provides additional strength and improved appearance. Consists of top, bottom, rear door and framework. Made of 16 gauge steel. Extra ball corner doors will fit adjustable panel mounting rails which are recessed so that panel will be flush with face of rack. Add-A-Racks may be added at any time as needed. Gray hammertone finish.

Bud No.	Used to Add-A-Rack to	Net Each, Lots of 1-9	10-14	15-19
CR-2284	CR-2280	$ 85.29	$76.76	$68.23
CR-2286	CR-2281	92.15	82.94	73.72
CR-2287	CR-2282	103.47	93.12	82.78

IMPERIAL INCLINED PANEL CONSOLE

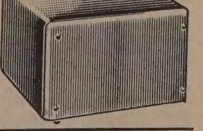


Smart looking all-aluminum Imperial console built for strength while keeping weight factor in mind. Complete assembly includes framework, top, bottom, two sides, and reinforced door with concealed hinges and flush mounted latch. Extrusions and joints are ball-cornered aluminum castings. Inclined panel set at 22½° angle for comfortable viewing. Cast brass, heavy duty hinges specifically designed to enable components, blowers, etc., to be mounted on rear door. Framework for top, inclined panel area and front are extrusions, drilled and tapped to accept standard rack panels. Casters may be attached to bottom. Standard Bud aluminum panels may be used to enclose the front and inclined panel spaces. Gray hammertone finish only.

Bud No.	Overall, Inches W. x D. x H.	Vertical Panel Size, Inches	Weight, Lbs.
BI-1828	20¹⁵⁄₁₆ x 18¾ x 40¹¹⁄₁₆	19¹⁄₁₆ x 28¹⁄₁₆	41
BI-2228	20¹⁵⁄₁₆ x 22⅛ x 40¹¹⁄₁₆	19¹⁄₁₆ x 28¹⁄₁₆	47
BI-2419	20¹⁵⁄₁₆ x 19¹⁷⁄₃₂ x 43²¹⁄₃₂	19¹⁄₁₆ x 24⁹⁄₁₆	43
BI-2421	20¹⁵⁄₁₆ x 21⁹⁄₃₂ x 43²¹⁄₃₂	19¹⁄₁₆ x 24⁹⁄₁₆	46

Bud No.	Net Each, Lots of 1-9	10-14	15-19
BI-1828	$155.00	$139.50	$124.00
BI-2228	170.00	153.00	136.00
BI-2419	190.00	171.00	152.00
BI-2421	200.00	180.00	160.00

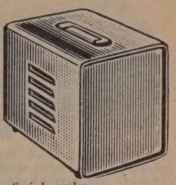
CONTOUR UTILITY CABINETS



Attractively designed utility housing with rounded contour corners. Flanged panels also have rounded corners to preserve the symmetry of design. Constructed of 20 gauge steel. Both front and rear panels are removable; the front panel is solid while the rear panel is louvered for proper ventilation. Four rubber feet, attached to base, prevent scratching surface the unit is placed on. Body is smooth, dark gray enamel; panel is smooth light gray enamel.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-24	25-49	50 & Over
CU-463	4⁷⁄₃₂	6⁷⁄₃₂	3¾	$ 5.50	$4.95	$4.40
CU-465	4⁷⁄₃₂	6⁷⁄₃₂	5¾	6.35	5.72	5.08
CU-585	5⁷⁄₃₂	8⁷⁄₃₂	5¾	8.35	7.52	6.68
CU-587	5⁷⁄₃₂	8⁷⁄₃₂	7¾	9.10	8.19	7.28
CU-7125	7⁷⁄₃₂	12⁷⁄₃₂	5¾	9.70	8.73	7.76
CU-7127	7⁷⁄₃₂	12⁷⁄₃₂	7¾	10.35	9.32	8.28

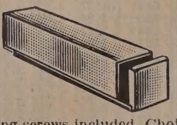
PORTACAB



Attractive, versatile cabinets desirable as housings for instrumentation requiring highly stylized appearance. Custom, quality look achieved in standard production models. Made entirely of aluminum to minimize weight. Flexible recessed handle permits easy portability as well as vertical stacking. Well louvered for adequate ventilation. Louvers point inward, permitting side-to-side placement of cabinets without space loss. Aluminum front panel recessed ½". Welded back has opening. Perimeter of panel follows contour of body. Has four detachable rubber feet. Gray hammertone finish only.

Bud No.	Size, Inches W. x D. x H.	Wt., Lbs.	Bud Chassis	Net Each, Lots of 1-24	25-49	50-99
WA-1540	6⅛ x 8 x 8	2½	AC-402	$ 9.20	$ 8.28	$ 7.36
WA-1541	8⅛ x 12 x 9	3	AC-407	12.00	10.80	9.60
WA-1542	10⅛ x 8 x 8	3½	AC-406	10.65	9.59	8.52
WA-1543	11⅛ x 18 x 11	6½	AC-416	13.50	12.15	10.80
WA-1544	14⅛ x 18 x 12	7¾	AC-420	15.50	13.95	12.40

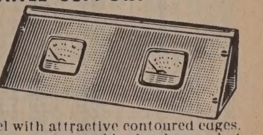
MINISLIDE



Ideal for housing components or assemblies where easy access to internally mounted parts is important. Can be mounted in a number of positions in a rack or cabinet. Accessibility achieved by removing sliding cover. Design of Minislide Box provides adequate shielding and protection from dust. Sturdily made of .050 aluminum. 4 self-tapping fastening screws included. Choice of gray hammertone (**GH**) or natural aluminum (**NA**).

Bud No.	Finish	Size, Inches W. x D. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
MS-2150	(**GH**)	3⅛ x 13 x 2⅝	1	$3.75	$3.38	$3.00
MS-2151	(**GH**)	5⅛ x 13 x 2⅝	1½	4.30	3.87	3.44
MS-2152	(**GH**)	3⅛ x 17 x 2⅝	1¼	4.15	3.74	3.32
MS-3050	(**NA**)	3⅛ x 13 x 2⅝	1	2.85	2.57	2.28
MS-3051	(**NA**)	5⅛ x 13 x 2⅝	1½	3.50	3.15	2.80
MS-3052	(**NA**)	3⅛ x 17 x 2⅝	1¼	3.35	3.02	2.68

DUAL-VIEW PANEL SUPPORT

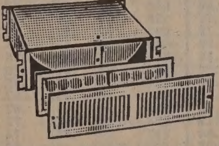


Designed for installation on a rack where an oblique view of instrument panel is desired. Engineered so that the entire assembly occupies no more space than size of supported panel. Panel support cover can be removed for easy servicing or installation of instruments. Made of heavy gauge steel with attractive contoured edges. Comes knocked-down with necessary assembly hardware, but without panels. Bud panels to fit these supports are PS-1253 (steel), and PA-1104 (aluminum) for Model IP-1120; PS-1255 (steel), and PA-1106 (aluminum) for IP-1121. Furnished in black wrinkle (add suffix **"B"**), gray hammertone (add suffix **"HG"**), gray wrinkle (add suffix **"G"**), smooth gray (suffix **"SG"**), or smooth blue (suffix **"SB"**).

Bud No. IP-1120—Requires 19" x 7" panel space. Wt., 3½ lbs.
Net Each, Lots of 1-14 .... **$4.15**
Lots of 15-24, Each .... **$3.74** Lots of 25-34, Each **$3.32**

Bud No. IP-1121—Requires 19" x 10½" panel space. Wt., 6¾ lbs.
Net Each, Lots of 1-14 .... **$5.80**
Lots of 15-24, Each .... **$5.22** Lots of 25-34, Each **$4.64**

TRANS-AIRE BLOWER



Ideal for use where excessive heat is generated by equipment in an enclosed rack, cabinet or console. Brings in fresh air or exhausts heated air, enabling use as an exhaust or intake blower, depending upon mounting position. Unit will operate in any position—vertical or horizontal. May be mounted to rails of standard cabinet or rack. Use of Bud Chassis Supporting Angles SA-1349, SA 1350 or CE-2219 is recommended when blower is mounted in rack or cabinet. Motor is rubber mounted to reduce vibration. Operating noise factor reduced to minimum. Thermal overload protection to prevent overheating. Automatic reset. Oil impregnated, fiberglas disposable filter can be changed without removing unit from cabinet. Three sizes provide air displacement from 100 c.f.m. to 750 c.f.m. at 0° static pressure. Complete with filter, chrome-plated grille and 18" three-wire cord. All dimensional and technical data in table below. **Weight:** B-23 17¼ lbs., B-25 33 lbs.; B-27 35¼ lbs.; replacement filter 1 lb.

BLOWERS

Bud No.	Panel Space	Depth	Air c.f.m. High	Low	Mot. hp	Net Each, Lots of 1-9	10-14	15 Up
B-23	3½"x19"	12"	200	100	1/20	$47.10	$42.39	$37.68
B-25	5¼"x19"	14½"	500	250	1/6	53.35	48.02	42.68
B-27	7" x19"	14½"	750	350	¼	61.35	55.22	49.08

FILTERS FOR ABOVE BLOWERS

Bud No.	Unit	Net Each, Lots of 1-24	25-49	50-99
BF-24	Filter for use with B-23	$1.35	$1.22	$1.08
BF-26	Filter for use with B-25	1.50	1.35	1.20
BF-28	Filter for use with B-27	1.65	1.49	1.32

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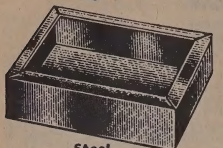
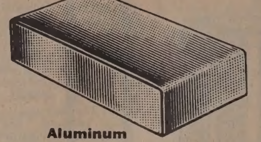
Chassis, Sliding Drawer

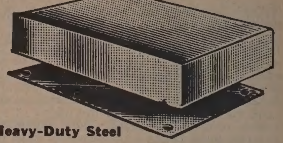
STEEL AND ALUMINUM CHASSIS BASES, PLATES



Steel



Aluminum



Heavy-Duty Steel

Each chassis is made from a single sheet of metal. All corners are reinforced and spot welded. Aluminum bases are welded on Government approved welders as used for aircraft parts; natural finish aluminum alloy 5005 H-14. All four sides are folded at the bottom for added rigidity and strength.

STEEL CHASSIS BASES

Made of 20 gauge steel except as otherwise specified.

Size, Inches D. x W. x H.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Bud CB-	Net Each, Lots of 1-24	25-49	50-99
5 x 7 x 2	629*	$1.30	$1.17	$1.04	628*	$1.07	$0.96	$0.86
5 x 9½ x 2½	645*	1.67	1.50	1.34	644*	1.37	1.23	1.10
5 x 9½ x 1½	776*	1.69	1.52	1.35	788*	1.20	1.08	.96
5 x 10 x 3	605*	1.84	1.66	1.47	604*	1.27	1.14	1.02
6 x 14 x 3	756	2.05	1.85	1.64	755	1.75	1.58	1.40
7 x 7 x 2	1191	1.50	1.35	1.20	789	1.20	1.08	.96
7 x 9 x 2	1192	1.59	1.43	1.27	790	1.40	1.26	1.12
7 x 11 x 2	1193	1.67	1.50	1.34	791	1.45	1.31	1.16
7 x 12 x 3	793	2.05	1.85	1.64	792	1.57	1.41	1.26
7 x 13 x 2	1194	1.92	1.73	1.54	646	1.54	1.39	1.23
5 x 13½ x 2½	1198	2.17	1.95	1.74	647	1.77	1.59	1.42
7 x 15 x 3	1189	2.40	2.16	1.92	649	2.00	1.80	1.60
8½ x 15 x 3	666	2.71	2.44	2.17	665	2.24	2.02	1.79
4 x 17 x 3	1066	2.14	1.93	1.71	1068	1.80	1.62	1.44
7 x 17 x 2½	1199	2.37	2.13	1.90	648	1.99	1.79	1.59
7 x 17 x 3	758	2.59	2.33	2.07	757	2.15	1.94	1.72
8 x 10 x 2½	702	2.02	1.82	1.62	701	1.72	1.55	1.38
8 x 12 x 2½	704	2.24	2.02	1.79	703	1.75	1.58	1.40
8 x 12 x 3	760	2.34	2.11	1.87	759	1.85	1.67	1.48
8 x 17 x 2	774	2.34	2.11	1.87	650	1.70	1.53	1.36
8 x 17 x 3	775	2.62	2.39	2.10	651†	2.05	1.85	1.64
10 x 12 x 3	1195	2.25	2.03	1.80	652	1.89	1.70	1.51
10 x 14 x 3	779	2.44	2.20	1.95	653	2.04	1.84	1.63
10 x 17 x 2	769	2.39	2.15	1.91	654†	2.00	1.80	1.60
10 x 17 x 3	637	2.84	2.57	2.27	636†	2.00	1.80	1.60
10 x 17 x 3	1196‡	3.05	2.75	2.44	655†‡	2.54	2.29	2.03
10 x 23 x 3	1197‡	3.42	3.08	2.74	656‡	2.86	2.57	2.29
11 x 17 x 2	770‡	2.81	2.53	2.25	657†‡	2.35	2.12	1.88
11 x 17 x 3	771‡	3.49	3.14	2.79	658†‡	2.77	2.49	2.22
12 x 17 x 2	661‡	3.09	2.78	2.47	663†‡	2.44	2.20	1.95
12 x 17 x 3	662‡	3.67	3.30	2.94	664†‡	2.91	2.62	2.33
13 x 17 x 2	772‡	3.72	3.35	2.98	659†‡	2.91	2.62	2.33
13 x 17 x 3	773‡	4.07	3.66	3.26	660†‡	3.41	3.07	2.73
10 x 17 x 4	641‡	3.51	3.16	2.81	640†‡	2.92	2.63	2.34
13 x 17 x 4	643‡	4.68	4.21	3.74	642†‡	3.92	3.53	3.14
10 x 17 x 5	624‡	5.34	4.81	4.27	623‡	4.51	4.06	3.61
13 x 17 x 5	626‡	5.93	5.34	4.74	625‡	4.93	4.44	3.94

*22 gauge. †Punched to accommodate chassis mounting brackets. ‡18 gauge.

STEEL CHASSIS BOTTOM PLATES

Protect wiring and keep out dust from chassis bottom. Four embossed feet. Two finishes to match chassis finish.

Fits Chassis Size, In. W. x L.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud BP-	Net Each, Lots of 1-49	50-99	100-149	Bud BP-	Net Each, Lots of 1-49	50-99	100-149
5 x 7	706	$0.69	$0.62	$0.55	705	$0.57	$0.51	$0.46
5 x 9½	667	.75	.68	.60	680	.62	.56	.50
5 x 10	538	.73	.66	.58	536	.67	.60	.54
7 x 7	668	.97	.87	.78	681	.92	.83	.74
7 x 9	669	.99	.89	.79	682	.94	.85	.75
7 x 11	670	1.07	.96	.86	683	.95	.86	.76
7 x 12	539	1.12	1.01	.90	537	.99	.89	.79
7 x 13	671	1.20	1.08	.96	684	1.02	.92	.82
5 x 13½	672	1.00	.90	.80	685	.84	.76	.67
4 x 17	1067	1.07	.96	.86	1069	.84	.76	.67
7 x 17	673	1.37	1.23	1.10	686	.90	.81	.72
8 x 10	708	1.05	.94	.84	707	.92	.83	.74
8 x 12	710	1.34	1.21	1.07	709	1.06	.95	.85
8 x 17	674	1.54	1.39	1.23	687	.95	.86	.76
10 x 12	675	1.57	1.41	1.26	688	.95	.86	.76
10 x 14	514	1.33	1.20	1.06	517	1.25	1.13	1.00
10 x 17	676	1.60	1.44	1.28	689	1.20	1.08	.96
11 x 17	677	1.60	1.44	1.28	690	1.20	1.08	.96
12 x 17	678	1.87	1.68	1.50	691	1.27	1.14	1.02
13 x 17	679	2.24	2.02	1.79	692	1.47	1.32	1.18

ALUMINUM CHASSIS BOTTOM PLATES

Bud No.	Fits Chassis W. x L., In.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
BPA-1589	5 x 7	⅛	$0.74	$0.67	$0.59
BPA-1590	5 x 9½	¼	.75	.68	.60
BPA-1591	5 x 10	¼	.75	.68	.60
BPA-1592	7 x 7	⅓	.77	.69	.62
BPA-1593	7 x 9	⅓	.80	.72	.64
BPA-1594	7 x 11	⅓	.90	.81	.72
BPA-1595	7 x 12	½	.97	.87	.78
BPA-1596	7 x 13	½	1.14	1.03	.91
BPA-1597	10 x 17	¾	1.52	1.37	1.22
BPA-1598	13 x 17	¾	2.07	1.86	1.66

ALUMINUM CHASSIS BASES

Bud No.	Size, Inches D. x W. x H.	Ga.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AC-430	4 x 6 x 3	18	½	$1.34	$1.21	$1.07
AC-431	4 x 6 x 2	18	½	1.10	.99	.88
AC-432	4 x 17 x 3	16	1¼	2.33	2.10	1.86
AC-402	5 x 7 x 2	18	½	1.17	1.05	.94
AC-429	5 x 7 x 3	18	¾	1.42	1.28	1.14
AC-403	5 x 9½ x 2	18	½	1.24	1.12	.99
AC-421	5 x 9½ x 3	18	¾	1.60	1.44	1.28
AC-404	5 x 10 x 3	18	¾	1.63	1.47	1.30
AC-422	5 x 13 x 3	18	¾	1.84	1.66	1.47
AC-433	6 x 17 x 3	16	1¼	2.67	2.40	2.14
AC-405	7 x 7 x 2	18	½	1.35	1.22	1.08
AC-406	7 x 9 x 2	18	½	1.46	1.31	1.17
AC-407	7 x 11 x 2	18	¾	1.58	1.42	1.26
AC-408	7 x 12 x 3	18	1	2.00	1.80	1.60
AC-409	7 x 13 x 2	18	¾	1.67	1.50	1.34
AC-411	7 x 15 x 3	16	1½	2.67	2.40	2.14
AC-423	7 x 17 x 3	16	1¾	2.75	2.48	2.20
AC-424	8 x 12 x 3	16	1½	2.42	2.18	1.94
AC-425	8 x 17 x 2	16	1½	2.51	2.26	2.01
AC-412†	8 x 17 x 3	16	1¾	2.84	2.56	2.27
AC-413	10 x 12 x 3	16	1½	2.67	2.40	2.14
AC-414	10 x 14 x 3	16	1¾	2.84	2.56	2.27
AC-415†	10 x 17 x 2	16	1¼	2.68	2.41	2.14
AC-416†	10 x 17 x 3	16	2	3.17	2.85	2.54
AC-426†	11 x 17 x 2	14	2¼	3.42	3.08	2.74
AC-417†	11 x 17 x 3	14	2¾	3.97	3.57	3.18
AC-418†	12 x 17 x 3	14	2¾	4.08	3.67	3.26
AC-419†	13 x 17 x 2	14	2½	3.51	3.16	2.81
AC-420†	13 x 17 x 3	14	2¾	4.26	3.83	3.41
AC-427†	10 x 17 x 4	14	3½	4.51	4.06	3.61
AC-428†	13 x 17 x 4	14	3¾	5.26	4.73	4.21

†Punched to accommodate chassis mounting brackets.

HEAVY DUTY CHASSIS

Complete with 20 ga. bottom plate for uses requiring extra strength to hold heavy weights. Made of 16 ga. steel; 17″ wide.

Size, In. D. x H.	Zinc Plated Finish				Black Wrinkle Finish			
	Bud CB-	Net Each, Lots of 1-24	25-49	50-99	Bud CB-	Net Each, Lots of 1-24	25-49	50-99
8 x 3	1765	$4.76	$4.28	$3.81	1758	$4.26	$3.83	$3.41
11 x 3	1767	4.84	4.36	3.87	1760	4.34	3.91	3.47
13 x 2	1768	5.34	4.81	4.27	1761	4.84	4.36	3.87
13 x 3	1769	5.43	4.89	4.34	1762	4.93	4.44	3.94
13 x 4	1770	5.85	5.27	4.68	1763	5.26	4.73	4.21

CHASSIS DECKS

Use in carrying cases, cabinets, etc.; deck is folded 1½″ over at front and ½″ on sides. Black enamel finish only.

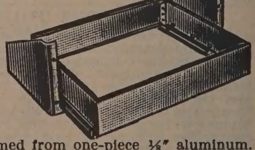
Bud No.	Size, In. W. x D.	Fits Cabinet Number	Net Each, Lots of 1-24	25-49	50-99
CB-522	4¾ x 5½	CU-1098	68c	61c	54c
CB-523	4¾ x 4½	CU-1099	65c	59c	52c
CB-525	5¾ x 5½	CU-1124, CU-1096	78c	70c	62c

CHASSIS SUPPORTING ANGLES

Distribute weight to sides of the rack to relieve the panel. Angles are 3″ x 1⅜″ x 7/64″ steel. Black enamel finish. **No. CE-2219** designed for attachment to rails of Console Pedestal or Prestige Relay Racks. Slotted for infinite vertical adjustment; extend to full cabinet depth; 21″ x 3″ x 2¾″.

Bud No.	Length, Inches	Weight, Lbs.	Net Per Pair, Lots of 1-24	25-49	50-99
SA-1349	14½	4	$2.25	$2.03	$1.80
SA-1350	12	3	2.17	1.95	1.74
CE-2219	21	7½	3.00	2.70	2.40

SLIDING DRAWER ASSEMBLY



Ideal for use as a record player mounting base, typewriter base, apparatus and instrument base, writing desk, etc. Installs quickly and simply in any standard rack. Can't fall out or tilt. Provides a completely safe mounting base for anything put on it. Ball bearing suspension for easy sliding. Chassis formed from one-piece 14 gauge aluminum; electrowelded. Support brackets formed from one-piece ⅛″ aluminum. Slide rail fastens securely to chassis, slides in and out easily on channeled ball bearings. Stop screw on slide rail prevents drawer from falling out of channel. Support brackets and channel finished in natural aluminum; chassis, slide and plate finished in light gray hammertone. Will support up to 50 lbs. **Chassis Size:** 16¾″ x 14″ x 3″, with ½″ flange top and bottom. *Fastens to top or bottom of chassis.

Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
SD-1717	Sliding drawer	5	$11.43	$10.29	$9.14
TP-1718	Drawer plate*	1½	2.56	2.30	2.05

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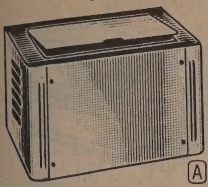
Cabinets and Cases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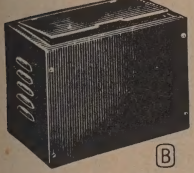

B

C

STREAMLINED CABINETS (FIG. A)

Ideal for housing devices not requiring excessive depth. Recessed, hinged cover with convenient finger lift for access. Panels fit flush with embossed, rounded corner fronts. Recommended for use with Bud Open End Chassis. Back opening 3½" h. provides for cables or rear controls; louvered sides provide ample ventilation. **Size:** 8¼" d. x 8" h., overall. Specify black wrinkle (suffix **"B"**), gray wrinkle (suffix **"G"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Width, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CD-1480	10½"	8" x 8"	5¾	**$ 5.90**	**$ 5.31**	**$ 4.72**
CD-1481	12½"	8" x 10"	6	**6.01**	**5.41**	**4.81**
CD-1482	14½"	8" x 12"	6½	**6.31**	**5.68**	**5.05**
CD-1483	16½"	8" x 14"	7	**6.77**	**6.09**	**5.42**
CD-1484	18½"	8" x 16"	7¾	**7.36**	**6.62**	**5.89**
CD-1485*	20⅜"	12" x 18"	15	**14.95**	**13.45**	**11.96**

*Depth is 12"; has ½" vertical chrome strip at corners.

INSTRUMENT AND RECEIVER CABINETS (FIG. B)

Economy version of the Streamlined Cabinet series. Recessed, hinged cover provides access to contents. Front panel is attached with self-tapping screws. Louvers provide ample ventilation. Bud Open End Chassis are suited for use with these units. Black wrinkle finish only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-973	7 x 8 x 8	5	**$4.18**	**$3.76**	**$3.34**
C-993	7 x 10 x 8	5½	**4.84**	**4.36**	**3.87**
C-994	7 x 12 x 8	5¾	**5.01**	**4.51**	**4.01**
C-995	7 x 14 x 8	6	**5.26**	**4.73**	**4.21**
C-1190	8 x 16 x 8	7	**7.60**	**6.84**	**6.08**
C-975	9 x 15 x 11	8	**9.19**	**8.27**	**7.35**
C-999	12 x 18 x 12	15	**9.92**	**8.93**	**7.94**

CARRYING CASES (FIG. C)

A versatile cabinet that accepts a variety of equipment. Removable front and back panels; handle may be attached to top. Available in sturdy steel or lightweight aluminum to suit your requirements.

STEEL CASES

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish when ordering.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CC-1095	5 x 6 x 9	3¼	**$3.01**	**$2.71**	**$2.41**
CC-1091	5 x 9 x 6	3¼	**3.01**	**2.71**	**2.41**
CC-1096	6 x 7 x 12	4	**4.18**	**3.76**	**3.34**
CC-1092	6 x 12 x 7	4	**4.18**	**3.76**	**3.34**
CC-1097	7 x 7¾ x 15	5	**4.68**	**4.21**	**3.74**
CC-1100	8 x 10 x 10	5	**4.84**	**4.36**	**3.87**
CC-1093	7 x 15 x 9	5	**5.85**	**5.27**	**4.68**

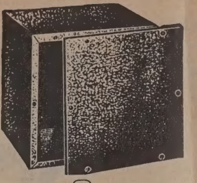
NATURAL FINISH ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095	5 x 6 x 9	1⅛	**$3.09**	**$2.78**	**$2.47**
ACC-2091	5 x 9 x 6	1⅛	**3.09**	**2.78**	**2.47**
ACC-2096	6 x 7 x 12	1⅓	**4.50**	**4.05**	**3.60**
ACC-2092	6 x 12 x 7	1⅓	**4.50**	**4.05**	**3.60**

GRAY HAMMERTONE ALUMINUM CASES*

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
ACC-2095HG	5 x 6 x 9	1⅛	**$3.51**	**$3.16**	**$2.81**
ACC-2091HG	5 x 9 x 6	1⅛	**3.51**	**3.16**	**2.81**
ACC-2096HG	6 x 7 x 12	1⅓	**5.09**	**4.58**	**4.07**
ACC-2092HG	6 x 12 x 7	1⅓	**5.09**	**4.58**	**4.07**

*Aluminum alloy 5005 H-14.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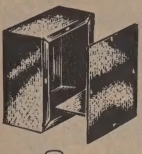
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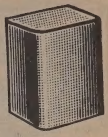
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METAL UTILITY CABINETS (FIG. D)

Highly useful housing for all types of electronic equipment such as mixers, monitors, frequency meters, etc. Both front and back panels are removable for easy accessibility.

STEEL CABINETS

Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**) finish.

Bud No.	Size, Inches D. x W. x H.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-883	2 x 4 x 4	¾	**$1.09**	**$0.98**	**$0.87**
CU-728	3 x 5 x 4	⅞	**1.22**	**1.10**	**.98**
CU-729	4 x 5 x 6	1¼	**1.38**	**1.24**	**1.10**
CU-1098	6 x 6 x 6	2½	**2.09**	**1.88**	**1.67**
CU-1099	5 x 6 x 9	3	**2.34**	**2.11**	**1.87**
CU-879	7 x 8 x 10	5	**3.34**	**3.01**	**2.67**
CU-1124	6 x 7 x 12	4	**3.29**	**2.96**	**2.63**
CU-880	8 x 10 x 10	5½	**4.01**	**3.61**	**3.21**
CU-881	8 x 11 x 12	6	**4.34**	**3.91**	**3.47**
CU-882	7 x 9 x 15	7½	**4.51**	**4.06**	**3.61**
NATURAL FINISH ALUMINUM CABINETS*					
AU-1083	2 x 4 x 4	¼	**$1.29**	**$1.16**	**$1.03**
AU-1028	3 x 5 x 4	¼	**1.37**	**1.23**	**1.10**
AU-1029	4 x 5 x 6	½	**1.50**	**1.35**	**1.20**
AU-1039	6 x 6 x 6	¾	**2.17**	**1.95**	**1.74**
AU-1040	5 x 6 x 9	1	**2.51**	**2.26**	**2.01**
GRAY HAMMERTONE ALUMINUM CABINETS*					
AU-1083HG	2 x 4 x 4	¼	**$1.50**	**$1.35**	**$1.20**
AU-1028HG	3 x 5 x 4	¼	**1.67**	**1.50**	**1.34**
AU-1029HG	4 x 5 x 6	½	**1.84**	**1.66**	**1.47**
AU-1039HG	6 x 6 x 6	¾	**2.42**	**2.18**	**1.94**
AU-1040HG	5 x 6 x 9	1	**2.84**	**2.56**	**2.27**

*Aluminum alloy 5005 H-14.

MINIATURE UTILITY CABINETS (FIG. E)

Ideal housing for construction of electronic devices using miniature tubes and transistorized circuitry. Front panel has a built-on chassis. Both front and rear panels are removable; fastened by self-tapping screws. Black wrinkle enamel finish.

Bud No.	Size, In. H. x W. x D.	Chassis W. x D., In.	Net Each, Lots of 1-49	50-99	100-149
C-1793	4 x ~~4 x 2~~	3⅛ x 1⅞*	**$1.34**	**$1.21**	**$1.07**
C-1794	4 x 5 x 3	4⅛ x 2⅞*	**1.48**	**1.33**	**1.18**
C-1795	5 x 4 x 3	3⅛ x 2⅞†	**1.62**	**1.46**	**1.30**
C-1796	6 x 5 x 4	4⅛ x 3⅞‡	**1.70**	**1.53**	**1.36**
C-1797	5 x 6 x 4	5⅛ x 3⅞†	**1.92**	**1.73**	**1.54**
C-1798	6 x 6 x 6	4⅞ x 5⅞‡	**2.17**	**1.95**	**1.74**

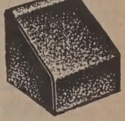
*1" high. †1¼" high. ‡1¾" high.

STREAMLINED MULTI-PURPOSE CABINETS (FIG. F)

Attractive cabinet with curved corners: uses chassis No. CB-1625. Back is entirely open for ventilation. Finished in light gray wrinkle only.

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
C-1787	4½ x 5½ x 3½	1	**$1.70**	**$1.53**	**$1.36**
C-1788	6½ x 5½ x 3½	1½	**1.75**	**1.58**	**1.40**

UNIVERSAL SLOPING PANEL CABINETS



Fully enclosed and shielded housing with one-piece detachable back and sides fastened to body with four self-tapping screws. Components may be mounted on back, bottom, sides or front. Will accommodate Bud Miniature Aluminum Chassis. **Size:** 4" d. x 4¼" h. Gray hammertone finish only.

ALUMINUM MODELS

Aluminum alloy 5005 H-14.

Bud No.	Uses Chassis	Width	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
AC-1610	CB-1617	4"	½	**$1.68**	**$1.51**	**$1.34**
AC-1611	CB-1618	5"	½	**1.75**	**1.57**	**1.40**
AC-1612	CB-1619	6"	¾	**1.90**	**1.71**	**1.52**
AC-1613	CB-1620	7"	¾	**2.10**	**1.89**	**1.68**
STEEL MODELS						
C-1606	CB-1617	4"	¾	**$1.45**	**$1.30**	**$1.16**
C-1607	CB-1618	5"	¾	**1.55**	**1.39**	**1.24**
C-1608	CB-1619	6"	1⅛	**1.65**	**1.48**	**1.32**
C-1609	CB-1620	7"	1⅛	**1.90**	**1.71**	**1.52**

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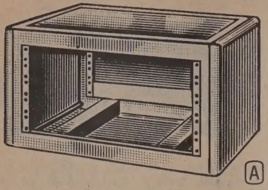
Equipment Cabinets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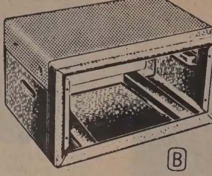
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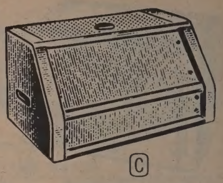
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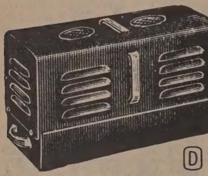
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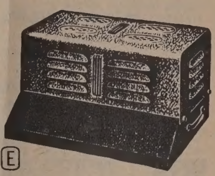
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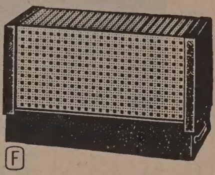
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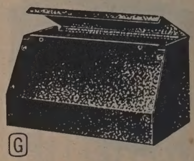
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PRESTIGE VERSA-CABINETS (FIG. A)

Sturdy framework with ball cornered sides, perforated back, solid bottom plate and two supporting channels. Front, back, top and bottom are removable for easy access; also accept 19" panels for full closure; top panel may be perforated. An opening, 1¾" x 19", across the bottom of the back is supplied for controls, knobs, leads, etc.; may be covered with PS-1250 or PA-1101 panels if desired. Sides, attached by holding flanges and nut, may be removed to join one or more cabinets together, using holes supplied in frame; units may also be stacked similarly. Handles may be attached to sides if desired. Comes complete with 4 rubber mounting feet. Top may be closed, using PS-1256HG or PA-1107HG solid panels, PS-616HG or PS-815HG door panels, or PC-1710 perforated panel. **Size:** 23³⁄₁₆" w. x 15²⁵⁄₃₂" d. overall. Gray hammertone finish only. Weight, 28 to 35 lbs.

VERSA-CABINETS

Bud No.	Height, Overall	Panel Space	Rear Panel	Net Each, Lots of 1-14	15-24	25-34
PC-1700	8¾"	5¼"	3½"	$27.25	$24.52	$21.80
PC-1701	10½"	7"	5¼"	28.92	26.03	23.14
PC-1702	12¼"	8¾"	7"	30.75	27.67	24.60
PC-1703	14"	10½"	8¾"	33.50	30.15	26.80
PC-1704	15¾"	12¼"	10½"	35.25	31.72	28.20

PERFORATED STEEL TOP PLATE

Bud No.	Size, In.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
PC-1710	12¼ x 19	2½	$2.70	$2.43	$2.16

STANDARD PRESTIGE CABINETS (FIG. B)

Hinged solid or perforated cover with smooth grommet finger holes for easy lifting. Cabinet supplied with two supporting rails, laterally movable to fit any chassis width. Two safety shielded handle slots supplied. Made of 16 gauge steel. Takes standard 19" panels. Complete with embossed feet. **Size:** 21⅝" w. x 14¾" d. overall. Gray hammertone finish only.

Bud No.	Height, Overall	Panel Space	Wt., Lbs.	Net Each, Lots of 1-14	15-24	25-34
C-1440	9½"	7"	26	$28.22	$25.40	$22.58
C-1441	11¼"	8¾"	27	30.06	27.05	24.05
C-1442	13"	10½"	29	32.82	29.54	26.26
C-1550*	9½"	7"	26	30.56	27.50	24.45
C-1551*	11¼"	8¾"	27	32.73	29.46	26.18
C-1552*	13"	10½"	29	35.57	32.01	28.46

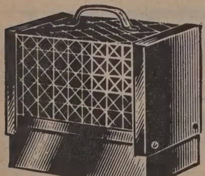
*With perforated cover; others solid.

PRESTIGE SLOPING PANEL CABINETS (FIG. C)

Ventilated top opens completely. Removable panel trim bar permits installation or removal of panels with chassis attached. Top panel is swept back for easy viewing. Takes standard 19" panels. Shielded lifting handles. Rear opening 2½" x 18" for controls, etc.; panel recess 1¼"; bottom panel 3½" high. **Size:** 22" w. x 9" top depth. Gray hammertone finish only. Weight, 26, 28 and 31 lbs.

Bud No.	Size, In. H. x D.	Slope Height	Net Each, Lots of 1-14	15-24	25-34
C-1555	11⅞ x 14⅜	7"	$36.00	$32.40	$28.80
C-1556	13¼ x 15⅛	8¾"	38.65	34.78	30.92
C-1557	14¾ x 16⅛	10½"	41.45	37.30	33.16

MINIATURE AMPLIFIER FOUNDATION



With the increased use of miniature tubes, smaller cabinets can be used when designing a compact amplifier. This amplifier foundation was designed expressly for this purpose. The chassis is 5" x 7" x 2". Height, 6". The cover is made of perforated metal. A streamlined handle makes this cabinet portable. Black wrinkle only. Net Wt., 1½ lbs.

Bud No.	Net Each, Lots of 1-24	25-49	50-99
CA-1754	$4.00	$3.60	$3.20

STREAMLINED FOUNDATIONS (FIG. D)

Attractive unit houses amplifiers and similar apparatus. Standard chassis with removable top cover with chrome trim. Sides and ends louvered. Handles attached to chassis. Overall height, 9"; chassis 2⁵⁄₁₆" high. Specify black wrinkle (suffix **"B"**), or gray wrinkle (suffix **"G"**).

Bud No.	Size, In. W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1750	10¹⁄₁₆ x 5	4¾	$6.76	$6.08	$5.41
CA-1751	12¹⁄₁₆ x 7	5	8.02	7.22	6.42
CA-1752	17¹⁄₁₆ x 7	8	8.52	7.67	6.82
CA-1753	17¹⁄₁₆ x 10	9	9.27	8.34	7.42

SLOPING PANEL FOUNDATIONS (FIG. E)

Removable top cover mounted on 3½" sloping front chassis. Cover is gray wrinkle with chrome trim; chassis is black wrinkle. Overall height, 9½".

Bud No.	Chassis W. x D.	Top Depth	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-1980	10" x 8"	5"	5	$ 8.68	$ 7.81	$6.94
CA-1981	12" x 10"	7"	6	9.35	8.42	7.48
CA-1982	17" x 10"	7"	8	10.69	9.62	8.55
CA-1983	17" x 13"	10"	10	11.19	10.07	8.95

STANDARD FOUNDATIONS (FIG. F)

Standard chassis with perforated cover for maximum ventilation. Handles are attached to chassis. Chassis 2½" h., except CA-1128, 3" h. Overall height, 8⁵⁄₁₆", except CA-1128, 8¹³⁄₁₆". Black wrinkle finish only.

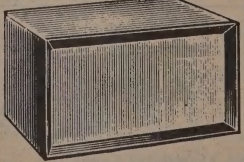
Bud No.	Size, Inches W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CA-699	9⅝ x 5⅛	3	$5.61	$5.05	$4.49
CA-1125	13⅝ x 5⅛	4¾	6.43	5.79	5.14
CA-1126	17⅛ x 7⅛	6	7.26	6.53	5.81
CA-1128	12⅛ x 10⅛	7	7.52	6.77	6.02

SLOPING PANEL CABINETS (FIG. G)

Hinged top for easy access; front panel also removable. Specify black wrinkle (suffix **"B"**) or gray hammertone (suffix **"HG"**).

Bud No.	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
C-1584	6½ x 7¹⁄₁₆ x 7⁵⁄₁₆	2½	$3.30	$2.97	$2.64
C-1587	8 x 8¹⁄₁₆ x 8	2¾	4.51	4.06	3.61
C-1585	6½ x 9¹⁄₁₆ x 7⁵⁄₁₆	3	3.75	3.38	3.00
C-1588	8 x 10¹⁄₁₆ x 8	3¼	5.01	4.51	4.01
C-1586	6½ x 11¹⁄₁₆ x 7⁵⁄₁₆	3½	4.34	3.91	3.47
C-1894	8 x 14¹⁄₁₆ x 8	4	5.34	4.81	4.27
C-1892	8 x 13¹⁄₁₆ x 8½	5¼	5.95	5.36	4.76
C-1896	9 x 18¹⁄₁₆ x 8⅛	7	7.68	6.91	6.14
C-1893	10 x 18¹⁄₁₆ x 10½	8½	7.85	7.07	6.28

SHADOW CABINET



Extremely versatile housing with both front and rear panels and bottom panel removable for installation or servicing purposes. Front panel is recessed one inch to prevent accidental movement of knobs, etc., attached to it. Front edge of body is beveled. The two-piece body is of 18 gauge steel and the panels are of 16 gauge steel. Finish is light gray hammertone. Four rubber feet, attached to the bottom, eliminate marring of surfaces on which it may be placed.

Bud No.	Overall Size, Inches Width	Height	Depth	Uses Bud Chassis No.	Net Each, Lots of 1-24	25-49	50 Over
SB-2140	14¼	8	10	AC-424, CB-704	$6.50	$5.85	$5.20
SB-2141	13¼	7½	9	AC-407, CB-1193	5.00	4.50	4.00
SB-2142	17	9½	11½	AC-411, CB-666	8.85	7.97	7.08
SB-2143	15½	6	9	AC-409, CB-1194	4.85	4.37	3.88

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Boxes, Baffles, Cases

MINIBOXES, HANDY BOXES

Design of this box permits installation of more components than would be possible in the conventionally designed boxes the same size. Two-piece construction. **Either snap-lock or screw type.** The flange type construction assures adequate shielding. Made from heavy .040 ga. aluminum. Available in natural aluminum finish and gray hammertone finish.

GRAY HAMMERTONE MINIBOXES

Bud No.	Size, Inches L. x H. x W.	Wt., Lbs.	Net Each, Lots of 1-49	50-99	100-149
CU-2100A	2¾ x 2⅛ x 1⅝	¼	$0.74	$0.67	$0.59
CU-2101A	3¼ x 2⅛ x 1⅝	¼	.76	.68	.61
CU-2102A	4 x 2⅛ x 1⅝	¼	.80	.72	.64
CU-2103A	4 x 2¼ x 2¼	¼	.90	.81	.72
CU-2104A	5 x 2¼ x 2¼	¼	.95	.86	.76
CU-2105A	5 x 4 x 3	½	1.20	1.08	.96
CU-2106A	5¼ x 3 x 2⅛	¼	1.02	.92	.82
CU-2107A	6 x 5 x 4	¾	1.50	1.35	1.20
CU-2108A*	7 x 5 x 3	¾	1.65	1.49	1.32
CU-2109A*	8 x 6 x 3½	1	2.10	1.89	1.68
CU-2110A*	10 x 6 x 3½	1¼	2.35	2.12	1.88
CU-2111A*	12 x 7 x 4	1¾	3.20	2.88	2.56
CU-2112A*	17 x 5 x 4	2¼	3.20	2.88	2.56
CU-2113A*	10 x 2 x 1⅝	½	1.20	1.08	.99
CU-2114A*	12 x 2½ x 2¼	¾	1.55	1.40	1.24
CU-2115A	4 x 2 x 2¾	¼	.92	.83	.74
CU-2116A	4¼ x 2¼ x 1½	¼	.92	.83	.74
CU-2117A	3¼ x 2⅛ x 1⅛	¼	.78	.70	.62

*.050″ aluminum.

NATURAL FINISH MINIBOXES

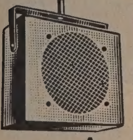
CU-3000A	2¾ x 2⅛ x 1⅝	¼	$0.59	$0.53	$0.47
CU-3001A	3¼ x 2⅛ x 1⅝	¼	.61	.55	.49
CU-3002A	4 x 2⅛ x 1⅝	¼	.64	.58	.51
CU-3003A	4 x 2¼ x 2¼	¼	.72	.65	.58
CU-3004A	5 x 2¼ x 2¼	¼	.76	.68	.61
CU-3005A	5 x 4 x 3	½	.96	.86	.77
CU-3006A	5¼ x 3 x 2⅛	¼	.82	.74	.66
CU-3007A	6 x 5 x 4	¾	1.20	1.08	.96
CU-3008A	7 x 5 x 3	¾	1.32	1.19	1.06
CU-3009A	8 x 6 x 3½	1	1.68	1.51	1.34
CU-3010A	10 x 6 x 3½	1¼	1.88	1.69	1.50
CU-3011A	12 x 7 x 4	1¾	2.56	2.30	2.05
CU-3012A	17 x 5 x 4	2¼	2.56	2.30	2.05
CU-3013A	10 x 2 x 1⅝	½	.96	.86	.77
CU-3014A	12 x 2½ x 2¼	¾	1.24	1.12	.99
CU-3015A	4 x 2 x 2¾	¼	.74	.67	.59
CU-3016A	4¼ x 2¼ x 1½	¼	.74	.67	.59
CU-3017A	3¼ x 2⅛ x 1⅛	¼	.62	.56	.50

HANDY BOXES

Similar to Miniboxes in design and construction, except made of 22 gauge steel. Black wrinkle finish only. Screw type only.

HB-1621	4¼ x 2¼ x 1½	½	$1.15	$1.04	$0.92
HB-1622	4 x 2 x 2¾	½	1.17	1.05	.94

SILVER SONANCE BAFFLES



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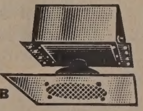


B

Universal Enclosures

Bud Adjustable Mount-Bracket (**shown in Fig. A and listed below**) permits adjustment to any angle in a horizontal position. Hole in bracket passes ½″ conduit, permitting any of the speaker housings to be suspended from the ceiling. Bi-lateral feature permits sound to come from both front and back. Made of heavy gauge steel. Sound-deadening compound eliminates metallic resonance. All screws and nuts furnished for mounting speaker. No holes to drill. Light gray hammertone finish, except CS-2270, 71, 72 and 73, primer finish only.

BAFFLES (FIG. A)

Bud No.	For Spkr. Dia., In.	Size, Inches H. x W. x D.	Net Each, Lots of 1-24	25-49	50-99
CS-2240	4, 5	7¼ x 6¾ x 3 15/32	$ 4.92	$ 4.43	$3.94
CS-2241	5, 5½, 6	8¼ x 7½ x 4	5.33	4.80	4.26
CS-2242	6, 8	10 37/64 x 9½ x 5 1/16	8.58	7.72	6.86
CS-2243	10, 12	15 1/32 x 13½ x 7 13/64	11.67	10.50	9.34
CS-2270	4, 5	7¼ x 6¾ x 3 15/32	4.58	4.12	3.66
CS-2271	5, 5½, 6	8¼ x 7½ x 4	4.84	4.36	3.87
CS-2272	6, 8	10 37/64 x 9½ x 5 1/16	8.16	7.34	6.53
CS-2273	10, 12	15 1/32 x 13½ x 7 13/64	11.15	10.04	8.92

MOUNTING BRACKETS

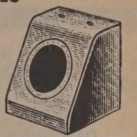
Bud No.	For Baffle	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
AB-2250	CS-2240	¾	$1.14	$1.03	$0.91
AB-2251	CS-2241	1	1.14	1.03	.91
AB-2252	CS-2242	1¼	1.41	1.27	1.13
AB-2253	CS-2243	2¾	1.65	1.49	1.32

RECESSED CEILING, WALL ENCLOSURES (FIG. B)

Suitable for an 8″ speaker. Adjustable brackets make the housing ideal for old and new installations. Treated with sound deadening compound. Grille plate is a 14″ square for use with acoustical tile ceiling. Depth, 4 1/16″. Housing dimensions, 10″ x 10″ x 4″.

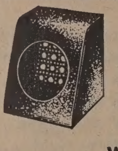
Bud No.	Description	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-2244	Gray housing with grille	8¼	$10.00	$9.00	$8.00
CS-2274	Primer housing with grille	8¼	9.69	8.72	7.75
CS-2245	Gray grille plate only	4	2.20	1.98	1.76
CS-2275	Primer grille plate only	4	2.00	1.80	1.60

UNIVERSAL METER CASES



Center hole punched for 2″ meters, plus easily removed knock-out ring to provide fit for 3″ meters. Single piece detachable back and sides fastened to case with self-tapping screws for easy installation and servicing. Two ⅜″ knock-out holes in top provide for installation of feed-through insulators, switches, volume controls, etc. Gray hammertone finish only. **Size:** 4¼″ h. x 4″ w. x 4″ d.

Bud No.	Construction	Weight, Lbs.	Net Each, Lots of 1-49	50-99	100-149
CM-1935	Steel	1	$1.22	$1.10	$0.98
CMA-1936	Aluminum	¾	1.47	1.32	1.18



MINIATURE SPEAKER CASES

Safe, convenient steel housing for 2″ and 3″ speakers. Black wrinkle finish only.

Bud No.	For Size Speaker	Net Each, Lots of 1-24	25-49	50-99
CS-1685	2″	$1.58	$1.42	$1.26
CS-1686	3″	1.58	1.42	1.26

WALL TYPE SPEAKER CASES

Steel speaker cases for table or wall use; similar in appearance to Miniature cases, above. Keyway holes are provided for wall mounting; embossed feet for table use. Unaffected by weather; will not warp or split. Brown wrinkle enamel finish only.

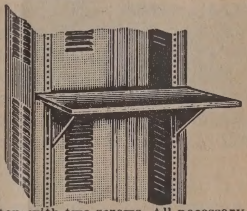
Bud No.	For Speaker	Size, Inches H. x W. x D.	Wt., Lbs.	Net Each, Lots of 1-24	25-49	50-99
CS-1948	4″	7½ x 6½ x 4¼	1¾	$2.67	$2.40	$2.14
CS-1939	5″	7½ x 6½ x 4¼	1¾	2.75	2.48	2.20
CS-1940	6″	9½ x 8 x 5⅝	3	3.26	2.93	2.61
CS-1941	8″	11½ x 9½ x 7	4	4.01	3.61	3.21
CS-1942	10″	13½ x 11½ x 8¼	5	5.01	4.51	4.01
CS-1943	12″	15½ x 13½ x 9¾	6	6.10	5.49	4.88

DIAL LOCK

The only simple-to-operate, efficient and inexpensive, positive dial lock on the market. Dual purpose design functions as both dial lock and position indicator. Completely eliminates problems of dial slippage and accidental movement. Nickel-plated brass construction.

Bud No. DL-1947 Dial Lock—Net Each.................**17c**

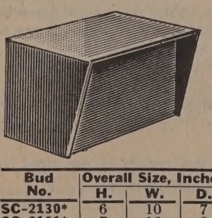
SHELF ASSEMBLY



Immediately adds extra utility to a standard rack at very little cost. Useful as a desk, work space, etc. Gray or black wrinkle finish or gray hammertone finish will match all standard Bud rack finishes. Can't fall off or tilt; will support any reasonable weight. Shelf portion supported by two brackets, punched to fit standard panel mounting strips. No panel support needed but can be attached over panel if desired. Slides welded to bottom of shelf; mounting brackets slip into slides and fasten with two screws. All necessary hardware furnished. Formed of 16 gauge steel; ½″ flange on all four sides; overall height, 7⅛″. Brackets are 7″ high. Specify finish.

Bud No.	Size, Inches D. x W.	Weight, Lbs.	Net Each, Lots of 1-14	15-24	25-34
SA-1719	16 x 22	14	$10.40	$9.36	$8.32
SA-1720	20 x 22	15	10.55	9.50	8.44

COWL-TYPE MINIBOX



The cowl-type Minibox has a projecting cover to reduce glare on the panel from overhead lighting. It also provides protection for controls and dials. Cover has two box braces to which bottom is attached with sheet metal screws. When assembled, this type of construction results in a sturdy, rigid housing. Constructed of .040″ aluminum and available in natural or light hammertone gray finish.

Bud No.	Overall Size, Inches H.	W.	D.	Net Each, Lots of 1-49	50-99	100 & Over
SC-2130*	6	10	7	$5.95	$5.36	$4.76
SC-2131*	7	12	8	6.50	5.85	5.20
SC-2132*	3	8	5	3.45	3.11	2.76
SC-2133*	5	5	5	3.60	3.24	2.88
SC-3030†	6	10	7	4.30	3.87	3.44
SC-3031†	7	12	8	4.70	4.23	3.76
SC-3032†	3	8	5	2.45	2.21	1.96
SC-3033†	5	5	5	2.60	2.34	2.08

*Painted light gray hammertone. †Natural aluminum finish.

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BUD RADIO INC. • CLEVELAND, OHIO

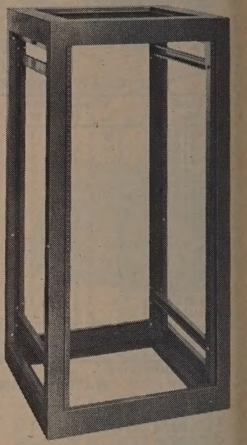
CALIFORNIA CHASSIS CO

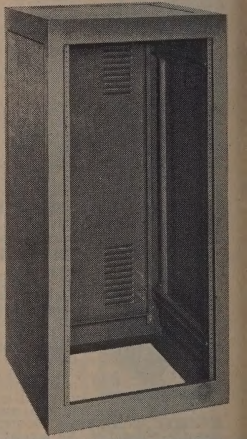
Lynwood, Calif.

ds
DESIGNER
SERIES

ALL-STEEL WELDED CABINET

This flexible AWC cabinet is available as a complete package or as separate components to satisfy individual requirements. Doors and sides are interchangeable. Doors have chrome handles — spring loaded hinge pins provide rapid removal and servicing without tools. Panel mounting angles are tapped 10-32 with universal spacing for all standard panels. Louvers on doors and sides available. Standard finish — gray hammertone; other finishes optional.



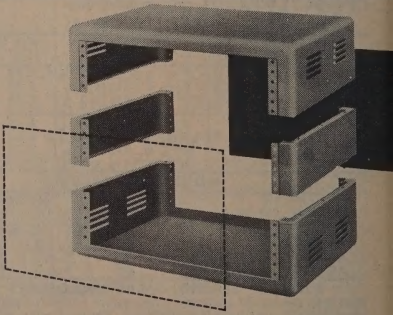


AWC-42	Assembly consisting of 42 inch panel space frame, two sides, one door, top, one pair panel mounting angles and all necessary hardware		$125.00
AWC-61	Same as above except 61¼ inch panel space frame		153.00
AWC-70	Same as above except 70 inch panel space frame		166.00
AWC-77	Same as above except 77 inch panel space frame		192.00
AWCF-42	Basic frame only — 42 inch panel space		60.40
AWCF-61	Basic frame only — 61¼ inch panel space		75.40
AWCF-70	Basic frame only — 70 inch panel space		80.40
AWCF-77	Basic frame only — 77 inch panel space		95.40
AWCS-42	Side panel — 42 inches high	each	14.75
AWCS-61	Side panel — 61¼ inches high	each	17.75
AWCS-70	Side panel — 70 inches high	each	19.75
AWCS-77	Side panel — 77 inches high	each	22.75
AWCD-42	Door — 42 inches high		17.95
AWCD-61	Door — 61¼ inches high		20.95
AWCD-70	Door — 70 inches high		23.95
AWCD-77	Door — 77 inches high		26.95
AWCT-42	Top		7.05
AWCT-61	Top		7.05
AWCT-70	Top		7.05
AWCT-77	Top		7.05
AWCP-42	Panel mounting angles — 42 inches long	pair	10.10
AWCP-61	Panel mounting angles — 61¼ inches long	pair	14.10
AWCP-70	Panel mounting angles — 70 inches long	pair	15.10
AWCP-77	Panel mounting angles — 77 inches long		17.10
AWCZ-42	Vertical supports for chassis brackets	set of four	14.30
AWCZ-61	Vertical supports for chassis brackets	set of four	16.25
AWCZ-70	Vertical supports for chassis brackets	set of four	17.30
AWCZ-77	Vertical supports for chassis brackets	set of four	19.35

ds
DESIGNER
SERIES

MULTI-PURPOSE EXPANDABLE CABINET

The MPX enclosure combines clean design and attractive finish with utility, strength and versatility. Inserts permit vertical expansion of cabinet. Standard finish — gray hammertone; other finishes optional.



MPX CABINET	Consists of top, bottom, rear panel 5¼″ high and assembly hardware. Basic cabinet provides 7″ of panel space front and back	$25.30
MPXF-10 1¾″ FILLER	each filler group listed consits of two sides, rear panel same height as sides and hardware	9.22

MPXF-11	3½″	FILLER	$10.35	MPXF-18	15¾″	FILLER	$17.35
MPXF-12	5¼″	FILLER	11.50	MPXF-19	17½″	FILLER	18.50
MPXF-13	7″	FILLER	12.50	MPXF-20	19¼″	FILLER	19.50
MPXF-14	8¾″	FILLER	13.60	MPXF-21	21″	FILLER	20.60
MPXF-15	10½″	FILLER	14.69	MPXF-22	24½″	FILLER	21.80
MPXF-16	12¼″	FILLER	15.80	MPXF-23	26¼″	FILLER	22.95
MPXF-17	14″	FILLER	16.95	MPXF-24	28″	FILLER	24.10

	Width	**Height**	**Depth**
MPX Cabinet without inserts	21⅝ in.	11¼ in.	18½ in.
Font panel opening	19⅛ in.	8¾ in.	——
Back panel opening	19⅛ in.	8¾ in.	——
Inserts (in increments of 1¾ to 26¼ in.)	——	1¾ to 26¼ in.	18½ in. (side)

Recommended total panel height with inserts: 35 inches. This cabinet accepts standard relay rack panels and is drilled for universal panel mountings. 16 gauge cold rolled steel construction.

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CALIFORNIA *Chassis* COMPANY

CABINET RACKS

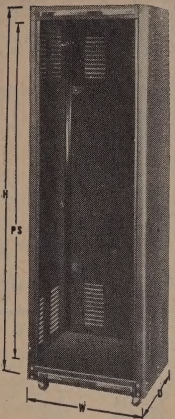
These racks are made entirely of 16 gauge steel except for the heavy steel panel supports. They have universal spacing, the holes being tapped for 10/32″ screws. Panels fit into a recess so that the edges do not show. Mounting plate on bottom of rack permits casters to be fastened directly to base for easy mobility. Casters are not included in price of rack but may be ordered separately. No. TC-10.

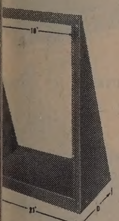
All standard 19″ panels RETMA, Western Electric or Amateur will fit these racks.

Double rows of louvres side and rear give ample ventilation.

Finish is black wrinkle, gray wrinkle or silver hammertone. Black will be furnished unless specified otherwise.

	PANEL SPACE	HEIGHT	WIDTH	DEPTH	DEPTH INSIDE CLEAR.	SHIP. WT. LBS.	Net Price
6	36¾	42	22	17	15½	90	47.21
2	42	47¼	22	17	15½	96	53.36
1	61¼	66½	22	17	15½	120	66.86
7	77	82¼	22	17	15½	145	80.05
36	36¾	42	22	24	22½	99	66.86
42	42	47¼	22	24	22½	105	79.17
61	61¼	66½	22	24	22½	133	94.81
77	77	82¼	22	24	22½	160	133.97





DOR SERIES

This open rack is made of 16 gauge steel. It is useful where the larger, heavier floor model is not necessary.

Mounting holes are on universal centers tapped 10/32″.

Cat. No.	Panel Space	Overall Height	Width	Depth	Ship. Wt.	Net Price
DOR-21	21 x 19	25	21	12	18	9.66
DOR-28	28 x 19	32	21	12	19	11.92

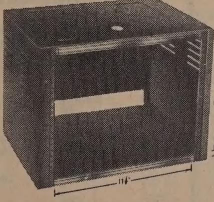
DESK CABINET RACKS

This solid welded, rounded front, deluxe desk cabinet has a professional look as well as being a sturdy utility unit. Embossed feet are on all sizes to reduce marring.

Cabinets have universal punching, accommodating W. E.; RETMA; or Amateur notched panels. Unit is made from 16 ga. steel, hav niga 2″ opening on bottom rear for ventilation in addition to side louvers.

The five smaller models have solid welded backs. The five larger models have a removable hinged rear door.

All models clear 14½″ inside depth — Outside width is 21½″. Black wrinkle is standard. If gray wrinkle or gray hammertone is desired please specify. No additional charge.

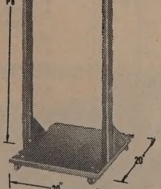


LOG).	PANEL SPACE	HEIGHT	SHPG. WT.	NET PRICE
7	7	8 15/16	25	17.14
8	8¾	10 11/16	27	17.49
10	10½	12 7/16	29	20.01
12	12¼	14 3/16	31	21.06
14	14	15 15/16	33	22.97
17	17½	19 7/16	37	27.37
21	21	22 15/16	39	29.33
26	26¼	28 3/16	47	31.47
31	31½	33 7/16	51	33.42
35	35	36 15/16	58	35.19

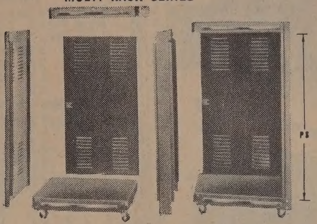
OR SERIES

These open racks are constructed so the uppermost panel mounts at the top of the ⅛″ steel upright. There is no loss of space at the top. Rack uprights are punched with universal spacing and tapped 10/32″. Two brackets of ⅛″ steel bind the uprights and a chassis like base into one solid unit.

ALOG O.	PANEL SPACE	OVERALL HEIGHT	SHPG. WT.	NET PRICE
1	31½	32¾	27	22.76
36	36¾	38	28	22.97
2	42	43¼	30	24.63
1	61¼	62½	37	25.45
6	66½	67¾	39	25.96
71	71¾	73	41	26.88
77	77	78¼	42	31.28



MULTI RACK SERIES



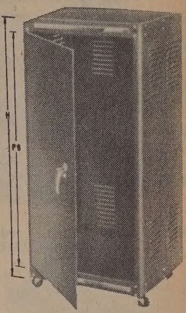
With this unit and a standard rack of the same size one can make a multiple rack or a series of connected racks. Each unit consists of a door, top, bottom, and a multi-rack connecting unit. This must have the same panel space as the unit it is to be used with. All hardware except casters is furnished. Colors are black rwinkle, gray wrinkle or gray hammertone.

CATALOG NO.	PANEL SPACE	FITS RACK	SHPG. WT.	NET PRICE
MR-36	36¾	CR-36	75	46.33
MR-42	42	CR-42	80	51.22
MR-61	61¼	CR-61	100	63.73
MR-77	77	CR-77	118	78.29

FRONT DOOR RACKS

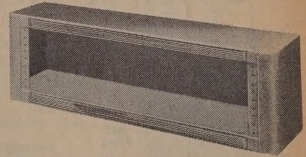
This deluxe rack series has, in addition to the rear door, a front door which completely encloses the panels. Rack strips may be moved towards the rear of the rack to allow space for meters, switches, etc. Rack strips are punched with universal spacing, and tapped 10/32″. Casters, TC-10, fit to base of rack, but are not included in price. Finish is black wrinkle (B), Graw wrinkle (G), or gray hammertone (GH). Black wrinkle shipped if no color is specified.

CATALOG NO.	HEIGHT	PANEL SPACE	SHPG. WT.	NET PRICE
FDR-36	42	36¾	102	67.80
FDR-42	47¼	42	118	75.94
FDR-61	66½	61¼	152	98.04
FDR-77	82¼	77	185	125.00



MINIATURE CABINET RACKS

The MCR combines stylized function and compactness for desktop use. Available in three sizes. Accepts standard relay rack panels and "PC" chassis units. Attractive gray hammertone with chrome trim; other finishes optional.

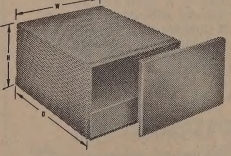


MCR-12 CABINET — Panel space 19″ x 5¼″	$14.27
MCR-13 CABINET — Panel space 19″ x 7″	14.57
MCR-14 CABINET — Panel space 19″ x 8¾″	14.87

All above items available in gray hammertone finish. Other finishes available on special order. Contact factory for special finish prices.

All MCR units have embossed feet to protect desk tops.

TYPE	WIDTH	PANEL SPACE	DEPTH	HEIGHT	WT.
MCR-12	21⅝	19 x 5¼	6 9/16	7⅛	11½ lb.
MCR-13	21⅝	19 x 7	6 9/16	8⅞	12½ lb.
MCR-14	21⅝	19 x 8¾	6 9/16	10⅝	13½ lb.



LOW TEMPERATURE CABINETS

This cabinet made of perforated metal with 3/32 holes on 3/16 centers, solves most thermal problems. It is a real space saver, the chassis being almost the size of the cabinet.

Chassis is .063 aluminum and bolts to the rear panel which is welded to the perforated screen. Rear steel panel has rectangular hole in it to allow access to connectors in chassis. Front panel has no screws but is held on by control knobs mounted in chassis.

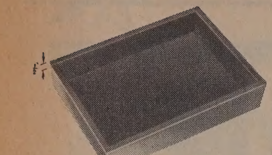
Chassis and front are one piece when unit is complete and can be easily removed yet cabinet chassis and front panel are solidly held together.

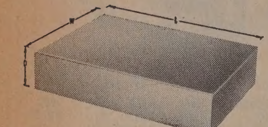
Catalog Number	Cabinet Size H	W	D	Front Panel	Chassis Size	Hole in Rear Panel	Net Price
LTC-463	4½	x 7 3/16	x 9 3/16	4½x 7¼	6 15/16x 8 15/16x1½	⅞x4	6.97
LTC-464	4½	x 9 3/16	x 7 3/16	4½x 9 3/16	8 15/16x 6 15/16x1½	⅞x5	6.97
LTC-469	5 11/16	x 8¾	x 11 3/16	5⅝x 8¾	8 7/16x10 15/16x2	1½x5	7.82
LTC-470	5 11/16	x 11 3/16	x 8 11/16	5⅝x 11 3/16	10 15/16x 8 7/16x2	1½x6	7.82

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA *Chassis* COMPANY





STANDARD ALUMINUM CHASSIS—All chassis are stamped and formed from one piece of material. All four corners welded and sides flanged to accommodate bottom plates.

Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-134	2½ x	4½ x	1	18	¼	1.12
A-135	3½ x	4½ x	1	18	¼	1.22
A-136	3½ x	5½ x	1	18	¼	1.22
A-137	4 x	6 x	1½	18	¼	1.34
A-155	4 x	6 x	2	18	¼	1.22
A-149	4 x	6 x	3	18	¼	1.31
A-138	4 x	5 x	2	18	⅜	1.38
A-121	5½ x	5½ x	1	18	¼	1.45
A-101	5 x	7 x	2	18	⅜	1.22
A-150	5 x	7 x	3	18	⅜	1.39
A-147	4 x	8 x	2	18	⅜	1.63
A-119	4½ x	8 x	1½	18	⅜	1.31
A-122	5 x	9 x	1½	18	⅜	1.39
A-102	5 x	9½ x	2½	18	⅜	1.51
A-120	6 x	8 x	2	18	¾	1.68
A-103	5 x	10 x	3	18	½	1.82
A-104	7 x	7 x	2	18	½	1.36
A-105	7 x	9 x	2	18	¾	1.63
A-113	7 x	11 x	2	18	¾	1.77
A-106	8 x	10 x	2½	18	1	2.48

Aluminum	W	L	D	Gauge	App. Wt.	Net Price
A-151	6	x 14	x 3	18	1	2.75
A-114	7	x 13	x 2	18	¾	1.87
A-139	5	x 13	x 3	18	¾	1.84
A-107	8	x 12	x 2½	18	1	2.77
A-117	7	x 12	x 3	18	1	1.96
A-124	8	x 12	x 3	18	1	2.33
A-108	10	x 12	x 3	18	1¼	2.70
A-129	12	x 12	x 3	18	1½	3.28
A-115	10	x 14	x 3	18	1¼	3.18
A-130	7	x 15	x 3	18	1¼	2.62
A-125	9	x 15	x 3	18	1½	3.45
A-118	4	x 17	x 3	18	1	2.62
A-145	6	x 17	x 3	18	1¼	2.87
A-144	7	x 17	x 2	18	1	2.81
A-152	7	x 17	x 3	18	1½	3.08
A-109	8	x 17	x 2	18	1½	2.62
A-116	8	x 17	x 3	16	1½	2.87
A-140	10	x 17	x 2	16	2¼	2.99
A-110	10	x 17	x 3	16	2½	3.37
A-153	10	x 17	x 4	16	3	4.86

Aluminum	W	L	D	Gauge	App. Wt.
A-141	10	x 17	x 5	14	3¼
A-146	11	x 17	x 2	16	1½
A-128	11	x 17	x 3	14	2½
A-127	12	x 17	x 2	14	2¼
A-123	12	x 17	x 3	14	2½
A-126	13	x 17	x 2	14	2½
A-111	13	x 17	x 3	14	2¾
A-112	13	x 17	x 4	14	3¼
A-142	13	x 17	x 5	14	3½
A-133	14	x 17	x 3	14	3¼
A-131	15	x 17	x 4	14	3¾
A-148	15	x 17	x 6	14	4
A-132	10	x 23	x 3	16	2½
A-154	17	x 17	x 3	16	2½
A-143	17	x 17	x 4	14	4¼

ENTIRE LINE OF CHASSIS DUPLICATED IN STEEL.

USE PREFACE "C" INSTEAD OF "A" FOR PLATED STEEL CHASSIS

All aluminum chassis are etched finish. 1″ and 1½″ chassis are flanged on long side only and contain no mounting holes.

CHASSIS BOTTOM PLATES

CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-134	2½x 4½	1 oz.	2 oz.	.48
BP-135	3½x 4½	2 oz.	¼ lb.	.48
BP-136	3½x 5½	2 oz.	¼ lb.	.56
BP-137	4 x 6	2 oz.	¼ lb.	.56
BP-138	4 x 5	2 oz.	¼ lb.	.63
BP-147	4 x 8	¼ lb.	½ lb.	.85
BP-121	5½x 5½	2 oz.	½ lb.	.70
BP-101	5 x 7	2 oz.	¼ lb.	.77
BP-119	4½x 8	¼ lb.	½ lb.	.70
BP-122	5 x 9	¼ lb.	½ lb.	.70
BP-102	5 x 9½	¼ lb.	½ lb.	.75
BP-120	6 x 8	¼ lb.	½ lb.	.85
BP-151	6 x14	½ lb.	1¼ lb.	1.04
BP-103	5 x10	¼ lb.	½ lb.	.60
BP-104	7 x 7	¼ lb.	½ lb.	.88

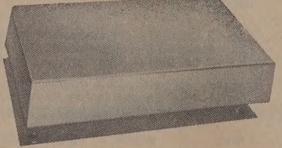
CATALOG NO.	SIZE	ALUM. WEIGHT	STEEL WEIGHT	Steel Net Price
BP-105	7 x 9	¼ lb.	¾ lb.	.88
BP-113	7 x11	½ lb.	1 lb.	1.19
BP-106	8 x10	¼ lb.	¾ lb.	1.17
BP-139	5 x13	¼ lb.	½ lb.	.94
BP-114	7 x13	½ lb.	1 lb.	1.34
BP-107	8 x12	¾ lb.	1¼ lb.	1.50
BP-117	7 x12	½ lb.	1 lb.	.88
BP-108	10 x12	¾ lb.	1½ lb.	1.56
BP-129	12 x12	¾ lb.	1½ lb.	1.50
BP-115	10 x14	¾ lb.	2 lb.	1.39
BP-130	7 x15	½ lb.	1 lb.	.97
BP-125	9 x15	¾ lb.	1½ lb.	1.56
BP-118	4 x17	½ lb.	1 lb.	.85
BP-145	6 x17	½ lb.	1 lb.	1.41
BP-144	7 x17	½ lb.	1 lb.	1.36
BP-109	8 x17	½ lb.	1¾ lb.	1.53
BP-110	10 x17	¾ lb.	2½ lb.	1.60
BP-128	11 x17	1 lb.	2 lb.	1.60
BP-123	12 x17	1¼ l.b	3 lb.	1.87
BP-111	13 x17	1½ lb.	3¼ lb.	2.24
BP-133	14 x17	1½ lb.	3½ lb.	2.43
BP-131	15 x17	1½ lb.	3½ lb.	2.47
BP-143	17 x17	2 lb.	5 lb.	2.99
BP-132	10 x23	1½ lb.	3¼ lb.	2.24

Steel bottom plates may be supplied in either zinc plate or black enamel — aluminum is caustic etched.
Actual size of BP is ⅛″ under chassis size which is shown. This allows $\frac{1}{16}$″ of set back when attached to bottom of chassis.

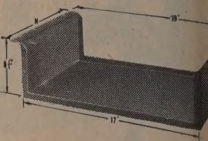
HEAVY DUTY CHASSIS
16 GAUGE STEEL

			Net Price
HD-109	6¾#	8x17x2	4.68
HD-116	7½	8x17x3	5.15
HD-110	8½	10x17x3	5.24
HD-146	8	11x17x2	5.19
HD-128	10	11x17x3	5.80
HD-126	9½	13x17x2	6.17
HD-111	11½	13x17x3	6.55
HD-112	12	13x17x4	7.48

Bottom Plates Included



PANEL CHASSIS

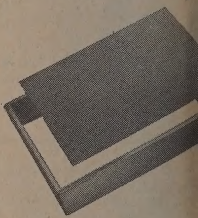


CAT. NO.	HEIGHT	WEIGHT	NET PRICE
PC-110	1¾	2 #	2.33
PC-111	3½	2¾	2.69
PC-112	5¼	4	2.96
PC-113	7	4½	3.47
PC-114	8¾	5¾	4.01
PC-115	10½	6¾	4.40
PC-116	12¼	7½	4.76
PC-117	14	8½	5.15

Larger Sizes On Request

These are constructed so the sharp rib corner is cut to a 45° angle protecting the user's wrist. 16 gauge zinc steel is standard. 14 gauge etched aluminum on request at no added cost.

REMOVABLE TOP CHASSIS



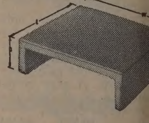
Cat. No.	Weight	Dimensions	Net Price
RT-1	5¼#	10x17x3	3.55
RT-2	7	13x17x3	4.42
RT-3	6½	10x17x4	3.93
RT-4	9	13x17x4	4.90

Experimenters and the radio amateur when designing, will find it economical to use this type chassis, as the tops and bottoms may be easily replaced or discarded. Steel-Electro Zinc Only.

TOPS ONLY
FOR REMOVABLE TOP CHASSIS

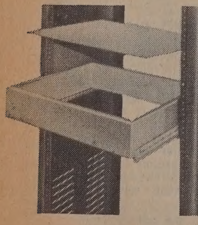
Cat. No.	Weight	Dimensions	Net Price
T-1	3#	10x17	1.70
T-2	4	13x17	2.09

Made From 16 Gauge Steel — Electro Zinc Finish



Cat. No.	Weight	W L D	Net Price
EC-1	1 #	7 x 6x2	1.02
EC-2	¾	5 x 7x1½	.97
EC-3	1	5½x 9x1½	1.12
EC-4	1¼	7½x 9x1½	1.39
EC-5	1½	7 x13x1½	1.58
EC-6	2¼	7¾x15x2	1.68
EC-7	1	7 x 8x2	1.16
EC-8	1¼	7 x10x2	1.39

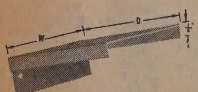
These chassis are ideal for any type of unit which is built-up, such as a record changer. Steel — Electro Zinc Only



SLIDING DRAWER CHASSIS

The drawer chassis is used where there is a need to pull out the chassis without disconnecting it from the rack. Chassis rolls in and out on ball bearings in a formed channel. When assembled it forms a rigid unit which will fit any 19″ rack. Brackets are ⅛″ Aluminum. Chassis and top plate are 14 gauge aluminum. Finish, except for slide rail assembly, is gray hammertone.

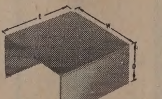
Cat. No.	Chassis Size	Brk. H	Wt.	Net Price
SD-399	16¾x14x3	6½″	6½#	$15.52



PLATFORM CHASSIS

These steel platforms are useful as variable level chassis simply by fastening to any side of a carrying case, utility box, etc. They may also be used as shields. Black enamel finish.

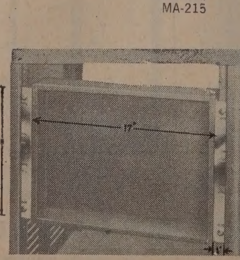
			Net Price
CD-260	4¾	5½	.70
CD-261	4¾	4½	.60
CD-262	5¾	5½	.82



MINIATURE ALUMINUM CHASSIS

These are small open end chassis for use where space is limited.

Catalog No.	Width	Length	Depth	Approx. Shpg. Wt.	N Pr
MA-210	2⅝	2¾	1¼	¼#	.
MA-211	1¾	3⅛	1	¼	.
MA-212	3¼	4½	2	¼	.
MA-213	2¾	4⅛	1	¼	.
MA-214	3¾	4⅛	1½	¼	.
MA-215	3	6⅛	1¼	¼	.



CHASSIS FLANGES

These 1″ chassis flanges will convert any 17″ chassis to a 19″ panel rack chassis. Made of 16 gauge Zinc plated steel.

Catalog No.	Height	Shpg Wt.	N Pri
CF-12	5¼	½#	.
CF-13	7	½	1.
CF-14	8¾	1	1.
CF-15	10½	1	1.
CF-16	12¼	1	1.
CF-17	14	1	1.

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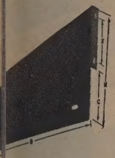
CALIFORNIA *Chassis* COMPANY

CHASSIS MOUNTING BRACKETS

To assure the proper support for a chassis a sturdy mounting bracket it uted. Flange is ⅝″ inside dimension. Elongated hole 3/16″ x 11/32″ is centered in flange. "X" shows the distance between flange holes. Finished in Zinc plated "C" or Wrinkle "W" may be had at additional cost of 15%.



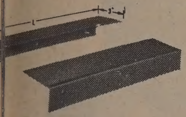
Black Enamel	Height	x	Depth	Clearance	Wt.	Net Price
E-58B	6½	2½	8	3 1/16	1¼	1.07
E-57B	6½	2½	9	3 1/16	1½	1.50
E-48B	6½	2½	10	3 1/16	1¾	1.34
E-59B	6½	2½	11	3 1/16	1¾	1.50
E-49B	6½	2½	12	3 1/16	1¾	1.75
E-60B	6½	2½	13	3 1/16	2	1.68
E-50B	8½	3½	10	4 1/16	2½	1.96
E-51B	8½	3½	13	4 1/16	3	2.09
E-52B	12	7	15	4 1/16	4½	3.09
E-53B	14	8	17	5 1/16	5¾	3.55

TRIANGULAR MOUNTING BRACKETS

Cat. No.	Height	Dimensions	Net Price
MB-55	½	5x5	1.02
MB-77	1½	7x7	1.19
MB-99	1¾	9x9	1.41

Steel — Black Enamel Only

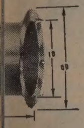
CHASSIS SUPPORT ANGLES



These angles when bolted to the sides of a cabinet will support a heavy chassis unit. They are made of ⅛″ thick steel and are finished in black enamel only.

Cat. No.	Length	Width	Shpg. Lbs. Wt.	Price Net
CA-12	12	3	3	2.14
CA-14	14½	3	4	2.24

METER SHIELD



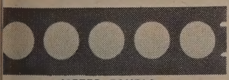
This shield is made of spun aluminum. It will fit over the meter and effectively stops most interference. Furnished with no holes and in natural finish only.

Catalog Number	L	I.D.	O.D.	Meter Size	Net Price
MSA-2	2-3/16	2-1/32	2⅞	2	1.75
MSA-3	2	2-25/32	3¾	3	1.75

RELAY RACK PANELS

Regular panels are made from ⅛″ steel or aluminum material. Aluminum is 1100 H 14. Notching is either Western Electric (WE) or Amateur (A). Finish Black or Gray Wrinkle or Silver Gray Hammertone. Aluminum is standard and will be sent unless steel is specified. Panels in any material will be furnished 24″ wide instead of 19″ wide at twice the cost.

Notching						
estern lectric	Amateur	Height	Width	Wt. Alum.	Wt. Steel	Steel Price Net
V-10	PA-10	1¾	19	½	1¼	.87
N-11	PA-11	3½	19	¾	2¼	1.00
N-12	PA-12	5¼	19	1¼	4	1.34
N-13	PA-13	7	19	1½	4¾	1.51
N-14	PA-14	8¾	19	2	6	1.89
N-15	PA-15	10½	19	2½	6¾	2.16
W-16	PA-16	12¼	19	3	8¾	2.53
W-17	PA-17	14	19	3½	9¾	2.96
W-18	PA-18	15¾	19	4	10¾	3.28
W-19	PA-19	17½	19	4½	12	3.74
W-20	PA-20	19¼	19	5	13	4.13
W-21	PA-21	21	19	5½	15¾	4.57
W-22	PA-22	24½	19	6	18½	7.00
W-23		26¼	19	7	20¼	7.75



METER PANELS

ll panels are 5¼″ x 19″ x ⅛″ teel or aluminum, black or grey rinkle — designed to handle either ″ or 3″ meters. All units Western lectric notch.

ALUMINUM

.	Wt.	No. Holes	Dia.	Net Price
-32	1	3	2 3/16	2.69
-52	1¼	5	2 3/16	3.13
-33	1⅛	3	2 13/16	2.69
-53	1	5	2 13/16	3.13

STEEL

at. o.	Wt.	No. Holes	Dia.	Net Price
-32	3	3	2 3/16	1.94
-52	2¾	5	2 3/16	2.55
-33	3½	3	2 13/16	1.94
-53	3	5	2 13/16	2.55

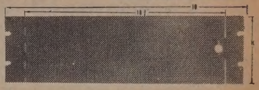
Small holes are for 2″ meters, larger holes are for 3″ meters.

HARD ALUMINUM PANELS

Cat. No.	Height	Width	Wt.	Net Price
PWHA-10	1¾	19	½	1.63
PWHA-11	3½	19	¾	2.06
PWHA-12	5¼	19	1¼	2.72
PWHA-13	7	19	1½	3.32
PWHA-14	8¾	19	2½	3.93
PWHA-15	10½	19	2½	4.59
PWHA-16	12¼	19	3	5.25
PWHA-17	14	19	3½	6.07
PWHA-18	15¾	19	4	6.78
PWHA-19	17½	19	4½	7.48
PWHA-20	19¼	19	5	8.18
PWHA-21	21	19	5½	8.87
PWHA-22	24½	19	6	10.73
PWHA-23	26¼	19	7	11.68

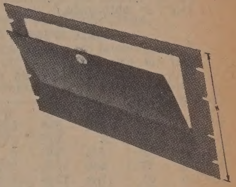
These ⅛″ panels are recommended for high quality work. They are 2024T3 aluminum. Notching is Western Electric, but Amateur on request at no added cost. We also carry a complete line of 3/16″ or .188 panels. These are all 2024T3.

SIDE HINGED PANELS



Cat. No.	Height	Wt.	Net Price
SH-12	5¼	4¼	3.66
SH-13	7	5½	3.94
SH-14	8¾	6¾	4.23
SH-15	10½	7¼	4.56
SH-16	12¼	8¾	4.91

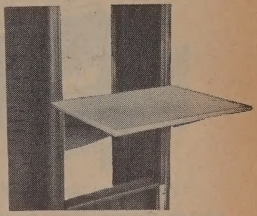
FRONT HINGED DOOR PANEL



This door gives access to the chassis top. It is free moving and has a substantial catch. Made of ⅛″ steel. Please specify finish.

Cat. No.	Height	Door	Net Price
FH-430	10½	6 x15⅜	6.07
FH-432	12¼	7½x15⅜	7.48

EXTERIOR RACK SHELVES



The exterior shelf replaces a panel when a shelf is needed. Unit is composed of a 16 gauge steel shelf with seam welded front corners and two supporting ⅛″ steel brackets. All hardware included.

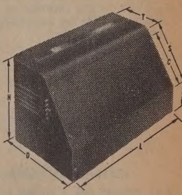
Cat No.	Shelf Size	Wt.	Net Price
ER-416	16x22	12	11.66
ER-420	20x22	15	11.83

INTERIOR RACK SHELVES

These 16 gauge steel shelves may be supported in the rack by chassis support angles CA-12 or CA-14. They are used to form a strong shelf for modulator units, power supplies etc. Finish black enamel.

Cat. No.	Size	Shpg. Wt.	Price Net
RS-512	12x19	5½	2.64
RS-515	15x19	6½	3.47

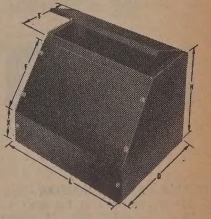
SLOPING FRONT CABINETS



These deluxe all purpose steel cabinets are designed for wide use in the electronic field. Front and top corners are rounded, sides have stainless steel ventilators. Embossed feet to prevent scratching. Gray wrinkle finish.

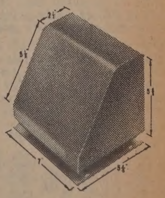
Catalog No.	D	H	L	T	X	S	C	Use This Chassis	Net Price
SFC-42	8	8	8	4¼	2¾	6	5¼	C-104	5.19
SFC-44	8	8	10	4¼	2¾	6	5¼	C-105	7.29
SFC-46	8	8	14	4¼	2¾	6	5¼	C-114	8.79
SFC-48	12	12	18	6	3⅛	10⅜	9½	C-110	11.78

HINGED TOP SLOPING CABINET



This cabinet provides for a complete opening of top and front. Bottom has embossed feet. Rear has opening for connectors. Black wrinkle or Gray hammertone finishes.

ENCLOSED METER CABINET



Enclosed Meter Cabinet bottom is open. Bottom plate with embossed feet and four sheet metal screws included. Gray wrinkle unless other color specified. Available in black wrinkle, silver gray hammertone at no additional cost. Steel or Aluminum.

Catalog No. EMC-2

CALIFORNIA CHASSIS CO. — Lynwood, California

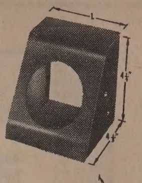
"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

CALIFORNIA *Chassis* COMPANY

METER CABINETS

Meter Size		Aluminum Cat. No.	Net Price			Wt. Lbs.	Net Price
2″	4 ″	MC-2	1.43	½	SMC-2	1½	1.12
3″	4 ″	MC-3	1.43	½	SMC-3	1½	1.12
No Holes	4 ″	MC-4	1.43	½	SMC-4	1½	1.12
2″	4 ″	MC-6*	1.43	½	SMC-6*	1½	1.12
3″	4 ″	MC-7*	1.43	½	SMC-7*	1½	1.12
No Holes	7½″	MC-8	2.06	¾	SMC-8	2¼	1.87
3″	6 ″	HAC-MC-7*	2.06	¾			

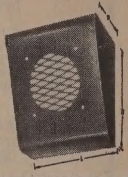
* Indicates it has two ½″ holes on ¾″ centers at top of cabinet for insulators. 2″ meter hole is 2³⁄₁₆″. 3″ meter hole is 2¹³⁄₁₆″.



WALL SPEAKER CASES

These all metal cases have keyslotted holes on the rear for easy mounting. They are also provided with embossed feet on one side. Finish is gray hammertone for ease of cleaning.

Catalog No.	Speaker Size	Hole Size	H	L	D	Wt.	Price Net
WS-304	4	3½	7½	6½	4¼	1¾	3.20
WS-305	5	4	½7	6½	4¼	1¾	3.37
WS-306	6	4¾	9½	8	5⅝	3	3.81
WS-308	8	6½	11½	9½	7	4	4.68
WS-310	10	8½	13½	11½	8¼	5	5.88
WS-312	12	10½	15½	13½	9¾	6	7.38



MINIATURE SPEAKER CABINETS

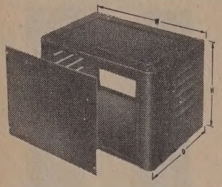
These small meter cabinets are like the MC series except the meter hole is covered by an expanded metal shield. Furnished in steel only. Black wrinkle standard.

Catalog No.	Length	Meter Size	Wt. Lbs.	Net Price
MS-261	4″	2″	¾	1.77
MS-262	4″	3″	¾	1.77

STREAMLINED MINIATURE CABINETS

This miniature steel cabinet has a radiussed face. The base has four embossed feet. There rear is open except for a ¼″ flange down two sides. This gives rigidity as well as a place to attach a back cover. Gray wrinkle standard.

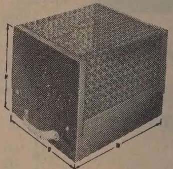
Catalog No.	H	W	D	Wt.	Net Price
SM-271	4½	5½	3½	1 #	1.90
SM-272	6½	5½	3½	1½	1.96



DELUXE AMPLIFIER FOUNDATION

This foundation is used where the chassis must be covered and appearance is important. Material is steel, finish is black wrinkle. Gray hammertone at no extra cost. Use suffix B or GH.

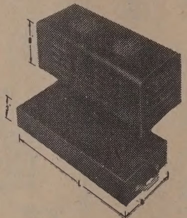
Cat. No.	Length	Depth	Wt.	Net Price
DA-420	10	5	4½	6.82
DA-421	12	7	5	8.04
DA-422	17	7	8	8.50
DA-423	17	10	9	9.25



STREAMLINED INSTRUMENT CABINET

Miniature aluminum chassis MA series are usually used with this cabinet. Black wrinkle is standard.

Catalog No.	Panel Space	Height	Width	Depth	Wt.	Net Price
SC-31	8x 8	8	10½	8¼	5¾	4.37
SC-32	8x10	8	12½	8¼	6	5.42
SC-33	8x12	8	14½	8¼	6½	5.88
SC-34	8x14	8	16½	8¼	7	6.17
SC-35	8x16	8	18½	8¼	7¾	6.77
SC-36	12x18	12	20½	12	15	12.17



AMPLIFIER FOUNDATIONS

These consist of a chassis and perforated metal cover. They have ample ventilation. Handles are included in each package. Black wrinkle standard.

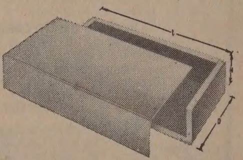
Catalog No.	Height	Width	Depth	Chassis Height	Shpg. Wt.	N Pr
AF-240*	6	7⅜	5⅛	2	2	4.
AF-241	8 ⁵⁄₁₆	9⅝	5⅛	2½	3	5.
AF-242	8 ⁵⁄₁₆	13⅝	5⅛	2½	4⅜	6.
AF-243	8 ⁵⁄₁₆	17⅛	7⅛	2½	6	7.
AF-244	8¹³⁄₁₆	17⅛	10⅛	3	8	10.

* Has one handle only — at top.

UTILITY BOX — REMOVABLE COVER

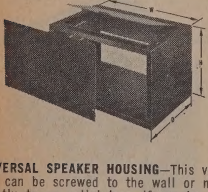
This model allows complete accessibility to the interior of the unit. All work may be completed before cover is installed.

Cat. No.	D	L	H	Net Price
HA-10	3x	4	x1½	1.50
HA-11	4x	5	x2	1.96
HA-12	4x	8	x2	2.14
HA-13	5x	9½	x2½	2.33
HA-14	6x12		x2½	2.62
HA 15	7x15		x2½	3.55



INSTRUMENT CABINETS

This cabinet has a hinged access door on top and removable front cover. The elimination of the rounded corners gives more inside room. The rear has a 3½″ opening for ventilation plus louvers at each end. The open end chassis, E.C. series, is usually used with these cabinets. Black wrinkle only.

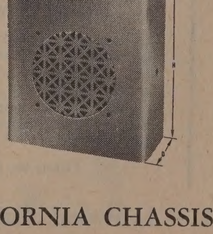


Cat. No.	H	W	D	Ship. Wt.	Net Price
HTC-342	7	8	8	5	3.77
HTC-343	7	10	8	5½	4.86
HTC-344	7	12	8	5¾	5.13
HTC-345	7	14	8	6	5.51
HTC-346	8	16	8	7	7.58
HTC-347	9	15	11	8	7.75
HTC-348	12	18	12	14½	11.12

UNIVERSAL SPEAKER HOUSING—This versatile unit can be screwed to the wall or mounted directly to an outlet box. If greater adjustability is desired a yoke or "U" shaped speaker bracket, one of the USHB series, can be used.

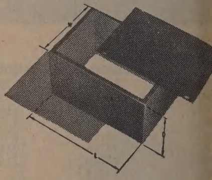
Speaker openings face front and back for bilateral sound projection. This makes them very adaptable for use in halls or auditoriums. Being of steel they do not weather and are easy to clean. Interior is coated with a sound deadening material. Finish is silver gray hammertone.

Cat. No.	Speak. Size	H	L	D	Wt.	Price Net
USH-534	4 or 5	7¼	6¾	3½	2½	5.51
USH-535	5 or 6	8¼	7½	4	2¾	5.98
USH-536	6 or 8	10⁹⁄₁₆	9½	5	4½	9.62
USH-540	10 or 12	15	13½	7⁷⁄₃₂	9	13.09



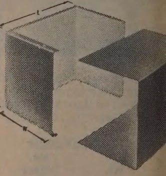
METAL UTILITY CABINETS

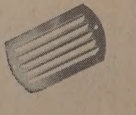
Catalog No.	Wt. Stl.	D	W	L	Wt. Alm.	Painted Alum.
CAB-1	¾	2″	4″	4″	⅜	1.68
CAB-2	1	3″	5″	4″	½	1.87
CAB-3	1½	4″	5″	6″	¾	2.14
CAB-4	2½	6″	6″	6″	1	2.53
CAB-5	3¼	5″	6″	9″	1¼	3.09
CAB-6	4¾	7″	8″	10″	2	3.76
CAB-7	5	6″	7″	12″	2	3.76
CAB-8	6	8″	10″	10″	2½	4.91
CAB-9	7	8″	11″	12″	2¾	5.90
CAB-10	7	7″	9″	15″	2¾	6.82



MINIATURE CABINETS

Aluminum Gray Hammertone Cat. No.	Net Price	Etched Aluminum Cat. No.	Net Price	L H W
M-51	.83	M-81	.61	2¾x2⅛x1⅝
M-52	.95	M-82	.85	2¾x2⅛x2¾
M-53	1.04	M-83	.66	3¼x2⅛x1⅛
M-54	.88	M-84	.61	3¼x2⅛x1⅝
M-55	.92	M-85	.65	4 x2⅛x1⅝
M-56	1.00	M-86	.83	4 x2¼x2¼
M-57	1.16	M-87	.83	4 x2 x2¾
M-58	1.17	M-88	.87	4¼x2¼x1½
M-59	1.21	M-89	.90	5 x2¼x2¼
M-60	1.29	M-90	.99	5 x4 x3
M-61	1.14	M-91	.97	5¼x3 x2⅛
M-62	1.85	M-92	1.28	6 x5 x4
M-63	1.89	M-93	1.34	7 x5 x3
M-64	2.28	M-94	2.02	8 x6 x3½
M-65	1.41	M-95	1.28	10 x2 x1⅝
M-66	2.79	M-96	2.21	10 x6 x3½
M-67	1.62	M-97	1.24	12 x2½x2¼
M-68	3.30	M-98	1.97	12 x7 x4
M-69	3.88	M-99	3.28	17 x5 x4





CHROME VENTILATING LOU

These are made of stainless with a high polish finish. Th our sloping face cabinets bu be adopted to any unit. The behind a 2x4⅜ rectangular and mount on 4-27/32 centers. pair with screws.

Catalog No. TRM-40 .78

CALIFORNIA CHASSIS CO. — Lynwood, California

"ALL PRICES SUBJECT TO CHANGE W/O NOTICE"

© U.C.P.

L M B® Box Chassis

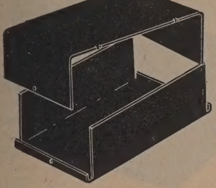
The Engineered Precision Line with Interlocking and Flangelocking Construction

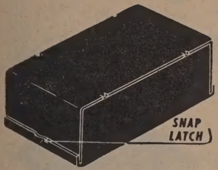
Here is the answer to box chassis needs, for the laboratory, manufacturer, experimenter, or builder. The following L. M. B. Boxes are available from stock in either interlocking (screw fastened) or snap latch. All screw fastenings are drilled and tapped. Self tapping screws are not used. Available colors include natural aluminum, gray or brown hammertone, and black crackle. When ordering specify style and color.

Aluminum used in all LMB products is aircraft quality specifications type 3003-H 14.

All prices quoted are dealer net. Manufacturers Special Discounts on Application.

Interlocking

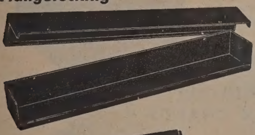




INTERLOCKING (SCREW-FASTENED OR SNAP LATCH)

Model	Size	Price	Model	Size	Price
M00	2¼" x 1½" x 1⅜"	.57	138	6¼" x 3½" x 2⅛"	1.32
00Z	2$\frac{5}{16}$" x 2⅛" x 1¾"	.64	139	5½" x 3" x 1¼"	1.01
000	3¼" x 2⅛" x 1⅝"	.68	140PL	3" x 4" x 5"	1.29
00	4" x 2⅛" x 1⅝"	.71	140	3" x 4" x 5"	1.61
100	2¾" x 2⅛" x 2⅝"	.89	141PL	6" x 4" x 3"	1.44
101	4¼" x 2¼" x 1¼"	.87	141	6" x 4" x 3"	1.72
102	4" x 2" x 2¾"	1.02	142PL	6" x 4" x 5"	1.68
107	4" x 2¼" x 2¼"	.96	142	6" x 4" x 5"	2.11
108	5" x 2¼" x 2¼"	1.03	143	4" x 4" x 2"	1.33
135	3¾" x 3" x 2⅛"	.97	144	10" x 4" x 2½"	2.19
136	5¼" x 3" x 2⅛"	1.08	145	7" x 5" x 3"	2.11
650	6½" x 2⅛" x 1⅝"	1.05	146	8" x 6" x 4½"	2.99
137	8" x 3" x 2¾"	1.61	15	12" x 2" x 1¾"	1.61
850	8½" x 2⅛" x 1⅝"	1.35			

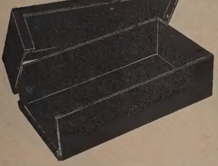
Flangelocking



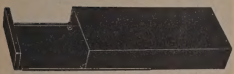
SIDELOCK and ENDLOCK CONSTRUCTION

L. M. B. aluminum Box chassis with sidelock and endlock construction are dust proof, semi-water, and rain proof. Sturdy construction and 100% shielded. The following models are available in plain aluminum, or finished in black, gray, or brown. Endlock or sidelock construction:

Model	Size	Price	Model	Size	Price
221	2¾" x 3⅛" x 1⅝"	1.13	654	6" x 5" x 4"	2.51
321	3¼" x 2⅛" x 1⅝"	1.13	666	6" x 6" x 6"	3.39
421	4" x 2⅛" x 1⅝"	1.13	686	6" x 8" x 6"	4.27
422	4" x 2¼" x 2¼"	1.29	695	6" x 9" x 5"	3.84
424	4" x 2" x 4"	1.98	753	7" x 5" x 3"	2.60
435	4" x 3" x 5"	2.19	754	7" x 5" x 4"	2.76
444	4" x 4" x 4"	1.89	863	8" x 6" x 3½"	2.86
531	5¼" x 3" x 1½"	1.29	865	8" x 6" x 5"	3.57
532	5¼" x 3" x 2⅛"	1.47	1063	10" x 6" x 3½"	3.57
534	5⅝" x 3" x 4"	2.06	1085	10" x 8" x 5"	4.42
543	5" x 4" x 3"	1.87	1221	12" x 2" x 1¾"	1.87
546	5" x 4" x 6"	2.74	1274	12" x 7" x 4"	4.65
645	6" x 4" x 5"	2.60	1754	17" x 5" x 4"	5.27



Endlock

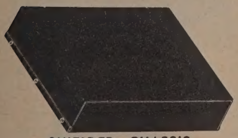


SLIDE COVER

SLIDE COVER (or dust cover) BOXES

Designed by BROADCAST ENGINEERS

No.	L W H	Ea.	No.	L W H	Ea.
16—Natural Aluminum	13" x 3⅛" x 2⅝"	$1.85	18—Natural Aluminum	13" x 5¼" x 2⅝"	3.50
16—Gray, Black, Brown	13" x 3⅛" x 2⅝"	2.52	18—Gray, Black, Brown	13" x 5¼" x 2⅝"	4.30
17—Natural Aluminum	13" x 4⅛" x 2⅝"	3.18	19—Natural Aluminum	17" x 3⅛" x 2⅝"	3.35
17—Gray, Black, Brown	13" x 4⅛" x 2⅝"	3.95	19—Gray, Black, Brown	17" x 3⅛" x 2⅝"	4.15



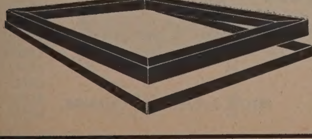
SHIELDED CHASSIS

SHIELDED CHASSIS

	L W H	Ea		L W H	Ea.
No. 20 Plain	7½" x 7" x 2"	$1.67	No. 21 Anodized	13" x 10" x 3"	$5.81
No. 20 Anodized	7½" x 7" x 2"	2.06	No. 22 Plain	17" x 10" x 3"	5.13
No. 21 Plain	13" x 10" x 3"	4.34	No. 22 Anodized	17" x 10" x 3"	6.67

PRINTED CIRCUIT CHASSIS

Printed circuit chassis are made with a shallow base with a cap cover on the bottom so that it can be removed to work on the assembly without removing the printed circuit from the chassis. All printed circuit chassis are of plain aluminum.



STANDARD SIZES

Model No.	L W D	Mounting Lip	Price
PC 325	3 x 2 x ½	$\frac{3}{16}$"	ea. .70
PC 635	6 x 3 x ½	$\frac{3}{16}$"	ea. .80
PC 645	6 x 4 x ½	⅛"	ea. .91
PC 855	8 x 5 x ½	⅛"	ea. 1.04
PC 10875	10 x 8 x ¾	½"	ea. 1.52
PC 12975	12 x 9 x ¾	⅝"	ea. 1.76

Model No.	Size	Mounting Lip	Model No.	Size	Mounting Lip
D 7131	7 x 13 x 1	½"	D 541	5 x 4 x 1	½"
for use in building with the Danco model No. 14 printed amplifier circuit ea. 1.17			for use in building with the Danco model No. 21, 31, 41 printed preamplifier circuit ea. $ .63		

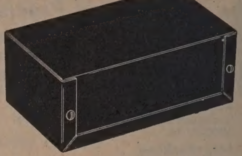
PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

L M B® Box Chassis (Continued)

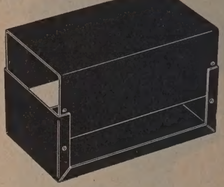
	Each	DEALER NET Plain	DEALER NET Gray, Black, Brown		Each	DEALER NET Plain	DEALER NET Gray, Black, Brown
T-F 770	2¾x2⅛x1⅝	$ .62	$ .81	T-F 780	5¼x3 x2⅛	.82	$1.12
T-F 771	2¾x2⅛x2¾	.68	.95	T-F 781	6 x5 x4	1.47	1.83
T-F 772	3¼x2⅛x1⅛	.62	.84	T-F 782	7 x5 x3	1.40	1.86
T-F 773	3½x2⅛x1⅝	.62	.84	T-F 783	8 x6 x3½	1.72	2.25
T-F 774	4 x2⅛x1⅝	.62	.95	T-F 784	10 x6 x3½	2.02	2.54
T-F 775	4 x2¼x2¼	.75	.97	T-F 785	10 x2 x1⅝	1.15	1.57
T-F 776	4 x2 x2¾	.75	1.00	T-F 786	12 x2½x2¼	1.37	1.67
T-F 777	4¼x2¼x1½	.72	1.00	T-F 787	12 x7 x4	2.71	3.43
T-F 778	5 x2¼x2¼	.78	1.03	T-F 788	17 x5 x4	2.92	3.44
T-F 779	5 x4 x3	.94	1.32				

TITE-FIT BOX CHASSIS



	Each	PRICES Plain	PRICES Gray, Black, Brown		Each	PRICES Plain	PRICES Gray, Black, Brown
J-870	2¾x2⅛x1⅝	.62	$ .81	J-880	5¼x3 x2⅛	$ .82	$1.12
J-871	2¾x2⅛x2¾	.68	.95	J-881	6 x5 x4	1.47	1.83
J-872	3¼x2⅛x1⅛	.62	.84	J-882	7 x5 x3	1.40	1.86
J-873	3½x2⅛x1⅝	.62	.84	J-883	8 x6 x3½	1.72	2.25
J-874	4 x2⅛x1⅝	.62	.95	J-884	10 x6 x3½	2.02	2.54
J-875	4 x2¼x2¼	.75	.97	J-885	10 x2 x1⅝	1.15	1.57
J-876	4 x2 x2¾	.75	1.00	J-886	12 x2½x2¼	1.37	1.67
J-877	4¼x2¼x1½	.72	1.00	J-887	12 x7 x4	2.71	3.43
J-878	5 x2¼x2¼	.78	1.03	J-888	17 x5 x4	2.92	3.44
J-879	5 x4 x3	.94	1.32				

JIFFY BOX CHASSIS



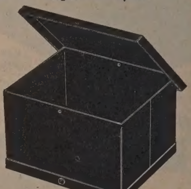
NO SCREWS

Just push together to close and the Catches snap into place—just a slight pressure of the fingers to open.

		ALUM. GAUGE Each	PRICES Plain	PRICES Gray, Black, or Brown			ALUM. GAUGE Each	PRICES Plain	PRICES Gray, Black, or Brown
U-C 970	4x 4x2	.040	$1.57	$1.82	U-C 976	10x 8x7	.051	$4.63	$5.35
U-C 971	5x 4x3	.040	1.69	1.98	U-C 977	12x 7x6	.051	4.46	5.30
U-C 972	6x 5x4	.040	2.18	2.52	U-C 978	10x10x8	.051	5.90	6.85
U-C 973	6x 6x6	.040	2.55	3.02	U-C 979	12x11x8	.051	7.06	8.02
U-C 974	7x 5x3	.040	2.98	3.48	U-C 980	15x 9x7	.051	7.15	8.11
U-C 975	9x 6x5	.051	3.38	3.89					

UTILITY BOXES

Give approximately 25% more usable spaces for building.



SIZES

No.	L	W	H	No.	L	W	H	No.	L	W	H
M-01	1⅛″	x 1″	x ½″	* 09	2⅝″	x 1″	x ⅜″	016	2″	x 1¾″	x ¾″
02	1″	x ⅞″	x ½″	010	1¾″	x 1¼″	x ⅞″	017	2″	x 1¾″	x 1″
*04	1¼″	x 1⁷⁄₃₂″	x ⅞″	011	2″	x 1¼″	x ¾″	018	2″	x 2″	x 1¼″
*06	1½″	x 1⅛″	x ½″	*012	2″	x 1¼″	x 1″	*019	2½″	x 1¾″	x ⁹⁄₁₆″
07	1¾″	x 1″	x ¾″	*013	1¾″	x 1¼″	x 1″	*020	1½″	x 1½″	x 1″
*08	2¼″	x 1″	x ⁵⁄₁₆″	014	1½″	x 1½″	x ¾″	*021	2½″	x 1¾″	x ¾″
				*015	2″	x 1¾″	x ½″	022	3⅛″	x 1¾″	x ½″

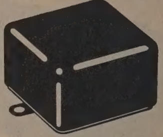
* Without Mounting Ears

PRICES

	Plain	Plated		Plain	Plated		Plain
With Mounting Ears in Lots of 100 to 999 ea.	.49	.65	Without Mounting Ears 100 to 999 ea.	.41	.57	Covers for LMB Miniature Boxes 100 to 999 ea.	.15

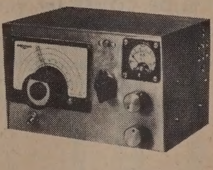
MINIATURE BOX CHASSIS

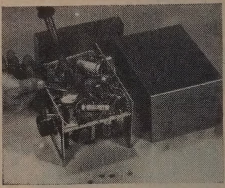
Precision made in steel only, cadmium plated. Made with or without mounting ears. Covers solder in when used in assembly.



UTILITY ENCLOSURES

No.	L	W	H		Plain	Gray
W-1A	7″	x 5″	x 4½″	with built in chassis	$3.97	$4.84
W-1B	10″	x 4″	x 3½″	with built in chassis	3.97	4.84
W-1C	8½″	x 6⅛″	x 5″	with built in chassis	4.43	5.33
W-1D	18″	x 9″	x 11″	will accommodate an 11″ x 17″ 2″, 3″ or 4″ chassis	9.75	13.13

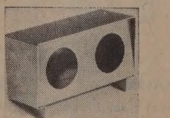


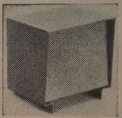


"AL-CAB" CABINETS for meter cases or any application where outstanding appearance is needed

No.	L	W	H		Plain	Gray
W-2AP	3½″	x 4″	x 3″	with holes	$1.88	$2.18
W-2A	3½″	x 4″	x 3½″	without holes	1.98	2.28
W-2B	3″	x 7″	x 3½″	with and without holes	2.25	2.67
W-2C	2⅜″	x 7″	x 3½″	without holes	2.93	3.36
W-2E	4½″	x 4½″	x 3½″	without holes	2.30	2.60

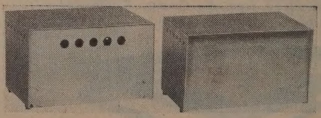
Holes in W-2AP, 2B are 2¼″, 2¹³⁄₁₆″. For 4″ Meter holes and knock-out, add 10% to above prices.





W.M. "AL-CAB" Deluxe Series All with Built-in Chassis

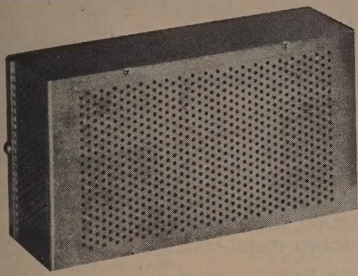
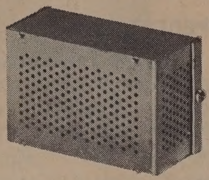
No.	D	W	H	Plain	Gray
W-2F	7½″ x	5″	x 4½″	$4.40	$5.18
W-2G	13″ x	10″	x 5¾″	9.36	11.06
W-2H	7″ x	11″	x 6¼″	7.38	8.63
W-2J	8″ x	11½″	x 7½″	8.10	9.35



PRICES SUBJECT TO CHANGE

© U.C.P., Inc

L M B® (Continued)

LMB PERFORATED BOX CHASSIS

LMB Perforated Boxes are adaptable wherever heat dissipation is required as they are spaced in perforations that are set by laboratory research to give utmost heat dissipation and also give utmost shielding. They are die perforated on three sides and top of the box.

NO.	FINISH	SIZE	NET EA.
00Z	Plain or Gray	2 5/16 x 2⅛ x 1¾	$ .83
000	" "	3¼ x 2⅛ x 1⅝	.95
00	" "	4 x 2⅛ x 1⅝	1.02
100	" "	2¾ x 2⅛ x 2⅝	1.20
101	" "	4¼ x 2¼ x 1¼	1.12
102	" "	4 x 2 x 2¾	1.41
107	" "	4 x 2¼ x 2¼	1.09
108	" "	5 x 2¼ x 2¼	1.50
135	" "	3¾ x 3 x 2⅛	1.36
136	" "	5¼ x 3 x 2⅛	1.50
137	" "	8 x 3 x 2¾	2.14

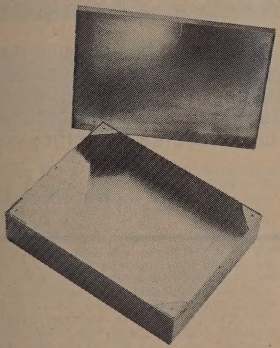
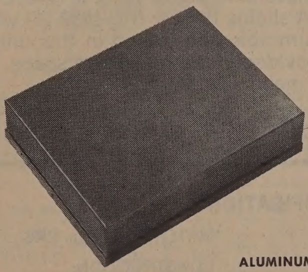
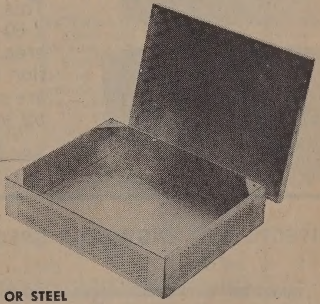
NO.	FINISH	SIZE	NET EA.
138	Plain or Gray	6¼ x 3½ x 2⅛	$1.82
139	" "	5½ x 3 x 1¼	1.36
140	" "	3 x 4 x 5	1.75
141	" "	6 x 4 x 3	1.88
142	" "	6 x 4 x 5	2.18
143	" "	4 x 4 x 2	1.40
144	" "	10 x 4 x 2½	2.19
650	" "	6½ x 2⅛ x 1⅝	1.41
850	" "	8½ x 2⅛ x 1⅝	1.59
15	" "	12 x 2 x 1¾	1.79

L M B
PRESENTS SOMETHING NEW IN CHASSIS —

THE CHASSIS WITH THE CAP COVER AS ORIGINATED BY LMB

Built with the new original LMB popular cap cover construction. This construction enables the builder to use either the top or the bottom of the chassis for construction. The Chassis can also be mounted on its side and construction can be on both top and bottom at the same time. Sturdily built from Aircraft quality aluminum, Type 3003, H-14, the same material as is used in the construction of all LMB precision box chassis. Special technique in welding the corners makes for a stronger chassis than the orthodox type. Cap construction allows for using all the space inside the chassis without being hindered by the mounting flange, which takes from 10% to 20% of the mounting space out of the average chassis.

The P Series are perforated on all four sides and are ideal where heat dissipation is a factor. LMB chassis — the better chassis, with the year's ahead advanced construction for your better project application. An advanced quality product competitively priced.

ALUMINUM OR STEEL

WITHOUT COVER

NO.	SIZE L W H	GUAGE	NET
572	5x 7x2	18	$1.17
573	5x 7x3	18	1.42
5952	5x9½x2	18	1.25
5103	5x10x3	18	1.65
5133	5x13x3	18	1.85
6173	6x17x3	18	2.67
772	7x 7x2	18	1.35
792	7x 9x2	18	1.46
7112	7x11x2	18	1.58
7123	7x12x3	18	2.03
7153	7x15x3	18	2.67
7173	7x17x3	18	2.75
8123	8x12x3	18	2.42
8172	8x17x2	18	2.52
8173	8x17x3	16	2.95
10123	10x12x3	18	2.70
10143	10x14x3	18	2.95
10172	10x17x2	16	2.85
10173	10x17x3	16	3.40
10174	10x17x4	16	4.85
11173	11x17x3	14	4.20
12172	12x17x2	14	4.50
12173	12x17x3	14	4.60
13172	13x17x2	14	4.50
13173	13x17x3	14	4.80
13174	13x17x4	14	5.95

WITH CAP COVER

NO.	L W H	NET
572C	5x 7x2	$1.75
573C	5x 7x3	1.95
5952C	5x9½x2	1.85
5103C	5x10x3	2.25
5133C	5x13x3	2.50
6173C	6x17x3	3.40
772C	7x 7x2	1.90
792C	7x 9x2	1.95
7112C	7x11x2	2.30
7123C	7x12x3	2.75
7153C	7x15x3	3.60
7173C	7x17x3	3.70
8123C	8x12x3	3.23
8172C	8x17x2	3.50
8173C	8x17x3	4.50
10123C	10x12x3	3.60
10143C	10x14x3	4.30
10172C	10x17x2	4.37
10173C	10x17x3	5.18
10174C	10x17x4	6.37
11173C	11x17x3	6.60
12172C	11x17x2	6.60
12173C	12x17x3	6.90
13172C	13x17x2	6.60
13173C	13x17x3	6.90
13174C	13x17x4	7.95

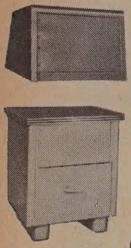
PERFORATED

NO.	L W H	NET
572P	5x 7x2	$2.05
573P	5x 7x3	2.25
5952P	5x9½x2	2.15
5103P	5x10x3	2.55
5133P	5x13x3	2.80
6173P	6x17x3	3.70
772P	7x 7x2	2.20
792P	7x 9x2	2.25
7112P	7x11x2	2.60
7123P	7x12x3	3.05
7153P	7x15x3	3.90
7173P	7x17x3	4.00
8123P	8x12x3	3.53
8172P	8x17x2	3.80
8173P	8x17x3	4.80
10123P	10x12x3	4.30
10143P	10x14x3	4.70
10172P	10x17x2	4.77
10173P	10x17x3	5.98
10174P	10x17x4	7.17
11173P	11x17x3	7.10
12172P	12x17x2	7.20
12173P	12x17x3	7.50
13172P	13x17x2	7.30
13173P	13x17x3	7.50
13174P	13x17x4	8.55

METAL WORKS INCORPORATE

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CONSOLES FOR INDUSTRY...SCHOOLS...AIRPORTS...BROADCASTING RECORDING...TESTING APPARATUS...FOR 19″ RACK PANELS



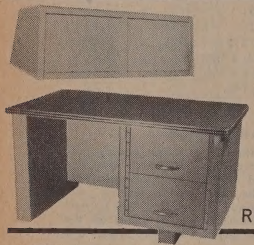
RB-100

RB-100 SINGLE PEDESTAL UNIT

This unit is designed for economy in the smaller broadcast station, scho lab, etc.; a low cost unit with a wide range of uses. This unit is equipped wit a sliding drawer (PD-1050-16) built into the cabinet. A blank panel (PM-161 is provided above or below the drawer for equipment. The top has offic gray linoleum touched off by attractive metal trim.

NOTE: Drawers furnished with panel mtg. screws showing unless requeste as pictured.

Net Price **$148.5**

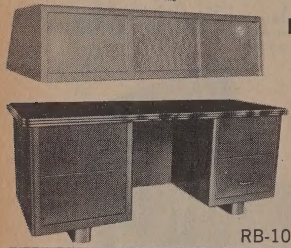


RB-101

RB-101 DOUBLE PEDESTAL UNIT

This console is designed for The Dual Turret RBT-101, equivalent to a 3 classroom unit. This unit is equipped with a sliding drawer (PD-1050-16 built in the upper or lower section of the cabinet. A blank panel (PM-1610 is provided in the remaining space. This console has a hard linoleum to trimmed with metal molding.

See Note above. Net Price **$189.7**



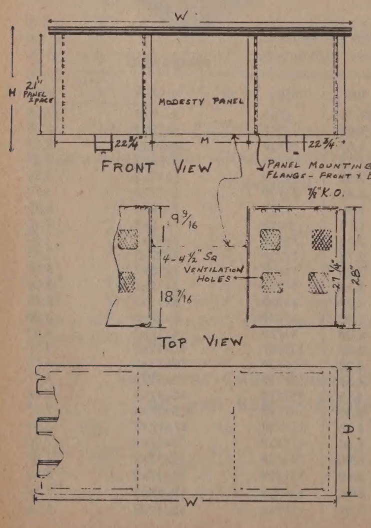
RB-102

RB-102 TRIPLE PEDESTAL UNIT

This unit is the ultimate in console design. It is able to handle equipment fo a 60 classroom unit. Plenty of space is provided on this large top for wor area. A sliding drawer (PD-1050-16) with sufficient room for a 16″ Transcription turntable is provided in this unit. Three blank 10½″ (PM-1610) panel are provided in the remaining space. The top is an attractive office gray se off by metal trim.

See Note above. Net Price **$330.0**

ARCHITECTS AND ENGINEERS SPECIFICATIONS



MATERIAL: 18 ga. CRS

CONSTRUCTION:

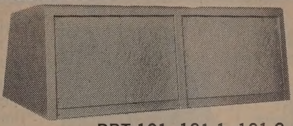
1. Spot weld throughout. 2. Tops are spot welded and fastened wit sheet metal screws. 3. Corners, brazed for added strength and finish appearance. 4. Modesty panels in the two larger models are removable via sheet metal screws. 5. Each pedestal has 21″ panel space both front and rear recessed ¼″. Rear panel furnished with (4) 4½″ screened ventilating holes same as bottom of each pedestal. 6. Panel mounting holes are punched on standard Western Electric spacing. 10-24 oval head screws, Tinnerman clips and finish washers furnished. 7. Six ⅞″ wire knockouts are provided toward rear of bottom of each pedestal. These knockouts accommodate ½″ conduit or pipe. 8. Top is covered with gray matching linoleum and trimmed with a special aluminum trim. Trim provides 2 spaces for plastic feature strips.

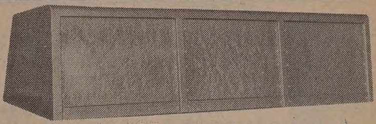
FINISH: Iron phosphate dipped and finished with Silver Gray Hammer-tone Bake On Enamel. Other colors available.

Catalog No.	H	D	W	M	Inside Pedestal Depth	Ship. Wt.
RB-100	29″	30″	26″		27¼″	125
RB-101	29″	30″	53″	23¼″	27¼″	190
RB-102	29″	30″	70″	21½″	27¼″	250

TURRETS FOR USE WITH "RB" SERIES—19" PANELS

RBT-100 -100-1 -100-2


RBT-101 -101-1 -101-2


RBT-102 -102-1 -102-2

rret console combinations are at-ctive instruments that accentuate / control room, office, etc., with ir modern design.

rets featured in three different ies and three sizes within each ies offer a multiple of combina-ns that can be used in conjunc-n with our RB series of consoles. ese combinations are readily aptable to specialized applica-ns in control equipment, testing ilities, sound systems, control its in language laboratories and ny other applications in industry d entertainment services.

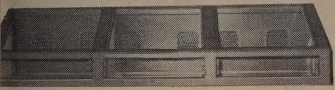
e standard turret which has 12¼" nel space is especially designed use on the consoles (RB-100, -101, RB-102) and on equipment bles (RB-80-1, RB-80-3, RB-90-1, -90-3), although it has a wide va-ty of other uses.

MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finish appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This type construction adds **rigidity.** 6. Front panel space has 10° slope. Rear of turrets has 10° slope. 7. Panel mounting holes are punched on standard Western Electric spacing. 8. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 9. Panel spacing is recessed ¼". FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

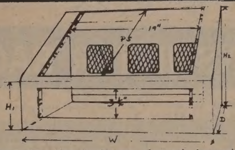
For front height add 2" to H dimension.

Cat. No.	W	H	WT	WB	PS	No. of Units	Shipping Weight	Net Price
RBT-100	21¾	15½	13½	18	12¼	1	40 lbs.	$46.68
RBT-101	42	15½	13½	18	12¼	2	65 lbs.	63.54
RBT-102	62¼	15½	13½	18	12¼	3	110 lbs.	82.25
RBT-100-1	21¾	17¼	12¾	18	14	1	50 lbs.	48.74
RBT-101-1	42	17¼	12¾	18	14	2	80 lbs.	66.04
RBT-100-2	21¾	13¾	11⅝	15⅞	10½	1	35 lbs.	85.97
RBT-102-1	62¼	17¼	12¾	18	14	3	130 lbs.	46.20
RBT-101-2	42	13¾	11⅝	15⅞	10½	2	60 lbs.	62.87
RBT-102-2	62¼	13¾	11⅝	15⅞	10½	3	105 lbs.	79.37

INSTRUCTORS TURRETS FOR USE WITH "RB" SERIES—19" PANELS



e T-103-1, 103-2, 103-3 series of turrets are pecially designed for the language lab con-ol unit ensemble. The low slope affords easy sion of the classroom as well as the equip-ent installed therein. These turrets are the sult of considerable study in the field of dio education and are designed with the structor, as well as maintenance personnel, mind. Other applications of this turret are asible where low slope aids vision of dials, eters and switch panel from a standing po-tion. Takes panels:—ARP-123; RP-123; PM-3 or PA-163—lower space. Upper space:—RP-1217; RP-1217; PM-1617 or PA-1617. anels not furnished—order separately.



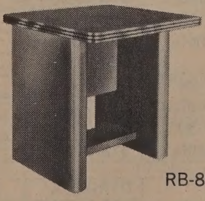
SPECIFICATIONS

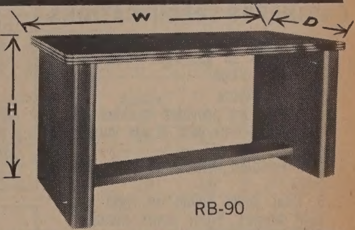
MATERIAL: 18 ga. CRS. **CONSTRUCTION:** 1. Spot weld throughout. 2. Corners brazed for added strength and finished appearance. 3. Removable rear panel for easy access to cabinet components. 4. Five ⅞" knockouts provided in rear of each panel space. These knockouts accommodate ½" conduit or pipe. 5. Two 6⅛" channel irons formed from 18 ga. CRS comprise the bottom of each turret. This construction adds **rigidity.** 6. Front panel, 3½" x 19", is made especially for our SP-1635 switch panel. 7. 17½" panel space in all bays provides ample space for most installations. 8. Panel mounting holes are punched on standard Western Electric spacing. 9. 10/24 oval head screws, Tinnerman clips and finishing washers are furnished. 10. Panel spacing is recessed 5/16" to flush mount panel. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Cat. No.	W	H1	H2	D	PS	Shipping Weight	Net Price
T-103-1	22	6⅜	10	18½	17½	40 lbs.	$37.50
T-103-2	42¾	6⅜	10	18½	17½	65 lbs.	67.50
T-103-3	63⅜	6⅜	10	18½	17½	95 lbs.	99.00

EQUIPMENT TABLES FOR SMALL OR LARGE DESK EQUIPMENT

Equipment tables are exclusively in the line. They are very handy when small equipment is being used. Models 80-1 — 80-3 have an overhanging top and plenty of knee room and are used for the smaller equipment. Models 90-1—90-3 are for larger table mounting equipment and have larger tops for more working area. Top is attractive linoleum with bright metal trim. Finish is modern silver gray hammertone.


RB-80



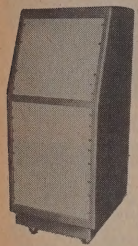
RB-90

Cat. No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
RB-80-1	26	29	26	75	$62.91
RB-80-2	36	29	26	95	68.11
RB-80-3	46½	29	26	120	71.61
RB-90-1	53	29	30	120	84.94
RB-90-2	60	29	30	130	87.12
RB-90-3	70	29	30	150	89.27

MWI

METAL WORKS INCORPORATE
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CABINET CONSOLES



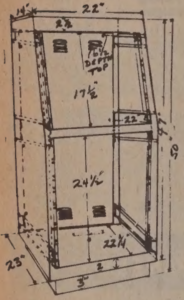
CR-1001

This is a combination console and rack cabinet for applications requiring a minimum of horizontal space.

The upper panel space is large enough to mount a 17″ television screen for testing equipment.

Lower panel area has sufficient space for control equipment.

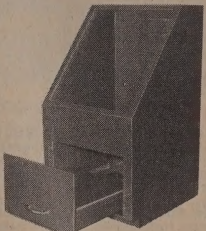
Net Price **$150.00**



CR-1001

MATERIAL: 16 ga. CRS except panel mounting angles and these are made of 13 ga. CRS. CONSTRUCTION: 1. Spot welded and brazed throughout. 2. Upper and lower panel mounting angles drilled and tapped to 10-32 thread. 3. Ball corners brazed for added strength and finish appearance. 4. Rear panel removable, attached with Tinnerman clips and screws. 5. 1¾″ x 6″ rectangle slot punched out of bottom and 1½″ dia. hole in rear bottom for wiring inlet. 6. All reinforced channel iron on sides (3 ea. side) formed from 18 ga. CRS. 7. Channel support panel mounting angles and are fastened with ¼ x 20 binding head screws. 8. Upper panel space is on a 20° slope. 9. Two sets of four louvers each provided in top and bottom of rear panel. 10. Sides, front and back, and top, are formed with ⅝″ radius. 11. Sides and top have a ¼″ flange turned in for added strength and smooth corners. 12. Four gussets—one on each corner, drilled for mounting 2½″ rubber casters. 13. Casters are guaranteed to hold up 100 lbs. of weight each; total load capacity per console is 400 lbs. 14. Cabinet weight—105 lbs. 15. Shipping weight—140 lbs. Shipped assembled. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

CR-1005



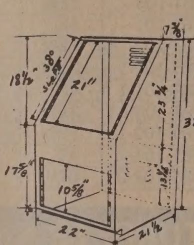
This console rack fits in well whe height might be a problem yet offers sufficient amount of panel space f most applications.

The base area contains a space f mounting a record player or an aut matic turntable drawer. The control pa el area has a 38° slope for good vis bility.

Rear of console rack has a removab louvered panel for easy servicing the unit.

Net Price **$112.50**

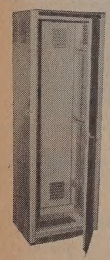
ARCHITECTS AND ENGINEERS SPECIFICATION



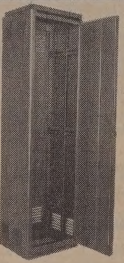
CR-1005

MATERIAL: 16 ga. CRS. CONSTRUC TION. 1. Spot welded and braze throughout. 2. Upper and lower pan el mounting holes are punched t standard 1¼″ x ½″ spacing. 3. 10 24 Tinnerman clips, 10-24 oval hea screws and finishing washers fur nished. 4. Rear panel removable; at tached with sheet metal screws 5. Upper panel space has a 38 slope. 6. All corners are square— not rounded. 7. Cabinet strength i accomplished via formed parts elim inating channels for supportin members. 8. Louvers in fixed lowe rear panel are reversed and face up to help dissipate heat. 9. Ship ping weight—110 lbs. FINISH: Iro phosphate dipped and finished wit Silver Gray Hammertone Bake O Enamel. Other colors available.

TRANSMITTER RACKS



STR Standard



DTR Deluxe

Transmitter racks are made to accommodate 19″, 24″ and 30″ rack panels. All models are furnished with front and rear doors.

Rear door opening provides easy access for equipment maintenance and installation. Front door furnishes full covering for dials, knobs, etc., mounted on panels. Front door is provided with a locking handle and rear door with a flush mounted lock and handle. This gives added protection where it is necessary to lock all components.

Slotted channels (3 per side) permit panel mounting angles to be recessed to full cabinet depth by simply tightening screws that hold each angle in place.

	Catalog No.	Net Price *		Catalog No.	Net Price *
Standard For 19″ Panels	STR-3675	$105.62	DeLuxe For 19″ Panels	DTR-3675	$117.56
	STR-4200	107.90		DTR-4200	119.83
	STR-6125	114.28		DTR-6125	126.23
	STR-7000	119.26		DTR-7000	127.71
	STR-7700	121.72		DTR-7700	142.15
For 24″ Panels	STR-7024	158.98	For 24″ Panels	DTR-7024	176.72
	STR-7724	179.85		DTR-7724	200.44
For 30″ Panels	STR-7030	182.90	For 30″ Panels	DTR-7030	209.39
	STR-7730	186.82		DTR-7730	214.50

*Assembled Price.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

MATERIAL: 16 ga. CRS. Panel mounting angles 16 ga. CRS. Punch for Tinnerman Clips.

CONSTRUCTION:

1. Louvers are provided in sides and rear door—four sets of six louvers each.
2. Assembled with ¼-20 bolts and nuts.
3. Rear doors swing on rigid slip joint hinges. Front doors mounted on continuous hinges.
4. All models furnished with stainless steel feature strip (colored) trim.
5. Shipped knocked down unless otherwise requested.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Size	Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price*
Standard for 19″ Panels	STR-3675	23	42	18½	36¾	130	$105.62
	STR-4200	23	47¼	18½	42	140	107.90
	STR-6125	23	66½	18½	61¼	150	114.28
	STR-7000	23	75¼	18½	70	155	119.26
	STR-7700	23	82¼	18½	77	160	121.72
For 24″ Panels	STR-7024	27⅞	75¼	24	70	230	158.98
	STR-7724	27⅞	82¼	24	77	245	179.85
For 30″ Panels	STR-7030	33⅞	75¼	24	70	250	182.90
	STR-7730	33⅞	82¼	24	77	265	186.82
DeLuxe for 19″ Panels	DTR-3675	23	43⅞	18½	36¾	135	117.56
	DTR-4200	23	49⅛	18½	42	145	119.83
	DTR-6125	23	68⅜	18½	61¼	155	126.23
	DTR-7000	23	77⅛	18½	70	160	127.71
	DTR-7700	23	84⅛	18½	77	160	142.15
For 24″ Panels	DTR-7024	27⅞	77⅛	24	70	235	176.72
	DTR-7724	27⅞	48⅛	24	77	250	200.44
For 30″ Panels	DTR-7030	33⅞	77⅛	24	70	255	209.39
	DTR-7730	33⅞	84⅛	24	77	270	214.50

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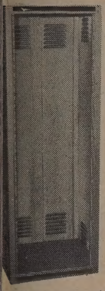
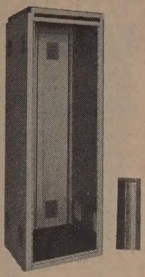
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CABINET RELAY RACKS FOR STANDARD 19″ RACK PANELS



SCR standard



DCR deluxe

MATERIAL: 16 ga. CRS.
CONSTRUCTION:
1. Panel mounting angles are punched to standard 1¼″ x ½″ spacings and are formed as part of the cabinet side.
2. Panel mounting offset is ¼″ deep (See Inset).
3. 10-24 Tinnerman clips, oval head screws and finishing washers furnished for panel space.
4. Louvers are provided in sides and rear door—Four sets of six louvers each.
5. Assembled with ¼-20 pan head bolts and nuts.
6. Rear doors swing on rigid slip joint hinges permitting easy removal.
7. All models furnished with stainless steel feature strip (colored) trim, top and bottom.
8. All models shipped knocked down unless assembled is requested.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Cabinet Relay Racks are rigidly constructed of 16 ga. steel. These racks are completely bolted together.

Panel mounting space is recessed ¼″ to give a more modernistic and pleasing appearance. The rear doors swing on rigid slip joint hinges which permit it to be easily removed. The standard type rack has square front vertical corners. The rounded type rack has rounded front vertical corners. The deluxe type rack has a dome top with rounded front vertical corners.

Front door with 1¼″ depth furnished on request.

ARCHITECTS AND ENGINEERS SPECIFICATIONS

Standard	Net Price *	Round Corner	Net Price *	DeLuxe	Net Price*
SCR-3675	$46.37	RCR-3675	$46.37	DCR-3675	$54.70
SCR-4200	49.87	RCR-4200	49.87	DCR-4200	63.36
SCR-6125	61.88	RCR-6125	61.88	DCR-6125	67.65
SCR-7000	66.52	RCR-7000	66.52	DCR-7000	69.46
SCR-7700	69.30	RCR-7700	69.30	DCR-7700	81.29

*Assembled Price

Model	Catalog No.	Height-in.	Width-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price *
Standard	SCR-3675	41⅛	22⅜	18½	36¾	100	$46.37
	SCR-4200	46⅜	22⅜	18½	42	110	49.87
	SCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	SCR-7000	74⅜	22⅜	18½	70	140	66.52
	SCR-7700	81⅜	22⅜	18½	77	150	69.30
Round Corner	RCR-3675	41⅛	22⅜	18½	36¾	100	46.37
	RCR-4200	46⅜	22⅜	18½	42	110	49.87
	RCR-6125	65⅝	22⅜	18½	61¼	130	61.88
	RCR-7000	74⅜	22⅜	18½	70	140	66.52
	RCR-7700	81⅜	22⅜	18½	77	150	69.30
DeLuxe	DCR-3675	43	22⅜	18½	36¾	105	54.70
	DCR-4200	48¼	22⅜	18½	42	115	63.36
	DCR-6125	67½	22⅜	18½	61¼	135	67.65
	DCR-7000	76¼	22⅜	18½	70	145	69.46
	DCR-7700	83¼	22⅜	18½	77	155	81.29

AMPLIFIER CABINETS RACKS AND CONSOLES

For Recessed Application—TB Series
The recessed type amplifier enclosure has a grille cover. The door is equipped with a lock and piano hinge. The grille has an opening in the top part to permit hot air to escape. The back enclosure is designed to reflect the hot air toward the front of the cabinet so that it may escape. Adequate knockouts are placed in back for all wiring purposes. All TB's are furnished complete with TBG-1000 grille.

Surface Mounted—STB Series
Same size and panel space as TB listed above. Made for those applications where surface mounting is required. STB Panel Mtg. Angles furnished on request.

Heavy Duty—HTB Series
This cabinet offers adequate panel mounting space for most applications where the above listed TB's are too small. The rack portion of the cabinet is completely removable and mounted on 4 nylon ball bearing slides. The rack will support a maximum of 200 lbs. of weight. Maintenance convenience is offered in that the rack can be pulled forward to afford easy access to all components. Sturdy construction features of this cabinet are incorporated to give you quality in an economical unit. Doors are furnished with flush mounted locks.

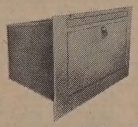
TB and STB
MATERIAL: 16 ga. CRS body
11 ga. CRS grille
CONSTRUCTION:
1. All spot weld and braze construction.
2. Panel mounting angles are supported in slotted bracket, adjustable 9½″ front to rear, affording ample clearance for dials, tuning knobs, switches, etc., on TB only.
3. 10½″ of maximum panel space.
4. Panel mounting angles are punched for use with Tinnerman clips.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

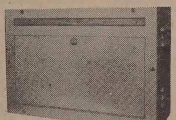
HTB
MATERIAL: 16 ga. CRS cabinet
⅛″ thick angle iron with 11 ga. bracing on rack.
CONSTRUCTION:
1. Spot weld and electric arc construction on cabinet. Electric arc weld on removable rack.
2. Panel mounting angles drilled and tapped for 10/24 thread.
3. Nylon ball bearing slides used on rack.
4. Complete panel mounting rack is removable.
5. Front door made to provide adequate clearance space for dials, knobs, etc.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

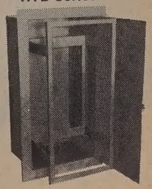
TB Series



STB Series



HTB Series



Catalog No.	Model	Height	Width	Depth	Ship. Wt.	Net Price
TBG-1000	Grille	16″	23″		13 lbs.	$15.51
TB -1200	Encl.	13″	20″	12″	35 lbs.	25.30
TB -1500	Encl.	13″	20″	15″	38 lbs.	27.70
TB -1800	Encl.	13″	20″	18″	41 lbs.	28.74

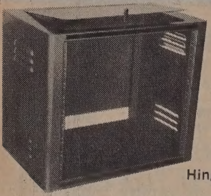
Catalog No.	Inside			Outside			Net Price
	H	W	D	H	W	D	
STB-1200	14″	21″	11¹⁵⁄₁₆″	16″	23″	12″	$29.25
STB-1500	14″	21″	14¹⁵⁄₁₆″	16″	23″	15″	32.42
STB-1800	14″	21″	17¹⁵⁄₁₆″	16″	23″	18″	34.20

Catalog No.	Cabinet Only			Removable Rack			P.S.	Ship. Wt.	Net Price
	Height	Width	Depth	Height	Width	Depth			
HTB-1575	17¾″	21⁹⁄₁₆″	18″	18⅜″	20⁵⁄₁₆″	16″	15¾″	85	$ 66.47
HTB-2800	30″	21⁹⁄₁₆″	18″	30⅝″	20⁵⁄₁₆″	16″	28″	125	85.93
HTB-4200	45¼″	21⁹⁄₁₆″	18″	44⅝″	20⁵⁄₁₆″	16″	42″	175	107.13
HTB-6152	61¼″	21⁹⁄₁₆″	18″	63⅞″	20⁵⁄₁₆″	16″	61¼″	225	135.96

Door frame is 27¼″ wide or 2²⁷⁄₃₂″ wider each side than cabinet width. Add 6″ to cabinet height for overall height of door frame.

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

DELUXE DESK CABINET RACKS FOR STANDARD 19″ RACK PANELS — 15″ DEEP


Hinged Door Back Type

DC SERIES These cabinets are completely welded together to save on assembly time and costs. Panel mounting angles are punched to standard 1¼″-½″ spacings. Enough 10-24 speed clips and machine screws are furnished to mount several rack panels. To give a more pleasing appearance, the mounting angles are constructed to permit recessing of rack panels. All models have a recessed door on top for easy access to equipment. The six largest sizes have a door in back which permits access from the back. All models have a bright chrome strip on top and bottom of front. Phono drawer PD-1050-14 can be mounted in these cabinets except DC-875.

ARCHITECTS AND ENGINEERS SPECIFICATIONS — MATERIAL: 16 ga. CRS. CONSTRUCTION: 1. Completely welded together for rigidity. 2. Rounded front corners. 3. Panels fastened with Tinnerman clips. 4. 10-24 screws, Tinnerman clips and finish washers furnished. 5. 5/16″ recessed panel mounting flanges. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
DC- 875*	22¾	10⅞	15	8¾	26	$16.75
DC-1050*	22¾	12⅝	15	10½	28	18.48
DC-1225*	22¾	14⅜	15	12¼	30	21.28
DC-1400*	22¾	16⅛	15	14	35	22.44
DC-1750	22¾	19⅝	15	17½	38	25.74
DC-2100	22¾	23⅛	15	21	42	27.59
DC-2450	22¾	26⅝	15	24½	46	27.97
DC-2625	22¾	28⅜	15	26¼	48	28.38
DC-3150	22¾	33⅝	15	31½	52	29.53
DC-3500	22¾	37⅛	15	35	56	31.35

(*) Solid back type.

DELUXE WALL MOUNTING AMPLIFIER CABINET SENIOR MODEL...JUNIOR MODEL

Senior—DW-3116

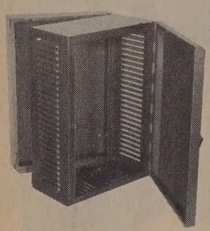
Here is a sturdy cabinet designed for housing the new style amplifiers. Completely welded construction with facilities for wall mounting. DW3116 comes complete with cabinet shelf and door with locking handle. Tamper proof inside hinges. Deep enough for the new larger amplifiers and wide enough for amplifiers using plugs on the side. Plenty of ventilation from louvers on sides and back.

MATERIAL: 16 ga. CRS
CONSTRUCTION:
1. Completely welded together for rigidity.
2. Panels fastened with Tinnerman clips.
3. 10-24 screws, Tinnerman clips and finish washers furnished.

FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

Catalog No.	Height	Depth	Width	PS	Ship. Wt.	Net Price
Senior DW-3116	31″	16″	21″	28″	75 lbs.	$67.50
Junior DW-1616	16⅛″	16″	21″	14″	50 lbs.	44.25

SECTIONAL WALL MOUNTING CABINET 193 SERIES



This series of cabinets is designed for maximum installation convenience. Swing out feature of cabinets permits less handling of components on the job or in the shop. Dowel pins and heavy hinge assure you of durability and a greater amount of weight acceptance of components. Camloc studs interlock two sections with a flush lock mounted on front door in A & B models, locking handle on C & D models to complete a totally enclosed locking unit. The cabinets are available in four vertical panel sizes. If a phono drawer is required, order PD-1050-14. See specifications below.

ARCHITECTS AND ENGINEERS SPECIFICATIONS
MATERIAL: 16 ga. CRS, 11 ga. reinforced angle for wall mounting. CONSTRUCTION: 1. Each section is spot welded and brazed at corners for sturdiness. 2. Panel mounting holes are tapped for 10-32 threads. 3. Bottom and sides of middle section are louvered for maximum heat dissipation. 4. Dowel pins prevent sagging. 5. Each section is hinged with a heavy continuous hinge having a ¼″ pin diameter. FINISH: Iron phosphate dipped and finished with Silver Gray Hammertone Bake On Enamel. Other colors available.

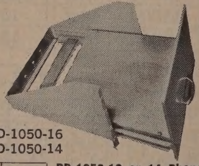
Model No.	Dimensions								Ship. Weight	Net Price
	A	B	C	D	E	F	G-ps	D-E-F		
193A	20⅝	18 13/16	19⅛	4½	11	1¾	15¾	17¼	50#	$ 74.27
193B	20⅝	31	19⅛	4½	11	1¾	28	17¼	75#	78.26
193C	20⅝	45	19⅛	4½	11	1¾	42	17¼	125#	95.73
193D	20⅝	64 5/16	19⅛	4½	11	1¾	61¼	17¼	175#	105.86

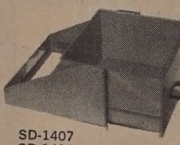
PANEL MOUNTING PHONO & STORAGE DRAWERS FOR 19″ RACKS

With Ball Bearing Drawer Slides

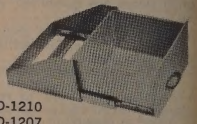
All drawers illustrated are made of 16 ga. steel. Phono drawer chassis has a ¾″ flange to accommodate a plywood or masonite base for a record changer. Base is included with drawer.

325 SLIDE


PD-1050-16
PD-1050-14


SD-1407
SD-1410

335 SLIDE


DSD-1210
DSD-1207

Catalog No.	P.S.	Chassis Size	Ship. Wt.	Net Price
PD-1050-14	10½″	16⅜″ W x 14″ D x 3¾″ H	16 lbs.	$21.75
PD-1050-16	10½″	16⅜″ W x 16″ D x 3¾″ H	18 lbs.	21.75
SD-1410	10½″	16″ W x 16″ L x 9¾″ D	18 lbs.	24.75
SD-1407	7″	16″ W x 16″ L x 6¼″ D	16 lbs.	23.25
DSD-1210	10½″	16″ W x 16″ L x 9¾″ D	18 lbs.	33.25
DSD-1207	7″	16″ W x 16″ L x 6¼″ D	16 lbs.	32.25

Finished in Silver Gray Hammertone with an attractive chrome drawer pull.

PD-1050-16 or 14 Phono Drawer The phono drawer is obtainable in two sizes, 14″ depth and 18″ depth. The 14″ depth is made to fit our DC, STR, 193 series of cabinets while the 17½″ depth can be used in consoles (RB), SCR and DR cabinets. Mounted on slides with nylon rim ball bearing rollers, this drawer pushes in and out with ease. Extends a full 12″ from front of cabinet. If full extension slide is desired add suffix "E" to these part numbers. Weight load—75 lbs.

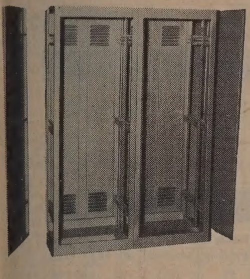
SD-1410 or 1407 Storage Drawer A storage drawer to accommodate those extra tape reels, tools and what have you. Same slides illustrated in our PD-1050 shown above. Two panel sizes are offered, 10½″ and 7″ by 16″ length front to rear. 16″ depth fits our STR, SCR, RB and DR cabinets. 10½″ panel drawer has storage space 9⅝″ D x 16″ L x 16″ W. 7″ panel drawer has storage space 6¼″ D x 16″ L x 16″ W. Weight load 75 lbs.

DSD-1210 or 1207 Deluxe Storage Drawer The ultimate in storage drawer capacity and convenience. These drawers feature a full extension slide permitting the drawer to be pulled out 15″ from cabinet. Smooth operation is provided by ball bearing rollers. Instant drawer removal and positive stopping, positive closing are additional features offered. Weight load—150 lbs.

Two panel sizes are offered, 7″ x 10½″ by 16″ length front to rear. 10½″ panel drawer has storage space of 9⅝″ D x 16″ L x 15½″ W. 7″ panel drawer has storage space of 6¼″ D x 16″ L x 15½″ W.

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

DUPLI-RACK

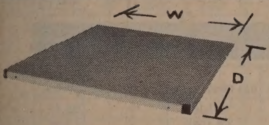


Dupli-rack features a maximum of cabinet space in a minimum of floor space at a savings in cost. To increase the size of an installation, simply remove the detachable side panels, bolt the units together through holes provided, forming a sturdy unit, and slip the detachable side panels on each side. This becomes an attractive installation where the addition of units will always remain the same in color tone and freshness of appearance. Each unit is of weld construction, forming a sturdy and rigid piece of equipment. Basic unit consists of frame and rear door.

SPECIFICATIONS MATERIAL: 16 ga. CRS. Panel mounting angles 11 ga. CRS. CONSTRUCTION: (1) Braze and spotweld assembly. (2) Detachable side panels are formed and supported and fastened by brackets. (3) Louvers provided in rear door. (4) Panel mounting angles drilled and tapped to 10-24 thread on standard 1¼″ x ½″ spacing. (5) Locking handle furnished on front door with flush mounted lock and separate handle on rear door.

Rack with Rear Door					Detachable Side Panels			Front Door		
	Overall Ht.	Panel Space	Ship. Wt. Lbs.	Net Price		Ship. Wt. Lbs. (Per Pair)	Net Price		Ship. Wt. Lbs.	Net Price
DR-3675	42⅞″	36¾″	100	$ 71.12	DSP-36	20	$27.36	FDR-36	10	$15.39
DR-4200	48⅛″	42″	104	72.63	DSP-42	24	31.89	FDR-42	12	17.49
DR-6125	67⅜″	61¼″	120	77.88	DSP-61	32	38.64	FDR-61	18	22.35
DR-7000	76⅛″	70″	129	83.88	DSP-70	36	42.54	FDR-70	20	24.87
DR-7700	83⅛″	77″	133	104.13	DSP-77	40	48.93	FDR-77	22	28.11

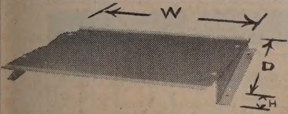
CABINET RACK SHELF FOR CABINET RACKS, DESK RACKS AND CONSOLES



Constructed of one piece of No. 16 gauge sheet steel. Formed 1″ high. Shelf has holes in side and front and back for mounting to cabinet or rack. Finished in brilliant silver gray hammertone unless otherwise specified.

Catalog No.	For:	Width-in.	Depth-in.	Ship. Wt. Lbs	Net Price
CS-1201	RB Models	22⅝	26⁵⁄₁₆	14	$4.09
CS-1202	DC Models	22⅝	11¹⁹⁄₃₂	9	3.05
CS-1203	SCR Models	22⅛	14⁹⁄₁₆	10	3.27
CS-1204	RCR and DCR Models	22⅛	14⁹⁄₁₆	10	3.27

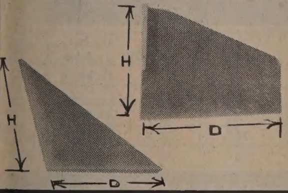
TURRET SHELF FOR "RBT" TURRETS



The Turret Shelf is designed for extremely heavy equipment in the turret. It is made of No. 16 gauge steel and is designed to be movable both forward and backward, and up and down. This model fits all Turrets. Special sizes available upon request. Finished in standard gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
TS-1000	1¾	17	10½	8	$6.82

CHASSIS MOUNTING BRACKETS TRIANGULAR AND STANDARD TYPE

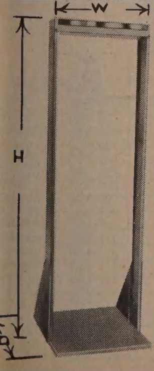


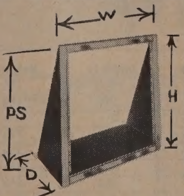
These brackets are made of No. 16 gauge sheet steel. The standard brackets are notched for 3″ and 4″ high chassis and will fit any of our standard or heavy duty chassis. The triangular brackets can be used where greater strength is required. All brackets are sold in pairs only and are finished in gray hammertone.

(*) Standard type notched for 3″ chassis.
(**) Standard type notched for 4″ chassis.

Catalog No.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
MB-155	5	5	2	$ .83
MB-177	7	7	3	.96
MB-199	9	9	5	1.16
CB-308*	7	8	3	.83
CB-311*	7	11	4	1.18
CB-313*	7	13	4	1.39
CB-413**	8¾	13	5	1.49
CB-417**	8¾	17	7	1.78

RELAY RACKS CHANNEL AND TABLE TYPE





TR DESK TYPE

These Table Racks are constructed of heavy No. 16 gauge steel and are completely welded together for strength. Mounting holes are drilled to standard 1¼″—½″ spacings. All panel mounting hardware is supplied. Each rack is finished in silver gray hammertone and is trimmed with bright chrome molding.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
TR-121	22	24	12	21	17	$6.93
TR-128	22	31	12	28	20	8.58

RR CHANNEL TYPE

Channel Relay Racks are constructed of No. 11 ga. steel. The vertical channels are drilled and tapped on 1¼″—½″ spacing and for No. 10-24 machine screws. Racks are shipped knocked down or assembled. Hardware included. Each rack is finished in silver gray hammertone unless otherwise specified.

Catalog No.	Width-in.	Height-in.	Depth-in.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RR-156	19¹⁄₁₆	61³⁄₁₆	20	56	70	$29.50
RR-163	19¹⁄₁₆	68³⁄₁₆	20	63	80	30.47
RR-170	19¹⁄₁₆	75³⁄₁₆	20	70	90	31.28
RR-177	19¹⁄₁₆	82³⁄₁₆	20	77	100	31.51
RR-184	19¹⁄₁₆	89³⁄₁₆	20	84	110	33.00

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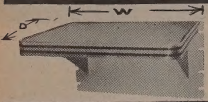
METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

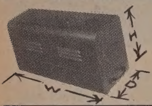
DESK PANEL TO FIT 19″ RACKS



The Desk Panel is constructed of No. 16 gauge steel and is entirely spotwelded together for strength. The front corners of the top are rounded to give a pleasing appearance. This model is finished in the standard silver gray hammertone lacquer.

Catalog No.	Panel Size-in.	Top Size-in.	Ship. Wt.	Net Price
DT-1050	19″ x 10½″	17¾″ Wide x 16″ Deep	15 Lbs.	$14.02

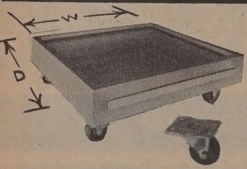
AMPLIFIER FOUNDATIONS STREAMLINED TYPE



A modern cover with rounded corners and bright chrome trim. Constructed of cold rolled steel and finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
SAF-919	12	9	7	10	$6.19
SAF-925	17	9	7	11	5.28
SAF-928	17	9	10	13	6.60

ROLLER TRUCKS FOR CABINET AND TRANSMITTER RACKS

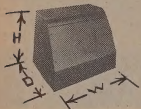


Made entirely from No. 16 gauge steel with reinforced corners for the 2½″ dia. rollers. Trucks are completely assembled. They are finished in gray hammertone.

Casters — 2½″ dia. ball bearing type. 400 lb. cap. Shipping wt. 2¼ lbs.

Catalog Number	For:	Inside Dimensions Width-in.	Depth-in.	Shipping Wt. Lbs.	Net Price
RT-500	"DC" Models	23	15¼	19	$22 56
RT-501	"RR" Models	20½	19½	20	22.77
RT-502	"SCR", "RCR", "DCR" (19″ Panels)	23	19	21	22.97
RT-503	"STR", "DTR"	23½	19	24	23.10
RT-504	"DTR" and "STR" (24″ Panels)	27½	24¼	28	24.21
RT-505	"DTR" and "STR" (30″ Panels)	33½	24¼	30	25.03

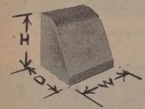
UTILITY CABINETS SLOPING FRONT, REMOVABLE PANEL TYPE



This Cabinet is constructed of No. 18 gauge steel. It has a rounded top corner and a removale front panel. Back of cabinet is provided with louvres and has an opening for leads. Finished in gray hammertone.

Catalog No.	Height-in.	Width-in.	Depth-in.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
SFC-500	8	8	8	SC-104	6	$6.52
SFC-501	8	10	8	SC-105	7	6.72
SFC-502	8	14	8	SC-109	8	6.93
SFC-503	9	18	8	SC-112	10	7.34
SFC-504	12	18	12	SC-116	14	8.17

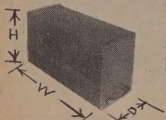
MINIATURE UTILITY CABINET



This Miniature Utility Cabinet is made of No. 22 gauge steel. The back is removable and also ventilated. It has a clean modern appearance and is finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
UC-100	4³⁄₁₆	4½	4¼	1	$1.07
UC-101	5³⁄₁₆	4½	4¼	1½	1.22
UC-102	6³⁄₁₆	4½	4¼	2	1.40
UC-103	7³⁄₁₆	4½	4¼	2½	1.65

AMPLIFIER FOUNDATIONS PERFORATED COVER TYPE

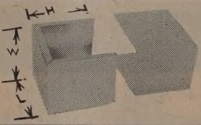


Similar to the streamlined type except that this cover is made of perforated metal for better ventilation. Finished in gray hammertone.

Catalog No.	Width-in.	Height-in.	Depth-in.	Ship. Wt. Lbs.	Net Price
AF-915	10	9	5	8	$4.04
AF-920	14	9	6	9	4.87
AF-924	17	9	7	10	6.85
AF-922	12	9	10	10	5.78
AF-927	17	9	10	11	7.75

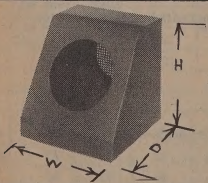
MINIATURE (2 PIECE) ALUMINUM CASES

These Handy Two Piece Cases are made of No. 16 gauge aluminum. The design of this case permits installation of a variety of components. Natural aluminum or gray hammertone finish is available. Shipping weight of all cases is 1 lb.



Catalog No.	Length-in.	Width-in.	Height-in.	Net Price
MA-1000	2¾	2⅛	1⅝	$ .60
MA-1001	3¼	2⅛	1⅝	.61
MA-1002	4	2	2¾	.83
MA-1003	4	2⅛	1⅝	.63
MA-1004	4	2¼	2¼	.83
MA-1005	4¼	2¼	1½	.86
MA-1006	5	2¼	2¼	.87
MA-1007	5	4	3	.96
MA-1008	5¼	3	2⅛	.96
MA-1009	6	5	4	1.20
MA-1010	7	5	3	1.32
MA-1011	8	6	3½	2.03
MA-1012	10	2	1⅝	1.16
MA-1013	10	6	3½	2.15
MA-1014	12	2½	2¼	1.24
MA-1015	12	7	4	2.77
MA-1016	17	5	4	3.30

METER CASES FOR 2″ OR 3″ METERS

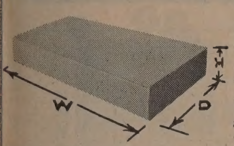


These Meter Cases are available to accommodate 2″ or 3″ Meters. They are made of No. 22 gauge steel. A rounded top corner and a sloping front gives this model a modernistic appearance. Finished in silver gray hammertone.

Catalog No.	For:	Width-in.	Height-in.	Depth-in	Ship. Wt. Lbs.	Net Price
MC-200	2″ Meter	4³⁄₁₆	4½	4¼	1	$1.07
MC-300	3″ Meter	4³⁄₁₆	4½	4¼	1	1.07

METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

CHASSIS Standard Steel and Aluminum Blank Chassis



These Standard Chassis are constructed of one piece of metal. They have reinforced corners. The bottoms are flanged on two sides to give maximum strength with maximum room.

Steel chassis are made of No. 18 gauge sheet steel and are finished in gray hammertone.

Aluminum chassis are constructed of No. 18 gauge (.040) sheet aluminum and is available in natural aluminum or gray hammertone.

Steel		Size			Aluminum		
Catalog No.	Ship. Wt. Lbs.	Depth-in.	Width-in.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net‡ Price
SC-100	2	5½	9½	1½	AC-100	1	$ .83
SC-101	2	5	7	2	AC-101	1	.89
SC-102	3	5	10	3	AC-102	1	1.09
SC-103	4	6	14	3	AC-103	2	1.32
SC-104	2	7	7	2	AC-104	1	.98
SC-105	2	7	9	2	AC-105	1	1.09
SC-106	3	7	11	2	AC-106	1	1.16
SC-107	3	7	11	3	AC-107	1	1.25
SC-108	3	7	12	3	AC-108	1	1.31
SC-109	3	7	13	2	AC-109	1	1.31
SC-110	4	7	15	3	AC-110	2	1.49
SC-111	3	4	17	3	AC-111	1	1.31
SC-112	4	7	17	3	AC-112	2	1.58
SC-113	4	10	12	3	AC-113	2	1.55
SC-114	5	10	14	3	AC-114	3	1.65
SC-115	5	10	17	2	AC-115	3	1.72
SC-116	5	10	17	3	AC-116	3	1.79
SC-117	5	10	17	4	AC-117	3	2.08
SC-118	5	12	17	2	AC-118	3	1.82
SC-119	5	12	17	3	AC-119	3	2.15
SC-120	6	12	17	4	AC-120	3	2.35
SC-121	1	4	6	2	AC-121	½	.93
SC-122	1	4	6	3	AC-122	½	1.01
SC-123	1¼	5	7	3	AC-123	¾	1.07
SC-124	1¼	5	9½	2	AC-124	½	1.19
SC-125	1½	5	9½	3	AC-125	¾	1.28
SC-126	1¾	5	13	3	AC-126	¾	1.41
SC-127	1½	6	17	3	AC-127	1¼	1.62
SC-128	1¾	8	12	3	AC-128	1½	1.58
SC-129	2½	8	17	2	AC-129*	1½	1.50
SC-130	3	8	17	3	AC-130*	1¾	1.95
SC-131	4	11	17	2	AC-131*	2¼	2.24
SC-132	4	11	17	3	AC-132*	2¾	2.60
SC-133	5	13	17	2	AC-133*	2½	2.70
SC-134	5	13	17	3	AC-134*	2¾	3.15
SC-135	7	13	17	4	AC-135*	3¾	3.53

lso available in 14 or 16 gauge aluminum.

HEAVY DUTY STEEL CHASSIS

eavy duty chassis e similar to stand- d steel chassis cept that this odel is construct- l of No. 16 gauge aterial. Bottom ates are included ith this chassis. eavy duty chassis e available in gray mmertone.

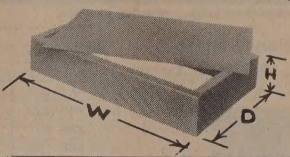
Catalog No.	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
HC- 82	8	17	2	8	$2.89
HC- 83	8	17	3	9	3.14
HC-112	11	17	2	10	3.30
HC-113	11	17	3	11	3.55
HC-132	13	17	2	12	3.80
HC-133	13	17	3	13	3.96
HC-134	13	17	4	14	4.46
HC-174	17	17	4	17	5.94

BOTTOM PLATES Steel and Aluminum

Catalog Number Steel	Aluminum	Dimensions-in.	Ship. Wt. Lbs.	Net‡ Price
BP-401	ABP-401	4 x 7	2	$.55
BP-402	ABP-402	5 x 7	1	.40
BP-403	ABP-403	5 x 10	1	.41
BP-404	ABP-404	5½ x 9½	1	.40
BP-405	ABP-405	6 x 14	1	.58
BP-406	ABP-406	7 x 7	1	.43
BP-407	ABP-407	7 x 9	1	.45
BP-408	ABP-408	7 x 11	1	.58
BP-409	ABP-409	7 x 12	2	.71
BP-410	ABP-410	7 x 13	2	.66
BP-411	ABP-411	7 x 15	2	.68
BP-412	ABP-412	7 x 17	2	.70
BP-413	ABP-413	8 x 17	2	.71
BP-414	ABP-414	10 x 12	2	.71
BP-415	ABP-415	10 x 14	2	.73
BP-416	ABP-416	10 x 17	2	.94
BP-417	ABP-417	11 x 17	3	.96
BP-418	ABP-418	13 x 17	3	1.11
BP-419	ABP-419	17 x 17	4	1.64

Bottom plates are made to match standard steel and aluminum chassis. They are made of No. 18 gauge steel and aluminum. Finished in natural aluminum, black enamel, or gray hammertone, and furnished with four dimple glides.

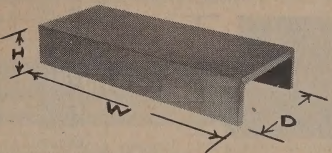
REMOVABLE TOP TYPE CHASSIS



Made of No. 18 gauge sheet steel. Top and bottom edges of chassis are flanged in on four sides. Top plate, which is included with chassis, is removable. Finished in black enamel or gray hammertone.

Chassis Catalog No.	Depth.-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net Price
RTC-103	10	17	3	8	$3.43
RTC-104	10	17	4	10	3.80
RTC-133	13	17	3	11	3.58
RTC-134	13	17	4	12	4.37
Replacement Tops					
TRC-1710	10	17		2	1.32
TRC-1713	13	17		3	1.58

CHASSIS - STEEL and ALUMINUM Open End Type

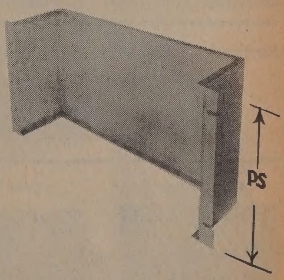


Made of No. 18 gauge steel or aluminum with reinforced corners. Finished in natural aluminum, black enamel, or gray hammertone.

Catalog Number Steel	Aluminum	Depth-in.	Width-in.	Height-in.	Ship. Wt. Lbs.	Net‡ Price
OC-101	AOC-101	5	7	2	1	$.65
OC-102	AOC-102	5	10	3	1	.74
OC-103	AOC-103	6	14	3	1	.83
OC-104	AOC-104	7	7	2	1	.99
OC-105	AOC-105	7	9	2	1	.99
OC-106	AOC-106	7	11	2	1	1.07
OC-109	AOC-109	7	13	2	1	1.24
OC-112	AOC-112	7	17	3	2	1.29
OC-113	AOC-113	10	12	3	2	1.44
OC-114	AOC-114	10	14	3	2	1.55
OC-116	AOC-116	10	17	3	3	1.65

PANEL MOUNTING TYPE CHASSIS

Made of heavy gauge aluminum. Flanges are notched for standard 1¼″—½″ rack mounting. All chassis are 5¼″ deep. Corners are reinforced for strength. Natural aluminum finish.



Catalog No.	Panel Space-in.	Ship. Wt. Lbs.	Net Price
RMC-161	1¾″	1	$2.08
RMC-163	3½″	2	2.48
RMC-165	5¼″	2	2.63
RMC-167	7″	2	3.13
RMC-168	8¾″	3	3.43
RMC-1610	10½″	3	3.88
RMC-1612	12¼″	3	3.98
RMC-1614	14″	4	4.62

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‡Net Price for Steel. Aluminum Price on Request.

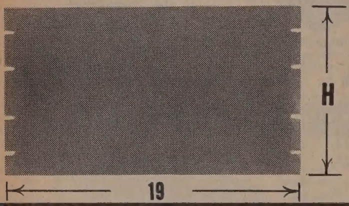
METAL WORKS INCORPORATED
STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

19″ RACK PANELS

Steel panels finished in Silver Gray Hammertone unless otherwise specified.

⅛″ Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

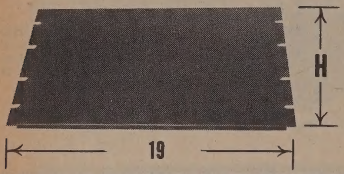


Aluminum			Steel *		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net Price
ARP- 121	.4	1¾	RP- 121	2	$.83
ARP- 123	.8	3½	RP- 123	5	1.16
ARP- 125	1.2	5¼	RP- 125	7	1.65
ARP- 127	1.6	7	RP- 127	8	1.98
ARP- 128	2.0	8¾	RP- 128	9	2.31
ARP-1210	2.5	10½	RP-1210	10	2.94
ARP-1212	2.8	12¼	RP-1212	12	3.47
ARP-1214	3.3	14	RP-1214	13	4.16
ARP-1215	3.6	15¾	RP-1215	14	4.33
ARP-1217	4.1	17½	RP-1217	15	4.95
ARP-1219	4.5	19¼	RP-1219	16	5.28
ARP-1221	4.9	21	RP-1221	16	5.80

*Steel Price on Request.

Formed 1⁄16″ Thick Aluminum and Steel Blank Panels

Aluminum Furnished Unpainted — Painted on Request, So States on Order.

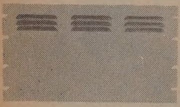


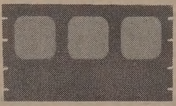
Aluminum			Steel *		
Catalog No.	Ship. Wt. Lbs.	Height-in.	Catalog No.	Ship. Wt. Lbs.	Net Price
PA- 161	½	1¾	PM- 161	1	$.99
PA- 163	1	3½	PM- 163	2½	1.29
PA- 165	1¼	5¼	PM- 165	3½	1.65
PA- 167	1½	7	PM- 167	4	2.11
PA- 168	1½	8¾	PM- 168	4½	2.56
PA-1610	1¾	10½	PM-1610	5	3.17
PA-1612	2	12¼	PM-1612	6	3.63
PA-1614	2¼	14	PM-1614	6½	4.16
PA-1615	2½	15¾	PM-1615	7	4.59
PA-1617	2½	17½	PM-1617	7½	5.15
PA-1619	2¾	19¼	PM-1619	8	5.61
PA-1621	3	21	PM-1621	8	6.07

*Steel Price on Request.

Formed 1⁄16″ Thick Steel Ventilated Panels

Louvre Type



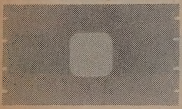


Grille Type *			Louvre Type			
Catalog No.	Height-in.	Ship. Wt. Lbs.	Catalog No.	Height-in.	Ship. Wt. Lbs.	Net Price
VP- 205	5¼ panel	3½	LP- 105	5¼ panel	3½	$2.76
VP- 207	7 panel	4	LP- 107	7 panel	4	3.04
VP- 208	8¾ panel	4½	LP- 108	8¾ panel	4½	3.30
VP-2010	10½ panel	5	LP-1010	10½ panel	5	3.63
VP-2012	12¼ panel	6	LP-1012	12¼ panel	6	4.09

*Grille Price on Request.

Formed 1⁄16″ Thick Steel Ventilated Panels

Round Hole SRP



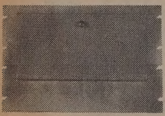
Square Hole SRP-1

Round Hole	Speaker	Height-in.	Square Hole	Ship. Wt. Lbs.	Net Price
SRP- 68	6″	8¾″ panel	SRP 68-1	4½	$2.57
SRP- 810	8″	10½″ panel	SRP 810-1	5	3.30
SRP-1012	10″	12¼″ panel	SRP1012-1	6	3.88
SRP-1214	12″	14″ panel	SRP1214-1	6½	4.54

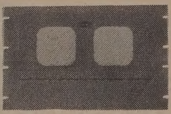
Formed 1⁄16″ Thick Steel Meter Panels 5¼″ High

Catalog No.	Size and Style	Ship. Wt. Lbs.	Net Price
MP-23	For 2″ meter with 3 holes	3½	$1.32
MP-25	For 2″ meter with 5 holes	3½	1.90
MP-33	For 3″ meter with 3 holes	3½	1.32
MP-35	For 3″ meter with 5 holes	3½	1.90

Standard Type



Grille Type



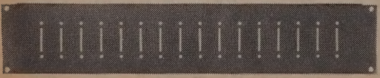
⅛″ Thick Steel Door Panels

Panels have flush doors, with piano hinge and are equipped with spring catch and chrome knob — All doors are located 1″ from top, to allow space for chassis at bottom.

Standard Door Panel	Height-in.	Ship. Wt. Lbs.	Grille Panel	Door Opening	Net Price
DP- 875	8¾″ Panel	5	GDP- 875	4½″ x 15⅜″	$4.79
DP-1050	10½″ Panel	5½	GDP-1050	6″ x 15⅜″	5.12
DP-1225	12¼″ Panel	6	GDP-1225	7½″ x 15⅜″	5.45

Switch Panels

Furnished with 16 slots 1″ apart unless otherwise specified.



Catalog No.	Height-in.	Ship. Wt. Lbs.	Net Price
SP-1635	3½	2	$2.97

Slots 3⁄16″ W x 1⅛″ L   Screw Holes 1⅝″ Centers

ALL ABOVE PANELS ARE AVAILABLE 30″ AND 24″ WIDE

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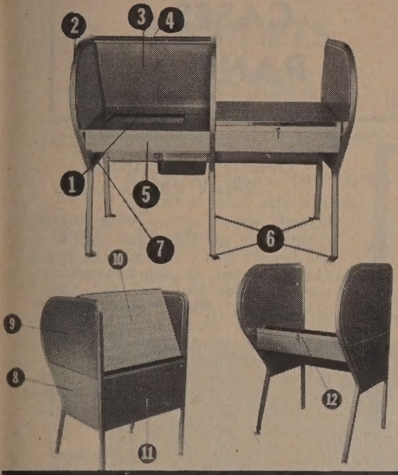
METAL WORKS INCORPORATED

STANDARD & CUSTOM DESIGNS
HERMANN, MISSOURI

ALL METAL LANGUAGE LABORATORY FURNITURE



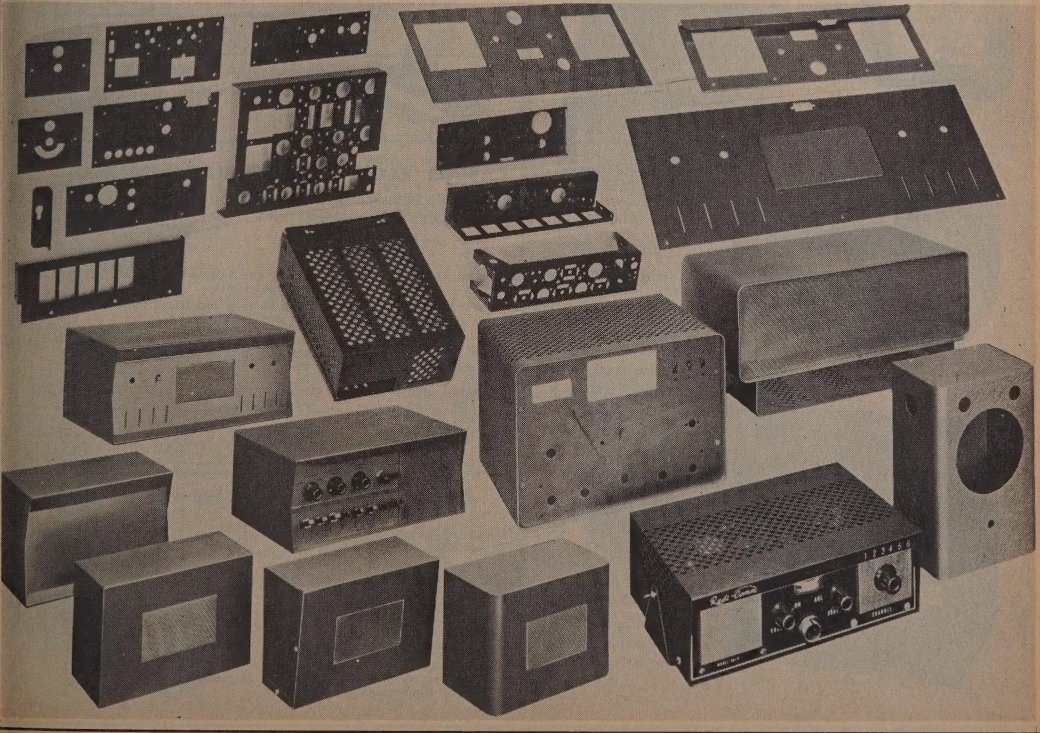
METAL WORKS new design in Student Booths brings you "tomorrow's booth" today! Featured below are three views of the 500 Series. These booths are designed to minimize noise entering the booth and prevent the students' response from adding to the general noise level. Designed to meet today's needs in an ever expanding educational program, they can be added to as funds permit, or as the language program expands, by simply bolting on additional units, consisting of only 1 leg and deck. They are adaptable to flush mount any tape recorder. Design is simple, yet unique in that the curved one piece leg conformation does away with sharp corners. No part of the booths protrude into the aisle leaving all aisle space clear for passage. 'K' leg permits easier entry and discharge from booth.

WHY METAL BOOTHS ARE BEST FOR SCHOOL USE

Metal Booths provide an important safety feature, insuring that all accessible surfaces are at ground potential. Metal Booths also provide better head dissipation permitting equipment to run cooler, and are less resonant than wood or plywood. An installation providing less mechanical hum from deck. Complete information about Metal Works all metal language laboratory furniture furnished on request.

CUSTOM METAL-WORK TO CUSTOMER SPECIFICATION: IF YOU CAN DRAW IT—WE CAN MAKE IT! QUOTATIONS ON REQUEST!

- A few illustrations of metalware parts featuring a multitude of hole patterns, designs and shapes available through MWI Wales Stripping fabrication.
- Many manufacturers have us punch standard chassis, MA cases, panels, etc., as fast economical solutions for some of their requirements.
- Wide choice of materials such as aluminum, cold roll steel, special plated steel sheet, etc., made up to your specifications.



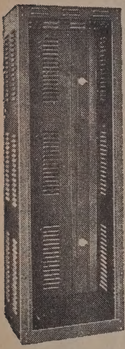
CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

MIDDLETOWN IN CONNECTICUT

CASES PANELS

DE LUXE RELAY RACKS



Middletown De Luxe Relay Racks are made of 16-gauge steel with ⅛" panel supports which are recessed so that edges of panels set flush. Standard 19" panels fit these racks. (See next page.)

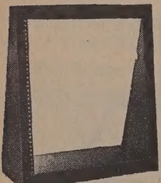
Adequate ventilation is provided by louvres in the two sides, the door and in the top at front and back. Door is hung on sturdy hinges and has snap catches. Racks come with rigid, built-in caster supports. (Casters not included in price of rack.) Furnished in either black or grey wrinkle finish. Shipped knocked down with all necessary hardware.

Rack shelves and supporting angles to fit these Relay Racks are available. Information and prices on request.

Cat. No. (Black Wrinkle)	Overall Size H	W	D	Panel Size H	W	Dealer Cost
DRR 4236	42 1/16	22	17¼	36¾	19	$45.00
DRR 4742	47 5/16	22	17¼	42	19	51.00
DRR 6661	66 9/16	22	17¼	61¼	19	63.50
DRR 8277	82 5/16	22	17¼	77	19	76.00

Note: When ordering grey wrinkle, add prefix "G" to catalog number. Dimensions in Inches.

OPEN-TYPE TABLE RELAY RACKS

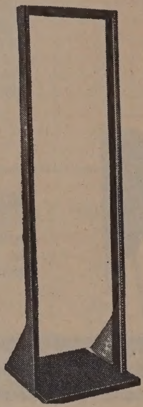


For table mounting of power transmitters, P. A. systems and other radio and electronic apparatus. Rack is ruggedly constructed with strong base to accommodate heavy components. Drilled and tapped for conventional 19" wide panels which set in recess so that no edges are exposed. (See next page.)

Shipped knocked down with necessary hardware. Black wrinkle finish.

Catalog Number	Overall Size H	W	D	Panel Space H	W	Dealer Cost
TRR 24	24	21	12	21	19	$ 8.30
TRR 31	31	21	12	28	19	10.40

OPEN-TYPE CHANNEL RELAY RACKS



Sturdy construction with rigid supporting members and side angle braces make these racks perfectly suited to all heavy-duty assignments. Made of ⅛" steel channels, 3" deep. Held together with angle cross pieces of the same material. Chassis type base. Drilled and tapped to accommodate conventional 19" panels. (See next page.) Black wrinkle finish. Shipped knocked down with necessary hardware.

Cat. No.	Overall Size H	W	D	Panel Size H	W	Dealer Cost
OCR 35	35½	21	22	31½	19	$21.60
OCR 70	70½	21	22	66½	19	24.60

Dimensions in inches

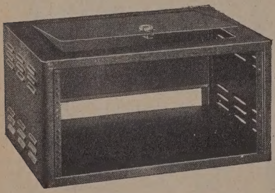
CASTERS

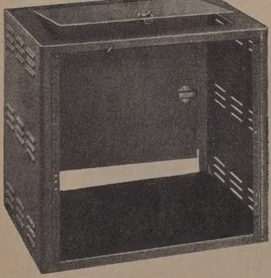
Catalog Number	Dealers Cost
CA 234	.99 ea.

CHASSIS SUPPORTING BRACKETS

Catalog Number	Size	Dealer Cost
CSB 12	12 x 3 x 3	$1.98
CSB 14	14½ x 3 x 3	2.08

D. C. DELUXE CABINET RACKS — USE 19" RACK PANELS





Middletown D. C. Cabinets conform to the conventional design of streamlined cabinets used by builders of amateur and commercial equipment.

Features

- ★ **Constructed of 16 gauge steel, electrically welded.**
- ★ **Adequate ventilation is provided by sufficient louvres in sides, and ventilation in back.**
- ★ **Front Vertical posts rounded.**
- ★ **Flush panel mounting (recessed).**
- ★ **Drilled and tapped for 10/32" screws on universal centers.**
- ★ **Flush door in top fitted with flush snaplock and piano hinges.**
- ★ **Black Wrinkle finish. *Grey Wrinkle if desired.***

Standard 19" panels fit these cabinets. For panel sizes, see listing next page.

CATALOG NUMBER (Black Wrinkle)	OVERALL SIZE H	W	D	PANEL SPACE H	W	TYPE OF UNIT	Dealer Cost
*DC 108	10½	21½	15	8¾	19	Single	**$13.80**
*DC 1210	12¼	21½	15	10½	19	Single	**15.60**
*DC 1412	14	21½	15	12¼	19	Single	**16.80**
*DC 1514	15¾	21½	15	14	19	Single	**18.60**
**DC 1917	19¼	21½	15	17½	19	Double	**22.20**
**DC 2119	21	21½	15	19¼	19	Double	**23.40**
**DC 2321	22¾	21½	15	21	19	Double	**24.00**
**DC 2826	28	21½	15	26¼	19	Triple	**25.80**
**DC 3635	36¾	21½	15	35	19	Quad.	**28.20**

*Door in Top only.

**Door in Top & Rear.

Note: When ordering grey wrinkle, add prefix "G" to catalog number.
Dimensions in Inches.

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CABINETS
CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES
PANELS

MIDDLETOWN IN CONNECTICUT

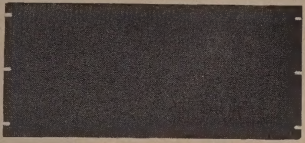
RACK PANELS — 19" LONG
(Steel and Aluminum)

Middletown Rack Panels are offered in either ⅛" steel or ⅛" aluminum. They are 19" wide and are slotted for conventional W. E. mounting. Twelve standard sizes. Furnished in black or grey wrinkle finish.

Note: When ordering grey wrinkle, add prefix "G" to catalog number.

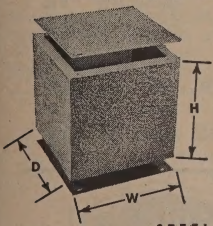
*Available on special order.

Aluminum panels 3/16" thick available at 60% increase in cost above ⅛" al. panels.



Cat. No. Steel (Blk. Wrinkle)	Dealer Cost	Height	Cat. No. Aluminum (Black Wrinkle)	Dealer Cost
R.P. 1	$ .85	1¾"	A.R.P. 1	$ 1.10
R.P. 3	1.02	3½"	A.R.P. 3	1.44
R.P. 5	1.23	5¼"	A.R.P. 5	1.94
R.P. 7	1.43	7"	A.R.P. 7	2.45
R.P. 8	1.76	8¾"	A.R.P. 8	2.86
R.P. 10	2.10	10½"	A.R.P. 10	3.60
R.P. 12	2.45	12¼"	A.R.P. 12	4.05
R.P. 14	2.87	14"	A.R.P. 14	4.79
R.P. 15	3.11	15¾"	A.R.P. 15	5.32
R.P. 17	3.52	17½"	A.R.P. 17	5.87
R.P. 19	3.70	19¼"	A.R.P. 19	6.37
R.P. 21	4.20	21"	A.R.P. 21	6.89
R.P. 26*	5.40	26¼"	A.R.P. 26*	9.18
R.P. 35*	7.50	35"	A.R.P. 35	11.94

STEEL AND ALUMINUM CASES



These cases are similar to our standard steel utility cans except they have flat tops and bottoms which are held in place with self tapping screws and are removable. These cases are of sturdy construction and have spot welded corners. Case has flanges on all edges. Steel cases furnished in black wrinkle. Aluminum cases are natural.

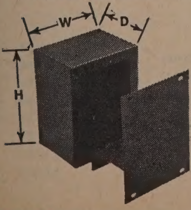
STEEL

Catalog Number	Size W	Size D	Size H	Dealer Cost
SC 442	4"	4"	2"	$ .96
SC 453	4"	5"	3"	1.08
SC 465	4"	6"	5"	1.36
SC 564	5"	6"	4"	1.64
SC 666	6"	6"	6"	1.98
SC 1276	12"	7"	6"	2.89
SC 1287	12"	7¾"	6½"	3.95
SC 1576	15"	7¾"	6½"	3.49
SC 1597	15"	9"	7"	3.32

ALUMINUM

Catalog Number	Dealer Cost
AC 442	$1.26
AC 453	1.38
AC 465	1.60
AC 564	1.60
AC 666	1.85
AC 596	2.50
AC 1276	3.75

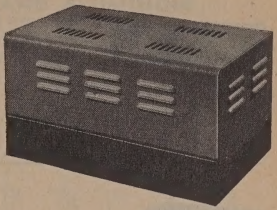
STEEL CASES WITH BUILT IN CHASSIS



Catalog Number	H W D	Chassis Size	Dealer Cost
SCWC 442	4 4 2	1 x2⅞x1⅞	$1.26
453	4 5 3	1 x3⅞x2⅞	1.46
543	5 4 3	1¼x2⅞x2⅞	1.46
654	6 5 4	1¾x3⅞x3⅞	1.70
645	5 6 4	1¼x4⅞x3⅞	1.70
666	6 6 6	1¾x4⅞x5⅞	1.92

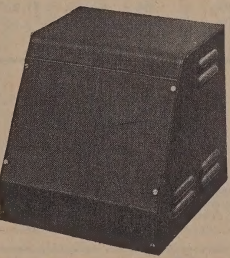
AMPLIFIER FOUNDATIONS—DeLuxe Models

This unit is designed to meet the most critical requirements. It has rounded corners, special Middletown designed louvres on all 4 sides and elongated holes on top to give maximum ventilation. Chassis are finished in Black wrinkle. Covers are finished in Grey wrinkle. Chassis are drilled for bottom plates which are listed separately. Covers all have a depth of 6"



Cat. No.	Size	Dealer Cost
A.F.-5109	5 x 10 x 9"	$4.20
A.F.-6149	6 x 14 x 9"	4.85
A.F.-7179	7 x 17 x 9"	5.62
A.F.-10129	10 x 12 x 9"	5.62
A.F.-10179	10 x 17 x 9"	6.38
A.F.-13179	13 x 17 x 9"	7.68

SLOPING FRONT PANEL CABINETS

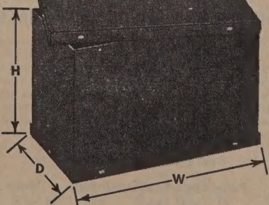


Sloping front panel cabinets have a wide application in the electronic field since they are adaptable for various uses. They are constructed of heavy gauge steel electrically spot-welded. Top corner is rounded, front panel is removable, and louvres on sides provide ventilation.

Back panel is ventilated on top and an opening is provided on the bottom so that connections can be made directly to the rear of the chassis. Finished in Grey wrinkle.

Cat. No.	H.W.D.	Chassis Size	Dealer Cost
S.F.-888	8 x 8 x 8"	7 x 7 x 2"	$4.48
S.F.-8108	8 x 10 x 8"	7 x 9 x 2"	4.97
S.F.-8128	8 x 12 x 8"	7 x 11 x 2"	5.26
S.F.-8148	8 x 14 x 8"	7 x 13 x 2"	5.32
S.F.-121812	12 x 18 x 12"	10 x 17 x 3"	9.42

STEEL UTILITY CANS



These Utility Cans are ruggedly constructed from sheet steel with spot welded reinforced corners. Tops and bottoms are removable and are flanged on all four sides. Held in place with self-tapping screws.

Cat. No.	D W H	Weight	Dealer Cost
U.C.565	5½ x 6 x 5½"	3 lbs.	$2.16
U.C.596	5 x 9 x 6"	5 lbs.	2.51
U.C.8107	8 x 10 x 7"	6 lbs.	3.12
U.C.81010	8 x 10 x 10"	7 lbs.	3.72
U.C.11128	11 x 12 x 8"	9 lbs.	4.58

CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES PANELS

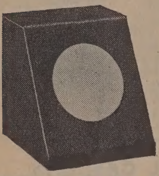
MIDDLETOWN IN CONNECTICUT

METER PANELS

Middletown Meter Panels are made 5¼" high and are made to the same specifications as our Rack Panels—are available to fit 3" meters.

Cat. No.	Holes	Hole Size	Dealer Cost
R.P.M. 33	3	2 3/16"	$1.65
R.P.M. 35	5	2 3/16"	2.23

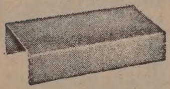
METER CASES



These cases have sloping front panel with rounded top corner which blends with streamline equipment. They are sturdily constructed from sheet steel with welded joints.

Cat. No.	Meter	Hole Size	H.W.D.	Dealer Cost
M.C. 13	Single 3"	2 13/16"	4½ x 4 x 4	$1.32
M.C. 33	3-3" Meters	2 13/16"	4½ x 11¼ x 4	3.24

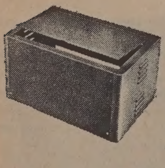
ALUMINUM MIDGET CHASSIS



These small, open-end aluminum chassis are ideal for miniature tube assemblies and all applications where space is limited. Made of prime sheet aluminum with ¼" flange on bottom for fastening down, or attaching bottom plate. Finish is natural aluminum.

Cat. No. AMC	Size D	W	H	Dealer Cost	Cat. No. AMC	Size D	W	H	Dealer Cost
221	2 5/6	2¾	1¼	$ .36	541	5¾	4⅞	1½	$ .57
131	1¾	3⅛	1	.39	431	4	3⅛	1	.42
342	3¼	4½	2	.42	441	4	4⅛	1	.48
241	2¾	4⅛	1	.42	451	4	5⅛	1	.51
341	3¾	4⅛	1½	.42	461	4	6⅛	1	.57
361	3	6⅛	1¼	.51					

ROUNDED CORNER CABINETS

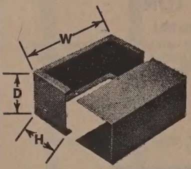


These are de luxe streamlined cabinets with front vertical corners rounded. Flush panel door, hung on full-length piano hinge, provided in top for convenient access. Ventilating louvres on sides. Opening at bottom of rear panel permits easy accessibility for leads, cables, etc. Front panel held in position with self-tapping screws. Grey wrinkle finish. Sturdily built of sheet steel.

Catalog No.	Size H	W	D	Panel Space H	W	Chassis Size D	W	H	Dealer Cost
RC 8108	8	10	8	8	8	7	7	2	$4.47
RC 8128	8	12	8	8	10	7	9	2	4.91
RC 8168	8	16	8	8	14	7	13	2	6.27
RC 91711	9	17	11	9	15	10	14	3	9.35
RC 122012	12	20	12	12	18	10	17	3	11.59

Chassis are not included unless ordered.
See chassis listings. Dimensions in Inches.

MULTI-MOUNTS



These are all-purpose boxes with an unlimited field of application in radio and electronics. Made from prime sheet aluminum. Two-piece telescoping construction, each half forming three sides. Finish is natural aluminum or grey hammer-tone.

Natural Aluminum					Grey Hammertone	
Catalog Number	Dealer Cost	SIZE H	W	D	Catalog Number	Dealer Cost
MM 122	$ .69	1⅝	2¾	2⅛	GHMM 122	$ .78
MM 132	.69	1⅝	3¼	2⅛	GHMM 132	.78
MM 142	.74	1⅝	4	2⅛	GHMM 142	.81
MM 242	.95	2¼	4	2¼	GHMM 242	1.05
MM 252	.98	2¼	5	2¼	GHMM 252	1.08
MM 354	1.15	3	5	4	GHMM 354	1.26
MM 253	1.12	2⅛	5¼	3	GHMM 253	1.20
MM 465	1.40	4	6	5	GHMM 465	1.50
MM 375	1.56	3	7	5	GHMM 375	1.88
MM 386	2.30	3½	8	6	GHMM 386	2.52
MM 3106	2.90	3½	10	6	GHMM 3106	3.14
MM 4127	3.21	4	12	7	GHMM 4127	3.60
MM 4175	3.80	4	17	5	GHMM 4175	4.23
MM 1102	1.15	1⅝	10	2	GHMM 1102	1.37
MM 2122	1.55	2¼	12	2½	GHMM 2122	1.65
MM 2420	.93	2¾	4	2	GHMM 2420	1.02
MM 1420	.95	1½	4¼	2¼	GHMM 1420	1.05

CHASSIS BRACKETS

Mounting

These brackets are for chassis listed on next page. Front end of the bracket is seven inches high. Finished in black wrinkle.

Catalog Number	Size	Shipping Weight	Dealer Cost
C.B. 8	For 8" Base	2 lbs.	$ .96
C.B. 11	For 11" Base	3 lbs.	1.35
C.B. 13	For 13" Base	3 lbs.	1.82

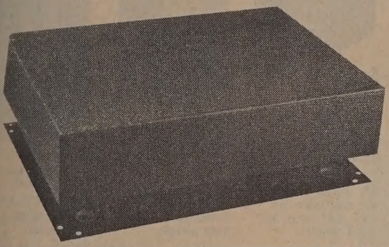
CABINETS CHASSIS

MIDDLETOWN MANUFACTURING CO.

CASES PANELS

MIDDLETOWN IN CONNECTICUT

CHASSIS AND BOTTOM PLATES



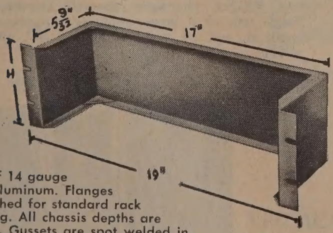
Middletown **STANDARD** Steel Chassis are made from one piece of steel, spot welded at all four corners. 22-, 20- and 16-gauge steel is used as indicated in the table. Bottom edges are folded over on four sides for additional rigidity. Black wrinkle finish.

Middletown **ALUMINUM** Chassis are made from one piece of prime sheet aluminum, 16- and 18-gauge aluminum is used as indicated in the table. The design and construction of these chassis are identical with Middletown blank steel chassis. Natural aluminum finish.

Middletown **BOTTOM PLATES** are drilled and have pressed bumpers at corners. Material is 20-gauge steel. Gauge of aluminum bottom plates match gauge of chassis. Natural finish.

PANEL CHASSIS

TO FIT 19″ STANDARD RACKS



Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32″. Gussets are spot welded in each corner for greater strength. Etched finish.

	Height	Ship. Wt. Lbs.	Dealer Cost
PCV1	1¾″	¾	$2.50
PCV3	3½″	1¾	2.80
PCV5	5¼″	1½	3.05
PCV7	7″	2	3.45
PCV8	8¾″	2¼	4.10
PCV10	10½″	2¾	4.45
PCV12	12¼″	3	4.90
PCV14	14″	3¼	5.30

CHASSIS — STEEL AND ALUMINUM

STEEL		ALUMINUM		SIZE			DEALER COST	
Cat. No.	GAUGE	Cat. No.	GAUGE	D	W	H	Steel	Alum.
*BS 442	22	ABC 442	18	4	4	2	.94	1.10
BS 462	22	ABC 462	18	4	6	2	1.05	1.30
BS 463	20	ABC 463	18	4	6	3	1.07	1.35
BS 4173	20	ABC 4173	16	4	17	3	1.65	2.38
BS 572	22	ABC 572	18	5	7	2	1.05	1.35
BS 573	22	ABC 573	18	5	7	3	1.11	1.41
BS 591	22	ABC 591	18	5½	9½	1½	1.10	1.41
BS 592	22	ABC 592	18	5	9½	2	1.15	1.45
BS 5103	22	ABC 5103	18	5	10	3	1.25	1.62
BS 5133	20	ABC 5133	18	5	13	3	1.59	1.82
BS 6143	20	ABC 6143	16	6	14	3	1.68	2.55
BS 6173	20	ABC 6173	16	6	17	3	1.80	2.75
BS 772	22	ABC 772	18	7	7	2	1.10	1.35
BS 792	22	ABC 792	18	7	9	2	1.33	1.48
BS 7112	20	ABC 7112	18	7	11	2	1.37	1.59
BS 7123	20	ABC 7123	18	7	12	3	1.52	1.94
BS 7132	20	ABC 7132	18	7	13	2	1.48	1.68
BS 7153	20	ABC 7153	16	7	15	3	1.76	2.90
BS 7173	20	ABC 7173	16	7	17	3	1.97	2.88
BS 8123	20	ABC 8123	16	8	12	3	1.82	2.33
BS 8172	20	ABC 8172	16	8	17	2	1.79	2.65
BS 8173	20	ABC 8173	16	8	17	3	1.97	2.95
BS 10123	20	ABC 10123	16	10	12	3	1.89	2.70
BS 10143	20	ABC 10143	16	10	14	3	1.98	3.21
BS 10172	20	ABC 10172	16	10	17	2	1.98	3.15
BS 10173	20	ABC 10173	16	10	17	3	2.05	3.40
BS 10174	20	ABC 10174	16	10	17	4	2.40	4.25
BS 11172	16	ABC 11172	16	11	17	2	2.60	3.52
BS 11173	16	ABC 11173	16	11	17	3	2.85	4.23
BS 12172	20	ABC 12172	16	12	17	2	2.13	3.79
BS 12173	20	ABC 12173	16	12	17	3	2.45	4.42
BS 12174	20	ABC 12174	16	12	17	4	2.58	4.88
BS 13172	16	ABC 13172	16	13	17	2	3.00	3.94
BS 13173	16	ABC 13173	16	13	17	3	3.45	4.62
BS 13174	16	ABC 13174	16	13	17	4	3.85	5.37

Steel Chassis available in zinc plate at additional cost
**No flange on 4 x 4 x 2 Chassis*

STEEL AND ALUMINUM BOTTOM PLATES

CATALOG NUMBER STEEL	SIZE	CATALOG NUMBER ALUMINUM	DEALER COST	
			Steel	Alum.
BP 46	4 x 6	ABP 46	$ .40	$ .88
BP 417	4 x 17	ABP 417	.60	1.35
BP 57	5 x 7	ABP 57	.42	.82
BP 59B	5 x 9½	ABP 59B	.42	.82
BP 59	5½ x 9½	ABP 59	.42	.84
BP 510	5 x 10	ABP 510	.48	.88
BP 513	5 x 13	ABP 513	.70	1.00
BP 614	6 x 14	ABP 614	.66	1.34
BP 617	6 x 17	ABP 617	.74	1.38
BP 77	7 x 7	ABP 77	.48	.88
BP 79	7 x 9	ABP 79	.51	.92
BP 711	7 x 11	ABP 711	.60	.98
BP 712	7 x 12	ABP 712	.60	1.06
BP 713	7 x 13	ABP 713	.66	1.20
BP 715	7 x 15	ABP 715	.72	1.24
BP 717	7 x 17	ABP 717	.78	1.30
BP 812	8 x 12	ABP 812	.80	1.20
BP 817	8 x 17	ABP 817	.81	1.40
BP 1012	10 x 12	ABP 1012	.81	1.40
BP 1014	10 x 14	ABP 1014	.84	1.54
BP 1017	10 x 17	ABP 1017	1.02	1.62
BP 1117	11 x 17	ABP 1117	1.05	2.00
BP 1217	12 x 17	ABP 1217	1.11	2.20
BP 1317	13 x 17	ABP 1317	1.20	2.30

Steel Bottom Plates available in zinc plate at additional cost

PAR-METAL UNIVERSAL CABINET RACKS

GENERAL DESCRIPTION

Par-Metal Universal Cabinet Racks are now available in three series of models to solve your most difficult housing problems.

Our deluxe series "PL" and "FL" brings you a new trend in cabinet design.

Although smartly styled, there has been no sacrifice in the rugged construction which features all universal type racks. The same sturdy frame which is used in our "PR" series provides a solid foundation for maximum loading under severe conditions. Series "PL" may be combined with our console units listed on Par-Metal Pages 10 and 11 to solve your equipment housing problems.

Except where needed for purposes of adjustment or accessibility, all Universal Cabinet Racks are securely welded into an integral unit. No metal screws, clips, or similar devices are used. Every care has been taken to facilitate your assembly problems with a minimum of parts, an efficient utilization of space, and rapid accessibility to interior components.

RECESSED BASES are available for all universal type racks, and are purchased separately as an optional accessory.

MODULAR GROUPS: All universal type racks (in each series) may be joined into modular groups; cabinets of the same height, in varying panel widths, **with and without front doors**, may be intermixed.

DIMENSIONS: Racks are available for 19", 24", or 30" wide panels. Cabinet heights are 48⅛", 67⅜", 77⅛" and 83⅛"; depths available are 18" or 24".

DESIGN: All sizes listed may be obtained with conventional solid side walls, or with open side walls and detachable side panels. Side shields for use between racks are also available.

MID-RAIL MOUNTING OF PANELS: The panel mounting angles or "strips" are fully adjustable on all racks, and may be positioned at any location from front to back. Additional panel mounting angles may be easily inserted where needed for mounting terminal boards, etc.

VERTICAL SIDE SUPPORTS: These supports provide a simple method for supporting chassis and other equipment in the racks. The means of attaching such brackets is fully adjustable so that chassis may be accurately lined up with the front panels. No drilling or other fabrication is required. The chassis may then be installed or removed with a minimum of effort. The vertical side supports also facilitate the installation of special sliding devices obtainable from slide manufacturers.

ADJUSTABLE FLOOR LEVELLERS are supplied with all racks as standard.

SLIDING SHELVES AND DRAWERS: Several models are listed on Par-Metal Page 8. These are constructed for mounting on the front of the racks the same as regular panels.

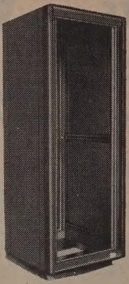
SLOPING INSTRUMENT PANELS and EXTENSION DESK TABLES for single and modular assemblies are available for all universal racks, as listed on Par-Metal Page 7.

ANGULAR SECTION FRAMES may be obtained for assembling adjacent cabinet racks. Complete information is available in our Catalog 62.

MODIFICATIONS: Without departing from the basic design of our universal cabinet racks, it is possible to modify them to meet your special requirements. Standard ventilated tops are available. They may also be modified with our standard dies for making openings, louvers, circular holes, etc., in sides, tops, bottoms and doors of racks. For additional information write for our complete Catalog 62.

All of our products incorporate the same exacting standards of quality and uniformity which we have maintained for over three decades. If you have a specific problem, do not hesitate to consult us. **Personalized and interested engineering assistance is always available.**

DeLuxe Type



Series
"PL & FL"

With open side walls and detachable side panels.

—

All styles listed are available for 19", 24", and 30" wide panels.

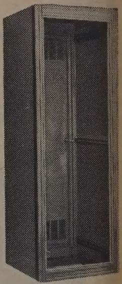
Standard Type

Series
"PR & FR"

—

With open side walls and detachable side panels.

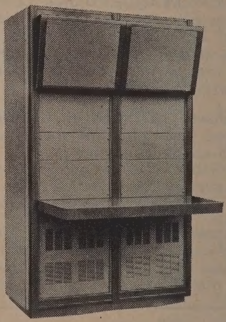
Standard Type



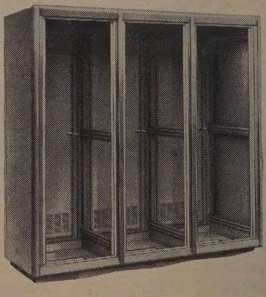
Series
"PX & FX"

—

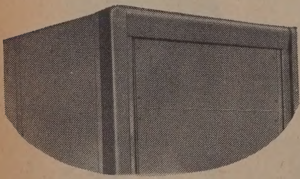
With closed side walls.



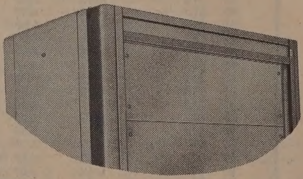
The duplex unit shown above has two No. PR-8424-A racks, a pair of No. RS-824-A detachable side panels, two sloping panels No. SP-1719, and an extension table No. RX-219. The same assembly can be made as a single unit or a longer multiple row, as all units are modular, and are available as 19", 24", and 30" panel widths.



Illustrated above is a modular group of three No. PL-7724-A Racks with sub-bases. They are available in various heights for panels 19", 24", and 30" wide.



Close up view above shows the new concept in modern styling of the Par-Metal DeLuxe Series "PL" and "FL" Universal Cabinet Racks.



Close up view above shows the beautiful framed effect achieved in Par-Metal Series "PR", "FR", "PX" and "FX" types of Universal Cabinet Racks.

© U.C.P., Inc.

DETAILS OF CONSTRUCTION AND ASSEMBLY

RACK CONSTRUCTION:

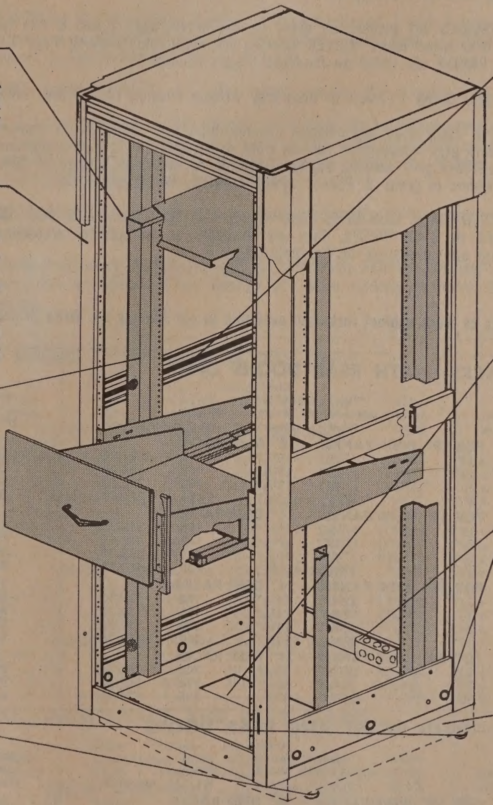
The frame shown is used on series "FL", "FR", "PL", and "PR" racks. The top and bottom is made from 7/64″ steel. The four uprights are also 7/64″ steel, and have multiple-formed angle bends to insure rigidity. Series "PX" and "FX" racks are similar, except that the solid side walls are made from 1/16″ steel. The entire assembly is securely welded to form an integral unit.

DOORS:

For sake of clarity, doors are not shown on the frame drawing. They are stamped from one piece of 1/16″ steel, and "dutch formed" on all sides providing smooth double-thick edges. Adequate ventilation is obtained from full ventilating (venetian-type) louvers. Short doors for fan or blower installations are available.

DOOR HARDWARE:

Door hinges are slip type to permit easy removal. Die cast, chrome plated handles are equipped with cam latches for door closures. Lock type handles are supplied on racks with both front and rear doors. Non-locking handles are used on racks with rear doors only; locking type handles are optional.



- **SIDE MOUNTING BRACKETS:**

These may be used separately or with shelves as shown. Slotted holes on the brackets provide any vertical adjustment required.

- **PANEL MOUNTING ANGLES:**

They are made from 1½″ x 1½″ x 3/16″ thick structural steel. All holes are die punched to provide accurate spacings with close tolerances; holes are tapped 12/24 thread on 1¼″-½″ alternate spacings for standard rack panels. Additional angles may be purchased for mounting terminal blocks or other devices.

- **VERTICAL SIDE SUPPORTS:**

These supports are fastened to the same bolt retainer rails used for securing the panel mounting angles. Holes are ⅝″—⅝″—½″ alternate centers, tapped 10/32 thread, provide maximum adjustment for side mounting brackets and equipment shelves. They may also be used for attaching slides or other custom made brackets. The supports are made from 7/64″ thick steel, locked in place with ⅜″ diameter screws, lock washers and hexagon nuts, to afford maximum support.

- **FLOOR LEVELERS:**

Four are supplied with all universal type racks.

- **BOLT RETAINER RAILS:**

To these are bolted the panel mounting angles and vertical side supports, which may be located at any position from front to back. These rails are made from 7/64″ steel, and are rigidly welded in place. Angles and supports are securely fastened to rails with ⅜″ diam. steel bolts, lock washers, and hexagon nuts.

- **ACCESS OPENING:**

Opening in bottom is 4″ x 14″ on 19″ panel racks; 4″ x 19″ on 24″ panel racks; 4″ x 25″ on 30″ wide panel racks.

- **OUTLETS:**

"Knockout holes" are available on cabinet side for connecting cables; a duplex outlet, outlet box and plate are mounted on cabinet under rear door.

- **RECESSED SUB-BASES:**

They are available for all universal type racks as an optional accessory.

FRONT VERTICAL CORNER AND JOINING TRIMS:

In previous catalogs, wide corner trims were listed as standard on our universal racks. They overlapped the side edges of the rack panels to conceal the panel mounting screws. This type of trim was not suitable where sliding shelves, sliding drawers, extension desk tables, sloping panels and similar equipment were mounted on the rack.

Since such shelves, drawers, etc. are now being used on the majority of racks purchased from us, **we will now supply as standard "narrow type" corner trims** which do not interfere with the use of these accessories. Narrow type trims are shown on all racks illustrated on the opposite page.

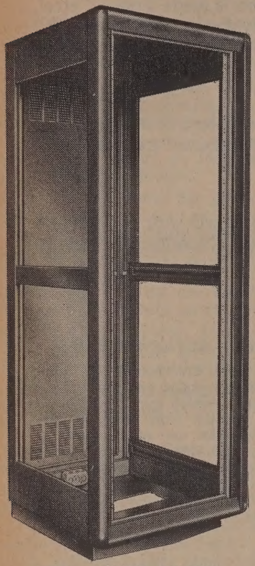
DETAILED DRAWINGS OF ALL UNIVERSAL CABINET RACKS ARE AVAILABLE IN OUR COMPLETE CATALOG 62. WRITE FOR IT.

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

PAR-METAL UNIVERSAL CABINET RACKS

DeLUXE SERIES "PL" & "FL" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



"PL" SERIES RACKS WITH REAR DOOR ONLY

Our new series **"PL"** and **"FL"** racks will solve the major part of your enclosure problems. They are attractively styled with built-in custom quality. Ball corners are not used merely as a sales feature, but are attractively blended into a functional, modular design. The rack frames have the same rugged construction which features all universal type racks. Serious consideration has been given to the problem of stability, as well as maximum flexibility for modular assembly. Removable side panels make the interior readily accessible for assembly, inspection, and adjustment.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on Par-Metal Pages 2 and 3.

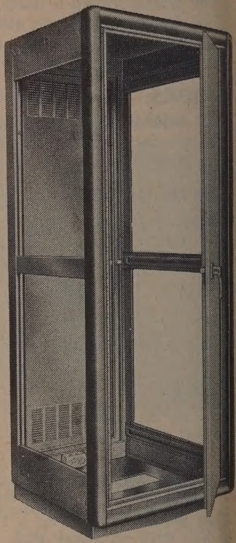
CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

ACCESSORIES: All accessories listed on Par-Metal Pages 7 and 8 may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 17. **RACK PANELS** are listed on Par-Metal Pages 18 and 19.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.

Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.

RECESSED RACK SUB-BASES SHOWN IN ILLUSTRATIONS ARE NOT INCLUDED IN RACK PRICES. They are available as an optional accessory. Listings and prices are on Par-Metal Page 7.



"FL" SERIES RACKS WITH FRONT AND REAR DOOR

Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 62. Write directly to home office for personalized an interested engineering assistance.

TYPE "PL" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Overall Dimensions Width	Overall Dimensions Depth	Panel Space	Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	DETACHABLE SIDE PANELS Shipping Wt. Lbs. (Per Pr.)	DETACHABLE SIDE PANELS Net Price (Per Pr.)	RECESSE BASES (Optional) Prices on Par-Metal Page 7 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
PL-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	110	$ 92.00	RL-418	40	$40.00	RB-2217
PL-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	150	105.00	RL-618	55	48.90	RB-2217
PL-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	160	116.75	RL-718	60	52.20	RB-2217
PL-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	180	128.50	RL-818	65	55.80	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
PL-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	110.50	RL-424	50	47.20	RB-2223
PL-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	126.00	RL-624	60	55.80	RB-2223
PL-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	137.75	RL-724	65	59.40	RB-2223
PL-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	152.75	RL-824	70	62.60	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
PL-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	150	139.75	RL-424	50	47.20	RB-2723
PL-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	185	158.75	RL-624	60	55.80	RB-2723
PL-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	200	170.50	RL-724	65	59.40	RB-2723
PL-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	215	187.75	RL-824	70	62.60	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
PL-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	189.50	RL-624	60	55.80	RB-3323
PL-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	205.50	RL-724	65	59.40	RB-3323
PL-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	224.25	RL-824	70	62.60	RB-3323

TYPE "FL" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Overall Dimensions Width	Overall Dimensions Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	DETACHABLE SIDE PANELS Shipping Wt. Lbs. (Per Pr.)	DETACHABLE SIDE PANELS Net Price (Per Pr.)	RECESSE BASES (Optional Prices on Par-Meta Page 7 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
FL-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛	125	$109.25	RL-418	40	$40.00	RB-2217
FL 6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	128.00	RL-618	55	48.90	RB-2217
FL-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	145.25	RL-718	60	52.20	RB-2217
FL-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	157.00	RL-818	65	55.80	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
FL-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	130.75	RL-424	50	47.20	RB-2223
FL-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	149.00	RL-624	60	55.80	RB-2223
FL-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	166.75	RL-724	65	59.40	RB-2223
FL-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	181.25	RL-824	70	62.60	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
FL-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	170	160.00	RL-424	50	47.20	RB-2723
FL-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	220	188.00	RL-624	60	55.80	RB-2723
FL-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	240	199.00	RL-724	65	59.40	RB-2723
FL-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	245	223.00	RL-824	70	62.60	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
FL-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	231.50	RL-624	60	55.80	RB-3323
FL-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	252.75	RL-724	65	59 40	RB-3323
FL-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	274.00	RL-824	70	62 60	RB-3323

*Clearance between front and rear doors

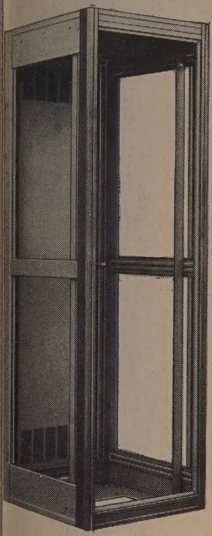
**Indicates clearance for chassis between panel mounting strips.

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

PAR-METAL UNIVERSAL CABINET RACKS

STANDARD SERIES "PR" & "FR" RACKS WITH OPEN SIDE WALLS

FOR 19" - 24" - 30" WIDE PANELS — 18" & 24" DEEP WITH DETACHABLE SIDE PANELS



"PR" SERIES WITH REAR DOOR ONLY

SERIES "PR" and "FR" RACKS USE THE SAME sturdy cabinet frames as our De Luxe racks listed on PAR-METAL Page 4. New horizontal mouldings and vertical corner trims on the front of racks, with new compact side panels, creates a distinctive appearance in keeping with the current trend in cabinet styling .In effect, a frame is provided which can be finished in a contrasting color at your option.

SPECIFICATIONS: Constructional details of rack frame and material specifications are on Par-Metal Pages 2 and 3.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

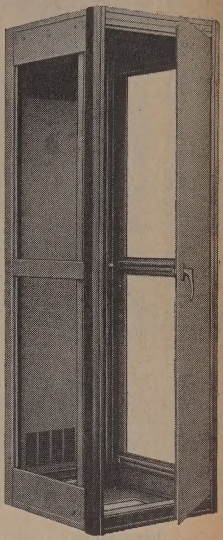
ACCESSORIES: All accessories listed on Par-Metal Pages 7 and 8 may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 17. **RACK PANELS** are listed on Par-Metal Pages 18 and 19.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.

Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.

RECESSED BASES are available as an optional accessory. Listings and prices are on Par-Metal Page 7.

Additional engineering information such as completely detailed drawings of these cabinet racks are given in our Catalog 62. Write directly to home office for assistance.



"FR" SERIES WITH FRONT & REAR DOORS

TYPE "PR" SERIES RACKS — WITH REAR DOORS ONLY

talog No.	Overall Dimensions Height	Overall Dimensions Width	Overall Dimensions Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	DETACHABLE SIDE PANELS Shipping Wt. Lbs. (Per Pr.)	DETACHABLE SIDE PANELS Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 7 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	110	$ 80.60	RS-418-A	40	$34.50	RB-2217
-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	150	92.20	RS-618-A	55	41.40	RB-2217
-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	160	103.80	RS-718-A	60	44.70	RB-2217
-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	180	115.20	RS-818-A	65	48.30	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	125	97.70	RS-424-A	50	41.70	RB-2223
-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	165	112.00	RS-624-A	60	48.30	RB-2223
-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	175	123.50	RS-724-A	65	51.90	RB-2223
-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	190	138.30	RS-824-A	70	55.10	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	150	126.20	RS-424-A	50	41.70	RB-2723
-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	185	143.80	RS-624-A	60	48.30	RB-2723
-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	200	155.30	RS-724-A	65	51.90	RB-2723
-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	215	172.30	RS-824-A	70	55.10	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	245	173.20	RS-624-A	60	48.30	RB-3323
-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	270	189.00	RS-724-A	65	51.90	RB-3323
-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	285	207.40	RS-824-A	70	55.10	RB-3323

TYPE "FR" SERIES RACKS — WITH FRONT AND REAR DOORS

talog No.	Overall Dimensions Height	Overall Dimensions Width	Overall Dimensions Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	DETACHABLE SIDE PANELS Catalog No. (Per Pr.)	DETACHABLE SIDE PANELS Shipping Wt. Lbs. (Per Pr.)	DETACHABLE SIDE PANELS Net Price (Per Pr.)	RECESSED BASES (Optional) Prices on Par-Metal Page 7 Cat. No.
FOR 19" WIDE PANELS — 18" DEEP RACKS													
-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	125	$ 97.70	RS-418-A	40	$34.50	RB-2217
-6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	170	115.20	RS-618-A	55	41.40	RB-2217
-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	180	132.20	RS-718-A	60	44.70	RB-2217
-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	200	143.80	RS-818-A	65	48.30	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS													
-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	145	118.00	RS-424-A	50	41.70	RB-2223
-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	190	134.90	RS-624-A	60	48.30	RB-2223
-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	205	152.50	RS-724-A	65	51.90	RB-2223
-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	215	166.80	RS-824-A	70	55.10	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS													
-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	170	146.50	RS-424-A	50	41.70	RB-2723
-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	220	172.90	RS-624-A	60	48.30	RB-2723
-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	240	183.80	RS-724-A	65	51.90	RB-2723
-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	245	207.40	RS-824-A	70	55.10	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS													
-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	280	215.20	RS-624-A	60	48.30	RB-3323
7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	310	236.20	RS-724-A	65	51.90	RB-3323
-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	325	257.20	RS-824-A	70	55.10	RB-3323

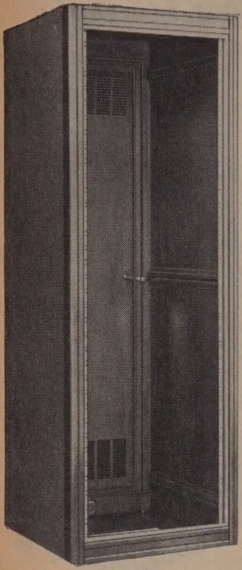
learance between front and rear doors

**Indicates clearance for chassis between panel mounting strips.

PAR-METAL UNIVERSAL CABINET RACKS

SERIES "PX" & "FX" RACKS WITH SOLID SIDE WALLS

FOR 19"-24"-30" WIDE PANELS—18" & 24" DEEP



"PX" SERIES
WITH REAR DOOR ONLY

SERIES "PX" and "FX" RACKS ARE SIMILAR to our "PR" series shown on Par-Metal Page 5, except that they are constructed with solid side walls as shown.

These racks feature the same horizontal mouldings and corner trims used on our "PR" series, resulting in a trim, compact appearance. The new styling, in effect, provides an attractive frame around the front of the rack where contrasting color finishes are used.

SPECIFICATIONS: Constructional details of rack frame and material specifications are listed on Par-Metal Pages 2 and 3.

CORNER TRIMS: Narrow type corner trims are standard to permit assembly with all accessories and sliding shelves. Where racks are assembled in groups or rows, please specify number of racks in each row so that proper joining trims can be supplied.

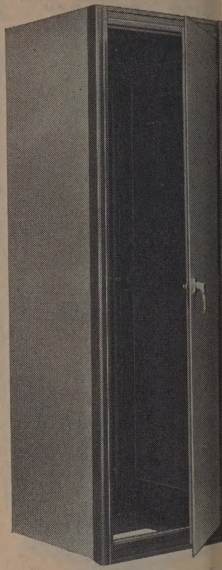
ACCESSORIES: All accessories listed on Par-Metal Pages 7 and 8. may be used with these racks. **ROLLER TRUCKS** are listed on Par-Metal Page 17. **RACK PANELS** are listed on Par-Metal Pages 18 and 19.

FINISHES: Group 1. Black or blue grey wrinkle enamel; primer coat only.

Group 2. Light grey hammertone enamel; light grey hammertone enamel with dark grey hammertone trim on front of assembly; light grey equipment enamel; dark grey metallic enamel. **There is an additional charge of 10% for finishes in group 2.** PLEASE SPECIFY FINISH WHEN ORDERING.

RECESSED Bases are available as an optional accessory. Listings and prices are on the opposite page.

Complete engineering type detailed drawings of these cabinet racks are available in our Catalog 62. Write directly to home office for personalized and interested engineering assistance.



"FX" SERIES
WITH FRONT & REAR DOORS

TYPE "PX" SERIES RACKS — WITH REAR DOORS ONLY

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSE BASES (Optiona Prices o Par-Met Page 7 Cat. N
FOR 19" WIDE PANELS — 18" DEEP RACKS										
PX-3718-A	42⅞"	22"	18"	36¾" x 19"	16⅞"	17¾"	19⅛"	105	$ 69.00	RB-2217
PX-4818-A	48⅛"	22"	18"	42" x 19"	16⅞"	17¾"	19⅛"	120	80.60	RB-2217
PX-6718-A	67⅜"	22"	18"	61¼" x 19"	16⅞"	17¾"	19⅛"	155	92.20	RB-2217
PX-7718-A	76⅛"	22"	18"	70" x 19"	16⅞"	17¾"	19⅛"	170	103.80	RB-2217
PX-8418-A	83⅛"	22"	18"	77" x 19"	16⅞"	17¾"	19⅛"	185	115.20	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS										
PX-4824-A	48⅛"	22"	24"	42" x 19"	22⅝"	17¾"	19⅛"	140	97.70	RB-2223
PX-6724-A	67⅜"	22"	24"	61¼" x 19"	22⅝"	17¾"	19⅛"	180	112.00	RB-2223
PX-7724-A	76⅛"	22"	24"	70" x 19"	22⅝"	17¾"	19⅛"	195	123.50	RB-2223
PX-8424-A	83⅛"	22"	24"	77" x 19"	22⅝"	17¾"	19⅛"	210	138.30	RB-2223
FOR 24" WIDE PANELS — 24" DEEP RACKS										
PX-4827-A	48⅛"	27"	24"	42" x 24"	22⅝"	22¾"	24⅛"	155	126.20	RB-2723
PX-6727-A	67⅜"	27"	24"	61¼" x 24"	22⅝"	22¾"	24⅛"	200	143.80	RB-2723
PX-7727-A	76⅛"	27"	24"	70" x 24"	22⅝"	22¾"	24⅛"	225	155.30	RB-2723
PX-8427-A	83⅛"	27"	24"	77" x 24"	22⅝"	22¾"	24⅛"	240	172.30	RB-2723
FOR 30" WIDE PANELS — 24" DEEP RACKS										
PX-6733-A	67⅜"	33"	24"	61¼" x 30"	22⅝"	28¾"	30⅛"	260	173.20	RB-3323
PX-7733-A	76⅛"	33"	24"	70" x 30"	22⅝"	28¾"	30⅛"	280	189.00	RB-3323
PX-8433-A	83⅛"	33"	24"	77" x 30"	22⅝"	28¾"	30⅛"	300	207.40	RB-3323

TYPE "FX" SERIES RACKS — WITH FRONT AND REAR DOORS

Catalog No.	Overall Dimensions Height	Width	Depth	Panel Space	*Clear Inside Depth	**Clear Inside Width (Front)	Clear Inside Width (Rear)	Shipping Wt. Lbs.	Net Price	RECESSE BASES (Optiona Prices Par-Me Page Cat. N
FOR 19" WIDE PANELS — 18" DEEP RACKS										
FX-4818-A	48⅛"	22"	18"	42" x 19"	16¼"	17¾"	19⅛"	135	$ 97.70	RB-2217
FX-6718-A	67⅜"	22"	18"	61¼" x 19"	16¼"	17¾"	19⅛"	175	115.20	RB-2217
FX-7718-A	76⅛"	22"	18"	70" x 19"	16¼"	17¾"	19⅛"	190	132.20	RB-2217
FX-8418-A	83⅛"	22"	18"	77" x 19"	16¼"	17¾"	19⅛"	205	143.80	RB-2217
FOR 19" WIDE PANELS — 24" DEEP RACKS										
FX-4824-A	48⅛"	22"	24"	42" x 19"	22¼"	17¾"	19⅛"	160	118.00	RB-222
FX-6724-A	67⅜"	22"	24"	61¼" x 19"	22¼"	17¾"	19⅛"	205	134.90	RB-222
FX-7724-A	76⅛"	22"	24"	70" x 19"	22¼"	17¾"	19⅛"	225	152.50	RB-222
FX-8424-A	83⅛"	22"	24"	77" x 19"	22¼"	17¾"	19⅛"	235	166.80	RB-222
FOR 24" WIDE PANELS — 24" DEEP RACKS										
FX-4827-A	48⅛"	27"	24"	42" x 24"	22¼"	22¾"	24⅛"	175	146.50	RB-272
FX-6727-A	67⅜"	27"	24"	61¼" x 24"	22¼"	22¾"	24⅛"	235	172.90	RB-272
FX-7727-A	76⅛"	27"	24"	70" x 24"	22¼"	22¾"	24⅛"	265	183.80	RB-272
FX-8427-A	83⅛"	27"	24"	77" x 24"	22¼"	22¾"	24⅛"	270	207.40	RB-272
FOR 30" WIDE PANELS — 24" DEEP RACKS										
FX-6733-A	67⅜"	33"	24"	61¼" x 30"	22¼"	28¾"	30⅛"	295	215.20	RB-332
FX-7733-A	76⅛"	33"	24"	70" x 30"	22¼"	28¾"	30⅛"	320	236.20	RB-332
FX-8433-A	83⅛"	33"	24"	77" x 30"	22¼"	28¾"	30⅛"	345	257.20	RB-332

*Clearance between front and rear doors.

**Indicates clearance for chassis between panel mounting strips.

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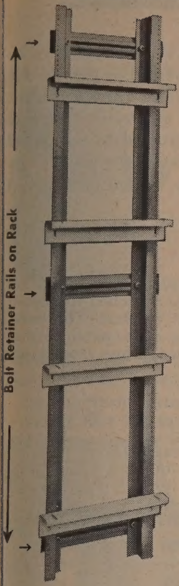
PAR-METAL CABINET RACK ACCESSORIES

VERTICAL SIDE SUPPORTS



These vertical side supports are supplied in sets of four uprights to fit all universal racks listed on PAR-METAL Pages 4 thru 6. (Cut shows side mounting brackets in place which are sold separately — see listing below).

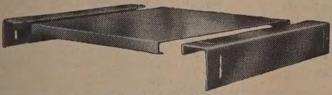
Supports are fastened to bolt retainer rails which hold panel mounting angles in place, and are adjustably mounted from front to back of rack. Holes are **drilled** and **tapped vertically** to provide adequate vertical adjustment for mounting brackets, shelves, and various sliding devices.

When installed in racks for 19″ wide panels, the clearance between supports (from right to left) is 17¾″. On 24″ wide panel racks, the clearance is 22¾″; on 30″ wide panel racks, the clearance is 28¾″. Supports are 2⅝″ wide and 1½″ deep.

Supports are made from ⁷⁄₆₄″ thick steel, finished in aluminum enamel. Each set is supplied with ⅜″ dia. bolts, lock washers, and nuts for rack mounting.

at. No.	Height	To Fit Universal Cabinet Racks	Sh. Wt. Lbs.	Net Price Set of 4
S-36	41¼″	Series 3718-A	22	$15.00
S-42	46½″	Series 4818-A, 4824-A, 4827-A	25	16.50
S-61	65¾″	Series 6718-A, 6724-A, 6727-A, 6733-A	35	21.75
S-70	74½″	Series 7718-A, 7724-A, 7727-A, 7733-A	39	25.50
S-77	81½″	Series 8418-A, 8424-A, 8427-A, 8433-A	45	28.35

SIDE MOUNTING BRACKETS



Brackets BR-118 and Shelf SS-1918

hese brackets will fit on Vertical Side Supports shown above. hey are sold in pairs, and slotted to provide vertical adjustment at any height required. Brackets are 2″ wide and 1-13/16″ igh. The vertical face of the bracket is also slotted to match oles in equipment shelves listed below. Where desirable, the orizontal face of the bracket may be bolted to the vertical de supports. They are made from ⅛″ steel, zinc plated finish. ecessary bolts are supplied.

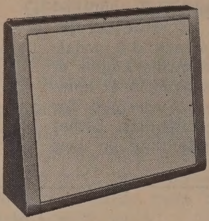
at. No.	Length	To Fit Racks	Shpg. Wt.	Net Price
-118	14″	All 18″ deep racks	4 lbs.	$3.30 per pair
-124	20″	All 24″ deep racks	6 lbs.	4.45 per pair

EQUIPMENT SHELVES

hese shelves will assemble with the side mounting brackets sted above, to make a complete shelf between Vertical Side upports. Made from 1/16″ steel, zinc plated. Necessary bolts r assembly are included. All shelves are ⅞″ high.

at. No.	Width	Depth	To Fit Racks	Net Price
-1918	17⅝″	14¼″	19″ panels-18″ deep	$3.50
-1924	17⅝″	20¼″	19″ panels-24″ deep	4.20
-2724	22⅝″	20¼″	24″ panels-24″ deep	4.95
-3324	28⅝″	20¼″	30″ panels-24″ deep	7.20

SLOPING RACK MOUNTING PANELS



These panels are intended for installation on relay racks, and are installed the same as other standard rack panels. The front slopes at an angle of 20°, and it may be used with the slope upward or downward (see illustrations) on PAR-METAL Page 2.

Front and back have removable panels. They are designed for single unit or modular group assemblies.

Constructed from ¹⁄₁₆″ sheet steel; panels are included in prices listed below. Available in all finishes—please specify when ordering. **All panels are 7⅝″ deep.**

Cat. No.	Panel Space Required	Sloping Panel Size	Rear Panel Size	Net Price
SP-1719	17½″ x 19″	15¾″ x 19″	14″ x 19″	$42.00
SP-1724	17½″ x 24″	15¾″ x 24″	14″ x 24″	50.00
SP-1730	17½″ x 30″	15¾″ x 30″	14″ x 30″	65.00

RACK TYPE EXTENSION TABLES

These tables are mounted to the front of cabinet racks as illustrated on PAR-METAL Page 2. They are made from ¾″ plywood, to which is bonded ¹⁄₁₆″ thick formica of a dark grey pattern on both top and apron, which is 2½″ high.

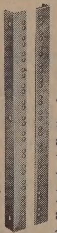
The apron is substantially reinforced for fastening to horizontal channel type supports. The channels are made from ⁷⁄₆₄″ thick steel, and are bolted to vertical side supports which are securely mounted on the inside wall of the rack. The tables may be adjusted at any height from the floor. This assembly provides a very rigid structure, with a smooth writing space across the entire top. There are no metal parts exposed, and no painted metal surfaces to deteriorate with constant usage.

The tables may be installed on any of the cabinet racks (without front door) listed on PAR-METAL Pages 4 thru 6. They are also available for modular rows of four or more racks.

ALL OF THESE TABLE ASSEMBLIES REQUIRE ONLY 3½″ OF PANEL SPACE (height).

Cat. No.	Table Size	Type	Rack Panel Width	Net Price
RX-119	21¼″ x 20″	Single	19″	$ 42.00
RX-219	42⅛″ x 20″	Double	19″	78.00
RX-319	64¼″ x 20″	Triple	19	104.00
RX-419	86⅜″ x 20″	Quadruple	19	144.00
RX-124	26¼″ x 20″	Single	24″	48.00
RX-224	52⅛″ x 20″	Double	24″	95.00
RX-324	79¼″ x 20″	Triple	24″	128.00
RX-130	32¼″ x 20″	Single	30″	55.00
RX-230	64⅛″ x 20″	Double	30″	100.00

PANEL MOUNTING ANGLES

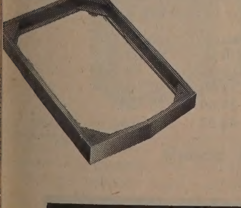


These panel mounting angles (or strips) are the same as used in all Universal type racks, (see PAR-METAL Pages 4 thru 6). They are supplied with necessary bolts to fit into the bolt retainer rails which hold the pair of panel mounting angles regularly supplied with each rack.

It is often desirable to use an additional pair of panel mounting angles for mounting chassis, terminal strips, etc. They may be adjusted to any depth within the rack from front to back.

Angle No.	To Fit Universal Cabinet Racks	Net Price Per Pair
PA-36	PX-3718-A	$ 9.50
PA-42	PL, FL, PX, FX, PR, FR-4818, 4824, 4827-A	11.50
PA-61	PL, FL, PX, FX, PR, FR-6718, 6724, 6727, 6733-A	15.90
PA-70	PL, FL, PX, FX, PR, FR-7718, 7724, 7727, 7733-A	18.10
PA-77	PL, FL, PX, FX, PR, FR-8418, 8424, 8427, 8433-A	19.80

RECESSED RACK SUB-BASES



These heavy duty bases will fit under any of the universal racks listed on PAR-METAL Pages 4 thru 6. They are rigidly made from ⁷⁄₆₄″ thick steel, and are securely braced at all corners.

4 holes in top match those provided in the racks. Hardware for attaching is supplied. 4 adjustable floor levellers are used under the bottom of the bases. Will be finished in enamel to match racks ordered. Where roller trucks are mounted under the racks, recessed bases are not recommended or required.

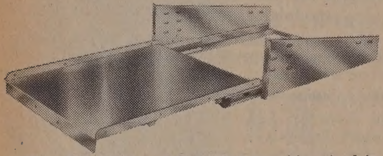
	To Fit Universal Racks		
Cat. No.	Width	Depth	Net Price
RB-2217	22″	18″	$15.00
RB-2223	22″	24″	16.00
RB-2723	27″	24″	17.50
RB-3323	33″	24″	18.75

PAR-METAL RACK TYPE SLIDE ASSEMBLIES

GENERAL DESCRIPTION

These slide assemblies will save considerable layout and assembly time as an alternate method of attaching individual slides directly to the interior of a rack. All models are screw mounted to the front panel mounting angles of relay racks, the same as regular panels. Additional holes are provided in the side brackets of the shelf assembly for mounting to our standard vertical side supports. Either method will provide a rigid support; both may be used together where desirable.

The basic slide assemblies for use in 19″ wide panel rack **will accommodate chassis up to 17″ wide.** All of the "usabl space" noted below may be fully extended from the fron of the rack; load capacities are based on the shelf in thi position. All units are ruggedly constructed to withstan constant usage. The frames and brackets are made fro ⁷⁄₆₄″ thick steel. All parts are securely welded or fastene with stainless steel rivets.



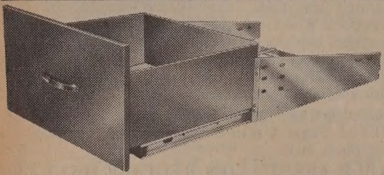
BASIC SLIDE ASSEMBLIES

The basic slide assembly illustrated is sold as a complete unit, ready fo installation in all 18″ or 24″ deep racks. Panels may be attached to chassi by using standard *brackets or any other convenient method. The pane and chassis assembly is then bolted directly to the slide pan. Forme panels with a minimum height of 7″ are recommended. Four models ar listed to fit racks using panels either 19″ or 24″ wide.

The BS-1940 and BS-2419 are identical in size, but have different load capacities. All load capacities are conservatively rated to carry the full load with the sliding shelf completely extended. All parts are zinc plated.

Catalog No.	Usable Space Width	Usable Space Depth	Panel Width	Rack Depth	Bracket Height	Shelf Height	Load Capacity	Net Price	Shipping Weight
BS-1980	17⅛″	14″	19″	18″	6½″	1¾″	50 lbs.	$19.25	24 lbs.
BS-1940	17⅛″	20″	19″	24″	6½″	1¾″	36 lbs.	25.50	32 lbs.
BS-2419	17⅛″	20″	19″	24″	6½″	1¾″	60 lbs.	30.75	32 lbs.
BS-2424	22⅛″	20″	24″	24″	6½″	1¾″	55 lbs.	33.00	35 lbs.

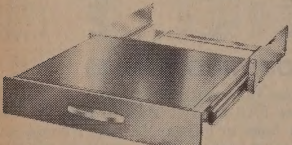
Special brackets are available for mounting rack panels, as listed on Par-Metal page 21.



STORAGE DRAWER ASSEMBLIES

These drawers are suitable for stationery, instruments, parts, etc. Th drawers are mounted on the basic slide assemblies described above. The are available either 7″ or 10½″ high to match standard rack panels c the same height. Three models are listed for racks with 19″ wide panel and one for 24″ wide panel racks.

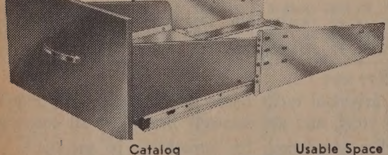
Catalog No.	Usable Space Width	Usable Space Length	Depth	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
DD-1980	17″	14″	5″	7″	19″	18″	40 lbs.	$26.50	33 lbs.
DD-1940	17″	20″	5″	7″	19″	24″	25 lbs.	35.00	42 lbs.
DD-2419	17″	20″	8″	10½″	19″	24″	45 lbs.	41.90	50 lbs.
DD-2424	22″	20″	8″	10½″	24″	24″	45 lbs.	46.75	50 lbs.



DESK SHELF ASSEMBLIES

This assembly effectively provides a retractable writing desk, or may be used fo supporting test instruments or other devices. When not in use, it saves valuable aisl space. The writing surface is charcoal grey micarta. The front requires only 3½″ c panel space, and is provided with a drawer pull. It is made for racks using panel either 19″ or 24″ wide. No. SK-1970 and SK-2419 are identical except for loa capacity.

Catalog No.	Shelf Size Width	Shelf Size Depth	Writing Surface	Pulls Out	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
SK-1970	17″	17″	Micarta	16⅜″	19″	18-24″	36 lbs.	$36.00	32 lbs.
SK-2419	17″	17″	Micarta	16⅜″	19″	18-24″	60 lbs.	41.50	32 lbs.
SK-2424	22″	17″	Micarta	16⅜″	24″	24″	60 lbs.	48.75	35 lbs.



PHONO DRAWER ASSEMBLIES

Consists of basic sliding shelf assembly with a drawer front and hand as illustrated. Drawer front is same size as standard formed panel 10½ high. (12¼″ high drawer fronts are also available.) The 17″ width wi accommodate almost all standard changers and turntables.

Where metal base pans are available with changers, it is recommende that such pans be used and bolted directly to the shelf.

Catalog No.	Usable Space Width	Usable Space Depth	Height	Panel Height	Panel Width	Rack Depth	Load Capacity	Net Price	Shipping Weight
PH-1980	17″	14″	8¾″	10½″	19″	18″	45 lbs.	$26.00	33 lbs.
PH-1940	17″	20″	8¾″	10½″	19″	24″	30 lbs.	33.00	40 lbs.
PH-2419	17″	20″	8¾″	10½″	19″	24″	50 lbs.	39.00	40 lbs.
PH-2424	22″	20″	10½″	12¼″	24″	24″	45 lbs.	43.00	44 lbs.

IMPORTANT: When ordering, please specify paint finish of front panels or drawer fronts of series "DD", "PH", or "SK" assemblies.

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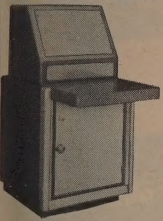
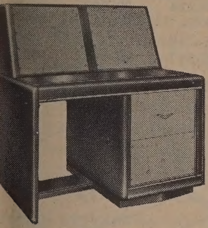
PAR-METAL DE LUXE CONSOLE ASSEMBLIES

SINGLE UNIT ASSEMBLY



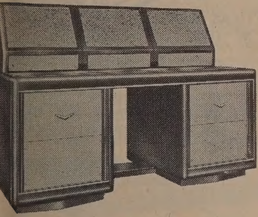
his illustration shows one of our three
asic single unit assemblies. For further
nformation, refer to Component Group
heck List on the following page.

DOUBLE UNIT ASSEMBLY



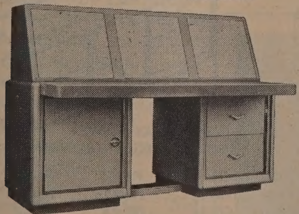
ustration shows one of three basic as-
mblies available. See Component Group
eck List on following page.

TRIPLE UNIT ASSEMBLY



ese assemblies are available in three
erent arrangements using the various
ilable basic units. See Component Group
eck Lists on the following page.

ALTERNATE TRIPLE UNIT ASSEMBLY



e above unit consists of: two No. PD-224 pedestal
mes, two No. EP-24 exterior side panels, two No. KP-24
erior side panels, one No. HS-103 high slope cabinet, one
. CD-24 center desk section and one CT-319 extension
le, (door drawers, or rack panels for front and back
optional).

GENERAL DESCRIPTION

The combination of a control cabinet mounted on table, desk or similar support usually called a console has been in general use in the electronics industry many years.

While it is obvious that no particular fixed design can serve every requirement, we have **devised a group of standard units,** the combination of which is readily adaptable for specialized applications in control equipment, testing facilities, sound distribution systems and industrial purposes. These models have been functionally designed and smartly styled to keep pace with current trends. New modular units have been added, all of which may be grouped or expanded to meet your specific needs.

The **versatile pedestal racks** are the keystone to the entire assembly. They are constructed for heavy duty use, having all the essential features of our type "PL" cabinet racks listed on PAR-METAL Page 4. This would include panel mounting angles which are adjustable from front to back, and provision for installing chassis mounting brackets and shelves where needed. They offer an efficient utilization of space, complete accessibility for servicing, and are **solidly built** to withstand heavy strains **whether in a laboratory or a moving vehicle.**

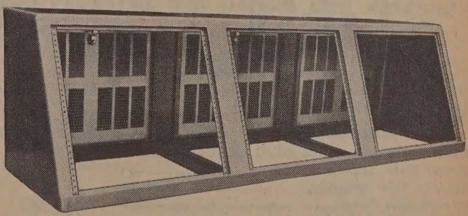
Two models of pedestal frames are available, which are identical except for the depth (front to back). PD-224 frame (24¼" deep) unit may be used without an extension desk table as illustrated below.

There are four models of desk panel cabinets suitable for mounting on the pedestal frame top. (PAR-METAL Page 13) to make a complete console. Single or multiple unit consoles may be combined with our Series "PL" racks.

The PD-234 frame (34¼" deep) forms a complete desk structure without the use of extension shelves. When one of our desk panel cabinets is mounted on top, additional space is available in front as a desk writing surface. The 34¼" depth provides additional interior space, and may also be assembled with our Series "PL" cabinet racks to perform the same functions as our PD-224 (24¼" deep) pedestal frame. Unit assemblies are not limited to triple units, and may be extended to modular groups of four or more. If you have a specific problem, do not hesitate to consult us. Personalized and interested engineering assistance is always available.

The **new side panels** are readily detachable from the outside. No drilling or fitting is necessary for the assembly of pedestals, cabinets, brackets, shelves or drawers. All panel mounting holes are tapped for screws — no metal screws or clips are used.

Our standard finish is a combination of light and dark grey hammertone enamel. Your desk requirements are easily selected from the group charts on the next page. For the turret, you may choose from four types of control cabinets listed on PAR-METAL Page 13. Other standard finishes, including black or blue grey wrinkle enamel, light grey or medium grey enamel or primer coat only, are optional without additional cost.



This is an interior view of our No. HS-103 high slope panel cabinet. Note the rigid bracing and well ventilated individual rear doors. This construction is typical of all panel control cabinets listed on Par-Metal Page 13.

PAR-METAL COMPONENT GROUP CHECK LISTS

The group charts below list all necessary and alternate components for single, double, and triple unit assemblies, a also provides a check list to determine your exact requirements. **There are four models of desk panel cabinets specia designed to fit on the top of the assemblies detailed below. For simplicity, they have been omitted; for a complete descri tion see Par-Metal Page 13.** All of the 19″ wide panels listed on Par-Metal Pages 18 and 19 may be mounted on the assemblies. Refer to Par-Metal Page 8 for sliding drawers shown in the illustrations on Page 9. **Other compone parts suitable for use with these assemblies are shown on Par-Metal Pages 11 and 12.**

FOR SINGLE UNIT ASSEMBLIES

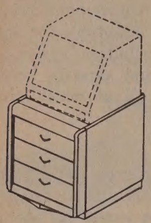


FIGURE "A" AS ABOVE
FIGURE "B" (LESS TOP CABINET)

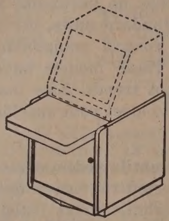


FIGURE "C" AS ABOVE
FIGURE "D" (LESS TOP CABINET)

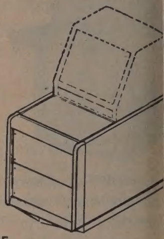


FIGURE "E" AS ABOVE
FIGURE "F" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "A"	Fig. "B"	Fig. "C"	Fig. "D"	Fig. "E"	Fig. "F"
Pedestal Frame	11	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-23
Exterior Side Panel	11	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Extension Desk Table	12	1			CT-119	CT-119		
Formica Table Top	12	1	*	WT-241	*	NT-241	HT-341	WT-34

*Table top not required.

FOR DOUBLE UNIT ASSEMBLIES

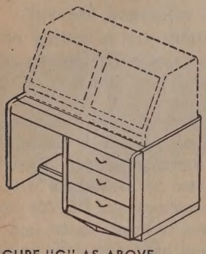


FIGURE "G" AS ABOVE
FIGURE "H" (LESS TOP CABINET)

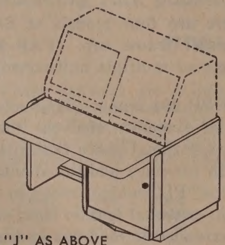


FIGURE "J" AS ABOVE
FIGURE "K" (LESS TOP CABINET)

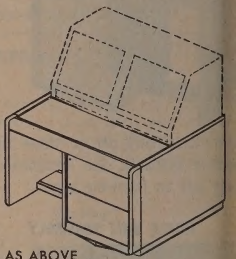


FIGURE "L" AS ABOVE
FIGURE "M" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "G"	Fig. "H"	Fig. "J"	Fig. "K"	Fig. "L"	Fig. "M"
Pedestal Frame	11	1	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
End Pedestal Assembly	11	1	DU-24	DU-24	DU-24	DU-24	DU-34	DU-34
Exterior Side Panel	11	1	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panel	11	1	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	12	1			CT-219	CT-219		
Formica Table Top	12	1	*	WT-242	*	NT-242	HT-342	WT-34

*Table top not required

FOR TRIPLE UNIT ASSEMBLIES

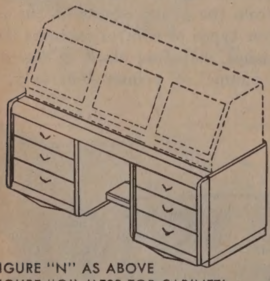


FIGURE "N" AS ABOVE
FIGURE "O" (LESS TOP CABINET)

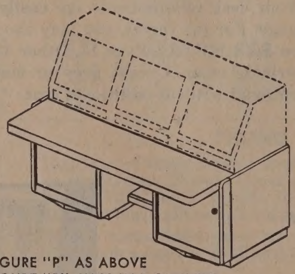


FIGURE "P" AS ABOVE
FIGURE "R" (LESS TOP CABINET)

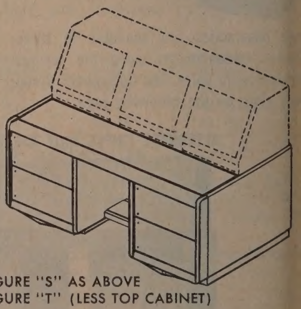


FIGURE "S" AS ABOVE
FIGURE "T" (LESS TOP CABINET)

PARTS REQUIRED	Par-Metal Page No.	Quant.	Fig. "N"	Fig. "O"	Fig. "P"	Fig. "R"	Fig. "S"	Fig. "T"
Pedestal Frames	11	2	PD-224	PD-224	PD-224	PD-224	PD-234	PD-234
Center Desk Section	11	1	CD-24	CD-24	CD-24	CD-24	CD-34	CD-34
Exterior Side Panels	11	2	EP-24	EP-24	EP-24	EP-24	EP-34	EP-34
Interior Side Panels	11	2	KP-24	KP-24	KP-24	KP-24	KP-34	KP-34
Extension Desk Table	12	1			CT-319	CT-319		
Formica Table Top	12	1	*	WT-243	*	NT-243	HT-343	WT-343

*Table top not required

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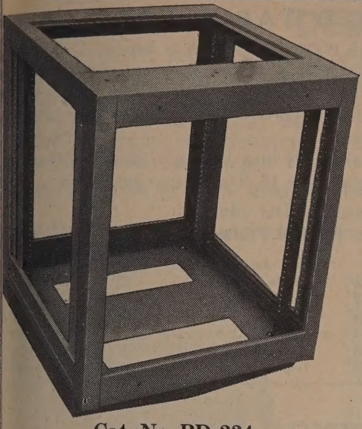
PAR-METAL DE LUXE CONSOLE ASSEMBLIES



Cat. No. PD-224

RACK PEDESTAL FRAMES

The rack pedestal is the principal component used in all single and multiple unit assemblies. It combines the essential features of our **type "PL" racks** listed on Par-Metal Page 4 and is attractively styled for any environment.

The bottom and step base are formed from 7/64″ steel; all other parts are made from 1/16″ steel. They are substantially welded together to insure the extra strength and stability needed for heavy duty installation, wherever located. They are capable of carrying heavy transformers, large power supplies, motors, compressors, and similar apparatus.

Panel space at front and back is 21″ x 19″. Panel mounting angles (or "strips") may be located at any position from front to back, and have tapped holes for mounting standard rack panels, sliding shelves, phono drawers, or storage drawers. Two pairs are supplied — one pair for front mounting and another pair for rear mounting. Additional tapped holes are available at the sides for mounting chassis supports and shelves.

he various units required to make up complete ssemblies are listed on Par-Metal Pages 11, 12, and 3. The component check lists on Par-Metal Page 10 nables you to easily select the parts required. Pedstal frames may be obtained as standard units ith heavy duty casters at a nominal additional ost. See listing and description on Par-Metal Page 2.

FINISHES: Standard finish is a combination of light and dark grey hammertone enamel. Other optional finishes are listed on Par-Metal Page 9. We will be happy to answer any questions regarding dimensional information, construction details, etc. Write for assistance.

CATALOG NO. PD-224 (24¼″ deep)

verall Dimensions (with side panels, front and rear trim) 30″ high, 24½″ wide, 25⅜″ deep.
verall dimensions (less side panels, front and rear trim) 29″ high, 22″ wide, 24¼″ deep.
eight of pedestal rack (less step base): 26½″
anel Mounting Space: Front and Back: 21″ x 19″ wide.
lear opening at front and back: 19⅛″
lear opening between panel mounting angles: 17¾″
lear opening at left and right: 17⅝″ wide, 21″ high
lear inside depth (front to back): 23⅛″
uitable for standard rack panel 19″ wide, 21″ high (if needed).

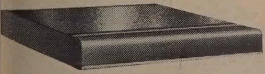
NET PRICE $80.00

CATALOG NO. PD-234 (34¼″ deep)

Overall Dimensions (with side panels, front and rear trim) 30″ high, 24½″ wide, 35⅜″ deep.
Overall Dimensions (less side panels, front and rear trim) 29″ high, 22″ wide, 34¼″ deep.
Height of pedestal rack (less step base): 26½″
Panel Mounting Space: Front and Back: 21″ high x 19″ wide.
Clear opening at front and back: 19⅛″
Clear opening between panel mounting angles: 17¾″
*Clear opening at left and right side: 22⅝″ wide, 21″ high.
Clear inside depth (front to back): 33⅛″
*Suitable for standard rack panel 24″ wide, 19″ high (if needed).

NET PRICE $95.00

CENTER DESK SECTION
(For Triple Unit Assemblies)



e center desk section shown attached between two rack destals to make up a triple it assembly. It consists of table top support and floor ace illustrated on Par-Metal ge 10. The formica table p is not included in prices center desk sections. ctions are finished to match lor of pedestal frames, uns otherwise ordered. Both nter Desk Sections are 1⅝″ gh and 22″ wide.

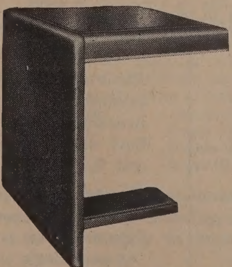
at. No.	For assembly with	Front to back	Net Price
-24	Pedestal PD-224	25⅜″	$16.80
-34	Pedestal PD-234	35⅜″	19.80

DETACHABLE SIDE PANELS

All panels are made from 1/16″ sheet steel. All corners are securely welded and ground smooth. Each panel has cowl fasteners at top and bottom, so that they may be quickly removed to provide complete access to the interior of the pedestals. Prices include front horizontal mouldings on pedestal frames. Panels are finished to match color of pedestal frames, unless otherwise ordered.

Cat. No.	Description	To fit Pedestal	For use on	Net Price
EP-24	Exterior side panel	PD-224	All assemblies	$20.00
KP-24	Interior side panel	PD-224	" "	17.50
EP-34	Exterior side panel	PD-234	" "	25.00
KP-34	Interior side panel	PD-234	" "	20.00

END PEDESTAL (For Double Unit Assemblies)



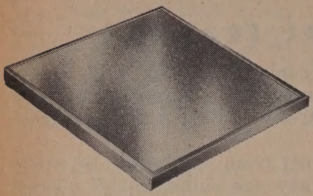
This end pedestal is designed to make up a double unit assembly as illustrated on Par-Metal Pages 9 and 10. It may be installed on either the right or left hand side of the pedestal frame.

The formica table top is not included in prices listed below. Will be finished to match pedestal frame, unless otherwise ordered. Both End Pedestals are 30″ in height.

Cat. No.	For assembly with	Front to back	Net Price
DU-24	Pedestal PD-224	25⅜″	$38.50
DU-34	Pedestal PD-234	35⅜″	45.00

PAR-METAL DE LUXE CONSOLE ASSEMBLIES

FORMICA BONDED TABLE TOPS



These table tops are made from 3/4″ thick plywood to which is bonded 1/16″ th patterned grey formica. All sizes are edged with a narrow stainless steel mouldi to prevent pencils and similar objects from rolling off the table. There are no me spacers between units, providing a clear unobstructed writing surface across entire top.

The table top required for any particular assembly may be easily identified from check list of component groups on Par-Metal Page 10. The listings below are a cr reference and also include prices.

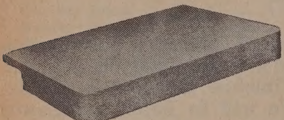
For Use on No. PD-224 Pedestal Frames (24¼″ deep)

Catalog No.	Size	Assembly	Refer to: Par-Metal Figure	Page No.	Net Price
WT-241	21 7/16″x22″	Single Unit Assembly	"B"	10	$15.60
NT-241	18 7/8″x22″	Single Unit Assembly	"D"	10	14.20
WT-242	21 7/16″x44″	Double Unit Assembly	"H"	10	30.00
NT-242	18 7/8″x44″	Double Unit Assembly	"K"	10	25.40
WT-243	21 7/16″x66″	Triple Unit Assembly	"O"	10	45.00
NT-243	18 7/8″x66″	Triple Unit Assembly	"R"	10	39.00

For Use on No. PD-234 Pedestal Frames (34¼″ de

Catalog No.	Size	Assembly	Refer to: Par-Metal Figure	Page No.	P
HT-341	12 9/16″x22″	Single Unit Assembly	"E"	10	$1
WT-341	31 7/16″x22″	Single Unit Assembly	"F"	10	2
HT-342	12 9/16″x44″	Double Unit Assembly	"L"	10	1
WT-342	31 7/16″x44″	Double Unit Assembly	"M"	10	4
HT-343	12 9/16″x66″	Triple Unit Assembly	"S"	10	2
WT-343	31 7/16″x66″	Triple Unit Assembly	"T"	10	6

EXTENSION DESK TABLES



These extension tables are used in console assemblies illustrated on Par-Metal Pages 9 and 10. They are made from 3/4″ thick plywood, to which is bonded 1/16″ thick grey formica.

The formica covers both the top and apron of the table which is 2-1/2″ deep. The apron is substantially reinforced for fastening to horizontal channel supports. The assembly provides a rugged structure with a smooth writing space across the entire top.

There are no metal parts exposed, and no metal surfaces to deteriorate with constant usage. As these tables are mounted above the front panels on the pedestal frame, the full front panel space of 21″ may be used.

Cat. No.	For use on Assemblies	Overall Size	Net Price
CT-119	Single Unit	16″x22″x2½″	$36.00
CT-219	Double Unit	16″x44″x2½″	68.00
CT-319	Triple Unit	16″x66″x2½″	96.00

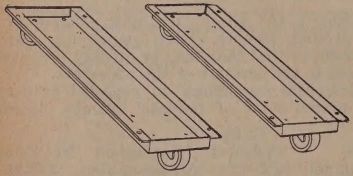
PEDESTAL FRAME DOORS

These doors are made to enclose the fr or back of pedestal frames. They **"double wall" type with smooth surfa inside and outside.** A push button spr catch provides easy operation with minimum projection from the front the door.

They are made in two heights: **21″** high to co pletely enclose the front opening of the pedes with a **10½″** high door, which may be inserted ab or below a sliding drawer or rack panel. They be supplied to match finish of console assembly, any finish listed on Par-Metal Page 9.

Cat. No.	For assembly with Pedestal	Size	Net
DR-1019	No. PD-224 or 234	10½″x19″	$13
DR-2119	No. PD-224 or 234	21 ″x19″	16

PEDESTAL CASTER ASSEMBLIES



Cat. No.	For use on	*Net Price
CA-24	Pedestal Frame No. PD-224	$15.00
CA-34	Pedestal Frame No. PD-234	15.00

*Price is for a pair, for installation on one pedestal frame.

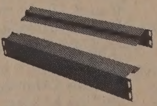
These assemblies are made specifically for use on our No. PD-224 and PD-234 pedestal frames listed on Par-Metal Page 11. They replace regular recessed sub-bases, and are used where mobility is required. caster plates are made from 7/64″ thick steel for heavy-duty usage. Cas are equipped with 3″ diameter composition wheels, capable of support loads of 225 lbs. per wheel.

Where pedestal frames with caster assemblies are required, they will supplied at an additional cost of $4.00 per frame. Simply specify on y pedestal frame order "with casters." They may be obtained separately listed in chart at the left for replacement of recess sub-bases on pede frames now in use.

MOUNTING BRACKETS

These brackets may be mounted on each side of the pedestal.

They are slotted to match the Tapped holes in the sides of the pedestal and may be adjusted to any height.



Cat. No.	To Fit Pedestal	Overall Size	Net Price Per Pair
CB-24	PD-224	2½″ x 2 31/32″ x 18 13/16″	$4.20
CB-34	PD-234	2½″ x 2 31/32″ x 28 13/16″	5.80

SHELVES

These shelves are drilled for assembly with Mounting Brackets CB-24 and CB-34. Both shelves are 17½″ wide and ⅝″ high.

Cat. No.	To Fit Brackets	For Pedestal	Depth	Net Pri
SS-24	CB-24	PD-224	22¾″	$4.6
SS-34	CB-34	PD-234	32¾″	6.4

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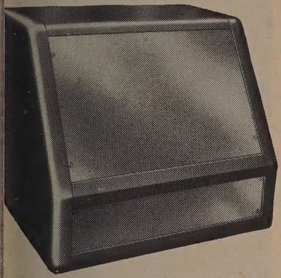
PAR-METAL DE LUXE CONSOLE ASSEMBLIES

DESK PANEL CABINETS

The desk control cabinets shown below are ideal for use in the laboratory, for test equipment and other ndustrial applications. Each cabinet section is made rom $\frac{1}{16}$" sheet steel, rigidly welded together—ready or use without a multiplicity of clips, studs, nuts nd other fastening devices.

Cabinets are regularly supplied with full hinged ventilated doors at the back (except Series LS-101, etc.). Tapped holes are also provided for mounting standard 19" wide panels; panels (blank or ventilated) up to 15¾" high are optional at the same price.

tandard finish is dark grey hammertone for cabinets, with contrasting light grey hammertone for panels. Other finishes are available, as listed on Par-Metal Page 9.



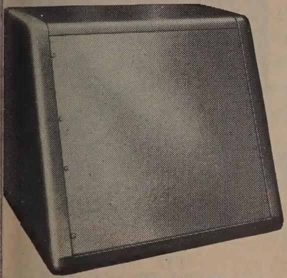
"CX" SERIES

DUAL PANEL DESK CONTROL CABINETS

On Series "CX" cabinets, the upper panel is 12¼" high, and is sloped at an angle of 30°; the lower vertical panel is 3½" high. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is louvered for efficient ventilation, and held closed with a push-button type spring catch. In double and triple unit cabinets individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel rack panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
CX-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	$ 70.00
CX-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	115.00
CX-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	160.00



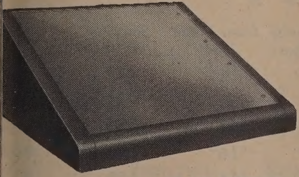
"HS" SERIES

HIGH SLOPE PANEL DESK CABINETS

On Series "HS" cabinets, the front panel size is 17½" x 19", and is sloped at an angle of 23°. A hinged removable door is mounted on the back, with the hinges at the bottom for easy access to the interior. The door is adequately louvered, and held closed with a push-button type spring catch. In double and triple units, individual doors are used on each unit.

The bottom of the cabinet has a removable panel size 15¾" x 19" for each unit. All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel rack panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth (at bottom)	Depth (at top)	Net Price
HS-101	Single Unit	18⅞"	22"	18⅞"	11⅝"	$ 66.50
HS-102	Double Unit	18⅞"	44"	18⅞"	11⅝"	110.00
HS-103	Triple Unit	18⅞"	66"	18⅞"	11⅝"	150.00

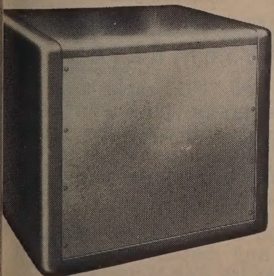


"LS" SERIES

LOW SLOPE PANEL DESK CABINETS

On Series "LS" cabinets, the front panel is 17½" x 19", and slopes upward at an angle of 23°. The bottom has a removable panel size, 15¾" x 19". Standard aluminum or steel rack panels, ⅛" thick, may be substituted for the formed steel panels regularly supplied at no additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
LS-101	Single Unit	9⅛"	22"	18⅞"	$ 40.00
LS-102	Double Unit	9⅛"	44"	18⅞"	70.00
LS-103	Triple Unit	9⅛"	66"	18⅞"	100.00



"VF" SERIES

VERTICAL DESK PANEL CABINETS

On Series "VF" cabinets, the vertical front panel, the top panel, and the bottom panel are removable. All have the same size, 15¾" x 19". A hinged removable door is mounted on the back, adequately ventilated with hinges at the bottom for easy access to the interior. The door is held closed with a push-button spring catch; in double and triple units, individual doors are used on each unit.

All panels supplied are the formed type 19" wide (see Par-Metal Page 19). Standard aluminum or steel panels, ⅛" thick, may be substituted for formed steel panels without additional cost.

Catalog No.	Description	Height	Width	Depth	Net Price
VF-101	Single Unit	18⅞"	22"	18⅞"	$ 55.00
VF-102	Double Unit	18⅞"	44"	18⅞"	100.00
VF-103	Triple Unit	18⅞"	66"	18⅞"	145.00

Complete dimensional information on Desk Panel Cabinet Racks including explanatory drawing of side section is available in our Catalog 62. Kindly write directly to home office for personalized and interested engineering assistance.

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

PAR-METAL TYPE "A" RELAY RACKS

DELUXE TYPE—FOR 19" WIDE PANELS

"ER" SERIES
WITH REAR DOOR ONLY

CABINET: The entire cabinet is made from 1/16" sheet steel. The sides are adequately ventilated with "venetian" type louvres similar to our universal cabinet racks. The vertical corner trims and formed mouldings at top and bottom are designed to effect a distinctive frame around the front of the rack. Racks are shipped **"knocked down"** for easy assembly.

CORNER TRIMS: All front vertical corner and joining trims are narrow type (do not overlap panels) to permit installation of sliding shelves, drawers, tables, etc.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

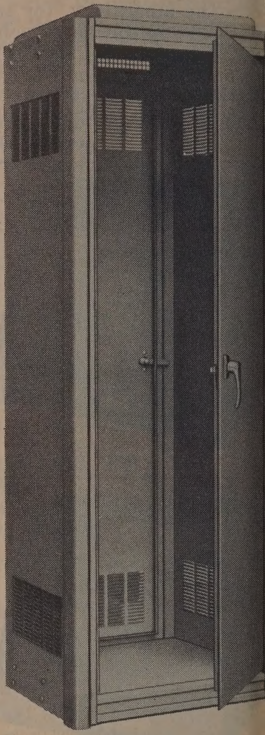
HARDWARE: Doors are the same as our universal racks. **"Series ER-225A"** racks are equipped with "automobile" type non-locking handles on rear doors. On **"Series FD-225A"** racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FINISH: Blue grey wrinkle finish is standard. Black wrinkle enamel finish will be supplied without extra charge if so specified on your order. Grey hammertone enamel is available at an additional charge of 10%.

ROLLER TRUCK: Roller truck No. RT-412 for Series ER-225A racks; use RT-418 for Series FD-225A; both are listed on Par-Metal Page 17.

PANELS: Panels 19" wide to fit these racks are listed on Par-Metal Pages 18 and 19.

SHELVES: For Series ER-225A Racks, use shelf No. ER-2212 listed on Par-Metal Page 21. To install shelves in Series FD-225A, it is recommended that Vertical Side Supports, Brackets and Shelves listed on Par-Metal Page 7 be used.

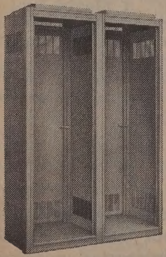


"FD" SERIES
WITH FRONT AND
REAR DOOR

Catalog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Shipping Wt. Lbs.	N Pr
ER-223-A	Rear only	43¼x22x18"	36¾x19"	**17⅝"	19"	16¾"	90	**$ 52.**
ER-225-A	Rear only	67¾x22x18"	61¼x19"	**17⅝"	19"	16¾"	120	**64.**
ER-227-A	Rear only	83½x22x18"	77 x19"	**17⅝"	19"	16¾"	140	**77.**
FD-223-A	Front & Rear	43¼x22x18"	36¾x19"	19⅛"	19"	*16"	110	**66.**
FD-225-A	Front & Rear	67¾x22x18"	61¼x19"	19⅛"	19"	*16"	150	**83.**
FD-227-A	Front & Rear	83½x22x18"	77 x19"	19⅛"	19"	*16"	175	**103.**

*clearance between front and rear doors. **between panel mounting angles.

MULTI-RACK CABINET ASSEMBLIES



MULTI-RACK ASSEMBLY

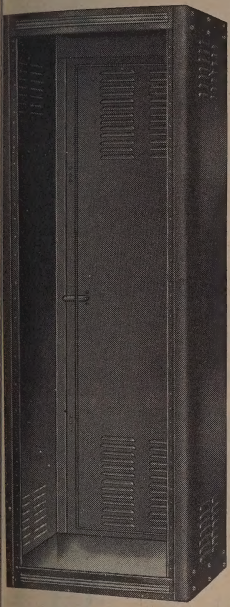
MULTI-RACK ASSEMBLIES: Both **Series "ER"** and **"FD"** racks may be s up in rows as shown. The use of "venetian type" louvers provides a flat exteri surface on the sides of the racks; separate side plates with welded screw stu inserted at top and bottom of adjacent sides simplifies the assembly — no scre drivers or wrenches are needed. Vertical joining trims overlap the joint betwe racks on the sketch.

SERIES "FD" RACKS: This series with front and rear doors has adjustab panel mounting angles, which may be located at any distance from front rear of rack. VERTICAL SIDE SUPPORTS listed on Par-Metal Page 7 w fit into these racks.

PAR-METAL PRODUCTS CORP. • Long Island City 3, N. Y.

PAR-METAL TYPE "A" RELAY RACKS

ROUNDED CORNER TYPE—FOR 19" WIDE PANELS



"ER" SERIES
ITH REAR DOOR ONLY

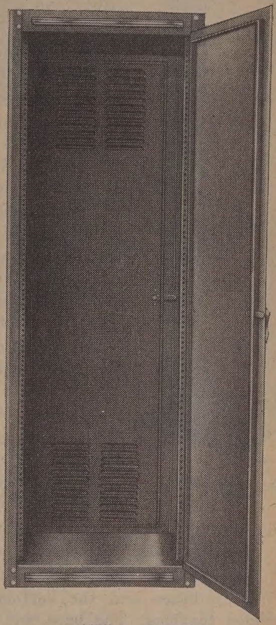
THESE RACKS ARE SIMILAR in construction to our Series ER-225 Racks. They provide a combination of standard functional design and superior construction at a modest price. The vertical front corners are nicely rounded, and the top and bottom are trimmed with chrome finished mouldings. The panels fit into a recess, so that the edges are not exposed.

CABINET: Entire cabinet is constructed of 1/16" thick cold-rolled steel. These racks are shipped "knocked-down" with necessary bolts for easy assembly. Screws for mounting panels are supplied.

PANEL MOUNTING: Angle irons are 7/64" thick steel, holes are accurately drilled and tapped 10-32 thread for all types of panels.

HARDWARE: Doors are of same design as our universal racks. "SERIES ER-215" racks are equipped with "automobile" type non-locking handles on rear doors. On "SERIES FD-215" racks, similar handles with key locks are used on both front and rear doors. Hinges are the "slip-joint" type so that doors may be easily removed.

FRONT DOOR RACKS: On Series FD-215 racks, the front panel mounting angles are recessed 2" deep to allow clearance for dials, etc. The clear inside depth behind the panel is 13½".



"FD" SERIES
WITH FRONT AND REAR DOOR

SPECIFICATIONS

alog No.	Doors	Overall Dimensions	Panel Space	Clear Inside Depth	Clear Inside Width (Rear)	Clear Inside Width (Front)	Shipping Wt. Lbs.	Net Price
-213	Rear only	42 x22x16½"	36¾x19"	15¼"	19"	**17⅝"	85	$37.20
-215	Rear only	66½x22x16½"	61¼x19"	15¼"	19"	**17⅝"	110	54.90
-217	Rear only	82¼x22x16½"	77 x19"	15¼"	19"	**17⅝"	130	66.30
-215	Front & Rear	66½x22x16½"	61¼x19"	*13½"	19"	19⅛"	130	73.92
-217	Front & Rear	82¼x22x16½"	77 x19"	*13½"	19"	19⅛"	155	89.10

arance behind panel.

**between panel mounting angles.

NISH: BLUE GREY RIPPLE is standard. Black Ripple amel will be supplied without extra charge if so specified your order. Grey hammertone enamel is available at an itional cost of 10%.

NELS: Panels 19" wide to fit these racks are listed on -Metal Pages 18 and 19.

ROLLER TRUCK: No. RT-411 will fit all racks listed on this page. Roller trucks are listed on Par-Metal Page 17.

SHELVES: For series ER-215 racks, use shelf No. ER-2112. For series FD-215 racks, use shelf No. R-2215. Both shelves are listed on Par-Metal Page 21.

PAR-METAL CHANNEL RELAY RACKS

DELUXE TYPE RACKS for 19" and 24" wide panels

No. RR-197

These DeLuxe Channel Type Relay Racks are **made from 7/64" thick steel,** and extend the utility and applicability of the standard channel relay rack.

The panel space is 77" x 19", to match a standard height used on enclosed cabinet racks.

The upright channels have been modified to an 8" overall depth, which when combined with a formed recess for the panels, greatly increases the rigidity of the rack. The edges of the panels are not exposed.

The rack is drilled and tapped for 10/32 screws at **both front and back,** permitting the optional use of either panels, or dish type chassis mounted to the racks at both front and back. The **full** panel space of 77" x 19" is available on the back, the same as the front.

The clear distance between panel mounting flanges (from front to back) is 6-3/4". It is practicable to use this 6" depth as an enclosure for dish type chassis listed on Par-Metal Page 21. When such chassis are mounted at the back, the addition of standard or hinged type panels (see Par-Metal 19) will make a rack enclosure with a clear depth of 6-3/4".

The top cross-brace is provided with a grille for ventilation where needed. Two holes are located on each side for bolting racks together in rows; there are no projecting screw heads on the sides.

The top brace and the vertical channel members are securely welded together. The base and rear braces are shipped knocked down, with all necessary bolts for assembly. Panel mounting screws are also supplied.

FINISH: Standard finish is black ripple enamel. For grey ripple enamel, add 5%. For grey hammertone enamel, add 10%.

No. RX-195

STANDARD TYPE RACK
for 19" wide panels

These racks are sturdily co
structed from 7/64" press
steel, and are braced at t
back as illustrated. They ha
been improved by a form
recess for the panels; the edg
of the panels are no longer e
posed, and the rigidity of t
rack has been greatly i
creased. The two vertical mem
bers and the top crossbra
are securely WELDED T
GETHER.

Panel mounting holes are accurately drilled f
standard rack panels, tapped for 10-32 machi
screws at the front only. An ample supply
panel mounting screws are supplied.

Upright channels are 3" deep with flang
1⅛" wide. Clearance between uprights is 17¾
Base is 20⅞" deep and extends both fro
and rear, and is 21" wide for either unit.

FINISH: Standard finish is black wri
kle. For blue grey wrinkle or grey han
mertone enamel add 10%.

CAT. NO.	OVERALL HEIGHT	PANEL HEIGHT	SHP. WT. LBS.	NET PRIC
RX-195	74 7/16"	71¾"	55	$25.
RX-193	39 7/16"	36¾"	45	21.

CATALOG No. RR-197: (for 19" Wide Panels)
Overall Dimensions: 80⅜" high, 21⅛" wide, 26" deep
Available Panel Space: 77" x 19" (at front and rear)
Clearance between Uprights: 17⅝"
Clear Depth in Channel: 6¾" inside
Shipping Weight: 100 lbs. Net Price: $43.50.

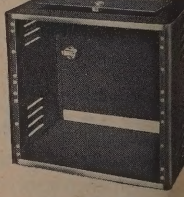
CATALOG No. RR-1924: (for 24" Wide Panels)
Overall Dimensions: 80⅜" high, 26⅛" wide, 26" deep
Available Panel Space: 77" x 24" (at front and rear)
Clearance between Uprights: 22⅝"
Clear Depth in Channel: 6¾" inside
Shipping Weight: 115 lbs. Net Price $55.00.

DESK PANEL CABINET RACKS For Standard 19" Rack Panels

In keeping with our other De Luxe racks, the vertical front corners are rounded and the top and bottom are trimmed with chrome finished mouldings. Panels fit into a recess, so that the edges are not exposed. Panel mounting holes are accurately drilled on universal centers, for standard rack panels. Holes are tapped for 10/32 machine screws.

They may be used with any chassis up to 13" x 17" in size. All cabinets are rigidly constructed of 1/16" thick cold rolled sheet steel, with all joints electrically welded. Louvres provide ample ventilation through sides and back. Piano type hinges are used on the top doors, which are provided with chrome plated handles. Panel mounting screws and washers are furnished.

FINISH: BLACK RIPPLE ENAMEL is standard. Blue grey wrinkle enamel will be supplied without extra charge if so specified in your order.



No. DL-1713

PANELS: Rack panels to fit these racks are listed on Par-Metal Pages 18 and 19.

(With door in top only) (not illustrated)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Net Price
DL-128	10½"x21½"x15" deep	8¾"x19"	28	$16.20
DL-1210	12¼"x21½"x15" deep	10½"x19"	29	17.70
DL-1225	14" x21½"x15" deep	12¼"x19"	30	19.20
DL-1413	15¾"x21½"x15" deep	14" x19"	32	21.00

RACK SHELF: Rack shelf No. R-2128 listed on Par-Met
Page 21 is designed to fit these racks.

(With door in top and door on rear panel)

Catalog No.	Cabinet Size	Available Panel Space	Shp.Wt. Lbs.	Ne Pri
DL-1713	19¼"x21½"x15" deep	17½"x19"	38	$22.
DL-2613	28" x21½"x15" deep	26¼"x19"	48	26.
DL-3513	36¾"x21½"x15" deep	35" x19"	58	29.

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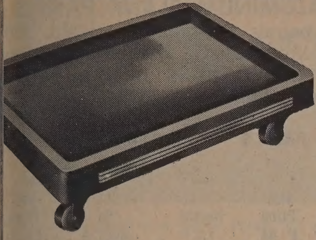
PAR-METAL — ROLLER TRUCKS — SHELVES

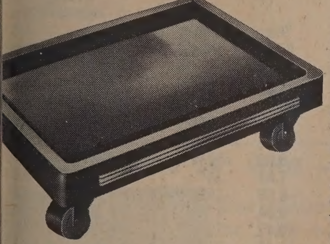
STANDARD ROLLER TRUCKS FOR RACKS



These trucks are especially designed for use on our Cabinet racks, and have rounded corners at the front with a chrome finished moulding. Overall size is about 2″ wider than the racks for better distribution of weight. sters are ball-bearing swivel type with 2″ rubber compo- on wheels. **FINISH: BLUE GREY RIPPLE** is standard. so available in Grey Hammertone at an additional cost 10%. Shipping weight on all sizes is 22 lbs.

talog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
T-410	DL-1713, 2613, 3513	16	$10.68
T-411	ER-213, ER, FD-215, 217	15	11.19
T-412	ER-223, ER-225, ER-227-A	14	12.87
T-418	FD-223, 225, 227-A	14	13.65
	PX, FX-3718-A, 4818-A, 6718-A	6	
	PX, FX-7718-A, 8418-A	6	
T-420	PX, FX-4824-A, 6724-A, 7724-A, 8424-A	6	17.64

HEAVY DUTY ROLLER TRUCKS



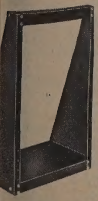
Heavy duty roller trucks are similar in size and design to the standard units, except that they have reinforced bottoms, and are equipped with heavy-duty swivel type casters, and 3″ diam. wheels.

Recommended for on all 24″ deep racks, and on other racks where neces- y. 3″ casters have a load capacity of 225 lbs. per wheel. **NISH: BLUE GREY RIPPLE** is standard; Black Ripple optional without extra charge. Also available in Grey mmertone or primer coat only at an additional cost of %. Shipping weight is 35 lbs.

talog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
ID-412	ER-223, ER-225, ER-227-A	14	$22.00
ID-418	FD-223, FD-225, FD-227-A	14	24.00
	PX, FX-3718-A, 4818-A, 6718-A	6	
	PX, FX-7718-A, 8418-A	6	
ID-420	PX, FX-4824-A, 6724-A	6	25.40
	PX, FX-7724-A, 8424-A	6	
ID-425	PL, FL, PR, FR-4818-A, 6718-A	4 and 5	25.60
	PL, FL, PR, FR-7718-A, 8418-A	4 and 5	
ID-426	PL, FL, PR, FR-4824-A, 6724-A,	4 and 5	28.30
	PL, FL, PR, FR-7724-A, 8424-A	4 and 5	
ID-427	PX, FX-4827-A, 6727-A,	6	28.60
	PX, FX-7727-A, 8427-A	6	
ID-432	PL, FL, PR, FR-4827-A, 6727-A	4 and 5	31.10
	PL, FL, PR, FR-7727-A, 8427-A	4 and 5	
ID-434	PX, FX-6733-A, 7733-A, 8433-A	6	35.50
ID-438	PL, FL, PR, FR-6733-A, 7733-A	4 and 5	38.60
	PL, FL, PR, FR-8433-A	4 and 5	

For racks with detachable side panels attached to racks.

TABLE TYPE RACKS

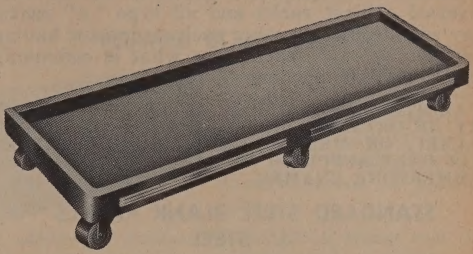


THESE RACKS are intended for table mounting and are useful where a regular floor type heavy duty rack is not required.

The base is constructed of one piece, similar to a chassis. Mounting holes are accurately drilled on universal centers, tapped for 10/32 screws. They are finished in black ripple enamel and shipped "knocked down" with all necessary screws.

Cat. No.	Overall Size	Panel Space	Shp. Wt. Lbs.	Net Price
TR-2520	24x21x12″	21x19″	17	$8.70
TR-3220	31x21x12″	28x19″	20	9.90

HEAVY DUTY DOUBLE WIDTH ROLLER TRUCKS



It is often necessary to mount groups of 2 of our enclosed racks on roller trucks. The truck illustrated above is used for that purpose. They are similar to our heavy duty trucks except that they have been reinforced with heavier steel because of their greater length.

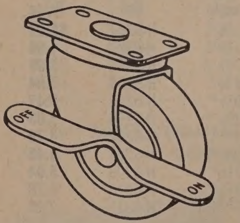
They are supplied with 6 heavy-duty swivel type casters with 3″ diameter wheels. These casters have a load capacity of 225 lbs. per wheel.

FINISH: BLUE GREY RIPPLE is standard; Black Ripple is optional without extra charge. Also available in Grey Hammertone or primer coat only at an additional cost of 10%.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Net Price
HD-412-2	ER-223, ER-225, ER-227-A	14	$44.00
HD-418-2	FD-223, FD-225, FD-227-A	14	48.00
	PX, FX-3718-A, 4818-A, 6718-A	6	
	PX, FX-7718-A, 8418-A	6	
HD-420-2	PX, FX-4824-A, 6724-A	6	50.80
	PX, FX-7724-A, 8424-A	6	
*HD-425-2	PL, FL, PR, FR-4818-A, 6718-A	4 and 5	51.20
	PL, FL, PR, FR-7718-A, 8418-A	4 and 5	
*HD-426-2	PL, FL, PR, FR-4824-A, 6724-A	4 and 5	56.60
	PL, FL, PR, FR-7724-A, 8424-A	4 and 5	
HD-427-2	PX, FX-4827-A, 6727-A	6	57.20
	PX, FX-7727-A, 8427-A	6	
*HD-432-2	PL, FL, PR, FR-4827-A, 6727-A	4 and 5	62.20
	PL, FL, PR, FR-7727-A, 8427-A	4 and 5	
HD-434-2	PX, FX-6733-A, 7733-A, 8433-A	6	71.00
*HD-438-2	PL, FL, PR, FR-6733-A, 7733-A	4 and 5	77.20
	PL, FL, PR, FR-8433-A	4 and 5	

* For racks with detachable side panels attached to racks.

BRAKE TYPE CASTERS



During the past few years, the use of brakes on roller trucks has become desirable both as a utility and safety measure. This is particularly true where racks have been loaded to capacity with heavy equipment.

We now have available foot brake type casters as illustrated for use on all heavy duty roller trucks. Brake type casters are supplied to replace the **two front casters** of single roller trucks and to replace the **three front casters** of double roller trucks. Additional cost **per roller truck** is as follows:

For single units (HD-412, etc.)	$ 8.50
For double units (HD-412-2, etc.)	12.75

WE CAN SUPPLY ON A "SEMI-CUSTOM" BASIS pressed steel roller trucks for our cabinet racks up to 36″ wide and 88″ long. They can be equipped with 4″ dia. wheel casters and necessary foot brakes. The extra width is used in front of the rack assembly to provide stability where extension shelves and other accessories are mounted on the front of the racks. Drawings and prices available upon request

PAR-METAL RACK PANELS 19"-24"-30" WIDE

All panels on this page are uniformly slotted to fit universal cabinet racks and all type "A" racks. They will also fit any other rack equipment having multiple 1¼"-½" spacings or what is commonly termed as W.E. spacing.

IN ADDITION TO FINISHES LISTED BELOW, THEY MAY BE OBTAINED IN LIGHT GREY EQUIPMENT ENAMEL, OR MEDIUM GREY ENAMEL, PRIMER COAT ONLY SUPPLIED AT SAME PRICE AS GREY HAMMERTONE ENAMEL.

STANDARD STEEL BLANK PANELS
⅛" STEEL

Standard flat panels made from ⅛" thick steel, either 19", 24", or 30" wide. Other finishes available as mentioned in page heading.

19" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6600	G-6600	$ .81	1¾"	H-6600	$ .87
6601	G-6601	1.02	3½"	H-6601	1.11
6602	G-6602	1.29	5¼"	H-6602	1.41
6603	G-6603	1.56	7"	H-6603	1.71
6604	G-6604	1.86	8¾"	H-6604	2.04
6605	G-6605	2.10	10½"	H-6605	2.31
6606	G-6606	2.49	12¼"	H-6606	2.73
6607	G-6607	2.89	14"	H-6607	3.18
6608	G-6608	3.24	15¾"	H-6608	3.54
6609	G-6609	3.60	17½"	H-6609	3.96
6610	G-6610	3.98	19¼"	H-6610	4.38
6611	G-6611	4.29	21"	H-6611	4.71

24" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6201	G-6201	$1.38	3½"	H-6201	$1.52
6202	G-6202	1.77	5¼"	H-6202	1.95
6203	G-6203	2.16	7"	H-6203	2.38
6204	G-6204	2.76	8¾"	H-6204	3.04
6205	G-6205	3.15	10½"	H-6205	3.47
6206	G-6206	3.57	12¼"	H-6206	3.93
6207	G-6207	4.35	14"	H-6207	4.79
6208	G-6208	4.95	15¾"	H-6208	5.45
6209	G-6209	5.40	17½"	H-6209	5.94
6210	G-6210	6.09	19¼"	H-6210	6.70
6211	G-6211	6.60	21"	H-6211	7.26

30" WIDE PANELS — ⅛" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6301	G-6301	$2.10	3½"	H-6301	$2.31
6302	G-6302	2.55	5¼"	H-6302	2.81
6303	G-6303	3.00	7"	H-6303	3.30
6304	G-6304	3.60	8¾"	H-6304	3.96
6305	G-6305	3.99	10½"	H-6305	4.39
6306	G-6306	4.71	12¼"	H-6306	5.18
6307	G-6307	5.37	14"	H-6307	5.91
6308	G-6308	6.00	15¾"	H-6308	6.60
6309	G-6309	6.72	17½"	H-6309	7.39
6310	G-6310	7.44	19¼"	H-6310	8.18
6311	G-6311	8.16	21"	H-6311	8.98

STANDARD ALUMINUM BLANK PANELS

These aluminum panels are made from No. 30 H14 aluminum alloy, caustic etched for prop paint adhesion. Panels 24" or 30" wide, made fr ³⁄₁₆" aluminum, are available on order.

19" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6675	G-6675	$ .96	1¾"	H-6675	$1.05
6676	G-6676	1.35	3½"	H-6676	1.47
6677	G-6677	1.86	5¼"	H-6677	2.04
6678	G-6678	2.37	7"	H-6678	2.61
6679	G-6679	2.88	8¾"	H-6679	3.15
6680	G-6680	3.42	10½"	H-6680	3.75
6681	G-6681	3.89	12¼"	H-6681	4.26
6682	G-6682	4.56	14"	H-6682	5.01
6683	G-6683	5.13	15¾"	H-6683	5.64
6684	G-6684	5.60	17½"	H-6684	6.15
6685	G-6685	6.27	19¼"	H-6685	6.90
6686	G-6686	6.87	21"	H-6686	7.56

24" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6276	G-6276	$2.28	3½"	H-6276	$2.51
6277	G-6277	3.00	5¼"	H-6277	3.30
6278	G-6278	3.81	7"	H-6278	4.19
6279	G-6279	4.74	8¾"	H-6279	5.21
6280	G-6280	5.73	10½"	H-6280	6.30
6281	G-6281	6.66	12¼"	H-6281	7.33
6282	G-6282	7.62	14"	H-6282	8.38
6283	G-6283	8.58	15¾"	H-6283	9.44
6284	G-6284	9.54	17½"	H-6284	10.49
6285	G-6285	10.47	19¼"	H-6285	11.52
6286	G-6286	11.40	21"	H-6286	12.54

30" WIDE PANELS — ⅛" ALUMINUM

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6376	G-6376	$2.73	3½"	H-6376	$3.00
6377	G-6377	3.96	5¼"	H-6377	4.36
6378	G-6378	5.19	7"	H-6378	5.71
6379	G-6379	6.42	8¾"	H-6379	7.06
6380	G-6380	7.65	10½"	H-6380	8.42
6381	G-6381	8.88	12¼"	H-6381	9.77
6382	G-6382	10.11	14"	H-6382	11.12
6383	G-6383	11.34	15¾"	H-6383	12.47
6384	G-6384	12.57	17½"	H-6384	13.83
6385	G-6385	13.80	19¼"	H-6385	15.18
6386	G-6386	15.00	21"	H-6386	16.50

19" WIDE PANELS — ³⁄₁₆" ALUMINUM

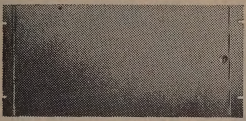
Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
6675-3	G-6675-3	$1.65	1¾"	H-6675-3	$1.74
6676-3	G-6676-3	2.28	3½"	H-6676-3	2.40
6677-3	G-6677-3	3.36	5¼"	H-6677-3	3.54
6678-3	G-6678-3	4.14	7"	H-6678-3	4.38
6679-3	G-6679-3	5.16	8¾"	H-6679-3	5.43
6680-3	G-6680-3	6.18	10½"	H-6680-3	6.51
6681-3	G-6681-3	7.20	12¼"	H-6681-3	7.59
6682-3	G-6682-3	8.22	14"	H-6682-3	8.64
6683-3	G-6683-3	9.30	15¾"	H-6683-3	9.78
6684-4	G-6684-3	10.35	17½"	H-6684-3	10.89
6685-3	G-6685-3	11.40	19¼"	H-6685-3	12.00
6686-3	G-6686-3	12.60	21"	H-6686-3	13.26

PAR-METAL PRODUCTS CORP. • Long Island City 3, N.Y.

PAR-METAL RACK PANELS 19" & 24" WIDE

(FOR FURTHER DESCRIPTION, SEE PRECEDING PAGE)

SIDE HINGED BLANK PANELS ⅛" STEEL 19" WIDE



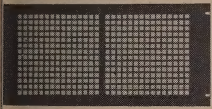
ese door panels are made from ⅛" steel, hinged at the
les with a cowl type fastener to hold the door closed.

ay be mounted on racks with hinges on right or left side.
ear opening (width) is 15¾".

andard finishes are black wrinkle, blue grey wrinkle, or
ooth grey hammertone enamel. Primer coat only is
ailable at hammertone price.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
HP-350	GP-350	$3.15	3½"	HA-350	$3.37
HP-525	GP-525	3.27	5¼"	HA-525	3.60
HP-700	GP-700	3.57	7"	HA-700	3.93
HP-875	GP-875	3.84	8¾"	HA-875	4.22
HP-1050	GP-1050	4.14	10½"	HA-1050	4.56
HP-1225	GP-1225	4.41	12¼"	HA-1225	4.85
HP-1400	GP-1400	4.77	14"	HA-1400	5.25
HP-1750	GP-1750	6.90	17½"	HA-1750	7.59
HP-2100	GP-2100	7.50	21"	HA-2100	8.25

GRILLE PANELS 19" WIDE — ⅛" STEEL

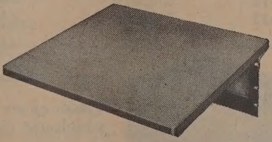


This modern type ventilating grille panel is stamped into the panel itself; it is not a pieced assembly.

Black Wrinkle Cat. No.	Grey Wrinkle Cat. No.	Net Price	Panel Size	Grille Size	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-661	G-661	$2.94	5¼"	3⅜x14⅜"	H-661	$3.23
P-662	G-662	3.24	7"	4⅞x14⅜"	H-662	3.56
P-663	G-663	3.87	8¾"	6⅞x14⅜"	H-663	4.26
P-664	G-664	3.54	8¾"	*3⅞x14⅜"	H-664	3.89
P-665	G-665	4.29	10½"	8⅜x14⅜"	H-665	4.72
P-666	G-666	4.02	10½"	*5⅞x14⅜"	H-666	4.42
P-667	G-667	4.35	12¼"	*7⅜x14⅜"	H-667	4.79

* Allows 3½" space at bottom for chassis mounting.

STANDARD DESK PANELS

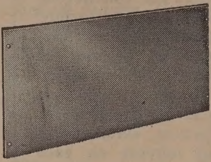


ese standard tables are
gidly made of 1/16" thick
rniture steel. The round-
front corners are of
amless construction and
e flanges of the shelf are
lded in to provide smooth
ges underneath.

ey are securely mounted to regular ⅛" steel panels,
e 10½ x 19". They may be obtained in two sizes and
ishes as listed below. The tables are 22" wide to give
ll working space across the front of the racks when
ounted in place. Shipping weight is 25 lbs.

Cat. No.	Width	Depth	Finish	Net Price
BT-2216	22"	16"	Black enamel	$15.45
GT-2216	22"	16"	Blue Grey enamel	15.45
HT-2216	22"	16"	Grey Hammertone	17.00
BT-2220	22"	20"	Black enamel	16.95
GT-2220	22"	20"	Blue Grey enamel	16.95
HT-2220	22"	20"	Grey Hammertone	18.65

FORMED BLANK PANELS



These panels are made from 1/16" thick steel, with formed edges to make an overall thickness of 7/16". They are made 19" and 24" wide, with mounting holes on standard centers to fit relay racks.

In addition to standard finishes listed, primer coat only can be supplied at same cost as hammertone enamel.

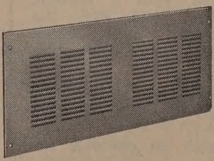
19" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-601	G-601	$1.38	3½"	H-601	$1.52
P-602	G-602	1.56	5¼"	H-602	1.72
P-603	G-603	1.83	7"	H-603	2.01
P-604	G-604	2.19	8¾"	H-604	2.39
P-605	G-605	2.46	10½"	H-605	2.71
P-606	G-606	2.88	12¼"	H-606	3.17
P-607	G-607	3.24	14"	H-607	3.56
P-608	G-608	3.72	15¾"	H-608	4.09
P-609	G-609	4.11	17½"	H-609	4.52
P-610	G-610	4.53	19¼"	H-610	4.98
P-611	G-611	4.95	21"	H-611	5.45

24" WIDE FORMED PANELS — 1/16" STEEL

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
P-641	G-641	$1.95	3½"	H-641	$2.15
P-642	G-642	2.37	5¼"	H-642	2.61
P-643	G-643	2.85	7"	H-643	3.14
P-644	G-644	3.42	8¾"	H-644	3.76
P-645	G-645	3.78	10½"	H-645	4.16
P-646	G-646	4.14	12¼"	H-646	4.55
P-647	G-647	4.62	14"	H-647	5.08
P-648	G-648	5.22	15¾"	H-648	5.74
P-649	G-649	5.82	17½"	H-649	6.40
P-650	G-650	6.45	19¼"	H-650	7.10
P-651	G-651	7.02	21"	H-651	7.72

19" WIDE FORMED PANELS — 1/16" STEEL VENTILATED TYPE

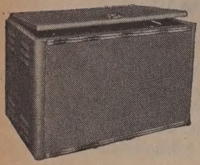


These are standard formed panels with louvre type ventilation as shown above. Primer coat only available at same price as hammertone. Same panels can be supplied in 24" width if required.

Black Wrinkle Cat. No.	Blue Grey Wrinkle Cat. No.	Net Price	Panel Height	Grey Hammertone Cat. No.	Grey Hammertone Net Price
PV-603	GV-603	$3.45	7"	HV-603	$3.80
PV-604	GV-604	3.90	8¾"	HV-604	4.29
PV-605	GV-605	4.29	10½"	HV-605	4.72
PV-606	GV-606	4.86	12¼"	HV-606	5.35
PV-608	GV-608	5.70	15¾"	HV-608	6.27
PV-611	GV-611	7.56	21"	HV-611	8.32

PAR-METAL — DESK CABINETS — AMPLIFIER CHASSIS

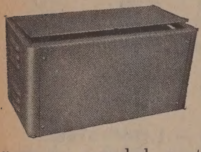
DELUXE TYPE CABINETS



These cabinets make attractive housings for commercial and amateur use. The formed type door, with modern handle, is **hinged at the back** for full access to the interior. Chrome finished mouldings are mounted on the front at top and bottom. Cabinet has ventilating louvres **on each side**, and full width opening at back for leads, etc. Standard finish is blue grey ripple enamel. Prices do not include chassis which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-300	9x12⅛x 8"	8½x10"	7x 9x2"	6	$ 7.95
CA-301	9x16⅛x 8"	8½x14"	7x13x2"	7	9.00
CA-302	10x17⅛x11"	9½x15"	10x14x3"	8	12.15
CA-303	10x20⅛x 9"	9½x18"	8x17x3"	11	12.15
CA-304	13x20⅛x12"	12½x18"	10x17x3"	15	13.65

ROUNDED CORNER TYPE CABINETS



Standard type cabinets are similar in design to those listed above. They have **flat type doors**, hinged at back to permit full access to the interior. The vertical front corners are rounded; ventilating louvres are stamped in both sides, and full width opening is provided at the back for leads. Standard finish is blue grey ripple enamel. Prices do not include chassis, which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	Panel Size	For Chassis	Shp. Wt. Lbs.	Net Price
CA-200	8½x10⅛x 8"	8½x 8"	7x 7x2"	6	$ 5.85
CA-201	8½x12⅛x 8"	8½x10"	7x 9x2"	7	6.30
CA-202	8½x16⅛x 8"	8½x14"	7x13x2"	8	7.65
CA-203	9½x17⅛x11"	9½x15"	10x14x3"	11	10.05
CA-204	12½x20⅛x12"	12½x18"	10x17x3"	15	11.85

SLOPING FRONT CABINETS

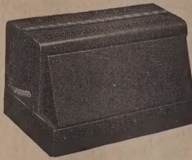
May be readily adapted as instrument cases for use in studios, laboratories, etc.

- Top corner is rounded and trimmed with a chrome moulding, and with the blue grey ripple finish makes a very attractive case.
- A chassis may be mounted to a front panel and removed as a unit.
- Rear of case is ventilated, with an opening for connections.
- Prices do not include chassis, which are listed on PAR METAL Page 21.

Catalog No.	Overall Dimensions	For Chassis	Shp. Wt. Lbs.	Net Price
SF-500	8x 8x 8"	7x 7x2"	6	$ 5.70
SF-501	8x10x 8"	7x 9x2"	7	6.30
SF-502	8x14x 8"	7x13x2"	8	6.75
SF-503	9x18x 8"	7x17x3"	10	8.40
SF-504	12x18x12"	10x17x3"	14	10.20

AMPLIFIER FOUNDATION CHASSIS

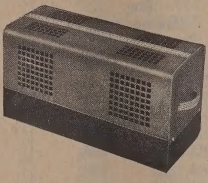
SLOPING FRONT TYPE



These amplifier foundations
useful where a sloping panel
desirable for mounting meters,
This panel is removeable and p
trudes 3" from the face of
screen cover. All parts are finis
in blue grey ripple enamel, trimm
with a chrome finished mould
and handles at each end. Chas
are supplied WITH bottom plat

Cat. No.	Chassis Size	Screen Cover	Shp. Wt. Lbs.	Net Pric
F-10120	10x12x3"	6½" high	11	$ 9.15
F-10170	10x17x3"	6½" high	13	10.80
F-13170	13x17x3"	6½" high	15	11.85

ROUNDED CORNER TYPE



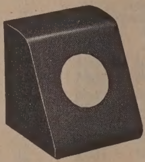
Rounded corners effectively strea
line the screen covers of these ch
sis. Ventilation is obtained throu
rectangular screen openings. T
moulding and handles, finished
chrome with red striping, gives t
units a distinctive, modern desig

The screen cover is finished in b
grey ripple enamel to contrast w
the black chassis. Chassis are dril
for bottom plates, which are listed on PAR METAL Page

Cat. No.	Chassis Size	Depth of Cover	Shp. Wt. Lbs.	Net Pric
DF-510	5x10x3"	6"	7	$5.10
DF-615	6x14x3"	6"	8	5.67
DF-717	7x17x3"	6"	9	6.57
DF-1012	10x12x3"	6"	9	6.57
DF-1017	10x17x3"	6"	10	7.35
DF-1317	13x17x3"	6"	12	8.76

UTILITY CASES & CANS

STEEL METER CASES

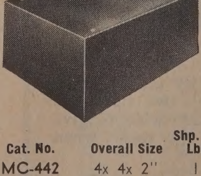


These meter cases may be obtained for
and 3" meters, in both single and tri
units.

They are substantially made of steel, w
welded joints, and black ripple enamel fin
Top front corner is rounded.

Cat. No.	Meters	Meter Hole	Shp. Wt. Lbs.	Net Pric
SM-12	Single 2"	2¼"	1	$1.32
SM-32	Three 2"	2¼"	2	3.00
SM-13	Single 3"	2$\frac{13}{16}$"	1	1.32
SM-33	Three 3"	2$\frac{13}{16}$"	2	3.00

STEEL UTILITY CASES



These cases have flat tops and botto
which are removable.

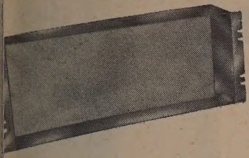
Made from 20 gauge sheet steel, w
flanged edges and spot-welded corne
Finished in black ripple enamel.

Cat. No.	Overall Size	Shp. Wt. Lbs.	Net Price	Cat. No.	Overall Size	Shp. Wt. Lbs.	N Pr
MC-442	4x 4x 2"	1	$1.11	MC-8101	8x10x10"	7	$3
MC-453	4x 5x 3"	2	1.32	MC-8107	8x10x 7"	6	3
MC-596	5x 9x 6"	4	2.52	MC-1128	11x12x 8"	9	4
MC-654	6x 5x 4"	3	1.47	MC-1597	15x 9x 7"	8	4
MC-666	6x 6x 6"	3	2.04				

PAR-METAL BLANK CHASSIS BASES

VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS



These chassis are fabricated from 1/16" **thick aluminum** with etched finish, or 1/16" **thick steel, zinc** plated. Overall length including mounting flanges is 18¾". They are designed to mount under 19" wide formed panels listed on PAR METAL Page 19. The 4 15/16" height is for use with 5¼" high panels, 6 11/16" for 7" high panels, etc.

Additional slots are provided in chassis side flanges to clear panel attachment screws. Although chassis are 18¾" overall width, they will fit on any relay rack.

ALUMINUM Cat. No.	Net Price	Chassis Dimensions	STEEL Cat. No.	Net Price
AC-402	$3.98	4-15/16"x17"x3"	SC-402	$3.06
AC-403	4.54	6-11/16"x17"x3"	SC-403	3.45
AC-404	5.10	8- 7/16"x17"x3"	SC-404	3.84
AC-405	5.64	10- 3/16"x17"x3"	SC-405	4.23
AC-406	6.30	11-15/16"x17"x3"	SC-406	4.59

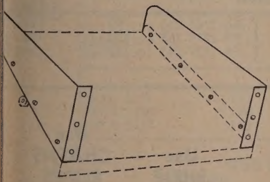
VERTICAL RACK MOUNTING CHASSIS

TO FIT 19" STANDARD RACKS

These chassis are suitable for installation in all cabinet relay racks. They may also be used on Deluxe channel racks listed on PAR-METAL Page 16. Material used is 1/16" aluminum, with corners welded for added rigidity. Etched finish on inside and outside. All chassis are 5¼" deep; overall width is 19"; chassis width inside is 16⅞".

Catalog No.	Height	Shipping Wt. Lbs.	Net Price
AC-430	1¾"	2	$2.70
AC-431	3½"	3	3.09
AC-432	5¼"	3	3.51
AC-433	7"	4	3.90
AC-434	8¾"	5	4.29
AC-435	10½"	5	4.80
AC-436	12¼"	6	5.46
AC-437	14"	7	5.97

PANEL MOUNTING BRACKETS FOR BASIC SLIDE ASSEMBLIES



These brackets are useful for attaching rack panels to the sliding shelves of our series "BS" basic slide assemblies listed on Par-Metal page 9. Special short screws and nuts are supplied for mounting brackets which assures free movement of the shelf after assembly.

Brackets are made from 1/16" steel, zinc plated. Brackets are 6½" high at front, and 3½" at back. Front flange is 9/16" wide. Made in two lengths, for 14" and 20" deep shelf assemblies. Price listed below is for one pair of brackets, with mounting screws and nuts.

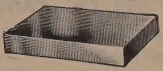
Cat. No.	Length	To Fit Assembly	Net Price
BR-14	14¼"	BS-1980	$2.55 pair
BR-20	20¼"	BS-1940, 2419, 2424	3.45 pair

SHELVES FOR CABINET RACKS

These shelves are designed to fit into the various type "A" enclosed racks listed in this catalog. They are constructed to be mounted inside the rack, with side bolt mounting. All shelves are 1" high, and finished in black ripple enamel. Shipping weight of all shelves is 10 lbs.

Catalog No.	Will Fit Rack No.	Par-Metal Rack Page No.	Shelf Size	Net Price
ER-2112	ER-213, ER-215, ER-217	15	13"x21 15/16"	$3.60
R-2215	FD-215, FD-217	15	10⅝"x21 15/16"	3.60
ER-2212	ER-223, ER-225, ER-227-A	14	15"x21 15/16"	3.60
R-2128	DL-1713, 2613, 3513	16	12"x21 3/16"	2.94

CHASSIS



Stamped from one piece of cold rolled steel zinc-plated, and have four solid sides with welded corners. Bottom edges are flanged in on four sides to provide additional reinforcement, and they are drilled for bottom plates. The chassis are made from #20 gauge steel, except those marked (*) which are stamped from 1/16" steel for heavy-duty use.

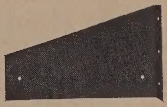
Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
C-4508	5 x 10 x 3"	3	$1.38
C-4510	7 x 7 x 2"	2	1.08
C-4511	7 x 9 x 2"	2	1.29
C-4513	7 x 13 x 2"	3	1.56
C-4515	7 x 17 x 3"	4	1.98
C-4532	8 x 17 x 3"	5	1.98
C-4524	10 x 14 x 3"	5	2.01
C-4526	10 x 17 x 3"	7	2.22
C-4533*	11 x 17 x 2"	7	2.91
C-4534*	11 x 17 x 3"	9	3.18
C-4535*	13 x 17 x 2"	8	3.12
C-4536*	13 x 17 x 3"	9	3.51
C-4537*	13 x 17 x 4"	10	3.87
C-4540*	17 x 17 x 4"	13	4.65

BOTTOM PLATES

These bottom plates have holes to match the standard type chassis listed above, and also have pressed bumpers at the four corners.

Cat. No. Zinc Plated	Size	Shp. Wt. Lbs.	Net Price
CP-4508	5 x 10"	1	$ .48
CP-4510	7 x 7"	1	.57
CP-4511	7 x 9"	1	.66
CP-4513	7 x 13"	2	.75
CP-4515	7 x 17"	2	.87
CP-4531	8 x 17"	2	.90
CP-4524	10 x 14"	2	.90
CP-4528	10 x 17"	2	1.08
CP-4533	11 x 17"	2	1.05
CP-4535	13 x 17"	3	1.26
CP-4540	17 x 17"	4	1.71

CHASSIS MOUNTING BRACKETS



These brackets are made for assembly with our standard or heavy duty type chassis listed directly above. Panels must be at least 7" high.

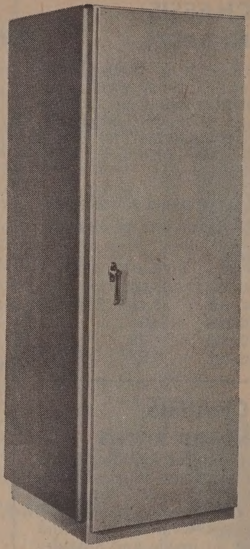
FINISH: Black enamel only. They are made from 1/16" thick steel. Cat. Nos. SB-78 thru SB-713 Chassis Mounting Brackets are to be used with the stipulated size base only. Cat. No. SB-717 is used for 17" Bases and larger sizes.

Cat. No.	Base Dimension	Shp. Wt. Lbs.	Net Price
SB- 78	For 8"	2	$1.05
SB-710	For 10"	2	1.23
SB-711	For 11"	2	1.32
SB-713	For 13"	3	1.50
SB-717	For 17"	4	2.31

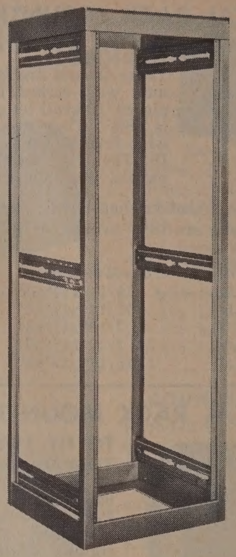
PREM-O-RAK® MODULAR Rounded Corner FRAMES

22″ and 25½″ DEEP for 19″ and 24″ PANELS

- **Designed for MULTIPLE INSTALLATIONS.**
- **TOPS OF FRONT AND REAR ARE ROUNDED.**
- **Frames accommodate Ball Cornered End Panels (CEP Series)**
- Frame Made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜″ carriage bolts and are adjustable to any desired position by means of channel slides.
- Three combination 1⅜″ and 1⅛″ diameter knockouts furnished on both sides of top and bottom to provide access for cabling between racks.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2″), CA-5 (3″) and CA-6 (double 2″) casters.
- Finished in Gray Hammertone.



Above unit consists of Frame FA Series), 2 End Panels (CEP Series) and Door (DF Series).



FA FRAME

**Above unit cons
of Frame (FA Seri
2 End Panels (
Series), Flush D
(CD Series), Louv
Panel (FPL Ser
and Formed Pa
(FP Series)**

FRAMES — 22″ WIDE

22″ DEEP					25½″ DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-42-22	50	$78.00	48⅝″	42 x 19″	FA-42-255	58	$81.96
FA-52-22	65	84.60	59⅛″	52½ x 19″	FA-52-255	75	88.80
FA-61-22	80	95.85	67⅞″	61¼ x 19″	FA-61--255	92	105 60
FA-70-22	100	112.44	76⅝″	70 x 19″	FA-70-255	115	123.60
FA-77-22	110	115.59	83⅝″	77 x 19″	FA-77-255	127	127.20

FRAMES — 27″ WIDE

Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
FA-2761-22	90	105.00	67⅞″	61¼ x 24″	FA-2761-255	98	114.60
FA-2770-22	110	123.60	76⅝″	70 x 24″	FA-2770-255	123	135.60
FA-2777-22	120	126.00	83⅝′	77 x 24″	FA-2777-255	135	138.00

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 12) Cat. No.	Use DOOR (Page 12) Cat. No.	Use CHASSIS SUPPORT ANGLE (Page 13) Cat. No.	Use SHELF (Page 13) Cat. No.	Use CHASSIS SLIDES (Pages 26 & 27) Length
FA-42-22	CEP-42-22	DF-42	CSA-22	S-22-22	20″
FA-52-22	CEP-52-22	DF-52	CSA-22	S-22-22	20″
FA-61-22	CEP-61-22	DF-61	CSA-22	S-22-22	20″
FA-70-22	CEP-70-22	DF-70	CSA-22	S-22-22	20″
FA-77-22	CEP-77-22	DF-77	CSA-22	S-22-22	20″
FA-42-255	CEP-42-255	DF-42	CSA-255	S-22-255	24″
FA-52-255	CEP-52-255	DF-52	CSA-255	S-22-255	24″
FA-61-255	CEP-61-255	DF-61	CSA-255	S-22-255	24″
FA-70-255	CEP-70-255	DF-70	CSA-255	S-22-255	24″
FA-77-255	CEP-77-255	DF-77	CSA-255	S-22-255	24″
FA-2761-22	CEP-61-22	DF-2761	CSA-22	S-27-22	20″
FA-2770-22	CEP-70-22	DF-2770	CSA-22	S-27-22	20″
FA-2777-22	CEP-77-22	DF-2777	CSA-22	S-27-22	20″
FA-2761-255	CEP-61-255	DF-2761	CSA-255	S-27-255	24″
FA-2770-255	CEP-70-255	DF-2770	CSA-255	S-27-255	24″
FA-2777-255	CEP-77-255	DF-2777	CSA-255	S-27-255	24″

ALL PRICES F.O.B. N. Y. 59, N. Y.

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FA

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

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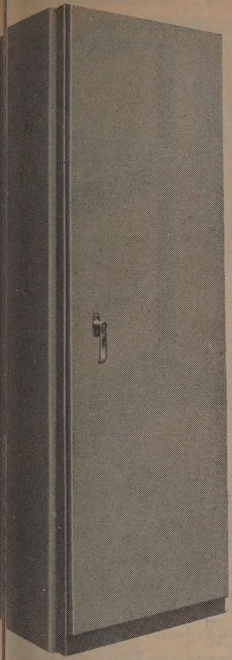
PREMIER MODULAR Square Cornered FRAMES

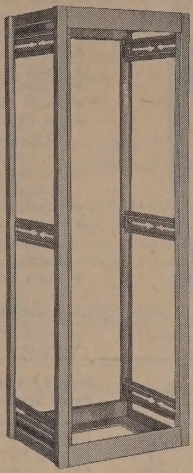
18" and 24" DEEP For 19", 24" and 30" PANELS



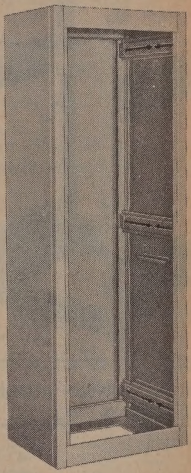
ve unit consists of Frame (PRXA
s), Rounded Side Panels (SP
s) and Door (DF Series)

- **DESIGNED FOR MULTIPLE INSTALLATIONS**
- **TOPS of FRONT and REAR are SQUARE**
- **FRAMES ACCOMMODATE FLUSH SIDE PANELS (FL Series) or ROUNDED SIDE PANELS (SP Series)**

- Frame made of No. 14 gauge steel.
- Supplied with two pair of No. 12 gauge steel Panel Mounting Angles. Both legs of the angle are tapped 10-32 on E.I.A. spacings (⅝-⅝-½) to accommodate Front Panels & Chassis Support Angles (CSA series).
- Panel mounting angles are held in place at three points by ⅜" carriage bolts and are adjustable to any desired position by means of channel slides.
- Frame completely welded throughout.
- Top of frame is solid. Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Knockouts supplied on sides of uprights for use in ganging frames.
- A rectangular cutout is provided in bottom for leads, etc.
- Rectangular knockouts provided on front and rear of uprights of frame to accommodate hinge and handle brackets, so that door can be mounted either left or right hand. Doors can be mounted to front or rear of frame.
- Holes punched in bottom to accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- Finished in Gray Hammertone.



PRXA FRAME



Above unit consists of Frame (PRXA Series), Flush Side Panels (FL Series) and Door (DF Series)

RAMES

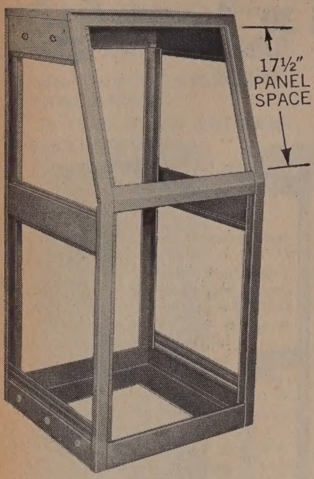
18" DEEP			22" WIDE		24" DEEP		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	Panel Space	Cat. No.	Shpg. Wt. Lbs.	Net Price
PRXA-42	48	$46.80	48⅛"	42 x 19"	PRXA-42-24	58	$70.80
PRXA-52	60	57.60	58⅝"	52½ x 19"	PRXA-52-24	72	78.00
PRXA-61	70	71.70	67⅜"	61¼ x 19"	PRXA-61-24	85	99.54
PRXA-70	88	86.76	76⅛"	70 x 19"	PRXA-70-24	108	118.56
PRXA-77	100	88.56	83⅛"	77 x 19"	PRXA-77-24	120	126.00
			27" WIDE				
PRXA-2761	100	80.58	67⅜"	61¼ x 24"	PRXA-2761-24	134	112.38
PRXA-2770	104	95.58	76⅛"	70 x 24"	PRXA-2770-24	140	123.00
PRXA-2777	116	100.20	83⅛"	77 x 24"	PRXA-2777-24	156	128.76
			33" WIDE				
PRXA-3361	122	85.56	67⅜"	61¼ x 30"	PRXA-3361-24	162	118.80
PRXA-3370	126	109.14	76⅛"	70 x 30"	PRXA-3370-24	169	140.64
PRXA-3377	142	110.76	83⅛"	77 x 30"	PRXA-3377-24	190	143.52

ORDERING GUIDE

	USE EITHER ROUNDED SIDE PANEL (Page 12)	OR FLUSH SIDE PANEL (Page 12)	Use DOOR (Page 12)	Use CHASSIS SUPPORT ANGLE (Page 13)	Use SHELF (Page 13)	Use CHASSIS SLIDES (Pages 26 & 27)
RAME t. No.	Cat. No.	Cat. No.	Cat. No.			
A-42	SP-42	FL-42	DF-42	CSA-18	S-2218	16"
A-52	SP-52	FL-52	DF-52	CSA-18	S-2218	16"
A-61	SP-61	FL-61	DF-61	CSA-18	S-2218	16"
A-70	SP-70	FL-70	DF-70	CSA-18	S-2218	16"
A-77	SP-77	FL-77	DF-77	CSA-18	S-2218	16"
A-42-24	SP-42-24	FL-42-24	DF-42	CSA-24	S-2224	22"
A-52-24	SP-52-24	FL-52-24	DF-52	CSA-24	S-2224	22"
A-61-24	SP-61-24	FL-61-24	DF-61	CSA-24	S-2224	22"
A-70-24	SP-70-24	FL-70-24	DF-70	CSA-24	S-2224	22"
A-77-24	SP-77-24	FL-77-24	DF-77	CSA-24	S-2224	22"
A-2761	SP-61	FL-61	DF-2761	CSA-18	S-2718	16"
A-2770	SP-70	FL-70	DF-2770	CSA-18	S-2718	16"
A-2777	SP-77	FL-77	DF-2777	CSA-18	S-2718	16"
A-2761-24	SP-61-24	FL-61-24	DF-2761	CSA-24	S-2724	22"
A-2770-24	SP-70-24	FL-70-24	DF-2770	CSA-24	S-2724	22"
A-2777-24	SP-77-24	FL-77-24	DF-2777	CSA-24	S-2724	22"
A-3361	SP-61	FL-61	DF-3361	CSA-18	S-3318	16"
A-3370	SP-70	FL-70	DF-3370	CSA-18	S-3318	16"
A-3377	SP-77	FL-77	DF-3377	CSA-18	S-3318	16"
A-3361-24	SP-61-24	FL-61-24	DF-3361	CSA-24	S-3324	22"
A-3370-24	SP-70-24	FL-70-24	DF-3370	CSA-24	S-3324	22"
A-3377-24	SP-77-24	FL-77-24	DF-3377	CSA-24	S-3324	22"

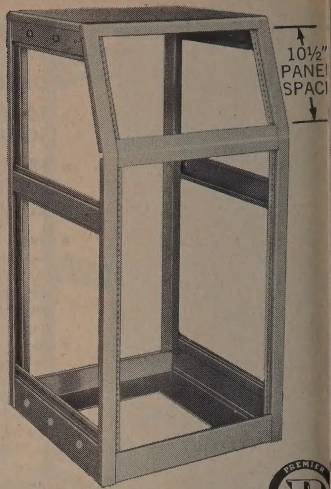
PRICES F.O.B. N. Y. 59, N. Y. **PREMIER PAGE 7** **SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS**

PREM-O-RAK® MODULAR CONSOLE SYSTEM



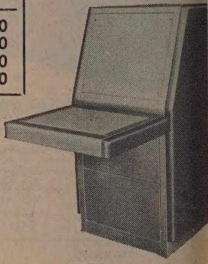
10½" and 17½" SLOPED FRONT CONSOLE FRAMES FOR 19" and 24" PANELS

- TOPS OF FRONT AND REAR ARE ROUNDED
- Frames accommodate Ball Cornered End Panels (CEP Series)
- Designed for Multiple Installations
- Made of No. 14 Gauge Steel
- Sloped Front Is 19° from Vertical
- Frame Completely Welded Throughout
- All Panel Mounting Angles Are Made of No. 12 Gauge Steel and Tapped on both legs 10/32 on E.I.A. Spacings (⅝-⅝-½) Front and Rear Vertical Angles Are Adjustable to Any Desired Position.
- Panels Fit Into ½" Recess
- Combination 1⅜" and 1⅛" Diameter Knockouts on Top and Bottom to Provide Access for Cabling Between Racks.
- Holes Punched in Bottom to Accommodate CA-4 (2"), CA-5 (3") and CA-6 (double 2") casters.
- A Rectangular Cutout Is Provided in Bottom for Leads, etc.
- Finished in Gray Hammertone.



Cat. No.	Width	Height	Depth*	Sloped Front Panel Space	Front Vertical Space	Rear Vertical Space	Ship. Wt. Lbs.	Net Price
FS-1001	22"	50"	22"	17½ x 19"	26¼ x 19"	42 x 19"	66	**$80.40**
FS-1002	22"	47"	22"	10½ x 19"	29¾ x 19"	42 x 19"	64	**78.00**
FS-1003	27"	50"	22"	17½ x 24"	26¼ x 24"	42 x 24"	76	**88.20**
FS-1004	27"	47"	22"	10½ x 24"	29¾ x 24"	42 x 24"	74	**86.40**

*Also available 25½" deep



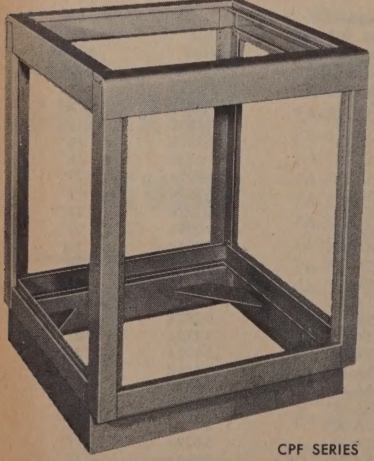
Above unit consists of Frame (FS Series 2 End Panels (CEP-1201 Series), Writin Work Shelf (WW Series) and 2 En Panels (CEP Series) for shelf.

ORDERING GUIDE

FRAME Cat. No.	USE END PANEL (Page 12) Cat.No.	USE REAR DOOR (Page 9) Cat. No.	USE SHELF (Page 10) Cat. No.	USE CHASSIS SLIDES (Pages 26 & 27) Length
FS-1001	CEP-1201 (LH and/or RH)	CD-42	SH-101	20"
FS-1002	CEP-1202 (LH and/or RH)	CD-42	SH-101	20"
FS-1003	CEP-1201 (LH and/or RH)	CD-4224	SH-102	20"
FS-1004	CEP-1202 (LH and/or RH)	CD-4224	SH-102	20"

CONSOLE PEDESTAL FRAMES

PREM-O-RAK®



CPF SERIES

- TOPS OF FRONT AND REAR ARE ROUNDED.
- Frames accommodate Ball Cornered End Panel (CEP Series).
- Units are designed for multiple installation.
- Adjustable panel mounting angles front and rear are tapped on both legs for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into ½" recess.
- Two rectangular knockouts supplied o one top cross member to accommodat channels of Writing Work Shelf.
- Brackets welded in base and punched accommodate CA-5 (3") casters and su plied with adapter to accommodate CA (2") casters.
- Frame made of No. 16 gauge steel; pan mounting angles of 12 gauge steel.
- Finished in Gray Hammertone.

Cat. No.	Width	Depth	Height with Casters	Height without Casters	Front & Rear Panel Space	Top Panel Space	Shpg. Wt. Lbs.	Net Pric
CPF-101	22"	22"	30"	29½"	21 x 19"	17½ x 19"	45	$56.0
CPF-102	22"	22"	37"	36½"	28 x 19"	17½ x 19"	48	64.2
CPF-103	27"	22"	30"	29½"	21 x 24"	17½ x 24"	50	63.0
CPF-104	27"	22"	37"	36½"	28 x 24"	17½ x 24"	53	72.0
CPF-101-34	22"	34¼"	30"	29½"	21 x 19"	29¾ x 19"	54	78.0

ORDERING GUIDE

FRAME Cat. No.	Use END PANEL (Page 12) Cat. No.	Use DOOR (Page 9) Cat. No.	Use SHELVES (Page 10) Cat. No.	Use CHASSIS (Pages 26 & 27 Length
CPF-101	CEP-401	CD-21	SH-101	20"
CPF-102	CEP-402	CD-28	SH-101	20"
CPF-103	CEP-401	CD-2124	SH-102	20"
CPF-104	CEP-402	CD-2824	SH-102	20"
CPF-101-34	CEP-401-34	CD-21	SH-103	—

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS & FANS

PREMIER PAGE 8

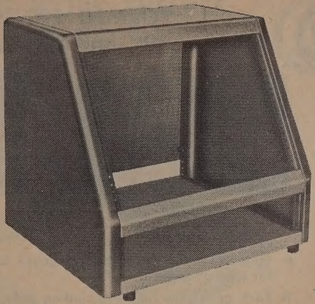
ALL PRICES F.O.B. N. Y. 59, N. Y

PREM-Ō-RAK MODULAR CONSOLE SYSTEM

CONSOLE SLOPING CABINET

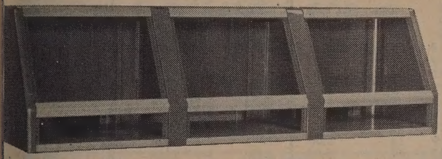
DIMENSIONS

Width — 21¾″
Depth — 18″
Height — 18⅛″
lope — 30° from vertical
Upper panel space — 12¼″ x 19″
Lower panel space — 3½″ x 19″
Rear panel space — 15¾″ x 19″



Cat. No.	Ship. Wt. Lbs.	Net Price
CSC-201	35	$49.80

- BOTH FRONT AND REAR HAVE ATTRACTIVE BALL CORNERS
- Shipped knocked down with necessary hardware for easy assembly.
- All screws for assembling console are not visible from the outside.
- Both front and rear are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Interlocking removable rear panel made of perforated metal and held in place by four captive screws.
- Made of No. 16 gauge steel.
- Rear panel has 1¾″ opening on bottom for leads, etc.
- Panels fit into ½″ recess.
- Base has 6 knockouts for leads and furnished with 4 rubber feet.
- Components may be mounted on base before assembly of rack into a complete unit.
- May be used individually or in multiples.
- Handsomely finished in Two Tone Hammertone — Top, cross-piece and base are Gray Hammertone. Rear and side panels are Brown Hammertone.



ne Triple CSC-201 consists of one CSC-201 and two CMS-301

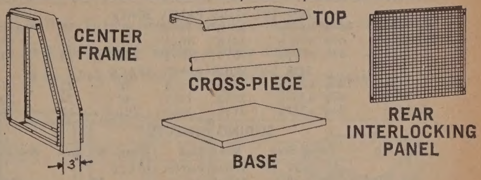
ESIGNED FOR MULTIPLE INSTALLATION

e PREM-O-RAK CONSOLE CABINETS can be joined together make multiple units by means of a center frame section ich is bolted to the top, cross-piece and base. When dering multiple units specify number of units, such as Double, iple, etc.

MULTIPLE SECTION for SLOPING CABINET

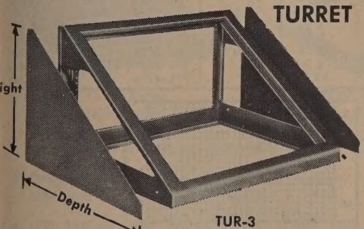
Catalog No.	Shipping Wt. Lbs.	Net Price
CMS-301	26	$30.00

EACH MULTIPLE SECTION comprises 5 pieces as shown:



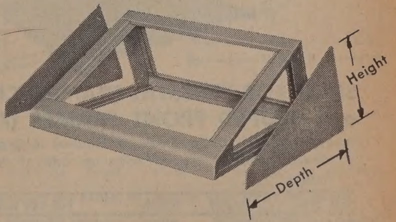
EXAMPLE:
One Double CSC-201 consists of one CSC-201 and one CMS-301
One Triple CSC-201 consists of one CSC-201 and two CMS-301

TURRET WITH FLAT SIDE PANELS



TUR-3

- Made of No. 16 gauge steel.
- All panel openings tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½).
- Panels fit into ½″ recess.
- Flat side panels are assembled at factory before shipping.
- Frame finished in Gray Hammertone. Side panels finished in Brown Hammertone.



TUR-1

Cat. No.	Width	Height	Depth	Sloped Front PanelSpace	Rear Panel Space	Bottom Panel Space	Ship. Wt. lbs.	Net Price
TUR-1	22″	9¾″	21″	14″ x 19″	7″ x 19″	14″ x 19″	25	$40.00
TUR-3	22″	12¼″	17½″	17½″ x 19″	8¾″ x 19″	17½″ x 19″	20	34.80

FLUSH DOORS — ½″ DEEP

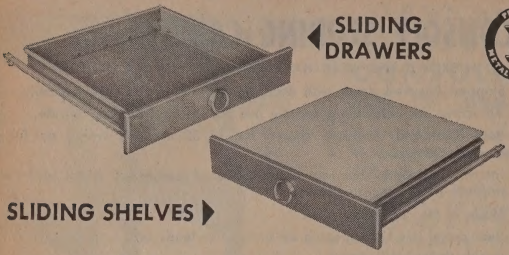
For Prem-O-Rak Console Frames CPF, FS, FA and PRXA Series (when used with other formed panels).

- Made of 16 gauge steel
- Finished in Gray or Brown Hammertone.
- Doors can be mounted either left or right hand by rotating door 180°.
- Hinge brackets are punched to accommodate panel mounting angles on cabinets.
- Furnished with attractive round chrome plated handle and snap catch.

Cat. No.	Height	Width	Shpg. Wt. Lbs.	Net Price
CD-17	17½″	19″	7	$11.34
CD-21	21″	19″	8	12.21
CD-26	26¼″	19″	9	13.74
CD-28	28″	19″	10	14.40
CD-29	29¾″	19″	11	15.00
CD-42	42″	19″	16	24.42
CD-1724	17½″	24″	8	13.62
CD-2124	21″	24″	9	14.64
CD-2824	28″	24″	12	17.28
CD-2924	29¾″	24″	13	18.00
CD-4224	42″	24″	17	30.00

ALL PRICES F.O.B. N. Y. 59, N. Y.

PREM-O-RAK® MODULAR CONSOLE SYSTEM



SLIDING DRAWERS

SLIDING SHELVES

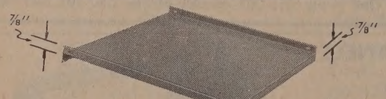
- Made of No. 16 gauge steel.
- Mounted on suspension slides, which sustain 46 lbs.
- Drawer extends 16″ from front of cabinet.
- Supplied with brackets for mounting to tapped holes of panel mounting angles.
- Furnished with attractive, round chrome-plated handle.
- Shipped knocked down with all necessary hardware for easy assembly.
- Will fit CPF series, 18″ deep POR series, FS series, FA & PRXA series(when used with other formed panels).
- Finished in Gray Hammertone.
- Sliding shelves supplied with Gray linen weave formica (2-C-1) on top surface.

SLIDING DRAWERS

Cat. No.	Panel Size	Drawer Size W	D	H	Shpg. Wt. Lbs.	Net Price
		FOR 19″ WIDE PANEL SPACE				
D-1916	10⅜″x18⅞″	16⅛″	16½″	6″	23	$18.00
D-2016	6⅞″x18⅞″	16⅛″	16½″	6″	22	17.25
D-2316	3⅜″x18⅞″	16⅛″	16½″	2 11/16″	16	16.25
		FOR 24″ WIDE PANEL SPACE				
D-2116	10⅜″x23⅞″	21⅛″	16½″	6″	25	21.60
D-2216	6⅞″x23⅞″	21⅛″	16½″	6″	24	20.70
D-2416	3⅜″x23⅞″	21⅛″	16½″	2 11/16″	17	18.00

SLIDING SHELVES

Cat. No.	Panel Size	Shelf Size	Shpg. Wt. Lbs.	Net Price
		FOR 19″ WIDE PANEL SPACE		
RDS-319-22	3⅜″x18⅞″	16⅛″x16⅛″	20	$33.00
		FOR 24″ WIDE PANEL SPACE		
RDS-324-22	3⅜″x23⅞″	21⅛″x16⅛″	22	42.00



SHELF FOR PEDESTAL FRAMES (CPF SERIES) and SLOPED FRONT FRAMES (FS SERIES)

- Made of No. 16 Ga. Steel
- Finished in Gray Hammertone
- Mounts to 10-32 tapped holes on side of Panel Mounting Angles.

Cat. No.	Depth	Width	For use with	Net Price
SH-101	20½″	20 7/16″	CPF-101, CPF-102 FS-1001, FS-1002	$9.00
SH-102	20½″	25 7/16″	CPF-103, CPF-104 FS-1003, FS-1004	10.20
SH-103	32¾″	20 7/16″	CPF-101-34	12.00

FORMICA WRITING PANELS

19″ and 24″ WIDE — ½″ THICK

Gray Linen Weave Pattern Formica bonded to plywood as top surface; Unfinished Formica bonded to bottom surface.

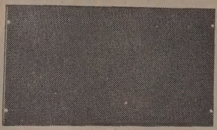
19″ WIDE

Cat. No.	Panel Space	Fits into	Net Price
FWP-1019	10½″ x 19″	WW-15-22 & WW-15-255	$6.60
FWP-1419	14″ x 19″	WW-18-22 & WW-18-255	8.40
FWP-1719	17½″ x 19″	WW-22-22 & WW-22-255, WTO-22-22 & Top Panel Space of CPF-101 and CPF-102	10.20

24″ WIDE

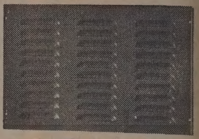
Cat. No.	Panel Space	Fits into	Net Price
FWP-1024	10½″ x 24″	WW-2715-22, WW-2715-255	$7.20
FWP-1424	14″ x 24″	WW-2718-22, WW-2718-255	9.00
FWP-1724	17½″ x 24″	WW-2722-22, WW-2722-255, WTO-27-22 & Top Panel Space of CPF-103 & CPF-104	10.80

FORMED PANELS — 19″ and 24″ WIDE



FP Series

BLANK



FPL Series

LOUVRED

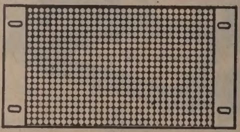
- Made of one piece of No. 16 gauge steel, with edges formed for overall depth of ½″.
- Each panel has only 2 mounting holes on each side.
- Finished in Gray or Brown Hammertone.

BLANK

19″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FP-119	1½	$1.10	1¾″	—	—	—
FP-319	2	$1.14	3½″	FP-324	3	$1.38
FP-519	2½	1.32	5¼″	FP-524	3½	1.56
FP-719	3	1.50	7″	FP-724	4	1.80
FP-819	4	1.83	8¾″	FP-824	5	2.22
FP-1019	5	2.25	10½″	FP-1024	6	2.70
FP-1219	6	2.61	12¼″	FP-1224	7	3.12
FP-1419	6½	2.94	14″	FP-1424	7½	3.54
FP-1519	7	3.39	15¾″	FP-1524	8	4.08
FP-1719	7½	3.75	17½″	FP-1724	8½	4.50
FP-1919	8	4.11	19¼″	FP-1924	9	4.92
FP-2119	9	4.50	21″	FP-2124	10	5.40
FP-2219	10	5.00	22¾″	FP-2224	11	6.00
FP-2619	11	5.55	26¼″	FP-2624	12	6.66
FP-2819	12	6.00	28″	FP-2824	13	7.20
FP-4219	18	10.00	42″	FP-4224	20	12.00

LOUVRED

19″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
FPL-719	3	3.15	7″	FPL-724	4	3.78
FPL-819	4	3.54	8¾″	FPL-824	5	4.26
FPL-1019	5	3.90	10½″	FPL-1024	6	4.68
FPL-1219	6	4.41	12¼″	FPL-1224	7	5.28
FPL-1419	6½	4.74	14″	FPL-1424	7½	5.70
FPL-1719	7½	5.55	17½″	FPL-1724	8½	6.66
FPL-2119	9	6.90	21″	FPL-2124	10	8.28
FPL-2219	10	7.50	22¾″	FPL-2224	11	8.50
FPL-2619	11	7.74	26¼″	FPL-2624	12	9.30
FPL-2819	12	8.20	28″	FPL-2824	13	9.84
FPL-4219	18	14.00	42″	FPL-4224	20	17.00



PFP Series

PERFORATED

- Made of No. 20 gauge steel with 1/16″ diameter holes on 3/16″ staggered centers.
- Edges formed on 4 sides.
- Overall depth ½″.
- Each panel has 2 mounting holes on each side.
- Finished in Gray Hammertone.

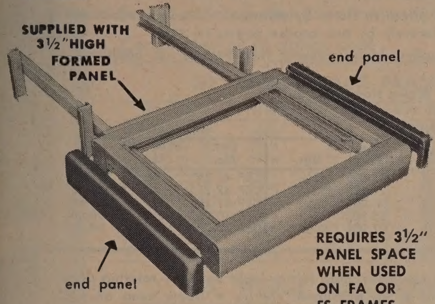
19″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	24″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
PFP-319	1¾	$2.75	3½″	PFP-324	2¾	$3.50
PFP-519	2¼	3.00	5¼″	PFP-524	3¼	3.90
PFP-719	2¾	3.75	7″	PFP-724	3¾	5.00
PFP-819	3¾	4.25	8¾″	PFP-824	4¾	5.75
PFP-1019	4¾	5.00	10½″	PFP-1024	5¾	6.25
PFP-1219	5¾	5.60	12¼″	PFP-1224	6¾	7.40
PFP-1419	6¼	6.20	14″	PFP-1424	7¼	8.00
PFP-1519	6¾	6.80	15¾″	PFP-1524	7¾	8.90
PFP-1719	7¼	7.25	17½″	PFP-1724	8¼	9.50
PFP-1919	7¾	7.95	19¼″	PFP-1924	8¾	10.50
PFP-2119	8¾	8.50	21″	PFP-2124	9¾	11.25
PFP-2619	10¾	10.00	26¼″	PFP-2624	11¾	13.00
PFP-2819	11¾	11.00	28″	PFP-2824	12¾	14.25

ALL PRICES F.O.B. N.Y. 59, N.Y.

PREM-Ō-RAK® MODULAR CONSOLE SYSTEM

WRITING WORK SHELVES

- Made Of No. 16 Gauge Steel
- Tops Of Front And Rear Are Rounded
- Shipped Knocked Down • Finished In Gray Hammertone
- Supplied With Channels And Brackets For Mounting To Inside of Frames



REQUIRES 3½" PANEL SPACE WHEN USED ON FA OR FS FRAMES

DESIGNED FOR SINGLE OR MULTIPLE INSTALLATION

22" WIDE — 3" HIGH

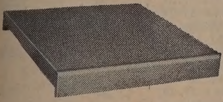
To Fit 22" DEEP FRAMES					To Fit 25½" DEEP FRAMES		
Cat. No.	Shpg. Wt. Lbs.	Net Price	Top Panel Space	Depth	Cat. No.	Shpg. Wt. Lbs.	Net Price
WW-15-22	11	$36.00	10½" x 19"	15"	WW-15-255	12	$36.75
WW-18-22	12	37.80	14" x 19"	18½"	WW-18-255	13	38.55
WW-22-22	13	39.60	17½" x 19"	22"	WW-22-255	14	40.35
27" WIDE							
WW-2715-22	14	41.40	10½" x 24"	15"	WW-2715-255	15	42.15
WW-2718-22	15	42.60	14" x 24"	18½"	WW-2718-255	16	43.35
WW-2722-22	16	43.80	17½" x 24"	22"	WW-2722-255	17	44.55

END PANELS FOR WRITING WORK SHELF

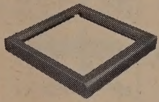
- Ball cornered • Attaches to Writing Work Shelf by means of 2 captive screws • Made of one piece of No. 18 gauge steel
- Finished in Brown Hammertone

Cat. No.	Lbs.	Used With	Net Price
CEP-15	1½	WW-15-22, 15-255; 2715-22, 2715-255	$3.54
CEP-18	2	WW-18-22, 18-255; 2718-22, 2718-255	3.78
CEP-22	2½	WW-22-22, 22-255; 2722-22, 2722-255	4.02

WORK TOPS FOR MULTIPLE ASSEMBLY — 3" HIGH



CWT Series
Solid Type



WTO Series
Open Type

- Tops of front and rear are rounded.
- Designed for mounting between two Pedestal Frames or when used with End Pedestal (PE Series).
- USE SHORT END PANELS (CSS Series) FOR THIS INSTALLATION.
- Made of No. 16 gauge steel.
- Finished in Gray Hammertone.

WORK TOPS

Solid Type

Cat. No.	Width	Depth	Shp. Wt. Lbs.	Net Price
CWT-601	22"	22"	14	$12.60
CWT-603	27"	22"	18	15.00
CWT-601-34	22"	34¼"	20	18.90

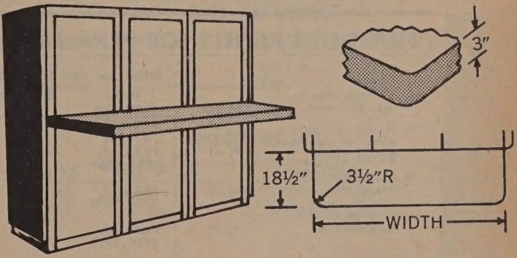
Open Type

Cat. No.	Width	Depth	Panel Space	Shpg. Wt. Lbs.	Net Price
WTO-22-22	22"	22"	17½ x 19"	9½	$27.00
WTO-27-22	27"	22"	17½ x 24"	11	32.40
WTO-22-34	22"	34¼"	29¾ x 19"	12	42.00

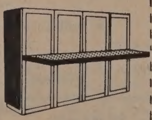
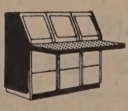
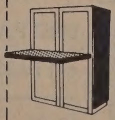
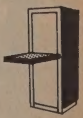
ONE PIECE FORMICA WORK WRITING TOPS

For 22" Wide FA and FS FRAMES

- Gray linen weave Formica (2-C-1) bonded to ¾" plywood
- 3" self edged Formica skirt on 3 sides
- Supplied with 3½ x 19" formed panel, channels and brackets



TO FIT 22" DEEP FRAMES				TO FIT 25½" DEEP FRAMES	
Cat. No.	Net Price	Depth	Width	Cat. No.	Net Price
For 1 Vertical Frame (FA Series) or 1 Sloped Front Frame (FS Series)					
OFT-2218-22	$75.00	18½"	22"	OFT-2218-255	$76.00
For 2 Vertical Frames (FA Series) or 2 Sloped Front Frames (FS Series) Side By Side					
OFT-4418-22	95.00	18½"	44"	OFT-4418-255	96.00
For 3 Vertical Frames (FA Series) or 3 Sloped Front Frames (FS Series) Side By Side					
OFT-6618-22	115.00	18½"	66"	OFT-6618-255	117.00
For 4 Vertical Frames (FA Series) or 4 Sloped Front Frames (FS Series) Side By Side					
OFT-8818-22	140.00	18½"	88"	OFT-8818-255	142.00

PREMIER PANELS AND DOORS

SIDE PANELS FOR PRXA FRAMES

Made of No. 16 Gauge Steel Finished in Gray Hammertone

18″ DEEP

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-42	48 x 15 x 1½″	20	$16.56
SP-52	58½ x 15 x 1½″	21	18.60
SP-61	67¼ x 15 x 1½″	23	21.54
SP-70	76 x 15 x 1½″	26	23.16
SP-77	83 x 15 x 1½″	28	24.90

24″ DEEP

Cat. No.	Size	Shpg. Wt. Lbs.	Net Price
SP-42-24	48 x 21 x 1½″	22	$21.36
SP-52-24	58½ x 21 x 1½″	25	23.40
SP-61-24	67¼ x 21 x 1½″	28	25.83
SP-70-24	76 x 21 x 1½″	31	27.78
SP-77-24	83 x 21 x 1½″	34	30.00

END PANELS — 1-11/32″ DEEP FOR FA FRAMES

- Made of one piece of 16 gauge steel.
- BALL CORNERED.
- End panels attach to frame by means of a bracket on bottom and held securely by two captive screws on top.
- Panels supplied blank. Louvres furnished at no additional charge.
- Finished in Brown Hammertone.

22″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Hgt.	25½″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
CEP-42-22	23	$18.00	45¼″	CEP-42-255	28	$21.00
CEP-52-22	27	21.60	55¾″	CEP-52-255	32	24.60
CEP-61-22	30	24. 00	64½″	CEP-61-255	35	26.40
CEP-70-22	33	25.80	73¼″	CEP-70-255	38	28.80
CEP-77-22	35	27.90	80¼″	CEP-77-255	40	30.60

DOORS FOR FA and PRXA FRAMES 13/16″ DEEP

• Made of No. 16 gauge steel • Doors can be mounted either left or right hand by rotating door 180° • Doors supplied blank. Louvres furnished at no additional charge • Doors hung on slip jointed hinges and equipped with locking handle and 2 keys • Door mounted to frame by 3 removable hinge brackets, permitting the door to be mounted either left or right hand. Handle latch bracket also supplied • Finished in Gray Hammertone.

21½″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price	Height	26½″ WIDE Cat. No.	Shpg. Wt. Lbs.	Net Price
DF-42	20	$26.40	45 9/16″	—	—	—
DF-52	25	29.40	56 1/16″	—	—	—
DF-61	28	33.60	64 13/16″	DF-2761	34	$39.60
DF-70	31	36.00	73 9/16″	DF-2770	38	43.50
DF-77	34	38.40	80 9/16″	DF-2777	41	45.00

32½″ WIDE (DOUBLE DOORS with 3 Point Locking Device)

Cat. No.	Shpg. Wt. Lbs.	Height	Net Price
DF-3361	40	64 13/16″	$45.00
DF-3370	45	73 9/16″	$50.50
DF-3377	48	80 9/16″	$54.00

FLUSH SIDE PANELS FOR PRXA FRAMES — ½″ DEEP

- Fits into side recess of frame.
- Made of one piece of No. 16 gauge steel.
- Clips on to horizontal side section of frame. Finished in Gray Hammertone.

15″ WIDE for 18″ DEEP FRAMES Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each	Height	21″ WIDE for 24″ DEEP FRAMES Cat. No.	To Fit Frame No.	Shpg. Wt. Lbs.	Net Price Each
FL-42	PRXA-42	19	$15.66	48″	FL-42-24	PRXA-42-24	21	$20.46
FL-52	PRXA-52	21	17.72	58½″	FL-52-24	PRXA-52-24	24	22.50
FL-61	PRXA-61, 2761, 3361	22	20.64	67¼″	FL-61-24	PRXA-61-24, 2761-24; 3361-24	27	24.90
FL-70	PRXA-70, 2770, 3370	25	22.26	76″	FL-70-24	PRXA-70-24, 2770-24; 3370-24	30	26.88
FL-77	PRXA-77, 2777, 3377	27	24.00	83″	FL-77-24	PRXA-77-24, 2777-24; 3377-24	33	29.00

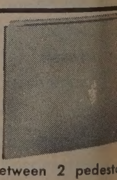
END PANELS FOR SLOPED FRONT CONSOLE FRAME — 1-11/32″ DEEP

- Ball Cornered.
- Made of One Piece No. 18 Gauge Steel.
- End Panels Attached to Frame by Means of a Bracket on Bottom and Held Securely by Two Captive Screws on Top
- Supplied Blank; Louvres Furnished at No Additional Charge
- Finished in Brown Hammertone.

End Panels	Used for Frame	Ship. Wt. Lbs.	Net Price
CEP-1201 LH	Left side FS-1001 & 1003	20	$22.62
CEP-1201 RH	Right side FS-1001 & 1003	20	22.62
CEP-1202 LH	Left side FS-1002 & 1004	18	18.00
CEP-1202 RH	Right side FS-1002 & 1004	18	18.00

END PANELS FOR PEDESTAL FRAMES

- Made of one piece of No. 18 gauge steel.
- Finished in Brown Hammertone.
- For easy installation and access, the end panels attach to pedestal frame CPF Series by means of 2 brackets on bottom and held securely with 2 captive screws on top.



END PANEL 1-11/32″ DEEP

- Ball Cornered.
- Finished in Brown Hammertone.

Cat. No.	Width	Height	For use with	Ship. Wt. Lbs.	Net Price
CEP-401	22″	26″	CPF-101 & 103	17	$15.00
CEP-402	22″	33″	CPF-102 & 104	20	18.00
CEP-401-34	34¼″	26″	CPF-101-34	22	19.80

PREMIER PAGE 12

SHORT END PANEL — 1-11/32″ DEEP

Used only when work top is mounted between 2 pedest frames • Finished in Brown Hammertone.

Cat. No.	Width	Height	For use with	Ship. Wt. Lbs.	Ne Pric
CSS-701	22″	23″	CPF-101 & 103	15	$9.0
CSS-701-34	34¼″	23″	CPF-101-34	18	12.0

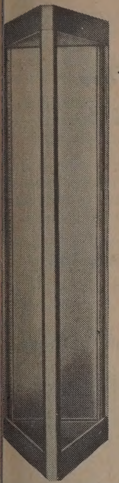
ALL PRICES F.O.B. N. Y. 59, N. Y.

ALL PRICES 10% HIGHER WEST OF MISSISSIPPI

© U.C.P., In

PREM-O-RAK® MODULAR CONSOLE SYSTEM

30° and 45° WEDGE FRAMES



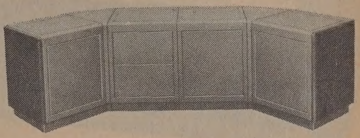
- Designed for use in Semi-Circular Arrangements when bolted to Pedestal Frames (CPF Series) or Transmitter Rack Frames (FA Series)
- Constructed of 16 gauge steel
- Completely welded throughout
- Supplied with formed panel on rear
- End panels (CEP Series) can be mounted to the side of wedge frames if desired
- Finished in Gray Hammertone .

30° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-30-42-22	48⅝″	22″	F-42-22	$111.00
WED-30-52-22	59⅛″	22″	F-52-22	120.00
WED-30-61-22	67⅞″	22″	F-61-22	126.00
WED-30-70-22	76⅝″	22″	F-70-22	135.00
WED-30-77-22	83⅝″	22″	F-77-22	141.00
WED-30-42-255	48⅝″	25½″	F-42-255	133.20
WED-30-52-255	59⅛″	25½″	F-52-255	140.40
WED-30-61-255	67⅞″	25½″	F-61-255	144.00
WED-30-70-255	76⅝″	25½″	F-70-255	156.00
WED-30-77-255	83⅝″	25½″	F-77-255	162.00

45° WEDGE RACK FRAMES

Cat. No.	Height	Width	For Use With	Net Price
WED-45-42-22	48⅝″	22″	F-42-22	114.00
WED-45-52-22	59⅛″	22″	F-52-22	123.00
WED-45-61-22	67⅞″	22″	F-61-22	129.00
WED-45-70-22	76⅝″	22″	F-70-22	138.00
WED-45-77-22	83⅝″	22″	F-77-22	144.00
WED-45-42-255	48⅝″	25½″	F-42-255	136.20
WED-45-52-255	59⅛″	25½″	F-52-255	143.00
WED-45-61-255	67⅞″	25½″	F-61-255	147.00
WED-45-70-255	76⅞″	25½″	F-70-255	159.00
WED-45-77-255	83⅝″	25½″	F-77-255	165.00



30° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-30-101	29½″	22″	CPF-101 & 103	$93.00
WED-30-102	36½″	22″	CPF-102 & 104	99.00

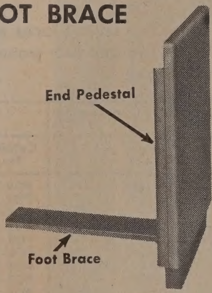
45° Wedge Pedestal Frames

Catalog No.	Height	Width	For Use With	Net Price
WED-45-101	29½″	22″	CPF-101 & 103	$96.00
WED-45-102	36½″	22″	CPF-102 & 104	102.00

END PEDESTAL and FOOT BRACE

FOR DOUBLE UNIT ASSEMBLY

- Made of No. 18 gauge steel
- Ball cornered
- End Pedestal mounts to Work Top CWT Series or WTO Series. Foot Brace mounts to Pedestal Frame CPF Series and End Pedestal PE-901
  - Foot Brace can be mounted between two Pedestal Frames (CPF Series).
- Finished in Brown Hammertone

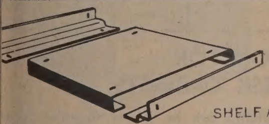


END PEDESTAL

Cat. No.	Depth	Height	Shpg. Wt. Lbs.	Net Price
PE-901	22″	29½″	25	$30.00
PE-901-34	34¼″	29½″	30	45.00

FOOT BRACE

Cat. No.	Shpg. Wt. Lbs.	Used With	Net Price
FB-801	~~3~~	22″ Wide Work Tops	$8.10
FB-802	3½	27″ Wide Work Tops	8.76

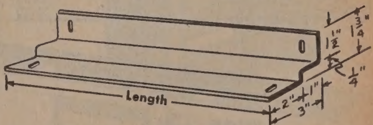


SHELF AND CHASSIS SUPPORT ANGLES IN POSITION

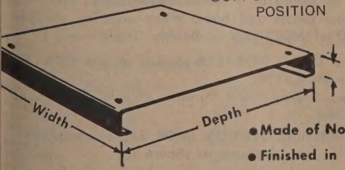
CHASSIS SUPPORT ANGLES

- Made of No. 12 ga. steel
- Accommodates Shelf (S Series)
- Finished in Gray Hammertone
- Mounts to tapped holes on side legs of Panel Mounting Angles of FA & PRXA series.

CSA SERIES



Cat. No.	Length	To Fit Frames	Net Price Pair
CSA-18	16⅛″	18″ deep PRXA	$4.50
CSA-22	20⅛″	22″ deep FA	5.00
CSA-24	22⅛″	24″ deep PRXA	5.25
CSA-255	23⅝″	25½″ deep FA	5.50



SHELVES

- Made of No. 16 Gauge Steel
- Finished in Gray Hammertone

S SERIES

Cat. No.	Depth	Width	To Fit Frames		Net Price
S-22-22	20⅜″	17½″	22″ W x 22″ D	FA	$3.93
S-27-22	20⅜″	22½″	27″ W x 22″ D	FA	5.10
S-22-255	23⅞″	17½″	22″ W x 25½″ D	FA	4.62
S-27-255	23⅞″	22½″	27″ W x 25½″ D	FA	5.82
S-22-18	16⅜″	17½″	22″ W x 18″ D	PRXA	3.39
S-27-18	16⅜″	22½″	27″ W x 18″ D	PRXA	4.14
S-33-18	16⅜″	28½″	33″ W x 18″ D	PRXA	5.58
S-22-24	22⅜″	17½″	22″ W x 24″ D	PRXA	4.38
S-27-24	22⅜″	22½″	27″ W x 24″ D	PRXA	5.58
S-33-24	22⅜″	28½″	33″ W x 24″ D	PRXA	6.84

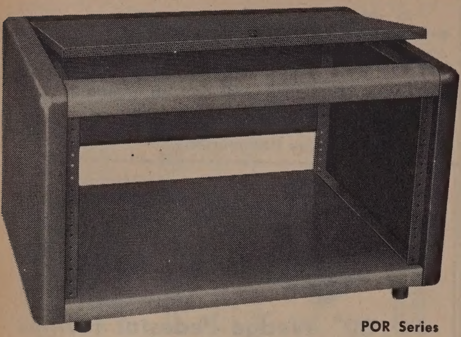
PANEL MOUNTING ANGLES

To Fit Premier Heavy Duty Racks (FD & RMA Series)

Made of 1¼″ x 1¼″ x 3/16″ thick steel and tapped 10-32 on E.I.A. spacings (⅝-⅝-½). Finished in Gray Hammertone.

Cat. No.	To Fit Racks	Ht.	Net Price Pair
PMA-362	FD & RMA 3619, 3619-24	36¾″	$10.50
PMA-422	FD & RMA 4219, 4219-24, 2742	42″	12.00
PMA-612	FD & RMA 6119, 6119-24, 2761	61¼″	15.00
PMA-702	FD-7019, 7019-24, 2770; RMA 7618, 7618-24, 7030, 2770	70″	16.80
PMA-772	FD & RMA 7719, 7719-24, 2777	77″	18.00

PREM-O-RAK® DESK CABINET RACKS



POR Series

BOTH FRONT AND REAR OF TOP HAVE ATTRACTIVE BALL CORNERS.

The ARISTOCRAT of DESK CABINET RACKS

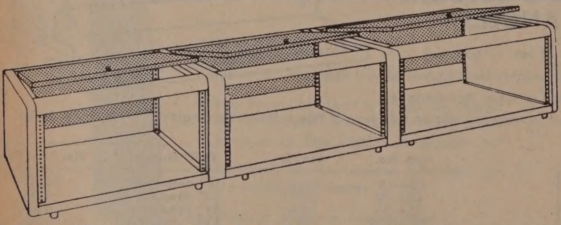
AVAILABLE IN 24 DIFFERENT SIZES — FROM 3½" to 35" PANEL SPACES

BOTH 15¼" and 18" DEEP FOR STANDARD 19" PANELS.

SHIPPED KNOCKED-DOWN WITH ALL THE NECESSARY HARDWARE FOR EASY ASSEMBLY.

- All screws for assembling PREM-O-RAK are not visible from the outside.
- Both front and rear verticals are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½") so that panels may be mounted on both front and rear if desired.
- Interlocking removable top made of perforated metal and held in place by only one captive screw.
- Interlocking removable rear panel made of perforated metal and held in place by two captive screws.
- Rigidly constructed of #16 gauge steel.
- Rear Panel has 3½" opening on bottom for leads, e except on POR-3, 318, 5, 518.
- Panels fit into ½" recess.
- Base supplied with four rubber feet.
- Components may be mounted on base before assem of rack into a complete unit.
- HANDSOMELY FINISHED IN TWO-TONE HAMM TONE.
  Top cross braces and base are Gray Hammertone. Top and rear panel and side panels are Brown Hamm tone.

15¼" DEEP				ALL CABINETS ARE 21¾" WIDE		18" DEEP			
Catalog No.	Shp. Wt. Lbs.	Use Slide Length	Net Price	Overall Height	Panel Space	Catalog No.	Ship. Wt. Lbs.	Use Slide Length	Net Price
POR-3	18	14"	$22.80	5⅞"	3½"	POR-318	20	16"	$24.0
POR-5	20	14"	24.00	7⅝"	5¼"	POR-518	22	16"	26.4
POR-7	22	14"	25.20	9⅜"	7"	POR-718	24	16"	27.8
POR-8	24	14"	26.46	11⅛"	8¾"	POR-818	26	16"	29.3
POR-10	26	14"	30.24	12⅞"	10½"	POR-1018	29	16"	33.39
POR-12	28	14"	32.76	14⅝"	12¼"	POR-1218	31	16"	36.07
POR-14	32	14"	36.54	16⅜"	14"	POR-1418	35	16"	40.32
POR-17	40	14"	43.47	19⅞"	17½"	POR-1718	44	16"	47.88
POR-21	44	14"	47.25	23⅜"	21"	POR-2118	48	16"	52.29
POR-26	45	14"	51.03	28⅝"	26¼"	POR-2618	49	16"	56.23
POR-31	50	14"	53.55	33⅞"	31½"	POR-3118	55	16"	59.69
POR-35	55	14"	56.70	37⅜"	35"	POR-3518	60	16"	62.53



Above unit is one Triple POR-8 which consists of one POR-8 two MOR-8

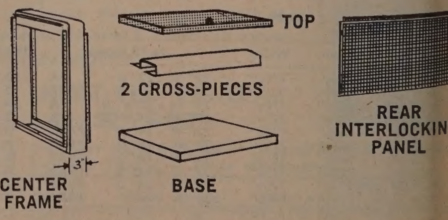
MULTIPLE SECTION FOR PREM-O-RAK DESK CABINETS

PREM-O-RAK DESK CABINETS can be joined together to mc multiple units by means of a center frame section which is bol to the top cross pieces and base. When ordering multiple ur specify number of units, such as Double, Triple, etc.

EXAMPLE: One Double POR-1218 consists of one POR-1218 a one MOR-1218.
One Triple POR-8 consists of one POR-8 and t MOR-8.

15¼" DEEP					18" DEEP		
Cat. No.	Ship. Wt. Lbs.	Net Price	Overall Height	Panel Space	Cat. No.	Ship. Wt Lbs.	Net Price
MOR-3	16	$16.00	5⅞"	3½"	MOR-318	18	$16.80
MOR-5	17	16.80	7⅝"	5¼"	MOR-518	19	18.55
MOR-7	18	17.64	9⅜"	7"	MOR-718	20	19.60
MOR-8	19	18.52	11⅛"	8¾"	MOR-818	21	20.60
MOR-10	20	21.20	12⅞"	10½"	MOR-1018	23	23.50
MOR-12	21	23.00	14⅝"	12¼"	MOR-1218	24	25.25
MOR-14	23	25.60	16⅜"	14"	MOR-1418	26	28.25
MOR-17	31	30.50	19⅞"	17½"	MOR-1718	34	33.60
MOR-21	33	33.10	23⅜"	21"	MOR-2118	37	36.60
MOR-26	34	35.80	28⅝"	26¼"	MOR-2618	38	39.40
MOR-31	36	37.50	33⅞"	31½"	MOR-3118	40	41.80
MOR-35	40	39.70	37⅜"	35"	MOR-3518	44	43.80

EACH MULTIPLE SECTION (MOR Series) comprises 6 pieces as shown.



ALL PRICES F.O.B. N. Y. 59, N. Y.

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

PREMIER PAGE 14

PREMIER HEAVY DUTY RACKS

OR 19″, 24″ AND 30″ RACK PANELS — 18″ AND 24″ DEEP

Rigidly constructed of #16 gauge steel with a #12 gauge steel bottom and welded throughout.

Panel mounting angles are 3/16″ thick and are tapped 10-32 on E.I.A. spacings (⅝-⅝-½).

Rear doors are hung on sturdy slip-jointed hinges and closed by a chrome handle. Locking handle with 2 keys available at additional cost.

Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.

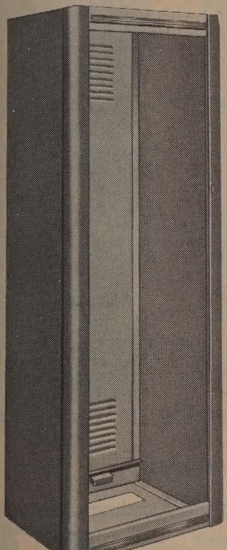
A rectangular cut-out is made in the bottom for leads ,etc.

RM-7030 Rack supplied with double rear doors and with a 3-point locking device.

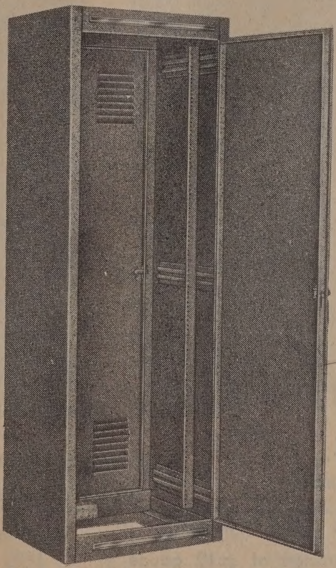
FD Series are furnished with locking handle and 2 keys on Front Door.

All racks are supplied without louvres on sides unless specified.

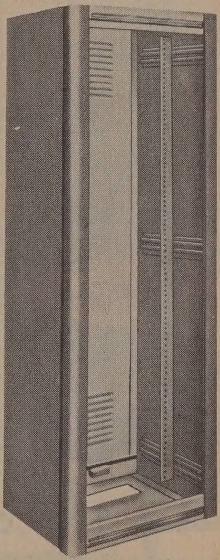
- Vertical rounded corner "J" type moldings are supplied.
- When joining racks for multiple installation, specify amount of center "U" type moldings (supplied at no additional cost). EXAMPLE: Three RM-3619 requires two "J" and two "U" moldings.
- Tops and bottoms are trimmed with red striped chrome moulding.
- Panel mounting angles are adjustable to any distance from the front by means of channel slides on FD and RMA Racks.
- A Duplex Receptacle and Outlet Box are furnished in the Back Under the Door.
- Racks finished in either Black or Gray wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.



RM MODEL



FD SERIES WITH FRONT DOORS



RMA MODEL

SPECIFY COLOR WHEN ORDERING

18″ DEEP RACKS

Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Use Slide* Length
RM-3619	100	$ 66.15	42⅞x22″	36¾x19″	16″
RM-4219	130	78.00	48⅛x22″	42 x19″	16″
RM-6119	150	86.01	67⅜x22″	61¼x19″	16″
RM-7618	170	105.84	76⅛x22″	70 x19″	16″
RM-7719	190	109.20	83⅛x22″	77 x19″	16″

24″ DEEP RACKS

Cat. No.	Shpg. Wt. Lbs.	Net Price	H & W	Panel Space	Use Slide* Length
RM-3619-24	110	$ 84.00	42⅞x22″	36¾x19″	22″
RM-4219-24	130	93.05	48⅛x22″	42 x19″	22″
RM-6119-24	175	122.40	67⅜x22″	61¼x19″	22″
RM-7618-24	200	132.30	76⅛x22″	70 x19″	22″
RM-7719-24	225	148.86	83⅛x22″	77 x19″	22″
RMA-2742	170	120.78	48⅛x27″	42 x24″	22″
RMA-2761	210	137.58	67⅜x27″	61¼x24″	22″
RMA-2770	240	148.59	76⅛x27″	70 x24″	22″
RMA-2777	270	165.39	83⅛x27″	77 x24″	22″
RM-7030	240	191.85	76⅛x33″	70 x30″	22″

18″ DEEP RACKS WITH FRONT DOORS

Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619	115	$102.39
FD-4219	120	108.00
FD-6119	175	115.77
FD-7019	200	132.30
FD-7719	220	142.23

24″ DEEP RACKS WITH FRONT DOORS

Cat. No.	Shpg. Wt. Lbs.	Net Price
FD-3619-24	125	$100.80
FD-4219-24	150	111.00
FD-6119-24	200	152.16
FD-7019-24	255	158.76
FD-7719-24	270	181.89
FD-2742	180	140.19
FD-2761	230	165.39
FD-2770	260	176.22
FD-2777	290	198.45

All RM Racks can be furnished with adjustable panel mounting angles at no additional cost. Specify RMA.

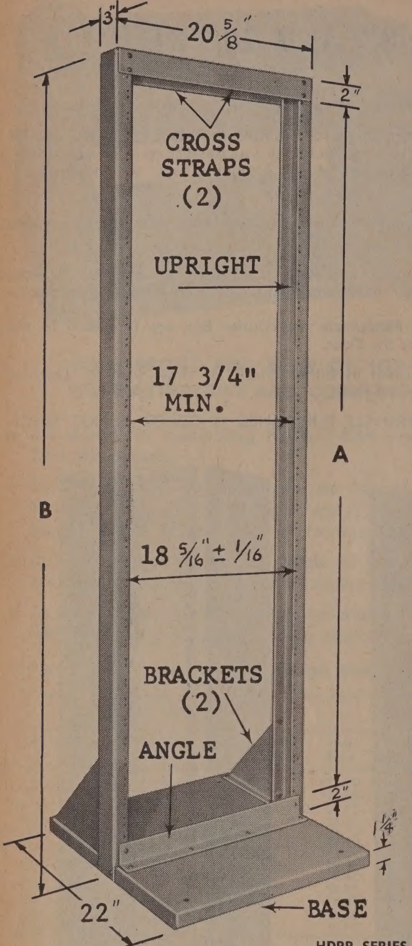
* Use Slide Adapter Kit (Cat. No. SAK-35 for rear mounting. (See page 27)

ALL PRICES F.O.B. N. Y. 59, N. Y.

PREMIER PAGE 15

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FANS

PREMIER RELAY RACKS



HDRR SERIES

HEAVY DUTY RELAY RACK

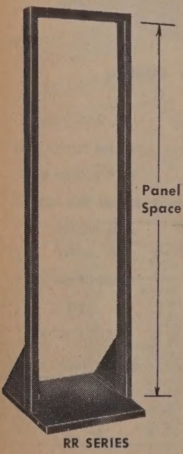
MEETS MIL-STD-189

- Uprights and top cross straps made of $\frac{3}{16}$″ sheet steel.
- Base and Brackets made of No. 12 gauge sheet steel.
- Base angle made of 2 x 2 x $\frac{3}{16}$″ steel.
- Panel mounting holes are tapped 10-32 on E.I.A. spacin (1¼-½″).
- Finished in Zinc Chromate Primer (MIL SPEC. 6889A).
- Shipped knocked down and assembled with ¼-20 x ¾″ lo hex head cap screws and nuts.

Catalog No.	Panel Space (A)	Frame Height (B)	Net Price
HDRR-6619	$66\frac{21}{32}$″	$71\frac{29}{32}$″	$67.00
HDRR-7319	$73\frac{21}{32}$″	$78\frac{29}{32}$″	73.00
HDRR-7719	77 $\frac{3}{32}$″	$82\frac{11}{32}$	77.00

ALSO AVAILABLE IN HEIGHTS UP TO 10 FT.

PRICES UPON REQUEST



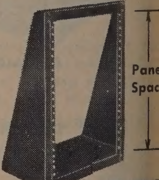
RR SERIES

CHANNEL RELAY RACKS

- Rigidly constructed of #12 gauge cold rolled sheet steel and finished in Black Wrinkle.
- Vertical members and top crossbrace are welded together.
- Panel mounting holes are tapped for 10/32 machine screws on E.I.A. spacings (⅝-⅝-½″).
- Racks are shipped knocked down with all necessary bolts for easy assembly.
- Base punched to accommodate CA-4 (2″) and CA-5 (3″) casters.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Price
RR-800	39¼''	20''	18⅜''	36¾'' x 19''	40	$20.16
RR-801	74¼''	20''	20⅞''	71¾'' x 19''	55	24.00
RR-802	79½''	20''	20⅞''	77'' x 19''	60	27.78

TABLE TYPE RELAY RACKS



TR SERIE

- Rigidly constructed of #16 gauge co rolled sheet steel and finished in Bla Wrinkle.
- Base constructed of one piece, similar a chassis.
- Panel mounting holes are tapped f 10/32 machine screws on E.I.A. spacin (⅝-⅝-½″).
- Racks are shipped knocked down with necessary bolts for easy assembly.

Cat. No.	H.	W.	D.	Panel Space	Shp. Wt. Lbs.	Net Pric
TR-2119	25''	21''	12''	21 x 19''	17	$ 8.
TR-2819	32''	21''	12''	28 x 19''	20	10.

ALL PRICES F.O.B. N. Y. 59, N. Y.
PREMIER PAGE 16

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PREMIER ENCLOSED RELAY RACKS

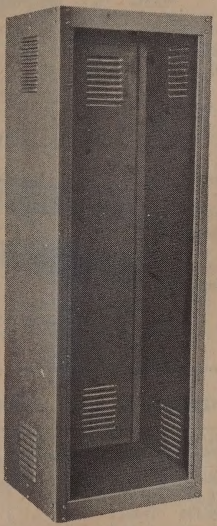
FOR STANDARD 19" RACK PANELS

- ligidly constructed of #16 gauge cold rolled sheet steel.
- he panel mounting angles are of #12 gauge steel and are apped for 10-32 machine screws on E.I.A. spacings (⅝- /8-½).
- anels fit into a 5/16" recess so that the edges are not exposed.
- acks are shipped knocked down with all necessary bolts for asy assembly.
- ear doors are hung on sturdy slip-jointed hinges, and closed y a chrome handle. Locking handle with two keys available t additional cost.
- Ioles punched in bottom to accommodate CA-4 and CA-5 asters.
- Round hole and 5 mounting holes on top of cabinets to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- STANDARD TYPE have square front vertical corners.
- DELUXE TYPE — The removable vertical corner mouldings are rounded and cover the mounting screws.
- DELUXE TYPE — Top and bottom are trimmed with red stripped chrome finished moulding.
- FRONT DOOR TYPE has front vertical rounded corners and is supplied with locking chrome handle and two keys.
- Cabinets finished in either Black or Gray Wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE WILL BE FURNISHED IF COLOR IS NOT SPECIFIED.

DELUXE TYPE

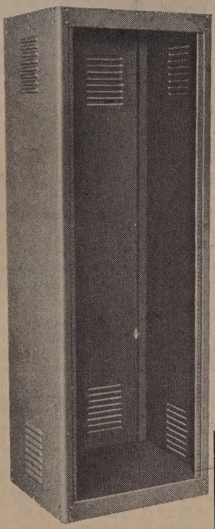
DR SERIES

STANDARD TYPE



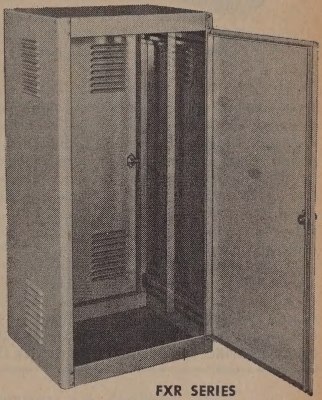
RS SERIES

ROUNDED TYPE



R SERIES

FRONT DOOR TYPE



FXR SERIES

Supplied with adjustable Panel Mounting Angles

SPECIFY COLOR WHEN ORDERING

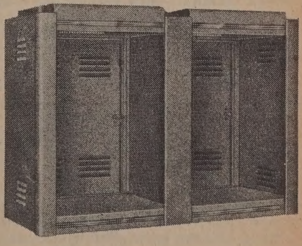
Racks are 22" wide x 18" deep

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Ship. Wt.—Lbs.	Net Price
DELUXE	DR-3619	43⅛"	36¾"	16"	85	$54.00
	DR 6119	67⅝"	61¼"	16"	135	66.00
	DR-7719	83⅜"	77"	16"	160	79.89
STANDARD	RS-3619	41⅞"	36¾"	16"	80	37.89
	RS-6119	66⅜"	61¼"	16"	120	56.43
	RS-7719	82⅛"	77"	16"	140	67.77
ROUNDED	R-3619	41⅞"	36¾"	16"	80	37.89
	R-4219	47⅛"	42"	16"	90	43.38
	R-6119	66⅜"	61¼"	16"	120	56.43
	R-7719	82⅛"	77"	16"	140	67.77
FRONT DOOR	FXR-3619	41⅞"	36¾"	16"	93	56.00
	FXR-4219	47⅛"	42"	16"	105	64.23
	FXR-6119	66⅜"	61¼"	16"	140	80.76
	FXR-7719	82⅛"	77"	16"	164	95.00

	Cat. No.	Overall Height	Panel Space	Use Slide Length*	Used With	Net Price
MULTIPLE RACK SECTIONS	DMR-3619	43⅛"	36¾"	16"	DR-3619	$51.78
	DMR-6119	67⅝"	61¼"	16"	DR-6119	61.83
	DMR-7719	83⅜"	77"	16"	DR-7719	73.80
	MR-3619	41⅞"	36¾"	16"	R&RS-3619	35.81
	MR-4219	47⅛"	42"	16"	R&RS-4219	41.29
	MR-6119	66⅜"	61¼"	16"	R&RS-6119	52.29
	MR-7719	82⅛"	77"	16"	R&RS-7719	63.57
	MXR-3619	41⅞"	36¾"	16"	FXR-3619	54.00
	MXR-4219	47⅛"	42"	16"	FXR-4219	62.23
	MXR-6119	66⅜"	61¼"	16"	FXR-6119	78.76
	MXR-7719	82⅛"	77"	16"	FXR-7719	93.00

MULTIPLE RACK UNITS

These racks can be joined together to make multiple units by means of a solid center partition which is bolted to the top and bottom. Each multiple section comprises a top, bottom, rear door and center partition. On MXR Models, front door is also supplied. When ordering multiple units, specify number of units, such as double, triple, quad, etc.



ABOVE UNIT IS ONE DOUBLE DR3619

Example:

One Double DR-3619 consists of one DR-3619 and one DMR-3619.

One Triple RS-3619 consists of one RS-3619 and two MR-3619.

One Quad R-3619 consists of one R-3619 and three MR-3619.

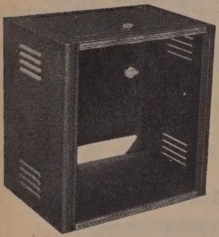
se Slide Adapter Kit (Cat. No. SAK-35) r rear mounting. (See page 27)

ALL PRICES F.O.B. N. Y. 59, N. Y.

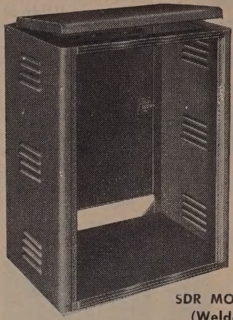
SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS & FANS

PREMIER DESK CABINET RACKS

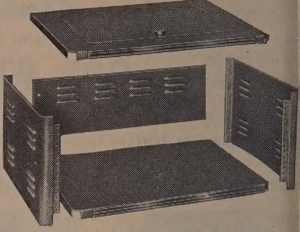
DESK CABINET RACKS FOR STANDARD 19" RACK PANELS IN STANDARD, SUPER DELUXE AND KNOCKED DOWN MODELS—BOTH 15¼" AND 18" DEEP



DCR MODEL
(Welded)



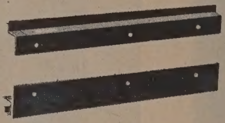
SDR MODEL
(Welded)



DRK MODEL
(Knocked Down)

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome finished moulding.
- Rigidly constructed of No. 16 Ga. cold rolled sheet steel.
- Panels fit into a ¼" recess so that the edges are not exposed.
- Round hole and 5 mounting holes on top of frame to accommodate Exhaust (EF Series) and Intake (IF Series) Fans, available at additional cost.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings (⅝-⅝-½).
- Piano type hinges are used on the top doors, which are provided with snap catches.
- Top door on Models SDR and SDRK open to 90° and have a rounded front corner.
- DRK is identical to DCR; SDRK is identical to SDR except shipped knocked down with all necessary bolts for easy assembly. On these models the bolts are not visible from the outside and have the same appearance as the welded models.
- Gussets welded at bottom of rear on Models 170-350 for additional strength.
- Cabinets finished in either Black or Gray Wrinkle, Gray or Brown Hammertone.
- BLACK WRINKLE IS FURNISHED, IF COLOR IS NOT SPECIFIED.

WALL MOUNTING BRACKETS



FOR MOUNTIN
DESK CABIN
RACKS ON WA
— REMOVE REA
DOOR AND U
WALL MOUN
ING BRACKET

Catalog No. WB-19
Net Price $2.85

Sold in sets only.
Finished in Gray Enamel
Shipping Weight 2½ lbs

21¾" WIDE x 15¼" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-70	$13.20	SDR-70	$18.09	DRK-70	$12.51	SDRK-70	$17.40	8¾"	7"	22	14"
	DCR-80	13.89	SDR-80	18.78	DRK-80	13.20	SDRK-80	18.09	10½"	8¾"	24	14"
	DCR-100	15.66	SDR-100	20.52	DRK-100	14.97	SDRK-100	19.86	12¼"	10½"	26	14"
	DCR-120	16.92	SDR-120	21.75	DRK-120	16.20	SDRK-120	21.06	14"	12¼"	28	14"
	DCR-140	18.78	SDR-140	23.64	DRK-140	18.09	SDRK-140	22.95	15¾"	14"	32	14"
WITH DOOR ON TOP AND REAR	DCR-170	22.26	SDR-170	27.09	DRK-170	21.57	SDRK-170	26.40	19¼"	17½"	40	14"
	DCR-190	23.31	SDR-190	28.20	DRK-190	22.62	SDRK-190	27.48	21"	19¼"	42	14"
	DCR-210	24.18	SDR-210	29.25	DRK-210	23.49	SDRK-210	28.29	22¾"	21"	44	14"
	DCR-260	26.10	SDR-260	30.99	DRK-260	25.41	SDRK-260	30.24	28"	26¼"	45	14"
	DCR-310	27.48	SDR-310	32.34	DRK-310	26.79	SDRK-310	31.71	33¼"	31½"	50	14"
	DCR-350	28.86	SDR-350	33.72	DRK-350	28.17	SDRK-350	33.03	36¾"	35"	55	14"

21¾" WIDE x 18" DEEP

	Catalog No.	Net Price	Catalog No.	Net Price	Overall Height	Panel Space	Ship. Wt. Lbs.	Use Slide Length*
WITH DOOR ON TOP ONLY	DCR-1880	$16.71	SDR-1880	$21.58	10½"	8¾"	26	16"
	DCR-18100	18.78	SDR-18100	23.64	12¼"	10½"	29	16"
	→ DCR-18120	20.25	SDR-18120	25.11	14"	12¼" ←	31	16"
	DCR-18140	22.53	SDR-18140	27.42	15¾"	14"	35	16"
WITH DOOR ON TOP AND REAR	DCR-18170	26.70	SDR-18170	31.59	19¼"	17½"	44	16"
	DCR-18190	27.99	SDR-18190	32.85	21"	19¼"	46	16"
	DCR-18210	28.98	SDR-18210	33.87	22¾"	21"	48	16"
	DCR-18260	31.29	SDR-18260	36.15	28"	26¼"	49	16"
	DCR-18310	32.97	SDR-18310	37.80	33¼"	31½"	55	16"
	DCR-18350	34.65	SDR-18350	39.48	36¾"	35"	60	16"

SPECIFY COLOR WHEN ORDERING

ALL PRICES F.O.B. N. Y. 59, N. Y.

*Use Slide Adapter Kit (Cat. No. SAK-35) for rear mounting. (See page 27)

SEE PAGES 25, 26 & 27 FOR SLIDES, BLOWERS and FA

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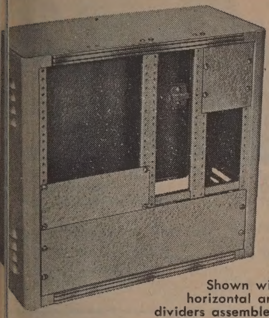
PREMIER Standard PRECISION BUILT METAL HOUSINGS

MODU-RAK®



Shown with panels, horizontal and vertical dividers assembled.

12″ DEEP MINIATURE DESK RACKS

for modular construction of test equipment

FOR STANDARD 19″ AND 9½″ RACK PANELS

- Front vertical corners are rounded and the top and bottom are trimmed with red striped chrome moulding.
- Rigidly constructed of No. 16 gauge cold rolled sheet steel.
- Panels fit into a recess so that the edges are not exposed.
- Panel mounting holes are tapped for 10-32 machine screws on E.I.A. Spacings.
- 6 knock-out holes are provided on top and bottom of MDK-70 through MDK 280 series to accommodate angle brackets (Cat. No. AB-2).

  Two knock-out holes are provided on top and bottom of MDK-50-95 through MDK-140-95 series.
- Rear panel on Models MDK-70 through MDK-140 and MDK-70-95 through MDK-140-95 can be removed from back of cabinet for service.
- Rear doors have snap catches.
- Bolts are not visible from the outside and these units have the same appearance as the welded models.
- FINISHED IN GRAY HAMMERTONE
- SHIPPED KNOCKED-DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY

21¾″ WIDE x 12″ DEEP

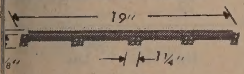
	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50	7″	5¼ x 19″	16	$10.71
	MDK-70	8¾″	7 x 19″	20	11.07
	MDK-80	10½″	8¾ x 19″	21	11.76
	MDK-100	12¼″	10½ x 19″	23	13.53
	MDK-120	14″	12¼ x 19″	25	14.76
	MDK-140	15¾″	14 x 19″	29	16.65
WITH REAR DOOR	MDK-170	19¼″	17½ x 19″	36	20.22
	MDK-210	22¾″	21 x 19″	39	22.05
	MDK-260	28″	26¼ x 19″	40	24.12
	MDK-280	29¾″	28 x 19″	41	26.01

12¼″ WIDE x 12″ DEEP

	Catalog No.	Overall Height	Available Panel-Space	Ship. Wt. Lbs.	Net Price
WITH REMOVABLE REAR PANEL	MDK-50-95	7″	5¼ x 9½″	14	10.26
	MDK-70-95	8¾″	7 x 9½″	15	10.71
	MDK-80-95	10½″	8¾ x 9½″	16	11.43
	MDK-100-95	12¼″	10½ x 9½″	17	13.23
	MDK-120-95	14″	12¼ x 9½″	18	14.37
	MDK-140-95	15¾″	14 x 9½″	20	15.81

ACCESSORIES FOR SUBDIVIDING MODU-RAK INTO MODULAR UNITS

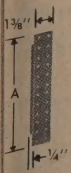
ORIZONTAL DIVIDERS



- Holes punched to accommodate vertical dividers (DV Series) which subdivides MODU-RAK into 9½″ and 4¾″ widths.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

Catalog No.	Dimensions	Net Price
DH-19	19″ x 1⅛″	$2.85
DH-95	9½″ x 1⅛″	2.34

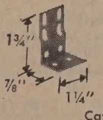
VERTICAL DIVIDERS



- Two rows of 10-32 tapped holes punched on E.I.A. Spacings.
- Made of No. 16 gauge steel.
- Finished in gray Hammertone.

Cat. No.	"A" Available Panel Mtg. Space	Net Price
DV-5	5¼″	$0.79
DV-7	7″	1.05
DV-8	8¾″	1.32
DV-10	10½″	1.62
DV-12	12¼″	1.71
DV-14	14″	1.86
DV-17	17½″	2.43
DV-21	21″	2.97
DV-26	26¼″	3.69
DV-28	28″	3.90

ANGLE BRACKETS



- Punched to accommodate vertical dividers.
- Made of No. 16 gauge steel.
- Finished in gray hammertone.

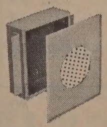
Cat. No.	Net Price	sold in
AB-2	$.99 pr.	pairs only

SPEAKER CABINETS

- Constructed of No. 18 gauge steel with perforated grille spot welded behind the opening.
- Front vertical corners are rounded.
- Supplied with handle.
- Removable back plate has key hole slots for hanging.
- Finished in Black Wrinkle.

Cat. No.	H.	W.	D.	Hole Size	Speaker Size	Ship. Wt. Lbs.	Net Price
SC-1006	10″	10″	6″	4⅝″	6″	7⅜	$4.02
SC-1227	12″	12″	7″	6½″	8″	10	5.04

RECESSED SPEAKER BOXES AND PLATES



Designed with adjustable mounting brackets for easy installation in walls or acoustical tile ceilings. Speaker plate has beveled edges to give the same appearance as an acoustical tile, and is easily fastened to the speaker box by means of Tinnerman nuts. Box made of #20 gauge steel; plate of #16 gauge steel with perforated grille spot-welded behind the opening. Interior sprayed with special undercoating to eliminate metallic sound. Finished in gray primer.

SPEAKER BOX

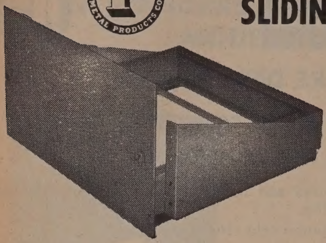
Catalog No.	W H D	Ship. Wt. Lbs.	Net Price
SB-1010	10 x 10 x 4″	4	5.19
SB-1012	10 x 12 x 4″	5	5.49

SPEAKER PLATE

Catalog No.	W.	H.	Speaker Size	Ship. Wt. Lbs.	Net Price
SP-1212	12″	12″	8″	2½	2.58
SP-1214	12″	14″	8″	3	2.76

ALL PRICES F.O.B. N.Y. 59, N.Y.

PREMIER RACK ACCESSORIES



SLIDING DRAWERS TO FIT STANDARD 19" RACKS 15" AND 18" DEEP

Panel made of #12 gauge steel; chassis of #16 steel and has a 1" flange on top and bottom to accommodate plywood for the record changer. The chassis is mounted on ball-bearing suspension slides which can sustain 40 lbs. Drawer extends 11" from front of cabinet. Entire unit mounts on angle brackets which can be bolted on to the cabinet. Supplied knocked down with all necessary bolts for easy assembly. Locks in place by means of 2 latches. Finished in black or gray wrinkle, and Gray or Brown Hammertone. **BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.**

Catalog No.	Will Fit Rack No.	Panel Size	Chassis Size W. D. H.	Ship. Wt. Lbs.	Net Price
RD-10	R, RS, DCR-18, SDR-18, RM, RMA & FD Models	10⅜" x 18⅞"	17" x 16" x 3"	15	$15.66
RD-12		12⅛" x 18⅞"	17" x 16" x 4"	18	17.40
RD-10-14	DCR, SDR, DRK, RM, RMA & FD SDRK, R, RS, DCR-18, SDR-18 Models	10⅜" x 18⅞"	17" x 14" x 3"	14½	15.54
RD-12-14		12⅛" x 18⅞"	17" x 14" x 4"	17	17.25

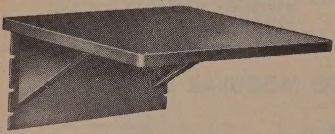
FRONT DOORS TO FIT STANDARD 19" DESK RACK CABINETS AND ENCLOSED RACKS

Constructed from one piece of #16 gauge steel. Two concealed piano hinges are provided with holes, punched to accommodate E.I.A. spacings a are made to fit on top of the panels. Supplied with cylinder lock and cam bracket to hold door in position. All necessary bolts furnished for ea assembly. All doors are 20½" wide x 1¼" deep. Finished in Black or Gray Wrinkle G,ray or Brown Hammertone.
BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.

FD-300-306 MODELS

Cat. No.	Will Fit Rack No.	Height	Ship Wt. Lbs.	Net Price
FD-300	DCR, DRK, SDR, SDRK-260, 18260	26¼"	10	$12.75
FD-301	DCR, DRK, SDR, SDRK-310, 18310	31½"	11	14.82
FD-302	DCR, DRK, SDR, SDRK-350, 18350	35"	12	16.53
FD-303	DCR, DRK, SDR, SDRK-120, 18120	12¼"	6	9.60
FD-304	DCR, DRK, SDR, SDRK-140, 18140	14"	7	10.44
FD-305	DCR, DRK, SDR, SDRK-170, 18170	17½"	8	11.34
FD-306	DCR, DRK, SDR, SDRK-210, 18210	21"	9	12.21

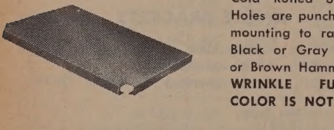
DESK PANELS



- Made of No. 16 gauge steel and bolted to a standard steel panel 10½" x 19".
- Front corners are rounded.
- Finished in Black or Gray Enamel, Gray or Brown Hammertone.
- SHIPPED KNOCKED DOWN WITH ALL NECESSARY HARDWARE FOR EASY ASSEMBLY.

Cat. No.	Width	Depth	Ship. Wt. Lbs.	Net Price
DP-1016	22"	16"	20	$14.91
DP-1020	22"	20"	22	15.24

RACK SHELVES



Made of one piece of #16 Ga. Cold Rolled Steel, 1" high. Holes are punched on sides for mounting to rack. Finished in Black or Gray Wrinkle, Gray or Brown Hammertone. **BLACK WRINKLE FURNISHED IF COLOR IS NOT SPECIFIED.**

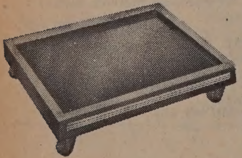
Cat. No.	Will Fit Rack No.	Shelf Size	Shp. Wt. Lbs.	N Pri
RS-1106	All 15¼" SDR and DCR Racks	12x21 9/16	7	$2.
RS-1107	R, RS, DR, 18" deep RM, DCR and SDR Racks	15x21 13/16	7	3.
RS-1108	18" deep FD Racks	13x21 13/16	7	3.
RS-1110	For 27" wide - 24" deep Racks (RMA-27 and FD-27 Series)	22x26⅞	8	6.
RS-1111	MDK Series - 21¾" wide	10x21 9/16	6	2.
RS-1112	For 22" wide - 24" deep Racks (RM, RMA, FD Series)	22x21 13/16	7	5.

CHASSIS SUPPORTS

Made of #12 gauge steel. Finished in black enamel. Sold in pairs only.

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
CS-12	12 x 3 x 3"	4	1.92
CS-14	14½ x 3 x 3"	5¼	2.10

ROLLER TRUCKS FOR RACKS



Made from 1 piece of No. 16 ga. Cold Rolled Steel. Supplied with either 2" or 3" diameter casters and bolts for easy assembly. Finished in Black or Gray Wrinkle, Gray or Brown Hammertone with a red striped chrome molding. IF COLOR IS NOT SPECIFIED, BLACK WRINKLE FURNISHED.

With 2" Dia Casters Cat. No.	Ship. Wt. lbs.	Net Price	Will Fit Rack No.	Inside Dimensions	With 3" Dia. Casters Cat. No.	Ship. Wt. lbs.	Ne Pri
RT-1100	22	$ 9.93	All 15¼" Racks	15¾ x 22¼"	RT-1100-3	24	$14.
RT-1101	22	12.57	R, RS, DR, 18" deep FXR, RM, RMA, FD, DCR and SDR Racks	18¾ x 22¾"	RT-1101-3	24	17.
RT-1103	23	15.60	24" deep RM, FD and RMA Racks	22½ x 24½"	RT-1103-3	25	20.
RT-1110	25	23.33	RMA-27 and FD-27 Series	27½ x 24½"	RT-1110-3	27	27.
RT-1111	30	30.00	RM-7030	33½ x 24½"	RT-1111-3	32	35.

ALL PRICES F.O.B. N.Y. 59, N.Y.

PREMIER PAGE 20

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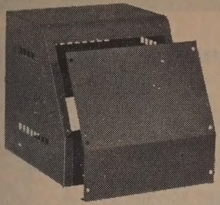
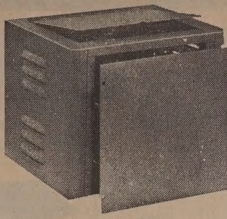
PREMIER Standard PRECISION BUILT METAL HOUSINGS



SLOPING FRONT

inet has rounded top corners and a remov- front panel. Back of cabinet is perforated has opening for leads. Constructed of #20 ge steel. Finished in Grey Wrinkle.

alog o.	H. W. D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
-500	8 x 8 x 8"	CH-403	6	$ 4.26
-501	8 x 10 x 8"	CH-404	7	4.74
-502	8 x 14 x 8"	CH-406	8	5.07
-503	9 x 18 x 8"	CH-409	10	7.29
-504	12 x 18 x 12"	CH-415	14	9.30

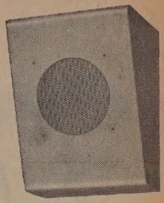


HINGED TOP ROUNDED CORNER TYPE

Cabinet has front vertical rounded corners and a removable front panel. Back of cabinet is louvred and has opening for leads. Constructed of #20 gauge steel. Finished in Grey Wrinkle.

Catalog No.	H. W. D.	Panel Size	Use Chassis No.	Ship Wt. Lbs.	Net Price
HTC-200	8x10x 8"	8x 8"	CH-403	6	$4.19
HTC-201	8x12x 8"	8x10"	CH-404	6½	4.54
HTC-202	8x16x 8"	8x14"	CH-406	11	5.89
HTC-203	9x17x11"	9x15"	CH-413	6½	9.13
HTC-204	12x20x12"	12x18"	CH-415	13½	10.80
HTC-205	8x14x 8"	8x12"	CH-405	7¼	5.23

METAL WALL SPEAKER BAFFLE



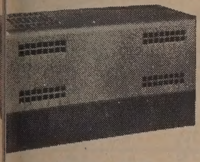
Sturdily constructed of #18 gauge cold rolled steel to eliminate splitting, warping, or cracking. Perforated grille is spot-welded behind speaker opening. Interior has special undercoating to eliminate metallic sound. Supplied with mounting bracket for simple hanging on wall. Finished in buff enamel or brown hammertone.

Cat. No.	H.	W.	D.	Speaker Size	Net Price
WSB-8	11½ x	9½ x	7"	8"	$5.04
WSB-12	15½ x	13½ x	9¾"	12"	6.30

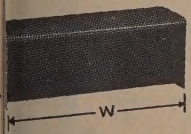
MOUNTING PLATE for above.

Cat. No. SMP-812 .... .96 Net Price

MPLIFIER UNDATIONS



STANDARD TYPE



RFORATED TYPE COVERS

STANDARD TYPE

TOP COVER has perforations, rounded corners and is 6" high. Finished in Gray Wrinkle.

CHASSIS constructed of one piece with corners spot-welded. Finished in Black Wrinkle.

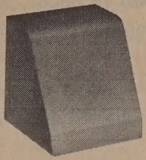
Cat. No.	Chassis Size	Ship. Wt. Lbs.	Net Price
AF-510	5" x 10" x 3"	5	$4.59
AF-615	6" x 14" x 3"	7	5.29
AF-1017	10" x 17" x 3"	11	7.13
AF-1317	13" x 17" x 3"	13	8.58

PERFORATED TYPE COVERS

TOP COVER made of perforated steel and has rounded corners with solid ends. 6" high except PC-57*. Finished in Gray Wrinkle. Supplied without chassis.

Cat. No.	W.	D.	Use Chassis No.	Ship. Wt. Lbs.	Net Price
*PC-57	7"	5"	ACH or CH-426	1	$3.06
PC-510	10"	5"	ACH or CH-401	1¾	3.12
PC-615	14"	6"	ACH or CH-402	2⅜	3.60
PC-717	17"	7"	ACH or CH-409	3	3.96
PC-1012	12"	10"	ACH or CH-412	3	4.02
PC-1017	17"	10"	ACH or CH-415	3¼	4.95

* 4" high.



STEEL and ALUMINUM Sloping Panel Cabinets

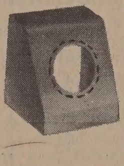
ROUND TOP CORNERS WITH SLOPING FRONT

No. 20 gauge Steel—Black Wrinkle Finish. No. 18 gauge (.040) Aluminum—Natural Aluminum finish.

Steel Cat. No.	W. H. D.	Ship. Wt. Lbs.	Net Price	Alum. Cat. No.	Net Price
SPC-1200	4 3/16x4 1/16x4 5/16	¾	$1.14	ASFC-1200	$1.37
SPC-1201	5 3/16x4 1/16x4 5/16	1	1.29	ASPC-1201	1.55
SPC-1202	6 3/16x4 1/16x4 5/16	1	1.47	ASPC-1202	1.76
SPC-1203	7 3/16x4 1/16x4 5/16	1½	1.77	ASPC-1203	2.12

2 in 1

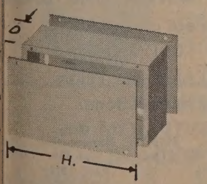
STEEL & ALUMINUM METER CASES



Center Hole for 2" meter (2-3/16" dia.) increases to 3" (2-13/16" dia). meter hole by simply removing a knock-out. Size: 4 3/16x4 5/16x-4 1/16". Supplied with two ½" dia. knockouts. #20 gauge steel—Black Wrinkle Finish, #18 gauge (.040) Aluminum — Natural Aluminum Finish.

	Cat. No.	Sh. Wt.	Net Price
ALUMINUM	ASPC-23	¾	1.51
STEEL	SPC-23	¾	1.26

UTILITY CASES



ALUMINUM

Constructed of #16 ga. (.051) aluminum with ½" flanged edges, spot welded corners and two removable flat covers. Natural Aluminum finish or Gray Hammertone.

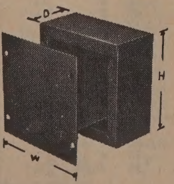
Natural Aluminum Cat. No.	Net Price	Size H. W. D.	Ship. Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AC-442	$1.26	4 4 2"	½	PAC-442	$1.39
AC-453	1.39	4 5 3"	¾	PAC-453	1.62
AC-564	1.65	5 6 4"	1	PAC-564	2.02
AC-596	2.71	5 9 6"	1½	PAC-596	3.07
AC-666	1.89	6 6 6"	1½	PAC-666	2.11
AC-1276	3.73	12 7 6"	2¼	PAC-1276	4.14
AC-1597	5.10	15 9 7"	3½	PAC-1597	5.65
AC-695	2.71	6 9 5"	1½	PAC-695	3.07

STEEL

Constructed of #20 ga. sheet steel with ½" flanged edges, spot welded corners, and two removable flat covers. Finished in Black Wrinkle.

Catalog No.	H.	W.	D.	Ship. Wt. Lbs.	Net Price
C-442	4"	4"	2"	⅞	$0.93
C-453	4"	5"	3"	1¼	1.08
C-564	5"	6"	4"	1¾	1.28
C-596	5"	9"	6"	3	2.02
C-666	6"	6"	6"	2¼	1.46
C-695	6"	9"	5"	3	2.02
C-754	7"	5"	4"	2	1.39
C-8101	10"	10"	8"	6	3.30
C-1276	12"	7"	6"	4½	2.74

TEEL UTILITY CASES WITH CHASSIS ATTACHED



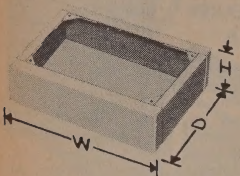
Made of #20 gauge steel with a chassis spot welded to front panel. Front and rear panels are removable. Finished in black wrinkle.

Catalog No.	Height	Width	Depth	Chassis Size	Ship. Wt. Lbs.	Net Price
CA-1400	4"	4"	2"	1 x 2⅞ x 1⅞"	1	$1.22
CA-1401	4"	5"	3"	1 x 3⅞ x 2⅞"	1¼	1.42
CA-1402	5"	4"	3"	1¼ x 2⅞ x 2⅞"	1¼	1.42
CA-1403	6"	5"	4"	1¾ x 3⅞ x 3⅞"	2	1.78
CA-1404	5"	6"	4"	1¼ x 4⅞ x 3⅞"	2	1.78
CA-1405	6"	6"	6"	1¾ x 4⅞ x 5⅞"	3	1.85

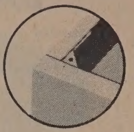
ALL PRICES F.O.B. N.Y. 59, N.Y.

PREMIER STEEL and ALUMINUM CHASSIS

STEEL and ALUMINUM BLANK



EXCLUSIVE PREMIER FEATURE!



View of Chassis Showing Gusset Spot-Welded in Corner.

Chassis are of one piece construction with gussets spot-welded to the bottom flanges for additional strength. Corners have rounded effect and single inside thickness for mounting components. Bottom edges are flanged in on four sides and punched for bottom plates.

Steel chassis are made of No. 20 gauge cold rolled steel, except those marked * which are of No. 16 gauge. Steel chassis are finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

Aluminum chassis are made of No. 18 gauge (.040) aluminum, except those marked * which are of No. 14 gauge (.064). Natural Aluminum Finish.

ALUMINUM			Size			STEEL		
Cat. No.	Ship. Wt. Lbs.	Net Price	D.	W.	H.	Cat. No.	Ship. Wt. Lbs.	Net Price
ACH-400	½	$1.33	5½"	9½"	1½"	CH-400	1	$0.91
ACH-401	¾	1.52	5"	10"	3"	CH-401	1½	1.26
ACH-402	1	2.57	6"	14"	3"	CH-402	2½	1.48
ACH-403	½	1.33	7"	7"	2"	CH-403	1¼	1.07
ACH-404	½	1.39	7"	9"	2"	CH-404	1½	1.26
ACH-405	¾	1.52	7"	11"	2"	CH-405	1⅞	1.29
ACH-406	¾	1.64	7"	13"	2"	CH-406	2	1.40
ACH-407	1	2.89	7"	15"	3"	CH-407	2¾	1.67
ACH-408	1	2.36	4"	17"	3"	CH-408	2¼	1.50
ACH-409	1½	2.85	7"	17"	3"	CH-409	3⅛	1.83
ACH-410	1⅛	2.89	8"	17"	2"	CH-410	2¾	1.67
ACH-411	1½	3.00	8"	17"	3"	CH-411	5¼	1.83
ACH-412	1¼	2.68	10"	12"	3"	CH-412	2¾	1.76
ACH-413	1¼	3.40	10"	14"	3"	CH-413	3¼	1.86
ACH-414	1¼	3.26	10"	17"	2"	CH-414	3¼	1.92
ACH-415*	1⅞	3.65	10"	17"	3"	CH-415*	6	2.16
ACH-416*	2	4.20	10"	17"	4"	CH-416*	7½	2.39
ACH-417*	1¾	3.48	11"	17"	2"	CH-417*	5¼	2.62
ACH-418*	2	4.27	11"	17"	3"	CH-418*	6¼	2.87
ACH-419*	1⅞	3.81	12"	17"	2"	CH-419*	5	1.99
ACH-420*	2⅛	4.51	12"	17"	3"	CH-420*	7	2.40
ACH-421*	2⅞	4.98	12"	17"	4"	CH-421*	8½	2.62
ACH-422*	1⅞	4.02	13"	17"	2"	CH-422*	6	2.87
ACH-423*	2⅛	4.79	13"	17"	3"	CH-423*	7	3.31
ACH-424*	2½	5.48	13"	17"	4"	CH-424*	10	3.78
ACH-425	⅞	1.64	7"	11"	3"	CH-425	2¼	1.40
ACH-426	¼	1.09	5"	7"	2"	CH-426	1	1.04
ACH-427	1¼	2.91	8½"	15"	3"	CH-427	3	1.92
ACH-428	¼	1.50	5"	7"	3"	CH-428	1¼	1.06
ACH-429	¾	1.80	5"	13"	3"	CH-429	2	1.56
ACH-430	1	2.19	8"	12"	3"	CH-430	2½	1.67
ACH-431	¼	1.29	4"	6"	2"	CH-431	1	1.01
ACH-432	¼	1.33	4"	6"	3"	CH-432	1	1.04
ACH-433	⅞	1.83	7"	12"	3"	CH-433	2½	1.46
ACH-434	1	2.70	6"	17"	3"	CH-434	4	1.76
ACH-435*	2½	5.37	10"	23"	3"	CH-435*	10	2.74
ACH-436	¼	1.09	4"	6"	1½"	CH-436	¾	1.04
ACH-437	⅜	1.13	4"	8"	2"	CH-437	1	1.07
ACH-438*	3	10.79	17"	17"	4"	CH-438*	13	5.42
—	—	—	10"	17"	5"	CH-439*	8½	2.89
—	—	—	13"	17"	5"	CH-440*	11	4.26
ACH-441	1	1.68	8"	10"	2½"	CH-441	2½	1.42

*Made from No. 14 gauge (.064) aluminum.

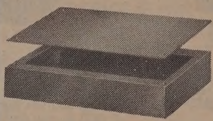
*Made from No. 16 gauge steel.

FOR BOTTOM PLATES AND CHASSIS MOUNTING BRACKETS SEE PAGE 23

ALL PRICES F.O.B. N.Y. 59, N.Y.

REMOVABLE TOP

Made of #16 Ga. Cold Rolled Steel. Top and Bottom edges flanged in on four sides. Top plate is removable. Finished in either Black Wrinkle or Zinc Plated. Zinc plated furnished if finish is not specified.

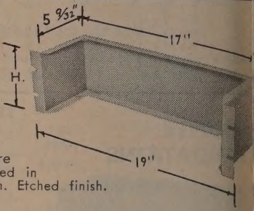


Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RCH-415	10 x 17 x 3	5	$4.01
RCH-416	10 x 17 x 4	5	4.46
RCH-423	13 x 17 x 3	9	4.20
RCH-424	13 x 17 x 4	10	5.18

REPLACEMENT TOPS

Cat. No.	Size	Ship. Wt. Lbs.	Net Price
RTC-415	10 x 17	2	$1.56
RTC-423	13 x 17	3	1.92

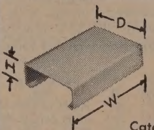
ALUMINUM VERTICAL PANEL



TO FIT 19" STANDARD RACKS

Made of 14 gauge (.064) Aluminum. Flanges are notched for standard rack mounting. All chassis depths are 5-9/32". Gussets are spot welded in each corner for greater strength. Etched finish.

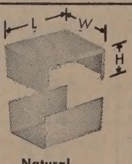
Catalog No.	Height	Ship. Wt. Lbs.	Net Price
ACH-1200	1¾"	¾	$2.55
ACH-1201	3½"	1¾	2.79
ACH-1202	5¼"	1½	3.04
ACH-1203	7"	2	3.51
ACH-1204	8¾"	2¼	4.14
ACH-1205	10½"	2¾	4.44
ACH-1206	12¼"	3	4.95
ACH-1207	14"	3¼	5.35



ALUMINUM OPEN END

Made of 18 ga. (.040) Aluminum.

Catalog No.	Depth	Width	Height	Ship. Wt. Lbs.	Net Price
ACH-1350	2⅝"	2¾"	1¼"	¼	$ .37
ACH-1351	1¾"	3⅛"	1"	¼	.41
ACH-1352	3¼"	4½"	2"	¼	.44
ACH-1353	2¾"	4⅛"	1"	¼	.44
ACH-1354	3¾"	4⅛"	1½"	¼	.44
ACH-1355	3"	6⅛"	1¼"	¼	.52
ACH-1356	5¾"	4⅞"	1½"	¼	.55
ACH-1357	4"	3⅛"	1"	½	.44
ACH-1358	4"	4⅛"	1"	½	.48
ACH-1359	4"	5⅛"	1"	½	.51
ACH-1360	4"	6⅛"	1"	½	.55



ALUMINUM MINIATURE CASES

A two piece case made of #16 Ga. (.051) aluminum. Natural Aluminum Finish or Gray Hammertone.

Natural Aluminum Cat. No.	Net Price	L.	W.	H.	Ship Wt. Lbs.	Gray Hammertone Cat. No.	Net Price
AMC-1000*	$ .70	2¾"	2⅛"	1⅝"	¼	PMC-1000*	$ .79
AMC-1001*	.70	3¼"	2⅛"	1⅝"	¼	PMC-1001*	.79
AMC-1002*	.73	4"	2⅛"	1⅝"	¼	PMC-1002*	.83
AMC-1003	.96	4"	2¼"	2¼"	⅜	PMC-1003	1.06
AMC-1004	.99	5"	2¼"	2¼"	½	PMC-1004	1.09
AMC-1005	1.17	5"	4"	3"	½	PMC-1005	1.23
AMC-1006	1.09	5¼"	3"	2⅛"	1	PMC-1006	1.19
AMC-1007	1.39	6"	5"	4"	¾	PMC-1007	1.53
AMC-1008	1.56	7"	5"	3"	1⅛	PMC-1008	1.69
AMC-1009	2.31	8"	6"	3½"	1½	PMC-1009	2.45
AMC-1010	2.88	10"	6"	3½"	1¾	PMC-1010	3.04
AMC-1011	3.24	12"	7"	4"	2	PMC-1011	3.57
AMC-1012	3.84	17"	5"	4"	½	PMC-1012	4.20
AMC-1013	1.17	10"	2"	1⅝"	¼	PMC-1013	1.23
AMC-1014	1.53	12"	2½"	2¼"	¼	PMC-1014	1.65
AMC-1015	.93	4"	2"	2¾"	⅜	PMC-1015	1.20
AMC-1016	.96	4¼"	2¼"	1½"	¼	PMC-1016	1.06

*18 Gauge (.040)

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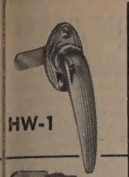
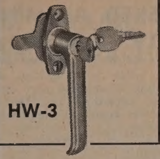
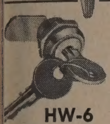
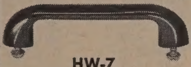
PREMIER HARDWARE

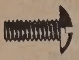

HW-1


HW-3

HW-5


HW-6


HW-7


HW-13

Cat. No.	Item	Net Price
HW-1	NON-LOCKING HANDLE Chrome plated	$2.40
HW-3	LOCKING HANDLE with 2 keys — Chrome plated	5.10
HW-5	DROP HANDLE Finished in Black and Gray Wrinkle; Gray and Brown Hammertone	.75
HW-6	CYLINDER LOCK with 2 keys — Nickel plated	4.20
HW-7	BLACK NYLON HANDLE with 2 screws	.51
HW-13	TRUSS HEAD MACHINE SCREWS 10/32 x ¾″ Nickel plated	2.00 per 100*

***Minimum Quantity**

PREMIER ECONOMY SLIDES

"A" SERIES

Patent No. 2,542,247

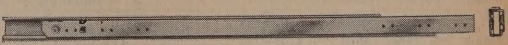
May be mounted on side or underneath.

Ball bearing spacer and patented silencer spring eliminates slide noise and vibration.

All members made of 16 gauge cold rolled steel.

Black oxidized finish.

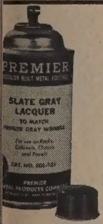
Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
A-50-13	9″	11″	13″	50	$2.80
A-40-15	11	11	15	40	2.90
A-30-165	12½	11	16½	30	3.00
A-30-185	14½	11	18½	30	3.20



"330" SERIES

- Side mounted.
- Each slide rolls on 2 concealed and dust-free nylon wheels.
- No metal-to-metal contact—noiseless operation.
- Drawer is tilted up for quick removal.
- Made of 16 gauge cold rolled steel and zinc plated.

Catalog No.	Slide Travel	Track Length	Channel Length	Load Cap.	Net Price Per Pair
330-62-12	7⅞″	12″	12″	62	$3.25
330-58-14	9⅞	14	14	58	3.40
330-54-16	11⅞	16	16	54	3.50
330-50-18	13⅞	18	18	50	3.70
330-46-20	15⅞	20	20	46	3.80

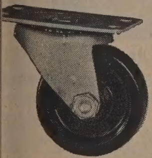


Self-Spraying LACQUER Available in 3 Colors

Cat. No.	To Match
SGL-101	Premier Gray Wrinkle
GHL-102	Premier Gray Hammertone
BHL-103	Premier Brown Hammertone

NET PRICE: $1.95 EACH 12 oz. CAN

CASTERS FOR RACKS AND CABINETS



Made of Plaskite non-marking composition wheel with Ball Bearing Swivel Plate. Packed one set of 4 in box with screws for assembly.

Cat. No.	Wheel Size	Overall Height	Cap. per caster—lbs.	Net Price
CA-4	2″ dia. x 13/16″	2 7/16″	80	$3.60 Set of 4
CA-5	3″ dia. x 1¼″	3 13/16″	225	7.20 Set of 4
CA-6	Double 2″ dia. x 1⅝″	2 13/16″	160	12.00 Set of 4

CHASSIS MOUNTING BRACKETS

- Constructed of No. 16 gauge steel.
- Finished in Black enamel.
- Sold in pairs only.

STANDARD TYPE

	Cat. No.	H.	D.	Ship. Wt. Lbs.	Net Price
Notched for 3″ Chassis	CB-78	6½″	8″	1½	$0.96
	CB-710	6½″	10″	1¾	1.29
	CB-711	6½″	11″	2	1.39
	CB-712	6½″	12″	2⅛	1.51
	CB-713	6½″	13″	2¼	1.62
	CB-717	6½″	17″	3	2.51
Notched for 4″ Chassis	CB-810	8½″	10″	2⅜	1.91
	CB-813	8½″	13″	3	2.02

TRIANGULAR TYPE

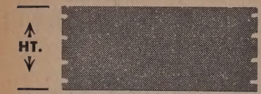
Cat. No.	Height	Depth	Ship. Wt. Lbs.	Net Price
TCB-55	5″	5″	1	$ .99
TCB-77	7″	7″	1	1.12
TCB-99	9″	9″	1½	1.36

ALUMINUM AND STEEL BOTTOM PLATES

The bottom plates have holes to match the chassis and have 4 pressed dimples. Steel plates made of No. 20 gauge steel, finished in either Black Wrinkle or Zinc Plated. Aluminum plates made of No. 18 gauge (.040). Natural aluminum finish.

ALUMINUM			STEEL		
Cat. No.	Net Price	Size	Cat. No.	Ship. Wt. Lbs.	Net Price
ABP-400	$0.87	5½″ x 9½″	BP-400	1	$0.41
ABP-401	.87	5″ x 10″	BP-401	1	.46
ABP-402	1.32	6″ x 14″	BP-402	1	.63
ABP-403	.90	7″ x 7″	BP-403	1	.46
ABP-404	.96	7″ x 9″	BP-404	1	.50
ABP-405	1.06	7″ x 11″	BP-405	1	.60
ABP-406	1.32	7″ x 13″	BP-406	2	.66
ABP-407	1.32	7″ x 15″	BP-407	2	.73
ABP-408	1.32	4″ x 17″	BP-408	2	.60
ABP-409	1.36	7″ x 17″	BP-409	2	.77
ABP-410	1.53	8″ x 17″	BP-410	2	.77
ABP-412	1.50	10″ x 12″	BP-412	2	.77
ABP-413	1.37	10″ x 14″	BP-413	2	.80
ABP-414	1.72	10″ x 17″	BP-414	2	1.03
ABP-418	2.16	11″ x 17″	BP-418	3	1.06
ABP-419	2.28	12″ x 17″	BP-419	3	1.11
ABP-422	2.41	13″ x 17″	BP-422	3	1.19
ABP-423	.87	5″ x 7″	BP-423	1	.41
ABP-424	.99	5″ x 13″	BP-424	1	.66
ABP-425	1.32	8″ x 12″	BP-425	2	.92
ABP-426	.87	4″ x 6″	BP-426	1	.41
ABP-427	1.14	7″ x 12″	BP-427	2	.79
ABP-428	1.36	6″ x 17″	BP-428	2	.77
ABP-429	2.55	10″ x 23″	BP-429	2	1.66
ABP-430	.87	4″ x 8″	BP-430	1	.41
ABP-431	2.57	17″ x 17″	BP-431	4	1.67
ABP-432	2.41	8½″ x 15″	BP-432	1½	1.19
ABP-433	1.14	8″ x 10″	BP-433	1	.79

PREMIER STEEL & ALUMINUM RACK PANELS



BLANK RACK PANELS
9½" - 19" - 24" - 30" WIDTHS

All 24" and 30" wide blank panels are finished in Black or Gray Wrinkle, Gray or Brown Hammertone. If color is not specified, Black Wrinkle is furnished.

ALL 19" WIDE PAINTED PANELS ARE FINISHED IN REVERSIBLE COLORS

REVERSIBLE

When ordering just specify Reversible Colors—

Example: Aluminum Panel 8¾" x 19" — Black Wrinkle on one side — Gray Wrinkle on other side — order as follows:

ARP-819 Reversible Wrinkle.

Example: Steel Panel 7" x 19" — Gray Hammertone one side — Brown Hammertone other side — order as follows:

RP-719 Reversible Hammertone.

ALUMINUM

Made of ⅛" Thick Aluminum and finished in Gray Hammertone only.

9½" Wide

Cat. No.	Ship. Wt.	Height	Net Price
ARP-195	¼	1¾"	$0.84
ARP-395	½	3½"	1.14
ARP-595	¾	5¼"	1.65
ARP-795	1	7"	2.01
ARP-895	1¼	8¾"	2.37
ARP-1095	1½	10½"	3.00
ARP-1295	1¾	12¼"	3.48
ARP-1495	2	14"	3.96

MASKED ALUMINUM PANELS
19" WIDE — ⅛" THICK

Made of bright natural aluminum covered on both sides with special self-adhesive paper. Drilling or milling can be done on paper in place, affording complete damage protection. Paper is removed simply by peeling.

Catalog No.	Height	Ship. Wt. Lbs.	Net Price
MAP-119	1¾"	½	$1.01
MAP-319	3½"	1	1.36
MAP-519	5¼"	1½	1.86
MAP-719	7"	2	2.24
MAP-819	8¾"	2½	2.68
MAP-1019	10½"	3	3.37
MAP-1219	12¼"	3½	3.94
MAP-1419	14"	4	4.51
MAP-1519	15¾"	4	5.04
MAP-1719	17½"	4¾	5.54
MAP-1919	19¼"	5	6.08
MAP-2119	21"	6	6.62

19" WIDE

	Aluminum — ⅛" Thick			Aluminum — 3/16" Thick			Steel — No. 12 Gauge		
Height	Cat. No.	Ship. Wt. Lbs.	Net Price	Cat. No.	Ship. Wt. Lbs.	Net Price	Cat. No.	Ship. Wt. Lbs.	Net Price
1¾"	ARP-119	½	$1.01	ARP-119-36	¾	$1.62	RP-119	1	$0.77
3½"	ARP-319	1	1.36	ARP-319-36	1½	2.11	RP-319	2	.88
5¼"	ARP-519	1½	1.86	ARP-519-36	2½	3.00	RP-519	3	1.09
7"	ARP-719	2	2.24	ARP-719-36	3	3.60	RP-719	4	1.26
8¾"	ARP-819	2½	2.68	ARP-819-36	3¾	4.29	RP-819	5¼	1.54
10½"	ARP-1019	3	3.37	ARP-1019-36	4½	5.40	RP-1019	6¼	1.86
12¼"	ARP-1219	3½	3.94	ARP-1219-36	5	6.30	RP-1219	7¼	2.21
14"	ARP-1419	4	4.51	ARP-1419-36	6	7.23	RP-1419	8¼	2.55
15¾"	ARP-1519	4	5.04	ARP-1519-36	6	8.07	RP-1519	9	2.87
17½"	ARP-1719	4¾	5.54	ARP-1719-36	7	8.88	RP-1719	10½	3.15
19¼"	ARP-1919	5	6.08	ARP-1919-36	7½	9.75	RP-1919	12	3.50
21"	ARP-2119	6	6.62	ARP-2119-36	9	10.59	RP-2119	12½	3.85

24" WIDE

Aluminum — 1/8" Thick				Steel — No. 12 Gauge		
Cat. No.	Ship. Wt. Lbs.	Net Price	Height	Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-324	1¼	$2.09	3½"	RP-324	2¼	$1.35
ARP-524	2	3.09	5¼"	RP-524	3½	1.65
ARP-724	2½	3.72	7"	RP-724	4½	1.89
ARP-824	3	4.44	8¾"	RP-824	6	2.34
ARP-1024	3½	5.58	10½"	RP-1024	7	2.82
ARP-1224	4	6.54	12¼"	RP-1224	8	3.33
ARP-1424	4½	7.47	14"	RP-1424	9	3.81
ARP-1524	5	8.32	15¾"	RP-1524	10	4.32
ARP-1724	5½	9.18	17½"	RP-1724	11	4.74
ARP-1924	6	10.05	19¼"	RP-1924	12	5.25
ARP-2124	6½	10.95	21"	RP-2124	13	5.79

30" WIDE

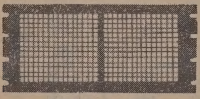
Aluminum — 1/8" Thick				Steel — No. 12 Gauge		
Cat. No.	Ship. Wt. Lbs.	Net Price	Height	Cat. No.	Ship. Wt. Lbs.	Net Price
ARP-330	1½	$2.77	3½"	RP-330	3	$1.77
ARP-530	2¼	4.11	5¼"	RP-530	4½	2.19
ARP-730	3	4.95	7"	RP-730	6	2.52
ARP-830	3¾	5.89	8¾"	RP-830	8	3.09
ARP-1030	4½	7.44	10½"	RP-1030	9¼	3.12
ARP-1230	5	8.67	12¼"	RP-1230	10¼	4.41
ARP-1430	6	9.93	14"	RP-1430	12	5.07
ARP-1530	6½	11.10	15¾"	RP-1530	13½	5.76
ARP-1730	7	12.24	17½"	RP-1730	15	6.30
ARP-1930	7½	13.41	19¼"	RP-1930	18	6.96
ARP-2130	9	14.56	21"	RP-2130	19	7.71

PANELS — 19" WIDE

Made of No. 12 Gauge Steel

FINISHED IN EITHER BLACK OR GRAY WRINKLE, GRAY OR BROWN HAMMERTONE

IF COLOR IS NOT SPECIFIED, BLACK WRINKLE IS FURNISHED.



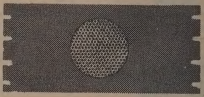
GRILLE PANELS

Cat. No.	Grill Size	Height	Ship. Wt. Lbs.	Net Price
GRP-601	3⅞"x13⅜"	5¼"	2	$3.09
GRP-602	3⅞"x13⅜"	7"	2	3.31
GRP-603	5⅞"x13⅜"	8¾"	2½	4.00
GRP-604	*3⅞"x13⅜"	8¾"	2½	3.68
GRP-605	7⅞"x13⅜"	10½"	2½	4.38
GRP-606	*5⅞"x13⅜"	10½"	2½	4.00
GRP-607	*7⅞"x13⅜"	12¼"	3	4.54

* Allows 3½" space at bottom for chassis mounting.

METER PANELS — 5¼"

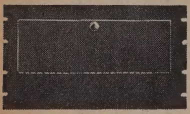
Cat. No.	No. of Holes	Meter Size	Hole Size	Shp. Wt. Lbs.	Net Price
MRP-900	3	2"	2¼"	7	$1.62
MRP-901	5	2"	2¼"	7	2.19
MRP-902	3	3"	2¹³⁄₁₆"	7	1.62
MRP-903	5	3"	2¹³⁄₁₆"	7	2.19



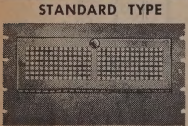
SPEAKER PANELS

A piece of perforated metal is spot-welded behind the opening.

Cat. No.	Height	Spkr. Size	Hole Size	Ship. Wt. Lbs.	Net Price
SRP-819	8¾"	6"	4⅝"	6	$2.88
SRP-1019	10½"	8"	6½"	8	3.66
SRP-1219	12¼"	10"	8½"	9	4.38
SRP-1419	14"	12"	11"	10	5.04



STANDARD TYPE



GRILLE TYPE

DOOR PANELS — 19" WIDE

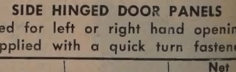
Made of No. 12 Gauge Steel

Panels have flush hinged doors with piano hinges, and are supplied with a quick turn fastener. Doors are located 1" from top to allow space for chassis at bottom.

STANDARD TYPE					GRILLE TYPE	
Cat. No.	Net Price	Height	Door Size	Shp. Wt. Lbs.	Cat. No.	Net Price
DRP-700	$5.12	8¾"	4½" x 15⅜"	9	GDRP-700	$6.57
DRP-701	5.48	10½"	6" x 15⅜"	10	GDRP-701	7.13
DRP-702	6.04	12¼"	7½" x 15⅜"	12	GDRP-702	7.86

ALL PRICES F.O.B. N. Y. 59, N. Y.

PREMIER PAGE 24



SIDE HINGED DOOR PANELS

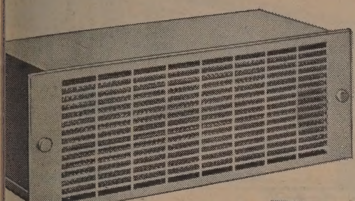
Used for left or right hand opening. Supplied with a quick turn fastener.

Cat. No.	Height	Net Price
SHP-319	3½"	$3.00
SHP-519	5¼"	3.12
SHP-719	7"	3.42
SHP-819	8¾"	3.66
SHP-1019	10½"	3.96
SHP-1219	12¼"	4.23
SHP-1419	14"	4.59
SHP-2119	21"	7.26

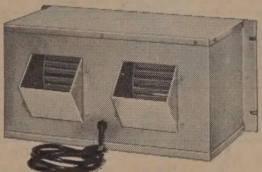
© U.C.P., Inc

PREM-O-KOOL BLOWERS and FANS

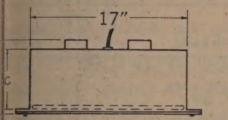
MAXIMUM COOLING with MINIMUM SPACE!

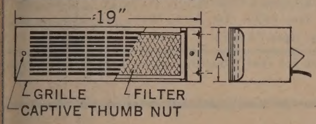


PMB SERIES



REAR VIEW





TO FIT
STANDARD
19" WIDE
PANEL
SPACE

Units available to fit Standard 24" wide panel space. Prices upon request.

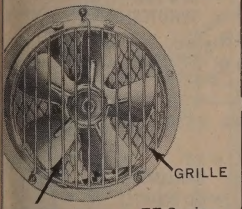
PANEL MOUNTED BLOWERS

- Permanently lubricated motors with lubricant temperature range from −29°C to +148°C.
- Permanent type washable filter—easily removable from front.
- Low noise level with minimum of vibration.
- Standard E.I.A. notching.
- Grille supplied with 2 captive thumb nuts.
- Units furnished with 3′6″ lead with molded male plug.
- Performance data prepared by impartial, independent testing laboratory.
- Motors are 115 Volt 50/60 cycle, single phase AC.
- Housing and grille made of cold rolled steel and finished in gray hammertone.

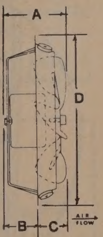
GRILLE FINISHED TO MATCH COLOR OF PREMIER CABINETS OR FRAMES AT NO ADDITIONAL COST.

CATALOG NO.	PMB-5-150	PMB-7-285	PMB-8-410*	PMB-10-750
CFM at 0" S.P.	150	285	410	750
PANEL HEIGHT (A)	5¼"	7"	8¾"	10½"
FILTER	16⅝"x4⅞" x½"	16⅝"x6¾" x½"	16⅝"x8⅜" x½"	16⅝"x10⅛" x½"
DEPTH OF ENCLOSURE ONLY (C)	6¼"	8½"	9¾"	11½"
OVERALL DEPTH including outlets and front grille (D)	7"	10¼"	11¼"	13⅜"
MOTOR				
RPM	3000	1500	1500	1500
WATTS	120	78	125	255
VOLTS	115	115	115	115
CYCLES	50/60	50/60	50/60	50/60
AMPS	1.5	1.1	1.3	2.2
TYPE	Ball Bearing shaded pole	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor	Ball bearing permanent split capacitor
SHIPPING WT. LBS.	14	24	26	35
NET PRICE	$125.00	$150.00	$175.00	$220.00

*Supplied with grille on rear outlets.



EF Series



PREM-O-KOOL

EXHAUST and INTAKE FANS

PREM-O-KOOL fans are available for exhausting air from cabinets (EF Series) and for drawing air into cabinets (IF Series).

- Minimum space required.
- Supplied with 18" lead.
- Fan and motor assembly shock mounted for minimum noise and vibration.
- Permanently lubricated ball bearing, shaded pole motors with low temperature rise.
- Easily interchangeable accessories for flexibility of mounting in cabinets.
- Cut-out and mounting holes for fans can be provided on any Premier rack or cabinet at slight additional cost.

Patent No. 3,019,965.
Other Patents Pending.

EXHAUST FANS

t. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	A	B	C	D	Hole Dia. Required	Net Price
-165	165	20	1650	6½"	2⅞"	1⅝"	1¼"	8½"	7⅜"	$50.00
-220	220	25	1550	6½	3¼	1⅝	1⅝	8½	7⅜	45.00
-300	300	65	3000	6½	4⅛	2⅝	1½	8½	7⅜	45.00
-400	400	46	1460	8	3⅝	1⅞	1¾	10½	9¼	54.00
-550	550	90	1600	9	4⅜	2⅛	2¼	11½	10⁵⁄₁₆	57.00
-750	750	105	1560	10	4⅜	2⅛	2¼	12½	11⁵⁄₁₆	60.00

ACCESSORIES FOR EXHAUST FANS

GUARDS

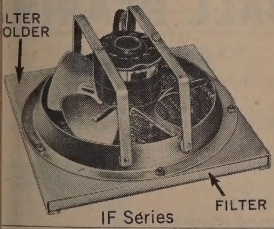
Cat. No.	Used with Fan	Dia.	Depth	Net Price
GU-6	EF165, 220, 300	6¾"	1⅞"	$2.40
GU-8	EF400	8¼	2³⁄₁₆	2.40
GU-9	EF550	9¼	2⅜	3.00
GU-10	EF750	10¼	2⅜	3.60

GRILLES

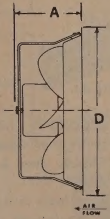
Cat. No.	Used with Fan	Dia.	Net Price
GR-6	EF165,220,300	8½"	$2.40
GR-8	EF400	10½	2.40
GR-9	EF550	11½"	3.00
GR-10	EF750	12½	3.60

SLEEVES

Cat. No.	Used with Fan	Dia.	Depth	Net Price
SL-6	EF165,220,300	8½"	1¾"	$3.60
SL-8	EF400	10½	2	3.60
SL-9	EF550	11½	2⅜	4.20
SL-10	EF750	12½	2⅜'	4.80
SL-6-MT	EF165,300	8½	1½	3.60



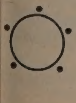
IF Series



INTAKE FANS

Cat. No.	CFM	Motor Watts	RPM	Fan Blade Dia.	Dimensions A	Dimensions D	Hole Diam. Required	Net Price
IF-160	160	20	1650	6½"	2⅞"	8½"	7⅜"	$50.00
IF-180	180	25	1550	6½	3¼	8½	7⅜	45.00
IF-300	300	65	3000	6½	4⅛	8½	7⅜	45.00
IF-360	360	46	1460	8	3¾	10½	9¼	54.00
IF-540	540	90	1600	9	4⅜	11½	10⁵⁄₁₆	57.00
IF-740	740	105	1560	10	4⅜	12½	11⁵⁄₁₆	60.00
IF-625X	Special with 1" deep plenum chamber, for drawing air through the entire area of filter. Separate provision for filter must be made.							
	625	95	1600	9½	5⅛	10½	—	57.00

PREMIER CABINETS AND RACKS



FA, PRXA, RM, RMA, R, RS, DR, DCR, DRK, SDR, SDRK, POR and FXR models may be supplied with one round and 5 mounting holes to accommodate Exhaust and Intake Fans, at additional cost.

ACCESSORIES FOR INTAKE FANS

FILTERS Permanent washable type, ½" thick

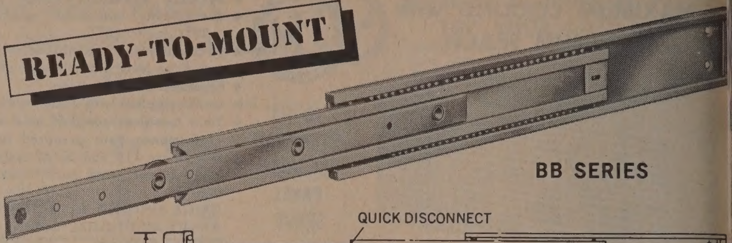
Cat. No.	Used with Fan	Size	Net Price
FL-6	IF 160, 180, 300	8⅜"Sq.	$2.40
FL-8	IF 360	10⅜ Sq.	2.40
FL-9	IF 540	11⅜ Sq.	3.00
FL-10	IF 740	12⅜ Sq.	3.00

FILTER HOLDERS

Cat. No.	Used with Fan	Size	Depth	Net Price
FH-6	IF 160, 180, 300	8⁹⁄₁₆" Sq.	⅝"	$4.80
FH-8	IF 360	10⁹⁄₁₆ Sq.	⅝	4.80
FH-9	IF 540	11⁹⁄₁₆ Sq.	⅝	6.00
FH-10	IF 740	12⁹⁄₁₆ Sq.	⅝	7.20

PREM-O-RAK® Standard CHASSIS SLIDES

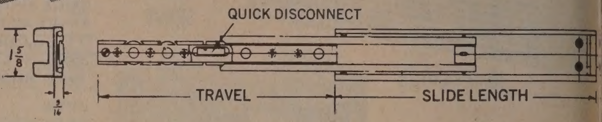
READY-TO-MOUNT



BB SERIES

100 lb. BALL BEARING SLIDES

- EXCLUSIVE "QUICK DISCONNECT" allows for immediate removal of chassis.
- Carries load of 100 lbs. when fully extended.
- Glides smoothly on stainless steel ball bearings.
- 5⁄16" horizontal side space adjustable ± 1⁄16.
- 1⅝" vertical side space.
- 3 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Slide mounts standard 17" wide chassis.
- Slide locks in open position.
- Supplied with all necessary hardware for immediate installation.

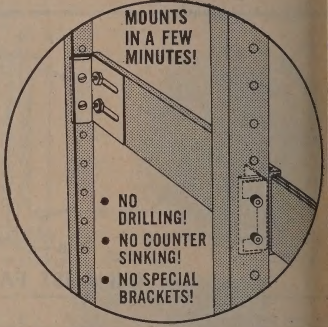


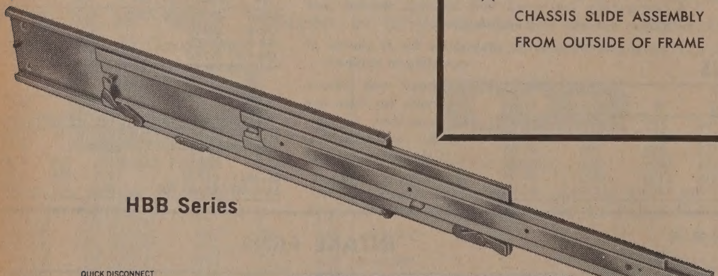
Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Pric per Pai
BB-100-14	100	14"	13"	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$63.25
BB-100-16	100	16	15	18" deep PRXA, POR (R, RS, RM, RMA, FD, DCR, SDR)*	63.25
BB-100-20	100	20	19	FS, 22" deep CPF & FA	68.50
BB-100-22	100	22	21	24" deep PRXA (RM, RMA, FD)*	69.75
BB-100-24	100	24	23	25½" deep FA & FS	71.50

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthes (See page 27).

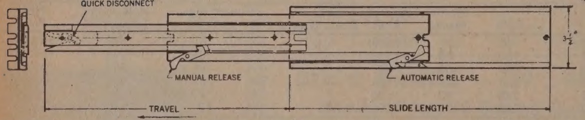
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME


MOUNTS IN A FEW MINUTES!
• NO DRILLING!
• NO COUNTER SINKING!
• NO SPECIAL BRACKETS!



HBB Series



Catalog No.	Load Rating Lbs.	Slide Length	Travel Length	Will Fit Racks	Net Price per Pair
HBB-200-14	200	14"	13"	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$81.50
HBB-200-16	200	16	15	18" deep PRXA, FOR, (R, RS, RM, RMA, FD, DCR, SDR)*	81.50
HBB-200-20	200	20	19	FS, 22" deep CPF & FA	88.75
HBB-200-22	200	22	21	24" deep PRXA (RM, RMA, FD)*	92.00
HBB-200-24	200	24	23	25½" deep FA & FS	94.00

*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthisis (See page 27)

200 lb. HEAVY BALL BEARING SLIDES

- EXCLUSIVE "QUICK DISCONNECT" allows for immediat removal of chassis.
- Chassis may be removed from side by depressing quic release lever.
- Slide locks in open position.
- ½" horizontal side space adjustable ± 3⁄32.
- Carries loads of 200 lbs. when fully extended.
- 3½" vertical side space.
- 4 telescoping anodized aluminum members.
- Allows full accessibility for instantaneous servicing.
- Glides smoothly on stainless steel ball bearings.
- Slide mounts standard 17" wide chassis.
- Supplied with all necessary hardware for immediate instal lation.

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PREM-Ō-RAK® Standard CHASSIS SLIDES

READY-TO-MOUNT

OLID BEARING SLIDES

ARRY 75 lb. and 175 lb. LOADS
ILT and NON-TILT MODELS.

XCLUSIVE "QUICK DISCONNECT" allows for nmediate removal of chassis.

B-75 Series carry 75 lbs. fully extended. SB-75 Series carry 175 lbs. fully extended.

lade of high strength cold rolled steel.

/ithstands 100 hours salt spray.

lide mounts standard 17" wide chassis.

telescoping members allow full accessibility or instant servicing.

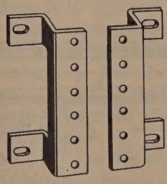
B-75 Series—.386 horizontal side space adjustable ± 1/32.

B-175 Series—.398 horizontal side space adjustable ± 1/32.

inish: Electro zinc plated, chromate treated nd completely coated with Molybedenum Diulphide lubricant.

B-175-DL Series have detent locks which alow chassis to be tilted either up or down and ocked at 90° for easy servicing.

SLIDE ADAPTER KIT



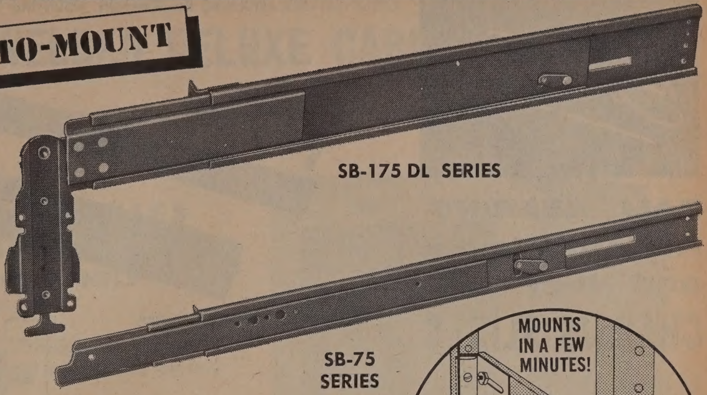
Required for rear mounting on RM, RMA, FD, RS, R, DCR, DRK, SDR and SDRK models.
Mounts to inside rear flange by drilling 4 holes.
Made of No. 12 gauge steel and tapped 10-32 on E.I.A. spacings (5/8-5/8-1/2).
Finished in Gray Hammertone.
t includes 2 brackets, ur 10-32 screws and ps.

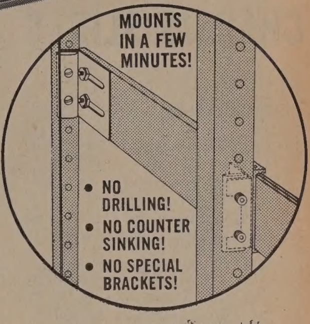
at. No. SAK-35 **$3.00 Net Price**

SLIDE TILTING KIT

or tilting one pair of slides. Consists of 4 speial screws, lock washers and nuts.

TK-75 (For SB-75 series) ....$1.50 Net Price
TK-175 (For SB-175 series)........ 1.75 Net Price

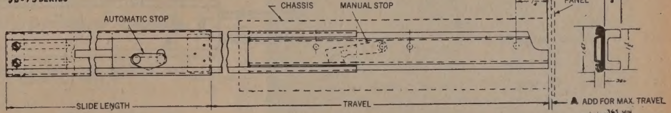

SB-175 DL SERIES
SB-75 SERIES


MOUNTS IN A FEW MINUTES!
• NO DRILLING!
• NO COUNTER SINKING!
• NO SPECIAL BRACKETS!

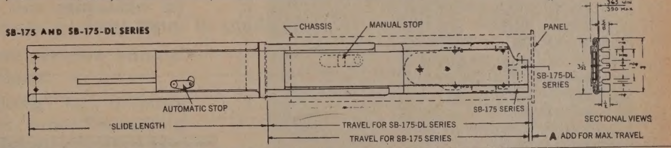
★ MOUNTS TO TAPPED HOLES OF FRONT AND REAR PANEL MOUNTING ANGLES

★ SIMPLE ADJUSTABILITY OF CHASSIS SLIDE ASSEMBLY FROM OUTSIDE OF FRAME

SB-75 SERIES

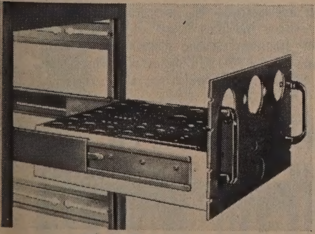

CHASSIS
MANUAL STOP
AUTOMATIC STOP
PANEL
SLIDE LENGTH
TRAVEL
A ADD FOR MAX. TRAVEL

SB-175 AND SB-175-DL SERIES

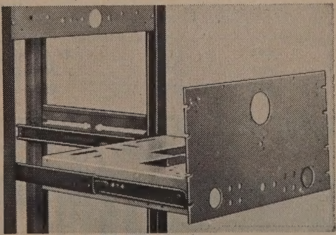

.365 MIN
.390 MAX
CHASSIS
MANUAL STOP
PANEL
SB-175-DL SERIES
AUTOMATIC STOP
SB-175 SERIES
SECTIONAL VIEWS
SLIDE LENGTH
TRAVEL FOR SB-175-DL SERIES
TRAVEL FOR SB-175 SERIES
A ADD FOR MAX. TRAVEL

Catalog No.	Load Rating lbs.	Slide Length	Travel Length	(A) Add for Max. Travel	Will Fit Racks	Net Price per Pair
SB-75-14	75	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$17.50
SB-75-16	75	16	14½	3	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	17.50
SB-75-20	75	20	18½	3	FS, 22" deep CPF & FA	17.50
SB-75-22	75	22	22½	1	24" deep PRXA (RM, RMA, FD)*	18.75
SB-75-24	75	24	22½	3	25½" deep FA & FS	19.75
SB-175-14	175	14"	14½"	1"	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$37.25
SB-175-16	175	16	18½	1	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	37.25
SB-175-20	175	20	22½	1	FS, 22" deep CPF & FA	37.25
SB-175-22	175	22	24	1	24" deep PRXA (RM, RMA, FD)*	39.50
SB-175-24	175	24	26½	1	25½" deep FA & FS	40.25
SB-175-DL-14	175	14"	14½"	—	15¼" deep POR (DCR, SDR, DRK, SDRK)*	$59.00
SB-175-DL-16	175	16	18¼	—	18" deep PRXA, POR (R, RS, RMA, FD, DCR, SDR)*	59.00
SB-175-DL-20	175	20	22¼	—	FS, 22" deep CPF & FA	59.00
SB-175-DL-22	175	22	26¼	—	24" deep PRXA (RM, RMA, FD)*	61.50
SB-175-DL-24	175	24	26¼	—	25½" deep FA & FS	63.50

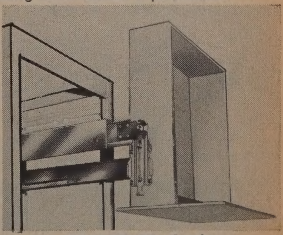
*Slide Adapter Kit (Cat. No. SAK-35) required for rear mounting on all models in parenthesis.



SB-175 Series



SB-75 Series



SB-175-DL Series

L PRICES F.O.B. N. Y. 59, N. Y.

PREMIER PAGE 27

South River

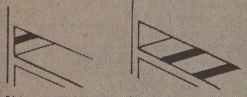
BALL BEARING Record Player and Hi-Fi

CHASSIS SLIDES

mounting instructions

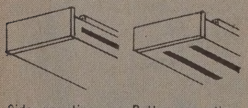
Tracks may be mounted on bottom or side. These instructions apply to either type of mounting.

1. Disassemble slide assemblies.
2. Fasten the short outer tracks to the cabinet with wood screws provided, keeping the track ends flush with the front of the cabinet. Tracks must be mounted parallel to each other to insure proper operation. (See Fig. A).
3. Fasten the long inner tracks to the chassis or moving unit, positioning them to conform in spacing to the outer tracks. Make certain that the stop pins are to the rear of the chassis. Also be sure that the tracks protrude sufficiently to the rear of the moving unit to enable removal and replacement of the stop pins. (See Fig. B).
4. Remove stop-pin springs, then remove stop pins from the long inner tracks which are mounted to the chassis.
5. Place the chassis or moving unit into the cabinet by lining up the inner and outer tracks and sliding into position.
6. Replace stop pins and springs.


Side mounting on cabinet

Bottom mounting on cabinet

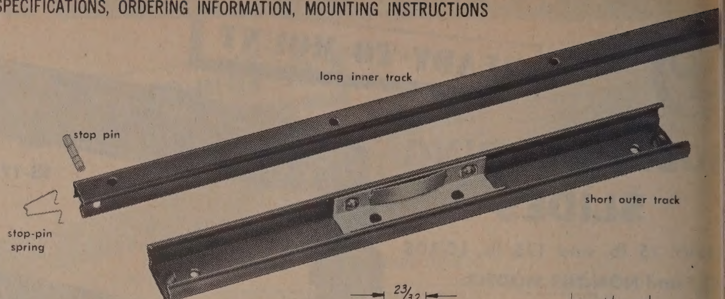
Fig. A—Short outer track


Side mounting on moving unit

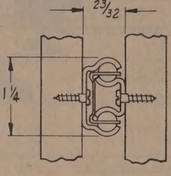
Bottom mounting on moving unit

Fig. B—Long inner track

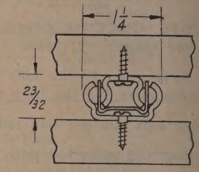
SPECIFICATIONS, ORDERING INFORMATION, MOUNTING INSTRUCTIONS



Part No. PS-13-9, exploded view.

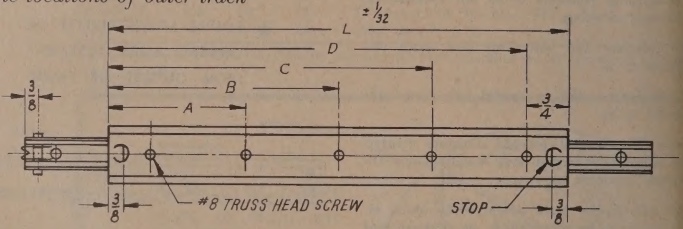


Side mounting, end view.

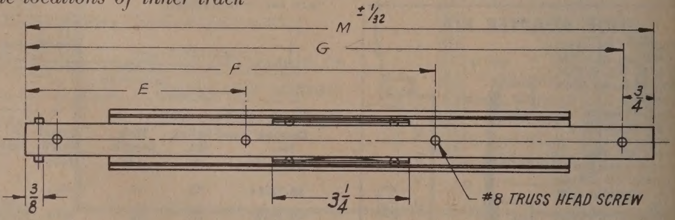


Bottom mounting, end view.

hole locations of outer track



hole locations of inner track



MODEL NUMBER	SLIDE TRAVEL (inches)	OUTER TRACK (inches)					INNER TRACK (inches)				LOAD CAP. (lbs.)	NET PER PAIR
		LOCATION OF HOLES				LENGTH	LOCATION OF HOLES			LENGTH		
		A	B	C	D	L	E	F	G	M		
PS-11-7	7½	—	5½	—	10¼	11	4⅝	8⅜	10¾	11½	50	$1.65
PS-13-9	9	3⅛	4-15/16	6¾	9⅛	9⅞	4⅝	8⅜	12¼	13	50	1.65
PS-13-10	10	—	5½	—	10¼	11	4⅝	8⅜	12¼	13	50	1.71
PS-15-11	11	—	5½	—	10¼	11	5¾	10¾	14¼	15	40	1.83
PS-16-12	12½	—	5½	—	10¼	11	5¾	10¾	15¾	16½	30	2.01
PS-18-14	14½	—	5½	—	10¼	11	6-7/16	12⅛	17¾	18½	30	2.19

Model number explanation—"PS" indicates "Phonograph Slide". First number indicates length of movable inner track (excluding fractions). Second number indicates slide travel. Example: Model PS-13-10 indicates a Phonograph Slide with a 13" inner track which has a 10" travel.

South River **METAL PRODUCTS CO., INC.**
South River, New Jersey

Net

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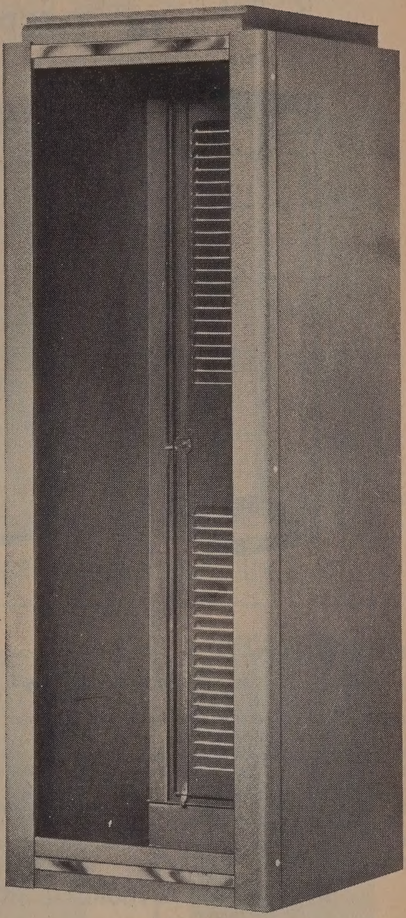
WYCO METAL PRODUCTS ALL-WELDED DELUXE CABINET RACKS

DELUXE "D" SERIES

AN ALL-WELDED UNIT FOR 19" RACK PANELS



SPECIFICATIONS:

A. Rack is constructed throughout from 16 gauge high-quality steel and is completely welded together.

B. Panel mounting angles constructed of 1½ x 1½ x ⅛" angle iron.

C. Mounting holes are tapped 10/32 thread.

D. Mounting holes are at 1¼"-½" spacings. (WESTERN ELECTRIC SPACING.)

E. Double row of louvres in rear door provide ventilation.

F. Door is hung on loose-pin hinges; it may be easily removed.

G. Door is securely locked by means of an "automotive" type highly-polished handle and linkage rods.

H. Highly polished metal trim is on front of rack at top and bottom.

I. Panel mounting screws are concealed by detachable corner vertical trim (see Item "L").

J. Finished in black or grey wrinkle enamel and silver grey hammertone.

K. When it is desired to "gang" two or more of these cabinets together, order connecting trim, using the prefix "AD" plus the last two numbers of the catalog number of the cabinet.

L. Narrow vertical trim, allowing for removal of 19" panels, without removing vertical trim, is available, upon request, at no additional charge.

RACKS — 18½" DEEP

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
D 1869	69⅝ x 23⅝ x 18½	61¼ x 19	17⅞	19⅝	16¾	155 lbs.	$112.07
D 1878	78⅜ x 23⅝ x 18½	70 x 19	17⅞	19⅝	16¾	167 lbs.	122.73
D 1885	85⅜ x 23⅝ x 18½	77 x 19	17⅞	19⅝	16¾	180 lbs.	138.71

RACKS — 24" DEEP

D 2469	69⅝ x 23⅝ x 24	61¼ x 19	17⅞	19⅝	22¼	176 lbs.	$131.61
D 2478	78⅜ x 23⅝ x 24	70 x 19	17⅞	19⅝	22¼	192 lbs.	142.26
D 2485	85⅜ x 23⅝ x 24	77 x 19	17⅞	19⅝	22¼	205 lbs.	159.97

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

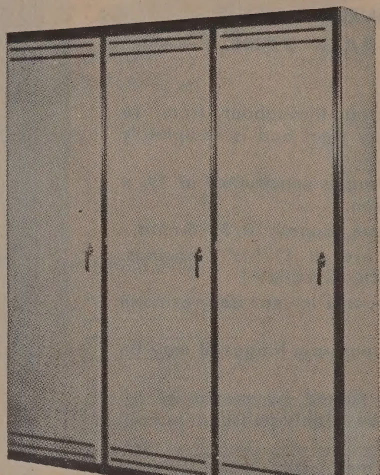
Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

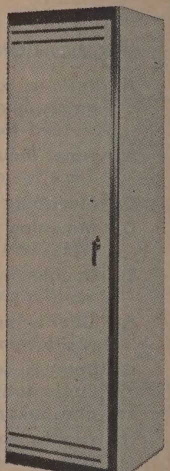
WYCO
METAL PRODUCTS

MULTIPLE RACK INSTALLATIONS

ALL-WELDED FRAME—FOR 19″ MODELS
REMOVABLE SIDES—ADJUSTABLE MOUNTING ANGLES

18″ DEEP AND 24″ DEEP





SPECIFICATIONS:

- A. Sides are removable for MULTIPLE RACK installations of two or more units.
- B. This series consists of one frame and rear door, or one frame, rear and front door.
- C. Removable sides sold separately, in pairs only.
- D. Fabricated of high-quality, heavy gauge steel and electronically welded together.
- E. Panel mounting angles are 3/16″ structural steel with mounting holes tapped 10-32 thread on 1¼″-½″ spacing.
- F. Panel mounting angles are adjustable from front to back.
- G. Highly-polished trim on doors.
- H. "Automotive" type, highly-polished handles on doors.
- I. Door can be mounted left or right hand.
- J. Bottom has cut-out for cables, leads, etc.
- K. Louvres in doors, sides and cabinet top can be added at no additional cost.
- L. A rectangular or round opening can be put into cabinet top at no additional cost.
- M. Available in primer coat, two-tone grey enamel (frame in dark grey; doors and ends in silver-grey hammertone), black or grey wrinkle.
- N. Heavy-duty Caster #RC7773 may be used with this series.

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ◄

18″ DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW861	67⅜″	61¼″	123	$103.28	FW618	67⅜″	61¼″	143	$122.24
RW870	76⅛″	70″	129	119.30	FW708	76⅛″	70″	152	132.71
RW877	83⅛″	77″	143	123.60	FW778	83⅛″	77″	168	145.50

18″ DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 1861	45 lbs.	$37.88 pr.
RS 1870	50 lbs.	40.76 pr.
RS 1877	55 lbs.	43.84 pr.

24″ DEEP RACK

REAR DOOR ONLY					FRONT AND REAR DOOR				
Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost	Cat. No.	Height	Panel Space	Approx. Shp. Wt.	Dealer Cost
RW461	67⅜″	61¼″	144	123.94	FW614	67⅜″	61¼″	169	$146.67
RW470	76⅛″	70″	153	143.22	FW704	76⅛″	70″	183	167.65
RW477	83⅛″	77″	169	152.03	FW774	83⅛″	77″	202	178.42

24″ DEEP REMOVABLE SIDES

Catalog No.	Approx. Shp. Wt. Pairs	Dealer Cost
RS 2461	56 lbs.	$45.46 pr.
RS 2470	64 lbs.	48.88 pr.
RS 2477	70 lbs.	52.79 pr.

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WYCO METAL PRODUCTS

ALL-WELDED CABINET RACKS

DELUXE SERIES "G" AND "DF" — STANDARD SERIES "SL" AND "S"

DESCRIPTION:

A. 16 ga. high quality steel.
B. Welded together.
C. Panel mounting angles ⅛" steel.
D. Western Electric spacing.
E. Tapped 10/32.
F. Louvres rear door.
G. Rear door hung on loose-pin hinges.
H. Rear door has flush-type latch.
I. Highly-polished trim at front, top and bottom.
J. Front corners rounded.
K. Available grey or black wrinkle and silver grey hammertone.
L. "SL" and "S" series have detachable vertical trim.
M. "G" and "DF" series panel mounting angles adjustable front to back.
N. "DF" series has front door with automotive type handle and three point catch.
O. "SL" series has louvres at sides.
P. Narrow vertical trim can be ordered for "SL" and "S" series.

SPECIFICATIONS:

Cat. No.	Overall Dim.	Panel Space	Approx. Ship. Wt. Lbs.	Dealer Cost
G 6119	67⅜" x 22" x 18"	61¼" x 19"	165	$ 99.14
G 7019	76⅛" x 22" x 18"	70" x 19"	185	111.56
G 7719	83⅛" x 22" x 18"	77" x 19"	195	123.92
DF 1961	67⅜" x 22" x 18"	61¼" x 19"	185	123.92
DF 1970	76⅛" x 22" x 18"	70" x 19"	200	142.22
DF 1977	83⅛" x 22" x 18"	77" x 19"	210	154.64
SL 1842	42⅞" x 21⅛" x 18"	36¾" x 19"	107	71.13
SL 1867	67⅜" x 21⅛" x 18"	61¼" x 19"	145	92.08
SL 1883	83⅛" x 21⅛" x 18"	77" x 19"	177	116.86

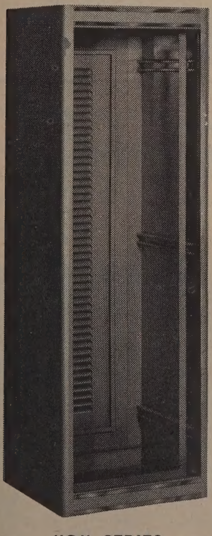
STANDARD "S" SERIES

FOR 19" RACK PANELS

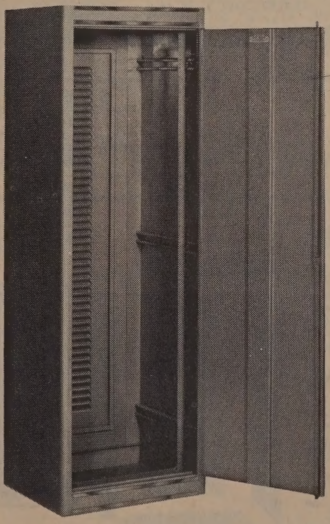
SPECIFICATIONS:

A. ALL SPECIFICATIONS AND DIMENSIONS OF "SL" SERIES APPLY, EXCEPT FOR FOLLOWING:
   (1) LOUVRES AT SIDE ARE OMITTED to facilitate use of racks in rows or "gangs."
   (2) When it is desirable to set up these cabinets in rows or "gangs," we can supply a connecting trim for a small additional charge. Order connecting trim, using prefix "AS" plus the last two numbers of the catalog number of the cabinet.
   (3) Catalog Numbers are prefaced with "S" instead of "SL."

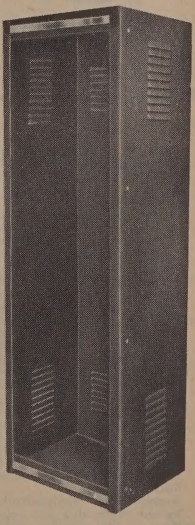
➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤



"G" SERIES
ADJUSTABLE MOUNTING ANGLE



"DF" SERIES
ADJUSTABLE MOUNTING ANGLE



"SL" SERIES
DETACHABLE VERTICAL TRIM AT FRONT CORNERS

Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

WYCO METAL PRODUCTS

CABINET RACKS - RELAY RACKS EXPAND-A-RACKS

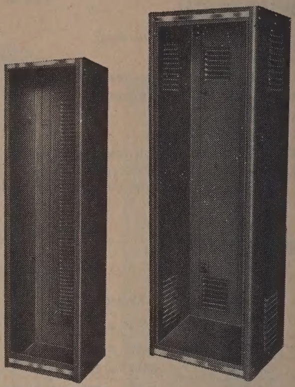
MODEL "W" AND BANNER "B" SERIES

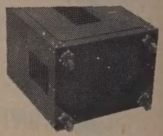
DESCRIPTION: "W" SERIES

A. 16 gauge high-quality steel.
B. Front corners are rounded.
C. Panel mounting angles ⅛" steel.
D. Mounting holes tapped 10/32 thread.
E. Mounting holes are UNIVERSAL CENTERS.
F. Louvres in rear door and sides.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. RACK IS SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.
K. Finished in black or grey wrinkle and silver grey hammertone.
L. There are four brackets spot welded to the bottom of the cabinet. Our casters (catalog No. RC100) can be attached to these brackets. This offers instant mobility, if required.

DESCRIPTION: "B" SERIES

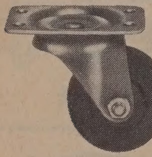
A. 16 gauge high-quality steel and is welded together.
B. Panel mounting angles, 1½x1½x⅛" angle iron.
C. Mounting holes are 10/32 thread.
D. (WESTERN ELECTRIC SPACING.)
E. Louvres in rear doors.
F. Rear corners re-inforced.
G. Door hung on loose pin hinges.
H. Door closed by two flush-type latches.
I. Highly-polished trim on front.
J. Panel mounting screws concealed by vertical trim.
K. Finished in black or grey wrinkle enamel and silver grey hammertone.
L. When it is desirable to set up racks in rows or "gangs," order connecting trim, using the prefix "AB" plus the last two numbers of the catalog number of the cabinet.


"B" SERIES


"W" SERIES

SPECIFICATIONS:

Catalog Number	Overall Dimensions	Panel Space	Clear Inside Width (Front)	Clear Inside Width (Rear)	Clear Inside Depth	Approx. Shipping Weight	Dealer Cost
W 1036	42 x22x17¼	36¾x19	17⅞	17¼	15⅞	88 lbs.	$45.17
W 1042	47¼x22x17¼	42 x19	17⅞	17¼	15⅞	95 lbs.	51.10
W 1061	66½x22x17¼	61¼x19	17⅞	17¼	15⅞	122 lbs.	63.96
W 1077	82¼x22x17¼	77 x19	17⅞	17¼	15⅞	148 lbs.	76.57
B 1876	76⅛x21⅛x18	70 x19	17⅞	17¼	16½	178 lbs.	124.49



CASTERS

DESCRIPTION:

A. Can be used with our "W" series and Expand-A-Rack series.
B. Load capacity of a set of four is 520 lbs.
C. The swivel bearing wheels are made of a hard fibrous compound.

CATALOG NO. RC-100 APPROX. SHIP. WT. EACH 8 oz.
DEALER COST $1.10 ea.

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ◄

EXPAND-A-RACK SERIES

DESCRIPTION:

A. When it is necessary to join two or more racks together, WYCO METAL PRODUCTS offers the "EXPAND-A-RACK" series.
B. Figure "A" shows two Expand-A-Racks joined together.
C. Figure "B" illustrates the method of expanding your present rack space. In place of purchasing an additional rack, a unit, consisting of the following items, would be bought: (a) the door; (b) the top; (c) the bottom; (d) an Expand-A-Rack joining unit. The right or left side of your existing relay cabinet rack is dis-assembled and replaced with an Expand-A-Rack joining unit. Following this step, the top and bottom are assembled. The cabinet side removed from the original rack is then fastened onto the second rack. Upon hanging the additional door, two complete racks are now joined together.
D. Wyco's Expand-A-Rack series may be purchased by one of two methods. One method consists of buying one complete rack (the "W" series) plus one Expand-A-Rack unit. If you already have one of our basic "W" series cabinets, then order an Expand-A-Rack unit.
E. Supports are electronically welded to the bottom to receive our casters (#RC-100).
F. There is an ample amount of compound knockouts in the Expand-A-Rack joining unit center partition. This allows cables and leads to be taken from one cabinet to the other.
G. Available in Grey or Black Wrinkle and Silver Grey Hammertone.

SPECIFICATIONS:

Cat. No.	Used to Expand-A-Rack With	Approx. Ship Wt. Lbs.	Dealer Cost
E-400	W-1036	74	$44.34
E-401	W-1042	78	49.01
E-402	W-1061	99	60.96
E-403	W-1077	126	74.90

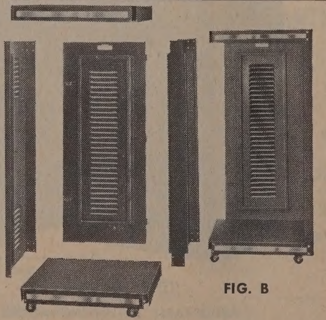


FIG. B

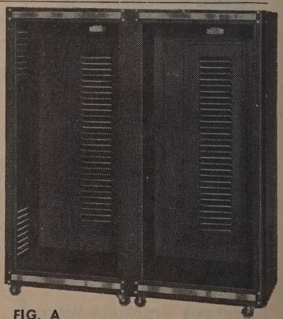


FIG. A

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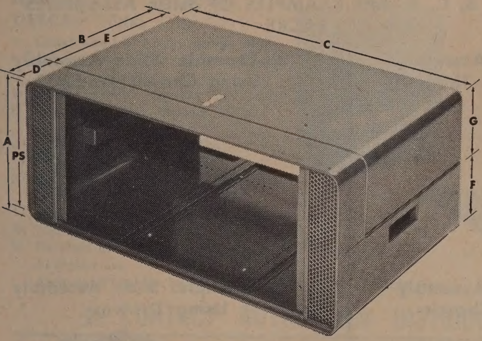
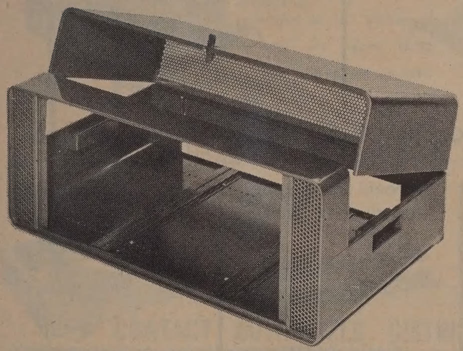
WYCO
METAL PRODUCTS

THE "SUPREME LINE" CABINET SERIES AND PORTABLE SCOPE DOLLY



FRONT VIEW



FRONT VIEW — TOP DOOR OPEN

DESCRIPTION:

- A. Fabricated of 16 ga. steel.
- B. Mounting holes tapped 10-32.
- C. Mounting holes: Universal spacing.
- D. Ventilated by perforated metal front and back and rear opening.
- E. Top door has continuous piano hinge.
- F. Top door has flush-type latch.
- G. Embossed feet with rubber bumpers at bottom.
- H. Adjustable Hat-section type rails, furnished to support chassis, have holes for bolting to cabinet bottom and chassis.
- I. Recessed carrying handles are in sides of cabinet.
- J. Finished in dark grey hammertone.
- K. Utilization of our standard aluminum or steel panels in silver grey hammertone finish with this series creates an attractive contrast.

SPECIFICATIONS

CAT #	PANEL SPACE	A	B	C	D	E	F	G	H	I	Approx. Ship. Wt. Lbs.	Dealer Cost
SL 7760	7x19	7¾	15	24	3	12	3⅞	3⅞	3⅛	3⅞	23	$26.39
SL 7761	8¾x19	9½	15	24	3	12	4¾	4¾	3⅛	4¾	25	28.15
SL 7762	10½x19	11¼	15	24	3	12	5⅝	5⅝	3⅛	5⅝	27	29.91
SL 7763	12¼x19	13	15	24	3	12	6½	6½	3⅛	6½	29	33.87
SL 7764	14x19	14¾	15	24	3	12	7⅜	7⅜	3⅛	7⅜	31	37.66

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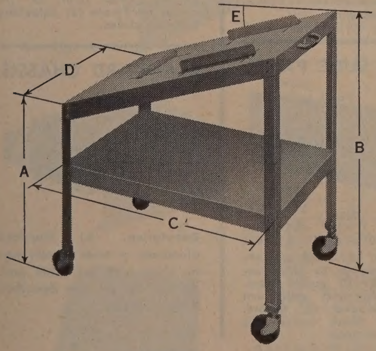

PORTABLE
SCOPE DOLLY

DESCRIPTION

- A. Shelves fabricated of high-quality steel.
- B. Legs fabricated of structural steel for strength.
- C. Highly - polished functional handle included.
- D. By adjusting brackets on the top shelf, almost any popular type of laboratory scope may be carried.
- E. Full - swivel 3" rubber casters included.
- F. Painted in smooth silver-grey hammertone.
- G. Shipped knocked-down with all necessary hardware for easy assembly.

CAT. #	Type	"A"	"B"	"C"	"D"	"E"	Approx. Ship. Wt.	Price
SD 7783	sloping	21¾"	32½"	28"	19"	20°	30#	$34.95

(PRICES SUBJECT TO CHANGE WITHOUT NOTICE)

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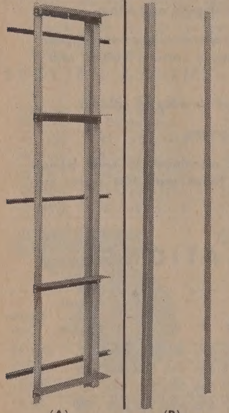
WYCO METAL PRODUCTS

SLIDES — SLIDE ASSEMBLIES
SLIDING DRAWERS
VERTICAL SLIDE SUPPORTS — EXTRA MOUNTING ANGLES
HEAVY DUTY CASTERS

(A) VERTICAL SIDE SUPPORTS

Description: (A) Bolts to Unistrut members in following series cabinets: RW/FW/G/DF. (B) 12 ga. steel; painted hammertone. (C) 10-32 holes; Universal spacing. (D) Supports shelves, mounting brackets and slide units. (E) Support brackets not included; order separately. (F) Mounting hardware included.

Cat. #	Panel Space	Ship Wt.	Price Set 4
ZA-7757	61¼″	30	$20.38
ZA-7758	70″	34	23.71
ZA-7759	77″	38	26.54

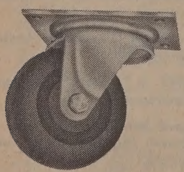


(B) EXTRA MOUNTING ANGLES

Description: (A) Order when additional pair mounting angles required for following cabinet series: RW/FW/DF/G. (B) 12 ga. steel; painted grey hammertone. (C) 10-32 holes; WE spacing.

Cat. #	Panel Space	Ship Wt.	Price Per Pr.
MA-7774	61¼″	22	$17.48
MA-7775	70″	26	19.89
MA-7776	77″	30	21.73

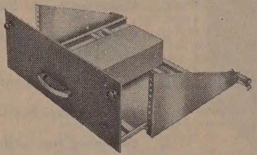
HEAVY DUTY CASTER



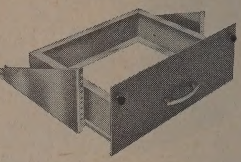
Description: (A) Capacity: 200# per caster. (B) 4″ x 1⅝″ full-swivel wheel. (C) All rubber cushion tread, hard fibrous center. (D) Used on RW/FW cabinet series.
Catalog #RC-7773
PRICE: ea. $5.18

PHOTOGRAPHS A, B, C, D, ARE EXAMPLES OF SLIDE ASSEMBLIES FOR 19″ RACKS

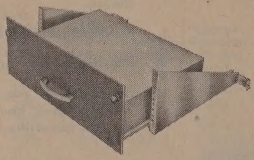
(A) Example: Slide Assembly Using Chassis LESS Than 17″ Width



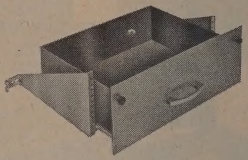
(B) Example: Slide Assembly Using Chassis Frame



(C) Example: Slide Assembly Using 17″ Wide Chassis

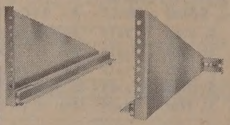


(D) Example: Slide Assembly Using Drawer



ORDER COMBINATION OF PARTS, DESCRIBED BELOW, TO BUILD ASSEMBLIES, AS REQUIRED, FOR 19″ RACK MOUNTING

SLIDES FOR 17″ WIDE CHASSIS



Catalog #BS-7777
PRICE: $7.77 pr. net

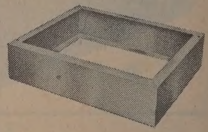
Description: (A) Supports 17″ wide chassis. (B) Supports 75 lbs. in extended position. (C) Travels on roller bearings. (D) 14″ deep in closed position. (E) Extends 10″ to front when pulled out. (F) Attaches to rear side of mounting angle. (G) Fabricated of heavy-gauge, plated steel.

SUPPORTS FOR CHASSIS LESS THAN 17″ WIDE

Catalog #BS-7778
PRICE: $2.29 pr. net

Description: (A) Used with BS-7777 to support any chassis less than 17″ wide. (B) Heavy-gauge, plated steel. (C) Includes hardware for attaching to basic slides.

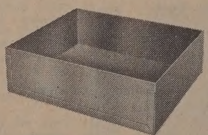
CHASSIS FRAMES



Catalog #BS-7779
PRICE: $5.12 net

Description: (A) Size 17″ x 14″ x 3″ x 1″ flange. (B) 1″ flange supports plywood for record changer. (C) Heavy-gauge, plated steel. (D) Includes hardware for attaching to basic slides.

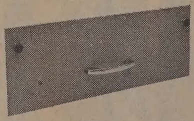
DRAWER



Catalog #BS-7780
PRICE: $8.96 net

Description: (A) Size: 17″ wide x 14″ deep x 5″ high. (B) Heavy-gauge steel. (C) Painted black enamel. (D) Includes hardware for attaching to basic slides.

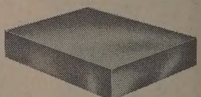
FRONT SLIDE PANEL



Cat. #	Size	Price
BS-7781	7″x19″	$4.59 net
BS-7782	10½″x19″	5.22 net

Description: (A) Used as front panel; attaches to slide assembly. (B) 12 gauge steel. (C) Handle and quick-turn latches included. (D) Colors: Grey and Black wrinkle or grey hammertone.

STANDARD CHASSIS



Description: (A) Standard aluminum or steel chassis may be used with our slide unit. (B) See list of sizes described in this catalog.

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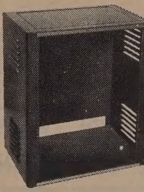
WYCO METAL PRODUCTS

CABINET RACKS - RELAY RACKS CHASSIS - CASES

MODEL "C" SERIES

DESCRIPTION:



- A. Constructed of heavy gauge high-quality steel and is completely welded together.
- B. Front vertical corners rounded.
- C. Mounting holes tapped 10/32 thread.
- D. Mounting holes spaced on UNIVERSAL CENTERS.
- E. Louvres in side provide ample ventilation.
- F. Highly-polished trim at top and bottom of front.
- G. Top door has piano hinge and flush-type latch.
- H. Finished in black or grey wrinkle and silver grey hammertone.
- I. Embossed feet on bottom minimize marring of table tops.

SPECIFICATIONS:

(DOOR IN TOP ONLY)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Dealer Cost
C719	8¾x22x15 Deep	7 x19	25 lbs.	$15.28
C819	10½x22x15 Deep	8¾x19	27 lbs.	16.70
C1019	12¼x22x15 Deep	10½x19	28 lbs.	19.12
C1219	14 x22x15 Deep	12¼x19	30 lbs.	20.12
C1419	15¾x22x15 Deep	14 x19	32 lbs.	21.96

(DOOR IN TOP AND REAR)

Catalog Number	Dimensions	Panel Space	Approx. Shipping Weight	Dealer Cost
C1719	19¼x22x15 Deep	17½x19	36 lbs.	$26.22
C2119	22¾x22x15 Deep	21 x19	40 lbs.	28.06
C2619	28 x22x15 Deep	26¼x19	43 lbs.	30.14
C3119	33¼x22x15 Deep	31½x19	47 lbs.	31.98
C3519	36¾x22x15 Deep	35 x19	50 lbs.	33.65

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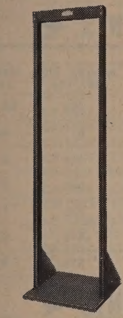
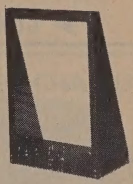


"RC" SERIES

- A. Rack constructed of ⅛" high-quality steel.
- B. Mounting holes are tapped 10/32 thread.
- C. Mounting holes are spaced on UNIVERSAL CENTERS.
- D. Base is 20" x 20".
- E. Finished in black wrinkle only.
- F. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.

"RT" SERIES

- A. Rack constructed of heavy gauge high-quality steel.
- B. Mounting holes are tapped 10/32 thread.
- C. Mounting holes are spaced on UNIVERSAL CENTERS.
- D. Finished in black wrinkle only.
- E. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for assembly.



SPECIFICATIONS:

Catalog Number	Panel Space	Approx. Shipping Weight	Dealer Cost
RC36	36¾x19	28 lbs	$21.96
RC71	71¾x19	41 lbs.	25.13

Catalog Number	Panel Space	Height	Width	Depth	Approx. Shipping Weight	Dealer Cost
RT21	21x19	25"	21"	12"	16 lbs.	$ 9.10
RT28	28x19	32"	21"	12"	18 lbs.	11.19

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ◄

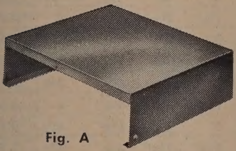


Fig. A

OPEN END CHASSIS

DESCRIPTION: Fig. A

- A. Can be utilized on all types of small built-up units such as record amplifier, code oscillator, etc.
- B. Electro-Zinc plated.

MINIATURE ALUMINUM CHASSIS

DESCRIPTION: Fig. B

- A. Ideal for miniature tube applications, sub-assemblies, small receivers, narrow band FM adaptors.
- B. Has ¼" flanges on bottom.
- C. Etched aluminum finish.

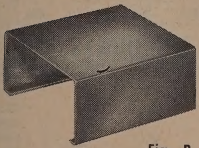
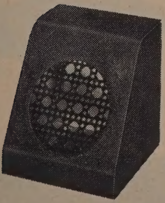


Fig. B

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
E-570	7"	6"	2"	1	$1.00
E-571	5"	7"	1½"	¾	.97
E-572	7"	7"	1½"	¾	1.24
E-573	7"	8"	2"	1	1.17
E-574	5½"	9"	1½"	¾	1.09
E-575	7½"	9"	1½"	1	1.40
E-576	7"	10"	2"	1¼	1.37
E-577	7"	11"	1½"	1¼	1.30
E-578	7"	13"	1½"	1½	1.59
E-579	10¾"	14"	2"	2½	1.87
E-580	7¾"	15"	2"	2	1.78

Catalog Number	Depth	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost
MA-700	2⅝"	2¾"	1¼"	¼	$.38
MA-701	1¾"	3⅛"	1"	¼	.42
MA-702	3¼"	4½"	2"	¼	.48
MA-703	2¾"	4⅛"	1"	¼	.45
MA-704	3¾"	4⅛"	1½"	¼	.45
MA-705	3"	6⅛"	1¼"	¼	.53
MA-706	5¾"	4⅞"	1½"	¼	.57
MA-707	4"	3⅛"	1"	½	.41
MA-708	4"	4⅛"	1"	½	.50
MA-709	4"	5⅛"	1"	½	.53
MA-710	4"	6⅛"	1"	½	.55



MINIATURE SPEAKER CASE

DESCRIPTION:

- A. Houses midget 2" or 3" speaker.
- B. Silver Grey Hammertone Finish.

SPECIFICATIONS:

Catalog Number	Hole Diameter	Fits Speaker Size	Approx. Ship. Wt. Lbs.	Dealer Cost
MS-80	2¼"	2"	¾	$1.58
MS-81	2$^{13}/_{16}$"	3"	¾	1.58

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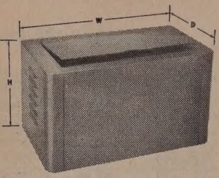
WYCO
METAL PRODUCTS

RECEIVER CABINETS - SLOPING PANEL/TOP OPENING - MULTI-USE CABINETS - CHASSIS DECK



MODEL "CS" RECEIVER CABINET (Description)

(A.) Front vertical corners are rounded. (B.) Has recessed, hinged, top door. (C.) Top door opened by finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Louvers in side provide ventilation. (F.) Silver grey hammertone only.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
CS 7727	8″	10½″	8¼″	8″x 8″	6¼	$4.31
CS 7728	8″	12½″	8¼″	8″x10″	6½	5.31
CS 7729	8″	14½″	8¼″	8″x12″	7	5.78
CS 7730	8″	16½″	8¼″	8″x14″	7½	6.05
CS 7731	8″	18½″	8¼″	8″x16″	8¼	6.63
CS 7732	12″	20⅝″	12″	12″x18″	15½	12.06

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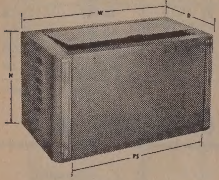

MODEL "DC" RECEIVER CABINET (Description)

(A.) Description of Model "DC" Receiver Cabinet is same as Model "CS" Cabinet except for following: There are two vertical, highly-polished trim strips on face of cabinet.

Cat. #	H	W	D	Panel Size	Approx. Ship. Wt. Lbs.	Dealer Cost
DC 7733	8″	10½″	8¼″	8″x 8″	6¼	$6.41
DC 7734	8″	12½″	8¼″	8″x10″	6½	6.51
DC 7735	8″	14½″	8¼″	8″x12″	7	6.88
DC 7736	8″	16½″	8¼″	8″x14″	7½	7.33
DC 7737	8″	18½″	8¼″	8″x16″	8¼	8.06
DC 7738	12″	20⅝″	12″	12″x18″	15½	14.66

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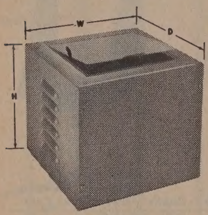

MODEL "CR" RECEIVER CABINET (Description)

(A.) Front vertical corners are square. (B.) Top door is recessed and hinged. (C.) Top door has finger lift. (D.) Removable front panel, included, is attached with self-tapping screws. (E.) Ventilation is supplied by louvers. (F.) Finished in silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CR 7720	7″	8″	8″	5½	$4.18
CR 7721	7″	10″	8″	6	4.84
CR 7722	7″	12″	8″	6¼	5.01
CR 7723	7″	14″	8″	6½	5.26
CR 7724	8″	16″	8″	7½	7.60
CR 7725	9″	15″	11″	8½	9.19
CR 7726	12″	18″	12″	15½	9.92

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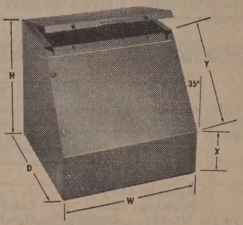
SLOPING PANEL/TOP OPENING CABINET

(Description)

(A.) Sloping front panel, included, is attached with self-tapping screws. (B.) Hinged, top door has finger lift. (C.) Opening at back for leads and ventilation. (D.) Silver grey hammertone only.



Cat. #	H	W	D	X	Y	Approx. Ship. Wt. Lbs.	Dealer Cost
SC 7739	6½″	7¹⁄₁₆″	7⁵⁄₁₆″	2¼″	5¹⁄₁₆″	3	$3.30
SC 7740	8″	8¹⁄₁₆″	8″	2¼″	6⁷⁄₁₆″	3¼	4.51
SC 7741	6½″	9¹⁄₁₆″	7⁵⁄₁₆″	2¼″	5¹⁄₁₆″	3½	3.75
SC 7742	8″	10¹⁄₁₆″	8″	2¼″	6⅞″	3¾	5.01
SC 7743	6½″	11¹⁄₁₆″	7⁵⁄₁₆″	2¼″	5¹⁄₁₆″	4	4.34
SC 7744	8″	14¹⁄₁₆″	8″	2¼″	6⅞″	4½	5.34
SC 7745	8″	13¹⁄₁₆″	8½″	2¾″	6⁵⁄₁₆″	4¾	5.59
SC 7746	9″	18¹⁄₁₆″	8⅛″	2¼″	6¹⁵⁄₁₆″	7½	7.68
SC 7747	10″	18¹⁄₁₆″	10½″	3¼″	8⅛″	8¾	7.85

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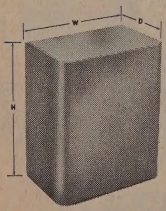


MULTI-USE CABINET (Description)

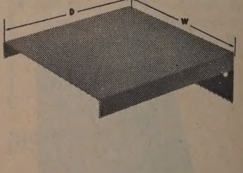
(A.) Ventilated by open back. (B.) Streamlined by rounded corners. (C.) Silver grey hammertone only.

Cat. #	H	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
MC 7748	4½″	5½″	3½″	1¼	$1.70
MC 7749	6½″	5½″	3½″	1¾	1.75

CHASSIS DECK (Description)

(A.) Can be used for interstage shielding. (B.) Made of steel. (C.) Painted black enamel.

Cat. #	W	D	Approx. Ship. Wt. Lbs.	Dealer Cost
CD 7754	4¾″	5½″	1	$.68
CD 7755	4¾″	4½″	1	.65
CD 7756	5¾″	5½″	1½	.78



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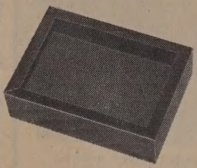
WYCO
METAL PRODUCTS

C H A S S I S

Cad Plated Cat. No.	STEEL Depth	Width	Ht.	Ga.	Approx. Ship. Wt.-Lbs.	Dealer Cost Cad.
CP-1300	5″	7″	2″	22	1	$1.30
CP-1301	5″	9½″	2½″	22	1¼	1.67
CP-1302	5″	9½″	1½″	22	1	1.69
CP-1303	5″	10″	3″	22	1¼	1.84
CP-1304	6″	14″	3″	20	1¾	2.05
CP-1305	7″	7″	2″	22	1½	1.50
CP-1306	7″	9″	2″	22	1½	1.59
CP-1307	7″	11″	2″	20	1½	1.67
CP-1308	7″	12″	3″	20	1¾	2.05
CP-1309	7″	13″	2″	20	2	1.92
CP-1310	5″	13½″	2½″	20	1¾	2.17
CP-1311	7″	15″	3″	20	2	2.40
CP-1312	8½″	15″	3″	20	2½	2.71
CP-1313	4″	17″	3″	20	2¼	2.14
CP-1314	7″	17″	2½″	20	2½	2.37
CP-1315	7″	17″	3″	20	1¾	2.59
CP-1316	8″	10″	2½″	20	2	2.02
CP-1317	8″	12″	2½″	20	2½	2.24
CP-1318	8″	12″	3″	20	1¾	2.34
CP-1319	8″	17″	2″	20	2½	2.34
CP-1320	8″	17″	3″	20	3¼	2.62
CP-1321	10″	12″	3″	20	3	2.25
CP-1322	10″	14″	3″	20	4	2.44
*CP-1323	10″	17″	2″	20	3¼	2.39
*CP-1324	10″	17″	3″	20	4	2.84
*CP-1325	10″	17″	3″	18	5	3.05
CP-1326	10″	23″	3″	18	5½	3.42
*CP-1327	11″	17″	2″	18	4½	2.81
*CP-1328	11″	17″	3″	18	4½	3.49
*CP-1329	12″	17″	2″	18	4½	3.09
*CP-1330	12″	17″	3″	18	5¼	3.67
*CP-1331	13″	17″	2″	18	5	3.72
*CP-1332	13″	17″	3″	18	5½	4.07
*CP-1333	10″	17″	4″	18	6½	3.51
*CP-1334	13″	17″	4″	18	7½	4.68
CP-1335	10″	17″	5″	18	7½	5.34
CP-1336	13″	17″	5″	18	8	5.93

Cat. No.	ALUMINUM Depth	Width	Ht.	Gauge	Approx. Shipping Wt.-Lbs.	Dealer Cost
CA-2001	4″	6″	3″	18	½	$1.34
CA-2002	4″	6″	2″	18	½	1.10
CA-2003	4″	17″	3″	16	1¼	2.33
CA-2004	5″	7″	2″	18	½	1.17
CA-2005	5″	7″	3″	16	¾	1.42
CA-2006	5″	9½″	2″	18	½	1.24
CA-2007	5″	9½″	3″	18	¾	1.60
CA-2008	5″	10″	3″	18	¾	1.63
CA-2009	5″	13″	3″	18	¾	1.84
CA-2010	6″	17″	3″	16	1¼	2.67
CA-2011	7″	7″	2″	18	½	1.35
CA-2012	7″	9″	2″	18	½	1.46
CA-2013	7″	11″	2″	18	¾	1.58
CA-2014	7″	12″	3″	18	1	2.00
CA-2015	7″	13″	2″	18	¾	1.67
CA-2016	7″	15″	3″	16	1½	2.67
CA-2017	7″	17″	3″	16	1¾	2.75
CA-2018	8″	12″	3″	16	1½	2.42
CA-2019	8″	17″	2″	16	1½	2.51
CA-2020	8″	17″	3″	16	1¾	2.84
CA-2021	10″	12″	3″	16	1½	2.67
CA-2022	10″	14″	3″	16	1¾	2.8
CA-2023	10″	17″	2″	16	1¼	2.68
CA-2024	10″	17″	3″	16	2	3.17
CA-2025	11″	17″	2″	14	2¼	3.42
CA-2026	11″	17″	3″	14	2¾	3.9
CA-2027	12″	17″	3″	14	2¾	4.0
CA-2028	13″	17″	2″	14	2½	3.51
CA-2029	13″	17″	3″	14	2¾	4.2
CA-2030	10″	17″	4″	14	3½	4.51
CA-2031	13″	17″	4″	14	3¾	5.26



STEEL CHASSIS

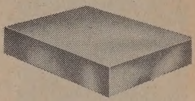
DESCRIPTION:

A. Fabricated from one piece of steel.
B. All corners electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached if desired.
D. Finished in Cad. Plate.
E. Asterisk indicates holes punched to receive chassis mounting brackets.

ALUMINUM CHASSIS

DESCRIPTION:

A. Fabricated of one piece of aluminum, 3003-H14.
B. All corners are electronically spot welded.
C. Flanges on bottom formed and punched to allow bottom plate to be attached, if desired.
D. Etched aluminum finish, MIL-C-5541.
E. Gauges indicated are aluminum gauges.



HEAVY DUTY AND PANEL CHASSIS

DESCRIPTION:

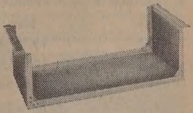
A. Made of 16 gauge cold rolled steel.
B. Bottom plate included at no additional charge.
C. Available in Cad. Plate.

Cad. Plated Cat No.	Depth	Width	Height	Approx. Shipping Wt. - Lbs.	Dealer Cost Cad Plated
C-627	8″	17″	2″	6	$4.50
C-628	8″	17″	3″	7½	4.76
C-629	11″	17″	2″	8½	4.78
C-630	11″	17″	3″	9	4.84
C-631	13″	17″	2″	9½	5.34
C-632	13″	17″	3″	10	5.43
C-633	13″	17″	4″	11	5.85

PANEL CHASSIS ALUMINUM OR STEEL

DESCRIPTION:

A. .062 aluminum (3003-H14) or 16 ga. steel.
B. Aluminum etched finish; steel plated.
C. Flange notched for mounting to rack mounting angles.



Alum. Cat. #	Steel Cat. #	W.	H.	D.	Alum. Wt.	Steel Wt.	Alum. Cost	Steel Cost
PC-505	PC-7765	19″	1¾	5/32	¾	1½	$2.30	$2.30
PC-506	PC-7766	19″	3½	5/32	1¼	2½	2.59	2.59
PC-507	PC-7767	19″	5¼	5/32	1½	3½	2.84	2.84
PC-508	PC-7768	19″	7	5/32	2	4	3.26	3.26
PC-509	PC-7769	19″	8¾	5/32	2¼	5	3.76	3.76
PC-510	PC-7770	19″	10½	5/32	2¾	6	4.43	4.43
PC-511	PC-7771	19″	12¼	5/32	3	7	4.84	4.84
PC-512	PC-7772	19″	14	5/32	3¼	8	5.34	5.34

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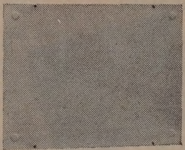
METAL PRODUCTS

ROLLER TRUCKS - BOTTOM PLATES - SHELVES
SUPPORTING ANGLES - MOUNTING BRACKETS

CHASSIS BOTTOM PLATES

STEEL AND ALUMINUM



DESCRIPTION:

A. Protects component parts and wiring from dust.

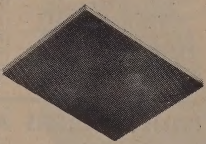
B. Four embossed feet protect table top or other surfaces from being marred.

C. Catalog number R6023 to R6045 are Cad plated steel.

D. Catalog numbers R6046 to R6055 are Aluminum etched finish.

Cad. Plated Cat. No.	Aluminum Etched Cat. No.	W.	L.	Steel Ship. Wt.	Alum. Ship. Wt.	Dealer Cost B.W.	Dealer Cost Cad.	Dealer Cost Alum.
R-6023	R-6046	5"	7"	½	⅛	$.57	$.69	$.74
R-6024	R-6047	5"	9½"	¾	¼	.62	.75	.75
R-6025	R-6048	5"	10"	¾	¼	.67	.73	.75
R-6026	R-6049	7"	7"	1	⅓	.92	.97	.77
R-6027	R-6050	7"	9"	1	⅓	.94	.99	.90
R-6028	R-6051	7"	11"	1	⅓	.95	1.07	.90
R-6029	R-6052	7"	12"	1¼	½	.99	1.12	.97
R-6030	R-6053	7"	13"	1¼	½	1.02	1.20	1.14
R-6031		5"	13½"	1		.84	1.00	—
R-6032		7"	15"	1¼		1.00	1.37	—
R-6033		8½"	15"	1½		1.04	1.47	—
R-6034		4"	17"	1½		.84	1.07	—
R-6035		6"	17"	1½		.90	1.37	—
R-6036		8"	10"	1¼		.92	1.05	—
R-6037		8"	12"	1½		1.06	1.34	—
R-6038		8"	17"	1¾		.95	1.54	—
R-6039		10"	12"	1½		.95	1.57	—
R-6040		10"	14"	1½		1.25	1.33	—
R-6041	R-6054	10"	17"	1¾	¾	1.20	1.60	1.52
R-6042		11"	17"	1½		1.20	1.60	—
R-6043		12"	17"	2		1.27	1.87	—
R-6044	R-6055	13"	17"	2½	¾	1.47	2.24	2.07
R-6045		10"	23"	2¼		2.07	2.37	—

RACK SHELVES



DESCRIPTION:

A. Used to mount heavy power supplies, modulator units, etc.

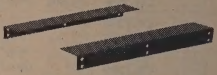
B. Supported by chassis supporting angles which are described on this page.

C. Made of heavy gauge steel.

D. Finished in black enamel only.

Cat. No.	Size	Wt. Lbs.	Dealer Cost
S195	19"x15"	6½	$3.47
S196	19"x12"	5½	2.64
S197	17⅝"x14¼"	5	3.34
S198	17⅝"x20¼"	5½	4.38

CHASSIS SUPPORTING ANGLES



DESCRIPTION:

A. Used when heavy weights are encountered in chassis construction.

B. Distributes weight on sides of rack to relieve panel.

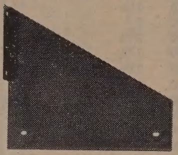
C. Made of ⅛" steel.

D. Finished in black enamel only.

E. Sold in pairs only.

Cat. No.	Length	Wt. Lbs.	Dealer Cost
A143	14½"	4	$2.25 pr.
A144	12"	3	2.17 pr.
A145	20"	7	3.34 pr.

CHASSIS MOUNTING BRACKETS



DESCRIPTION:

A. Used to insure proper support of chassis.

B. Made of heavy gauge steel.

C. Cut away at bottom to provide clearance so that chassis can mount flush against panel.

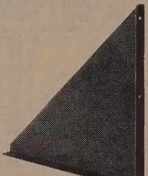
D. Finished in black enamel only.

E. Cat. # CB-565 and CB-566 designed for 4" chassis height.

F. Sold in pairs only.

Cat. No.	H.	D.	Wt. Lbs.	Dealer Cost
CB-560	6½"	8"	1¼	$1.09 pr.
CB-561	6½"	10"	1¾	1.35 pr.
CB-562	6½"	11"	2	1.50 pr.
CB-563	6½"	12"	2	1.75 pr.
CB-564	6½"	13"	2½	1.69 pr.
CB-565	8½"	10"	2¼	1.97 pr.
CB-566	8½"	13"	3	2.09 pr.

TRIANGULAR MOUNTING BRACKETS



DESCRIPTION:

A. When large weights are involved in panel and chassis assemblies, triangular mounting brackets are used as supports.

B. Fabricated of heavy gauge steel; finished in Black enamel only.

C. Sold only in pairs.

Cat. No.	Size	Approx. Shipping Wt. - Lbs.	Dealer Cost
TB-410	5"x5"	1	$1.00 pr.
TB-411	7"x7"	1	1.17 pr.
TB-412	9"x9"	1½	1.42 pr.

ROLLER TRUCKS

SPECIFICATIONS:

A. Roller Truck constructed from heavy gauge high-quality steel.

B. Casters have 2" rubber wheels and are ball-bearing swivel type.

C. Finished in grey only.

Catalog No.	Constr. for Rack Series	Description of Rack	Inside Clearance	Approx. Ship. Weight	Dealer Cost
T 18	SL	Page #4	21½x18½	16 lbs.	$13.79
	S	Page #4			
	B	Page #5			
T 19	D (18½" Deep)	Page #2	23⅞x18¾	18 lbs.	14.66
	W	Page #5			
T 24	D (24" Deep)	Page #2	23⅞x24¼	22 lbs.	15.86

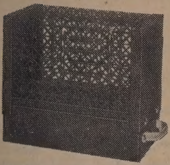
➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

WYCO
METAL PRODUCTS

AMPLIFIER FOUNDATIONS - RACK PANELS
SLOPING PANEL SUPPORTS - CABINETS

AMPLIFIER FOUNDATIONS



DESCRIPTION:

A. Consists of standard chassis and perforated metal cover.

B. Includes handles.

C. Available in Black Wrinkle only.

Cat. No.	Height	Width	Depth	Height Chassis	Approx. Shipping Wt. - Lbs.	Dealer Cost
AF-680	8 5/16″	9⅝″	5⅛″	2½″	3	$5.61
AF-681	8 5/16″	13⅝″	5⅛″	2½″	4¾	6.43
AF-682	8 5/16″	17⅛″	7⅛″	2½″	6	7.26
AF-683	8 13/16″	17⅛″	10⅛″	3″	8	8.50
AF-684	8 13/16″	12⅛″	10⅛″	3″	7	7.52

STANDARD RELAY RACK PANELS

DESCRIPTION:

A. 11 ga. STEEL or ⅛″ ALUMINUM.

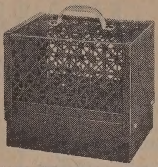
B. 19″ wide.

C. Western Electric notching.

D. Available in black or grey wrinkle, silver grey hammertone and unpainted finish.

STEEL								ALUMINUM							
Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost	Cat. No.	Height	Wt. Lbs.	Dealer Cost
SP-210	1¾″	1¼	$ .84	SP-216	12¼″	8¼	$2.42	AP-320	1¾″	¼	$1.09	AP-326	12¼″	2¾	$4.09
SP-211	3½″	2¼	1.00	SP-217	14″	9½	2.84	AP-321	3½″	¾	1.42	AP-327	14″	3	4.76
SP-212	5¼″	3¼	1.25	SP-218	15¾″	10¾	3.09	AP-322	5¼″	1	1.93	AP-328	15¾″	3½	5.34
SP-213	7″	4½	1.42	SP-219	17½″	11¾	3.51	AP-323	7″	1¾	2.42	AP-329	17½″	4	5.85
SP-214	8¾″	6	1.75	SP-220	19¼″	13	3.84	AP-324	8¾″	2	2.84	AP-330	19¼″	4¼	6.43
SP-215	10½″	7	2.09	SP-221	21″	14¼	4.26	AP-325	10½″	2½	3.59	AP-331	21″	5	7.01

MINIATURE AMPLIFIER FOUNDATION



DESCRIPTION:

A. Chassis size 5″ x 7″ x 2″.

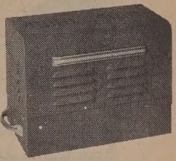
B. Perforated metal cover.

C. Includes handle.

D. Black Wrinkle finish only.

Catalog No.	Approx. Shipping Weight - Lbs.	Dealer Cost
MA-1000	2	$4.00

STREAMLINED AMPLIFIER FOUNDATIONS



DESCRIPTION:

A. Consists of standard chassis and streamlined removable top cover.

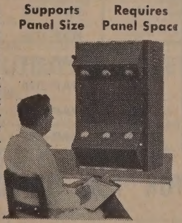
B. Includes attractive stainless steel trim and handles.

C. Available in Silver Grey Hammertone only.

Catalog No.	Width	Depth	Approx. Shipping Wt. - Lbs.	Dealer Cost
SA-670	10 1/16″	5″	4¾	$6.76
SA-671	12 1/16″	7″	5	8.02
SA-672	17 1/16″	7″	8	8.52
SA-673	17 1/16″	10″	9	9.27

SLOPING PANEL SUPPORT

In answer to many requests from engineers within the industry, WYCO METAL PRODUCTS presents the all-new SLOPING PANEL SUPPORT, The SLOPING PANEL SUPPORT allows for mounting of the standard 19″ panel in sloping position. This enables the engineer or equipment user to more easily view the rack mounted instrument panel. From this illustration, it is easy to see that the SLOPING PANEL SUPPORT offers a variety of positions in which a standard 19″ panel may be supported in sloping position. The SLOPING PANEL SUPPORT is fabricated of heavy gauge steel and is finished in Grey only.



IMPORTANT! When ordering SLOPING PANEL SUPPORTS FOR CABINET RACKS THAT HAVE FRONT CORNER VERTICAL TRIM, use catalog Prefix "B". In all other cases use catalog Prefix "G."

Prefix "B" Cat. No.	Prefix "G" Cat. No.	Supports Panel Size	Requires Panel Space	Prefix "B" Ship. Wt.	Prefix "G" Ship. Wt.	Dealer Cost "B"	Dealer Cost "G"
B-335	G-350	5¼″x19″	7″	4	2	$6.50	$3.60
B-336	G-351	7″ x19″	10½″	6	4	7.50	4.20
B-337	G-352	8¾″x19″	12¼″	6½	4½	8.10	4.67
B-338	G-353	10½″x19″	15¾″	9	6½	9.42	5.90
B-339	G-354	12¼″x19″	17½″	10	7	10.32	6.80
B-340	G-355	14″ x19″	21″	12	9	11.52	7.97

METAL DOOR RACK PANELS

DESCRIPTION:

A. Used when accessability to component parts on chassis is necessary.

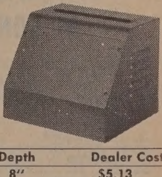
B. Made of ⅛″ steel.

C. Available in black or grey wrinkle and silver grey hammertone.

D. 19″ wide.

Cat. No.	Height	Door Opening	Wt. Lbs.	Dealer Cost
RP-310	10½″	15⅜″ x 5⅞″	7¼	$6.08
RP-311	12¼″	15⅜″ x 7⅝″	8¼	7.52

SLOPING FRONT CABINET



DESCRIPTION:

A. Top corner rounded.

B. Attractive high-polish moulding at top.

C. Front panel is removable.

D. Chassis may be mounted to front panel and removed as unit.

E. Louvres at both sides; vented at rear.

F. Available in silver grey hammertone only.

Cat. No.	Height	Width	Depth	Dealer Cost
K810	8″	8″	8″	$5.13
K811	8″	10″	8″	7.06
K812	8″	14″	8″	8.53
K813	12″	18″	12″	11.46

NOTE: If desired, an attractive handle can be used with above "K" series cabinet. Holes to mount moulding are spaced for handle, also. Catalog # for handle is HK70. Dealer Cost: $.92

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

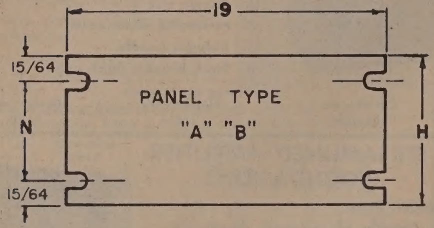
Wyco Metal Products • NORTH HOLLYWOOD, CALIFORNIA

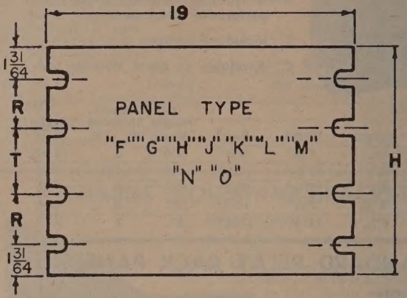
WYCO
METAL PRODUCTS

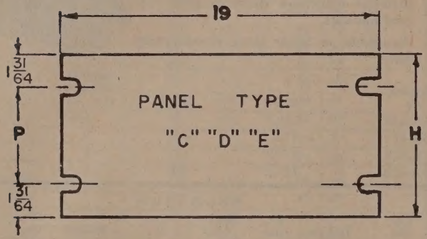
2024-T3
HARD ALUMINUM PANELS

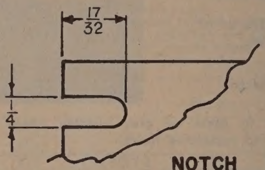
1/8" (.125) AND 3/16" (.188) THICK

RELAY RACK PANEL NOTCHING









NOTCH DETAIL

NOTE: (A) For 3-1/16" Thick Panels, Add (-316). EXAMPLE: HAP-175-316
(B) 24" Wide Panels are available. Add (-24). EXAMPLE: HAP-175-24

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"A"	HAP-175	1-23/32	1¼			
"B"	HAP-350	3-15/32	3			
"C"	HAP-525	5-7/32		2¼		
"D"	HAP-700	6-31/32		4		
"E"	HAP-875	8-23/32		5¾		
"F"	HAP-1050	10-15/32			2¼	3
"G"	HAP-1225	12-7/32			3½	2¼

Panel Type	Catalog No. 1/8" Thick	H	N	P	R	T
"H"	HAP-1400	13-31/32			4	3
"J"	HAP-1575	15-23/32			4	4¾
"K"	HAP-1750	17-15/32			4	6½
"L"	HAP-1925	19-7/32			5¼	5¾
"M"	HAP-2100	20-31/32			5¾	6½
"N"	HAP-2450	24-15/32			7	7½
"O"	HAP-2625	26-7/32			7	9¼

➤ CONTACT AUTHORIZED DISTRIBUTOR FOR QUANTITY DISCOUNTS ➤

Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price	Catalog No.	Net Price
HAP-175	$ .94	HAP-700-316	$2.50	HAP-1400	$3.57	HAP-1925-316	$6.16
HAP-175-316	1.23	HAP-875	2.31	HAP-1400-316	4.57	HAP-2100	5.22
HAP-350	1.21	HAP-875-316	2.94	HAP-1575	3.99	HAP-2100-316	6.68
HAP-350-316	1.54	HAP-1050	2.70	HAP-1575-316	5.10	HAP-2450	6.31
HAP-525	1.60	HAP-1050-316	3.45	HAP-1750	4.40	HAP-2450-316	7.26
HAP-525-316	2.04	HAP-1225	3.09	HAP-1750-316	5.63	HAP-2625	6.87
HAP-700	1.95	HAP-1225-316	3.96	HAP-1925	4.81	HAP-2625-316	8.03

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WYCO METAL PRODUCTS BOXES-CASES-CABINETS-DESK PANELS

CARRYING CASE

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Height	Steel Approx. Ship. Wt.	Alum. Approx. Ship. Wt.	Dealer Cost Steel	Dealer Cost Alum.
D-850	DA-857	5"	6"	9"	3¼	1⅛	$3.01	$3.09
D-851	DA-858	5"	9"	6"	3¼	1⅛	3.01	3.09
D-852	DA-859	6"	7"	12"	4	1⅓	4.18	4.50
D-853	DA-860	6"	12"	7"	4	1⅓	4.18	4.50
D-854	—	7"	7¾"	15"	5		4.68	—
D-855	—	8"	10"	10"	5		4.84	—
D-856	—	7"	15"	9"	5		5.85	—

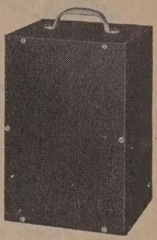
DESCRIPTION:

A. Front and rear panels are removable.

B. Includes handle.

C. Prefix "D" designates steel finished in Grey Hammertone.

D. Prefix "DA" designates aluminum etched finish (.051 alum.).



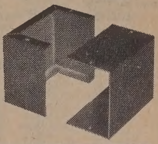
MINITBOXES

DESCRIPTION:

A. Fabricated of aluminum (.051).

B. Design assures necessary shielding.

C. Available in etched finish or Silver Grey Hammertone.



Silver Grey Cat. No.	Etched Cat. No.	Length	Width	Height	Approx. Shipping Wt.-Lbs.	Dealer Cost S.G.H.	Dealer Cost Etched
E-900	E-918	2¾"	2⅛"	1⅝"	¼	$ .85	$ .62
E-901	E-919	3¼"	2⅛"	1⅝"	¼	.92	.62
E-902	E-920	4"	2⅛"	1⅝"	¼	.92	.62
E-903	E-921	4"	2¼"	2¼"	¼	1.00	.75
E-904	E-922	5"	2¼"	2¼"	¼	1.09	.78
E-905	E-923	5"	4"	3"	½	1.25	.94
E-906	E-924	5¼"	3"	2⅛"	¼	1.09	.82
E-907	E-925	6"	5"	4"	¾	1.90	1.47
E-908	E-926	7"	5"	3"	¾	1.82	1.40
E-909	E-927	8"	6"	3½"	1	2.23	1.72
E-910	E-928	10"	6"	3½"	1¼	2.59	2.02
E-911	E-929	12"	7"	4"	1¾	3.27	2.71
E-912	E-930	17"	5"	4"	2¼	3.51	2.92
E-913	E-931	10"	2"	1⅝"	½	1.38	1.15
E-914	E-932	12"	2½"	2¼"	¾	1.70	1.37
E-915	E-933	4"	2"	2¾"	¼	1.09	.75
E-916	E-934	4¼"	2¼"	1½"	¼	1.00	.72
E-917	E-935	3¼"	2⅛"	1⅛"	¼	.84	.62

EASY BOXES (SAME DESIGN AS MINITBOX)

DESCRIPTION:

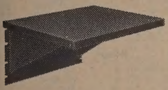
A. Design allows a number of small components to be easily wired or serviced.

B. Fabricated of 22 gauge steel.

C. Black Wrinkle finish only.

Catalog No.	Height	Width	Depth	Approx. Shipping Wt.-Lbs.	Dealer Cost
H-105	2¼"	4¼"	1½"	½	$1.15
H-106	2"	4"	2¾"	½	1.17

DESK PANELS



DESCRIPTION:

A. Table is constructed of heavy gauge high-quality steel and measures 21" x 16".

B. Panel, constructed of ⅛" steel, is 10½" x 19".

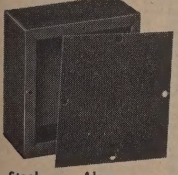
C. Front corners of table are rounded.

D. SHIPPED "KNOCKED-DOWN"; all necessary bolts supplied for easy assembly.

E. Finished in black or grey enamel and silver grey hammertone.

Catalog No.	Width	Depth	Approx. Shipping Weight	Dealer Cost
DP 16	21"	16"	14 lbs.	$14.79

METAL UTILITY CABINETS



DESCRIPTION:

A. Cabinet has two removable covers.

B. Prefix MU designates steel finished in Silver Grey Hammertone only.

C. Prefix LU designates aluminum in an etched finish (.051 Alum.).

D. Used for amplifiers, monitors, input stages, meters, tranceivers, etc.

Steel Cat. No.	Alum. Cat. No.	Depth	Width	Ht.	Steel Approx. Ship. Wt. Lbs.	Alum. Approx. Ship. Wt. Lbs.	Dealer Cost Steel	Dealer Cost Alum.
MU-750	LU-760	2"	4"	4"	¾	¼	$1.09	$1.29
MU-751	LU-761	3"	5"	4"	1	¼	1.22	1.37
MU-752	LU-762	4"	5"	6"	1¼	½	1.38	1.50
MU-753	LU-763	6"	6"	6"	2½	¾	2.09	2.17
MU-754	LU-764	5"	6"	9"	3	1	2.34	2.51
MU-755	—	7"	8"	10"	5		3.34	—
MU-756	—	6"	7"	12"	4		3.29	—
MU-757	—	8"	10"	10"	5½		4.01	—
MU-758	—	8"	11"	12"	6		4.34	—
MU-759	—	7"	9"	15"	7½		4.51	—

METER CASES

DESCRIPTION:

A. Sloping front with top corner rounded.

B. Prefix "MC" designates steel Grey Hammertone finish.

C. Prefix "AC" designates aluminum etched finish.

Catalog No.	Hole Diameter	Approx. Ship. Wt. - Lbs.	Dealer Cost
MC-73	2¼"	1	$1.10
MC-74	2 13/16"	1	1.10
AC-86	2¼"	⅓	1.42
AC-87	2 13/16"	⅓	1.42

MINIATURE UTILITY CABINETS

DESCRIPTION:

A. Front and rear panels are removable.

B. Chassis attached to front panel.

C. Fabricated in steel; Silver Grey Hammertone only.

Cat. No.	Ht.	Width	Depth	Chassis Size	Approx. Shipping Wt.-Lbs.	Dealer Cost
A-780	4"	4"	2"	1" x3⅛"x1⅞"	¾	$1.34
A-781	4"	5"	3"	1" x4⅛"x2⅞"	1	1.48
A-782	5"	4"	3"	1¼"x3⅛"x2⅞"	1	1.62
A-783	6"	5"	4"	1¾"x4⅛"x3⅞"	1¾	1.70
A-784	5"	6"	4"	1¼"x5⅛"x3⅞"	1¾	1.92
A-785	6"	6"	6"	1¾"x4⅞"x5⅞"	2¾	2.17

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Wyco Metal Products •NORTH HOLLYWOOD, CALIFORNIA

AEROVOX *Capacitors*

AEROVOX
AFH 1-77-05
150 VDC
MFD 120 150
MFD
DWRC

TYPE AFH (85°C)

Twist-Prong Electrolytic Capacitors

SINGLES • DUALS • TRIPLES • QUADS

The outstanding line of twist-prong electrolytic capacitors with the very latest refinements . . . 85°C operation; improved moisture resistant sealing; special Types AFHS and PWHS for high ripple current circuits; high-purity aluminum foil construction throughout; either etched or composite-plate depending on electrical requirements. Types PWH and PWHS are special construction for printed wiring.

For use over a wide temperature range with minimum change in capacitance. Designed for filter audio bypass applications in radio-TV and amplifier equipment.

While AFH electrolytics enjoy a tremendous popularity as replacement capacitors for TV receivers, they are rapidly gaining acceptance in many industrial applications.

Capacity tolerances and surge voltage are as listed in EIA Specification No. RS-154.

ELECTROLYTIC CAPACITY TOLERANCES:

0- 50 Volts	—10 +250%
51-350 Volts	—10 +100%
351-Up	—10 + 50%

AFH—SINGLES

AFH No.	Capacity	Voltage	Size	Net Price★
1-00-50	2000	6	1⅜x2	1.83
1.01	3000	10	1⅜x3	2.43
1-01-25	225	15	¾x2	1.05
1-02	1000	15	1x3	1.53
1-03	2000	15	1⅜x3	2.07
1-04	3000	15	1⅜x3	2.55
1-05	25	25	¾x2	.93
1-06	40	25	¾x2	.81
1-07	100	25	¾x2	1.20
1-08	500	25	1x2½	1.53
1-10	1000	25	1⅜x2	2.13
1-10-10	4	50	¾x2	.93
1-11	100	50	¾x2	.99
1-12	150	50	¾x2	1.08
1-13	500	50	1⅜x2½	1.59
1-13-05	500	50	1x3	1.59
1-14	1000	50	1⅜x3½	2.25
1-14-50	1500	50	1⅜x4	2.64
1-15	25	150	1x2	1.11
1-16	30	150	1x2	.93
1-17	40	150	1x2	1.20
1-18	50	150	1x2	.99
1-19	60	150	1x2	1.29
1-20 AFHS	80	150	1x2	1.11
1-21	100	150	1x2	1.20
1-22 AFHS	120	150	1x3	1.23
1-22-05 AFHS	120	150	1⅜x2	1.29
1-23 AFHS	140	150	1x3	1.26
†1-23-01 PWHS	140	150	1x3	1.29
1-24	150	150	1x3	1.29
1-24-01	150	150	1⅜x2½	1.29
1-24-24 AFHS	200	150	1x3½	1.47
1-24-25 AFHS	200	150	1⅜x2½	1.47
1-24-75 AFHS	300	150	1⅜x3	1.68
†1-24-95 PWH	375	165	1⅜x3½	2.79
1-25	40	200	1x2	1.26
1-25-60	120	200	1⅜x2	1.38
1-25-70	150	200	1x3½	1.68
†1-25-75 PWH	160	200	1⅜x3	1.74
1-26	15	250	1x2	1.14
1-27	20	250	¾x2	.96
1-28	30	250	¾x2	1.26
1-29	40	250	1x2	1.08
1-30	60	250	1x2½	1.53
1-31	80	250	1x3	1.59
1-31-25	100	250	1x3	1.62
1-31-75	150	250	1⅜x2½	1.86
1-31-85 AFHS	200	250	1⅜x3½	2.19
1-32	15	300	1x2	1.20
1-33	30	300	1x2	1.29
1-34	50	300	1x2½	1.56
1-35	80	300	1x3	1.53
1-36	100	300	1x3½	1.74
1-36-05 AFHS	100	300	1⅜x2½	1.74
1-37	125	300	1⅜x3	2.10
1-37-25 AFHS	150	300	1⅜x3	2.10
1-37-30 AFHS	200	300	1⅜x3	2.37
1-37-35	250	300	1⅜x4	3.33
1-38	15	350	1x2	1.23
1-39	30	350	1x2	1.14
1-40	40	350	1x2½	1.20
1-41	50	350	1x3	1.26
†1-41-05 PWH	50	350	1x2½	1.26
1-42	80	350	1⅜x2½	1.71
1-42-10 AFHS	90	350	1⅜x3	2.31
1-43 AFHS	125	350	1⅜x3	2.19
1-43-20	150	350	1⅜x3½	2.37
1-43-80 AFHS	320	350	1⅜x4½	3.99
1-44	10	400	¾x2	1.11
1-45	20	400	1x2	1.29
1-46	40	400	1⅜x2	1.50
1-47	80	400	1⅜x2½	2.22
1-48	10	450	1x2	.93
1.49	15	450	1x2	1.26
1-50	20	450	1x2	1.08
1-51	30	450	1x2½	1.17
1-52	40	450	1x3	1.23
1-53	50	450	1x3	1.41
1-54	60	450	1⅜x2½	1.62
1-55	80	450	1⅜x3	1.83
1-55-20	100	450	1⅜x3	2.07
1-55-25	125	450	1⅜x4	2.37
1-56	30	475	1x3	1.50
1-56-10	40	475	1⅜x2	1.50
1-57	90	475	1⅜x3½	2.61
1-58	10	500	1x2	.96
1-59	20	500	1x2½	1.11
1-60	30	500	1x3	1.23
1-61	40	500	1x3½	1.50
1-62	80	500	1⅜x3	2.16
1-63	90	500	1⅜x3½	2.34
1-64	10	525	1x2	1.26
1-65	10 ohm-30 cps	3 VNP	¾x2	1.50
1-66	0.5 ohm-15,750 cps	3 VNP	1x2	1.65
1-67	1 ohm-60 cps	3 VNP	1⅜x3	3.00

ELECTROLYTICS

DUALS

AFH No.	Capacity	Voltage	Size	Net Price★
2-01	1000-500	6NP	1⅜x2	2.91
2-02	1000-1000	15	1x3½	2.64
†2-02-05-PWH	250-250	16	1x2	1.65
2-02-10	500-100	16	1x2	1.86
2-02-11 PWH	500-100	16	1x1⅝	1.86
2-02-40 PWH	500-500	16	1x1⅝	1.95
2-02-50	700-150	16	1x1⅝	1.86
2-02-55	800-200	16	1x2	1.83
†2-02-60 PWH	800-250	16	1x2½	2.01
2-02-70	1000-500	16	1x2½	2.28
†2-02-75 PWH	500-200	18	1x2	2.01
2-03	20-20	25	1x2	1.08
2-04	40-40	25	1x2	1.20
2-05	150-50	25	1x2	1.41
†2-05-25 PWH	250-250	25	1x2½	1.80
2-06	50-50	50	1x2	1.02
2-06-20	100-100	50	1x2	1.26
2-07	20-10	150	1x2	1.20
2-08	20-20	150	1x2	1.02
2-09	30-15	150	1x2	1.29
2-10	30-20	150	1x2	1.29
2-11	30-30	150	1x2	1.11
2-12	40-20	150	1x2	1.08
2-13	40-30	150	1x2	1.11
2-14	40-40	150	1x2	1.14
2.15	50-30	150	1x2	1.20
†2-15-05 PWH	50-30	150	1x2	1.20
2-16	50-50	150	1x2½	1.29
2-17	60-60	150	1x3	1.41
†2-17-50 PWH	70-30	150	1x2	1.32
2-18	75-75	150	1x3	1.56
2-19	80-40	150	1x2½	1.38
†2-19-05 PWH	80-40	150	1x2½	1.35
2-19-25	80-50	150	1x2½	1.44
2-20	80-80	150	1⅜x2	1.59
2-20-50	125-100	150	1⅜x2½	2.10
2-21 AFHS	200-5	150	1⅜x2½	1.62
†2-21-01 PWHS	200-5	150	1⅜x3	1.68
2-22	200-125	150	1⅜x3	2.25
2-22-50	200-150	150	1⅜x3	2.25
2-23	200-200	150	1⅜x3	2.40
2-24	60-60	200	1⅜x2	1.53
2-24-20 AFHS	100-100	200	1⅜x3	2.10
2-24-21	100-100	200	1x3	2.10
2-24-75 AFHS	200-5	200	1⅜x3	1.83
2-25	10-10	250	1x2	1.26
2-26	20-20	250	1x2	1.14
2-27	30-30	250	1x2½	1.71
2-28	40-20	250	1x2½	1.65
2-29	40-40	250	1x3	1.50
2-30 AFHS	150-150	250	1⅜x4	3.09
2-30-25 AFHS	200-15	250	1⅜x3½	2.94
2-30-75 AFHS	200-200	250	1⅜x4½	3.66
2-31	10-10	300	1x2	1.29
†2-31-01 PWH	10-10	300	1x2	1.05
†2-31-02 PWH	10-10	300	1⅜x2	1.29
2-32	15-15	300	1x2	1.38
2-33	50-50	300	1⅜x2½	2.49
2-33-75	80-60	300	1⅜x2½	2.79
2-34	80-80	300	1⅜x3	2.43
2-35	120-20	300	1⅜x3	2.40
2-35-50 AFHS	200-80	300	1⅜x4	3.15
2-36	15-15	350	1x2	1.35
2-37	20-20	350	1x2½	1.71
2-38	30-20	350	1x3	1.95
2-39	30-30	350	1x3	1.74
2-40	50-30	350	1⅜x2½	1.89
2-40-50	60-40	350	1x3½	1.98
2-40-80	80-40	350	1⅜x3	2.37
2-41	80-80	350	1⅜x3½	2.82
2-41-10	90-40	350	1⅜x3	2.58
2-41-40	100-60	350	1⅜x3½	2.88
2-41-50 AFHS	100-100	350	1⅜x3½	3.69
2-41-80 AFHS	160-10	350	1⅜x3	2.58
2-43	15-15	400	1x2½	1.68
2-43-30	30-10	400	1x3	1.71
2-44	60-60	400	1⅜x3½	3.30
2-44-90	75-75	400	1⅜x4	3.63
2-44-95	80-4	400	1x4	1.95
2-45	80-10	400	1⅜x3	2.55
2-45-10	80-20	400	1⅜x3	2.73
2-45-40	80-60	400	1⅜x4	2.91
2-45-50 AFHS	80-80	400	1⅜x4	2.97
2-45-55 AFHS	100-100	400	1⅜x4¼	3.75
2-45-60	120-40	400	1⅜x4	3.15
2-46	5-5	450	1x2	1.05
2-47	10-10	450	1x2	1.14
2-48	15-10	450	1x2½	1.53
2-49	15-15	450	1x2½	1.35
2-50	20-10	450	1x3	1.35
2-51	20-20	450	1x3	1.53
2-52	30-10	450	1x3	1.50
2-53	30-15	450	1⅜x2	1.98
2-54	30-30	450	1⅜x2	1.83
2-56	40-20	450	1⅜x2½	1.80
2-57	40-40	450	1⅜x3	2.07
2-58	50-40	450	1⅜x3	2.73
2-59	50-50	450	1⅜x3	2.31
2-60	60-20	450	1⅜x3	2.13
2-61	60-40	450	1⅜x3½	2.37
2-61-50	60-60	450	1⅜x4	3.36
2-62	80-10	450	1⅜x3	2.16
2-63	80-20	450	1⅜x3½	2.34
2-64	80-40	450	1⅜x3½	2.61
2-64-25	100-40	450	1⅜x4	2.91
2-64-50	15-15	475	1x2½	1.41
2.65	30-10	475	1⅜x2	1.62
2-66	40-10	475	1⅜x2½	1.86
2-66-25	40-40	475	1⅜x3	2.58
2-66-50	80-40	475	1⅜x4	3.78
2-66-60	80-50	475	1⅜x4	3.12
2-67	10-10	500	1x2½	1.23
2-69	20-20	500	1⅜x2½	1.71
2-71	30-10	500	1⅜x2½	1.71
2-71-90	40-25	500	1⅜x3	2.73
2-72	40-40	500	1⅜x3	2.64
2-73	60-40	500	1⅜x3½	2.76
2-74	250/1000	10/6	1⅜x2	1.71
2-75	250/2000	10/6	1⅜x2	2.46
†2-75-45 PWH	1000/1000	16/10	1x2½	2.43
2-75-50	1500/1000	16/10	1⅜x2	2.55
*2-75-75AFHS	2000/500	30/25	1⅜x3	3.81
2-76	50/500	150/5	1x3	1.47
2-77-05	50/1000	150/10	1x2	1.77
2-77-10 PWH	60/200	150/10	1x2	1.56
2-77-20	50/1000	150/16	1x2½	1.95
2-78	40/150	150/25	1x2	1.53

DUALS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
2-78-10	50/150	150/25	1x2½	1.65
2-78-25	150/100	150/25	1⅜x2½	1.62
2-78-30	40/20	150/50	1x2	1.26
2-78-60 AFHS	150/50	150/50	1x3½	1.95
2-78-90	80/25	200/25	1x2	1.32
2-79	40/20	250/25	1x2	1.50
2-80	50/100	250/50	1⅜x2	1.95
2-81	100/150	250/50	1⅜x3	2.19
2-81-80	35/500	300/6	1x2½	1.68
2-81-90	5/150	300/20	1x2	1.11
†2-81-95 PWH	2/20	300/25	1x2	.99
2-82	20/20	300/25	1x2	1.38
2-82-30	20/40	300/50	1x3	1.35
2-82-55	150/100	300/150	1⅜x4	2.70
2-82-57	100/100	300/200	1x4	2.55
2-82-60	20/60	300/250	1x3	2.07
2-84	20/20	350/25	1x2	1.41
2-85	40/20	350/25	1x2½	1.74
2-85-10 PWH	40/25	350/25	1x2	1.38
2-85-70	5/75	350/150	1x3	1.56
2-86	40/10	350/200	1⅜x2	1.80
2-86-15	40/10	350/250	1x3	1.83
2-86-30	60/80	350/250	1⅜x3½	2.58
2-86-40	30/30	350/300	1x3	1.98
2-86-45	35/100	400/50	1x3	1.56
2-86-60	40/100	400/50	1⅜x2	2.01
2-86-70	100/30	400/50	1⅜x3	2.34
2-86-72	80/80	400/200	1⅜x3½	2.37
2-86-75	60/80	400/250	1⅜x4	2.91
2-86-85 AFHS	4/140	400/300	1⅜x3	2.16
2-86-95	100/80	400/350	1⅜x4	4.08
2-87	10/20	450/25	1x2	1.05
2-88	20/20	450/25	1x2	1.50
2-89	40/20	450/25	1x3	1.83
2-89-50	40/50	450/25	1x3	1.50
2-90	80/20	450/25	1⅜x3	2.55
2-90-50	50/100	450/50	1⅜x2½	1.80
2-91	80/50	450/50	1⅜x3	2.10
2-91-50	80/100	450/50	1⅜x3	2.25
2-92	10/50	450/100	1⅜x2	1.53
2-93	20/100	450/100	1⅜x2	2.16
2-94	30/40	450/150	1⅜x2	1.86
2-94-30	30/200	450/150	1⅜x3	2.10
2-94-45	80/40	450/200	1⅜x3	2.85
2-94-60	20/50	450/250	1x3	1.68
2-94-75 AFHS	20/150	450/250	1⅜x3	2.88
2-94-85	90/200	450/250	1⅜x4	3.63
2-94-90	10/100	450/350	1⅜x3	3.00
2-95	20/80	450/350	1⅜x3	2.16
2-96	40/10	450/350	1⅜x2	1.62
2-97	40/40	450/350	1⅜x3	2.46
2-99	75/50	475/50	1⅜x3	2.73
2-99-75	40/80	475/200	1⅜x2½	2.73
2-99-90 AFHS	80/80	475/250	1⅜x4	2.79
2-100	20/100	475/300	1⅜x3	2.49
2-100-50	20/100	475/400	1⅜x4	2.70
2-101	40/40	475/400	1⅜x3	2.79
2-101-75	80/20	475/400	1⅜x3½	3.06
2-102	80/50	500/50	1⅜x3½	2.85
2-103	60/80	500/150	1⅜x3	2.79
2-104	40/50	500/200	1⅜x3	2.46
2-105	15/20	500/300	1x2½	1.71
2-106	20/100	500/300	1⅜x3	2.91
2-107	40/40	500/400	1⅜x3	2.76
2-108	0.5 ohm-15,750 cps 2.5 ohm-60 cps	12 6	1⅜x2	2.70

TRIPLES

AFH No.	Capacity	Voltage	Size	Net Price★
3-00-50	1500-1500-1500	3	1x3½	5.40
†3-00-70 PWH	500-250-250	8	1x1⅝	2.04
†3-00-80 PWH	250-250-50	16	1x2	1.95
†3-00-90 PWH	400-100-100	16	1x2	1.80
†3-00-92 PWH	450-100-50	16	1x2	1.77
†3-00-93 PWH	500-250-50	16	1x2	2.10
†3-00-94 PWH	500-250-250	16	1x2	2.46
3-00-95	500-500-100	16	1x2	2.34
3-00-95.5 PWH	700-200-100	16	1x2	2.13
**3-00-95.6 PWH	700-200-100	16	1x2	2.13
3-00-96	1000-200-50	16	1x2	2.28
3-00-97	1000-500-20	16	1⅜x2	2.58
3-01	20-20-20	25	1x2	1.17
3-02	40-40-40	25	1x2	1.29
3-03	30-30-30	50	1x2	1.29
3-05	20-20-20	150	1x2	1.38
†3-05-50 PWH	30-25-20	150	1x2	1.44
3-06	30-30-10	150	1x2	2.10
3-07	40-20-10	150	1x2	1.41
3-08	40-20-20	150	1x2	1.44
3-09	40-30-20	150	1x2	1.50
3-10	40-40-40	150	1x2½	1.56
3-11-20	50-40-10	150	1x2½	1.53
†3-11-30 PWH	50-40-30	150	1x2½	1.62
3-11-40	50-50-30	150	1x3	2.55
3-11-50	50-50-50	150	1x3	1.80
3-12	60-40-20	150	1x3	1.65
†3-12-10 PWH	70-15-15	150	1x2	1.62
3-12-20	70-40-40	150	1x3	1.77
3-13	80-40-20	150	1x3	1.74
3-13-15	120-80-40	150	1⅜x3	2.28
3-13-30	120-120-40	150	1⅜x3	2.43
3.13-50	200-100-60	150	1⅜x3½	2.73
3-13-60	300-100-80	150	1⅜x4	3.09
†3-13-70 PWH	100-80-40	175	1x3	2.40
3-13-75	200-150-150	200	1⅜x4	4.50
3-13-90 AFHS	250-200-10	200	1⅜x4	4.02
3-14	15-15-10	250	1x2	2.19
3-17	20-20-10	250	1x2	2.25
3-17-10	20-20-20	250	1x2½	1.56
3-17-50	30-15-15	250	1x2½	2.46
3-18	30-20-10	250	1x2½	2.43
3-19	40-20-10	250	1x3	2.55
3-20	40-20-20	250	1x3	1.74
3-21	80-80-60	250	1⅜x3	2.94
3-22	10-10-10	300	1x2	1.44
3-25	60-20-10	300	1⅜x2	2.07
3-25-40	80-20-10	300	1⅜x2½	3.42
3-25-50	80-40-40	300	1⅜x2½	2.85
3-25-70	100-20-2	300	1x4½	2.46
3-25-75	100-20-10	300	1⅜x3	3.87
3-26	120-50-40	300	1⅜x4	3.39
†3-26-50 PWHS	150-100-30	300	1⅜x4	3.81
3-26-75	200-100-2	300	1⅜x4½	3.75
3-27	10-10-10	350	1x2½	1.44
3-28	20-20-10	350	1x3	2.64
3-28-30	30-20-10	350	1x2½	1.95
3-29	60-40-20	350	1⅜x3½	2.55
3-29-25	60-50-50	350	1⅜x4	2.94

†—Special construction for printed wiring

*Common Positive

**Special lug rotation for Bendix-Mopar sets

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)

TRIPLES — (Continued)

FH No.	Capacity	Voltage	Size	Net Price★
29-50	80-60-60	350	1⅜x4	3.33
29-75	90-40-20	350	1⅜x4	3.15
29-80	100-60-40	350	1⅜x4	3.69
29-85	100-100-10	350	1⅜x4	4.08
29-87 AFHS	100-100-40	350	1⅜x4½	4.50
29-95	120-40-40	350	1⅜x4	5.58
29-98	140-140-20	350	1⅜x4	4.59
30	10-10-10	400	1x2½	1.44
30-30	40-10-4	400	1x3½	1.83
30-35	40-10-10	400	1x3	1.89
30-45	40-30-10	400	1x4	2.22
30-60	80-20-10	400	1⅜x3	2.58
30-75	90-10-5	400	1⅜x3	2.64
30-80	100-50-10	400	1⅜x3	3.36
31	10-10-10	450	1x3	1.56
33	15-15-10	450	1x3	2.64
34	15-15-15	450	1x3	1.86
35	20-10-10	450	1x3	1.77
36	20-20-20	450	1⅜x2½	2.16
37	30-20-20	450	1⅜x3	2.31
37-95	30-30-10	450	1⅜x3	3.36
38	30-30-20	450	1⅜x3	3.69
39	30-30-30	450	1⅜x3	2.61
41	40-10-10	450	1⅜x3	2.01
42	40-30-20	450	1⅜x3	2.58
43	40-40-10	450	1⅜x3	2.52
43-50	40-40-20	450	1⅜x3	2.67
44	40-40-40	450	1⅜x3½	2.94
44-50	50-40-30	450	1⅜x4	2.94
45	60-20-20	450	1⅜x3½	2.76
45-10	60-30-10	450	1⅜x3	2.70
45-25	60-40-20	450	1⅜x3½	3.00
45-50	80-40-10	450	1⅜x4	4.53
46	80-40-20	450	1⅜x4	3.24
47	10-10-10	475	1x3	1.62
47-50	20-20-10	475	1x3½	2.13
48	30-20-20	475	1⅜x3	3.54
49	30-30-10	475	1⅜x3	3.60
49-10	30-30-20	475	1⅜x3	2.85
50	40-10-10	475	1⅜x3	3.45
50-05	40-20-20	475	1⅜x3	2.85
50-07	40-30-10	475	1⅜x3	2.70
50-10	40-30-30	475	1⅜x4	3.09
51	10-10-10	500	1x3	1.62
52	30-20-20	500	1⅜x3	2.52
53	40-10-10	500	1⅜x3	2.34
54	40-40-10	500	1⅜x3½	3.03
54-30	850-400/4	16/11.5RMS	1x2½	2.46
54-40	1000-500/4	16/11.5RMS	1⅜x2	2.65
54-41	1000-500/4	16/11.5 RMS	1x2½	2.64
54-50	5/500-200	25/16	1x2	1.92
55	100/50-25	100/25	1x3	2.37
57	15-15/1200	150/2	1x2	1.80
58	30-20/100	150/6	1x2	2.16
59	20-20/100	150/10	1x2	2.10
60	20-20/250	150/10	1x2	2.37
61	30-30/200	150/10	1x2	2.25
62	40-20/150	150/10	1x2	1.44
63	40-20/200	150/10	1x2½	1.47
64	40-20/250	150/10	1x2½	2.43
64-40 PWH	70-30/100	150/10	1x2½	1.68
64-50	80-20/200	150/10	1⅜x2	2.55
64-60	80-30/300	150/10	1⅜x2	1.89
64-65 PWH	80-60/250	150 10	1x3	2.04
64-70 PWH	80-60/400	150/10	1x3	2.19
64-75 PWH	90-40/400	150/10	1x3	2.10
64-85 AFHS	100-80/200	150/10	1⅜x2½	2.16
65	20/250-100	150/15	1⅜x2	2.61
66	80-20/100	150/15	1⅜x2	2.52
66-25	50-30/100	150/16	1x2	1.59
67	20-20/20	150/25	1x2	1.98
68	20-20/200	150/25	1x3	2.37
69	30-20/20	150/25	1x2	2.01
70	30-30/20	150/25	1x2	2.07
72	40-20/20	150/25	1x2	1.38
73	40-20/100	150/25	1x3	2.25
74	40-20/200	150/25	1x3	1.62
75	40-30/20	150/25	1x2½	2.10
76	40-40/20	150/25	1x2½	1.44
76-50	40-40/200	150/25	1x3	1.68
76-55	40-40/250	150/25	1x3	1.89
77	50-30/20	150/25	1x2½	1.50
78	50-30/100	150/25	1x3	1.62
79	50-50/20	150/25	1x3	1.59
80	60-20/20	150/25	1x2	2.28
81	60-40/20	150/25	1x2½	2.37
81-50 PWH	70-30/20	150/25	1x2½	1.62
82	80-40/20	150/25	1x2½	1.68
82-40	80-40/300	150/25	1⅜x2½	2.22
83	120-60/20	150/25	1⅜x2½	3.00
83-10	10/10-4	150/50	1x2	1.83
83-95	300-80/200	150/50	1⅜x4	2.97
84	30-20/20	200/25	1x2	2.28
84-15	10-5/500	200/50	1⅜x2	2.16
84-25	40-5/500	200/50	1x2½	2.37
84-50	60-5/20	200/50	1x2½	1.50
84-60	60-5/100	200/50	1x2½	1.74
84-65	60-5/200	200/50	1x3	1.92
84-75	80-10/20	200/50	1x3	1.68
85	90-90/20	200/50	1⅜x3	3.45
86	100-10/40	200/50	1⅜x2	2.82
86-50	30-20/40	200/150	1x2½	1.62
86-80 AFHS	60/200-140	200/150	1⅜x4	2.88
86-90	10-10/100	250/10	1x2	2.07
87	15-15/20	250/25	1x2	1.40
88	20-15/20	250/25	1x2	2.10
89	30-30/20	250/25	1x2½	1.68
90	70-70/20	250/50	1⅜x3	3.51
91	90-90/20	250/50	1⅜x3	2.76
92	15/20-20	250/150	1x2	2.16
93	40-20/10	250/150	1⅜x2	2.43
94 AFHS	40-40/10	250/200	1⅜x2	2.79
95	80-80/60	250/200	1⅜x3½	4.05
96-20 AFHS	10/500-500	300/15	1⅜x2	2.34
97	20-20/20	300/25	1x2	2.46
98	40-15/20	300/25	1x2½	2.64
98-60 PWH	60-10/25	300/25	1⅜x2	1.83
98-80	100-10/20	300/25	1⅜x3	3.51
98-90 AFHS	140-10/100	300/25	1⅜x3½	3.99
98-98	20-20/50	300/50	1x2½	1.71
99	30-30/25	300/50	1x3	2.61
99-75	100-10/60	300/50	1⅜x2½	2.43
99-80 AFHS	125-20/100	300/50	1⅜x3½	4.35
99-82	125-60/40	300/50	1⅜x4	5.40
99-83	140-100/60	300/50	1⅜x3½	3.63
99-85	200-20/10	300/100	1⅜x4	2.94
99-95	20/150-80	300/150	1⅜x3	2.37
100	40-40/20	300/150	1⅜x2	2.64
100-20	60/200-30	300/150	1⅜x4	3.90

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-100-40 AFHS	100/200-30	300/150	1⅜x4	3.03
3-100-60	140-10/200	300/150	1⅜x4	3.30
3-101	10-10/15	300/250	1x2	2.19
3-101-20	60/30-30	300/250	1⅜x2½	3.36
3-101-40	100/60-20	300/250	1⅜x3½	4.41
3-101-60	200/60-20	300/250	1⅜x4	3.48
3-102-90	5/100-40	350/25	1x2	2.01
3-103	10-10/20	350/25	1x2	2.01
3-104	15-10/20	350/25	1x2	1.50
3-105	15-15/20	350/25	1x2½	2.43
3-105-50	20-5/100	350/25	1x3	1.56
3-106	20-10/20	350/25	1x2½	1.53
3-107	20-20/20	350/25	1x2½	1.68
3-107-50 AFHS	20/50-50	350/25	1x2	2.25
3-108	30-10/20	350/25	1x2½	2.73
3-109	30-20/20	350/25	1x3	1.86
3-110	30-30/20	350/25	1⅜x2	2.04
†3-110-30 PWH	40-10/25	350/25	1⅜x2	1.77
3-110-50	40-20/50	350/25	1x2½	1.98
3-111	40-40/50	350/25	1⅜x2½	3.36
3-111-50	90-40/50	350/25	1⅜x3½	3.18
3-111-85 AFHS	200-10/50	350/25	1⅜x4	4.77
3-111-90	10-5/30	350/50	1x2	1.98
3-112	10-5/150	350/50	1x3	2.43
3-112-10	20-5/150	350/50	1x3	1.77
3-112-20	20-10/100	350/50	1x3½	1.74
3-112-50	60-5/20	350/50	1x3½	1.80
3-112-60 AFHS	80-40/400	350/50	1⅜x4	3.39
3-112-75	150-4/30	350/50	1⅜x3	2.85
3-112-77	150-5/100	350/50	1⅜x3½	3.03
3-112-80	30-20/100	350/75	1⅜x2½	3.60
3-113	40-20/10	350/100	1⅜x2	2.55
3-114-50	30-20/100	350/150	1⅜x2½	2.40
3-114-52	40-20/10	350/150	1x3	2.88
3-114-55	40/200-100	350/150	1⅜x3½	3.00
3-114-58	60/200-30	350/150	1⅜x4	2.64
3-114-59	5/130-100	350/200	1⅜x3	1.60
3-114-60	10/40-40	350/200	1x3	2.67
3-114-70	30-5/100	350/200	1⅜x2½	3.33
3-114-80	80-40/100	350/200	1⅜x3	3.27
3-115	20-10/5	350/250	1x2½	1.53
3-116	30/20-10	350/250	1x3	2.70
3-117	30-10/20	350/250	1x3	2.73
3-118	100-60/20	350/250	1⅜x4	3.30
3-119	15-15/40	400/25	1x2½	2.52
3-120	20-20/20	400/25	1x3	1.71
3-121	30-10/150	400/50	1⅜x2½	3.06
3-121-50 AFHS	80-40/100	400/50	1⅜x3	3.00
3-122	80-40/150	400/50	1⅜x4	3.09
3-122-10	100-40/100	400/50	1⅜x4	3.36
3-122-30	100-10/20	400/50	1⅜x3½	2.70
3-122-80	40/200-60	400/200	1⅜x4	4.98
3-123	80/20-10	400/300	1⅜x3½	3.81
3-123-10	20-10/10	400/350	1x3	2.43
3-123-30	20-10/40	400/350	1x4	3.06
3-123-40	20-20/10	400/350	1x3	1.80
3-123-65	60-30/20	400/350	1⅜x3	2.73
3-123-80	80-20/10	400/350	1⅜x3	2.58
3-123-90	100-10/80	400/350	1⅜x4	3.66
3-124	10-10/10	450/25	1x2	1.41
3-125	10-10/20	450/25	1x2	1.44
3-127	15-15/20	450/25	1x2½	2.43
3-127-10	15-15/40	450/25	1x2½	1.65
3-127-30	20-10/20	450/25	1x2½	1.62
3-128	20-15/20	450/25	1x3	2.61
3-129	20-20/20	450/25	1x2½	1.83
3-129-50	20/500-500	450/25	1⅜x3½	4.89
3-130	30/100-25	450/25	1⅜x2	2.67
3-131	30-30/20	450/25	1⅜x2½	2.13
3-131-30	30-30/125	450/25	1⅜x3	2.37
3-132	40-20/20	450/25	1⅜x2½	2.10
3-133	40-40/20	450/25	1⅜x3	2.37
3-134	40-40/40	450/25	1⅜x3	2.37
3-134-50	80-10/125	450/25	1⅜x3	2.64
3-135	80-40/100	450/25	1⅜x4	3.06
3-136	10-10/40	450/50	1x2½	1.50
3-137	20-10/40	450/50	1x3	2.52
3-138	20-10/50	450/50	1x3	1.71
3-138-30	30-10/150	450/50	1⅜x2½	2.10
3-138-40	30-15/150	450/50	1⅜x3	3.33
3-139	30-30/40	450/50	1⅜x3	3.27
3-139-50	35-25/100	450/50	1⅜x3	2.37
3-139-75	40-10/40	450/50	1⅜x2½	2.91
3-140	40-10/100	450/50	1⅜x3	2.58
3-140-50	40-30/25	450/50	1⅜x2½	3.36
3-141	40-40/80	450/50	1⅜x3½	3.69
3-142	40-40/100	450/50	1⅜x3½	2.58
3-142-20	60-40/75	450/50	1⅜x4	2.76
3-142-40	80-20/100	450/50	1⅜x4	2.88
3-142-50	80-80/50	450/50	1⅜x4	3.54
3-142-60	80/100-20	450/50	1⅜x3	3.81
3-142-80	30-30/125	450/75	1⅜x3	3.75
3-143	10-10/50	450/100	1⅜x2	2.37
3-144	30-20/30	450/150	1⅜x2½	3.15
3-145	40/90-50	450/150	1⅜x3	2.37
3-146	40-10/80	450/150	1⅜x3	3.36
3-147	40-40/40	450/150	1⅜x3½	2.46
3-148	40-10/80	450/200	1⅜x3	2.34
3-148-40	40-40/60	450/200	1⅜x3½	2.67
3-148-50	40-40/100	450/200	1⅜x4	2.97
3-148-80	10/80-80	450/250	1⅜x3	2.52
3-149	20/40-10	450-250	1⅜x2	2.82
3-149-35	80/40-40	450/250	1⅜x4	2.97
3-149-40	5/80-40	450/300	1⅜x3	2.49
3-149-60	10/100-20	450/300	1⅜x3	3.90
3-149-80	15-10/120	450/300	1⅜x4	4.05
3-150	15-15/10	450/300	1x3	2.55
3-151	20/15-10	450/300	1x3	2.55
3-152	15-5/15	450/350	1x3	2.55
3-152-50	20/15-15	450/350	1x3	2.91
3-153	20-20/60	450/350	1⅜x3	3.63
3-153-30	20/40-10	450/350	1⅜x2½	2.10
3-153-60	20/80-10	450/350	1⅜x3	2.55
3-154	40-10/10	450/350	1⅜x2	2.97
3-154-20	40-40/60	450/350	1⅜x4	4.41
3-154-30	40-40/80	450/350	1⅜x4	3.33
3-154-40	50-5/50	450/350	1⅜x3½	2.55
3-154-60	60/20-20	450/350	1⅜x3½	3.87
3-155-15	10-10/150	475/50	1x3	2.70
3-155-30	25-10/20	475/50	1x3	2.67
3-155-45	40/80-10	475/300	1⅜x3½	4.32
3-155-52	20/20-10	475/350	1x3½	2.88
3-155-60	20-10/100	475/400	1⅜x4	3.15
3-155-75	40/80-10	475/450	1⅜x4	3.30
3-155-90	30-20/20	500/25	1⅜x2½	3.18
3-156	10-10/100	500/50	1x3½	2.55
3-157	20-10/100	500/50	1x4	1.98
3-158	30-10/20	500/50	1⅜x2½	2.79
3-159	40-40/100	500/200	1⅜x4	3.51

TRIPLES — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
3-160	10-10/5	500/350	1x2½	2.25
3-160-50	10/40-40	500/450	1⅜x3½	3.72
3-161	20-20/60	500/450	1⅜x3½	2.91
3-162	40/25/130	150/25/15	1x3	2.97
3-162-80	50/100/25	150/50/25	1x2½	2.43
3-163	100/50/25	150/50/25	1x3	2.70
3-164	80/40/50	250/150/50	1⅜x2½	1.74
†3-164-50 PWH	10/10/20	300/50/25	1x2	1.26
3-165	100/60/20	300/150/25	1⅜x3	3.78
3-165-30 AFHS	140/200/100	300/150/50	1⅜x4	5.16
3-165-70 AFHS	100/60/200	300/200/150	1⅜x4	3.33
†3-165-80 PWHS	150/60/200	300/200/150	1⅜x4	3.54
3-165-90	30/25/100	350/25/6	1x2½	1.68
3-166	20/50/100	350/100/75	1x3	1.86
†3-166-25 PWH	125/5/100	350/150/10	1⅜x3½	2.76
3-167	10/50/100	350/150/50	1x3	2.55
3-167-15 AFHS	60/140/100	350/150/50	1⅜x3½	2.55
3-167-20	10/150/200	350/200/25	1⅜x2½	2.52
3-167-25	40/80/500	350/200/25	1⅜x3½	4.53
3-167-50	125/5/100	350/200/75	1⅜x3½	3.18
3-168	50/10/500	350/250/5	1⅜x2½	3.24
3-168-50	100/40/5	350/250/50	1⅜x3½	2.91
†3-168-90 PWH	20/20/20	350/300/25	1x2	1.65
3-169	30/30/20	350/300/25	1x3	1.89
3-169-50	30/50/20	350/300/25	1⅜x2½	3.24
3-169-90	10/40/5	350/300/150	1x2½	2.88
3-170	20/40/10	350/300/150	1x3½	2.82
3-170-50	40/20/10	350/300/200	1⅜x2	2.97
3-171	60/40/20	400/300/25	1⅜x3½	3.78
3-172	10/40/10	400/300/150	1⅜x2	2.61
3-173	55/50/80	400/300/250	1⅜x3½	4.80
3-174	10/50/30	400/350/25	1x3	2.79
3-174-25	100/10/200	400/350/25	1⅜x3	2.94
3-174-50	80/80/100	400/350/50	1⅜x4	5.13
3-175	10/50/100	450/150/25	1x3	2.46
3-176	40/40/130	450/150/50	1⅜x3	2.25
3-177	40/100/50	450/150/50	1⅜x3	3.54
3-177-20	10/50/100	450/150/75	1x3	1.95
3-177-40	20/50/100	450/150/75	1⅜x2	3.06
3-177-50	10/100/200	450/200/25	1x3½	2.16
3-177-60	10/100/100	450/200/50	1x3½	2.13
3-177-80	20/80/50	450/200/150	1⅜x2½	2.16
3-178	20/60/100	450/250/25	1⅜x2½	2.19
3-178-25	10/10/50	450/250/50	1x2½	2.16
3-178-60 AFHS	50/160/50	450/250/50	1⅜x4	3.12
3-179	10/40/10	450/300/150	1⅜x2	1.86
3-179-50	30/10/10	450/300/150	1x3	2.67
3-180	10/10/20	450/350/25	1x2	2.07
3-180-50	10/10/50	450/350/25	1x3	2.16
3-181	30/15/40	450/350/25	1x3	1.50
3-181-50	30/40/50	450/350/25	1x4	2.22
3-182	20/80/100	450/350/50	1⅜x3½	4.05
3-182-80	80/50/100	450/350/200	1⅜x4	3.51
3-183	15/20/20	450/350/250	1⅜x2	2.67
3-184	20/15/10	450/350/300	1x3	2.73
3-185	10/30/150	450/400/5	1x3	2.70
3-186	30/50/40	450/400/25	1⅜x3	3.51
3-186-80	60/80/20	450/400/250	1⅜x4	3.27
3-186-90	4/40/40	450/400/300	1⅜x2½	3.33
3-187	10/30/30	450/400/300	1⅜x2½	3.00
3-187-20	60/80/20	450/400/350	1⅜x4	3.39
3-187-25	20/50/20	475/50/25	1x3	1.65
3-187-50	20/10/500	475/150/25	1⅜x3	2.49
3-187-75	80/80/50	475/150/50	1⅜x4	2.91
3-188	10/100/40	475/200/50	1⅜x2½	2.97
3-188-50	40/40/100	475/250/100	1⅜x3	3.69
3-189	20/20/40	475/300/25	1⅜x2	2.73
3-189-40	10/4/100	475/350/50	1x2½	2.34
3-189-60	20/10/5	475/350/150	1x2½	2.52
3-189-70	10/4/40	475/350/300	1⅜x2	1.80
3-190	40/40/25	475/450/50	1⅜x3	3.96
3-190-80	10/45/100	475/450/200	1⅜x3	2.52
3-191	10/100/40	500/200/50	1⅜x2½	3.00
3-192	40/40/100	500/250/50	1⅜x3	3.87
3-193	20/20/40	500/300/25	1⅜x2	2.79
3-193-25	20/40/100	500/300/25	1⅜x2½	3.24
3-193-75	5/100/200	500/300/150	1⅜x4	4.62
3-194	40/40/25	500/400/50	1⅜x3	3.87

QUADS

AFH No.	Capacity	Voltage	Size	Net Price★
4-01	40-40-40-30	150	1⅜x2	2.01
4-01-40	100-80-60-40	150	1⅜x3	2.79
4-01-45 AFHS	250-200-10-10	150	1⅜x4	3.21
4-01-55 AFHS	200-200-60-30	175	1⅜x4	3.33
4-01-60	40-40-40-40	200	1⅜x2	5.43
4-01-70	40-40-40-40	250	1⅜x2	2.76
4-01-80	40-20-10-10	300	1⅜x2	2.37
4-02	40-40-20-10	300	1⅜x2½	2.73
4-02-10	40-40-30-20	300	1⅜x3	2.91
4-02-20	60-20-10-5	300	1⅜x2½	3.63
4-02-30	60-40-10-10	300	1⅜x2½	2.73
4-02-45	80-60-20-10	300	1⅜x4	4.77
4-02-60	100-40-20-20	300	1⅜x4	5.22
4-02-70 AFHS	140-100-20-20	300	1⅜x4½	4.26
4-02-75 AFHS	150-100-10-10	300	1⅜x4	3.96
4-02-80	150-150-30-30	300	1⅜x4½	4.62
4-02-90	200-20-20-20	300	1⅜x4	3.69
4-03	10-10-10-10	350	1⅜x2	2.79
4-04	40-20-20-10	350	1⅜x2½	2.61
4-04-50	40-40-40-40	350	1⅜x4	3.60
4-05	80-10-10-10	350	1⅜x3	4.08
4-05-50	80-40-10-4	350	1⅜x3½	4.62
4-05-55	80-60-40-20	350	1⅜x4	3.84
4-05-60	100-40-10-10	350	1⅜x3½	3.60
4-05-70	100-40-20-20	350	1⅜x4	3.93
4-06	30-30-20-20	400	1⅜x3	4.35
4-06-25	40-35-10-10	400	1⅜x3	3.99
4-06-40	50-40-30-20	400	1⅜x4	3.30
4-06-75	80-10-10-10	400	1⅜x3	4.23
4-07	80-20-10-10	400	1⅜x3½	3.03
4-08	100-40-10-10	400	1⅜x4	3.66
4-08-25	100-80-10-10	400	1⅜x4½	4.17
4-08-50	100-100-40-10	400	1⅜x4½	4.98
4-09	5-5-5-5	450	1⅜x2	1.80
4-10	10-10-10-10	450	1⅜x2	2.01
4-13	20-10-10-10	450	1⅜x2½	2.22
4-14	20-20-20-20	450	1⅜x3	2.82
4-15	30-15-15-15	450	1⅜x3	2.67
4-15-10	30-20-20-10	450	1⅜x3	4.14
4-15-20	30-30-15-10	450	1⅜x3	4.23
4-15-30	30-30-20-20	450	1⅜x3	3.12
4-15-40	30-30-30-15	450	1⅜x4	4.77

Special construction for printed wiring

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)

QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price★
4-16	35-35-10-5	450	1⅜x3½	2.79
4-17	40-10-10-10	450	1⅜x3	2.49
4-18	40-20-10-10	450	1⅜x3	2.67
4-18-10	40-35-10-10	450	1⅜x3	2.88
4-18-20	40-40-5-5	450	1⅜x4	2.82
4-18-30	40-40-20-20	450	1⅜x4	3.33
4-18-40	40-40-30-30	450	1⅜x4	3.63
4-18-45	40-40-40-40	450	1⅜x4	3.87
4-18-50	60-20-20-20	450	1⅜x4	3.39
4-18-60	60-30-10-2	450	1⅜x3	3.06
4-18-75	70-10-10-5	450	1⅜x3	4.26
4-18-80	80-10-10-10	450	1⅜x4	3.03
4-19	10-10-10-10	475	1⅜x2	3.15
4-19-10	20-20-10-10	475	1⅜x2½	2.61
4-19-20	20-20-20-20	475	1⅜x3	3.12
4-19-40	40-10-10-10	475	1⅜x3	4.17
4-19-50	40-20-10-10	475	1⅜x3	3.06
4-20	10-10-10-10	500	1⅜x2	2.10
4-20-50	40-40-8-8	500	1⅜x4	3.42
4-20-75	750-600-350/4	16/11.5 RMS	1⅜x2	3.36
4-20-77	750-750-350/4	16/11.5 RMS	1⅜x2	3.45
4-21	30-20-20/200	150/10	1⅜x2	2.82
4-22	40-40-20/200	150/10	1⅜x2	1.95
4-23	60-40-20/200	150/10	1⅜x2	2.10
4-23-50 AFHS	80-80-10/200	150/10	1⅜x2½	3.51
4-23-70	200-30-10/100	150/10	1⅜x3½	2.46
†4-23-72 PWH	290-30-10/100	150/10	1⅜x3½	2.70
4-23-75 AFHS	50-20/150-30	150/15	1⅜x2	1.92
4-25	20-20-20/20	150/25	1⅜x2	2.61
4-25-70	20-20/160-40	150/25	1⅜x2	1.92
4-26	30-30-30/40	150/25	1⅜x2	1.86
4-27	40-20-20/20	150/25	1⅜x2	1.77
4-28	40-40-30/20	150/25	1⅜x2	1.86
4-29	40-40-40/20	150/25	1⅜x2	1.89
4-30	40-40/40-40	150/25	1⅜x2	2.73
4-31	40-40-40/100	150/25	1⅜x2	3.00
4-32	40-40-40/160	150/25	1⅜x2	2.13
4-33	40-40/100-100	150/25	1⅜x2	3.00
4-33-20	40-40/200-100	150/25	1⅜x2	3.18
4-33-50 AFHS	50-20-20/200	150/25	1⅜x2	2.10
4-34	50-30-30/100	150/25	1⅜x2	2.07
†4-34-50 PWH	50-40-10/50	150/25	1⅜x2	1.89
4-35	50-50-50/20	150/25	1⅜x2	2.13
4-35-15	60-20-10/20	150/25	1⅜x2	2.79
4-35-25	60-40-20/20	150/25	1⅜x2	2.88
4-35-50 AFHS	60-60-10/60	150/25	1⅜x2	3.15
4-35-75 AFHS	70-40-40/25	150/25	1⅜x2½	3.09
4-36	75-75-75/30	150/25	1⅜x3	3.87
4-37	80-40-40/20	150/25	1⅜x2	3.13
4-37-10	80-40-40/40	150/25	1⅜x2½	2.16
4-38	80-40-40/100	150/25	1⅜x2½	2.25
†4-38-20 PWH	100-40-10/50	150/25	1⅜x2	2.22
4-38-30	100-90-60/200	150/25	1⅜x3	2.97
4-38-75	125-125-40/100	150/25	1⅜x3	4.35
4-38-90 AFHS	140-40/50-30	150/50	1⅜x3	3.51
4-38-95 AFHS	200-200-100/10	150/75	1⅜x4	3.57
4-39	40-20-10/20	200/25	1⅜x2	2.88
4-39-50 AFHS	200-200-100/10	200/75	1⅜x4	4.71
4-40	40-20-10/20	250/25	1⅜x2	2.04
4-41	100-40-10/100	250/50	1⅜x3½	3.09
4-42	80-60-40/20	250/150	1⅜x3½	4.59
4-43	10-10-10/20	300/25	1⅜x2	1.77
4-44	40-20-20/25	300/25	1⅜x2	2.40
4-44-20	40-30-20/50	300/25	1⅜x2½	3.72
4-45	40-40-20/20	300/25	1⅜x3	2.64
4-46	60-40-20/50	300/25	1⅜x3	2.79
4-46-15	200-100-2/20	300/25	1⅜x4½	2.45
4-46-20	60-30-10/60	300/50	1⅜x2½	2.52
4-46-30	100-80-20/50	300/50	1⅜x3½	3.66
4-46-35	150-30-30/150	300/50	1⅜x4	3.66
4-46-50	10/200-140-30	300/150	1⅜x4	3.06
4-46-60	10/200-200-30	300/150	1⅜x4	3.21
4-47	40-40-40/20	300/150	1⅜x3	2.94
4-47-25 AFHS	80-20-20/200	300/150	1⅜x3½	3.51
4-47-50 AFHS	100-10/200-30	300/150	1⅜x4	3.54
4-47-60 AFHS	140-10/200-60	300/150	1⅜x4	3.84
4-47-80 AFHS	120-40-40/10	300/250	1⅜x4	3.69
†4-47-90 PWHS	200/50-20-2	320/300	1⅜x4½	3.93
4-48	10-10-10/20	350/25	1⅜x2	2.67
4-49	20-10-5/20	350/25	1⅜x2	1.86
4-49-25	30-10-5/200	350/25	1⅜x2	2.28
4-50	30-20-20/20	350/25	1⅜x2½	3.69
4-50-60	40-10/100-25	350/25	1⅜x2	3.36
4-50-90	40-20-5/10	350/25	1⅜x2½	3.42
4-51	40-20-20/25	350/25	1⅜x2½	3.81
4-52	40-40-20/20	350/25	1⅜x3	2.82
4-52-05	40-40-30/10	350/25	1⅜x3	2.97
4-53	40-40-40/40	350/25	1⅜x3	3.12
4-53-40	60-5/100-40	350/25	1⅜x2½	2.28
4-53-90	120-20-10/50	350/25	1⅜x3	3.36
4-53-95 AFHS	150-100-20/100	350/25	1⅜x5	4.92
4-54	15-15-15/50	350/50	1⅜x2	3.96
4-55	40-30-10/50	350/50	1⅜x3	2.64
4-56	40-40-40/150	350/50	1⅜x3½	3.42
4-56-05 AFHS	50-40-20/100	350/50	1⅜x3	5.52
4-56-20	60-5/50-20	350/50	1⅜x2½	2.19
4-56-30	60-25-25/100	350/50	1⅜x3	4.62
4-56-35	70-30-20/50	350/50	1⅜x3	3.21
4-56-40	70-40-10/50	350/50	1⅜x4	3.15
4-56-45 AFHS	80-40-40/100	350/50	1⅜x4	3.75
4-56-60	100-10-10/20	350/50	1⅜x3	3.09
4-56-65	100-20/50-30	350/50	1⅜x3½	4.89
4-56-75	100-40-30/50	350/50	1⅜x4	3.93
4-56-80	100-80-10/20	350/50	1⅜x4	3.96
4-56-85	140-20-10/100	350/50	1⅜x4	3.69
4-56-88	200-10/20-5	350/50	1⅜x4	3.39
4-56-90	90-30-5/100	350/75	1⅜x3½	3.69
4-56-92	20-10-5/60	350/200	1⅜x2½	3.27
4-56-93	20/100-100-20	350/200	1⅜x4	4.62
4-56-93.4	30-10-5/100	350/200	1⅜x2½	2.64
4-56-93.5	30-20-5/100	350/200	1⅜x3	2.82
4-56-94	10-10/10-10	350/300	1⅜x2	2.79
4-56-94.4 AFHS	80/80-10-10	350/300	1⅜x3½	3.42
4-56-94.8	130-20-10/40	350/300	1⅜x4	5.88
4-56-94.9 AFHS	140/100-20-20	350/300	1⅜x4½	4.62
4-56-95 AFHS	160/60-10-4	350/300	1⅜x4	3.84

QUADS — (Continued)

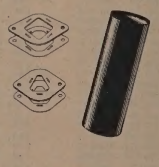
AFH No.	Capacity	Voltage	Size	Net Price★
4-56-96	10-10/25-25	400/25	1⅜x2	2.52
4-57	20-20-20/20	400/25	1⅜x2½	2.31
4-57-40	80-40-10/20	400/25	1⅜x4	3.18
4-57-50	80-40-30/40	400/25	1⅜x4	3.57
4-57-55	90-40-10/40	400/25	1⅜x4	5.22
4-57-75	40-40-40/150	400/50	1⅜x4	5.13
4-57-85	80-20-10/100	400/50	1⅜x4	4.71
4-57-90 AFHS	100-10/30-20	400/50	1⅜x3	3.06
4-57-92	20-20/100-100	400/100	1⅜x3	3.12
4-57-93 AFHS	80-40-10/100	400/200	1⅜x3½	3.78
4-57-95	80-40/40-40	400/200	1⅜x4	5.40
4-58	40-10/80-10	400/250	1⅜x3½	4.23
4-58-50	80/40-20-10	400/300	1⅜x4	4.98
†4-58-65 PWH	40/30-20-20	400/350	1⅜x3	2.97
4-58-75	80-40/40-20	400/350	1⅜x4	3.87
4-59	10-10-10/20	450/25	1⅜x2	1.89
4-60	10-10-10/25	450/25	1⅜x2	2.82
4-61	10-10-10/100	450/25	1⅜x2	3.00
4-62	10-10-10/150	450/25	1⅜x2½	3.33
4-63	10-10/20-20	450/25	1⅜x2	2.67
4-65	20-10-10/100	450/25	1⅜x2	3.33
4-66	20-15/20-20	450/25	1⅜x2	2.13
4-67	20-20-20/20	450/25	1⅜x2½	2.49
4-68	30-15-15/40	450/25	1⅜x2½	3.72
4-69	30-20-20/20	450/25	1⅜x3	3.96
4-70	30-30-10/20	450/25	1⅜x3	3.90
4-70-10	30-30-10/125	450/25	1⅜x3	2.70
4-71	30-30-20/20	450/25	1⅜x3	4.17
4-71-25	30-30/125-125	450/25	1⅜x3	4.35
4-72	40-10-10/250	450/25	1⅜x3	2.79
4-73	40-10-10/300	450/25	1⅜x3	4.35
4-74	40-15-10/25	450/25	1⅜x3	3.63
4-75	40-20-10/20	450/25	1⅜x3	3.81
4-76	40-20-20/20	450/25	1⅜x3	2.76
4-77	40-20-20/40	450/25	1⅜x3	2.79
4-78	40-30-10/20	450/25	1⅜x3	2.70
4-78-10	40-40-10/20	450/25	1⅜x3½	2.82
4-79	40-40-20/20	450/25	1⅜x3½	3.00
4-79-10	40-40-40/40	450/25	1⅜x4	3.30
4-79-20	60-40-40/10	450/25	1⅜x4	3.60
4-79-30	60-50-5/20	450/25	1⅜x4	3.21
4-79-40	80-40-40/40	450/25	1⅜x4	3.87
4-79-60	80-40/100-100	450/25	1⅜x4½	3.48
4-80	20-20-20/100	450/50	1⅜x3	2.73
4-81	30-30-15/30	450/50	1⅜x3	2.73
4-82	30-30-15/100	450/50	1⅜x3½	4.41
4-83	40-20-10/100	450/50	1⅜x3½	2.76
4-84	40-40-10/20	450/50	1⅜x3	2.82
4.85	40-40/30-10	450/50	1⅜x3	4.05
4-85-25	40-40-10/50	450/50	1⅜x4	2.88
4-86	60-10-10/20	450/50	1⅜x3	4.08
4-86-20	60-30-30/150	450/50	1⅜x4	5.52
4-86-25	60-40-10/25	450/50	1⅜x4	3.15
4-87	40-40-10/100	450/100	1⅜x3½	3.21
4-88	60-10-10/20	450/150	1⅜x3	2.76
4-88-20	35-35-10/10	450/200	1⅜x3½	4.14
4-88-40	40-40-30/10	450/200	1⅜x4	4.80
4-88-50	40-40/100-60	450/200	1⅜x4	3.63
4-88-60	40-20-10/100	450/250	1⅜x4	3.51
4-88-70	60-10-10/40	450/250	1⅜x3½	4.44
4-88-80	10/100-20-20	450/300	1⅜x3	3.15
4-89	20-20/30-30	450/300	1⅜x3	4.05
4-90	20-20/20-10	450/350	1⅜x3	3.72
4-91	20-20/30-30	450/350	1⅜x3	4.53
4-91-50	40-10-10/40	450/350	1⅜x3	2.85
4-92	40-10/35-10	450/350	1⅜x3	4.14
4-92-50	40-20-20/20	450/350	1⅜x3	4.50
4-92-75	40-20/80-10	450/350	1⅜x4	5.22
4-93	40-40/30-30	450/350	1⅜x4	3.54
4-93-40	5/80-40-25	450/400	1⅜x4	3.57
4-93-45	10/80-40-25	450/400	1⅜x4	3.63
4-93-50	60/40-20-20	450/400	1⅜x4	5.22
4-93-75	30-30-10/20	475/25	1⅜x3	4.08
4-94	40-20-10/10	475/25	1⅜x3	4.35
4-94-50	20/80-20-10	475/300	1⅜x3½	3.00
4-94-60	50-30/20-20	475/300	1⅜x4	5.13
4-94-70	10/130-20-10	475/350	1⅜x4	3.60
4-94-75	20/60-40-10	475/350	1⅜x3½	4.68
4-94-85	30/130-10-10	475/350	1⅜x4	3.84
4-94-90	10/80-40-40	475/450	1⅜x4	3.99
4-95	20-20-10/10	500/300	1⅜x2½	2.58
4-96	50-30-10/20	500/300	1⅜x4	3.36
4-96-20	5/25-25/100	75/25/15	1⅜x2	2.37
4-96-50	40-40/50/80	250/150/50	1⅜x2½	3.69
4-96-75	80-8/40/50	250/150/50	1⅜x2½	2.91
4-96-90	10/10/100-20	250/200/25	1⅜x2	2.61
4-97	100/40/80-20	300/50/25	1⅜x2½	4.08
4-97-30	80-5/60/20	300/150/25	1⅜x3	2.58
4-97-40	20/150-150/100	300/150/50	1⅜x3½	3.18
4-97-75	100-40/125/50	300/150/50	1⅜x4	5.49
4-97-90	150-20/10/250	300/250/50	1⅜x4	3.63
†4-97-92 PWH	20-4/20/100	350/25/6	1⅜x2	2.43
4-97-95	100-60/100/100	350/150/10	1⅜x4½	4.11
4-98	20/150-80/20	350/150/25	1⅜x3	4.08
4-98-50	60/60-30/160	350/150/25	1⅜x3	4.14
4-98-70 AFHS	60-20/80/100	350/150/50	1⅜x3½	4.41
4-99	15/80-40/200	350/200/25	1⅜x3	4.05
4-99-25	20/160-60/40	350/200/25	1⅜x2½	3.60
4-99-50	80-20/20/200	350/200/50	1⅜x3½	4.86
4-99-55	100-100/60/100	350/200/50	1⅜x4½	4.89
†4-99-60 PWH	100-60/60/40	350/200/75	1⅜x4	3.96
4-99-75	20/100-100/10	350/200/100	1⅜x4	4.50
4-99-80	80-60/60/10	350/200/150	1⅜x4	5.13
4-99-85	100-60/10/100	350/200/150	1⅜x4½	4.11
4-99-90	60-40/60/20	350/250/150	1⅜x4	3.24
4-99-93	50-30/8/20	350/250/200	1⅜x2½	3.99
4-99-95	40-20/10/20	350/300/25	1⅜x2	3.54
4-100	40/40-20/20	350/300/25	1⅜x3	4.05
4-100-08	160/30-30/20	350/300/50	1⅜x4	3.48
4-100-10	30-30/40/100	350/300/75	1⅜x3	3.12
4-100-20 AFHS	100-60/40/40	350/300/75	1⅜x4	4.08
4-100-25	50-25/100/20	400/50/25	1⅜x3	4.17
4-100-40	80-40/100/20	400/50/25	1⅜x4	5.04
4-100-45	20-10/10/25	400/100/25	1⅜x2	2.79
4-100-50	10-10/40/10	400/200/50	1⅜x2	2.88
4-100-65 AFHS	40-40/80/80	400/250/50	1⅜x4	4.95

QUADS — (Continued)

AFH No.	Capacity	Voltage	Size	Net Price
4-100-75	40/120-10/150	400/250/50	1⅜x4	3.54
4-100-90	80-10/80/100	400/250/50	1⅜x4	3.48
4-101	5-5/50/80	400/300/250	1⅜x3	4.17
4-102	10/50-30/30	400/350/25	1⅜x3	3.96
4-102-15	50/60-40/20	400/350/25	1⅜x4	3.69
4-102-25	80/40-10/10	400/350/25	1⅜x4	4.77
4-102-35 AFHS	120-40/20/100	400/350/25	1⅜x4	3.93
4-102-40	20/40/100-10	400/350/50	1⅜x3	3.78
4-102-50	20/50-40/80	400/350/50	1⅜x3	3.00
4-102-75	30/60-20/100	400/350/50	1⅜x4	4.50
4-103	60-40/40/10	400/350/50	1⅜x3½	5.16
4-103-40	100-10/20/20	400/350/50	1⅜x4	3.27
4-104	40/10/80-10	400/350/250	1⅜x3	4.17
4-104-50	60-10/80/10	400/350/250	1⅜x4	5.25
4-105-10	10-10/20/60	450/150/25	1⅜x2	2.82
4-105-30	20-20/60/100	450/150/25	1⅜x2½	2.55
4-105-60	40-40/125/125	450/150/25	1⅜x4	3.42
4-106	40/40/30-10	450/150/50	1⅜x3	3.36
4-107	10-10/60/100	450/200/50	1⅜x3	2.31
4-107-50	10/80-40/100	450/200/50	1⅜x3	3.81
4-108	20/80-20/50	450/200/50	1⅜x3	2.49
4-108-10	35-25/20/100	450/200/50	1⅜x3	2.79
4-108-30	40/40-40/20	450/250/25	1⅜x3	4.08
4-108-40	60/80-40/20	450/250/150	1⅜x4	3.39
4-108-50	10-10/10/50	450/300/25	1⅜x2	2.82
4-108-60	25/100-10/60	450/300/50	1⅜x3	3.18
4-108-70	40/40-40/20	450/300/150	1⅜x3	2.94
4-108-90	10/100-20/20	450/300/200	1⅜x3	3.03
4-109	10/60-40/25	450/350/25	1⅜x3½	2.76
4-110	10/100-10/20	450/350/25	1⅜x3½	3.15
4-111	20/15-15/20	450/350/25	1⅜x2	3.42
4-111-50	20/80-50/100	450/350/50	1⅜x4	3.60
4-111-60	50/25-25/100	450/350/50	1⅜x3	4.80
4-112	30/40-40/10	450/350/200	1⅜x3½	4.62
4-112-05 AFHS	10/140/100-20	450/350/300	1⅜x4½	4.50
4-112-10	23/20/50-20	450/400/50	1⅜x3½	3.24
4-112-20	80/40-10/150	450/400/50	1⅜x4	5.67
4-112-50	80/10/40-30	450/400/300	1⅜x4	3.48
4-112-75	10/100-10/100	475/300/25	1⅜x3½	2.94
4-112-80	10/140-4/100	475/300/50	1⅜x4	3.48
4-113	15-15/80/40	475/300/50	1⅜x3	2.88
4-113-10	10/20/100-50	475/350/25	1⅜x2	2.07
4-113-20	10/30-5/80	475/350/50	1⅜x2½	3.33
4-113-40	40-10/4/40	475/350/300	1⅜x3	2.97
4-113-50	10/80-40/100	475/400/50	1⅜x4	3.48
4-113-60	10/50-30/30	475/450/25	1⅜x3	2.85
4-113-80	20-10/20/100	475/450/25	1⅜x2½	2.52
4-114	10-5/80/40	475/450/50	1⅜x3½	4.44
4-114-50	10/40-10/100	475/450/50	1⅜x2½	2.58
4-114-55	10/10-4/20	500/300/25	1⅜x2	1.74
4-114-60	10/100-30/100	500/300/25	1⅜x3½	4.68
4-114-75	30/10/150-30	500/450/50	1⅜x3	2.52
4-114-90	100/60/10/20	300/200/150/50	1⅜x3	3.21
4-115	120/20/100/20	300/250/50/25	1⅜x4	4.53
4-116	200/20/100/20	300/250/50/25	1⅜x4	3.48
4-116-50	40/100/100/25	350/250/50/25	1⅜x3½	4.80
4-117	20/40/10/250	350/300/150/50	1⅜x3	4.14
4-117-25	20/150/10/250	350/300/250/50	1⅜x4	3.66
4-117-40	20/10/10/20	400/350/200/25	1⅜x2	1.92
4-117-44	40/80/100/25	400/350/200/50	1⅜x4½	3.57
4-117-45	40/80/100/100	400/350/200/50	1⅜x4½	5.76
4-117-47	20/10/80/20	400/350/300/25	1⅜x3	3.96
4-117-48	40/30/10/20	400/350/300/25	1⅜x2	3.81
4-117-49 AFHS	20/160/50/50	450/250/75/50	1⅜x4	3.09
4-117-50	10/10/60/100	450/300/200/50	1⅜x3	3.42
4-117-60	10/40/40/100	450/300/250/50	1⅜x3½	3.96
4-117-75	30/40/50/200	450/300/250/150	1⅜x4	5.40
4-117-90	10/40/100/100	450/350/250/50	1⅜x3	3.33
4-117-95	30/25/50/200	450/400/250/150	1⅜x4	5.13
4-118	80/10/30/40	450/400/300/150	1⅜x4	4.71
4-118-50	5/60/50/20	450/400/350/25	1⅜x3	4.53
4-118-90	40/40/50/80	475/250/150/50	1⅜x3½	3.00
4-119	20/40/100/80	475/300/50/25	1⅜x3	2.70
4-120	10/40/80/100	475/350/200/100	1⅜x3½	4.32
4-120-10	20/40/80/100	475/350/200/100	1⅜x4	3.27
4-120-20	10/40/80/100	475/350/300/100	1⅜x4	3.33
4-120-50	10/40/100/10	475/400/50/25	1⅜x2½	3.60
4-120-75	10/40/4/100	475/400/350/50	1⅜x2½	2.43
4-120-90	10/10/20/200	475/450/150/50	1⅜x2½	2.25
4-121	10/10/80/50	475/450/200/50	1⅜x2½	3.45
4-121-50	25/20/20/100	475/450/300/50	1⅜x3	2.76
4-122	25/20/40/100	475/450/300/50	1⅜x3½	4.44
4-123	10/60/30/125	475/450/400/50	1⅜x4	3.27

†—Special construction for printed wiring

AFH HARDWARE



METAL WASHERS

Cat. No.	Size	Net Price★
MW-1	¾″ d.	.04
MW-2	1″ d.	.04
MW-3	1⅜″ d.	.04
MW-4	1″ in 1⅜″ hole mounting	.04

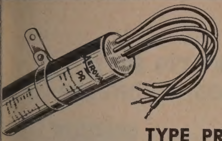
BAKELITE WASHERS

Cat. No.	Size	Net Price★
BW-1	¾″ d.	.04
BW-2	1″ d.	.04
BW-3	1⅜″ d.	.04
BW-4	1″ in 1⅜″ hole mounting	.04

INSULATING TUBES

Cat. No.	Size	Net Price★
TU-1	1 x 2	.04
TU-2	1 x 2½	.04
TU-3	1 x 3	.04
TU-4	1 x 3½	.04
TU-5	1 x 4	.04
TU-6	1⅜ x 2	.04
TU-7	1⅜ x 2½	.04
TU-8	1⅜ x 3	.04
TU-9	1⅜ x 3½	.04
TU-10	1⅜ x 4	.04
TU-11	1⅜ x 4½	.04

AEROVOX *Capacitors*



ELECTROLYTICS — (Continued)

TYPE PR WAX-FILLED TUBULAR CAPACITORS

Wax-filled electrolytic tubulars in wax-impregnated cardboard tubes. Sections manufactured to same high standards as more expensive metal-cased units. These units are made for exact duplicate replacements in television receivers and antenna rotating devices. Tolerances meet RETMA standards and are manufactured for operating temperatures of 0-65°C. PR numbers designate replacements for Television Receivers. XA numbers designate replacements for rotators.

TYPE PR SINGLES

PR No.	Capacity	Voltage	Size	Net Price★
A-4283	70	50 (VAC)	⅞x3	.95
A-4098A	70	50 (VAC)	⅞x3	.92
A-10001	100	50 (VAC)	1x2⅞	1.20
R-1-050	100	150	1x3½	1.11
R 1-060	150	200	1⅜x2½	1.38
R 1-075	200	200	1⅜x3⅜	1.74
R 1-100	140	300	1⅜x3⅜	1.89
R 1-200	10	450 VNP	15/16x2¼	.96

TYPE PR DUALS

PR No.	Capacity	Voltage	Size	Net Price★
R 2-020	200-20	8	½x1¼	.93
R 2-030	50-30	150	1x2½	1.68
R 2-035	50-50	150	1x2½	1.74
R 2-040	80-30	150	1x2½	1.77
R 2-045	100-50	150	1x3	1.92
R 2-050	120-120	150	1⅛x4⅞	1.98
R 2-100	200-5	150	1x4	1.62
R 2-120	250-50	150	1⅜x3¼	2.22
R 2-200	120-80	200	1⅜x3	2.31
R 2-275	200-5	200	1⅛x4⅛	2.13
R 2-300	150-100	300	1⅜x4½	3.21
R 2-400	140-5	350	1¼x4⅛	2.49
R 2-600	40/125	200/40	1x3¼	1.44
R 2-700	50/75	250/50	1⅛x2¾	1.44
R 2-725	5/25	300/25	¾x1⅞	.87
R 2-755	200/100	300/50	1¼x4⅝	2.67
R 2-790	100/150	350/250	1⅜x3½	3.36
R 2-800	20/100	450/25	1¼x2¾	1.35

TYPE PR TRIPLES

R No.	Capacity	Voltage	Size	Net Price★
R 3-005	100-100-65	8	⅝x15/16	1.23
R 3-010	150-150-150	150	1⅜x4¼	2.91
R 3-012	250-200-10	150	1⅜x4⅜	2.76
R 3-020	60-60-60	300	1⅜x3½	2.82
R 3-025	60-60-4	350	1⅜x3¼	2.31
R 3-030	80-40-20	350	1⅜x3½	2.82
R 3-035	30-10-10	450	1⅜x3½	1.89
R 3-043	250-120/50	150/25	1⅜x3⅞	2.64
R 3-045	100-10/20	300/25	1⅛x3½	2.25
R 3-046	100-100/200	300/25	1½x4½	3.48
R 3-046-50	120-40/100	300/50	1⅜x3¾	2.91
R 3-047	100-60/100	300/50	1⅜x4	2.97
R 3-048	100/200-40	300/200	1⅜x4½	3.69
R 3-050	10-10/100	350/50	1¼x2½	1.50
R 3-053	100-10/50	350/50	1⅜x3½	2.67
R 3-054	10/200-100	400/150	1⅜x3½	2.46
R 3-055	20-10/150	450/50	1⅜x3	1.86
R 3-060	20/200-5	450/200	1¼x4⅛	2.70

TYPE PR TRIPLES (Continued)

PR No.	Capacity	Voltage	Size	Net Price★
PR 3-065	5/80-40	450/400	1⅜x4¼	2.73
PR 3-070	150/100/80	150/50/25	1⅜x3	2.01
PR 3-080	80/10/100	300/250/50	1⅜x3½	2.16
PR 3-085	20/60/100	350/200/25	1⅜x3	2.13
PR 3-090	30/40/125	350/200/25	1⅜x2¼	1.98
PR 3-100	140/5/200	350/300/200	1½x4⅝	4.02
PR 3-125	100/40/40	350/300/250	1⅜x3¾	3.27
PR 3-150	30/50/100	450/150/25	1⅜x2½	1.89
PR 3-160	25/100/100	450/150/50	1⅜x3	2.28

TYPE PR QUADS

PR No.	Capacity	Voltage	Size	Net Price★
PR 4-125	40-40-40-4	150	1x3	1.83
PR 4-175	20-20-20-10	450	1⅜x3½	2.55
PR 4-185	40-20-20-10	450	1⅜x3¾	2.82
PR 4-200	40-40-20-20	450	1½x4⅝	3.27
PR 4-220	40-20-20/100	150/25	1 1/16x2⅞	1.83
PR 4-225	40-10-10/200	150/35	1⅛x3	2.01
PR 4-250	100-80-20/50	300/50	1⅜x4¼	3.60
PR 4-275	140-4/50-4	300/150	1⅜x3½	2.94
PR 4-280	140-5/200-30	300/150	1½x4	3.63
PR 4-285	140-10-5/200	300/150	1½x4⅜	3.60
PR 4-295	80-40-10/40	300/250	1⅜x4	3.09
PR 4-300	120-40-40/10	300/250	1⅜x4¼	3.72
PR 4-325	150-100-20/100	350/50	1½x4¾	5.01
PR 4-350	15-15/150-150	350/150	1⅜x4¼	3.12
PR 4-450	80-60-20/40	350/300	1⅜x4⅝	3.72
PR 4-500	10-10-10/150	450/50	1¼x3¾	2.16
PR 4-550	100-40/40/25	300/50/25	1⅜x3¼	3.03
PR 4-600	140/5/200-30	350/300/200	1½x4⅝	4.59
PR 4-700	80-10/40/100	400/300/50	1⅜x4	3.27
PR 4-800	10/80/40-40	450/300/250	1⅜x3½	2.97
PR 4-850	40/100/100/25	350/250/ 50/25	1⅜x3¼	3.15
PR 4-875	140/5/200/100	350/300/ 200/150	1½x4⅝	4.92
PR 4-900	20/120/40/100	450/300/ 250/50	1⅜x4¼	3.60

TYPE PR QUINTS

PR No.	Capacity	Voltage	Size	Net Price★
PR 5-500	40-20-20-20/50	300/75	1⅜x3	3.00
PR 5-550	60-60-10-4/50	350/50	1¼x4	3.18

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

†Separate negative furnished for two 10 mfd sections. *5″ leads. No bracket. ‡Separate sections. ☐Special construction for printed wiring.

TYPE XPP — MINIATURIZED METAL-CASED ELECTROLYTICS

OPERATING TEMPERATURE RANGE — minus 20°C to plus 65°C.

CAPACITANCE AT 25°C — minus 10%—plus 250%.

RC PRODUCT AT 25°C — 120 CPS: 500 maximum.
RC product (rated capacitance in mfd. x equivalent series resistance in ohms).

MAXIMUM LEAKAGE:
.15 microamperes/mfd/volt: below 10 volt rating.
.10 microamperes/mfd/volt: above 10 volt rating.

Miniature hermetically-sealed, metal cased, tubular aluminum electrolytic capacitors.

For use in all transistorized assemblies such as personai portable radios, hearing aids, instruments and many other miniaturized electronic apparatus.

3VDCW			6VDCW			10VDCW			12VDCW			15VDCW			25VDCW		
Type No.	Size	Net Price★	Type No.	Size	Net Price★	Type No.	Size	Net Price★	Type No.	Size	Net Price★	Type No.	Size	Net Price★	Type No.	Size	Net Price★
XPP-3001	A	.75	XPP-6001	A	.75	XPP-10001	A	.75	XPP-12001	A	.75	XPP-15001	A	.75	XPP-25001	B	.75
XPP-3002	A	.75	XPP-6002	A	.75	XPP-10002	A	.75	XPP-12002	A	.75	XPP-15002	A	.75	XPP-25002	B	.78
XPP-3003	A	.75	XPP-6003	A	.75	XPP-10003	B	.75	XPP-12003	B	.75	XPP-15003	C	.75	XPP-25003	C	.78
XPP-3004	A	.75	XPP-6004	B	.75	XPP-10004	B	.75	XPP-12004	B	.75	XPP-15004	C	.78	XPP-25004	C	.78
XPP-3005	A	.75	XPP-6005	B	.75	XPP-10005	B	.75	XPP-12005	B	.81	XPP-15005	C	.84	XPP-25005	C	.84
XPP-3006	A	.75	XPP-6006	B	.75	XPP-10006	C	.75	XPP-12006	C	.81	XPP-15006	C	.84	XPP-25006	C	.84
XPP-3008	B	.75	XPP-6008	C	.81	XPP-10008	C	.81	XPP-12008	C	.81	XPP-15008	C	.84	XPP-25008	E	.87
XPP-3010	C	.75	XPP-6010	C	.81	XPP-10010	C	.81	XPP-12010	C	.81	XPP-15010	C	.84	XPP-25010	E	.87
XPP-3015	C	.75	XPP-6015	C	.81	XPP-10015	C	.81	XPP-12015	C	.84	XPP-15015	D	.87	XPP-25015	F	.87
XPP-3020	C	.75	XPP-6020	D	.81	XPP-10020	D	.81	XPP-12020	D	.84	XPP-15020	E	.87	XPP-25020	F	.90
XPP-3025	C	.75	XPP-6025	D	.81	XPP-10025	E	.81	XPP-12025	E	.84	XPP-15025	E	.87	XPP-25025	F	.93
XPP-3030	D	.75	XPP-6030	E	.84	XPP-10030	E	.84	XPP-12030	E	.87	XPP-15030	F	.90			
XPP-3040	D	.75	XPP-6040	E	.84	XPP-10040	E	.84	XPP-12040	F	.87	XPP-15040	F	.93			
XPP-3050	D	.75	XPP-6050	E	.84	XPP-10050	E	.90	XPP-12050	F	.93	XPP-15050	F	.96			
XPP-3060	E	.75	XPP-6060	F	.84												
XPP-3100	F	.84															

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

Size			
A	3/16x⅝	D	.265x⅞
B	3/16x¾	E	⅜x¾
C	.265x¾	F	⅜x⅞

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)

TYPE PRS "DANDEE" (85°C)

SINGLES • DUALS • TRIPLES • MULTIPLES

Metal Can **Tubular Electrolytic Capacitors TYPE PRS-AC (AC rated units) NP-PRS (non-polarized un**

Compact, electrolytic tubular capacitors furnished in aluminum cans with cardboard insulating sleeves. Designed for use in television and radio applications where space is at a premium.
Included in this listing are the AC rated units (PRS-AC) and non-polarized units (NP PRS) for replacement use in cross-over networks and color TV receivers. Also listed are Types PRSB—separate section, dual units for use in specialized applications.
Single section capacitors are furnished with bare tinned copper leads 3 inches long. Negative grounded to case. Multiple units are furnished with insulated, stranded copper leads 5 inches long. Negative is common and grounded to case. Multiple units have common cathode.
Sizes listed are diameters over cardboard insulating sleeve. For actual can size deduct 1/16" from diameter and 1/4" from length. Multiple units are supplied with mounting strap. If mounting strap is required on single units, specify on order.
Tolerance and surge voltage are in accordance with EIA Specification RS-154.

TYPE PRS — SINGLES

PRS No.	Cap. Mfd.	Size	Net Price★
		4V	
1050	2000	1 1/16 x 2 3/4	1.38
		6V	
1100	100	9/16 x 1 3/8	.72
1110	250	11/16 x 1 3/4	.81
1120	500	13/16 x 1 3/4	.93
1130	1000	15/16 x 2 1/4	1.14
1140	1500	1 1/16 x 2 1/4	1.26
1145	2000	1 1/16 x 2 3/4	1.38
		10V	
1147	2000	1 1/16 x 2	1.47
		12V	
1150	100	11/16 x 1 1/4	.72
1160	250	11/16 x 2	.87
1170	500	13/16 x 2	1.02
1180	1000	13/16 x 2 1/4	1.35
		15V	
1200	100	11/16 x 1 1/2	.75
1210	250	11/16 x 2	.93
1220	500	15/16 x 2 1/4	1.05
1230	1000	1 1/16 x 2 1/4	1.38
		25V	
1250	10	9/16 x 1 1/4	.60
1255	16	9/16 x 1 1/4	.60
1260	25	9/16 x 1 1/4	.60
1265	50	9/16 x 1 1/4	.66
1270	100	11/16 x 1 3/4	.81
1280	250	13/16 x 1 3/4	1.02
1290	500	1 1/16 x 2 1/4	1.38
1295	1000	1 1/16 x 2 1/2	1.98
		50V	
1300	2	9/16 x 1 1/4	.54
1310	5	9/16 x 1 1/4	.60
1320	10	9/16 x 1 1/4	.60
1330	20	9/16 x 1 1/4	.60
1340	25	9/16 x 1 1/4	.63
1350	50	11/16 x 1 1/2	.72
1360	100	11/16 x 1 3/4	.84
1370	150	13/16 x 1 3/4	.93
1380	250	15/16 x 1 3/4	1.05
1390	500	1 1/16 x 2 1/4	1.44
		150V	
1400	4	9/16 x 1 1/4	.60
1405	8	9/16 x 1 1/4	.63
1410	10	9/16 x 1 3/8	.63
1420	12	9/16 x 1 3/8	.66
1430	16	11/16 x 1 1/2	.69
1440	20	11/16 x 1 3/4	.72
1450	24	11/16 x 1 3/4	.75
1460	30	13/16 x 1 1/2	.78
1470	40	13/16 x 1 3/4	.81
1480	50	15/16 x 1 3/4	.84
1490	60	15/16 x 1 3/4	.90
1500	.80	15/16 x 1 3/4	.96
1510	100	15/16 x 2 1/4	1.05
1520	150	1 1/16 x 2 1/4	1.14
1530	200	1 1/16 x 3	1.32
1540	300	1 1/16 x 4	1.53
		250V	
1550	4	11/16 x 1 1/4	.60
1555	8	11/16 x 1 1/2	.69
1560	12	11/16 x 1 3/4	.75
1565	16	13/16 x 1 1/2	.78
1570	20	13/16 x 1 1/2	.81
1575	30	13/16 x 2 1/4	.87
1580	40	13/16 x 2 1/4	.93
1585	50	15/16 x 2 1/4	1.02
1590	60	15/16 x 2 1/4	1.08
1595	100	1 1/16 x 3 1/4	1.47

TYPE PRS—SINGLES (cont.)

PRS No.	Cap. Mfd.	Size	Net Price★
		350V	
1600	4	11/16 x 1 1/2	.63
1610	8	11/16 x 1 3/4	.72
1620	10	13/16 x 1 3/4	.75
1630	12	13/16 x 1 3/4	.78
1640	16	13/16 x 1 3/4	.84
1650	24	13/16 x 2	.93
1660	30	13/16 x 2 1/4	.99
1670	40	15/16 x 2 1/4	1.05
1680	50	1 1/16 x 2 1/4	1.11
1690	60	1 1/16 x 2 1/2	1.17
		450V	
1700	1	9/16 x 1 1/4	.66
1705	2	9/16 x 1 1/4	.69
1710	4	11/16 x 1 1/2	.69
1715	8	11/16 x 1 7/8	.75
1720	10	11/16 x 1 7/8	.78
1725	12	13/16 x 1 7/8	.81
1730	16	13/16 x 2	.84
1735	20	13/16 x 2 1/4	.93
1740	30	15/16 x 2 1/4	1.02
1750	40	15/16 x 2 3/4	1.08
1760	50	15/16 x 3 1/2	1.26
1770	60	1 1/16 x 3 1/4	1.41
1780	80	1 1/16 x 3 3/4	1.68
1790	100	1 1/16 x 4	1.92
		500V	
1800	4	11/16 x 2	.72
1805	8	13/16 x 1 3/4	.78
1810	10	15/16 x 1 3/4	.81
1815	12	15/16 x 2 1/4	.84
1820	16	1 1/16 x 2 1/4	.90
1830	20	1 1/16 x 2 1/4	.96
1840	30	1 1/16 x 2 3/4	1.05
		600V	
1845	4	7/8 x 2 3/4	1.44
1850	8	15/16 x 3 1/16	1.71
1860	10	15/16 x 3 1/16	1.77
1870	12	1 1/16 x 3 1/16	1.89
1880	16	1 1/16 x 3 9/16	2.07
1890	20	1 1/16 x 3 9/16	2.13
		700V	
1900	8	15/16 x 3 1/16	1.74
1905	10	1 1/16 x 3 1/16	1.83
1910	12	1 1/16 x 3 9/16	1.95
1915	16	1 1/16 x 3 9/16	2.10

TYPE PRS — DUALS

		15V	
2020	500-150	15/16 x 1 3/4	1.62
		25V	
2050	10-10	11/16 x 1 1/4	.84
2075	20-20	11/16 x 1 1/4	.84
		150V	
2150	8-8	11/16 x 1 3/4	.90
2155	16-8	11/16 x 2 1/4	.93
2160	20-10	13/16 x 1 1/2	.93
2165	20-20	13/16 x 1 3/4	.99
2170	30-20	15/16 x 1 3/4	1.02
2175	30-30	15/16 x 1 3/4	1.08
2180	40-20	15/16 x 1 3/4	1.05
2190	40-30	15/16 x 2 1/4	1.08
2195	40-40	15/16 x 2 1/4	1.08
2200	50-30	15/16 x 2 1/4	1.17
2210	50-50	15/16 x 2 1/4	1.26
2220	80-20	15/16 x 2 1/4	1.29
2230	80-40	15/16 x 2 3/4	1.32
2240	80-50	1 1/16 x 2 3/4	1.41

TYPE PRS—DUALS (cont.)

PRS No.	Cap. Mfd.	Size	Net Price★
2245	100-100	1 1/16 x 3 1/4	1.92
		200V	
2250	8-8	11/16 x 1 3/4	.90
2260	16-8	11/16 x 2 1/4	.96
2280	16-16	13/16 x 1 3/4	1.02
2290	30-30	15/16 x 2 1/4	1.29
		250V	
2300	10-10	13/16 x 1 3/4	.99
2320	16-16	13/16 x 2 1/4	1.02
2330	20-20	15/16 x 2 1/4	1.11
2340	30-30	15/16 x 2 1/4	1.35
		300V	
2345	50-10	1 1/16 x 2 1/4	1.50
		450V	
2350	8-8	13/16 x 2 1/4	1.02
2360	10-10	15/16 x 2 1/4	1.11
2370	16-8	15/16 x 2 1/4	1.20
2380	16-16	1 1/16 x 2 1/4	1.35
2390	20-20	15/16 x 3	1.50
2400	30-30	1 1/16 x 3 1/4	1.80
2410	40-20	1 1/16 x 3 1/4	1.77
2420	40-40	1 1/16 x 4	2.01
2430	50-30	1 1/16 x 4	2.04

TYPE PRS — TRIPLES

		15V	
3200	500-100-100	15/16 x 1 13/16	1.80
		150V	
3500	20-20-20	15/16 x 1 3/4	1.51
3550	30-20-10	15/16 x 1 3/4	1.51
3555	30-25-20	1 1/16 x 1 3/4	1.51
3560	30-30-20	1 1/16 x 1 3/4	1.58
3570	30-30-30	15/16 x 2 1/4	1.58
3600	40-20-20	15/16 x 2 1/4	1.58
3625	40-30-20	15/16 x 2 1/4	1.58
3650	40-40-20	1 1/16 x 2 1/4	1.63
3675	40-40-40	1 1/16 x 2 1/4	1.67
3700	50-30-10	1 1/16 x 2 1/4	1.58
3750	50-30-20	1 1/16 x 2 1/2	1.63
3800	80-40-20	1 1/16 x 2 1/2	1.74
3825	80-50-20	1 1/16 x 2 3/4	1.74
		450V	
3900	10-10-10	1 1/16 x 2 3/4	1.67

TYPE PRS — MULTIPLE VOLTAGES

PRS No.	Cap. Mfd.	VCDW	Size	Net Price★
4150	40-40/250	150/10	1 1/16 x 2 1/4	1.71
4200	20-20/20	150/25	13/16 x 1 3/4	1.48
4300	30-20/20	150/25	15/16 x 1 3/4	1.50
4350	30-20/100	150/25	15/16 x 2 1/4	1.58
4400	40-20/20	150/25	15/16 x 1 3/4	1.53
4425	40-30/20	150/25	15/16 x 2 1/4	1.55
4450	40-40/20	150/25	15/16 x 2 1/4	1.59
4475	40-40/100	150/25	1 1/16 x 2 1/4	1.67
4500	50-30/20	150/25	1 1/16 x 1 3/4	1.59
4525	50-30/100	150/25	1 1/16 x 2 1/4	1.67
4550	50-30/250	150/25	1 1/16 x 2 3/4	1.81
4575	50-50/20	150/25	1 1/16 x 2 1/4	1.66
4600	80-20/100	150/25	1 1/16 x 2 1/4	1.69
4650	80-40/20	150/25	1 1/16 x 2 1/4	1.69
4700	20-20/20	450/25	1 1/16 x 2 3/4	1.86
*4800	20/100	475/50	1 x 2 11/16	1.56

*No tube

TYPE PRS — AC Rated

PRS No.	Cap. Mfd.	Size	Pri
		10 VAC	
6200	20	13/16 x 1 1/2	.
		25 VAC	
6400	8	15/16 x 1 1/2	.
		50 VAC	
6500	30	7/8 x 1 5/8	.
6550	60	3/4 x 2 5/8	.

NP-PRS — NON-POLARIZ

		3 VNP	
7050	1000	1 1/16 x 2 1/4	1.
		6 VNP	
7100	500	15/16 x 2 1/4	1.
		10 VNP	
7200	25	7/16 x 1 1/4	.
7220	50	13/16 x 1 1/2	.
7240	450	1 1/16 x 1 3/4	1.
7245	500	1 1/16 x 1 3/4	1.
		15 VNP	
7250	500	1 1/16 x 2 1/4	1.
7275	1000	1 1/16 x 3 3/4	1.
		25 VNP	
7300	2	13/16 x 1 1/2	.
7315	10	11/16 x 1 3/4	.
7330	50	15/16 x 1 1/2	.
7340	100	15/16 x 1 3/4	1.
		30 VNP	
7350	20	13/16 x 1 1/2	.
		50 VNP	
7400	2	13/16 x 1 1/4	.
7405	4	13/16 x 1 1/4	.
		150 VNP	
7450	40	1 1/16 x 2 1/4	1.
		200 VNP	
7500	2	11/16 x 1 1/4	.
		300 VNP	
7525	1	9/16 x 1 1/4	.
		350 VNP	
7550	5	15/16 x 1 3/4	.
7555	10	1 1/16 x 2	.
7560	20	1 1/16 x 2 1/4	1.
		400 VNP	
7650	10	1 1/16 x 2	.
		450 VNP	
7750	4	15/16 x 1 1/2	.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 9
100 to 249

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)

TYPE PTT-PWE TUBULAR PLASTIC-CASED ELECTROLYTICS

AEROVOX
PTT-PWE

Small in size big in performance, designed especially for wide applications in transistorized circuitry and cramped electronic assemblies, here is a truly ATURE electrolytic tubualr that will handle full sized loads. Aerovox Type 'WE units feature "Polycap" cases that are the next best thing to metal for maximum protection against humidity. Advanced construction tech- s assure long capacitor life. Units are rated for operation at temperatures —30°C to +65°C.

p.	PTT #	3 VDCW Size	PWE #	Net Price★
	PTT 1	A	PWE 3001	.75
	PTT 2	A	PWE 3002	.75
	PTT 3	A	PWE 3003	.75
	PTT 4	A	PWE 3005	.75
	PTT 5	A	PWE 3008	.75
	PTT 6	A	PWE 3010	.75
	PTT 7	A	PWE 3015	.75
	PTT 8	A	PWE 3020	.75
	PTT 9	A	PWE 3025	.75
	PTT 10	A	PWE 3030	.75
	PTT 11	A	PWE 3040	.75
	PTT 12	B	PWE 3050	.75
	PTT 13	C	PWE 3100	.84
	PTT 14	E	PWE 3200	.87
	PTT 15	F	PWE 3250	.96
	PTT 16	G	PWE 3300	.99
	PTT 17	K	PWE 3500	1.05

p.	PTT #	6 VDCW Size	PWE #	Net Price★
	PTT 18	A	PWE 6001	.75
	PTT 19	A	PWE 6002	.75
	PTT 20	A	PWE 6003	.75
	PTT 21	A	PWE 6005	.75
	PTT 22	A	PWE 6008	.75
	PTT 23	A	PWE 6010	.75
	PTT 24	A	PWE 6015	.75
	PTT 25	A	PWE 6020	.75
	PTT 26	B	PWE 6025	.75
	PTT 27	B	PWE 6030	.75
	PTT 28	C	PWE 6040	.75
	PTT 29	C	PWE 6050	.75
	PTT 30	E	PWE 6100	.90
	PTT 31	F	PWE 6200	.96
	PTT 32	H	PWE 6250	1.02
	PTT 33	K	PWE 6300	1.05

p.	PTT #	10 VDCW Size	PWE #	Net Price★
	PTT 34	A	PWE 10001	.75
	PTT 35	A	PWE 10002	.75
	PTT 36	A	PWE 10003	.75
	PTT 37	A	PWE 10005	.75
	PTT 38	A	PWE 10008	.75
	PTT 39	A	PWE 10010	.75
	PTT 40	A	PWE 10015	.75
	PTT 41	B	PWE 10020	.75
	PTT 42	C	PWE 10025	.75
	PTT 43	C	PWE 10030	.75
	PTT 44	C	PWE 10040	.75
	PTT 45	D	PWE 10050	.75
	PTT 46	E	PWE 10100	.90
	PTT 47	K	PWE 10200	.99

p.	PTT #	12 VDCW Size	PWE #	Net Price★
	PTT 48	A	PWE 12001	.75
	PTT 49	A	PWE 12002	.75
	PTT 50	A	PWE 12003	.75
	PTT 51	A	PWE 12005	.75
	PTT 52	A	PWE 12008	.75
	PTT 53	A	PWE 12010	.75
	PTT 54	B	PWE 12015	.75
	PTT 55	C	PWE 12020	.75
	PTT 56	C	PWE 12025	.75
	PTT 57	C	PWE 12030	.75

Cap.	PTT #	12VDCW (Continued) Size	PWE #	Net Price★
40	PTT 58	C	PWE 12040	.75
50	PTT 59	E	PWE 12050	.75
100	PTT 60	H	PWE 12100	.90

Cap.	PTT #	15 VDCW Size	PWE #	Net Price★
1	PTT 61	A	PWE 15001	.75
2	PTT 62	A	PWE 15002	.75
3	PTT 63	A	PWE 15003	.75
5	PTT 64	A	PWE 15005	.75
8	PTT 65	A	PWE 15008	.75
10	PTT 66	B	PWE 15010	.75
15	PTT 67	B	PWE 15015	.75
20	PTT 68	C	PWE 15020	.75
25	PTT 69	C	PWE 15025	.75
30	PTT 70	C	PWE 15030	.75
40	PTT 71	C	PWE 15040	.75
50	PTT 72	E	PWE 15050	.75
100	PTT 73	H	PWE 15100	.90

Cap.	PTT #	25 VDCW Size	PWE #	Net Price★
1	PTT 74	A	PWE 25001	.75
2	PTT 75	A	PWE 25002	.75
3	PTT 76	A	PWE 25003	.75
5	PTT 77	A	PWE 25005	.75
8	PTT 78	A	PWE 25008	.75
10	PTT 79	B	PWE 25010	.75
15	PTT 80	C	PWE 25015	.75
20	PTT 81	C	PWE 25020	.75
25	PTT 82	C	PWE 25025	.75
30	PTT 83	D	PWE 25030	.75
40	PTT 84	D	PWE 25040	.81
50	PTT 85	E	PWE 25050	.84
100	PTT 86	J	PWE 25100	1.02

Cap.	PTT #	50 VDCW Size	PWE #	Net Price★
1	PTT 87	A	PWE 50001	.75
2	PTT 88	A	PWE 50002	.75
3	PTT 89	A	PWE 50003	.75
5	PTT 90	B	PWE 50005	.75
8	PTT 91	C	PWE 50008	.75
10	PTT 92	C	PWE 50010	.75
15	PTT 93	D	PWE 50015	.75
20	PTT 94	D	PWE 50020	.75
25	PTT 95	F	PWE 50025	.81
30	PTT 96	H	PWE 50030	.81
40	PTT 97	K	PWE 50040	.87
50	PTT 98	K	PWE 50050	.90

SIZE CHART

A	¼ x ¾
B	¼ x ⅞
C	⅜ x ¾
D	⅜ x ⅞
E	⅜ x 1
F	⅜ x 1¼
G	⅜ x 1⅜
H	⅜ x 1½
J	⅜ x 1¾
K	⅜ x 2

equest O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 00 to 249

TYPE B C D UPRIGHT MOUNTING PLASTIC CASED ELECTROLYTICS

AEROVOX
BCD

"Polycap" cased, epoxy end filled electrolytic capacitors. Upright mounting for replacement in printed wiring, transistorized personal radios and car radios.

Small size and type of mounting make these units ideal for use in any printed wiring circuit.

Plastic case and epoxy end seal offer good moisture barrier which protects against drying out or leakage of electrolyte.

High purity foil insures long life and low leakage.

Minimum 1" lead length assists in threading connections into printed wiring boards even in tightest spaces.

Positive lead is identified by a + (plus) mark on case.

Cap. Mfds.	BCD No.	Size	Net Price★
	3VDCW		
1	3001	A	.87
2	3002	A	.87
3	3003	A	.87
4	3004	A	.87
5	3005	A	.87
6	3006	A	.87
8	3008	A	.87
10	3010	A	.87
15	3015	A	.87
20	3020	A	.87
25	3025	A	.87
35	3035	A	.90
50	3050	A	.93
75	3075	A	1.02
100	3100	B	1.05
150	3150	C	1.05
200	3200	C	1.08
250	3250	D	1.17
300	3300	D	1.20
	5VNP		
5	5005	B	1.08

Cap. Mfds.	BCD No.	Size	Net Price★
	6VDCW		
1	6001	A	.87
2	6002	A	.87
3	6003	A	.87
4	6004	A	.87
5	6005	A	.87
6	6006	A	.87
8	6008	A	.87
10	6010	A	.87
15	6015	A	.87
20	6020	A	.87
25	6025	A	.87
35	6035	A	.90
50	6050	A	.93
75	6075	B	1.02
100	6100	C	1.05
150	6150	D	1.14
200	6200	D	1.17
100-30	6x10030	E	1.17

Cap. Mfds.	BCD No.	Size	Net Price★
	10 VNP		
5	10005	G	1.11
	10VDCW		
10	10010	A	.87
25	10025	A	.90
50	10050	B	.96
80	10080	C	1.02
100	10100	C	1.08
190	10190	E	1.17
50-30	10x5030	D	1.05
50-50	10x5050	D	1.11
80-50	10x8050	D	1.17
80-80	10x8080	D	1.20

Cap. Mfds.	BCD No.	Size	Net Price★
	12VDCW		
1	12001	A	.87
2	12002	A	.87
3	12003	A	.87
4	12004	A	.87
5	12005	A	.90
6	12006	A	.90
8	12008	A	.90
10	12010	A	.90
15	12015	A	.93
20	12020	A	.93
25	12025	A	.93
35	12035	A	.93
50	12050	B	.99
75	12075	C	1.05
100	10100	D	1.14

Cap. Mfds.	BCD No.	Size	Net Price★
	12VDCW (Continued)		
150	12150	E	1.17
250	12250	K	1.26
500	12500	F	1.32

Cap. Mfds.	BCD No.	Size	Net Price★
	15VDCW		
1	15001	A	.87
2	15002	A	.87
3	15003	A	.87
4	15004	A	.87
5	15005	A	.90
6	15006	A	.90
8	15008	A	.90
10	15010	A	.90
15	15015	A	.93
20	15020	A	.93
25	15025	A	.93
35	15035	B	.93
50	15050	C	.99
75	15075	D	1.08
100	15100	D	1.17
	18 VDCW		
100	18100	H	1.17
	20 VDCW		
200	20200	J	1.26

Cap. Mfds.	BCD No.	Size	Net Price★
	25VDCW		
1	25001	A	.90
2	25002	A	.90
3	25003	A	.93
4	25004	A	.99
5	25005	A	.99
6	25006	A	.99
8	25008	A	.99
10	25010	B	.99
15	25015	B	.99
20	25020	B	.99
25	25025	B	.99
35	25035	C	1.05
50	25050	D	1.05
75	25075	D	1.17

Cap. Mfds.	BCD No.	Size	Net Price★
	50 VDCW		
1	50001	A	.90
2	50002	A	.90
3	50003	A	.93
4	50004	A	.99
5	50005	A	.99
6	50006	A	.99
8	50008	A	.99
10	50010	B	.99
15	50015	C	.99
20	50020	C	.99
25	50025	D	.99

SIZE CODE

A—⅜ x ⅝
B—⅜ x ¾
C—7/16 x ¾
D—½ x ¾
E—½ x ⅞
F—⅝ x 1⅜
G—½ x 1⅛
H—⅝ x ¾
J—⅝ x 1⅛
K—½ x 1¼

LEAD SPACING

Diameter	Spacing
⅜	.187
7/16	.250
½	.312

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)

Type SRE "Bantam" Metal Tubular Electrolytics

Although smaller than the PRS the SRE handles full size loads at operating temperature range of 0°C to 85°C at rated voltage. Sealed in aluminum cans and furnished with a cardboard insulating sleeve. Negative grounded to can. If required without tube specify type SREN.

Cap.	Size	Net Price★
	3V	
25	⅜ x 1	.51
50	⅜ x 1	.57
100	⅜ x 1	.66
200	⅜ x 1⅝	.69
300	½ x 1⅛	.78
500	½ x 1⅝	.84
	6V	
5	⅜ x 1	.48
25	⅜ x 1	.51
50	⅜ x 1	.57
100	½ x 1⅛	.72
250	½ x 1⅝	.81
	12V	
50	⅜ x 1⅛	.60
100	½ x 1	.72
200	½ x 1⅝	.81
	15V	
100	½ x 1⅛	.75
	25V	
5	⅜ x 1	.60
10	⅜ x 1	.60
20	⅜ x 1	.60
25	⅜ x 1	.60
	25V (Continued)	
50	½ x 1	.66
100	½ x 1⅝	.81
	50V	
1	⅜ x 1	.54
2	⅜ x 1	.54
5	⅜ x 1	.60
10	⅜ x 1	.60
15	⅜ x 1⅛	.60
25	½ x 1	.63
	70V	
10	⅜ x 1	.63
	150V	
5	⅜ x 1	.60
10	⅜ x 1⅝	.63
15	½ x 1⅛	.69
20	½ x 1⅝	.72
25	½ x 1⅝	.75

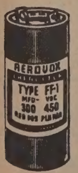
★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE G
Insulated Screw-Mounting Capacitors

Hermetically-sealed aluminum can unit, threaded cover size ⅞—16 with hex nut and washer for convenient mounting on chassis. Washer can be used to insulate can from chassis. Terminals molded in cover. Cathode connection thru terminal in cover. These units are the commercial equivalent of case style CE41 and 42 of specification MIL C62A.

Cap. Mfd.	Size—DxH	Net Price★
	SINGLE TYPE G450 **450 VDCW 525V. Surge Peak**	
10	1⅜ x 2¼	2.54
20	1⅜ x 2¼	2.64
40	1⅜ x 2¾	2.83
80	1⅜ x 4¼	3.31
	SINGLE TYPE G500 **500 VDCW 550V. Surge Peak**	
10	1⅜ x 2¼	2.60
	DUAL TYPE G-450 **450 VDCW 525V. Surge Peak**	
10-10	1⅜ x 2¼	3.05
20-20	1⅜ x 2¾	3.26

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

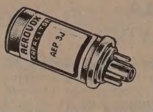


TYPE FF
Photo-Flash Capacitors

Selective choice of highest purity materials makes these units ideal for rugged photoflash application calling for lowest leakage requirements. Type FF-1 furnished in molded black plastic container, type FF-2 in aluminum can with black glazed tubing; both units furnished with screw lug terminals. Highly resistant to moisture and oil. Surge voltages and time duty cycles as listed in EIA specification No. RS-154.

Type Number	Cap. Mfd.	Working Voltage	Surge Voltage	Watt Secs.	Size	Net Price★
FF-1	300	450	525	30	2 1/16 x 4⅜	8.85
FF-2	525	450	525	53	2 1/16 x 4⅜	13.02

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

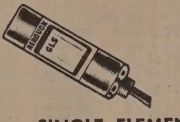


TYPE AEP
Plug-in Electrolytic Capacitor

Hermetically sealed, dry electrolytic capacitor nished in round, aluminum can and 4-pin, octal- mounting. For quick changes, readily removed replaced in a standard octal-base tube socket. For use where continuous service is important. They are ideally suited experimental testing, juke boxes and communication receiver uses. T in MIL Specification C62A. units are the commercial equivalents of Type CE51's, 2's and 3's, as li Operating temperature to +65°C. Quadruple element units furnished ground lug for cathode connection.

Type	Capacity Mfd.	VDCW	Diam. x Hght.	Net Price
	SINGLE ELEMENT UNITS			
AEP400P	2000	15	1⅜ x 2½	3.4
AEP5A	25	25	1 15/32 x 2½	2.2
AEP4D	20	150	1 15/32 x 2½	2.2
AEP8D	40	150	1 15/32 x 2½	2.3
AEP80D	400	150	1⅜ x 3½	3.4
AEP2J	10	450	1 15/32 x 2½	2.3
AEP3J	15	450	1 15/32 x 2½	2.3
AEP4J	20	450	1 15/32 x 2½	2.4
AEP6J	30	450	1 15/32 x 2½	2.5
AEP8J	40	450	1 15/32 x 2½	2.7
AEP16J	80	450	1⅜ x 3½	3.2
AEP2L	10	600	1⅜ x 4¼	2.8
	DUAL ELEMENT UNITS			
AEP44D	20-20	150	1 15/32 x 2½	2.4
AEP88D	40-40	150	1 15/32 x 2½	2.5
AEP22J	10-10	450	1 15/32 x 2½	2.5
AEP44J	20-20	450	1⅜ x 2½	2.9
AEP62J	30-10	450	1 15/32 x 2½	2.9
AEP88J	40-40	450	1⅜ x 3	3.3
	TRIPLE ELEMENT UNITS			
AEP444D	20-20-20	150	1 15/32 x 2½	2.6
AEP88D4A	40-40/20	150/25	1 15/32 x 2½	2.6
AEP222J	10-10-10	450	1 15/32 x 2½	2.7
AEP22J4A	10-10/20	450/25	1 15/32 x 2½	2.6
AEP44J4A	20-20/20	450/25	1⅜ x 2½	3.0
AEP444J	20-20-20	450	1⅜ x 3	3.2
AEP822J	40-10-10	450	1⅜ x 3	3.2
	QUADRUPLE ELEMENT UNITS			
AEPG444D4A	20-20-20/20	150/25	1⅜ x 2½	2.8
AEPG2222J	10-10-10-10	450	1⅜ x 2½	3.1
AEPG444J4A	20-20-20/20	450/25	1⅜ x 3	3.3

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249



TYPE GL

These ever-popular inverted-mounting, aluminum units, are furnished with the same high purity terials as the more expensive type E and G. separate color-coded leads 4" long for each tion. Inverted chassis mounting can be m using palnut and threaded neck. Threaded size ⅝—18.

SINGLE ELEMENT

Cap. Mfd.	Size—DxH	Net Price★
	TYPE GL600 **600 VDCW 750V. Surge Peak**	
4	1⅜ x 4	1.71
8	1⅜ x 4½	1.85
16	1⅜ x 4½	2.37
	TYPE GL475 **475 VDCW 550V. Surge Peak**	
8	1⅜ x 3	1.52
12	1⅜ x 3	1.61
16	1⅜ x 3	1.66
	TYPE GL450 **450 VDCW 525V. Surge Peak**	
4	1⅜ x 3	1.50
8	1⅜ x 3	1.54
10	1⅜ x 3	1.56
12	1⅜ x 3	1.58
16	1⅜ x 3	1.62
20	1⅜ x 3	1.66
30	1⅜ x 3	1.76
40	1⅜ x 3	1.86
80	1⅜ x 4	2.46

DUAL ELEMENT

Cap. Mfd.	Size—DxH	Net Price
	TYPE GL475	
8-8	1⅜ x 4	1.7
	TYPE GL450	
8-8	1⅜ x 4	1.7
10-10	1⅜ x 4	1.7
12-12	1⅜ x 4	1.8
16-8	1⅜ x 4	1.8
16-16	1⅜ x 4	1.9
20-20	1⅜ x 4	1.9

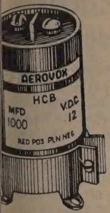
TRIPLE ELEMENT

Cap. Mfd.	Size—DxH	Net Price
	TYPE GL450	
8-8-8	1⅜ x 4	1.9
10-10-10	1⅜ x 4	1.9

★Request O.E.M. prices in the following quantities: 25 to 49, 50 99, 100 to 249

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)



TYPES HCB and NPB
High Capacity/Low Voltage Bakelite Cased Electrolytics

Type HCB units are polarized electrolytic capacitors designed for use in industrial applications such as battery eliminators, power supplies, electric fence controls and sound movie projectors. For non-polarized applications in welding and control equipment Type NPB units are available.

th types feature heavy-duty, moisture resistant bakelite cases which elimte the need for outer cardboard insulating tubes. Operating temperature ige from —40°C to +85°C. Capacitance tolerance up to 150 VDCW —10% 00%, over 150 VDCW —10%+50%. High capacity etched plate construcn assures long trouble-free operation. Units supplied with wrap around— ted brackets for vertical mtg.—horizontal mtg. available on Special Order.

TYPE HCB

pacity MFD	Size	Net Price★
6 VDCW—8V Surge		
2000	1 13/16x4⅜	8.16
12 VDCW—18V Surge		
500	1 7/16x2¾	2.70
1000	1 7/16x2¾	2.94
2000	1 7/16x2¾	3.36
3000	1 7/16x3⅜	3.96
4000	1 7/16x3⅜	4.60
6000	1 13/16x3⅜	5.20
0000	1 13/16x4⅜	7.82
18 VDCW—25V Surge		
500	1 7/16x2¾	2.89
1000	1 7/16x2¾	3.31
1500	1 7/16x2¾	3.39
2000	1 7/16x2¾	3.47
4000	1 13/16x3⅜	5.37
6000	1 13/16x3⅜	5.62
25 VDCW—40V Surge		
500	1 7/16x2¾	2.89
1000	1 7/16x2¾	3.19
1250	1 7/16x3⅜	3.43
2000	1 7/16x3⅜	4.15
3000	1 13/16x3⅜	4.88
4000	1 13/16x3⅜	5.58
6000	1 13/16x4⅜	7.12

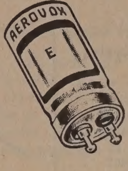
HCB (Continued)

Capacity MFD	Size	Net Price★
50 VDCW—75V Surge		
500	1 7/16x3⅜	3.33
1000	1 7/16x3⅜	4.25
2000	1 13/16x3⅜	5.06
3000	1 13/16x4⅜	7.00
4000	2 1/16x4⅜	7.32
150 VDCW—185V Surge		
1000	1 13/16x4⅜	6.44

TYPE NPB

MFD Capacity	Size	Net Price★
125 VNP—175V Surge		
200	1 7/16x3⅜	4.04
300	1 13/16x3⅜	4.87
500	1 13/16x4⅜	6.30
300 VNP—375V Surge		
15	1 7/16x2¾	2.87
100	1 13/16x3⅜	6.13
200	2 1/16x4⅜	7.00
450 VNP—525V Surge		
50	1 13/16x3⅜	6.30
100	2 1/16x4⅜	7.70

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 249



TYPE E
Hermetically-Sealed, Aluminum, Round Metal-Cased Capacitors

Can be mounted with terminals upright or inverted by use of a ring-type clamp provided with unit. Can is floating, thus having two terminals on single-section capacitors, three on duals, and four on triples.

These units are the commercial equivalent of case style CE31, 2 and 3 of MIL Specification C62A.

SINGLE ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	450 VDCW	
10	1 x 2¼	1.87
20	1 x 2¾	1.97
40	1⅜ x 2¾	2.37
80	1⅜ x 4¼	2.82
	250 VDCW	
500	2 x 4⅛	4.27
	50 VDCW	
10	1 x 1¾	1.77
25	1 x 1¾	1.79
	25 VDCW	
10	1 x 1¾	1.77
25	1 x 1¾	1.78
	1 VNP	
1250	1⅜ x 4¼	3.10

DUAL ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	450 VDCW	
10-10	1⅜ x 2¼	2.43
20-20	1⅜ x 2¾	2.64

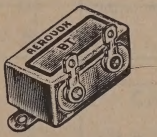
TRIPLE ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	450 VDCW	
10-10-10	1⅜ x 2¼	2.92
	350/50 VDCW	
30-30/50	1⅜ x 4¼	3.14

QUADRUPLE ELEMENT

Cap. Mfd.	Can Size Dia. x Hght.	Net Price★
	350/150 VDCW	
20-10/5-5	1⅜ x 4¼	3.03

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249



TYPE BT
Drawn-Case "Bathtub" Electrolytic Capacitors

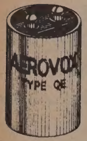
Hermetically-sealed units designed for rigid mounting in minimum space. Of sturdy construction, these high-quality units are commercial equivalent to the case style CE63 of MIL Specification C62A.

Capacity Mfd.	L x W x H	Net Price★
TYPE BT500	**500 VDCW**	
4	2 x 2 x 1⅛	2.87
8	2 x 1¾ x 1⅛	2.94
TYPE BT450	**450 VDCW**	
8	1¾ x 1 x 1	2.64
12	1¾ x 1¼ x 1	2.70
16	2 x 1¾ x 1	3.03
TYPE BT350	**350 VDCW**	
8	1¾ x 1 x ⅞	2.58
12	1¾ x 1 x ⅞	2.65
16	1¾ x 1 x 1	2.72
20	1¾ x 1¼ x 1⅛	2.75
TYPE BT150	**150 VDCW**	
8	1¾ x 1 x ⅞	2.44
12	1¾ x 1 x ⅞	2.47
16	1¾ x 1 x ⅞	2.50
24	1¾ x 1 x ⅞	2.55
30	1¾ x 1 x 1	2.58
40	1¾ x 1 x 1	2.61
TYPE BT50	**50 VDCW**	
10	1¾ x 1 x ⅞	2.41
25	1¾ x 1 x ⅞	2.43
50	1¾ x 1 x ⅞	2.53
TYPE BT25	**25 VDCW**	
10	1¾ x 1 x ⅞	2.41
25	1¾ x 1 x ⅞	2.43
50	1¾ x 1 x ⅞	2.47

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AEROVOX *Capacitors*

ELECTROLYTICS — (Continued)



TYPE QE
Energy Storage and Computer Grade Electrolytics

Precisely engineered for high reliability and long operating life, QE capacitors have a life expectancy of greater than 10 years when operated within ratings. Units are rated for operation at temperatures from —20°C to +85°C. Manufactured in drawn aluminum cases in four diameters and one standard 4⅛" height to facilitate bus bar connections for purposes of ganging units in banks. Units find wide application in computers, power supplies, telephone networks and industrial electronic equipment.

MAXIMUM RATINGS IN MFD

VDCW	Surge	A—1 7/16" Diameter	B—2 1/16" Diameter	C—2 9/16" Diameter	D—3 1/16" Diameter
5	7	8,500	25,000	45,000	65,000
10	13	6,500	17,000	32,000	40,000
15	20	6,000	15,000	25,000	36,000
25	40	4,000	8,000	15,000	25,000
35	45	2,000	5,000	8,000	12,000
50	65	1,750	4,250	7,000	10,000
75	100	1,000	2,500	4,250	6,000
100	135	675	1,950	3,500	4,500
150	185	600	1,250	2,400	3,250
200	250	300	900	1,450	2,250
250	300	250	700	1,250	2,000
300	350	200	575	1,050	1,600
350	400	170	450	750	1,200
400	475	150	350	625	1,000
450	525	125	300	550	850

All units are 4½ inches in height over insulating tube. Diameters measured over insulating tube. Bare can size is obtained by subtracting 1/16" from diameter and ⅜" from height.

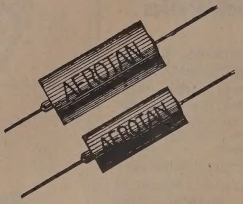
STOCK LISTING*

Cat. No.	VDCW	Cap. Mfd.	Size	Net Price★
QE15A-6	15	6,000	A	4.98
QE15B-13P5	15	13,500	B	7.86
QE15C-22	15	22,000	C	11.61
QE15D-33	15	33,000	D	13.26
QE25C-15	25	15,000	C	12.00
QE25D-25	25	25,000	D	13.20
QE35A-2	35	2,000	A	4.20
QE35B-5	35	5,000	B	6.90
QE35C-8	35	8,000	C	10.05
QE35D-12	35	12,000	D	12.45
QE50A-1P75	50	1,750	A	4.44
QE50C-5P5	50	5,500	C	9.00
QE50C-6P5	50	6,500	C	10.05
QE50D-9	50	9,000	D	12.00
QE150A-P4	150	400	A	3.96
QE150A-P5	150	500	A	4.53
QE250C-1	250	1,000	C	11.55
QE350C-P7	350	700	C	10.65
QE350D-1	350	1,000	D	13.80
QE450A-P125	450	125	A	5.61

*For values other than those shown above, contact your authorized Aerovox Distributor or Aerovox Corporation, Distributor Division, New Bedford, Mass.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

"AEROTAN" SOLID TANTALUM CAPACITORS
Type ST12 (uninsulated) Type ST13 (insulated)



Aerotan capacitors are solid electrolyte units feat sintered tantalum anodes and hermetically sealed in cases. The use of a semiconductor electrolyte provid assembly that is completely dry with absolute freedom corrosion or electrolyte leakage. All Aerotan units excellent stability, high reliability, rugged constru subminiature sizes and long shelf life. Units are design meet all the requirements of MIL-C-26655A. Contir operation over the temperature range of —80° to +1 Voltage ratings of 6, 10, 15, 20 and 35 VDC are for + operation. Standard tolerance ±20%. Also availabl ±10%.

SURGE VOLTAGE

Rated Voltage	65°C Surge Voltage	85°C Surge Voltage	125°C Surge Voltage
6 VDC	8 VDC	8 VDC	5 VDC
10 VDC	12 VDC	12 VDC	9 VDC
15 VDC	17 VDC	16 VDC	12 VDC
20 VDC	23 VDC	21 VDC	16 VDC
35 VDC	41 VDC	35 VDC	24 VDC

CASE SIZES

Case Size	ST12 Dimensions Uninsulated Case		ST13 Dimensions Insulated Case		Lead Diam.
	L±.031"	D +.016" −.010"	L±.031"	D +.016" −.010"	+.005" −.001"
A	.250"	.125"	.322"	.135"	.020"
B	.438"	.175"	.510"	.185"	.020"
C	.650"	.279"	.722"	.289"	.025"
D	.750"	.341"	.822"	.351"	.025"

STOCK LISTING

CAP. MFD.	6 VDCW	Net Price★	10 VDCW	Net Price★	15 VDCW	Net Price★	20 VDCW	Net Price★	35 VDCW	Pri
.039	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.047	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.056	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.068	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.082	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.1	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.12	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.15	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.18	A	1.41	A	1.41	A	1.41	A	1.41	A	1.
.22	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.27	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.33	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.39	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.47	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.56	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.68	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
.82	A*	1.41	A*	1.41	A*	1.41	A*	1.41	A*	1.
1.0	A	1.41	A	1.41	A	1.41	A	1.41	A*	1.
1.2	A	1.41	A	1.41	A	1.41	A*	1.41	A*	1.
1.5	A	1.41	A	1.41	A	1.41	A*	1.41	B*	1.
1.8	A	1.41	A	1.41	A	1.41	A*	1.41	B*	1.
2.2	A	1.41	A	1.41	A	1.41	A*	1.41	B*	1.
2.7	A	1.41	A	1.41	A*	1.41	B	1.45	B*	1.
3.3	A	1.41	A	1.41	A	1.41	B	1.45	B*	1.
3.9	A	1.41	A*	1.41	B	1.45	B	1.45	B*	1.
4.7	A	1.41	A*	1.41	B	1.45	B	1.45	B*	1.
5.6	A*	1.41	B	1.45	B	1.45	B	1.45	B*	1.
6.8	A*	1.41	B	1.45	B	1.45	B	1.45	B*	1.
8.2	B	1.45	B	1.45	B	1.45	B*	1.45	C	2.
10.	B	1.45	B	1.45	B	1.45	B*	1.45	C	2.
12.	B	1.45	B	1.45	B	1.45	B*	1.45	C	2.
15.	B	1.45	B	1.45	B	1.45	B*	1.45	C	2.
18.	B	1.45	B	1.45	B*	1.45	C	2.45	C	2.
22.	B	1.45	B	1.45	B*	1.45	C	2.45	C	2.
27.	B	1.45	B*	1.45	C	2.45	C	2.45	D†	
33.	B	1.45	B*	1.45	C	2.45	C	2.45	D†	
39.	B	1.45	B*	1.45	C	2.45	C	2.45	D†	
47.	B*	1.45	C	2.45	C	2.45	C	2.45	D†	
56.	B	1.45	C	2.45	C	2.45	D	4.55		
68.	C	2.45	C	2.45	C	2.45	D	4.55		
82.	C	2.45	C	2.45	D	4.55	D	4.55		
100.	C	2.45	C	2.45	D	4.55	D	4.55		
120.	C	2.45	C	2.45	D	4.55				
150.	C	2.45	D	4.55	D	4.55				
180.	C	2.45	D	4.55						
220.	D	4.55	D	4.55						
270.	D	4.55								
330.	D	4.55								

†To be released at a later date.

*Available from stock in±20% or ±10% tolerance. All others are available from stock ±20% only and are subject to factory delivery cycles if 10% tolerance is required. Contact fac for prices on ±10% tolerance. Prices shown are for ±20%.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

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AEROVOX *Capacitors*

PAPER CAPACITORS

AEROVOX
BI-ELECTRIC

BI-ELECTRIC® MYLAR* PAPER BYPASS TUBULARS

Radial Lead Mounting

Two famous dielectrics . . . quality kraft tissue and Mylar* film . . . are combined with Aerolene impregnant and exclusive "Polycap"® plastic case to bring you a truly superior bypass capacitor. The advanced construction techniques presented in "Bi-Electric" capacitors offer distinct advantages over other radial lead types. "Polycap"® case provides a solid uniform coating from end-to-end. Controlled end-fills provide sealed protection, and leads cannot crack end-fill or pull-out when leads are extended for axial mounting. Standard capacitance tolerance is ±10%. Operating temperature range is —30°C to +100°C.

* DuPont Trademark

pacity Mfd.	Cat #	Size	Net Price★
	200 VDCW		
01	BE2S1	11/32 x 11/16	.150
015	BE2S15	3/8 x 11/16	.150
2	BE2S2	7/16 x 27/32	.150
022	BE2S22	7/16 x 27/32	.150
047	BE2S47	7/16 x 27/32	.180
5	BE2S5	15/32 x 1 1/8	.180
	BE2P1	17/32 x 1 5/32	.210
5	BE2P15	9/16 x 1 5/32	.240
	BE2P2	5/8 x 1 5/16	.270
2	BE2P22	5/8 x 1 5/16	.270
5	BE2P25	11/16 x 1 9/16	.270
3	BE2P33	11/16 x 1 9/16	.300
7	BE2P47	3/4 x 1 9/16	.360
	BE2P5	3/4 x 1 9/16	.360
	400 VDCW		
01	BE4S1	3/8 x 11/16	.150
015	BE4S15	7/16 x 27/32	.150
2	BE4S2	7/16 x 27/32	.180
022	BE4S22	7/16 x 27/32	.180
025	BE4S25	7/16 x 27/32	.180
3	BE4S3	7/16 x 27/32	.180
033	BE4S33	7/16 x 27/32	.180

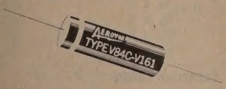
Capacity Mfd.	Cat #	Size	Net Price★
.04	BE4S4	15/32 x 1 1/8	.210
.047	BE4S47	15/32 x 1 1/8	.210
.05	BE4S5	15/32 x 1 1/8	.210
.068	BE4S68	1/2 x 1 1/8	.240
.1	BE4P1	9/16 x 1 5/32	.240
.15	BE4P15	5/8 x 1 5/16	.300
.2	BE4P2	11/16 x 1 9/16	.330
.22	BE4P22	11/16 x 1 9/16	.360
.25	BE4P25	11/16 x 1 9/16	.360
.33	BE4P33	3/4 x 1 9/16	.420
	600 VDCW		
.001	BE6D1	11/32 x 11/16	.150
.0012	BE6D12	11/32 x 11/16	.150
.0015	BE6D15	11/32 x 11/16	.150
.0018	BE6D18	11/32 x 11/16	.150
.002	BE6D2	11/32 x 11/16	.150
.0022	BE6D22	11/32 x 11/16	.150
.0025	BE6D25	3/8 x 11/16	.150
.0027	BE6D27	3/8 x 11/16	.150
.003	BE6D3	3/8 x 11/16	.150
.0033	BE6D33	3/8 x 11/16	.150
.0039	BE6D39	3/8 x 11/16	.150
.004	BE6D4	13/32 x 11/16	.150
.0047	BE6D47	13/32 x 11/16	.150

Capacity Mfd.	Cat #	Size	Net Price★
.005	BE6D5	13/32 x 27/32	.150
.006	BE6D6	13/32 x 27/32	.150
0068	BE6D68	13/32 x 27/32	.180
.007	BE6D7	13/32 x 27/32	.180
.0075	BE6D75	13/32 x 27/32	.180
.008	BE6D8	13/32 x 27/32	.180
.0082	BE6D82	13/32 x 27/32	.180
.01	BE6S1	13/32 x 27/32	.180
.015	BE6S15	15/32 x 13/16	.180
.018	BE6S18	17/32 x 7/8	.180
.02	BE6S2	17/32 x 7/8	.180
.022	BE6S22	17/32 x 7/8	.180
.025	BE6S25	15/32 x 1 5/32	.210
.027	BE6S27	15/32 x 1 5/32	.210
.03	BE6S3	15/32 x 1 5/32	.210
.033	BE6S33	15/32 x 1 5/32	.210
.039	BE6S39	15/32 x 1 5/32	.210
.04	BE6S4	17/32 x 1 5/32	.210
.047	BE6S47	17/32 x 1 5/32	.240
.05	BE6S5	17/32 x 1 5/32	.240
.056	BE6S56	17/32 x 1 5/32	.240
.06	BE6S6	5/8 x 1 5/16	.240
.068	BE6S68	5/8 x 1 5/16	.270
.075	BE6S75	5/8 x 1 5/16	.270
.1	BE6P1	5/8 x 1 5/16	.270

Capacity Mfd.	Cat #	Size	Net Price★
.15	BE6P15	11/16 x 1 9/16	.330
.2	BE6P2	3/4 x 1 9/16	.360
.22	BE6P22	3/4 x 1 9/16	.360
	1000 VDCW		
.001	BE10D1	11/32 x 11/16	.180
.0012	BE10D12	11/32 x 11/16	.180
.0015	BE10D15	11/32 x 11/16	.180
.0018	BE10D18	11/32 x 11/16	.180
.002	BE10D2	3/8 x 11/16	.180
.0022	BE10D22	3/8 x 11/16	.180
.0033	BE10D33	13/32 x 27/32	.180
.0047	BE10D47	13/32 x 27/32	.210
.0068	BE10D68	15/32 x 13/16	.210
.01	BE10S1	17/32 x 7/8	.240
.018	BE10S18	15/32 x 1 5/32	.240
.025	BE10S25	17/32 x 1 5/32	.240
.027	BE10S27	17/32 x 1 5/32	.240
.033	BE10S33	5/8 x 1 5/16	.300
.039	BE10S39	5/8 x 1 5/16	.300
.047	BE10S47	5/8 x 1 5/16	.300
.056	BE10S56	11/16 x 1 9/16	.330
.068	BE10S68	11/16 x 1 9/16	.330
.075	BE10S75	11/16 x 1 9/16	.360
.1	BE10P1	3/4 x 1 9/16	.360

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

TYPE V84C—V161



AEROFILM® (MYLAR*) CAPACITORS

V84C-V161 Aerofilm Tubular Capacitors are high quality units in Polycap® cases. These units have exceptionally high insulation resistance and low dielectric absorption and power factor. They are extremely stable having a relatively small capacitance change with temperature variations over a range of 0 to 85°C.

Their excellent resistance to humidity and moisture are due to the use of Aerofilm (Aerovox's trade name for Mylar* polyester film), finest quality casing material, and an epoxy end fill which will not flow, soften or melt at any operating temperature. Standard tolerance is ±20% but also available in ±5% and ±10%.

Cap. Mfd.	Size	Net Price★
	200 VDCW	
.0047	9/32 x 15/16	.150
.0068	9/32 x 15/16	.150
.01	9/32 x 15/16	.150
.015	9/32 x 15/16	.150
.022	5/16 x 1	.150
.033	5/16 x 1	.150
.047	5/16 x 1 1/16	.150
.05	5/16 x 1 1/16	.150
.068	11/32 x 1 1/16	.180
.1	3/8 x 1 1/4	.210
.15	13/32 x 1 1/4	.240
.22	1/2 x 1 1/4	.240
.25	1/2 x 1 1/4	.270
.33	1/2 x 1 1/2	.330
.47	9/16 x 1 1/2	.390
.68	19/32 x 1 3/4	.510
1.0	13/16 x 1 7/8	.570
	400 VDCW	
.0015	9/32 x 5/16	.150
.0022	9/32 x 5/16	.150
.0033	9/32 x 5/16	.150

Cap. Mfd.	Size	Net Price★
.0047	9/32 x 15/16	.150
.0068	9/32 x 15/16	.150
.01	5/16 x 1	.150
.015	5/16 x 1	.150
.02	5/16 x 1 1/16	.150
.022	11/32 x 1 1/16	.150
.03	3/8 x 1 1/16	.180
.033	3/8 x 1 1/16	.180
.047	3/8 x 1 1/4	.180
.05	3/8 x 1 1/4	.180
.068	7/16 x 1 1/4	.210
.1	1/2 x 1 1/4	.210
.15	9/16 x 1 1/2	.360
.22	9/16 x 1 1/2	.390
.25	9/16 x 1 3/4	.390
.33	5/8 x 1 3/4	.510
.47	11/16 x 2	.660
.5	11/16 x 2	.690
.68	25/32 x 2	.870
1.0	7/8 x 2 1/8	1.050
	600 VDCW	
.001	9/32 x 15/16	.150
.0015	9/32 x 15/16	.150
.002	9/32 x 15/16	.150
.0022	9/32 x 15/16	.150

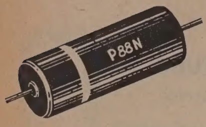
Cap. Mfd.	Size	Net Price★
.003	9/32 x 15/16	.150
.0033	9/32 x 15/16	.150
.004	5/16 x 1	.150
.0047	5/16 x 1	.150
.005	5/16 x 1	.150
.0068	5/16 x 1	.180
.01	11/32 x 1 1/16	.180
.015	3/8 x 1 3/16	.180
.02	3/8 x 1 3/16	.180
.022	13/32 x 1 3/16	.180
.03	7/16 x 1 3/16	.210
.033	7/16 x 1 3/16	.210
.04	1/2 x 1 1/4	.240
.047	1/2 x 1 1/4	.240
.05	1/2 x 1 1/4	.240
.068	1/2 x 1 1/2	.270
.075	1/2 x 1 1/2	.270
.1	9/16 x 1 1/2	.300
.15	5/8 x 1 5/8	.390
.2	23/32 x 1 5/8	.480
.22	3/4 x 1 5/8	.510
.25	3/4 x 1 3/4	.540
.33	13/16 x 1 7/8	.780
.47	7/8 x 2 1/8	.840
.5	7/8 x 2 1/8	.870

*Dupont trademark

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AEROVOX *Capacitors*

PAPER CAPACITORS (cont.)



TYPE P88N

†DURANITE

Duranite Blue Molded Tubular Capacitors

Toughest capacitors ever offered for radio-electronic equipn DURANITE capacitors. Design, impregnant, processing, and ca insure glove-fitting contact and seal throughout. DURANITE prov a permanent, non-varying, rock-hard casing, does not dry out, not develop cracks or fissures. Pig-tail leads firmly imbedded, v pull out, won't work loose. Moisture-proof; operate from sub-zer over 212°F. Exposure to temperatures of 250°F. will not impair or performance, no deterioration on the shelf. A white band ar one end of the capacitor identifies the outside foil.

Cap. Mfd.	200 V		400 V		600 V		1000 V	
	Size	Net Price★	Size	Net Price★	Size	Net Price★	Size	Net Price★
.001	A	.150	A	.150	A	.150	A	.300
.0015	A	.150	A	.150	A	.150	A	.300
.002	A	.150	A	.150	A	.150	A	.300
.0022	A	.150	A	.150	A	.150	A	.300
.003	A	.150	A	.150	A	.150	B	.300
.0033	A	.150	A	.150	A	.150	B	.300
.004	A	.150	A	.150	A	.150	B	.300
.0047	A	.150	A	.150	A	.150	B	.300
.005	A	.150	A	.150	A	.150	B	.300
.006	A	.150	A	.150	B	.150	B	.300
.0068	A	.150	A	.150	B	.150	B	.300
.007	A	.150	A	.150	B	.150	B	.300
.0075	A	.150	A	.150	B	.180	B	.300
.008	A	.150	A	.150	B	.180	B	.300
.01	A	.150	A	.150	B	.180	B	.300
.015	A	.150	B	.150	B	.180	D	.300
.02	B	.150	B	.180	D	.180	E	.300
.022	B	.150	B	.180	D	.180	E	.300
.025	B	.150	B	.180	D	.210	E	.300
.03	B	.150	B	.180	D	.210	E	.300
.038	B	.150	B	.180	E	.210	E	.360
.04	B	.150	D	.180	E	.210	F	.360
.047	B	.180	D	.180	E	.210	F	.360

Cap. Mfd.	200 V		400 V		600 V		1000 V	
	Size	Net Price★	Size	Net Price★	Size	Net Price★	Size	Net Price
.05	B	.180	D	.180	E	.240	F	.36
.06	D	.180	E	.180	F	.240	F	.36
.068	D	.180	E	.210	F	.240	F	.42
.075	D	.180	E	.210	F	.270		
.1	D	.210	E	.210	F	.270		
.15	E	.210	F	.240	F	.360		
.2	F	.240	F	.270	G	.390		
.22	F	.240	F	.270	G	.420		
.25	F	.270	F	.300	G	.450		
.27	F	.270	G	.330	H	.480		
.33	F	.300	G	.360	H	.570		
.47	F	.360	G	.450	H	.750		
.5	F	.360	G	.450		.750		
1.0	H	.630	H	.750				

Size	Length x Dia.	Size	Length x Dia.
A	1⅛ x 11/32	E	1⅝ x 17/32
B	1⅜ x 13/32	F	2 x 21/32
		G	2¼ x ¾
D	1⅜ x 15/32	H	2½ x 1

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 9 100 to 249

Type VBC Vibrator Buffer Capacitors

These units are heavy-duty, Hyvol M impregnated, vibrator bu capacitors in ceramic tubes, specifically designed for severe-serv auto-radio applications.

Type	Cap. Mfd.	Size	Net Price★
VBC-2	.001	⅜ x 1¼	.300
VBC-3	.002	⅜ x 1½	.300
VBC-4	.0022	⅜ x 1½	.300
VBC-5	.003	⅜ x 1½	.300
VBC-6	.0033	7/16 x 1½	.300
VBC-7	.004	7/16 x 1½	.300
VBC-8	.0047	7/16 x 1½	.300
VBC-9	.005	15/32 x 1½	.300
VBC-22	.006	15/32 x 1½	.300
VBC-23	.0068	17/32 x 1½	.300
VBC-24	.007	17/32 x 1½	.330
VBC-25	.0075	17/32 x 1½	.330

Type	Cap. Mfd.	Size	Net Price★
VBC-26	.008	17/32 x 1½	.330
VBC-27	.01	9/16 x 1½	.330
VBC-28	.015	⅝ x 1¾	.330
VBC-29	.02	⅝ x 2	.330
VBC-32	.025	11/16 x 2	.330
VBC-33	.03	¾ x 2	.390
VBC-34	.05	15/16 x 2	.480
VBC-35	.015-.015	13/16 x 2	.480
VBC-45	.007-3000 WVDC	11/16 x 2	.390

Vibrator "HASH" Capacitor VHC36

.5 Mfd. 100 Volts WVDC 13/16 x 1⅛ .300

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AUTOPASS® Vertical Mounting Plastic-Cased Paper Capacitors

Aerovox Autopass capacitors were specifically designed and developed for use in conjunction with printed-wiring assemblies where it is highly desirable to mount capacitors at right angles to the mounting surface thereby conserving valuable space

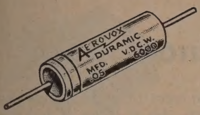
Aerolene impregnated and assembled into a Polycap® case, Autopass capacitors are then sealed with a thermo-setting end-seal. The end-seal surface is below the outside edges of the plastic case, permitting the capacitor to be mounted flush against the mounting surface. The leads of these capacitors are stiff, and critical spacing is closely held to facilitate their use in mechanized assemblies. Outside foil is identified by wire lead nearest to edge of case or by a paint stripe on the case nearest the outside foil.

Cap.	200	Net Price★	400	Net Price★	600	Net Price★
.001	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0015	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0022	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0033	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0047	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1	.210
.0068	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1⅜	.210
.01	⅜ x 1	.210	⅜ x 1	.210	⅜ x 1⅜	.240
.015	⅜ x 1	.210	⅜ x 1⅜	.210	7/16 x 1⅜	.240
.022	⅜ x 1⅜	.210	7/16 x 1⅜	.210	7/16 x 1⅜	.240
.033	⅜ x 1⅜	.210	7/16 x 1⅜	240	½ x 1¼	.270
.047	7/16 x 1⅜	.210	½ x 1¼	.240	½ x 1½	.270
.068	7/16 x 1⅜	.240	½ x 1½	.240	⅝ x 1⅞	.300
.1	½ x 1¼	.240	⅝ x 1¼	.270	⅝ x 1⅞	.330
.15	⅝ x 1¼	.270	⅝ x 1⅞	300	¾ x 1⅞	.420
.22	⅝ x 1⅞	.300	⅝ x 1⅞	.360	¾ x 2 9/32	.540
.33	⅝ x 1⅞	.330	¾ x 1⅞	.420	⅞ x 2 11/32	.690
.47	¾ x 1⅞	.390				
1.0	⅞ x 2 11/32	.630				

Standard Tolerance ±20%. Also available in 10% on special order.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AEROVOX *Capacitors*



PAPER (Contd)

TYPE P84CM DURAMIC® Ceramic-Cased Tubular Capacitors

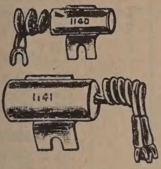
New ceramic (dense steatite) encased paper tubular for performance above that of conventional paper tubulars. New thermosetting end-seals for exceptional humidity protection—250 hour humidity test as per REC-118. Firmly imbedded terminals will not work loose or pull out. Operating temps are —55°C to +85°C. Meets all requirements of EIA Spec. REC-118, hi-temp range, class M.

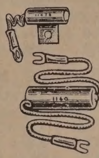
ap. fd.	2500 VDCW Size Dia. x Lgth.	Net Price★	6000 VDCW Size Dia. x Lgth.	Net Price★	10,000 VDCW Size Dia. x Lgth.	Net Price★	12,500 VDCW Size Dia. x Lgth.	Net Price★	15,000 VDCW Size Dia. x Lgth.	Net Price★
001	⅜ x 1½	.570	⅜ x 1¾	.660	7/16 x 2¼	.690			17/32 x 2½	1.05
0025	⅜ x 1½	.570	⅜ x 1¾	.660	11/16 x 2¼	.690	11/16 x 2¼	.960	¾ x 2½	1.05
005	⅜ x 1½	.570	7/16 x 1¾	.660	11/16 x 2¼	.690			⅞ x 2½	1.14
01	⅜ x 1½	.570	17/32 x 1¾	.720	15/16 x 2¼	.690			*1 x 2½	1.17
03	7/16 x 1½	.570	⅝ x 2⅛	.750	1 x 2¾	.780			*1¼ x 3	1.26
05	17/32 x 1 9/16	.600	¾ x 2⅛	.750	*1 x 3	.900			*1⅜ x 3¼	1.38
1	⅝ x 1⅞	.630	15/16 x 2⅛	.930	*1⅜ x 3	1.08				
3	13/16 x 2	.750	*1 3/16 x 2⅝	1.47						
5	25/32 x 2⅝	.870	*1 3/16 x 3⅛	1.80						
	*1 x 2⅝	1.11								
5	*1 x 3⅛	1.17								

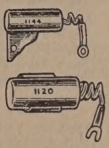
Will be furnished in cardboard tube Type P84M.

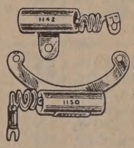
★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 249

AUTO-RADIO CAPACITORS







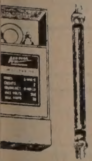


Type	Cap. Mfd.	Net Price
	SINGLE ELEMENT	
Car Generators		
Type 1120	1.0	.54
Type 1140	0.5	.39
	DUAL ELEMENT	
Type 1141	0.5-0.5	.90
Ford Auto Radios		
Type 1144	0.6	.48
For 1936 Models		
Type 1150	0.5	.60

Type	Cap. Mfd.	Net Price
Motorola Auto Radios		
Type 1466	.0008	.54
Ammeter Condenser		
Type 1160	0.5	.54
Gas Gage Filter Condenser		
Type 1143-G	0.05	.54
Oil Gage Filter Condenser		
Type 1142-O	0.25	.54

Note: All auto radio capacitors subject to Federal Excise Tax.

FILTERS



SCREEN ROOM FILTERS

een room filters comply with rigid specifica-
ns set up by the designers of the most advanced
e screen rooms. All have attenuation equal to
exceeding that of the screen room. Easy mount-
arrangements plus high attenuation assure
of the finest equipment specially designed
screen room use. These filters are hermetically
led and terminals at both ends are shielded
ng knock-outs for ¾" and 1" conduit.

." diameter mounting hole on all cases is count-
unk to permit flush mounting of the filter on the
een room.

Part No.	Curr. (Amps.)	Circuits	CPS	Attenuation vs. Frequency	Size L x W x D		Net Price
*S-1076-1	50	1	0-60	100 db from 14 kc to 1000 mc	20" x 3⅝" x 3⅝"		95.00
*S-1076-2	50	2	0-60	100 db from 14 kc to 1000 mc	20" x 7 3/16" x 3⅝"		190.00
*S-1076-3	50	3	0-60	100 db from 14 kc to 1000 mc	20⅛" x 10⅞" x 3 11/16"		285.00
S-1142-1	30	1	0-400	100 db from 150 kc to 1000 mc	10⅛" x 2⅞" x 2 7/16"		36.50
S-1142-2	30	2	0-400	100 db from 150 kc to 1000 mc	10⅛" x 4¾" x 2 7/16"		48.50
S-1142-3	30	3	0-400	100 db from 150 kc to 1000 mc	10⅛" x 7" x 2 7/16"		62.50
S-1302-1	100	1	0-60	100 db from 200 kc to 1000 mc	14" x 4⅜" x 4⅜"		70.00
*S-1303-1	60	1	0-1000	100 db from 100 kc to 1000 mc	20" x 3⅝" x 3⅝"		100.00
S-1304-1	80	1	0-60	100 db from 14 kc to 1000 mc	22" x 4⅜" x 4⅜"		105.00
S-1305-1	100	1	0-1000	100 db from 100 kc to 1000 mc	22" x 4⅜" x 4⅜"		120.00
S-1361-1	100	1	0-60	100 db from 14 kc to 1000 mc	22" x 4⅜" x 4⅜"		130.00
S-1432-1	100	1	0-60	100 db from 100 kc to 1000 mc	22" x 4⅜" x 4⅜"		95.00
S-1455-1	100	1	0-60	100 db from 150 kc to 1000 mc	22" x 4⅜" x 4⅜"		90.00
					Overall L.	Overall D.	
S-1468-A	50	1	0-1000	>60 db/1000 mc to 10000 mc	10¾"	⅞"	70.00
S-1468-B	100	1	0-1000	>60 db/1000 mc to 10000 mc	10¾"	⅞"	80.00

*250VAC/DC. All others 500VAC/DC.

AEROVOX *Capacitors*

INDUSTRIAL SECTION — STANDARD TYPES

TYPE P09

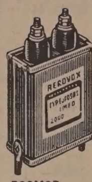
PAPER CAPACITORS

Immersion-proof units in sturdy, rectangular metal cans. High-voltage screw-type pillar terminals fitted with soldering lugs. Use of HYVOL M or J allows exceptionally compact size for capacity, working voltage and safety factor. Intended for heavy-duty, continuous service in transmitters, amplifiers, etc. Operating temperature —55 to +85°C.

Standard tolerance +20 —10%. Other tolerance on request.

Type MB bracket is supplied unless otherwise specified except on units with base sizes 3¾" x 3³⁄₁₆" and 3¾" x 4⁹⁄₁₆" where Type MS bracket is supplied. MSB bracket is available for all sizes on request.

P09


P09MSB

P09MS

P09MB

CAP.	SIZE	Net Price★
	600 V	
.5	1¹⁄₁₆ x 1¹³⁄₁₆ x 2¼	2.41
1.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 2¼	2.57
2.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 2⅞	3.12
3.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 3⅞	3.69
4.0	1³⁄₁₆ x 2½ x 3½	4.25
5.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 4¾	4.63
6.0	1³⁄₁₆ x 2½ x 4¾	5.00
8.0	1¼ x 3¾ x 3⅞	6.16
10.0	1¼ x 3¾ x 4¾	6.63
12.0	1½ x 3¾ x 4¾	7.47
15.0	1¾ x 3¾ x 4¾	8.70
	1000 V	
.1	1¹⁄₁₆ x 1¹³⁄₁₆ x 1⅝	2.15
.25	1¹⁄₁₆ x 1¹³⁄₁₆ x 2¼	2.50
.5	1¹⁄₁₆ x 1¹³⁄₁₆ x 2¼	2.56
1.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 2¼	2.79
2.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 3⅞	3.53
3.0	1³⁄₁₆ x 2½ x 3½	4.16
4.0	1³⁄₁₆ x 2½ x 4¾	4.79
5.0	1¼ x 3¾ x 3⅞	5.34
6.0	1¼ x 3¾ x 4¾	5.89
8.0	1¼ x 3¾ x 4¾	6.91
10.0	1¾ x 3¾ x 4¾	7.94
12.0	2¼ x 3¾ x 3⅞	8.71
15.0	2½ x 3¾ x 4¾	10.47
	1500 V	
.5	1¹⁄₁₆ x 1¹³⁄₁₆ x 2⅞	3.12
1.0	1¹⁄₁₆ x 1¹³⁄₁₆ x 3⅞	3.34
2.0	1³⁄₁₆ x 2½ x 4¼	4.27
3.0	1³⁄₁₆ x 2½ x 4¾	5.24
4.0	1¼ x 3¾ x 4¾	6.21
5.0	1¾ x 3¾ x 4¾	7.07
6.0	1¾ x 3¾ x 4¾	7.94
8.0	2½ x 3¾ x 4¾	9.92
10.0	3³⁄₁₆ x 3¾ x 4¾	11.44
12.0	3³⁄₁₆ x 3¾ x 4¾	13.17
15.0	3¾ x 4⁹⁄₁₆ x 4¾	15.79
	2000 V	
.1	1¹⁄₁₆ x 1¹³⁄₁₆ x 2⅛	3.63
.25	1¹⁄₁₆ x 1¹³⁄₁₆ x 2⅛	3.81
.5	1¹⁄₁₆ x 1¹³⁄₁₆ x 2⅞	4.06
1.0	1³⁄₁₆ x 2½ x 3½	4.58
2.0	1¼ x 3¾ x 4¼	5.70
3.0	1¼ x 3¾ x 4¾	6.80
4.0	2¼ x 3¾ x 3⅞	7.90
5.0	2¼ x 3¾ x 4¾	8.99
6.0	3³⁄₁₆ x 3¾ x 4½	10.09
8.0	3³⁄₁₆ x 3¾ x 4¾	11.77
10.0	3¾ x 4⁹⁄₁₆ x 4¾	13.77
12.0	3¾ x 4⁹⁄₁₆ x 5½	16.01
15.0	3¾ x 4⁹⁄₁₆ x 6½	19.36
	2500 V	
.5	1³⁄₁₆ x 2½ x 3½	5.43
1.0	1¾ x 3¾ x 3¼	6.45
2.0	1¾ x 3¾ x 4¾	8.63
4.0	3¾ x 4⁹⁄₁₆ x 4	12.73
10.0	3¾ x 4⁹⁄₁₆ x 6⅜	24.51
	3000 V	
.1	1³⁄₁₆ x 2½ x 2	6.95
.25	1³⁄₁₆ x 2½ x 2½	7.39
.5	1³⁄₁₆ x 2½ x 3⅞	8.09
1.0	2¼ x 3¾ x 3⅞	9.56
2.0	3³⁄₁₆ x 3¾ x 4⅛	12.45
4.0	3¾ x 4⁹⁄₁₆ x 4¾	17.62
	4000 V	
.1	2¼ x 3¾ x 2¾	7.23
.25	2¼ x 3¾ x 2¾	7.
.5	2¼ x 3¾ x 3⅞	9.
1.0	2¼ x 3¾ x 5⅛	11.
2.0	3¾ x 4⁹⁄₁₆ x 5⅛	12.
4.0	3¾ x 4⁹⁄₁₆ x8½	24.
	5000 V	
.1	2¼ x 3¾ x 2¾	7.
.25	2¼ x 3¾ x 3⅞	8.
.5	2¼ x 3¾ x 4½	9.
1.0	3¾ x 4⁹⁄₁₆ x 4⅜	13.
2.0	3¾ x 4⁹⁄₁₆ x 6	20.
	6000 V	
.1	2¼ x 3¾ x 3⅜	10.
.25	2¼ x 3¾ x 4½	13.
1.0	3¾ x 4⁹⁄₁₆ x 7½	19.
	7500 V	
.1	2¼ x 3¾ x 3⅞	13.
.25	3¾ x 4⁹⁄₁₆ x 3⅞	14.
.5	3¾ x 4⁹⁄₁₆ x 5⅛	15.

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99,

TYPE P10

Cylindrical hermetically sealed can with screw-base folded cover for vertical mounting. These units are Hyvol M or J impregnated and filled for long life and safe operation at temperatures from —55 to +85°C.

Standard units have two terminals, case floating.

Standard tolerance +20% —10%. Other tolerances available on request.

CAPACITY	600 V D C W SIZE	Net Price★	1000 V D C W SIZE	Net Price★	1500 V D C W SIZE	Net Price
.5					1½x 2⅜	3.7
1.0			1½ x 2⅞	3.82	1½ x 3⅞	4.1
2.0	1½ x 2⅞	3.57	1½ x 4½	4.53		
4.0	1½ x 4½	4.82				

★Request O.E.M. prices in the following quantities: 10 to 99

TYPE P16 and P16-CT

Small corrosion and immersion-proof unit for severe atmospheric and climatic conditions. P16-CT is standard; P16 is available in 400 and 600 volts. Operating temperature —55 to +85° C. Dual units have two terminals, case grounded. Standard tolerance +20 —10%. CP091S and CP091F brackets available for P16. Base Size 1⁵⁄₁₆ x ¹¹⁄₁₆. Impregnated with either Hyvol M or Hyvol J.

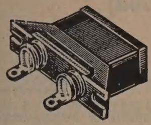
SINGLE CAPACITY	400 VDCW HEIGHT P16, P16-CT	400 VDCW Net Price★	600 VDCW HEIGHT P16, P16-CT	600 VDCW Net Price★	1000 VDCW HEIGHT P16-CT	1000 VDCW Net Price★	DUAL CAPACITY	600 VDCW HEIGHT P16, P16-CT	600 VDCW Net Price
.05			1¹⁄₁₆	1.76	1⅜	1.83	2 x .05	1⅜	2.0
.1	1¹⁄₁₆	1.80	1⅜	1.85	1⅜	1.89	2 x .1	1⅝	2.1
.25	1⅜	1.87	1⅝	1.91	2	1.94	2 x .25	2	2.3
.5	1⅝	1.91	2	1.96	2¾	2.13	2 x .5	2¾	2.6
1.0	2	2.16	2¾	2.20					

Prices shown are for type P16CT. For prices on P16 deduct .07

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

AEROVOX *Capacitors*

INDUSTRIAL SECTION—STANDARD TYPES (Continued)



TYPE P18-CB

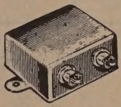
Similar to P16 in construction and electrical characteristics. Because of the difference in the base size type P18-CB can be supplied with three terminals. Dual units are case floating, triples are case grounded. The size difference also makes these units suitable for use in assemblies where P16's do not fit. Operating temperature range —55 to +85° C. Standard tolerance +20 — 10%. Impregnated with either Hyvol M or Hyvol J.

acity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB		Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB		Capacity	400 VDCW P18-CB		600 VDCW P18-CB		1000 VDCW P18-CB	
	Height	Net Price★	Height	Net Price★	Height	Net Price★		Height	Net Price★	Height	Net Price★	Height	Net Price★		Height	Net Price★	Height	Net Price★	Height	Net Price★
01					1 1/16	2.02	2 x .01					1 1/16	2.46	3 x .01					1 1/16	2.94
02					1 1/16	2.06	2 x .02					1 1/16	2.49	3 x .02					1 1/16	3.05
05	1	2.02	1 1/16	2.07	1 1/16	2.11	2 x .05	1	2.47	1 1/16	2.52	1½	2.58	3 x .05	1⅛	2.97	1½	3.04	1½	3.09
1	1	2.09	1 1/16	2.14	1½	2.18	2 x .1	1¼	2.54	1½	2.59	2	2.68	3 x .1	1⅝	3.04	1½	3.11	2½	3.21
25	1¼	2.17	1½	2.21	2	2.25	2 x .25	1½	2.72	2	2.78	2¾	2.85	3 x .25	2	3.27	2¾	3.33		
5	1½	2.24	2	2.29	2½	2.44	2 x .5	2¼	2.98	2¾	3.05									
0	2	2.48	2¾	2.53																

BASE SIZE 1¾ x 9/16

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

TYPE P30
Bathtub Case



High-quality bypass capacitors furnished in drawn metal bathtub cases, hermetically sealed. These units are Hyvol M or J impregnated for operation at temperatures from —55 to +85°. C. They are especially recommended for applications where high reliability and superior performance are required. Typical applications for these rugged units would include marine, aircraft and tropical climates. Standard tolerance +20% —10%.

pacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30		Capacity	400 VDCW P30		600 VDCW P30		1000 VDCW P30	
	Size	Net Price★	Size	Net Price★	Size	Net Price★		Size	Net Price★	Size	Net Price★	Size	Net Price★
.05	1¾ x 1 x ¾	1.65	1¾ x 1 x ¾	1.73	1¾ x 1 x ¾	1.80	2 x .05	1¾ x 1 x ¾	2.29	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.47
.1	1¾ x 1 x ¾	1.72	1¾ x 1 x ¾	1.78	1¾ x 1 x ¾	1.89	2 x .1	1¾ x 1 x ¾	2.37	1¾ x 1 x ¾	2.44	1¾ x 1 x ⅞	2.51
.25	1¾ x 1 x ¾	1.82	1¾ x 1 x 13/16	1.85	1¾ x 1 x ⅞	1.93	2 x .25	1¾ x 1 x 15/16	2.42	1¾ x 1 x 1	2.51	2 x 1¾ x ⅞	2.76
.5	1¾ x 1 x ⅞	1.97	1¾ x 1 x 1	1.98	2 x 1¾ x ⅞	2.06	2 x .5	2 x 1¾ x ⅞	2.77	2 x 1¾ x ⅞	2.82	2 x 2 x 1 3/16	3.57
.75	2 1/16 x 1¼ x ⅞	2.13	2 1/16 x 1¼ x ⅞*	2.14	2 x 1¾ x ⅞	2.44	2 x 1.0	2 x 2 x 1⅛	3.42	2 x 2 x 1 3/16	3.44		
.0	2 x 1¾ x ⅞	2.29	2 x 1¾ x 1	2.30	2 x 2 x 1⅛	2.82	3 x .05	1¾ x 1 x ¾	2.66	1¾ x 1 x 13/16	2.71	1¾ x 1 x 13/16	2.81
.0	2 x 2 x 1⅛	2.97	2 x 2 x 1 3/16	3.06			3 x .1	1¾ x 1 x 13/16	2.75	1¾ x 1 x 15/16	2.78	2 x 1¾ x ⅞	3.09
							3 x .25	2 x 1¾ x ⅞	3.01	2 x 1¾ x ⅞	3.09	2 x 2 x 1⅛	3.85
							3 x .5	2 x 2 x 1	3.71	2 x 2 x 1 3/16	3.81		

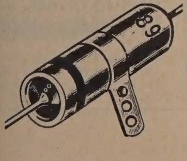
★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

*Also available with top terminals, size 2 x 1¾ x ⅞, Type P30JT.

TYPE P89M

Immersion-proof, oil-impregnated, oil filled units in hermetically sealed metal tubes. Ideal for coupling and bypass functions in transmitters, high-voltage applications and for use in test equipment. Case is insulated, not connected to the capacitor section. Standard units are supplied with cardboard insulating sleeve and radial mounting bracket (Type P89M). All sizes shown are can sizes. For size over insulating sleeve add 1/16" to diameter and 3/16" to length.

Available in the following style variations:



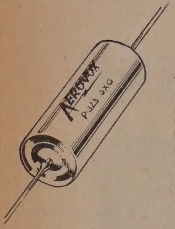
P89M —with cardboard insulating sleeve, radial mtg. bracket.
P89MA —with cardboard insulating sleeve and tangential mounting bracket.
P89MAP—with plastic insulating sleeve and tangential mtg. bracket.
P89MAY—without insulating sleeve but with tangential mounting bracket.
P89MP —with plastic insulating sleeve, radial mtg. bracket.
P89MX —without mounting bracket but with cardboard insulating sleeve.
P89MXP—without mounting bracket but with plastic insulating sleeve.
P89MXY—without insulating sleeve or mtg. bracket.
P89MY —without insulating sleeve but with radial mounting bracket.

Voltage	Capacity	Can Size	Net Price★	Voltage	Capacity	Can Size	Net Price★	Voltage	Capacity	Can Size	Net Price★
400V	.01	⅜ x 1 5/16	1.02	1000V	.03	9/16 x 1 9/16	1.17	2500V	.02	¾ x 2	2.18
400V	.02	½ x 1 5/16	1.04	1000V	.05	⅝ x 1 9/16	1.24	2500V	.03	¾ x 2¼	2.21
400V	.05	½ x 1 7/16	1.12	1000V	.1	11/16 x 1 15/16	1.32	2500V	.05	⅞ x 2½	2.27
400V	.1	⅝ x 1 11/16	1.20	1000V	.25	⅞ x 2 5/16	1.68	2500V	.1	1 x 3	2.42
400V	.25	13/16 x 2 1/16	1.52	2000V	.001	¾ x 1⅝	1.93	3000V	.005	⅞ x 1⅝	2.13
400V	.5	1 x 2 1/16	1.96	2000V	.005	¾ x 1⅝	1.97	3000V	.01	⅞ x 1¾	2.15
600V	.001	⅜ x 1 3/16	1.01	2000V	.01	¾ x 1⅝	1.99	3000V	.02	⅞ x 2	2.18
600V	.005	⅜ x 1 3/16	1.01	2000V	.015	¾ x 1¾	2.00	3000V	.03	1 x 2¼	2.21
600V	.01	7/16 x 1 5/16	1.02	2000V	.02	¾ x 1⅞	2.02	3000V	.05	1 x 2½	2.27
600V	.02	7/16 x 1 7/16	1.04	2000V	.03	¾ x 1⅞	2.05	3000V	.1	1⅜ x 2¾	2.42
600V	.05	9/16 x 1 7/16	1.12	2000V	.04	¾ x 2¼	2.08	4000V	.05	1⅜ x 3¼	4.10
600V	.1	⅝ x 1 13/16	1.20	2000V	.05	⅞ x 2¼	2.12	4000V	.1	1⅜ x 4¾	4.40
600V	.25	¾ x 2 5/16	1.52	2000V	.1	1 x 2½	2.25	6000V	.005	1 x 2½	4.15
600V	.5	15/16 x 2⅜	1.96	2500V	.005	¾ x 1⅝	2.13	6000V	.01	1 x 3¼	4.19
1000V	.01	7/16 x 1 5/16	1.12	2500V	.01	¾ x 1¾	2.15	6000V	.05	1⅜ x 5	4.43

ALL TYPES ON THIS PAGE AVAILABLE IN CLOSER TOLERANCE ON SPECIAL ORDER

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

AEROVOX *Capacitors*



INDUSTRIAL SECTION—STANDARD TYPES (Continued)

PAPER SUB-MINIATURES

Tubular, metal-cased capacitors, hermetically sealed with glass terminal end seals. Miniaturized, conventional, foil-paper construction. E cially developed to meet high temperature and minimum space requirements of present day electronic equipment. Designed for rugged long operation, these units are preferred for many of those applications where reliability is a factor. Impregnated with Hyvol "S" a special, h temperature-operating, stable, liquid impregnant for operation at elevated temperature. These units are capable of withstanding a volt breakdown test of twice rated voltage between terminals or between terminals and case, for a one-minute period. Ambient temperature s be plus 25°C. plus or minus 10°C. during this test. Power factor will be less than 1% when measured or referred to a frequency of 1 cycles per second at 25°C. Type P323S and P323SX are rigidly processed to assure operation over the temperature range of —65°C. +125°C. The capacitor sections on types P323S utilize an inserted tab construction to obtain minimum size. Type P323SX utilizes exten foil construction for those applications where operation is required at very low AC voltages.

For equivalent types rated —65°C. to +100°C. in the same case size as shown order as P123S, SX, etc. and request prices.

Suffix	Description	Suffix	Description	Suffix	Description
G	One end grounded	T	Insulated with threaded neck mounting	V	Insulated with side vertical bracket
	Omit G, both ends insulated	GE	Grounded with axial threaded stud	GB	Grounded with tangential bracket
GP	Grounded and plastic sleeve	GR	Grounded with two radial threaded studs	B	Insulated with tangential bracket
P	Insulated with plastic sleeve	R	Insulated with two radial threaded studs	GL	Grounded with tab terminal
GT	Grounded with threaded neck mounting	GV	Grounded with side vertical bracket	L	Insulated with tab terminal

*Style variations and ratings listed below are standard. All others available on special order.

100 Volts

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Price★
.001	.175 x ¾	1.63	.237 x 13/16	1.69	.175 x ¾	1.67	.237 x 13/16	1.73
.0015	.175 x ¾	1.63	.237 x 13/16	1.69	.175 x ¾	1.67	.237 x 13/16	1.73
.0022	.175 x ¾	1.65	.237 x 13/16	1.71	.175 x ¾	1.67	.237 x 13/16	1.73
.0033	.175 x ¾	1.65	.237 x 13/16	1.71	.175 x ¾	1.67	.237 x 13/16	1.73
.0047	.175 x ¾	1.65	.237 x 13/16	1.71	.175 x ¾	1.67	.237 x 13/16	1.73
.0068	.175 x ¾	1.65	.237 x 13/16	1.71	.195 x ¾	1.67	.257 x 13/16	1.73
.01	.175 x ¾	1.67	.237 x 13/16	1.73	.235 x ¾	1.67	.297 x 13/16	1.73
.015	.175 x ¾	1.67	.237 x 13/16	1.73	.235 x ¾	1.67	.297 x 13/16	1.73
.022	.195 x ¾	1.67	.257 x 13/16	1.73	.312 x ⅞	1.72	.374 x 15/16	1.78
.033	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.76	.374 x 15/16	1.82
.047	.312 x ⅞	1.67	.374 x 15/16	1.73	.312 x ⅞	1.80	.374 x 15/16	1.86
.068	.312 x ⅞	1.72	.374 x 15/16	1.78	.400 x ⅞	1.80	.462 x 15/16	1.86
.1	.312 x ⅞	1.76	.374 x 15/16	1.82	.400 x ⅞	1.85	.462 x 15/16	1.91
.15	.400 x ⅞	1.85	.462 x 15/16	1.91	.400 x 1⅛	1.85	.462 x 1 3/16	1.91
.22	.400 x 1⅛	1.85	.462 x 1 3/16	1.99	.400 x 1⅜	1.98	.462 x 1 7/16	2.04
.33	.400 x 1⅜	2.11	.462 x 1 7/16	2.17	.562 x 1⅛	2.20	.624 x 1 3/16	2.28
.47	.562 x 1⅛	2.24	.624 x 1 3/16	2.32	.562 x 1⅜	2.29	.624 x 1 7/16	2.37
.68	.562 x 1⅜	2.33	.624 x 1 7/16	2.41	.562 x 1⅝	2.46	.624 x 1 11/16	2.54
1.0	.562 x 1⅞	2.38	.624 x 1 15/16	2.46	.670 x 1⅝	2.64	.732 x 1 11/16	2.72

200 Volts

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Price★
.001	.235 x ¾	1.63	.297 x 13/16	1.69	.235 x ¾	1.67	.297 x 13/16	1.73
.0015	.235 x ¾	1.63	.297 x 13/16	1.69	.235 x ¾	1.67	.297 x 13/16	1.73
.0022	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.67	.297 x 13/16	1.73
.0033	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.69	.297 x 13/16	1.75
.0047	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.69	.297 x 13/16	1.75
.0068	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.72	.297 x 13/16	1.78
.01	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.80	.374 x 15/16	1.86
.015	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.80	.374 x 15/16	1.86
.022	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.85	.374 x 15/16	1.91
.033	.312 x ⅞	1.67	.374 x 15/16	1.73	.312 x ⅞	1.85	.374 x 15/16	1.91
.047	.312 x ⅞	1.72	.374 x 15/16	1.78	.400 x ⅞	1.89	.462 x 15/16	1.95
.068	.312 x ⅞	1.76	.374 x 15/16	1.82	.400 x ⅞	1.89	.462 x 15/16	1.95
.1	.400 x ⅞	1.80	.462 x 15/16	1.86	.400 x 1⅛	1.91	.462 x 1 3/16	1.97
.15	.400 x 1⅛	1.83	.462 x 1 3/16	1.89	.400 x 1⅜	1.98	.462 x 1 7/16	2.04
.22	.400 x 1⅜	2.00	.462 x 1 7/16	2.06	.562 x 1⅛	2.11	.624 x 1 3/16	2.19
33	.562 x 1⅛	2.16	.624 x 1 3/16	2.24	.562 x 1⅜	2.24	.624 x 1 7/16	2.32
.47	.562 x 1⅜	2.29	.624 x 1 7/16	2.37	.562 x 1⅝	2.33	.624 x 1 11/16	2.41
.68	.562 x 1⅞	2.42	.624 x 1 15/16	2.50	.670 x 1⅝	2.64	.732 x 1 11/16	2.72
1.0	.670 x 1⅞	2.90	.732 x 1 15/16	2.98	.750 x 2⅛	2.97	.812 x 2 3/16	3.07

300 Volts

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Price★
.001	.235 x ¾	1.63	.297 x 13/16	1.69	.235 x ¾	1.72	.297 x 13/16	1.78
.0015	.235 x ¾	1.63	.297 x 13/16	1.69	.235 x ¾	1.72	.297 x 13/16	1.78
.0022	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.72	.297 x 13/16	1.78
.0033	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.72	.297 x 13/16	1.78
.0047	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.72	.297 x 13/16	1.78
.0068	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.80	.374 x 15/16	1.86
.01	.235 x ¾	1.67	.297 x 13/16	1.73	.312 x ⅞	1.85	.374 x 15/16	1.91
.015	.235 x ¾	1.69	.297 x 13/16	1.75	.312 x ⅞	1.87	.374 x 15/16	1.93
.022	.312 x ⅞	1.76	.374 x 15/16	1.82	.312 x ⅞	1.89	.374 x 15/16	1.95

300 Volts (cont.)

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Pric
.033	.312 x ⅞	1.76	.374 x 15/16	1.82	.400 x ⅞	1.91	.462 x 15/16	1.9
.047	.312 x ⅞	1.80	.374 x 15/16	1.86	.400 x ⅞	1.91	.462 x 15/16	1.9
.068	.400 x ⅞	1.85	.462 x 15/16	1.91	.400 x 1⅛	1.91	.462 x 1 3/16	1.9
.1	.400 x 1⅛	1.85	.462 x 1 3/16	1.91	.400 x 1⅜	1.94	.462 x 1 7/16	2.0
.15	.400 x 1⅜	1.94	.462 x 1 7/16	2.00	.562 x 1⅛	2.11	.624 x 1 3/16	2.1
.22	.562 x 1⅛	2.07	.624 x 1 3/16	2.15	.562 x 1⅜	2.24	.624 x 1 7/16	2.3
.33	.562 x 1⅜	2.24	.624 x 1 7/16	2.32	.562 x 1⅝	2.38	.624 x 1 11/16	2.4
.47	.562 x 1⅞	2.73	.624 x 1 15/16	2.81	.670 x 1⅝	2.84	.732 x 1 11/16	2.9
.68	.670 x 1⅞	2.90	.732 x 1 15/16	2.98	.750 x 2⅛	2.95	.812 x 2 3/16	3.0
1.0	.750 x 2⅛	3.74	.812 x 2 3/16	3.84	1.000 x 2⅛	3.77	1.062 x 2 3/16	3.8

400 Volts

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Pric
.001	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.74	.297 x 13/16	1.80
.0015	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.74	.297 x 13/16	1.80
.0022	.235 x ¾	1.65	.297 x 13/16	1.71	.235 x ¾	1.74	.297 x 13/16	1.80
.0033	.235 x ¾	1.69	.297 x 13/16	1.75	.235 x ¾	1.76	.297 x 13/16	1.82
.0047	.235 x ¾	1.69	.297 x 13/16	1.75	.312 x ⅞	1.85	.374 x 15/16	1.91
.0068	.235 x ¾	1.69	.297 x 13/16	1.75	.312 x ⅞	1.85	.374 x 15/16	1.91
.01	.235 x ¾	1.72	.297 x 13/16	1.78	.312 x ⅞	1.89	.374 x 15/16	1.95
.015	.312 x ⅞	1.75	.374 x 15/16	1.81	.312 x ⅞	1.89	.374 x 15/16	1.95
.022	.312 x ⅞	1.78	.374 x 15/16	1.84	.400 x ⅞	1.94	.462 x 15/16	2.00
.033	.312 x ⅞	1.78	.374 x 15/16	1.84	.400 x ⅞	1.94	.462 x 15/16	2.00
.047	.400 x ⅞	1.85	.462 x 15/16	1.91	.400 x 1⅛	1.98	.462 x 1 3/16	2.04
.068	.400 x 1⅛	1.89	.462 x 1 3/16	1.95	.400 x 1⅜	1.98	.462 x 1 7/16	2.04
.1	.400 x 1⅜	1.94	.462 x 1 7/16	2.00	.562 x 1⅛	2.11	.624 x 1 3/16	2.19
.15	.562 x 1⅛	2.11	.624 x 1 3/16	2.19	.562 x 1⅜	2.20	.624 x 1 7/16	2.28
.22	.562 x 1⅜	2.24	.624 x 1 7/16	2.32	.562 x 1⅝	2.33	.624 x 1 11/16	2.41
.33	.562 x 1⅞	2.29	.624 x 1 15/16	2.37	.670 x 1⅝	2.55	.732 x 1 11/16	2.63
.47	.670 x 1⅞	2.73	.732 x 1 15/16	2.81	.750 x 2⅛	2.95	.812 x 2 3/16	3.05
.68	.750 x 2⅛	3.63	.812 x 2 3/16	3.73	.750 x 2⅜	3.90	.812 x 2 7/16	4.00
1.0	1.000 x 1⅞	3.76	1.062 x 1 15/16	3.86	1.000 x 2⅝	4.04	1.062 x 2 11/16	4.14

600 Volts

Capacity	P323S	Net Price★	P323SP	Net Price★	P323SX	Net Price★	P323SXP	Net Pric
.001	.235 x ¾	1.67	.297 x 13/16	1.73	.235 x ¾	1.76	.297 x 13/16	1.82
.0015	.235 x ¾	1.67	.297 x 13/16	1.73	.235 x ¾	1.76	.297 x 13/16	1.82
.0022	.235 x ¾	1.67	.297 x 13/16	1.73	.235 x ¾	1.76	.297 x 13/16	1.82
.0033	.235 x ¾	1.72	.297 x 13/16	1.78	.312 x ⅞	1.80	.374 x 15/16	1.86
.0047	.235 x ¾	1.72	.297 x 13/16	1.78	.312 x ⅞	1.87	.374 x 15/16	1.93
.0068	.235 x ¾	1.72	.297 x 13/16	1.78	.312 x ⅞	1.89	.374 x 15/16	1.95
.01	.312 x ⅞	1.76	.374 x 15/16	1.82	.312 x ⅞	1.91	.374 x 15/16	1.97
.015	.312 x ⅞	1.80	.374 x 15/16	1.86	.400 x ⅞	1.94	.462 x 15/16	2.00
.022	.312 x ⅞	1.80	.374 x 15/16	1.86	.400 x ⅞	1.96	.462 x 15/16	2.02
.033	.400 x ⅞	1.87	.462 x 15/16	1.93	.400 x 1⅛	1.96	.462 x 1 3/16	2.02
.047	.400 x 1⅛	1.89	.462 x 1 3/16	1.95	.400 x 1⅜	2.02	.462 x 1 7/16	2.08
.068	.400 x 1⅜	1.98	.462 x 1 7/16	2.04	.562 x 1⅛	2.16	.624 x 1 3/16	2.24
.1	.562 x 1⅛	2.11	.624 x 1 3/16	2.19	.562 x 1⅜	2.20	.624 x 1 7/16	2.28
.15	.562 x 1⅜	2.20	.624 x 1 7/16	2.28	.562 x 1⅝	2.33	.624 x 1 11/16	2.41
.22	.562 x 1⅞	2.38	.624 x 1 15/16	2.46	.670 x 1⅝	2.64	.732 x 1 11/16	2.72
.33	.670 x 1⅞	2.64	.732 x 1 15/16	2.72	.750 x 2⅛	2.95	.812 x 2 3/16	3.05
.47	.750 x 2⅛	2.97	.812 x 2 3/16	3.07	.750 x 2⅜	3.08	.812 x 2 7/16	3.18
.68	1.000 x 1⅞	3.70	1.062 x 1 15/16	3.80	1.000 x 2⅛	4.08	1.062 x 2 3/16	4.18
1.0	1.000 x 2⅜	3.83	1.062 x 2 7/16	3.93	1.000 x 2⅝	4.20	1.062 x 2 11/16	4.30

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

INDUSTRIAL SECTION — STANDARD TYPES (Continued)

METALLIZED-PAPER CAPACITORS

TYPE P8292ZN PLASTIC-CASED, METALLIZED-PAPER TUBULARS

AEROVOX
P8292ZN

Featuring an exclusive "polycap" plastic-case construction, these capacitors offer outstanding resistance to humidity and improved insulation resistance. The high temperature impregnant permits operation over the temperature range of —30°C to +100°C at working voltage. Distinctive black cases are completely free of any wax coating to facilitate handling problems in automatic insertion nd assembly equipment. Standrd tolerance on these units is ±20%. Available in closer tolernces upon request at an addiional charge. Mechanical Tolernces— ±1/16" on length and dimeter.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

200 VDCW

Cap. Mfd.	D x L	Catalog Number	Net Price
.01	¼ x 19/32	P8292ZN6	.44
.02	¼ x 21/32	P8292ZN7	.44
.03	5/16 x 23/32	P8292ZN8	.45
.05	5/16 x 23/32	P8292ZN9	.45
.1	⅜ x 23/32	P8292ZN10	.47
.25	½ x 23/32	P8292ZN11	.68
.5	7/16 x 1 5/32	P8292ZN12	.80
1.0	9/16 x 1 5/32	P8292ZN13	1.07
2.0	⅝ x 1 21/32	P8292ZN14	1.46

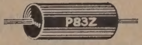
400 VDCW

Cap. Mfd.	D x L	Catalog Number	Net Price
.01	5/16 x 23/32	P8292ZN15	.44
.02	⅜ x 23/32	P8292ZN16	.45
.03	⅜ x 23/32	P8292ZN17	.45
.05	7/16 x 23/32	P8292ZN18	.47
.1	7/16 x 1 5/32	P8292ZN19	.51
.25	9/16 x 1 5/32	P8292ZN20	.74
.5	⅝ x 1 15/32	P8292ZN21	.95
1.0	11/16 x 1 31/32	P8292ZN22	1.32
2.0	⅞ x 2⅜	P8292ZN23	1.86

600 VDCW

Cap. Mfd.	D x L	Catalog Number	Net Price
.01	⅜ x 23/32	P8292ZN24	.45
.02	⅜ x 23/32	P8292ZN25	.47
.03	7/16 x 23/32	P8292ZN26	.50
.05	½ x 23/32	P8292ZN27	.53
.1	7/16 x 1 5/32	P8292ZN28	.59
.25	⅝ x 1 5/32	P8292ZN29	.92
.5	11/16 x 1 19/32	P8292ZN30	1.15
1.0	13/16 x 2	P8292ZN31	1.43
2.0	1 x 2⅜	P8292ZN32	2.03

TYPE P83Z
Microminiatures



Ultra-small, new metallized paper dielectric capacitor particularly applicable in the electronic field to replace the low capacity paper units now being used. Hyvol K impregnated in humidity resistant molded thermo-plastic cases.
Standard Tolerance ±25%.

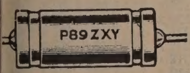
Cap. Mfd.	Voltage	Case Size (Inches) Dia. x Lgth.	Net Price
.004	200 VDC	3/16 x 7/16	.21
.005	200 VDC	3/16 x 7/16	.21
.01	200 VDC	3/16 x 7/16	.21
.02	200 VDC	¼ x 9/16	.27
.04	200 VDC	¼ x 9/16	.27
.002	400 VDC	3/16 x 7/16	.21
.003	400 VDC	¼ x 9/16	.27
.008	400 VDC	¼ x 9/16	.27
.01	400 VDC	¼ x 9/16	.27
.0005	600 VDC	3/16 x 7/16	.21
.0008	600 VDC	3/16 x 7/16	.21
.001	600 VDC	3/16 x 7/16	.21
.002	600 VDC	¼ x 9/16	.27
.0022	600 VDC	¼ x 9/16	.27
.0047	600 VDC	¼ x 9/16	.27
.005	600 VDC	¼ x 9/16	.27

Operating temperature range —15°C to +85°C without derating.

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

TYPE P89ZXY
Hermetically Sealed Tubulars

Hermetically sealed metallized paper capacitors. Sealed in metal cases with rubber bakelite end seals. Impregnated with Hyvol K or Hyvol M, these units are manufactured for operating temperature of −55°C. to +70°C. without voltage derating and operation up to 95°C. ambient with derating.
Standard units are furnished without insulating tube or bracket (P89ZXY).
Standard tolerance ±20%. Also available in ±10% and ±5% on special order.



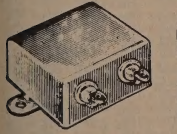
Style Variations

P89Z —with cardboard insulating sleeve and radial mounting bracket.
P89ZXP—without mounting bracket but with plastic insulating sleeve.
P89ZXY—without insulating sleeve or mounting bracket.
P89ZY —without insulating sleeve but with radial mounting bracket.

Cap. Mfd.	Size 150 VDC	Net Price★	Size 200 VDC	Net Price★	Size 400 VDC	Net Price★	Size 600 VDC	Net Price★
.01							⅜ x 1	1.30
.02							⅜ x 1	1.30
.03					⅜ x 1	1.27	7/16 x 1	1.30
.05			⅜ x 1	1.22	7/16 x 1	1.27	½ x 1	1.35
.1			7/16 x 1	1.27	7/16 x 1 5/16	1.35	½ x 1½	1.40
.25			½ x 1	1.40	⅝ x 1 5/16	1.57	⅝ x 1⅝	1.73
.5			½ x 1 5/16	1.53	⅝ x 2	1.76	¾ x 2	1.94
1.0			⅝ x 1½	1.81	¾ x 2½	2.21	13/16 x 2½	2.54
2.0			⅝ x 2	2.24	1 x 2½	3.19	1¼ x 2½	3.66
3.0	¾ x 2	2.97						
4.0	13/16 x 2	3.51						
6.0	1 x 2	4.62						

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

TYPE P30ZN High Temperature Bathtub Case



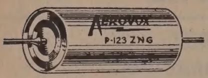
AEROVOX type P30ZN Aerolene impregnated metallized-paper capacitors housed in "bathtub" metal cases hermetically sealed. Operating temperature range —65°C. to +125°C. at full rating. Standard Tolerance ±20%.

Capacity	150 V	Net Price★	200 V	Net Price★	400 V	Net Price★	600 V	Net Price★
.1			1¾ x 1 x ¾	2.15	1¾ x 1 x ¾	2.30	1¾ x 1 x ¾	2.37
.25			1¾ x 1 x ¾	2.39	1¾ x 1 x ¾	2.42	1¾ x 1 x ¾	2.46
.5			1¾ x 1 x ¾	2.44	1¾ x 1 x ¾	2.58	1¾ x 1 x ¾	2.60
1.0			1¾ x 1 x ¾	2.86	1¾ x 1 x ⅞	2.96	1¾ x 1¼ x ⅞	3.26
2.0			1¾ x 1 x ¾	3.53	2 x 1¾ x 13/16	3.74	2 x 2 x ⅞	3.85
3.0	1¾ x 1 x ¾	3.29			2 x 1¾ x 15/16	4.21	2 x 2 x 1⅛	5.45
4.0	1¾ x 1 x ¾	3.95			2 x 2 x 1	4.97	2 x 2 x 1¼	6.53
5.0	1¾ x 1 x ¾	4.39			2 x 2 x 1¼	5.99		
6.0	1¾ x 1¼ x ⅞	4.57						
8.0	2 x 1¾ x ¾	5.29						
10.0	2 x 1¾ x ¾	6.09						
12.0	2 x 2 x ⅞	6.82						
15.0	2 x 2 x 1	8.25						

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

INDUSTRIAL SECTION—STANDARD TYPES (Continued)

METALLIZED-PAPER



Metallized paper tubulars hermetically sealed in metal tubes with glass end seals soldered for positive moisture seal. Designed to meet critical operating temperatures and the need for increased reliability in the electronic field.
The P123ZN—Aerolene impregnated—is manufactured to meet operating temperature range of —55C to +100C at full voltage rating and +125C with voltage derating to 75%.
P123ZNG is case grounded. P123ZN is case insulated. Standard tolerance .01 mfd. and lower ±25%, .015 mfd. and up ±20%. Also available in ±10% and ±5% on special order. Units rated at 50 Volts are stocked at ±10%. These units are equivalent to characteristic M of MIL-C-18312. Suffix P denotes plastic tube; B denotes mtg. bracket (not available with plastic tube); T denotes threaded neck terminal.

TYPES P123ZN, P123ZNG

Metal-Cased Capacitors

MIL CONVERSION CHART

Type	
CH04A1M	P123ZN
CH04A3M	P123ZNG
CH05A1M	P123ZNP
CH05A3M	P123ZNGP

Voltage	
V	150V
C	200V
E	400V
F	600V

Capacity
First two figures are significant figures —third figure represents number of zeros to follow

Tolerance	
K	±10%
M	±20%

EXAMPLE

CH04A1M (P123ZN)	E (400V)	223 (.022)	K (±10%)

Capacity	P123ZN	Net Price★	P123ZNP	Net Price★	P123ZNG	Net Price★	P123ZNGP	Net Price★
50VDCW								
.047	.195 x 13/16	2.11	.257 x 7/8	2.19	.195 x 3/4	1.31	.257 x 13/16	1.39
.068	.195 x 13/16	2.13	.257 x 7/8	2.21	.195 x 3/4	1.33	.257 x 13/16	1.41
.1	.195 x 15/16	2.15	.257 x 1	2.23	.195 x 7/8	1.35	.257 x 15/16	1.43
.15	.235 x 15/16	2.18	.297 x 1	2.26	.235 x 7/8	1.38	.297 x 15/16	1.46
.22	.312 x 13/16	2.22	.374 x 7/8	2.30	.312 x 3/4	1.42	.374 x 13/16	1.50
.33	.312 x 1 1/8	2.27	.374 x 1 3/16	2.35	.312 x 1 1/16	1.47	.374 x 1 1/8	1.55
.47	.312 x 1 3/16	2.34	.374 x 1 1/4	2.42	.312 x 1 1/8	1.54	.374 x 1 3/16	1.62
.68	.400 x 1 1/8	2.54	.462 x 1 3/16	2.62	.400 x 1 1/16	1.73	.462 x 1 1/8	1.81
1.0	.400 x 1 5/16	2.75	.462 x 1 3/8	2.83	.400 x 1 1/4	1.95	.462 x 1 5/16	2.03
1.5	.500 x 1 1/8	3.08	.562 x 1 3/16	3.16	.500 x 1 1/16	2.28	.562 x 1 1/8	2.36
2.0	.562 x 1 5/16	3.41	.624 x 1 3/8	3.49	.562 x 1 1/4	2.61	.624 x 1 5/16	2.69
3.0	.562 x 1 7/16	3.86	.624 x 1 1/2	3.94	.562 x 1 3/8	3.06	.624 x 1 7/16	3.14
4.0	.670 x 1 7/16	4.31	.732 x 1 1/2	4.39	.670 x 1 3/8	3.51	.732 x 1 7/16	3.59
150 Volts								
3.0	.670 x 1 7/8	3.62	.732 x 1 15/16	3.66	.670 x 1 13/16	3.27	.732 x 1 7/8	3.31
4.0	.750 x 1 7/8	3.89	.812 x 1 15/16	3.95	.750 x 1 13/16	3.54	.812 x 1 7/8	3.60
5.0	1.000 x 1 7/8	4.10	1.062 x 1 15/16	4.16	1.000 x 1 13/16	3.75	1.062 x 1 7/8	3.81
6.0	1.000 x 1 7/8	4.31	1.062 x 1 15/16	4.37	1.000 x 1 13/16	3.96	1.062 x 1 7/8	4.02
200 Volts								
.0005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.001	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.002	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.003	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.005	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.01	.175 x 1/2	1.36	.237 x 9/16	1.39	.175 x 7/16	1.01	.237 x 1/2	1.04
.012	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.015	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.018	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.02	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.022	.195 x 5/8	1.36	.257 x 11/16	1.39	.195 x 9/16	1.01	.257 x 5/8	1.04
.027	.235 x 5/8	1.37	.297 x 11/16	1.40	.235 x 9/16	1.02	.297 x 5/8	1.05
.033	.235 x 5/8	1.38	.297 x 11/16	1.41	.235 x 9/16	1.03	.297 x 5/8	1.06
.039	.235 x 11/16	1.40	.297 x 3/4	1.43	.235 x 5/8	1.05	.297 x 11/16	1.08
.04	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.047	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.05	.235 x 3/4	1.42	.297 x 13/16	1.45	.235 x 5/8	1.07	.297 x 11/16	1.10
.056	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.11
.068	.312 x 13/16	1.45	.374 x 7/8	1.48	.312 x 3/4	1.10	.374 x 13/16	1.13
.082	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.14
.1	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.16
.12	.312 x 1 1/8	1.49	.374 x 3/16	1.52	.312 x 1 1/16	1.14	.374 x 1 1/8	1.17
.15	.312 x 1 1/8	1.49	.374 x 1 3/16	1.52	.312 x 1 1/16	1.14	.374 x 1 1/8	1.17
.18	.312 x 1 1/8	1.50	.374 x 3/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.18
.2	.312 x 1 1/8	1.50	.374 x 1 3/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.18
.22	.312 x 1 1/8	1.50	.374 x 1 3/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.18
.25	.312 x 1 1/8	1.62	.374 x 1 3/16	1.65	.312 x 1 1/16	1.27	.374 x 1 1/8	1.30
.27	.400 x 1 1/8	1.62	.462 x 1 3/16	1.65	.400 x 1 1/16	1.27	.462 x 1 1/8	1.30
.33	.400 x 1 1/8	1.62	.462 x 1 3/16	1.65	.400 x 1 1/16	1.27	.462 x 1 1/8	1.30
.39	.400 x 1 1/8	1.70	.462 x 1 3/16	1.73	.400 x 1 1/16	1.35	.462 x 1 1/8	1.38
.47	.400 x 1 1/8	1.71	.462 x 1 3/16	1.74	.400 x 1 1/16	1.36	.462 x 1 1/8	1.39
.5	.400 x 1 1/8	1.73	.462 x 1 3/16	1.76	.400 x 1 1/16	1.38	.462 x 1 1/8	1.41
.56	.500 x 1 1/8	1.73	.562 x 1 3/16	1.77	.500 x 1 1/16	1.38	.562 x 1 1/8	1.41
.68	.500 x 1 1/8	1.78	.562 x 1 3/16	1.82	.500 x 1 1/16	1.43	.562 x 1 1/8	1.47
.82	.562 x 1 1/8	1.90	.624 x 1 3/16	1.94	.562 x 1 1/16	1.55	.624 x 1 1/8	1.59
1.0	.562 x 1 1/8	1.92	.624 x 1 3/16	1.96	.562 x 1 1/16	1.57	.624 x 1 1/8	1.61
1.5	.562 x 1 5/8	2.73	.624 x 1 11/16	2.77	.562 x 1 9/16	2.38	.624 x 1 5/8	2.42
2.0	.562 x 1 7/8	2.73	.624 x 1 15/16	2.77	.562 x 1 13/16	2.38	.624 x 1 7/8	2.42
400 Volts								
.0005	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.001	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.002	.235 x 1/2	1.36	.297 x 9/16	1.39	.235 x 7/16	1.01	.297 x 1/2	1.04
.003	.235 x 5/8	1.39	.297 x 11/16	1.42	.235 x 9/16	1.04	.297 x 5/8	1.07
.005	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.07
.01	.235 x 5/8	1.42	.297 x 11/16	1.45	.235 x 9/16	1.07	.297 x 5/8	1.10

Capacity	P123ZN	Net Price★	P123ZNP	Net Price★	P123ZNG	Net Price★	P123ZNGP	Ne Pric
400 Volts (Continued)								
.012	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.
.015	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.
.018	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.
.02	.235 x 13/16	1.42	.297 x 7/8	1.45	.235 x 3/4	1.07	.297 x 13/16	1.
.022	.235 x 13/16	1.43	.297 x 7/8	1.46	.235 x 3/4	1.08	.297 x 13/16	1.
.027	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.
.033	.312 x 13/16	1.43	.374 x 7/8	1.46	.312 x 3/4	1.08	.374 x 13/16	1.
.039	.312 x 1 1/8	1.43	.374 x 1 3/16	1.46	.312 x 1 1/16	1.08	.374 x 1 1/8	1.
.04	.312 x 1 1/8	1.43	.374 x 1 3/16	1.46	.312 x 1 1/16	1.08	.374 x 1 1/8	1.
.047	.312 x 1 1/8	1.43	.374 x 1 3/16	1.46	.312 x 1 1/16	1.08	.374 x 1 1/8	1.
.05	.312 x 1 1/8	1.43	.374 x 1 3/16	1.46	.312 x 1 1/16	1.08	.374 x 1 1/8	1.
.056	.312 x 1 1/8	1.50	.374 x 1 3/16	1.53	.312 x 1 1/16	1.15	.374 x 1 1/8	1.
.068	.312 x 1 1/8	1.53	.374 x 1 3/16	1.56	.312 x 1 1/16	1.18	.374 x 1 1/8	1.
.082	.400 x 1 1/8	1.54	.462 x 1 3/16	1.57	.400 x 1 1/16	1.19	.462 x 1 1/8	1.
.1	.400 x 1 1/8	1.55	.462 x 1 3/16	1.58	.400 x 1 1/16	1.20	.462 x 1 1/8	1.
.12	.500 x 1 1/8	1.60	.562 x 1 3/16	1.64	.500 x 1 1/16	1.25	.562 x 1 1/8	1.
.15	.500 x 1 1/8	1.63	.562 x 1 3/16	1.67	.500 x 1 1/16	1.28	.562 x 1 1/8	1.
.18	.500 x 1 1/8	1.64	.562 x 1 3/16	1.68	.500 x 1 1/16	1.29	.562 x 1 1/8	1.
.2	.500 x 1 1/8	1.64	.562 x 1 3/16	1.68	.500 x 1 1/16	1.29	.562 x 1 1/8	1.
.22	.500 x 1 1/8	1.64	.562 x 1 3/16	1.68	.500 x 1 1/16	1.29	.562 x 1 1/8	1.
.25	.500 x 1 1/8	1.81	.562 x 1 3/16	1.85	.500 x 1 1/16	1.46	.562 x 1 1/8	1.
.27	.562 x 1 1/8	1.81	.624 x 1 3/16	1.85	.562 x 1 1/16	1.46	.624 x 1 1/8	1.
.33	.562 x 1 3/8	1.81	.624 x 1 7/16	1.85	.562 x 1 5/16	1.46	.624 x 1 3/8	1.
.39	.562 x 1 5/8	1.90	.624 x 1 11/16	1.94	.562 x 1 9/16	1.55	.624 x 1 5/8	1.
.47	.562 x 1 5/8	1.94	.624 x 1 11/16	1.98	.562 x 1 9/16	1.59	.624 x 1 5/8	1.
.5	.562 x 1 5/8	2.14	.624 x 1 11/16	2.18	.562 x 1 9/16	1.79	.624 x 1 5/8	1.
.56	.670 x 1 5/8	2.14	.723 x 1 11/16	2.18	.670 x 1 9/16	1.82	.732 x 1 5/8	1.
.68	.670 x 1 5/8	2.17	.732 x 1 11/16	2.21	.670 x 1 9/16	1.82	.732 x 1 5/8	1.
.82	.670 x 1 7/8	2.30	.732 x 1 15/16	2.34	.670 x 1 13/16	1.95	.732 x 1 7/8	1.
1.0	.670 x 2 1/8	2.31	.732 x 2 3/16	2.35	.670 x 2 1/16	1.96	.732 x 2 1/8	2.
1.5	.750 x 2 3/8	3.00	.812 x 2 7/16	3.06	.750 x 2 5/16	2.65	.812 x 2 3/8	2.
2.0	1.000 x 1 7/8	3.51	1.062 x 1 15/16	3.57	1.000 x 1 13/16	3.16	1.062 x 1 7/8	3.
600 Volts								
.0005	.235 x 1/2	1.40	.297 x 9/16	1.43	.235 x 7/16	1.05	.297 x 1/2	1.0
.001	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.0
.002	.235 x 5/8	1.40	.297 x 11/16	1.43	.235 x 9/16	1.05	.297 x 5/8	1.0
.003	.235 x 5/8	1.43	.297 x 11/16	1.46	.235 x 9/16	1.08	.297 x 5/8	1.1
.005	.235 x 5/8	1.45	.297 x 11/16	1.48	.235 x 9/16	1.10	.297 x 5/8	1.1
.01	.235 x 13/16	1.45	.297 x 7/8	1.48	.235 x 3/4	1.10	.297 x 13/16	1.1
.012	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.1
.015	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.1
.018	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.1
.02	.312 x 13/16	1.46	.374 x 7/8	1.49	.312 x 3/4	1.11	.374 x 13/16	1.1
.022	.312 x 13/16	1.48	.374 x 7/8	1.51	.312 x 3/4	1.13	.374 x 13/16	1.1
.027	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1.1
.033	.400 x 13/16	1.48	.462 x 7/8	1.51	.400 x 3/4	1.13	.462 x 13/16	1.1
.039	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1.1
.04	.400 x 13/16	1.49	.462 x 7/8	1.52	.400 x 3/4	1.14	.462 x 13/16	1.1
.047	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.1
.05	.400 x 13/16	1.50	.462 x 7/8	1.53	.400 x 3/4	1.15	.462 x 13/16	1.1
.056	.400 x 1 1/8	1.55	.462 x 1 3/16	1.58	.400 x 1 1/16	1.20	.462 x 1 1/8	1.2
.068	.400 x 1 1/8	1.57	.462 x 1 3/16	1.60	.400 x 1 1/16	1.22	.462 x 1 1/8	1.2
.082	.400 x 1 1/8	1.60	.462 x 1 3/16	1.63	.400 x 1 1/16	1.25	.462 x 1 1/8	1.2
.1	.400 x 1 1/8	1.61	.462 x 1 3/16	1.64	.400 x 1 1/16	1.26	.462 x 1 1/8	1.3
.12	.500 x 1 1/8	1.70	.562 x 1 3/16	1.74	.500 x 1 1/16	1.35	.562 x 1 1/8	1.3
.15	.500 x 1 1/8	1.75	.562 x 1 3/16	1.79	.500 x 1 1/16	1.40	.562 x 1 1/8	1.4
.18	.562 x 1 1/8	1.81	.624 x 1 3/16	1.85	.562 x 1 1/16	1.46	.624 x 1 1/8	1.5
.2	.562 x 1 3/8	1.85	.624 x 1 7/16	1.89	.562 x 1 5/16	1.50	.624 x 1 3/8	1.5
.22	.562 x 1 3/8	1.88	.624 x 1 7/16	1.92	.562 x 1 5/16	1.53	.624 x 1 3/8	1.5
.25	.562 x 1 3/8	1.91	.624 x 1 7/16	1.95	.562 x 1 5/16	1.56	.624 x 1 3/8	1.6
.27	.670 x 1 5/8	1.91	.624 x 1 11/16	1.95	.562 x 1 9/16	1.56	.624 x 1 5/8	1.6
.33	.562 x 1 5/8	2.09	.624 x 1 11/16	2.13	.562 x 1 9/16	1.74	.624 x 1 5/8	1.7
.39	.670 x 1 5/8	2.18	.732 x 1 11/16	2.22	.670 x 1 9/16	1.83	.732 x 1 5/8	1.8
.47	.670 x 1 7/8	2.21	.732 x 1 15/16	2.25	.670 x 1 13/16	1.86	.732 x 1 7/8	1.9
.5	.670 x 1 7/8	2.33	.732 x 1 15/16	2.37	.670 x 1 13/16	1.98	.732 x 1 7/8	2.0
.56	.670 x 1 7/8	2.33	.732 x 1 15/16	2.37	.670 x 1 13/16	1.98	.732 x 1 7/8	2.0
.68	.670 x 1 7/8	2.35	.732 x 1 15/16	2.39	.670 x 1 13/16	2.00	.732 x 1 7/8	2.0
.82	.750 x 2 3/8	2.48	.812 x 2 7/16	2.54	.750 x 2 5/16	2.13	.812 x 2 3/8	2.1
1.0	.750 x 2 3/8	2.49	.812 x 2 7/16	2.55	.750 x 2 5/16	2.14	.812 x 2 3/8	2.2
1.5	1.000 x 1 7/8	3.01	1.062 x 1 15/16	3.07	1.000 x 1 13/16	2.66	1.062 x 1 7/8	2.7
2.0	1.000 x 2 3/8	3.54	1.062 x 2 7/16	3.60	1.000 x 2 5/16	3.19	1.062 x 2 3/8	3.2

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 999

AEROVOX *Capacitors*

INDUSTRIAL SECTION — STANDARD TYPES (cont.)
METALLIZED PAPER

TYPE P323ZN

125°C, No Derating

etal-Cased, Metallized-Paper Tubulars Similar to CH04 and CH05 —

MIL-C-18312

Characteristic N

AEROVOX
P323ZN

Miniature, hermetically-sealed in metal cases with glass terminal end-seal, Type P323ZN units are designed for operation at temperatures from —55°C to +125°C WITHOUT DERATING for voltage. They will meet all the requirements for minimum size, light weight and high temperature in present day electronic equipments. Designed for long life, rugged duty and high reliability operation in critical military and premium priced commercial electronic assemblies.

200 VDCW

pacity fd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net★	Size	Net★	Size	Net★	Size	Net★
01	.175 x ½	$1.51	.237 x ⅝	$1.59	.175 x 7/16	$1.16	.237 x ½	$1.24
012	.195 x ⅝	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x ⅝	1.24
015	.195 x ⅝	1.51	.257 x 11/16	1.59	.195 x 9/16	1.16	.257 x ⅝	1.24
018	.235 x ⅝	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x ⅝	1.24
022	.235 x ⅝	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x ⅝	1.24
027	.235 x ⅝	1.51	.297 x 11/16	1.59	.235 x 9/16	1.16	.297 x ⅝	1.24
033	.235 x ¾	1.53	.297 x 13/16	1.61	.235 x 11/16	1.18	.297 x ¾	1.26
039	.235 x 13/16	1.53	.297 x ⅞	1.61	.235 x ¾	1.18	.297 x 13/16	1.26
047	.235 x 13/16	1.57	.297 x ⅞	1.65	.235 x ¾	1.22	.297 x 13/16	1.30
056	.235 x 13/16	1.57	.297 x ⅞	1.65	.235 x ¾	1.22	.297 x 13/16	1.30
068	.312 x 13/16	1.61	.374 x ⅞	1.69	.312 x ¾	1.26	.374 x 13/16	1.34
082	.312 x 13/16	1.61	.374 x ⅞	1.69	.312 x ¾	1.26	.374 x 13/16	1.34
1	.312 x 13/16	1.63	.374 x ⅞	1.71	.312 x ¾	1.28	.374 x 13/16	1.36
12	.312 x 1⅛	1.63	.374 x 1 3/16	1.71	.312 x 1 1/16	1.28	.374 x 1⅛	1.36
15	.312 x 1⅛	1.67	.374 x 1 3/16	1.75	.312 x 1 1/16	1.32	.374 x 1⅛	1.40
18	.400 x ⅞	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x ⅞	1.40
22	.400 x ⅞	1.67	.462 x 15/16	1.75	.400 x 13/16	1.32	.462 x ⅞	1.40
27	.400 x 1⅛	1.67	.462 x 1 3/16	1.75	.400 x 1 1/16	1.32	.462 x 1⅛	1.40
33	.400 x 1⅛	1.82	.462 x 1 3/16	1.90	.400 x 1 1/16	1.47	.462 x 1⅛	1.55
39	.400 x 1⅛	1.82	.462 x 1 3/16	1.90	.400 x 1 1/16	1.47	.462 x 1⅛	1.55
47	.500 x 1⅛	1.93	.562 x 1 3/16	2.01	.500 x 1 1/16	1.58	.562 x 1⅛	1.66
56	.500 x 1⅛	1.93	.562 x 1 3/16	2.01	.500 x 1 1/16	1.58	.562 x 1⅛	1.66
68	.500 x 1⅛	2.00	.562 x 1 3/16	2.08	.500 x 1 1/16	1.65	.562 x 1⅛	1.73
82	.562 x 1⅛	2.00	.624 x 1 3/16	2.08	.562 x 1 1/16	1.65	.624 x 1⅛	1.73
.0	.562 x 1⅛	2.15	.624 x 1 3/16	2.23	.562 x 1 1/16	1.80	.624 x 1⅛	1.88
.5	.562 x 1⅝	3.22	.624 x 1 11/16	3.30	.562 x 1 9/16	2.87	.624 x 1⅝	2.95
.0	.670 x 1⅝	3.90	.732 x 1 11/16	3.98	.670 x 1 9/16	3.55	.732 x 1⅝	3.63
.0	.670 x 1⅞	4.26	.732 x 1 15/16	4.34	.670 x 1 13/16	3.91	.732 x 1⅞	3.99
.0	.750 x 1⅞	5.09	.812 x 1 15/16	5.17	.750 x 1 13/16	4.73	.812 x 1⅞	4.81
.0	1.000 x 1⅞	5.61	1.062 x 1 15/16	5.69	1.000 x 1 13/16	5.26	1.062 x 1⅞	5.34
.0	1.000 x 1⅞	6.03	1.062 x 1 15/16	6.11	1.000 x 1 13/16	5.68	1.062 x 1⅞	5.76
.0	1.000 x 1⅞	6.23	1.062 x 1 15/16	6.31	1.000 x 1 13/16	5.87	1.062 x 1⅞	5.95
.0	1.000 x 2⅜	7.97	1.062 x 2 7/16	8.05	1.000 x 2 5/16	7.62	1.062 x 2⅜	7.70
.0	1.000 x 2⅝	8.87	1.062 x 2 11/16	8.95	1.000 x 2 9/16	8.52	1.062 x 2⅝	8.60

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 999

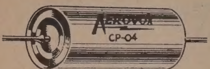
400 VDCW

Capacity Mfd.	P323ZN Case Floating		P323ZNP Case Floating Plastic Insulating Sleeve		P323ZNG Case Grounded		P323ZNGP Case Grounded Plastic Insulating Sleeve	
	Size	Net★	Size	Net★	Size	Net★	Size	Net★
.001	.235 x ¾	$1.56	.297 x 13/16	$1.64	.235 x 11/16	$1.21	.297 x ¾	$1.29
.0022	.235 x ¾	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x ¾	1.29
.0047	.235 x ¾	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x ¾	1.29
.01	.235 x ¾	1.56	.297 x 13/16	1.64	.235 x 11/16	1.21	.297 x ¾	1.29
.012	.235 x 13/16	1.56	.297 x ⅞	1.64	.235 x ¾	1.21	.297 x 13/16	1.29
.015	.235 x 13/16	1.56	.297 x ⅞	1.64	.235 x ¾	1.21	.297 x 13/16	1.29
.018	.312 x 13/16	1.60	.374 x ⅞	1.68	.312 x ¾	1.25	.374 x 13/16	1.33
.022	.312 x 13/16	1.61	.374 x ⅞	1.69	.312 x ¾	1.26	.374 x 13/16	1.34
.027	.312 x 13/16	1.61	.374 x ⅞	1.69	.312 x ¾	1.26	.374 x 13/16	1.34
.033	.312 x 13/16	1.61	.374 x ⅞	1.69	.312 x ¾	1.26	.374 x 13/16	1.34
.039	.312 x 1⅛	1.61	.374 x 1 3/16	1.69	.312 x 1 1/16	1.26	.374 x 1⅛	1.34
.047	.312 x 1⅛	1.61	.374 x 1 3/16	1.69	.312 x 1 1/16	1.26	.374 x 1⅛	1.34
.056	.312 x 1⅛	1.64	.374 x 1 3/16	1.72	.312 x 1 1/16	1.29	.374 x 1⅛	1.37
.068	.400 x 1⅛	1.69	.462 x 1 3/16	1.77	.400 x 1 1/16	1.34	.462 x 1⅛	1.42
.082	.400 x 1⅛	1.70	.462 x 1 3/16	1.78	.400 x 1 1/16	1.35	.462 x 1⅛	1.43
.1	.400 x 1⅛	1.74	.462 x 1 3/16	1.82	.400 x 1 1/16	1.39	.462 x 1⅛	1.47
.12	.500 x 1⅛	1.79	.562 x 1 3/16	1.87	.500 x 1 1/16	1.44	.562 x 1⅛	1.52
.15	.500 x 1⅛	1.84	.562 x 1 3/16	1.92	.500 x 1 1/16	1.49	.562 x 1⅛	1.57
.18	.500 x 1⅛	1.88	.562 x 1 3/16	1.96	.500 x 1 1/16	1.53	.562 x 1⅛	1.61
.22	.562 x 1⅛	1.91	.624 x 1 3/16	1.99	.562 x 1 1/16	1.56	.624 x 1⅛	1.64
.27	.562 x 1⅛	1.97	.624 x 1 3/16	2.05	.562 x 1 1/16	1.62	.624 x 1⅛	1.70
.33	.562 x 1⅜	2.11	.624 x 1 7/16	2.19	.562 x 1 5/16	1.76	.624 x 1⅜	1.84
.39	.562 x 1⅝	2.19	.624 x 1 11/16	2.27	.562 x 1 9/16	1.84	.624 x 1⅝	1.92
.47	.562 x 1⅝	2.34	.624 x 1 11/16	2.42	.562 x 1 9/16	1.99	.624 x 1⅝	2.07
.56	.670 x 1⅝	2.49	.732 x 1 11/16	2.57	.670 x 1 9/16	2.14	.732 x 1⅝	2.22
.68	.670 x 1⅞	2.68	.732 x 1 15/16	2.76	.670 x 1 13/16	2.33	.732 x 1⅞	2.41
.82	.750 x 1⅞	2.85	.812 x 1 15/16	2.93	.750 x 1 13/16	2.50	.812 x 1⅞	2.58
1.0	.750 x 1⅞	2.94	.812 x 1 15/16	3.02	.750 x 1 13/16	2.59	.812 x 1⅞	2.67
1.5	1.000 x 1⅞	3.90	1.062 x 1 15/16	3.98	1.000 x 1 13/16	3.55	1.062 x 1⅞	3.63
2.0	1.000 x 1⅞	4.86	1.062 x 1 15/16	4.94	1.000 x 1 13/16	4.51	1.062 x 1⅞	4.59

600 VDCW

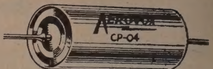
Capacity Mfd.	P323ZN Size	Net★	P323ZNP Size	Net★	P323ZNG Size	Net★	P323ZNGP Size	Net★
.001	.235 x ¾	$1.62	.297 x 13/16	$1.70	.235 x 11/16	$1.27	.297 x ¾	$1.35
.0022	.235 x ¾	1.62	.297 x 13/16	1.70	.235 x 11/16	1.27	.297 x ¾	1.35
.0047	.235 x ¾	1.62	.297 x 13/16	1.70	.235 x 11/16	.1.27	.297 x ¾	1.35
.01	.312 x 13/16	1.62	.374 x ⅞	1.70	.312 x ¾	1.27	.374 x 13/16	1.35
.012	.312 x 13/16	1.63	.374 x ⅞	1.71	.312 x ¾	1.28	.374 x 13/16	1.36
.015	.312 x 13/16	1.63	.374 x ⅞	1.71	.312 x ¾	1.28	.374 x 13/16	1.36
.018	.312 x 13/16	1.64	.374 x ⅞	1.72	.312 x ¾	1.29	.374 x 13/16	1.37
.022	.312 x 13/16	1.64	.374 x ⅞	1.72	.312 x ¾	1.29	.374 x 13/16	1.37
.027	.312 x 1⅛	1.64	.374 x 1 3/16	1.72	.312 x 1 1/16	1.29	.374 x 1⅛	1.37
.033	.312 x 1⅛	1.64	.374 x 1 3/16	1.72	.312 x 1 1/16	1.29	.374 x 1⅛	1.37
.039	.400 x 1⅛	1.64	.462 x 1 3/16	1.72	.400 x 1 1/16	1.29	.462 x 1⅛	1.37
.047	.400 x 1⅛	1.66	.462 x 1 3/16	1.74	.400 x 1 1/16	1.31	.462 x 1⅛	1.39
.056	.400 x 1⅛	1.70	.462 x 1 3/16	1.78	.400 x 1 1/16	1.35	.462 x 1⅛	1.43
.068	.400 x 1⅛	1.77	.462 x 1 3/16	1.85	.400 x 1 1/16	1.42	.462 x 1⅛	1.50
.082	.500 x 1⅛	1.79	.562 x 1 3/16	1.87	.500 x 1 1/16	1.43	.562 x 1⅛	1.51
.1	.500 x 1⅛	1.79	.562 x 1 3/16	1.87	.500 x 1 1/16	1.43	.562 x 1⅛	1.51
.12	.500 x 1⅛	1.90	.562 x 1 3/16	1.98	.500 x 1 1/16	1.55	.562 x 1⅛	1.63
.15	.500 x 1⅛	2.00	.562 x 1 3/16	2.08	.500 x 1 1/16	1.65	.562 x 1⅛	1.73
.18	.562 x 1⅛	2.09	.624 x 1 3/16	2.17	.562 x 1 1/16	1.74	.624 x 1⅛	1.82
.22	.562 x 1⅜	2.16	.624 x 1 7/16	2.24	.562 x 1 5/16	1.81	.624 x 1⅜	1.89
.27	.562 x 1⅝	2.34	.624 x 1 11/16	2.42	.562 x 1 9/16	1.99	.624 x 1⅝	2.07
.33	.562 x 1⅝	2.46	.624 x 1 11/16	2.54	.562 x 1 9/16	2.11	.624 x 1⅝	2.19
.39	.670 x 1⅝	2.57	.732 x 1 11/16	2.65	.670 x 1 9/16	2.22	.732 x 1⅝	2.30
.47	.670 x 1⅝	2.68	.732 x 1 11/16	2.76	.670 x 1 9/16	2.33	.732 x 1⅝	2.41
.56	.670 x 1⅞	2.79	.732 x 1 15/16	2.87	.670 x 1 13/16	2.44	.732 x 1⅞	2.52
.68	.670 x 1⅞	2.94	.732 x 1 15/16	3.02	.670 x 1 13/16	2.59	.732 x 1⅞	2.67
.82	1.000 x 1⅞	3.35	1.062 x 1 15/16	3.43	1.000 x 1 13/16	2.99	1.062 x 1⅞	3.07
1.0	1.000 x 1⅞	3.42	1.062 x 1 15/16	3.50	1.000 x 1 13/16	3.07	1.062 x 1⅞	3.15
1.5	1.000 x 1⅞	4.19	1.062 x 1 15/16	4.27	1.000 x 1 13/16	3.83	1.062 x 1⅞	3.91
2.0	1.000 x 2⅜	5.16	1.062 x 2 7/16	5.24	1.000 x 2 5/16	4.81	1.062 x 2⅜	4.89

AEROVOX *Capacitors*



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C



TYPES CPO4 and CPO5 — Characteristics K Vibration Grades 1 and 3

Hermetically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are exten foil construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
CAPACITY	VOLTAGE	Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.027	100V	CP04A1KB273K—	$1.67	CP04A3KB273K—	$1.07	CP05A1KB273K—	$1.73	CP05A3KB273K—	$1.13
.033	100V	CP04A1KB333K—	1.67	CP04A3KB333K—	1.07	CP05A1KB333K—	1.73	CP05A3KB333K—	1.13
.082	100V	CP04A1KB823K—	1.76	CP04A3KB823K—	1.16	CP05A1KB823K—	1.82	CP05A3KB823K—	1.22
.1	100V	CP04A1KB104K—	1.76	CP04A3KB104K—	1.16	CP05A1KB104K—	1.82	CP05A3KB104K—	1.22
.12	100V	CP04A1KB124K—	1.85	CP04A3KB124K—	1.25	CP05A1KB124K—	1.91	CP05A3KB124K—	1.31
.15	100V	CP04A1KB154K—	1.85	CP04A3KB154K—	1.25	CP04A1KB154K—	1.91	CP05A3KB154K—	1.31
.18	100V	CP04A1KB184K—	1.85	CP04A3KB184K—	1.25	CP05A1KB184K—	1.91	CP05A3KB184K—	1.31
.22	100V	CP04A1KB224K—	1.85	CP04A3KB224K—	1.25	CP05A1KB224K—	1.91	CP05A3KB224K—	1.31
.27	100V	CP04A1KB274K—	2.11	CP04A3KB274K—	1.51	CP05A1KB274K—	2.17	CP05A3KB274K—	1.57
.33	100V	CP04A1KB334K—	2.11	CP04A3KB334K—	1.51	CP05A1KB334K—	2.17	CP05A3KB334K—	1.57
.39	100V	CP04A1KB394K—	2.24	CP04A3KB394K—	1.64	CP05A1KB394K—	2.32	CP05A3KB394K—	1.72
.47	100V	CP04A1KB474K—	2.24	CP04A3KB474K—	1.64	CP05A1KB474K—	2.32	CP05A3KB474K—	1.72
.56	100V	CP04A1KB564K—	2.33	CP04A3KB564K—	1.73	CP05A1KB564K—	2.41	CP05A3KB564K—	1.81
.68	100V	CP04A1KB684K—	2.33	CP04A3KB684K—	1.73	CP05A1KB684K—	2.41	CP05A3KB684K—	1.81
.82	100V	CP04A1KB824K—	2.38	CP04A3KB824K—	1.78	CP05A1KB824K—	2.46	CP05A3KB824K—	1.86
1.0	100V	CP04A1KB105K—	2.38	CP04A3KB105K—	1.78	CP05A1KB105K—	2.46	CP05A3KB105K—	1.86
.012	200V	CP04A1KC123K—	1.67	CP04A3KC123K—	1.07	CP05A1KC123K—	1.73	CP05A3KC123K—	1.13
.015	200V	CP04A1KC153K—	1.67	CP04A3KC153K—	1.07	CP05A1KC153K—	1.73	CP05A3KC153K—	1.13
.018	200V	CP04A1KC183K—	1.67	CP04A3KC183K—	1.07	CP05A1KC183K—	1.73	CP05A3KC183K—	1.13
.022	200V	CP04A1KC223K—	1.67	CP04A3KC223K—	1.07	CP05A1KC223K—	1.73	CP05A3KC223K—	1.13
.039	200V	CP04A1KC393K—	1.72	CP04A3KC393K—	1.12	CP05A1KC393K—	1.78	CP05A3KC393K—	1.18
.047	200V	CP04A1KC473K—	1.72	CP04A3KC473K—	1.12	CP05A1KC473K—	1.78	CP05A3KC473K—	1.18
.056	200V	CP04A1KC563K—	1.76	CP04A3KC563K—	1.16	CP05A1KC563K—	1.82	CP05A3KC563K—	1.22
.068	200V	CP04A1KC683K—	1.76	CP04A3KC683K—	1.16	CP05A1KC683K—	1.82	CP05A3KC683K—	1.22
.082	200V	CP04A1KC823K—	1.80	CP04A3KC823K—	1.20	CP05A1KC823K—	1.86	CP05A3KC823K—	1.26
.1	200V	CP04A1KC104K—	1.80	CP04A3KC104K—	1.20	CP05A1KC104K—	1.86	CP05A3KC104K—	1.26
.12	200V	CP04A1KC124K—	1.83	CP04A3KC124K—	1.23	CP05A1KC124K—	1.89	CP05A3KC124K—	1.29
.15	200V	CP04A1KC154K—	1.83	CP04A3KC154K—	1.23	CP05A1KC154K—	1.89	CP05A3KC154K—	1.29
.18	200V	CP04A1KC184K—	2.00	CP04A3KC184K—	1.40	CP05A1KC184K—	2.06	CP05A3KC184K—	1.46
.22	200V	CP04A1KC224K—	2.00	CP04A3KC224K—	1.40	CP05A1KC224K—	2.06	CP05A3KC224K—	1.46
.27	200V	CP04A1KC274K—	2.16	CP04A3KC274K—	1.56	CP05A1KC274K—	2.24	CP05A3KC274K—	1.64
.33	200V	CP04A1KC334K—	2.16	CP04A3KC334K—	1.56	CP05A1KC334K—	2.24	CP05A3KC334K—	1.64
.39	200V	CP04A1KC394K—	2.29	CP04A3KC394K—	1.69	CP05A1KC394K—	2.37	CP05A3KC394K—	1.77
.47	200V	CP04A1KC474K—	2.29	CP04A3KC474K—	1.69	CP05A1KC474K—	2.37	CP05A3KC474K—	1.77
.56	200V	CP04A1KC564K—	2.42	CP04A3KC564K—	1.82	CP05A1KC564K—	2.50	CP05A3KC564K—	1.90
.68	200V	CP04A1KC684K—	2.42	CP04A3KC684K—	1.82	CP05A1KC684K—	2.50	CP05A3KC684K—	1.90
.82	200V	CP04A1KC824K—	2.90	CP04A3KC824K—	2.30	CP05A1KC824K—	2.98	CP05A3KC824K—	2.38
1.0	200V	CP04A1KC105K—	2.90	CP04A3KC105K—	2.30	CP05A1KC105K—	2.98	CP05A3KC105K—	2.38
.0082	400V	CP04A1KE822K—	1.72	CP04A3KE822K—	1.12	CP05A1KE822K—	1.78	CP05A3KE822K—	1.18
.01	400V	CP04A1KE103K—	1.72	CP04A3KE103K—	1.12	CP05A1KE103K—	1.78	CP05A3KE103K—	1.18
.027	400V	CP04A1KE273K—	1.78	CP04A3KE273K—	1.18	CP05A1KE273K—	1.84	CP05A3KE273K—	1.24
.033	400V	CP04A1KE333K—	1.78	CP04A3KE333K—	1.18	CP05A1KE333K—	1.84	CP05A3KE333K—	1.24
.039	400V	CP04A1KE393K—	1.85	CP04A3KE393K—	1.25	CP05A1KE393K—	1.91	CP05A3KE393K—	1.31
.047	400V	CP04A1KE473K—	1.85	CP04A3KE473K—	1.25	CP05A1KE473K—	1.91	CP05A3KE473K—	1.31
.056	400V	CP04A1KE563K—	1.89	CP04A3KE563K—	1.29	CP05A1KE563K—	1.95	CP05A3KE563K—	1.35
.068	400V	CP04A1KE683K—	1.89	CP04A3KE683K—	1.29	CP05A1KE683K—	1.95	CP05A3KE683K—	1.35
.082	400V	CP04A1KE823K—	1.94	CP04A3KE823K—	1.34	CP05A1KE823K—	2.00	CP05A3KE823K—	1.40
.1	400V	CP04A1KE104K—	1.94	CP04A3KE104K—	1.34	CP05A1KE104K—	2.00	CP05A3KE104K—	1.40
.12	400V	CP04A1KE124K—	2.11	CP04A3KE124K—	1.51	CP05A1KE124K—	2.19	CP05A3KE124K—	1.59
.15	400V	CP04A1KE154K—	2.11	CP04A3KE154K—	1.51	CP05A1KE154K—	2.19	CP05A3KE154K—	1.59
.18	400V	CP04A1KE184K—	2.24	CP04A3KE184K—	1.64	CP05A1KE184K—	2.32	CP05A3KE184K—	1.72
.22	400V	CP04A1KE224K—	2.24	CP04A3KE224K—	1.64	CP05A1KE224K—	2.32	CP05A3KE224K—	1.72
.27	400V	CP04A1KE274K—	2.29	CP04A3KE274K—	1.69	CP05A1KE274K—	2.37	CP05A3KE274K—	1.77
.33	400V	CP04A1KE334K—	2.29	CP04A3KE334K—	1.69	CP05A1KE334K—	2.37	CP05A3KE334K—	1.77
.39	400V	CP04A1KE394K—	2.73	CP04A3KE394K—	2.13	CP05A1KE394K—	2.81	CP05A3KE394K—	2.21
.47	400V	CP04A1KE474K—	2.73	CP04A3KE474K—	2.13	CP05A1KE474K—	2.81	CP05A3KE474K—	2.21
.56	400V	CP04A1KE564K—	3.63	CP04A3KE564K—	3.03	CP05A1KE564K—	3.73	CP05A3KE564K—	3.11
.68	400V	CP04A1KE684K—	3.63	CP04A3KE684K—	3.03	CP05A1KE684K—	3.73	CP05A3KE684K—	3.11
.82	400V	CP04A1KE824K—	3.76	CP04A3KE824K—	3.16	CP05A1KE824K—	3.86	CP05A3KE824K—	3.26
1.0	400V	CP04A1KE105K—	3.76	CP04A3KE105K—	3.16	CP05A1KE105K—	3.86	CP05A3KE105K—	3.26
.001	600V	CP04A1KF102K—	1.67	CP04A3KF102K—	1.07	CP05A1KF102K—	1.73	CP05A3KF102K—	1.13
.0012	600V	CP04A1KF122K—	1.67	CP04A3KF122K—	1.07	CP05A1KF122K—	1.73	CP05A3KF122K—	1.13
.0015	600V	CP04A1KF152K—	1.67	CP04A3KF152K—	1.07	CP05A1KF152K—	1.73	CP05A3KF152K—	1.13
.0018	600V	CP04A1KF182K—	1.67	CP04A3KF182K—	1.07	CP05A1KF182K—	1.73	CP05A3KF182K—	1.13
.0022	600V	CP04A1KF222K—	1.67	CP04A3KF222K—	1.07	CP05A1KF222K—	1.73	CP05A3KF222K—	1.13
.0027	600V	CP04A1KF272K—	1.72	CP04A3KF272K—	1.12	CP05A1KF272K—	1.78	CP05A3KF272K—	1.18
.0033	600V	CP04A1KF332K—	1.72	CP04A3KF332K—	1.12	CP05A1KF332K—	1.78	CP05A3KF332K—	1.18
.0039	600V	CP04A1KF392K—	1.72	CP04A3KF392K—	1.12	CP05A1KF392K—	1.78	CP05A3KF392K—	1.18
.0047	600V	CP04A1KF472K—	1.72	CP04A3KF472K—	1.12	CP05A1KF472K—	1.78	CP05A3KF472K—	1.18
.0056	600V	CP04A1KF562K—	1.72	CP04A3KF562K—	1.12	CP05A1KF562K—	1.78	CP05A3KF562K—	1.18
.0068	600V	CP04A1KF682K—	1.72	CP04A3KF682K—	1.12	CP05A1KF682K—	1.78	CP05A3KF682K—	1.18
.0082	600V	CP04A1KF822K—	1.76	CP04A3KF822K—	1.16	CP05A1KF822K—	1.82	CP05A3KF822K—	1.24
.01	600V	CP04A1KF103K—	1.76	CP04A3KF103K—	1.16	CP05A1KF103K—	1.82	CP05A3KF103K—	1.24
.012	600V	CP04A1KF123K—	1.80	CP04A3KF123K—	1.20	CP05A1KF123K—	1.86	CP05A3KF123K—	1.26
.015	600V	CP04A1KF153K—	1.80	CP04A3KF153K—	1.20	CP05A1KF153K—	1.86	CP05A3KF153K—	1.26
.018	600V	CP04A1KF183K—	1.80	CP04A3KF183K—	1.20	CP05A1KF183K—	1.86	CP05A3KF183K—	1.26
.022	600V	CP04A1KF223K—	1.80	CP04A3KF223K—	1.20	CP05A1KF223K—	1.86	CP05A3KF223K—	1.26
.027	600V	CP04A1KF273K—	1.87	CP04A3KF273K—	1.27	CP05A1KF273K—	1.93	CP05A3KF273K—	1.33
.033	600V	CP04A1KF333K—	1.87	CP04A3KF333K—	1.27	CP05A1KF333K—	1.93	CP05A3KF333K—	1.33
.039	600V	CP04A1KF393K—	1.89	CP04A3KF393K—	1.29	CP05A1KF393K—	1.95	CP05A3KF393K—	1.35
.047	600V	CP04A1KF473K—	1.89	CP04A3KF473K—	1.29	CP05A1KF473K—	1.95	CP05A3KF473K—	1.35

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499

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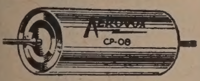
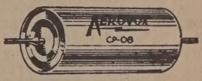
AEROVOX *Capacitors*

		CP04, CHAR. K				CP05, CHAR. K			
		P323S		P323SG		P323SP		P323SGP	
		NO TUBE				PLASTIC TUBE			
APACITY	VOLTAGE	Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.056	600V	CP04A1KF563K—	$1.98	CP04A3KF563K—	$1.38	CP05A1KF563K—	$2.04	CP05A3KF563K—	$1.44
.068	600V	CP04A1KF683K—	1.98	CP04A3KF683K—	1.38	CP05A1KF683K—	2.04	CP05A3KF683K—	1.44
.082	600V	CP04A1KF823K—	2.11	CP04A3KF823K—	1.51	CP05A1KF823K—	2.19	CP05A3KF823K—	1.59
.1	600V	CP04A1KF104K—	2.11	CP04A3KF104K—	1.51	CP05A1KF104K—	2.19	CP05A3KF104K—	1.59
.12	600V	CP04A1KF124K—	2.20	CP04A3KF124K—	1.60	CP05A1KF124K—	2.28	CP05A3KF124K—	1.66
.15	600V	CP04A1KF154K—	2.20	CP04A3KF154K—	1.60	CP05A1KF154K—	2.28	CP05A3KF154K—	1.66
.18	600V	CP04A1KF184K—	2.38	CP04A3KF184K—	1.78	CP05A1KF184K—	2.46	CP05A3KF184K—	1.84
.22	600V	CP04A1KF224K—	2.38	CP04A3KF224K—	1.78	CP05A1KF224K—	2.46	CP05A3KF224K—	1.84
.27	600V	CP04A1KF274K—	2.64	CP04A3KF274K—	2.04	CP05A1KF274K—	2.72	CP05A3KF274K—	2.12
.33	600V	CP04A1KF334K—	2.64	CP04A3KF334K—	2.04	CP05A1KF334K—	2.72	CP05A3KF334K—	2.12
.39	600V	CP04A1KF394K—	2.97	CP04A3KF394K—	2.37	CP05A1KF394K—	3.07	CP05A3KF394K—	2.47
.47	600V	CP04A1KF474K—	2.97	CP04A3KF474K—	2.37	CP05A1KF474K—	3.07	CP05A3KF474K—	2.47
.56	600V	CP04A1KF564K—	3.70	CP04A3KF564K—	3.10	CP05A1KF564K—	3.80	CP05A3KF564K—	3.20
.68	600V	CP04A1KF684K—	3.70	CP04A3KF684K—	3.10	CP05A1KF684K—	3.80	CP05A3KF684K—	3.20
.015	1000V	CP04A1KG153K—	2.07	CP04A3KG153K—	1.38	CP05A1KG153K—	2.14	CP05A3KG153K—	1.45
.018	1000V	CP04A1KG183K—	2.07	CP04A3KG183K—	1.38	CP05A1KG183K—	2.14	CP05A3KG183K—	1.45
.022	1000V	CP04A1KG223K—	2.07	CP04A3KG223K—	1.38	CP05A1KG223K—	2.14	CP05A3KG223K—	1.45
.027	1000V	CP04A1KG273K—	2.15	CP04A3KG273K—	1.46	CP05A1KG273K—	2.22	CP05A3KG273K—	1.53
.033	1000V	CP04A1KG333K—	2.15	CP04A3KG333K—	1.46	CP05A1KG333K—	2.22	CP05A3KG333K—	1.53
.039	1000V	CP04A1KG393K—	2.17	CP04A3KG393K—	1.48	CP05A1KG393K—	2.24	CP05A3KG393K—	1.55
.047	1000V	CP04A1KG473K—	2.17	CP04A3KG473K—	1.48	CP05A1KG473K—	2.24	CP05A3KG473K—	1.55
.056	1000V	CP04A1KG563K—	2.28	CP04A3KG563K—	1.59	CP05A1KG563K—	2.35	CP05A3KG563K—	1.66
.068	1000V	CP04A1KG683K—	2.28	CP04A3KG683K—	1.59	CP05A1KG683K—	2.35	CP05A3KG683K—	1.66
.082	1000V	CP04A1KG823K—	2.43	CP04A3KG823K—	1.74	COP5A1KG823K—	2.52	CP05A3KG823K—	1.83
.1	1000V	CP04A1KG104K—	2.43	CP04A3KG104K—	1.74	CP05A1KG104K—	2.52	CP05A3KG104K—	1.83
.12	1000V	CP04A1KG124K—	2.53	CP04A3KG124K—	1.84	CP05A1KG124K—	2.62	CP05A3KG124K—	1.91
.15	1000V	CP04A1KG154K—	2.53	CP04A3KG154K—	1.84	CP05A1KG154K—	2.62	CP05A3KG154K—	1.91
.18	1000V	CP04A1KG184K—	2.74	CP04A3KG184K—	2.05	CP05A1KG184K—	2.83	CP05A3KG184K—	2.12
.22	1000V	CP04A1KG224K—	2.74	CP04A3KG224K—	2.05	CP05A1KG224K—	2.83	CP05A3KG224K—	2.12
.27	1000V	CP04A1KG274K—	3.04	CP04A3KG274K—	2.35	CP05A1KG274K—	3.13	CP05A3KG274K—	2.44
.33	1000V	CP04A1KG334K—	3.04	CP04A3KG334K—	2.35	CP05A1KG334K—	3.13	CP05A3KG334K—	2.44
.39	1000V	CP04A1KG394K—	3.42	CP04A3KG394K—	2.73	CP05A1KG394K—	3.53	CP05A3KG394K—	2.84
.47	1000V	CP04A1KG474K—	3.42	CP04A3KG474K—	2.73	CP05A1KG474K—	3.53	CP05A3KG474K—	2.84



INDUSTRIAL SECTION — MIL TYPES

MIL-C-25C



TYPES CP08 and CP09—Characteristics K Vibration Grades 1 and 3

metically sealed tubular capacitors with glass terminal seal and axial wire leads. CP04 and CP05 are inserted tab construction; CP08 and CP09 are extended construction. Standard tolerance is ±10% (K). Specify Vibration Grade when ordering.

		CP08, CHAR. K				CP09, CHAR. K			
		P323SX		P323SXG		P323SXP		P323SXGP	
		NO TUBE				PLASTIC TUBE			
PACITY	VOLTAGE	Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.0082	100V	CP08A1KB822K—	$1.67	CP08A3KB822K—	$1.07	CP09A1KB822K—	$1.73	CP09A3KB822K—	$1.13
.01	100V	CP08A1KB103K—	1.67	CP08A3KB103K—	1.07	CP09A1KB103K—	1.73	CP09A3KB103K—	1.13
.012	100V	CP08A1KB123K—	1.67	CP08A3KB123K—	1.07	CP09A1KB123K—	1.73	CP09A3KB123K—	1.13
.015	100V	CP08A1KB153K—	1.67	CP08A3KB153K—	1.07	CP09A1KB153K—	1.73	CP09A3KB153K—	1.13
.039	100V	CP08A1KB393K—	1.80	CP08A3KB393K—	1.20	CP09A1KB393K—	1.86	CP09A3KB393K—	1.26
.047	100V	CP08A1KB473K—	1.80	CP08A3KB473K—	1.20	CP09A1KB473K—	1.86	CP09A3KB473K—	1.26
.082	100V	CP08A1KB823K—	1.85	CP08A3KB823K—	1.25	CP09A1KB823K—	1.91	CP09A3KB823K—	1.31
.1	100V	CP08A1KB104K—	1.85	CP08A3KB104K—	1.25	CP09A1KB104K—	1.91	CP09A3KB104K—	1.31
.12	100V	CP08A1KB124K—	1.85	CP08A3KB124K—	1.25	CP09A1KB124K—	1.91	CP09A3KB124K—	1.31
.15	100V	CP08A1KB154K—	1.85	CP08A3KB154K—	1.25	CP09A1KB154K—	1.91	CP09A3KB154K—	1.31
.18	100V	CP08A1KB184K—	1.98	CP08A3KB184K—	1.38	CP09A1KB184K—	2.04	CP09A3KB184K—	1.44
.22	100V	CP08A1KB224K—	1.98	CP08A3KB224K—	1.38	CP09A1KB224K—	2.04	CP09A3KB224K—	1.44
.27	100V	CP08A1KB274K—	2.20	CP08A3KB274K—	1.60	CP09A1KB274K—	2.28	CP09A3KB274K—	1.68
.33	100V	CP08A1KB334K—	2.20	CP08A3KB334K—	1.60	CP09A1KB334K—	2.28	CP09A3KB334K—	1.68
.39	100V	CP08A1KB394K—	2.29	CP08A3KB394K—	1.69	CP09A1KB394K—	2.37	CP09A3KB394K—	1.77
.47	100V	CP08A1KB474K—	2.29	CP08A3KB474K—	1.69	CP09A1KB474K—	2.37	CP09A3KB474K—	1.77
.56	100V	CP08A1KB564K—	2.46	CP08A3KB564K—	1.86	CP09A1KB564K—	2.54	CP09A3KB564K—	1.94
.68	100V	CP08A1KB684K—	2.46	CP08A3KB684K—	1.86	CP09A1KB684K—	2.54	CP09A3KB684K—	1.94
.82	100V	CP08A1KB824K—	2.64	CP08A3KB824K—	2.04	CP09A1KB824K—	2.72	CP09A3KB824K—	2.12
1.0	100V	CP08A1KB105K—	2.64	CP08A3KB105K—	2.04	CP09A1KB105K—	2.72	CP09A3KB105K—	2.12
.0039	200V	CP08A1KC392K—	1.69	CP08A3KC392K—	1.09	CP09A1KC392K—	1.75	CP09A3KC392K—	1.15
.0047	200V	CP08A1KC472K—	1.69	CP08A3KC472K—	1.09	CP09A1KC472K—	1.75	CP09A3KC472K—	1.15
.0056	200V	CP08A1KC562K—	1.72	CP08A3KC562K—	1.12	CP09A1KC562K—	1.78	CP09A3KC562K—	1.18
.0068	200V	CP08A1KC682K—	1.72	CP08A3KC682K—	1.12	CP09A1KC682K—	1.78	CP09A3KC682K—	1.18
.018	200V	CP08A1KC183K—	1.85	CP08A3KC183K—	1.25	CP09A1KC183K—	1.91	CP09A3KC183K—	1.31
.022	200V	CP08A1KC223K—	1.85	CP08A3KC223K—	1.25	CP09A1KC223K—	1.91	CP09A3KC223K—	1.31
.027	200V	CP08A1KC273K—	1.85	CP08A3KC273K—	1.25	CP09A1KC273K—	1.91	CP09A3KC273K—	1.31
.033	200V	CP08A1KC333K—	1.85	CP08A3KC333K—	1.25	CP09A1KC333K—	1.91	CP09A3KC333K—	1.31
.039	200V	CP08A1KC393K—	1.89	CP08A3KC393K—	1.29	CP09A1KC393K—	1.95	CP09A3KC393K—	1.35
.047	200V	CP08A1KC473K—	1.89	CP08A3KC473K—	1.29	CP09A1KC473K—	1.95	CP09A3KC473K—	1.35
.056	200V	CP08A1KC563K—	1.89	CP08A3KC563K—	1.29	CP09A1KC563K—	1.95	CP09A3KC563K—	1.35
.068	200V	CP08A1KC683K—	1.89	CP08A3KC683K—	1.29	CP09A1KC683K—	1.95	CP09A3KC683K—	1.35
.082	200V	CP08A1KC823K—	1.91	CP08A3KC823K—	1.31	CP09A1KC823K—	1.97	CP09A3KC823K—	1.37
.1	200V	CP08A1KC104K—	1.91	CP08A3KC104K—	1.31	CP09A1KC104K—	1.97	CP09A3KC104K—	1.37
.12	200V	CP08A1KC124K—	1.98	CP08A3KC124K—	1.38	CP09A1KC124K—	2.04	CP09A3KC124K—	1.44
.15	200V	CP08A1KC154K—	1.98	CP08A3KC154K—	1.38	CP09A1KC154K—	2.04	CP09A3KC154K—	1.44
.18	200V	CP08A1KC184K—	2.11	CP08A3KC184K—	1.51	CP09A1KC184K—	2.19	CP09A3KC184K—	1.59
.22	200V	CP08A1KC224K—	2.11	CP08A3KC224K—	1.51	CP09A1KC224K—	2.19	CP09A3KC224K—	1.59
.27	200V	CP08A1KC274K—	2.24	CP08A3KC274K—	1.64	CP09A1KC274K—	2.32	CP09A3KC274K—	1.72

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

AEROVOX *Capacitors*

CAPACITY	VOLTAGE	CP08, CHAR. K NO TUBE P323SX		P323SXG		CP09, CHAR. K PLASTIC TUBE P323SXP		P323SXGP	
		Case Floating	Net Price★	Case Grounded	Net Price★	Case Floating	Net Price★	Case Grounded	Net Price★
.33	200V	CP08A1KC334K—	$2.24	CP08A3KC334K—	$1.64	CP09A1KC334K—	$2.32	CP09A3KC334K—	$1.72
.39	200V	CP08A1KC394K—	2.33	CP08A3KC394K—	1.73	CP09A1KC394K—	2.41	CP09A3KC394K—	1.81
.47	200V	CP08A1KC474K—	2.33	CP08A3KC474K—	1.73	CP09A1KC474K—	2.41	CP09A3KC474K—	1.81
.56	200V	CP08A1KC564K—	2.64	CP08A3KC564K—	2.04	CP09A1KC564K—	2.72	CP09A3KC564K—	2.12
.68	200V	CP08A1KC684K—	2.64	CP08A3KC684K—	2.04	CP09A1KC684K—	2.72	CP09A3KC684K—	2.12
.82	200V	CP08A1KC824K—	2.97	CP08A3KC824K—	2.37	CP09A1KC824K—	3.07	CP09A3KC824K—	2.47
1.0	200V	CP08A1KC105K—	2.97	CP08A3KC105K—	2.37	CP09A1KC105K—	3.07	CP09A3KC105K—	2.47
.0027	400V	CP08A1KE272K—	1.76	CP08A3KE272K—	1.16	CP09A1KE272K—	1.82	CP09A3KE272K—	1.22
.0033	400V	CP08A1KE332K—	1.76	CP08A3KE332K—	1.16	CP09A1KE332K—	1.82	CP09A3KE332K—	1.22
.012	400V	CP08A1KE123K—	1.89	CP08A3KE123K—	1.29	CP09A1KE123K—	1.95	CP09A3KE123K—	1.35
.015	400V	CP08A1KE153K—	1.89	CP08A3KE153K—	1.29	CP09A1KE153K—	1.95	CP09A3KE153K—	1.35
.027	400V	CP08A1KE273K—	1.94	CP08A3KE273K—	1.34	CP09A1KE273K—	2.00	CP09A3KE273K—	1.40
.033	400V	CP08A1KE333K—	1.94	CP08A3KE333K—	1.34	CP09A1KE333K—	2.00	CP09A3KE333K—	1.40
.039	400V	CP08A1KE393K—	1.98	CP08A3KE393K—	1.38	CP09A1KE393K—	2.04	CP09A3KE393K—	1.44
.047	400V	CP08A1KE473K—	1.98	CP08A3KE473K—	1.38	CP09A1KE473K—	2.04	CP09A3KE473K—	1.44
.056	400V	CP08A1KE563K—	1.98	CP08A3KE563K—	1.38	CP09A1KE563K—	2.04	CP09A3KE563K—	1.44
.068	400V	CP08A1KE683K—	1.98	CP08A3KE683K—	1.38	CP09A1KE683K—	2.04	CP09A3KE683K—	1.44
.082	400V	CP08A1KE823K—	2.11	CP08A3KE823K—	1.51	CP09A1KE823K—	2.19	CP09A3KE823K—	1.59
.1	400V	CP08A1KE104K—	2.11	CP08A3KE104K—	1.51	CP09A1KE104K—	2.19	CP09A3KE104K—	1.59
.12	400V	CP08A1KE124K—	2.20	CP08A3KE124K—	1.60	CP09A1KE124K—	2.28	CP09A3KE124K—	1.68
.15	400V	CP08A1KE154K—	2.20	CP08A3KE154K—	1.60	CP09A1KE154K—	2.28	CP09A3KE154K—	1.68
.18	400V	CP08A1KE184K—	2.33	CP08A3KE184K—	1.73	CP09A1KE184K—	2.41	CP09A3KE184K—	1.81
.22	400V	CP08A1KE224K—	2.33	CP08A3KE224K—	1.73	CP09A1KE224K—	2.41	CP09A3KE224K—	1.81
.27	400V	CP08A1KE274K—	2.55	CP08A3KE274K—	1.95	CP09A1KE274K—	2.63	CP09A3KE274K—	2.03
.33	400V	CP08A1KE334K—	2.55	CP08A3KE334K—	1.95	CP09A1KE334K—	2.63	CP09A3KE334K—	2.03
.39	400V	CP08A1KE394K—	2.95	CP08A3KE394K—	2.35	CP09A1KE394K—	3.05	CP09A3KE394K—	2.45
.47	400V	CP08A1KE474K—	2.95	CP08A3KE474K—	2.35	CP09A1KE474K—	3.05	CP09A3KE474K—	2.45
.001	600V	CP08A1KF102K—	1.76	CP08A3KF102K—	1.16	CP09A1KF102K—	1.82	CP09A3KF102K—	1.22
.0012	600V	CP08A1KF122K—	1.76	CP08A3KF122K—	1.16	CP09A1KF122K—	1.82	CP09A3KF122K—	1.22
.0015	600V	CP08A1KF152K—	1.76	CP08A3KF152K—	1.16	CP09A1KF152K—	1.82	CP09A3KF152K—	1.22
.0018	600V	CP08A1KF182K—	1.76	CP08A3KF182K—	1.16	CP09A1KF182K—	1.82	CP09A3KF182K—	1.22
.0022	600V	CP08A1KF222K—	1.76	CP08A3KF222K—	1.16	CP09A1KF222K—	1.82	CP09A3KF222K—	1.22
.0027	600V	CP08A1KF272K—	1.80	CP08A3KF272K—	1.20	CP09A1KF272K—	1.86	CP09A3KF272K—	1.26
.0033	600V	CP08A1KF332K—	1.80	CP08A3KF332K—	1.20	CP09A1KF332K—	1.86	CP09A3KF332K—	1.26
.0039	600V	CP08A1KF392K—	1.87	CP08A3KF392K—	1.27	CP09A1KF392K—	1.93	CP09A3KF392K—	1.33
.0047	600V	CP08A1KF472K—	1.87	CP08A3KF472K—	1.27	CP09A1KF472K—	1.93	CP09A3KF472K—	1.33
.0056	600V	CP08A1KF562K—	1.89	CP08A3KF562K—	1.29	CP09A1KF562K—	1.95	CP09A3KF562K—	1.35
.0068	600V	CP08A1KF682K—	1.89	CP08A3KF682K—	1.29	CP09A1KF682K—	1.95	CP09A3KF682K—	1.35
.0082	600V	CP08A1KF822K—	1.91	CP08A3KF822K—	1.31	CP09A1KF822K—	1.97	CP09A3KF822K—	1.37
.01	600V	CP08A1KF103K—	1.91	CP08A3KF103K—	1.31	CP09A1KF103K—	1.97	CP09A3KF103K—	1.37
.012	600V	CP08A1KF123K—	1.94	CP08A3KF123K—	1.34	CP09A1KF123K—	2.00	CP09A3KF123K—	1.40
.015	600V	CP08A1KF153K—	1.94	CP08A3KF153K—	1.34	CP09A1KF153K—	2.00	CP09A3KF153K—	1.40
.018	600V	CP08A1KF183K—	1.96	CP08A3KF183K—	1.36	CP09A1KF183K—	2.02	CP09A3KF183K—	1.42
.022	600V	CP08A1KF223K—	1.96	CP08A3KF223K—	1.36	CP09A1KF223K—	2.02	CP09A3KF223K—	1.42
.027	600V	CP08A1KF273K—	1.96	CP08A3KF273K—	1.36	CP09A1KF273K—	2.02	CP09A3KF273K—	1.42
.033	600V	CP08A1KF333K—	1.96	CP08A3KF333K—	1.36	CP09A1KF333K—	2.02	CP09A3KF333K—	1.42
.039	600V	CP08A1KF393K—	2.02	CP08A3KF393K—	1.42	CP09A1KF393K—	2.08	CP09A3KF393K—	1.48
.047	600V	CP08A1KF473K—	2.02	CP08A3KF473K—	1.42	CP09A1KF473K—	2.08	CP09A3KF473K—	1.48
.056	600V	CP08A1KF563K—	2.16	CP08A3KF563K—	1.56	CP09A1KF563K—	2.24	CP09A3KF563K—	1.64
.068	600V	CP08A1KF683K—	2.16	CP08A3KF683K—	1.56	CP09A1KF683K—	2.24	CP09A3KF683K—	1.64
.082	600V	CP08A1KF823K—	2.20	CP08A3KF823K—	1.60	CP09A1KF823K—	2.28	CP09A3KF823K—	1.68
.1	600V	CP08A1KF104K—	2.20	CP08A3KF104K—	1.60	CP09A1KF104K—	2.28	CP09A3KF104K—	1.68
.12	600V	CP08A1KF124K—	2.33	CP08A3KF124K—	1.73	CP09A1KF124K—	2.41	CP09A3KF124K—	1.81
.15	600V	CP08A1KF154K—	2.33	CP08A3KF154K—	1.73	CP09A1KF154K—	2.41	CP09A3KF154K—	1.81
.18	600V	CP08A1KF184K—	2.64	CP08A3KF184K—	2.04	CP09A1KF184K—	2.72	CP09A3KF184K—	2.12
.22	600V	CP08A1KF224K—	2.64	CP08A3KF224K—	2.04	CP09A1KF224K—	2.72	CP09A3KF224K—	2.12
.27	600V	CP08A1KF274K—	2.95	CP08A3KF274K—	2.35	CP09A1KF274K—	3.05	CP09A3KF274K—	2.45
.33	600V	CP08A1KF334K—	2.95	CP08A3KF334K—	2.35	CP09A1KF334K—	3.05	CP09A3KF334K—	2.45
.39	600V	CP08A1KF394K—	3.08	CP08A3KF394K—	2.48	CP09A1KF394K—	3.18	CP09A3KF394K—	2.58
.47	600V	CP08A1KF474K—	3.08	CP08A3KF474K—	2.48	CP09A1KF474K—	3.18	CP09A3KF474K—	2.58
.001	1000V	CP08A1KG102K—	2.02	CP08A3KG102K—	1.33	CP09A1KG102K—	2.09	CP09A3KG102K—	1.40
.0012	1000V	CP08A1KG122K—	2.02	CP08A3KG122K—	1.33	CP09A1KG122K—	2.09	CP09A3KG122K—	1.40
.0015	1000V	CP08A1KG152K—	2.02	CP08A3KG152K—	1.33	CP09A1KG152K—	2.09	CP09A3KG152K—	1.40
.0018	1000V	CP08A1KG182K—	2.02	CP08A3KG182K—	1.33	CP09A1KG182K—	2.09	CP09A3KG182K—	1.40
.0022	1000V	CP08A1KG222K—	2.02	CP08A3KG222K—	1.33	CP09A1KG222K—	2.09	CP09A3KG222K—	1.40
.0027	1000V	CP08A1KG272K—	2.07	CP08A3KG272K—	1.38	CP09A1KG272K—	2.14	CP09A3KG272K—	1.44
.0033	1000V	CP08A1KG332K—	2.07	CP08A3KG332K—	1.38	CP09A1KG332K—	2.14	CP09A3KG332K--	1.44
.0039	1000V	CP08A1KG392K—	2.15	CP08A3KG392K—	1.46	CP09A1KG392K—	2.22	CP09A3KG392K—	1.52
.0047	1000V	CP08A1KG472K—	2.15	CP08A3KG472K—	1.46	CP09A1KG472K—	2.22	CP09A3KG472K—	1.52
.0056	1000V	CP08A1KG562K—	2.17	CP08A3KG562K—	1.48	CP09A1KG562K—	2.24	CP09A3KG562K—	1.55
.0068	1000V	CP08A1KG682K—	2.17	CP08A3KG682K—	1.48	CP09A1KG682K—	2.24	CP09A3KG682K—	1.55
.0082	1000V	CP08A1KG822K—	2.20	CP08A3KG822K—	1.51	CP09A1KG822K—	2.27	CP09A3KG822K—	1.58
.01	1000V	CP08A1KG103K—	2.20	CP08A3KG103K—	1.51	CP09A1KG103K—	2.27	CP09A3KG103K—	1.58
.012	1000V	CP08A1KG123K—	2.23	CP08A3KG123K—	1.54	CP09A1KG123K—	2.30	CP09A3KG123K—	1.61
.015	1000V	CP08A1KG153K—	2.23	CP08A3KG153K—	1.54	CP09A1KG153K—	2.30	CP09A3KG153K—	1.61
.018	1000V	CP08A1KG183K—	2.25	CP08A3KG183K—	1.56	CP09A1KG183K—	2.32	CP09A3KG183K—	1.63
.022	1000V	CP08A1KG223K—	2.25	CP08A3KG223K—	1.56	CP09A1KG223K—	2.32	CP09A3KG223K—	1.63
.027	1000V	CP08A1KG273K—	2.25	CP08A3KG273K—	1.56	CP09A1KG273K—	2.32	CP09A3KG273K—	1.63
.033	1000V	CP08A1KG333K—	2.25	CP08A3KG333K—	1.56	CP09A1KG333K—	2.32	CP09A3KG333K—	1.63
.039	1000V	CP08A1KG393K—	2.32	CP08A3KG393K—	1.63	CP09A1KG393K—	2.39	CP09A3KG393K—	1.70
.047	1000V	CP08A1KG473K—	2.32	CP08A3KG473K—	1.63	CP09A1KG473K—	2.39	CP09A3KG473K—	1.70
.056	1000V	CP08A1KG563K—	2.48	CP08A3KG563K—	1.79	CP09A1KG563K—	2.58	CP09A3KG563K—	1.89
.068	1000V	CP08A1KG683K—	2.48	CP08A3KG683K—	1.79	CP09A1KG683K—	2.58	CP09A3KG683K—	1.89
.082	1000V	CP08A1KG823K—	2.53	CP08A3KG823K—	1.84	CP09A1KG823K—	2.62	CP09A3KG823K—	1.93
.1	1000V	CP08A1KG104K—	2.53	CP08A3KG104K—	1.84	CP09A1KG104K—	2.62	CP09A3KG104K—	1.93
.12	1000V	CP08A1KG124K—	2.68	CP08A3KG124K—	1.99	CP09A1KG124K—	2.77	CP09A3KG124K—	2.08
.15	1000V	CP08A1KG154K—	2.68	CP08A3KG154K—	1.99	CP09A1KG154K—	2.77	CP09A3KG154K—	2.08
.18	1000V	CP08A1KG184K—	3.04	CP08A3KG184K—	2.35	CP09A1KG184K—	3.13	CP09A3KG184K—	2.44
.22	1000V	CP08A1KG224K—	3.04	CP08A3KG224K—	2.35	CP09A1KG224K—	3.13	CP09A3KG224K—	2.44
.27	1000V	CP08A1KG274K—	3.39	CP08A3KG274K—	2.70	CP09A1KG274K—	3.51	CP09A3KG274K—	2.82
.33	1000V	CP08A1KG334K—	3.39	CP08A3KG334K—	2.70	CP09A1KG334K—	3.51	CP09A3KG334K—	2.82
.39	1000V	CP08A1KG394K—	3.54	CP08A3KG394K—	2.85	CP09A1KG394K—	3.66	CP09A3KG394K—	2.97
.47	1000V	CP08A1KG474K—	3.54	CP08A3KG474K—	2.85	CP09A1KG474K—	3.66	CP09A3KG474K—	2.97

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

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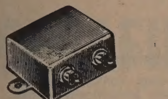
AEROVOX *Capacitors*

INDUSTRIAL SECTION — MIL TYPES MIL-C-25C



TYPES CP53, CP54, CP55

Hyvol J or H oil impregnated and filled, drawn-metal cased capacitors, immersion proof and hermetically sealed. This unusually compact "bathtub" type capacitor is the most popular of the small units for severe operating conditions. Available with terminals on side (CP53), top (CP54), or bottom (CP55). The standard tolerance on single section units is ±10% (K), on multiple section units +20 —10% (V).

CAP.	VOLT.	P30 SIDE TERM.	★Net Price	P30-T TOP TERM.	★Net Price	P30-B BOTTOM TERM.	★Net Price
2.0	100V	CP53B1EB205K	2.64				
4.0	100V	CP53B1EB405K	3.26				
1.0	200V	CP53B1EC105K	2.27				
2.0	200V	CP53B1EC205K	2.90				
.5	400V	CP53B1KE504K	2.02	CP54B1KE504K	2.02		
3X.5	400V	CP53B5EE504V	3.82				
.25	600V	CP53B1EF254K	1.91	CP54B1EF254K	1.91	CP55B1EF254K	1.91
.5	600V	CP53B1EF504K	2.06	CP54B1EF504K	2.06	CP55B1EF504K	2.06
1.0	600V	CP53B1EF105K	2.41	CP54B1EF105K	2.41	CP55B1EF105K	2.41
2.0	600V	CP53B1EF205K	3.22	CP54B1EF205K	3.22	CP55B1EF205K	3.22
2X.05	600V	CP53B4EF503V	2.47	CP54B4EF503V	2.47	CP55B4EF503V	2.47
2X.1	600V	CP53B4EF104V	2.51	CP54B4EF104V	2.51	CP55B4EF104V	2.51
2X.25	600V	CP53B4EF254V	2.59	CP54B4EF254V	2.59	CP55B4EF254V	2.59
2X.5	600V	CP53B4EF504V	2.95	CP54B4EF504V	2.95	CP55B4EF504V	2.95
2X1.0	600V	CP53B4EF105V	3.49	CP54B4EF105V	3.49	CP55B4EF105V	3.49
3X.1	600V	CP53B5EF104V	2.87	CP54B5EF104V	2.87	CP55B5EF104V	2.87
3X.25	600V	CP53B5EF254V	3.17	CP54B5EF254V	3.17	CP55B5EF254V	3.17
3X.5	600V	CP53B5EF504V	3.88	CP54B5EF504V	3.88	CP55B5EF504V	3.88
.05	1000V	CP53B1EG503K	1.84				
.1	1000V	CP53B1EG104K	1.95				
.25	1000V	CP53B1EG254K	2.02				
.5	1000V	CP53B1EG504K	2.16				
1.0	1000V	CP53B1EG105K	2.90				
2X.05	1000V	CP53B4EG503V	2.53				
2X.1	1000V	CP53B4EG104V	2.53				
2X.25	1000V	CP53B4EG254V	2.83				
2X.5	1000V	CP53B4EG504V	3.71				
3X.05	1000V	CP53B5EG503V	2.94				
3X.1	1000V	CP53B5EG104V	3.21				
3X.25	1000V	CP53B5EG254V	3.92				

CHARACTERISTIC F

CAP.	VOLT.	P30J SIDE TERM.	★Net Price
8.0	100V	CP53B1FB805K	4.86
10.0	100V	CP53B1FB106K	6.05

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

MIL-C-25C

CP63, CP65 — Characteristics E & K

Compact, Hyvol M or J oil impregnated and filled, rectangular units. Immersion proof and hermetically sealed. Dual secton has case grounded. Channel brackets attached. Standard tolerance on single section units, ±10% (K), on multiple section units +20 —10% (V).

Cap.	Voltage	P16-CT Top Term.	Net Price★	P16-CB Bottom Term.	Net Price★
.1	400V	CP63B1KE104K	1.90	CP65B1KE104K	1.90
.25	400V	CP63B1KE254K	1.94		
1.0	400V	CP63B1EE105K	2.21		
.05	600V	CP63B1EF503K	1.83	CP65B1EF503K	1.83
.25	600V	CP63B1EF254K	2.00	CP65B1EF254K	2.00
.5	600V	CP63B1EF504K	2.07	CP65B1EF504K	2.07
1.0	600V	CP63B1EF105K	2.31	CP65B1EF105K	2.31
2X.1	600V	CP63B6EF104V	2.51	CP65B6EF104V	2.51
2X.25	600V	CP63B6EF254V	2.66	CP65B6EF254V	2.66
2X.5	600V	CP63B6EF504V	2.81	CP65B6EF504V	2.81
.01	1000V	CP63B1EG103K	1.87	CP65B1EG103K	1.87
.02	1000V	CP63B1EG203K	1.87	CP65B1EG203K	1.87
.05	1000V	CP63B1EG503K	1.90	CP65B1EG503K	1.90
.1	1000V	CP63B1EG104K	1.98		
.25	1000V	CP63B1EG254K	1.99		
.5	1000V	CP63B1EG504K	2.20		

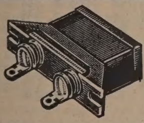
MIL-C-25C

CP91 — Characteristics E & K

Former issues of MIL-C-25 listed variations of this item as CP61 and CP90. CP91 base size 1⁵⁄₁₆ x ⅝. Brackets must be ordered separately. Specify CP091F (footed) or CP091S (spade).

Cap.	Voltage	P16 No Brackets	Net Price★
.1	400V	CP91B1EK104K	1.82
.25	400V	CP91B1EK254K	1.87
1.0	400V	CP91B1EE105K	2.13
.05	600V	CP91B1EF503K	1.75
.25	600V	CP91B1EF254K	1.92
.5	600V	CP91B1EF504K	1.99
1.0	600V	CP91B1EF105K	2.23
2X.05	600V	CP91B6EF503V	2.36
2X.1	600V	CP91B6EF104V	2.44
2X.25	600V	CP91B6EF254V	2.58
2X.5	600V	CP91B6EF504V	2.73
.01	1000V	CP91B1EG103K	1.79
.02	1000V	CP91B1EG203K	1.79
.05	1000V	CP91B1EG503K	1.82
.1	1000V	CP91B1EG104K	1.91
.25	1000V	CP91B1EG254K	1.92
.5	1000V	CP91B1EG504K	2.12

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499



MIL-C-25C

TYPES CP67, CP69 — Characteristics E

Hyvol M or J oil impregnated and filled unit, rectangular cased. Similar to CP91 except additional length in base size of 1¾ x ⁹⁄₁₆ permits 2 or 3 sections, case floating. Single units also can be used for special applications where type CP91 does not fit. Both CP67 and CP69 supplied with channel brackets attached. Standard tolerance on single section units ±10% (K), on multiple section units +20 —10% (V).

Capacity	Voltage	P18-CT Top Terminal	Net Price★	P18-CB Bottom Terminal	Net Price★
.05	600V	CP67B1EF503K	2.13	CP69B1EF503K	2.13
.1	600V	CP67B1EF104K	2.23	CP69B1EF104K	2.23
.25	600V	CP67B1EF254K	2.30	CP69B1EF254K	2.30
.5	600V	CP67B1EF504K	2.40	CP69B1EF504K	2.40
1.0	600V	CP67B1EF105K	2.63	CP69B1EF105K	2.63
2X.05	600V	CP67B4EF503V	2.64	CP69B4EF503V	2.64
2X.1	600V	CP67B4EF104V	2.69	CP69B4EF104V	2.69
2X.25	600V	CP67B4EF254V	2.90	CP69B4EF254V	2.90
2X.5	600V	CP67B4EF504V	3.25	CP69B4EF504V	3.25
3X.05	600V	CP67B5EF503V	3.15	CP69B5EF503V	3.15
3X.1	600V	CP67B5EF104V	3.24	CP69B5EF104V	3.24
3X.25	600V	CP67B5EF254V	3.52	CP69B5EF254V	3.52
.01	1000V	CP67B1EG103K	2.14	CP69B1EG103K	2.14
.02	1000V	CP67B1EG203K	2.16	CP69B1EG203K	2.16
.05	1000V	CP67B1EG503K	2.20	CP69B1EG503K	2.20

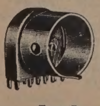
Capacity	Voltage	P18-CB Bottom Terminal	Net Price★
.1	1000V	CP69B1EG104K	2.27
.25	1000V	CP69B1EG254K	2.36
.5	1000V	CP69B1EG504K	2.53
2X.01	1000V	CP69B4EG103V	2.54
2X.02	1000V	CP69B4EG203V	2.61
2X.05	1000V	CP69B4EG503V	2.69
2X.1	1000V	CP69B4EG104V	2.78
2X.25	1000V	CP69B4EG254V	2.96
3X.01	1000V	CP69B5EG103V	3.12
3X.02	1000V	CP69B5EG203V	3.15
3X.05	1000V	CP69B5EG503V	3.25
3X.1	1000V	CP69B5EG104V	3.37

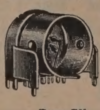
★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99, 100 to 499

RIGHT ANGLE TUBE SOCKETS

Type A

Type AX


Type B


Type BX

Ordering Example: RA7A = (Type 7 Pin Socket)

Available in 7-pin and 9-pin types in four styles, these sockets are designed to meet existing MIL Specifications. Active contacts are silver plated and non-fatiguing contact pressure provides proper insertion and withdrawal pressure with a minimum of contact resistance. Ideal for hand or mechanical insertion into printed-wiring boards using simple in-line punched round holes. Templates are furnished with each socket. Long terminals permit use of sockets on wide range of board thickness.

Type A — for general purpose applications.
Type AX — for special applications (military and commercial) where extra strength and rigidity are required.
Type B — same as Type A except tube shield shell added.
Type BX — same as Type AX except tube shield shell added.

RA 7 — 7 pin right angle tube socket. RA 9 — 9 pin right angle tube socket

Cat. No.	Net Price★
RA7A	.83
RA7AX	.85
RA7B	.90
RA7BX	1.08
RA9A	.99
RA9AX	1.01
RA9B	1.06
RA9BX	1.24

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 499

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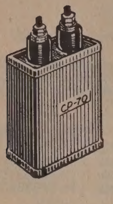


INDUSTRIAL SECTION — MIL TYPES

TYPE CP70 MIL-C-25C

Characteristics E and F • Porcelain and Riveted Terminals

Hyvol M or J oil impregnated and filled, large, rectangular, metal-cased capacitor for heavy-duty, continuous-service applications such as power supplied for transmitters, amplifiers, etc. immersion proof and hermetically sealed. Available with either high-voltage screw-type porcelain-pillar terminals or the space-saving riveted terminal. Pillar terminals have soldering lugs.

Standard tolerance ±10% (K). MIL-C-25C mounting brackets are also available for all units.

Units meet Vibration Grade 1 of MIL-C-25C—Designated by addition of numeral 1 to part number.

Capacity	Voltage	CHAR. E P09 Porc. Term	Case Size and Brkt. Desig.	Net Price★	CHAR. F P09 Porc. Term	Case Size and Brkt. Desig.	Net Price★	CHAR. E P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price★	CHAR. F P09-R Rivet Term	Case Size and Brkt. Desig.	Net Price★
1.0	600V	CP70E1EF105K	A2	3.62				CP70B1EF105K	A2	3.06			
2.0	600V	CP70E1EF205K	A4	4.29	CP70E1FF205K	A3	4.09	CP70B1EF205K	A4	3.96	CP70B1FF205K	A3	3.77
4.0	600V	CP70E1EF405K	B4	5.68	CP70E1FF405K	B3	5.58	CP70B1EF405K	B4	5.52	CP70B1FF405K	B3	5.26
6.0	600V	CP70E1EF605K	C2	6.86	CP70E1FF605K	B6	6.55	CP70B1EF605K	C2	6.54	CP70B1FF605K	B6	6.23
8.0	600V	CP70E1EF805K	C3	8.43	CP70E1FF805K	C2	8.07	CP70B1EF805K	C3	7.89	CP70B1FF805K	C2	7.75
10.0	600V	CP70E1EF106K	D3	9.11	CP70E1FF106K	C4	8.69	CP70B1EF106K	D3	8.78	CP70B1FF106K	C4	8.37
.1	1000V	CP70E1EG104K	A1	2.70									
.25	1000V	CP70E1EG254K	A2	3.06									
.5	1000V	CP70E1EG504K	A2	3.24									
1.0	1000V	CP70E1EG105K	A3	4.14	CP70E1FG105K	A2	3.84	CP70B1EG105K	A3	3.68			
2.0	1000V	CP70E1EG205K	A6	5.41	CP70E1FG205K	A5	4.87	CP70B1EG205K	A6	4.73	CP70B1FG205K	A5	4.51
4.0	1000V	CP70E1EG405K	C2	6.84	CP70E1FG405K	B6	6.56	CP70B1EG405K	C2	6.38	CP70B1FG405K	B6	6.22
6.0	1000V	CP70E1EG605K	D3	8.46	CP70E1FG605K	C4	8.09	CP70B1EG605K	D3	8.13	CP70B1FG605K	C4	7.75
8.0	1000V	CP70E1EG805K	D5	9.05				CP70B1EG805K	D5	8.93	CP70B1FG805K	D2	9.15
10.0	1000V	CP70E1EG106K	E5	10.99	CP70E1FG106K	D5	10.91	CP70B1EG106K	E5	10.82	CP70B1FH605K	D5	10.08
12.0	1000V	CP70E1EG126K	E6	11.89				CP70B1EG126K	E6	11.75	CP70B1FG126K	E4	11.69
15.0	1000V	CP70E1EG156K	G2	13.15	CP70E1FG156K	F1	13.09	CP70B1EG156K	G2	13.01	CP70B1FG156K	F1	12.95
.5	1500V	CP70E1EH504K	A3	3.95				CP70B1EH504K	A3	3.46			
1.0	1500V	CP70E1EH105K	A6	4.64	CP70E1FH105K	A5	4.37	CP70B1EH105K	A6	4.23			
2.0	1500V	CP70E1EH205K	B6	6.54	CP70E1FH205K	B5	5.57	CP70B1EH205K	B6	5.51	CP70B1FH205K	B5	5.25
4.0	1500V	CP70E1EH405K	D4	8.77	CP70E1FH405K	C4	8.14	CP70B1EH405K	D4	8.20	CP70B1FH405K	C4	7.82
6.0	1500V	CP70E1EH605K	E5	10.66	CP70E1FH605K	D5	10.40	CP70B1EH605K	E5	10.53	CP07B1FH605K	D5	10.09
8.0	1500V	CP70E1EH805K	F2	13.66	CP70E1FH805K	F1	12.99	CP70B1EH805K	F2	12.92	CP70B1FH805K	F1	12.66
10.0	1500V	CP70E1EH106K	G4	15.64	CP70E1FH106K	G2	15.06	CP70B1EH106K	G4	13.79	CP70B1FH106K	G2	14.66
12.0	1500V	CP70E1EH126K	J3	17.01	CP70E1FH126K	G2	16.97	CP70B1EH126K	J3	16.89	CP70B1FH126K	G2	16.84
15.0	1500V	CP70E1EH156K	J6	18.74	CP70E1FH156K	J3	18.68	CP70B1EH156K	J6	18.61	CP70B1EH156K	J3	18.56
.25	2000V	CP70E1EJ254K	B1	4.47									
.5	2000V	CP70E1EJ504K	B2	4.64									
1.0	2000V	CP70E1EJ105K	B6	5.67	CP70E1FJ105K	B3	5.62						
2.0	2000V	CP70E1EJ205K	C4	6.71	CP70E1FJ205K	C3	6.65						
4.0	2000V	CP70E1EJ405K	E6	9.45	CP70E1FJ405K	E3	9.40						
6.0	2000V				CP70E1FJ605K	G1	12.24						
10.0	2000V				CP70E1FJ106K	J3	17.64						
12.0	2000V				CP70E1FJ126K	J5	20.50						
15.0	2000V				CP70E1FJ156K	J7	22.04						
.1	2500V	CP70E1EK104K	B1	6.50									
.5	2500V	CP70E1EK504K	B4	6.99	CP70E1FK504K	B3	6.93						
1.0	2500V	CP70E1EK105K	D2	7.97	CP70E1FK105K	D1	7.90						
2.0	2500V	CP70E1EK205K	E5	12.88	CP70E1FK205K	D5	12.82						
4.0	2500V	CP70E1EK405K	J2	17.96									
10.0	2500V	CP70E1EK106K	J10	40.72									
.1	3000V	CP70E1EL104K	B2	8.30									
.25	3000V	CP70E1EL254K	B3	8.79									
.5	3000V	CP70E1EL504K	B6	9.76									
1.0	3000V	CP70E1EL105K	E4	12.06									
2.0	3000V	CP70E1EL205K	G2	15.01	CP70E1FL205K	G1	11.45						
4.0	3000V	CP70E1EL405K	J7	22.05	CP70E1FL405K	J3	21.99						
.1	4000V	CP70E1EM104K	E1	10.99									
.25	4000V				CP70E1FM254K	E1	11.08						
.5	4000V				CP70E1FM504K	E3	12.15						
1.0	4000V				CP70E1FM105K	E6	15.27						
2.0	4000V				CP70E1FM205K	J4	21.56						
4.0	4000V	CP70E1EM405K	J11	39.44	CP70E1FM405K	J10	35.62						
.1	5000V	CP70E1EN104K	E1	11.41									
.25	5000V	CP70E1EN254K	E3	12.72									
.5	5000V	CP70E1EN504K	E6	15.44	CP70E1FN504K	E4	13.38						
1.0	5000V				CP70E1FN105K	J2	17.95						
2.0	5000V				CP70E1FN205K	J6	28.86						
.1	6000V	CP70D1EP104K	E3	13.68	CP70D1FP104K	E2	12.65						
.25	6000V	CP70D1EP254K	E5	16.50	CP70D1FP254K	E4	14.22						
.5	6000V	CP70D1EP504K	J3	20.58									
1.0	6000V	CP70D1EP105K	J11	23.49	CP70D1FP105K	J9	29.51						
.1	7500V				CP70D1FR104K	E3	13.46						
.25	7500V				CP70D1FR254K	J1	16.80						
.5	7500V				CP70D1FR504K	J4	23.69						

A1	1 13/16 x 1 1/16 x 1⅝	E2	3¾ x 2¼ x 3⅜
A2	1 13/16 x 1 1/16 x 2¼	E3	3¾ x 2¼ x 4¼
A3	1 13/16 x 1 1/16 x 2⅞	E4	3¾ x 2¼ x 4½
A4	1 13/16 x 1 1/16 x 3¼	E5	3¾ x 2¼ x 4¾
A5	1 13/16 x 1 1/16 x 3⅞	E6	3¾ x 2¼ x 5⅛
A6	1 13/16 x 1 1/16 x 4¾	F1	3¾ x 2½ x 4¾
B1	2½ x 1 3/16 x 2½	F2	3¾ x 2½ x 5¾
B2	2½ x 1 3/16 x 2⅞	G1	3¾ x 3 3/16 x 4½
B3	2½ x 1 3/16 x 3½	G2	3¾ x 3 3/16 x 4¾
B4	2½ x 1 3/16 x 3⅞	G4	3¾ x 3 3/16 x 5½
B5	2½ x 1 3/16 x 4¼	J1	4 9/16 x 3¾ x 3⅞
B6	2½ x 1 3/16 x 4¾	J2	4 9/16 x 3¾ x 4⅜
C2	3¾ x 1¼ x 3⅞	J3	4 9/16 x 3¾ x 4¾
C3	3¾ x 1¼ x 4¼	J4	4 9/16 x 3¾ x 5⅛
C4	3¾ x 1¼ x 4¾	J5	4 9/16 x 3¾ x 5½
D1	3¾ x 1¾ x 3¼	J6	4 9/16 x 3¾ x 6
D2	3¾ x 1¾ x 3⅞	J7	4 9/16 x 3¾ x 6½
D3	3¾ x 1¾ x 4	J9	4 9/16 x 3¾ x 7½
D4	3¾ x 1¾ x 4¼	J10	4 9/16 x 3¾ x 8½
D5	3¾ x 1¾ x 4¾	J11	4 9/16 x 3¾ x 9⅝
E1	3¾ x 2¼ x 2¾		

If MIL brackets are required with units, specify CPO7S (spade) or CPO7F (footed) and add the bracket designation listed beside the unit.

Example: CP70E1EF504K with CPO7SA2 brackets.

★Request O.E.M. prices in the following quantities: 10 to 24, 25 to 49, 50 to 99

TYPE CP41 — Characteristics E and F

Cylindrical, hermetically sealed can with screwbase molded cover for vertical mounting. Operating temperature range —55 +85°C. Solder lug. nonremovable terminals MIL designation B). Supplied with mounting nut and lockwasher. Standard tolerance ±10% (K).

Units meet Vibration Grade 1 of MIL-C-25C Designated by addition of numeral 1 to part number.

CAPACITY	VOLTAGE	CHAR. E P10M	Net Price*	CHAR. F P10M	Net Price*
2.0	600V	CP41B1EF205K	4.82	CP41B1FF205K	4.82
4.0	600V	CP41B1EF405K	5.67	CP41B1FF405K	5.67
1.0	1000V	CP41B1EG105K	5.27	CP41B1FG105K	5.27
2.0	1000V	CP41B1EG205K	5.57	CP41B1FG205K	5.57
.5	1500V			CP41B1FH504K	4.62
1.0	1500V			CP41B1FH105K	6.42

★Request O.E.M. prices in the following quantities: 10 to 99

AEROVOX *Capacitors*

INDUSTRIAL CERAMIC CAPACITORS

CERAFIL®

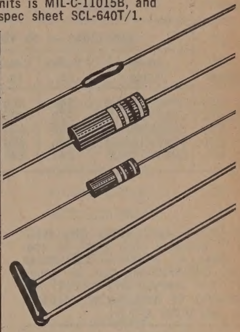
ULTRAMINIATURE CAPACITORS
DIPPED-RADIAL & AXIAL LEADS
MOLDED-AXIAL LEADS

Cerafil® capacitors are the smallest ceramic capacitors available anywhere. These remarkably ultra-miniature units are designed primarily for air-borne and space-borne equipments, having critical space and weight parameters. They are also designed for transistorized circuit applications in hearing aids and other critical requirements where space and weight are at an absolute premium. The unique design and construction features of Cerafil® capacitors make it possible to obtain extremely high capacities per unit volume. These tiny capacitors are the ideal answer to many problems created by the growing trend towards miniaturization of electronic assemblies and equipments. When tested using Cerafil® ratings, these units will meet or surpass the requirements of MIL-C-11015B.

All 29 stock values are available in three styles.

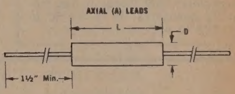
1. C80V dipped axial leads (Also referred to as C80A or C80T)
2. Dipped radial lead units (Also referred to as C80R)
3. Completely new molded MC80V

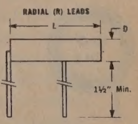
The new molded unit features a rugged epoxy encapsulation which provides an even greater degree of reliability to the already missile proven Cerafil® Increase mechanical strength, the uniform dimensions make the molded Cerafil® ideal for automated assembly operation. Certain values of the C80V have been assigned military part numbers; CK12 thru CK18. These units are marked in the listing below. The applicable military specifications for these units is MIL-C-11015B, and they may be procured against Signal Corps spec sheet SCL-640T/1.



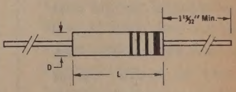
pacity Mfds	†Dimensions		Dipped Axial Leals		Dipped Radial Leads		+.003 Dimensions —.005		Molded Axial Leads	
	Diameter	Length	Part No.	Net★ Price	Part No.	Net★ Price	Diameter	Length	Part No.	Net★ Price
0001	.090	.320	C80V100AM	.52	C80V100RM	.57	.087	.315	MC80V100AM	.47
00022	.090	.320	C80V220AM	.52	C80V220RM	.57	.087	.315	MC80V220AM	.47
00033	.090	.320	C80V330AM	.52	C80V330RM	.57	.087	.315	MC80V330AM	.47
00047	.090	.320	C80V470AM	.52	C80V470RM	.57	.087	.315	MC80V470AM	.47
00056	.090	.320	C80V560AM	.52	C80V560RM	.57	.087	.315	MC80V560AM	.47
00068	.090	.320	C80V680AM	.52	C80V680RM	.57	.087	.315	MC80V680AM	.47
00082	.090	.320	C80V820AM	.52	C80V820RM	.57	.087	.315	MC80V820AM	.47
001	.090	.320	C80V101AM	.52	C80V101RM	.57	.087	.315	MC80V101AM	.47
0022	.090	.320	C80V221AM	.52	C80V221RM	.57	.087	.315	MC80V221AM	.47
0033	.090	.320	C80V331AM	.52	C80V331RM	.57	.087	.315	MC80V331AM	.47
0047	.090	.320	C80V471AM	.52	C80V471RM	.57	.087	.315	MC80V471AM	.47
0056	.090	.320	C80V561AM	.52	C80V561RM	.57	.087	.315	MC80V561AM	.47
0068	.090	.320	C80V681AM	.52	C80V681RM	.57	.087	.315	MC80V681AM	.47
0082	.090	.320	C80V821AM	.52	C80V821RM	.57	.087	.315	MC80V821AM	.47
01	.090	.320	[1]C80V102AM	.46	C80V102RM	.51	.087	.315	MC80V102AM	.41
02	.120	.500	C80V202AM	.76	C80V202RM	.84	.117	.495	MC80V202AM	.68
022	.120	.500	[2]C80V222AM	.76	C80V222RM	.84	.117	.495	MC80V222AM	.68
033	.120	.500	[3]C80V332AM	.76	C80V332RM	.84	.117	.495	MC80V332AM	.68
047	.120	.500	[4]C80V472AM	.76	C80V472RM	.84	.117	.495	MC80V472AM	.68
05	.120	.500	C80V502AM	.76	C80V502RM	.84	.117	.495	MC80V502AM	.68
068	.180	.500	C80V682AM	1.00	C80V682RM	1.19	.157	.495	MC80V682AM	.90
1	.180	.500	[5]C80V103AM	1.00	C80V103RM	1.19	.157	.495	MC80V103AM	.90
2	.200	.500	C80V203AM	1.83	C80V203RM	2.03	.197	.495	MC80V203AM	1.65
22	.240	.650	[6]C80V223AM	3.05	C80V223RM	3.38	.237	.645	MC80V223AM	2.75
33	.240	.650	C80V333AM	3.05	C80V333RM	3.38	.237	.645	MC80V333AM	2.75
47	.240	.650	[7]C80V473AM	3.05	C80V473RM	3.38	.237	.645	MC80V473AM	2.75
5	.240	.650	C80V503AM	3.05	C80V503RM	3.38	.237	.645	MC80V503AM	2.75
68	.310	.750	C80V683AM	5.48	C80V683RM	6.08	.277	.745	MC80V683AM	4.93
	.310	.750	C80V104AM	5.48	C80V104RM	6.08	.277	.745	MC80V104AM	4.93

†Overall length may exceed dimensions shown by as much as 1/16″ due to deposit of insulating material on leads.





MOLDED AXIAL LEADS



K Type Designation
(1) CK12V102M (2) CK13V222M (3) CK14V332M (4) CK15V472M (5) CK16V103M (6) CK17V223M (7) CK18VA73M

★Request O.E.M. prices in the following quantities: 25 to 49, 50 to 99, 100 to 499.

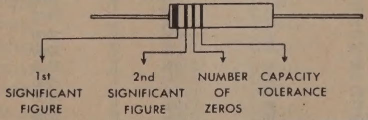
CAPACITANCE	TOLERANCE
±20	Black

CAPACITANCE			
0	Black	5	Green
1	Brown	6	Blue
2	Red	7	Violet
3	Orange	8	Gray
4	Yellow	9	White

MARKING

The following color code system is used to denote capacity in micromicrofarads and tolerance.

Read from left to right starting with the largest band.



ELECTRICAL SPECIFICATIONS

1. VOLTAGE — 100 VDCW; 300 VDCT.
2. CAPACITY TOLERANCE — ±20%. Available ±10% on Special Order. Contact Factory for price and delivery.
3. INSULATION RESISTANCE — 100 mfd.—megohms or 10,000 megohms whichever is smaller.
4. TEMPERATURE COEFFICIENT — (—55°C to +85°C).
   No voltage +10% to —15%.
   100 volts applied — +10% to —35%.
5. POWER FACTOR — 2.5% maximum.
6. OPERATING TEMPERATURE —
   —55°C to 85°C at 100 volts
   —55°C to 125°C at 50 volts

MECHANICAL SPECIFICATIONS

1. All dimensions in inches.
2. LEADS — Tinned Copper.
   Below .01 mfd — #26 gauge.
   .01 mfd. and above — #22 gauge.
3. LEAD LENGTHS — See drawings.
4. MARKING — Color code. No code for temperature coefficient; no code for lead designation since it is obvious.

AEROVOX *Capacitors*

INDUSTRIAL CERAMIC CAPACITORS (cont.)

CEROL® HIGH CAPACITY, HIGH RELIABILITY, ROLLED CERAMIC CAPACITORS

Cerol®capacitors are rolled ceramic capacitors in the high capacitance range of paper and plastic film dielectrics but in much smaller physical sizes and with superior electrical characteristics. Designed for general applications in bypass-coupling, filtering and blocking circuits. Excellent electrical characteristics for critical applications in decoupling and pulse circuits where low series resistance at high freauencies together with miniature sizes are required. Low series resistance makes them ideal for use in all computer circuits. Operating temperature range at rated voltage —55°C to 85°C and at 50% rated voltage —55°C to 125°C. Capacitance tolerance is ±20%. Will meet or surpass all the requirements of MIL-C-11015B.

Cerol capacitors are available in three types; type CR89, CR90 and CR91 rated at 50V, 100V and 200V respectively at 85°C and derated by 50% at 125°C.

Units are stamped with the rated voltage for identification of type.

Value	TYPE CR89 — 50 VDCW				TYPE CR90 — 100 VDCW				TYPE CR91 — 200 VDCW				Color Code
	Stock Items	D Max In.	L Max In.	Net★ Price	Stock Items	D Max In.	L Max In.	Net★ Price	Stock Items	D Max In.	L Max In.	Net★ Price	
.1 MFD	CR89W104AM	.140	.400	3.65	CR90V104AM	.210	.690	4.05	CR91W104AM	.290	.495	4.86	Brown, Black, Yellow & Blac
.25 MFD	CR89W254AM	.210	.495	4.86	CR90V254AM	.260	.690	5.40	CR91W254AM	.350	.690	6.48	Red Green, Yellow & Black
.5 MFD	CR89W504AM	.260	.495	7.90	CR90V504AM	.350	.690	8.78	CR91W504AM	.440	.690	10.54	Green, Black, Yellow & Black
1.0 MFD	CR89W105AM	.260	.690	12.15	CR90V105AM	.480	.690	13.50	CR91W105AM	.470	1.000	16.20	Brown, Black, Green, Black
2.0 MFD	CR89W205AM	.350	.690	18.23	CR90V205AM	.400	1.440	20.25	CR91W205AM	.520	1.440	24.30	Red, Black, Green, Black

SPECIFICATIONS

Axial Tinned copper leads. Also available in weldable alloy leads on special order. All values — #22 gauge except CR89W104AM has 26 gauge leads. For non-standard values, use dimensions of next higher standard value and order special.

★ Request OEM Prices in the following quantities: 25 to 49, 50 to 99, 100 to 499.

Power Factor — 2% Maximum
Insulation Resistance = 100 Meg. — Mfd. minimum
Series Resistance < .20 ohms at 8 to 10 mc.
Test Voltage = 3 times Rated Voltage
Other requirements per MIL-C-11015C

T. C. —55° to +125°C	TYPE CR90	TYPES CR89 & CR91
0 Voltage	+15%, —25%	+10%, —30%
@ Rated Voltage	+15%, —35%	+10%, —40%

General Purpose Bypass Coupling Disks
Type IDI Net Price .15*

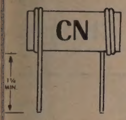
These industrial ceramic disks capacitors offer small physical sizes with high capacity. Mainly used for by-pass coupling or filter applications these units contain maximum protection against humidity, voltage breakdown, vibration. Rated for 500 VDCW these units are flash-tested at 1500 VDC. Units will be marked with capacity and tolerance except those units which have a CK number listed. Such units are equivalent to those listed in MIL-C-11015 and will be marked with the number shown in the listing.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Cap. mmf	Size	Tolerance	Mil Equivalent
2.2	DI-1	±.5 mmf.	
3.3	DI-1	±.5 mmf.	
4.7	DI-1	±.5 mmf.	
5.0	DI-1	±10%	
6.0	DI-1	±10%	
6.5	DI-1	±10%	
7.5	DI-1	±10%	
8.0	DI-1	±10%	
8.2	DI-1	±10%	
10	DI-1	±10%	
12	DI-1	±10%	
15	DI-1	±10%	
18	DI-1	±10%	
20	DI-1	±10%	
22	DI-1	±10%	
24	DI-1	±10%	
25	DI-1	±10%	
27	DI-1	±10%	
30	DI-1	±10%	
33	DI-1	±10%	
39	DI-1	±10%	
47	DI-1	±10%	
50	DI-1	±10%	
51	DI-1	±10%	
56	DI-1	±10%	
68	DI-1	±10%	
75	DI-1	±10%	
82	DI-1	±10%	
91	DI-1	±10%	
100	DI-1	±10%	
120	DI-1	±10%	
130	DI-1	±10%	
150	DI-1	±10%	
180	DI-1	±10%	
200	DI-1	±10%	
220	DI-1	±10%	
240	DI-1	±10%	
250	DI-1	±10%	
270	DI-1	±10%	
300	DI-1	±10%	
330	DI-1	±10%	
350	DI-1	±10%	
360	DI-1	±10%	
390	DI-1	±10%	
400	DI-1	±10%	
470	DI-1	±10%	
470	DI-1	+100-20%	CK60Y471Z
500	DI-1	±10%	
510	DI-1	±10%	
560	DI-1	±10%	
600	DI-2	±10%	
680	DI-2	±10%	
680	DI-1	+100-20%	CK60Y681Z
750	DI-2	±10%	
800	DI-2	±10%	
820	DI-2	±10%	
820	DI-1	+100-20%	CK60Y821Z
910	DI-2	±10%	
1000	DI-2	±10%	
1000	DI-2	+100-20%	CK61Y102Z
1200	DI-3	±10%	
1300	DI-3	±10%	
1500	DI-3	±10%	
1500	DI-3	+100-20%	CK61Y152Z
1600	DI-4	±10%	
1800	DI-4	±10%	
2000	DI-4	±10%	
2200	DI-4	±20%	
2200	DI-4	+100-20%	CK62Y222Z
2500	DI-4	±20%	
2700	DI-4	±20%	
3000	DI-4	±20%	
3300	DI-4	±20%	
3300	DI-4	+100-20%	CK62Y332Z
3900	DI-2	GMV	
4000	DI-2	GMV	
4300	DI-2	GMV	
4700	DI-4	±20%	
4700	DI-4	+100-20%	CK62Y472Z
5000	DI-3	GMV	
5600	DI-3	GMV	
6800	DI-3	GMV	
7500	DI-4	GMV	
8200	DI-4	GMV	
10000	DI-5	±20%	
10000	DI-5	+100-20%	CK63Y103Z

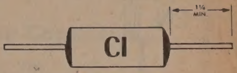
AEROVOX *Capacitors*

INDUSTRIAL CERAMIC CAPACITORS (cont.)



Temperature Compensating Tubulars

NPO



Popular values in accordance with the latest revisions of specification MIL-C-20 and EIA specification RS-198. Uninsulated units are furnished color coded, packaged in bulk. Insulated units—stamped with part number. Voltage rating 500 VDCW.

	UNINSULATED TYPE CN				INSULATED TYPE CI			
Cap.	MIL No.	Net Price★	EIA No.	Net Price★	MIL No.	Net Price★	EIA No.	Net Price★
.3	CC20CKOR3C	.30	RICC20COK308C	.30	CC21CKOR3C	.30	RICC21COK308C	.30
.5	CC20CKOR5C	.30	RICC20COK508C	.30	CC21CKOR5C	.30	RICC21COK508C	.30
.68	CC20CKR68C	.30	RICC20COK688C	.30	CC21CKR68C	.30	RICC21COK688C	.30
.75	CC20CKR75C	.30	RICC20COK758C	.30	CC21CKR75C	.30	RICC21COK758C	.30
1.0	CC20CK010C	.30	RICC20COK109C	.30	CC21CK010C	.30	RICC21COK109C	.30
1.2	CC20CK1R2C	.30	RICC20COK129C	.30	CC21CK1R2C	.30	RICC21COK129C	.30
1.5	CC20CK1R5C	.30	RICC20COK159C	.30	CC21CK1R5C	.30	RICC21COK159C	.30
2.0	CC20CK020C	.30	RICC20COK209C	.30	CC21CK020C	.30	RICC21COK209C	.30
2.2	CC20CK2R2C	.30	RICC20COK229C	.30	CC21CK2R2C	.30	RICC21COK229C	.30
3.0	CC20CJ030C	.30	RICC20COJ309C	.30	CC21CJ030C	.30	RICC21COJ309C	.30
4.0	CC20CH040C	.30	RICC20COH409C	.30	CC21CH040C	.30	RICC21COH409C	.30
5.0	CC20CH050C	.30	RICC20COH509C	.30	CC21CH050C	.30	RICC21COH509C	.30
6.0	CC20CH060C	.30	RICC20COH609C	.30	CC21CH060C	.30	RICC21COH609C	.30
6.2	CC20CH6R2C	.30	RICC20COH629C	.30	CC21CH6R2C	.30	RICC21COH629C	.30
7.0	CC20CH070C	.30	RICC20COH709C	.30	CC21CH070C	.30	RICC21COH709C	.30
8.0	CC20CH080C	.30	RICC20COH809C	.30	CC21CH080C	.30	RICC21COH809C	.30
9.0	CC20CH090C	.30	RICC20COH909C	.30	CC21CH090C	.30	RICC21COH909C	.30
10.0	CC20CH100C	.30	RICC20COH100C	.30	CC21CH100C	.30	RICC21COH100C	.30
12.0	CC20CH120G	.30	RICC20COH120G	.30	CC21CH120G	.30	RICC21COH120G	.30
15.0	CC20CH150G	.30	RICC20COH150G	.30	CC21CH150G	.30	RICC21COH150G	.30
18.0	CC20CH180G	.30	RICC20COH180G	.30	CC21CH180G	.30	RICC21COH180G	.30
20.0	CC20CH200G	.30	RICC20COH200G	.30	CC21CH200G	.30	RICC21COH200G	.30
22.0	CC20CH220G	.30	RICC20COH220G	.30	CC21CH220G	.30	RICC21COH220G	.30
24	CC25CH240G	.30	RICC25COH240G	.30	CC26CH240G	.30	RICC26COH240G	.30
27	CC25CH270G	.30	RICC25COH270G	.30	CC26CH270G	.30	21CC26COH270G	.30
30	CC25CH300G	.30	RICC25COH300G	.30	CC26CH300G	.30	RICC26COH300G	.30
33	CC25CH330G	.30	RICC25COH330G	.30	CC26CH330G	.30	RICC26COH330G	.30
36	CC25CH360J	.30	RICC25COH360J	.30	CC26CH360J	.30	RICC26COH360J	.30
39	CC25CH390J	.30	RICC25COH390J	.30	CC26CH390J	.30	RICC26COH390J	.30
43	CC25CH430J	.30	RICC25COH430J	.30	CC36CH430J	.30	RICC36COH430J	.30
47	CC25CH470J	.30	RICC25COH470J	.30	CC36CH470J	.30	RICC36COH470J	.30
51	CC25CH510J	.30	RICC25COH510J	.30	CC36CH510J	.30	RICC36COH510J	.30
56	CC32CG560J	.30	RICC32COG560J	.30	CC36CG560J	.30	RICC36COG560J	.30
62	CC32CG620J	.30	RICC32COG620J	.30	CC36CG620J	.30	RICC36COG620J	.30
68	CC32CG680J	.30	RICC32COG680J	.30	CC36CG680J	.30	RICC36COG680J	.30
75	CC32CG750J	.30	RICC32COG750J	.30	CC36CG750J	.30	RICC36COG750J	.30
82	CC32CG820J	.30	RICC32COG820J	.30	CC36CG820J	.30	RICC36COG820J	.30
91	CC32CG910J	.30	RICC32COG910J	.30	CC36CG910J	.30	RICC36COG910J	.30
00	CC32CG101G	.30	RICC32COG101G	.30	CC36CG101J	.30	RICC36COG101J	.30
10	CC32CG111G	.30	RICC32COG111G	.30	CC36CG111J	.60	RICC36COG111J	.60
20	CC35CG121G	.45	RICC35COG121G	.45	CC36CG121J	.60	RICC36COG121J	.60
30	CC35CG131G	.45	RICC35COG131G	.45	CC36CG131J	.60	RICC36COG131J	.60
50	CC35CG151G	.45	RICC35COG151G	.45	CC36CG151J	.60	RICC36COG151J	.60
60	CC45CG161G	.60	RICC45COG161G	.60				
80	CC45CG181G	.60	RICC45COG181G	.60				
00	CC45CG201G	.60	RICC45COG201G	.60				
20	CC45CG221G	.60	RICC45COG221G	.60				
40	CC45CG241G	.60	RICC45COG241G	.60				
70	CC45CG271F	.90	RICC45COG271F	.90				
00	CC45CG301F	.90	RICC45COG301F	.90				

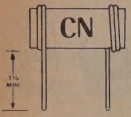
★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

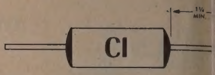
AEROVOX *Capacitors*

INDUSTRIAL CERAMIC CAPACITORS (cont.)

Temperature Compensating Tubulars

N750





	UNINSULATED TYPE CN				INSULATED TYPE CI			
Cap.	MIL No.	Net Price★	EIA No.	Net Price★	Mil No.	Net Price★	EIA No.	Net Price
.5	CC20UKOR5C	.30	RICC20U2K508C	.30				
.75	CC20UKR75C	.30	RICC20U2K758C	.30	CC21UKR75C	.30	RICC21U2K758C	.30
1.0	CC20UK010C	.30	RICC20U2K109C	.30	CC21UK010C	.30	RICC21U2K109C	.30
1.5	CC20UK1R5C	.30	RICC20U2K159C	.30	CC21UK1R5C	.30	RICC21U2K159C	.30
2.0	CC20UK020C	.30	RICC20U2K209C	.30	CC21UK020C	.30	RICC21U2K209C	.30
5.0	CC20UJ050C	.30	RICC20U2J509C	.30	CC21UJ050C	.30	RICC21U2J509C	.30
10.0	CC20UJ100C	.30	RICC20U2J100C	.30	CC21UJ100C	.30	RICC21U2J100C	.30
12.0	CC20UJ120G	.30	RICC20U2J120G	.30	CC21UJ120G	.30	RICC21U2J120G	.30
15.0	CC20UJ150G	.30	RICC20U2J150G	.30	CC21UJ150G	.30	RICC21U2J150G	.30
18.0	CC20UJ180G	.30	RICC20U2J180G	.30	CC21UJ180G	.30	RICC21U2J180G	.30
20.0	CC20UJ200G	.30	RICC20U2J200G	.30	CC21UJ200G	.30	RICC21U2J200G	.30
22.0	CC20UJ220G	.30	RICC20U2J220G	.30	CC21UJ220G	.30	RICC21U2J220G	.30
24.0	CC20UJ240G	.30	RICC20U2J240G	.30	CC21UJ240G	.30	RICC21U2J240G	.30
27.0	CC20UJ270G	.30	RICC20U2J270G	.30	CC21UJ270G	.30	RICC21U2J270G	.30
30.0	CC20UJ300G	.30	RICC20U2J300G	.30	CC21UJ300G	.30	RICC21U2J300G	.30
33.0	CC20UJ330G	.30	RICC20U2J330G	.30	CC21UJ330G	.30	RICC21U2J330G	.30
36.0	CC20UJ360J	.30	RICC20U2J360J	.30	CC21UJ360J	.30	RICC21U2J360J	.30
39.0	CC20UJ390J	.30	RICC20U2J390J	.30	CC21UJ390J	.30	RICC21U2J390J	.30
43.0	CC20UJ430J	.30	RICC20U2J430J	.30	CC21UJ430J	.30	RICC21U2J430J	.30
47.0	CC20UJ470J	.30	RICC20U2J470J	.30	CC21UJ470J	.30	RICC21U2J470J	.30
51.0	CC20UJ510J	.30	RICC20U2J510J	.30	CC21UJ510J	.30	RICC21U2J510J	.30
56.0	CC20UJ560J	.30	RICC20U2J560J	.30	CC21UJ560J	.30	RICC21U2J560J	.30
62.0	CC20UJ620J	.30	RICC20U2J620J	.30	CC21UJ620J	.30	RICC21U2J620J	.30
68.0	CC25UJ680J	.30	RICC25U2J680J	.30	CC26UJ680J	.30	RICC26U2J680J	.30
75.0	CC25UJ750J	.30	RICC25U2J750J	.30	CC26UJ750J	.30	RICC26U2J750J	.30
82.0	CC25UJ820J	.30	RICC25U2J820J	.30	CC26UJ820J	.30	RICC26U2J820J	.30
91.0	CC25UJ910J	.30	RICC25U2J910J	.30	CC26UJ910J	.30	RICC26U2J910J	.30
100.0	CC25UJ101G	.30	RICC25U2J101G	.30	CC26UJ101J	.30	RICC26U2J101J	.30
110	CC25UJ111G	.30	RICC25U2J111G	.30	CC26UJ111J	.30	RICC26U2J111J	.30
120	CC25UJ121G	.30	RICC25U2J121G	.30	CC26UJ121J	.30	RICC26U2J121J	.30
130	CC25UJ131G	.30	RICC25U2J131G	.30	CC36UJ131J	.30	RICC36U2J131J	.30
150	CC25UJ151G	.30	RICC25U2J151G	.30	CC36UJ151J	.30	RICC36U2J151J	.30
160	CC32UJ161G	.30	RICC32U2J161G	.30	CC36UJ161J	.30	RICC36U2J161J	.30
180	CC32UJ181G	.30	RICC32U2J181G	.30	CC36UJ181J	.60	RICC36U2J181J	.60
200	CC32UJ201G	.30	RICC32U2J201G	.30	CC36UJ201J	.60	RICC36U2J201J	.60
220	CC32UJ221G	.30	RICC32U2J221G	.30	CC36UJ221J	.60	RICC36U2J221J	.60
240	CC32UJ241G	.30	RICC32U2J241G	.30	CC36UJ241J	.60	RICC36U2J241J	.60
270	CC35UJ271F	.90	RICC35U2J271F	.90	CC36UJ271J	.60	RICC36U2J271J	.60
300	CC35UJ301F	.90	RICC35U2J301F	.90	CC36UJ301J	.60	RICC36U2J301J	.60
330	CC35UJ331F	.90	RICC35U2J331F	.90	CC36UJ331F	.60	RICC36U2J331F	.60
360	CC35UJ361F	.90	RICC35U2J361F	.90	CC36UJ361J	.60	RICC36U2J361J	.60
390	CC45UJ391F	.90	RICC45U2J391F	.90				
430	CC45UJ431F	.90	RICC45U2J431F	.90				
470	CC45UJ471F	.90	RICC45U2J471F	.90				

SIZE

Type Designation		Max. Size
MIL	EIA	
CC20	RICC20	.200 x .400
CC21	RICC21	.250 x .562
CC25	RICC25	.200 x .655
CC26	RICC26	.250 x .812
CC32	RICC32	.250 x .860
CC35	RICC35	.255 x 1.090
CC36	RICC36	.340 x 1.328
CC45	RICC45	.340 x 1.890

TOLERANCE

Letter Descrip.	Tolerance
C	±.25 mmf.
F	±1%
G	±2%
J	±5%

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

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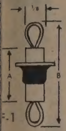
INDUSTRIAL CERAMIC CAPACITORS (cont.)



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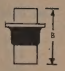
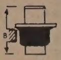


EF-3



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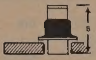

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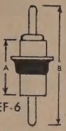


EF-6

Eyelet Feed-Thru Capacitors

Net Price .30★

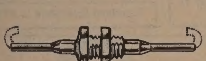
Hi-Q Feed-Thru Capacitors Eyelet Type are the ultimate in miniaturization because of unique design. This design is such that the capacitors can be soldered directly to a chassis and provide excellent bypass performance where space is critical. The low inductance characteristics brought about through the construction of the capacitors make the eyelet type ideal for high frequency bypass.

tyle	Capacity in mmf						D.C. Working Voltage	Size A	Size B
EF-1	50	100	200	500	1000	1500	500	.375	.750
EF-3	50	100	200	500	1000	1500	500	—	.375
EF-4	50	100	200	500			250	—	.250
EF-5	50	100	200	500	1000		250	—	.250
EF-6	50	100	200	500	1000	1500	500	.375	.875

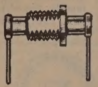
Tolerance ±20% up to and including 500 mmfd.
GMV above 500 mmfd.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Feed-Thru Capacitors



FEED-THRU TYPE CFC



FEED-THRU TYPE CF

Hi-Q Feed-Thru Capacitors provide means to transmit thru shields or ground potentials and simultaneously by-pass unwanted frequencies. A good mechanical connection is provided by the silver-plated bushing. These are excellent dependable units even under severe mechanical vibrations as in aircraft, missiles and automotive requirements. All units are flash tested at 1250 volts D.C.

Net Price .90★

Type	Cap. Mmfd.	Thread
CFC-1	500 mmf.	12-28
	1000 mmf.	12-28
	1500 mmf.	12-28
CF-1	1500 mmf.	¼-28

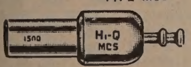
Tolerance ±20%

Type	Cap. Mmfd.	Thread
CF-2	1800 mmf.	5⁄16-24
	2300 mmf.	5⁄16-24
	3000 mmf.	5⁄16-24
CF-3	4000 mmf.	5⁄16-24
CF-4	7000 mmf.	5⁄16-24

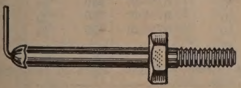
★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Stand-Off Capacitors

TYPE MCS



TYPE CS



Hi-Q stand-off capacitors have a screw fixture for mounting to the chassis or common ground. All units are coated with a high temperature enamel, stamped with capacity and supplied with mounting nut, if desired.

The MCS is a quick mounting type which permits high speed mechanical installation. The ceramic tube is enclosed in a cadmium-plated metal case with a specially developed end seal for protection against humidity and temperature changes. All units are flash tested at 1250 volts D.C. The power factor is under 3% and the insulation resistance is above 7500 megohms.

500 VDCW Net Price .90★

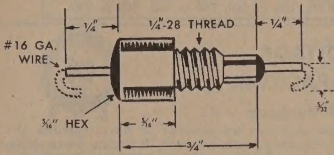
Type	Capacity Mmfd.
CS-1A	50
CS-1A	100
CS-1B	500
CS-1B	1000
CS-1B	1500
CS-2	3000
CS-3	4000

Type	Capacity Mmfd.
CS-4	7500
CIS-1	50
CIS-1	100
CIS-1	500
CIS-1	1000
CIS-2	1500
MCS	1500

Radial leads only
Tolerance ±10% up to and including 500 mmf.
±20% above 500 mmf.

Heavy Duty Feed-Thru Capacitors

Type BLF-ICC



BLF

FRACTIONAL TOLERANCES ±1⁄32

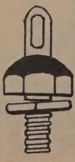
These heavy-duty Feed-Thru capacitors are the same as listed in specification MIL-C-11015. Units through 100 mmf. are rated at 1000 VDCW, values above 100 mmf. are rated at 500 VDCW. Capacity tolerance is ±10% except on the 1000 mmf. and 1500 mmf. which have capacity tolerance of ±20%.

Capacity	Part Number	Net Price★
10	AXCK70AX100K	1.20
33	AXCK70AX330K	1.20
47	AXCK70AX470K	1.20
68	AXCK70AX680K	1.20
100	AXCK70AX101K	1.20
470	AXCK70AX471K	1.20
680	AXCK70AX681K	1.20
1000	AXCK70AW102M	1.20
1500	AXCK70AW152M	1.20

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

Disk Stand-Off Capacitors

Type DS-C



DS-C

These units are very popular in industrial applications having a critical space requirement but requiring a standoff capacitor. These stock units are furnished with captive lock washers, are rated at 850 VDCW. Capacity tolerance GMV. Both units are furnished with threaded portion 5⁄16" long, #6-32 thread.

Capacity	Net Price★
470	.90
1000	.90

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

AEROVOX *Capacitors*

Hi-Q DISK CAPACITORS

DISK CAPACITORS
Bypass and Coupling

BPD-GMV CAPACITOR
Stock Items 1000 VDCW

Type	Cap. Mfd.	Dia.	Net Price★	Type	Cap. Mfd.	Dia.	Net Price★
BPD	.00001	5/16	.15	BPD	.0033	7/16	.15
BPD	.000015	5/16	.15	BPD	.004	7/16	.15
BPD	.000022	5/16	.15	BPD	.0047	19/32	.15
BPD	.000025	5/16	.15	BPD	.005	19/32	.15
BPD	.000033	5/16	.15	BPD	.0068	19/32	.15
BPD	.000047	5/16	.15	BPD	.01	3/4	.18
BPD	.00005	5/16	.15				
BPD	.000068	5/16	.15	BPD	.015	23/32	.24
BPD	.0001	5/16	.15	BPD	.02	23/32	.36
BPD	.00012	5/16	.15	BPD	.03	23/32	.39
BPD	.00015	5/16	.15	BPD	.05*	23/32	.42
BPD	.0002	5/16	.15	**DUALS and TRIPLES**			
BPD	.00027	5/16	.15	BPD2-2 x .001		7/16	.24
BPD	.00033	5/16	.15	BPD2-2 x .0015		19/32	.24
BPD	.00047	5/16	.15	BPD2-2 x .002		19/32	.24
BPD	.0005	5/16	.15	BPD2-2 x .0022		19/32	.24
BPD	.00068	5/16	.15	BPD2-2 x .003		3/4	.27
BPD	.0008	5/16	.15	BPD2-2 x .004		3/4	.27
BPD	.001	5/16	.15	BPD2-2 x .0047		3/4	.27
BPD	.0015	5/16	.15	BPD2-2 x .01		3/4	.30
BPD	.002	3/8	.15	BPD2-2 x .02		23/32	.42
BPD	.0022	3/8	.15	BPD3-3 x .0015		3/4	.30
BPD	.0025	3/8	.15	BPD3-3 x .002		3/4	.30

* .05MFD can be supplied in 500VDCW only.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

Hi-VOLTAGE DISK CAPACITORS

General Purpose

Hi-Q high voltage disk capacitors are available in many capacities and voltage ratings. These types offer many possible uses in TV circuits where voltages above 500 are necessary. They are the ideal units for dependable day-after-day service. Hi-Q has available numerous combinations of capacity, working voltages and physical sizes. These units are manufactured to specific tolerances as listed.

1500 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-15	4.7	7/16	.21
HVD-15	6.8	7/16	.21
HVD-15	10	7/16	.21
HVD-15	15	7/16	.21
HVD-15	22	7/16	.21
HVD-15	33	7/16	.21
HVD-15	39	7/16	.21
HVD-15	47	7/16	.21
HVD-15	56	7/16	.21
HVD-15	68	7/16	.21
HVD-15	82	7/16	.21
HVD-15	100	7/16	.21
HVD-15	120	7/16	.21
HVD-15	150	7/16	.21
HVD-15	180	7/16	.21
HVD-15	220	7/16	.21
HVD-15	270	7/16	.21
HVD-15	330	7/16	.21
HVD-15	390	9/16	.21
HVD-15	470	9/16	.21
HVD-15	560	9/16	.21
HVD-15	680	9/16	.21
HVD-15	820	9/16	.21
HVD-15	1000	9/16	.21
HVD-15	1200	9/16	.21
HVD-15	1500	11/16	.21
HVD-15	2200	11/16	.21
HVD-15	3300	11/16	.21
HVD-15	4700	15/16	.24
HVD-15	5600	15/16	.24

3000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-30	4.7	9/16	.24
HVD-30	6.8	9/16	.24
HVD-30	10	9/16	.24
HVD-30	15	9/16	.24
HVD-30	22	9/16	.24
HVD-30	33	9/16	.24
HVD-30	39	9/16	.24
HVD-30	47	9/16	.24
HVD-30	56	9/16	.24
HVD-30	68	9/16	.24
HVD-30	82	9/16	.24
HVD-30	100	9/16	.24
HVD-30	120	9/16	.24
HVD-30	150	9/16	.24
HVD-30	180	9/16	.24
HVD-30	220	9/16	.24
HVD-30	270	9/16	.24
HVD-30	330	9/16	.24
HVD-30	390	9/16	.24
HVD-30	470	9/16	.24
HVD-30	560	9/16	.24
HVD-30	680	9/16	.24

3000 VDCW —(Cont'd)

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-30	820	9/16	.24
HVD-30	1000	9/16	.24
HVD-30	1200	9/16	.24
HVD-30	1500	9/16	.24
HVD-30	2200	9/16	.24
HVD-30	3300	11/16	.24

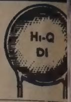
6000 VDCW

Type	Capacity Mmfd.	Dia.	Net Price★
HVD-60	4.7	11/16	.39
HVD-60	6.8	11/16	.39
HVD-60	10	11/16	.39
HVD-60	15	11/16	.39
HVD-60	18	11/16	.39
HVD-60	22	11/16	.39
HVD-60	30	11/16	.39
HVD-60	33	11/16	.39
HVD-60	39	11/16	.39
HVD-60	47	11/16	.39
HVD-60	56	11/16	.39
HVD-60	68	11/16	.39
HVD-60	82	11/16	.39
HVD-60	100	11/16	.39
HVD-60	120	11/16	.39
HVD-60	150	11/16	.39
HVD-60	180	11/16	.39
HVD-60	220	11/16	.39
HVD-60	270	11/16	.39
HVD-60	330	11/16	.39
HVD-60	390	11/16	.39
HVD-60	470	11/16	.39

Tolerance ±20% up to .001 mfd. +80% —20% over .001 mfd.

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

DI-DISK CAPACITORS



General Purpose
Stock Items 1000 VDCW

Type	Cap. Mmfd.	Dia.	Net Price★	Type	Cap. Mmfd.	Dia.	Net Price
DI	3.3	5/16	.15	DI	250	5/16	.15
DI	5	5/16	.15	DI	270	5/16	.15
DI	6.8	5/16	.15	DI	300	5/16	.15
DI	8.2	5/16	.15	DI	330	5/16	.15
DI	10	5/16	.15	DI	390	5/16	.15
DI	12	5/16	.15	DI	470	5/16	.15
DI	15	5/16	.15	DI	500	5/16	.15
DI	18	5/16	.15	DI	560	5/16	.15
DI	20	5/16	.15	DI	680	5/16	.15
DI	22	5/16	.15	DI	750	3/8	.15
DI	25	5/16	.15	DI	820	3/8	.15
DI	27	5/16	.15	DI	1000	3/8	.15
DI	30	5/16	.15	DI	1200	7/16	.15
DI	33	5/16	.15	DI	1500	7/16	.15
DI	39	5/16	.15	DI	1800	19/32	.15
DI	47	5/16	.15	DI	2000	19/32	.15
DI	50	5/16	.15	DI	2200	19/32	.15
DI	56	5/16	.15	DI	2500	19/32	.15
DI	68	5/16	.15	DI	2700	19/32	.15
DI	82	5/16	.15	DI	3000	11/16	.15
DI	100	5/16	.15	DI	3300	11/16	.15
DI	120	5/16	.15	DI	4000	11/16	.15
DI	150	5/16	.15	DI	4700	3/4	.15
DI	180	5/16	.15	DI	5000	3/4	.15
DI	200	5/16	.15	DI	5600	3/4	.18
DI	220	5/16	.15	DI	6800	23/32	.18
				DI	7500	23/32	.18
				DI	10000	23/32	.18

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

Standard tolerance ±10%.

TEMPERATURE COMPENSATING DISK CAPACITORS — 500 VDCW

Type	NPO Cap. Mmfd.	Dia.	Net Price★	Type	NPO Cap. Mmfd.	Dia.	Net Price★
NPO-D1	1.0	5/16	.30	NPO-DI	22	7/16	.30
NPO-D1	1.5	5/16	.30	NPO-DI	25	7/16	.30
NPO-D1	2.2	5/16	.30	NPO-DI	33	19/32	.30
NPO-DI	3.0	5/16	.30	NPO-DI	39	19/32	.30
NPO-DI	3.3	5/16	.30	NPO-DI	47	19/32	.30
NPO-DI	4.7	5/16	.30	NPO-DI	50	19/32	.30
NPO-DI	5.0	5/16	.30	NPO-DI	68	11/16	.30
NPO-DI	6.8	5/16	.30	NPO-DI	75	11/16	.30
NPO-DI	8.2	5/16	.30	NPO-DI	100	3/4	.30
NPO-DI	10	5/16	.30	NPO-DI	120	23/32	.45
NPO-DI	15	3/8	.30	NPO-DI	150	23/32	.45
NPO-DI	20	3/8	.30				

Type	N-750 Capacity Mmfd.	Size	Net Price★	Type	N-750 Capacity Mmfd.	Size	Net Price★
N750-DI	10	5/16	.30	N750-DI	100	19/32	.30
N750-DI	15	5/16	.30	N750-DI	150	19/32	.45
N750-DI	20	5/16	.30	N750-DI	200	11/16	.45
N750-DI	22	5/16	.30	N750-DI	220	11/16	.45
N750-DI	25	5/16	.30	N750-DI	330	23/32	.45
N750-DI	33	5/16	.30	N750-DI	360	23/32	.45
N750-DI	47	3/8	.30	N750-DI	390	23/32	.45
N750-DI	68	7/16	.30	N750-DI	430	23/32	.45
N750-DI	75	7/16	.30				

Standard Tolerance — up to 10 mmf. ±.5 mmf., above 10 mmf. ±10%

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999

VIBRATOR BUFFER CAPACITORS — DAC 1600 VDCW — GMV

Vibrator Buffer Capacitors — ceramic disks for use as buffers in car radios and similar equipment, compact, easily assembled, 1/4 the size of previous paper tubular types rated for 1600 VDCW GMV. For use as replacements only when original equipment uses ceramic buffer.

Type	Capacity Mfd.	Diameter	Net Price★	Type	Capacity Mfd.	Diameter	Net Price
DAC-2	.001	11/16	.30	DAC-9	.005	15/16	.30
DAC-3	.002	11/16	.30	DAC-22	.006	15/16	.30
DAC-4	.0022	11/16	.30	DAC-23	.0068	1	.30
DAC-5	.003	11/16	.30	DAC-24	.007	1	.30
DAC-6	.0033	11/16	.30	DAC-25	.0075	1	.30
DAC-7	.004	15/16	.30	DAC-26	.008	1	.30
DAC-8	.0047	15/16	.30	DAC-27	.01	1	.30

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

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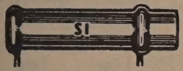
AEROVOX *Capacitors*

INDUSTRIAL CERAMIC CAPACITORS

TUBULAR and DISK CAPACITOR SIZES



SI TUBULAR

Designation	Size
SI-1	.234 x .437
SI-2	.234 x .687
SI-3	.312 x 1.250
SI-4	.375 x 1.093
SI-5	.375 x 1.600
SI-6	.375 x 1.968
SI-7	.275 x .875
SI-13	.234 x .468
SI-19	.312 x .937
SI-22	.280 x .750
SI-27	.275 x .500

CI TUBULAR

Designation	Size
CI-1	.250 x .562
CI-2	.250 x .812
CI-3	.340 x 1.320

DI DISK

Designation	Diameter
DI-0	1/4
DI-1	5/16
DI-2	3/8
DI-3	7/16
DI-4	19/32
DI-5	11/16
DI-6	3/4
DI-7	29/32

GENERAL PURPOSE TUBULARS

The items listed below fall into two type categories. The type SI or "Dog Bone" Durez coated tubular, and the CI which is an insulated tubular made in a ceramic tube.

500 VDCW
★Net Price — .15

Cap. Mmfd.	Size	
5	SI-1	CI-1
10	SI-1	CI-1
12	SI-1	CI-1
15	SI-1	CI-1
18	SI-1	CI-1
20	SI-1	CI-1
22	SI-1	CI-1
24	SI-1	CI-1
25	SI-1	CI-1
27	SI-1	CI-1
30	SI-1	CI-1
33	SI-1	CI-1
39	SI-1	CI-1
47	SI-1	CI-1
50	SI-1	CI-1
51	SI-1	CI-1
56	SI-1	CI-1
68	SI-1	CI-1
75	SI-1	CI-1
82	SI-1	CI-1
91	SI-1	CI-1
100	SI-1	CI-1
110	SI-1	CI-1

Cap. Mmfd.	Size	
120	SI-1	CI-1
150	SI-1	CI-1
180	SI-1	CI-1
200	SI-1	CI-1
220	SI-1	CI-1
240	SI-1	CI-1
250	SI-1	CI-1
270	SI-1	CI-1
300	SI-1	CI-1
330	SI-1	CI-1
360	SI-1	CI-1
390	SI-1	CI-1
470	SI-1	CI-1
500	SI-1	CI-1
510	SI-1	CI-1
560	SI-1	CI-1
680	SI-1	CI-1
750	SI-1	CI-1
820	SI-1	CI-2
910	SI-1	CI-2
1000	SI-1	CI-2
1200	SI-2	CI-2
1500	SI-2	CI-2

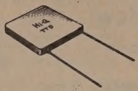
Cap. Mmfd.	Size	
1800	SI-2	CI-2
2000	SI-2	CI-2
2200	SI-7	CI-3
2400	SI-7	CI-3
2500	SI-7	CI-3
2700	SI-7	CI-3
3000	SI-19	CI-3
3300	SI-19	CI-3
4000	SI-19	CI-3
4700	SI-3	CI-3
5000	SI-3	CI-3
5100	SI-3	CI-3
5600	SI-3	CI-3
6000	SI-3	CI-3
6800	SI-4	
7500	SI-4	
10,000	SI-5	
15,000	SI-6	
17,500	SI-6	
20,000	SI-5 GMV	
25,000	SI-5 GMV	
30,000	SI-6 GMV	
33,000	SI-6 GMV	

Standard Tolerance ±20%

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

Type TTD

Transistor Disks



These square miniature disks are ideally suited for all applications where size is a factor such as transistorized radios and industrial applications having critical space requirements. Units are rated at 100 VDCW ±20% standard tolerance.

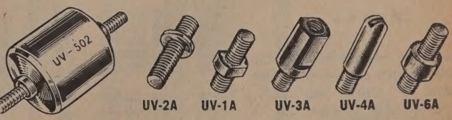
Capacity	Length & Width	Thickness	Net Price★
.005	.280	.125	.24
.01	.340	.125	.24
.02	.430	.125	.30
.025	.465	.125	.30
.03	.465	.125	.30
.05	.535	.125	.36
.1	.700	.125	.54

★Request O.E.M. prices in the following quantities: 25 to 99, 100 to 249, 250 to 499, 500 to 999.

HIGH VOLTAGE "CARTWHEELS"

Hi-Q high voltage "cartwheels" are thoroughly tested units capable of assuring dependable service while withstanding high voltages. This new universal type (UV) offers interchangeable terminals in 5 styles for use in filter and by-pass applications in TV high voltage power supplies.

Terminal Hardware



STOCK ITEMS

Type	Voltage	Cap. Mmfd.	Net Price★
UV-501	10,000 VDCW	500 mmf.	.84
UV-502	20,000 VDCW	500 mmf.	1.11
UV-503	30,000 VDCW	500 mmf.	2.70

STOCK ITEMS—TERMINAL HARDWARE

Type	Net Price★	Type	Net Price★
UV-1A	.06	UV-4A	.06
UV-2A	.06	UV-6A	.06
UV-3A	.06		

★Request O.E.M. prices in the following quantities: 25 and up

AEROVOX Capacitors

MICAS

MIL Types CM15, CM20, CM30, CM35

AEROVOX Types 1459, 1468, 1469, 1467, 1464

Compact, precision-made mica dielectric capacitors made in accordance with specification MIL-C-5B. Units are furnished color coded and tested to meet all MIL requirements for 'N" temperature rating and all vibration grades of this specification. Types 1467 and 1468 are stacked mica and foil units molded in yellow bakelite. Types 1459, 1464 and 1469 are silvered mica molded in red bakelite. TYPE 1459 MINATURE MICA IS THE LATEST EDITION TO THIS MOLDED MICA LINE.

Type CM-15 (500 VDCW)

1459

Cap. Mmf.	Type Designation	Net★ Price
1	CM-15C-010	.24
2	CM-15C-020	.24
3	CM-15C-030	.24
5	CM-15C-050	.24
10	CM-15C-100	.24
12	CM-15C-120	.24
15	CM-15C-150	.24
18	CM-15C-180	.24
20	CM-15C-200	.24
22	CM-15C-220	.24
24	CM-15E-240	.24
27	CM-15E-270	.24
30	CM-15E-300	.24
33	CM-15E-330	.24
36	CM-15E-360	.24
39	CM-15E-390	.24
43	CM-15E-430	.24
47	CM-15E-470	.24
50	CM-15E-500	.24
51	CM-15E-510	.24
56	CM-15E-560	.24
62	CM-15E-620	.24
68	CM-15E-680	.24
75	CM-15E-750	.24
82	CM-15E-820	.27
91	CM-15E-910	.27
100	CM-15E-101	.27
110	CM-15E-111	.27
120	CM-15E-121	.27
130	CM-15E-131	.27
150	CM-15E-151	.27
160	CM-15E-161	.30
180	CM-15E-181	.30
200	CM-15E-201	.30
220	CM-15E-221	.33
240	CM-15E-241	.33
250	CM-15E-251	.33
270	CM-15E-271	.36
300	CM-15E-301	.36
330	CM-15E-331	.39
360	CM-15E-361	.42
390	CM-15E-391	.42
430*	CM-15E-431	.45
470*	CM-15E-471	.48
500*	CM-15E-501	.48
510*	CM-15E-511	.48

Type CM-20 (500 VDCW)

1468LS

Cap. Mmf.	Type Designation	Net★ Price
1	CM-20B-010	.18
5	CM-20B-050	.18
10	CM-20B-100	.18
12	CM-20B-120	.18
15	CM-20B-150	.18
18	CM-20B-180	.18
20	CM-20B-200	.18
22	CM-20B-220	.18
24	CM-20B-240	.18
25	CM-20B-250	.18
27	CM-20B-270	.18
30	CM-20B-300	.18
33	CM-20B-330	.12
36	CM-20B-360	.12
39	CM-20B-390	.12
40	CM-20B-400	.12
43	CM-20B-43C	.12
47	CM-20B-470	.12
50	CM-20B-500	.12
51	CM-20B-510	.12
56	CM-20B-560	.12
62	CM-20B-620	.12
68	CM-20B-680	.12
75	CM-20B-750	.12
82	CM-20B-820	.12
91	CM-20B-910	.12
100	CM-20B-101	.12
110	CM-20B-111	.12
120	CM-20B-121	.12
130	CM-20B-131	.15
150	CM-20B-151	.15
160	CM-20B-161	.15
180	CM-20B-181	.15
200	CM-20B-201	.15
220	CM-20B-221	.15
240	CM-20B-241	.18
250	CM-20B-251	.18
270	CM-20B-271	.18
300	CM-20B-301	.18
330	CM-20B-331	.18
350	CM-20B-351	.18
360	CM-20B-361	.18
390	CM-20B-391	.18
400	CM-20B-401	.18
430	CM-20B-431	.18
470	CM-20B-471	.18
500	CM-20B-501	.18
510	CM-20B-511	.18
560	CM-20B-561	.21
600	CM-20B-601	.21
620	CM-20B-621	.21
680	CM-20B-681	.21
750	CM-20B-751	.21
800	CM-20B-801	.24
820	CM-20B-821	.24
900	CM-20B-901	.27
910	CM-20B-911	.27
1000	CM-20B-102	.27

1469

Cap. Mmf.	Type Designation	Net★ Price
5	CM-20C-050	.24
10	CM-20C-100	.24
12	CM-20C-120	.24
15	CM-20C-150	.24
18	CM-20C-180	.24
20	CM-20C-200	.24
22	CM-20C-220	.24
24	CM-20C-240	.24
25	CM-20C-250	.24
27	CM-20C-270	.24
30	CM-20C-300	.24
33	CM-20C-330	.24
36	CM-20C-360	.24
39	CM-20C-390	.24
40	CM-20C-400	.24
43	CM-20C-430	.24
47	CM-20C-470	.24
50	CM-20C-500	.24
51	CM-20C-510	.24
56	CM-20C-560	.24
62	CM-20C-620	.24
68	CM-20C-680	.24
70	CM-20C-700	.24
75	CM-20C-750	.24
82	CM-20C-820	.24
91	CM-20C-910	.24
100	CM-20C-101	.24
110	CM-20C-111	.27
120	CM-20C-121	.27
130	CM-20C-131	.27
150	CM-20C-151	.27
160	CM-20C-161	.27
180	CM-20C-181	.27
200	CM-20D-201	.27
220	CM-20D-221	.27
240	CM-20D-241	.33
250	CM-20D-251	.33
270	CM-20D-271	.33
300	CM-20D-301	.33
330	CM-20D-331	.33
350	CM-20D-351	.33
360	CM-20D-361	.33
390	CM-20D-391	.39
400	CM-20D-401	.39
430	CM-20D-431	.39
470	CM-20D-471	.42
500	CM-20D-501	.42
510	CM-20D-511	.42
560	CM-20D-561	.45
620	CM-20D-621	.45
680	CM-20D-681	.48
750	CM-20D-751	.48
820	CM-20D-821	.51
910	CM-20D-911	.51
1000	CM-20D-102	.54

Type CM-30 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net★ Price
470	CM-30B-471	.18
500	CM-30B-501	.18
510	CM-30B-511	.18
560	CM-30B-561	.18
620	CM-30B-621	.18
680	CM-30B-681	.18
750	CM-30B-751	.18
820	CM-30B-821	.18
910	CM-30B-911	.18
1000	CM-30B-102	.21
1100	CM-30B-112	.21
1200	CM-30B-122	.21
1300	CM-30B-132	.21
1500	CM-30B-152	.24
1600	CM-30B-162	.24
1800	CM-30B-182	.27
2000	CM-30B-202	.27
2200	CM-30B-222	.27
2400	CM-30B-242	.30
2500	CM-30B-252	.30
2700	CM-30B-272	.30
3000	CM-30B-302	.36
3300	CM-30B-332	.36
3600	CM-30B-362	.36
3900	CM-30B-392	.39
4000	CM-30B-402	.39
4300	CM-30B-432	.39
4700	CM-30B-472	.39
5000	CM-30B-502	.42
5100	CM-30B-512	.42
5600	CM-30B-562	.42
6000	CM-30B-602	.54
6200	CM-30B-622	.54
6800	CM-30B-682	.54
7000	CM-30B-702	.54
7500	CM-30B-752	.60
8000	CM-30B-802	.60
8200	CM-30B-822	.60
9000	CM-30B-902	.66
9100	CM-30B-912	.66
10000	CM-30B-103	.72

1464

Cap. Mmf.	Type Designation	Net Pric
470	CM-30D-471	.42
510	CM-30D-511	.42
560	CM-30D-561	.45
620	CM-30D-621	.45
680	CM-30D-681	.48
750	CM-30D-751	.48
800	CM-30D-801	.51
820	CM-30D-821	.51
900	CM-30D-901	.54
910	CM-30D-911	.54
1000	CM-30D-102	.60
1100	CM-30D-112	.60
1200	CM-30D-122	.69
1300	CM-30D-132	.69
1500	CM-30D-152	.75
1600	CM-30D-162	.75
1800	CM-30D-182	.75
2000	CM-30D-202	.81
2200	CM-30D-222	.81
2400	CM-30D-242	.96
2500	CM-30D-252	.96
2700	CM-30D-272	1.08
3000	CM-30D-302	1.14
3300	CM-30D-332	1.14
3600	CM-30D-362	1.20
3900	CM-30D-392	1.20
4000	CM-30D-402	1.20
4300	CM-30D-432	1.26
4700	CM-30D-472	1.26
5000	CM-30D-502	1.29
5100	CM-30D-512	1.29
5600	CM-30D-562	1.35
6200	CM-30D-622	1.44
6800	CM-30D-682	1.50
7500	CM-30D-752	1.50
8200	CM-30D-822	1.50
9100	CM-30D-912	1.50

Type CM-35 (500 VDCW)

1467LS

Cap. Mmf.	Type Designation	Net★ Price
3600	CM-35B-362	.36
3900	CM-35B-392	.39
4000	CM-35B-402	.39
4300	CM-35B-432	.39
4700	CM-35B-472	.39
5000	CM-35B-502	.42
5100	CM-35B-512	.42
5600	CM-35B-562	.42
6200	CM-35B-622	.54
6800*	CM-35B-682	.57
7000*	CM-35B-702	.57
7500*	CM-35B-752	.60
8000*	CM-35B-802	.69
8200*	CM-35B-822	.69
9100*	CM-35B-912	.69
10000*	CM-35B-103	.84
12000*	CM-35B-123	.96
13000*	CM-35B-133	1.02
14000*	CM-35B-143	1.08
15000*	CM-35B-153	1.20

1464

Cap. Mmf.	Type Designation	Net★ Price
3600	CM-35D-362	1.20
3900	CM-35D-392	1.20
4000	CM-35D-402	1.20
4300	CM-35D-432	1.26
4700	CM-35D-472	1.26
5000	CM-35D-502	1.29
5100	CM-35D-512	1.29
5600	CM-35D-562	1.35
6000	CM-35D-602	1.44
6200	CM-35D-622	1.44
6800*	CM-35D-682	1.59
7000*	CM-35D-702	1.59
7500*	CM-35D-752	1.68
8000*	CM-35D-802	1.80
8200*	CM-35D-822	1.80
9100*	CM-35D-912	1.92
10000*	CM-35D-103	2.10

NOTES

In mica and foil construction the standard tolerance is ±20%. Also available in ±10% and ±5%. Closest available tolerance up to and including 10 mmf. is ±1 mmf.; above 10 mmf. ±2% or ±2 mmf., whichever is greater.

In silver mica the standard tolerance is ±5%. Also available in ±2% and ±1%. Closest available tolerance up to 10 mmf. is ±½ mmf.; 10 mmf. and up ±1% or ± 1 mmf., whichever is greater.

Nominal Size All CM30 Units — $\frac{53}{64}$ x $\frac{53}{64}$ x $\frac{9}{32}$
Nominal Size All CM35 Units — $\frac{53}{64}$ x $\frac{53}{64}$ x $\frac{21}{64}$
Nominal Size All CM20 Units — $\frac{45}{64}$ x $\frac{29}{64}$ x $\frac{3}{16}$
Nominal Size All CM15 Units — ½ x $\frac{9}{32}$ x $\frac{9}{16}$

*Capacities are 300 WV. Type Designation 1467XLS and 1464X.

★Request O.E.M. Prices in the following quantities: 50 to 99, 100 and up.

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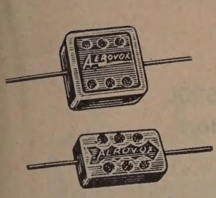
RECEIVING MICA CAPACITORS — (Continued)



Type 1469HV and 1464HV

Designed especially for television, low power transmitters and power amplifier applications, these capacitors feature the highest voltages ever before available in these case sizes. They are furnished in silvered mica molded in red Bakelite. Standard Tolerance is plus and minus 5% and they are tested to meet EIA standards. Units are marked with capacity and working voltage and are tested at double the rated voltage to insure long life.

Type 1469HV			Type 1464HV		
p. fd.	1000 VDCW 2000 VDCT Net Price★	1500 VDCW 3000 VDCT Net Price★	Cap. Mmfd.	1000 VDCW 2000 VDCT Net Price★	1500 VDCW 3000 VDCT Net Price★
	.27	.30	430		$. 90
	.27	.30	470		.90
	.27	.30	500		.90
	.27	.30	510		.90
	.27	.30	560		.90
	.27	.30	620		.90
	.27	.30	680	$ .72	.90
	.27	.30	750	.72	.90
	.27	.30	820	.72	1.02
	.27	.30	910	.72	1.08
	.27	.30	1000	.72	1.08
	.27	.30	1100	.72	1.14
	.27	.30	1200	.78	1.32
	.27	.30	1300	.72	1.38
	.27	.30	1500	.90	1.56
	.27	.33	1600	.96	1.56
	.27	.33	1800	.96	1.74
	.27	.33	2000	1.02	1.92
	.27	.33	2200	1.14	2.04
	.27	.33	2400	1.26	2.16
	.27	.33	2500	1.26	
	.27	.33	2700	1.26	
	.27	.33	3000	1.38	
	.30	.36	3300	1.44	
	.30	.36	3600	1.62	
	.30	.36	3900	1.68	
	.30	.36	4000	1.68	
	.30	.36	4300	1.80	
	.30	.42	4700	1.98	
	.33	.42	5000	2.04	
	.33	.42	5100	2.04	
	.33	.48			
	.36	.48			
	.36	.48			
	.39	.60			
	.39	.60			
	.42	.66			
	.42	.66			
	.42	.69			
	.42	.69			
	.42	.69			
	.42	.69			
	.45				
	.45				
	.45				
	.45				
	.48				
	.51				

★Request O.E.M. prices in the following quantities: 50 to 99, 100 and up

DIPPED, SILVERED MICA CAPACITORS
TYPES ADM-15, ADM-19, ADM-20 and ADM-30

Aerovox plastic-coated dipped-mica units exceed many of the advantages of molded mica units, and at the same time are smaller than conventional units. Meeting all the applicable MIL-C-5B Test Standards for molded mica capacitors, these unique dipped-mica units offer the following features:

• High operating temperatures —55° to +125°C • Excellent long-life characteristics • Improved temperature coefficient range • Radial leads for automatic insertion and plug-in assemblies • Ideal for printed-wiring assemblies • Unsurpassed performance and stability characteristics • Smaller physical size.

Humidity Resistance: these capacitors shall have an insulation resistance of not less than 2,000 megohms after being subjected to the Humidity Resistance Test as outlined in MIL-C-5B. Minimum Insulation Resistance: 25,000 megohms at 25°C; 1000 meghoms at 125°C.

Capacitors will be marked with capacity and tolerance. In addition voltage rating wil be marked on all units other than 500 volts rating.

Cap. Mmf.	Type Designation	Net Price★	Type Designation	Net Price★	Type Designation	Net Price★	Type Designation	Net Price★
5	ADM-15-050	.17						
10	ADM-15-100	.17						
12	ADM-15-120	.17						
15	ADM-15-150	.17						
18	ADM-15-180	.17						
20	ADM-15-200	.17						
22	ADM-15-220	.17						
24	ADM-15-240	.17						
27	ADM-15-270	.17						
30	ADM-15-300	.17						
33	ADM-15-330	.17						
36	ADM-15-360	.17						
39	ADM-15-390	.17						
43	ADM-15-430	.17						
47	ADM-15-470	.17						
50	ADM-15-500	.17						
51	ADM-15-510	.17						
56	ADM-15-560	.17						
62	ADM-15-620	.17						
68	ADM-15-680	.17						
75	ADM-15-750	.17						
82	ADM-15-820	.17						
91	ADM-15-910	.17						
100	ADM-15-101	.17	ADM-19-101	.17				
110	ADM-15-111	.20	ADM-19-111	.20				
120	ADM-15-121	.20	ADM-19-121	.20				
130	ADM-15-131	.20	ADM-19-131	.20				
150	ADM-15-151	.20	ADM-19-151	.20				
160	ADM-15-161	.23	ADM-19-161	.20				
180	ADM-15-181	.23	ADM-19-181	.20				
200	ADM-15-201	.23	ADM-19-201	.20				
220	ADM-15-221	.26	ADM-19-221	.20				
240	ADM-15-241	.26	ADM-19-241	.23				
250	ADM-15-251	.26	ADM-19-251	.23				
270	ADM-15-271	.30	ADM-19-271	.26				
300	ADM-15-301	.30	ADM-19-301	.26				
330	ADM-15-331	.33	ADM-19-331	.26				
360	ADM-15-361	.33	ADM-19-361	.30				
390	ADM-15-391	.36	ADM-19-391	.30				
430	*ADM-15-431	.36	ADM-19-431	.30				
470	*ADM-15-471	.40	ADM-19-471	.33				
500	*ADM-15-501	.40	ADM-19-501	.33				
510	*ADM-15-511	.40	ADM-19-511	.33				
560			ADM-19-561	.36				
620			ADM-19-621	.36				
680			ADM-19-681	.40	ADM-20-681	.33		
750			ADM-19-751	.40	ADM-20-751	.33		
820			ADM-19-821	.40	ADM-20-821	.33		
910			ADM-19-911	.43	ADM-20-911	.36		
1000			ADM-19-102	.46	ADM-20-102	.40		
1100			ADM-19-112	.46	ADM-20-112	.40		
1200			ADM-19-122	.50	ADM-20-122	.43		
1300			ADM-19-132	.53	ADM-20-132	.46		
1500			ADM-19-152	.56	ADM-20-152	.50		
1600			ADM-19-162	.59	ADM-20-162	.53		
1800			ADM-19-182	.66	ADM-20-182	.59		
2000			ADM-19-202	.73	ADM-20-202	.63		
2200			ADM-19-222	.79	ADM-20-222	.69		
2400			*ADM-19-242	.86	ADM-20-242	.73		
2500			*ADM-19-252	.89	ADM-20-252	.78		
2700			*ADM-19-272	.92	ADM-20-272	.79		
3000			*ADM-19-302	.99	ADM-20-302	.86		
3300					ADM-20-332	.92		
3600					ADM-20-362	.99		
3900					ADM-20-392	1.06		
4300					*ADM-20-432	1.06	ADM-30-432	1.06
4700					*ADM-20-472	1.12	ADM-30-472	1.12
5000					*ADM-20-502	1.16	ADM-30-502	1.16
5100					*ADM-20-512	1.19	ADM-30-512	1.16
5600							ADM-30-562	1.19
6200							ADM-30-622	1.25
6800							ADM-30-682	1.39
7500							ADM-30-752	1.52
8200							ADM-30-822	1.65
9100							ADM-30-912	1.78
10000							ADM-30-103	1.98
12000							*ADM-30-123	2.11
13000							*ADM-30-133	2.31
15000							*ADM-30-153	2.54

CHARACTERISTICS

ADM-15—from 5 to 20 mmf. Characteristic "C".
from 22 to 150 mmf. Characteristic "E".
from 160 mmf. and up Characteristic "F"
ADM-19—All capacities listed "F" Characteristic.
ADM-20—All capacities listed "F" Characteristic.
ADM-30—All capacities listed "F" Characteristic.

Standard Tolerance ±5%

Minimum tolerance for capacitances up to and including 10 mmf. is ± 1/2 mmf., for all other capacitances ± 1% or 1 mmf. whichever is greater.

Sizes	L	W	T
ADM-15	15/32	5/16	7/32 max.
ADM-19	21/32	15/32	7/32 max.
ADM-20	3/4	15/32	7/32 max.
ADM-30	25/32	27/32	5/16 max.

★Request O.E.M. prices in the following quantities: 50 to 99, 100 and up

* All items asterisked are rated at 300 VDCW.

TRANSMITTING MICA CAPACITORS — (Continued)

TYPES 1650L, 1651L, 1652L, 1653L and 1654L

Heaviest-duty molded in bakelite mica capacitors of the AEROVOX line. Threaded mounting holes for roundhead screw terminals or plain holes available. Add suffix "A" for plain holes.

AEROVOX
MFD
1652-00015
2500 VDC

TYPE 1650L

600 VDCW — 1000 VDCT
350 VACW — 700 VACT

	Net Price
.0005	.87
.0001	.87
.00025	.87
.003	.87
.00035	.87
.0004	.87
.0005	.87
.001	.87
.0015	.87
.002	.99
.0025	1.02
.003	1.11
.004	1.20
.005	1.26
.006	1.32
.008	1.47
.01	1.68
.015	1.83
.02	2.13
.025	2.61
.03	2.73
.04*	3.51
.05*	4.26
.06*	4.83

TYPE 1651L

1200 VDCW — 2500 VDCT
875 VACW — 1750 VACT

	Net Price
.00005	.96
.0001	.96
.00025	.96
.0003	.96
.00035	.96
.0004	.96
.0005	.96
.001	1.14
.0015	1.35
.002	1.50
.0025	1.68
.003	1.77
.004	1.86
.005	1.98
.006	2.07
.008	2.46
.01	2.82
.015	3.48
.02*	4.23
.025*	4.74
.03*	4.86

TYPE 1652L

2500 VDCW — 5000 VDCT
1750 VACW — 3500 VACT

	Net Price
.00005	1.14
.000075	1.14
.0001	1.14
.00015	1.20
.0002	1.26
.00025	1.29
.0003	1.32
.00035	1.35
.0004	1.50
.0005	1.53
.001	1.74
.0015	2.34
.002	2.55
.0025	2.76
.003	3.06
.004	3.39
.005	3.72
.006	3.81
.008*	4.11
.01*	4.38

TYPE 1653L

3750 VDCW — 7500 VDCT
2625 VACW — 5250 VACT

	Net Price
.00005	1.98
.000075	2.19
.0001	2.28
.00015	2.49
.0002	2.58
.00025	2.85
.0003	2.94
.00035	3.45
.0004	3.54
.0005	3.90
.001	4.62
.0015	6.06
.002*	6.90
.0025*	7.74
.003*	8.55

TYPE 1654L

5000 VDCW — 10,000 VDCT
3500 VACW — 7000 VACT

	Net Price
.00005	2.25
.000075	2.49
.0001	2.79
.00015	3.03
.0002	3.75
.00025	4.08
.0003	4.29
.00035	4.50
.0004	4.62
.0005	5.94
.001*	7.50

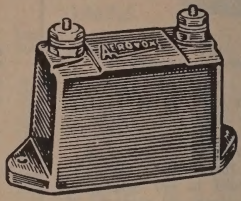
These units are equivalent to case styles CM55, CM56, CM60, and CM61 or specification MIL-C-5B.

Standard tolerance ±10%.

±5% Tolerance available on special order.
±2% Tolerance available on special order.
Nominal Size: 1¾" x 1⁵⁄₁₆" x ⁷⁄₁₆"
*Thickness ¾"

TYPES 1550L, 1570L and 1590L
Potted Transmitting Capacitors

These potted transmitting capacitors in thermo-setting case materials have greater load-carrying capacity than molded-in-thermo-setting case material capacitors. Types 1550 to 1590, inclusive, not only have high voltage rating but afford higher current ratings than equivalent capacitances in thermo-setting case material units. Because of their construction they are made with higher capacitance stability. Furnished only in low-loss thermo-setting case material as standard. Bakelite cased mica stack capacitors. These units have highest quality mica sections stacked for greater load carrying capacity. The sections are potted in low-loss bakelite cases and permanently clamped with non-magnetic material.



TYPE 1570L (Similar to CM65)

Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1570LS-204	.00005	3500	1.3	.6	.15	.05	10.17
1570LS-210	.0001	3500	2.0	.9	.3	.1	10.17
1570LS-214	.00015	3500	2.2	1.0	.45	.15	10.17
1570LS-217	.0002	3500	2.6	1.2	.6	.25	10.17
1570LS-219	.00025	3500	2.9	1.6	.7	.25	10.17
1570LS-221	.0003	3500	3.2	1.9	.8	.3	10.17
1570LS-223	.0004	3500	3.6	2.0	.9	.4	10.17
1570LS-226	.0005	3500	3.75	2.0	1.0	.5	10.17
1570LS-228	.0006	3500	4.1	2.0	1.2	.6	10.17
1570LS-232	.0008	3500	4.6	2.5	1.5	.7	10.17
1570LS-234	.001	3500	4.9	3.0	1.6	.8	10.17
1570LS-236	.0015	3500	5.8	3.5	2.0	1.0	10.17
1570LS-237	.002	3500	6.3	4.0	2.5	1.3	10.17
1570LS-240	.003	2500	7.1	5.0	3.0	1.5	10.17
1570LS-242	.004	2500	7.6	6.0	3.5	1.6	10.17
1570LS-245	.005	2500	8.5	6.5	4.0	2.0	10.17
1570LS-248	.006	2500	9.0	7.5	4.5	2.2	10.17
1570LS-254	.008	1500	10.0	8.0	5.0	2.3	10.17
1570LS-257	.01	1500	10.0	10.0	6.0	2.5	10.17
1570LS-260	.02	1500	11.0	10.0	7.0	3.0	11.37
1570LS-268	.05	500	8.5	7.5	6.0	3.8	11.37
1570LS-273	.1	250	11.0	12.0	10.0	6.0	12.12

Type 1570L also manufactured in case style CM65 of Spec. MIL-C-5B. Prices on request.

TYPE 1550L (Similar to CM70)

Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1550LS-200	.00005	6000	1.5	.7	.2	.07	13.94
1550LS-201	.0001	6000	2.5	1.3	.35	.1	13.94
1550LS-202	.00015	6000	3.0	1.7	.5	.16	13.94
1550LS-203	.0002	6000	3.5	1.8	.7	.3	13.94
1550LS-204	.00025	6000	5.0	2.5	1.0	.3	13.94
1550LS-206	.0003	6000	5.0	2.5	1.0	.4	13.94
1550LS-208	.0004	6000	5.0	2.7	1.1	.5	13.94
1550LS-210	.0005	6000	5.0	3.0	1.6	.75	13.94
1550LS-212	.0006	6000	5.1	3.1	1.7	.8	13.94
1550LS-215	.00075	6000	5.5	3.5	2.1	1.0	13.94
1550LS-216	.0008	6000	6.0	4.0	2.1	1.0	13.94
1550LS-218	.001	6000	7.0	4.0	2.2	1.0	13.94
1550LS-220	.0015	6000	9.0	5.1	3.0	1.6	13.94
1550LS-221	.002	6000	9.0	6.0	4.0	1.9	13.94
1550LS-222	.002	3000	6.0	4.6	3.0	1.1	11.74
1550LS-223	.0025	5000	9.0	6.0	4.0	2.0	13.94
1550LS-225	.003	3000	6.5	6.0	4.1	1.6	12.95
1550LS-228	.004	3000	10.0	6.5	4.5	2.0	13.94
1550LS-230	.005	3000	10.0	6.8	5.0	2.5	13.94
1550LS-235	.0075	3000	11.0	8.0	6.5	2.9	13.94
1550LS-236	.008	3000	11.0	9.0	6.8	3.0	13.94
1550LS-238	.01	2000	11.0	10.0	8.0	4.0	13.94
1550LS-239	.015	2000	11.5	11.0	9.0	5.0	13.94
1550LS-240	.02	2000	12.5	11.0	10.5	7.0	13.94
1550LS-241	.03	2000	13.0	16.0	13.0	7.0	13.94
1550LS-242	.04	1500	13.0	16.0	13.0	7.5	13.94
1550LS-243	.05	1500	14.0	16.0	13.0	7.5	13.94
1550LS-244	.1	1000	16.0	18.0	14.0	9.0	19.27
1550LS-247	.25	250	16.0	18.0	14.0	12.0	22.25

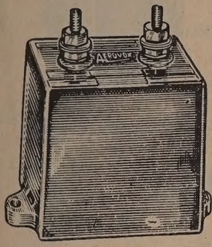
Type 1550L also manufactured in case style CM70 of Spec. MIL-C-5B. Prices on request

±2% Tolerance Available on Special Order.

AEROVOX *Capacitors*

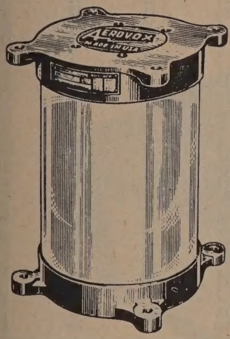
TRANSMITTING MICA CAPACITORS — (Continued)

TYPE 1590L — POTTED TRANSMITTING CAPACITORS



Cat. No.	Capacity	Test Volts Eff.	Max. Operating Current in Amps. 3000 kc	1000 kc	300 kc	100 kc	Net Price
1590L-200	.00025	8000	7.0	5.0	2.0	.6	31.07
1590L-201	.0005	8000	8.5	6.0	3.0	1.0	31.07
1590L-203	.001	8000	10.0	8.5	4.5	2.0	34.67
1590L-205	.002	8000	12.0	11.0	8.0	4.0	34.67
1590L-207	.003	8000	15.0	15.0	11.0	5.0	36.84
1590L-209	.004	8000	16.0	16.0	12.0	6.0	39.41
1590L-211	.005	8000	16.0	16.0	13.0	7.0	42.74
1590L-213	.006	8000	16.0	18.0	13.0	7.0	42.74
1590L-217	.01	8000	17.0	21.0	15.0	9.0	48.54
1590L-218	.01	6000	16.0	20.0	15.0	8.0	46.13
1590L-219	.02	5000	18.0	22.0	18.0	12.0	48.54
1590L-220	.03	4000	18.0	23.0	20.0	13.0	48.54
1590L-222	.05	4000	18.0	25.0	23.0	15.0	54.44
1590L-223	.05	2000	18.0	25.0	22.0	12.0	51.68
1590L-224	.1	2000	18.0	28.0	23.0	15.0	42.84
1590L-226	.2	600	18.0	28.0	23;0	15.0	34.67
1590L-227	.25	600	18.0	28.0	23.0	15.0	39.14
1590L-228	.3	600	18.0	28.0	23.0	15.0	42.36
1590L-230	.5	600	18.0	28.0	23.0	15.0	46.38
1590L-233	1.0	600	18.0	28.0	23.0	15.0	71.16

Standard Tolerance ±5%
Also Available in ±2% on Special Order.



TYPES 1940, 1950, 1960, 1970 and 1980

Stack-Mounting Transmitting Capacitors

These stack-mounting transmitting mica capacitors are especially intended for various applications such as grid, plate blocking, coupling, tank, and by-passing functions for higher-powered installations. They are made with a special cylindrical low-loss, glazed ceramic case providing a long creepage path between terminals. They are designed to eliminate corona losses, inside and outside alike, and also provide uniform voltage gradient. The cast-aluminum terminal ends provide low contact resistance between units. These units are conservatively rated to withstand surge voltages above their rated values. They have extremely low power factor so that they can handle large KVA loads without overheating.

TYPE 1940

atalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
940-236	.000075	35000	371.39
1940-203	.0001	35000	371.39
1940-204	.00015	35000	403.66
1940-205	.0002	35000	403.66
1940-206	.00025	35000	403.66
1940-207	.0003	35000	403.66
1940-208	.00035	35000	403.66
1940-209	.0004	35000	403.66
1940-210	.0005	35000	435.44
1940-211	.0006	35000	435.44
1940-212	.0007	35000	435.44
1940-213	.0008	35000	435.44
1940-214	.001	35000	449.27
1940-215	.00125	35000	449.27
1940-216	.0015	35000	449.27
1940-217	.002	30000	430.55
1940-218	.0025	25000	438.27
1940-219	.003	25000	454.51
1940-220	.004	20000	476.16
1940-221	.005	20000	476.16
1940-222	.006	15000	476.16
1940-223	.007	15000	476.16
1940-224	.008	15000	476.16
1940-225	.01	15000	476.16
1940-237	.02	12000	476.16
1940-238	.03	10000	476.16
1940-239	.04	7500	476.16
1940-240	.05	6000	476.16
1940-241	.06	6000	476.16
1940-242	.07	6000	476.16
1940-243	.08	6000	476.16
1940-244	.1	5000	476.16

TYPE 1950 (Similar to CM75)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1950-202	.00005	6000	30.56
1950-204	.0001	6000	32.27
1950-207	.0002	6000	32.52
1950-209	.0003	6000	35.59
1950-212	.0005	6000	37.16
1950-216	.001	6000	37.16
1950-218	.002	6000	39.26
1950-220	.003	6000	40.34
1950-222	.005	6000	40.34
1950-226	.01	5000	41.07
1950-228	.02	3000	41.07
1950-231	.05	1500	43.13

TYPE 1960 (Similar to CM80)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1960-202	.00005	15,000	52.33
1960-203	.0001	15,000	52.33
1960-204	.00015	12,500	52.33
1960-205	.0002	12,500	52.33
1960-209	.0005	12,500	52.33
1960-212	.0008	10,000	52.33
1960-213	.001	10,000	52.33
1960-214	.0015	10,000	52.33
1960-215	.002	10,000	52.33
1960-218	.004	8,000	52.33
1960-219	.005	8,000	52.33
1960-223	.01	7,000	55.49
1960-224	.015	5,000	55.49
1960-225	.02	4,000	55.49

TYPE 1970 (Similar to CM85)

Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1970-202	.00005	20,000	88.90
1970-203	.0001	20,000	96.95
1970-204	.00015	20,000	104.77
1970-205	.0002	20,000	104.77
1970-210	.0005	20,000	109.91
1970-213	.0008	20,000	109.91
1970-214	.001	20,000	112.71
1970-216	.0015	20,000	114.67
1970-217	.002	15,000	114.67
1970-220	.004	12,000	120.91
1970-221	.005	10,000	120.91
1970-225	.01	10,000	120.91
1970-227	.02	6,000	120.91

TYPE 1980 (Similar to CM90)

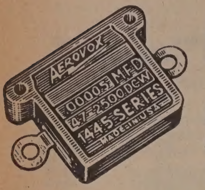
Catalog No.	Cap. Mfd.	Test Volts Eff.	Net Price
1980-202	.00005	35,000	134.48
1980-203	.0001	35,000	168.22
1980-204	.00015	35,000	168.22
1980-207	.0003	35,000	177.02
1980-209	.0004	35,000	177.02
1980-210	.0005	35,000	177.02
1980-213	.0008	30,000	177.02
1980-214	.001	25,000	183.12
1980-217	.002	20,000	183.12
1980-220	.004	20,000	187.52
1980-221	.005	20,000	193.77
1980-224	.008	15,000	207.82
1980-225	.01	15,000	217.84
1980-230	.05	5,000	217.84

All units also manufactured in equivalent MIL-C-5B case styles. Prices on request.
Standard tolerance for all units is plus and minus 5%.
Also Available in ±2% on Special Order.

AEROVOX *Capacitors*

TRANSMITTING MICA CAPACITORS

TYPES 1445, 1446 and 1447



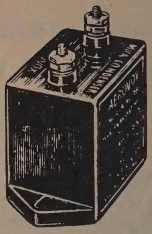
Designed with insulated mounting holes 1$\frac{5}{16}$" apart independent of soldering lugs. Used to shunt meter windings.
Size: 1⅛" x 1⅝" x $\frac{11}{32}$"
Standard Tolerance ±10%
±5% and ±2% tolerance are available on special order.
Meter Mounting Bracket E available. Specify when ordering.
These units are equivalent to case styles CM45 and CM50 of specification MIL-C5B.

TYPE 1445 600 VDCW 1000 VDCT		TYPE 1446 1200 VDCW 2500 VDCT		TYPE 1447 2500 VDCW 5000 VDCT	
Cap. Mfd.	Net Price	Cap. Mfd.	Net Price	Cap. Mfd.	Net Price
.00005	.72	.00005	.96	.00005	1.14
.0001	.72	.0001	.96	.000075	1.14
.00015	.72	.00015	.96	.0001	1.14
.0002	.72	.0002	.96	.00015	1.14
.00025	.72	.00025	.96	.0002	1.14
.0003	.72	.0003	.96	.00025	1.32
.00035	.72	.00035	.96	.0003	1.35
.0004	.72	.0004	.96	.00035	1.35
.0005	.72	.0005	.96	.0004	1.38
.001	.72	.001	1.08	.0005	1.44
.0015	.72	.0015	1.38	.001	1.68
.002	.78	.002	1.44	.0015	2.13
.0025	.78	.0025	1.68	.002*	2.49
.003	.87	.003	1.83	.0025*	2.76
.004	.90	.004*	1.83	.003*	2.94
.005	.93	.005*	1.98	.004*	3.39
.006	1.08	.006*	1.98	.005*	3.84
.008	1.14	.008*	2.31		
.01	1.29	.01*	3.06		
.015*	1.59	.015*	3.60		
.02*	1.83				
.025*	2.16				
.03*	2.67				
.04*	3.39				

*Thickness $\frac{7}{16}$"

TYPES 1991 thru 1996

Porcelain-Cased Capacitors



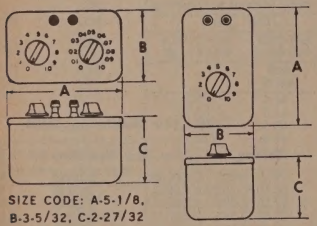
Ideal for high-frequency application. Glazed porcelain case, high temperature wax sealed. Heavy duty power terminals. Minimum power loss due to dielectric absorption. No heating at full load.

Size: 4" overall by 3" high; 2½" between mounting holes.

Standard Tolerance ±10%

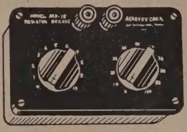
Cap. Mfd.	DC Voltage Rating	Type	Maximum Current Capacity—Amperes 15 mc	7.5 mc	3750 kc	1875 kc	Net Price
.00005	12,500	1996	3	2.5	1.5	1	10.80
.0001	12,500	1996	5	4	3	2	10.80
.00025	12,500	1996	7	8	6	4	10.80
.0005	12,500	1996	8	9	8	7	10.80
	7,000	1994	7	8	6	4	8.91
.001	12,500	1996	9	10	11	12	10.80
	7,000	1994	8	9	10	8	9.66
	3,500	1992	8	9	8	5	9.51
.0015	12,500	1996	9	10	11	12	12.66
	7,000	1994	9	9	10	8	10.59
	5,000	1993	8	9	9	7	10.59
	3,500	1992	8	9	8	5	9.51
	2,000	1991	7	8	8	5	9.51
.002	12,500	1996	9	12	13	15	15.00
	10,000	1995	9	10	11	12	13.83
	7,000	1994	9	9	10	10	12.66
	5,000	1993	8	9	9	8	11.88
	3,500	1992	8	8	9	7	11.16
	2,000	1991	7	8	8	6	11.16
.003	12,500	1996	9	12	13	15	18.60
	10,000	1995	9	11	12	13	16.20
	7,000	1994	9	10	10	10	13.80
	5,000	1993	8	9	9	9	12.78
	3,500	1992	8	9	9	8	11.88
	2,000	1991	7	8	8	7	11.88
.005	10,000	1995	10	13	14	15	19.47
	7,000	1994	9	11	12	11	18.39
	5,000	1993	9	11	12	10	12.93
	3,500	1992	9	10	11	9	12.78
	2,000	1991	8	9	10	8	12.78
.01	7,000	1994	10	13	15	15	20.37
	5,000	1993	10	13	15	15	19.89
	3,500	1992	10	13	14	14	19.47
	2,000	1991	10	13	14	14	19.47
.02	3,500	1992	10	14	16	17	19.47
	2,000	1991	10	13	15	15	18.12
.05	3,500	1992	10	14	17	18	22.56
	2,000	1991	10	14	16	17	19.47
.1	2,000	1991	10	14	17	18	22.56

AEROVOX DECADE BOXES



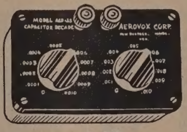
SIZE CODE: A-5-1/8, B-3-5/32, C-2-27/32

RESISTANCE



ARD

CAPACITANCE



ACD

INDUCTANCE

ALD

Laboratory quality Standards in capacitance, resistance and inductance at a price far below that of equivalent quality Standards. Available in ten units: three resistance decades, three capacitance decades and four inductance decades. Housed in a seamless, drawn steel case coated with gray enamel. Panels are black with the markings engraved in white.

All ratings are maximum and no guarantee can be enforced if ratings are exceeded in any way. Overload can change accuracy or cause actual burn-outs. Multiple dial units have the highest value multipliers on the left-hand side so that readings are in order exactly as they should be read.

PART NO.	TYPE	DIELECTRIC	DIALS	RANGE	STEPS	ACCURACY ± 1st Dial	2nd Dial	RATING 1st Dial	2nd Dial	Net Price
RESISTANCE										
ARD-15	R	Wire-Wound	2	0 to 110 ohms	1.0 ohm	5%	3%	1.0 Amp.	.5 Amp.	15.15
ARD-23	R	Wire-Wound	2	0 to 11 K	100 ohm	3%	3%	100 Ma.	50 Ma.	15.15
ARD-31	R	Carbon Deposited	2	0 to 1.1 meg.	10 K ohms	1%	1%	5 Ma.	2 Ma.	15.15
CAPACITANCE										
ACD-13	C	Mica	2	0 to .011 mfd.	.0001 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	14.50
ACD-23	C	Oil-Paper	2	0 to 1.1 mfd.	.01 mfd.	3%	3%	600 VDC 220 VAC	600 VDC 220 VAC	16.50
ACD-33	C	Oil-Paper	1	0 to 10.0 mfd.	1.0 mfd.	3%	—	600 VDC 220 VAC	—	27.25
INDUCTANCE										
ALD-12	L	Toroidal	1	0 to 10 mh.	1.0 mh.	2%	—	250 MaDC	—	29.90
ALD-22	L	Toroidal	1	0 to 100 mh.	10.0 mh.	2%	—	79 MaDC	—	29.90
ALD-32	L	Toroidal	1	0 to 1.0 hy.	100.0 mh.	2%	—	25 MaDC	—	29.90
ALD-42	L	Toroidal	1	0 to 10.0 hy.	1.0 hy.	2%	—	8 MaDC	—	32.90

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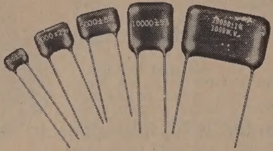
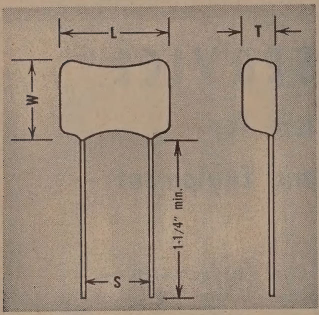
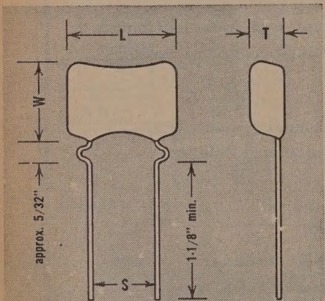
ELMENCO CAPACITORS

DUR-MICA CASE SIZES





	DM-15	DM-16	DM-19	DM-20	DM-30	DM-40	DM-42	DM-43
S ± 1/32	15/64	1/2	11/32	7/16	7/16	19/32	1-1/16	1-11/16
LEAD WIRE GAGE	#22	#22	#20	#20	#18	#18	#18	#18



Crimped Leads

In addition to the straight lead design, DM capacitors are also available with crimped leads for printed circuit application. The crimp provides a positive stop when capacitors are mounted. This prevents interference of resin coat on the leads with dip-solder operation, provides greater mounting uniformity, and elevates the components slightly above the surface of the board. The crimp lead design is not a regularly stocked item, but it is available to special order at a small fixed handling charge.

Lead wire gage for crimped lead units is the same as for straight lead capacitors with the exception of DM15 and DM16. Crimped lead gage of DM15 and DM16 is #20.

Maximum Dimensions

The following is a tabulation of maximum dimensions of the various DM case sizes. They have been specified to anticipate variations in coat thickness and minor protrusions on the surface. As a result, average dimensions of a given lot may be appreciably smaller than those listed.

It is to be noted that the leads are not centered in the thickness dimension as can be seen on the end view dimensional drawing. Construction of Elmenco Dur-Mica capacitors provides for leads to project from one surface of the mica stack, causing them in turn to extend from one edge of the capacitor. Regardless of case size and overall thickness, leads will always be within 1/16 to 3/32 from one of the capacitor surfaces.

The "W" dimension specifies the distance from the top of the capacitor to the point where the visible dip-coat ends on the leads. However, for reliable lead attachment, another 5/64 lead length should be allowed for resinous coating before solder connection is made.

Not all dimensions of every capacitance value are listed below. It has been found that size varies almost linearly with capacitance value. As a result, dimensions of values between those specified below should be determined by interpolation.

CASE SIZES — DUR-MICA SERIES

CASE SIZE	Cap. mmf.	Volt. VDCW	L max.	W max.	T max.
DM-15	10	500	.446	.351	.163
	40	500	.448	.355	.166
	100	500	.451	.360	.175
	200	500	.457	.372	.190
	400	500	.470	.395	.220
	400	300	.457	.365	.190
	600	300	.463	.371	.204
	820	300	.470	.378	.220
DM-16	430	500	.726	.378	.196
	600	500	.731	.388	.210
	720	500	.736	.395	.220
	720	300	.723	.365	.190
	900	300	.726	.368	.197
	1100	300	.730	.372	.206
	1300	300	.733	.375	.214
DM-19	100	500	.622	.476	.178
	200	500	.624	.478	.180
	500	500	.628	.482	.186
	1000	500	.636	.490	.197
	2000	500	.652	.506	.219
	3000	500	.668	.520	.240
	3000	300	.655	.510	.223
	4000	300	.665	.520	.240
DM-20	200	500	.722	.463	.181
	600	500	.726	.469	.189
	1000	500	.730	.475	.196
	2000	500	.740	.490	.215
	3000	500	.750	.505	.234
	4300	500	.760	.525	.258
	4300	300	.750	.511	.233
	5000	300	.755	.520	.242
	6200	300	.763	.533	.258
DM-30	3000	500	.757	.845	.238
	5000	500	.765	.855	.253
	7000	500	.773	.865	.268
	10000	500	.783	.879	.290
	10000	300	.780	.855	.273
	15000	300	.798	.868	.302
	20000	300	.815	.880	.330
DM-40	3000	500	.927	.659	.220
	5000	500	.938	.682	.247
	10000	500	.965	.740	.315
	10000	300	.962	.693	.263
	15000	300	.990	.725	.305
DM-42	10000	500	1.385	.833	.237
	20000	500	1.406	.851	.287
	30000	500	1.426	.868	.337
	40000	500	1.446	.886	.384
	40000	300	1.431	.880	.357
	50000	300	1.446	.918	.396
	63000	300	1.466	.963	.442
DM-43	50000	500	2.056	.873	.352
	60000	500	2.069	.884	.381
	75000	500	2.089	.901	.428
	75000	300	2.069	.912	.391
	90000	300	2.084	.948	.425
	100000	300	2.092	.964	.443

TYPE SCDM SINGLE COAT

SCDM-10	10	500	.303	.210	.113
	50	500	.305	.210	.121
	100	500	.309	.210	.130
	150	500	.311	.210	.139
	200	500	.313	.210	.149
	250	500	.315	.210	.159
	300	300	.315	.210	.159
	390	100	.315	.210	.159
SCDM-15	10	500	.415	.267	.144
	40	500	.417	.268	.146
	100	500	.419	.271	.148
	200	500	.423	.275	.152
	400	500	.430	.283	.160
	400	300	.425	.277	.156
	600	300	.430	.282	.162
	820	300	.437	.287	.169
	1000	100	.442	.290	.174

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ELMENCO CAPACITORS

TYPES
DM-15, DM-16
DM-19, DM-20

DUR-MICA

TYPE DM-10 500VDCW

(SCDM 10 values and prices the same)

Net Price Tolerance

Cap. Mmf.	Type Designation	±10% "K"	±5% "J"	±2% "G"	±1% "F"
1	DM-10-010†	$0.18			
2	DM-10-020†	.18			
3	DM-10-030†	.18			
5	DM-10-050	.18			
10	DM-10-100	.18	$0.20		
12	DM-10-120	.21	.23		
15	DM-10-150	.21	.23		
18	DM-10-180	.21	.23		
20	DM-10-200	.21	.23		
22	DM-10-220	.21	.23		
24	DM-10-240	.21	.23		
27	DM-10-270	,21	.23	$0.28	
30	DM-10-300	.21	.23	.28	
33	DM-10-330	.21	.23	.28	
36	DM-10-360	.21	.23	.28	
39	DM-10-390	.21	.23	.28	
43	DM-10-430	.21	.23	.28	
47	DM-10-470	.24	.26	.31	
50	DM-10-500	.24	.26	.31	$0.38
51	DM-10-510	.24	,26	.31	.38
56	DM-10-560	.24	.26	.31	.38
62	DM-10-620	.24	.26	.31	.38
68	DM-10-680	.24	.26	.31	.38
75	DM-10-750	.24	.26	.31	.38
82	DM-10-820	.24	.26	.31	.38
91	DM-10-910	.24	.26	.31	.38
100	DM-10-101	.24	.26	.31	.38
110	DM-10-111	.24	.26	.31	.38
120	DM-10-121	.27	.30	.35	.43
130	DM-10-131	.27	.30	.35	.43
150	DM-10-151	.30	.33	.37	.48
160	DM-10-161	.33	.37	.43	.53
180	DM-10-181	.36	.40	.47	.58
200	DM-10-201	.36	.40	.47	.58
220	DM-10-221	.39	.43	.51	.62
240	DM-10-241	.42	.46	.55	.67
250	DM-10-251	.42	.46	.55	.67
270*	DM-10-271	.42	.46	.55	.67
300*	DM-10-301	.45	.50	.59	.72
330**	DM-10-331	.45	.50	.59	.72
360**	DM-10-361	.48	.53	.62	.77
390**	DM-10-391	.51	.56	.67	.82

TYPE DM-15 500VDCW

(SCDM15 values and prices the same)

1	DM-15-010†	$0.15			
2	DM-15-020†	.15			
3	DM-15-030†	.15			
5	DM-15-050†	.15			
10	DM-15-100	.15	$0.17		
12	DM-15-120	.15	.17		
15	DM-15-150	.15	.17		
18	DM-15-180	.15	.17		
20	DM-15-200	.15	.17		
22	DM-15-220	.15	.17		
24	DM-15-240	.15	.17		
27	DM-15-270	.15	.17	$0.20	
30	DM-15-300	.15	.17	.20	
33	DM-15-330	.15	.17	.20	
36	DM-15-360	.15	.17	.20	
39	DM-15-390	.15	.17	.20	
43	DM-15-430	.15	.17	.20	
47	DM-15-470	.15	.17	.20	
50	DM-15-500	.15	.17	.20	$0.24
51	DM-15-510	.15	.17	.20	.24
56	DM-15-560	.15	.17	.20	.24
62	DM-15-620	.15	.17	.20	.24
68	DM-15-680	.15	.17	.20	.24
75	DM-15-820	.15	.17	.20	.24
82	DM-15-820	.15	.17	.20	.24
91	DM-15-910	.15	.17	.20	.24
100	DM-15-101	.15	.17	.20	.24
110	DM-15-111	.18	.20	.23	.29
120	DM-15-121	.18	.20	.23	.29
130	DM-15-131	.18	.20	.23	.29
150	DM-15-151	.18	.20	.23	.29
160	DM-15-161	.21	.23	.28	.34
180	DM-15-181	.21	.23	.28	.34
200	DM-15-201	.21	.23	.28	.34
220	DM-15-221	.24	.26	.31	.38
240	DM-15-241	.24	.26	.31	.38
250	DM-15-251	.24	.26	.31	.38
270	DM-15-271	.27	.30	.35	.43
300	DM-15-301	.27	.30	.35	.43
330	DM-15-331	.30	.33	.39	.48
360	DM-15-361	.30	.33	.39	.48
390	DM-15-391	.33	.37	.43	.53
430*	DM-15-431	.33	.37	.43	.53
470*	DM-15-471	.36	.40	.47	.58
500*	DM-15-501	.36	.40	.47	.58
510*	DM-15-511	.36	.40	.47	.58
560*	DM-15-561	.39	.43	.51	.62
620*	DM-15-621	.42	.46	.55	.67
680*	DM-15-681	.45	.50	.59	.72
750*	DM-15-751	.48	.53	.62	.77
820*	DM-15-821	.51	.56	,67	.82
910**	DM-15-911	.57	.63	.74	.86
000**	DM-15-102	.60	.66	.78	.96

NOTE

haracteristics on above are as follows:
M-15 "C" Characteristic from 1 to 24 Mmf.
M-15 "E" Characteristic from 27 to 82 Mmf.
M-15 "F" Characteristic from 91 and up.
Minimum Tolerance ±0.5 Mmf.

TYPE DM-19 500VDCW

Net Price Tolerance

Cap. Mmf.	Type Designation	±10% "K"	±5% "J"	±2% "G"	±1% "F"
100	DM-19-101	$0.15	$0.17	$0.18	$0.23
110	DM-19-111	.18	.20	.18	.27
120	DM-19-121	.18	.20	.18	.27
130	DM-19-131	.18	.20	.18	.27
150	DM-19-151	.18	.20	.18	.27
160	DM-19-161	.18	.20	.18	.27
180	DM-19-181	.18	.20	.18	.27
200	DM-19-201	.18	.20	.18	.27
220	DM-19-221	.18	.20	.18	.27
240	DM-19-241	.21	.23	.25	.32
250	DM-19-251	.21	.23	.25	.32
270	DM-19-271	.24	.26	.29	.36
300	DM-19-301	.24	.26	.29	.36
330	DM-19-331	.24	.26	.29	.36
360	DM-19-361	.27	.30	.32	.41
390	DM-19-391	.27	.30	.32	.41
430	DM-19-431	.27	.30	.32	.41
470	DM-19-471	.30	.33	.36	.45
500	DM-19-501	.30	.33	.36	.45
510	DM-19-511	.30	.33	.36	.45
560	DM-19-561	.33	.37	.40	.50
620	DM-19-521	.33	.37	.40	.50
680	DM-19-681	.36	.40	.43	.54
750	DM-19-751	.36	.40	.43	.54
820	DM-19-821	.36	.40	.43	.54
910	DM-19-911	.39	.43	.47	.59
1000	DM-19-102	.42	.46	.50	.63
1100	DM-19-112	.42	.46	.50	.63
1200	DM-19-122	.45	.50	.54	.68
1300	DM-19-132	.48	.53	.58	.72
1500	DM-19-152	.51	.56	.61	.77
1600	DM-19-162	.54	.59	.65	.81
1800	DM-19-182	.60	.66	.72	.90
2000	DM-19-202	.66	.73	.79	.99
2200	DM-19-222	.72	.79	.86	1.08
2400	DM-19-242	.78	.86	.94	1.17
2500	DM-19-252	.81	.89	.97	1.23
2700	DM-19-272	.84	.92	1.01	1.26
3000	DM-19-302	.90	.99	1.08	1.35
3300	DM-19-332	.96	1.06	1.15	1.44
3600	DM-19-362	1.02	1.12	1.22	1.53
3900	DM-19-392	1.08	1.19	1.30	1.62
4300	DM-19-432	1.14	1.25	1.37	1.71
4700	DM-19-472	1.20	1.32	1.44	1.80
5000	DM-19-502	1.26	1.39	1.51	1.89
5100	DM-19-512	1.26	1.39	1.51	1.89
5600*	DM-19-562	1.32	1.45	1.58	1.98
6200*	DM-19-622	1.38	1.52	1.66	2.07
6800**	DM-19-682	1.38	1.52	1.66	2.07
7500**	DM-19-752	1.44	1.58	1.73	2.16
8200**	DM-19-822	1.50	1.65	1.80	2.25

TYPE DM-20 500VDCW

680	DM-20-681	$0.30	$0.33	$0.36	$0.45
750	DM-20-751	.30	.33	.36	.45
820	DM-20-821	.30	.33	.36	.45
910	DM-20-911	.33	.37	.40	.50
1000	DM-20-102	.36	.40	.43	.54
1100	DM-20-112	.36	.40	.43	.54
1200	DM-20-122	.39	.43	.47	.59
1300	DM-20-132	.42	.46	.50	.63
1500	DM-20-152	.45	.50	.54	.68
1600	DM-20-162	.48	.53	.58	.72
1800	DM-20-182	.54	.59	.65	.81
2000	DM-20-202	.57	.63	.68	.86
2200	DM-20-222	.63	.70	.76	.75
2400	DM-20-242	.66	.73	.79	.99
2500	DM-20-252	.66	.73	.79	.99
2700	DM-20-272	.72	.79	.86	1.08
3000	DM-20-302	.78	.86	.94	1.17
3300	DM-20-332	.84	.92	1.01	1.26
3600	DM-20-362	.90	.99	1.08	1.35
3900	DM-20-392	.96	1.06	1.15	1.44
4300	DM-20-432	1.02	1.12	1.22	1.53
4700	DM-20-472	1.08	1.19	1.30	1.62
5000	DM-20-502	1.14	1.25	1.37	1.71
5100	DM-20-512	1.17	1.29	1.40	1.76
5600	DM-20-562	1.20	1.32	1.44	1.80
6200*	DM-20-622	1.20	1.32	1.44	1.80
6800*	DM-20-682	1.26	1.39	1.51	1.89
7500**	DM-20-752	1.32	1.45	1.58	1.98
8200**	DM-20-822	1.44	1.58	1.73	2.16
9100**	DM-20-912	1.62	1.78	1.94	2.43
10000**	DM-20-103	1.80	1.98	2.16	2.70

Notes: Higher DM-20 values are available on special order as follows:
up to 10,000 mmf. at 500VDCW
up to 12,000 mmf. at 300VDCW
up to 18,000 mmf. at 100VDCW
Characteristics of DM-19 and DM-20 are as follows:
C characteristic 1 to 180 mmf.
E characteristic 200 to 510 mmf.
F characteristic 560 and up.
For ±½% double the list price of the 5% units.

Lower values less than above listing use DM-15 prices.

All capacities marked with * are 300VDCW.

All capacities marked with ** are 100VDCW.

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ELMENCO CAPACITORS

TYPES
DM-30, DM-40, DM-42
DM-43, SCDM-15

DUR-MICA

TYPE DM-30 500VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance ± 10% "K"	± 5% "J"	± 2% "G"	± 1% "F"
4300	DM-30-432	$0.96	$1.06	$1.15	$1.25
4700	DM-30-472	1.02	1.12	1.22	1.33
5000	DM-30-502	1.05	1.16	1.26	1.37
5100	DM-30-512	1.05	1.16	1.26	1.37
5600	DM-30-562	1.08	1.19	1.30	1.40
6200	DM-30-622	1.14	1.25	1.37	1.48
6800	DM-30-682	1.26	1.39	1.51	1.64
7500	DM-30-752	1.38	1.52	1.66	1.79
8200	DM-30-822	1.50	1.65	1.80	1.95
9100	DM-30-912	1.62	1.78	1.94	2.11
10000	DM-30-103	1.80	1.98	2.16	2.34
12000	DM-30-123	2.10	2.41	2.52	2.73
13000	DM-30-133	2.25	2.48	2.70	2.93
15000	DM-30-153	2.55	2.81	3.06	3.32
16000	DM-30-163	2.70	2.97	3.24	3.51
18000	DM-30-183	3.00	3.30	3.60	3.90
20000	DM-30-203	3.30	3.63	3.96	4.29
22000*	DM-30-223	3.42	3.76	4.10	4.45
24000"	DM-30-243	3.69	4.06	4.43	4.80
25000*	DM-30-253	3.84	4.22	4.61	4.99
27000*	DM-30-273	4.11	4.52	4.93	5.35
30000**	DM-30-303	4.50	4.95	5.40	5.85
33000**	DM-30-333	4.95	5.45	5.94	6.44
36000**	DM-30-363	5.40	5.94	6.48	7.02

TYPE DM-40 500VDCW

This case size series is available, but it is not carried as a standard stock item as yet. Add 15% to net prices for DM-30 values with comparable specifications to determine the DM-40 net price. Delivery time is four weeks.

TYPE DM-42 500VDCW

CAP. MMF.	TYPE DESIGNATION	NET PRICE TOLERANCE ± 5% "J"	± 2% "G"	± 1% "F"
10000	DM-42-103	$1.98	$2.28	$2.48
12000	DM-42-123	2.34	2.69	2.93
13000	DM-42-133	2.52	2.90	3.15
15000	DM-42-153	2.88	3.31	3.60
16000	DM-42-163	3.06	3.52	3.83
18000	DM-42-183	3.42	3.94	4.28
20000	DM-42-203	3.78	4.35	4.73
22000	DM-42-223	4.14	4.76	5.18
24000	DM-42-243	4.50	5.18	5.63
25000	DM-42-253	4.68	5.38	5.85
27000	DM-42-273	5.05	5.88	6.30
30000	DM-42-303	5.58	6.42	6.98
33000	DM-42-333	6.12	7.04	7.65
36000	DM-42-363	6.68	7.66	8.33
39000	DM-42-393	7.20	8.28	9.00
43000	DM-42-433	7.80	8.97	9.75
47000	DM-42-473	8.40	9.66	10.50
50000	DM-42-503	8.82	10.15	11.03
51000	DM-42-513	9.00	10.35	11.25
56000*	DM-42-563	8.52	9.80	10.65
62000*	DM-42-623	9.36	10.76	11.70
68000**	DM-42-683	10.20	11.33	12.75
75000**	DM-42-753	11.22	12.91	14.03
82000**	DM-42-823	12.24	14.08	15.30

TYPE DM-43 500 VDCW

47000	DM-43-473	$8.52	$9.80	$10.65
50000	DM-43-503	8.70	10.01	10.88
51000	DM-43-513	8.88	10.21	11.10
56000	DM-43-563	9.72	11.18	12.15
62000	DM-43-623	10.74	12.35	13.43
68000	DM-43-683	11.70	13.46	14.63
75000*	DM-43-753	9.60	11.04	12.00
82000*	DM-43-823	10.50	12.08	13.13
91000*	DM-43-913	11.40	13.11	14.25
100000*	DM-43-104	12.60	14.49	15.75
110000**	DM-43-114	10.20	14.73	12.75
120000**	DM-43-124	11.10	12.77	13.88
130000**	DM-43-134	12.00	13.80	15.00

All capacities marked with * are 300WV. ** are 100 WV.

SCDM15 capacitors are units which have been given a single protective resin coat rather than the full series of dips to which standard units are subjected. There is a marked difference in size of these thin-coated capacitors, but there is a sacrifice in moisture resistance as a result. SCDM15 units are therefore recommended for applications requiring extreme miniaturization such as military and transistor filter, networks, and delay lines. However, for long term high reliability of operation, the capacitors should receive additional environmental protection such as encapsulation, circuit potting, or hermetic sealing.

	Cap.	Volt	L	W	T
Type SCDM-15 Case Sizes:*	10	500	.415	.267	.144
	40	500	.417	.268	.146
	100	500	.419	.271	.148
	200	500	.423	.275	.152
	400	500	.430	.283	.160
	400	300	.425	.277	.156
	600	300	.430	.282	.162
	820	300	.437	.287	.169
	1000	100	.442	.290	.174

* Please refer to DM-15 case size information on page 366 which is equally applicable to SCDM-15 units.

TYPE HRDM

Capacitance Values (mmf.)

DM10	DM-15	± 10%	± 5%	± 2%	± 1%
	1-100	$ .30	$ .32	$ .35	$ .3
1-10	110-150	.33	.35	.39	.4
12-43	160-200	.38	.39	.43	.4
47-110	220-250	.39	.42	.47	.5
120-130	270-300	.42	.45	.51	.5
150	330-36	.45	.48	.54	.6
160	390-430	.48	.52	.59	.6
180-200	470-510	.51	.56	.63	.7
220	560	.56	.60	.68	.8
240-270	620	.61	.64	.72	.8
300-330	680	.62	.68	.77	.9
360	750	.66	.71	.81	.9
390	820	.69	.75	.86	1.0
	910	.75	.81	.94	1.0
	1000	.80	.95	.98	1.1
DM19	**DM20**				
100		.30	.32	.33	.3
110-220		.33	.35	.37	.4
240-250		.36	.39	.41	.4
270-330		.39	.42	.44	.5
360-430		.42	.45	.48	.5
470-510	680-820	.45	.48	.51	.6
560-620	910	.48	.52	.55	.6
680-820	1000-1100	.51	.56	.59	.7
910	1200	.54	.59	.62	.7
1000-1100	1300	.57	.62	.66	.7
1200	1500	.60	.65	.70	.8
1300	1600	.63	.68	.74	.8
1500		.70	.76	.81	.9
1600	1800	.70	.76	.81	.9
	2000	.73	.79	.84	1.0
1800		.76	.82	.88	1.0
	2200	.79	.86	.92	1.1
2000	2400-2500	.82	.89	.96	1.1
	2700	.88	.96	1.03	1.2
2200		.90	.98	1.06	1.2
	3000	.95	1.02	1.11	1.3
2400		.97	1.05	1.14	1.3
2500		1.00	1.09	1.17	1.4
2700	3300	1.04	1.13	1.22	1.4
3000	3600	1.10	1.20	1.29	1.5
3300	3900	1.17	1.27	1.37	1.6
3600	4300	1.23	1.34	1.45	1.7
3900	4700	1.30	1.41	1.53	1.8
4300	5000-5100	1.37	1.49	1.61	1.9
4700	5600-6200	1.48	1.55	1.69	2.0
5000-5100	6800	1.50	1.62	1.77	2.1
5600	7500	1.56	1.70	1.86	2.2
6200-6800		1.63	1.77	1.94	2.3
7500	8200	1.69	1.85	2.03	2.5
8200		1.76	1.92	2.11	2.6
	9100	1.85	2.04	2.21	2.8
	1000	2.07	2.25	2.45	3.0
	DM30				
	4300	1.13	1.23	1.33	1.4
	4700	1.19	1.30	1.41	1.5
	5000-5100	1.23	1.34	1.44	1.5
	5600	1.26	1.37	1.48	1.5
	6200	1.32	1.44	1.56	1.6
	6800	1.53	1.58	1.71	1.8
	7500	1.57	1.71	1.86	2.0
	8200	1.69	1.85	2.01	2.1
	9100	1.81	1.98	2.16	2.3
	10000	2.00	2.19	2.38	2.5
	12000	2.39	2.62	2.85	3.0
	13000	2.55	2.81	3.05	3.2
	15000	2.97	3.16	3.43	3.7
	16000	3.03	3.33	3.63	3.9
	18000	3.36	.69	4.01	4.3
	20000	3.68	4.04	4.39	4.7
	22000	3.80	4.17	4.53	4.9
	24000	4.09	4.48	4.87	5.2
	25000	4.25	4.66	5.07	5.4
	27000	4.53	4.98	5.42	5.8
	30000	4.88	5.37	5.84	6.3
	33000	5.36	5.90	6.42	6.9
	36000	5.83	6.41	6.98	7.5

NOTE: Voltage ratings of items listed correspond to those in dicated for the standard line DM capacitors in equiva lent values and cases sizes indicated on previous pages

THERE IS A SET-UP AND HANDLING CHARGE OF $2.00 PE ITEM NET FOR HRDM CAPACITORS IN ADDITION TO THE UNI PRICES INDICATED ABOVE.

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ELMENCO CAPACITORS

TYPES VDM-20, VDM-30 VDM-42, VDM-43 HVDM-42, HVDM-43

HIGH VOLTAGE DUR-MICA

ew line of ELMENCO Silvered Hi-Voltage Dur-Mica capac-s is now available to complement the similar values in the ded configuration. These high voltage capacitors afford same facility of use in low power applications by provid- reliable operation in a small case size. Elmenco Dur-Mica acitors may be substituted for similarly rated molded s normally supplied in the larger CM45, CM50, CM55, and 0 case sizes.

Dur-Mica design provides advantage of higher temperature operation (125° C. max.); radial leads for printed circuit application; higher capacitance in a given case size; and improved reliability. The dipped units, being solidly impregnated with corona resistant material, do not have the voids which make molded types susceptible to corona. As a result, the dipped capacitors can be supplied with voltage rating as high as 5000VDCW.

All Elmenco Dur-Mica capacitors are silvered mica construction. They conform to electrical and environmental specifications set forth in MIL-C-5 specifications.

VDM-20 HI-VOLTAGE
TOLERANCE ± 5%

P. F.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
	VDM-20-050K	USE 2500V	USE 2500V	.24
	VDM-20-100J			.24
	VDM-20-120J			.24
	VDM-20-150J			.24
	VDM-20-180J	USE 1500V	.24	.27
	VDM-20-200J		.24	.27
	VDM-20-220J		.24	.27
	VDM-20-240J		.24	.27
	VDM-20-270J		.24	.27
	VDM-20-300J		.24	.27
	VDM-20-330J		.24	.30
	VDM-20-360J		.24	.30
	VDM-20-390J		.24	.30
	VDM-20-430J	.24	.27	.30
	VDM-20-470J	.24	.27	.33
	VDM-20-500J	.24	.27	.33
	VDM-20-510J	.24	.27	.33
	VDM-20-560J	.24	.27	.33
	VDM-20-620J	.24	.27	.36
	VDM-20-680J	.24	.27	.36
	VDM-20-750J	.24	.27	.36
	VDM-20-820J	.24	.30	.39
	VDM-20-910J	.24	.30	.42
	VDM-20-110J	.27	.30	.42
	VDM-20-111J	.27	.30	.45
	VDM-20-121J	.27	.30	.45
	VDM-20-131J	.27	.33	.48
	VDM-20-151J	.27	.33	.51
	VDM-20-161J	.30	.36	.57
	VDM-20-181J	.30	.36	.57
	VDM-20-201J	.30	.36	.63
	VDM-20-221J	.30	.39	.66
	VDM-20-241J	.30	.39	.69
	VDM-20-251J	.30	.42	.72
	VDM-20-271J	.30	.42	.75
	VDM-20-301J	.33	.45	.81
	VDM-20-331J	.33	.48	.87
	VDM-20-361J	.33	.48	.93
	VDM-20-391J	.36	.51	
	VDM-20-431J	.36	.54	
	VDM-20-471J	.36	.57	
	VDM-20-501J	.39	.60	
	VDM-20-511J	.39	.60	
	VDM-20-561J	.39	.69	
	VDM-20-621J	.42	.69	
	VDM-20-681J	.45	.72	
	VDM-20-751J	.45	.78	
	VDM-20-821J	.48	.84	
	VDM-20-911J	.51	.90	
	VDM-20-102J	.54	.96	
	VDM-20-112J	.57	1.05	
	VDM-20-122J	.60	1.11	
	VDM-20-132J	.63	1.20	
	VDM-20-152J	.66		
	VDM-20-162J	.69		
	VDM-20-182J	.75		
	VDM-20-202J	.84		
	VDM-20-222J	.90		
	VDM-20-242J	.96		
	VDM-20-272J	1.05		
	VDM-20-302J	1.14		

E: All above units can be supplied in acteristic "C"-"D"-"E"-"F" at above prices.

VDM-30 HI-VOLTAGE
TOLERANCE ± 5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
390	VDM-30-391J	USE CASE VDM20	USE CASE VDM20	.75
430	VDM-30-431J			.81
470	VDM-30-471J			.87
500	VDM-30-501J			.96
510	VDM-30-511J			.96
560	VDM-30-561J			1.02
620	VDM-30-621J			1.08
680	VDM-30-681J			1.20
750	VDM-30-751J			1.26
820	VDM-30-821J			1.41
910	VDM-30-911J			1.53
1000	VDM-30-102J			1.65
1100	VDM-30-112J			1.80
1200	VDM-30-122J			1.92
1300	VDM-30-132J			2.04
1500	VDM-30-152J		1.05	2.40
1600	VDM-30-162J		1.08	2.52
1800	VDM-30-182J		1.20	2.76
2000	VDM-30-202J		1.30	3.15
2200	VDM-30-222J		1.38	3.36
2400	VDM-30-242J		1.50	3.66
2700	VDM-30-272J		1.65	4.05
3000	VDM-30-302J		1.80	
3300	VDM-30-332J	1.29	2.01	
3600	VDM-30-362J	1.41	2.19	
3900	VDM-30-392J	1.50	2.34	
4300	VDM-30-432J	1.62	2.52	
4700	VDM-30-472J	1.80	2.76	
5000	VDM-30-502J	1.89	2.91	
5100	VDM-30-512J	1.89	3.00	
5600	VDM-30-562J	2.07	3.30	
6200	VDM-30-622J	2.25	3.60	
6800	VDM-30-682J	2.52		
7500	VDM-30-752J	2.70		
8200	VDM-30-822J	3.00		
9100	VDM-30-912J	3.24		
10000	VDM-30-103J	3.60		

VDM-42 HI-VOLTAGE

3000	VDM-42-302J	USE VDM30 CASE	USE VDM30 CASE	2.88
3300	VDM-42-332J			3.00
3600	VDM-42-362J			3.24
3900	VDM-42-392J			3.51
4300	VDM-42-432J			3.90
4700	VDM-42-472J			4.14
5000	VDM-42-502J			4.38
5100	VDM-42-512J			4.38
5600	VDM-42-562J			4.77
6200	VDM-42-622J			5.28
6800	VDM-42-682J		3.30	5.79
7500	VDM-42-752J		3.51	6.30
8200	VDM-42-822J		3.84	6.78
9100	VDM-42-912J		4.20	7.53
10000	VDM-42-103J		4.50	8.19
12000	VDM-42-123J	3.42	5.31	
13000	VDM-42-133J	3.75	5.70	
15000	VDM-42-153J	4.17	6.51	
16000	VDM-42-163J	4.50	6.96	
18000	VDM-42-183J	4.92	7.77	
20000	VDM-42-203J	5.46		
22000	VDM-42-223J	6.00		
24000	VDM-42-243J	6.42		
25000	VDM-42-253J	6.72		
27000	VDM-42-273J	7.02		
30000	VDM-42-303J	7.29		

Above prices are for Standard 5% Tolerance. Add 15% for 2% Tolerance; Add 25% for 1% Tolerance; Add 100% for ½% Tolerance. Minimum Tolerance ± 0.5 mmf.

VDM-43 HI-VOLTAGE
TOLERANCE ± 5%

CAP. MMF.	TYPE DESIGNATION	VDC 2000T 1000W	VDC 3000T 1500W	VDC 5000T 2500W
12000	VDM-43-123J	USE VDM42 CASE	USE VDM42 CASE	9.72
13000	VDM-43-133J			10.32
15000	VDM-43-153J			11.82
20000	VDM-43-203J		8.40	
22000	VDM-43-223J		9.30	
24000	VDM-43-243J		9.90	
25000	VDM-43-253J		10.50	
27000	VDM-43-273J		11.10	
30000	VDM-43-303J		12.00	
33000	VDM-43-333J	8.31		
36000	VDM-43-363J	9.12		
39000	VDM-43-393J	9.87		
43000	VDM-43-433J	10.80		
47000	VDM-43-473J	11.70		

SPECIAL HVDM-42 & HVDM-43 5000WV UNITS

CAP. MMF.	TYPE DESIGNATION	10000 VOLTS DC TEST 5000 VOLTS DC WKG.
5	HVDM-42-050K	2.28
10	HVDM-42-100J	2.28
12	HVDM-42-120J	2.28
15	HVDM-42-150J	2.28
18	HVDM-42-180J	2.28
20	HVDM-42-200J	2.28
22	HVDM-42-220J	2.28
24	HVDM-42-240J	2.28
27	HVDM-42-270J	2.28
30	HVDM-42-300J	2.70
33	HVDM-42-330J	2.70
36	HVDM-42-360J	2.70
39	HVDM-42-390J	2.70
43	HVDM-42-430J	2.70
47	HVDM-42-470J	2.70
50	HVDM-42-500J	2.70
51	HVDM-42-510J	2.70
56	HVDM-42-560J	2.70
62	HVDM-42-620J	3.12
68	HVDM-42-680J	3.12
75	HVDM-42-750J	3.12
82	HVDM-42-820J	3.12
91	HVDM-42-910J	3.54
100	HVDM-42-101J	3.54
110	HVDM-42-111J	3.54
120	HVDM-42-121J	3.96
130	HVDM-42-131J	3.96
150	HVDM-42-151J	4.38
160	HVDM-42-161J	4.38
180	HVDM-42-181J	4.80
200	HVDM-42-201J	5.22
220	HVDM-42-221J	5.22
240	HVDM-42-241J	5.64
250	HVDM-42-251J	5.64
270	HVDM-42-271J	6.06
300	HVDM-42-301J	6.48
330	HVDM-42-331J	6.90
360	HVDM-42-361J	7.32
390	HVDM-42-391J	7.74
430	HVDM-42-431J	8.58
470	HVDM-42-471J	8.88
500	HVDM-42-501J	9.30
510	HVDM-42-511J	9.72
560	HVDM-42-561J	10.14
620	HVDM-42-621J	11.40
680	HVDM-43-681J	13.50
750	HVDM-43-751J	14.70
820	HVDM-43-821J	15.90
910	HVDM-43-911J	17.10

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

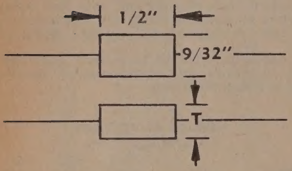
ARCO electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPES
CM-15
CM-19, CM-20

MOLDED SILVERED MICA

TYPE CM-15



T—from 1-300 mmf. 3/16"
T—from 301-510 mmf. 7/32"

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance 5% "J"	2% "G"	1% "F"
1	CM-15-C-010†	$0.24		
2	CM-15-C-020†	.24		
3	CM-15-C-030†	.24		
5	CM-15-C-050†	.24		
10	CM-15-C-100	.24		
12	CM-15-C-120	.24		
15	CM-15-C-150	.24		
18	CM-15-C-180	.24		
20	CM-15-C-200	.24		
22	CM-15-C-220	.24		
24	CM-15-E-240	.24		
27	CM-15-E-270	.24	$0.28	
30	CM-15-E-300	.24	.28	
33	CM-15-E-330	.24	.28	
36	CM-15-E-360	.24	.28	
39	CM-15-E-390	.24	.28	
43	CM-15-E-430	.24	.28	
47	CM-15-E-470	.24	.28	
50	CM-15-E-500	.24	.28	$0.30
51	CM-15-E-510	.24	.28	.30
56	CM-15-E-560	.24	.28	.30
62	CM-15-E-620	.24	.28	.30
68	CM-15-E-680	.24	.28	.30
75	CM-15-E-750	.24	.28	.30
82	CM-15-E-820	.27	.31	.34
91	CM-15-E-910	.27	.31	.34
100	CM-15-E-101	.27	.31	.34
110	CM-15-E-111	.27	.31	.34
120	CM-15-E-121	.27	.31	.34
130	CM-15-E-131	.27	.31	.34
150	CM-15-E-151	.27	.31	.34
160	CM-15-E-161	.30	.35	.38
180	CM-15-E-181	.30	.35	.38
200	CM-15-E-201	.30	.35	.38
220	CM-15-E-221	.33	.38	.41
240	CM-15-E-241	.33	.38	.41
250	CM-15-E-251	.33	.38	.41
270	CM-15-E-271	.36	.41	.45
300	CM-15-E-301	.36	.41	.45
330	CM-15-E-331	.39	.45	.49
360	CM-15-E-361	.42	.49	.53
390	CM-15-E-391	.42	.49	.53
430*	CM-15-E-431	.45	.52	.56
470*	CM-15-E-471	.48	.55	.60
500*	CM-15-E-501	.48	.55	.60
510*	CM-15-E-511	.48	.55	.60
560**	CM-15-E-561J	.48	.588	.636
620**	CM-15-E-621J	.51	.624	.678
680**	CM-15-E-681J	.54	.654	.714
750**	CM-15-E-751J	.60	.69	.75
820**	CM-15-E-821J	.66	.726	.786

NOTES—*300 VDCW—**100 VDCW.
†Closest Tolerance ±0.5 mmf.

SPECIFICATIONS NOTES:

±½% tolerance available above 100 mmf. at double ±5% list price.

CM15, available "F" characteristic above 33 mmf.

CM19, 20 available "E" characteristic above 33 mmf.

CM19, 20 available "F" characteristic above 56 mmf.

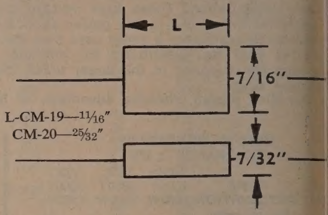
All CM30, 35, and 42 values listed are available in "F" characteristic.

CM-15

EL-MENCO
MADE IN USA

CM-19

TYPE CM-19 & 20



500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
5	CM-20C-050	$0.24		
10	CM-20C-100	.24		
12	CM-20C-120	.24		
15	CM-20C-150	.24		
18	CM-20C-180	.24		
20	CM-20C-200	.24		
22	CM-20C-220	.24		
24	CM-20C-240	.24		
27	CM-20C-270	.24	$0.28	
30	CM-20C-300	.24	.28	
33	CM-20C-330	.24	.28	
36	CM-20C-360	.24	.28	
39	CM-20C-390	.24	.28	
43	CM-20C-430	.24	.28	
47	CM-20C-470	.24	.28	
50	CM-20C-500	.24	.28	$0.30
51	CM-20C-510	.24	.28	.30
56	CM-20C-560	.24	.28	.30
62	CM-20C-620	.24	.28	.30
68	CM-20C-680	.24	.28	.30
75	CM-20C-750	.24	.28	.30
82	CM-20C-820	.24	.28	.30
91	CM-20C-910	.24	.28	.30
100	CM-20C-101	.24	.28	.30
110	CM-20C-111	.27	.31	.34
120	CM-20C-121	.27	.31	.34
130	CM-20C-131	.27	.31	.34
150	CM-20C-151	.27	.31	.34
160	CM-20C-161	.27	.31	.34
180	CM-20C-181	.27	.31	.34
200	CM-20D-201	.27	.31	.34
220	CM-20D-221	.27	.31	.34
240	CM-20D-241	.33	.38	.41
250	CM-20D-251	.33	.38	.41
270	CM-20D-271	.33	.38	.41
300	CM-20D-301	.33	.38	.41
330	CM-20D-331	.33	.38	.41
360	CM-20D-361	.33	.38	.41
390	CM-20D-391	.39	.45	.49
430	CM-20D-431	.39	.45	.49
470	CM-20D-471	.42	.49	.53
500	CM-20D-501	.42	.49	.53
510	CM-20D-511	.42	.49	.53
560	CM-20D-561	.45	.52	.56
620	CM-20D-621	.45	.52	.56
680	CM-20D-681	.48	.55	.60
750	CM-20D-751	.48	.55	.60
820	CM-20D-821	.51	.59	.54
910	CM-20D-911	.51	.59	.54
1000	CM-20E-102	.54	.62	.68
1100	CM-20E-112	.54	.62	.68
1200	CM-20E-122	.60	.69	.75
1300	CM-20E-132	.60	.69	.75
1500	CM-20E-152	.66	.76	.83
1600	CM-20E-162	.66	.76	.83
1800	CM-20E-182	.72	.83	.90
2000	CM-20E-202	.78	.90	.98
2200	CM-20E-222	.84	.97	1.05
2400	CM-20E-242	.87	1.00	1.09
2500	CM-20E-252	.90	1.04	1.18
2700	CM-20E-272	.96	1.10	1.20
3000	CM-20E-302	1.08	1.24	1.35
3300	CM-20E-332	1.14	1.31	1.43
3600*	CM-20E-362	1.14	1.31	1.43
3900*	CM-20E-392	1.20	1.38	1.50
4300*	CM-20E-432	1.26	1.45	1.58
4700*	CM-20E-472	1.32	1.52	1.65
5000*	CM-20E-502	1.38	1.59	1.73
5100*	CM-20E-512	1.38	1.59	1.73

Capacities from 5 mmf. to 2400 mmf. can be supplied in CM-19 cases.

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ELMENCO CAPACITORS

TYPES
CM-19, CM-20, CM-30
CM-35, CM-42

MOLDED SILVERED MICA

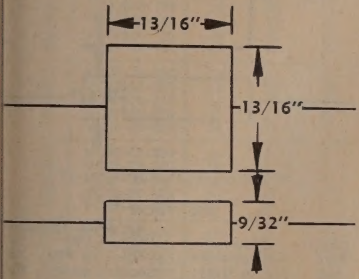
TYPE CM-19 & 20

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
2700	CM-20E-272	.96	1.10	1.20
3000	CM-20E-302	1.08	1.24	1.35
3300	CM-20E-332	1.14	1.31	1.43
3600*	CM-20E-362	1.14	1.31	1.43
3900*	CM-20E-392	1.20	1.38	1.50
4300*	CM-20E-432	1.26	1.45	1.58
4700*	CM-20E-472	1.32	1.52	1.65
5000*	CM-20E-502	1.38	1.59	1.73
5100*	CM-20E-512	1.38	1.59	1.73

Capacities from 5 mmf. to 2700 mmf. can be supplied In CM-19 cases.

TYPE CM-30



500 VDCW

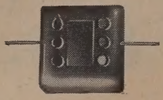
Cap. Mmf.	Type Designation	Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
510	CM-30-E-511	$0.42	$0.49	$0.53
560	CM-30-E-561	.45	.52	.56
620	CM-30-E-621	.45	.52	.56
680	CM-30-E-681	.48	.55	.60
750	CM-30-E-751	.48	.55	.60
820	CM-30-E-821	.51	.59	.64
910	CM-30-E-911	.54	.62	.68
000	CM-30-E-102	.60	.69	.75
100	CM-30-E-112	.60	.69	.75
200	CM-30-E-122	.69	.79	.86
300	CM-30-E-132	.69	.79	.86
500	CM-30-E-152	.75	.86	.94
600	CM-30-E-162	.75	.86	.94
800	CM-30-E-182	.75	.86	.94
000	CM-30-E-202	.81	.93	1.01
200	CM-30-E-222	.81	.93	1.01
400	CM-30-E-242	.96	1.10	1.20
500	CM-30-E-252			
700	CM-30-E-272	1.08	1.24	1.35
000	CM-30-E-302	1.14	1.31	1.43
300	CM-30-E-332	1.14	1.31	1.43
600	CM-30-E-362	1.20	1.38	1.50
900	CM-30-E-392	1.20	1.38	1.50
300	CM-30-E-432	1.26	1.45	1.58
700	CM-30-E-472	1.26	1.45	1.58
000	CM-30-E-502	1.29	1.48	1.61
100	CM-30-E-512	1.29	1.48	1.61
600	CM-30-E-562	1.35	1.55	1.69
200	CM-30-E-622	1.44	1.66	1.80

NOTE:—All above "SILVERED MICA" units can e supplied in "F" Characteristic at no extra cost. or ±½% Tolerance double the 5% List prices.

ll Type CM-42 units can be supplied in "F" char-cteristic at no extra cost. For ±½% Tolerance ouble the 1% list price.

ll CM30, 35, and 42 values listed are available in F" characteristic.

CM-30



CM-42

TYPES CM25 & CM40

Although CM25 and CM40 are not listed, they are still available and most items are in stock. Use CM20 list prices for corresponding CM25 values and CM30 and CM35 prices for comparable CM40 values.

TYPE HTCM

We supply Elmenco Type HTCM capacitors for these temperature grades requiring operation above the old limit of 85°C. After extensive characteristic evaluation and analysis of hundreds of life tests under varying temperature, voltage and other environmental conditions; it was found that modification of standard design molded mica capacitors was necessary to maintain our standards. We admit that we are very conservative in our design parameters, but we believe that this is the prime reason for universal acceptance of Elmenco products. The modifications which affect the price are as follows:

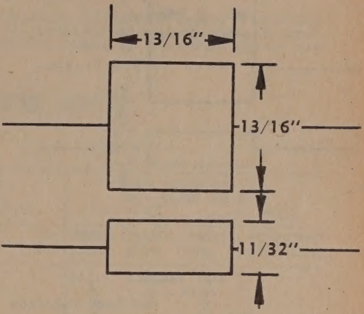
1. Every mica film is selected for excellence of electrical characteristics at elevated temperatures. This is done 100%, not on a sampling basis.

2. A more expensive molding material is used to preserve strength and electrical characteristics at temperatures in excess of 150°C. This molding material was also selected for the lower molding pressure required. The lower molding stress greatly enhances reliability of the mica films.

3. A solid high temperature impregnant is used in place of the wax for greater stability and retention of resistance to moisture. Wax will have a tendency to melt out at the specified temperatures, causing possible change in capacitance value, loss of moisture resistance after a few cycles, and possible fouling of adjacent circuitry.

With these modifications a vast improvement is obtained in operating reliability at elevated temperature. The expected failure rate is reduced to a small fraction of what might otherwise be expected of standard design capacitors.

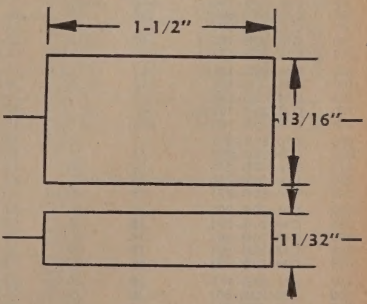
TYPE CM-35



500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance "J" ±5%	"G" ±2%	"F" ±1%
6800*	CM-35-E-682	$1.59	$1.83	$1.99
7500*	CM-35-E-752	1.68	1.93	2.10
8200*	CM-35-E-822	1.80	2.07	2.25
9100*	CM-35-E-912	1.92	2.21	2.40
10000*	CM-35-E-103	2.10	2.42	2.63
12000*	CM-35-E-123	2.55	2.93	3.19
15000*	CM-35-E-153	3.00	3.45	3.75
6800	VCM-35-E-682	1.74	2.00	2.17
7500	VCM-35-E-752	1.83	2.11	2.29
8200	VCM-35-E-822	1.98	2.28	2.48
9100	VCM-35-E-912	2.10	2.42	2.63
10000	VCM-35-E-103	2.31	2.66	2.89

TYPE CM-42



500 VDCW

12000	CM-42-E-123	2.34	2.69	2.93
13000	CM-42-E-133	2.52	2.90	3.15
15000	CM-42-E-153	2.88	3.31	3.60
16000	CM-42-E-163	3.06	3.52	3.83
18000	CM-42-E-183	3.42	3.94	4.28
20000	CM-42-E-203	3.78	4.35	4.73
22000	CM-42-E-223	4.14	4.76	5.18
24000	CM-42-E-243	4.50	5.18	5.63
25000	CM-42-E-253	4.68	5.38	5.85
27000*	CM-42-E-273	4.50	5.18	5.63
30000*	CM-42-E-303	4.68	5.38	5.85
33000*	CM-42-E-333	5.10	5.87	6.38
36000*	CM-42-E-363	5.70	6.56	7.13
39000*	CM-42-E-393	6.30	7.25	7.88

All capacities marked with * are 300WV.

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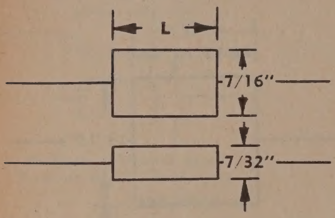
ELMENCO
CAPACITORS

TYPES
CM-19, CM-20
CM-30, CM-35

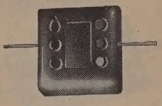
MOLDED FOIL MICA

TYPE CM-19 & 20



L—CM-19—11/16"; CM-20—25/32"

CM-19



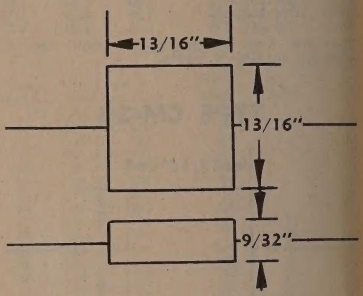
CM-30

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance "M" ±20%	"K" ±10%	"J" ±5%
5	CM-20B-050	$0.18	$0.20	
10	CM-20B-100	.18	.20	$0.23
12	CM-20B-120	.18	.20	.23
15	CM-20B-150	.18	.20	.23
18	CM-20B-180	.18	.20	.23
20	CM-20B-200	.18	.20	.23
22	CM-20B-220	.18	.20	.23
24	CM-20B-240	.18	.20	.23
27	CM-20B-270	.18	.20	.23
30	CM-20B-300	.18	.20	.23
33	CM-20B-330	.12	.13	.15
36	CM-20B-360	.12	.13	.15
39	CM-20B-390	.12	.13	.15
43	CM-20B-430	.12	.13	.15
47	CM-20B-470	.12	.13	.15
50	CM-20B-500	.12	.13	.15
51	CM-20B-510	.12	.13	.15
56	CM-20B-560	.12	.13	.15
62	CM-20B-620	.12	.13	.15
68	CM-20B-680	.12	.13	.15
75	CM-20B-750	.12	.13	.15
82	CM-20B-820	.12	.13	.15
91	CM-20B-910	.12	.13	.15
100	CM-20B-101	.12	.13	.15
110	CM-20B-111	.12	.13	.15
120	CM-20B-121	.12	.13	.15
130	CM-20B-131	.15	.17	.19
150	CM-20B-151	.15	.17	.19
160	CM-20B-161	.15	.17	.19
180	CM-20B-181	.15	.17	.19
200	CM-20B-201	.15	.17	.19
220	CM-20B-221	.15	.17	.19
240	CM-20B-241	.18	.20	.23
250	CM-20B-251	.18	.20	.23
270	CM-20B-271	.18	.20	.23
300	CM-20B-301	.18	.20	.23
330	CM-20B-331	.18	.20	.23
360	CM-20B-361	.18	.20	.23
390	CM-20B-391	.18	.20	.23
430	CM-20B-431	.18	.20	.23
470	CM-20B-471	.18	.20	.23
500	CM-20B-501	.18	.20	.23
510	CM-20B-511	.18	.20	.23
560	CM-20B-561	.21	.23	.26
620	CM-20B-621	.21	.23	.26
680	CM-20B-681	.21	.23	.26
750	CM-20B-751	.21	.23	.26
820	CM-20B-821	.24	.26	.30
910	CM-20B-911	.27	.30	.34
1000	CM-20B-102	.27	.30	.34
1100	CM-20B-112	.30	.33	.38
1200	CM-20B-122	.30	.33	.38
1300	CM-20B-132	.30	.33	.38
1500	CM-20B-152	.36	.40	.45
1600	CM-20B-162	.36	.40	.45
1800	CM-20B-182	.42	.46	.53
2000	CM-20B-202	.45	.50	.56
2200	CM-20B-222	.48	.53	.60
2400	CM-20B-242	.51	.56	.64
2500	CM-20B-252	.54	.59	.68
2700	CM-20B-272	$0.57	$0.63	$0.71
3000	CM-20B-302	.60	.66	.75
3300	CM-20B-332	.63	.70	.79
3600*	CM-20B-362	.60	.66	.75
3900*	CM-20B-392	.63	.70	.79
4300*	CM-20B-432	.66	.73	.83
4700*	CM-20B-472	.72	.79	.90
5000*	CM-20B-502	.75	.83	.94
5100*	CM-20B-512	.75	.83	.94

Capacities from 5 mmf. to 2700 mmf. can be supplied in CM-19 cases.

TYPE CM-30



T—CM-30—9/32"; CM-35—11/32"

500 VDCW

Cap. Mmf.	Type Designation	Net Price Tolerance "M" ±20%	"K" ±10%	"J" ±5%
510	CM-30-B-511	$0.18	$0.22	$0.23
560	CM-30-B-561	.18	.22	.23
620	CM-30-B-621	.18	.22	.23
680	CM-30-B-681	.18	.22	.23
750	CM-30-B-751	.18	.22	.23
820	CM-30-B-821	.18	.22	.23
910	CM-30-B-911	.18	.22	.23
1000	CM-30-B-102	.21	.23	.26
1100	CM-30-B-112	.21	.23	.26
1200	CM-30-B-122	.21	.23	.26
1300	CM-30-B-132	.21	.23	.26
1500	CM-30-B-152	.24	.26	.30
1600	CM-30-B-162	.24	.26	.30
1800	CM-30-B-182	.27	.30	.34
2000	CM-30-B-202	.27	.30	.34
2200	CM-30-B-222	.27	.30	.34
2400	CM-30-B-242	.30	.33	.38
2500	CM-30-B-252	.30	.33	.38
2700	CM-30-B-272	.30	.33	.38
3000	CM-30-B-302	.36	.40	.45
3300	CM-30-B-332	.36	.40	.45
3600	CM-30-B-362	.36	.40	.45
3900	CM-30-B-392	.39	.45	.51
4300	CM-30-B-432	.39	.45	.51
4700	CM-30-B-472	.39	.45	.51
5000	CM-30-B-502	.42	.49	.55
5100	CM-30-B-512	.42	.49	.55
5600	CM-30-B-562	.42	.49	.55
6200	CM-30-B-622	.54	.62	.70

TYPE CM-35

6800*	CM-35-B-682	$0.57	$0.63	$0.71
7500*	CM-35-B-752	.60	.66	.75
8200*	CM-35-B-822	.69	.76	.86
9100*	CM-35-B-912	.69	.76	.86
10000*	CM-35-B-103	.84	.92	1.05
12000*	CM-35-B-123	.96	1.06	1.20
15000*	CM-35-B-153	1.20	1.32	1.50
6800	VCM-35-B-682	.63	.70	.79
7500	VCM-35-B-752	.69	.76	.86
8200	VCM-35-B-822	.78	.86	.97
9100	VCM-35-B-912	.78	.86	.97
10000	VCM-35-B-103	.93	1.03	1.16

All capacities marked with * are 300WV.

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ELMENCO CAPACITORS

Type VCM-20

Demand for smaller units in higher voltages designed to meet the requirements for TELEVISION, POWER AMPLIFIERS, LOW POWER TRANSMITTERS, and various INDUSTRIAL USES has increased. EL-MENCO designed and produced units listed below are especially adaptable to compact circuits where space is an important factor. Their acceptance has been overwhelming by the various manufacturers of TELEVISION RECEIVERS.

In many cases, these units will do the work of capacitors molded in CM-45, CM-50, and CM-55 cases without breaking down. NO SPECIAL MOUNTINGS ARE NECESSARY; Just wire right into the circuit.

The capacitors are molded in low-loss Phenolic Resin in CM-20, CM-35, CM-42 cases and tested at double the branded voltage. They are tested for dielectric strength, insulation resistance, temperature coefficient capacitance drift, susceptibility to humidity, and length of life, according to RMA Standards. All units are wax-dipped for protection against salt water immersion.

VCM-20 HI-VOLTAGE MOLDED SILVER MICA

CHARACTERISTICS "B" - "C" & "D"

		2000 VOLTS DC TEST 1000 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE					3000 VOLTS DC TEST 1500 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE					5000 VOLTS DC TEST 2500 VOLTS DC WKG. TOLERANCE . . . . . NET PRICE				
Cap. Mmf.	Type Designation	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%
5	VCM-20-050	$0.18	$0.21	$0.27			USE 2500 WV UNITS					$0.21	$0.24			
10	VCM-20-100	.18	.21	.27					$0.30			.21	.24	$0.30		
12	VCM-20-120	.18	.21	.27					.30			.21	.24	.30		
15	VCM-20-150	.18	.21	.27					.30			.21	.24	.30		
18	VCM-20-180	.18	.21	.27					.30			.21	.24	.30		
20	VCM-20-200	.18	.21	.27					.30			.21	.24	.30		
22	VCM-20-220	.18	.21	.27					.30			.21	.24	.30		
24	VCM-20-240	.18	.21	.27					.30			.21	.24	.30		
27	VCM-20-270	.18	.21	.27	$0.31				.30	$0.35		.21	.24	.30	$0.35	
30	VCM-20-300	.18	.21	.27	.31		$0.21	$0.24	.30	.35		.24	.28	.36	.41	
33	VCM-20-330	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
36	VCM-20-360	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
39	VCM-20-390	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
43	VCM-20-430	.18	.21	.27	.31		.21	.24	.30	.35		.24	.28	.36	.41	
47	VCM-20-470	.18	.21	.27	.31		.21	.24	.33	.38		.24	.28	.42	.49	
50	VCM-20-500	.18	.21	.27	.31	$0.34	.21	.24	.33	.38	$0.41	.24	.28	.42	.49	$0.53
51	VCM-20-510	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
56	VCM-20-560	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
62	VCM-20-620	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53
68	VCM-20-680	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.27	.31	.48	.55	.60
75	VCM-20-750	.18	.21	.27	.31	.34	.21	.24	.33	.38	.41	.30	.35	.54	.62	.68
82	VCM-20-820	.18	.21	.27	.31	.34	.21	.24	.33	.38	.45	.30	.35	.54	.62	.68
91	VCM-20-910	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.30	.35	.54	.62	.68
100	VCM-20-101	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.33	.40	.60	.69	.75
110	VCM-20-111	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.66	.76	.83
120	VCM-20-121	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.72	.83	.90
130	VCM-20-131	.21	.24	.30	.35	.38	.24	.28	.36	.41	.45	.36	.43	.72	.83	.90
150	VCM-20-151	.21	.24	.30	.35	.38	.24	.28	.42	.49	.53	.39	.47	.78	.90	.98
160	VCM-20-161	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53	.42	.50	.84	.97	1.05
180	VCM-20-181	.21	.24	.33	.38	.41	.24	.28	.42	.49	.53	.42	.50			
200	VCM-20-201	.24	.28	.33	.38	.41	.27	.31	.48	.55	.60	.48	.58	.96	1.10	1.20
220	VCM-20-221	.24	.28	.36	.41	.45	.27	.31	.48	.55	.60	.51	.61	.96	1.10	1.20
240	VCM-20-241	.24	.28	.36	.41	.45	.27	.31	.48	.55	.60					
250	VCM-20-251	.24	.28	.39	.45	.49	.33	.40	.60	.69	.75					
270	VCM-20-271	.24	.28	.39	.45	.49	.33	.40	.60	.69	.75					
300	VCM-20-301	.27	.31	.42	.49	.53	.36	.43	.66	.76	.83					
330	VCM-20-331	.27	.31	.42	.49	.53	.36	.43	.66	.76	.83					
360	VCM-20-361	.27	.31	.42	.49	.53	.36	.43	.69	.79	.86					
390	VCM-20-391	.27	.31	.42	.49	.53	.39	.47	.69	.79	.86					
430	VCM-20-431	.30	.35	.45	.52	.56	.39	47	.72	.83	.90					
470	VCM-20-471	.30	.35	.45	.52	.56	.42	.50	.75	.86	.94					
500	VCM-20-501	.30	.35	.45	.52	.56	.42	.50	.78	.90	.98					
510	VCM-20-511	.30	.35	.45	.52	.56	.42	.50	.78	.90	.98					
560	VCM-20-561	.33	.40	.48	.55	.60	.48	.58	.81	.93	1.01					
620	VCM-20-621	.33	.40	.51	.59	.64										
680	VCM-20-681	.36	.43	.54	.62	.68										
750	VCM-20-751	.36	.43	.57	.65	.71										
820	VCM-20-821	.39	.47	.60	.69	.75										
910	VCM-20-911	.42	.50	.63	.73	.79										
1000	VCM-20-102	.45	.54	.66	.76	.83										
1100	VCM-20-112	.48	.55	.72	.83	.90										
1200	VCM-20-122	.51	.59	.75	.86	.94										
1300	VCM-20-132	.54	.62	.78	.90	.98										

PLEASE SPECIFY WORKING VOLTAGE RATING WHEN ORDERING

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ELMENCO CAPACITORS

Types VCM-35 & 42

VCM-35 & 42 HI-VOLTAGE REGULAR FOIL MICA

VCM-35 & 42 HI-VOLTAGE SILVERED MICA

Cap. Mmf.	Type Designation	"B" CHARACTERISTIC						"C" - "D" - "E" - "F" CHARACTERISTIC								
		2000VDC Test 1000VDC Wkg. NET PRICE		3000VDC Test 1500VDC Wkg. NET PRICE		5000VDC Test 2500VDC Wkg. NET PRICE		2000VDC Test 1000VDC Wkg. NET PRICE			3000VDC Test 1500VDC Wkg. NET PRICE			5000VDC Test 2500VDC Wkg. NET PRICE		
		"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"M" ±20%	"K" ±10%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%	"J" ±5%	"G" ±2%	"F" ±1%
240	VCM-35-241					$0.36	$0.41							$0.72	$0.83	$0.90
250	VCM-35-251					.36	.41							.72	.83	.90
270	VCM-35-271					.36	.41							.72	.83	.90
300	VCM-35-301					.39	.45							.78	.90	.98
330	VCM-35-331					.39	.45							.78	.90	.98
360	VCM-35-361					.45	.52							.90	1.04	1.13
390	VCM-35-391					.48	.55							.96	1.10	1.20
430	VCM-35-431					.48	.55							.96	1.10	1.20
470	VCM-35-471					.48	.55							.96	1.10	1.20
500	VCM-35-501					.51	.59							1.02	1.18	1.28
510	VCM-35-511					.51	.59							1.02	1.18	1.28
560	VCM-35-561					.54	.62							1.08	1.24	1.35
620	VCM-35-621			$0.45	$0.52						$0.90	$1.04	$1.13			
680	VCM-35-681			.45	.52						.90	1.04	1.13			
750	VCM-35-751			.45	.52						.90	1.04	1.13			
820	VCM-35-821			.51	.59						1.02	1.18	1.28			
910	VCM-35-911			.54	.62						1.08	1.24	1.35			
1000	VCM-35-102			.54	.62						1.08	1.24	1.35			
1100	VCM-35-112	$0.36	$0.41	.57	.65			$0.72	$0.83	$0.90	1.14	1.31	1.43			
1200	VCM-35-122	.39	.45	.66	.76			.78	.90	.98	1.32	1.52	1.65			
1300	VCM-35-132	.39	.45	.69	.79			.78	.90	.98	1.38	1.59	1.73			
1500	VCM-35-152	.45	.52	.78	.90			.90	1.04	1.13	1.56	1.79	1.95			
1600	VCM-35-162	.48	.55	.78	.90			.96	1.10	1.20	1.56	1.79	1.95			
1800	VCM-35-182	.48	.55	.87	1.00			.96	1.10	1.20	1.74	2.00	2.18			
2000	VCM-35-202	.51	.59	.96	1.10			1.02	1.18	1.28	1.92	2.21	2.40			
2200	VCM-35-222	.57	.65	1.02	1.18			1.14	1.31	1.43	2.04	2.35	2.55			
2400	VCM-35-242	.63	.73	1.08	1.24			1.26	1.45	1.58	2.16	2.48	2.70			
2700	VCM-35-272	.63	.73	1.20	1.38			1.26	1.45	1.58	2.40	2.76	3.00			
3000	VCM-35-302	.69	.79	1.32	1.52			1.38	1.59	1.73	2.64	3.04	3.30			
3300	VCM-35-332	.72	.83	1.38	1.59			1.44	1.66	1.80	2.76	3.17	3.45			
3600	VCM-35-362	.81	.93					1.62	1.86	2.03						
3900	VCM-35-392	.84	.97					1.68	1.92	2.10						
4300	VCM-35-432	.90	1.04					1.80	2.07	2.25						
4700	VCM-35-472	.99	1.14					1.98	2.28	2.48						
5000	VCM-35-502	1.05	1.20					2.04	2.35	2.55						
5100	VCM-35-512	1.05	1.20					2.04	2.35	2.55						
5600	VCM-35-562	1.20	1.38					2.28	2.62	2.85						
6200	VCM-42-622	1.26	1.45					2.50	2.97	3.23						
6800	VCM-42-682	1.32	1.52					2.76	3.17	3.45						
7500	VCM-42-752	1.38	1.59					2.94	3.38	3.68						
8200	VCM-42-822	1.44	1.66					3.18	3.66	3.98						
9100	VCM-42-912	1.56	1.79					3.48	4.00	4.35						
10000	VCM-42-103	1.68	1.93					3.78	4.35	4.73						
12000	VCM-42-123	1.80	2.07					4.38	5.04	5.48						
13000	VCM-42-133	2.10	2.42					4.80	5.52	6.00						
15000	VCM-42-153	2.40	2.76					5.40	6.21	6.75						
16000	VCM-42-163	2.70	3.11					5.76	6.62	7.20						

NOTE:—All above units can be supplied in characteristic "C"-"D"-"E"-"F" at the above list prices.

WHEN ORDERING PLEASE SPECIFY WORKING VOLTAGE RATING

REGULAR FOIL MICA
Designate VCM-35B

SILVERED MICA
Designate VCM-35C-D-E or F

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Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

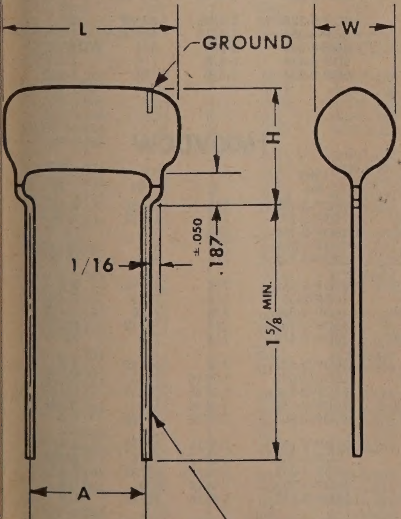
TYPE MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

new Elmenco Type MPD (ARCO dp) capacitors dip-coated tubular Mylar*-paper dielectric capacs. They represent a double breakthrough in capacidesign by combining missile and computer quality commercial radio-TV cost. The "dp" series is igned for near universal use from TV by-pass to ical industrial applications requiring stringent ctrical and environmental characteristics. New high els of ruggedness, stability, and reliability have n achieved, yet these new Elmenco capacitors miniaturized for transistor circuitry.

enco Type MPD capacitors are non-inductively ind and vacuum dipped to obtain solid impregion and a rugged, moisture-proof coat. New fabiting techniques realize the full potential of the ectric materials utilizing most of the low-cost cedures of the exclusive Elmenco dip-coat process. result is a product of electrical excellence with reliability in operation at 125°C. without deng. The specifications listed on this and following es well-illustrate the inherent quality of these acitors.

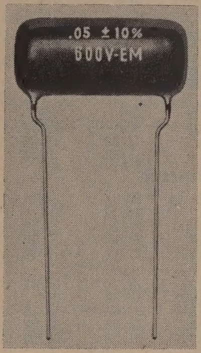
TE: The 100VDCW rated dp units are pure mylar* dielectric capacitors.



#20 (.032) TINNED ANNEALED COPPERWELD WIRE

CASE SIZE	1	2	3	4	5	6
DIM. "A" ±1/32	1/4	7/16	23/32	27/32	1 3/32	1 27/32

NOTE: The 1DP-1 100VDCW dp capacitors up through .015 mfd. value have straight leads spaced 1/2" apart.



dp

ACTUAL SIZE

SPECIFICATIONS

Tolerance ±10%.

VOLTAGE RATINGS:	100VDCW, 200VDCW, 400VDCW, 600VDCW, 1600VDCW, (1000VDCW upon request).
INSULATION RESISTANCE:	@ 25°C.: 5000 megohm-microfarads or 100,000 megohms minimum, whichever is the lesser. @ 125°C.: 70 megohm-microfarads or 1400 megohms minimum, whichever is the lesser.
POWER FACTOR:	1.0% maximum at 1kc.
TEMPERATURE RANGE:	—55°C. to +125°C. with no voltage derating.
CAPACITANCE CHANGE VS. TEMPERATURE:	From 25°C. to —55° (—9.0% max.) From 25°C. to +125°C. (+12.0% max.)

LONG TERM OPERATING STABILITY AT FULL RATED VOLTAGE AND RATED TEMPERATURE EXTREMES IS ±2% MAXIMUM.

Part Numbers:

The part numbers indicated in the table of values on page 385 are constructed as follows:

6 DP - 2 - 103

6	DP	2	103
Voltage Rating (in 100's of volts DCW)	**Type Designation**	**Case Size**	**Cap. Value (2 sig. figs. & dec. mult.)**

The above example calls for a .01 mfd. capacitor with a 600VDCW voltage rating. Case dimensions are shown in the table of values listing on page 376.

* Reg. Du Pont Trademark

ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO
CAPACITORS

TYPE
MPD

DIPPED MYLAR*—PAPER (Elmenco type MPD)

100VDCW

Cap Mfd.	Part No.	L	W	H	Net Price
.005	1DP-1-502	11/16	5/16	1/2	$0.18
.006	1DP-1-602	11/16	5/16	1/2	.18
.0068	1DP-1-682	11/16	5/16	1/2	.18
.0075	1DP-1-752	11/16	5/16	1/2	.18
.01	1DP-1-103	11/16	5/16	1/2	.18
.015	1DP-1-153	23/32	11/32	17/32	.18
.02	1DP-1-203	23/32	11/32	19/32	.18
.022	1DP-1-223	23/32	11/32	19/32	.18
.025	1DP-1-253	23/32	11/32	19/32	.18
.03	1DP-1-303	23/32	3/8	5/8	.18
.033	1DP-1-333	23/32	3/8	5/8	.18
.04	1DP-1-403	23/32	3/8	5/8	.18
.047	1DP-2-473	7/8	11/32	19/32	.21
.05	1DP-2-503	7/8	11/32	19/32	.21
.056	1DP-2-563	7/8	3/8	5/8	.21
.068	1DP-2-683	7/8	13/32	5/8	.21
.075	1DP-2-753	7/8	13/32	5/8	.21
.1	1DP-2-104	29/32	7/16	11/16	.21
.15	1DP-3-154	1-1/4	7/16	11/16	.24
.2	1DP-3-204	1-9/32	1/2	23/32	.27
.22	1DP-3-224	1-9/32	1/2	23/32	.27
.25	1DP-3-254	1-9/32	17/32	3/4	.30
.33	1DP-4-334	1-3/8	9/16	13/16	.36
.47	1DP-4-474	1-3/8	21/32	29/32	.45
.5	1DP-4-504	1-3/8	21/32	29/32	.45
.68	1DP-5-684	1-9/16	11/16	15/16	.66
1.0	1DP-5-105	1-9/16	3/4	1	.96

200VDCW

Cap Mfd.	Part No.	L	W	H	Net Price
.1	2DP-3-104	1-7/32	1/2	23/32	$0.21
.15	2DP-3-154	1-1/4	9/16	25/32	.24
.2	2DP-4-204	1-11/32	5/8	7/8	.27
.22	2DP-4-224	1-11/32	5/8	7/8	.27
.25	2DP-4-254	1-11/32	21/32	7/8	.30
.33	2DP-5-334	1-9/16	21/32	7/8	.36
.47	2DP-5-474	1-9/16	3/4	1	.45
.5	2DP-5-504	1-9/16	25/32	1	.45

400VDCW

Cap. Mfd.	Part No.	L	W	H	Net Price
.01	4DP-1-103	23/32	3/8	5/8	$0.15
.015	4DP-1-153	23/32	7/16	21/32	.15
.02	4DP-2-203	7/8	13/32	5/8	.15
.022	4DP-2-223	7/8	13/32	5/8	.18
.025	4DP-2-253	7/8	7/16	21/32	.18
.03	4DP-2-303	7/8	15/32	21/32	.18
.033	4DP-2-333	7/8	15/32	21/32	.18
.04	4DP-3-403	1-3/16	7/16	21/32	.18
.047	4DP-3-473	1-3/16	7/16	21/32	.21
.05	4DP-3-503	1-3/16	7/16	21/32	.21
.056	4DP-3-563	1-3/16	15/32	11/16	.21
.068	4DP-3-683	1-3/16	1/2	23/32	.24
.075	4DP-3-753	1-1/4	17/32	3/4	.24
.1	4DP-3-104	1-1/4	19/32	27/32	.24
.15	4DP-4-154	1-11/32	5/8	7/8	.27
.2	4DP-5-204	1-9/16	5/8	7/8	.33
.22	4DP-5-224	1-9/16	21/32	7/8	.33
.25	4DP-5-254	1-9/16	11/16	15/16	.36
.27	4DP-5-274	1-9/16	11/16	15/16	.36
.33	4DP-5-334	1-9/16	3/4	15/16	.54
.47	4DP-6-474	2-3/8	13/16	1-1/16	.78
.5	4DP-6-504	2-3/8	13/16	1-1/16	.78

Reg. Du Pont Trademark

600VDCW

Cap. Mfd.	Part No.	L	W	H	N Pri
.001	6DP-1-102	11/16	11/32	17/32	$0
.0012	6DP-1-122	11/16	11/32	17/32	
.0015	6DP-1-152	11/16	11/32	17/32	
.002	6DP-1-202	11/16	11/32	17/32	
.0022	6DP-1-222	11/16	11/32	17/32	
.0025	6DP-1-252	11/16	11/32	17/32	
.0027	6DP-1-272	11/16	11/32	17/32	
.003	6DP-1-302	11/16	11/32	17/32	
.0033	6DP-1-332	11/16	11/32	17/32	
.0039	6DP-1-392	11/16	11/32	9/16	
.004	6DP-1-402	11/16	11/32	9/16	
.0047	6DP-1-472	23/32	3/8	19/32	
.005	6DP-1-562	23/32	3/8	19/32	
.0056	6DP-1-562	23/32	3/8	19/32	
.006	6DP-1-602	23/32	3/8	5/8	
.0068	6DP-1-682	23/32	13/32	21/32	
.0075	6DP-2-752	7/8	11/32	9/16	
.008	6DP-2-802	7/8	11/32	9/16	
.0082	6DP-2-822	7/8	11/32	9/16	
.01	6DP-2-103	7/8	3/8	19/32	
.012	6DP-2-123	7/8	3/8	19/32	
.015	6DP-2-153	7/8	13/32	5/8	
.02	6DP-2-203	7/8	7/16	21/32	
.022	6DP-2-223	7/8	15/32	21/32	
.025	6DP-2-253	7/8	1/2	11/16	
.027	6DP-3-273	1-3/16	7/16	21/32	
.03	6DP-3-303	1-3/16	7/16	21/32	
.033	6DP-3-333	1-3/16	7/16	21/32	
.039	6DP-3-393	1-3/16	15/32	11/16	
.04	6DP-3-403	1-3/16	15/32	11/16	
.047	6DP-3-473	1-3/16	1/2	23/32	
.05	6DP-3-503	1-3/16	1/2	23/32	
.056	6DP-3-563	1-3/16	17/32	3/4	
.06	6DP-3-603	1-3/16	17/32	3/4	
.068	6DP-4-683	1-11/32	17/32	13/16	
.075	6DP-4-753	1-11/32	17/32	13/16	
.082	6DP-4-823	1-11/32	9/16	27/32	
.1	6DP-4-104	1-11/32	5/8	7/8	
.15	6DP-5-154	1-9/16	21/32	7/8	
.2	6DP-5-204	1-9/16	23/32	15/16	
.22	6DP-5-224	1-9/16	25/32	1	
.25	6DP-5-254	1-9/16	13/16	1-1/6	
.33	6DP-6-334	2-3/8	3/4	1	
.47	6DP-6-474	2-3/8	7/8	1-1/8	
.5	6DP-6-504	2-3/8	7/8	1-1/8	

1600VDCW

Cap. Mfd.	Part No.	L	W	H	N Pri
.001	16DP-2-102	7/8	11/32	9/16	$0
.0015	16DP-2-152	7/8	11/32	9/16	
.0018	16DP-2-182	7/8	3/8	19/32	
.002	16DP-2-202	7/8	3/8	19/32	
.0022	16DP-2-222	7/8	3/8	19/32	
.0025	16DP-2-252	7/8	13/32	5/8	
.003	16DP-2-302	7/8	7/16	21/32	
.0033	16DP-2-332	7/8	7/16	21/32	
.004	16DP-2-402	7/8	15/32	21/32	
.0047	16DP-2-472	7/8	1/2	23/32	
.005	16DP-2-502	7/8	17/32	3/4	
.006	16DP-3-602	1-3/16	7/16	21/32	
.007	16DP-3-702	1-3/16	15/32	11/16	
.0075	16DP-3-752	1-3/16	1/2	23/32	
.008	16DP-3-802	1-3/16	17/32	3/4	
.01	16DP-3-103	1-3/16	17/32	3/4	
.015	16DP-4-153	1-11/32	9/16	27/32	
.02	16DP-4-203	1-11/32	21/32	7/8	
.022	16DP-4-223	1-9/16	5/8	7/8	
.025	16DP-5-253	1-9/16	21/32	7/8	
.03	16DP-5-303	1-9/16	11/16	15/16	
.033	16DP-5-333	1-9/16	23/32	15/16	
.04	16DP-5-403	1-9/16	3/4	1	
.047	16DP-5-473	1-9/16	13/16	1-1/16	
.05	16DP-5-503	1-9/16	13/16	1-1/16	

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GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

TYPE CP

STEATITE TUBULAR CAPACITORS CP TYPE

.05 MFD.
600 V.D.C.
MAX. TEMP. 85° C
ELMENCO

-Menco CP type paper tubular capacitors are sealed to Steatite Tubes which serve to insulate the capacitor ectrically as well as against moisture and heat. The pacitor insert is impregnated with Mineral Oil, thereby suring long life at 85° C operating conditions. This ature insures successful operation at the high ambient mperatures existing in small, compact enclosures.

e Non-Inductively wound paper and foil units are aled in the Ceramic Tubes by means of baked Synetic Resin End Fills which cannot melt at any conivable operating temperature. The end fills will not ssolve in wax, permitting the capacitors to be potted ithout damage to the insert. Leads are of tinned copper 4″ long.

MINERAL OIL IMPREGNATION NON INDUCTIVE WINDING SYNTHETIC RESIN END SEALS — STEATITE CASE

The Steatite tube and baked synthetic resin end-fill provide a seal which rivals that of hermetically sealed construction, resulting in a dependability and longevity previously unequalled. Whether in operation or on the shelf, this paper tubular capacitor will maintain its excellent characteristics for years.

DIMENSIONS FOR CP TYPE CAPACITORS

	Max. Diameter	Max. Length
CP-1	23/64"	1-1/8"
CP-2	27/64"	1-3/8"
CP-3	31/64"	1-3/8"
CP-4	9/16"	1-5/8"
CP-5	3/4"	2"
CP-6	51/64"	2"
CP-7	1″	2-7/8″

Part numbers can be read as follows: First one or two numbers indicate voltage rating in hundreds of volts. CP indicates type of capacitor. Next number between the dashes indicates case size. Last three digits indicate capacity, the first two being significant figures and the last the decimal multiplier.

ap. fd.	Part No.	Net Price
	200VDCW	
2	2CP-1-203	$0.15
22	2CP-1-223	0.15
5	2CP-3-503	0.18
	2CP-4-104	0.21
5	2CP-4-154	0.24
	2CP-5-204	0.27
2	2CP-5-224	0.27
5	2CP-5-254	0.27
3	2CP-6-334	0.33
7	2CP-6-474	0.42
	2CP-6-504	0.42
	400VDCW	
1	4CP-1-103	$0.15
15	4CP-2-153	0.15
2	4CP-2-203	0.15
22	4CP-2-223	0.18
25	4CP-3-253	0.18
3	4CP-3-303	0.18
33	4CP-3-333	0.18
4	4CP-4-403	0.18
47	4CP-4-473	0.18
5	4CP-4-503	0.18
56	4CP-4-563	0.18
68	4CP-4-683	0.21
75	4CP-4-753	0.21
	4CP-4-104	0.21
5	4CP-5-154	0.27
	4CP-6-204	0.33
2	4CP-6-224	0.33
5	4CP-6-254	0.33
3	4CP-7-334	0.42
7	4CP-7-474	0.48
	4CP-7-504	0.54

Cap. Mfd.	Part No.	Net Price
	600VDCW	
.001	6CP-1-102	$0.15
.0012	6CP-1-122	0.15
.0015	6CP-1-152	0.15
.002	6CP-1-202	0.15
.0022	6CP-1-222	0.15
.0025	6CP-1-252	0.15
.0027	6CP-1-272	0.15
.003	6CP-1-302	0.15
.0033	6CP-1-332	0.15
.0039	6CP-1-392	0.15
.004	6CP-1-402	0.15
.0047	6CP-1-472	0.15
.005	6CP-1-502	0.15
.0056	6CP-1-562	0.15
.006	6CP-2-602	0.15
.0068	6CP-2-682	0.18
.0075	6CP-2-752	0.18
.008	6CP-2-802	0.18
.0082	6CP-2-822	0.18
.01	6CP-2-103	0.18
.012	6CP-2-123	0.18
.015	6CP-2-153	0.18
.02	6CP-3-203	0.18
.022	6CP-3-223	0.18
.025	6CP-3-253	0.21
.03	6CP-4-303	0.21
.033	6CP-4-333	0.21
.04	6CP-4-403	0.21
.047	6CP-4-473	0.24
.05	6CP-4-503	0.24
.056	6CP-4-563	0.24
.06	6CP-5-603	0.27
.068	6CP-5-683	0.27

Cap. Mfd.	Part No.	Net Price
	600VDCW	
.075	6CP-5-753	0.27
.082	6CP-5-823	0.27
.1	6CP-5-104	0.27
.15	6CP-5-154	0.33
.2	6CP-6-204	0.39
.22	6CP-6-224	0.42
.25	6CP-6-254	0.42
.33	6CP-7-334	0.57
.47	6CP-7-474	0.75
.5	6CP-7-504	0.75
	1000VDCW	
.001	10CP-1-102	$0.24
.0015	10CP-1-152	0.24
.002	10CP-1-202	0.24
.0022	10CP-1-222	0.24
.0025	10CP-1-252	0.24
.003	10CP-1-302	0.24
.0033	10CP-2-332	0.24
.004	10CP-2-402	0.24
.0047	10CP-2-472	0.24
.005	10CP-2-502	0.24
.006	10CP-2-602	0.24
.0068	10CP-2-682	0.24
.0075	10CP-2-752	0.24
.01	10CP-2-103	0.27
.015	10CP-3-153	0.27
.02	10CP-4-203	0.27
.022	10CP-4-223	0.27
.025	10CP-4-253	0.27
.03	10CP-4-303	0.27
.033	10CP-5-333	0.33
.04	10CP-5-403	0.33
.047	10CP-5-473	0.33

Cap. Mfd.	Part No.	Net Price
	1000VDCW	
.05	10CP-5-503	0.33
.056	10CP-5-563	0.36
.068	10CP-5-683	0.39
.075	10CP-6-753	0.39
.1	10CP-6-104	0.42
	1600VDCW	
.001	16CP-2-102	$0.30
.0015	16CP-2-152	0.30
.002	16CP-2-202	0.30
.0022	16CP-2-222	0.30
.0025	16CP-3-252	0.30
.003	16CP-3-302	0.30
.0033	16CP-3-332	0.30
.004	16CP-3-402	0.30
.0047	16CP-3-472	0.30
.005	16CP-3-502	0.30
.006	16CP-4-602	0.33
.0068	16CP-4-682	0.33
.007	16CP-4-702	0.33
.0075	16CP-4-752	0.33
.008	16CP-4-802	0.33
.01	16CP-4-103	0.33
.015	16CP-5-153	0.36
.02	16CP-5-203	0.39
.022	16CP-5-223	0.39
.025	16CP-5-253	0.39
.03	16CP-5-303	0.39
.033	16CP-5-333	0.39
.04	16CP-6-403	0.42
.047	16CP-6-473	0.42
.05	16CP-6-503	0.42

ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ARCO CAPACITORS

TYPES
CCD, 3CCD
6CCD, CCS

CERAMIC DISC

MINIATURE GENERAL PURPOSE

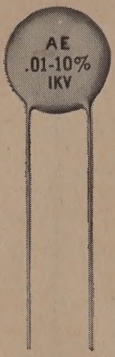
ARCO Type CCD ceramic disc capacitors have improved ceramic bodies which impart longer life and greater stability to any application. The standard CCD line has a ±10% tolerance and 1000VDCW rating, making possible a single ceramic disc stock for universal use. Whether a broad coupling or by-pass application, or a critical close tolerance use, ARCO CCD units fill the bill with dependability and economy. The 'space-saving' size of ARCO discs is another feature designed to offer greater service convenience with complete safety of operation. In addition to the 1000VDCW line, higher voltage ratings are available in Type CCD units. 3000VDCW (Type 3CCD) and 6000VDCW (Type 6CCD) disc ceramics are supplied in tolerance of ±20%.

TYPE CCD

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price
5	CCD-050	$0.15	390	CCD-391	$0.15
10	CCD-100	0.15	400	CCD-401	0.15
12	CCD-120	0.15	470	CCD-471	0.15
15	CCD-150	0.15	500	CCD-501	0.15
18	CCD-180	0.15	560	CCD-561	0.15
20	CCD-200	0.15	680	CCD-681	0.15
22	CCD-220	0.15	750	CCD-751	0.15
25	CCD-250	0.15	800	CCD-801	0.15
27	CCD-270	0.15	820	CCD-821	0.15
30	CCD-300	0.15	1000	CCD-102	0.15
33	CCD-330	0.15	1200	CCD-122	0.15
39	CCD-390	0.15	1500	CCD-152	0.15
47	CCD-470	0.15	2000	CCD-202	0.15
50	CCD-500	0.15	2200	CCD-222	0.15
56	CCD-560	0.15	2500	CCD-252	0.15
68	CCD-680	0.15	2700	CCD-272	0.15
75	CCD-750	0.15	3000	CCD-302	0.15
82	CCD-820	0.15	3300	CCD-332	0.15
91	CCD-910	0.15	3900	CCD-392	0.15
100	CCD-101	0.15	4700	CCD-472	0.15
120	CCD-121	0.15	5000	CCD-502	0.18
150	CCD-151	0.15	5600	CCD-562	0.18
180	CCD-181	0.15	6800	CCD-682	0.18
200	CCD-201	0.15	8200	CCD-822	0.18
220	CCD-221	0.15	10000	CCD-103	0.18
250	CCD-251	0.15	*15000	CCD-153	0.18
270	CCD-271	0.15	*20000	CCD-203	0.18
300	CCD-301	0.15	*30000	CCD-303	0.30
330	CCD-331		†40000	CCD-403	0.36
			†50000	CCD-503	0.42

*500VDCW, ±20% tolerance
†500VDCW, +80, −20% tolerance



TYPE 3CCD

High Voltage — ± 20% Tolerance
3000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price
4.7	3CCD-4R7	$0.24	150	3CCD-151	0.24
6.8	3CCD-6R8	0.24	180	3CCD-181	$0.24
10	3CCD-100	0.24	220	3CCD-221	0.24
15	3CCD-150	0.24	270	3CCD-271	0.24
22	3CCD-220	0.24	330	3CCD-331	0.24
27	3CCD-270	0.24	390	3CCD-391	0.24
33	3CCD-330	0.24	470	3CCD-471	0.24
39	3CCD-390	0.24	560	3CCD-561	0.24
47	3CCD-470	0.24	680	3CCD-681	0.24
56	3CCD-560	0.24	820	3CCD-821	0.24
68	3CCD-680	0.24	1000	3CCD-102	0.24
82	3CCD-820	0.24	2000	3CCD-202	0.24
100	3CCD-101	0.24	5000	3CCD-502	0.24
120	3CCD-121	0.24			

TYPE 6CCD

High Voltage — ± 20% Tolerance
6000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Price
4.7	6CCD-4R7	$0.36	100	6CCD-101	0.36
6.8	6CCD-6R8	0.36	120	6CCD-121	0.42
10	6CCD-100	0.36	150	6CCD-151	0.36
15	6CCD-150	0.36	220	6CCD-221	0.36
22	6CCD-220	0.36	330	6CCD-331	0.36
27	6CCD-270	0.36	470	6CCD-471	0.36
33	6CCD-330	0.36	560	6CCD-561	0.42
47	6CCD-470	0.36	680	6CCD-681	0.42
56	6CCD-560	0.36	820	6CCD-821	0.42
68	6CCD-680	0.36	1000	6CCD-102	0.42
82	6CCD-820	$0.36	2000	6CCD-202	0.42

TEMPERATURE STABLE

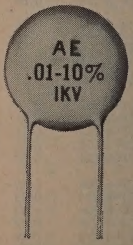
This new ELMENCO ceramic capacit maintains excellent capacitance stabilit with wide temperature variation. Th graph illustrates typical percentage variation of capacity value with temperatur The operating temperature range ha been extended to —55°C. to +125°C. without derating of the 1000VDCW specification. Standard tolerance is ±10%. Th combined small size, low cost, and hig stability represents another significan advance in the quality line of ELMENCO capacitors. All units are marked "TS for identification.

TYPE CCS

± 10% Tolerance — 1000 VDCW

Cap. mmf.	Part Number	Net Price	Cap. mmf.	Part Number	Net Pric
150	CCS-151	$0.18	820	CCS-821	$0.2
180	CCS-181	0.18	1000	CCS-102	0.2
200	CCS-201	0.18	1200	CCS-122	0.2
220	CCS-221	0.18	1500	CCS-152	0.2
250	CCS-251	0.18	1800	CCS-182	0.2
270	CCS-271	0.18	2000	CCS-202	0.2
300	CCS-301	0.18	2200	CCS-222	0.2
330	CCS-331	0.18	2500	CCS-252	0.2
390	CCS-391	0.18	2700	CCS-272	0.2
470	CCS-471	0.18	3000	CCS-302	0.2
500	CCS-501	0.18	3300	CCS-332	0.2
560	CCS-561	0.18	3900	CCS-392	0.2
620	CCS-621	0.18	4700	CCS-472	0.2
680	CCS-681	0.18			
750	CCS-751	0.18			

LOOK for the "A.E." brand on all ARCO disc ceramic capacitors



Net

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ARCO
CAPACITORS

TYPE CCTO, CCTN
NPO - TYPE CCTO
N750 - TYPE CCTN
VARIABLE CERAMIC
TRIMMER - FEED
THRU CERAMICS

TEMPERATURE COMPENSATING

TYPE CCTO

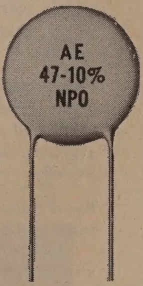
Elmenco Type CCTO ceramic disc capacitors are zero temperature coefficient units specifically suited for high stability, high Q application. In addition to extreme temperature stability, Type CCTO capacitors have very high insulation resistance and low aging rate. These special characteristics are added to the high 1000VDCW rating and close tolerance of the entire Elmenco ceramic line to provide a superior capacitor for the special purpose intended. Type CCTO capacitors are identified by "NPO" printed on each unit.

NPO-TYPE CCTO

(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price
*2.2	CCTO-2R2	$0.30
*3.3	CCTO-3R3	0.30
*4.7	CCTO-4R7	0.30
5.0	CCTO-050	0.30
6.8	CCTO-6R8	0.30
10	CCTO-100	0.30
12	CCTO-120	0.30
15	CCTO-150	0.30
18	CCTO-180	0.30
20	CCTO-200	0.30
22	CCTO-220	0.30
24	CCTO-240	0.30
27	CCTO-270	0.30
30	CCTO-300	0.30
33	CCTO-330	0.30
36	CCTO-360	0.30
39	CCTO-390	0.30
47	CCTO-470	0.30
51	CCTO-510	0.33
56	CCTO-560	0.33
68	CCTO-680	0.33
75	CCTO-750	0.33
82	CCTO-820	0.33
100	CCTO-101	
120	CCTO-121	0.33
150	CCTO-151	0.33

* ±.5 mmf. tolerance



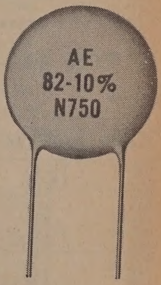
TYPE CCTN

Another member of the Elmenco temperature compensating disc ceramic line is the Type CCTN unit which has a negative temperature coefficient of —750 ppm/°C. (N750). These units are used to counterbalance shifts in other circuit components with change in temperature. The result is a more stable circuit essential to many frequency control applications. Improved ceramic bodies in the temperature compensating line provide greater long term stability in addition to accurate temperature compensation. Type CCTN capacitors are identified by "N750" imprinted on each unit except the smallest size. On the small units the E.I.A. temperature coefficient designation "U2" is imprinted.

N750-TYPE CCTN

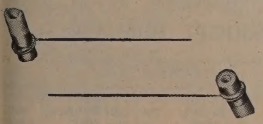
(ELMENCO Type TC)
±10% TOLERANCE
1000 VDCW

Cap. mmf.	Part Number	Net Price
5	CCTN-050	$0.30
10	CCTN-100	0.30
15	CCTN-150	0.30
22	CCTN-220	0.30
27	CCTN-270	0.30
33	CCTN-330	0.30
39	CCTN-390	0.30
47	CCTN-470	0.30
56	CCTN-560	0.30
62	CCTN-620	0.30
68	CCTN-680	0.30
75	CCTN-750	0.30
82	CCTN-820	0.30
100	CCTN-101	0.30
120	CCTN-121	0.30
150	CCTN-151	0.30
200	CCTN-201	0.30
220	CCTN-221	0.30
270	CCTN-271	0.30
300	CCTN-301	0.30
330	CCTN-331	0.30
390	CCTN-391	0.30
470	CCTN-471	0.30



NOTE: In addition to the NPO and N750 standard stock ratings, a wide assortment of other negative temperature coefficient ratings are available to special order. N030, N080, N150, N220, N330, N470, N1500, N2100, N3300, N4100, N4700, and N5600 ratings are included. Specifications and prices will be supplied upon request.

VARIABLE CERAMIC TRIMMER

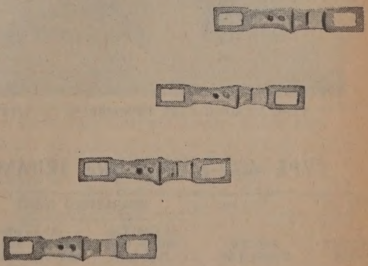


Adjustable ceramic trimmer capacitor for high frequency applications. Silvered Steatite tubes ⅝" in length provide capacity ranges listed below upon insertion of 6-32 screw.

PART No.	CAP. RANGE MMF.	NET PRICE
CV-1	0.5 - 3	$0.21
CV-2	1 - 4	.21
CV-3	2 - 6	.21

FEED THRU CERAMICS

Compact rugged ceramic feed through capacitors are designed for high frequency coupling with a minimum of inductive reactance through elimination of wire leads. These units are three dot RMA coded and rated at 500VDCW.



PART No.	CAP. (MMF) (Guar. Min. Val.)	NET PRICE
CCF-501	500	$0.24
CCF-102	1000	.24
CCF-152	1500	.24
CCF-202	2000	

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Branches: Los Angeles 35, Dallas 7

ELMENCO
CAPACITORS

TYPES
46, 40, PC46
42

TRIMMERS

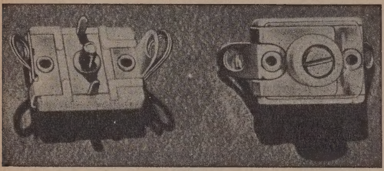
El-Menco Trimming Condensers are treated for resistance to humidity and for permanence of capacity setting.

The base is made of the lowest dielectric loss ceramic material available and the mica is clear India Ruby.

The soldering lugs may be bent in any position without affecting capacity setting due to the rigid construction of adjusting plates.

Trimmers shown here are standard sizes and capacities.

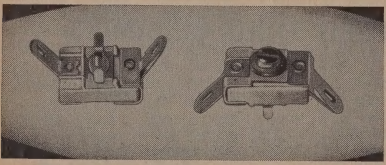
Voltage 350 VDCT — 175 VDCW.



TYPE 46 STANDARD TRIMMER ¾'' x ⅝''

TYPE 46—STANDARD TRIMMER

TYPE 46W		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
460	1¼ Pl.	15	1.5	$0.24
461	1¾ Pl.	30	2.7	.24
462	2 Pl.	80	5	.27
463	3 Pl.	180	9	.30
464	4 Pl.	280	25	.33
465	5 Pl.	380	50	.36
466	6 Pl.	480	80	.39
467	7 Pl.	580	110	.45
468	8 Pl.	680	140	.48
469	9 Pl.	780	170	.51
4610	10 Pl.	900	190	.54
4611	11 Pl.	1000	210	.57
4612	12 Pl.	1100	240	.60
4613	13 Pl.	1200	300	.66
4614	14 Pl.	1300	340	.72
4615	15 Pl.	1400	390	.78

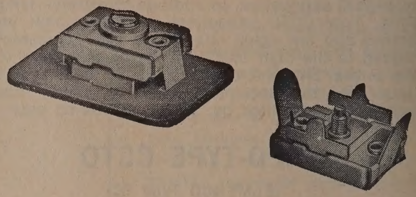


TYPE 40 MINIATURE TRIMMER ⅜'' x 9/16''

TYPE 40—MINIATURE TRIMMER

TYPE 40		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
400	1⅛ Pl.	7	0.9	$0.24
402	2 Pl.	20	1.5	.27
403	3 Pl.	35	3	.30
404	4 Pl.	60	8	.33

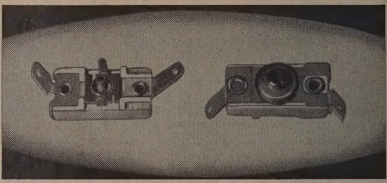
TYPE PC46
PRINTED CIRCUIT TRIMMERS



The Elmenco Type 46 trimmer series has been adapted for printed circuit techniques through alteration of terminals and mounting configuration. The holes in the terminal lugs are removed since necessity for hook-up is eliminated. The resulting solid terminals have greatly increased spring action, allowing the trimmer to be "snapped-in" the circuit and firmly held until soldered.

This printed circuit trimmer, available at present only in the Type 46 style, is identified by the prefix letter "PC". All capacitance ranges listed for Type 46 are available, designated as part numbers PC460 through PC468.

For net price add $0.05 to net price of standard Type 46 trimmer.



TYPE 42 MIDGET TRIMMER ⅜'' x ¾''

TYPE 42—MIDGET TRIMMER

TYPE 42		GUARANTEED RANGE		
NUMBER PART	PLATES NUMBER OF	At Tight Cap. Will Be More Than MMF.	At 3 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
420	1⅛ Pl.	12	1	$0.24
421	1¾ Pl.	25	2	.24
422	2 Pl.	40	4	.27
423	3 Pl.	100	7	.30
424	4 Pl.	150	14	.33
425	5 Pl.	200	24	.36
426	6 Pl.	250	37	.39
427	7 Pl.	300	55	.45
428	8 Pl.	350	70	.48
429	9 Pl.	400	90	.51

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ELMENCO CAPACITORS

TYPES 30, 30M

Single and Dual PADDERS

El-Menco Padding Condensers have been acclaimed engineers as the finest development in adjustable mica ndensers.

The construction is such as to completely enclose and otect the delicate edges of the mica films, made of the est quality clear India ruby mica.

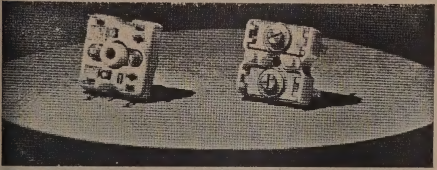
The phosphor bronze adjusting plates assure permanent silience and freedom from mechanical fatigue. All parts e heavily plated to resist corrosion.

TYPE 30

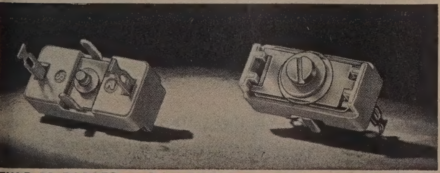
500 Volts DC Flash-Test — 250 WVDC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turns Open Cap. Will Be Less Than MMF.	NET PRICE
302	2 Pl.	130	15	$0.48
303	3 Pl.	340	65	.51
304	4 Pl.	550	100	.54
305	5 Pl.	760	190	.60
306	6 Pl.	970	275	.66
307	7 Pl.	1180	350	.72
308	8 Pl.	1390	450	.75
309	9 Pl.	1600	550	.81
310	10 Pl.	1890	650	.87
311	11 Pl.	2110	780	.93
312	12 Pl.	2330	880	.99
313	13 Pl.	2605	1150	1.05
314	14 Pl.	2830	1300	1.11
315	15 Pl.	3055	1400	1.17

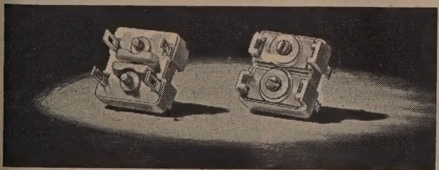
Screw is insulated from top plate my mica washer. Above maximum capacity values are based on using 1½ to 1¾ Mil Mica films.



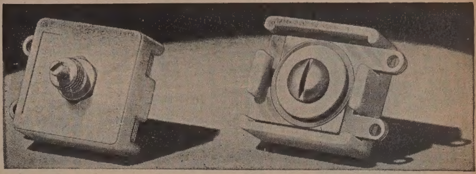
TYPE 50 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding 1-1/16" x 1-1/16")



TYPE 58 PADDER 1" x 15/32" 175VDCW



TYPE 60 DUAL PADDER 175VDCW
(will fit any size shield having dimensions exceeding ¾" x ¾")



TYPE 30 AND TYPE 30-M PADDER 7/8" x 15/16"

TYPE 30-M

1000 Volts DC Flash-Test — 500 Working Volts DC

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2½ Turns Open Cap. Will Be Less Than MMF.	NET PRICE
302-M	2 Pl.	120	15	$0.48
303-M	3 Pl.	320	65	.54
304-M	4 Pl.	500	100	.57
305-M	5 Pl.	690	180	.63
306-M	6 Pl.	880	265	.69
307-M	7 Pl.	1070	340	.75
308-M	8 Pl.	1260	425	.78
309-M	9 Pl.	1415	525	.84
310-M	10 Pl.	1600	615	.90
311-M	11 Pl.	1785	730	.96
312-M	12 Pl.	1970	800	1.02
313-M	13 Pl.	2155	1000	1.08
314-M	14 Pl.	2340	1100	1.14
315-M	15 Pl.	2525	1200	1.20

Screw is insulated from top plate by mica washer. Above maximum capacity values are based on using 2 to 2¼ Mil Mica.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
502	2 Pl.	80	7.5	$0.51
503	3 Pl.	160	19	.60
504	4 Pl.	240	50	.69

◄TYPE 50 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding 1 1/16" x 1 1/16".

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
582	2 Pl.	80	7.5	$0.33
583	3 Pl.	160	19	.36
584	4 Pl.	240	50	.39

◄TYPE 58 Padder is a single variable trimmer section provided with a two-pronged staple mounting for attachment to bracket or chassis. Base is made of lowest loss steatite and the mica is India Ruby.

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	GUARANTEED RANGE At 2 Turns Open Cap. Will Be Less Than MMF.	NET PRICE
602	2 Pl.	55	7	$0.48
603	3 Pl.	100	15	.57
604	4 Pl.	160	35	.66
605	5 Pl.	220	60	.75

◄TYPE 60 Dual Padders provide two variable trimmers mounted on a single base. This unit is designed as a tuning component for I.F. transformers; and as such, may be snap-in mounted along with the transformer coil in any size shield having dimensions exceeding ¾" x ¾"

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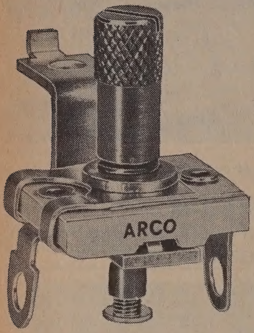
ELMENCO CAPACITORS

TYPES S46, L30

VARIABLE COMPRESSION MICA CAPACITORS



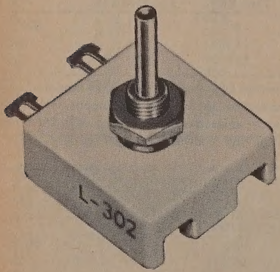
TYPE S46

Net Price:
Add 45¢ to the
Net price of
trimmer alone

A complete Type 46 trimmer assembly with mounting bracket and adjusting shaft for ease of tuning. Can be supplied as pictured from stock or with construction variations to order.

To specify precede trimmer part number with the letter "S".

For example:
Type 460 trimmer will be ordered as S-460.



TYPE - L30

Net Price:
Add 10¢ to the
Net price of
padder alone

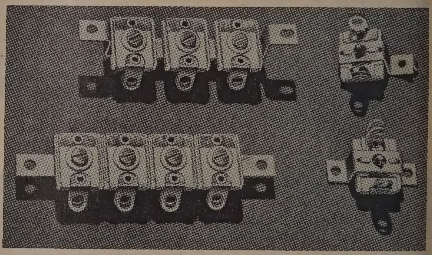
The Type 30 or Type 30M padder can now be obtained with a special adjusting screw which has been lengthened to accommodate a tuning knob. To obtain a padder with the special screw, precede the regular padder part number with the letter "L". For example, a 302 padder with the special screw would be specified as "L-302".

●

NOTE: Knobs may also be obtained if desired at a cost of 30¢ each net.

The two new assemblies shown at left have been d veloped due to increasing demands for miniaturiz tuning devices. However, certain precautions must t taken in design so that these variable mica capacito are not used in circuits for which they are not adapte These assemblies are highly stable for components their design, but they do not match the stability the air dielectric tuners. Short term drift of the mic trimmers and padders after tuning is negligible. Lor term drift at one setting due to changes in atmo pheric conditions and physical motion should t well within ± 2%.

It should also be remembered that variable com pression type mica capacitors do not have linea variation with adjustment. Rate of change of capacit decreases per turn as the screw is withdrawn. Fo example, a 306 padder will reduce to half the nomina maximum value within one opening turn. Those wit a greater number of plates require further screw dis engagement for a similar percentage reduction i capacity value. On the other hand, a 302 padder wi reach one-half the nominal maximum in less tha one-half turn open. Type 46 trimmers operate in muc the same way. Detailed information on specific size is available upon request.



Mounting brackets as illustrated above can be sup plied for all types of trimmers in flat "Z" (singl mounting hole with or without non-rotational stop) and "U" (dual mounting hole) configurations.

	Net Price
Bracket for mounting 1 Trimmer	$0.09
Bracket for mounting 2 Trimmers	.11
Bracket for mounting 3 Trimmers	.13
Bracket for mounting 4 Trimmers	.14
Bracket for mounting 5 Trimmers	.16
Bracket for mounting 6 Trimmers	.18

ARCO electronics inc. Arcolytic

TUBULAR ELECTROLYTIC CAPACITORS

Arcolytic
DRY ELECTROLYTIC CAPACITOR
CAT. # CES 4045

ARCOLYTIC TUBULARS

- Made with 99.99% high purity aluminum foil.
- Higher reliability because of practically no impurities in the foil.
- Maximum operating temperature: 85°C. (Type CTW: 75°C.)
- Perfect replacement electrolytic for all types entertainment units.
- Extended shelf and and operating life at both normal and eleveated tempertaures.
- Built and tested to meet EIA specification RS-154.

ype CTA Single and multiple section tubular electrolytics drawn aluminum cans with cardboard sleeves. Single sec-
on units have bare wire leads with negative grounded to an. Multiple units have a common negative grounded to an, and all leads have vari-colored insulated wire for ease f identification.

ype CTW Same as type CTA except that these are mul-
ple section electrolytics in wax-filled cardboard tubes.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTA-1050	50	6	½ x 1¼	.57
CTA-1055	100	6	½ x 1¼	.72
CTA-1060	250	6	⅝ x 1¾	.81
CTA-1065	500	6	¾ x 1¾	.93
CTA-1070	1000	6	¾ x 2¼	1.14
CTA-1075	1500	6	1 x 2¼	1.26
CTA-1080	2000	6	1 x 2¾	1.38
CTA-1085	100	15	⅝ x 1¼	.75
CTA-1090	250	15	⅝ x 1¾	.93
CTA-1095	500	15	¾ x 2¼	1.05
CTA-1100	1000	15	⅞ x 2¼	1.38
CTA-1105	2	25	½ x 1¼	.54
CTA-1110	5	25	½ x 1¼	.60
CTA-1115	10	25	½ x 1¼	.60
CTA-1125	50	25	½ x 1¼	.60
CTA-1120	25	25	⅝ x 1¼	.66
CTA-1130	100	25	⅝ x 1¾	.81
CTA-1135	250	25	⅞ x 2¼	1.02
CTA-1140	500	25	1 x 2¼	1.38
CTA-1145	1	50	½ x 1¼	.54
CTA-1150	2	50	½ x 1¼	.54
CTA-1155	5	50	½ x 1¼	.60
CTA-1160	10	50	½ x 1¼	.60
CTA-1165	20	50	⅝ x 1¼	.60
CTA-1170	25	50	⅝ x 1¼	.63
CTA-1175	50	50	⅝ x 1¾	.72
CTA-1180	100	50	¾ x 1¾	.84
CTA-1185	150	50	¾ x 1¾	.93
CTA-1190	250	50	⅞ x 1¾	1.05
CTA-1195	500	50	1 x 2¼	1.44
CTA-1200	4	150	½ x 1¼	.60
CTA-1205	5	150	½ x 1¼	.60
CTA-1210	8	150	⅝ x 1¼	.63
CTA-1215	10	150	⅝ x 1¼	.63
CTA-1220	12	150	⅝ x 1¼	.66
CTA-1225	16	150	⅝ x 1¾	.69
CTA-1230	20	150	⅝ x 1¾	.72
CTA-1235	25	150	⅝ x 1¾	.75
CTA-1240	30	150	¾ x 1¾	.78
CTA-1245	40	150	¾ x 1¾	.81
CTA-1250	50	150	⅞ x 1¾	.84
CTA-1255	60	150	⅞ x 1¾	.90
CTA-1260	80	150	¾ x 2¼	.96
CTA-1265	100	150	1 x 2¼	1.05
CTA-1270	150	150	1¼ x 2¼	1.14
CTW-1275	200	150	1¼ x 2¾	1.32
CTW-1280	250	150	1¼ x 3¼	1.53
CTW-1285	300	150	1¼ x 3¾	1.53
CTW-1290	150	200	1 x 3¾	1.53
CTW-1295	200	200	1¼ x 3¾	1.74
CTA-1300	4	250	⅝ x 1¼	.60
CTA-1305	8	250	⅝ x 1¼	.69
CTA-1310	10	250	⅝ x 1¾	.72
CTA-1315	12	250	⅝ x 1¾	.75
CTA-1320	16	250	⅝ x 1¾	.78
CTA-1325	20	250	¾ x 1¾	.81
CTA-1330	30	250	¾ x 2¼	.87
CTA-1335	40	250	¾ x 2¼	.93
CTA-1340	50	250	⅞ x 2¼	1.02
CTA-1345	60	250	⅞ x 2¼	1.08
CTA-1350	100	250	1 x 2¾	1.47
CTW-1355	140	300	1 x 3¾	1.89
CTA-1360	4	350	⅝ x 1¼	.63
CTA-1365	8	350	⅝ x 1¾	.72
CTA-1370	10	350	⅝ x 1¾	.75
CTA-1375	12	350	¾ x 1¾	.78
CTA-1380	16	350	¾ x 1¾	.84
CTA-1385	20	350	⅞ x 1¾	.87
CTA-1390	30	350	⅞ x 2¼	.99
CTA-1395	40	350	1 x 2¼	1.05
CTA-1398	60	350	1 x 2¾	1.17
CTA-1400	1	450	½ x 1¼	.66
CTA-1405	2	450	½ x 1¼	.66
CTA-1410	4	450	⅝ x 1¼	.69
CTA-1415	8	450	⅝ x 1¾	.75
CTA-1420	10	450	¾ x 1¾	.78
CTA-1425	12	450	¾ x 1¾	.81
CTA-1430	16	450	⅞ x 1¾	.84
CTA-1435	20	450	⅞ x 2¼	.93
CTA-1440	30	450	1 x 2¼	1.02
CTA-1445	40	450	1 x 2¾	1.08
CTA-1450	50	450	1 x 3¼	1.26
CTA-1455	60	450	1 x 3¼	1.41
CTA-1460	80	450	1 x 3¾	1.68
CTA-1465	100	450	1¼ x 3¾	1.92
CTA-1470	8	500	¾ x 1¾	.78
CTA-1475	10	500	⅞ x 1¾	.81
CTA-1480	16	500	⅞ x 2¼	.90
CTA-1485	20	500	1 x 2¼	.96
CTA-1490	30	500	1 x 2¾	1.05
CTA-1500	8	600	1 x 2¾	1.71
CTA-1505	10	600	1 x 2¾	1.77
CTA-1510	16	600	1 x 3¾	2.07
CTA-1515	20	600	1 x 3¾	1.05
CTA-1520	8	700	1 x 2¾	2.13
CTA-1525	10	700	1 x 2¾	2.07
CTA-1530	16	700	1 x 3¾	2.13

Preferred Type

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTA-2030	10-10	50-50	⅝ x 1¾	.84
CTA-2035	8-8	150-150	⅝ x 1¾	.90
CTA-2040	16-16	150-150	¾ x 1¾	1.08
CTA-2045	20-12	150-150	¾ x 1¾	.96
CTA-2050	20-20	150-150	¾ x 1¾	.98
CTA-2055	30-20	150-150	⅞ x 1¾	1.02
CTA-2060	30-30	150-150	⅞ x 1¾	1.08
CTA-2065	40-20	150-150	⅞ x 1¾	1.05
CTA-2070	40-30	150-150	⅞ x 2¼	1.08
CTA-2075	40-40	150-150	⅞ x 2¼	1.11
CTA-2080	50-30	150-150	⅞ x 2¼	1.17
CTA-2085	50-50	150-150	⅞ x 2¼	1.26
CTA-2090	80-30	150-150	1 x 2¼	1.32
CTA-2100	80-40	150-150	1 x 2¾	1.32
CTA-2105	80-50	150-150	1 x 2¾	1.41
CTW-2110	100-100	150-150	1 x 3¾	1.92
CTW-2115	250-50	150-150	1¼ x 3¾	2.22
CTW-2120	200-5	150-150	1 x 3¾	1.59
CTW-2125	250-200	150-150	1¼ x 4¾	2.52
CTA-2130	20-20	250-250	⅞ x 2¼	1.11
CTA-2135	40-10	250-250	⅞ x 2¼	1.23
CTA-2140	80-10	250-250	1 x 3¼	1.53
CTW-2145	120-80	250-250	1¼ x 3¾	2.40
CTW-2150	140-5	350-350	1¼ x 4¼	2.49
CTW-2155	80-100	450-50	1¼ x 4¼	2.22

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ARCO
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Arcolytic

TUBULAR ELECTROLYTIC CAPACITORS

DOUBLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTA-2160	8-8	450-450	⅞ x 2¼	1.02
CTA-2165	10-10	450-450	1 x 2¼	1.11
CTA-2170	16-8	450-450	1 x 2¼	1.20
CTA-2175	20-20	450-450	1 x 2¾	1.50
CTA-2180	30-30	450-450	1 x 3¼	1.80
CTA-2185	40-40	450-450	1 x 3¾	2.04
CTA-2190	50-30	450-450	1 x 3¾	2.04

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTA-3050	20-20-20	150-150-150	⅞ x 1¾	1.50
CTA-3055	30-30-30	150-150-150	⅞ x 2¼	1.56
CTA-3060	40-30-20	150-150-150	⅞ x 2¼	1.56
CTA-3063	40-40-20	150-150-150	1 x 2¼	1.41
CTA-3065	40-40-40	150-150-150	1 x 2¼	1.68
CTA-3070	50-30-20	150-150-150	1 x 2¼	1.62
CTA-3075	80-40-20	150-150-150	1 x 2¾	1.74
CTW-3078	150-150-150	150-150-150	1⅜ x 4¼	2.91
CTW-3080	250-200-10	150-150-150	1¼ x 4¼	2.76
CTA-3085	60-40-250	150-150-15	1 x 3¼	1.56
CTA-3090	80-30-300	150-150-15	1 x 3¾	1.74
CTA-3095	20-20-20	150-150-25	⅞ x 1¾	1.47
CTA-3100	40-20-20	150-150-25	1 x 1¾	1.53
CTA-3105	40-30-20	150-150-25	⅞ x 2¼	1.56
CTA-3110	40-40-20	150-150-25	1 x 2¼	1.59
CTA-3115	40-40-100	150-150-25	1 x 2¼	1.68
CTA-3120	50-30-20	150-150-25	1 x 2¼	1.59
CTA-3125	50-30-100	150-150-25	1 x 2¼	1.68
CTA-3130	50-30-250	150-150-25	1 x 3	1.86
CTA-3135	50-50-20	150-150-25	1 x 2¼	1.65
CTA-3140	80-20-100	150-150-25	1 x 2¾	1.68
CTA-3145	80-40-20	150-150-25	1 x 2¾	1.68
CTW-3150	250-120-50	150-150-25	1⅜ x 4	2.61
CTW-3153	120-40-100	300-250-50	1⅜ x 4¼	2.97
CTW-3155	60-60-60	300-300-300	1⅜ x 3½	2.82
CTW-3160	80-40-100	300-300-50	1⅜ x 3½	2.55
CTW-3165	100-60-100	300-300-50	1⅜ x 4¼	2.97
CTW-3168	120-40-10	300-300-250	1⅜ x 3½	2.91
CTW-3170	60-60-4	350-350-350	1⅜ x 3¼	2.31
CTW-3175	140-5-200	350-350-200	1½ x 4¾	4.02

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CTW-3178	10-20-100	400-150-150	1¼ x 4¾	2.4
CTW-3180	5-80-40	450-400-400	1¾ x 4¼	2.7
CTA-3185	20-20-20	450-450-25	1¼ x 3	1.8
CTA-3190	40-40-20	450-450-25	1 x 3¾	2.2

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CTW-4050	40-20-20-100	150-150-150-25	1 x 3¼	1.8
CTW-4055	150-100-20-100	300-300-300-50	1½ x 4¾	4.1
CTW-4060	120-40-40-10	300-300-300-250	1¼ x 4¾	3.7
CTW-4065	140-5-200-100	350-300-200-150	1½ x 4¾	4.9
CTW-4070	140-5-200-30	350-300-200-200	1½ x 4¾	4.5
CTW-4075	80-60-40-20	350-350-300-150	1¼ x 4¾	3.5
CTW-4085	80-10-40-100	400-400-300-50	1⅜ x 4¼	3.2
CTW-4090	10-80-40-100	450-300-250-50	1⅜ x 4¼	2.8
CTW-4095	20-120-40-100	450-300-250-50	1¼ x 4¾	3.6
CTW-4100	10-80-40-40	450-300-300-250	1⅜ x 4¼	2.9
CTW-4105	20-20-20-10	450-450-450-450	1⅜ x 3¾	2.5
CTW-4110	40-20-20-10	450-450-450-450	1¼ x 4¼	2.8
CTW-4115	40-40-20-20	450-450-450-450	1½ x 4¼	3.2

FIVE LEADS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CTW-5050	40-20-20-20-50	300-300-300-300-75	1⅜ x 4¼	3.0

PRINTED CIRCUIT

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
APC-2100	50-30	150-150	1 x 2½	1.5
APC-2105	50-50	150-150	1 x 2½	1.6
APC-2110	80-30	150-150	1 x 3	1.6
APC-2115	100-50	150-150	1 x 3½	1.7

ANTENNA ROTAR CAPACITOR

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CRA-1000	70	50 VAC	⅞ x 3	.7
CRA-1050	120	50 VAC	1 x 2¾	.9

PRINTED CIRCUIT TWIST MOUNTS

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTP-1250	140	150	1 x 2½	1.29
CTP-1350	375	165	1⅜ x 3½	1.80
CTP-1450	160	200	1⅜ x 3	1.74
CTP-1550	50	350	1 x 2	1.26
CTP-1650	20	450	1 x 2	1.08

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTP-2150	250-250	16-16	1 x 2	1.65
CTP-2275	500-100	16-16	1 x 2	1.86
CTP-2350	800-250	16-16	1 x 2½	2.01
CTP-2360	500-200	18-18	1 x 2	2.01
CTP-2475	50-30	150-150	1 x 2	1.20
CTP-2550	80-30	150-150	1 x 2	1.35
CTP-2625	80-40	150-150	1 x 3	1.38
CTP-2700	200-5	150-150	1⅜ x 2½	1.62
CTP-2775	2-20	300-25	1 x 2	.87
CTP-2850	10-10	300-50	1 x 2	.96
CTP-2875	150-100	300-150	1⅜ x 4	2.70
CTP-2890	10-10	300-300	1⅜ x 2	1.05

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTP-3130	250-250-50	16-16-16	1 x 2	1.95
CTP-3160	500-250-50	16-16-16	1 x 2	2.10
CTP-3190	500-250-250	16-16-16	1 x 2	2.46
CTP-3220	70-30-100	150-150-10	1 x 2	1.68
CTP-3250	40-30-250	150-150-10	1 x 2½	1.86

PRINTED CIRCUIT TWIST MOUNTS

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CTP-3280	80-60-250	150-150-10	1 x 2½	2.0
CTP-3310	80-60-400	150-150-10	1 x 3	2.1
CTP-3340	90-40-400	150-150-10	1 x 3	2.1
CTP-3370	40-20-20	150-150-25	1 x 2½	1.3
CTP-3400	80-20-20	150-150-25	1 x 2	1.6
CTP-3430	70-30-20	150-150-25	1 x 2½	1.6
CTP-3460	30-30-30	150-150-150	1 x 2	1.5
CTP-3490	40-40-20	150-150-150	1 x 2½	1.5
CTP-3510	40-40-30	150-150-150	1 x 2½	1.6
CTP-3540	50-30-20	150-150-150	1 x 2	1.5
CTP-3570	50-40-30	150-150-150	1 x 2½	1.6
CTP-3600	60-60-40	150-150-150	1⅜ x 2	1.8
CTP-3630	70-15-15	150-150-150	1 x 2	1.6
CTP-3660	80-60-10	150-150-150	1 x 3	1.7
CTP-3690	10-10-20	300-50-25	1 x 2	1.2
CTP-3720	150-60-200	300-200-150	1⅜ x 4	3.5
CTP-3750	60-10-25	300-300-25	1⅜ x 2	1.8
CTP-3780	150-100-30	300-300-300	1⅜ x 4	3.8
CTP-3810	125-5-100	350-150-10	1⅜ x 3½	2.7
CTP-3830	40-30-20	400-350-300	1⅜ x 2½	2.3

QUADRUPLE UNITS

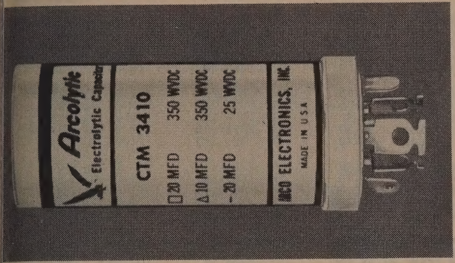
Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
CTP-4100	290-30-10-100	150-150-150-10	1⅜ x 3½	2.7
CTP-4200	50-40-10-50	150-150-150-25	1⅜ x 2	1.8
CTP-4300	100-40-10-50	150-150-150-25	1⅜ x 2	2.2
CTP-4400	60-60-40-10	150-150-150-150	1⅜ x 2	2.1
CTP-4500	100-60-60-40	350-350-200-75	1⅜ x 4	3.9
CTP-4600	40-20-10-100	350-350-350-50	1⅜ x 2½	2.6
CTP-4700	40-30-20-20	400-350-350-350	1⅜ x 2½	2.9

* Preferred Typ

ARCO electronics inc.

Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS



ARCOLYTIC TWIST MOUNTS

Made with 99.99% pure aluminum foil.

Hermetically sealed in aluminum cans.

Designed for high temperature operation: 85°C.

Made to withstand high surge voltages and high ripple currents.

Greater shelf and operating life because only premium grade ingredients are used.

Built and tested to meet EIA specification RS-154.

Complete with phenolic and metal mounting plates.

SINGLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-1050	.5 @ 15.75 KC	3 N.P.	1 x 2	1.59
CTM-1059	1 OHM @ 60 CPS	3 N.P.	1⅜ x 2½	2.40
CTM-1068	10 OHM @ 30 CPS	3 N.P.	1⅜ x 2	1.65
CTM-1077	1000	6	1⅜ x 2	1.44
CTM-1086	2000	6	1⅜ x 2	1.83
CTM-1095	1000	10	1 x 2½	1.92
CTM-1104	3000	10	1⅜ x 3	2.19
CTM-1113	225	15	¾ x 2	1.05
CTM-1122	1000	15	1 x 2½	1.53
CTM-1131	1500	15	1 x 3	2.07
CTM-1140	2000	15	1⅜ x 2	2.07
CTM-1149	3000	15	1⅜ x 3	2.10
CTM-1158	4000	15	1⅜ x 3½	2.25
CTM-1167	25	25	¾ x 2	.93
CTM-1176	40	25	¾ x 2	.81
CTM-1185	50	25	1 x 2	1.02
CTM-1194	100	25	¾ x 2	1.20
CTM-1203	500	25	1 x 2	1.53
CTM-1212	1000	25	1⅜ x 2	2.13
CTM-1221	4	50	¾ x 2	.93
CTM-1230	25	50	¾ x 2	1.02
CTM-1239	100	50	¾ x 2	.99
CTM-1248	150	50	¾ x 2½	1.08
CTM-1257	250	50	1 x 2½	1.20
CTM-1266	500	50	1⅜ x 2½	1.59
CTM-1275	1000	50	1⅜ x 3½	2.25
CTM-1284	1500	50	1⅜ x 4	2.31
CTM-1293	10	150	1 x 2	.99
CTM-1302	20	150	1 x 2	1.08
CTM-1311	25	150	1 x 2	1.14
CTM-1320	30	150	1 x 2	.93
CTM-1329	40	150	1 x 2	1.20
CTM-1338	50	150	1 x 2	.99
CTM-1347	60	150	1 x 2	1.32
CTM-1356	80	150	1 x 2½	1.11
CTM-1365	80	150	1⅜ x 2	1.38
CTM-1374	100	150	1 x 2½	1.20
CTM-1383	110	150	1 x 3	1.62
CTM-1392	120	150	1 x 2½	1.29
CTM-1401	120	150	1⅜ x 2½	1.29
CTM-1410	140	150	1 x 3	1.29
CTM-1419	150	150	1 x 3	1.29
CTM-1428	150	150	1⅜ x 3	1.29
CTM-1437	200	150	1⅜ x 3½	1.47
CTM-1446	300	150	1⅜ x 3½	1.68
*CTM-1455	375	165	1⅜ x 3½	2.79
CTM-1464	40	200	1 x 2	1.29
*CTM-1473	125	200	1⅜ x 2½	1.68
*CTM-1482	160	200	1⅜ x 3	1.89
CTM-1491	500	200	1⅜ x 4	3.96
*CTM-1500	15	250	1 x 2	1.17
CTM-1509	20	250	1 x 2	.96
CTM-1518	30	250	1 x 2	1.29
*CTM-1527	40	250	1 x 2	1.08
CTM-1536	50	250	1 x 2½	1.47
CTM-1545	60	250	1 x 3	1.53
CTM-1554	80	250	1 x 3½	1.62
*CTM-1563	100	250	1 x 3	1.62
*CTM-1572	150	250	1⅜ x 2½	1.86
*CTM-1581	200	250	1⅜ x 3½	2.19
CTM-1590	15	300	1 x 2	1.20
CTM-1599	30	300	1 x 2	1.32
CTM-1608	50	300	1 x 2½	1.53
CTM-1617	60	300	1 x 3	1.59
*CTM-1626	80	300	1 x 3½	1.53
*CTM-1635	100	300	1 x 4	1.74
*CTM-1644	125	300	1⅜ x 3½	2.10
*CTM-1653	150	300	1⅜ x 3½	2.10
*CTM-1662	250	300	1⅜ x 4	2.10
*CTM-1651	10	350	1 x 2	1.14
CTM-1660	15	350	1 x 2	1.23
CTM-1669	20	350	1 x 2	1.32
*CTM-1678	30	350	1 x 2	1.14
*CTM-1687	40	350	1 x 2	1.20
*CTM-1696	50	350	1 x 2	1.26
*CTM-1705	60	350	1 x 3	1.32
*CTM-1714	80	350	1⅜ x 2	1.71
*CTM-1723	125	350	1⅜ x 3½	2.37
CTM-1732	140	350	1⅜ x 4	2.97
*CTM-1741	150	350	1⅜ x 4	2.37
CTM-1750	320	350	1⅜ x 4	4.05
CTM-1759	10	400	1 x 2	1.14
CTM-1768	20	400	1 x 2	1.32
CTM-1777	40	400	1⅜ x 2	1.82
CTM-1786	50	400	1⅜ x 2½	1.65
CTM-1795	80	400	1⅜ x 3	2.22
CTM-1804	100	400	1⅜ x 3	2.55
*CTM-1813	4	450	1 x 2	.84
*CTM-1822	10	450	1 x 2	.93
*CTM-1831	15	450	1 x 2	1.02
*CTM-1840	20	450	1 x 2	1.08
CTM-1849	25	450	1 x 2½	1.44
*CTM-1858	30	450	1 x 2½	1.17
*CTM-1867	40	450	1 x 3	1.23
*CTM-1876	50	450	1 x 3	1.41
*CTM-1885	60	450	1⅜ x 2½	1.56
*CTM-1894	80	450	1⅜ x 2½	1.83
*CTM-1903	100	450	1⅜ x 3	2.07
*CTM-1912	125	450	1⅜ x 4	2.31
CTM-1921	20	475	1 x 2½	1.38
CTM-1930	30	475	1 x 3	1.50
*CTM-1939	40	475	1⅜ x 2	1.50
CTM-1948	90	475	1⅜ x 3½	2.64
*CTM-1957	10	500	1 x 2	1.02
*CTM-1966	20	500	1 x 2½	1.11
*CTM-1975	30	500	1 x 3	1.20
*CTM-1984	40	500	1 x 3½	1.50
*CTM-1993	80	500	1⅜ x 3	1.92
CTM-1995	90	500	1⅜ x 3½	2.10
CTM-1997	15	525	1⅜ x 3	1.38

DUAL UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-2050	(.5 OHM @ 15.75 K 2.5 OHM) @ 60 CPS		1⅜ x 2	2.70
†CTM-2054	1000-500	6 N.P.-6 N.P.	1⅜ x 2	2.94
*CTM-2058	250-1000	10-6	1⅜ x 2	1.71
†CTM-2062	200-40	10-10	1 x 2	1.20
*CTM-2066	1000-1000	15-15	1 x 3½	2.64
*CTM-2070	1000-1000	15-15	1⅜ x 2½	2.64
CTM-2074	250-250	16-16	1 x 2	2.07
CTM-2078	500-100	16-16	1 x 2	2.34
CTM-2082	20-20	25-25	1 x 2	1.08
CTM-2086	40-40	25-25	1 x 2	1.20
*CTM-2090	100-70	25-25	1 x 2	1.08
CTM-2094	150-50	25-25	1 x 2	1.44
CTM-2098	500-500	25-25	1⅜ x 2	3.30
CTM-2101	1000-500	25-25	1⅜ x 2	4.08
*CTM-2106	50-50	50-50	1 x 2	1.02
CTM-2110	100-25	50-50	1 x 2	1.38
*CTM-2114	100-100	50-50	1 x 2	1.26
*CTM-2118	50-500	150-5	1 x 3	1.47
CTM-2122	40-20	150-25	1 x 2	1.29
CTM-2126	40-150	150-25	1 x 2	1.52

*Preferred Type †Discontinued

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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-2130	50-150	150-25	1 x 2½	1.65
*CTM-2134	150-100	150-25	1⅜ x 2½	1.62
CTM-2138	40-20	150-50	1 x 2	1.53
*CTM-2142	150-50	150-50	1 x 3	1.68
*CTM-2146	150-100	150-50	1⅜ x 2½	1.95
CTM-2150	20-10	150-150	1 x 2	1.20
*CTM-2154	20-20	150-150	1 x 2	1.02
CTM-2158	30-15	150-150	1 x 2	1.32
CTM-2162	30-20	150-150	1 x 2	1.32
*CTM-2166	30-30	150-150	1 x 2	1.11
*CTM-2170	40-20	150-150	1 x 2	1.11
*CTM-2174	40-30	150-150	1 x 2	1.11
*CTM-2178	40-40	150-150	1 x 2½	1.14
*CTM-2182	50-30	150-150	1 x 2½	1.20
*CTM-2186	50-50	150-150	1 x 2½	1.29
CTM-2190	60-20	150-150	1 x 2	1.50
*CTM-2194	60-60	150-150	1 x 3½	1.41
*CTM-2198	70-30	150-150	1 x 2½	1.32
*CTM-2202	75-75	150-150	1 x 3	1.56
*CTM-2206	80-40	150-150	1⅜ x 2½	1.38
*CTM-2210	80-50	150-150	1 x 2½	1.44
CTM-2214	80-60	150-150	1 x 3	1.80
*CTM-2218	80-80	150-150	1⅜ x 2	1.59
*CTM-2222	100-30	150-150	1 x 2½	1.68
CTM-2226	100-100	150-150	1⅜ x 2½	2.43
*CTM-2230	125-100	150-150	1⅜ x 2½	2.01
*CTM-2234	150-80	150-150	1⅜ x 2½	1.83
CTM-2238	150-150	150-150	1⅜ x 3	2.64
*CTM-2242	200-5	150-150	1⅜ x 2½	1.62
*CTM-2246	200-125	150-150	1⅜ x 3½	2.25
*CTM-2250	200-150	150-150	1⅜ x 4	2.25
*CTM-2254	200-200	150-150	1⅜ x 4	2.40
CTM-2258	60-125	200-25	1 x 3	1.80
CTM-2262	30-10	200-50	1 x 2	1.38
CTM-2266	100-100	200-50	1⅜ x 2½	2.13
CTM-2270	40-40	200-200	1 x 3	1.74
*CTM-2274	60-60	200-200	1 x 3	2.04
*CTM-2278	60-60	200-200	1⅜ x 2	2.04
*CTM-2282	100-100	200-200	1⅜ x 3	2.10
*CTM-2286	200-5	200-200	1⅜ x 2½	1.68
CTM-2290	40-350	250-15	1⅜ x 2	2.07
CTM-2294	40-25	250-25	1 x 2½	1.50
CTM-2298	50-100	250-50	1⅜ x 2	1.95
CTM-2302	80-100	250-50	1⅜ x 2½	2.13
*CTM-2306	100-150	250-50	1⅜ x 3	2.19
CTM-2310	40-25	250-150	1 x 2½	2.07
CTM-2314	10-10	250-250	1 x 2	1.29
*CTM-2318	20-20	250-250	1 x 2	1.14
CTM-2322	30-30	250-250	1 x 2½	1.65
CTM-2326	40-20	250-250	1 x 3	1.65
*CTM-2330	40-40	250-250	1 x 2	1.50
CTM-2334	150-40	250-250	1⅜ x 3	2.88
*CTM-2338	150-150	250-250	1⅜ x 4	3.09
*CTM-2342	200-200	250-250	1⅜ x 4	3.63
*CTM-2346	35-500	300-6	1 x 2½	1.68
CTM-2350	20-20	300-25	1 x 2	1.38
CTM-2354	20-100	300-25	1 x 2½	2.04
*CTM-2358	10-40	300-50	1 x 2	1.02
CTM-2362	80-100	300-50	1⅜ x 3	2.37
CTM-2366	60-200	300-150	1⅜ x 3	2.79
CTM-2370	80-100	300-150	1⅜ x 2½	2.73
CTM-2374	60-10	300-200	1 x 3½	1.89
CTM-2378	100-100	300-200	1 x 4	2.55
CTM-2382	20-60	300-250	1 x 3½	2.07
CTM-2386	10-10	300-300	1 x 2	1.32
CTM-2390	15-15	300-300	1 x 2	1.44
*CTM-2394	40-30	300-300	1 x 3	1.59
CTM-2398	40-40	300-300	1⅜ x 2½	2.25
CTM-2402	50-50	300-300	1⅜ x 2½	2.52
CTM-2406	60-20	300-300	1⅜ x 2½	2.10
CTM-2410	60-60	300-300	1⅜ x 2½	2.55
CTM-2414	75-75	300-300	1⅜ x 3	2.85
CTM-2418	80-40	300-300	1⅜ x 2½	2.67
CTM-2422	80-60	300-300	1⅜ x 3½	2.79
*CTM-2426	80-80	300-300	1⅜ x 3	2.43
*CTM-2430	120-20	300-300	1⅜ x 3½	2.40
*CTM-2434	120-40	300-300	1⅜ x 3½	2.61
CTM-2438	150-100	300-300	1⅜ x 3½	4.05
*CTM-2442	200-80	300-300	1⅜ x 4	3.15
CTM-2446	20-20	350-25	1 x 2	1.44
CTM-2450	40-20	350-25	1 x 2½	1.77
CTM-2454	80-100	350-50	1⅜ x 3	3.39
CTM-2458	20-100	350-75	1 x 2½	1.68
CTM-2462	5-75	350-150	1 x 2½	1.59
CTM-2466	40-10	350-200	1⅜ x 2	1.83
CTM-2470	20-30	350-250	1 x 3	1.74
CTM-2474	40-10	350-250	1 x 3	1.83
CTM-2478	60-80	350-250	1⅜ x 3½	2.58
CTM-2482	20-10	350-300	1 x 2	1.53
CTM-2486	30-30	350-300	1 x 3½	1.98

*Discontinued

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	N Pr
CTM-2490	60-20	350-300	1⅜ x 2½	2
*CTM-2494	15-15	350-350	1 x 2	1
CTM-2498	20-20	350-350	1 x 3	1
CTM-2502	30-20	350-350	1 x 3½	1
*CTM-2506	30-30	350-350	1 x 3	1
*CTM-2510	50-30	350-350	1⅜ x 2½	1
*CTM-2514	60-30	350-350	1⅜ x 3	1
CTM-2518	80-4	350-350	1⅜ x 2½	2
*CTM-2522	80-20	350-350	1⅜ x 3	2
*CTM-2526	80-40	350-350	1⅜ x 3	2
*CTM-2530	80-80	350-350	1⅜ x 4	2
*CTM-2534	90-40	350-350	1⅜ x 3	2
CTM-2538	100-40	350-350	1⅜ x 3	3
*CTM-2542	100-60	350-350	1⅜ x 3½	2
*CTM-2546	100-100	350-350	1⅜ x 4	3
*CTM-2550	160-10	350-350	1⅜ x 3	2
CTM-2554	50-50	385-385	1⅜ x 3	2
*CTM-2558	35-100	400-50	1 x 3	1
CTM-2562	40-100	400-50	1⅜ x 2	2
*CTM-2566	100-30	400-50	1⅜ x 3	2
*CTM-2570	80-80	400-200	1⅜ x 3½	3
CTM-2574	60-80	400-250	1⅜ x 4	2
CTM-2578	4-140	400-300	1⅜ x 3	2
CTM-2582	100-80	400-350	1⅜ x 4	4
CTM-2586	15-15	400-400	1 x 2½	1
CTM-2590	30-10	400-400	1 x 3	1
CTM-2594	60-60	400-400	1⅜ x 4	3
CTM-2598	75-75	400-400	1⅜ x 4	3
CTM-2602	80-10	400-400	1⅜ x 3½	2
CTM-2606	80-20	400-400	1⅜ x 3	2
CTM-2610	80-40	400-400	1⅜ x 4	3
*CTM-2614	80-60	400-400	1⅜ x 3	2
*CTM-2618	120-40	400-400	1⅜ x 4	3
CTM-2622	10-20	450-25	1 x 2	1.
CTM-2626	10-50	450-25	1 x 2½	1.
CTM-2630	20-20	450-25	1 x 2	1.
CTM-2634	20-100	450-25	1 x 2½	1.
†CTM-2638	40-20	450-25	1 x 3	1.
CTM-2642	80-10	450-25	1⅜ x 3	2.
CTM-2646	80-20	450-25	1⅜ x 3	2.
CTM-2650	10-100	450-50	1 x 2½	1.
CTM-2654	30-25	450-50	1 x 2½	1.
CTM-2658	40-50	450-50	1 x 3½	2.
*CTM-2662	40-100	450-50	1 x 3½	1.
*CTM-2666	50-100	450-50	1⅜ x 2½	1.
*CTM-2668	80-50	450-50	1⅜ x 3	2.
CTM-2670	80-100	450-50	1⅜ x 3	2.
CTM-2674	10-50	450-100	1⅜ x 2	1.
CTM-2678	20-100	450-100	1⅜ x 2	2.
CTM-2682	30-40	450-150	1⅜ x 2	2.
*CTM-2686	30-200	450-150	1⅜ x 3	2.
CTM-2690	40-150	450-150	1⅜ x 3	2.
CTM-2694	80-50	450-150	1⅜ x 3	2.
CTM-2698	80-60	450-150	1⅜ x 3½	3.
CTM-2702	80-40	450-200	1⅜ x 3	2.
*CTM-2706	20-50	450-250	1 x 3	1.
CTM-2710	20-150	450-250	1⅜ x 3	2.
CTM-2714	40-10	450-300	1 x 3	1.
CTM-2718	10-100	450-350	1⅜ x 3½	3.
CTM-2722	20-80	450-350	1⅜ x 3½	2.
CTM-2726	25-15	450-350	1 x 3	1.
*CTM-2730	40-10	450-350	1⅜ x 2	1.
CTM-2734	40-20	450-350	1⅜ x 2½	2.
CTM-2738	40-40	450-350	1⅜ x 3	2.
CTM-2742	30-20	450-400	1 x 3	2.
*CTM-2746	5-5	450-450	1 x 2	1.
*CTM-2750	10-10	450-450	1 x 2	1.
CTM-2754	15-10	450-450	1 x 2½	1.
*CTM-2758	15-15	450-450	1 x 2½	1.
*CTM-2762	20-10	450-450	1 x 2½	1.
*CTM-2766	20-20	450-450	1 x 3	1.
*CTM-2770	30-10	450-450	1 x 3	1.
CTM-2774	30-10	450-450	1⅜ x 2	1.
CTM-2778	30-15	450-450	1⅜ x 2	1.
*CTM-2782	30-30	450-450	1⅜ x 2½	1.
CTM-2786	40-5	450-450	1 x 3	1.
CTM-2790	40-15	450-450	1⅜ x 2½	2.
*CTM-2794	40-20	450-450	1⅜ x 2½	1.
*CTM-2798	40-40	450-450	1⅜ x 3	2.
CTM-2802	50-40	450-450	1⅜ x 3	2.
*CTM-2806	50-50	450-450	1⅜ x 3	2.
*CTM-2810	60-20	450-450	1⅜ x 3	2.
*CTM-2814	60-40	450-450	1⅜ x 3½	2.
*CTM-2818	60-60	450-450	1⅜ x 3½	2.
*CTM-2822	80-10	450-450	1⅜ x 3	2.
*CTM-2826	80-20	450-450	1⅜ x 3	2.
*CTM-2830	80-30	450-450	1⅜ x 4	2.
*CTM-2834	80-40	450-450	1⅜ x 3½	3.
*CTM-2838	80-80	450-450	1⅜ x 4½	3.
*CTM-2842	100-40	450-450	1⅜ x 4	2.

* Preferred Typ

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TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-2846	10-20	475-25	1 x 2	1.29
CTM-2850	30-100	475-50	1⅜ x 3½	2.04
CTM-2854	75-50	475-50	1⅜ x 3	2.73
CTM-2858	40-80	475-200	1⅜ x 2½	2.73
CTM-2862	80-80	475-250	1⅜ x 4	2.79
CTM-2866	20-100	475-300	1⅜ x 3½	2.97
CTM-2870	20-100	475-400	1⅜ x 4	2.70
CTM-2874	40-40	475-400	1⅜ x 3	2.82
CTM-2878	15-15	475-475	1 x 2½	1.41
CTM-2882	30-10	475-475	1 x 3	1.56
CTM-2886	40-10	475-475	1⅜ x 2½	1.86
CTM-2890	40-40	475-475	1⅜ x 3	3.24
CTM-2894	60-40	475-475	1⅜ x 4	3.42
CTM-2898	80-40	475-475	1⅜ x 4	3.78
CTM-2902	80-50	475-475	1⅜ x 4	3.12
CTM-2906	80-50	500-50	1⅜ x 3½	2.85
CTM-2910	60-80	500-150	1⅜ x 3	2.82
CTM-2914	40-50	500-200	1⅜ x 3	2.52
CTM-2918	15-20	500-300	1 x 2½	1.74
CTM-2922	20-100	500-300	1⅜ x 3	2.94
CTM-2926	40-40	500-400	1⅜ x 3	2.82
CTM-2930	4-4	500-500	1 x 2½	1.29
CTM-2934	10-10	500-500	1 x 2½	1.17
CTM-2938	20-20	500-500	1⅜ x 2½	1.71
CTM-2942	30-10	500-500	1⅜ x 3	1.56
CTM-2946	30-30	500-500	1⅜ x 3	1.95
CTM-2950	40-25	500-500	1⅜ x 3	2.73
CTM-2954	40-40	500-500	1⅜ x 3	2.58
CTM-2958	60-40	500-500	1⅜ x 3½	2.76

TRIPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-3020	1500-1500-1500	3-3-3	1 x 3½	5.40
CTM-3022	200-200-30	10-10-10	1 x 2	2.04
CTM-3024	400-100-100	16-16-16	1 x 2	1.80
CTM-3026	500-100-100	16-16-16	1 x 2	2.10
CTM-3028	500-500-100	16-16-16	1 x 2	2.34
CTM-3030	40-500-500	25-10-10	1 x 2½	3.03
CTM-3032	20-20-20	25-25-25	1 x 2	1.17
CTM-3034	40-40-40	25-25-25	1 x 2	1.92
CTM-3036	30-30-30	50-50-50	1 x 2	1.91
CTM-3038	20-250-100	150-15-15	1⅜ x 2	2.61
CTM-3040	40-25-130	150-25-15	1 x 3	2.97
CTM-3042	50-100-20	150-50-25	1 x 3	2.58
CTM-3044	100-50-25	150-50-25	1 x 3	2.70
*CTM-3046	15-15-1200	150-150-2	1 x 2	1.89
CTM-3048	30-20-100	150-150-6	1 x 2	2.16
CTM-3050	20-20-100	150-150-10	1 x 2	2.13
CTM-3052	20-20-250	150-150-10	1 x 2	2.34
†CTM-3054	30-30-200	150-150-10	1 x 2	2.25
*CTM-3056	40-20-150	150-150-10	1 x 2	1.44
CTM-3058	40-20-200	150-150-10	1 x 2½	2.25
CTM-3060	40-20-250	150-150-10	1 x 2½	2.43
CTM-3062	40-40-100	150-150-10	1 x 2½	2.25
CTM-3064	40-40-250	150-150-10	1 x 2½	3.39
CTM-3066	50-30-100	150-150-10	1 x 2½	2.43
CTM-3068	80-20-200	150-150-10	1⅜ x 2	2.58
*CTM-3070	80-30-300	150-150-10	1⅜ x 2	1.69
CTM-3072	80-60-250	150-150-10	1 x 2½	2.88
CTM-3074	90-40-400	150-150-10	1⅜ x 2½	3.15
CTM-3076	100-20-200	150-150-10	1⅜ x 2½	2.97
*CTM-3078	100-80-200	150-150-10	1⅜ x 2½	2.16
CTM-3080	60-40-400	150-150-15	1⅜ x 2	2.88
CTM-3082	80-20-100	150-150-15	1⅜ x 2	2.52
CTM-3084	20-20-20	150-150-25	1 x 2	1.98
CTM-3086	20-20-200	150-150-25	1 x 3	2.34
CTM-3088	30-20-20	150-150-25	1 x 2	2.04
CTM-3090	30-30-20	150-150-25	1 x 2	2.07
*CTM-3092	40-20-20	150-150-25	1 x 2½	1.38
CTM-3094	40-20-100	150-150-25	1 x 2½	2.25
CTM-3096	40-20-200	150-150-25	1 x 2	1.62
*CTM-3098	40-40-20	150-150-25	1 x 2	1.44
*CTM-3100	40-40-200	150-150-25	1 x 3	1.68
*CTM-3102	40-40-250	150-150-25	1 x 3	1.89
*CTM-3104	50-30-20	150-150-25	1 x 2½	1.50
*CTM-3106	50-30-100	150-150-25	1 x 3	1.62
CTM-3108	50-30-200	150-150-25	1⅜ x 2	2.61
CTM-3110	50-30-300	150-150-25	1 x 3	3.06
CTM-3112	50-50-20	150-150-25	1 x 3	1.59
CTM-3114	50-50-200	150-150-25	1 x 3	2.76
CTM-3116	60-20-20	150-150-25	1 x 2	2.31
*CTM-3118	60-40-200	150-150-25	1 x 3	1.83
CTM-3120	60-60-100	150-150-25	1⅜ x 2	2.76
CTM-3122	80-20-20	150-150-25	1 x 3	2.40
CTM-3124	80-30-300	150-150-25	1⅜ x 2	3.30
*CTM-3126	80-40-20	150-150-25	1 x 2½	1.68
*CTM-3128	80-40-300	150-150-25	1⅜ x 2½	2.22
CTM-3130	120-60-20	150-150-25	1⅜ x 2½	3.03
†CTM-3132	300-80-200	150-150-50	1⅜ x 4	2.97
CTM-3134	10-10-10	150-150-150	1 x 2	1.86
*CTM-3136	20-20-20	150-150-150	1 x 2	1.38
*CTM-3138	30-30-10	150-150-150	1 x 2	1.71
*CTM-3140	40-20-10	150-150-150	1 x 2	1.41
*CTM-3142	40-20-20	150-150-150	1 x 2	1.44
*CTM-3144	40-30-20	150-150-150	1 x 2	1.50
*CTM-3146	40-40-40	150-150-150	1 x 3½	1.56
†CTM-3148	50-20-20	150-150-150	1 x 2½	2.31
*CTM-3150	50-40-10	150-150-150	1 x 2½	1.53
CTM-3152	50-50-10	150-150-150	1⅜ x 2	2.43
*CTM-3154	50-50-50	150-150-150	1 x 3	1.80
CTM-3156	50-50-50	150-150-150	1⅜ x 3	2.70
*CTM-3158	60-40-20	150-150-150	1 x 3	1.65
CTM-3160	60-40-30	150-150-150	1⅜ x 2	2.52
CTM-3162	60-50-50	150-150-150	1⅜ x 2	2.79
*CTM-3164	70-15-15	150-150-150	1 x 2½	1.62
*CTM-3166	70-40-40	150-150-150	1 x 3	2.43
CTM-3168	80-20-20	150-150-150	1 x 3½	2.52
*CTM-3170	80-30-10	150-150-150	1 x 3	1.65
*CTM-3172	80-40-20	150-150-150	1 x 3	1.74
CTM-3174	80-50-50	150-150-150	1 x 3	2.94
CTM-3176	80-80-80	150-150-150	1⅜ x 3	3.39
*CTM-3178	100-30-10	150-150-150	1 x 3	1.83
*CTM-3180	120-80-40	150-150-150	1⅜ x 3½	2.28
*CTM-3182	120-120-40	150-150-150	1⅜ x 3	2.43
CTM-3184	150-50-25	150-150-150	1⅜ x 3	3.24
*CTM-3186	200-100-60	150-150-150	1⅜ x 3½	2.73
†CTM-3188	200-140-60	150-150-150	1⅜ x 4	4.02
*CTM-3190	200-150-150	150-150-150	1⅜ x 4	4.50
*CTM-3192	300-100-80	150-150-150	1⅜ x 4	4.65
CTM-3194	80-40-50	200-100-50	1⅜ x 2½	2.76
CTM-3196	40-40-20	200-150-25	1 x 3	2.34
*CTM-3198	60-200-140	200-150-150	1⅜ x 4	2.88
CTM-3200	20-20-20	200-200-25	1 x 2	2.07
CTM-3202	30-20-20	200-200-25	1 x 2	2.31
CTM-3204	30-20-40	200-200-25	1 x 2	2.31
*CTM-3206	60-5-20	200-200-50	1 x 2½	1.50
*CTM-3208	60-5-100	200-200-50	1 x 2½	1.74
*CTM-3210	80-10-20	200-200-50	1 x 3	1.68
CTM-3212	80-40-100	200-200-50	1⅜ x 3	3.15
CTM-3214	90-90-20	200-200-50	1⅜ x 3	3.42
CTM-3216	100-10-40	200-200-50	1⅜ x 2	2.85
*CTM-3218	30-20-40	200-200-150	1 x 2½	1.62
CTM-3220	20-20-20	200-200-200	1 x 2½	2.25
CTM-3222	30-20-20	200-200-200	1 x 2½	2.43
CTM-3224	40-40-20	200-200-200	1 x 2½	2.73
CTM-3226	50-30-30	200-200-200	1⅜ x 2	2.85
*CTM-3228	250-200-10	200-200-200	1⅜ x 4	4.02
CTM-3230	40-40-20	250-150-25	1⅜ x 2	2.43
*CTM-3232	80-40-50	250-150-50	1⅜ x 2½	1.41
CTM-3234	15-20-20	250-150-150	1 x 2	2.16
CTM-3236	60-40-20	250-200-25	1⅜ x 2	2.97
*CTM-3238	15-15-20	250-250-25	1 x 2	1.41
CTM-3240	20-15-20	250-250-25	1 x 2½	2.13
*CTM-3242	30-30-20	250-250-25	1 x 3	1.68
CTM-3244	60-60-25	250-250-25	1 x 3½	3.42
CTM-3246	70-70-20	250-250-50	1⅜ x 3	3.51
*CTM-3248	90-90-20	250-250-50	1⅜ x 3	2.76
CTM-3250	40-20-10	250-250-150	1⅜ x 2	2.49
CTM-3252	40-40-10	250-250-200	1⅜ x 2	2.67
CTM-3254	80-80-60	250-250-200	1⅜ x 3½	4.05
CTM-3256	15-15-10	250-250-250	1 x 2	2.22
CTM-3258	20-20-10	250-250-250	1 x 2	2.25
*CTM-3260	20-20-20	250-250-250	1 x 2	1.56
CTM-3262	30-15-10	250-250-250	1 x 2½	2.43
CTM-3264	30-15-15	250-250-250	1 x 2	2.49
CTM-3266	30-20-10	250-250-250	1 x 2	2.43
†CTM-3268	40-20-10	250-250-250	1 x 2½	2.58
*CTM-3270	40-20-20	250-250-250	1 x 3½	1.74
*CTM-3272	80-10-10	250-250-250	1 x 3	1.92
*CTM-3274	80-80-60	250-250-250	1⅜ x 3	2.94
*CTM-3276	10-500-500	300-15-15	1⅜ x 2½	2.34
CTM-3278	20-10-10	300-75-25	1⅜ x 3	2.13
CTM-3280	100-60-20	300-150-25	1⅜ x 3	3.78
CTM-3282	140-200-100	300-150-50	1⅜ x 4	5.16
*CTM-3284	20-150-80	300-150-150	1⅜ x 3	2.37
*CTM-3286	60-200-30	300-150-150	1⅜ x 4	3.90
CTM-3288	100-150-30	300-150-150	1⅜ x 4	4.47
*CTM-3290	100-200-30	300-150-150	1⅜ x 4	3.12
*CTM-3292	100-200-60	300-150-150	1⅜ x 4	3.00
CTM-3294	20-80-10	300-250-200	1⅜ x 2½	3.12
CTM-3296	16-20-20	300-250-250	1 x 3	2.34
CTM-3298	40-80-40	300-250-250	1⅜ x 3	3.78
†CTM-3300	60-30-30	300-250-250	1⅜ x 2½	3.39
*CTM-3302	100-60-20	300-250-250	1⅜ x 4	2.94
*CTM-3304	200-60-20	300-250-250	1⅜ x 4	3.30
CTM-3306	20-20-20	300-300-25	1 x 2½	2.49
CTM-3308	40-15-20	300-300-25	1 x 3	2.67

*Preferred Type †Discontinued

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Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-3310	40-20-20	300-300-25	1⅜ x 2	2.79
CTM-3312	140-10-100	300-300-25	1⅜ x 3½	4.02
CTM-3314	30-30-25	300-300-50	1 x 3	2.61
*CTM-3316	100-10-60	300-300-50	1⅜ x 2½	2.43
CTM-3318	125-20-20	300-300-50	1⅜ x 3	4.02
CTM-3320	125-20-100	300-300-50	1⅜ x 3	4.41
CTM-3322	125-60-40	300-300-50	1⅜ x 4	4.41
*CTM-3324	140-100-60	300-300-50	1⅜ x 4	3.63
*CTM-3326	140-100-100	300-300-50	1⅜ x 4	5.04
*CTM-3328	200-20-10	300-300-100	1⅜ x 4	2.94
CTM-3330	40-40-20	300-300-150	1⅜ x 2	3.24
CTM-3332	140-10-200	300-300-150	1⅜ x 4	3.30
†CTM-3334	10-10-15	300-300-250	1 x 2	2.22
*CTM-3336	10-10-10	300-300-300	1 x 2	1.44
*CTM-3338	60-20-10	300-300-300	1⅜ x 2	2.07
CTM-3340	80-20-10	300-300-300	1⅜ x 2½	3.42
*CTM-3342	80-40-40	300-300-300	1⅜ x 2½	3.15
CTM-3344	100-40-20	300-300-300	1⅜ x 3½	3.30
*CTM-3346	120-50-40	300-300-300	1⅜ x 4	3.51
*CTM-3348	150-100-10	300-300-300	1⅜ x 4	3.81
†CTM-3350	160-60-20	300-300-300	1⅜ x 4	4.92
CTM-3352	200-140-20	300-300-300	1⅜ x 4	6.36
†CTM-3354	30-25-100	350-25-6	1 x 2½	1.68
CTM-3356	5-100-40	350-25-25	1 x 2	2.10
CTM-3358	40-100-25	350-50-25	1⅜ x 2	2.88
CTM-3360	10-50-100	350-100-75	1 x 3	2.58
*CTM-3362	20-50-100	350-100-75	1 x 3	1.86
CTM-3364	10-10-250	350-150-15	1 x 2½	2.49
*CTM-3366	10-50-100	350-150-50	1 x 3½	1.71
CTM-3368	60-200-30	350-150-150	1⅜ x 4	2.64
CTM-3370	40-80-500	350-200-25	1⅜ x 3½	4.56
*CTM-3372	125-5-100	350-200-75	1⅜ x 3½	3.18
CTM-3374	50-10-500	350-250-5	1⅜ x 2½	3.33
CTM-3376	50-10-1000	350-250-5	1⅜ x 2½	3.66
CTM-3378	20-30-20	350-250-25	1 x 3	2.52
CTM-3380	30-20-100	350-250-50	1 x 3	2.94
CTM-3382	100-40-5	350-250-50	1⅜ x 2½	2.91
CTM-3384	30-20-10	350-250-250	1 x 3½	2.70
CTM-3386	10-80-25	350-300-25	1⅜ x 3	3.06
*CTM-3388	30-30-20	350-300-25	1 x 3	1.89
†CTM-3390	30-50-20	350-300-25	1⅜ x 2½	3.24
CTM-3392	10-40-5	350-300-150	1 x 2½	2.58
†CTM-3394	20-40-10	350-300-150	1 x 3½	2.85
CTM-3396	40-20-10	350-300-200	1⅜ x 2	2.97
CTM-3398	100-40-40	350-300-250	1⅜ x 3½	2.91
CTM-3400	10-10-1400	350-350-3	1⅜ x 3	2.94
*CTM-3402	15-10-20	350-350-25	1 x 2½	1.50
CTM-3404	15-15-20	350-350-25	1 x 2½	2.43
CTM-3406	20-5-30	350-350-25	1 x 2	2.22
*CTM-3408	20-5-100	350-350-25	1 x 3	1.56
*CTM-3410	20-10-20	350-350-25	1 x 2½	1.53
*CTM-3412	20-20-20	350-350-25	1 x 2½	1.68
CTM-3414	30-10-20	350-350-25	1 x 2½	2.76
*CTM-3416	30-20-20	350-350-25	1 x 2½	1.86
CTM-3418	30-20-40	350-350-25	1 x 3	2.85
*CTM-3420	30-30-20	350-350-25	1⅜ x 2	2.04
CTM-3422	40-5-30	350-350-25	1⅜ x 2	2.61
CTM-3424	40-40-50	350-350-25	1⅜ x 2½	3.39
CTM-3426	60-10-25	350-350-25	1⅜ x 2½	2.70
CTM-3428	90-40-50	350-350-25	1⅜ x 3½	4.41
CTM-3430	100-20-20	350-350-25	1⅜ x 3½	4.26
*CTM-3432	200-10-50	350-350-50	1⅜ x 4	3.15
CTM-3434	10-5-30	350-350-50	1 x 2	1.98
CTM-3436	10-5-150	350-350-50	1 x 3	2.43
*CTM-3438	20-5-150	350-350-50	1 x 3	1.77
CTM-3440	20-10-100	350-350-50	1⅜ x 2½	1.74
CTM-3442	70-40-50	350-350-50	1⅜ x 3½	3.90
CTM-3444	80-10-40	350-350-50	1⅜ x 3	3.42
CTM-3446	80-10-100	350-350-50	1⅜ x 3	3.69
CTM-3448	100-20-50	350-350-50	1⅜ x 3	4.17
CTM-3450	80-40-400	350-350-50	1⅜ x 4	3.39
CTM-3452	150-4-30	350-350-50	1⅜ x 3½	2.85
CTM-3454	30-20-100	350-350-75	1⅜ x 2½	3.60
†CTM-3456	40-20-10	350-350-100	1⅜ x 2	2.58
CTM-3458	30-20-100	350-350-150	1⅜ x 2½	2.40
CTM-3460	40-20-10	350-350-150	1 x 3	2.88
CTM-3462	40-40-100	350-350-200	1⅜ x 4	4.47
*CTM-3464	80-40-100	350-350-200	1⅜ x 4	3.27
*CTM-3466	100-60-20	350-350-200	1⅜ x 4	3.20
*CTM-3468	20-10-5	350-350-250	1 x 2½	1.53
CTM-3470	30-10-20	350-350-250	1 x 3	2.76
CTM-3472	20-20-10	350-350-350	1 x 3	2.67
*CTM-3474	30-20-10	350-350-350	1 x 2½	1.95
CTM-3476	50-50-50	350-350-350	1⅜ x 3½	4.38
CTM-3478	60-20-10	350-350-350	1⅜ x 4	2.40
*CTM-3480	60-40-20	350-350-350	1⅜ x 4	2.55
CTM-3482	60-40-40	350-350-350	1⅜ x 4	4.23
*CTM-3484	60-50-50	350-350-350	1⅜ x 4	2.94
CTM-3486	80-40-40	350-350-350	1⅜ x 4	4.77
*CTM-3488	80-60-60	350-350-350	1⅜ x 4	3.33

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
*CTM-3490	90-40-20	350-350-350	1⅜ x 4	3.1
CTM-3492	100-20-20	350-350-350	1⅜ x 4	3.0
CTM-3494	100-40-10	350-350-350	1⅜ x 4	3.1
CTM-3496	100-100-10	350-350-350	1⅜ x 4	4.0
CTM-3498	120-40-40	350-350-350	1⅜ x 4	5.5
CTM-3500	140-140-20	350-350-350	1⅜ x 4	4.5
CTM-3502	20-50-50	400-10-10	1 x 2	2.1
CTM-3504	40-200-60	400-200-200	1⅜ x 4	4.9
CTM-3506	10-5-40	400-300-25	1 x 2	1.9
CTM-3508	60-40-20	400-300-25	1⅜ x 3½	3.7
CTM-3510	80-20-10	400-300-300	1⅜ x 3½	3.8
CTM-3512	10-50-30	400-350-25	1 x 3½	2.7
CTM-3514	100-10-200	400-350-25	1⅜ x 3	2.9
CTM-3516	80-20-100	400-350-50	1⅜ x 3½	4.0
CTM-3518	100-10-20	400-350-50	1⅜ x 3½	4.0
CTM-3520	20-15-10	400-350-350	1 x 3	2.6
CTM-3522	10-20-20	400-350-350	1 x 3	2.4
CTM-3524	15-15-40	400-400-25	1 x 3	2.5
*CTM-3526	20-20-20	400-400-25	1 x 3	1.7
CTM-3528	30-10-20	400-400-25	1 x 3	2.5
CTM-3530	20-10-40	400-400-50	1 x 3	2.4
CTM-3532	30-10-150	400-400-50	1⅜ x 2½	3.06
CTM-3534	80-40-100	400-400-50	1⅜ x 4	4.50
*CTM-3536	80-40-150	400-400-50	1⅜ x 4	3.15
*CTM-3538	100-10-20	400-400-50	1⅜ x 3½	2.70
CTM-3540	20-20-20	400-400-100	1 x 3	2.67
CTM-3542	20-10-10	400-400-350	1 x 3	2.43
CTM-3544	20-10-40	400-400-350	1 x 3	3.06
*CTM-3546	20-20-10	400-400-350	1 x 3	1.80
*CTM-3548	60-30-20	400-400-350	1⅜ x 3	2.73
*CTM-3550	80-20-10	400-400-350	1⅜ x 3	2.58
*CTM-3552	100-10-80	400-400-350	1⅜ x 4	3.66
CTM-3554	10-10-10	400-400-400	1 x 2½	1.44
CTM-3556	40-10-10	400-400-400	1 x 3	1.89
*CTM-3558	90-10-5	400-400-400	1⅜ x 3	2.64
CTM-3560	100-30-20	400-400-400	1⅜ x 4	4.95
CTM-3562	10-20-10	450-25 25	1 x 2	1.95
CTM-3564	30-20-20	450-25-25	1 x 3	2.49
†CTM-3566	30-100-25	450-25-25	1⅜ x 2	2.67
CTM-3568	10-100-20	450-50-25	1 x 3	2.31
CTM-3570	80-100-20	350-50-50	1⅜ x 3	3.84
CTM-3572	10-50-100	450-150-25	1 x 3	2.49
*CTM-3574	40-40-130	450-150-50	1⅜ x 3	2.22
CTM-3576	40-50-100	450-150-50	1⅜ x 2½	3.30
*CTM-3578	10-50-100	450-150-75	1 x 3	1.95
CTM-3580	20-50-100	450-150-75	1⅜ x 2	3.06
CTM-3582	40-90-50	450-150-150	1⅜ x 3	2.40
CTM-3584	20-80-50	450-200-50	1⅜ x 2½	3.06
*CTM-3586	10-100-200	450-200-25	1 x 3½	2.16
*CTM-3588	10-100-100	450-200-50	1 x 3½	2.13
*CTM-3590	20-60-100	450-250-25	1⅜ x 2½	2.19
CTM-3592	10-60-60	450-250-250	1⅜ x 4	3.60
CTM-3594	10-80-80	450-250-250	1⅜ x 4	2.49
CTM-3596	20-40-10	450-250-250	1⅜ x 2	2.85
CTM-3598	20-60-40	450-250-250	1⅜ x 3	3.57
*CTM-3600	80-40-40	450-250-250	1⅜ x 4	2.88
*CTM-3602	10-40-10	450-300-150	1⅜ x 2	1.86
CTM-3604	30-10-10	450-300-150	1⅜ x 2	2.67
CTM-3606	5-80-40	450-300-300	1⅜ x 3	2.49
CTM-3608	10-100-20	450-300-300	1⅜ x 3	3.90
CTM-3610	20-15-10	450-300-300	1⅜ x 3	2.58
CTM-3612	10-10-20	450-350-25	1 x 2½	2.07
CTM-3614	10-10-50	450-350-25	1 x 3	2.16
*CTM-3616	30-15-40	450-350-25	1⅜ x 2	1.92
*CTM-3618	30-40-50	450-350-25	1 x 4	2.22
CTM-3620	20-80-100	450-350-50	1⅜ x 3½	4.05
CTM-3622	80-50-100	450-350-200	1⅜ x 4	3.51
CTM-3624	15-20-20	450-350-250	1⅜ x 2	2.67
CTM-3626	20-15-10	450-350-300	1 x 3	2.76
CTM-3628	40-50-50	450-350-300	1⅜ x 4	4.38
CTM-3630	20-15-15	450-350-350	1 x 3	2.94
*CTM-3632	20-40-10	450-350-350	1⅜ x 2½	2.10
*CTM-3634	20-80-10	450-350-350	1⅜ x 3	2.55
*CTM-3636	40-80-40	450-350-350	1⅜ x 3½	3.24
CTM-3638	50-80-10	450-350-350	1⅜ x 3½	4.41
CTM-3640	60-20-20	450-350-350	1⅜ x 3½	3.87
CTM-3642	60-40-20	450-350-350	1⅜ x 3½	4.14
CTM-3644	10-30-150	450-400-5	1 x 3	2.70
CTM-3646	30-50-40	450-400-25	1⅜ x 3	3.51
*CTM-3648	60-80-20	450-400-250	1⅜ x 4	3.27
CTM-3650	10-30-30	450-400-300	1⅜ x 2½	3.03
CTM-3652	10-30-40	450-400-300	1⅜ x 2½	3.30
CTM-3654	4-40-40	450-400-300	1⅜ x 2½	4.14
*CTM-3656	10-10-10	450-450-25	1 x 2½	1.44
*CTM-3658	10-10-20	450-450-25	1 x 2½	1.44
CTM-3660	15-15-20	450-450-25	1 x 3	2.43
*CTM-3662	15-15-40	450-450-25	1 x 2½	1.65
*CTM-3664	20-10-20	450-450-25	1 x 3	1.62
CTM-3666	20-15-20	450-450-25	1 x 3½	2.61
CTM-3668	20-20-20	450-450-25	1 x 3	1.83

† Discontinued

* Preferred Type

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Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-3670	30-30-20	450-450-25	1⅜ x 2½	2.13
CTM-3672	30-30-125	450-450-25	1⅜ x 3	2.37
CTM-3674	40-20-20	450-450-25	1⅜ x 2½	2.10
CTM-3676	40-40-20	450-450-25	1⅜ x 3	2.34
CTM-3678	40-40-40	450-450-25	1⅜ x 3	2.37
CTM-3680	80-10-125	450-450-25	1⅜ x 3½	2.67
CTM-3682	80-40-100	450-450-25	1⅜ x 4	3.03
CTM-3684	10-10-40	450-450-50	1 x 2½	1.50
CTM-3686	20-10-50	450-450-50	1 x 3	1.71
CTM-3688	20-20-100	450-450-50	1⅜ x 2½	3.15
CTM-3690	30-10-150	450-450-50	1⅜ x 2½	2.10
CTM-3692	30-15-150	450-450-50	1⅜ x 3	2.22
CTM-3694	30-30-40	450-450-50	1⅜ x 3	3.30
CTM-3696	35-25-150	450-450-50	1⅜ x 3	2.37
CTM-3698	40-10-40	450-450-50	1⅜ x 2½	2.99
CTM-3700	40-10-100	450-450-50	1⅜ x 3	2.58
CTM-3702	40-30-25	450-450-50	1⅜ x 2½	3.39
CTM-3704	40-40-100	450-450-50	1⅜ x 3½	2.58
CTM-3706	60-40-75	450-450-50	1⅜ x 4	2.79
CTM-3708	80-20-100	450-450-50	1⅜ x 4	2.88
CTM-3710	80-50-50	450-450-50	1⅜ x 4	4.68
CTM-3712	30-30-125	450-450-75	1⅜ x 3	4.05
CTM-3714	10-10-50	450-450-100	1⅜ x 2	2.40
CTM-3716	30-20-30	450-450-150	1⅜ x 2½	3.15
CTM-3718	40-40-40	450-450-150	1⅜ x 3½	2.49
CTM-3720	40-10-80	450-450-200	1⅜ x 3	2.34
CTM-3722	40-10-100	450-450-200	1⅜ x 3½	2.49
CTM-3724	40-40-60	450-450-200	1⅜ x 3½	2.67
CTM-3726	40-40-100	450-450-200	1⅜ x 4	2.97
CTM-3728	15-10-120	450-450-300	1⅜ x 3½	4.23
CTM-3730	15-15-10	450-450-300	1 x 3½	2.58
CTM-3732	15-5-15	450-450-350	1 x 3	2.58
CTM-3734	20-20-60	450-450-350	1⅜ x 3½	4.56
CTM-3736	40-10-10	450-450-350	1⅜ x 3	2.97
CTM-3738	40-40-60	450-450-350	1⅜ x 4	4.11
CTM-3740	40-40-80	450-450-350	1⅜ x 4	3.33
CTM-3742	50-5-50	450-450-350	1⅜ x 3½	2.55
CTM-3744	60-20-40	450-450-350	1⅜ x 4	4.41
CTM-3746	10-10-10	450-450-450	1 x 3	1.56
CTM-3748	15-15-10	450-450-450	1 x 3½	2.67
CTM-3750	15-15-15	450-450-450	1 x 3	1.86
CTM-3752	20-10-10	450-450-450	1 x 3	1.74
CTM-3754	20-20-20	450-450-450	1⅜ x 2½	2.16
CTM-3756	30-10-10	450-450-450	1⅜ x 2	1.89
CTM-3758	30-20-20	450-450-450	1⅜ x 3	2.31
CTM-3760	30-30-10	450-450-450	1⅜ x 3	3.39
CTM-3762	30-30-30	450-450-450	1⅜ x 3½	2.61
CTM-3764	40-10-10	450-450-450	1⅜ x 3	2.01
CTM-3766	40-30-20	450-450-450	1⅜ x 3	2.58
CTM-3768	40-40-10	450-450-450	1⅜ x 2½	2.49
CTM-3770	40-40-20	450-450-450	1⅜ x 3	2.57
CTM-3772	40-40-40	450-450-450	1⅜ x 3½	2.94
CTM-3774	50-30-30	450-450-450	1⅜ x 3½	4.29
CTM-3776	50-40-30	450-450-450	1⅜ x 3½	2.94
CTM-3778	60-10-10	450-450-450	1⅜ x 3	3.51
CTM-3780	60-20-20	450-450-450	1⅜ x 3	2.76
CTM-3782	60-30-10	450-450-450	1⅜ x 3	2.70
CTM-3784	60-40-20	450-450-450	1⅜ x 3½	3.00
CTM-3786	80-40-10	450-450-450	1⅜ x 4	4.56
CTM-3788	80-40-20	450-450-450	1⅜ x 4	3.24
CTM-3790	20-50-20	475-50-25	1 x 3	1.65
CTM-3792	80-80-50	475-150-50	1⅜ x 4	2.91
CTM-3794	10-100-40	475-200-50	1⅜ x 2½	3.03
CTM-3796	40-40-100	475-250-50	1⅜ x 3	3.87
CTM-3798	40-40-100	475-250-100	1⅜ x 3	3.69
CTM-3800	40-40-10	475-250-250	1⅜ x 3½	3.00
CTM-3802	20-20-40	475-300-25	1⅜ x 2	2.79
CTM-3804	40-40-100	475-300-50	1⅜ x 3½	4.05
CTM-3806	40-80-10	475-300-300	1⅜ x 3½	4.32
CTM-3808	10-100-25	475-350-25	1⅜ x 3	3.33
CTM-3810	10-4-100	475-350-50	1 x 2½	2.34
CTM-3812	20-10-5	475-350-150	1 x 2½	2.52
*CTM-3814	10-4-40	475-350-250	1⅜ x 2	1.65
CTM-3816	20-20-10	475-350-350	1 x 3	2.88
CTM-3818	40-40-25	475-400-50	1⅜ x 3	3.87
CTM-3820	10-45-100	475-450-50	1⅜ x 3	3.30
CTM-3822	40-40-20	475-450-50	1⅜ x 3	3.96
*CTM-3824	10-40-100	475-450-200	1⅜ x 3	2.52
CTM-3826	40-20-20	475-450-450	1⅜ x 3	4.05
*CTM-3828	40-80-10	475-450-450	1⅜ x 4	3.30
CTM-3830	40-40-500	475-475-10	1⅜ x 3½	4.92
CTM-3832	10-10-5	475-475-25	1 x 2½	2.22
CTM-3834	10-10-100	475-475-25	1 x 3	2.40
CTM-3836	20-10-20	475-475-25	1 x 3	2.61
CTM-3838	10-10-150	475-475-50	1 x 3	2.70
CTM-3840	20-10-20	475-475-50	1 x 3	2.67
CTM-3842	20-10-100	475-475-50	1⅜ x 2	1.95
CTM-3844	25-10-20	475-475-50	1 x 3	2.67
*CTM-3846	20-10-100	475-475-400	1⅜ x 4	3.15
CTM-3848	20-20-60	475-475-400	1⅜ x 3½	4.32
*CTM-3850	20-20-60	475-475-450	1⅜ x 4	2.91
CTM-3852	10-10-10	475-475-475	1 x 3	2.43
CTM-3854	30-30-10	475-475-475	1⅜ x 3	3.60
CTM-3856	30-30-20	475-475-475	1⅜ x 3	2.67
CTM-3858	40-10-10	475-475-475	1⅜ x 3	3.48
CTM-3860	40-20-20	475-475-475	1⅜ x 3	4.29
*CTM-3862	40-30-10	475-475-475	1⅜ x 3	2.20
*CTM-3864	40-30-30	475-475-475	1⅜ x 4	3.09
CTM-3866	40-35-10	475-475-475	1⅜ x 3	4.11
CTM-3868	10-80-10	500-150-150	1 x 3½	2.58
CTM-3870	10-100-40	500-200-50	1⅜ x 2½	3.03
CTM-3872	40-40-100	500-250-50	1⅜ x 3	3.87
CTM-3874	20-20-40	500-300-25	1⅜ x 2	2.79
CTM-3876	20-40-100	500-300-25	1⅜ x 2½	3.24
CTM-3878	5-100-200	500-300-150	1⅜ x 4	4.65
CTM-3880	40-40-25	500-400-50	1⅜ x 3	3.87
CTM-3882	20-40-100	500-450-25	1⅜ x 3	3.42
CTM-3884	80-20-100	500-450-50	1⅜ x 4	4.59
CTM-3886	10-40-40	500-450-450	1⅜ x 3½	3.75
CTM-3888	30-20-20	500-500-25	1⅜ x 2½	3.21
CTM-3890	10-10-100	500-500-50	1 x 3½	2.58
*CTM-3892	20-10-100	500-500-50	1 x 4	1.98
CTM-3894	30-10-20	500-500-50	1⅜ x 2½	2.79
*CTM-3896	40-40-100	500-500-200	1⅜ x 4	3.48
CTM-3898	10-10-5	500-500-350	1 x 2½	2.25
*CTM-3900	20-20-60	500-500-400	1⅜ x 3½	2.88
*CTM-3902	10-10-10	500-500-500	1 x 3	1.02
CTM-3904	30-20-20	500-500-500	1⅜ x 3	2.52
*CTM-3906	40-10-10	500-500-500	1⅜ x 3	2.34
*CTM-3908	40-40-10	500-500-500	1⅜ x 3½	3.03

QUADRUPLE UNITS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-4020	40-40-40-40	25-25-25-25	1⅜ x 2	2.49
CTM-4022	5-5-25-100	75-75-25-15	1⅜ x 2	2.40
*CTM-4025	50-20-150-30	150-150-15-15	1⅜ x 2	1.89
CTM-4028	40-40-50-200	150-150-25-10	1⅜ x 2	2.85
*CTM-4031	20-20-160-40	150-150-25-25	1⅜ x 2	1.92
CTM-4034	40-40-100-100	150-150-25-25	1⅜ x 2	3.03
CTM-4037	40-40-200-100	150-150-25-25	1⅜ x 2	3.21
*CTM-4040	50-40-160-40	150-150-25-25	1⅜ x 2	2.13
CTM-4043	80-20-160-40	150-150-25-25	1⅜ x 2	3.33
CTM-4047	80-30-100-40	150-150-25-25	1⅜ x 2	3.12
CTM-4050	40-40-100-100	150-150-50-50	1⅜ x 2	3.33
CTM-4052	30-20-20-200	150-150-150-10	1⅜ x 2	2.79
*CTM-4055	40-40-20-200	150-150-150-10	1⅜ x 2	1.92
CTM-4058	50-30-25-200	150-150-150-10	1⅜ x 2	3.03
*CTM-4061	60-40-20-200	150-150-150-10	1⅜ x 2	2.07
CTM-4064	80-80-10-200	150-150-150-10	1⅜ x 2½	3.51
*CTM-4067	200-30-10-100	150-150-150-10	1⅜ x 3½	2.46
*CTM-4070	290-30-10-100	150-150-150-10	1⅜ x 3½	2.70
CTM-4073	60-20-20-1000	150-150-150-15	1⅜ x 2½	4.20
CTM-4076	20-20-20-20	150-150-150-25	1⅜ x 2	2.61
CTM-4079	30-20-20-100	150-150-150-25	1⅜ x 2	2.85
*CTM-4082	30-30-30-40	150-150-150-25	1⅜ x 2	1.86
*CTM-4085	40-20-20-20	150-150-150-25	1⅜ x 2	1.77
CTM-4088	40-30-20-100	150-150-150-25	1⅜ x 2	2.88
*CTM-4092	40-40-30-20	150-150-150-25	1⅜ x 2	1.86
CTM-4095	40-40-30-120	150-150-150-25	1⅜ x 2	3.15
*CTM-4098	40-40-40-20	150-150-150-25	1⅜ x 2	1.89
†CTM-4101	40-40-40-100	150-150-150-25	1⅜ x 2	3.03
*CTM-4104	40-40-40-160	150-150-150-25	1⅜ x 2	2.13
*CTM-4107	50-20-20-200	150-150-150-25	1⅜ x 2	2.10
CTM-4110	50-30-30-100	150-150-150-25	1⅜ x 2	2.04
*CTM-4113	50-50-50-20	150-150-150-25	1⅜ x 2	2.13
CTM-4116	50-50-50-100	150-150-150-25	1⅜ x 2	3.39
CTM-4118	60-30-10-60	150-150-150-25	1⅜ x 2	2.76
CTM-4120	60-40-20-20	150-150-150-25	1⅜ x 2	2.97
CTM-4122	60-60-10-60	150-150-150-25	1⅜ x 2	3.15
CTM-4124	70-40-40-25	150-150-150-25	1⅜ x 2½	3.12
CTM-4126	80-40-30-100	150-150-150-25	1⅜ x 2½	3.33
*CTM-4128	80-40-40-20	150-150-150-25	1⅜ x 2	2.13
*CTM-4130	80-40-40-40	150-150-150-25	1⅜ x 2½	2.16
*CTM-4132	80-40-40-100	150-150-150-25	1⅜ x 2½	2.25
CTM-4134	80-50-50-25	150-150-150-25	1⅜ x 2½	3.42
CTM-4136	80-60-40-100	150-150-150-25	1⅜ x 2½	3.57
*CTM-4138	100-90-60-200	150-150-150-25	1⅜ x 3	2.97
CTM-4140	125-125-40-100	150-150-150-25	1⅜ x 3	4.47
CTM-4143	250-200-10-25	150-150-150-50	1⅜ x 4	3.21
*CTM-4146	200-200-100-10	150-150-150-75	1⅜ x 4	3.57
*CTM-4148	40-40-40-30	150-150-150-150	1⅜ x 2	1.98
CTM-4150	50-40-30-30	150-150-150-150	1⅜ x 2	3.06
CTM-4152	50-50-50-50	150-150-150-150	1⅜ x 2½	3.51
CTM-4154	80-50-20-20	150-150-150-150	1⅜ x 2½	3.33
*CTM-4156	100-80-60-40	150-150-150-150	1⅜ x 3	2.79
*CTM-4159	200-200-60-30	175-175-175-175	1⅜ x 4	3.33
*CTM-4163	250-200-10-10	175-175-150-150	1⅜ x 4	3.30
CTM-4165	40-20-10-20	200-200-200-25	1⅜ x 2	2.88

*Preferred Type †Discontinued

ARCO
electronics inc.

Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
CTM-4167	60-20-5-50	200-200-200-50	1⅜ x 3	3.15
CTM-4170	40-40-50-80	250-250-150-150	1⅜ x 2½	3.69
*CTM-4173	100-40-10-100	250-250-250-50	1⅜ x 3½	3.09
CTM-4176	80-60-40-20	250-250-250-150	1⅜ x 4	4.59
CTM-4178	40-40-20-20	250-250-250-250	1⅜ x 2½	3.60
CTM-4180	100-40-80-20	300-50-25-25	1⅜ x 3	4.11
*CTM-4183	20-150-150-100	300-150-150-30	1⅜ x 4	3.18
*CTM-4185	10-200-140-30	300-150-150-150	1⅜ x 3½	3.06
*CTM-4188	10-200-200-30	300-150-150-150	1⅜ x 4	3.21
*CTM-4190	100-60-10-20	300-200-150-50	1⅜ x 3½	2.91
CTM-4193	120-20-20-100	300-250-25-30	1⅜ x 3½	4.77
CTM-4195	200-20-100-20	300-250-50-25	1⅜ x 4	3.48
CTM-4198	40-40-40-40	300-250-250-25	1⅜ x 2½	3.96
CTM-4200	80-5-60-20	300-300-150-25	1⅜ x 3	2.61
CTM-4203	100-40-125-50	300-300-150-50	1⅜ x 4	5.58
*CTM-4205	140-10-10-100	300-300-150-50	1⅜ x 3½	3.03
*CTM-4208	100-10-200-30	300-300-150-150	1⅜ x 4	3.54
*CTM-4210	140-10-200-30	300-300-150-150	1⅜ x 4	3.75
*CTM-4213	140-10-200-60	300-300-150-150	1⅜ x 4½	3.84
*CTM-4215	150-20-10-250	300-300-250-50	1⅜ x 4	3.63
CTM-4218	10-10-10-20	300-300-300-25	1⅜ x 2	2.67
CTM-4220	40-30-20-50	300-300-300-25	1⅜ x 2½	3.75
*CTM-4223	60-40-20-50	300-300-300-25	1⅜ x 3½	2.82
CTM-4225	30-30-15-30	300-300-300-50	1⅜ x 3	3.30
CTM-4228	60-30-10-60	300-300-300-50	1⅜ x 2½	3.78
*CTM-4230	150-30-30-150	300-300-300-50	1⅜ x 4	3.66
*CTM-4233	40-40-40-20	300-300-300-150	1⅜ x 3	2.94
*CTM-4235	120-40-40-10	300-300-300-250	1⅜ x 4	3.78
*CTM-4238	40-20-10-10	300-300-300-300	1⅜ x 2	2.37
*CTM-4240	40-40-20-10	300-300-300-300	1⅜ x 3½	2.73
*CTM-4243	40-40-30-20	300-300-300-300	1⅜ x 3	2.91
*CTM-4245	60-40-10-10	300-300-300-300	1⅜ x 2½	2.73
*CTM-4248	100-40-20-20	300-300-300-300	1⅜ x 4	5.22
CTM-4250	100-50-10-5	300-300-300-300	1⅜ x 4	4.65
*CTM-4253	140-100-20-20	300-300-300-300	1⅜ x 4½	4.26
*CTM-4255	150-100-10-10	300-300-300-300	1⅜ x 4	3.99
CTM-4258	150-150-30-30	300-300-300-300	1⅜ x 4½	4.62
*CTM-4260	200-20-20-20	300-300-300-300	1⅜ x 4	3.69
CTM-4263	20-150-80-20	350-150-150-25	1⅜ x 3	4.11
CTM-4265	60-60-30-160	350-150-150-25	1⅜ x 3	4.11
CTM-4268	40-50-20-80	350-150-150-50	1⅜ x 3	3.66
CTM-4270	20-60-160-40	350-200-25-25	1⅜ x 2	3.60
CTM-4273	15-80-40-200	350-200-200-25	1⅜ x 3	4.05
CTM-4275	20-100-100-10	350-200-200-100	1⅜ x 4	4.50
CTM-4278	20-100-100-20	350-200-200-200	1⅜ x 4	4.65
†CTM-4280	20-40-10-250	350-300-150-50	1⅜ x 3	4.14
CTM-4283	140-10-10-100	350-300-150-50	1⅜ x 4	3.45
*CTM-4285	20-150-10-250	350-300-150-50	1⅜ x 4	3.66
CTM-4288	40-40-20-20	350-300-300-25	1⅜ x 3½	4.05
*CTM-4290	160-30-30-20	350-300-300-50	1⅜ x 4	3.48
*CTM-4293	30-30-50-100	350-300-300-75	1⅜ x 3	3.15
CTM-4295	40-80-10-10	350-300-300-300	1⅜ x 3	3.21
*CTM-4298	140-100-20-20	350-300-300-300	1⅜ x 4½	4.62
*CTM-4300	160-30-10-4	350-300-300-300	1⅜ x 3½	3.63
*CTM-4303	160-60-10-4	350-300-300-300	1⅜ x 4	3.78
*CTM-4305	40-10-100-25	350-350-25-25	1⅜ x 2	2.25
*CTM-4308	60-4-100-40	350-350-25-25	1⅜ x 2½	2.28
CTM-4310	100-4-50-50	350-350-50-25	1⅜ x 3½	4.50
CTM-4313	200-10-4-20	350-350-50-25	1⅜ x 4	5.22
CTM-4315	60-5-50-20	350-350-50-50	1⅜ x 2½	2.19
CTM-4318	100-20-50-30	350-350-50-50	1⅜ x 3½	4.89
*CTM-4320	60-20-80-100	350-350-150-50	1⅜ x 4	2.94
CTM-4323	60-10-100-100	350-350-150-10	1⅜ x 4	3.60
*CTM-4325	100-60-100-100	350-350-150-10	1⅜ x 4½	4.08
CTM-4328	15-15-150-150	350-350-150-150	1⅜ x 3½	4.17
CTM-4330	40-20-10-20	350-350-200-25	1⅜ x 2	3.51
CTM-4333	40-20-100-10	350-350-200-50	1⅜ x 3	4.29
CTM-4335	80-20-20-100	350-350-200-50	1⅜ x 3½	4.50
CTM-4338	80-20-20-200	350-350-200-50	1⅜ x 3½	4.86
*CTM-4340	60-40-60-20	350-350-200-150	1⅜ x 3½	3.03
CTM-4343	80-60-60-10	350-350-200-150	1⅜ x 4	5.04
CTM-4345	50-30-8-20	350-350-250-200	1⅜ x 2½	4.05
CTM-4348	15-15-15-15	350-350-300-25	1⅜ x 2	3,12
CTM-4350	35-35-10-20	350-350-300-25	1⅜ x 2½	3.75
CTM-4353	100-80-10-20	350-350-300-50	1⅜ x 4	3.96
CTM-4355	100-60-40-40	350-350-300-75	1⅜ x 4	4.08
CTM-4358	10-10-10-10	350-350-300-300	1⅜ x 2	2.79
CTM-4360	10-10-10-20	350-350-350-25	1⅜ x 2	2.67
*CTM-4363	20-10-5-10	350-350-350-25	1⅜ x 2	1.86
*CTM-4365	30-10-5-200	350-350-350-25	1⅜ x 2	2.28
CTM-4368	30-20-20-20	350-350-350-25	1⅜ x 2½	3.69
CTM-4370	40-20-5-10	350-350-350-25	1⅜ x 2½	3.42
CTM-4373	40-20-20-25	350-350-350-25	1⅜ x 2½	3.84
CTM-4375	40-25-25-20	350-350-350-25	1⅜ x 3	4.20
*CTM-4378	40-40-20-20	350-350-350-25	1⅜ x 3	2.79
*CTM-4380	40-40-30-10	350-350-350-25	1⅜ x 3	2.97
*CTM-4383	40-40-40-40	350-350-350-25	1⅜ x 3	3.12
*CTM-4385	120-20-10-50	350-350-350-25	1⅜ x 3	3.36
CTM-4388	15-15-15-50	350-350-350-50	1⅜ x 2	3.39
CTM-4390	40-30-10-50	350-350-350-50	1⅜ x 3	3.96

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Pric
*CTM-4393	40-40-40-150	350-350-350-50	1⅜ x 4	3.3
CTM-4395	50-40-20-100	350-350-350-50	1⅜ x 3	4.6
CTM-4398	50-40-40-160	350-350-350-50	1⅜ x 4	5.1
CTM-4400	60-25-25-100	350-350-350-50	1⅜ x 3½	4.6
*CTM-4403	60-30-30-150	350-350-350-50	1⅜ x 3	3.3
*CTM-4405	70-40-10-50	350-350-350-50	1⅜ x 3	3.1
*CTM-4408	100-10-10-20	350-350-350-50	1⅜ x 3½	3.0
*CTM-4410	100-20-10-20	350-350-350-50	1⅜ x 3½	3.2
*CTM-4413	100-40-30-50	350-350-350-50	1⅜ x 4	3.9
CTM-4415	140-20-10-100	350-350-350-50	1⅜ x 4	5.5
*CTM-4418	90-30-5-100	350-350-350-75	1⅜ x 3½	3.6
CTM-4420	80-60-40-20	350-350-350-150	1⅜ x 4	5.4
CTM-4424	20-10-5-60	350-350-350-200	1⅜ x 2½	3.3
CTM-4428	30-10-5-100	350-350-350-200	1⅜ x 2½	2.7
CTM-4432	30-20-5-100	350-350-350-200	1⅜ x 3	2.8
CTM-4439	80-40-10-100	350-350-350-200	1⅜ x 3½	4.4
CTM-4443	130-20-10-40	350-350-350-300	1⅜ x 4	5.8
CTM-4446	35-30-20-10	350-350-350-350	1⅜ x 3	4.1
*CTM-4449	40-20-20-10	350-350-350-350	1⅜ x 2½	2.6
CTM-4453	40-25-25-10	350-350-350-350	1⅜ x 2½	3.5
*CTM-4456	40-40-40-40	350-350-350-350	1⅜ x 4	3.6
*CTM-4459	80-60-40-20	350-350-350-350	1⅜ x 4	3.8
*CTM-4461	90-40-30-30	350-350-350-350	1⅜ x 4	4.0
CTM-4464	100-20-10-5	350-350-350-350	1⅜ x 3½	4.7
*CTM-4467	100-40-10-10	350-350-350-350	1⅜ x 3½	3.6
*CTM-4469	100-40-25-25	350-350-350-350	1⅜ x 4	3.9
CTM-4471	50-20-100-25	400-200-150-25	1⅜ x 2½	4.2
CTM-4473	20-20-10-40	400-250-250-25	1⅜ x 2½	3.0
*CTM-4475	40-120-10-150	400-250-250-50	1⅜ x 4	3.5
CTM-4477	10-100-10-100	400-300-75-25	1⅜ x 2½	4.2
CTM-4479	30-40-50-200	400-300-250-150	1⅜ x 4	5.4
CTM-4481	20-30-20-20	400-300-300-25	1⅜ x 2½	3.4
CTM-4483	80-40-20-10	400-300-300-300	1⅜ x 4	5.0
CTM-4485	20-40-100-10	400-350-50-50	1⅜ x 3	3.7
CTM-4487	20-10-10-20	400-350-200-25	1⅜ x 2	2.8
*CTM-4489	40-80-100-25	400-350-200-50	1⅜ x 3½	3.5
CTM-4491	40-10-80-10	400-350-250-250	1⅜ x 4	4.2
CTM-4493	80-40-20-20	400-350-300-300	1⅜ x 3½	3.8
CTM-4495	10-50-30-30	400-350-350-25	1⅜ x 3	3.9
†CTM-4497	35-25-25-20	400-350-350-25	1⅜ x 2½	4.1
CTM-4499	80-40-10-10	400-350-350-25	1⅜ x 4	4.7
*CTM-4501	20-50-40-80	400-350-350-50	1⅜ x 3	3.0
†CTM-4503	30-60-20-100	400-350-350-50	1⅜ x 4	4.5
CTM-4505	40-80-10-100	400-350-350-200	1⅜ x 4	5.1
CTM-4507	40-100-20-10	400-350-350-350	1⅜ x 4	3.9
CTM-4509	10-10-25-25	400-400-25-25	1⅜ x 2	2.52
CTM-4511	20-5-20-20	400-400-25-25	1⅜ x 2	2.76
CTM-4513	20-20-40-10	400-400-25-25	1⅜ x 2½	4.56
CTM-4515	50-25-100-20	400-400-50-25	1⅜ x 3	4.20
*CTM-4517	50-40-100-100	400-400-50-25	1⅜ x 4	3.06
CTM-4519	80-40-100-20	400-400-50-25	1⅜ x 4	5.04
*CTM-4521	100-10-30-20	400-400-50-50	1⅜ x 3½	3.06
CTM-4523	20-10-10-25	400-400-100-25	1⅜ x 2	2.79
*CTM-4525	20-20-100-100	400-400-100-100	1⅜ x 3	3.12
*CTM-4527	20-10-20-25	400-400-200-25	1⅜ x 2	1.98
CTM-4529	10-10-40-10	400-400-200-50	1⅜ x 2	2.88
CTM-4531	40-30-80-10	400-400-200-200	1⅜ x 3½	4.47
CTM-4533	80-10-80-100	400-400-250-50	1⅜ x 4	3.48
CTM-4535	40-10-80-10	400-400-250-250	1⅜ x 3½	4.23
CTM-4537	5-5-50-80	400-400-300-250	1⅜ x 3	4.20
*CTM-4539	50-20-20-25	400-400-350-25	1⅜ x 3	2.67
†CTM-4541	60-40-40-10	400-400-350-50	1⅜ x 3½	5.19
CTM-4543	100-10-20-20	400-400-350-50	1⅜ x 4	3.27
CTM-4544	20-20-20-20	400-400-400-25	1⅜ x 2½	3.48
CTM-4545	60-30-30-150	400-400-400-25	1⅜ x 4	5.22
*CTM-4547	80-40-10-20	400-400-400-25	1⅜ x 4	3.18
*CTM-4549	80-40-30-40	400-400-400-25	1⅜ x 4	3.57
CTM-4551	90-40-10-40	400-400-400-25	1⅜ x 4	5.22
CTM-4553	40-40-40-150	400-400-400-50	1⅜ x 4	5.13
*CTM-4555	90-20-10-50	400-400-400-50	1⅜ x 4	3.24
CTM-4557	80-20-10-100	400-400-400-50	1⅜ x 4	4.74
*CTM-4559	80-40-30-4	400-400-400-350	1⅜ x 4	3.54
CTM-4561	30-30-20-20	400-400-400-400	1⅜ x 3	4.38
CTM-4563	40-35-10-10	400-400-400-400	1⅜ x 3	4.02
†CTM-4565	50-40-30-20	400-400-400-400	1⅜ x 4	3.39
CTM-4567	80-10-10-10	400-400-400-400	1⅜ x 3½	4.23
*CTM-4569	80-25-10-10	400-400-400-400	1⅜ x 4	3.15
*CTM-4571	100-40-10-10	400-400-400-400	1⅜ x 4	3.66
CTM-4574	40-40-30-10	450-150-50-50	1⅜ x 3	3.39
CTM-4577	10-80-40-100	450-200-200-50	1⅜ x 3	3.84
*CTM-4579	20-80-20-50	450-200-200-50	1⅜ x 3	2.46
CTM-4582	60-40-10-80	450-250-150-50	1⅜ x 3½	4.32
CTM-4585	40-40-40-20	450-250-250-25	1⅜ x 3	4.02
*CTM-4588	60-80-40-20	450-250-250-150	1⅜ x 4	3.39
*CTM-4591	10-100-10-100	450-300-75-25	1⅜ x 3	2.85
CTM-4594	10-10-60-100	450-300-200-50	1⅜ x 3	3.42
CTM-4597	10-40-40-100	450-300-250-50	1⅜ x 3½	3.96
CTM-4600	30-40-50-200	450-300-250-150	1⅜ x 4	5.40
*CTM-4603	25-100-10-60	450-300-300-50	1⅜ x 3	3.18
*CTM-4606	40-40-40-20	450-300-300-150	1⅜ x 3	2.94

†Discontinued

* Preferred Type

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ARCO
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Arcolytic

TWIST MOUNT ELECTROLYTIC CAPACITORS

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
TM-4609	10-100-20-20	450-300-300-200	1⅜ x 3	3.03
TM-4612	10-100-20-20	450-300-300-300	1⅜ x 3	4.74
TM-4615	10-40-80-10	450-350-200-200	1⅜ x 3½	4.23
TM-4618	10-40-100-100	450-350-250-50	1⅜ x 3	3.33
TM-4621	40-30-15-50	450-350-300-50	1⅜ x 3	3.93
TM-4624	10-140-20-10	450-350-300-300	1⅜ x 4	5.37
TM-4627	10-100-10-20	450-350-350-25	1⅜ x 3	4.68
TM-4630	10-60-40-25	450-350-350-25	1⅜ x 4	2.76
TM-4633	20-15-15-20	450-350-350-25	1⅜ x 2½	3.42
TM-4636	20-80-50-100	450-350-350-50	1⅜ x 4	3.60
TM-4639	30-40-40-10	450-350-350-200	1⅜ x 3½	4.65
TM-4642	80-10-30-40	450-400-300-150	1⅜ x 4	4.74
TM-4645	80-10-40-30	450-400-300-300	1⅜ x 4	5.48
TM-4648	5-60-50-20	450-400-350-25	1⅜ x 3½	4.56
TM-4651	10-40-30-40	450-400-400-25	1⅜ x 3	3.96
TM-4654	80-40-10-150	450-400-400-50	1⅜ x 4	5.40
TM-4657	10-40-40-100	450-400-400-50	1⅜ x 3½	4.38
TM-4660	60-40-20-20	450-400-400-100	1⅜ x 4	5.22
TM-4664	10-10-20-20	450-450-25-25	1⅜ x 2	2.67
TM-4666	20-10-100-50	450-450-25-25	1⅜ x 2	3.21
TM-4669	20-15-20-20	450-450-25-25	1⅜ x 2	2.07
TM-4672	30-30-125-125	450-450-25-25	1⅜ x 3	2.91
TM-4675	30-10-150-30	450-450-50-50	1⅜ x 3	3.69
TM-4678	20-20-60-100	450-450-150-25	1⅜ x 2½	2.55
TM-4681	40-40-125-125	450-450-150-25	1⅜ x 4	3.42
TM-4684	10-10-60-100	450-450-200-50	1⅜ x 3	2.31
TM-4687	35-25-20-100	450-450-200-50	1⅜ x 3	2.79
TM-4690	40-40-100-60	450-450-200-200	1⅜ x 4	3.63
TM-4693	10-10-10-50	450-450-300-25	1⅜ x 2	2.85
TM-4696	40-40-10-50	450-450-300-50	1⅜ x 3½	4.23
TM-4699	20-20-30-30	450-450-300-300	1⅜ x 3½	4.05
TM-4702	20-5-50-20	450-450-350-25	1⅜ x 2½	4.11
TM-4705	20-20-30-30	450-450-350-350	1⅜ x 3	4.56
TM-4708	40-10-35-10	450-450-350-350	1⅜ x 3½	4.14
TM-4710	40-20-80-10	450-450-350-350	1⅜ x 4	5.22
TM-4712	40-40-30-30	450-450-350-350	1⅜ x 4	3.54
TM-4714	10-10-10-20	450-450-450-25	1⅜ x 2	1.89
TM-4716	10-10-10-100	450-450-450-25	1⅜ x 2	2.94
TM-4718	15-10-10-20	450-450-450-25	1⅜ x 3	2.97
TM-4720	20-10-10-100	450-450-450-25	1⅜ x 2	3.33
CTM-4722	20-20-20-20	450-450-450-25	1⅜ x 2½	2.49
CTM-4724	30-15-15-40	450-450-450-25	1⅜ x 2½	3.75
CTM-4726	30-20-20-20	450-450-450-25	1⅜ x 3	3.96
CTM-4728	30-30-10-20	450-450-450-25	1⅜ x 3	3.93
CTM-4730	30-30-10-125	450-450-450-25	1⅜ x 3	2.82
CTM-4732	30-30-20-20	450-450-450-25	1⅜ x 3	4.20
CTM-4734	40-10-10-250	450-450-450-25	1⅜ x 3	4.23
CTM-4736	40-15-10-25	450-450-450-25	1⅜ x 3	3.69
CTM-4738	40-20-10-20	450-450-450-25	1⅜ x 3	3.84
CTM-4740	40-20-20-20	450-450-450-25	1⅜ x 3	2.76
CTM-4742	40-20-20-40	450-450-450-25	1⅜ x 3	2.79
CTM-4744	40-30-10-20	450-450-450-25	1⅜ x 3½	2.70
CTM-4746	40-40-10-20	450-450-450-25	1⅜ x 3½	2.82
CTM-4748	40-40-20-20	450-450-450-25	1⅜ x 3½	3.00
CTM-4750	40-40-40-40	450-450-450-25	1⅜ x 3	3.30
CTM-4752	50-40-5-20	450-450-450-25	1⅜ x 3	4.32
CTM-4754	60-40-40-10	450-450-450-25	1⅜ x 4	3.60
CTM-4756	60-50-5-20	450-450-450-25	1⅜ x 4	3.21
CTM-4758	80-40-40-40	450-450-450-25	1⅜ x 4	3.87
CTM-4760	10-10-10-150	450-450-450-25	1⅜ x 2½	3.33
CTM-4762	20-20-20-100	450-450-450-25	1⅜ x 2½	2.73
CTM-4764	30-30-15-30	450-450-450-25	1⅜ x 3	2.73
CTM-4766	30-30-15-100	450-450-450-25	1⅜ x 3½	4.41
CTM-4768	40-20-10-100	450-450-450-25	1⅜ x 3½	2.76
CTM-4770	40-40-10-25	450-450-450-25	1⅜ x 3	2.82
CTM-4772	40-40-10-50	450-450-450-25	1⅜ x 4	2.88
CTM-4774	60-40-10-25	450-450-450-25	1⅜ x 4	3.15
CTM-4776	40-40-10-100	450-450-450-100	1⅜ x 3½	3.33
CTM-4778	10-10-10-10	450-450-450-150	1⅜ x 2	2.85
CTM-4780	60-10-10-20	450-450-450-150	1⅜ x 3	2.73
CTM-4782	35-35-10-10	450-450-450-200	1⅜ x 3½	4.14
CTM-4785	40-10-10-100	450-450-450-200	1⅜ x 4	4.41
CTM-4788	40-40-30-10	450-450-450-200	1⅜ x 4	4.83
CTM-4790	30-10-10-10	450-450-450-250	1⅜ x 2½	3.48
CTM-4792	40-10-10-40	450-450-450-250	1⅜ x 3½	4.02
CTM-4794	40-20-10-100	450-450-450-250	1⅜ x 4	3.51
CTM-4796	60-10-10-40	450-450-450-250	1⅜ x 3½	4.38
CTM-4798	40-10-10-40	450-450-450-350	1⅜ x 3	2.85
CTM-4800	40-20-20-20	450-450-450-350	1⅜ x 3	4.50
CTM-4802	40-40-10-10	450-450-450-350	1⅜ x 3½	4.32
CTM-4804	5-5-5-5	450-450-450-450	1⅜ x 2	1.80
CTM-4806	10-10-10-10	450-450-450-450	1⅜ x 2	2.01
CTM-4808	20-10-10-10	450-450-450-450	1⅜ x 2½	2.22
CTM-4810	20-20-20-20	450-450-450-450	1⅜ x 3	2.82
CTM-4812	25-20-20-20	450-450-450-450	1⅜ x 3½	4.38
CTM-4814	30-15-15-15	450-450-450-450	1⅜ x 3	2.67
CTM-4816	30-20-20-10	450-450-450-450	1⅜ x 3	4.14
CTM-4818	30-30-15-10	450-450-450-450	1⅜ x 3½	4.23
CTM-4820	30-30-20-20	450-450-450-450	1⅜ x 3	3.12
CTM-4822	30-30-30-15	450-450-450-450	1⅜ x 4	4.77

Catalog No.	Capacity MFD.	WVDC	Diam. x Length	Net Price
*CTM-4824	35-35-10-5	450-450-450-450	1⅜ x 3½	2.76
*CTM-4826	40-10-10-10	450-450-450-450	1⅜ x 3	2.46
CTM-4828	40-20-20-10	450-450-450-450	1⅜ x 3	4.32
*CTM-4830	40-35-10-10	450-450-450-450	1⅜ x 3	2.88
*CTM-4832	40-40-4-4	450-450-450-450	1⅜ x 3½	2.79
*CTM-4834	40-40-20-20	450-450-450-450	1⅜ x 4	3.33
*CTM-4836	40-40-30-30	450-450-450-450	1⅜ x 4	3.63
*CTM-4838	40-40-40-40	450-450-450-450	1⅜ x 4	3.87
*CTM-4840	60-20-20-20	450-450-450-450	1⅜ x 4	3.39
*CTM-4842	60-30-10-2	450-450-450-450	1⅜ x 3	3.06
CTM-4844	70-10-10-5	450-450-450-450	1⅜ x 3	4.29
*CTM-4846	80-10-10-10	450-450-450-450	1⅜ x 4	3.03
*CTM-4848	40-40-50-80	475-250-150-50	1⅜ x 3½	3.00
*CTM-4850	20-40-100-80	475-300-50-25	1⅜ x 3	2.67
*CTM-4852	10-100-10-100	475-300-300-25	1⅜ x 3½	2.94
*CTM-4854	20-80-20-10	475-300-300-300	1⅜ x 3½	3.00
*CTM-4856	20-140-20-10	475-300-300-300	1⅜ x 4	3.60
CTM-4858	10-20-100-25	475-350-25-25	1⅜ x 2	2.07
†CTM-4860	10-40-80-100	475-350-200-100	1⅜ x 3½	4.32
*CTM-4862	20-40-80-100	475-350-200-100	1⅜ x 4	3.27
*CTM-4864	10-40-80-100	475-350-300-100	1⅜ x 4	3.33
*CTM-4866	10-30-5-80	475-350-350-50	1⅜ x 2½	3.33
*CTM-4868	10-140-4-100	475-350-350-50	1⅜ x 4	3.51
*CTM-4870	10-130-20-10	475-350-350-350	1⅜ x 4	3.60
CTM-4872	20-60-40-10	475-350-350-350	1⅜ x 3½	4.68
*CTM-4874	30-130-10-10	475-350-350-350	1⅜ x 4	3.84
CTM-4876	10-40-100-10	475-400-50-25	1⅜ x 2½	3.60
*CTM-4878	10-40-4-100	475-400-350-50	1⅜ x 2½	2.43
*CTM-4880	10-80-40-100	475-400-400-50	1⅜ x 4	3.48
*CTM-4882	5-70-25-5	475-400-400-400	1⅜ x 3½	3.03
CTM-4884	10-10-80-50	475-450-200-60	1⅜ x 3	3.48
CTM-4886	25-20-20-100	475-450-300-50	1⅜ x 3	4.14
CTM-4888	25-20-40-100	475-450-300-50	1⅜ x 3½	4.47
*CTM-4890	10-60-30-125	475-450-400-50	1⅜ x 4	3.33
*CTM-4892	10-50-30-30	475-450-450-25	1⅜ x 3	2.85
*CTM-4894	10-40-10-100	475-450-450-50	1⅜ x 2½	2.58
*CTM-4896	15-15-80-40	475-475-300-50	1⅜ x 3	2.88
CTM-4898	50-30-20-20	475-475-300-300	1⅜ x 4	5.13
*CTM-4900	40-10-4-40	475-475-350-300	1⅜ x 3	2.97
CTM-4902	40-10-40-10	475-475-350-350	1⅜ x 3	3.30
*CTM-4904	20-10-20-100	475-475-450-25	1⅜ x 2½	2.52
CTM-4906	10-5-80-40	475-475-450-50	1⅜ x 3½	4.41
CTM-4908	30-30-10-20	475-475-475-25	1⅜ x 3	4.11
CTM-4910	40-20-10-10	475-475-475-25	1⅜ x 3	4.38
CTM-4912	80-30-10-20	475-475-475-25	1⅜ x 4	5.19
*CTM-4914	20-20-10-10	475-475-475-300	1⅜ x 2½	2.58
*CTM-4916	50-30-10-20	475-475-475-300	1⅜ x 3½	3.36
CTM-4918	10-10-10-10	475-475-475-475	1⅜ x 2	3.15
*CTM-4920	20-20-10-10	475-475-475-475	1⅜ x 2½	2.61
*CTM-4922	20-20-20-20	475-475-475-475	1⅜ x 3	3.06
CTM-4924	40-10-10-10	475-475-475-475	1⅜ x 3	4.20
*CTM-4926	40-20-10-10	475-475-475-475	1⅜ x 3	3.06
CTM-4928	10-10-4-20	500-300-300-25	1⅜ x 2	1.74
CTM-4930	10-100-30-100	500-300-300-25	1⅜ x 3½	4.68
CTM-4932	5-100-10-200	500-300-300-150	1⅜ x 4	5.28
CTM-4934	20-80-20-10	500-300-300-300	1⅜ x 3½	4.50
*CTM-4936	30-10-150-30	500-450-50-50	1⅜ x 3	2.52
*CTM-4938	10-10-10-10	500-500-500-500	1⅜ x 2	2.10
*CTM-4940	40-40-8-8	500-500-500-500	1⅜ x 4	3.42

INSULATING TUBES FOR TWIST MOUNT CAPACITORS

Cat. No.	CTM Dimensions	Net Price
TMT-1	1 x 2	.06
TMT-2	1 x 2½	.06
TMT-3	1 x 3	.06
TMT-4	1 x 3½	.06
TMT-5	1 x 4	.06
TMT-6	1⅜ x 2	.06
TMT-7	1⅜ x 2½	.06
TMT-8	1⅜ x 3	.06
TMT-9	1⅜ x 3½	.06
TMT-10	1⅜ x 4	.06

BAKELITE MOUNTING PLATES FOR CTM CAPACITORS

BMP-1	1	.06
BMP-2	1⅜	.06

METAL MOUNTING PLATES FOR CTM CAPACITORS

MMP-1	1	.06
MMP-2	1⅜	.06

Preferred Type †Discontinued

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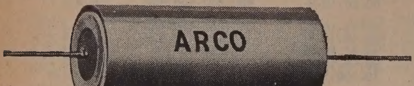
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

PLASTIC FILM CAPACITORS

TYPES PT, PJ

Type PT capacitors are polystyrene dielectric enclosed in non-ferrous metallic tubes with compression glass end seals. The principle features of this type are high stability, high insulation resistance, low dielectric absorption, and low dissipation factor. Their principle uses include precision filter and tuned circuits, analog computer circuits, pulse networks, servo systems, reference capacitors, and high Q applications.



SPECIFICATIONS:
DISSIPATION FACTOR: .02% max. at 25°C. .04% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads min. for 100DCW and 200VDCW units; 10^6 megohm-microfarads for 400-VDCW and higher ratings (at 25°C.)
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C. This specification may be tightened if required for specific values.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% ±¼% also available.

TYPE PT

100 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1PT-102J	.001	7/8 x .312	3.17
*1PT-202J	.002	7/8 x .312	3.17
1PT-222J	.0022	7/8 x .312	3.17
1PT-272J	.0027	7/8 x .312	3.17
*1PT-332J	.0033	7/8 x .312	3.17
1PT-392J	.0039	7/8 x .312	3.17
*1PT-472J	.0047	7/8 x .312	3.17
*1PT-502J	.005	7/8 x .312	3.17
*1PT-682J	.0068	7/8 x .312	3.17
1PT-822J	.0082	7/8 x .312	3.17
*1PT-103J	.01	7/8 x .312	3.17
1PT-123J	.012	7/8 x .312	3.19
*1PT-153J	.015	7/8 x .312	3.20
*1PT-203J	.02	7/8 x .312	3.22
*1PT-223J	.022	7/8 x .312	3.24
1PT-273J	.027	1 x .312	3.27
*1PT-333J	.033	1 x .312	3.30
1PT-393J	.039	1 x .400	3.34
*1PT-473J	.047	1 x .400	3.38
*1PT-503J	.05	1 x .400	3.40
*1PT-683J	.068	1 x .400	3.57
1PT-823J	.082	1 1/8 x .400	3.71
*1PT-104J	.1	1 1/8 x .500	3.89
1PT-124J	.12	1 1/8 x .500	4.10
*1PT-154J	.15	1 7/16 x .500	4.38
*1PT-204J	.2	1 7/16 x .500	4.90
*1PT-224J	.22	1 7/16 x .500	5.04
1PT-274J	.27	1 7/16 x .562	5.43
*1PT-334J	.33	1 13/16 x .562	5.85
1PT-394J	.39	1 13/16 x .562	6.30
1PT-474J	.47	1 7/8 x .670	6.86
*1PT-504J	.5	1 7/8 x .670	7.18

200 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
2PT-102J	.001	7/8 x .312	3.17
*2PT-202J	.002	7/8 x .312	3.17
2PT-222J	.0022	7/8 x .312	3.17
2PT-272J	.0027	7/8 x .312	3.17
*2PT-332J	.0033	7/8 x .312	3.17
2PT-392J	.0039	7/8 x .312	3.17
*2PT-472J	.0047	7/8 x .312	3.17
*2PT-502J	.005	7/8 x .312	3.17
*2PT-682J	.0068	7/8 x .312	3.17
2PT-822J	.0082	7/8 x .312	3.17
2PT-103J	.01	7/8 x .312	3.17
2PT-123J	.012	1 x .312	3.20
2PT-153J	.015	1 x .312	3.24
2PT-203J	.02	1 x .400	3.31
2PT-223J	.022	1 x .400	3.32
2PT-273J	.027	1 x .400	3.35
2PT-333J	.033	1 1/8 x .400	3.40
2PT-393J	.039	1 1/8 x .400	3.44
2PT-473J	.047	1 1/8 x .400	3.50
2PT-503J	.05	1 1/8 x .500	3.64
2PT-683J	.068	1 7/16 x .500	3.99
2PT-823J	.082	1 7/16 x .500	4.31
2PT-104J	.1	1 7/16 x .500	4.66
2PT-124J	.12	1 7/16 x .562	4.97
2PT-154J	.15	1 7/16 x .562	5.43
2PT-204J	.2	1 13/16 x .562	6.16
2PT-224J	.22	1 7/8 x .670	6.44
2PT-274J	.27	1 7/8 x .670	7.11
2PT-334J	.33	1 7/8 x .750	7.88
2PT-394J	.39	1 15/16 x 1.00	8.65
2PT-474J	.47	1 15/16 x 1.00	9.70
2PT-504J	.5	1 15/16 x 1.00	10.22

400 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
4PT-102J	.001	7/8 x .312	3.17
*4PT-202J	.002	7/8 x .312	3.17
4PT-222J	.0022	7/8 x .312	3.17
4PT-272J	.0027	7/8 x .312	3.11
*4PT-332J	.0033	7/8 x .312	3.17
4PT-392J	.0039	7/8 x .312	3.17
*4PT-472J	.0047	7/8 x .312	3.17
*4PT-502J	.005	7/8 x .312	3.17
*4PT-682J	.0068	7/8 x .312	3.22
4PT-822J	.0082	7/8 x .312	3.26
*4PT-103J	.01	1 x .312	3.31
*4PT-153J	.015	1 x .400	3.39
*4PT-203J	.02	1 x .400	3.48
*4PT-223J	.022	1 x .400	3.50
4PT-273J	.027	1 1/8 x .400	3.57
*4PT-333J	.033	1 1/8 x .400	3.68
4PT-393J	.039	1 1/8 x .500	3.75
*4PT-473J	.047	1 7/16 x .500	3.89
*4PT-503J	.05	1 7/16 x .500	3.96
4PT-683J	.068	1 7/16 x .500	4.34
4PT-823J	.082	1 7/16 x .562	4.65
*4PT-104J	.1	1 13/16 x .562	5.04
4PT-124J	.12	1 13/16 x .562	5.46
*4PT-154J	.15	1 7/8 x .670	6.06
*4PT-204J	.2	1 7/8 x .750	7.07
4PT-224J	.22	1 7/8 x .750	7.42
4PT-274J	.27	1 15/16 x 1.00	8.30
*4PT-334J	.33	1 15/16 x 1.00	9.38
4PT-394J	.39	1 15/16 x 1.00	10.43

600 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
6PT-102J	.001	7/8 x .312	3.17
*6PT-202J	.002	7/8 x .312	3.17
6PT-222J	.0022	7/8 x .312	3.17
6PT-272J	.0027	7/8 x .312	3.17
*6PT-332J	.0033	7/8 x .312	3.19
6PT-392J	.0039	7/8 x .312	3.22
6PT-472J	.0047	7/8 x .312	3.27
*6PT-502J	.005	7/8 x .312	3.28
6PT-682J	.0068	7/8 x .312	3.33
6PT-822J	.0082	1 x .312	3.37
*6PT-103J	.01	1 x .400	3.41
6PT-153J	.015	1 x .400	3.54
*6PT-203J	.02	1 1/8 x .400	3.68
6PT-223J	.022	1 1/8 x .400	3.75
6PT-273J	.027	1 1/8 x .500	3.89
6PT-333J	.033	1 7/16 x .500	4.06
6PT-393J	.039	1 7/16 x .500	4.17
6PT-473J	.047	1 7/16 x .562	4.31
*6PT-503J	.05	1 7/16 x .562	4.38
6PT-683J	.068	1 13/16 x .562	5.22
6PT-823J	.082	1 7/8 x .670	5.60
*6PT-104J	.1	1 7/8 x .750	6.09
6PT-124J	.12	1 7/8 x .750	6.65
6PT-154J	.15	1 15/16 x .100	7.49
*6PT-204J	.2	1 15/16 x .100	8.58
6PT-224J	.22	1 15/16 x .100	10.19

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

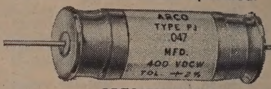
* The starred items are stock items available for immediate delivery.

NOTE: The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changed for different tolerances.

1000 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
10PT-102J	.001	7/8 x .312	3.17
10PT-152J	.0015	7/8 x .312	3.17
10PT-202J	.002	7/8 x .312	3.17
10PT-222J	.0022	7/8 x .312	3.19
10PT-272J	.0027	7/8 x .312	3.21
10PT-332J	.0033	7/8 x .312	3.24
10PT-392J	.0039	7/8 x .312	3.27
10PT-472J	.0047	7/8 x .312	3.31
10PT-502J	.005	7/8 x .312	3.34
10PT-682J	.0068	1 x .312	3.40
10PT-822J	.0082	1 x .400	3.44
10PT-103J	.01	1 x .400	3.50
10PT-153J	.015	1 1/8 x .400	3.68
10PT-203J	.02	1 1/8 x .500	3.85
10PT-223J	.022	1 7/16 x .500	3.92
10PT-273J	.027	1 7/16 x .500	4.10
10PT-333J	.033	1 7/16 x .500	4.27
10PT-393J	.039	1 7/16 x .562	4.41
10PT-473J	.047	1 13/16 x .562	4.62
10PT-503J	.05	1 7/8 x .670	4.69
10PT-683J	.068	1 7/8 x .750	5.64
10PT-823J	.082	1 15/16 x 1.00	6.23
10PT-104J	.1	1 15/16 x 1.00	6.97

Type PJ capacitors are polystyrene dielectric enclosed in silicone treated fused polystyrene jackets. The same superior quality of the Type PT hermetically sealed units is preserved in Type PJ units while effecting a marked saving in both size and price. Extensive evaluation has confirmed the excellent moisture resistance of this design as well as extreme ruggedness. The Type PJ will meet MIL tests for vibration, shock, moisture resistance and immersion as well as providing the excellent electrical characteristics specified.



SPECIFICATIONS:
DISSIPATION FACTOR: .02% max. at 25°C. .04% max. at 85°C.
INSULATION RESISTANCE: 10^5 megohm-microfarads at 25°C.
TEMPERATURE RANGE: —55°C. to +85°C.
TEMPERATURE COEFFICIENT: —120 ± 15 ppm/°C.
DIELECTRIC ABSORPTION: .05% max. at 25°C.
STABILITY: ±0.1% maximum capacitance drift long term under maximum operating conditions.
TOLERANCES: standard tolerance ±5%. ±10% ±3% ±2% ±1% ±½% also available.

TYPE PJ

100 VDCW

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1PJ-102J	.001	11/16 x 9/32	1.49
*1PJ-202J	.002	11/16 x 9/32	1.49
1PJ-222J	.0022	11/16 x 9/32	1.49
1PJ-272J	.0027	11/16 x 9/32	1.49
*1PJ-332J	.0033	11/16 x 9/32	1.49
1PJ-392J	.0039	11/16 x 9/32	1.49
*1PJ-472J	.0047	11/16 x 9/32	1.49
*1PJ-502J	.005	11/16 x 9/32	1.49
*1PJ-682J	.0068	11/16 x 9/32	1.49
1PJ-822J	.0082	11/16 x 9/32	1.49
*1PJ-103J	.01	11/16 x 9/32	1.49
1PJ-123J	.012	11/16 x 5/16	1.51
*1PJ-153J	.015	11/16 x 5/16	1.51
*1PJ-203J	.02	11/16 x 5/16	1.53
*1PJ-223J	.022	11/16 x 5/16	1.54
1PJ-273J	.027	7/8 x 5/16	1.56
*1PJ-333J	.033	7/8 x 5/16	1.60
1PJ-393J	.039	7/8 x 3/8	1.63
*1PJ-473J	.047	7/8 x 3/8	1.67
*1PJ-503J	.05	7/8 x 3/8	1.69
*1PJ-683J	.068	7/8 x 13/32	1.83
1PJ-823J	.082	1 x 3/8	1.94
*1PJ-104J	.1	1 x 13/32	2.09
1PJ-124J	.12	1 x 15/32	2.28
*1PJ-154J	.15	1 1/4 x 7/16	2.54
*1PJ-204J	.2	1 1/4 x 1/2	2.99
*1PJ-224J	.22	1 1/4 x 1/2	3.12
1PJ-274J	.27	1 1/4 x 9/16	3.43
*1PJ-334J	.33	1 5/8 x 17/32	3.82
1PJ-394J	.39	1 5/8 x 9/16	4.20
1PJ-474J	.47	1 5/8 x 5/8	4.69
*1PJ-504J	.5	1 5/8 x 5/8	4.97

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electronics inc.
Great Neck, New York
Branches: Dallas 7, Los Angeles 35

PLASTIC FILM CAPACITORS

TYPES PJ, MT

TYPE PJ

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
2PJ-102J	.001	11/16 x 9/32	1.49
2PJ-202J	.002	11/16 x 9/32	1.49
2PJ-222J	.0022	11/16 x 9/32	1.49
2PJ-272J	.0027	11/16 x 9/32	1.49
2PJ-332J	.0033	11/16 x 9/32	1.49
2PJ-392J	.0039	11/16 x 9/32	1.49
2PJ-472J	.0047	11/16 x 9/32	1.49
2PJ-502J	.005	11/16 x 9/32	1.49
2PJ-682J	.0068	11/16 x 9/32	1.49
2PJ-822J	.0082	11/16 x 5/16	1.49
2PJ-103J	.01	11/16 x 5/16	1.49
2PJ-123J	.012	7/8 x 5/16	1.54
2PJ-153J	.015	7/8 x 5/16	1.54
2PJ-203J	.02	7/8 x 3/8	1.60
2PJ-223J	.022	7/8 x 3/8	1.61
2PJ-273J	.027	7/8 x 3/8	1.65
2PJ-333J	.033	1 x 3/8	1.68
2PJ-393J	.039	1 x 3/8	1.72
2PJ-473J	.047	1 x 7/16	1.77
2PJ-503J	.05	1 x 7/16	1.88
2PJ-683J	.068	1 1/4 x 7/16	2.21
2PJ-823J	.082	1 1/4 x 1/2	2.52
2PJ-104J	.1	1 1/4 x 1/2	2.78
2PJ-124J	.12	1 1/4 x 17/32	3.05
2PJ-154J	.15	1 1/4 x 9/16	3.44
2PJ-204J	.2	1 5/8 x 9/16	4.09
2PJ-224J	.22	1 5/8 x 5/8	4.34
2PJ-274J	.27	1 3/4 x 11/16	4.90
2PJ-334J	.33	1 3/4 x 3/4	5.56
400 VDCW			
4PJ-102J	.001	11/16 x 9/32	1.49
*4PJ-202J	.002	11/16 x 9/32	1.49
4PJ-222J	.0022	11/16 x 9/32	1.49
4PJ-272J	.0027	11/16 x 9/32	1.49
*4PJ-332J	.0033	11/16 x 9/32	1.49
4PJ-392J	.0039	11/16 x 9/32	1.49
*4PJ-472J	.0047	11/16 x 9/32	1.49
*4PJ-502J	.005	11/16 x 9/32	1.49
*4PJ-682J	.0068	11/16 x 5/16	1.53
4PJ-822J	.0082	11/16 x 5/16	1.56
*4PJ-103J	.01	7/8 x 5/16	1.60
*4PJ-153J	.015	7/8 x 11/32	1.68
*4PJ-203J	.02	7/8 x 3/8	1.75
*4PJ-223J	.022	7/8 x 3/8	1.77
4PJ-273J	.027	1 x 3/8	1.84
*4PJ-333J	.033	1 x 13/32	1.92
4PJ-393J	.039	1 x 7/16	2.00
*4PJ-473J	.047	1 1/4 x 7/16	2.10
*4PJ-503J	.05	1 1/4 x 7/16	2.16
4PJ-683J	.068	1 1/4 x 1/2	2.49
4PJ-823J	.082	1 1/4 x 9/16	2.77
*4PJ-104J	.1	1 5/8 x 17/32	3.12
4PJ-124J	.12	1 5/8 x 9/16	3.47
*4PJ-154J	.15	1 5/8 x 5/8	3.99
*4PJ-204J	.2	1 3/4 x 11/16	4.90
4PJ-224J	.22	1 3/4 x 11/16	5.18
4PJ-274J	.27	1 3/4 x 3/4	5.95
600 VDCW			
6PJ-102J	.001	11/16 x 9/32	1.49
*6PJ-202J	.002	11/16 x 9/32	1.49
6PJ-222J	.0022	11/16 x 9/32	1.49
6PJ-272J	.0027	11/16 x 9/32	1.49
*6PJ-332J	.0033	11/16 x 9/32	1.50
6PJ-392J	.0039	11/16 x 9/32	1.53
6PJ-472J	.0047	11/16 x 5/16	1.56
*6PJ-502J	.005	11/16 x 5/16	1.59
6PJ-682J	.0068	11/16 x 5/16	1.62
6PJ-822J	.0082	7/8 x 5/16	1.66
*6PJ-103J	.01	7/8 x 11/32	1.70
6PJ-153J	.015	7/8 x 3/8	1.81
*6PJ-203J	.02	1 x 3/8	1.92
6PJ-223J	.022	1 x 13/32	1.97
6PJ-273J	.027	1 x 7/16	2.11
6PJ-333J	.033	1 1/4 x 7/16	2.25
6PJ-393J	.039	1 1/4 x 1/2	2.35
6PJ-473J	.047	1 1/4 x 9/16	2.48
*6PJ-503J	.05	1 1/4 x 9/16	2.55
6PJ-683J	.068	1 5/8 x 9/16	3.26
6PJ-823J	.082	1 5/8 x 5/8	3.57
*6PJ-104J	.1	1 3/4 x 11/16	4.03
6PJ-124J	.12	1 3/4 x 3/4	4.52

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
1000 VDCW			
10PJ-102J	.001	11/16 x 9/32	1.49
10PJ-152J	.0015	11/16 x 9/32	1.49
10PJ-202J	.002	11/16 x 9/32	1.49
10PJ-222J	.0022	11/16 x 9/32	1.50
10PJ-272J	.0027	11/16 x 9/32	1.52
10PJ-332J	.0033	11/16 x 5/16	1.55
10PJ-392J	.0039	11/16 x 5/16	1.58
10PJ-472J	.0047	11/16 x 5/16	1.61
10PJ-502J	.005	11/16 x 5/16	1.63
10PJ-682J	.0068	7/8 x 5/16	1.68
10PJ-822J	.0082	7/8 x 11/32	1.72
10PJ-103J	.01	7/8 x 3/8	1.78
10PJ-153J	.015	1 x 3/8	1.93
10PJ-203J	.02	1 x 7/16	2.08
10PJ-223J	.022	1 1/4 x 13/32	2.14
10PJ-273J	.027	1 1/4 x 7/16	2.30
10PJ-333J	.033	1 1/4 x 1/2	2.45
10PJ-393J	.039	1 1/4 x 9/16	2.57
10PJ-473J	.047	1 5/8 x 9/16	2.74
10PJ-503J	.05	1 5/8 x 5/8	2.82
10PJ-683J	.068	1 3/4 x 3/4	3.64

HERMETICALLY SEALED MYLAR* DIELECTRIC TYPE MT

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
200 VDCW			
2MT-102J	.001	1 x .235	3.50
2MT-202J	.002	1 x .235	3.50
2MT-222J	.0022	1 x .235	3.50
2MT-272J	.0027	1 x .235	3.50
2MT-332J	.0033	1 x .235	3.50
2MT-392J	.0039	1 x .235	3.50
2MT-472J	.0047	1 x .235	3.50
2MT-502J	.005	1 x .235	3.50
2MT-682J	.0068	1 x .235	3.50
2MT-822J	.0082	1 x .235	3.50
2MT-103J	.01	1 x .235	3.50
2MT-123J	.012	1 x .235	3.50
2MT-153J	.015	1 x .235	3.50
2MT-183J	.018	1 x .235	3.50
2MT-223J	.022	1 x .235	3.50
2MT-273J	.027	1 x .235	3.57
2MT-333J	.033	1 x .235	3.57
2MT-393J	.039	1 x .312	3.64
2MT-473J	.047	1 x .312	3.64
2MT-563J	.056	1 x .312	3.64
2MT-683J	.068	1 x .312	3.71
2MT-823J	.082	1 x .312	3.71
2MT-104J	.1	1 x .400	3.78
2MT-124J	.12	1 x .400	3.85
2MT-154J	.15	1 x .400	3.92
2MT-184J	.18	1 1/8 x .500	3.99
2MT-224J	.22	1 1/8 x .500	4.10
2MT-274J	.27	1 1/8 x .562	4.20
2MT-334J	.33	1 1/8 x .562	4.31
2MT-394J	.39	1 7/16 x .500	4.41
2MT-474J	.47	1 7/16 x .500	4.59
2MT-564J	.56	1 7/16 x .562	4.69
2MT-684J	.68	1 7/16 x .670	4.80
2MT-824J	.82	1 7/16 x .670	4.90
2MT-105J	1.0	1 7/8 x .670	5.04
2MT-125J	1.2	1 7/8 x .750	5.32
2MT-155J	1.5	1 7/8 x .750	5.67
2MT-185J	1.8	1 15/16 x 1.000	6.09
2MT-225J	2.2	1 15/16 x 1.000	6.93

*DuPont Trademark

Part No.	Capacitance Value	Size L. x D.	1 to 9 Qty. Net Price
400 VDCW			
4MT-102J	.001	1 x .235	3.85
4MT-202J	.002	1 x .235	3.85
4MT-222J	.0022	1 x .235	3.85
4MT-272J	.0027	1 x .235	3.85
4MT-332J	.0033	1 x .235	3.85
4MT-392J	.0039	1 x .235	3.85
4MT-472J	.0047	1 x .235	3.85
4MT-502J	.005	1 x .235	3.85
4MT-682J	.0068	1 x .235	3.85
4MT-822J	.0082	1 x .235	3.85
4MT-103J	.01	1 x .235	3.85
4MT-123J	.012	1 x .235	3.89
4MT-153J	.015	1 x .312	3.89
4MT-183J	.018	1 x .312	3.92
4MT-223J	.022	1 x .312	3.96
4MT-273J	.027	1 x .312	3.99
4MT-333J	.033	1 x .312	4.03
4MT-393J	.039	1 x .400	4.06
4MT-473J	.047	1 x .400	4.10
4MT-563J	.056	1 x .400	4.13
4MT-683J	.068	1 1/8 x .500	4.17
4MT-823J	.082	1 1/8 x .500	4.20
4MT-104J	.1	1 1/8 x .562	4.27
4MT-124J	.12	1 1/8 x .562	4.34
4MT-154J	.15	1 7/16 x .500	4.41
4MT-184J	.18	1 7/16 x .562	4.48
4MT-224J	.22	1 7/16 x .562	4.62
4MT-274J	.27	1 7/16 x .670	4.73
4MT-334J	.33	1 7/8 x .670	4.83
4MT-394J	.39	1 7/8 x .670	4.97
4MT-474J	.47	1 7/8 x .670	5.14
4MT-564J	.56	1 7/8 x .750	5.29
4MT-684J	.68	1 15/16 x 1.000	5.39
4MT-824J	.82	1 15/16 x 1.000	5.53
4MT-105J	1.0	1 15/16 x 1.000	5.67
600 VDCW			
6MT-102J	.001	1 x .312	4.31
6MT-202J	.002	1 x .312	4.31
6MT-222J	.0022	1 x .312	4.31
6MT-272J	.0027	1 x .312	4.31
6MT-332J	.0033	1 x .312	4.31
6MT-392J	.0039	1 x .312	4.31
6MT-472J	.0047	1 x .312	4.31
6MT-502J	.005	1 x .312	4.31
6MT-682J	.0068	1 x .312	4.31
6MT-822J	.0082	1 x .312	4.31
6MT-103J	.01	1 x .312	4.31
6MT-123J	.012	1 x .312	4.34
6MT-153J	.015	1 x .312	4.38
6MT-183J	.018	1 x .400	4.41
6MT-223J	.022	1 x .400	4.45
6MT-273J	.027	1 x .400	4.48
6MT-333J	.033	1 x .400	4.55
6MT-393J	.039	1 1/8 x .500	4.59
6MT-473J	.047	1 1/8 x .562	4.62
6MT-563J	.056	1 1/8 x .562	4.66
6MT-683J	.068	1 1/8 x .562	4.69
6MT-823J	.082	1 7/16 x .500	4.73
6MT-104J	.1	1 7/16 x .562	4.80
6MT-124J	.12	1 13/16 x .562	4.90
6MT-154J	.15	1 13/16 x .562	4.97
6MT-184J	.18	1 7/16 x .670	5.04
6MT-224J	.22	1 7/8 x .670	5.22
6MT-274J	.27	1 7/16 x .750	5.32
6MT-334J	.33	1 7/8 x .750	5.46
6MT-394J	.39	1 15/16 x 1.000	5.60
6MT-474J	.47	1 15/16 x 1.000	5.81
6MT-564J	.56	1 15/16 x 1.000	5.95

NOTE: Non-standard capacitance values between those listed are also available at no additional cost.

The suffix letter "J" refers to the standard tolerance of ±5%. This letter is changes for different tolerances.

* The starred items are stock items available for immediate delivery.

SIZE REDUCTIONS: If a particular application has critical space limitations, the standard dimensions tabulated above may be reduced appreciably through special monitoring of film thickness.

ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

CM-15, CM-20, CM-30 Mica Capacitor Kits

ARCO CM-15 MINIATURE MICA CAPACITOR KIT #1

El-Menco
HANDY KIT
Miniature
CAPACITORS
CM-15 CAPACITOR KIT
ARCO ELECTRONICS, INC.

THESE MINIATURES FIT INTO THE SMALLEST AREA CAPACITOR SIZE (9/32" x ½" x 3/16")

SPECIAL KIT LIST PRICE

ONLY $90.00

FOR EXPERIMENTAL WORK

DON'T GET CAUGHT SHORT!

ALWAYS HAVE THE CORRECT CAPACITY ON HAND!

This Handy Kit consists of 46 most commonly used Capacitors . . . per MIL-C-5 specifications . . . five of each capacity as listed on page 367 packed in individual tuck boxes, of 5 each properly identified for permanent use.

•

The complete set of capacitors amounts to $111.50 at list prices. You get the entire set *for only* $90.00.

COMPARE THE COST!

THESE KITS CONTAIN FIVE EACH OF THE FOLLOWING ELMENCO MICA CAPACITORS (500 V D C W)

CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM20 Cap. mmf.	CM30 Cap. mmf.	CM30 Cap. mmf.
5	39	120	390	1100	3600
10	43	130	430	1200	3900
12	47	150	470	1300	4300
15	51	160	510	1500	4700
18	56	180	560	1600	5100
20	62	200	620	1800	5600
22	68	220	680	2000	6200
24	75	240	750	2200	CM35
27	82	270	820	2400	6800*
30	91	300	910	2700	7500*
33	100	330	1000	3000	8200*
36	110	360		3300	9100*
					10000*

*300VDCW

PER MIL-C-5 SPECIFICATIONS

El-Menco
SILVERED MICA
CAPACITOR KIT
THIS KIT CONTAINS FIVE EACH OF THE FOLLOWING ELMENCO MOLDED MICA CAPACITORS
ARCO ELECTRONICS, INC.
NEW YORK

MIL-C-5

ARCO SILVERED MICA KIT #3

SPECIAL KIT LIST PRICE

$325

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$385**

This kit contains the complete range of ELMENCO silvered molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of letters "C", "D" or "E" characteristics as specified and letter "J" (5%) tolerance and are MIL color coded.

El-Menco
REGULAR FOIL MICA
JAN-C-5
CAPACITOR KIT
THIS KIT CONTAINS FIVE EACH OF THE FOLLOWING ELMENCO MOLDED MICA CAPACITORS

MIL-C-5

ARCO REG. FOIL MICA KIT #2

SPECIAL KIT LIST PRICE

$140

Purchased individually the total list price value of the capacitors contained in this kit would be . . . **$158.40**

This kit contains the complete range of ELMENCO regular foil molded mica capacitors from 5 mmf. to 10,000 mmf. manufactured in accordance with MIL-C-5 specifications. All units are of the letter "B" characteristics and letter "K" (10%) tolerance and are MIL color coded.

40% Discount Applies To The Above Prices.

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electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO CAPACITORS

DM-15 KIT #10 & 11
DM-15
STOCK PACKAGE

FOR: ENGINEERING LABS • GOVERNMENTAL AGENCIES • EXPERIMENTAL LABS SCHOOLS, ETC.

DUR-MICA the silvered mica capacitor coated with a specially developed plastic coating for extra durability . . . provides maximum protection at environmental extremes of moisture and temperature.

ARCO DM-15 KIT #10

ARCO
DM-15
KIT
ELMENCO
SILVERED
DUR-MICA CAPACITORS
ARCO
CAPACITOR KIT

This handy kit consists of five of each DM-15 capacity as listed. All are 500 VDCW and ±5% tolerance . . . packed in individual transparent plastic snap boxes, properly identified for ease of handling.

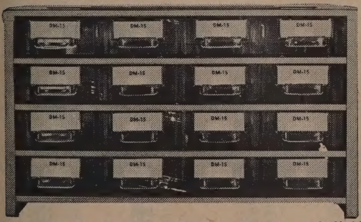
SPECIAL KIT LIST PRICE $95.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$103.31**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
1	DM-15-010†	91	DM-15-910
2	DM-15-020†	100	DM-15-101
3	DM-15-030†	110	DM-15-111
5	DM-15-050†	120	DM-15-121
10	DM-15-100	130	DM-15-131
12	DM-15-120	150	DM-15-151
15	DM-15-150	160	DM-15-161
18	DM-15-180	180	DM-15-181
20	DM-15-200	200	DM-15-201
22	DM-15-220	220	DM-15-221
24	DM-15-240	240	DM-15-241
27	DM-15-270	250	DM-15-251
30	DM-15-300	270	DM-15-271
33	DM-15-330	300	DM-15-301
36	DM-15-360	330	DM-15-331
39	DM-15-390	360	DM-15-361
43	DM-15-430	390	DM-15-391
47	DM-15-470	430*	DM-15-431
50	DM-15-500	470*	DM-15-471
51	DM-15-510	500*	DM-15-501
56	DM-15-560	510*	DM-15-511
62	DM-15-620	560*	DM-15-561
68	DM-15-680	620*	DM-15-621
75	DM-15-750	680*	DM-15-681
82	DM-15-820	750*	DM-15-751
		820*	DM-15-821

* All capacitors marked with * are 300WV.
† Minimum tolerance ±0.5 mmf.

ARCO MINIATURE DM-15 CAPACITOR STOCK PACKAGE



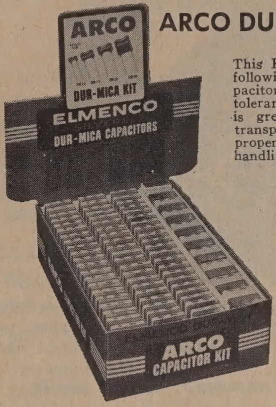
SPECIAL LIST PRICE $596

Distinctive Steel Cabinet With Plastic Pull-Out Drawers Supplied FREE With DM-15 Package.

Purchased individually the total list price value of the capacitors contained in this package would be — **$715**

A complete stock of DM-15 capacitors (fifty-one items) totaling 2100 capacitors; fifty each of the most used values and 25 each of the others. Capacity range is 1-820 mmf., tolerance ±5% or ±0.5 mmf., whichever is greater.

ARCO DUR-MICA KIT #11



This Kit contains five each of the following listed DUR-MICA capacitors, all 500 VDCW and ±5% tolerance; or ±0.5 mmf., whichever is greater. Packed in individual transparent plastic snap boxes, properly identified for ease of handling.

SPECIAL KIT LIST PRICE $250.00

Purchased individually the total list price value of the capacitors contained in this kit would be — **$286.35**

CAP. MMF.	TYPE DESIGNATION	CAP. MMF.	TYPE DESIGNATION
2	DM15-020M	360	DM19-361J
5	DM15-050K	390	DM19-391J
10	DM15-100J	430	DM19-431J
12	DM15-120J	470	DM19-471J
15	DM15-150J	510	DM19-511J
18	DM15-180J	560	DM19-561J
20	DM15-200J	620	DM19-621J
22	DM15-220J	680	DM20-681J
24	DM15-240J	750	DM20-751J
27	DM15-270J	820	DM20-821J
30	DM15-300J	910	DM20-911J
33	DM15-330J	1000	DM20-102J
36	DM15-360J	1100	DM20-112J
39	DM15-390J	1200	DM20-122J
43	DM15-430J	1300	DM20-132J
47	DM15-470J	1500	DM20-152J
51	DM15-510J	1600	DM20-162J
56	DM15-560J	1800	DM20-182J
62	DM15-620J	2000	DM20-202J
68	DM15-680J	2200	DM20-222J
75	DM15-750J	2400	DM20-242J
82	DM15-820J	2700	DM20-272J
91	DM15-910J	3000	DM20-302J
100	DM15-101J	3300	DM20-332J
110	DM15-111J	3600	DM20-362J
120	DM15-121J	3900	DM20-392J
130	DM15-131J	4300	DM20-432J
150	DM15-151J	4700	DM30-472J
160	DM19-161J	5100	DM30-512J
180	DM19-181J	5600	DM30-562J
200	DM19-201J	6200	DM30-622J
220	DM19-221J	6800	DM30-682J
240	DM19-241J	7500	DM30-752J
270	DM19-271J	8200	DM30-822J
300	DM19-301J	9100	DM30-912J
330	DM19-331J	10000	DM30-103J

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40% Discount Applies To The Above Prices.

ARCO
electronics inc.
GREAT NECK, NEW YORK
Branches: Los Angeles 35, Dallas 7

ELMENCO
CAPACITORS

TYPES
46 TRIMMER
30 & 30M PADDER
KITS

ARCO TYPE 46 TRIMMER KIT #5

This Kit Contains 24 of Each Trimmer Listed Below

TYPE 46W

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At Tight Cap. Will Be More Than MMF.	At A Turns Open Cap. Will Be Less Than MMF.
460	1¼ Pl.	15	1.5
461	1¾ Pl.	30	2.7
462	2 Pl.	80	5
463	3 Pl.	180	9
464	4 Pl.	280	25
465	5 Pl.	380	50
466	6 Pl.	480	80
467	7 Pl.	580	110
468	8 Pl.	680	140
469	9 Pl.	780	170

The total list price for all units included in the kit is $142.80.

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE
$120.00

A complete stock of trimmers and padders is provided in these compact, easily handled, and readily accessible kits. Always have a full line of El-Menco trimmers and padders available for immediate use.

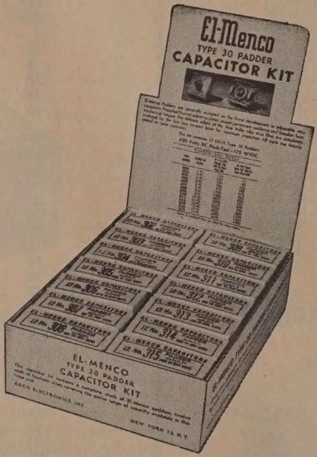
ARCO TYPE 30 PADDER KIT #6

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $223.80.

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE
$195.00



PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.
302	2 Pl.	130	15
303	3 Pl.	340	65
304	4 Pl.	550	100
305	5 Pl.	760	190
306	6 Pl.	970	275
307	7 Pl.	1180	350
308	8 Pl.	1390	450
309	9 Pl.	1600	550
310	10 Pl.	1890	650
311	11 Pl.	2110	780
312	12 Pl.	2330	880
313	13 Pl.	2605	1150
314	14 Pl.	2830	1300
315	15 Pl.	3055	1400

ARCO TYPE 30M PADDER KIT #6M

This Kit Contains 12 Each of Padders Listed Below

The total list price for all units included in the kit is $231.60

Yet you may have this complete kit for only

SPECIAL KIT
LIST PRICE
$200.00

PART NUMBER	NUMBER OF PLATES	GUARANTEED RANGE At 1½ Inch Pounds Cap. Will Be More Than MMF.	At 2½ Turns Open Cap. Will Be Less Than MMF.
302-M	2 Pl.	120	15
303-M	3 Pl.	320	65
304-M	4 Pl.	500	100
305-M	5 Pl.	690	180
306-M	6 Pl.	880	265
307-M	7 Pl.	1070	340
308-M	8 Pl.	1260	425
309-M	9 Pl.	1415	525
310-M	10 Pl.	1600	615
311-M	11 Pl.	1785	730
312-M	12 Pl.	1970	800
313-M	13 Pl.	2155	1000
314-M	14 Pl.	2340	1100
315-M	15 Pl.	2525	1200

40% Discount Applies To The Above Prices.

© U.C.P., Inc.

ASTRON CORPORATION

East Newark, New Jersey

Capacitors

MINIMITE* TYPE MM

Miniature Metal-Cased Tubular Electrolytics

"SM"* Safety Margin Construction

ASTRON
MINIMITE
MM-10-450
10 MF 450 WVDC

Hermetically sealed aluminum-cased tubulars. Small and light. Ideal for under-chassis mounting in compact, tight assemblies.

Designed to withstand high surge voltages and high ripple currents. Stable capacitance characteristics. Long service life.

Exceptionally low leakage. Terminal tab connections provide permanent low-resistance contact for life of the unit.

Outer insulating tube. Duals have centered mounting strap, and 3 leads (common negative).

SINGLE MINIMITE (2 Leads)

Cat. No.	Cap. Mf.	WVDC	†Dia. x L.	Sugg. Resale Price
MM-50-3	50	3	½ x 1¹⁄₁₆	.57
MM-500-3	500	3	⅝ x 1⅝	.93
MM-50-6	50	6	½ x 1¹⁄₁₆	.57
MM-100-6	100	6	½ x 1¹⁄₁₆	.72
MM-500-6	500	6	¾ x 1⅝	.93
MM-1000-6	1000	6	⅞ x 2¹⁄₁₆	1.14
MM-100-10	100	10	⅝ x 1¹⁄₁₆	.75
MM-100-15	100	15	⅝ x 1¹⁄₁₆	.75
MM-250-15	250	15	⅝ x 1⅝	.75
MM-500-15	500	15	⅞ x 2¹⁄₁₆	1.05
MM-1000-15	1000	15	1 x 2¹¹⁄₁₆	1.38
MM-10-25	10	25	½ x 1¹⁄₁₆	.60
MM-25-25	25	25	½ x 1¹⁄₁₆	.60
MM-50-25	50	25	⅝ x 1¹⁄₁₆	.66
MM-100-25	100	25	⅝ x 1⅝	.81
MM-250-25	250	25	⅞ x 1⅝	1.02
MM-500-25	500	25	1 x 2⅜	1.44
MM-2-50	2	50	½ x 1¹⁄₁₆	.54
MM-4-50	4	50	½ x 1¹⁄₁₆	.57
MM-10-50	10	50	½ x 1¹⁄₁₆	.60
MM-25-50	25	50	⅝ x 1¹⁄₁₆	.60
MM-50-50	50	50	⅝ x 1⅝	.72
MM-100-50	100	50	¾ x 1⅝	.84
MM-4-150	4	150	½ x 1¹⁄₁₆	.60
MM-8-150	8	150	½ x 1⅝	.63
MM-10-150	10	150	½ x 1⅝	.69
MM-16-150	16	150	⅝ x 1⅝	.69
MM-20-150	20	150	⅝ x 1⅝	.72
MM-30-150	30	150	¾ x 1⅝	.78
MM-40-150	40	150	¾ x 1⅝	.81
MM-50-150	50	150	⅞ x 1⅝	.84
MM-80-150	80	150	⅞ x 2¹⁄₁₆	.96
MM-100-150	100	150	⅞ x 2⅜	1.05
MM-150-150	150	150	1 x 2⅜	1.14
MM-200-150	200	150	1⅛ x 3	1.23
MM-8-250	8	250	⅝ x 1⅝	.69
MM-16-250	16	250	¾ x 1⅝	.78
MM-20-250	20	250	¾ x 1⅝	.81
MM-40-250	40	250	⅞ x 1¾	.93
MM-8-350	8	350	⅝ x 1⅝	.72
MM-10-350	10	350	¾ x 1⅝	.75
MM-20-350	20	350	⅞ x 1⅝	.87
MM-4-450	4	450	⅝ x 1⅜	.69
MM-8-450	8	450	¾ x 1⅜	.75
MM-10-450	10	450	¾ x 1⅝	.78
MM-12-450	12	450	⅞ x 1⅝	.81
MM-16-450	16	450	⅞ x 1¾	.84
MM-20-450	20	450	⅞ x 2¹⁄₁₆	.93
MM-30-450	30	450	1 x 2⅜	1.02
MM-40-450	40	450	1 x 2¹¹⁄₁₆	1.08
MM-50-450	50	450	1 x 3	1.23
MM-60-450	60	450	1⅛ x 3	1.38
MM-80-450	80	450	1⅛ x 3¾	1.68
MM-8-500	8	500	⅞ x 2¹⁄₁₆	.78
MM-16-500	16	500	1 x 2⅜	.90
MM-20-500	20	500	1 x 2⅜	.96

‡DUAL MINIMITE (3 leads, Common Negative)

MM-2x20-150	20+20	150	¾ x 1⅝*	.93
MM-2x30-150	30+30	150	⅞ x 1⅝*	1.08
MM-2x40-150	40+40	150	⅞ x 2¹⁄₁₆*	1.11
MM-5030-150	50+30	150	⅞ x 2¹⁄₁₆*	1.17
MM-2x50-150	50+50	150	⅞ x 2⅜*	1.06
MM-8040-150	80+40	150	1 x 2⅜*	1.32
MM-2x8-450	8+8	450	⅞ x 2¹⁄₁₆*	1.02
MM-2x10-450	10+10	450	⅞ x 2¹⁄₁₆*	1.11
MM-168-450	16+8	450	1 x 2¹⁄₁₆*	1.17
MM-2x16-450	16+16	450	1 x 2¹¹⁄₁₆*	1.35
MM-2x20-450	20+20	450	1 x 2¹¹⁄₁₆*	1.50
MM-2x40-450	40+40	450	1⅛ x 3¾*	2.04

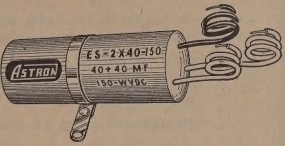
Dimensions are for metal tubes. Add ¹⁄₁₆" to diameter and ⅛" to length for dimensions over cardboard insulating tubes.

Supplied with radial mounting strap.

TRADE MARK

TYPE ES

Cardboard-Cased Electrolytics



- Dual and triple-section units. Can be used in place of costlier metal-can types of equal rating in television, radio, radio-phonos and other equipment. 65°C. operation.
- Sections wrapped in plastic film. Lasting protection from moisture, humidity, severest climatic conditions. High-melting-point wax fill.
- Centered radial mounting strap. Plastic insulated wire leads, 6" long. Color coding on tubes.
- Overall wax coating for added protection against moisture and humidity.

DUAL UNITS (Common Negative)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
ESD-140	10+10/50	⅝ x 2⅜	.84
ESD-150	8+8/150	⅝ x 2⅜	.87
ESD-155	20+20/150	¾ x 2½	.99
ESD-156	30+20/150	¾ x 2½	1.02
ESD-160	30+30/150	⅞ x 2½	1.08
ESD-163	40+20/150	⅞ x 2½	1.05
ESD-165	40+40/150	1 x 2½	1.11
ESD-170	50+30/150	1 x 2½	1.17
ESD-175	50+50/150	1 x 3	1.26
ESD-190	80+40/150	1⅛ x 3	1.35
ESD-250	16+16/250	⅞ x 2½	1.08
ESD-255	20+20/250	⅞ x 2½	1.11
ESD-450	8+8/450	1 x 2½	1.02
ESD-455	20+20/450	1⅛ x 3¼	1.50
ESD-475	40+40/450	1⅜ x 3½	2.04

TRIPLE UNITS (Common Negative)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
EST-555	20+20+20/150	1 x 2½	1.32
EST-560	40+20+20/150	1 x 2½	1.35
EST-570	40+30+20/150	1 x 2½	1.41
EST-575	40+40+20/150	1 x 3	1.41
EST-580	40+40+40/150	1 x 3¼	1.47
EST-585	60+40+20/150	1 x 3¼	1.44
EST-595	80+40+20/150	1⅛ x 3¼	1.50
EST-610	40+10/150+ 20/25	1 x 2½	1.17
EST-620	40+30/150+ 20/25	1 x 2½	1.38
EST-625	40+40/150+ 40/25	1 x 3¼	1.44
EST-640	50+30/150+100/25	1 x 3¼	1.50
EST-645	40+40/25	⅝ x 1⅞	2.10
EST-655	50+30/150+200/10	1 x 3¼	1.53

ASTRON CORPORATION

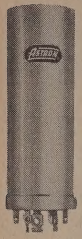
East Newark, New Jersey

Capacitors

TYPE EY

Twist-Prong Electrolytics

"SM"* Safety Margin Construction



- Widest choice of singles, and dual, triple and quadruple capacitance-voltage combinations in smallest practical aluminum can sizes.
- Ideal for replacement in television, radio and other high quality electronic equipment where high ripple and high surge voltages are encountered.
- Hermetically sealed. Designed for 85°C. operation.
- Quick, easy, firm mounting through chassis slots or slotted plates for insulated or grounded connection. Mounting prong ring serves as common negative terminal.
- Terminal coding clearly stamped on container.
- Individually packaged for the service trade, including metal and phenolic mounting plates.

SINGLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYS-90	2000/6	1⅜x2	1.53
EYS-100	1000/15	1 x3	1.53
EYS-105	2000/15	1⅜x3	2.07
EYS-108	3000/15	1⅜x3	2.09
EYS-115	100/25	1 x2	.96
EYS-120	500/25	1 x3	1.53
EYS-125	1000/25	1⅜x3	2.13
EYS-130	500/50	1⅜x2½	1.59
EYS-131	1000/50	1⅜x3	2.25
EYS-133	1500/50	1⅜x4	2.25
EYS-135	50/150	1 x2	.99
EYS-140	80/150	1 x2	1.11
EYS-145	100/150	1 x2	1.20
EYS-150	120/150	1 x2½	1.26
EYS-151	120/150	1⅜x3	1.26
EYS-155	140/150	1 x3	1.29
EYS-160	150/150	1 x3	1.29
EYS-161	200/150	1⅜x2½	1.47
EYS-162	300/150	1⅜x3	1.68
EYS-165	15/250	1 x2	.93
EYS-170	30/250	1 x2	1.02
EYS-175	40/250	1 x2	1.08
EYS-180	60/250	1 x2½	1.23
EYS-185	80/250	1 x3	1.29
EYS-186	100/250	1 x2½	1.61
EYS-190	150/250	1⅜x2½	1.86
EYS-1901	200/250	1⅜x3	2.38
EYS-1902	80/300	1 x3	1.53
EYS-191	100/300	1⅜x2½	1.73
EYS-193	150/300	1⅜x3	2.10
EYS-195	30/350	1 x2	1.14
EYS-200	40/350	1 x2½	1.20
EYS-205	50/350	1 x3	1.26
EYS-215	80/350	1⅜x2½	1.71
EYS-220	125/350	1⅜x3	2.19
EYS-222	150/350	1⅜x3½	2.37
EYS-225	80/400	1⅜x2½	1.77
EYS-230	10/450	1 x2	.93
EYS-235	20/450	1 x2	1.05
EYS-240	30/450	1 x2½	1.17
EYS-245	40/450	1 x3	1.23
EYS-246	50/450	1 x3½	1.41
EYS-247	60/450	1⅜x2½	1.55
EYS-250	80/450	1⅜x3	1.83
EYS-251	100/450	1⅜x3	2.07
EYS-253	125/450	1⅜x4	2.55
EYS-255	30/475	1 x3	1.20
EYS-260	40/475	1⅜x2	1.50
EYS-265	90/475	1⅜x3½	2.00
EYS-266	10/500	1 x2	.95
EYS-267	20/500	1 x2½	1.11

SINGLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYS-268	30/500	1 x3	1.20
EYS-269	40/500	1 x3½	1.50
EYS-270	80/500	1⅜x3½	1.91
EYS-271	90/500	1⅜x3½	.96

DUAL UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYD-500	1000-1000/15	1⅜x3	2.64
EYD-505	150-50/25	1 x2	1.05
EYD-506	50-50/50	1 x2	1.02
EYD-507	100-25/50	1 x2	1.11
EYD-508	20-20/150	1 x2	1.02
EYD-510	30-30/150	1 x2	1.05
EYD-511	40-20/150	1 x2	1.08
EYD-512	40-30/150	1 x2	1.12
EYD-513	40-40/150	1 x2	1.14
EYD-514	50-30/150	1 x2	1.20
EYD-515	50-50/150	1 x2½	1.17
EYD-5151	60-60/150	1 x2½	1.42
EYD-5152	75-75/150	1 x3	1.56
EYD-5153	80-40/150	1 x2½	1.38
EYD-5154	80-80/150	1⅜x2	1.60
EYD-516	125-100/150	1⅜x2½	2.10
EYD-517	200-5/150	1⅜x2½	1.65
EYD-520	200-200/150	1⅜x3½	2.40
EYD-525	20-20/250	1 x2	1.14
EYD-530	40-40/250	1 x2½	1.50
EYD-532	150-150/250	1⅜x4	3.10
EYD-533	200-200/250	1⅜x4½	3.66
EYD-540	80-80/300	1⅜x3½	2.43
EYD-545	120-20/300	1⅜x3	2.28
EYD-547	120-40/300	1⅜x3½	2.61
EYD-550	15-15/350	1 x2	1.35
EYD-555	20-20/350	1 x2½	1.41
EYD-556	30-30/350	1 x3	1.74
EYD-557	50-30/350	1⅜x2½	1.90
EYD-558	80-20/350	1⅜x2½	2.10
EYD-559	80-40/350	1⅜x3	2.38
EYD-560	80-80/350	1⅜x3½	2.82
EYD-5601	90-40/350	1⅜x3	2.58
EYD-561	100-100/350	1⅜x4	3.70
EYD-562	160-10/350	1⅜x3½	2.58
EYD-563	40-10/400	1⅜x2½	1.50
EYD-5631	80-60/400	1⅜x3½	2.92
EYD-564	5-5/450	1 x2	.96
EYD-565	10-10/450	1 x2	1.14
EYD-566	15-15/450	1 x2½	1.36
EYD-567	20-10/450	1 x2½	1.36
EYD-575	20-20/450	1 x3	1.53
EYD-576	30-10/450	1 x3	1.50
EYD-580	30-30/450	1⅜x2½	1.83
EYD-581	40-20/450	1⅜x2½	1.80
EYD-585	40-40/450	1⅜x3	2.07
EYD-586	50-50/450	1⅜x3	2.32

DUAL UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg Resal Pric
EYD-587	60-20/450	1⅜x3	2.1
EYD-588	60-40/450	1⅜x3	2.3
EYD-590	80-10/450	1⅜x3	2.1
EYD-592	80-20/450	1⅜x3	2.3
EYD-600	80-40/450	1⅜x4	2.6
EYD-601	100-40/450	1⅜x4	2.9
EYD-602	15-15/475	1 x2½	1.4
EYD-603	30-10/475	1⅜x2	1.5
EYD-604	40-10/475	1⅜x2½	1.8
EYD-605	40-40/475	1⅜x3½	2.5
EYD-6051	80-50/475	1⅜x4	3.1
EYD-606	10-10/500	1 x2½	1.1
EYD-610	20-20/500	1⅜x2½	1.7
EYD-611	30-10/500	1⅜x2½	1.5
EYD-615	40-40/500	1⅜x4	2.6
EYD-616	60-40/500	1⅜x3½	2.7
EYD-617	100/400 30/50	1⅜x2½	1.8
EYD-620	250/10 1000/6	1⅜x2	1.7
EYD-621	50/150 500/5	1 x2½	1.4
EYD-622	150/150 100/25	1⅜x2½	1.6
EYD-623	100/250 150/50	1⅜x3	2.1
EYD-624	35/300 500/6	1 x2½	1.6
EYD-625	20/350 30/250	1 x2½	1.38
EYD-630	60/350 80/250	1⅜x3	2.07
EYD-633	80/350 100/50	1⅜x3	2.37
EYD-6331	35/400 100/50	1 x3	1.56
EYD-634	10/450 20/25	1 x2	1.02
EYD-635	20/450 20/25	1 x2½	1.20
EYD-640	20/450 100/100	1⅜x2½	1.59
EYD-644	20/450 50/250	1 x3	1.68
EYD-645	20/450 80/350	1⅜x3	2.19
EYD-650	30/450 40/150	1⅜x2	1.50
EYD-651	30/450 200/150	1⅜x3	2.10
EYD-655	40/450 20/25	1 x3½	1.44
EYD-660	40/450 10/350	1⅜x2½	1.56
EYD-661	50/450 100/50	1⅜x2½	1.80
EYD-665	80/450 50/50	1⅜x3	2.10
EYD-666	80/450 100/50	1⅜x3½	2.26
EYD-670	20/475 100/300	1⅜x3½	2.37
EYD-671	20/475 100/400	1⅜x4	2.70
EYD-675	40/500 50/200	1⅜x3½	2.01

TRIPLE UNITS

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg Resal Pric
EYT-999	20-20-20/25	1 x2	1.17
EYT-1000	40-40-40/25	1 x2	1.29
EYT-1001	20-20-20/150	1 x2	1.38
EYT-1005	40-20-20/150	1 x2	1.44
EYT-1007	40-30-20/150	1 x2	1.50
EYT-1010	40-40-40/150	1 x2½	1.56
EYT-1012	50-40-10/150	1 x2½	1.53
EYT-1015	50-50-50/150	1 x3	1.80
EYT-1016	60-40-20/150	1 x2½	1.65
EYT-1017	70-15-15/150	1 x2½	1.62
EYT-1018	80-40-20/150	1 x3	1.74
EYT-1019	120-80-40/150	1⅜x2½	2.28
EYT-10191	120-120-40/150	1⅜x3	2.44
EYT-10192	200-100-60/150	1⅜x3½	2.74
EYT-10193	200-150-150/150	1⅜x4	4.50
EYT-10194	20-20-20/250	1 x2	1.56
EYT-1020	40-20-10/250	1 x2½	1.71
EYT-1021	40-20-20/250	1 x2½	1.74
EYT-1022	80-80-60/250	1⅜x3½	2.94
EYT-1023	60-20-10/300	1⅜x2	2.07
EYT-1024	80-40-40/300	1⅜x3	2.86
EYT-10241	120-50-40/300	1⅜x4	3.40
EYT-10242	20-20-10/350	1 x2½	2.68
EYT-10243	30-20-10/350	1 x3	1.96
EYT-1025	60-40-20/350	1⅜x3	2.55
EYT-1026	60-50-50/350	1⅜x3½	2.94
EYT-10261	80-60-60/350	1⅜x4	3.34
EYT-10262	90-40-20/350	1⅜x3½	3.16

ASTRON
CORPORATION
East Newark, New Jersey

Capacitors

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
YT-10263	100-100-10/350	1⅜x4	3.30
YT-1027	40-40-20/400	1⅜x3	2.25
YT-1028	30-50-4/400	1⅜x2½	2.31
EYT-1029	80-20-10/400	1⅜x3	2.58
EYT-10291	90-10-5/400	1⅜x3	2.64
EYT-1030	10-10-10/450	1 x3	1.56
EYT-10301	15-15-15/450	1 x3	1.86
EYT-1035	20-10-10/450	1 x3	1.77
EYT-1040	20-20-20/450	1⅜x3	2.16
EYT-1041	30-20-20/450	1⅜x3	2.31
EYT-1045	30-30-30/450	1⅜x3½	2.61
EYT-1046	40-10-10/450	1⅜x2½	2.16
EYT-1047	40-30-20/450	1⅜x3	2.58
EYT-1050	40-40-10/450	1⅜x3½	2.49
EYT-1051	40-40-20/450	1⅜x3½	2.68
EYT-1055	40-40-40/450	1⅜x4	2.94
EYT-1056	50-40-30/450	1⅜x3½	2.94
EYT-1057	60-20-20/450	1⅜x3½	2.76
EYT-1058	60-40-20/450	1⅜x3½	3.00
EYT-1060	60-30-10/450	1⅜x3½	2.70
EYT-1065	80-40-20/450	1⅜x4½	3.24
EYT-1070	10-10-10/475	1 x3	1.62
EYT-1075	30-30-20/475	1⅜x3½	2.64
EYT-1078	40-10-10/475	1⅜x3½	2.34
EYT-10781	40-30-10/475	1⅜x3	2.70
EYT-1079	40-30-30/475	1⅜x3½	3.10
EYT-1080	10-10-10/500	1 x3½	1.62
EYT-1081	30-20-20/500	1⅜x3	2.52
EYT-1082	40-10-10/500	1⅜x3	2.34
EYT-1083	40-40-10/500	1⅜x3½	3.04
EYT-1085	40-20/150 20/25	1 x2	1.38
EYT-1087	40-20/150 100/25	1 x2½	1.50
EYT-1088	40-20/150 200/25	1 x2½	1.62
EYT-10882	40-40/150 20/25	1 x2	1.44
EYT-10883	40-40/150 250/25	1 x3	1.89
EYT-10884	50-30/150 20/25	1 x2	1.50
EYT-1089	50-30/150 30/25	1 x2	1.56
EYT-10891	50-30/150 100/25	1 x2½	1.62
EYT-1090	50-50/150 20/25	1 x2½	1.62
EYT-10901	80-30/150 300/10	1⅜x2	1.89
EYT-10902	80-40/150 20/25	1 x2½	1.68
EYT-1091	80-40/150 300/25	1⅜x2½	2.22
EYT-1093	100-80/150 200/10	1⅜x2½	2.16
EYT-1095	120-60/150 20/25	1⅜x2½	1.98
EYT-1097	30-20/200 40/25	1 x2	1.68
EYT-10971	30-20/200 40/150	1 x2½	1.62
EYT-1098	60-5/200 20/50	1 x2½	1.50
EYT-1100	100-10/200 40/50	1⅜x2	1.86
EYT-1101	15-15/250 20/25	1 x2	1.41
EYT-1102	30-30/250 20/25	1 x2½	1.68
EYT-1105	40-20/250 10/150	1 x2½	1.65
EYT-1110	70-70/250 20/50	1⅜x2½	2.34
EYT-1112	90-90/250 20/50	1⅜x3	2.76
EYT-1113	10-10/300 10/15	1 x2	1.41
EYT-1115	10-10/300 15/250	1 x2	1.47
EYT-1117	100-10/300 60/50	1⅜x2½	2.43
EYT-11191	200-20/300 10/100	1⅜x4	2.94
EYT-1120	10-5/350 150/50	1 x3	1.62
EYT-1121	15-10/350 20/25	1 x2	1.50
EYT-1122	20-5/350 100/25	1 x2½	1.56
EYT-1123	20-5/350 150/50	1 x3	1.78
EYT-1124	20-10/350 20/25	1 x2	1.53
EYT-1125	15-15/350 20/25	1 x2½	1.50
EYT-11251	20-10/350 5/250	1 x2	1.53
EYT-1126	20-20/350 20/25	1 x2½	1.68
EYT-1130	30-20/350 20/25	1 x3	1.86
EYT-1131	30-20/350 100/150	1⅜x2½	2.40
EYT-1135	30-30/350 20/25	1⅜x2	2.04
EYT-1140	30-30/350 50/50	1⅜x2½	2.10
EYT-1145	40-20/350 10/100	1⅜x2	1.68
EYT-1150	40-40/350 50/25	1⅜x2½	2.22

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-1151	20-20/400 10/350	1 x3	1.80
EYT-1153	40-10/400 200/50	1⅜x3½	2.22
EYT-11531	60-30/400 20/350	1⅜x3	2.74
EYT-11532	80-40/400 150/50	1⅜x3½	3.10
EYT-11533	100-10/400 20/50	1⅜x3½	2.70
EYT-1154	100-10/400 80/350	1⅜x4	3.66
EYT-1155	10-10/450 20/25	1 x2½	1.44
EYT-1160	10-10/450 40/50	1 x2½	1.65
EYT-1162	15-15/450 40/25	1 x2½	1.65
EYT-1163	20-10/450 20/25	1 x2½	1.62
EYT-1165	20-10/450 50/50	1 x3	1.71
EYT-1170	20-20/450 20/25	1 x3½	1.86
EYT-1175	20-20/450 60/350	1⅜x3½	2.40
EYT-1177	30-10/450 150/50	1⅜x2½	1.50
EYT-1180	30-30/450 20/25	1⅜x2½	2.10
EYT-1185	30-30/450 40/50	1⅜x3	2.19
EYT-1186	30-30/450 125/25	1⅜x3	2.38
EYT-1188	40-10/450 100/50	1⅜x3	2.58
EYT-1190	40-10/450 80/200	1⅜x3	2.34
EYT-1195	40-10/450 100/200	1⅜x3½	2.46
EYT-1200	40-10/450 10/350	1⅜x2½	1.98
EYT-1201	40-20/450 20/25	1⅜x2½	2.10
EYT-1205	40-20/450 25/50	1⅜x3	2.04
EYT-1210	40-40/450 20/25	1⅜x3½	2.37
EYT-1215	40-40/450 40/25	1⅜x3½	2.40
EYT-1217	40-40/450 100/50	1⅜x3½	2.58
EYT-1220	40-40/450 40/150	1⅜x3½	2.49
EYT-1221	40-40/450 60/200	1⅜x3½	2.68
EYT-1225	40-40/450 100/200	1⅜x4	2.97
EYT-12251	40-40/450 80/350	1⅜x4	3.34
EYT-12252	60-40/450 75/50	1⅜x3½	2.76
EYT-12253	80-10/450 125/25	1⅜x3½	2.64
EYT-1226	80-20/450 100/50	1⅜x4	2.88
EYT-1240	80-40/450 100/25	1⅜x4½	3.06
EYT-1241	20-10/475 100/400	1⅜x4	3.16
EYT-1245	20-20/475 60/400	1⅜x4	2.88
EYT-1250	10-10/500 4/350	1 x3	1.50
EYT-1251	20-10/500 100/50	1 x3½	1.98
EYT-1255	10-10/500 100/50	1 x3½	1.71
EYT-1260	30-10/500 20/50	1⅜x2½	1.86
EYT-1261	40-40/500 100/200	1⅜x4	3.52
EYT-1262	60/200 200-140/150	1⅜x4	2.88
EYT-1263	10/300 500-500/15	1⅜x2	2.34
EYT-1264	20/300 150-80/150	1⅜x3	2.37
EYT-1265	40/300 80/40/250	1⅜x3	2.61
EYT-1266	100/300 200-60/150	1⅜x4	3.34
EYT-12661	200/300 60-20/250	1⅜x4½	3.48
EYT-1267	60/400 20-20/350	1⅜x3	2.55
EYT-1270	80/400 20-10/300	1⅜x3½	2.55
EYT-12701	5/450 80-40/300	1⅜x3	2.49
EYT-1273	10/450 20-10/25	1 x2	1.29
EYT-12731	10/450 80-80/250	1⅜x3	2.52
EYT-1275	20/450 40-10/250	1⅜x2	1.89
EYT-1276	20/450 40-10/350	1⅜x2½	2.10
EYT-1277	20/450 80-10/350	1⅜x3	2.55
EYT-1280	30/450 100-25/25	1⅜x2	1.80
EYT-1281	40/450 90-50/150	1⅜x3	2.37
EYT-1282	80/450 40-40/250	1⅜x4	2.98
EYT-1290	40/450 90-50/150	1⅜x3½	2.40
EYT-1291	40/475 80-10/450	1⅜x3½	3.30
EYT-1292	80/250 40/150 50/50	1⅜x2½	1.41
EYT-1295	20/350 30/250 20/25	1 x2½	1.68
EYT-1300	100/300 60/150 20/25	1⅜x2½	1.71
EYT-1301	20/350 50/100 100/75	1 x3	1.86
EYT-1310	10/350 50/150 100/50	1 x3	1.71
EYT-1313	20/350 10/300 20/25	1 x2½	1.50
EYT-1315	20/350 40/300 10/150	1 x3	1.89
EYT-1320	30/350 30/300 20/25	1 x3	1.89
EYT-1321	125/350 5/200 100/75	1⅜x3½	3.18
EYT-1325	40/350 20/300 10/200	1⅜x2	1.98
EYT-1327	60/400 40/300 20/25	1⅜x3	2.52

TRIPLE UNITS (Cont.)

Cat. No.	Cap. Mf./WVDC	Dia. x Length	Sugg. Resale Price
EYT-1328	10/450 50/150 100/75	1 x3	1.96
EYT-1329	10/450 40/300 10/150	1⅜x2	1.86
EYT-1330	10/450 30/400 30/300	1⅜x2½	2.01
EYT-1335	20/450 60/250 100/25	1⅜x2½	2.19
EYT-1340	20/450 80/350 100/50	1⅜x3½	2.70
EYT-1341	30/450 15/350 40/25	1⅜x2	1.44
EYT-1342	30/450 40/350 50/25	1 x4	2.22
EYT-1345	40/450 40/150 130/50	1⅜x3	2.19
EYT-13451	10/475 4/350 40/250	1⅜x2	1.80
EYT-1346	10/475 40/450 100/200	1⅜x3	2.52
EYT-1350	10/475 100/200 40/50	1⅜x2½	2.01
EYT-1351	20/475 50/50 20/25	1 x3	1.65
EYT-1352	80/475 80/150 50/50	1⅜x4	2.92
EYT-1360	20/500 20/300 40/25	1⅜x2½	1.86
EYT-1365	40/500 40/250 100/50	1⅜x3½	2.25

QUADRUPLE UNITS

EYQ-1998	100-80-60-40/150	1⅜x3	2.79
EYQ-1999	40-20-10-10/300	1⅜x2	2.37
EYQ-2000	40-40-20-10/300	1⅜x2½	2.73
EYQ-20004	40-40-30-20/300	1⅜x3	2.91
EYQ-20005	60-40-10-10/300	1⅜x2½	2.73
EYQ-2002	200-20-20-20/300	1⅜x4½	3.70
EYQ-2003	80-40-20-10/350	1⅜x3½	3.12
EYQ-2004	40-40-40-40/350	1⅜x3½	3.60
EYQ-2005	30-30-20-20/400	1⅜x3½	2.91
EYQ-2007	50-40-30-20/400	1⅜x4	3.39
EYQ-2010	80-10-10-10/400	1⅜x3½	2.82
EYQ-2011	80-25-10-10/400	1⅜x3½	3.03
EYQ-2012	5-5-5-5/450	1⅜x2	1.80
EYQ-2015	10-10-10-10/450	1⅜x2	2.01
EYQ-2020	20-10-10-10/450	1⅜x2½	2.22
EYQ-2025	20-20-20-20/450	1⅜x3	2.82
EYQ-2027	20-60-20-20/450	1⅜x3½	3.39
EYQ-2030	30-15-15-15/450	1⅜x3	2.67
EYQ-2035	30-30-15-10/450	1⅜x3½	2.82
EYQ-2036	30-30-20-20/450	1⅜x3½	3.12
EYQ-2037	35-35-10- 5/450	1⅜x3	2.79
EYQ-2038	40-10-10-10/450	1⅜x3	2.49
EYQ-2040	40-20-10-10/450	1⅜x3	2.67
EYQ-2041	40-35-10-10/450	1⅜x3	2.88
EYQ-2042	40-40- 4- 4/450	1⅜x3½	2.79
EYQ-2043	40-40-20-20/450	1⅜x4	3.34
EYQ-20431	40-40-30-30/450	1⅜x4	3.64
EYQ-2044	40-40-40-40/450	1⅜x4½	3.87
EYQ-20441	60-20-20-20/450	1⅜x4	3.40
EYQ-20442	60-30-10- 2/450	1⅜x3½	3.06
EYQ-20443	80-10-10-10/450	1⅜x3½	3.03
EYQ-2045	10-10-10-10/475	1⅜x2	2.10
EYQ-2048	20-20-10-10/475	1⅜x2½	2.62
EYQ-2049	20-20-20-20/475	1⅜x3	3.12
EYQ-2050	40-20-10-10/475	1⅜x3½	3.06
EYQ-2051	10-10-10-10/500	1⅜x2	2.10
EYQ-2052	40-40- 8- 8/500	1⅜x3½	3.42
EYQ-2053	30-30-30/150 40/25	1⅜x2	1.86
EYQ-2054	40-20-20/150 20/25	1⅜x2	1.77
EYQ-20541	40-40-20/150 200/10	1⅜x2	1.96
EYQ-20542	40-40-30/150 20/25	1⅜x2	1.86
EYQ-2055	40-40-40/150 20/25	1⅜x2	1.89
EYQ-2056	40-40-40/150 160/25	1⅜x2	2.13
EYQ-20561	50-20-20/150 200/25	1⅜x2	2.10
EYQ-20562	50-30-30/150 100/25	1⅜x2	2.07
EYQ-2057	50-50-50/150 20/25	1⅜x2	2.13
EYQ-2058	60-40-20/150 200/10	1⅜x2	2.10
EYQ-20581	80-40-40/150 40/25	1⅜x2	2.16
EYQ-20582	80-40-40/150 100/25	1⅜x2½	2.25
EYQ-20583	100-90-60/150 200/25	1⅜x3	2.97
EYQ-2059	200-200-100/150 10/75	1⅜x4	3.58
EYQ-2060	80-60-40/250 20/150	1⅜x3	3.06
EYQ-2065	100-40-10/250 100/50	1⅜x3	3.09
EYQ-2066	40-20-20/300 25/25	1⅜x2	2.40

ASTRON
CORPORATION
East Newark, New Jersey

Capacitors

QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
EYQ-2074	40-40-10/300 20/15	1⅜ x 2½	2.55
EYQ-2075	40-40-40/300 20/150	1⅜ x 2½	2.94
EYQ-2076	60-40-20/300 50/25	1⅜ x 2½	2.82
EYQ-20761	120-40-40/300 10/250	1⅜ x 4	3.70
EYQ-20762	150-20-10/300 250/50	1⅜ x 4	3.64
EYQ-2077	150-40-10/300 100/50	1⅜ x 4	3.54
EYQ-20771	20-10- 5/350 20/25	1⅜ x 2	1.86
EYQ-20772	30-10- 5/350 200/25	1⅜ x 2	2.28
EYQ-20773	30-10- 5/350 100/200	1⅜ x 2½	2.64
EYQ-20774	30-20- 5/350 100/200	1⅜ x 3	2.82
EYQ-2080	40-20-20/350 25/25	1⅜ x 2½	2.55
EYQ-2081	40-40-30/350 10/25	1⅜ x 3	2.97
EYQ-2085	40-40-40/350 40/25	1⅜ x 3	3.12
EYQ-2090	40-40-40/350 150/50	1⅜ x 3½	3.42
EYQ-2091	90-30- 5/350 100/75	1⅜ x 3½	3.70
EYQ-2092	100-10-10/350 20/50	1⅜ x 3	3.09
EYQ-2094	100-40-30/350 50/50	1⅜ x 4	3.94
EYQ-20941	100-80-10/350 20/50	1⅜ x 4	3.96
EYQ-2095	20-20-20/400 20/25	1⅜ x 2½	2.31
EYQ-2096	80-40-10/400 20/25	1⅜ x 3½	3.18
EYQ-20961	80-40-10/400 100/200	1⅜ x 4	3.78
EYQ-20962	80-40-30/400 40/25	1⅜ x 4	3.58
EYQ-2097	80-60-15/400 60/50	1⅜ x 4	3.75
EYQ-2105	10-10-10/450 20/25	1⅜ x 2	1.89
EYQ-2110	10-10-10/450 10/150	1⅜ x 2	1.89
EYQ-2115	20-10-10/450 100/25	1⅜ x 2½	2.22
EYQ-2120	20-20-20/450 20/25	1⅜ x 2½	2.49
EYQ-2125	20-20-20/450 100/50	1⅜ x 3	2.73
EYQ-2126	30-30-10/450 125/25	1⅜ x 3	2.70
EYQ-2130	30-30-15/450 30/50	1⅜ x 3	2.49
EYQ-2135	30-30-20/450 20/25	1⅜ x 3½	2.79
EYQ-2140	40-10-10/450 250/25	1⅜ x 3½	2.55
EYQ-2145	40-10-10/450 10/350	1⅜ x 3	2.34
EYQ-2146	40-10-10/450 40/350	1⅜ x 3	2.86
EYQ-2150	40-15-10/450 20/25	1⅜ x 3	2.46
EYQ-2151	40-20-10/450 100/50	1⅜ x 3½	2.76
EYQ-2152	40-20-10/450 100/250	1⅜ x 4	2.52
EYQ-2153	40-20-20/450 20/25	1⅜ x 3½	2.76
EYQ-2155	40-20-20/450 40/25	1⅜ x 3½	2.79
EYQ-2160	40-30-10/450 20/25	1⅜ x 3	2.76
EYQ-2162	40-40-10/450 50/50	1⅜ x 3½	2.88
EYQ-2163	40-40-10/450 100/100	1⅜ x 4	3.21
EYQ-2164	40-40-20/450 20/25	1⅜ x 3½	3.00
EYQ-21641	40-40-40/450 40/25	1⅜ x 3½	3.30
EYQ-2165	40-40-40/450 25/50	1⅜ x 4	2.82
EYQ-2170	60-10-10/450 20/150	1⅜ x 3½	2.76
EYQ-2171	60-40-10/450 25/50	1⅜ x 3½	3.15
EYQ-2172	60-40-40/450 10/25	1⅜ x 4	3.60
EYQ-2173	60-50- 5/450 20/25	1⅜ x 3½	3.21
EYQ-2175	20-20-10/475 10/300	1⅜ x 3	2.58
EYQ-2180	40-20-10/475 10/25	1⅜ x 3½	2.91
EYQ-2181	20-20/150 160-40/25	1⅜ x 2	1.92
EYQ-2182	50-20/150 150-30/15	1⅜ x 2	1.92
EYQ-2183	100-10/300 200-30/150	1⅜ x 4½	3.54
EYQ-2184	60- 4/350 100-40/25	1⅜ x 2½	2.28
EYQ-2185	40-10/400 80-10/250	1⅜ x 3½	2.82
EYQ-2186	100-10/400 30-20/50	1⅜ x 3½	3.06
EYQ-2190	10-10/450 20-20/25	1⅜ x 2	1.77
EYQ-2195	20-20/450 20-20/25	1⅜ x 2	2.16
EYQ-2197	40-10/450 35-10/350	1⅜ x 4	3.30
EYQ-2198	40-40/450 100-60/200	1⅜ x 4	3.64
EYQ-2200	40-40/450 30-30/350	1⅜ x 4½	3.54
EYQ-2202	60-10/300 10/75 10/25	1⅜ x 2	2.16
EYQ-22021	80- 5/300 60/150 20/25	1⅜ x 2½	2.58
EYQ-2203	60-40/350 60/200 20/150	1⅜ x 3½	3.00
EYQ-22031	10-10/450 60/200 100/50	1⅜ x 3	2.31
EYQ-22032	20-20/450 60/150 100/25	1⅜ x 2½	2.55
EYQ-22033	35-25/450 20/200 100/50	1⅜ x 3	2.79

QUADRUPLE UNITS (Cont.)

CAT. NO.	CAP. MF./WVDC	DIA x LENGTH	SUGG. RESALE PRICE
EYQ-22034	40-40/450 125/150 125/25	1⅜ x 4	3.42
EYQ-2205	10- 5/475 80/450 40/50	1⅜ x 4	2.97
EYQ-2210	15-15/475 80/300 40/50	1⅜ x 3½	2.88
EYQ-2211	20-10/475 20/450 100/25	1⅜ x 2½	2.52
EYQ-2212	40-10/475 4/350 40/300	1⅜ x 3	2.97
EYQ-2213	20/400 50-40/350 80/50	1⅜ x 3	3.00
EYQ-2215	10/450 120-40/300 25/25	1⅜ x 4	3.15
EYQ-2220	10/450 60-40/350 25/25	1⅜ x 3½	2.76
EYQ-2222	10/450 100-10/350 20/25	1⅜ x 3½	3.15
EYQ-2225	20/450 80-20/200 50/50	1⅜ x 3	2.49
EYQ-2227	25/450 100-10/300 50/50	1⅜ x 3	3.15
EYQ-22271	40/450 40-40/300 20/150	1⅜ x 3	2.94
EYQ-22272	60/450 80-40/250 20/150	1⅜ x 4	3.39
EYQ-2228	10/475 140-40/350 100/50	1⅜ x 4	3.18
EYQ-2229	10/475 40-10/450 100/50	1⅜ x 3	2.58
EYQ-2230	25/500 80-10/350 10/50	1⅜ x 4½	2.70
EYQ-2235	100/300 40/50 80-20/25	1⅜ x 3	2.70
EYQ-2236	80/450 10/400 40-30/300	1⅜ x 4	3.48
EYQ-2237	30/500 10/450 150-30/50	1⅜ x 3	2.52
EYQ-2238	10/300 200-140-30/150	1⅜ x 4½	3.06
EYQ-22381	10/300 200-200-30/150	1⅜ x 4½	3.21
EYQ-22391	160/350 60-10-4/300	1⅜ x 4	3.84
EYQ-22392	30/475 130-10-10/350	1⅜ x 4	3.84
EYQ-22393	20/300 150-150/150 100/30	1⅜ x 3½	3.18
EYQ-2240	120/300 20/250 100/50 20/25	1⅜ x 3½	3.03
EYQ-2245	200/300 20/250 100/50 20/25	1⅜ x 4½	3.27
EYQ-2246	20/350 150/300 10/250 250/50	1⅜ x 4	3.66
EYQ-2250	10/450 10/300 60/200 100/50	1⅜ x 2½	2.28
EYQ-2255	20/450 20/400 20/350 20/25	1⅜ x 3	2.28
EYQ-2260	80/450 10/400 30/300 40/150	1⅜ x 4½	3.15
EYQ-2261	10/475 40/350 80/300 100/100	1⅜ x 4	3.34
EYQ-2262	10/475 40/400 4/350 100/50	1⅜ x 2½	2.44
EYQ-2263	20/300 20-8-4/250	1⅜ x 2	1.86
EYQ-2265	10/475 10/450 80/200 50/60	1⅜ x 3	2.31
EYQ-2270	10/475 60/450 30/400 125/50	1⅜ x 4	3.27
EYQ-2275	20/475 40/300 100/50 80/25	1⅜ x 3	2.70
EYQ-2276	20/475 40/350 80/200 100/100	1⅜ x 4	3.27
EYQ-2280	25/475 20/450 40/300 100/50	1⅜ x 3½	2.97
EYQ-2281	40/475 40/250 50/150 80/50	1⅜ x 3½	3.00

Net

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ASTRON
CORPORATION
East Newark, New Jersey

ASTRON

Capacitors

SOLID ELECTROLYTE TANTALUM CAPACITORS —TYPE TES

NOTES TO STANDARD RATINGS

—Standard ratings and tolerances are as shown on the table. Non-standard ratings and tolerances are available on request.

—Standard insulating sleeves are made of Mylar plastic. To designate an insulating sleeve add M after the TES style designation in the catalog number; for example — TESM-47-35. Other insulating sleeves are available on request.

CASE DIMENSIONS — INCHES

ASTRON CASE SIZE	UNINSULATED D (±.010)	X L (±.031)	MYLAR INSULATING SLEEVE D (±.015)	X L (±.031)	WIRE LEAD GAUGE	WIRE LEAD DIA.	MIL CASE SIZE
A	.125	.250	.135	.286	24	.020	A
C	.175	.438	.185	.474	24	.020	B
D	.279	.650	.289	.686	22	.025	C
E	.341	.750	.351	.786	22	.025	D

6 VDC WORKING, 8 VDC SURGE

CAP. MFD.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.1	798	A	TES-1-6	TES-1-6-10
.12	664	A		TES-12-6-10
.15	533	A	TES-15-6	TES-15-6-10
.18	443	A		TES-18-6-10
.22	363	A	TES-22-6	TES-22-6-10
.27	297	A		TES-27-6-10
.33	242	A	TES-33-6	TES-33-6-10
.39	205	A		TES-39-6-10
.47	170	A	TES-47-6	TES-47-6-10
.56	142	A		TES-56-6-10
.68	118	A	TES-68-6	TES-68-6-10
.82	97.3	A		TES-82-6-10
1.	79.8	A	TES-1M-6	TES-1M-6-10
1.2	66.4	A		TES-1.2M-6-10
1.5	53.3	A	TES-1.5M-6	TES-1.5M-6-10
1.8	44.3	A		TES-1.8M-6-10
2.2	36.3	A	TES-2.2M-6	TES-2.2M-6-10
2.7	29.7	A		TES-2.7M-6-10
3.3	24.2	A	TES-3.3M-6	TES-3.3M-6-10
3.9	20.5	A		TES-3.9M-6-10
4.7	17.0	A	TES-4.7M-6	TES-4.7M-6-10
5.6	14.2	A		TES-5.6M-6-10
6.8	11.8	A	TES-6.8M-6	TES-6.8M-6-10
8.2	9.7	C		TES-8.2M-6-10
10.	8.0	C	TES-10M-6	TES-10M-6-10
12.	6.6	C		TES-12M-6-10
15.	5.3	C	TES-15M-6	TES-15M-6-10
18.	4.4	C		TES-18M-6-10
22.	3.6	C	TES-22M-6	TES-22M-6-10
27.	3.0	C		TES-27M-6-10
33.	2.4	C	TES-33M-6	TES-33M-6-10
39.	2.1	C		TES-39M-6-10
47.	1.7	C	TES-47M-6	TES-47M-6-10
56.	1.4	C		TES-56M-6-10
60.	1.3	C	TES-60M-6	
68.	1.2	D	TES-68M-6	TES-68M-6-10
82.	.97	D		TES-82M-6-10
00.	.80	D	TES-100M-6	TES-100M-6-10
20.	.66	D		TES-120M-6-10
50.	.53	D	TES-150M-6	TES-150M-6-10
80.	.44	D	TES-180M-6	TES-180M-6-10
20.	.36	E	TES-220M-6	TES-220M-6-10
70.	.30	E		TES-270M-6-10
30.	.24	E	TES-330M-6	TES-330M-6-10

10 VDC WORKING, 13 VDC SURGE

CAP. MFD.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.1	798	A	TES-1-10	TES-1-10-10
.12	664	A		TES-12-10-10
.15	533	A	TES-15-10	TES-15-10-10
.18	443	A		TES-18-10-10
.22	363	A	TES-22-10	TES-22-10-10
.27	297	A		TES-27-10-10
.33	242	A	TES-33-10	TES-33-10-10
.39	205	A		TES-39-10-10
.47	170	A	TES-47-10	TES-47-10-10
.56	142	A		TES-56-10-10
.68	118	A	TES-68-10	TES-68-10-10
.82	97.3	A		TES-82-10-10
1.	79.8	A	TES-1M-10	TES-1M-10-10
1.2	66.4	A		TES-1.2M-10-10
1.5	53.3	A	TES-1.5M-10	TES-1.5M-10-10
1.8	44.3	A		TES-1.8M-10-10
2.2	36.3	A	TES-2.2-10	TES-2.2M-10-10
2.7	29.7	A		TES-2.7M-10-10
3.3	24.2	A	TES-3.3M-10	TES-3.3M-10-10
3.9	20.5	A		TES-3.9M-10-10
4.7	17.0	A	TES-4.7M-10	TES-4.7M-10-10
5.6	14.2	C		TES-5.6M-10-10
6.8	11.8	C	TES-6.8M-10	TES-6.8M-10-10
8.2	9.7	C		TES-8.2M-10-10
10.	8.0	C	TES-10M-10	TES-10M-10-10
12.	6.6	C		TES-12M-10-10
15.	5.3	C	TES-15M-10	TES-15M-10-10
18.	4.4	C		TES-18M-10-10
22.	3.6	C	TES-22M-10	TES-22M-10-10
27.	3.0	C		TES-27M-10-10
33.	2.4	C	TES-33M-10	TES-33M-10-10
39.	2.1	C		TES-39M-10-10
40.	2.0	C	TES-40M-10	
47.	1.7	D	TES-47M-10	TES-47M-10-10
56.	1.4	D		TES-56M-10-10
68.	1.2	D	TES-68M-10	TES-68M-10-10
82	.97	D		TES-82M-10-10
100.	.80	D	TES-100M-10	TES-100M-10-10
120.	.66	D	TES-120M-10	TES-120M-10-10
150.	.53	E	TES-150M-10	TES-150M-10-10
180.	.44	E		TES-180M-10-10
220.	.36	E	TES-220M-10	TES-220M-10-10

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ASTRON CORPORATION
East Newark, New Jersey

Capacitors

SOLID ELECTROLYTE TANTALUM CAPACITORS —TYPE TES

15 VDC WORKING, 20 VDC SURGE

CAP. MFD.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.1	798	A	TES-1-15	TES-1-15-10
.12	664	A		TES-12-15-10
.15	533	A	TES-15-15	TES-15-15-10
.18	443	A		TES-18-15-10
.22	363	A	TES-22-15	TES-22-15-10
.27	297	A		TES-27-15-10
.33	242	A	TES-33-15	TES-33-15-10
.39	205	A		TES-39-15-10
.47	170	A	TES-47-15	TES-47-15-10
.56	142	A		TES-56-15-10
.68	118	A	TES-68-15	TES-68-15-10
.82	97.3	A		TES-82-15-10
1.	79.8	A	TES-1M-15	TES-1M-15-10
1.2	66.4	A		TES-1.2M-15-10
1.5	53.3	A	TES-1.5M-15	TES-1.5M-15-10
1.8	44.3	A		TES-1.8M-15-10
2.2	36.3	A	TES-2.2M-15	TES-2.2M-15-10
2.7	29.7	A		TES-2.7M-15-10
3.3	24.2	A	TES-3.3M-15	TES-3.3M-15-10
3.9	20.5	C		TES-3.9M-15-10
4.7	17.0	C	TES-4.7M-15	TES-4.7M-15-10
5.6	14.2	C		TES-5.6M-15-10
6.8	11.8	C	TES-6.8M-15	TES-6.8M-15-10
8.2	9.7	C		TES-8.2M-15-10
10.	8.0	C	TES-10M-15	TES-10M-15-10
12.	6.6	C		TES-12M-15-10
15.	5.3	C	TES-15M-15	TES-15M-15-10
18.	4.4	C		TES-18M-15-10
22.	3.6	C	TES-22M-15	TES-22M-15-10
27.	3.0	D		TES-27M-15-10
33.	2.4	D	TES-33M-15	TES-33M-15-10
39.	2.1	D		TES-39M-15-10
47.	1.7	D	TES-47M-15	TES-47M-15-10
56.	1.4	D		TES-56M-15-10
68.	1.2	D	TES-68M-15	TES-68M-15-10
82.	.97	E		TES-82M-15-10
100.	.80	E	TES-100M-15	TES-100M-15-10
120.	.66	E		TES-120M-15-10
150.	.53	E	TES-150M-15	TES-150M-15-10

20 VDC WORKING, 26 VDC SURGE

CAP. MFD.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.0022	36,300	A	TES-0022-20	TES-0022-20-10
.0027	29,700	A		TES-0027-20-10
.0033	24,200	A	TES-0033-20	TES-0033-20-10
.0039	20,500	A		TES-0039-20-10
.0047	17,000	A	TES-0047-20	TES-0047-20-10
.0056	14,200	A		TES-0056-20-10

20 VDC WORKING, 26 VDC SURGE
(Continued)

MFD. CAP.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.0068	11,800	A	TES-0068-20	TES-0068-20-10
.0082	9,730	A		TES-0082-20-10
.01	7,980	A	TES-01-20	TES-01-20-10
.012	6,640	A		TES-012-20-10
.015	5,330	A	TES-015-20	TES-015-20-10
.018	4,430	A		TES-018-20-10
.022	3,630	A	TES-022-20	TES-022-20-10
.027	2,970	A		TES-027-20-10
.033	2,420	A	TES-033-20	TES-033-20-10
.039	2,050	A		TES-039-20-10
.047	1,700	A	TES-047-20	TES-047-20-10
.056	1,420	A		TES-056-20-10
.068	1,180	A	TES-068-20	TES-068-20-10
.082	973	A		TES-082-20-10
.1	798	A	TES-1-20	TES-1-20-10
.12	664	A		TES-12-20-10
.15	533	A	TES-15-20	TES-15-20-10
.18	443	A		TES-18-20-10
.22	363	A	TES-22-20	TES-22-20-10
.27	297	A		TES-27-20-10
.33	242	A	TES-33-20	TES-33-20-10
.39	205	A		TES-39-20-10
.47	170	A	TES-47-20	TES-47-20-10
.56	142	A		TES-56-20-10
.68	118	A	TES-68-20	TES-68-20-10
.82	97.3	A		TES-82-20-10
1.	79.8	A	TES-1M-20	TES-1M-20-10
1.2	66.4	A		TES-1.2M-20-10
1.5	53.3	A	TES-1.5M-20	TES-1.5M-20-10
1.8	44.3	A		TES-1.8M-20-10
2.2	36.3	A	TES-2.2M-20	TES-2.2M-20-10
2.7	29.7	C		TES-2.7M-20-10
3.3	24.2	C	TES-3.3M-20	TES-3.3M-20-10
3.9	20.5	C		TES-3.9M-20-10
4.7	17.0	C	TES-4.7M-20	TES-4.7M-20-10
5.6	14.2	C		TES-5.6M-20-10
6.8	11.8	C	TES-6.8M-20	TES-6.8M-20-10
8.2	9.7	C		TES-8.2M-20-10
10.	8.0	C	TES-10M-20	TES-10M-20-10
12.	6.6	C		TES-12M-20-10
15.	5.3	C	TES-15M-20	TES-15M-20-10
18.	4.4	D		TES-18M-20-10
22.	3.6	D	TES-22M-20	TES-22M-20-10
27.	3.0	D		TES-27M-20-10
33.	2.4	D	TES-33M-20	TES-33M-20-10
39.	2.1	D		TES-39M-20-10
47.	1.7	D	TES-47-20	TES-47M-20-10
56.	1.4	E		TES-56M-20-10
68.	1.2	E	TES-68M-20	TES-68M-20-10
82.	.97	E		TES-82M-20-10
100.	.80	E	TES-100M-20	TES-100M-20-10

35 VDC WORKING, 46 VDC SURGE

CAP. MFD.	MAX. R_S (ohms)	CASE	CATALOG NUMBER 20% Tolerance	10% Tolerance
.0022	36,300	A	TES-0022-35	TES-0022-35-10
.0027	29,700	A		TES-0027-35-10
.0033	24,200	A	TES-0033-35	TES-0033-35-10
.0039	20,500	A		TES-0039-35-10
.0047	17,000	A	TES-0047-35	TES-0047-35-10
.0056	14,200	A		TES-0056-35-10
.0068	11,800	A	TES-0068-35	TES-0068-35-10
.082	9,730	A		TES-0082-35-10
.01	7,980	A	TES-01-35	TES-01-35-10
.012	6,640	A		TES-012-35-10
.015	5,330	A	TES-015-35	TES-015-35-10
.018	4,430	A		TES-018-35-10
.022	3,630	A	TES-022-35	TES-022-35-10
.027	2,970	A		TES-027-35-10
.033	2,420	A	TES-033-35	TES-033-35-10
.039	2,050	A		TES-039-35-10
.047	1,700	A	TES-047-35	TES-047-35-10
.056	1,420	A		TES-056-35-10
.068	1,180	A	TES-068-35	TES-068-35-10
.082	973	A		TES-082-35-10
.1	798	A	TES-1-35	TES-1-35-10
.12	664	A		TES-12-35-10
.15	533	A	TES-15-35	TES-15-35-10
.18	443	A		TES-18-35-10
.22	363	A	TES-22-35	TES-22-35-10
.27	297	A		TES-27-35-10
.33	242	A	TES-33-35	TES-33-35-10
.39	205	A		TES-39-35-10
.47	170	A	TES-47-35	TES-47-35-10
.56	142	A		TES-56-35-10
.68	118	A	TES-68-35	TES-68-35-10
.82	97.3	A		TES-82-35-10
1.	79.8	A	TES-1M-35	TES-1M-35-10
1.2	66.4	C		TES-1.2M-35-10
1.5	53.3	C	TES-1.5M-35	TES-1.5M-35-10
1.8	44.3	C		TES-1.8M-35-10
2.2	36.3	C	TES-2.2M-35	TES-2.2M-35-10
2.7	29.7	C		TES-2.7M-35-10
3.3	24.2	C	TES-3.3M-35	TES-3.3M-35-10
3.9	20.5	C		TES-3.9M-35-10
4.7	17.0	C	TES-4.7M-35	TES-4.7M-35-10
5.6	14.2	C		TES-5.6M-35-10
6.8	11.8	C	TES-6.8M-35	TES-6.8M-35-10
8.2	9.7	D		TES-8.2M-35-10
10.	8.0	D	TES-10M-35	TES-10M-35-10
12.	6.6	D		TES-12M-35-10
15.	5.3	D	TES-15M-35	TES-15M-35-10
18.	4.4	D		TES-18M-35-10
22.	3.6	D	TES-22M-35	TES-22M-35-10
27.	3.0	E		TES-27M-35-10
33.	2.4	E	TES-33M-35	TES-33M-35-10
39.	2.9	E		TES-39M-35-10
47.	1.7	E	TES-47M-35	TES-47M-35-10

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ASTRON CORPORATION

East Newark, New Jersey

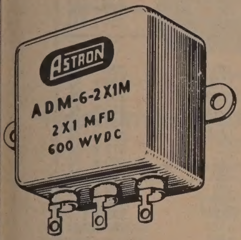
Capacitors

CP53
thru
CP55
of
MIL C-25C

TYPE ADM

Bathtub Paper Capacitors
85°C. Operation

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Operating temperature range −55°C. to +85°C.
- Built to comply with strict requirements of MIL-C-25C. Silicone rubber compression seal lug terminals. Completely immersion-proof.
- Single units have two terminals; duals have three terminals (one common); triple units have three terminals (case common).
- Standard position of Type ADM terminals is on side (MIL-C-25C Style CP53). Available also with terminals on top (ASTRON Type ADMT or MIL Style CP54) and bottom terminals (ASTRON Type ADMB or MIL Style CP55).
- Cap. Tolerance: ±20%.

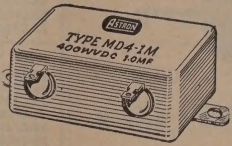


Military Number	Astron Type	L. x W. x H.
100 VOLTS DC WORKING		
AS-CP53B1EB105M	ADM-1-1M	1 13/16x1 x ⅞
AS-CP53B1EB205M	ADM-1-2M	2 x1¾x ⅞
AS-CP53B1EB405M	ADM-1-4M	2 x2 x1⅛
200 VOLTS DC WORKING		
AS-CP53B1EC504M	ADM-2-5	1 13/16x1 x ⅞
AS-CP53B1EC105M	ADM-2-1M	2 x1¾x ⅞
AS-CP53B1EC205M	ADM-2-2M	2 x2 x1
400 VOLTS DC WORKING		
AS-CP53B1EE504M	ADM-4-5	1 13/16x1 x ⅞
AS-CP53B1EE105M	ADM-4-1M	2 x1¾x ⅞
AS-CP53B5EE504M	ADM-4-3x5	2 x2 x1⅛
600 VOLTS DC WORKING		
AS-CP53B1EF503M	ADM-6-05	1 13/16x1 x ¾
AS-CP53B1EF104M	ADM-6-1	1 13/16x1 x ¾
AS-CP53B1EF254M	ADM-6-25	1 13/16x1 x ¾
AS-CP53B1EF504M	ADM-6-5	1 13/16x1 x1
AS-CP53B1EF105M	ADM-6-1M	2 x1¾x1
AS-CP53B1EF205M	ADM-6-2M	2 x2 x1⅛
AS-CP53B4EF503M	ADM-6-2x05	1 13/16x1 x ¾
AS-CP53B4EF104M	ADM-6-2x1	1 13/16x1 x ¾
AS-CP53B4EF254M	ADM-6-2x25	1 13/16x1 x1
AS-CP53B4EF504M	ADM-6-2x5	2 x1¾x1
AS-CP53B4EF105M	ADM-6-2x1M	2 x2 x1⅛
AS-CP53B5EF503M	ADM-6-3x05	1 13/16x1 x ¾
AS-CP53B5EF104M	ADM-6-3x1	1 13/16x1 x ⅞
AS-CP53B5EF254M	ADM-6-3x25	2 x1¾x ⅞
AS-CP53B5EF504M	ADM-6-3x5	2 x2 x1⅛
1000 VOLTS DC WORKING		
AS-CP53B1EG503M	ADM-10-05	1 13/16x1 x ¾
AS-CP53B1EG104M	ADM-10-1	1 13/16x1 x ¾
AS-CP53B1EG254M	ADM-10-25	1 13/16x1 x ⅞
AS-CP53B1EG504M	ADM-10-5	2 x1¾x ⅞
AS-CP53B1EG105M	ADM-10-1M	2 x2 x1⅛
AS-CP53B4EG503M	ADM-10-2x05	1 13/16x1 x ¾
AS-CP53B4EG104M	ADM-10-2x1	1 13/16x1 x ¾
AS-CP53B4EG254M	ADM-10-2x25	2 x1¾x ⅞
AS-CP53B4EG504M	ADM-10-2x5	2 x2 x1⅛
AS-CP53B5EG503M	ADM-10-3x05	1 13/16x1 x ¾
AS-CP53B5EG104M	ADM-10-3x1	2 x1¾x ⅞
AS-CP53B5EG254M	ADM-10-3x25	2 x2 x1⅛

METALITE® TYPE MD

Bathtub Capacitors

85°C. Operation

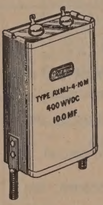


Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr
150 VOLTS DC WORKING			
MD-1.5-4M	4.0	1¾x1 x ⅞	2⅛
MD-1.5-6M	6.0	2 x1¾x ⅞	2⅜
MD-1.5-8M	8.0	2 x2 x ⅞	2⅜
MD-1.5-10M	10.0	2 x2 x ⅞	2⅜
MD-1.5-12M	12.0	2 x2 x1	2⅜
MD-1.5-16M	16.0	2 x2 x1⅜	2⅜
MD-1.5-18M	18.0	2 x2 x1½	2⅜
MD-1.5-2x4M	4.0-4.0	2 x2 x ⅞	2⅜
MD-1.5-2x6M	6.0-6.0	2 x2 x1	2⅜
200 VOLTS DC WORKING			
MD-2-5	.5	1¾x1 x ¾	2⅛
MD-2-1M	1.0	1¾x1 x ¾	2⅛
MD-2-2M	2.0	1¾x1 x ¾	2⅛
MD-2-2x1M	1.0-1.0	1¾x1 x ¾	2⅛
MD-2-2x2M	2.0-2.0	1¾x1 x ⅞	2⅛
400 VOLTS DC WORKING			
MD-4-25	.25	1¾x1 x ¾	2⅛
MD-4-5	.5	1¾x1 x ¾	2⅛
MD-4-1M	1.0	1¾x1 x ⅞	2⅛
MD-4-2M	2.0	2 x1¾x ⅞	2⅜
MD-4-4M	4.0	2 x2 x1⅛	2⅜
MD-4-6M	6.0	2 x2 x1½	2⅜
MD-4-2x5	.5-.5	1¾x1 x ⅞	2⅛
MD-4-2x1M	1.0-1.0	2 x1¾x ⅞	2⅜
MD-4-2x2M	2.0-2.0	2 x2 x1⅛	2⅜
600 VOLTS DC WORKING			
MD-6-1	1	1¾x1 x ¾	2⅛
MD-6-25	25	1¾x1 x ¾	2⅛
MD-6-5	.5	1¾x1 x ¾	2⅛
MD-6-1M	1.0	1¾x1¼x ⅞	2⅛
MD-6-2M	2.0	2 x2 x1	2⅜
MD-6-3M	3.0	2 x2 x1⅜	2⅜
MD-6-4M	4.0	2 x2 x1½	2⅜
MD-6-2x25	.25-.25	1¾x1 x ¾	2⅛
MD-6-2x5	.5-.5	1¾x1¼x ⅞	2⅛
MD-6-2x1M	1.0-1.0	2 x2 x1	2⅜

STANDARD CAPACITANCE TOLERANCE: ±20%.

- Units meet MIL tests for moisture resistance, thermal cycle immersion and vibration.
- Single units have two terminals; dual units have three terminals, one terminal common negative.
- Standard position of terminals on side. Also available with terminals on top (Type MDT) or bottom (Type MDB).
- Standard capacitance tolerance: ±20%.
- Compact sizes. Light weight. Up to 75% reduction in sizes over conventional paper-foil capacitors.
- Temperature Range −65°C. to +85°C.
- Space-saving metallized paper dielectric makes possible wider choice of high capacitance ratings than ever before obtainable in bathtub cases.
- Hermetically sealed. Silicone rubber compression seal lug terminals.

TYPE AXM



MIL C-25C TYPE (CP70)
(B Terminal) (Char. E)

Terneplate "Squeeze Seam" Case with Spade Bolt Brackets

600 VOLTS DC WORKING

Cat. No.	Cap. MF	L. x W. x H.
AXM 6-25	.25	1 13/16 x 1 1/16 x 1⅝
AXM 6-5	.5	1 13/16 x 1 1/16 x 2¼
AXM 6-1M	1.0	1 13/16 x 1 1/16 x 2¼
AXM 6-2M	2.0	1 13/16 x 1 1/16 x 3¼
AXM 6-4M	4.0	2½ x 1 3/16 x 3⅞
AXM 6-6M	6.0	3¾ x 1¼ x 3⅞
AXM 6-8M	8.0	3¾ x 1¼ x 4¼
AXM 6-10M	10.0	3¾ x 1¾ x 4

1000 VOLTS DC WORKING

Cat. No.	Cap. MF	L. x W. x H.
AXM 10-1	.1	1 13/16 x 1 1/16 x 1⅝
AXM 10-25	.25	1 13/16 x 1 1/16 x 2¼
AXM 10-5	.5	1 13/16 x 1 1/16 x 2¼
AXM 10-1M	1.0	1 13/16 x 1 1/16 x 2⅞
AXM 10-2M	2.0	1 13/16 x 1 1/16 x 4¾
AXM 10-4M	4.0	3¾ x 1¼ x 3⅞
AXM 10-6M	6.0	3¾ x 1¾ x 4
AXM 10-8M	8.0	3¾ x 1¾

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ASTRON CORPORATION

East Newark, New Jersey

Capacitors

TYPE AQF

MILITARY TYPE

CP08
CP09
MIL-C-25C

ASTRON
METEOR

Commercial Equivalent

TEMPERATURE CHARACTERISTICS E AND K

CIRCUIT 1

(Capacitor Section Insulated From Case)

100 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP08A1-B103M	AQF-1-01	.01	.235 x ¾
AS-CP08A1-B153M	AQF-1-015	.015	.235 x ¾
AS-CP08A1-B473M	AQF-1-047	.047	.312 x ⅞
AS-CP08A1-B104M	AQF-1-1	.1	.400 x ⅞
AS-CP08A1-B154M	AQF-1-15	.15	.400 x 1⅛
AS-CP08A1-B224M	AQF-1-22	.22	.400 x 1⅜
AS-CP08A1-B334M	AQF-1-33	.33	.562 x 1⅛
AS-CP08A1-B474M	AQF-1-47	.47	.562 x 1⅜
AS-CP08A1-B684M	AQF-1-68	.68	.562 x 1⅝
AS-CP08A1-B105M	AQF-1-1M	1.0	.670 x 1⅝
200 VOLTS			
AS-CP08A1-C472M	AQF-2-0047	.0047	.235 x ¾
AS-CP08A1-C682M	AQF-2-0068	.0068	.235 x ¾
AS-CP08A1-C223M	AQF-2-022	.022	.312 x ⅞
AS-CP08A1-C333M	AQF-2-033	.033	.312 x ⅞
AS-CP08A1-C473M	AQF-2-047	.047	.400 x ⅞
AS-CP08A1-C683M	AQF-2-068	.068	.400 x ⅞
AS-CP08A1-C104M	AQF-2-1	.1	.400 x 1⅛
AS-CP08A1-C154M	AQF-2-15	.15	.400 x 1⅜
AS-CP08A1-C224M	AQF-2-22	.22	.562 x 1⅛
AS-CP08A1-C334M	AQF-2-33	.33	.562 x 1⅜
AS-CP08A1-C474M	AQF-2-47	.47	.562 x 1⅝
AS-CP08A1-C684M	AQF-2-68	.68	.670 x 1⅝
AS-CP08A1-C105M	AQF-2-1M	1.0	.750 x 2⅛

400 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP08A1-E332M	AQF-4-0033	.0033	.235 x ¾
AS-CP08A1-E153M	AQF-4-015	.015	.312 x ⅞
AS-CP08A1-E333M	AQF-4-033	.033	.400 x ⅞
AS-CP08A1-E473M	AQF-4-047	.047	.400 x 1⅛
AS-CP08A1-E683M	AQF-4-068	.068	.400 x 1⅜
AS-CP08A1-E104M	AQF-4-1	.1	.562 x 1⅛
AS-CP08A1-E154M	AQF-4-15	.15	.562 x 1⅜
AS-CP08A1-E224M	AQF-4-22	.22	.562 x 1⅝
AS-CP08A1-E334M	AQF-4-33	.33	.670 x 1⅝
AS-CP08A1-E474M	AQF-4-47	.47	.750 x 2⅛
600 VOLTS			
AS-CP08A1-F102M	AQF-6-001	.001	.235 x ¾
AS-CP08A1-F152M	AQF-6-0015	.0015	.235 x ¾
AS-CP08A1-F222M	AQF-6-0022	.0022	.235 x ¾
AS-CP08A1-F332M	AQF-6-0033	.0033	.312 x ⅞
AS-CP08A1-F472M	AQF-6-0047	.0047	.312 x ⅞
AS-CP08A1-F682M	AQF-6-0068	.0068	.312 x ⅞
AS-CP08A1-F103M	AQF-6-01	.01	.312 x ⅞
AS-CP08A1-F153M	AQF-6-015	.015	.400 x ⅞
AS-CP08A1-F223M	AQF-6-022	.022	.400 x ⅞
AS-CP08A1-F333M	AQF-6-033	.033	.400 x 1⅛
AS-CP08A1-F473M	AQF-6-047	.047	.400 x 1⅜
AS-CP08A1-F683M	AQF-6-068	.068	.562 x 1⅛
AS-CP08A1-F104M	AQF-6-1	.1	.562 x 1⅝
AS-CP08A1-F154M	AQF-6-15	.15	.562 x 1⅜
AS-CP08A1-F224M	AQF-6-22	.22	.670 x 1⅝
AS-CP08A1-F334M	AQF-6-33	.33	.750 x 2⅛
AS-CP08A1-F474M	AQF-6-47	.47	.750 x 2⅜
1000 VOLTS			
AS-CP08A1-G102M	AQF-10-001	.001	.400 x ⅞
AS-CP08A1-G152M	AQF-10-0015	.0015	.400 x ⅞
AS-CP08A1-G222M	AQF-10-0022	.0022	.400 x ⅞
AS-CP08A1-G332M	AQF-10-0033	.0033	.400 x ⅞
AS-CP08A1-G472M	AQF-10-0047	.0047	.400 x ⅞
AS-CP08A1-G682M	AQF-10-0068	.0068	.400 x ⅞
AS-CP08A1-G103M	AQF-10-01	.01	.400 x ⅞
AS-CP08A1-G153M	AQF-10-015	.015	.400 x 1⅛
AS-CP08A1-G223M	AQF-10-022	.022	.400 x 1⅜
AS-CP08A1-G333M	AQF-10-033	.033	.562 x 1⅛
AS-CP08A1-G473M	AQF-10-047	.047	.562 x 1⅜
AS-CP08A1-G683M	AQF-10-068	.068	.562 x 1⅝
AS-CP08A1-G104M	AQF-10-1	.1	.670 x 1⅝
AS-CP08A1-G154M	AQF-10-15	.15	.670 x 1⅞
AS-CP08A1-G224M	AQF-10-22	.22	.750 x 2⅛
AS-CP08A1-G334M	AQF-10-33	.33	1.000 x 2⅛
AS-CP08A1-G474M	AQF-10-47	.47	1.000 x 2⅜

VARIATIONS

CIRCUIT 1	CAPACITOR SECTION INSULATED FROM THE CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY SIZES SHOWN IN LISTINGS	Basic unit in floating construction. Sizes as shown in listings. Basic unit with tangential soldered-on bracket. Add suffix (A). Basic unit with soldered-on L type bracket. Add suffix (B). Screw neck mounting type. Available in same ratings as AQF. Minimum in case diameter .400″.	CP08 (1) — — —	AQF AQF-A AQF-B AQFS
FOR INSULATED BODY ADD 1/16″ TO DIAMETER AND LENGTH OF AQF SIZES LISTED	Internally insulated ("Floating" Construction) with plastic outer sleeve (P).	CP09 (1)	AQFP

CIRCUIT 3	CAPACITOR SECTION GROUNDED TO CASE	MIL STYLE	ASTRON TYPE
UNINSULATED BODY DEDUCT 1/16″ FROM LENGTH OF UNITS LISTED	Basic unit — Grounded construction. Basic AQ unit with soldered-on tangential (A) bracket. Basic AQ unit with soldered-on L type bracket (B). Screw neck mounting type. Available in same ratings as AQ. Minimum case diameter is .400″. Stud base mounting type. Available in same ratings as AQ.	CP08 (3) — — — —	AQ AQ-A AQ-B AQS AQV
FOR INSULATED BODY ADD 1/16″ TO DIAMETER OF AQF SIZES LISTED	Grounded construction, with plastic outer sleeve (P).	CP09 (3)	AQP

TYPE AQF (50V)

SUBMINIATURE GLASS-TO-METAL SEALED TUBULARS

For Transistorized Applications

50 Volt Rating —

Extended Foil Construction

ASTRON
TYPE AQF

- SMALLER SIZE THAN LOWEST RATING AVAILABLE IN MIL-C-25C
- MEETS ELECTRICAL AND ENVIRONMENTAL REQUIREMENTS OF MIL-C-25C
- SUPPLIED TO COMPLY WITH CHARACTERISTICS E OR K OF MIL-C-25C
- CONTINUOUS OPERATION OVER TEMPERATURE RANGE OF −65°C. TO 125°C. WITHOUT DERATING
- EXCELLENT CAPACITANCE TEMPERATURE STABILITY

Designed to fill the need for a high quality capacitor for use primarily in transistor and other low voltage applications. These capacitors offer the outstanding advantage of smaller sizes without any loss in performance or electrical and physical characteristics in accordance with MIL-C-25C.

50 VOLTS DC WORKING

AQF-.5-027	.027	.235x¾
AQF-.5-068	.068	.312x⅞
AQF-.5-1	.1	.312x⅞
AQF-.5-27	.27	.400x1⅜
AQF-.5-47	.47	.500x1¼
AQF-.5-1M	1.0	.562x1⅝
AQF-.5-2M	2.0	.750x2⅛

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ASTRON CORPORATION

East Newark, New Jersey

Capacitors

TYPE TQF

MILITARY TYPE

CP04 CP10
CP05 CP11
MIL-C-25C

ASTRON
METEOR
TQF-6-033

Commercial Equivalent

TEMPERATURE CHARACTERISTICS E AND K

CIRCUIT 1

(Capacitor Section Insulated From Case)

100 VOLTS	Commercial Equivalent	Cap. Mfd.	Dia. x Length
AS-CP04A1-B333M	TQF-1-033	.033	.235 x ¾
AS-CP04A1-B104M	TQF-1-1	.1	.312 x ⅞
AS-CP04A1-B154M	TQF-1-15	.15	.400 x ⅞
AS-CP04A1-B224M	TQF-1-22	.22	.400 x 1⅛
AS-CP04A1-B334M	TQF-1-33	.33	.400 x 1⅜
AS-CP04A1-B474M	TQF-1-47	.47	.562 x 1⅛
AS-CP04A1-B684M	TQF-1-68	.68	.562 x 1⅜
AS-CP04A1-B105M	TQF-1-1M	1.0	.562 x 1⅞
200 VOLTS			
AS-CP04A1-C153M	TQF-2-015	.015	.235 x ¾
AS-CP04A1-C223M	TQF-2-022	.022	.235 x ¾
AS-CP04A1-C473M	TQF-2-047	.047	.312 x ⅞
AS-CP04A1-C683M	TQF-2-068	.068	.312 x ⅞
AS-CP04A1-C104M	TQF-2-1	.1	.400 x ⅞
AS-CP04A1-C154M	TQF-2-15	.15	.400 x 1⅛
AS-CP04A1-C224M	TQF-2-22	.22	.400 x 1⅜
AS-CP04A1-C334M	TQF-2-33	.33	.562 x 1⅛
AS-CP04A1-C474M	TQF-2-47	.47	.562 x 1⅜
AS-CP04A1-C684M	TQF-2-68	.68	.562 x 1⅞
AS-CP04A1-C105M	TQF-2-1M	1.0	.670 x 1⅞
400 VOLTS			
AS-CP04A1-E103M	TQF-4-01	.01	.235 x ¾
AS-CP04A1-E333M	TQF-4-033	.033	.312 x ⅞
AS-CP04A1-E473M	TQF-4-047	.047	.400 x ⅞
AS-CP04A1-E683M	TQF-4-068	.068	.400 x 1⅛
AS-CP04A1-E104M	TQF-4-1	.1	.400 x 1⅜
AS-CP04A1-E154M	TQF-4-15	.15	.562 x 1⅛
AS-CP04A1-E224M	TQF-4-22	.22	.562 x 1⅜
AS-CP04A1-E334M	TQF-4-33	.33	.562 x 1⅞
AS-CP04A1-E474M	TQF-4-47	.47	.670 x 1⅞
AS-CP04A1-E684M	TQF-4-68	.68	.750 x 2⅛
AS-CP04A1-E105M	TQF-4-1M	1.0M	1.000 x 1⅞
600 VOLTS			
AS-CP04A1-F102M	TQF-6-001	.001	.235 x ¾
AS-CP04A1-F152M	TQF-6-0015	.0015	.235 x ¾
AS-CP04A1-F222M	TQF-6-0022	.0022	.235 x ¾
AS-CP04A1-F332M	TQF-6-0033	.0033	.235 x ¾
AS-CP04A1-F472M	TQF-6-0047	.0047	.235 x ¾
AS-CP04A1-F682M	TQF-6-0068	.0068	.235 x ¾
AS-CP04A1-F103M	TQF-6-01	.01	.312 x ⅞
AS-CP04A1-F153M	TQF-6-015	.015	.312 x ⅞
AS-CP04A1-F223M	TQF-6-022	.022	.312 x ⅞
AS-CP04A1-F333M	TQF-6-033	.033	.400 x ⅞
AS-CP04A1-F473M	TQF-6-047	.047	.400 x 1⅛
AS-CP04A1-F683M	TQF-6-068	.068	.400 x 1⅜
AS-CP04A1-F104M	TQF-6-1	.1	.562 x 1⅛
AS-CP04A1-F154M	TQF-6-15	.15	.562 x 1⅜
AS-CP04A1-F224M	TQF-6-22	.22	.562 x 1⅞
AS-CP04A1-F334M	TQF-6-33	.33	.670 x 1⅞
AS-CP04A1-F474M	TQF-6-47	.47	.750 x 2⅛
AS-CP04A1-F684M	TQF-6-68	.68	1.000 x 1⅞
1000 VOLTS			
AS-CP04A1-G153M	TQF-10-015	.015	.400 x ⅞
AS-CP04A1-G223M	TQF-10-022	.022	.400 x 1⅛
AS-CP04A1-G333M	TQF-10-033	.033	.400 x 1⅜
AS-CP04A1-G473M	TQF-10-047	.047	.562 x 1⅛
AS-CP04A1-G683M	TQF-10-068	.068	.562 x 1⅜
AS-CP04A1-G104M	TQF-10-1	.1	.562 x 1⅝
AS-CP04A1-G154M	TQF-10-15	.15	.670 x 1⅝
AS-CP04A1-G224M	TQF-10-22	.22	.750 x 2⅛
AS-CP04A1-G334M	TQF-10-33	.33	.750 x 2⅝
AS-CP04A1-G474M	TQF-10-47	.47	1.000 x 2⅛

CP25 thru CP29 of MIL C-25C

ASTRON
ARMF 6-1
1MF 600 WVDC

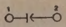
TYPE ARMF Oil Filled Metal Tubulars *85°C. Operation*

- Non-inductively wound. Mineral oil impregnated and filled. Hermetically sealed.
- Excellent capacitance stability and low power factor over entire temperature range −55°C. to +85°C.
- Units listed are internally insulated from case. Also available with capacitor section grounded to case (Type ARMG) and in accordance with all Specification MIL-C-25C styles CP25-26-27-28-29.
- Wire leads 1½" long. Standard capacitance tolerance ±20%.

Military Number	Astron Type	Cap. Mf.	Dia. x Length
200 VOLTS DC WORKING			
AS-CP25A1EC104M	ARMF-2-1	.1	⅝ x 1⅝
AS-CP25A1EC254M	ARMF-2-25	.25	¾ x 2⅛
AS-CP25A1EC504M	ARMF-2-5	.5	1 x 2⅛
600 VOLTS DC WORKING			
AS-CP25A1EF302M	ARMF-6-003	.003	7/16 x 1⅛
AS-CP25A1EF602M	ARMF-6-006	.006	7/16 x 1⅛
AS-CP25A1EF103M	ARMF-6-01	.01	7/16 x 1⅛
AS-CP25A1EF203M	ARMF-6-02	.02	7/16 x 1⅝
AS-CP25A1EF503M	ARMF-6-05	.05	⅝ x 1½
AS-CP25A1EF104M	ARMF-6-1	.1	⅝ x 1⅞
AS-CP25A1EF254M	ARMF-6-25	.25	1 x 2⅛
AS-CP25A1EF504M	ARMF-6-5	.5	1 x 2⅝
1000 VOLTS DC WORKING			
AS-CP25A1EG302M	ARMF-10-003	.003	⅝ x 1⅛
AS-CP25A1EG602M	ARMF-10-006	.006	⅝ x 1⅛
AS-CP25A1EG103M	ARMF-10-01	.01	⅝ x 1⅛
AS-CP25A1EG203M	ARMF-10-02	.02	⅝ x 1½
AS-CP25A1EG503M	ARMF-10-05	.05	¾ x 1⅝
AS-CP25A1EG104M	ARMF-10-1	.1	1 x 1⅞
AS-CP25A1EG254M	ARMF-10-25	.25	1 x 2⅝
1500 VOLTS DC WORKING			
AS-CP25A1EH302M	ARMF-15-003	.003	1 x 1¼
AS-CP25A1EH602M	ARMF-15-006	.006	1 x 1¼
AS-CP25A1EH103M	ARMF-15-01	.01	1 x 1¼
AS-CP25A1EH203M	ARMF-15-02	.02	1 x 1⅝
AS-CP25A1EH503M	ARMF-15-05	.05	1 x 1⅞
AS-CP25A1EH104M	ARMF-15-1	.1	1 x 2⅛

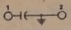
VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE

Circuit 1 

	ASTRON TYPE AND DESCRIPTION		MIL STYLE
UNINSULATED BODY (sizes shown in listings)	ARMF	—Basic type as listed.	CP25
	ARMF-Y	—with radial (Y) bracket. Example: ARMF-2-1Y.	CP27
	ARMF-A	—with tangential (A) soldered-on bracket. Example: ARMF-2-1A.	CP29
INSULATED BODY add 3/16" to length and 1/16" to dia.	ARMFP	—Basic with plastic sleeve (P). Example: ARMFP-2-1.	CP26
	ARMFP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: ARMFP-2-1Y.	CP28

CAPACITOR SECTION GROUNDED TO CASE

Circuit 3 

	ASTRON TYPE AND DESCRIPTION		MIL STYLE
UNINSULATED BODY deduct ⅛" from length in above listings	ARMG	—Basic grounded section type.	CP25
	ARMG-Y	—with radial (Y) bracket. Example: ARMG-2-1Y.	CP27
	ARMG-A	—with tangential (A) soldered-on bracket. Example: ARMG-2-1A.	CP29
INSULATED BODY add 1/16" to length and 1/16" to dia. in above listings	ARMGP	—Basic grounded section type with plastic sleeve (P).	CP26
	ARMGP-Y	—with plastic sleeve (P) and radial (Y) bracket. Example: ARMGP-2-1Y.	CP28

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ASTRON CORPORATION

East Newark, New Jersey

Capacitors

TYPE MQZF

Transistor Metallized Paper Capacitors

Catalog Number	WVDC	Cap. Mfd.	Dia. ±1/64" (Inches) D	Length ±1/32" (Inches) L
MQZF .5-047	50	.047	.195	11/16
MQZF .5-068	50	.068	.195	13/16
MQZF .5-1	50	.1	.235	11/16
MQZF .5-15	50	.15	.235	13/16
MQZF .5-22	50	.22	.235	1
MQZF .5-33	50	.33	.312	1
MQZF .5-47	50	.47	.312	1
MQZF .5-68	50	.68	.400	1
MQZF .5-1M	50	1.0	.400	1
MQZF .5-1.5M	50	1.5	.500	1-1/8
MQZF .5-2M	50	2.0	.562	1-1/8
MQZF .5-4M	50	4.0	.670	1-11/32
MQZF .5-6M	50	6.0	.670	1-15/16
MQZF .5-8M	50	8.0	.750	1-15/16

NOTE:

1. Standard MQZF is supplied in "floating" construction.
2. Grounded construction is available upon request. Specify Type MQZ. Subtract 1/16" from length of sizes listed.
3. For plastic insulating outer sleeve (P) specify MQZFP or MQZP.
   - (A) For floating type add 1/16" to diameter and length of sizes listed.
   - (B) For grounded units add 1/16" to diameter of sizes listed.
4. Standard tolerance of Type MQZF is ±20%; special tolerances of ±10% and ±5% available upon request. Specify by adding tolerance numerals to part number. Example: MQZF-.5-1M-10.

METALITE® TYPE MRF

Metal Cased Tubulars

85°C. Operation

ASTRON
METALITE
M-R-F-1.5-10.M
10.0 MF-150 WVDC

- Temperature Range −65°C. to +85°C.
- Mineral wax impregnated and filled.
- Hermetically sealed. Neoprene-phenolic end discs.
- Type MRF supplied with capacitor section insulated from case. Also available with section grounded to case (Type MRG).
- Lead length 1¾" minimum.
- Standard capacitance tolerance: ±20%.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE CIRCUIT 1	
TYPE AND DESCRIPTION	
UNINSULATED BODY Sizes shown in listings	MRF — Basic type as listed. MRF-Y — with radial (Y) bracket. MRF-A — with tangential (A) soldered-on bracket.
INSULATED BODY Add 3/16" to length and 1/16" to dia.	MRFP — Basic type, with plastic sleeve (P). MRFP-Y — with plastic sleeve (P) and radial (Y) bracket.
CAPACITOR SECTION GROUNDED TO CASE CIRCUIT 3	
TYPE AND DESCRIPTION	
UNINSULATED BODY deduct 3/32" from length shown in listings	MRG — Basic grounded section unit. MRG-Y — with radial (Y) bracket. MRG-A — with tangential (A) soldered-on bracket.
INSULATED BODY add 3/32" to length and 1/16" to dia. shown in listings	MRGP — Basic grounded section type with plastic sleeve (P). MRGP-Y — with plastic sleeve (P) and radial (Y) bracket.

Cat. No.	Cap. Mf.	Dia. x Length
150 VOLTS DC WORKING		
MRF-1.5-4M	4.0	1 x1 15/16
MRF-1.5-6M	6.0	1 x1 15/16
MRF-1.5-8M	8.0	1⅛x1 15/16
MRF-1.5-10M	10.0	1¼x1 15/16
200 VOLTS DC WORKING		
MRF-2-05	.05	⅜x ⅞
MRF-2-1	.1	7/16x ⅞
MRF-2-25	.25	½x ⅞
MRF-2-5	.5	½x1⅜
MRF-2-1M	1.0	.670x1⅜
MRF-2-2M	2.0	.670x1⅞
400 VOLTS DC WORKING		
MRF-4-03	.03	⅜x ⅞
MRF-4-05	.05	½x ⅞
MRF-4-1	.1	½x1⅜
MRF-4-25	.25	.670x1⅜
MRF-4-5	.5	.670x1⅞
MRF-4-1M	1.0	¾x2⅜
MRF-4-2M	2.0	1 x2 7/16
MRF-4-3M	3.0	1⅛x2 7/16
MRF-4-4M	4.0	1¼x2 7/16
600 VOLTS DC WORKING		
MRF-6-01	.01	⅜x ⅞
MRF-6-02	.02	7/16x ⅞
MRF-6-03	.03	7/16x ⅞
MRF-6-05	.05	½x ⅞
MRF-6-1	.1	½x1⅜
MRF-6-2	.2	.670x1⅜
MRF-6-25	.25	.670x1⅜
MRF-6-5	.5	.670x1⅞
MRF-6-1M	1.0	¾x2⅜
MRF-6-2M	2.0	1⅛x2 7/16
MRF-6-3M	3.0	1¼x2 7/16

Standard capacitance tolerance: ±20%
Other tolerances are available.

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ASTRON CORPORATION

East Newark, New Jersey

Capacitors

ETALITE® HY-MET* TYPE MQLF

5°C. Operation

ASTRON
HY-MET
MQL-1.5-6M

ass-to-Metal Sealed SUBMINIATURE TUBULARS

- Smallest paper capacitors available for the given ratings.
- Solid thermosetting impregnant. Temperature Range: −65°C. to +125°C.
- Tinned, non-ferrous metal cases. Hermetically sealed.
- Non-inductively wound. Capacitor section grounded to case, glass-to-metal seal terminal at one end. Available also with section insulated from case with glass-to-metal terminal at each end (Type MQLF).

150 VOLTS DC WORKING

Cat. No.	Cap Mf.	Dia. x Length
QLF-1.5-4M	4.0	1 x 1 13/16
QLF-1.5-6M	6.0	1 x 1 13/16
QLF-1.5-8M	8.0	1 x 2 5/16

200 VOLTS DC WORKING

Cat. No.	Cap Mf.	Dia. x Length
QLF-2-01	.01	.235 x 13/16
QLF-2-022	.022	.235 x 13/16
QLF-2-033	.033	.235 x 13/16
QLF-2-047	.047	.235 x 13/16
QLF-2-05	.05	.235 x 13/16
QLF-2-068	.068	.312 x 13/16
QLF-2-1	.1	.312 x 13/16
QLF-2-15	.15	.312 x 1⅛
QLF-2-22	.22	.312 x 1⅛
QLF-2-25	.25	.312 x 1⅛
QLF-2-33	.33	.400 x 1⅛
QLF-2-47	.47	.400 x 1⅛
QLF-2-5	.5	.400 x 1⅛
QLF-2-68	.68	.500 x 1⅛
QLF-2-1M	1.0	.562 x 1⅛
QLF-2-2M	2.0	.562 x 1 13/16

400 VOLTS DC WORKING

Cat. No.	Cap Mf.	Dia. x Length
QLF-4-01	.01	.235 x 13/16
QLF-4-022	.022	.235 x 13/16
QLF-4-033	.033	.312 x 13/16
QLF-4-047	.047	.312 x 1⅛
QLF-4-05	.05	.312 x 1⅛
MQLF-4-068	.068	.400 x 1⅛
MQLF-4-1	.1	.400 x 1⅛
MQLF-4-22	.22	.500 x 1⅛
MQLF-4-25	.25	.500 x 1⅛
MQLF-4-33	.33	.562 x 1 5/16
MQLF-4-47	.47	.562 x 1 13/16
MQLF-4-5	.5	.562 x 1 13/16
MQLF-4-68	.68	.670 x 1 13/16
MQLF-4-1M	1.0	.670 x 2 5/16
MQLF-4-2M	2.0	1 x 2 5/16

600 VOLTS DC WORKING

Cat. No.	Cap Mf.	Dia. x Length
MQLF-6-01	.01	.235 x 13/16
MQLF-6-022	.022	.312 x 13/16
MQLF-6-033	.033	.400 x 13/16
MQLF-6-047	.047	.400 x 13/16
MQLF-6-05	.05	.400 x 13/16
MQLF-6-068	.068	.400 x 1⅛
MQLF-6-1	.1	.400 x 1⅛
MQLF-6-15	.15	.500 x 1⅛
MQLF-6-22	.22	.562 x 1 5/16
MQLF-6-25	.25	.562 x 1 5/16
MQLF-6-33	.33	.562 x 1 13/16
MQLF-6-47	.47	.670 x 1 13/16
MQLF-6-5	.5	.670 x 1 13/16
MQLF-6-68	.68	.670 x 2 5/16
MQLF-6-1M	1.0	.750 x 2 5/16
MQLF-6-2M	2.0	1 x 2 5/16

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

VARIATIONS AVAILABLE

CAPACITOR SECTION INSULATED FROM CASE

Glass-to-Metal Terminal at both ends Circuit 1

TYPE AND DESCRIPTION

UNINSULATED BODY	MQLF	— Basic internally insulated unit as listed.
	MQLF-A	— with tangential (A) soldered-on bracket. Example: MQLF-2-1-A.
	MQLF-B	— with L-type (B) soldered-on bracket. Example: MQLF-2-1-B.
	MQLFS	— screw neck vertical-mounting type. Same ratings as MQL. Minimum diameter .400". Example: MQLFS-2-1.
INSULATED BODY Add 1/16" to dia. and length of MQLF sizes listed	MQLFP	— Basic internally insulated unit with plastic outer sleeve (P). Example: MQLFP-2-1.

CAPACITOR SECTION GROUNDED TO CASE

Glass-to-Metal Terminal at one end Circuit 3

TYPE AND DESCRIPTION

UNINSULATED BODY Sizes shown in listings Deduct 1/16" from length of MQLF sizes listed	MQL	— Basic type.
	MQL-A	— with tangential (A) soldered-on bracket. Example: MQL-2-1-A.
	MQL-B	— with L-type (B) soldered-on bracket. Example: MQL-2-1-B.
	MQLS	— screw neck vertical-mounting type. Same ratings as Type MQL. Minimum diameter .400". Example: MQLS-2-1.
	MQLV	— Stud base vertical-mounting type. Same ratings and size as type MQL. Example: MQLV-2-1.
INSULATED BODY Add 1/16" to dia. of MQLF sizes listed	MQLP	— Basic grounded construction as listed, with plastic outer sleeve (P). Example: MQLP-2-1.

METALITE® HY-MET* TYPE MLL

Cardboard Tubulars

ASTRON
HY-MET
MLL-2-2M

- Sturdy cardboard cased units. Temperature Range −55° to +100°C. Solid thermosetting impregnant.
- Exceptional stength. Metal end caps. Units can be point-to-point connected and supported by own leads. Leads 1½" minimum length.
- Overall mineral wax coat provides added protection against moisture and humidity.
- Standard capacitance tolerance: −20% +30%.

200 VOLTS DC WORKING

Cat. No.	Cap. Mf.	Dia. x Length	Cat. No.	Cap. Mf.	Dia. x Length	Cat. No.	Cap. Mf.	Dia. x Length
MLL-2-01	.01	⅜ x ⅝	MLL-2-05	.05	⅜ x ⅝	MLL-2-5	.5	15/32 x 1⅛
MLL-2-02	.02	⅜ x ⅝	MLL-2-1	.1	⅜ x ⅝	MLL-2-1M	1.0	9/16 x 1⅛
MLL-2-03	.03	⅜ x ⅝	MLL-2-25	.25	15/32 x ⅝	MLL-2-2M	2.0	⅝ x 1⅝

400 VOLTS DC WORKING

MLL-4-01	.01	⅜ x ⅝	MLL-4-05	.05	15/32 x ⅝	MLL-4-5	.5	⅝ x 1⅝
MLL-4-02	.02	⅜ x ⅝	MLL-4-1	.1	15/32 x 1⅛	MLL-4-1M	1.0	23/32 x 2⅛
MLL-4-03	.03	⅜ x ⅝	MLL-4-25	.25	9/16 x 1⅛			

600 VOLTS D WORKING

MLL-6-01	.01	⅜ x ⅝	MLL-6-05	.05	15/32 x ⅝	MLL-6-5	.5	23/32 x 1⅝
MLL-6-02	.02	⅜ x ⅝	MLL-6-1	.1	15/32 x 1⅛	MLL-6-1M	1.0	23/32 x 2⅛
MLL-6-03	.03	15/32 x ⅝	MLL-6-25	.25	⅝ x 1⅛			

CAPACITANCE TOLERANCE: −20% +30%

*Trade Mark

ASTRON CORPORATION
East Newark, New Jersey

Capacitors

METALLIZED MYLAR* CAPACITORS

ASTRON
RLR 2-1M

ASTRON TYPE RLR metallized Mylar* capacitors provide reliable operation even under adverse conditions in spite of their smaller size and lower cost.

Type RLR is an uncased unit, with a tough, protective Mylar* wrap and epoxy end seal . . . ideal for potted assembly, military and commercial applications.

WVDC	Catalog Number	Mfd. Cap.	Dia. x Lgth.
200	RLR 2-01	.01	.155″ x ⅝″
	RLR 2-012	.012	.165″ x ⅝″
	RLR 2-015	.015	.180″ x ⅝″
	RLR 2-018	.018	.190″ x ⅝″
	RLR 2-022	.022	.205″ x ⅝″
	RLR 2-027	.027	.220″ x ⅝″
	RLR 2-047	.047	.200″ x ¾″
	RLR 2-068	.068	.220″ x ¾″
	RLR 2-1	.1	.255″ x ¾″
	RLR 2-15	.15	.227″ x 1⅛″
	RLR 2-22	.22	.262″ x 1⅛″
	RLR 2-33	.33	.305″ x 1⅛″
	RLR 2-47	.47	.355″ x 1⅛″
	RLR 2-56	.56	.380″ x 1⅛″
	RLR 2-68	.68	.415″ x 1⅛″
	RLR 2-1M	1.0	.490″ x 1⅛″
	RLR 2-1.5M	1.5	.470″ x 1⅝″
	RLR 2-2M	2.0	.535″ x 1⅝″
	RLR 2-3M	3.0	.595″ x 1⅞″
	RLR 2-6M	6.0	.825″ x 1⅞″

Cap. Tolerance ±20%.

* Reg. DuPont Trade Mark

FLAT MINIATURE MYLAR* DIELECTRIC CAPACITORS

ASTRON
XPF 1.5-1M

Cat. No.	Cap. Mds.	L	T	W
XPF-1.5-01	.01	¾″	5/32″	9/32″
XPF-1.5-015	.015	¾″	3/16″	5/16″
XPF-1.5-022	.022	¾″	¼″	⅜″
XPF-1.5-033	.033	¾″	7/32″	11/32″
XPF-1.5-047	.047	¾″	¼″	⅜″
XPF-1.5-068	.068	⅞″	7/32″	⅜″
XPF-1.5-082	.082	⅞″	¼″	13/32″

Cat. No.	Cap. Mds.	L	T	W
XPF-1.5-1	.1	⅞″	9/32″	7/16″
XPF-1.5-15	.15	1″	5/16″	7/16″
XPF-1.5-22	.22	1¼″	9/32″	15/32″
XPF-1.5-33	.33	1¼″	⅜″	17/32″
XPF-1.5-47	.47	1⅜″	13/32″	9/16″
XPF-1.5-68	.68	1⅝″	7/16″	19/32″
XPF-1.5-82	.82	1⅝″	15/32″	⅝″
XPF-1.5-1M	1.0M	1⅞″	15/32″	⅝″

Standard Tolerance ±20%.

* Reg. DuPont Trade Mark

ROUND MINIATURE MYLAR* DIELECTRIC CAPACITORS

ASTRON
XPR 1.5 1M

Cat. No.	Cap. Mfds.	L	Dia.
XPR-1.5-01	.01	¾″	.230
XPR-1.5-015	.015	¾″	.270
XPR-1.5-022	.022	¾″	.310
XPR-1.5-033	.033	¾″	.280
XPR-1.5-047	.047	¾″	.330
XPR-1.5-068	.068	⅞″	.320
XPR-1.5-082	.082	⅞″	.350

Cat. No.	Cap. Mfds.	L	Dia.
XPR-1.5-1	.1	⅞″	.380
XPR-1.5-15	.15	1″	.390
XPR-1.5-22	.22	1¼″	.390
XPR-1.5-33	.33	1¼″	.460
XPR-1.5-47	.47	1⅜″	.500
XPR-1.5-68	.68	1⅝″	.530
XPR-1.5-82	.82	1⅝″	.580
XPR-1.5-1M	1.0	1⅞″	.580

Standard Tolerance ±20%.

* Reg. DuPont Trade Mark

METALITE® TYPE MXJ
in Terneplate Cases
85°C. Operation

ASTRON
MXJ-4-4M
4.0 MF
400 WVDC

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
600 VOLTS DC WORKING			
MXJ-6-1M	1.0	1¾x1 x1⅝	2
MXJ-6-2M	2.0	1¾x1 x2⅜	2
MXJ-6-4M	4.0	1¾x1 x3⅞	2
MXJ-6-6M	6.0	1¾x1 x4¾	2
MXJ-6-8M	8.0	2½x1 3/16x3⅞	2¾
MXJ-6-10M	10.0	2½x1 3/16x4¾	2¾
MXJ-6-15M	15.0	3¾x1¼x4¾	4
MXJ-6-20M	20.0	3¾x1¾x4¼	4

STANDARD CAPACITANCE TOLERANCE: ±20%. Other tolerances are available.

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
100 VOLTS DC WORKING			
MXJ-1-100M	100.0	3¾x1¾x4 13/16	4

Cat. No.	Cap. Mf.	L. x W. x H.	Mtg. Ctr.
150 VOLTS DC WORKING			
MXJ-1.5-4M	4.0	1¾x1 x1⅝	2
MXJ-1.5-10M	10.0	1¾x1 x2⅝	2
MXJ-1.5-12M	12.0	1¾x1 x2⅞	2
MXJ-1.5-15M	15.0	1¾x1 x3⅜	2
MXJ-1.5-20M	20.0	1¾x1 x4⅜	2
MXJ-1.5-25M	25.0	2½x1 3/16x3	2¾
MXJ-1.5-30M	30.0	2½x1 3/16x3⅞	2¾
MXJ-1.5-50M	50.0	2½x1 3/16x4¾	2¾
400 VOLTS DC WORKING			
MXJ-4-2M	2.0	1¾x1 x2⅛	2
MXJ-4-4M	4.0	1¾x1 x2⅞	2
MXJ-4-6M	6.0	1¾x1 x3⅞	2
MXJ-4-8M	8.0	1¾x1 x4¾	2
MXJ-4-10M	10.0	2½x1 3/16x3⅞	2¾
MXJ-4-20M	20.0	2½x1 3/16x4¾	2¾
MXJ-4-30M	30.0	3¾x1¼x4¾	4

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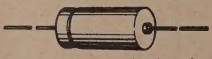
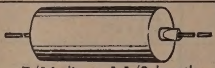
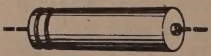
The Radio-Electronic MASTER

Barco, Inc. MILWAUKEE 1, WISCONSIN

Ultra Miniature 'Lectrolytics

	CATALOG NO.	CAPACITY −20 + 60%	WORKING VOLTAGE	LIST PRICE	BODY SIZE (Illustrations 3/4 Actual) Tolerances: dia. + 1/64, Length + 1/32 Leads: 1⅛ in. Minimum
	FOR OPERATING TEMPERATURES UP TO 70° C.				
TYPE 0	*P3-2I	2 mfd.	3 v dc	.85	 1/8 dia. x 7/16 length
	*P6-1	1 mfd.	6 v dc	.85	
	P6-1.5	1.5 mfd.	6 v dc	.85	
	P6-3	3 mfd.	6 v dc	$1.00	
	P10-2	2 mfd.	10 v dc	$1.00	
	*P16-1.25	1.25 mfd.	16 v dc	$1.00	
	*P25-.8I	0.8 mfd.	25 v dc	$1.00	
	P40-.5I	0.5 mfd.	40 v dc	$1.00	
	P70-.3I	0.3 mfd.	70 v dc	$1.00	
TYPE ½	*PT4-4	4 mfd.	4 v dc	.85	 1/8 dia. x 5/8 length
	*PT8-2	2 mfd.	8 v dc	$1.00	
TYPE ¾	*PC4-25	25 mfd.	4 v dc	.85	 11/64 dia. x 7/16 length
	*PX6-8I	8 mfd.	6 v dc	.85	
	*P15-5I	5 mfd.	15 v dc	.85	
	*P16-10I	10 mfd.	16 v dc	.85	
	*PX25-2.5I	2.5 mfd.	25 v dc	.85	
	PX25-6	6 mfd.	25 v dc	.85	
	PC40-3	3 mfd.	40 v dc	.85	
	*P70-1I	1 mfd.	70 v dc	.85	
TYPE I-IA	*PT6-2	2 mfd.	6 v dc	.70	 11/64 dia. x 9/16 length ① ① Body size 11/64 x 3/4
	PT6-4	4 mfd.	6 v dc	.70	
	PT12/25-2	2 mfd.	12/25 v dc	.70	
	*P25-2.5	2.5 mfd.	25 v dc	.70	
TYPE II	PT3-32_I_	32 mfd.	3 v dc	.75	 1/4 dia. x 11/16 length
	*P3-40I	40 mfd.	3 v dc	.75	
	PC4-100††	100 mfd.	4 v dc	.85	
	*P6-25I	25 mfd.	6 v dc	.75	
	PC6-80I††	80 mfd.	6 v dc	.85	
	*P12-16I	16 mfd.	12 v dc	.75	
	PC16-40I††	40 mfd.	16 v dc	.85	
	PC25-25I††	25 mfd.	25 v dc	.85	
	*P70-4	4 mfd.	70 v dc	.75	
TYPE III	PC6-200††	200 mfd.	6 v dc	$1.00	 23/64 dia. x 11/16 length
	*P12-50I	50 mfd.	12 v dc	$1.00	
	PC40-30ıı†	30 mfd.	40 v dc	$1.00	
	*P70-10I	10 mfd.	70 v dc	$1.00	
TYPE IV	PC4-500	500 mfd.	4 v dc	$1.35	 ② 23/64 dia. x 1-3/16 length ② Body size 19/32 dia. x 1-9/32
	PC6-400	400 mfd.	6 v dc	$1.35	
	P10-320I	320 mfd.	10 v dc	$1.25	
	P12-100I	100 mfd.	12 v dc	$1.25	
	P25-125I	125 mfd.	25 v dc	$1.25	
	PC40-64I	64 mfd.	40 v dc	$1.35	
	P70-20I	20 mfd.	70 v dc	$1.25	
TYPE V	PT3-500I	500 mfd.	3 v dc	$1.25	④  (4a) 7/16 dia. x 1-1/8 length ④ Body size 7/16 x 1-3/8 ((4a) 1-5/8)
	PT50-25_I_	25 mfd.	50 v dc	$1.25	
	PT150-8_I_	8 mfd.	150 v dc	$1.25	
	PT150-20_I_	20 mfd.	150 v dc	$1.25	
	FOR OPERATING TEMPERATURES UP TO 85° C.				
TYPE IIA	PCH10-25	25 mfd.	10 v dc	.75	 1/4 dia. x 11/16 length
	PCH25-10I	10 mfd.	25 v dc	.75	
	PCH40-6I	6 mfd.	40 v dc	.75	
TYPE IIIA	PCH40-16	16 mfd.	40 v dc	$1.00	 23/64 dia. x 11/16 length
TYPE IV A	PCH6-160	160 mfd.	6 v dc	$1.25	 23/64 dia. x 1-3/16 length
	PCH25-50I	50 mfd.	25 v dc	$1.25	

* Indicates fastest selling items which should be stocked heavily.
I Designates insulated covering available; add I to catalog number if desired (_I_ insulated only.)
†† New, super-small, dimensions for these capacity-voltage ratings.

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Centralab.

Ceramic Capacitors

TYPES DD30 AND DD60 3000-6000 VOLT DISC HI-KAPS®

CRL
.002 20%
3KVDC
CRL
15 20%
6KVDC

All these units are highly efficient for bypass-coupling in high frequency circuits under conditions of extreme humidity or temperature. Maintain high capacity and performance at 85° C. All units have a tolerance of ±20%.

CRL Type DD30—3000 v. DC working, 6000 v. DC test; 7/32" thick. Values through 820 μμf. Net Each **24c**
CRL Type DD30—Values 1000 μμf through 5000 μμf. Net Ea. **30c**
CRL Type DD60—6000 v. DC working, 12,000 v. DC test; 21/64" thick. Values through 820 μμf. Net Each **36c**
CRL Type DD60—Values 1000 μμf and up. Net Each **60c**

Cap. μμf	CRL No. DD30-	Dia. In.	CRL No. DD60-	Dia. In.	Cap. μμf	CRL No. DD30-	Dia. In.	CRL No. DD60-	Dia. In.
4.7	**4R7**	1/4	**4R7**	9/16	300	**301**	1/4	**301**	9/16
10	**100**	1/4	**100**	9/16	330	**331**	1/4	**331**	9/16
15	**150**	1/4	**150**	9/16	390	**391**	1/4	**391**	9/16
22	**220**	1/4	. . . . . .	. . . .	400	**401**	1/4	. . . . . .	. . . .
25	**250**	1/4	. . . . . .	. . . .	470	**471**	3/8	**471**	9/16
30	**300**	1/4	**300**	9/16	500	**501**	3/8	**501**	9/16
33	**330**	1/4	**330**	9/16	560	**561**	3/8	**561**	9/16
39	**390**	1/4	**390**	9/16	680	**681**	3/8	**681**	9/16
47	**470**	1/4	**470**	9/16	750	**751**	3/8	**751**	9/16
50	**500**	1/4	**500**	9/16	820	**821**	3/8	**821**	9/16
56	**560**	1/4	**560**	9/16	1000	**102**	9/16	**102**	3/4
68	**680**	1/4	**680**	9/16	1200	**122**	9/16	**122**	3/4
75	**750**	1/4	**750**	9/16	1500	**152**	9/16	**152**	3/4
82	**820**	1/4	**820**	9/16	2000	**202**	5/8	**202**	7/8
100	**101**	1/4	**101**	9/16	2200	**222**	5/8	**222**	7/8
120	**121**	1/4	**121**	9/16	2500	**252**	5/8		
150	**151**	1/4	**151**	9/16	2700	**272**	5/8		
180	**181**	1/4	**181**	9/16	3000	**302**	3/4		
200	**201**	1/4	**201**	9/16	3300	**332**	7/8		
220	**221**	1/4	**221**	9/16	3900	**392**	7/8		
250	**251**	1/4	**251**	9/16	4700	**472**	7/8		
270	**271**	1/4	**271**	9/16	5000	**502**	7/8		

TYPE DD2 DUO-KAPS®

Single disc, dual capacity. Double Durez insulation. Rated 600 v. DC, working; 1200 v. DC, test.

Cap., μf	CRL No.	Tolerance	Dia.	Thick.	Net Each
2 x .001	**DD2-102**	GMV	3/8"	5/32"	**24c**
2 x .0015	**DD2-152**	GMV	9/16"	5/32"	**24c**
2 x .005	**DD2-502**	−20% +80%	5/8"	5/32"	**36c**

TYPE DD3 SHIELDED DUO-KAPS®

Three leads—two capacitors in the space formerly needed for one. Shielded to minimize stray capacities between discs. Rated 600 v. DC, working; 1200 v. DC, test.

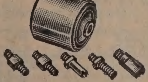
2 x .001	**DD3-102**	GMV	3/8"	7/32"	**30c**
2 x .0015	**DD3-152**	GMV	3/8"	7/32"	**30c**
2 x .002	**DD3-202**	GMV	9/16"	7/32"	**30c**
2 x .005	**DD3-502**	GMV	9/16"	7/32"	**30c**
2 x .01	**DD3-103**	GMV	5/8"	7/32"	**30c**

TYPE DD16 HI-KAP® BUFFERS

Compact, easy to install. Long life, low cost. Able to withstand high heat, moisture, and vibration. Size: All 7/8" dia., 11/64" thk. except DD16-153, 1/4" thk. Tolerance on all except DD16-153, GMV; DD16-153, −20% +80%. 1600 v. DC, working.

Cap., μf	CRL No.	Net Ea.	Cap., μf	CRL No.	Net Ea.
.003	**DD16-302**	**27c**	.0075	**DD16-752**	**27c**
.004	**DD16-402**	**27c**	.008	**DD16-802**	**27c**
.005	**DD16-502**	**27c**	.01	**DD16-103**	**27c**
.006	**DD16-602**	**27c**	.015	**DD16-153**	**48c**
.007	**DD16-702**	**27c**			

ATTACHABLE TERMINAL HI-VO-KAPS®



TYPE TV-20—20,000 v. DC working ceramic capacitors; 35,000 v. DC test. Capacity 500 μμf. Terminals will not pull out or break off. Fivedifferent type terminals available as listed below.
Type TV-20 Capacitor— Net Each **$1.11**

ATTACHABLE TERMINALS

CRL Type TX—Net Each **6c**

CRL No.	Type	Thread	CRL No.	Type	Thread
TX-1	Slotted Rod	. . . .	**TX-4**	Short Male	8-32
TX-2	Female Tap	6-32	**TX-5**	Long Male	8-32
TX-3	Male Thread	6-32			

HI-VO-KAP KITS®

CRL Type TV-207—One TV-20 capacitor with 7 attachable terminals. Net Each **$1.35**

CRL Type TVK-5-50—Five TV-20 capacitors with 10 each terminals in plastic box. Net Each **$6.75**

FIXED TERMINAL HI-VO-KAPS®

Similar to TV-20, with fixed terminals. Rated 30 kv working, 45 kv test. TV1-503: 2-rod type. TV8-503: Two 8-32 male terminals.
CRL Type TV1-503 or TV8-503— Net Each **$1.98**

TYPE DD 1000 VDCW DISC HI-KAPS®

Rated 1000 VDCW (Nos. DD6-103, DD-153, DD-203, DD-303, DD-403 and DD-503 are 600 VDCW). Tol. ±10%, except noted.
Net Each: 3.3 μμf thru 8200 μμf **15c**
Net Each: 10,000, 15,000, 20,000 μμf **24c**
Net Each: 30,000, 40,000, 50,000 μμf **45c**

Cap. μμf	No. DD-	Dia. In.	Cap. μμf	No. DD-	Dia. In.	Cap. μμf	No. DD-	Dia. In.	Cap. μμf	No. DD-	Dia. In.
3.3*	**3R3**	1/4	68	**680**	1/4	500	**501**	1/4	3000†	**302**	3/8
5	**050**	1/4	75	**750**	1/4	510	**511**	1/4	3300†	**332**	9/16
6	**060**	1/4	82	**820**	1/4	560	**561**	1/4	3900†	**392**	9/16
6.8	**6R8**	1/4	91	**910**	1/4	600	**601**	1/4	4000†	**402**	9/16
7.5	**7R5**	1/4	100	**101**	1/4	680	**681**	1/4	4300†	**432**	9/16
8	**080**	1/4	120	**121**	1/4	750	**751**	1/4	4700‡	**472**	9/16
10	**100**	1/4	130	**131**	1/4	800†	**801**	1/4	4700†	**472G**	9/16
12	**120**	1/4	150	**151**	1/4	820	**821**	1/4	5000‡	**5022**	9/16
15	**150**	1/4	180	**181**	1/4	910	**911**	1/4	5000†	**502**	5/8
18	**180**	1/4	200	**201**	1/4	1000	**102**	3/8	5600†	**562**	9/16
20	**200**	1/4	220	**221**	1/4	1000†	**102G**	1/4	6800†	**682**	9/16
22	**220**	1/4	240	**241**	1/4	1200	**122**	3/8	7500†	**752**	9/16
24	**240**	1/4	250	**251**	1/4	1200†	**122G**	1/4	8200†	**822**	5/8
25	**250**	1/4	270	**271**	1/4	1300	**132**	3/8	10,000†	**6-103**	5/8
27	**270**	1/4	300	**301**	1/4	1500	**152**	3/8	10,000‡	**1032**	3/4
30	**300**	1/4	330	**331**	1/4	1500†	**152G**	1/4	10,000†	**103**	3/4
33	**330**	1/4	350	**351**	1/4	1600	**162**	3/8	15,000§	**153**	7/8
39	**390**	1/4	360	**361**	1/4	1800	**182**	3/8	20,000§	**203**	7/8
47	**470**	1/4	390	**391**	1/4	2000†	**202**	3/8	30,000§	**303**	7/8
50	**500**	1/4	400	**401**	1/4	2200†	**222**	3/8	40,000§	**403**	7/8
51	**510**	1/4	470	**471**	1/4	2500†	**252**	3/8	50,000§	**503**	7/8
56	**560**	1/4	470†	**471G**	1/4	2700†	**272**	3/8			

Tolerance: *±0.5 μμf. †GMV. ‡±20%. §+80, −20%.

TYPE DF FLAT-PLATE HI-KAPS®

Replacement ceramic capacitors, 600 VDCW, 1200 VDCT. **Size:** 1 7/16" l. x 1 1/16" h. **Thickness:** DF-503, 7/32"; DF-104, 19/64". .05 μf, **DF-503** Net Ea. . . . . **75c**; .1 μf, **DF-104** Net Ea. **$1.05**

MIL-C-11015 B GENERAL PURPOSE DISC HI-KAPS® (500 VDCW)

Net Each: 2.2–680 μμf, **21c**; 820–1500 μμf, **27c**; 2200 μμf ("AX"), **27c**; 2200 μμf ("BX"), **30c**; 3300 μμf, **30c**

Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation	Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation	Cap., μμf (PF)	CRL No. & MIL-C-11015B Designation
2.2*	**CK60BV2R2 K**	220*	**CK60AX221 K**	820†	**CK62BX821M**
3.3*	**CK60BV3R3 K**	220†	**CK60AX221M**	1000*	**CK62BX102 K**
4.7*	**CK60BV4R7 K**	330*	**CK60AX331 K**	1000†	**CK62BX102M**
6.8*	**CK60BV6R8 K**	330†	**CK60AX331M**	1500*	**CK62BX152 K**
10*	**CK60BV100K**	330*	**CK61BX331K**	1500†	**CK62BX152M**
15*	**CK60BV150K**	330†	**CK61BX331M**	2200*	**CK62AX222 K**
22*	**CK60BV220K**	470*	**CK60AX471 K**	2200†	**CK62AX222M**
33*	**CK60BX330 K**	470†	**CK60AX471M**	2200*	**CK63BX222 K**
33†	**CK60BX330M**	470*	**CK61BX471 K**	2200†	**CK63BX222M**
47*	**CK60BX470M**	470†	**CK61BX471M**	3300*	**CK63BX332 K**
47†	**CK60BX470M**	680*	**CK61BX681 K**	3300†	**CK63BX332M**
150*	**CK60BX151 K**	680†	**CK61BX681M**		
150†	**CK60BX151M**	820*	**CK62BX821 K**		

Tolerances: *±10%; †±20%.

NOTE: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

TYPES CE, CF TEMP. STABLE DISC HI-KAPS®

Net Ea.: 150–1800 μμf, **18c**; 2000–6200 μμf, **21c**; 8200 μμf & up, **24c**

Temperature Stable "K"						Temp. Semi-Stable "K"					
μμf	CE-	μμf	CE-	μμf	CE-	μμf	CF-	μμf	CF-	μμf	CF-
150	**151**	500	**501**	800	**801**	1200	**122**	2200	**222**	5000	**502**
220	**221**	560	**561**	1000	**102**	1500	**152**	3300	**332**	6200	**622**
330	**331**	680	**681**			1800	**182**	3900	**392**	8200	**822**
470	**471**	750	**751**			2000	**202**	4700	**472**	10K	**103**

TYPE CPR POLYSTYRENE CAPACITORS

Highly reliable sealed polystyrene foil capacitors. Ideal direct replacements for micas and mylars in TV and radio. Tol., ±5%. **Size:** 20–250 μμf, .394" l. x .157–.276" dia.; 251–3000 μμf, .591" l. x .197–.413" dia.; 3001–10,000 μμf, .787" l. x .335–.531" dia. **Number indicates capacitance in μμf (PF).**
Net Each: 20–1000 μμf, **15c**; 1100–3000 μμf, **18c**; 3300 μμf & up **21c.**

CRL No.	CRL No.	CRL No.	CRL No.	CRL No.	CRL No.
CPR-20J	**CPR-75J**	**CPR-270J**	**CPR-910J**	**CPR-3000J**	**CPR9100J**
CPR-22J	**CPR-82J**	**CPR-300J**	**CPR-1000J**	**CPR-3300J**	**CPR10000J**
CPR-24J	**CPR-91J**	**CPR-330J**	**CPR-1100J**	**CPR-3600J**	
CPR-27J	**CPR-100J**	**CPR-360J**	**CPR-1200J**	**CPR-3900J**	
CPR-30J	**CPR-110J**	**CPR-390J**	**CPR-1300J**	**CPR-4300J**	
CPR-33J	**CPR-120J**	**CPR-430J**	**CPR-1500J**	**CPR-4700J**	
CPR-36J	**CPR-130J**	**CPR-470J**	**CPR-1600J**	**CPR-5000J**	
CPR-39J	**CPR-150J**	**CPR-510J**	**CPR-1800J**	**CPR-5100J**	
CPR-43J	**CPR-160J**	**CPR-560J**	**CPR-2000J**	**CPR-5600J**	
CPR-47J	**CPR-180J**	**CPR-620J**	**CPR-2200J**	**CPR-6200J**	
CPR-56J	**CPR-200J**	**CPR-680J**	**CPR-2400J**	**CPR-6800J**	
CPR-62J	**CPR-220J**	**CPR-750J**	**CPR-2500J**	**CPR-7500J**	
CPR-68J	**CPR-240J**	**CPR-820J**	**CPR-2700J**	**CPR-8200J**	

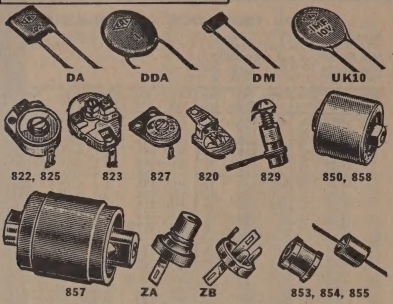
TYPE CI AC LINE DISC HI-KAPS® (1000 VDCW)

Designed to meet or exceed the proposed requirements of Underwriters' Laboratories, subject 492, dated Dec. 58. Recommended for AC by-pass application or where a steady or intermittent higher voltage may occur. Tol., ±20%.

Cap. μμf	CRL No.	Dia. x Thk. Max., In.	Net Each	Cap. μμf	CRL No.	Dia. x Thk. Max., In.	Net Each
470	**CI-471**	.400 x .240	**18c**	2200	**CI-222**	.600 x .240	**18c**
680	**CI-681**	.400 x .240	**18c**	5000	**CI-502**	.850 x .180	**18c**
1000	**CI-102**	.600 x .240	**18c**	10,000	**CI-103**	.850 x .180	**24c**

Centralab.

Ceramic Capacitors



TYPE CK LOW VOLTAGE DISC HI-KAPS®

For high capacity, low voltage use in transistor circuits. Phenolic insulation, vacuum wax impregnated. Power factor 2% max. at 1 kc. Rated 50 VDCW. Tol., +80−20%. Max. capacity change: +25° C to +45° C, ±30%.

Cap., µf	CRL No.	Dia., In.	Net Each	Cap., µf	CRL No.	Dia., In.	Net Each
.005	CK-502	3/8	21c	.03	CK-303	9/16	21c
.01	CK-103	3/8	21c	.05	CK-503	5/8	21c
.02	CK-203	9/16	21c	.1	CK-104	5/8	60c
.025	CK-253	9/16	21c				

TYPE DA MINIATURE PLATE CAPACITORS

Extremely small size. Proven in use by transistor radio receivers, designed for cathode bypass and transistor applications. Power factor, 2.5% at 1 kc. Rated 30 v. DC working; 50 v. DC test. Vacuum wax impregnated with Durez resin coating. Tolerances: +100% −20%.

Cap. µf	CRL No.	Size (Sq.) In., Max.	Thick, Inches	Net Each
.02	DA-203	1/2	.140	$0.36
.05	DA-503	1/2	.160	.81
.1	DA-104	1/2	.187	1.35

TYPE DDA MINIATURE DISCS

Disc type similar to above, 75 VDCW, 150 VDCT. Size: 5/8" diam. x 5/32" thick.

Cap. µf	CRL No.	Tolerance	Net Each
.05	DDA-503	−30% +80%	30c
.1	DDA-104	−30% +80%	60c

TYPE DDM MIN-KAP® DISC CAPACITORS

Ceramic disc type capacitors for smaller voltage requirement applications; 150 VDCW; 300 VDC test. Very small in size; maximum of 3/8" diam. in high capacity values. Ideal for hearing aid, miniature radio, intercom and experimental rigs. Packaged 5 per package. Tolerance: −40% +60%.

Capacity, µf	CRL Number	VDCW	Thickness, Inches	Net Each
.005	DDM-502	150	.146	30c
.01	DDM-103	150	.146	30c
.02	DDM-203	150	.166	54c
2 x .01	DDM2-103	150	.166	54c

TYPE DM FLAT-PLATE MIN-KAPS®

150 VDCW, 300 v. DC test. Size: 7/32" x 17/32" x 7/64". Tolerance +50%, −20%, except (*) +80%, −20%.

Cap., µf	CRL No.	Net Each	Cap., µf	CRL No.	Net Each
.0001	DM-101	30c	.002	DM-202	30c
.0002	DM-201	30c	.003	DM-302*	30c
.0003	DM-301	30c	.005	DM-502*	30c
.0005	DM-501	30c	.01	DM-103*	60c
.001	DM-102	30c	2 x .005	DM2-502*	75c

TYPES UK, UK10, UK20 ULTRA-KAP* LOW VOLTAGE DISC CAPACITORS

High capacity, low voltage ceramic capacitors for transistor circuit application. Double durez insulation with high vacuum wax impregnation to withstand extreme temperature, humidity and vibration. Where size permits, capacitors are stamped with capacity and voltage. **Tolerance:** UK, GMV; UK10, +80−20%; UK20, +80−20%. *Trade Mark.

UK (3 VDCW)				UK10 (10 VDCW)				UK20 (20VDCW)			
Cap µf	No. UK-	Max. Dia.	Net Ea.	Cap µf	No. UK10-	Max. Dia.	Net Ea.	Cap µf	No. UK20-	Max. Dia.	Net Ea.
.005	502	.120"	75c	.05	503	.290"	33c	.05	503	.408"	33c
.01	103	.120"	75c	.1	104	.408"	33c	.1	104	.590"	33c
.02	203	.120"	75c	.2	204	.590"	33c	.2	204	.840"	33c
.1	104	.220"	54c	.47	474	.840"	54c	....	....	....	....
.22	224	.290"	33c	....	....	....	....	....	....	....	....
.47	474	.408"	33c	....	....	....	....	....	....	....	....
1.0	105	.590"	54c	....	....	....	....	....	....	....	....
2.2	225	.840"	54c	....	....	....	....	....	....	....	....

ROTARY TRIMMER CAPACITORS

Highly stable, small lightweight design. Power factor less than 0.2% at 1 mc. All units rated 500 v. DC, working; 1000 v. DC, test. **Suffix Z:** Indicates zero temperature coefficient. **Suffix N:** Indicates negative coefficient. Shpg. Wt., 3 oz. max.

CRL Type 820—High dielectric ceramic base impervious to moisture. Flat rotor and stator. Mounting holes take No. 4 machine screws; 5/8" x 27/32". Net Each.................. 78c

CRL Type 822—Steatite body; silver rotor and stator plates; 41/64" x 27/32". Mtg. holes take No. 4 screw. Net Each...... $1.14

CRL Type 823—Steatite body; 15/16" x 19/32". Net Each.... 3.60

CRL Type 827—Molded phenolic body has high stability under vibration. Insulation resistance 10,000 megs. minimum Size: 17/32" x 3/4". Net Each.................................... 75c

CRL Type 829—Tiny, tubular, high voltage types for TV or FM. Ceramic bodies .215" dia. Full capacity in 180° rotation. Net. 30c

Range, µµf	CRL No.	Range, µµf	CRL No.	Range, µµf	CRL No.
1.0-3.5	820D	4.5-25	822-AZ	8.-50	823-DN
2.5-6.0	820A	2.0-6.0	822-DN	10.-100	823-BN
5.0-20	820B	4.0-30	822-EN	20.-125	823-AN
7.0-35	820C	4.5-25	822-CN	2.5-7	827A
35-55	820E*	7.0-45	822-BN	3.5-12	827B
55-75	820F*	8.0-50	822-AN	6.0-30	827C
70-90	820G*	5.-12	823-EZ	7.0-35	827D
1.5-3	822-DZ	6.-25	823-DZ	.5-3	829-3
1.5-7	822-EZ	10.-50	823-BZ	1.-4	829-4
2.0-7.5	822-CZ	12-62	823-AZ	1.-6	829-6
2.5-13.0	822-BZ	5.-15	823-FN	1.-7.5	829-7
3.0-12	822-FZ	8.-25	823-EN	1.5-10	829-10

*Less brackets.

TYPE 825 (MIL-C-81A) TRIMMERS

Meet MIL-C-81A specifications. Low loss steatite base with pure silver fired on top surface to form stator plate. Silver-plated brass terminals bent 90° from stator plane. Rated 500 VDCW; 1500 v. DC test. Power factor less than 0.2% at 1 mc. Body 27/32" lg. x 41/64" w. Zero temp. coefficient, except * which are negative 650. Shpg. Wt., 2 oz.

CRL Type 825—Net Each.................................. $1.05

Cap., µµf	MIL Spec.	CRL No.	Cap., µµf	MIL Spec.	CRL No.
1.5–7	CV11A070	825-EZ	2.0–6	CV11D060	825-DN*
3.0–12	CV11A120	825-FZ	4.0–30	CV11D300	825-EN*
4.5–25	CV11A250	825-AZ	7.0–45	CV11D450	825-BN*

Note: Items requiring certified test data and government source inspection are special. Prices and information supplied on request.

TRANSMITTING CAPACITORS

Designed for high voltage, high frequency circuits requiring very low power factor and stable retrace characteristics. Double cup design for long leakage paths and rugged construction.

TYPE 850 AND 858—5 AND 7.5 KV

Tolerance: ±10% 850 type; ±20% 858 type. Size: 13/16" dia. x 5/8". Stud type has 1/8" long hex studs 6-32 thread. Lug type 9/16" long solder lugs with tapped 6-32 threaded hole.

Cap. µµf	CRL No.		KV DCW	Temp. Coeff.	RF Load at 30 MC†	Net Each
	Stud Type	Lug Type				
25	850S-25Z	850SL-25Z	7.5	NPO	7 amps.	$2.70
50	850S-50Z	850SL-50Z	7.5	NPO	10 amps.	2.70
50	850S-50N	850SL-50N	7.5	N750	8.8 amps.	2.70
75	850S-75N	850SL-75N	7.5	N750	10 amps.	2.70
100	850S-100N	850SL-100N	5	N750	9.8 amps.	2.70
500	858S-500	....	5	Hi-K	....	2.70
1 K	858S-1000	....	5	Hi-K	....	2.70

TYPE 853, 854, 855—5 KV

Tolerance: ±10%. Size: 853, 9/16" dia. x 1/2". 854, 7/16" dia. x 7/16". 855, 5/16" dia. x 3/8". Lead type has 1 1/2" axial leads. Tap type has axial screw terminals tapped 2-56.

Cap. µµf	CRL No.		KV DCW	Temp. Coeff.	RF Load at 30 MC†	Net Each
	Lead Type	Tap Type				
3	855-3Z	855A-3Z	5	NPO	1.8 amps.	$1.80
5	855-5Z	855A-5Z	5	NPO	1.8 amps.	1.80
10	854-10Z	854A-10Z	5	NPO	1.8 amps.	1.80
10	855-10N	855A-10N	5	N750	3.2 amps.	1.80
20	853-20Z	853A-20Z	5	NPO	2.8 amps.	1.80
20	854-20N	854A-20N	5	N750	3.2 amps.	1.80
40	853-40N	853A-40N	5	N750	5.6 amps.	1.80

TYPE 857—7.5 AND 15 KV

Tolerance: 10%. Size: 1 9/32" dia. x 1 5/16". Axial screw terminals at both ends; 1/4" deep 10-32 NF-2 thread.

Cap. µµf	CRL No.	Temp. Coeff.	RF Load at 30 MC†	KV DCW	Net Each
25	857-25Z	NPO	12 amps.	15	$8.40
50	857-50Z	NPO	12 amps.	15	8.40
100	857-100N	N750	14.4 amps.	15	7.20
200	857-200N	N750	18.2 amps.	7.5	7.20

TYPE 859—15 AND 20 KV

Tolerance: ±10%. Size: 2" dia. x 2 7/8" overall. Terminals 7/16" deep both ends, tapped 10-32.

50	859S-50Z	NPO	30 amps.	20	$54.00
100	859S-100Z	NPO	30 amps.	20	54.00
250	859S-250N	N750	30 amps.	20	54.00
500	859S-500N	N3300	30 amps.	15	54.00

†R.F. Load Ratings based on 30° C rise in temperature.

TYPES ZA AND ZB BUTTON-STYLE CERAMICS

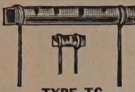
Solder-sealed for long life and high quality performance. Shell is effective at ground potential. 500 VDCW, 1000 VDCT. **Type ZA** is standoff 3-48 thread tapped base and ground terminal. **Type ZB** is feed-thru style with three solder lugs.

Tol. 15-50 µµf, ±10%; 500 µµf, ±20%; 1000 µµf, GMV.

µµf	ZA-	µµf	ZA-	µµf	ZB-	µµf	ZB-	Net Ea.
15	150	500	501	15	150	500	501	75c
50	500	1000	102	50	500	1000	102	75c

Centralab.

Ceramic Capacitors, Kits


TYPE TC

TC DISC

D6

TYPE FT

DDK-200

TEMPERATURE COMPENSATING TUBULAR HI-KAP® CAPACITORS

Especially designed to limit frequency drift in RF circuits where temperature variations are prevalent. Ceramic body construction changes capacities as the temperature varies; made to comply with JAN-C-20A specifications. Rated 1,200 volts DC, test; 600 volts DC, working. Extremely compact. Weight, 2 oz. **Type TCZ:** NPO or zero units, superior to micas for all uses. Show zero capacitance changeover temperature range −20° C to +85° C. Left end coded black. **Type TCN:** N750 units show negative capacity of −750 parts per million per degree C rise in temperature. Left end coded violet.

TYPES TCN AND TCZ

Cap., μμf	Type TCN Units				Type TCZ Units			
	CRL Number	**Size †**	**Tol. ±**	**Net Each**	**CRL Number**	**Size †**	**Tol. ±**	**Net Each**
0.5					**TCZ-R5**	A	.25 μμf	**30c**
0.68					**TCZ-R68**	A	.25 μμf	**30c**
1.0					**TCZ-1**	A	.25 μμf	**30c**
1.5					**TCZ-1R5**	A	.25 μμf	**30c**
2.2					**TCZ-2R2**	A	.25 μμf	**30c**
3.3	**TCN-3R3**	A	.5 μμf	**30c**	**TCZ-3R3**	A	.25 μμf	**30c**
4.7					**TCZ-4R7**	A	.5 μμf	**30c**
5.0	**TCN-5**	A	.5 μμf	**30c**				
6.8					**TCZ-6R8**	A	.5 μμf	**30c**
10	**TCN-10**	A	.5 μμf	**30c**	**TCZ-10**	A	.5 μμf	**30c**
12	**TCN-12**	A	2%	**30c**	**TCZ-12**	A	2%	**30c**
15	**TCN-15**	A	2%	**30c**	**TCZ-15**	A	2%	**30c**
18	**TCN-18**	A	2%	**30c**	**TCZ-18**	A	2%	**30c**
20	**TCN-20**	A	2%	**30c**	**TCZ-20**	A	2%	**30c**
22	**TCN-22**	A	2%	**30c**	**TCZ-22**	A	2%	**30c**
24	**TCN-24**	A	2%	**30c**	**TCZ-24**	A	2%	**30c**
25	**TCN-25**	A	2%	**30c**	**TCZ-25**	A	2%	**30c**
27	**TCN-27**	A	2%	**30c**	**TCZ-27**	A	2%	**30c**
30	**TCN-30**	A	2%	**30c**	**TCZ-30**	A	2%	**30c**
33	**TCN-33**	A	2%	**30c**	**TCZ-33**	A	2%	**30c**
36	**TCN-36**	A	2%	**30c**	**TCZ-36**	A	2%	**30c**
39	**TCN-39**	A	2%	**30c**	**TCZ-39**	A	2%	**30c**
43	**TCN-43**	A	2%	**30c**	**TCZ-43**	B	2%	**30c**
47	**TCN-47**	A	2%	**30c**	**TCZ-47**	B	2%	**30c**
50	**TCN-50**	A	2%	**30c**	**TCZ-50**	B	2%	**30c**
51	**TCN-51**	A	2%	**30c**	**TCZ-51**	B	2%	**30c**
56	**TCN-56**	A	2%	**30c**	**TCZ-56**	B	2%	**30c**
62	**TCN-62**	A	2%	**30c**	**TCZ-62**	B	2%	**30c**
68	**TCN-68**	A	2%	**30c**	**TCZ-68**	B	2%	**30c**
75	**TCN-75**	A	2%	**30c**	**TCZ-75**	B	2%	**30c**
82	**TCN-82**	A	2%	**30c**	**TCZ-82**	B	2%	**30c**
91	**TCN-91**	A	2%	**30c**	**TCZ-91**	C	2%	**30c**
100	**TCN-100**	A	2%	**30c**	**TCZ-100**	C	2%	**30c**
110	**TCN-110**	B	5%	**30c**	**TCZ-110**	D	5%	**45c**
120	**TCN-120**	B	5%	**30c**	**TCZ-120**	D	5%	**45c**
130	**TCN-130**	B	5%	**30c**	**TCZ-130**	D	5%	**45c**
150	**TCN-150**	B	5%	**30c**	**TCZ-150**	D	5%	**45c**
160	**TCN-160**	B	5%	**30c**	**TCZ-160**	D	5%	**45c**
180	**TCN-180**	B	5%	**30c**	**TCZ-180**	D	5%	**45c**
200	**TCN-200**	B	5%	**30c**	**TCZ-200**	D	5%	**45c**
220	**TCN-220**	C	5%	**30c**	**TCZ-220**	D	5%	**45c**
240	**TCN-240**	C	5%	**30c**	**TCZ-240**	E	5%	**60c**
270	**TCN-270**	C	5%	**30c**	**TCZ-270**	E	5%	**60c**
300	**TCN-300**	D	5%	**45c**	**TCZ-300**	E	5%	**60c**
330	**TCN-330**	D	5%	**45c**				
360	**TCN-360**	D	5%	**45c**				
390	**TCN-390**	D	5%	**45c**				
430	**TCN-430**	D	5%	**45c**				
470	**TCN-470**	D	5%	**45c**				
510	**TCN-510**	D	5%	**45c**				
560	**TCN-560**	E	5%	**60c**				
620	**TCN-620**	E	5%	**60c**				
680	**TCN-680**	E	5%	**60c**				
750	**TCN-750**	E	5%	**60c**				

TYPES TCA AND TCL

Intermediate stock values. This group changes negatively capacity-wise with temperature increases. **Type TCA:** Changes 330 parts per million per degree C. **Type TCL:** Changes 1500 parts per million per degree C.

Cap., μμf	Type TCA Units				Type TCL Units			
	CRL Number	**Size †**	**Tol. ±**	**Net Each**	**CRL Number**	**Size †**	**Tol. ±**	**Net Each**
10	**TCA-10**	A	.5 μμf	**30c**	**TCL-10**	A	.5 μμf	**30c**
15	**TCA-15**	A	2%	**30c**	**TCL-15**	A	2%	**30c**
22	**TCA-22**	A	2%	**30c**	**TCL-22**	A	2%	**30c**
33	**TCA-33**	A	2%	**30c**	**TCL-33**	A	2%	**30c**
47	**TCA-47**	A	2%	**30c**	**TCL-47**	A	2%	**30c**
68	**TCA-68**	A	2%	**30c**	**TCL-68**	A	2%	**30c**
100	**TCA-100**	B	2%	**30c**	**TCL-100**	A	2%	**30c**

SIZE†

Key	Size, Inches	Key	Size, Inches	Key	Size, Inches
A	.400 x .200	C	.860 x .225	E	1.625 x .285
B	.690 x .200	D	1.165 x .285		

TEMPERATURE COMPENSATING DISC HI-KAPS®

Very popular unit that replaces mica types in all applications. High stability and small size, using TC ceramic dielectric material. Type DTZ is NPO or zero TC disc type. Type DTN is an N750 TC type. Thickness: 5/16" and 7/16". Tolerance: ±5%.

TYPE DTN (N750)

Cap. μμf	CRL No.	Dia., In.	Net Each	Cap., μμf	CRL No.	Dia., In.	Net Each
5	**DTN-5***	1/4	**30c**	68	**DTN-68**	3/8	**30c**
10	**DTN-10***	1/4	**30c**	75	**DTN-75**	3/8	**30c**
15	**DTN-15**	1/4	**30c**	100	**DTN-100**	3/8	**30c**
20	**DTN-20**	1/4	**30c**	150	**DTN-150**	9/16	**45c**
22	**DTN-22**	1/4	**30c**	200	**DTN-200**	9/16	**45c**
25	**DTN-25**	1/4	**30c**	220	**DTN-220**	9/16	**45c**
33	**DTN-33**	1/4	**30c**	330	**DTN-330**	5/8	**45c**
47	**DTN-47**	1/4	**30c**				

TYPE DTZ (NPO)

1.5	**DTZ-1R5***	1/4	**30c**	50	**DTZ-50**	9/16	**30c**
2.2	**DTZ-2R2***	1/4	**30c**	68	**DTZ-68**	9/16	**30c**
3.3	**DTZ-3R3***	1/4	**30c**	75	**DTZ-75**	9/16	**30c**
4.7	**DTZ-4R7***	1/4	**30c**	82	**DTZ-82**	9/16	**30c**
6.8	**DTZ-6R8***	1/4	**30c**	100	**DTZ-100**	9/16	**30c**
10	**DTZ-10**	1/4	**30c**	120	**DTZ-120**	5/8	**45c**
15	**DTZ-15**	1/4	**30c**	150	**DTZ-150**	3/4	**45c**
20	**DTZ-20**	1/4	**30c**	180	**DTZ-180**	9/16	**45c**
22	**DTZ-22**	3/8	**30c**	200	**DTZ-200**	9/16	**45c**
25	**DTZ-25**	3/8	**30c**	220	**DTZ-220**	5/8	**45c**
33	**DTZ-33**	3/8	**30c**	270	**DTZ-270**	5/8	**45c**
47	**DTZ-47**	9/16	**30c**				

*Tolerance, ±.5 μμf.

TYPE D6 TUBULAR BC HI-KAPS®

Rated 600 v. DC working; 1200 v., test. Tropicalized. Operating temperature 85° C. Tolerance: ±0.5 μμf, D6-030; ±10%, 5 μμf thru 680 μμf; ±20%, 750 μμf thru 2200 μμf; GMV, 2500 μμf and up.

CRL Type D6—Any model thru 5000 μμf. Net Each....... **15c**

CRL Type D6—5600 μμf and 10,000 μμf. Net Each........ **18c**

Cap., μμf	CRL No.	Size *	Cap., μμf	CRL No.	Size *	Cap., μμf	CRL No.	Size *
3	**D6-030**	A	100	**D6-101**	A	820	**D6-821**	A
5	**D6-050**	A	120	**D6-121**	A	1000	**D6-102**	A
10	**D6-100**	A	150	**D6-151**	A	1200	**D6-122**	A
12	**D6-120**	A	180	**D6-181**	A	1500	**D6-152**	A
15	**D6-150**	A	200	**D6-201**	A	1800	**D6-182**	A
20	**D6-200**	A	220	**D6-221**	A	2000	**D6-202**	B
22	**D6-220**	A	250	**D6-251**	A	2200	**D6-222**	B
25	**D6-250**	A	270	**D6-271**	A	2500	**D6-252**	B
27	**D6-270**	A	300	**D6-301**	A	2700	**D6-272**	B
33	**D6-330**	A	330	**D6-331**	A	3000	**D6-302**	B
39	**D6-390**	A	390	**D6-391**	A	3300	**D6-332**	B
40	**D6-400**	A	400	**D6-401**	A	4000	**D6-402**	B
47	**D6-470**	A	470	**D6-471**	A	4700	**D6-472**	C
50	**D6-500**	A	500	**D6-501**	A	5000	**D6-502**	C
56	**D6-560**	A	560	**D6-561**	B	5600	**D6-562**	C
68	**D6-680**	A	600	**D6-601**	B	10000	**D6-103**	D
75	**D6-750**	A	680	**D6-681**	B			
82	**D6-820**	A	750	**D6-751**	A			

***Size: A**—.260" x .460". **B**—.260" x .790". **C**—.280" x .900". **D**—.330" x 1.21".

TYPES FT AND MFT FEED-THRU HI-KAPS®

Rated 500 v. DC, working; 1000 v. DC, test. **Type FT:** Hooked end terminals; mounting nut supplied. **Type MFT:** 1/4" (max.) flange eyelet inserts in .160" hole; solders direct to chassis.

CRL Type FT—Any model. Net Each.................... **75c**

CRL Type MFT—Any model. Net Each.................... **30c**

Type FT Hi-Kaps ®			Type MFT Hi-Kaps ®		
μμf	**No.**	**Tolerance**	**μμf**	**No.**	**Tolerance**
500	**FT-500**	±20%	50	**MFT-50**	±10%
1000	**FT-1000**	±20%	100	**MFT-100**	±10%
1500	**FT-1500**	−20, +50%	500	**MFT-500**	±20%
1800	**FT-1800**	−20, +50%	1000	**MFT-1000**	GMV
2300	**FT-2300**	−20, +50%			

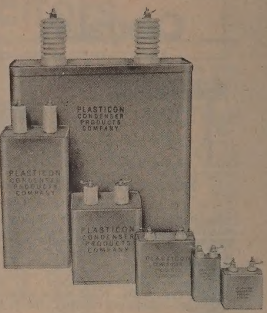
CERAMIC CAPACITOR KITS

Each kit contains a carefully balanced inventory of the most required replacement values. All kits utilize the sturdy, convenient Centralab ceramic capacitor packages. Housed in a 6" x 4" x 11", one drawer, heavy gauge steel cabinet. Entire contents labeled and marked for prompt identification. *Supplied bulk in plastic case.

CRL No.	Qty/ Values	Types	VDCW	Value Range	Net Each
DDK-200	200/ 31	Hi-Kap Cer. disc	1000	5 μμf to 20,000 μμf	**$31.10**
DDK-100*	100/ 6	Hi-Kap Cer. disc	600, 1000	100 μμf to 10,000 μμf	**15.45**
D6K-200	200/ 27	Hi-Kap Tubular	600	5 μμf to 10,000 μμf	**30.00**
HVK-150	150/ 17	Hi-V. disc	1.6KV, 3KV, 6KV	47 μμf to 15,000 μμf	**38.60**
LVK-100	100/ 12	Hi-Kap Lo-V. disc	50, 75, 150	.005 μf to 0.1 μf	**34.40**
TCK-80	80/ 28	Temp. Comp.	600	0.68 μμf to 750 μμf	**26.90**
UK-60	60/ 10	Ultra-Kap Lo-V. disc	3, 10	0.005 μf to 1 μf	**28.70**

PLASTICON DC RECTANGULARS

Mineral oil impregnated and filled. Hermetically sealed. Can be operated in any position, continuously at 10% over rated voltage up to +40° C. Tolerance 10%. Ambient temperature range —40° C. to 105° C. Insulators: Two ceramic type bushings for standard temperature range. Two soldered-in metallized ceramic insulators for extended temperature range. All DC rectangulars have 8-32 screw and hex nut terminals with removable hot-tinned solder lugs. Case: Rectangular base, lead coated steel with heavy finish of grey organic lacquer.



Mfr's. No.	Cap. Mfd.	Volts DC	Dimensions - Inches Height	Width	Depth	Term. Height	Dist. Bet. Ter.	List Price
AOC6C1	1.0	600	2⅛	1¾	1	⅝	13/16	$ 4.12
AOC6C2	2.0	600	2¾	1¾	1	⅝	13/16	5.14
AOC6C4	4.0	600	3½	2½	1 3/16	⅝	1⅛	6.39
AOC6C8	8.0	600	4	3¾	1¼	⅝	2	9.65
AOC6C10	10.0	600	4	3¾	1¾	⅝	2	11.68
AOC1M1	1.0	1000	2⅜	1¾	1	⅝	13/16	4.27
AOC1M2	2.0	1000	3	2½	1 13/16	¾	1⅛	5.50
AOC1M4	4.0	1000	4⅝	2½	1 3/16	¾	1⅛	6.71
AOC1M8	8.0	1000	4⅝	3¾	1¾	⅝	2	9.48
AOC1M10	10.0	1000	4⅝	3¾	2¼	⅝	2	10.94
AOC2M05	0.5	2000	2¾	1¾	1	⅝	13/16	4.71
AOC2M1	1.0	2000	4½	1¾	1	⅝	13/16	5.72
AOC2M2	2.0	2000	3¼	3¾	1¼	¾	2	6.62
AOC2M4	4.0	2000	3½	3¾	2¼	¾	2	8.98
AOC3M1	1.0	3000	4	2½	1 3/16	1⅛	1⅛	11.70
AOC3M2	2.0	3000	4⅝	3¾	1¼	1 1/16	2	14.97
AOC3M4	4.0	3000	4⅝	3¾	2¼	1	2	20.70
AOC4M1	1.0	4000	4	3¾	1¼	1¼	2	14.40
AOC4M2	2.0	4000	4	3¾	1¾	1¼	2	21.60
AOC4M4	4.0	4000	4	3¾	4 9/16	1 1/16	2	35.46
AOC5M1	1.0	5000	4	3¾	1¾	2¼	2	17.01
AOC5M2	2.0	5000	3½	3¾	4 9/16	1⅛	2	27.00
AOC10M1	1.0	10000	4⅝	3¾	4 9/16	2¼	2	59.40

PLASTICON TEFLON CAPACITORS

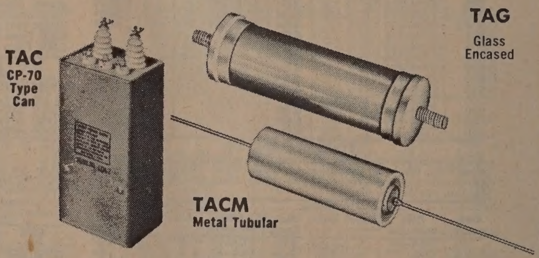
POWER FACTOR .... @ 25°C .... .05%
@ 165°C .... .07%

TEMPERATURE COEFFICIENT .... −70°C to 165°C .... −200 ppm/°C.

INSULATION RESISTANCE ...... @25°C ...... 500,000 meg x mfd.
But need not exceed .... 10,000,000 megohms

@ 165°C .... 7,000 meg. x mfd.
But need not exceed .... 50,000 megohms

DIELECTRIC ABSORPTION .... @25°C .... .02%



VOLTAGE RANGE .... 200 to 1,000 vdc.
CAPACITANCE RANGE .... TAG, TACM — .001 to 1.0 mfd
TAC — 1 mfd and above.

Condenser Products Company

MANUFACTURERS: Glassmikes • Plasticon Capacitors • HiVolt Power Supplies • Pulse Forming Networks

See Sect. 4000 for Plasticon Power Supplies

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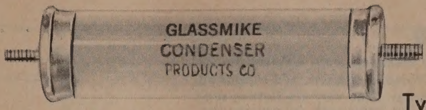
"Glassmike" Plasticon Capacitors



Type ASG

Type ASG are Plasticon A dielectric-silicone fluid impregnated capacitor elements in hermetically sealed glass tubes. Standard range —60°C to +85°C, extended range —60°C to +125°C with proper derating. The smallest and lightest high voltage capacitors made. Type ASG are ideal for DC and low frequency AC applications.

Type LSG

LSG type capacitors have Plasticon L film-silicone fluid impregnant. Designed to compete with mica capacitors, the LSG capacitors are more applicable for Radio Frequency. Special beneficial features include greater safety factor, lower RF loss, more conveniently mounted, utilizes less chassis space, impervious to moisture, and smaller in overall volume.

All 19/32 diameter Glassmikes are supplied with pigtail leads.

Cat. No.	Cap. Mfd.	Volts D.C.	Dimensions Dia. & Length	List Price
ASG502-1M	.005	1000	19/32x1 9/16	$ 2.85
ASG103-1M	.01	1000	19/32x1 3/16	2.85
ASG203-1M	.02	1000	19/32x1 3/16	2.85
ASG503-1M	.05	1000	¾x1 ¾	3.08
ASG104-1M	.1	1000	¾x2 ¼	3.10
ASG254-1M	.25	1000	29/32x2 ¾	3.35
ASG504-1M	.5	1000	1 ⅛x2 ¼	3.55
ASG102-3M	.001	3000	19/32x1 3/16	3.26
ASG202-3M	.002	3000	19/32x1 3/16	3.26
ASG502-3M	.005	3000	19/32x1 3/16	3.26
ASG103-3M	.01	3000	19/32x1 9/16	3.40
ASG203-3M	.02	3000	¾x1 ¾	3.96
ASG503-3M	.05	3000	29/32x2 ¼	4.36
ASG104-3M	.1	3000	1 ⅛x2 ¼	4.80
ASG254-3M	.25	3000	1 ⅜x2	5.28
ASG102-5M	.001	5000	19/32x1 3/16	5.04
ASG202-5M	.002	5000	19/32x1 3/16	5.12
ASG502-5M	.005	5000	19/32x1 ⅝	5.20
ASG103-5M	.01	5000	¾x1 ¾	5.44
ASG203-5M	.02	5000	¾x2 ¼	5.76
ASG503-5M	.05	5000	29/32x2 ¼	6.08
ASG104-5M	.1	5000	1 ⅜x3 ½	6.80
ASG501-8M	.0005	8000	19/32x1 9/16	5.20
ASG102-8M	.001	8000	19/32x1 9/16	5.20
ASG202-8M	.002	8000	19/32x1 ¾	5.44
ASG502-8M	.005	8000	¾x1 ¾	5.60
ASG103-8M	.01	8000	¾x2 ¼	6.00
ASG203-8M	.02	8000	29/32x2 ¾	6.88
ASG503-8M	.05	8000	1 ⅜x4 ¼	8.80
ASG501-10M	.0005	10,000	19/32x1 ⅝	5.60
ASG102-10M	.001	10,000	19/32x1 ⅝	5.76
ASG202-10M	.002	10,000	19/32x1 ⅝	5.92
ASG502-10M	.005	10,000	13/16x1 ¾	6.80
ASG103-10M	.01	10,000	29/32x3 ½	7.36
ASG203-10M	.02	10,000	1 ⅛x2 ¾	9.12
ASG303-10M	.03	10,000	1 ⅜x2 ¾	11.00
ASG603-10M	.06	10,000	1 ⅜x4 ¼	12.40
ASG501-15M	.0005	15,000	19/32x2 ¾	10.80
ASG102-15M	.001	15,000	¾x2 ¼	11.04
ASG202-15M	.002	15,000	¾x2 ¼	11.68
ASG502-15M	.005	15,000	1 ⅛x2 ¾	13.60
ASG103-15M	.01	15,000	1 ⅛x3 ¾	16.00
ASG203-15M	.02	15,000	1 ⅜x4 ½	17.60
ASG501-20M	.0005	20,000	19/32x3 ½	14.40
ASG102-20M	.001	20,000	¾x3 ½	15.20
ASG202-20M	.002	20,000	13/16x3 ½	16.80
ASG502-20M	.005	20,000	1 ⅛x3 ½	18.00
ASG103-20M	.01	20,000	1 ⅜x4 ½	19.20
ASG501-30M	.0005	30,000	19/32x4 9/16	16.80
ASG102-30M	.001	30,000	¾x5	18.80
ASG202-30M	.002	30,000	1 ⅜x4 ¼	20.80
ASG502-30M	.005	30,000	1 ⅜x5	22.40
ASG501-40M	.0005	40,000	¾x6 ½	18.00
ASG102-40M	.001	40,000	13/16x6 ½	20.80
ASG202-40M	.002	40,000	1 ⅛x6 ½	22.40
ASG501-50M	.0005	50,000	¾x8 ¼	19.60
ASG102-50M	.001	50.000	13/16x8 ¼	22.40
ASG202-50M	.002	50,000	1 ⅛x8 ¼	25.20
ASG502-50M	.005	50,000	1 ⅝x10 ¼	28.80
ASG501-60M	.0005	60,000	¾x11	22.80
ASG102-60M	.001	60,000	29/32x11	27.20

Part No.	Size	Cap	Volts D.C.	List Price
LSG303-1M	13/16x1 ½	.03	1000	$ 6.17
LSG403-1M	29/32x1 ½	.04	1000	6.85
LSG503-1M	1 ⅛x1 ½	.05	1000	7.33
LSG603-1M	1 ⅛x1 ½	.06	1000	7.33
LSG753-1M	1 ⅛x1 ½	,075	1000	7.33
LSG104-1M	1 ⅛x2	0.1	1000	8.00
LSG154-1M	1 ⅜x2	0.15	1000	9.50
LSG204-1M	1 ⅜x2 ½	0.2	1000	10.80
LSG254-1M	1 ⅝x2 ½	0.25	1000	11.00
LSG304-1M	1 ⅝x3	0.3	1000	11.70
LSG404-1M	1 ⅝x3 ½	0.4	1000	12.70
LSG752-25C	29/32x1	.0075	2500	6.17
LSG103-25C	1 ⅛x1	.01	2500	6.50
LSG203-25C	1 ⅛x1 ½	.02	2500	7.18
LSG253-25C	1 ⅛x1 ½	.025	2500	7.18
LSG303-25C	1 ⅛x1 ½	.03	2500	7.18
LSG403-25C	1 ⅛x2	.04	2500	8.00
LSG503-25C	1 ⅜x2	.05	2500	8.68
LSG603-25C	1 ⅜x2	.06	2500	8.68
LSG753-25C	1 ⅝x2	.075	2500	10.40
LSG104-25C	1 ⅝x2 ½	0.1	2500	11.70
LSG154-25C	1 ⅝x3 ½	0.15	2500	12.70
LSG402-35C	29/32x1	.004	3500	7.00
LSG502-35C	1 ⅛x1	.005	3500	7.50
LSG602-35C	1 ⅛x1	.006	3500	7.50
LSG752-35C	1 ⅜x1	.0075	3500	7.85
LSG103-35C	1 ⅝x1	.01	3500	8.18
LSG203-35C	1 ⅝x1 ½	.02	3500	8.50
LSG253-35C	1 ⅝x1 ½	.025	3500	8.67
LSG303-35C	1 ⅝x2	.03	3500	10.80
LSG403-35C	1 ⅝x2	.04	3500	10.80
LSG503-35C	1 ⅝x2 ½	.05	3500	11.65
LSG603-35C	1 ⅝x3	.06	3500	12.35
LSG753-35C	1 ⅝x3	.075	3500	12.35
LSG104-35C	1 ⅝x4	0.1	3500	13.65
LSG252-5M	13/16x2	.0025	5000	9.65
LSG302-5M	13/16x2	.003	5000	9.65
LSG402-5M	1 ⅛x2	.004	5000	10.50
LSG502-5M	1 ⅛x2	.005	5000	10.50
LSG602-5M	1 ⅛x2	.006	5000	10.50
LSG752-5M	1 ⅜x2	.0075	5000	11.50
LSG103-5M	1 ⅜x2	.01	5000	11.50
LSG203-5M	1 ⅜x3	.02	5000	13.15
LSG253-5M	1 ⅜x3	.025	5000	13.80
LSG303-5M	~~1~~ ⅜x4	.03	5000	15.00
LSG403-5M	1 ⅝x4	.04	5000	16.70
LSG503-5M	1 ⅜x6	.05	5000	18.70
LSG603-5M	1 ⅝x6	.06	5000	20.70
LSG753-5M	1 ⅜x8	.075	5000	22.70
LSG104-5M	1 ⅝x8	0.1	5000	24.70
LSG751-7M	¾x2	.00075	7000	9.00
LSG102-7M	¾x2	.001	7000	9.00
LSG202-7M	29/32x2	.002	7000	10.00
LSG252-7M	1 ⅛x2	.0025	7000	10.66
LSG302-7M	1 ⅛x2	.003	7000	10.66
LSG402-7M	1 ⅜x2	.004	7000	12.35
LSG502-7M	1 ⅝x2	.005	7000	14.35
LSG602-7M	1 ⅝x2	.006	7000	14.35
LSG752-7M	1 ⅛x4	.0075	7000	17.00
LSG103-7M	1 ⅛x4	.01	7000	17.00
LSG203-7M	1 ⅝x4	.02	7000	18.65
LSG253-7M	1 ⅜x6	.025	7000	19.30
LSG303-7M	1 ⅝x6	.03	7000	19.30
LSG403-7M	1 ⅜x8	.04	7000	20.70
LSG503-7M	1 ⅝x8	.05	7000	20.70
LSG102-10M	29/32x3	.001	10 KV	12.35
LSG202-10M	1 ⅛x3	.002	10 KV	13.65
LSG252-10M	1 ⅜x3	.0025	10 KV	15.35
LSG302-10M	1 ⅜x3	.003	10 KV	15.35
LSG402-10M	1 ⅝x3	.004	10 KV	17.65
LSG502-10M	1 ⅛x6	.005	10 KV	21.30
LSG602-10M	1 ⅛x6	.006	10 KV	21.30
LSG752-10M	1 ⅜x6	.0075	10 KV	24.00
LSG103-10M	1 ⅜x6	.01	10 KV	24.00
LSG203-10M	1 ⅝x9	.02	10 KV	27.70
LSG253-10M	1 ⅝x9	.025	10 KV	27.70
LSG101-14M	19/32x4	.0001	14 KV	12.00
LSG201-14M	¾x4	.0002	14 KV	12.85
LSG251-14M	¾x4	.00025	14 KV	12.85

OTHER VALUES READILY AVAILABLE

See Sect. 4000 for Plasticon Power Supplies

CORNELL-DUBILIER ELECTRONICS

CLASS
201.0

"BLUE BEAVER" Tubular Electrolytics

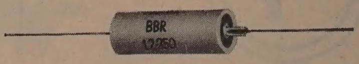
BR

Type BR is the compact unit in *aluminum can with cardboard outer sleeve*. Fits neatly into the cramped quarters, self-supported by rigid tinned copper leads. Larger sizes may be further supported by a metal strap. NEGATIVE TERMINAL IS GROUNDED TO CAN.

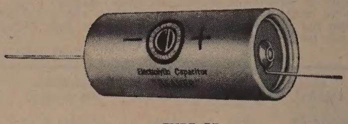
BBR

Type BBR "BLUE BEAVERS," miniature versions of the BR, are especially popular for cramped space installations in television receivers, hearing aids, miniature radios and other small assemblies. They are hermetically sealed *in tubular aluminum containers with cardboard sleeve* and ideally suited to meet requirements in low voltage circuits. NEGATIVE TERMINAL IS GROUNDED TO CAN.
The anodes AND cathodes of all 150 volt BBR and BR units are ETCHED. This feature recommends these types for use with JUNCTION RECTIFIERS.

TEMPERATURE RANGE: to +85°C except 500 V. D.C., to +65°C.



TYPE BBR



TYPE BR

Lead Lengths: BBR — 2 3/8" ± 1/8" — #20 AWG
Lead Lengths: BR — 3 3/8" ± 1/8" — #18 AWG

BBR/BR Cat. No.	Cap. Mfd.	V.D.C.W.	*Can Size—Inches Diam x Length	List Price	Net Price	Equivalent Cat. No. (And Size if Different)	
BBR 25-3	25	3	3/8 x 1 1/16	$.85	**$.51**		
BBR 50-3	50	3	3/8 x 1 1/16	.95	**.57**		
BBR 5-6	5	6	3/8 x 1 1/16	.80	**.48**		
BBR 25-6	25	6	3/8 x 1 1/16	.85	**.51**		
BBR 50-6	50	6	3/8 x 1 1/16	.95	**.57**		
BR 100-6	100	6	1/2 x 1 1/16	1.20	**.72**	**BRH 601,** 5/8 x 1 1/16	
BR 250-6	250	6	1/2 x 1 1/16	1.35	**.81**	**BBR 250-6** 1/2 x 1 7/16	**BRH 6025,** 5/8 x 1 7/16
BR 500-6	500	6	1/2 x 1 7/16	1.55	**.93**	**BR 500-6,** 5/8 x 1 11/16	**BRH 605,** 5/8 x 1 11/16
BR 1000-6	1000	6	5/8 x 1 11/16	1.90	**1.14**	**BR 1000-6,** 3/4 x 2	**BRH 610,** 3/4 x 2
BR 2000-6	2000	6	3/4 x 2	2.30	**1.38**	**BR 2000-6,** 1 x 2 3/16	**BRH 620,** 1 x 2 3/16
BR 3000-6	3000	6	7/8 x 2	2.50	**1.50**		
BR 4000-6	4000	6	1 x 2 3/16	2.75	**1.65**		
BR 100-12	100	12	1/2 x 1 1/16	1.20	**.72**	**BRH 121,** 5/8 x 1 1/16	
BR 250-12	250	12	1/2 x 1 1/16	1.45	**.87**	**BRH 1225,** 5/8 x 1 11/16	
BR 500-12	500	12	1/2 x 1 7/16	1.70	**1.02**	**BRH 125,** 3/4 x 2	
BR 1000-12	1000	12	5/8 x 1 11/16	2.25	**1.35**	**BRH 1210,** 7/8 x 2	
BR 2000-12	2000	12	3/4 x 2	2.65	**1.59**	**BRH 1220,** 1 x 3	
BR 100-15	100	15	1/2 x 1 1/16	1.25	**.75**	**BBR 100-15,** 1/2 x 1 1/16	**BRH 151,** 5/8 x 1 1/16
BR 250-15	250	15	1/2 x 1 1/16	1.55	**.93**	**BR 2501,** 5/8 x 1 11/16	**BRH 1525,** 5/8 x 1 11/16
BR 500-15	500	15	1/2 x 1 7/16	1.75	**1.05**	**BR 5001,** 3/4 x 2	**BRH 155,** 3/4 x 2
BR 1000-15	1000	15	5/8 x 1 11/16	2.30	**1.38**	**BR 10001,** 7/8 x 2	**BRH 1510,** 7/8 x 2
BR 2000-15	2000	15	3/4 x 2	3.20	**1.92**	**BR 20001,** 1 x 3	**BRH 1520,** 1 x 3
BR 3000-15	3000	15	7/8 x 2 3/16	3.30	**1.98**		
BR 4000-15	4000	15	7/8 x 2 3/4	3.55	**2.13**		
BR 5000-15	5000	15	1 x 3	4.45	**2.67**		
BBR 10-25	10	25	3/8 x 1 1/16	1.00	**.60**		
BBR 20-25	20	25	3/8 x 1 1/16	1.00	**.60**		
BBR 25-25	25	25	3/8 x 1 1/16	1.00	**.60**		
BR 50-25	50	25	1/2 x 1 1/16	1.10	**.66**	**BBR 50-25,** 1/2 x 1 1/16	
BR 100-25	100	25	1/2 x 1 1/16	1.35	**.81**	**BBR 100-25,** 1/2 x 1 7/16	**BRH 251,** 5/8 x 1 7/16
BR 250-25	250	25	1/2 x 1 7/16	1.70	**1.02**	**BR 2502,** 3/4 x 1 11/16	**BRH 2525,** 3/4 x 1 11/16
BR 500-25	500	25	5/8 x 1 11/16	2.30	**1.38**	**BR 5002,** 7/8 x 2	**BRH 255,** 7/8 x 2
BR 1000-25	1000	25	3/4 x 2	3.30	**1.98**	**BRH 2510,** 1 x 3	
BR 2000-25	2000	25	7/8 x 2 1/2	3.55	**2.13**		
BBR 1-50	1	50	3/8 x 1 1/16	.90	**.54**		
BBR 2-50	2	50	3/8 x 1 1/16	.90	**.54**		
BBR 4-50	4	50	3/8 x 1 1/16	1.00	**.60**		
BBR 5-50	5	50	3/8 x 1 1/16	1.00	**.60**		
BBR 10-50	10	50	3/8 x 1 1/16	1.00	**.60**		
BR 25-50	25	50	1/2 x 1 1/16	1.05	**.63**	**BBR 25-50**	
BR 50-50	50	50	1/2 x 1 1/16	1.20	**.72**	**BR 505,** 5/8 x 1 7/16	
BR 100-50	100	50	1/2 x 1 7/16	1.40	**.84**	**BR 1005,** 5/8 x 1 11/16	**BRH 501,** 5/8 x 1 11/16
BR 150-50	150	50	5/8 x 1 7/16	1.55	**.93**	**BR 1505,** 3/4 x 1 11/16	**BRH 5015,** 3/4 x 1 11/16
BR 250-50	250	50	3/4 x 1 7/16	1.75	**1.05**	**BR 2505,** 7/8 x 1 11/16	**BRH 5025,** 7/8 x 1 11/16
BR 500-50	500	50	7/8 x 1 11/16	2.40	**1.44**	**BR 5005,** 1 x 3	**BR 5050,** 1 x 3
BR 1000-50	1000	50	1 x 2 11/16	2.70	**1.62**		
BBR 10-90	10	90	1/2 x 1 1/16	1.10	**.66**		
BBR 16-90	16	90	1/2 x 1 7/16	1.10	**.66**		
BBR 4-150	4	150	3/8 x 1 1/16	1.00	**.60**		
BBR 8-150	8	150	1/2 x 1 1/16	1.05	**.63**		
BBR 10-150	10	150	1/2 x 1 1/16	1.05	**.63**		
BBR 12-150	12	150	1/2 x 1 1/16	1.10	**.66**		
BBR 16-150	16	150	1/2 x 1 7/16	1.15	**.69**		
BBR 20-150	20	150	1/2 x 1 7/16	1.20	**.72**		
BR 25-150	25	150	3/4 x 1 7/16	1.25	**.75**	**BR 2515**	
BR 30-150	30	150	3/4 x 1 7/16	1.30	**.78**	**BR 3015**	
BR 40-150	40	150	3/4 x 1 11/16	1.35	**.81**	**BR 4015**	
BR 50-150	50	150	3/4 x 1 11/16	1.40	**.84**	**BR 5015**	
BR 60-150	60	150	7/8 x 1 11/16	1.50	**.90**	**BR 6015**	
BR 80-150	80	150	7/8 x 1 11/16	1.60	**.96**	**BR 8015**	
BR 100-150	100	150	7/8 x 2	1.75	**1.05**	**BR 10015**	
BR 150-150	150	150	1 x 2 3/16	1.90	**1.14**	**BR 15015**	
BR 200-150	200	150	1 x 3	2.20	**1.32**	**BR 20015**	
BR 300-150	300	150	1 x 3 13/16	2.55	**1.53**	**BR 30015**	

*For Overall BBR Size add 1/16" to Diam. and 5/32" to Length. For Overall BR Size add 1/16" to Diam. and 3/16" to Length.

© U.C.P., Inc

CORNELL-DUBILIER ELECTRONICS

LASS

1.01 "BLUE BEAVER" Tubular Electrolytics

BBR/BR Cat. No.	Cap. Mfd.	V.D.C.W.	*Can Size—Inches Diam x Length	List Price	Net Price	Equivalent Cat. No. (And Size if Different)
BBR 4-250	4	250	1/2 x 1 1/16	$1.00	$.60	
BBR 8-250	8	250	1/2 x 1 7/16	1.15	.69	
BBR 12-250	12	250	1/2 x 1 7/16	1.25	.75	
BR 16-250	16	250	3/4 x 1 7/16	1.30	.78	BR 1625
BR 20-250	20	250	3/4 x 1 7/16	1.35	.81	BR 2025
BR 30-250	30	250	3/4 x 1 11/16	1.45	.87	BR 3025
BR 40-250	40	250	3/4 x 2	1.55	.93	BR 4025
BR 50-250	50	250	7/8 x 1 11/16	1.70	1.02	BR 5025
BR 60-250	60	250	1 x 1 11/16	1.80	1.08	BR 6025
BR 200-250	200	250	1 3/8 x 3 1/8	3.50	2.10	BR 20025
BR 4-350	4	350	5/8 x 1 1/16	1.05	.63	BR 435
BR 8-350	8	350	5/8 x 1 7/16	1.20	.72	BR 835
BR 12-350	12	350	3/4 x 1 7/16	1.30	.78	BR 1235
BR 16-350	16	350	3/4 x 1 7/16	1.40	.84	BR 1635
BR 20-350	20	350	3/4 x 1 7/16	1.45	.87	BR 2035
BR 30-350	30	350	3/4 x 2	1.65	.99	BR 3035
BR 40-350	40	350	7/8 x 2	1.75	1.05	BR 4035
BR 50-350	50	350	1 x 2	1.85	1.11	BR 5035
BR 60-350	60	350	1 x 2	1.95	1.17	BR 6035
BR 80-350	80	350	1 x 3	2.10	1.26	BR 8035
BR 100-350	100	350	1 x 3	2.30	1.38	BR 10035
BR 150-350	150	350	1 3/8 x 3	3.95	2.37	BR 15035
BR 200-350	200	350	1 3/8 x 4 1/8	4.50	2.70	BR 20035
BR 1-450	1	450	5/8 x 1 1/16	1.10	.66	BR 145
BR 2-450	2	450	5/8 x 1 1/16	1.10	.66	BR 245
BR 4-450	4	450	5/8 x 1 1/16	1.15	.69	BR 445
BR 8-450	8	450	3/4 x 1 7/16	1.25	.75	BR 845
BR 10-450	10	450	3/4 x 1 7/16	1.30	.78	BR 1045
BR 12-450	12	450	3/4 x 1 7/16	1.35	.81	BR 1245
BR 16-450	16	450	3/4 x 1 11/16	1.40	.84	BR 1645
BR 20-450	20	450	7/8 x 1 11/16	1.55	.93	BR 2045
BR 30-450	30	450	1 x 2	1.70	1.02	BR 3045
BR 40-450	40	450	1 x 2 3/16	1.80	1.08	BR 4045
BR 50-450	50	450	1 x 2 11/16	2.10	1.26	BR 5045
BR 60-450	60	450	1 x 3	2.35	1.41	BR 6045
BR 80-450	80	450	1 x 3 9/16	2.80	1.68	BR 8045
BR 100-450	100	450	1 x 3 13/16	3.20	1.92	BR 10045
BR 150-450	150	450	1 3/8 x 3 5/8	4.75	2.85	BR 15045
BR 200-450	200	450	1 3/8 x 4 1/8	5.00	3.00	BR 20045
BR 4-500	4	500	5/8 x 1 7/16	1.20	.72	BR 450
BR 8-500	8	500	3/4 x 1 7/16	1.30	.78	BR 850
BR 12-500	12	500	3/4 x 1 11/16	1.40	.84	BR 1250
BR 16-500	16	500	7/8 x 1 11/16	1.50	.90	BR 1650
BR 20-500	20	500	7/8 x 2	1.60	.96	BR 2050
BR 30-500	30	500	1 x 2	1.75	1.05	BR 3050

*For Overall BBR Size add 1/16" to Diam. and 5/32" to Length. For Overall BR Size add 1/16" to Diam. and 3/16" to Length.

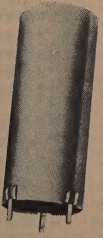
BR Cat. No.	Cap. Mfd.	V.D.C.W.	Overall Size Diam. x Length	List Price	Net Price	Equivalent to Cat. No.
BR 4-600	4	600	13/16 x 2 7/16	$1.95	$1.17	BRHV 604
BR 8-600	8	600	13/16 x 3 3/16	2.10	1.26	BRHV 608
BR 10-600	10	600	15/16 x 3 3/16	2.20	1.32	BRHV 610
BR 12-600	12	600	1 1/16 x 3 3/16	2.40	1.44	BRHV 612
BR 16-600	16	600	1 1/16 x 3 3/16	2.55	1.53	BRHV 616
BR 20-600	20	600	1 1/16 x 3 11/16	2.70	1.62	BRHV 620
BR 8-700	8	700	15/16 x 3 3/16	2.20	1.32	BRHV 708
BR 10-700	10	700	1 1/16 x 3 3/16	2.35	1.41	BRHV 710
BR 12-700	12	700	1 1/16 x 3 11/16	2.45	1.47	BRHV 712
BR 16-700	16	700	1 1/16 x 4 5/16	2.65	1.59	BRHV 716

WIDE-RANGE ELECTROLYTIC CAPACITOR

TYPE ESS-7515

A compact, versatile unit that provides an EXACT electrical replacement for 8 original standard 150 VDCW Capacitors, used principally in printed circuit home radio receivers:

50-30 Mfd.
70-30 Mfd.
75-30 Mfd.
60-40 Mfd.
80-40 Mfd.
50-50 Mfd.
70-50 Mfd.
80-50 Mfd.



In addition, the versatility of this unit makes it an ideal replacement for many combinations of capacitance within its ratings, both single and dual capacitance units.

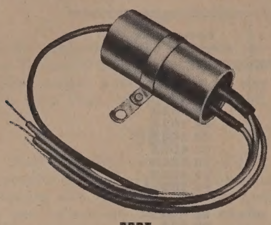
A modest stock of ESS-7515's provides an ever-ready answer for a multitude of service replacements.

Cat. No.	Diam. x Length	List Price	Net Price
ESS-7515	1 in. x 2 1/2 in.	$2.00	$1.20

CORNELL-DUBILIER ELECTRONICS

CLAS

Multi-Section Tubular Electrolytics 201.



BBRT

A series of compact, tubular METAL-CASED, CARDBOARD SLEEVED electrolytics—specially sealed against heat and humidity.

Featuring—

- Direct-to-terminal internal lead construction reduces possibility of shorts. (Pure aluminum wires crimped securely together with outer leads within aluminum stud terminals.)
- New high-insulation vinylite covered leads — generous 7 inches long.
- Sections sealed in aluminum tube for protection against moisture getting in, or electrolyte drying out.
- Wax impregnated cardboard outer insulation sleeve.
- Rubber diaphragm-type vent insures ideal vent action under all conditions.
- **IDEAL FOR OPERATION AT TEMPERATURES UP TO 85° C.**

BBRD — Dual Common Negative

BBRD Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Net Price
BBRD 2202	20-20	25	¾ x 1 1/16	$1.40	**$ .84**
BBRD 115	10-10	50	¾ x 1 1/16	1.40	**.84**
BBRD 2115	20-10	150	¾ x 1 7/16	1.55	**.93**
BBRD 2215	20-20	150	¾ x 1 11/16	1.65	**.99**
BBRD 3215	30-20	150	⅞ x 1 11/16	1.70	**1.02**
BBRD 3315	30-30	150	⅞ x 1 11/16	1.80	**1.08**
BBRD 4215	40-20	150	⅞ x 1 11/16	1.75	**1.05**
BBRD 4315	40-30	150	⅞ x 2	1.80	**1.08**
BBRD 4415	40-40	150	⅞ x 2	1.85	**1.11**
BBRD 5315	50-30	150	⅞ x 2	1.95	**1.17**
BBRD 5515	50-50	150	1 x 2	2.10	**1.26**
BBRD 8415	80-40	150	1 x 2 3/16	2.25	**1.35**
BBRD 8515	80-50	150	1 x 2½	2.30	**1.38**
***BBRD 0183.7**	100-50	150	1 x 3	3.00	**1.80**
***BBRD 101015**	100-100	150	1 x 3	3.20	**1.92**
***BBRD 0196**	200-5	200	1 x 4 1/16	3.50	**2.10**
BBRD 8D25	8-8	250	¾ x 1 7/16	1.60	**.96**
BBRD 16825	16-8	250	¾ x 2	1.70	**1.02**
BBRD 16D25	16-16	250	⅞ x 2	1.80	**1.08**
BBRD 2225	20-20	250	1 x 1 11/16	1.85	**1.11**
BBRD 3325	30-30	250	1 x 2 3/16	2.25	**1.35**
***BBRD 7V225**	75-20	250	1 x 3	2.60	**1.56**
***BBRD 0242**	80-10	250	1 x 3	2.55	**1.53**
***BBRD 0246**	120-80	250	1⅜ x 3 1/16	4.00	**2.40**
***BBRD 0286**	150-100	300	1⅜ x 4 3/16	5.25	**3.15**
***BBRD 0334**	140-5	350	1⅛ x 4 1/16	4.15	**2.49**
BBRD 8D45	8-8	450	⅞ x 1 11/16	1.70	**1.02**
BBRD 1145	10-10	450	⅞ x 2	1.95	**1.17**
BBRD 16845	16-8	450	1 x 2 3/16	2.00	**1.20**
BBRD 16D45	16-16	450	1 x 2½	2.25	**1.35**
***BBRD 2245**	20-20	450	1 x 3	2.50	**1.50**
***BBRD 3345**	30-30	450	1⅛ x 3 9/16	3.00	**1.80**
***BBRD 4445**	40-40	450	1 x 4 1/16	3.40	**2.04**
***BBRD 0576**	60, 125	200, 50	1 x 3	3.25	**1.95**
BBRD 0646	20, 100	450, 25	1 x 2½	2.20	**1.32**
***BBRD 0652**	40, 50	450, 50	1 x 3 9/16	3.00	**1.80**
***BBRD 0722**	80, 100	450, 50	1⅜ x 3 9/16	3.75	**2.25**
***BBRD 0707**	30, 50	450, 200	1⅛ x 2½	2.85	**1.71**

BBRT — Triple-Common Negative

BBRT Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	N Pr
BBRT 22215	20-20-20	150	⅞ x 1 11/16	$2.20	$1
BBRT 32V215	30-25-20	150	⅞ x 2	2.25	1
BBRT 33315	30-30-30	150	1 x 2	2.35	1
BBRT 42215	40-20-20	150	1 x 1 11/16	2.25	1
BBRT 43215	40-30-20	150	1 x 2	2.35	1
BBRT 44215	40-40-20	150	1 x 2	2.35	1
BBRT 44415	40-40-40	150	1 x 2 3/16	2.45	1
BBRT 53215	50-30-20	150	1 x 2	2.45	1
***BBRT 84215**	80-40-20	150	1 x 3	2.75	1
***BBRT 0126.5**	150-150-150	150	1⅜ x 4 3/16	4.75	2
BBRT 0129	250-200-10	150	1⅜ x 4 3/16	5.65	3
***BBRT 7V4125**	75-40-10	250	1⅛ x 3	3.45	2
***BBRT 0185**	40-40-40	300	1⅛ x 3	4.60	2
***BBRT 0196**	120-40-10	300	1⅜ x 3 1/16	4.85	2
***BBRT 0235**	60-60-5	350	1⅜ x 3 1/16	4.25	2
***BBRT 11145**	10-10-10	450	1 x 2½	2.45	1.
***BBRT 16T45**	16-16-16	450	1⅛ x 3	3.10	1.
BBRT 4415X25	40-40, 250	150, 10	1 x 2 3/16	2.60	1.
BBRT 5315X20	50-30, 200	150, 10	1 x 2 3/16	2.55	1.
BBRT 5315C	50-30, 20	150, 25	1 x 1 11/16	2.35	1.
BBRT 5515C	50-50, 20	150, 25	1 x 2 3/16	2.50	1.
BBRT 8415C	80-40, 20	150, 25	1 x 2½	2.65	1.
BBRT 3215C10	30-20, 100	150, 25	1 x 2	2.35	1.
BBRT 2215C	20-20, 20	150, 25	⅞ x 1 11/16	2.05	1.
BBRT 3315C	30-30, 20	150, 25	⅞ x 2	2.20	1.
BBRT 4215C	40-20, 20	150, 25	1 x 1 11/16	2.15	1.
BBRT 4315C	40-30, 20	150, 25	1 x 1 11/16	2.20	1.
BBRT 4415C	40-40, 20	150, 25	1 x 1 11/16	2.25	1.
BBRT 5315C10	50-30, 100	150, 25	1 x 2 3/16	2.45	1.
***BBRT 5315C25**	50-30, 250	150, 25	1 x 3	3.10	1.
BBRT 8215C10	80-20, 100	150, 25	1 x 2½	2.75	1.
BBRT 2225C	20-20, 20	250, 25	1 x 2	2.25	1.
BBRT 4225C	40-20, 20	250, 25	1 x 2 3/16	2.55	1.
BBRT 4425C	40-40, 20	250, 25	1 x 2 11/16	2.90	1.
***BBRT 0733**	80-10, 100	300, 50	1⅜ x 3 1/16	4.05	2.
***BBRT 0878**	140-5, 200	350, 200	1½ x 4 3/16	6.70	4.
***BBRT 2245C**	20-20, 20	450, 25	1 x 3	2.90	1.
BBRT 0925	10-10, 100	450, 50	1 x 3	3.30	1.
***BBRT 1238**	5, 80-40	450, 400	1⅜ x 3 9/16	4.55	2.
***BBRT 1411**	30, 50, 100	450, 150, 25	1⅛ x 3	3.70	2.

BBRQ — Quadruple-Common Negative

BBRQ Cat. No.	Cap. Mfd.	D.C. W. Volts	Can† Size—Inches Dia. x Lgth.	List Price	Ne Pric
***BBRQ 111145**	10-10-10-10	450	1 x 3	$3.20	$1.
***BBRQ 222245**	20-20-20-20	450	1⅛ x 4 1/16	4.50	2.
***BBRQ 0125**	20-20-20-10	450	1⅜ x 3 1/16	4.25	2.
***BBRQ 0170.5**	40-20-20-10	450	1⅜ x 3 9/16	4.70	2.
***BBRQ 0174**	40-40-20-20	450	1⅜ x 4 3/16	5.45	3.
BBRQ 33215C	30-30-20, 20	150, 25	1 x 2	2.90	1.
BBRQ 42215C	40-20-20, 20	150, 25	1 x 2	2.85	1.
BBRQ 44315C	40-40-30, 20	150, 25	1 x 2½	3.00	1.
BBRQ 53215C	50-30-20, 20	150, 25	1 x 2½	3.05	1.
***BBRQ 55515C**	50-50-50, 20	150, 25	1 x 3	3.45	2.
***BBRQ 0789.4**	140-5, 200-30	300, 150	1½ x 4 3/16	5.15	3.
***BBRQ 0385**	120-40-40, 10	300, 250	1⅜ x 3 9/16	6.20	3.
***BBRQ 22245C**	20-20-20, 20	450, 25	1⅛ x 3 9/16	4.05	2.
BBRQ 0500	10-10-10, 150	450, 50	1⅛ x 3	4.60	2.
***BBRQ 0695.3**	10, 20-20-10	450, 350	1⅛ x 3	3.50	2.
***BBRQ 0789.5**	80-60, 40, 20	350, 300, 150	1⅜ x 3 9/16	5.90	3.
***BBRQ 0925**	140, 5, 200-30	350, 300, 200	1½ x 4 3/16	7.65	4.
***BBRQ 0805**	80-10, 40, 100	400, 300, 50	1⅜ x 3 9/16	5.45	3.
***BBRQ 0926.5**	10, 80, 40-40	450, 300, 250	1⅜ x 3 9/16	4.95	2.
***BBRQ 0954**	10, 80, 40, 100	450, 300, 250, 50	1⅜ x 3 9/16	4.80	2.
BBRQ 0954.5	20, 120, 40, 100	450, 300, 250, 50	1⅜ x 4 3/16	6.15	3.

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†For OVERALL size add 1/16″ to Diam. and 3/16″ to Length.
All above Packed—5 Units per Carton, except those marked (*) which are individual Carton Packed.

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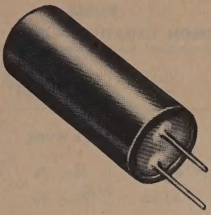
LASS

01.10 Phenolic-Cased Parallel-Leads Electrolytics

CDE



ECPB

Type **ECPB** is an aluminum foil electrolytic capacitor embedded and sealed into a premolded phenolic case with single-ended, parallel lead termination. A special cast-resin sealer is employed which forms a moisture-tight seal and anchor for the pull-proof leads. This construction is especially well suited to printed board assemblies and because of its ultra-small size, is ideal for compact transistor circuitry.

Scrupulous selection of high-purity materials and precise fabrication assure a unit of the highest dependability.

TEMPERATURE RANGE: —20°C. to +65°C.

TOLERANCE: —10%, +150%

SINGLES

ECPB Cat. No.	Cap. Mfd.	Size—Inches† Diam. x Length	List Price	Net Price
		3 WVDC		
ECPB 15	50	⅜ x ⅝	$1.55	**$ .93**
ECPB 16	75	⅜ x ¾	1.70	**1.02**
ECPB 17	100	⅜ x ⅞	1.75	**1.05**
ECPB 18	125	7/16 x ⅞	1.75	**1.05**
ECPB 19	150	7/16 x ⅞	1.75	**1.05**
ECPB 20	175	½ x ⅞	1.80	**1.08**
ECPB 21	200	½ x ⅞	1.80	**1.08**
ECPB 22	250	½ x 1	1.95	**1.17**
ECPB 23	300	½ x 1¼	2.00	**1.20**
ECPB 24	350	½ x 1¼	2.05	**1.23**
		6 WVDC		
ECPB 113	35	⅜ x ⅝	1.50	**.90**
ECPB 114	40	⅜ x ⅝	1.50	**.90**
ECPB 115	50	⅜ x ¾	1.55	**.93**
ECPB 116	75	⅜ x ⅞	1.70	**1.02**
ECPB 117	100	7/16 x ¾	1.75	**1.05**
ECPB 118	125	½ x ⅞	1.80	**1.08**
ECPB 119	150	½ x ⅞	1.90	**1.14**
ECPB 120	175	½ x 1	1.90	**1.14**
ECPB 121	200	½ x 1	1.95	**1.17**
ECPB 122	250	½ x 1¼	2.00	**1.20**
ECPB 123	300	½ x 1¼	2.10	**1.26**

SINGLES

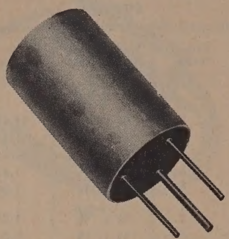
ECPB Cat. No.	Cap. Mfd.	Size—Inches† Diam. x Length	List Price	Net Price
		15 WVDC		
ECPB 401	1	⅜ x ⅝	$1.45	**$ .87**
ECPB 402	2	⅜ x ⅝	1.45	**.87**
ECPB 403	3	⅜ x ⅝	1.45	**.87**
ECPB 404	4	⅜ x ⅝	1.45	**.87**
ECPB 405	5	⅜ x ⅝	1.50	**.90**
ECPB 406	6	⅜ x ⅝	1.50	**.90**
ECPB 407	8	⅜ x ⅝	1.50	**.90**
ECPB 408	10	⅜ x ⅝	1.50	**.90**
ECPB 409	15	⅜ x ⅝	1.55	**.93**
ECPB 410	20	⅜ x ⅝	1.55	**.93**
ECPB 411	25	⅜ x ⅝	1.55	**.93**
ECPB 412	30	⅜ x ⅝	1.55	**.93**
ECPB 413	35	⅜ x ¾	1.55	**.93**
ECPB 414	40	⅜ x ⅞	1.60	**.96**
ECPB 415	50	⅜ x ⅞	1.65	**.99**
ECPB 416	75	7/16 x ⅞	1.80	**1.08**
ECPB 417	100	½ x ⅞	1.95	**1.17**
ECPB 418	125	½ x 1	2.00	**1.20**
ECPB 419	150	½ x 1¼	2.05	**1.23**
ECPB 420	175	½ x 1¼	2.10	**1.26**
ECPB 421	200	½ x 1¼	2.20	**1.32**
		25 WVDC		
ECPB 601	1	⅜ x ⅝	1.50	**.90**
ECPB 602	2	⅜ x ⅝	1.50	**.90**
ECPB 603	3	⅜ x ⅝	1.55	**.93**
ECPB 604	4	⅜ x ⅝	1.65	**.99**
ECPB 605	5	⅜ x ⅝	1.65	**.99**
ECPB 606	6	⅜ x ⅝	1.65	**.99**
ECPB 607	8	⅜ x ⅝	1.65	**.99**
ECPB 608	10	⅜ x ⅝	1.65	**.99**
ECPB 609	15	⅜ x ⅝	1.65	**.99**
ECPB 610	20	⅜ x ¾	1.65	**.99**
ECPB 611	25	⅜ x ⅞	1.65	**.99**
ECPB 612	30	7/16 x ¾	1.70	**1.02**
ECPB 613	35	7/16 x ⅞	1.75	**1.05**
ECPB 614	40	7/16 x ⅞	1.75	**1.05**
ECPB 615	50	½ x ⅞	1.75	**1.05**
ECPB 616	75	½ x 1	1.95	**1.17**
ECPB 617	100	½ x 1¼	2.00	**1.20**
		50 WVDC		
ECPB 806	6	⅜ x ⅝	1.65	**.99**
ECPB 807	8	⅜ x ⅝	1.65	**.99**
ECPB 808	10	⅜ x ⅝	1.65	**.99**
ECPB 809	15	⅜ x ⅞	1.65	**.99**
ECPB 810	20	7/16 x ¾	1.65	**.99**
ECPB 811	25	7/16 x ⅞	1.65	**.99**
ECPB 812	30	7/16 x ⅞	1.70	**1.02**
ECPB 813	35	½ x ⅞	1.75	**1.05**
ECPB 814	40	½ x ⅞	1.75	**1.05**
ECPB 815	50	½ x 1	1.75	**1.05**
ECPB 816	75	½ x 1¼	1.95	**1.17**
		75 WVDC		
ECPB 901	1	⅜ x ⅝	1.25	**.75**
ECPB 902	2	⅜ x ⅝	1.25	**.75**
ECPB 903	3	⅜ x ⅝	1.25	**.75**
ECPB 904	4	⅜ x ¾	1.25	**.75**
ECPB 905	5	⅜ x ⅞	1.30	**.78**
ECPB 906	6	7/16 x ¾	1.30	**.78**
ECPB 907	8	7/16 x ⅞	1.30	**.78**
ECPB 908	10	7/16 x 1	1.35	**.81**
ECPB 910	15	½ x 1	1.35	**.81**
ECPB 911	20	½ x 1¼	1.35	**.81**

†LEAD SPACING = Nominal .168″ for ⅜″ or 7/16″ Dia. cases; .283″ for ½″ Dia. cases.
LEAD LENGTH = ¾″ Min. — #22 AWG tinned copper.

CORNELL-DUBILIER ELECTRONICS

CLAS

Aluminum-Cased Parallel-Leads Electrolytics 201.1



ECPAN - ECPAP

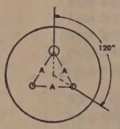
Types **ECPAN** and **ECPAP** are DUAL SECTION versions of the type **ECPB.** The dual types are housed in a tubular *aluminum* case as compared with the *phenolic* cased **ECPB.** Otherwise they are electrically and physically similar to type **ECPB.**

Type **ECPAN** are COMMON NEGATIVE-Dual Anode capacitors.

Type **ECPAP** are COMMON POSITIVE-Dual Cathode capacitors.

*NOMINAL LEAD SPACING: Dimension "A"

For ½″ Diameter case = 7/32″
For 9/16″ Diameter case = ¼″
For ⅝″ Diameter case = 9/32″
For ¾″ Diameter case = 11/32″
For 1″ Diameter case = 7/16″



*NOMINAL LEAD LENGTH: ½″

DUALS
COMMON NEGATIVE — DUAL ANODE

ECPAN Cat. No.	Cap. Mfd.	Size—Inches* Diam. x Length	List Price	Net Price
		10 WVDC		
ECPAN 1	25–25	½ x ¾	$2.05	**$1.23**
ECPAN 2	50–25	½ x ¾	2.15	**1.29**
ECPAN 3	100–25	½ x ⅞	2.30	**1.38**
ECPAN 4	30–30	½ x ¾	2.40	**1.44**
ECPAN 5	50–50	½ x ¾	2.15	**1.29**
ECPAN 6	100–50	9/16 x ⅞	2.50	**1.50**
ECPAN 7	100–100	9/16 x ⅞	3.00	**1.80**
		15 WVDC		
ECPAN 8	25–25	½ x ¾	2.60	**1.56**
ECPAN 9	50–25	½ x ¾	2.85	**1.71**
ECPAN 10	100–25	9/16 x ⅞	3.05	**1.83**
ECPAN 11	30–30	½ x ¾	2.70	**1.62**
ECPAN 12	50–50	½ x ¾	2.95	**1.77**
ECPAN 13	100–50	9/16 x ⅞	3.20	**1.92**
ECPAN 14	100–100	⅝ x 1	3.30	**1.98**
		25 WVDC		
ECPAN 15	25–25	½ x ⅞	$3.40	**$2.00**
ECPAN 16	50–25	9/16 x ⅞	3.50	**2.10**
ECPAN 17	100–25	⅝ x 1	3.65	**2.20**
ECPAN 18	30–30	9/16 x ⅞	3.45	**2.07**
ECPAN 19	50–50	⅝ x 1	3.55	**2.13**
ECPAN 20	100–50	⅝ x 1¼	3.75	**2.25**
ECPAN 21	100–100	⅝ x 1½	4.20	**2.52**
ECPAN 22	250–250	1 x 1½	5.40	**3.24**
		50 WVDC		
ECPAN 23	25–25	9/16 x ⅞	3.70	**2.22**
ECPAN 24	50–25	⅝ x 1	3.95	**2.37**
ECPAN 25	50–50	¾ x 1	4.20	**2.52**

ECPAP COMMON POSITIVE — DUAL CATHODE

		10 WVDC		
ECPAP 1	25–25	½ x ¾	$2.45	**$1.77**
ECPAP 2	50–25	½ x ¾	2.70	**1.62**
ECPAP 3	100–25	½ x ⅞	2.85	**1.71**
ECPAP 4	30–30	½ x ¾	2.60	**1.56**
ECPAP 5	50–50	½ x ¾	2.70	**1.62**
ECPAP 6	100–50	9/16 x ⅞	3.00	**1.80**
ECPAP 7	100–100	9/16 x ⅞	3.60	**2.16**
		15 WVDC		
ECPAP 8	25–25	½ x ¾	2.55	**1.53**
ECPAP 9	50–25	½ x ¾	2.55	**1.53**
ECPAP 10	100–25	9/16 x ⅞	2.70	**1.62**
ECPAP 11	30–30	½ x ¾	2.95	**1.77**
ECPAP 12	50–50	½ x ¾	3.20	**1.92**
ECPAP 13	100–50	9/16 x ⅞	3.45	**2.07**
ECPAP 14	100–100	⅝ x 1	3.65	**2.19**
		25 WVDC		
ECPAP 15	25–25	½ x ⅞	3.65	**2.19**
ECPAP 16	50–25	9/16 x ⅞	3.85	**2.31**
ECPAP 17	100–25	⅝ x 1	4.00	**2.40**
ECPAP 18	30–30	9/16 x ⅞	3.80	**2.28**
ECPAP 19	50–50	⅝ x 1	3.90	**2.34**
ECPAP 20	100–50	⅝ x 1¼	4.15	**2.49**
ECPAP 21	100–100	⅝ x 1½	4.55	**2.73**
ECPAP 22	250–250	1 x 1½	5.95	**3.57**
		50 WVDC		
ECPAP 23	25–25	9/16 x ⅞	4.10	**2.46**
ECPAP 24	50–25	⅝ x 1	4.35	**2.61**
ECPAP 25	50–50	¾ x 1	4.55	**2.73**

Trade Discount Applies To List Prices Only

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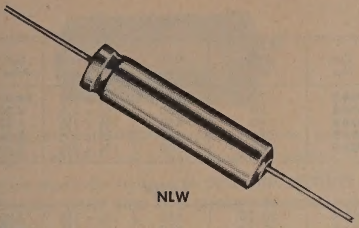
CORNELL-DUBILIER ELECTRONICS

CLASS

01.15 "ELECTOMITE" Metal-Cased Electrolytics



NLW

Type **NLW** is an aluminum foil capacitor, hermetically sealed into an ultra-small tubular aluminum can which is tightly fitted with an outer transparent plastic sleeve to insure freedom from "shorts" with adjacent components commonly found in compact assemblies. All terminal connections are securely *welded*. Despite their extremely small size, "Electomites" exhibit excellent electrical characteristics as well as rugged physical construction. Ideal for by-pass, filter and coupling applications in low-voltage, compact, miniaturized equipment.

TEMPERATURE RANGE: —40°C. to +85°C.

TOLERANCE: —10%, +150%

NOMINAL LEAD LENGTH: 1½"

NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 10-3	10	3	3/16 x ½	$1.25	**$.75**
NLW 25-3	25	3	¼ x ½	1.25	**.75**
NLW 35-3	35	3	¼ x ⅝	1.25	**.75**
NLW 40-3	40	3	¼ x ⅝	1.25	**.75**
NLW 50-3	50	3	¼ x ¾	1.25	**.75**
NLW 75-3	75	3	5/16 x ¾	1.40	**.85**
NLW 100-3	100	3	⅜ x ⅝	1.40	**.84**
NLW 125-3	125	3	⅜ x ⅝	1.40	**.84**
NLW 150-3	150	3	⅜ x ¾	1.45	**.87**
NLW 175-3	175	3	⅜ x ¾	1.50	**.90**
NLW 200-3	200	3	⅜ x ⅞	1.50	**.90**
NLW 250-3	250	3	⅜ x 1	1.60	**.96**
NLW 300-3	300	3	⅜ x 1	1.65	**.99**
NLW 350-3	350	3	⅜ x 1	1.65	**.99**
NLW 400-3	400	3	⅜ x 1¼	1.70	**1.02**
NLW 450-3	450	3	⅜ x 1½	1.75	**1.05**
NLW 1-6	1	6	3/16 x ½	1.25	**.75**
NLW 10-6	10	6	3/16 x ½	1.35	**.81**
NLW 15-6	15	6	¼ x ½	1.35	**.81**
NLW 20-6	20	6	¼ x ½	1.35	**.81**
NLW 30-6	30	6	¼ x ⅝	1.40	**.84**
NLW 40-6	40	6	5/16 x ⅝	1.40	**.84**
NLW 50-6	50	6	5/16 x ¾	1.40	**.84**
NLW 125-6	125	6	⅜ x ¾	1.50	**.90**
NLW 150-6	150	6	⅜ x ⅞	1.55	**.93**
NLW 175-6	175	6	⅜ x 1	1.55	**.93**
NLW 250-6	250	6	⅜ x 1¼	1.70	**1.02**
NLW 300-6	300	6	⅜ x 1½	1.80	**1.08**
NLW 8-10	8	10	3/16 x ½	1.35	**.81**
NLW 25-10	25	10	¼ x ⅝	1.45	**.87**
NLW 40-10	40	10	5/16 x ¾	1.45	**.87**
NLW 50-10	50	10	5/16 x ¾	1.55	**.93**
NLW 75-10	75	10	⅜ x ⅝	1.65	**.99**
NLW 125-10	125	10	⅜ x ⅞	1.85	**1.11**
NLW 150-10	150	10	⅜ x 1	1.90	**1.14**
NLW 225-10	225	10	⅜ x 1¼	2.10	**1.26**
NLW 15-12	15	12	¼ x ½	1.40	**.84**
NLW 35-12	35	12	5/16 x ⅝	1.45	**.87**
NLW 100-12	100	12	⅜ x ¾	1.75	**1.05**
NLW 200-12	200	12	⅜ x 1¼	2.05	**1.23**
NLW 250-12	250	12	⅜ x 1½	2.20	**1.32**

NLW (cont'd)

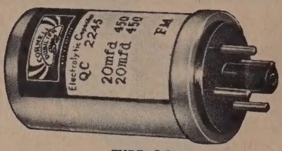
NLW Cat. No.	Cap. Mfd.	WVDC	Can Size—Inches Diam. x Length	List Price	Net Price
NLW 3-15	3	15	3/16 x ½	$1.25	**$.75**
NLW 4-15	4	15	3/16 x ½	1.30	**.78**
NLW 5-15	5	15	3/16 x ½	1.40	**.84**
NLW 6-15	6	15	3/16 x ½	1.40	**.84**
NLW 10-15	10	15	¼ x ½	1.40	**.84**
NLW 15-15	15	15	¼ x ⅝	1.45	**.87**
NLW 20-15	20	15	¼ x ⅝	1.45	**.87**
NLW 25-15	25	15	5/16 x ⅝	1.45	**.87**
NLW 30-15	30	15	5/16 x ⅝	1.50	**.90**
NLW 35-15	35	15	⅜ x ⅝	1.55	**.93**
NLW 40-15	40	15	⅜ x ⅝	1.55	**.93**
NLW 50-15	50	15	⅜ x ⅝	1.60	**.96**
NLW 75-15	75	15	⅜ x ¾	1.70	**1.02**
NLW 100-15	100	15	⅜ x ⅞	1.80	**1.08**
NLW 125-15	125	15	⅜ x 1	1.85	**1.11**
NLW 150-15	150	15	⅜ x 1¼	1.95	**1.17**
NLW 175-15	175	15	⅜ x 1¼	2.00	**1.20**
NLW 200-15	200	15	⅜ x 1½	2.10	**1.26**
NLW 3-25	3	25	3/16 x ½	1.30	**.78**
NLW 6-25	6	25	¼ x ½	1.40	**.84**
NLW 8-25	8	25	¼ x ½	1.45	**.87**
NLW 10-25	10	25	¼ x ⅝	1.45	**.87**
NLW 15-25	15	25	5/16 x ⅝	1.45	**.87**
NLW 20-25	20	25	⅜ x ⅝	1.50	**.90**
NLW 25-25	25	25	⅜ x ⅝	1.55	**.93**
NLW 30-25	30	25	⅜ x ⅝	1.60	**.96**
NLW 35-25	35	25	⅜ x ¾	1.60	**.96**
NLW 40-25	40	25	⅜ x ¾	1.70	**1.02**
NLW 50-25	50	25	⅜ x ⅞	1.80	**1.08**
NLW 75-25	75	25	⅜ x 1¼	1.95	**1.17**
NLW 100-25	100	25	⅜ x 1½	2.10	**1.26**
NLW 1-50	1	50	3/16 x ½	1.30	**.78**
NLW 2-50	2	50	3/16 x ½	1.35	**.81**
NLW 3-50	3	50	¼ x ½	1.35	**.81**
NLW 4-50	4	50	¼ x ½	1.35	**.81**
NLW 5-50	5	50	¼ x ½	1.45	**.87**
NLW 6-50	6	50	¼ x ⅝	1.45	**.87**
NLW 8-50	8	50	5/16 x ½	1.50	**.90**
NLW 10-50	10	50	5/16 x ⅝	1.50	**.90**
NLW 15-50	15	50	⅜ x ⅝	1.50	**.90**
NLW 20-50	20	50	⅜ x ⅝	1.50	**.90**
NLW 25-50	25	50	⅜ x ¾	1.55	**.93**
NLW 30-50	30	50	⅜ x ¾	1.60	**.96**
NLW 35-50	35	50	⅜ x ⅞	1.70	**1.02**
NLW 40-50	40	50	⅜ x 1	1.75	**1.05**
NLW 50-50	50	50	⅜ x 1¼	1.85	**1.11**
NLW 75-50	75	50	⅜ x 1½	2.00	**1.20**
NLW 2-100	2	100	¼ x ⅝	1.40	**.84**
NLW 3-100	3	100	5/16 x ⅝	1.40	**.84**
NLW 6-100	6	100	⅜ x ⅝	1.50	**.90**
NLW 8-100	8	100	⅜ x ¾	1.55	**.93**
NLW 10-100	10	100	⅜ x ⅞	1.55	**.93**
NLW 15-100	15	100	⅜ x 1¼	1.55	**.93**
NLW 20-100	20	100	⅜ x 1½	1.60	**.96**
NLW 1-150	1	150	¼ x ½	1.40	**.84**
NLW 2-150	2	150	5/16 x ⅝	1.45	**.87**
NLW 3-150	3	150	⅜ x ⅝	1.45	**.87**
NLW 4-150	4	150	⅜ x ⅝	1.45	**.87**
NLW 5-150	5	150	⅜ x ⅝	1.55	**.93**
NLW 6-150	6	150	⅜ x ¾	1.55	**.93**
NLW 8-150	8	150	⅜ x ⅞	1.60	**.96**
NLW 10-150	10	150	⅜ x 1	1.60	**.96**
NLW 12-150	12	150	⅜ x 1¼	1.60	**.96**
NLW 15-150	15	150	⅜ x 1¼	1.60	**.96**
NLW 18-150	18	150	⅜ x 1½	1.60	**.96**

CORNELL-DUBILIER ELECTRONICS

CDE

CLAS
201.3

Plug-In Electrolytics
Conversion Adapters



TYPE QC★

Type QC Capacitors are hermetically sealed in round aluminum containers with a four-pin octal base. Ideally suited for experimental, testing, juke box, government communication receiver uses and applications where quick capacitor changes are required. Ground lugs are furnished with all multiple-section units for cathode connection.

TEMPERATURE RANGE: to +85°C; except, +65°C at 500 V.D.C.W.

★When MIL-C-62A units must be supplied, order according to specific CE type designations.

SINGLES

QC Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
QC 1045	10	450	1 5/32 x 2½	$4.05	**$2.43**
QC 2045	20	450	1 5/32 x 2½	4.30	**2.58**
QC 4045	40	450	1⅜ x 2½	4.80	**2.88**
QC 8045	80	450	1⅜ x 3½	5.55	**3.33**
QC 4050	40	500	1⅜ x 2½	5.00	**3.00**

DUALS

QC Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
QC 2215	20–20	150	1 5/32 x 2½	4.30	**2.58**
QC 4415	40–40	150	1 5/32 x 2½	4.40	**2.64**
QC 5515	50–50	150	1 5/32 x 2½	4.65	**2.79**
QC 8815	80–80	150	1⅜ x 2½	5.15	**3.09**
QC 1145	10–10	450	1 5/32 x 2½	4.50	**2.70**
QC 2245	20–20	450	1⅜ x 2½	5.05	**3.03**
QC 3345	30–30	450	1⅜ x 3	5.55	**3.33**
QC 4445	40–40	450	1⅜ x 3½	5.90	**3.54**
QC 2250	20–20	500	1⅜ x 2½	5.30	**3.18**

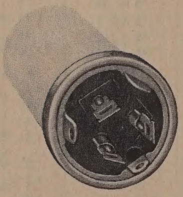
TRIPLES

QC Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
QC 22215	20–20–20	150	1 5/32 x 2½	4.85	**2.91**
QC 44415	40–40–40	150	1⅜ x 2½	5.10	**3.06**
QC 11145	10–10–10	450	1 5/32 x 2½	5.10	**3.06**
QC 22245	20–20–20	450	1⅜ x 3	6.10	**3.66**
QC 4245C	40–20/20	450/25	1⅜ x 3	6.00	**3.60**
QC 11150	10–10–10	500	1⅜ x 2½	5.30	**3.18**

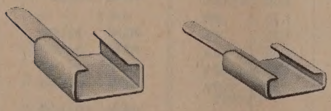
QUADRUPLES

QC Cat. No.	Cap. Mfd.	D.C. W. Volts	Size—Inches Dia. x Lgth.	List Price	Net Price
QC 11145C	10–10–10/20	450/25	1⅜ x 2½	5.65	**3.39**
QC 33145C	30–30–10/20	450/50	1⅜ x 4¼	6.85	**4.11**

TWIST-PRONG CAPACITOR ADAPTERS for PRINTED BOARD MOUNTING



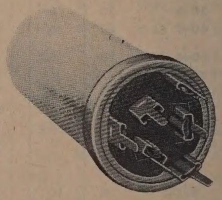
Standard Base



Large

Small

ADAPTERS



Converted Base

This special C-D ADAPTER makes it possible to convert the *standard* twist-prong capacitor *base* so that it can be mounted in a printed circuit board. In this manner a standard *stock* twist-prong unit can be utilized in servicing a printed board originally designed to use the special "plug-in" type unit (C-D types UPC and UPL). A speedy, sturdy and permanent substitution can thus be made.

Two sets (4 each) of C-D ADAPTERS are included in each packet: the larger adapters No. 55277 are for the terminals; the smaller adapters No. 55278 are for the mounting lugs.

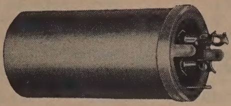
Cat. No. ADK8 per packet (8 pcs.)............List $.45

Net .27

LASS

01.35 Twist-Prong Electrolytics

CDE



Small round-can TWIST-PRONG electrolytic units. Each is furnished with a bakelite and a metal mounting washer.

X types are especially designed for SELENIUM RECTIFIER circuit applications. ONLY THIS TYPE SHOULD BE USED FOR THIS SERVICE.

TEMP. RANGE: to 475 V.D.C.W. +85°C.
over 475 V.D.C.W. +65°C.

★★ **BEST-SELLING PREFERRED TYPE**
★ **PREFERRED TYPE**

1 SECTION — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
10 Ohms 30 CPS.	A0010	¾ x 2	$2.50	$1.50
.5 Ohms 15,750 CPS.	A0020	1 x 2	2.75	1.65
1 Ohms 60 CPS.	A0030	1⅜ x 3	3.50	2.10
★★ 2000/6	A0040	1⅜ x 2	3.05	1.83
3000/10	A0050	1⅜ x 2½	3.65	2.19
★★ 225/15	A0053	¾ x 2	1.75	1.05
★★ 1000/15	A0060	1 x 2½	2.55	1.53
★★ 2000/15	A0070	1⅜ x 2	3.45	2.07
★★ 3000/15	A0080	1⅜ x 3	4.50	2.43
★ 40/25	A0090	¾ x 2	1.35	.81
100/25	A0100	¾ x 2	2.00	1.20
500/25	A0110	1 x 2½	3.20	1.92
★★ 500/25	A0120	1 x 2	2.55	1.53
★★ 1000/25	A0130	1⅜ x 2	3.55	2.13
★★ 100/50	A0140	¾ x 2	1.65	.99
★ 150/50	A0150	1 x 2	1.80	1.08
★★ 500/50	A0160	1⅜ x 2½	2.65	1.59
★ 1000/50	A0170	1⅜ x 3⅝	3.75	2.25
★★ 1500/50	A0174	1⅜ x 4⅛	4.40	2.64
★ 30/150	A0180	¾ x 2	1.55	.93
★★ 40/150	XA0191	¾ x 2	2.00	1.20
★ 50/150	A0200	1 x 2	1.65	.99
60/150	A0220	1 x 2	2.20	1.32
★★ 80/150	XA0231	1 x 2	1.85	1.11
★★ 100/150	XA0241	1 x 2½	2.00	1.20
★★ 120/150	XA0248	1 x 2½	2.05	1.23
★★ 120/150	A0250	1⅜ x 2	2.05	1.23
★★ 150/150	XA0261	1 x 3	2.15	1.29
★★ 200/150	XA0262	1⅜ x 2½	2.45	1.47
★★ 200/150	XA0262.1	1 x 3⅝	2.45	1.47
★★ 300/150	XA0263	1⅜ x 3	2.80	1.68
80/200	XA0265	1⅜ x 2	2.45	1.47
★★ 120/200	XA0265.3	1⅜ x 2	2.80	1.68
★★ 20/250	A0270	¾ x 2	1.60	.96
30/250	A0280	1 x 2	2.15	1.29
★★ 40/250	XA0291	1 x 2	1.80	1.08
★★ 100/250	XA0312	1 x 3	2.70	1.62
★★ 150/250	XA0315	1⅜ x 2½	3.10	1.86
★★ 200/250	XA0318	1⅜ x 3	3.95	2.37
50/300	A0320	1 x 2½	2.55	1.53
60/300	XA0324	1 x 2½	2.65	1.59
★★ 80/300	XA0331	1 x 3	2.55	1.53
★★ 100/300	A0340	1⅜ x 3	2.90	1.74
★★ 100/300	A0350	1 x 3⅝	2.90	1.74
★★ 150/300	XA0355	1⅜ x 3	3.50	2.10
15/350	A0360	1 x 2	2.05	1.23
★★ 30/350	A0370	1 x 2	1.90	1.14
★★ 40/350	A0380	1 x 2	2.00	1.20
★★ 50/350	A0390	1 x 3	2.10	1.26
★★ 80/350	XA0401	1⅜ x 2½	2.80	1.68
★★ 125/350	XA0411	1⅜ x 3	3.65	2.19
★★ 150/350	XA0415	1⅜ x 3⅝	3.95	2.37
★★ 10/450	A0430	1 x 2	1.75	1.05

1 SECTION — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★★ 10/450	A0440	¾ x 2	$1.95	$1.17
15/450	A0450	1 x 2	2.15	1.29
★★ 20/450	A0460	1 x 2	1.80	1.08
★★ 30/450	A0470	1 x 2½	1.95	1.17
★★ 40/450	A0480	1 x 3	2.05	1.23
★★ 50/450	A0490	1 x 3	2.35	1.41
★★ 60/450	A0500	1⅜ x 2½	2.70	1.62
★★ 80/450	A0510	1⅜ x 2½	3.05	1.83
★★ 100/450	A0512	1⅜ x 3	3.45	2.07
★★ 125/450	A0514	1⅜ x 4	3.95	2.37
★ 40/475	A0516	1⅜ x 2	2.50	1.50
★★ 10/500	A0520	1 x 2	1.60	.96
★★ 20/500	A0530	1 x 2½	1.85	1.11
25/500	A0532	1 x 2½	2.45	1.47
★★ 30/500	XA0541	1 x 3	2.20	1.32
★★ 40/500	A0550	1 x 3½	2.50	1.50
★★ 80/500	A0560	1⅜ x 3	3.60	2.16
★★ 90/500	A0570	1⅜ x 3½	3.90	2.34

2 SECTIONS — 1 VOLTAGE

.5 Ohms 15,750 CPS. 2.5 Ohms 60 CPS.	B0010	1⅜ x 2	4.90	2.94
1000-500/6 VNP	B0020	1⅜ x 2	4.80	2.88
★ 1000-1000/15	B0030	1 x 3⅝	4.40	2.64
★★ 1000-1000/15	B0040	1 x 2½	4.40	2.64
★★ 500-100/20	B0045	1 x 2	3.15	1.89
20-20/25	B0050	1 x 2	1.80	1.08
40-40/25	B0060	1 x 2	2.00	1.20
150-50/25	B0070	1 x 2	2.40	1.44
★ 50-50/50	B0080	1 x 2	1.70	1.02
★ 100-100/50	B0085	1 x 2	2.10	1.26
★★ 20-20/150	XB0091	1 x 1½	1.85	1.11
30-20/150	B0100	1 x 2	2.20	1.32
★ 30-30/150	B0110	1 x 2	1.85	1.11
★★ 40-20/150	B0120	1 x 1½	1.80	1.08
★ 40-30/150	B0130	1 x 2	1.85	1.11
★★ 40-40/150	XB0141	1 x 1½	2.00	1.20
★★ 50-30/150	B0150	1 x 1½	2.00	1.20
★★ 50-50/150	XB0161	1 x 1½	2.15	1.29
★ 60-60/150	XB0165	1 x 3	2.35	1.41
★ 75-75/150	B0170	1 x 3	2.60	1.56
★★ 80-40/150	XB0181	1 x 1¾	2.30	1.38
★ 80-80/150	XB0183	1⅜ x 2	2.65	1.59
100-100/150	XB0184	1⅜ x 2½	4.05	2.43
★ 125-100/150	XB0184.5	1⅜ x 2½	3.50	2.10
150-150/150	XB0185	1⅜ x 3	4.40	2.64
200-5/150	B0186	1⅜ x 2½	3.40	2.04
★ 200-125/150	XB0187	1⅜ x 3⅝	3.75	2.25
★★ 200-150/150	XB0188	1⅜ x 3⅝	3.75	2.25
★★ 200-200/150	XB0189	1⅜ x 2½	4.00	2.40
★ 60-60/200	B0190	1⅜ x 2	2.55	1.53
★★ 100-100/200	XB0194	1⅜ x 3	3.50	2.10
★★ 200-5/200	XB0196	1⅜ x 2	3.20	1.92
10-10/250	B0200	1 x 2	2.15	1.29
★★ 20-20/250	B0210	1 x 1½	1.90	1.14
30-30/250	B0220	1 x 2½	2.90	1.74
40-20/250	B0230	1 x 2½	2.75	1.65
40-40/250	B0240	1 x 3	3.20	1.92
★★ 40-40/250	XB0241	1 x 1¾	2.50	1.50
★★ 80-40/250	XB0243	1⅜ x 2½	3.75	2.25
★★ 150-150/250	B0250	1⅜ x 4⅛	5.15	3.09
★★ 200-200/250	XB0252	1⅜ x 4⅛	6.10	3.66
40-40/300	XB0254	1 x 3	3.75	2.25
50-50/300	B0260	1⅜ x 2½	4.20	2.52
80-40/300	XB0264	1⅜ x 2½	4.45	2.67
★★ 80-80/300	B0270	1⅜ x 3	4.05	2.43
★ 120-20/300	B0280	1⅜ x 3	4.00	2.40
120-40/300	B0282	1⅜ x 3⅝	5.45	3.27
★★ 200-80/300	B0286	1⅜ x 3⅝	5.25	3.15
★ 15-15/350	B0290	1 x 2	2.25	1.35
★★ 20-20/350	B0300	1 x 2	2.90	1.74
★★ 30-30/350	B0310	1 x 3	2.90	1.74

CORNELL-DUBILIER ELECTRONICS

CLAS

Twist-Prong Electrolytics 201.3

★★ BEST-SELLING PREFERRED TYPE ★ PREFERRED TYPE

2 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 50-30/**350**	B0320	1⅜ x 2½	$3.15	$1.89
60-30/**350**	B0321	1⅜ x 2½	3.15	1.89
★ 80-20/**350**	B0322	1 x 3⅝	3.50	2.10
★ 80-20/**350**	B0324	1⅜ x 2½	3.50	2.10
★★ 80-40/**350**	B0326	1⅜ x 3	3.95	2.37
★★ 80-80/**350**	B0330	1⅜ x 3⅝	4.70	2.82
★ 90-40/**350**	B0331	1⅜ x 3	4.30	2.58
★★ 100-100/**350**	B0332	1⅜ x 4⅛	6.15	3.69
★ 160-10/**350**	B0334	1⅜ x 3⅝	4.30	2.58
★★ 40-120/**400**	B0336	1⅜ x 4⅛	5.25	3.15
60-60/**400**	B0340	1⅜ x 3⅝	5.50	3.30
80-10/**400**	B0350	1⅜ x 3	4.25	2.55
★ 80-60/**400**	B0354	1⅜ x 3⅝	4.85	2.91
★★ 80-80/**400**	B0356	1⅜ x 4⅛	4.95	2.97
★ 5-5/**450**	B0362	1 x 2	1.75	1.05
★★ 10-10/**450**	B0370	1 x 2	1.90	1.14
15-10/**450**	B0374	1 x 2½	2.55	1.53
★ 15-15/**450**	B0380	1 x 2½	2.25	1.35
★★ 20-10/**450**	B0390	1 x 2½	2.25	1.35
★★ 20-20/**450**	B0400	1 x 2½	2.55	1.53
★ 30-10/**450**	B0410	1 x 3	2.50	1.50
★★ 30-30/**450**	B0430	1⅜ x 2½	3.05	1.83
40-5/**450**	B0436	1 x 3	3.20	1.92
★★ 40-20/**450**	B0440	1⅜ x 2½	3.00	1.80
★★ 40-40/**450**	B0450	1⅜ x 2½	3.45	2.07
★★ 50-50/**450**	XB0455†	1⅜ x 3	3.85	2.31
★ 60-20/**450**	B0460	1⅜ x 3	3.55	2.13
★★ 60-40/**450**	B0462	1⅜ x 3⅝	3.95	2.37
60-60/**450**	B0464	1⅜ x 3⅝	5.65	3.39
★★ 80-10/**450**	B0470	1⅜ x 3	3.60	2.16
★ 80-20/**450**	B0473	1⅜ x 3⅝	3.90	2.34
80-30/**450**	B0477	1⅜ x 3⅝	4.20	2.40
★★ 80-40/**450**	B0480	1⅜ x 3⅝	4.35	2.61
★★ 100-40/**450**	B0483	1⅜ x 4⅛	4.85	2.91
★ 15-15/**475**	B0485	1 x 2½	2.35	1.41
★ 30-10/**475**	B0486	1⅜ x 2	2.70	1.62
★ 40-10/**475**	B0487	1⅜ x 2½	3.10	1.86
★ 80-50/**475**	B0489	1⅜ x 4⅛	5.20	3.12
★★ 10-10/**500**	B0490	1 x 2	2.35	1.41
★★ 20-20/**500**	B0500	1⅜ x 2½	2.85	1.71
25-40/**500**	B0510	1⅜ x 3	4.55	2.73
★ 30-10/**500**	B0520	1⅜ x 2½	2.85	1.71
★★ 40-40/**500**	B0530	1⅜ x 3	4.40	2.64
★★ 60-40/**500**	B0540	1⅜ x 3⅝	4.60	2.76

2 SECTIONS — 2 VOLTAGES

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 250/**10** 1000/**6**	B0550	1⅜ x 2	2.85	1.71
40/**150** 20/**50**	B0560	1 x 2	2.15	1.29
40/**150** 150/**25**	B0570	1 x 2	2.55	1.53
★ 50/**150** 500/**5**	B0574	1 x 2½	2.45	1.47
★ 150/**150** 100/**25**	B0575	1⅜ x 2½	2.70	1.62
150/**150** 100/**50**	XB0575.5	1 x 3⅝	2.85	1.71
60/**200** 125/**50**	B0576	1 x 3	3.00	1.80
40/**250** 20/**25**	B0580	1 x 2	2.50	1.50
50/**250** 100/**50**	B0590	1⅜ x 2	3.25	1.95
★ 100/**250** 150/**50**	B0600	1⅜ x 3	3.65	2.19
10/**300** 40/**50**	B0601	1 x 2	1.70	1.02
★ 35/**300** 500/**6**	XB0603	1 x 2½	2.80	1.68
80/**300** 100/**50**	B0606	1⅜ x 2½	3.95	2.37
★★ 150/**300** 100/**150**	B0608	1⅜ x 3⅝	4.50	2.70
20/**350** 20/**25**	B0610	1 x 2	2.40	1.44
20/**350** 100/**75**	B0612	1 x 2½	2.80	1.68
40/**350** 20/**25**	B0620	1 x 2½	2.95	1.77
★ 35/**400** 100/**50**	B0623	1 x 3	2.60	1.56
80/**400** 80/**200**	B0625	1⅜ x 3⅝	3.95	2.37
★★ 100/**400** 30/**50**	B0626	1⅜ x 3	3.90	2.34
★ 10/**450** 20/**25**	B0630	1 x 2	1.75	1.05
20/**450** 20/**25**	B0640	1 x 2	2.50	1.50
20/**450** 100/**25**	B0646	1 x 2½	2.75	1.65
40/**450** 20/**25**	B0650	1 x 3	3.05	1.83
40/**450** 50/**50**	B0652	1 x 3⅝	3.75	2.25
40/**450** 10/**300**	B0654	1 x 3	2.60	1.56
80/**450** 20/**25**	B0660	1⅜ x 3	4.25	2.55

2 SECTIONS — 2 VOLTAGES

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
10/**450** 100/**50**	B0670	1⅜ x 2	$2.55	$1.53
★ 20/**450** 50/**250**	B0674	1 x 2½	2.80	1.68
★ 20/**450** 80/**350**	B0680	1⅜ x 3	3.65	2.19
20/**450** 100/**100**	B0690	1⅜ x 2	3.30	1.98
30/**450** 40/**150**	B0700	1⅜ x 2	3.15	1.89
★ 30/**450** 200/**150**	B0705	1⅜ x 3	3.50	2.10
★ 40/**450** 10/**350**	B0710	1⅜ x 2	2.65	1.59
★ 50/**450** 100/**50**	B0715	1⅜ x 2½	3.00	1.80
★ 80/**450** 50/**50**	B0720	1⅜ x 3	3.50	2.10
★★ 80/**450** 100/**50**	B0722	1⅜ x 3	3.75	2.25
80/**450** 40/**200**	B0724	1⅜ x 3	4.75	2.85
★ 20/**475** 100/**400**	B0726	1⅜ x 4⅛	4.50	2.70
15/**500** 20/**300**	B0730	1 x 2½	2.90	1.74
20/**500** 100/**300**	B0740	1⅜ x 3	4.95	2.97
40/**500** 50/**200**	B0750	1⅜ x 2½	4.20	2.52
60/**500** 80/**150**	B0760	1⅜ x 3⅝	4.70	2.82
80/**500** 50/**50**	B0770	1⅜ x 3⅝	4.75	2.85

3 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 20-20-20/**25**	C0010	1 x 2	1.95	1.17
★ 40-40-40/**25**	C0020	1 x 2	2.15	1.29
30-30-30/**50**	C0030	1 x 2	3.25	1.95
★★ 20-20-20/**150**	XC0041	1 x 1½	2.30	1.38
30-30-10/**150**	C0050	1 x 2	3.55	2.13
★ 40-20-10/**150**	C0060	1 x 2	2.35	1.41
★★ 40-20-20/**150**	XC0071	1 x 2	2.40	1.44
★★ 40-30-20/**150**	C0080	1 x 2	2.50	1.50
★★ 40-40-40/**150**	C0090	1 x 1¾	2.60	1.56
★ 40-70-40/**150**	C0100	1 x 3	2.95	1.77
★ 50-40-10/**150**	C0103	1 x 2½	2.55	1.53
★★ 50-50-50/**150**	XC0105	1 x 3	3.00	1.80
★★ 60-40-20/**150**	C0110	1 x 1½	2.75	1.65
★ 70-15-15/**150**	C0113	1 x 2½	2.70	1.62
★★ 80-40-20/**150**	C0120	1 x 3	2.90	1.74
80-80-80/**150**	XC0123	1⅜ x 3	5.65	3.39
★ 120-80-40/**150**	XC0125	1⅜ x 3	3.80	2.28
★ 120-120-40/**150**	XC0126	1⅜ x 3	4.05	2.43
★★ 200-100-60/**150**	XC0127	1⅜ x 3⅝	4.55	2.73
★ 200-150-150/**150**	XC0128	1⅜ x 4⅛	7.50	4.50
★★ 250-200-10/**150**	XC0129	1⅜ x 4⅛	5.60	3.36
20-20-10/**250**	C0130	1 x 2	3.75	2.25
★ 20-20-20/**250**	C0132	1 x 2	2.60	1.56
30-20-10/**250**	C0140	1 x 2½	4.05	2.43
40-20-10/**250**	C0150	1⅜ x 2	4.30	2.58
★ 40-20-20/**250**	C0160	1 x 3	2.90	1.74
★ 80-10-10/**250**	C0165	1 x 3	3.20	1.92
★ 80-80-60/**250**	C0170	1⅜ x 3⅝	4.90	2.94
20-80-10/**300**	C0180	1⅜ x 2½	5.70	3.42
★ 60-20-10/**300**	C0190	1⅜ x 2½	3.45	2.07
★★ 80-40-40/**300**	C0194	1⅜ x 3	4.75	2.85
★★ 120-50-40/**300**	C0200	1⅜ x 4⅛	5.65	3.39
★★ 10-10-10/**350**	C0210	1 x 2	2.40	1.44
20-20-10/**350**	C0220	1 x 3	4.45	2.67
★ 30-20-10/**350**	C0225	1 x 3	3.25	1.95
★★ 60-40-20/**350**	C0230	1⅜ x 3	4.25	2.55
60-40-40/**350**	C0232	1⅜ x 3⅝	7.05	4.23
★★ 60-50-50/**350**	C0234	1⅜ x 3⅝	4.90	2.94
★★ 80-60-60/**350**	C0236	1⅜ x 4⅛	5.55	3.33
★ 90-40-20/**350**	C0237	1⅜ x 3⅝	5.25	3.15
★★ 100-100-10/**350**	C0238	1⅜ x 4⅛	5.50	3.30
★ 80-20-10/**400**	C0239	1⅜ x 3	4.30	2.58
★ 90-10-5/**400**	C0239.2	1⅜ x 3	4.40	2.64
★★ 10-10-10/**450**	C0240	1 x 2½	2.60	1.56
15-15-10/**450**	C0250	1 x 3	4.45	2.67
★★ 15-15-15/**450**	C0254	1 x 3	3.10	1.86
★★ 20-10-10/**450**	C0260	1 x 3	2.95	1.77
★★ 20-20-20/**450**	C0270	1⅜ x 2½	3.60	2.16
★★ 30-20-20/**450**	C0280	1⅜ x 3	3.85	2.31
★★ 30-30-30/**450**	C0300	1⅜ x 3	4.35	2.61
★ 30-60-10/**450**	C0310	1⅜ x 3⅝	4.50	2.70
★★ 40-10-10/**450**	C0320	1⅜ x 3	3.35	2.01
★★ 40-30-20/**450**	C0330	1⅜ x 3	4.30	2.58
★★ 40-40-10/**450**	C0340	1⅜ x 3	4.20	2.52

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CLASS

1.35 Twist-Prong Electrolytics

★★BEST-SELLING PREFERRED TYPE ★PREFERRED TYPE

3 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★★ 40-40-20/450	C0344	1⅜ x 3	$4.45	$2.67
★★ 40-40-40/450	C0350	1⅜ x 3⅝	4.90	2.94
★ 50-40-30/450	C0355	1⅜ x 3⅝	4.90	2.94
★★ 60-20-20/450	C0360	1⅜ x 3	4.60	2.76
★★ 60-40-20/450	C0365	1⅜ x 3⅝	5.00	3.00
★★ 80-40-20/450	C0370	1⅜ x 4⅛	5.40	3.24
★ 30-30-20/475	C0371	1⅜ x 3	4.75	2.85
★★ 40-20-20/475	C0372	1⅜ x 3	4.75	2.85
★ 40-30-10/475	C0373	1⅜ x 3	4.50	2.70
★ 40-30-30/475	C0374	1⅜ x 3⅝	5.15	3.09
★★ 10-10-10/500	C0380	1 x 3	2.70	1.62
★★ 30-20-20/500	C0390	1⅜ x 3	4.20	2.52
★ 40-10-10/500	C0400	1⅜ x 3	3.90	2.34
★ 40-40-10/500	C0410	1⅜ x 3⅝	5.05	3.03

2 SECTIONS HV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 15-15/150 1200/1.5	C0420	1 x 2	3.00	1.80
20-20/150 20/25	XC0431	1 x 2	3.30	1.98
20-20/150 100/10	C0440	1 x 2	3.55	2.13
20-20/150 250/10	C0450	1 x 2	3.90	2.34
30-30/150 20/25	C0460	1 x 2	3.55	2.13
30-30/150 200/10	C0470	1 x 2	3.75	2.25
★ 40-20/150 20/25	XC0481	1 x 1½	2.30	1.38
40-20/150 100/25	C0490	1 x 2	3.75	2.25
★ 40-20/150 200/25	C0510	1 x 2½	2.70	1.62
★ 40-20/150 200/10	C0520	1 x 2	2.40	1.44
40-20/150 250/10	C0530	1 x 2	4.05	2.43
40-30/150 20/25	C0540	1 x 2	3.55	2.13
★★ 40-40/150 20/25	XC0551	1 x 1½	2.40	1.44
★★ 40-40/150 250/25	XC0555	1 x 3	3.15	1.89
★ 50-30/150 20/25	C0560	1 x 2	2.50	1.50
★ 50-30/150 100/25	C0570	1 x 1¾	2.70	1.62
★★ 50-50/150 20/25	C0580	1 x 1¾	2.65	1.59
60-20/150 20/25	C0590	1 x 2	3.85	2.31
60-40/150 20/25	C0600	1 x 2½	4.00	2.40
★ 80-30/150 300/10	XC0602	1⅜ x 2	3.15	1.89
80-30/150 300/25	XC0604	1⅜ x 2½	5.50	3.30
★★ 80-40/150 20/25	C0610	1 x 2½	2.80	1.68
★ 80-40/150 300/25	XC0613	1⅜ x 2½	3.70	2.22
★★ 80-60/150 250/10	XC0615	1⅜ x 2½	3.40	2.04
★ 100-80/150 200/10	XC0618	1⅜ x 2½	3.60	2.16
120-60/150 20/25	C0620	1⅜ x 2½	5.05	3.03
★ 300-80/150 200/50	C0626	1⅜ x 4⅛	4.95	2.97
30-20/200 20/25	C0630	1 x 2	3.85	2.31
★ 30-20/200 40/150	C0632	1 x 2½	2.70	1.62
40-80/200 100/50	C0634	1⅜ x 3	5.25	3.15
★ 60-5/200 20/50	C0636	1 x 2½	2.50	1.50
80-10/200 20/50	C0638	1 x 3	2.80	1.68
100-10/200 40/50	C0640	1⅜ x 2	4.75	2.85
★ 15-15/250 20/25	C0650	1 x 2	2.35	1.41
20-15/250 20/25	C0660	1 x 2	3.55	2.13
★ 30-30/250 20/25	C0670	1 x 2½	2.80	1.68
40-40/250 10/200	C0674	1 x 3	4.45	2.67
70-70/250 20/50	C0680	1⅜ x 3	5.85	3.51
80-80/250 10/450	C0690	1⅜ x 3⅝	6.30	3.78
★ 90-90/250 20/50	C0695	1⅜ x 3	4.60	2.76
10-10/300 15/250	C0700	1 x 2	3.70	2.22
20-20/300 20/25	C0710	1 x 2	4.15	2.49
30-30/300 25/50	C0720	1 x 3	4.35	2.61
40-20/300 20/25	XC0732	1 x 2½	4.65	2.79
★ 100-10/300 60/50	C0733	1⅜ x 2½	4.05	2.43
125-20/300 20/50	XC0733.2	1⅜ x 3	4.30	2.58
125-20/300 100/50	XC0733.4	1⅜ x 3⅝	7.35	4.41
125-60/300 40/50	C0733.7	1⅜ x 3⅝	7.35	4.41
★ 140-10/300 200/150	C0734	1⅜ x 4⅛	5.50	3.30
★★ 140-100/300 60/50	C0734.3	1⅜ x 4⅛	6.05	3.63
★ 200-20/300 10/100	C0735	1⅜ x 4⅛	4.90	2.94
10-5/350 30/50	C0739	1 x 2½	3.85	2.31
10-5/350 150/50	C0740	1 x 3	4.05	2.43
10-15/350 20/25	C0760	1 x 2	3.75	2.25
★★ 15-10/350 20/25	C0770	1 x 2	2.50	1.50
★ 20-4/350 100/25	C0773	1 x 2½	2.60	1.56
★ 20-5/350 150/50	C0775	1 x 3	2.95	1.77
★★ 20-10/350 20/25	C0780	1 x 2	$2.55	$1.53
★ 20-10/350 5/250	C0790	1 x 2	2.55	1.53
★★ 20-20/350 20/25	C0800	1 x 2½	2.80	1.68
30-5/350 100/200	C0806	1⅜ x 2½	6.00	3.60
30-10/350 20/25	C0810	1 x 2½	4.30	2.58
30-10/350 20/250	C0820	1 x 3	4.60	2.76
★★ 30-20/350 20/25	C0830	1 x 3	3.10	1.86
★ 30-20/350 100/150	C0835	1⅜ x 2½	4.00	2.40
★ 30-30/350 20/25	C0840	1⅜ x 2	3.40	2.04
40-20/350 10/100	C0850	1⅜ x 2	4.30	2.58
20-40/350 10/150	C0860	1 x 3	4.80	2.88
40-40/350 50/25	C0870	1⅜ x 2½	5.65	3.39
★ 80-40/350 400/50	XC0874	1⅜ x 4⅛	5.65	3.39
80-40/350 100/200	C0874.5	1⅜ x 3⅝	5.45	3.27
★★ 100-60/350 20/250	C0875	1⅜ x 4⅛	5.50	3.30
150-4/350 30/50	XC0875.5	1⅜ x 3⅝	4.75	2.85
★ 20-20/400 10/350	C0876	1 x 3	3.00	1.80
30-10/400 150/50	C0880	1⅜ x 2½	5.10	3.06
★ 60-30/400 20/350	C0885	1⅜ x 3	4.55	2.73
★★ 80-40/400 150/50	C0890	1⅜ x 3⅝	5.15	3.09
★★ 100-10/400 20/50	C0894	1⅜ x 3⅝	4.50	2.70
★★ 100-10/400 80/350	C0896	1⅜ x 4⅛	6.10	3.66
15-5/450 15/350	C0900	1 x 3	4.30	2.58
★★ 10-10/450 20/25	C0910	1 x 2	2.40	1.44
★ 10-10/450 40/50	C0920	1 x 2½	2.50	1.50
10-10/450 50/100	C0930	1⅜ x 2	4.00	2.40
15-15/450 20/25	C0940	1 x 2½	4.15	2.49
★ 15-15/450 40/25	C0945	1 x 2½	2.75	1.65
15-15/450 10/300	C0950	1 x 3	4.35	2.61
★★ 20-10/450 20/25	C0960	1 x 2½	2.70	1.62
★ 20-10/450 50/50	C0970	1 x 3	2.85	1.71
20-15/450 20/25	C0980	1 x 3	4.35	2.61
★★ 20-20/450 20/25	C0990	1 x 3	3.05	1.83
20-20/450 100/50	C0992	1⅜ x 2½	5.25	3.15
20-20/450 60/350	C1000	1⅜ x 3	6.10	3.66
★ 30-10/450 150/50	C1005	1⅜ x 2½	3.50	2.10
30-20/450 30/150	C1010	1⅜ x 2½	5.25	3.15
★ 30-30/450 20/25	C1020	1⅜ x 2½	3.55	2.13
30-30/450 40/50	C1030	1⅜ x 3	5.50	3.30
★ 30-30/450 125/25	C1034	1⅜ x 3	3.95	2.37
★ 35-25/450 100/50	C1036	1⅜ x 3	3.95	2.37
★ 40-10/450 100/50	C1040	1⅜ x 3	4.30	2.58
★★ 40-10/450 80/200	C1050	1⅜ x 3	3.90	2.34
★ 40-20/450 20/25	C1060	1⅜ x 2½	3.50	2.10
★★ 40-40/450 20/25	C1070	1⅜ x 3	3.95	2.37
★ 40-40/450 40/25	C1080	1⅜ x 3	3.95	2.37
★ 40-40/450 100/50	C1090	1⅜ x 3	4.30	2.58
★ 40-40/450 40/150	C1100	1⅜ x 3⅝	4.10	2.46
★ 40-40/450 60/200	C1102	1⅜ x 3⅝	4.45	2.67
★ 40-40/450 80/350	C1103	1⅜ x 4⅛	5.55	3.33
★ 50-5/450 50/350	C1103.5	1⅜ x 3⅝	4.25	2.55
★ 60-40/450 75/50	C1104	1⅜ x 3⅝	4.60	2.76
★ 80-10/450 125/25	C1106	1⅜ x 3⅝	4.40	2.64
★★ 80-20/450 100/50	C1108	1⅜ x 4⅛	4.80	2.88
★ 80-40/450 100/25	C1110	1⅜ x 4⅛	5.10	3.06
★ 20-10/475 100/400	C1114	1⅜ x 4⅛	5.25	3.15
10-10/500 100/50	C1120	1 x 3	4.30	2.58
10-10/500 4/350	C1130	1 x 2½	3.75	2.25
★ 20-10/500 100/50	C1150	1 x 3⅝	3.30	1.98
20-20/500 60/400	C1160	1⅜ x 3⅝	7.20	4.32
★ 20-20/500 60/450	C1162	1⅜ x 3⅝	4.85	2.91
30-10/500 20/50	C1170	1⅜ x 2½	4.65	2.79
★★ 40-40/500 100/200	C1180	1⅜ x 4⅛	5.85	3.51

1 SECTION HV — 2 SECTIONS LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
100/100 50-25/25	C1190	1 x 3	4.00	2.40
20/150 250-100/15	C1200	1⅜ x 2	4.35	2.61
★★ 60/200 200-140/150	XC1202	1⅜ x 4	4.80	2.88
★ 10/300 500-500/15	XC1204	1⅜ x 2½	3.90	2.34
★ 20/300 150-80/150	C1206	1⅜ x 3	3.95	2.37
★ 100/300 200-30/150	XC1207	1⅜ x 4⅛	5.05	3.03
★ 100/300 200-60/150	XC1208	1⅜ x 4⅛	5.55	3.33
100/300 60-20/250	XC1209	1⅜ x 4⅛	7.35	4.41

CORNELL-DUBILIER ELECTRONICS

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CDE

★★ **BEST-SELLING PREFERRED TYPE** ★ **PREFERRED TYPE**

1 SECTION HV — 2 SECTIONS LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
120/300 15-10/450	C1210	1⅜ x 3⅝	$6.75	$4.05
★ 200/300 60-20/250	XC1212	1⅜ x 4	5.80	3.48
4/350 100-40/25	C1214	1 x 2	3.40	2.04
30/350 20-10/250	C1220	1 x 3	4.50	2.70
★ 40/350 200-100/150	C1224	1⅜ x 3⅝	5.00	3.00
★★ 60/350 200-30/150	C1226	1⅜ x 3⅝	4.40	2.64
40/400 200-60/200	C1228	1⅜ x 4⅛	8.30	4.98
80/400 20-10/300	C1230	1⅜ x 3⅝	6.40	3.84
★ 5/450 80-40/300	C1231	1⅜ x 3	4.15	2.49
10/450 20-10/25	C1232	1 x 2	3.25	1.95
★ 10/450 80-80/250	C1236	1⅜ x 3⅝	4.20	2.52
20/450 40-10/250	C1240	1⅜ x 2	4.75	2.85
★ 20/450 40-10/350	C1243	1⅜ x 2½	3.50	2.10
★ 20/450 80-10/350	C1246	1⅜ x 3⅝	4.25	2.55
30/450 100-25/25	C1250	1⅜ x 2	4.50	2.70
★ 40/450 90-50/150	C1260	1⅜ x 3	3.95	2.37
60/450 40-20/350	C1261	1⅜ x 3⅝	6.90	4.14
★ 80/450 40-40/250	C1262	1⅜ x 4⅛	4.95	2.97
80/450 100-20/50	C1263	1⅜ x 3⅝	6.40	3.84
40/475 40-10/250	C1265	1⅜ x 2½	6.00	3.60
40/475 80-10/300	C1266	1⅜ x 3⅝	7.20	4.32
40/475 20-20/450	C1268	1⅜ x 3	6.75	4.05
★ 40/475 80-10/450	C1167	1⅜ x 4⅛	5.50	3.30
10/500 80-10/150	C1269	1 x 3⅝	4.30	2.58
1 SECTION HV — 1 SECTION MV — 1 SECTION LV				
40/150 25/25 130/15	C1270	1 x 3	3.55	2.13
50/150 100/50 20/25	C1274	1 x 3	4.30	2.58
★ 80/250 40/150 50/50	C1280	1⅜ x 2½	2.90	1.74
100/300 60/150 20/50	C1290	1⅜ x 3	6.30	3.78
150/300 60/200 200/150	XC1295	1⅜ x 4⅛	5.70	3.42
★ 20/350 50/100 100/75	C1300	1 x 3	3.10	1.86
★★ 30/350 30/300 20/25	C1310	1 x 3	3.15	1.89
50/350 10/250 500/5	C1320	1⅜ x 2½	5.40	3.24
★★ 125/350 5/200 100/75	C1325	1⅜ x 3⅝	5.30	3.18
10/400 50/350 30/25	C1330	1 x 3	4.65	2.79
40/400 80/350 100/200	C1336	1⅜ x 3⅝	7.95	4.77
60/400 40/300 20/25	C1340	1⅜ x 3⅝	6.30	3.78
10/450 50/150 100/25	C1350	1 x 3	4.15	2.49
★ 10/450 50/150 100/75	C1355	1 x 3	3.25	1.95
★★ 10/450 40/300 10/150	C1360	1⅜ x 2	3.10	1.86
10/450 40/350 100/50	C1366	1⅜ x 3⅝	5.10	3.06
10/450 30/400 30/300	C1370	1⅜ x 2½	5.05	3.03
15/450 20/350 20/250	C1380	1 x 3	4.50	2.70
★ 20/450 80/200 50/50	C1385	1⅜ x 2½	3.40	2.04
★ 20/450 60/250 100/25	C1390	1⅜ x 2½	3.65	2.19
20/450 15/350 10/300	C1400	1 x 3	4.60	2.76
20/450 80/350 100/50	C1410	1⅜ x 3⅝	6.75	4.05
★ 30/450 15/350 40/25	C1412	1⅜ x 2	2.40	1.44
★ 30/450 40/350 50/25	C1414	1 x 4⅛	2.90	1.74
30/450 50/400 40/25	C1420	1⅜ x 3	5.95	3.57
★ 40/450 40/150 130/50	C1430	1⅜ x 3	3.75	2.25
40/450 100/150 50/50	C1440	1⅜ x 3	5.95	3.57
40/450 50/350 50/300	C1442	1⅜ x 4⅛	7.30	4.38
★ 60/450 80/400 20/350	C1443	1⅜ x 4⅛	5.65	3.39
★ 10/475 4/350 40/250	C1444	1⅜ x 2	3.00	1.80
10/475 4/350 100/50	C1445	1 x 2½	4.50	2.70
★ 10/475 40/450 100/200	C1445.3	1⅜ x 3	4.20	2.52
★ 20/475 50/50 20/25	C1446	1 x 3	2.75	1.65
20/475 10/350 5/150	C1448	1 x 2½	4.90	2.94
★ 80/475 80/150 50/50	C1449	1⅜ x 4⅛	4.85	2.91
10/500 100/200 40/50	C1450	1⅜ x 2½	5.05	3.03
20/500 20/300 40/25	C1460	1⅜ x 2	4.65	2.79
40/500 40/250 100/50	C1470	1⅜ x 3	6.45	3.87
40/500 40/400 25/50	C1480	1⅜ x 3	6.45	3.87
4 SECTIONS — 1 VOLTAGE				
★★ 40-40-40-30/150	D0010	1⅜ x 2	3.35	2.01
★ 100-80-60-40/150	D0014	1⅜ x 3	4.65	2.79
200-200-60 30/175	XD0015	1⅜ x 4⅛	6.00	3.60
★ 40-20-10-10/300	D0016	1⅜ x 2	3.95	2.37
★ 40-40-20-10/300	D0020	1⅜ x 2½	4.55	2.73
★ 40-40-30-20/300	D0022	1⅜ x 3	4.85	2.91
★ 60-40-10-10/300	D0024	1⅜ x 3⅝	4.55	2.73
★★ 150-100-10-5/300	D0025	1⅜ x 4⅛	6.60	3.96

4 SECTIONS — 1 VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 200-20-20-20/300	D0026	1⅜ x 5	$6.15	$3.69
★★ 40-20-20-10/350	D0032	1⅜ x 2½	4.35	2.61
★★ 40-40-40-40/350	D0034	1⅜ x 3⅝	6.00	3.60
80-10-10-10/350	D0040	1⅜ x 3⅝	6.90	4.14
80-60-40-20/350	D0042	1⅜ x 4⅛	6.40	3.84
100-40-10-10/350	D0044	1⅜ x 3⅝	7.60	4.56
140-40-10-10/350	D0046	1⅜ x 4⅛	7.90	4.74
30-30-20-20/400	D0050	1⅜ x 3	7.30	4.38
★ 50-40-30-20/400	D0054	1⅜ x 4⅛	5.50	3.30
80-10-10-10/400	D0058	1⅜ x 3⅝	7.05	4.23
★ 80-20-10-10/400	D0060	1⅜ x 3⅝	5.05	3.03
80-40-30-4/400	D0065	1⅜ x 4⅛	5.80	3.48
★ 5-5-5-5/450	D0080	1⅜ x 2	3.00	1.80
★★ 10-10-10-5/450	D0088	1⅜ x 2	4.90	2.94
★★ 10-10-10-10/450	D0090	1⅜ x 2	3.35	2.01
15-30-30-10/450	D0100	1⅜ x 3	7.05	4.23
15-30-30-30/450	D0110	1⅜ x 3⅝	7.95	4.77
★★ 20-10-10-10/450	D0120	1⅜ x 2½	3.70	2.22
★★ 20-20-20-20/450	D0130	1⅜ x 3	4.70	2.82
★ 30-15-15-15/450	D0140	1⅜ x 3	4.45	2.67
★★ 30-30-20-20/450	D0144	1⅜ x 3	5.20	3.12
★★ 35-35-10-5/450	D0150	1⅜ x 3⅝	4.65	2.79
★ 40-10-10-10/450	D0160	1⅜ x 3	4.15	2.49
★ 40-20-10-10/450	D0170	1⅜ x 3	4.45	2.67
★ 40-35-10-10/450	D0171	1⅜ x 3	4.80	2.88
★ 40-40-4-4/450	D0172	1⅜ x 3⅝	4.70	2.82
★★ 40-40-20-20/450	D0174	1⅜ x 4⅛	5.55	3.33
★★ 40-40-30-30/450	D0176	1⅜ x 4⅛	6.05	3.63
★★ 40-40-40-40/450	D0177	1⅜ x 4	6.45	3.87
★ 60-20-20-20/450	D0177.4	1⅜ x 4⅛	5.65	3.39
★ 60-30-10-2/450	D0177.6	1⅜ x 3⅝	5.10	3.06
70-10-10-5/450	D0178	1⅜ x 3⅝	7.15	4.29
★★ 80-10-10-10/450	D0179	1⅜ x 3⅝	5.05	3.03
★ 20-20-10-10/475	D0179.3	1⅜ x 2½	4.35	2.61
★ 20-20-20-20/475	D0179.5	1⅜ x 3	5.20	3.12
★ 40-20-10-10/475	D0179.7	1⅜ x 3	5.10	3.06
★ 10-10-10-10/500	D0180	1⅜ x 2	3.50	2.10
★ 40-40-8-8/500	D0185	1⅜ x 3⅝	5.70	3.42
3 SECTIONS HV — 1 SECTION LV				
20-20-20/150 20/25	D0190	1⅜ x 2	4.35	2.61
30-20-20/150 200/10	D0200	1⅜ x 2	4.65	2.79
★ 30-30-30/150 40/25	D0210	1⅜ x 2	3.10	1.86
★ 40-20-20/150 20/25	D0220	1⅜ x 2	2.95	1.77
★ 40-40-20/150 200/10	D0230	1⅜ x 2	3.25	1.95
★ 40-40-30/150 20/25	D0240	1⅜ x 2	3.10	1.86
★ 40-40-40/150 20/25	D0250	1⅜ x 2	3.15	1.89
40-40-40/150 100/25	D0260	1⅜ x 2	5.05	3.03
★ 40-40-40/150 160/25	D0270	1⅜ x 2	3.55	2.13
★ 50-20-20/150 200/25	D0275	1⅜ x 2	3.50	2.10
★ 50-30-30/150 100/25	D0280	1⅜ x 2	3.45	2.07
★ 50-50-50/150 20/25	D0290	1⅜ x 2	3.55	2.13
★★ 60-40-20/150 200/10	D0300	1⅜ x 2	3.50	2.10
75-75-75/150 30/25	D0310	1⅜ x 3	6.45	3.87
★★ 80-40-40/150 40/25	D0325	1⅜ x 2	3.60	2.16
★★ 80-40-40/150 100/25	D0330	1⅜ x 2½	3.75	2.25
★ 100-90-60/150 200/25	D0336	1⅜ x 3	4.95	2.97
★ 200-200-100/150 10/75	D0338	1⅜ x 4⅛	5.95	3.57
40-20-10/250 20/25	D0340	1⅜ x 2	5.10	3.06
80-60-40/250 20/150	D0350	1⅜ x 3⅝	7.65	4.59
★ 100-40-10/250 100/50	D0360	1⅜ x 3⅝	5.15	3.09
★ 40-20-20/300 25/25	D0367	1⅜ x 2	4.00	2.40
40-30-20/300 50/25	D0368	1⅜ x 2	6.25	3.75
★ 40-40-40/300 20/150	D0370	1⅜ x 3	4.90	2.94
★ 60-40-20/300 50/25	D0380	1⅜ x 3	4.65	2.79
★ 120-40-40/300 10/250	D0385	1⅜ x 4⅛	6.15	3.69
★ 150-20-10/300 250/50	D0387	1⅜ x 4⅛	6.05	3.63
150-30-30/300 150/50	D0388	1⅜ x 4⅛	6.10	3.66
10-10-10/350 20/25	D0390	1⅜ x 2	4.45	2.67
15-15-15/350 50/50	D0400	1⅜ x 2	5.70	3.42
★ 20-10-5/350 20/25	D0410	1⅜ x 2	3.10	1.86
★ 30-10-5/350 200/25	D0414	1⅜ x 2	3.80	2.28
★ 30-10-5/350 100/200	D0416	1⅜ x 2½	4.40	2.64
★ 30-20-5/350 100/200	D0418	1⅜ x 3	4.70	2.82
30-20-20/350 20/25	D0420	1⅜ x 2½	6.15	3.69
★ 40-40-20/350 20/25	D0430	1⅜ x 3	4.70	2.82
★ 40-40-30/350 10/25	D0433	1⅜ x 3	4.95	2.97
40-20-20/350 25/25	D0440	1⅜ x 2½	6.40	3.84
40-30-10/350 50/50	D0450	1⅜ x 3	6.60	3.96

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CORNELL-DUBILIER ELECTRONICS

LASS

1.35 Twist-Prong Electrolytics

★★ BEST-SELLING PREFERRED TYPE ★ PREFERRED TYPE

3 SECTIONS HV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 40-40-40/350 40/25	D0460	1⅜ x 3	$5.20	$3.12
★ 40-40-40/350 150/50	D0470	1⅜ x 3⅝	5.70	3.42
70-40-10/350 50/50	D0471	1⅜ x 3	5.25	3.15
80-60-60/350 10/50	D0472	1⅜ x 4⅛	9.30	5.58
★ 90-30-5/350 100/75	D0473	1⅜ x 3⅝	6.15	3.69
★ 100-10-10/350 20/50	D0473.3	1⅜ x 3	5.15	3.09
100-20-10/350 20/50	D0473.4	1⅜ x 3⅝	5.40	3.24
★ 100-80-10/350 20/50	D0473.5	1⅜ x 4⅛	6.60	3.96
★ 100-40-30/350 50/50	D0474	1⅜ x 4⅛	6.55	3.93
140-20-10/350 100/50	D0475	1⅜ x 4⅛	9.25	5.55
★ 20-10-10/400 25/25	D0476	1⅜ x 2	3.25	1.95
★ 80-40-10/400 20/25	D0477	1⅜ x 3⅝	5.30	3.18
★ 80-40-10/400 100/200	D0477.5	1⅜ x 4⅛	6.30	3.78
★ 80-40-30/400 40/25	D0478	1⅜ x 4⅛	5.95	3.57
90-20-10/400 50/50	D0479	1⅜ x 3⅝	5.40	3.24
90-40-10/400 40/25	D0479.2	1⅜ x 3⅝	8.70	5.22
★ 10-10-10/450 20/25	D0480	1⅜ x 2	3.15	1.89
10-10-10/450 100/25	D0490	1⅜ x 2	5.05	3.03
10-10-10/450 150/50	D0500	1⅜ x 2½	5.55	3.33
15-10-10/450 20/25	D0504	1⅜ x 2	4.95	2.97
20-10-10/450 100/25	D0510	1⅜ x 2	5.55	3.33
★ 20-20-20/450 20/25	D0520	1⅜ x 2½	4.15	2.49
★ 20-20-20/450 100/50	D0530	1⅜ x 3	4.55	2.73
30-15-15/450 40/25	D0540	1⅜ x 2½	6.25	3.75
30-20-20/450 20/25	D0550	1⅜ x 3	6.60	3.96
★ 30-30-10/450 125/25	D0555	1⅜ x 3	4.50	2.70
★ 30-30-15/450 30/50	D0560	1⅜ x 3	4.55	2.73
30-30-15/450 100/50	D0570	1⅜ x 3⅝	7.35	4.41
30-30-20/450 20/25	D0590	1⅜ x 3	7.00	4.20
35-35-10/450 10/200	D0592	1⅜ x 3⅝	6.90	4.14
★ 40-10-10/450 250/25	D0600	1⅜ x 3	4.65	2.79
40-10-10/450 100/200	D0602	1⅜ x 3⅝	7.35	4.41
40-10-10/450 40/300	D0604	1⅜ x 3⅝	7.00	4.20
★ 40-10-10/450 40/350	D0606	1⅜ x 3	4.75	2.85
40-20-10/450 25/25	D0610	1⅜ x 3	6.40	3.84
★ 40-20-10/450 100/50	D0620	1⅜ x 3⅝	4.60	2.76
★ 40-20-10/450 100/250	D0622	1⅜ x 4⅛	5.85	3.51
★ 40-20-20/450 20/25	D0624	1⅜ x 3	4.60	2.76
★ 40-20-20/450 40/25	D0630	1⅜ x 3	4.65	2.79
★ 40-30-10/450 20/25	D0640	1⅜ x 3	4.50	2.70
★ 40-40-10/450 25/50	D0650	1⅜ x 3⅝	4.70	2.82
★ 40-40-10/450 50/50	D0655	1⅜ x 3⅝	4.80	2.88
★ 40-40-10/450 100/100	D0660	1⅜ x 3⅝	5.35	3.21
40-40-10/450 10/350	D0662	1⅜ x 3⅝	7.20	4.32
★ 40-40-20/450 20/25	D0663	1⅜ x 3⅝	5.00	3.00
★ 40-40-40/450 40/25	D0663.2	1⅜ x 3⅝	5.50	3.30
50-40-5/450 20/25	D0664	1⅜ x 3⅝	7.20	4.32
★ 60-10-10/450 20/150	D0670	1⅜ x 3	4.60	2.76
60-30-30/450 150/50	D0671	1⅜ x 4⅛	5.80	3.48
★ 60-40-10/450 25/50	D0672	1⅜ x 3⅝	5.25	3.15
★ 60-40-40/450 10/25	D0674	1⅜ x 4⅛	6.00	3.60
★ 60-50-5/450 20/25	D0676	1⅜ x 3⅝	5.35	3.21
40-10-20/475 10/25	D0680	1⅜ x 3	7.30	4.38
★ 20-20-10/500 10/300	D0690	1⅜ x 2½	4.30	2.58
★ 50-30-10/500 20/300	D0692	1⅜ x 3⅝	5.60	3.36

1 SECTION HV — 3 SECTIONS LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 10/300 200-140-30/150	D0694	1⅜ x 5	5.10	3.06
★ 10/300 200-200-30/150	XD0694.5	1⅜ x 5	5.35	3.21
★ 160/350 60-10-4/300	XD0695	1⅜ x 4⅛	6.40	3.84
★ 5/475 70-25-5/400	D0695.3	1⅜ x 3⅝	5.05	3.03
★ 10/450 100-20-20/300	D0695.5	1⅜ x 3	5.25	3.15
★ 10/475 130-20-10/350	D0695.7	1⅜ x 4⅛	6.00	3.60
20/475 60-40-10/350	D0696	1⅜ x 3⅝	7.80	4.68
★ 30/475 130-10-10/350	D0697	1⅜ x 4⅛	6.40	3.84
★ 20/500 80-20-10/300	D0698	1⅜ x 3⅝	5.00	3.00

1 SECTION HV — 2 SECTIONS MV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
5/75 25-25/25 100/15	D0700	1⅜ x 2	4.15	2.49
★ 20/300 150-150/150 100/30	D0710	1⅜ x 4⅛	5.30	3.18
15/350 80-40/200 200/25	D0720	1⅜ x 3	6.75	4.05
20/350 150-80/150 20/25	D0722	1⅜ x 3	6.85	4.11
40/350 50-20/150 80/50	D0724	1⅜ x 3	6.10	3.66
10/400 50-30/350 30/25	D0730	1⅜ x 3	6.60	3.96
★ 20/400 50-40/350 80/50	D0730.4	1⅜ x 3	5.00	3.00
30/400 60-20/350 100/50	D0731	1⅜ x 3	6.80	4.08
★ 40/400 120-10/250 150/50	D0731.3	1⅜ x 4⅛	5.90	3.54
80/400 40-10/350 10/25	D0732	1⅜ x 3⅝	7.95	4.77
50/400 60-40/350 20/25	D0733	1⅜ x 3⅝	7.35	4.41
10/450 100-20/300 20/200	D0736	1⅜ x 3⅝	7.60	4.56
★ 10/450 60-40/350 25/25	D0740	1⅜ x 3⅝	4.60	2.76
★ 10/450 100-10/350 20/25	D0750	1⅜ x 3⅝	5.25	3.15
★ 20/450 80-20/200 50/50	D0760	1⅜ x 3	4.15	2.49
★ 20/450 80-50/350 100/50	D0764	1⅜ x 4⅛	6.00	3.60

1 SECTION HV — 2 SECTIONS MV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
25/450 100-10/300 60/50	D0768	1⅜ x 3⅝	$8.40	$5.04
30/450 125-125/25 30/450	D0770	1⅜ x 3	7.35	4.41
30/450 40-40/350 10/200	D0780	1⅜ x 3⅝	7.75	4.65
40/450 40-40/250 20/25	D0782	1⅜ x 3	6.85	4.11
★ 40/450 40-40/300 20/150	D0783	1⅜ x 3	4.90	2.94
★ 60/450 80-40/250 20/150	D0783.2	1⅜ x 4⅛	5.65	3.39
★ 10/475 140-4/350 100/50	D0783.4	1⅜ x 4⅛	5.30	3.18
★ 10/475 40-10/450 100/50	D0783.6	1⅜ x 3	4.30	2.58
★ 10/475 50-30/450 30/25	D0783.8	1⅜ x 3⅝	4.75	2.85
5/500 100-10/300 200/150	D0784	1⅜ x 3⅝	10.45	6.27
★ 10/500 10-4/300 20/25	D0784.8	1⅜ x 2	2.90	1.74
★ 10/500 100-10/300 100/25	D0785	1⅜ x 3⅝	4.90	2.94
20/525 40-20/450 100/25	D0786	1⅜ x 3⅝	8.95	5.37

2 SECTIONS HV — 1 SECTION MV — 1 SECTION LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
5-5/75 25/25 100/15	D0788	1⅜ x 2	4.00	2.40
★ 80-5/300 60/150 20/25	D0788.2	1⅜ x 2½	4.30	2.58
★ 140-10/300 10/150 100/50	D0788.3	1⅜ x 3⅝	5.20	3.12
★ 30-30/350 50/300 100/75	D0788.7	1⅜ x 3	5.25	3.15
50-30/350 8/250 20/200	D0789	1⅜ x 2½	6.75	4.05
60-20/350 80/150 100/50	D0789.1	1⅜ x 3	4.90	2.94
★★ 60-40/350 60/250 20/150	D0789.2	1⅜ x 3⅝	5.40	3.24
★★ 60-100/350 60/200 40/75	D0789.4	1⅜ x 4⅛	6.55	3.93
5-5/400 50/300 80/250	D0790	1⅜ x 3	7.00	4.20
40-60/400 40/350 10/50	D0800	1⅜ x 3⅝	8.65	5.19
★★ 100-10/400 20/350 20/50	D0805	1⅜ x 3⅝	5.45	3.27
★ 10-10/450 60/200 100/50	D0810	1⅜ x 3	3.85	2.31
★ 20-20/450 60/150 100/25	D0816	1⅜ x 2½	4.25	2.55
★ 35-25/450 20/200 100/50	D0820	1⅜ x 3⅝	4.65	2.79
★ 40-40/450 125/150 125/25	D0825	1⅜ x 4⅛	5.70	3.42
10-5/475 80/450 40/50	D0830	1⅜ x 3⅝	7.45	4.47
★ 15-15/475 80/300 40/50	D0840	1⅜ x 3	4.80	2.88
★ 20-10/475 20/450 100/25	D0841	1⅜ x 2½	4.20	2.52
★ 40-10/475 4/350 40/300	D0842	1⅜ x 3	4.95	2.97

2 SECTIONS HV — 2 SECTIONS LV

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 20-20/150 160-40/25	XD0844	1⅜ x 2	3.20	1.92
40-40/150 40-40/25	D0850	1⅜ x 2	4.60	2.76
40-40/150 100-100/25	D0860	1⅜ x 2	5.05	3.03
★ 50-20/150 150-30/15	XD0862	1⅜ x 2	3.20	1.92
140-40/150 50-30/50	XD0864	1⅜ x 2½	5.25	3.15
★★ 100-10/300 200-30/150	D0866	1⅜ x 4	5.90	3.54
★ 60-4/350 100-40/25	D0868	1⅜ x 2½	3.80	2.28
60-40/350 60-20/200	D0869	1⅜ x 3⅝	7.00	4.20
40-10/400 80-10/250	D0870	1⅜ x 3⅝	7.05	4.23
★★ 100-10/400 30-20/50	D0875	1⅜ x 3⅝	5.10	3.06
10-10/450 20-20/25	D0880	1⅜ x 2	4.45	2.67
★ 20-20/450 20-20/25	D0890	1⅜ x 2	3.55	2.13
20-20/450 30-30/350	D0900	1⅜ x 3	7.60	4.56
30-10/450 150-30/50	D0906	1⅜ x 3	6.15	3.69
40-10/450 35-10/350	D0910	1⅜ x 3	6.90	4.14
40-20/450 80-10/350	D0912	1⅜ x 4⅛	8.70	5.22
★ 40-40/450 100-60/200	D0914	1⅜ x 4⅛	6.05	3.63
★★ 40-40/450 30-30/350	D0920	1⅜ x 4⅛	5.90	3.54

1 SECTION HV — 1 SECTION MV — 2 SECTIONS LV

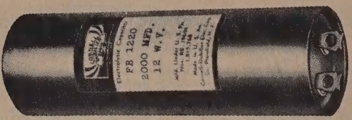
Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
100/300 40/50 80-20/25	D0922	1⅜ x 2½	6.85	4.11
40/350 100/250 100-25/50	D0924	1⅜ x 3⅝	6.30	3.78
20/400 50/350 80-40/25	D0926	1⅜ x 2½	6.25	3.75
★ 80/450 10/400 40-30/300	D0927	1⅜ x 4⅛	5.80	3.48
★★ 30/500 10/450 150-30/50	D0928	1⅜ x 2½	4.20	2.52

ALL SECTIONS DIFFERENT VOLTAGE

Single Section Cap./Volts	Rotational Stock No.	Size—Ins. Dia. x Lgth.	List Price	Net Price
★ 100/300 60/200 10/150 20/50	D0929	1⅜ x 3	5.35	3.21
120/300 20/250 20/25 100/50	D0930	1⅜ x 4⅛	7.60	4.56
★ 200/300 20/250 20/25 100/50	D0940	1⅜ x 4	5.80	3.48
20/350 40/300 10/150 250/50	D0950	1⅜ x 3	6.90	4.14
★ 20/350 150/300 10/250 250/50	D0951	1⅜ x 4⅛	6.10	3.66
10/400 100/300 10/75 100/25	D0952	1⅜ x 3	6.70	4.02
30/450 40/300 50/250 200/150	D0952.5	1⅜ x 4⅛	9.00	5.40
★ 10/450 40/350 100/250 100/50	D0953	1⅜ x 3	5.55	3.33
60/450 40/250 10/150 80/50	D0956	1⅜ x 3⅝	7.20	4.32
80/450 10/400 30/300 40/150	D0960	1⅜ x 4⅛	7.90	4.74
★ 10/475 40/350 80/300 100/100	D0961	1⅜ x 4⅛	5.55	3.33
10/475 40/350 80/200 100/50	D0962	1⅜ x 3⅝	7.20	4.32
10/475 40/400 100/50 10/25	D0964	1⅜ x 2½	6.00	3.60
★ 10/475 40/400 4/350 100/50	D0966	1⅜ x 2½	4.05	2.43
10/475 10/450 80/200 50/60	D0970	1⅜ x 2½	5.80	3.48
★ 10/475 60/450 30/400 125/50	D0980	1⅜ x 4⅛	5.45	3.27
★ 20/475 40/300 100/50 80/25	D0990	1⅜ x 3	4.50	2.70
★ 20/475 40/350 80/200 100/100	D0995	1⅜ x 4⅛	5.45	3.27
★ 25/475 20/450 20/300 100/50	D0997	1⅜ x 3	4.60	2.76
25/475 20/450 40/300 100/50	D1000	1⅜ x 3	7.45	4.47
★ 40/475 40/250 50/150 80/50	D1004	1⅜ x 3⅝	5.00	3.00

CDE

High-Capacity Low-Voltage Electrolytics
Photoflash Electrolytics



TYPE FB ★

Type FB capacitors in round cardboard sleeved aluminum cans are designed for high-capacity, low-voltage applications, and are especially popular as replacements in motion picture sound equipment, and other low-voltage circuits.

TEMPERATURE RANGE: to +85°C.

FB Cat. No.	Cap. Mfd.	D.C. W. Volts	Can†† Size—Inches Dia. x Lgth.	List Price	Net Price
FB 1005	500	10	1⅜ x 2⅜	$3.10	**$1.86**
FB 1010	1000	10	1⅜ x 2⅜	3.55	**2.13**
FB 1015	1500	10	1⅜ x 2⅜	3.75	**2.25**
FB 1020	2000	10	1⅜ x 2⅝	3.95	**2.37**
FB 1030	3000	10	1⅜ x 3⅛	4.35	**2.61**
FB 1040	4000	10	1⅜ x 4⅛	4.75	**2.85**
FB 1050	5000	10	1½ x 4⅛	5.15	**3.09**
FB 1060	6000	10	1¾ x 4⅛	7.50	**4.50**
FB 1205	500	12	1⅜ x 2⅜	3.20	**1.92**
FB 1210	1000	12	1⅜ x 2⅜	3.75	**2.25**
FB 1215	1500	12	1⅜ x 2⅝	3.95	**2.37**
FB 1220	2000	12	1⅜ x 3⅛	4.15	**2.49**
FB 1225	2500	12	1⅜ x 3⅛	4.85	**2.91**
FB 1230	3000	12	1⅜ x 4⅛	5.05	**3.03**
FB 1240	4000	12	1½ x 4⅛	5.25	**3.15**
FB 1260	6000	12	2 x 4⅛	9.35	**5.61**
FB 1505	500	15	1⅜ x 2⅜	3.25	**1.95**
FB 1510	1000	15	1⅜ x 2⅜	3.80	**2.28**
FB 1515	1500	15	1⅜ x 2⅝	4.00	**2.40**
FB 1520	2000	15	1⅜ x 3⅛	4.70	**2.82**
FB 1530	3000	15	1⅜ x 4⅛	5.15	**3.09**
FB 1540	4000	15	1½ x 4⅛	8.10	**4.86**
FB 1560	6000	15	2 x 4⅛	10.00	**6.00**
FB 1805	500	18	1⅜ x 2⅜	3.00	**1.80**
FB 1810	1000	18	1⅜ x 2⅜	3.90	**2.34**
FB 1820	2000	18	1⅜ x 3⅛	4.90	**2.94**
FB 1840	4000	18	1½ x 4⅛	8.45	**5.07**
FB 2005	500	20	1⅜ x 2⅜	3.40	**2.04**
FB 2010	1000	20	1⅜ x 3⅛	4.10	**2.46**
FB 2020	2000	20	1⅜ x 4⅛	5.20	**3.12**
FB 2040	4000	20	2 x 4⅛	8.75	**5.25**
FB 2505	500	25	1⅜ x 2⅜	3.55	**2.13**
FB 2510	1000	25	1⅜ x 3⅛	4.80	**2.88**
FB 2520	2000	25	1⅜ x 4⅛	5.75	**3.45**
FB 2530	3000	25	1¾ x 4⅛	8.00	**4.80**
FB 2540	4000	25	2 x 4⅛	9.50	**5.70**
FB 2550	5000	25	2½ x 4⅛	11.00	**6.60**
FB 3005	500	30	1⅜ x 3⅛	3.60	**2.16**
FB 3010	1000	30	1⅜ x 4⅛	4.90	**2.94**
FB 3020	2000	30	1¾ x 4⅛	7:40	**4.44**
FB 3030	3000	30	2 x 4⅛	8.95	**5.37**
FB 3040	4000	30	2½ x 4⅛	10.50	**6.30**
FB 3505	500	35	1⅜ x 3⅛	3.70	**2.22**
FB 3510	1000	35	1⅜ x 4⅛	5.00	**3.00**
FB 3520	2000	35	1¾ x 4⅛	8.00	**4.80**

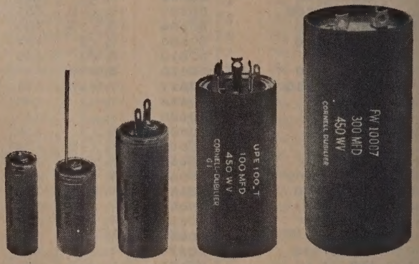
TYPE FB — (Cont'd)

FB Cat. No.	Cap. Mfd.	D.C. W. Volts	Can†† Size—Inches Dia. x Lgth.	List Price	Net Price
FB 3530	3000	35	2 x 4⅛	$ 9.50	**$5.70**
FB 3540	4000	35	2½ x 4⅛	11.00	**6.60**
FB 4005	500	40	1⅜ x 3⅛	3.80	**2.28**
FB 4010	1000	40	1⅜ x 4⅛	6.50	**3.90**
FB 4020	2000	40	1¾ x 4⅛	9.00	**5.40**
FB 4030	3000	40	2 x 4⅛	10.50	**6.30**
FB 4040	4000	40	2½ x 4⅛	11.50	**6.90**
FB 5005	500	50	1⅜ x 3⅛	3.90	**2.34**
FB 5010	1000	50	1⅜ x 4⅛	7.00	**4.20**
FB 5020	2000	50	1¾ x 4⅛	9.10	**5.46**
FB 5030	3000	50	2 x 4⅛	11.50	**6.90**
FB 5040	4000	50	2½ x 4⅛	12.50	**7.50**

††For Overall Size add 1/16" to Diam. and ⅜" to Length.

★ When MIL-C-62A units must be supplied, order according to specific CE type designations.

HIGH VOLTAGE PHOTOFLASH



Cat. No.	Cap. Mfd.	D.C. W. Volts	OVERALL Size—Inches Dia. x Length	Watt Seconds	List Price	Net Price
XBO 455♦	100	450	1 ⅜ x 3	10	$3.85	**$2.31**
FB 10063*	200	450	2 1/16 x 4½	20	6.85	**4.11**
FW 10005‡	200	500	2 1/16 x 4⅜	25	10.50	**6.30**
FW 10007‡	300	450	2 1/16 x 4⅜	30	10.50	**6.30**
FWS 10000†	300	450	2 1/16 x 4⅜	30	11.50	**6.90**
FA 10300*	400	450	2 1/16 x 4½	40	17.95	**10.77**
FWSN 10001†	525	450	2 1/16 x 4⅜	53	22.60	**13.56**

LOW VOLTAGE PHOTOFLASH

Cat. No.	Cap. Mfd.	D.C. W. Volts	OVERALL Size—Inches Dia. x Length	List Price	Net Price
BRE 10001♦	40	150	¾ x 1 7/16	$1.35	**$ .81**
FB 10077♦	100	30	1 x 2 11/16	3.35	**2.01**
BRH 10062♦	125	25	⅝ x 1 15/16	1.35	**.81**
BRH 10067♦	150	50	¾ x 1 11/16	1.35	**.81**
BRH 2525*	250	25	15/16 x 1⅞	1.70	**1.02**

*Aluminum can with cardboard sleeve. †Bakelite Case—Screw Terminals.
♦Aluminum can—no sleeve. ‡Bakelite Case—Solder Lug Terminals.

Trade Discount Applies To List Prices Only

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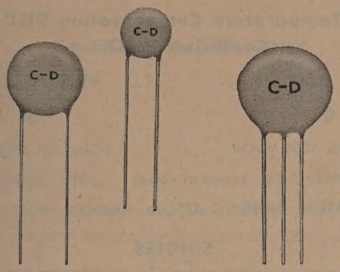
LASS
2.01
2.02

CORNELL-DUBILIER ELECTRONICS

"TINYMIKE" Disc Ceramics

CDE



THE CERAMIC WITH THE MILLION DOLLAR BODY

- Small, space-saving and lightweight.
- Available in all popular capacities.
- Guaranteed minimum capacity tolerance.
- Adapted for wide variety of applications.
- Minimized eddy current losses due to construction.
- Low inductance, stable, dependable performance.
- Available with temperature compensating characteristics.

General Purpose DISC HIGH K

CLASS 202.01

TYPE: BYA

VOLTAGE: 1000 VDCW, except as noted.

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
470	**BYA10T47**	.290	.156	$.25	**$.15**
500	**BYA10T5**	.290	.156	.25	**.15**
680	**BYA10T68**	.290	.156	.25	**.15**
820	**BYA10T82**	.290	.156	.25	**.15**
1000	**BYA10D1**	.290	.156	.25	**.15**
†1000	**BYA10D1M**	.290	.156	.25	**.15**
1500	**BYA10D15**	.290	.156	.25	**.15**
2000	**BYA10D2**	.390	.156	.25	**.15**
2200	**BYA10D22**	.390	.156	.25	**.15**
2500	**BYA10D25**	.437	.156	.25	**.15**
2700	**BYA10D27**	.437	.156	.25	**.15**
3000	**BYA10D3**	.437	.156	.25	**.15**
3300	**BYA10D33**	.437	.156	.25	**.15**
4000	**BYA10D4**	.593	.156	.25	**.15**
†4700	**BYA10D47M**	.593	.156	.25	**.15**
5000	**BYA10D5**	.593	.156	.25	**.15**
†5000	**BYA10D5M**	.593	.156	.25	**.15**
6800	**BYA10D68**	.593	.156	.25	**.15**
*10000	**BYA6S1**	.660	.156	.25	**.15**
10000	**BYA10S1**	.750	.156	.30	**.18**
†10000	**BYA10S1M**	.750	.156	.30	**.18**
15000	**BYA10S15**	.840	.156	.30	**.18**
*20000	**BYA6S2**	.840	.156	.30	**.18**

*Rated at 600 VDCW.
†Tolerance ±20%.

General Purpose DISC CLOSE TOLERANCE

CLASS 202.02

TYPE: LA

VOLTAGE: 1000 VDCW

TOLERANCE: ±10%, except as noted, to 390 mmfd. incl.
±20%, 400 mmfd. and over.

TEMPERATURE RANGE: —55°C to +85°C.

MAXIMUM THICKNESS: .156 inches.

SINGLES

Cap. Mmfd.	New Cat. No.	Old Cat. No.	Max. Dia. (Inches)	List Price	Net Price
†3.3	**LA10V33-SL**	**L10V33**	.290	$.25	**$.15**
†5.0	**LA10V5-SL**	**L10V5**	.290	.25	**.15**
†6.8	**LA10V68-SL**	**L10V68**	.290	.25	**.15**
7.0	**LA10V7-SL**	**L10V7**	.290	.25	**.15**
8.0	**LA10V8-SL**	**L10V8**	.290	.25	**.15**
10	**LA10Q1-SL**	**L10Q1**	.290	.25	**.15**
12	**LA10Q12-SL**	**L10Q12**	.290	.25	**.15**
15	**LA10Q15-SL**	**L10Q15**	.290	.25	**.15**
18	**LA10Q18-SL**	**L10Q18**	.290	.25	**.15**
20	**LA10Q2-SL**	**L10Q2**	.290	.25	**.15**
22	**LA10Q22-SL**	**L10Q22**	.290	.25	**.15**
25	**LA10Q25-SL**	**L10Q25**	.290	.25	**.15**
27	**LA10Q27-SL**	**L10Q27**	.290	.25	**.15**
30	**LA10Q3-SL**	**L10Q3**	.290	.25	**.15**
33	**LA10Q33-SL**	**L10Q33**	.290	.25	**.15**
39	**LA10Q39-S3**	**L10Q39**	.290	.25	**.15**
47	**LA10Q47-S3**	**L10Q47**	.290	.25	**.15**
50	**LA10Q5-S3**	**L10Q5**	.290	.25	**.15**
56	**LA10Q56-S3**	**L10Q56**	.290	.25	**.15**
68	**LA10Q68-S3**	**L10Q68**	.290	.25	**.15**
75	**LA10Q75-S3**	**L10Q75**	.290	.25	**.15**
82	**LA10Q82-S3**	**L10Q82**	.290	.25	**.15**
91	**LA10Q91-S3**	**L10Q91**	.290	.25	**.15**
100	**LA10T1-S3**	**L10T1**	.290	.25	**.15**
120	**LA10T12-S3**	**L10T12**	.290	.25	**.15**
130	**LA10T13-S3**	**L10T13**	.290	.25	**.15**
150	**LA10T15-S3**	**L10T15**	.290	.25	**.15**
180	**LA10T18-S3**	**L10T18**	.290	.25	**.15**
200	**LA10T2-S3**	**L10T2**	.290	.25	**.15**
220	**LA10T22-S3**	**L10T22**	.290	.25	**.15**
250	**LA10T25-C4**	**L10T25**	.290	.25	**.15**
270	**LA10T27-C4**	**L10T27**	.290	.25	**.15**
300	**LA10T3-C4**	**L10T3**	.290	.25	**.15**
330	**LA10T33-C4**	**L10T33**	.290	.25	**.15**
350	**LA10T35-C4**	**L10T35**	.290	.25	**.15**
360	**LA10T36-C4**	**L10T36**	.290	.25	**.15**
390	**LA10T39-C4**	**L10T39**	.290	.25	**.15**
400	**LA10T4-C4**	**L10T4**	.290	.25	**.15**
470	**LA10T47-C4**	**L10T47**	.290	.25	**.15**
500	**LA10T5-C4**	**L10T5**	.290	.25	**.15**
560	**LA10T56-C4**	**L10T56**	.390	.25	**.15**
600	**LA10T6-C4**	**L10T6**	.390	.25	**.15**
680	**LA10T68-C4**	**L10T68**	.390	.25	**.15**
750	**LA10T75-C4**	**L10T75**	.390	.25	**.15**
800	**LA10T8-C4**	**L10T8**	.390	.25	**.15**
820	**LA10T82-C4**	**L10T82**	.390	.25	**.15**
1000	**LA10D1-C4**	**L10D1**	.437	.25	**.15**
1200	**LA10D12-C4**	**L10D12**	.437	.25	**.15**
1500	**LA10D15-C4**	**L10D15**	.593	.25	**.15**
1600	**LA10D16-C4**	**L10D16**	.593	.25	**.15**

†Tolerance ±.5 Mmfd.

General Purpose DISC CLOSE TOLERANCE

CLASS 202.02 (Cont'd)

TYPE: LA

VOLTAGE: 10 VDCW

TOLERANCE: ±10%, except as noted, to 390 mmfd. incl.
±20%, 400 mmfd. and over.

TEMPERATURE RANGE: —55°C to +85°C.

MAXIMUM THICKNESS: .156 inches.

SINGLES

Cap. Mmfd.	New Cat. No.	Old Cat. No.	Max. Dia. (Inches)	List Price	Net Price
1800	**LA10D18-C4**	**L10D18**	.593	.25	**.15**
2000	**LA10D2-C4**	**L10D2**	.593	.25	**.15**
2200	**LA10D22-C4**	**L10D22**	.593	.25	**.15**
2500	**LA10D25-C4**	**L10D25**	.660	.25	**.15**
2700	**LA10D27-C4**	**L10D27**	.660	.25	**.15**
3000	**LA10D3-C4**	**L10D3**	.660	.25	**.15**
3300	**LA10D33-C4**	**L10D33**	.660	.25	**.15**
3900	**LA10D39-C4**	**L10D39**	.750	.25	**.15**
4000	**LA10D4-C4**	**L10D4**	.750	.25	**.15**
4300	**LA10D43-C4**	**L10D43**	.840	.25	**.15**
4700	**LA10D47-C4**	**L10D47**	.840	.25	**.15**
5000	**LA10D5-C4**	**L10D5**	.840	.25	**.15**

†Tolerance ±.5 Mmfd.

Low Voltage Miniature DISC for TRANSISTOR CIRCUITRY

CLASS 202.04

TYPE: H

VOLTAGE: 50 VDCW

TOLERANCE: +100%, —0%, except as noted.

TEMPERATURE RANGE: +10°C to +85°C.

Cap. Mfd.	New Cat. No.	Old Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
.005	**H1**	**H05D5**	.350	⅛	$.45	**$.27**
.01	**H2**	**H0551**	.350	⅛	.65	**.39**
.02	**H3**	**H0552**	.500	⅛	.65	**.39**
.025	**H4**	**H05525**	.500	⅛	.65	**.39**
*.05	**H5**	**H0555**	.625	⅛	.70	**.42**
*.10	**H6**	**H05P1**	.625	3/16	.90	**.54**

*Tolerance +80%, —20%.

High-Capacitance DISCS for TRANSISTOR CIRCUITRY

CLASS 202.05

TYPE: HCC

TOLERANCE: GMV on 3 VDCW Units
+80, —20% on 10 and 25 VDCW Units

TEMPERATURE RANGE: —55°C to +85°C.

Cap. Mfd.	VDCW	Cat. No.	Diam. (Inches)	Thick. (Inches)	List Price	Net Price
.22	3	**HCC3224P**	.290	.156	$.55	**$.33**
.47	3	**HCC3474P**	.437	.156	.55	**.33**
1.0	3	**HCC3105P**	.593	.156	.75	**.45**
2.2	3	**HCC3225P**	.840	.156	.90	**.54**
.05	10	**HCC10503Z**	.290	.156	.55	**.33**
.1	10	**HCC10104Z**	.437	.156	.55	**.33**
.22	10	**HCC10224Z**	.593	.156	.55	**.33**
.47	10	**HCC10474Z**	.840	.156	.90	**.54**
.01	25	**HCC25103Z**	.290	.156	.55	**.33**
.05	25	**HCC25503Z**	.437	.156	.65	**.39**
.10	25	**HCC25104Z**	.593	.156	.75	**.45**
.22	25	**HCC25224Z**	.840	.156	.90	**.54**

Temperature Compensating DISC Coefficient NPO

CLASS 202.20

TYPE: C

VOLTAGE: 1000 VDCW

TOLERANCE: ±5%, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Present Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
†1.5	**C10V15C**	.290	.156	$.50	**$.30**
†2.2	**C10V22C**	.290	.156	.50	**.30**
†3.3	**C10V33C**	.290	.156	.50	**.30**
†4.7	**C10V47C**	.290	.156	.50	**.30**
6.8	**C10V68C**	.290	.156	.50	**.30**
10	**C10Q1C**	.290	.156	.50	**.30**
15	**C10Q15C**	.290	.156	.50	**.30**
20	**C10Q2C**	.390	.156	.50	**.30**
22	**C10Q22C**	.390	.156	.50	**.30**
25	**C10Q25C**	.437	.156	.50	**.30**
33	**C10Q33C**	.437	.156	.50	**.30**
39	**C10Q39C**	.593	.156	.50	**.30**
47	**C10Q47C**	.593	.156	.50	**.30**
50	**C10Q5C**	.593	.156	.50	**.30**
68	**C10Q68C**	.593	.156	.50	**.30**
75	**C10Q75C**	.660	.156	.50	**.30**
100	**C10T1C**	.660	.156	.50	**.30**
120	**C10T12C**	.750	.156	.75	**.45**
150	**C10T15C**	.840	.156	.75	**.45**

†Tolerance ±.5 Mmfd.

Temperature Compensating DISC Coefficient N750

CLASS 202.20 (Cont'd)

TYPE: C

VOLTAGE: 1000 VDCW

TOLERANCE: ±5%

TEMPERATURE RANGE: —55°C to +85°C.

SINGLES

Cap. Mmfd.	Present Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
5.0	**C10V5U**	.290	.156	$.50	**$.30**
6.8	**C10V68U**	.290	.156	.50	**.30**
10	**C10Q1U**	.290	.156	.50	**.30**
15	**C10Q15U**	.290	.156	.50	**.30**
20	**C10Q2U**	.290	.156	.50	**.30**
22	**C10Q22U**	.290	.156	.50	**.30**
25	**C10Q25U**	.290	.156	.50	**.30**
33	**C10Q33U**	.290	.156	.50	**.30**
39	**C10Q39U**	.390	.156	.50	**.30**
47	**C10Q47U**	.390	.156	.50	**.30**
50	**C10Q5U**	.390	.156	.50	**.30**
68	**C10Q68U**	.390	.156	.50	**.30**
75	**C10Q75U**	.437	.156	.50	**.30**
100	**C10T1U**	.593	.156	.75	**.45**
130	**C10T13U**	.593	.156	.75	**.45**
150	**C10T15U**	.593	.156	.75	**.45**
180	**C10T18U**	.660	.156	.75	**.45**
200	**C10T2U**	.660	.156	.75	**.45**
220	**C10T22U**	.660	.156	.75	**.45**
270	**C10T27U**	.750	.156	.75	**.45**
300	**C10T3U**	.840	.156	.75	**.45**
330	**C10T33U**	.840	.156	.75	**.45**
370	**C10T37U**	.840	.156	.75	**.45**

CORNELL-DUBILIER ELECTRONICS

"TINYMIKE" Disc Ceramics

Stabilized Capacity DISC

CLASS 202.21

TYPE: JB

VOLTAGE: 600 VDCW

TOLERANCE: ±10%

TEMPERATURE RANGE: —55°C to +125°C.

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
220	**JB6T22**	.290	.156	$.25	**$.15**
330	**JB6T33**	.290	.156	.25	**.15**
470	**JB6T47**	.290	.156	.25	**.15**
500	**JB6T5**	.290	.156	.25	**.15**
560	**JB6T56**	.390	.156	.25	**.15**
680	**JB6T68**	.390	.156	.25	**.15**
800	**JB6T8**	.390	.156	.25	**.15**
1000	**JB6D1**	.437	.156	.25	**.15**
1200	**JB6D12**	.437	.156	.25	**.15**
1800	**JB6D18**	.593	.156	.25	**.15**
2000	**JB6D2**	.593	.156	.25	**.15**
2200	**JB6D22**	.593	.156	.25	**.15**
3300	**JB6D33**	.660	.156	.25	**.15**
3900	**JB6D39**	.750	.156	.30	**.18**
4700	**JB6D47**	.840	.156	.30	**.18**
5000	**JB6D5**	.840	.156	.30	**.18**

General Purpose DISC
HIGH VOLTAGE

CLASS 202.22

TYPE: HVA — HVB — HVC

VOLTAGE: 1600 & 2000 VDCW

TEMPERATURE RANGE: —55°C to +85°C.

TOLERANCE: 200 to 1000 mmfd. incl. ±20%.
1200 to 4700 mmfd. incl. GMC.

SINGLES

Voltage VDCW	Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
1600	220	**HVB16T22**	.390	.218	$.35	**$.21**
1600	390	**HVB16T39**	.390	.218	.35	**.21**
1600	1000	**HVB16D1**	.593	.218	.35	**.21**
1600	3300	**HVC16D33**	.593	.218	.35	**.21**
1600	4700	**HVC16D47**	.750	.218	.35	**.21**
2000	15	**HVA20Q15**	.390	.218	.35	**.21**
2000	68	**HVB20Q68**	.593	.218	.35	**.21**
2000	470	**HVB20T47**	.593	.218	.35	**.21**
2000	1000	**HVB20D1**	.750	.218	.50	**.30**
2000	2000	**HVC20D2**	.593	.218	.35	**.21**
2000	5000	**HVC20D5**	.750	.218	.50	**.30**

High Voltage DISC
for BUFFER Applications

TYPE: HVE

VOLTAGE: 1600 VDCW

TOLERANCE: GMC, except as noted.

TEMPERATURE RANGE: —55°C to +85°C.

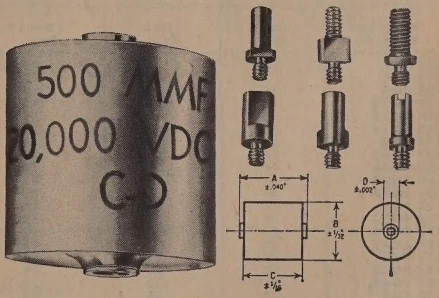
SINGLES

Cap. Mmfd.	Cat. No.	Dia. Max. (Inches)	Thick. Max. (Inches)	List Price	Net Price
3000	**HVE16D3**	.750	.218	$.35	**$.21**
4000	**HVE16D4**	.750	.218	.35	**.21**
5000	**HVE16D5**	.750	.218	.35	**.21**
6000	**HVE16D6**	.840	.218	.35	**.21**
7000	**HVE16D7**	.840	.218	.35	**.21**
7500	**HVE16D75**	.840	.218	.35	**.21**
8000	**HVE16D8**	.840	.218	.35	**.21**
10000	**HVE16S1**	.840	.218	.35	**.21**
†15000	**HVE16S15**	.840	.250	.60	**.36**

†Tolerance +80%, —20%.

UNIVERSAL HIGH VOLTAGE

CLASS 202.30



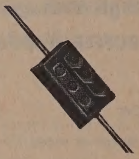
- **New, superior design and construction.**
- **Generous factor of safety permits use at FULL rated voltage.**
- **High insulation resistance, low power factor.**
- **Choice of terminal styles to meet all TV assembly requirements.**

STANDARD TOLERANCE: +50% —20%

	New Cat. No. **105TM200T5** Old Cat. No. **MMU200T5**	New Cat. No. **105TM300T5** Old Cat. No. **MMU300T5**
Cap. Mmfd.	500	500
VDCW	20,000	30,000
Flash Test	30,000	40,000
Body Size		
A	1.068"	1.381"
B	.950"	1.375"
C	.937"	1.250"
D	.250"	.250"
List Price	$2.50	$4.00
Net Price	**1.50**	**2.40**

CORNELL-DUBILIER ELECTRONICS

"SILVER-MIKE" Molded Midget Micas



TYPE 22R

TYPE 1R & 1DR

TYPE 5R

HIGH-STABILITY "SILVER-MIKE"† UNITS

Type 22R miniature "Silver-Mike" capacitors are especially adapted for use in circuits where accuracy and stability of capacity is of prime importance. They are rated at 500 volts D.C.W. and tested at 1,000 volts D.C., molded in low-loss red plastic and fully protected against physical damage or changes in characteristics due to varying atmospheric conditions.

STANDARD TOLERANCE ±5%, but in no instance less than ±1mmf.

SIZE: 1/2" x 19/64" x 3/16"

22 R

22R Cat. No.	Cap. mmf.	List Price	Net Price
22R 5V2	2	$ .20	$ .12
22R 5V5	5	.20	.12
22R 5Q1	10	.20	.12
22R 5Q12	12	.20	.12
22R 5Q15	15	.20	.12
22R 5Q18	18	.20	.12
22R 5Q2	20	.20	.12
22R 5Q22	22	.20	.12
22R 5Q24	24	.20	.12
22R 5Q25	25	.20	.12
22R 5Q27	27	.20	.12
22R 5Q3	30	.20	.12
22R 5Q33	33	.20	.12
22R 5Q36	36	.20	.12
22R 5Q39	39	.20	.12
22R 5Q4	40	.20	.12
22R 5Q43	43	.20	.12
22R 5Q47	47	.20	.12
22R 5Q5	50	.20	.12
22R 5Q51	51	.20	.12
22R 5Q56	56	.20	.12
22R 5Q62	62	.20	.12
22R 5Q68	68	.20	.12
22R 5Q7	70	.20	.12
22R 5Q75	75	.20	.12
22R 5Q82	82	.20	.12
22R 5Q91	91	.25	.15
22R 5T1	100	.25	.15
22R 5T11	110	.25	.15
22R 5T12	120	.25	.15
22R 5T13	131	.25	.15
22R 5T15	151	.30	.18
22R 5T16	161	.30	.18
22R 5T18	181	.30	.18
22R 5T2	200	.30	.18
22R 5T22	220	.30	.18
22R 5T24	240	.35	.21
22R 5T25	250	.35	.21
22R 5T27	270	.35	.21
22R 5T3	300	.35	.21
22R 5T33	330	.40	.24
22R 5T36	360	.40	.24
22R 5T39	390	.45	.27
22R 3T43	430	.45	.27
22R 3T47	470	.45	.27
22R 3T51	510	.45	.27

Notes On Ordering 5R, 1R, 1DR Units

Standard capacity tolerance is 5% (or within 1 mmfd.—whichever is greater).

Types 1R, 1DR, and 5R "Silver-Mike" capacitors are designed for use in high Q electronic circuits where frequency stability and minimum loss must be maintained. Ideally suited for use in circuits where the LC product must be maintained constant, and particularly adapted for use in tuning IF transformers, tuning circuits and other similar applications.

SIZES: 5R—51/64" x 15/32" x 7/32"
1R—13/16" x 13/16" x 1/4" See Note bottom of column 1.
1DR—13/16" x 13/16" x 5/16"

1R, 1DR, 5R

Cap. mmf.	500 V. D.C. W.—1000 V. D.C. T.			List Price	Net Price
	Type 5R Cat. No.	Type 1R Cat. No.	Type 1DR Cat. No.		
270	5R 5T27			$ .30	$ .18
300	5R 5T3			.30	.18
330	5R 5T33			.30	.18
360	5R 5T36			.30	.18
390	5R 5T39			.30	.18
400	5R 5T4			.35	.21
430	5R 5T43			.35	.21
470	5R 5T47			.35	.21
500	5R 5T5			.35	.21
510	5R 5T51			.35	.21
560	5R 5T56			.40	.24
600	5R 5T6			.40	.24
620	5R 5T62			.40	.24
680	5R 5T68			.40	.24
700	5R 5T7			.45	.27
750	5R 5T75			.45	.27
800	5R 5T8			.45	.27
820	5R 5T82			.45	.27
900	5R 5T9			.50	.30
910	5R 5T91			.50	.30
1,000	5R 5D1			.50	.30
1,100	5R 5D11			.55	.33
1,200	5R 5D12			.55	.33
1,300	5R 5D13			.55	.33
1,500	5R 5D15			.65	.39
1,600	5R 5D16			.65	.39
1,800	5R 5D18			.70	.42
2,000	5R 5D2			.75	.45
2,200		1R 5D22		.85	.51
2,400		1R 5D24		.85	.51
2,500		1R 5D25		.90	.54
2,700		1R 5D27		.90	.54
3,000		1R 5D3		1.00	.60
3,300		1R 5D33		1.10	.66
3,600		1R 5D36		1.15	.69
3,900		1R 5D39		1.20	.72
4,000		1R 5D4		1.30	.78
4,300		1R 5D43		1.30	.78
4,700		1R 5D47		1.40	.84
5,000		1R 5D5		1.45	.87
5,100		1R 5D51		1.45	.87
5,600		1R 5D56		1.55	.93
6,200		1R 5D62		1.70	1.02
6,800			1DR 5D68	1.90	1.14
7,000			1DR 5D7	2.00	1.20
7,500			1DR 5D75	2.00	1.20
8,000			1DR 5D8	2.20	1.30
8,200			1DR 5D82	2.20	1.30
9,000			1DR 5D9	2.35	1.41
9,100			1DR 5D91	2.35	1.41
10,000			1DR 5S1	2.65	1.59

*Rated at 300 WVDC

†Trademark

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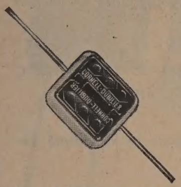
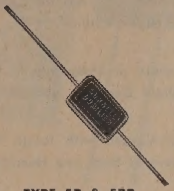
CORNELL-DUBILIER ELECTRONICS

LASS
03.04 "HIVOMIKE" High Voltage Micas



TYPE 1DP



TYPE 5P & 5RP

Where high voltage, capacitance stability and high Q are important and units of the smallest size are requisite, the "HIVOMIKE" is ideal. Recommended for commercial — civilian and military uses under Characteristic "B." Voltage ratings actually exceed those required under MIL-C-5B.

SIZES: 1DP — 13/16" x 13/16" x 5/16"; 5P & 5RP — 51/64" x 15/32" x 7/32"

FOIL TYPES — Tolerance ±20%

Type	Cap. mmf.	Volts DCW	List Price	Net Price
5P25Q1	10	2500	$.20	**$.12**
5P25Q2	20	2500	.20	**.12**
5P25Q3	30	2500	.25	**.15**
5P25Q5	50	2500	.25	**.15**
5P25Q75	75	2500	.30	**.18**
5P25T1	100	2500	.30	**.18**
5P25T15	150	2500	.35	**.21**
5P25T2	200	2500	.45	**.27**
1DP25T25	250	2500	.40	**.24**
1DP25T3	300	2500	.45	**.27**
1DP25T5	500	2500	.60	**.36**
1DP25T75	750	2500	.70	**.42**
1DP25D1	1,000	2500	.85	**.51**
1DP25D12	1,200	2500	.95	**.57**
1DP25D15	1,500	2500	1.30	**.78**
1DP25D18	1,800	2500	1.55	**.93**
1DP25D2	2,000	2500	1.65	**.99**
5P15Q1	10	1500	.20	**.12**
5P15Q2	20	1500	$.20	**$.12**
5P15Q3	30	1500	.20	**.12**
5P15Q5	50	1500	.25	**.15**
5P15Q75	75	1500	.25	**.15**
5P15T1	100	1500	.30	**.18**
5P15T15	150	1500	.30	**.18**
5P15T2	200	1500	.35	**.21**
5P15T25	250	1500	.40	**.24**
5P15T3	300	1500	.40	**.24**
5P15T47	470	1500	.45	**.27**
5P15T5	500	1500	.45	**.27**
1DP15T75	750	1500	.60	**.36**
1DP15D1	1,000	1500	.70	**.42**
1DP15D12	1,200	1500	.85	**.51**
1DP15D15	1,500	1500	.95	**.57**
1DP15D18	1,800	1500	1.05	**.63**
1DP15D2	2,000	1500	1.15	**.69**

1000-VOLT SILVERED MICA — Tolerance ±5%

Type	Cap. mmf.	List Price	Net Price
5RP10V5	5	$.30	**$.18**
5RP10Q1	10	.30	**.18**
5RP10Q12	12	.30	**.18**
5RP10Q15	15	.30	**.18**
5RP10Q18	18	.30	**.18**
5RP10Q2	20	.30	**.18**
5RP10Q22	22	.30	**.18**
5RP10Q25	25	.30	**.18**
5RP10Q27	27	.30	**.18**
5RP10Q3	30	.30	**.18**
5RP10Q33	33	.30	**.18**
5RP10Q36	36	.30	**.18**
5RP10Q39	39	.30	**.18**
5RP10Q4	40	.30	**.18**
5RP10Q43	43	.30	**.18**
5RP10Q47	47	.30	**.18**
5RP10Q5	50	.30	**.18**
5RP10Q51	51	.30	**.18**
5RP10Q56	56	.30	**.18**
5RP10Q62	62	.30	**.18**
5RP10Q68	68	.30	**.18**
5RP10Q7	70	.30	**.18**
5RP10Q75	75	.30	**.18**
5RP10Q82	82	.30	**.18**
5RP10Q91	91	.30	**.18**
5RP10T1	100	.35	**.21**
5RP10T11	110	.35	**.21**
5RP10T12	120	.35	**.21**
5RP10T13	130	.35	**.21**
5RP10T15	150	.35	**.21**
5RP10T16	160	$.35	**$.21**
5RP10T18	180	.35	**.21**
5RP10T2	200	.40	**.24**
5RP10T22	220	.40	**.24**
5RP10T24	240	.40	**.24**
5RP10T25	250	.40	**.24**
5RP10T27	270	.40	**.24**
5RP10T3	300	.45	**.27**
5RP10T33	330	.45	**.27**
5RP10T36	360	.45	**.27**
5RP10T39	390	.50	**.36**
5RP10T4	400	.50	**.36**
5RP10T43	430	.50	**.36**
5RP10T47	470	.50	**.36**
5RP10T5	500	.50	**.36**
5RP10T51	510	.50	**.30**
5RP10T56	560	.50	**.30**
5RP10T6	600	.55	**.33**
5RP10T62	620	.55	**.33**
5RP10T68	680	.60	**.36**
5RP10T7	700	.60	**.36**
5RP10T75	750	.60	**.36**
5RP10T8	800	.65	**.39**
5RP10T82	820	.65	**.39**
5RP10T9	900	.70	**.42**
5RP10T91	910	.70	**.42**
5RP10D1	1000	.75	**.45**
5RP10D11	1100	.80	**.48**
5RP10D12	1200	.85	**.51**

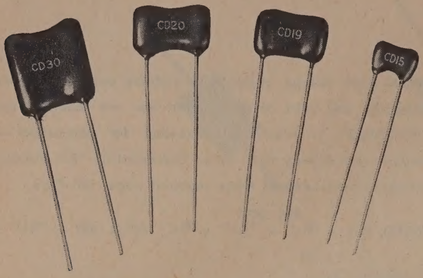
CORNELL-DUBILIER ELECTRONICS

CLAS

CDE

"SILVER-MIKE" Dipped Micas

203.2



- Designed to Replace Molded Mica or Ceramic Capacitors in Critical Circuits
- Silvered Mica Assures Close Temperature Coefficient and High Stability
- Operate at Temperatures from —55°C to +125°C without Derating, and to 150°C with Derating
- Multi-Coated with Tough Phenolic to Withstand Extremes of Heat and Humidity
- Meet Specifications of EIA and MIL-C-5B

TYPE CD15, CD19, CD20, CD30

Rated at 500 WVDC . . . Tolerance ±5% or 0.5 MMF (whichever is greater)

Cap. MMF	Cat. No.	Size—Inches Lgth. x Wid. x Thick.	List Price	Net Price	Cap. MMF	Cat. No.	Size—Inches Lgth. x Wid. x Thick.	List Price	Net Price
1	**CD15-5V1**	.440 x .344 x .180	$.20	**$.12**	360	**CD15-5T36**	.440 x .344 x .200	$.40	**$.24**
2	**CD15-5V2**	.440 x .344 x .180	.20	**.12**	390	**CD15-5T39**	.440 x .344 x .200	.45	**.27**
3	**CD15-5V3**	.440 x .344 x .180	.20	**.12**	430	**CD19-5T43**	.610 x .460 x .175	.30	**.18**
5	**CD15-5V5**	.440 x .344 x .180	.20	**.12**	470	**CD19-5T47**	.610 x .460 x .175	.35	**.21**
10	**CD15-5Q1**	.440 x .344 x .180	.20	**.12**	500	**CD19-5T5**	.610 x .460 x .175	.35	**.21**
12	**CD15-5Q12**	.440 x .344 x .180	.20	**.12**	510	**CD19-5T51**	.610 x .460 x .175	.35	**.21**
15	**CD15-5Q15**	.440 x .344 x .180	.20	**.12**	560	**CD19-5T56**	.610 x .460 x .175	.35	**.21**
18	**CD15-5Q18**	.440 x .344 x .180	.20	**.12**	620	**CD19-5T62**	.610 x .460 x .175	.35	**.21**
20	**CD15-5Q2**	.440 x .344 x .180	.20	**.12**	680	**CD19-5T68**	.610 x .460 x .175	.40	**.24**
22	**CD15-5Q22**	.440 x .344 x .180	.20	**.12**	750	**CD19-5T75**	.610 x .460 x .175	.40	**.24**
24	**CD15-5Q24**	.440 x .344 x .190	.20	**.12**	820	**CD19-5T82**	.610 x .460 x .175	.45	**.27**
27	**CD15-5Q27**	.440 x .344 x .190	.20	**.12**	910	**CD19-5T91**	.610 x .460 x .175	.45	**.27**
30	**CD15-5Q3**	.440 x .344 x .190	.20	**.12**	1000	**CD19-5D1**	.610 x .460 x .175	.50	**.30**
33	**CD15-5Q33**	.440 x .344 x .190	.20	**.12**	1100	**CD19-5D11**	.630 x .480 x .190	.50	**.30**
36	**CD15-5Q36**	.440 x .344 x .190	.20	**.12**	1200	**CD19-5D12**	.630 x .480 x .190	.55	**.33**
39	**CD15-5Q39**	.440 x .344 x .190	.20	**.12**	1300	**CD19-5D13**	.630 x .480 x .190	.60	**.36**
43	**CD15-5Q43**	.440 x .344 x .190	.20	**.12**	1500	**CD19-5D15**	.630 x .480 x .190	.65	**.39**
47	**CD15-5Q47**	.440 x .344 x .190	.20	**.12**	1600	**CD19-5D16**	.630 x .480 x .190	.70	**.42**
50	**CD15-5Q5**	.440 x .344 x .190	.20	**.12**	1800	**CD19-5D18**	.630 x .480 x .190	.75	**.45**
51	**CD15-5Q51**	.440 x .344 x .200	.20	**.12**	2000	**CD19-5D2**	.630 x .480 x .190	.80	**.48**
56	**CD15-5Q56**	.440 x .344 x .200	.20	**.12**	2200	**CD19-5D22**	.650 x .500 x .220	.85	**.51**
62	**CD15-5Q62**	.440 x .344 x .200	.20	**.12**	2400	**CD19-5D24**	.650 x .500 x .220	.90	**.54**
68	**CD15-5Q68**	.440 x .344 x .200	.20	**.12**	2500	**CD19-5D25**	.650 x .500 x .220	.95	**.57**
75	**CD15-5Q75**	.440 x .344 x .200	.20	**.12**	2700	**CD19-5D27**	.650 x .500 x .220	1.05	**.63**
82	**CD15-5Q82**	.440 x .344 x .200	.20	**.12**	3000	**CD19-5D3**	.650 x .500 x .220	1.15	**.69**
91	**CD15-5Q91**	.440 x .344 x .200	.20	**.12**	3300	**CD20-5D33**	.740 x .500 x .220	1.05	**.63**
100	**CD15-5T1**	.440 x .344 x .200	.20	**.12**	3600	**CD20-5D36**	.740 x .500 x .220	1.10	**.66**
110	**CD15-5T11**	.440 x .344 x .200	.25	**.15**	3900	**CD20-5D39**	.740 x .500 x .220	1.15	**.69**
120	**CD15-5T12**	.440 x .344 x .200	.25	**.15**	4300	**CD20-5D43**	.740 x .500 x .220	1.25	**.75**
130	**CD15-5T13**	.440 x .344 x .200	.25	**.15**	4700	**CD30-5D47**	.780 x .880 x .300	1.25	**.75**
150	**CD15-5T15**	.440 x .344 x .200	.25	**.15**	5000	**CD30-5D5**	.780 x .880 x .300	1.35	**.81**
160	**CD15-5T16**	.440 x .344 x .200	.25	**.15**	5100	**CD30-5D51**	.780 x .880 x .300	1.35	**.81**
180	**CD15-5T18**	.440 x .344 x .200	.30	**.18**	5600	**CD30-5D56**	.780 x .880 x .300	1.45	**.87**
200	**CD15-5T2**	.440 x .344 x .200	.30	**.18**	6200	**CD30-5D62**	.780 x .880 x .300	1.55	**.93**
220	**CD15-5T22**	.440 x .344 x .200	.30	**.18**	6800	**CD30-5D68**	.780 x .880 x .300	1.75	**1.05**
240	**CD15-5T24**	.440 x .344 x .200	.30	**.18**	7500	**CD30-5D75**	.780 x .880 x .300	1.85	**1.11**
250	**CD15-5T25**	.440 x .344 x .200	.30	**.18**	8200	**CD30-5D82**	.780 x .880 x .300	2.05	**1.23**
270	**CD15-5T27**	.440 x .344 x .200	.35	**.21**	9100	**CD30-5D91**	.780 x .880 x .300	2.20	**1.32**
300	**CD15-5T3**	.440 x .344 x .200	.35	**.21**	10,000	**CD30-5S1**	.780 x .880 x .300	2.40	**1.44**
330	**CD15-5T33**	.440 x .344 x .200	.40	**.24**					

Trade Discount Applies To List Prices Only

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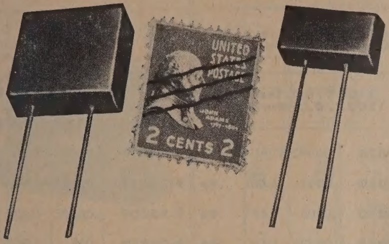
CORNELL-DUBILIER ELECTRONICS

CLASS

03.30 "SUPER MICADON" Encapsulated Micas

"*Super* MICADON"



Cornell-Dubilier "SUPER MICADONS" represent an entirely new concept in Midget Mica Capacitor construction. The vastly improved design and construction makes it possible to produce miniature units of greatly increased capacitance and superior quality over conventional units of the same case size. Ideally suited for printed board assemblies.

◆ 3 to 6 Times Greater Capacity Over Conventional Case Sizes

◆ 10 to 35 Times Higher Insulation Resistance

◆ Up to 20 Times Greater Moisture Resistance

◆ Up to 19 Times Longer Life

STANDARD TOLERANCE: ±5%; ±2% from stock when specified; ±½% and ±1% on special order.
For ±2% Tol. add 15% to List
For ±1% Tol. add 25% to List
For ±½% Tol. add 50% to List

CHARACTERISTICS*: All types are supplied from stock as follows:

1 to 24 mmfd. in Char. "C".
24 to 51 mmfd. in Char. "E".
51 to 41,000 mmfd. in Char. "E". (Char. "F" on Spec. Order)

		Long		*Wide*		*Thick*
Type	1A	53/64	x	53/64	x	9/32
SIZES	1AD	53/64	x	53/64	x	11/32
in	5A	51/64	x	15/32	x	7/32
Inches	22A	35/64	x	5/16	x	7/32

TEMPERATURE RANGE: —55°C to +130°C.

TYPE 22A

500 V. D.C. Working

Type	Cap Mfmd.	List* Price	Net* Price
22A5V5	5	$.20	**$ .12**
22A5Q1	10	.20	**.12**
22A5Q12	12	.20	**.12**
22A5Q15	15	.20	**.12**
22A5Q18	18	.20	**.12**
22A5Q2	20	.20	**.12**
22A5Q22	22	.20	**.12**
22A5Q24	24	.20	**.12**
22A5Q27	27	.20	**.12**
22A5Q3	30	.20	**.12**
22A5Q33	33	.20	**.12**
22A5Q36	36	.20	**.12**
22A5Q39	39	.20	**.12**
22A5Q43	43	.20	**.12**
22A5Q47	47	.20	**.12**
22A5Q51	51	.20	**.12**
22A5Q56	56	.20	**.12**
22A5Q62	62	.20	**.12**
22A5Q68	68	.20	**.12**
22A5Q75	75	.20	**.12**
22A5Q82	82	.20	**.12**
22A5Q91	91	.25	**.15**

TYPE 22A (Cont'd)

500 V. D.C. Working

Type	Cap Mmfd.	List* Price	Net* Price
22A5T1	100	$.25	**$ .15**
22A5T11	110	.25	**.15**
22A5T12	120	.25	**.15**
22A5T13	130	.25	**.15**
22A5T15	150	.30	**.18**
22A5T16	160	.30	**.18**
22A5T18	180	.35	**.21**
22A5T2	200	.35	**.21**
22A5T22	220	.35	**.21**
22A5T24	240	.35	**.21**
22A5T27	270	.40	**.24**
22A5T3	300	.40	**.24**
22A5T33	330	.45	**.27**
22A5T36	360	.45	**.27**
22A5T39	390	.45	**.27**
22A5T43	430	.50	**.30**
22A5T47	470	.50	**.30**
22A5T51	510	.60	**.36**
22A5T56	560	.60	**.36**
22A5T62	620	.65	**.39**
22A5T68	680	.70	**.42**
22A5T75	750	.80	**.48**
22A5T82	820	.85	**.51**
22A5T91	910	.90	**.54**
22A5D1	1,000	.95	**.57**

TYPE 5A

500 V. D.C. Working

5A5D11	1,100	$.65	**$ .39**
5A5D12	1,200	.65	**.39**
5A5D13	1,300	.65	**.39**
5A5D15	1,500	.75	**.45**
5A5D16	1,600	.75	**.45**
5A5D18	1,800	.90	**.54**
5A5D2	2,000	1.10	**.66**
5A5D22	2,200	1.10	**.66**
5A5D24	2,400	1.25	**.75**
5A5D27	2,700	1.35	**.81**
5A5D3	3,000	1.45	**.87**
5A5D33	3,300	1.55	**.93**
5A5D36	3,600	1.85	**1.11**

TYPE 1A

500 V. D.C. Working

1A5D39	3,900	$1.40	**$ .84**
1A5D43	4,300	1.50	**.90**
1A5D47	4,700	1.65	**.99**
1A5D51	5,100	1.70	**1.02**
1A5D56	5,600	1.85	**1.11**
1A5D62	6,200	1.95	**1.17**
1A5D68	6,800	2.15	**1.29**
1A5D75	7,500	2.30	**1.38**
1A5D82	8,200	2.50	**1.50**
1A5D91	9,100	2.70	**1.62**
1A5S1	10,000	3.15	**1.89**
1A5S11	11,000	3.35	**2.02**
1A5S12	12,000	3.50	**2.10**
1A5S13	13,000	3.85	**2.31**
1A5S15	15,000	4.20	**2.52**

TYPE 1AD

500 V. D.C. Working

1AD5S16	16,000	$4.85	**$2.91**
1AD5S18	18,000	5.30	**3.18**
1AD5S2	20,000	5.80	**3.48**
1AD5S22	22,000	6.10	**3.66**
1AD5S24	24,000	6.50	**3.90**
1AD5S27	27,000	7.10	**4.26**
1AD5S3	30,000	7.85	**4.71**
†1AD3S33	33,000	8.45	**5.07**
†1AD3S36	36,000	9.05	**5.43**
†1AD3S39	39,000	9.80	**5.88**
†1AD3S4	40,000	9.95	**5.97**

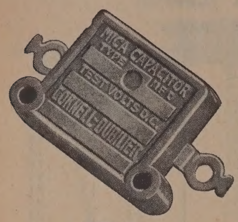
†Rated at 300 V. D.C. Working.

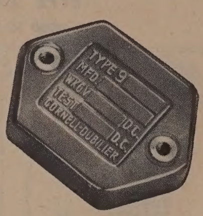
*Prices shown cover Char. "C" or "E"; For Char. "F" add 25¢ each to list.

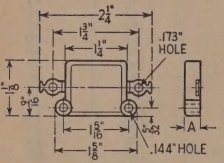
CORNELL-DUBILIER ELECTRONICS

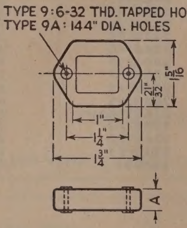
CDE

Low-Power Molded Micas


TYPE 4


TYPE 9





C-D types 4 and 9 are designed to meet applications in power amplifiers and low-power transmitters. Principally employed for grid and plate blocking and for r.f. by-pass. **Units are molded in a low-loss bakelite and have a special salt water immersion seal against humidity.**

In the type 9 the two terminals are tapped to receive mounting screws.

STANDARD TOLERANCE: ±10%.

TYPE 4				TYPE 9			
Cat. No.	Cap. Mfd.	List Price	Net Price	Cat. No.	Cap. Mfd.	List Price	Net Price
1200 V. D.C. Test— 600 V. D.C. Working				**1200 V. D.C. Test— 600 V. D.C. Working**			
4-14050	.00005	$1.20	**$ .72**	**9-14050**	.00005	$1.45	**$ .87**
4-13010	.0001	1.20	**.72**	**9-13010**	.0001	1.45	**.87**
4-13020	.0002	1.20	**.72**	**9-13025**	.00025	1.45	**.87**
4-13025	.00025	1.20	**.72**	**9-13050**	.0005	1.45	**.87**
4-13030	.0003	1.20	**.72**	**9-12010**	.001	1.45	**.87**
4-13040	.0004	1.20	**.72**	**9-12020**	.002	1.65	**.99**
4-13050	.0005	1.20	**.72**	**9-12025**	.0025	1.70	**1.02**
4-12010	.001	1.20	**.72**	**9-12030**	.003	1.85	**1.11**
4-12015	.0015	1.20	**.72**	**9-12040** *	.004	2.00	**1.20**
4-12020 *	.002	1.30	**.78**	**9-12050**	.005	2.10	**1.26**
4-12025	.0025	1.30	**.78**	**9-12060**	.006	2.20	**1.32**
4-12030	.003	1.45	**.87**	**9-12080**	.008	2.45	**1.47**
4-12040	.004	1.50	**.90**	**9-11010**	.01	2.80	**1.68**
4-12050	.005	1.55	**.93**	**9-11015**	.015	3.05	**1.83**
4-12060	.006	1.80	**1.08**	**9-11020**	.02	3.55	**2.13**
4-12070	.007	1.85	**1.11**	**9-11025**	.025	4.35	**2.61**
4-12080	.008	1.90	**1.14**	**9-11030**	.03	4.55	**2.73**
4-11010	.01	2.15	**1.29**	**9-11040**	.04	5.85	**3.51**
4-11015	.015	2.65	**1.59**	**9-11050** †	.05	7.10	**4.26**
4-11020 †	.02	3.05	**1.83**	**9-11060**	.06	8.05	**4.83**
4-11025	.025	3.60	**2.16**				
4-11030	.03	4.45	**2.67**				

TYPE 4			
Cat. No.	Cap. Mfd.	List Price	Net Price
2500 V. D.C. Test— 1200 V. D.C. Working			
4-24050	.00005	$1.60	**$ .96**
4-23010	.0001	1.60	**.96**
4-23020	.0002	1.60	**.96**
4-23025	.00025	1.60	**.96**
4-23030	.0003	1.60	**.96**
4-23050 *	.0005	1.60	**.96**
4-22010	.001	1.80	**1.08**
4-22015	.0015	2.30	**1.38**
4-22020	.002	2.40	**1.44**
4-22025	.0025	2.80	**1.68**
4-22030	.003	3.05	**1.83**
4-22040	.004	3.05	**1.83**
4-22050	.005	3.30	**1.98**
4-22060 †	.006	3.30	**1.98**
4-22080	.008	3.85	**2.31**
4-21010	.01	5.10	**3.06**
Cat. No.	Cap. Mfd.	List Price	Net Price
5000 V. D.C. Test— 2500 V. D.C. Working			
4-54050	.00005	$1.90	**$1.14**
4-53010	.0001	1.90	**1.14**
4-53020	.0002	1.90	**1.14**
4-53025	.00025	2.20	**1.32**
4-53030 *	.0003	2.25	**1.35**
4-53050	.0005	2.50	**1.50**
4-52010	.001	2.80	**1.68**
4-52015	.0015	3.55	**2.13**
4-52020	.002	4.15	**2.49**
4-52025	.0025	4.50	**2.70**
4-52030 †	.003	4.90	**2.94**
4-52040	.004	5.65	**3.39**
4-52050	.005	6.40	**3.84**

TYPE 9			
Cat. No.	Cap. Mfd.	List Price	Net Price
2500 V. D.C. Test— 1200 V. D.C. Working			
9-24050	.00005	$1.60	**$ .96**
9-23010	.0001	1.60	**.96**
9-23025	.00025	1.60	**.96**
9-23050	.0005	1.60	**.96**
9-22010	.001	1.90	**1.14**
9-22020	.002	2.50	**1.50**
9-22025 *	.0025	2.80	**1.68**
9-22030	.003	2.95	**1.77**
9-22040	.004	3.10	**1.86**
9-22050	.005	3.30	**1.98**
9-22060	.006	3.45	**2.07**
9-22080	.008	4.10	**2.46**
9-21010	.01	4.70	**2.82**
9-21015	.015	5.80	**3.48**
9-21020 †	.02	7.05	**4.23**
9-21025	.025	7.90	**4.74**
9-21030	.03	8.10	**4.86**
Cat. No.	Cap. Mfd.	List Price	Net Price
5000 V. D.C. Test— 2500 V. D.C. Working			
9-54050	.00005	$1.90	**$1.14**
9-53010	.0001	1.90	**1.14**
9-53025	.00025	2.15	**1.29**
9-53050	.0005	2.55	**1.53**
9-52010 *	.001	2.90	**1.74**
9-52020	.002	4.25	**2.55**
9-52025	.0025	4.60	**2.76**
9-52030	.003	5.10	**3.06**
9-52040	.004	5.65	**3.39**
9-52050	.005	6.20	**3.72**
9-52060	.006	6.35	**3.81**
9-52080 †	.008	6.85	**4.11**
9-51010	.01	7.30	**4.38**
9-51015	.015	8.05	**4.83**

*Dimension "A" in diagram—for type 4—11/32"; for type 9—7/16".

†Dimension "A" in diagram—for type 4—7/16"; for type 9—47/64". Supplied as Type 4D or 9D.

"E" METER BRACKETS: For Weston Model 301 meters. Add "E" to C-D Type No., for example, 4E-52020, etc. These "E" brackets are also available separately. Specify by ordering (2) Part No. 18445 per capacitor.

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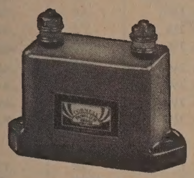
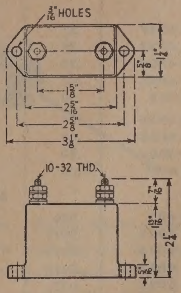
LASS
03.50 Medium-Power Bakelite-Cased Micas



TYPE 6



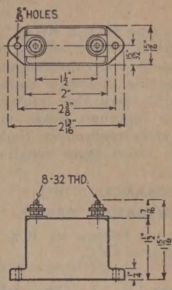
Plastic-cased capacitors designed for a wide variety of radio-frequency applications, especially where small size and minimum weight are essential such as in airborne and portable equipment. Used also in stationary medium-power transmitters, television transmitters, oscillators, and many electronic devices, in grid, plate, coupling, tank and bypass functions.

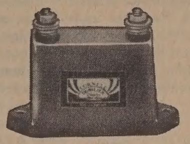
- SPECIAL C-D SERIES-SECTION MICA STACK
- STACKS PERMANENTLY HELD UNDER PRESSURE WITH NON-MAGNETIC CLAMPS
- COMPLETELY SOLDERED FOILS
- VACUUM - IMPREGNATED STACK
- NON-TURNABLE PLATED BRASS STUD TERMINALS
- SECTIONS INDIVIDUALLY TESTED FOR CAPACITY AND VOLTAGE
- SPECIAL LOW-LOSS FILLER
- FINEST INDIA RUBY MICA DIELECTRIC
- LOW-LOSS PLASTIC CASES

TYPE 6

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps.				List Price	Net Price
			3000 kc.	1000 kc.	300 kc.	100 kc.		
390-6	.00005	5,000	1.5	.8	.2	.07	$17.30	**$10.38**
362-6	.0000625	5,000	1.8	.85	.3	.075	17.30	**10.38**
321-6	.0001	5,000	2.4	1.2	.47	.1	17.30	**10.38**
395-6	.00015	5,000	3.7	1.8	.68	.24	17.30	**10.38**
307-6	.0002	5,000	3.6	2.0	.82	.33	17.30	**10.38**
364-6	.00025	5,000	5.0	2.5	1.0	.45	17.30	**10.38**
294A-6	.0003	5,000	3.9	2.7	1.1	.51	17.30	**10.38**
283-6	.0004	5,000	4.3	2.7	1.3	.62	17.30	**10.38**
272-6	.0005	5,000	4.7	3.3	1.7	.8	17.30	**10.38**
266-6	.0006	5,000	5.1	3.6	1.8	.8	17.30	**10.38**
654-6	.00075	5,000	5.6	3.9	2.2	.91	17.30	**10.38**
599-6	.0008	5,000	6.0	4.0	2.3	1.0	17.30	**10.38**
246-6	.001	5,000	6.2	4.3	2.4	1.2	17.30	**10.38**
234-6	.0015	5,000	6.8	5.1	3.3	1.5	17.30	**10.38**
215-6	.002	3,000	6.0	3.0	1.5	.8	17.30	**10.38**
217-6	.002	6,000	9.0	6.2	4.0	2.0	17.30	**10.38**
473-6	.0025	5,000	9.0	6.2	4.3	2.0	17.30	**10.38**
197-6	.003	3,000	8.2	6.8	4.7	2.2	17.30	**10.38**
184-6	.004	3,000	9.1	7.5	5.6	2.7	17.30	**10.38**
173-6	.005	2,000	8.0	5.0	3.0	1.5	17.30	**10.38**
474-6	.005	3,000	9.1	8.2	6.2	3.0	17.30	**10.38**
565-6	.0075	2,000	10.0	9.1	6.8	3.9	17.30	**10.38**
476-6	.008	2,000	11.0	9.0	7.0	3.0	17.30	**10.38**
162-6	.008	3,000	10.0	10.0	7.5	3.9	17.30	**10.38**
151-6	.01	2,000	11.0	11.0	8.2	4.3	17.30	**10.38**
140-6	.015	1,500	12.0	10.0	7.0	4.0	17.30	**10.38**
784-6	.015	2,000	12.0	12.0	10.0	5.1	17.30	**10.38**
131-6	.02	2,000	13.0	13.0	11.0	6.2	17.30	**10.38**
479-6	.03	2,000	14.0	20.0	15.0	7.0	17.30	**10.38**
480-6	.04	1,500	15.0	16.0	13.0	7.5	17.30	**10.38**
118-6	.05	1,500	15.0	16.0	15.0	7.5	17.30	**10.38**
111-6	.1	500	15.0	18.0	15.0	8.2	19.20	**11.52**
406-6	.1	1,000	18.0	20.0	15.0	8.0	17.30	**10.38**
110-6	.1—.1	250	20.0	20.0	15.0	10.0	17.30	**10.38**
105-6	.2	250	18.0	20.0	16.0	12.0	25.25	**15.15**
885-6	.25	250	18.0	20.0	16.0	12.0	27.90	**16.74**

TYPE 15

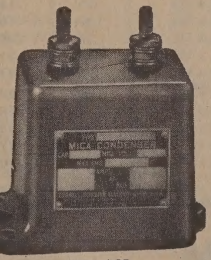




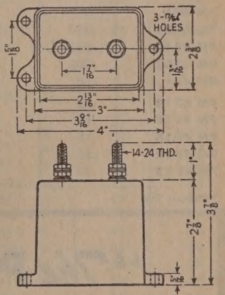
TYPE 15

Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps.				List Price	Net Price
			3000 kc.	1000 kc.	300 kc.	100 kc.		
639-15	.00005	3,000	1.3	.6	.18	.06	$12.60	**$7.56**
583A-15	.0001	3,000	1.8	.75	.33	.1	12.60	**7.56**
657-15	.00015	3,000	2.2	1.0	.47	.18	12.60	**7.56**
582A-15	.0002	3,000	2.4	1.2	.62	.24	12.60	**7.56**
805-15	.00025	3,000	3.0	2.0	.8	.3	12.60	**7.56**
640A-15	.0003	3,000	3.0	1.5	.75	.36	12.60	**7.56**
641-15	.0004	3,000	4.0	2.0	.9	.45	12.60	**7.56**
642-15	.0005	3,000	4.0	2.0	1.1	.55	12.60	**7.56**
643-15	.0006	3,000	4.5	2.4	1.2	.6	12.60	**7.56**
727-15	.0008	3,000	4.5	2.7	1.5	.7	12.60	**7.56**
581B-15	.001	3,000	4.7	3.0	1.6	.75	12.60	**7.56**
679-15	.0015	3,000	5.6	3.9	2.0	.91	12.60	**7.56**
726-15	.002	3,000	6.2	4.3	2.4	1.1	12.60	**7.56**
645-15	.003	3,000	7.5	5.0	3.0	1.5	12.60	**7.56**
699-15	.004	3,000	8.2	6.2	3.5	1.6	12.60	**7.56**
725-15	.005	3,000	8.5	6.8	4.0	2.0	12.60	**7.56**
580-15	.006	2,000	9.1	7.5	4.5	2.2	12.60	**7.56**
724-15	.008	1,500	10.0	8.2	5.0	2.3	12.60	**7.56**
677-15	.01	1,000	10.0	9.1	5.1	2.4	12.60	**7.56**
723-15	.02	1,000	11.0	11.0	7.5	3.6	14.30	**8.58**
722-15	.05	500	11.0	11.0	9.1	5.0	14.30	**8.58**
721-15	.1	250	11.0	11.0	9.1	5.6	15.10	**9.06**

TYPE 30B

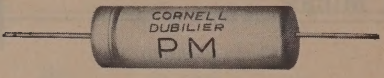


TYPE 30B



Cat. No.	Cap. Mfd.	Test. Volt. Effective	Max. Oper. Cur. in Amps.				List Price	Net Price
			3000 kc.	1000 kc.	300 kc.	100 kc.		
533-30B	.0001	4,000	(20 Amps. at 60 mc.)		(3 Amps. at 4 mc.)		$35.25	**$21.15**
959-30B	.0005	8,000	8.5	6	3	1	35.25	**21.15**
960-30B	.001	8,000	10	8.5	4.5	1.5	39.25	**23.55**
961-30B	.002	8,000	11	11	7.5	2.5	39.25	**23.55**
759-30B	.003	8,000	12	14	10	5	42.25	**25.35**
757-30B	.004	8,000	12	14	10	6	44.60	**26.76**
758-30B	.005	8,000	13	15	11	7	48.60	**29.16**
756-30B	.006	6,000	15	15	11	7	48.60	**29.16**
962-30B	.01	6,000	16	20	15	8	52.55	**31.53**
915-30B	.01	8,000	17	21	15	9	55.20	**33.12**
963-30B	.02	5,000	18	22	18	12	55.20	**33.12**
741-30B	.03	4,000	18	23	20	13	55.20	**33.12**
113-30B	.1	2,000	18	25	22	12	48.60	**29.16**
603-30B	.2	600	18	28	23	15	39.25	**23.55**
750-30B	.25	600	18	28	23	15	44.60	**26.76**
933-30B	.3	600	18	28	23	15	44.60	**26.76**
898-30B	1.0	600	18	28	23	15	81.85	**49.11**

Molded Tubular Mylars*



PM

CDE type PM is a MYLAR* dielectric, high temperature, moisture resistant molded tubular capacitor. The thermoset molded case is tough and non-inflammable. The Mylar dielectric assures dependable operation under high humidity conditions, and it exhibits very high insulation resistance. Low RF impedance of these capacitors makes them ideal for all general bypass and coupling applications. High stability under changes in temperature makes these capacitors excellent replacements in tuned circuits.

TOLERANCE: ±10%

TEMPERATURE RANGE: —55°C to +130°C.

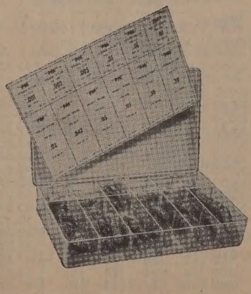
†Derate voltage by 10% at 100°C; by 50% at 130°C. Full rating at 85°C.

PM Cat. No.	Cap. Mfd.	Dimensions—Inches Diameter x Length	List Price	Net Price
		200 V. D.C.W.		
PM 2S2	.02	3/8 x 1 1/4	$.25	**$.15**
PM 2S47	.047	3/8 x 1 1/4	.25	**.15**
PM 2S5	.05	3/8 x 1 1/4	.25	**.15**
PM 2P1	.10	7/16 x 1 1/4	.35	**.21**
PM 2P15	.15	1/2 x 1 1/2	.35	**.21**
PM 2P22	.22	1/2 x 1 1/2	.40	**.24**
PM 2P25	.25	9/16 x 1 9/16	.40	**.24**
PM 2P47	.47	5/8 x 1 7/8	.60	**.36**
PM 2P5	.50	5/8 x 1 7/8	.60	**.36**
PM 2W1	1.00	3/4 x 2 1/4	1.05	**.63**
		400 V. D.C.W.		
PM 4S1	.01	5/16 x 1	.25	**.15**
PM 4S12	.012	3/8 x 1 1/4	.25	**.15**
PM 4S15	.015	3/8 x 1 1/4	.25	**.15**
PM 4S18	.018	3/8 x 1 1/4	.30	**.18**
PM 4S22	.022	3/8 x 1 1/4	.30	**.18**
PM 4S25	.025	3/8 x 1 1/4	.30	**.18**
PM 4S27	.027	3/8 x 1 1/4	.30	**.18**
PM 4S33	.033	7/16 x 1 1/4	.30	**.18**
PM 4S39	.039	7/16 x 1 1/4	.30	**.18**
PM 4S47	.047	7/16 x 1 1/4	.30	**.18**
PM 4S5	.05	7/16 x 1 1/4	.30	**.18**
PM 4S56	.056	1/2 x 1 1/2	.30	**.18**
PM 4S68	.068	1/2 x 1 1/2	.35	**.21**
PM 4S82	.082	1/2 x 1 1/2	.35	**.21**
PM 4P1	.10	1/2 x 1 1/2	.35	**.21**
PM 4P12	.12	1/2 x 1 1/2	.40	**.24**
PM 4P15	.15	9/16 x 1 9/16	.40	**.24**
PM 4P18	.18	9/16 x 1 9/16	.40	**.24**
PM 4P22	.22	5/8 x 1 7/8	.45	**.27**
PM 4P25	.25	5/8 x 1 7/8	.50	**.30**
		400 V. D.C.W. (Cont'd)		
PM 4P27	.27	5/8 x 1 7/8	.55	**.33**
PM 4P33	.33	11/16 x 1 15/16	.60	**.36**
PM 4P39	.39	11/16 x 1 15/16	.65	**.39**
PM 4P47	.47	3/4 x 2 1/4	.75	**.45**
PM 4P5	.50	3/4 x 2 1/4	.75	**.45**
PM 4P56	.56	3/4 x 2 1/4	.80	**.48**
PM 4P68	.68	1 x 2 1/8	.90	**.54**
PM 4P82	.82	1 x 2 1/8	1.00	**.60**
PM 4W1	1.00	1 x 2 1/8	1.25	**.75**
		600 V. D.C.W.		
PM 6D1	.001	5/16 x 1	.25	**.15**
PM 6D12	.0012	5/16 x 1	.25	**.15**
PM 6D15	.0015	5/16 x 1	.25	**.15**
PM 6D18	.0018	5/16 x 1	.25	**.15**
PM 6D22	.0022	5/16 x 1	.25	**.15**
PM 6D27	.0027	5/16 x 1	.25	**.15**
PM 6D33	.0033	5/16 x 1	.25	**.15**
PM 6D39	.0039	5/16 x 1	.25	**.15**
PM 6D47	.0047	5/16 x 1	.25	**.15**
PM 6D5	.005	5/16 x 1	.25	**.15**
PM 6D56	.0056	5/16 x 1	.25	**.15**
PM 6D68	.0068	5/16 x 1	.30	**.18**
PM 6D82	.0082	3/8 x 1 1/4	.30	**.18**
PM 6S1	.01	3/8 x 1 1/4	.30	**.18**
PM 6S12	.012	3/8 x 1 1/4	.30	**.18**
PM 6S15	.015	3/8 x 1 1/4	.30	**.18**
PM 6S18	.018	3/8 x 1 1/4	.30	**.18**
PM 6S22	.022	7/16 x 1 1/4	.30	**.18**
PM 6S25	.025	7/16 x 1 1/4	.30	**.18**
PM 6S27	.027	7/16 x 1 1/4	.30	**.18**
PM 6S33	.033	7/16 x 1 1/4	.35	**.21**
PM 6S39	.039	7/16 x 1 1/4	.35	**.21**
PM 6S47	.047	1/2 x 1 1/2	.40	**.24**
PM 6S5	.05	1/2 x 1 1/2	.40	**.24**
PM 6S56	.056	1/2 x 1 1/2	.40	**.24**
PM 6S68	.068	1/2 x 1 1/2	.45	**.27**
PM 6S82	.082	1/2 x 1 1/2	.45	**.27**
PM 6P1	.10	9/16 x 1 9/16	.45	**.27**
PM 6P12	.12	9/16 x 1 9/16	.45	**.27**
PM 6P15	.15	5/8 x 1 7/8	.50	**.30**
PM 6P18	.18	5/8 x 1 7/8	.60	**.36**
PM 6P22	.22	5/8 x 1 7/8	.70	**.42**
PM 6P25	.25	11/16 x 1 15/16	.75	**.45**
PM 6P27	.27	11/16 x 1 15/16	.80	**.48**
PM 6P33	.33	3/4 x 2 1/4	.90	**.54**
PM 6P39	.39	3/4 x 2 1/4	1.00	**.60**
PM 6P47	.47	3/4 x 2 1/4	1.25	**.75**
PM 6P5	.50	3/4 x 2 1/4	1.25	**.75**
PM 6P56	.56	1 x 2 1/8	1.30	**.78**

*Dupont TM.

†For Higher Voltage Units see Type PKM

"*The* PM"



MYLAR Molded Tubular CAPACITOR KIT

A handy quick-select assortment of 80 of the fastest moving C-D "PM" MYLAR tubulars IN A crystal clear plastic . . . hinged cover . . . compartment type case (11x6½x1⅞) . . . the clean, orderly way of stocking capacitors . . . and service parts, too!

YOU GET THE CASE AND THE CAPACITORS ALL FOR THE PRICE OF THE CAPACITORS ALONE.

"PM" KIT ....List Price $26.40 Net $15.84

CONTAINS:

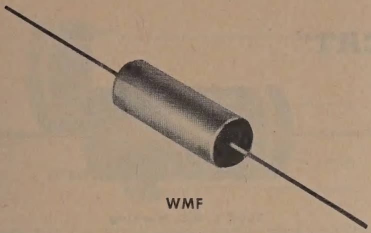
10 — .001
12 — .01
12 — .05
6 — .002
10 — .02
10 — .10
10 — .005
10 — .047
All 600V

Keep a KIT in your field-service bag and one on your service-bench. They're great too — for screws, nuts and small parts.

ORDER YOUR "PM" MYLAR KITS FROM YOUR C-D DISTRIBUTOR . . . NOW!

CLASS

204.28 Film-Encased Tubular Mylars*



WMF

Type WMF is an ultra-compact Mylar dielectric tubular capacitor encased in a thin, tough Mylar film wrapping and end-sealed with a high density thermosetting plastic. A most desirable unit where a metal-cased unit is not indicated. The WMF is extremely small in size, has high resistance to humidity and excellent capacitance stability with temperature and life.

TEMPERATURE RANGE: —55°C. to +125°C.
Full rated voltage at 85°C.
Derate voltage 10% at 100°C.
Derate voltage 50% at 125°C.

TOLERANCE: ±10%.

WMF Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		100 W.V.D.C.		
WMF1D1	.001	.156 x ½	$.35	**$.21**
WMF1D15	.0015	.156 x ½	.35	**.21**
WMF1D22	.0022	.156 x ½	.35	**.21**
WMF1D33	.0033	.156 x ½	.35	**.21**
WMF1D47	.0047	.156 x ½	.35	**.21**
WMF1D68	.0068	.175 x ½	.35	**.21**
WMF1S1	.01	.200 x ½	.35	**.21**
WMF1S15	.015	.235 x ½	.35	**.21**
WMF1S22	.022	.275 x ⅝	.40	**.24**
WMF1S33	.033	.300 x ⅝	.40	**.24**
WMF1S47	.047	.265 x ¾	.45	**.27**
WMF1S68	.068	.280 x ¾	.45	**.27**
WMF1P1	.1	.290 x ⅞	.60	**.36**
WMF1P15	.15	.335 x ⅞	.60	**.36**
WMF1P22	.22	.385 x 1	.65	**.39**
WMF1P33	.33	.415 x 1⅛	.75	**.45**
WMF1P47	.47	.475 x 1¼	.85	**.51**
WMF1P68	.68	.570 x 1¼	.95	**.57**
WMF1W1	1.0	.625 x 1½	1.45	**.87**
WMF1W1P25	1.25	.690 x 1½	1.75	**1.05**
WMF1W1P5	1.5	.770 x 1¾	2.05	**1.23**
WMF1W2	2.0	.955 x 1¾	2.50	**1.50**
		200 W.V.D.C.		
WMF2D1	.001	.156 x ½	.35	**.21**
WMF2D15	.0015	.156 x ½	.35	**.21**
WMF2D22	.0022	.156 x ½	.35	**.21**
WMF2D33	.0033	.160 x ½	.35	**.21**
WMF2D47	.0047	.170 x ½	.35	**.21**
WMF2D68	.0068	.200 x ½	.35	**.21**
WMF2S1	.01	.230 x ½	.35	**.21**
WMF2S15	.015	.290 x ½	.35	**.21**
WMF2S22	.022	.275 x ⅝	.40	**.24**
WMF2S33	.033	.270 x ¾	.40	**.24**
		200 W.V.D.C. (cont'd)		
WMF2S47	.047	.320 x ¾	$.45	**$.27**
WMF2S68	.068	.350 x ¾	.45	**.27**
WMF2P1	.1	.410 x ⅞	.60	**.36**
WMF2P15	.15	.500 x ⅞	.60	**.36**
WMF2P22	.22	.500 x 1⅛	.65	**.39**
WMF2P33	.33	.550 x 1⅛	.75	**.45**
WMF2P47	.47	.600 x 1¼	.85	**.51**
WMF2P68	.68	.650 x 1⅝	.95	**.57**
WMF2W1	1.0	.750 x 1¾	1.45	**.87**
WMF2W1P25	1.25	.825 x 1¾	1.75	**1.05**
WMF2W1P5	1.5	.900 x 1¾	2.05	**1.23**
WMF2W2	2.0	.980 x 1⅞	2.50	**1.50**
		400 W.V.D.C.		
WMF4D1	.001	.156 x ⅝	.35	**.21**
WMF4D15	.0015	.156 x ⅝	.35	**.21**
WMF4D22	.0022	.156 x ⅝	.35	**.21**
WMF4D33	.0033	.190 x ⅝	.40	**.24**
WMF4D47	.0047	.200 x ⅝	.40	**.24**
WMF4D68	.0068	.250 x ⅝	.40	**.24**
WMF4S1	.01	.300 x ⅝	.45	**.27**
WMF4S15	.015	.360 x ⅝	.45	**.27**
WMF4S22	.022	.320 x ¾	.45	**.27**
WMF4S33	.033	.350 x ⅞	.45	**.27**
WMF4S47	.047	.400 x ⅞	.50	**.30**
WMF4S68	.068	.390 x 1	.55	**.33**
WMF4P1	.1	.465 x 1	.55	**.33**
WMF4P15	.15	.515 x 1¼	.60	**.36**
WMF4P22	.22	.565 x 1⅜	.70	**.42**
WMF4P33	.33	.600 x 1⅝	1.10	**.66**
WMF4P47	.47	.700 x 1⅝	1.30	**.78**
WMF4P68	.68	.790 x 1¾	1.60	**.96**
WMF4W1	1.0	.875 x 2	2.00	**1.20**
WMF4W1P25	1.25	.950 x 2	2.30	**1.38**
WMF4W1P5	1.5	.975 x 2¼	2.60	**1.56**
WMF4W2	2.0	1.250 x 2¼	3.30	**2.04**
		600 W.V.D.C.		
WMF6D1	.001	.170 x ¾	.40	**.24**
WMF6D15	.0015	.170 x ¾	.40	**.24**
WMF6D22	.0022	.187 x ¾	.40	**.24**
WMF6D33	.0033	.203 x ¾	.40	**.24**
WMF6D47	.0047	.234 x ¾	.45	**.27**
WMF6D68	.0068	.265 x ¾	.45	**.27**
WMF6S1	.01	.290 x ¾	.50	**.30**
WMF6S15	.015	.312 x ⅞	.50	**.30**
WMF6S22	.022	.325 x ⅞	.50	**.30**
WMF6S33	.033	.350 x 1	.50	**.30**
WMF6S47	.047	.415 x 1	.55	**.33**
WMF6S68	.068	.500 x 1	.60	**.36**
WMF6P1	.1	.520 x 1⅜	.70	**.42**
WMF6P15	.15	.625 x 1⅜	.75	**.45**
WMF6P22	.22	.660 x 1⅝	.85	**.51**
WMF6P33	.33	.687 x 2	1.50	**.90**
WMF6P47	.47	.855 x 2	1.90	**1.14**
WMF6P68	.68	.970 x 2	2.55	**1.53**
WMF6W1	1.0	1.165 x 2½	4.25	**2.55**
WMF6W1P25	1.25	1.340 x 2½	4.80	**2.88**
WMF6W1P5	1.5	1.275 x 3	5.80	**3.48**
WMF6W2	2.0	1.460 x 3	7.30	**4.38**

*Dupont TM.

"BLACK CAT" Molded Kraft-Mylars*

"BLACK CAT"

PKM

Dual dielectric, molded tubular of Mylar and Kraft assuring high temperature operation, exceptional resistance to moisture and high reliability.

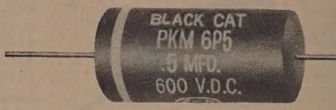
CDE's exclusive "FIXFIL" impregnant (a solid thermosetting compound) together with a rugged molded plastic case, make PKM ideal for the most exacting and rugged services.

For operation at temperatures from —40°C to +125°C — without Derating.

TOLERANCE: ±10%.

1000 V. D.C. Working

PKM Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
PKM 10D1	.001	5/16 x 1	$.50	**$.30**
PKM 10D5	.005	3/8 x 1¼	.50	**.30**
PKM 10D68	.0068	7/16 x 1¼	.50	**.30**
PKM 10S1	.01	7/16 x 1¼	.50	**.30**
PKM 10S15	.015	½ x 1½	.50	**.30**
PKM 10S22	.022	½ x 1½	.50	**.30**
PKM 10S33	.033	½ x 1½	.50	**.30**
PKM 10S47	.047	9/16 x 1 9/16	.60	**.36**
PKM 10S5	.05	9/16 x 1 9/16	.60	**.36**
PKM 10S68	.068	5/8 x 1⅞	.70	**.42**
PKM 10P1	.1	11/16 x 1 15/16	.75	**.45**



1600 V. D.C. Working

PKM Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
PKM 16D1	.001	3/8 x 1¼	$.65	**$.39**
PKM 16D15	.0015	3/8 x 1¼	.65	**.39**
PKM 16D22	.0022	3/8 x 1¼	.65	**.39**
PKM 16D33	.0033	3/8 x 1¼	.65	**.39**
PKM 16D47	.0047	3/8 x 1¼	.65	**.39**
PKM 16D5	.005	3/8 x 1¼	.65	**.39**
PKM 16D68	.0068	7/16 x 1¼	.65	**.39**
PKM 16D82	.0082	7/16 x 1¼	.65	**.39**
PKM 16S1	.01	½ x 1½	.70	**.42**
PKM 16S15	.015	½ x 1½	.70	**.42**
PKM 16S22	.022	5/8 x 1⅞	.70	**.42**
PKM 16S33	.033	5/8 x 1⅞	.70	**.42**
PKM 16S47	.047	5/8 x 1⅞	.90	**.54**
PKM 16S5	.05	5/8 x 1⅞	.90	**.54**
	6000 V. D.C. Working			
PKM 60T5	.0005	½ x 1½	1.35	**.81**
PKM 60D1	.001	9/16 x 1 9/16	1.35	**.81**
PKM 60D5	.005	11/16 x 1 15/16	1.35	**.81**
	10,000 V. D.C. Working			
PKM 100T5	.0005	½ x 1½	1.50	**.90**
	12,500 V. D.C. Working			
PKM 125T25	.00025	½ x 1½	1.70	**1.02**

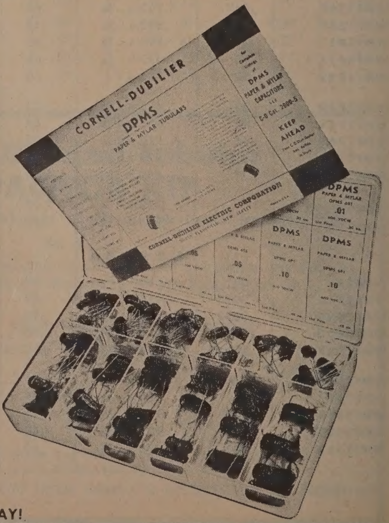
*DuPont TM

The "DPMS" PAPER & MYLAR* TUBULAR CAPACITOR KIT

Another of the popular C-D KITS . . . this time filled with the **NEW** DPMS Dipped Paper and Mylar (Dual-Film) Tubular Capacitors. 80 units, selected in types to meet your day-to-day needs.

ALL IN A

clear, "look-through" plastic, jumbo size (11 x 6½ x 1⅞) service kit — with hinged cover and separate compartments.



THE CASE IS FREE
YOU PAY ONLY FOR THE CAPACITORS

The DPMS KIT—List Price $25.90, Special Dealer Net $15.54

Beside the FREE PLASTIC CASE you get

10 — .001
6 — .002
10 — .005
12 — .01
10 — .02
10 — .047
12 — .05
10 — .1

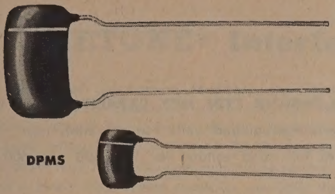
ALL 600 WVDC AND ±10% QUALITY

The new C-D "DPMS" will simplify many of your service problems and you can depend on top performance.

YOUR C-D DISTRIBUTOR HAS "DPMS KITS" IN STOCK. ORDER YOURS TODAY!

CLASS

04.45 Side-Lead Dipped Paper-Mylars*



Type **DPMS** is unique in that it is constructed with TWO dielectrics — Mylar* Polyester Film and a film of the very highest grade paper. The combination of the two thus provides the best features of both —

- ★ **HIGH TEMPERATURE OPERATION**
- ★ **HIGH INSULATION RESISTANCE**
- ★ **HIGH RELIABILITY**
- ★ **COMPACT — SPACE SAVING**
- ★ **IDEAL For Printed and Transistorized Circuitry**

"FIXFIL" impregnant, a C-D exclusive, assures stability of temperature characteristics. This solid thermosetting compound will not crack, soften or flow, even at maximum operating temperatures.

The **DPMS** has a "dipped" rock-hard casing which holds wire leads rigidly at fixed spacings. This tough, durable material has high humidity resistance, high dielectric strength against grounding and is unaffected by accidental contact with soldering iron. The crimped side-leads are space saving and permit uniform mounting of units parallel to the plane of the chassis or printed wiring board.

LEAD SPACING—INCHES

Case Length	Lead Spacing	Case Length	Lead Spacing	Case Length	Lead Spacing
.690	.250	1.150	.719	1.300	.844
.855	.438	1.160	.719	1.560	1.094
.870	.438	1.180	.719	1.600	1.094

TEMPERATURE RANGE: —55°C to +125°C
Derate Working Voltage by 25%
for over +100°C operation.

TOLERANCE: ±10%

DPMS Cat. No.	Cap. Mfd.	Size—Inches Diam. x Length	List Price	Net Price
		200 W.V.D.C.		
DPMS 2S2	.02	.350 x .855	$.25	**$.15**
DPMS 2S47	.047	.450 x .855	.30	**.18**
DPMS 2S5	.05	.450 x .855	.30	**.18**
DPMS 2P1	.10	.470 x 1.180	.35	**.21**
DPMS 2P15	.15	.540 x 1.180	.40	**.24**
DPMS 2P22	.22	.590 x 1.300	.45	**.27**
DPMS 2P25	.25	.620 x 1.300	.45	**.27**
DPMS 2P47	.47	.730 x 1.600	.60	**.36**
DPMS 2P5	.5	.730 x 1.600	.60	**.36**
		400 W.V.D.C.		
DPMS 4S1	.01	.390 x .690	.25	**.15**
DPMS 4S15	.015	.430 x .690	.25	**.15**
DPMS 4S2	.02	.390 x .855	.30	**.18**
DPMS 4S22	.022	.400 x .855	.30	**.18**
DPMS 4S33	.033	.440 x .855	.30	**.18**
DPMS 4S47	.047	.415 x 1.150	$.35	**$.21**
DPMS 4S5	.05	.415 x 1.150	.35	**.21**
DPMS 4S68	.068	.440 x 1.180	.40	**.24**
DPMS 4P1	.10	.520 x 1.180	.40	**.24**
DPMS 4P15	.15	.560 x 1.300	.50	**.30**
DPMS 4P22	.22	.620 x 1.560	.60	**.36**
DPMS 4P25	.25	.650 x 1.560	.60	**.36**
		600 W.V.D.C.		
DPMS 6D1	.001	.340 x .690	.25	**.15**
DPMS 6D12	.0012	.340 x .690	.25	**.15**
DPMS 6D15	.0015	.340 x .690	.25	**.15**
DPMS 6D2	.002	.340 x .690	.25	**.15**
DPMS 6D22	.0022	.340 x .690	.25	**.15**
DPMS 6D25	.0025	.350 x .690	.25	**.15**
DPMS 6D27	.0027	.370 x .690	.25	**.15**
DPMS 6D3	.003	.370 x .690	.25	**.15**
DPMS 6D33	.0033	.370 x .690	.25	**.15**
DPMS 6D39	.0039	.370 x .690	.25	**.15**
DPMS 6D4	.004	.370 x .690	.25	**.15**
DPMS 6D47	.0047	.400 x .690	.25	**.15**
DPMS 6D5	.005	.400 x .690	.25	**.15**
DPMS 6D56	.0056	.415 x .690	.25	**.15**
DPMS 6D6	.006	.415 x .690	.25	**.15**
DPMS 6D68	.0068	.430 x .690	.30	**.18**
DMPS 6D75	.0075	.370 x .870	.30	**.18**
DPMS 6D8	.008	.370 x .870	.30	**.18**
DPMS 6D82	.0082	.370 x .870	.30	**.18**
DPMS 6S1	.01	.390 x .870	.30	**.18**
DPMS 6S12	.012	.400 x .870	.30	**.18**
DPMS 6S15	.015	.415 x .870	.30	**.18**
DPMS 6S2	.02	.445 x .870	.30	**.18**
DPMS 6S22	.022	.470 x .870	.30	**.18**
DPMS 6S25	.025	.400 x 1.150	.35	**.21**
DPMS 6S27	.027	.415 x 1.150	.35	**.21**
DPMS 6S3	.03	.415 x 1.150	.35	**.21**
DPMS 6S33	.033	.430 x 1.150	.35	**.21**
DPMS 6S39	.039	.470 x 1.150	.35	**.21**
DPMS 6S4	.04	.470 x 1.150	.35	**.21**
DPMS 6S47	.047	.490 x 1.150	.35	**.21**
DPMS 6S5	.05	.490 x 1.150	.40	**.24**
DPMS 6S56	.056	.520 x 1.180	.40	**.24**
DPMS 6S6	.06	.520 x 1.180	.40	**.24**
DPMS 6S68	.068	.540 x 1.300	.45	**.27**
DPMS 6S75	.075	.570 x 1.300	.45	**.27**
DPMS 6S82	.082	.590 x 1.300	.45	**.27**
DPMS 6P1	.10	.640 x 1.300	.45	**.27**
DPMS 6P15	.15	.650 x 1.560	.55	**.33**
DPMS 6P2	.20	.730 x 1.560	.60	**.36**
DPMS 6P22	.22	.750 x 1.560	.60	**.36**
DPMS 6P25	.25	.830 x 1.560	.60	**.36**
		1600 W.V.D.C.		
DPMS 16D1	.001	.350 x .870	.35	**.21**
DPMS 16D15	.0015	.375 x .870	.35	**.21**
DPMS 16D18	.0018	.400 x .870	.35	**.21**
DPMS 16D2	.002	405 x .870	.35	**.21**
DPMS 16D22	.0022	.420 x .870	.35	**.21**
DPMS 16D25	.0025	.445 x .870	.40	**.24**
DPMS 16D3	.003	.475 x .870	.40	**.24**
DPMS 16D33	.0033	.480 x .870	.40	**.24**
DPMS 16D4	.004	.520 x .870	.40	**.24**
DPMS 16D47	.0047	.540 x .870	.40	**.24**
DPMS 16D5	.005	.565 x .870	.45	**.27**
DPMS 16D6	.006	.460 x 1.180	.45	**.27**
DPMS 16D7	.007	.485 x 1.180	.45	**.27**
DPMS 16D75	.0075	.495 x 1.180	.45	**.27**
DPMS 16D8	.008	.510 x 1.180	.50	**.30**
DPMS 16S1	.01	.525 x 1.180	.50	**.30**
DPMS 16S15	.015	.560 x 1.300	.55	**.33**
DPMS 16S2	.02	.570 x 1.600	.60	**.36**
DPMS 16S22	.022	.585 x 1.600	.70	**.42**
DPMS 16S25	.025	.620 x 1.600	.70	**.42**
DPMS 16S3	.03	.665 x 1.600	.70	**.42**
DPMS 16S33	.033	.695 x 1.600	.80	**.48**
DPMS 16S4	.04	.735 x 1.600	.80	**.48**
DPMS 16S47	.047	.785 x 1.600	.85	**.51**
DPMS 16S5	.05	.815 x 1.600	.85	**.51**

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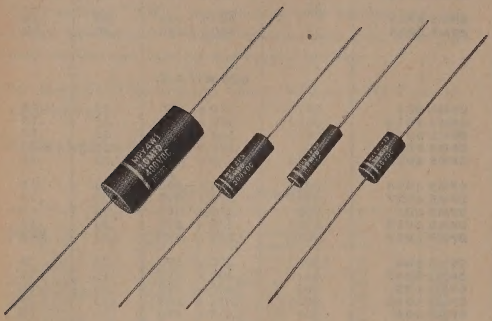
*DUPONT-TM

CORNELL-DUBILIER ELECTRONICS

CLASS

Triclad Metalized Papers 207.09



MPY

CORNELL-DUBILIER TYPE MPY CAPACITORS are metalized paper, resin-impregnated units for operation from —55C to +125C at full rated voltage for 200, 400 and 600 Volt DC Working.

These capacitors are unique in that they are encased in the CDE-developed Triclad tube — a laminated tube that is completely wax-free and extremely resistant to moisture. The Triclad tube consists of a resin-impregnated Kraftboard exterior bonded to a foil-film shield. In addition to being moisture-proof, it is also heat resistant. The Triclad tube is unaffected by accidental contact with a hot soldering iron. This tube is clean-handling because it is completely wax-free and is therefore ideal for manual or automated assembly.

Type MPY capacitors have the self-healing characteristics of metalized dielectric capacitors when subjected to momentary over-voltages. The resin impregnant will remain solid throughout the entire operating temperature range and will not soften, melt or flow.

TEMPERATURE RANGE: —55°C to +125°C
STD. TOLERANCE: ±20%

MPY Cat. No.	Cap. Mfd.	Voltage DCW	Size—Inches Diam. x Length	List Price	Net Price
MPY 2S5	.05	200	¼ x ⅝	$.75	**$.45**
MPY 2P1	.1	200	⅜ x ⅝	.80	**.48**
MPY 2P25	.25	200	15/32 x ⅝	1.15	**.69**
MPY 2P5	.5	200	7/16 x 1⅛	1.35	**.81**
MPY 2W1	1.0	200	9/16 x 1⅛	1.80	**1.08**
MPY 2W2	2.0	200	⅝ x 1 7/16	2.45	**1.47**
MPY 4S5	.05	400	7/16 x ⅝	.80	**.48**
MPY 4P1	.1	400	⅜ x 1⅛	.85	**.51**
MPY 4P25	.25	400	½ x 1⅛	1.25	**.75**
MPY 4P5	.5	400	⅝ x 1 7/16	1.60	**.96**
MPY 4W1	1.0	400	11/16 x 1 13/16	2.20	**1.32**
MPY 4W2	2.0	400	13/16 x 2⅜	2.75	**1.65**
MPY 6S1	.01	600	¼ x ⅝	.75	**.45**
MPY 6P1	.1	600	⅜ x 1⅛	1.00	**.60**
MPY 6P25	.25	600	9/16 x 1⅛	1.60	**.96**
MPY 6P5	.5	600	⅝ x 1 7/16	1.95	**1.17**
MPY 6W1	1.0	600	23/32 x 2⅜	2.40	**1.44**
MPY 6W2	2.0	600	29/32 x 2⅜	3.50	**2.10**

SUBSTITUTION GUIDE

MPY REPLACES			
Former MP Type		Former MPX Type	
MP 2S5	⅜ x ⅝	**MPX 2S5**	¼ x 13/16
MP 2P1	⅜ x ⅝	**MPX 2P1**	5/16 x 13/16
MP 2P25	15/32 x ⅝	**MPX 2P25**	13/32 x 13/16
MP 2P5	15/32 x 1⅛	**MPX 2P5**	13/32 x 1⅛
MP 2W1	9/16 x 1⅛	**MPX 2W1**	9/16 x 1 3/16
MP 2W2	⅝ x 1⅝	**MPX 2W2**	⅝ x 1½
MP 4S5	15/32 x ⅝	**MPX 4S5**	⅜ x 13/16
MP 4P1	15/32 x 1⅛	**MPX 4P1**	⅜ x 1⅛
MP 4P25	9/16 x 1⅛	**MPX 4P25**	9/16 x 1 3/16
MP 4P5	⅝ x 1⅝	**MPX 4P5**	⅝ x 1⅜
MP 4W1	23/32 x 2⅛	**MPX 4W1**	11/16 x 1⅞
MP 4W2	13/16 x 2⅜	**MPX 4W2**	⅞ x 2⅜
MP 6S1	⅜ x ⅝	**MPX 6S1**	¼ x 13/16
MP 6P1	15/32 x 1⅛	**MPX 6P1**	¼ x 1⅛
MP 6P25	⅝ x 1⅛	**MPX 6P25**	⅝ x 1 3/16
MP 6P5	23/32 x 1⅝	**MPX 6P5**	11/16 x 1½
MP 6W1	23/32 x 2⅛	**MPX 6W1**	13/16 x 1⅞
MP 6W2	29/32 x 2⅜	**MPX 6W2**	1 x 2⅜

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CORNELL-DUBILIER ELECTRONICS

CLASS
20.00
SERIES

"QUIETONE" Filters

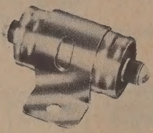
CDE

QUIETONE® Interference Suppression FILTERS

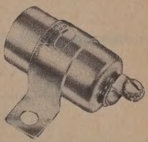
NFF and NFT types are coaxial feed-thru capacitors. Since the conductor is completely surrounded by the capacitor, these provide much more effective bypassing at frequencies encountered in Citizens Band, Amateur Radio, and other high frequency communications services. MC-8D98 is a heavy-duty bypass capacitor, specially designed for use on vehicular accessories.

NFF-055B is designed to be used in place of the conventional condensers on the automobile generator and spark coil. NFF-315D is intended for use at the generator and battery terminals of the voltage regulator.

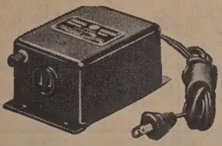
The A-C line on a fixed-station transmitter can be effectively filtered against TVI by using two of the Type NFF-315D as terminals on the chassis and connecting the line-cord to them with conventional insulated plate caps. (This also provides easy removal of the line-cord to prevent unauthorized use of the equipment).

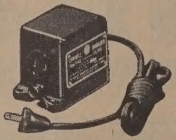

NFF-055B

NFF-315D
NFT-1F246


MC-8D98

Cat. No.	Mfd.	V.D.C.W.	Amp.	Dia. x Length Inches	List Price*	Net Price*
NFF-055B	0.5	50	40	1 x 1 13/16	$3.50	**$2.10**
NFF-315D	0.1	600	20	11/16 x 1 13/16	2.95	**1.77**
NFT-1F246	0.25	200	20	7/8 x 2 17/32	4.50	**2.70**
NFT-1D086	0.1	600	20	11/16 x 1 7/16	2.60	**1.56**
MC-8D98	0.1	100	—	11/16 x 1 3/8	2.38	**1.43**


IF-18

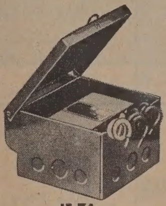

IF-19 IF-21

IF-6

IF-4

IF-20

FOR USE ON TELEVISION, RADIOS AND HOME APPLIANCES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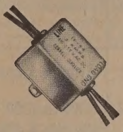
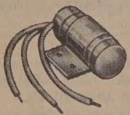

IF-54


IF-25

IF-24

FOR USE ON INDUSTRIAL AND HEAVY-DUTY ELECTRICAL EQUIPMENT

Cornell-Dubilier UNIVERSAL Quietone filters offer a practical solution for the suppression of interference from many types of household, industrial and heavy duty electrical equipment. See "Radio, TV and Appliance Quietones." A partial list of such sources is shown in the QUIETONE APPLICATION SELECTOR. Because high frequency disturbances are usually carried through the power lines, most effective interference suppression is obtained when the Quietone filter is installed on the equipment as an integral part thereof.

C-D Quietones are designed to give optimum suppression on the equipment for which they are intended and can be relied upon to render excellent service.

RADIO, TV AND APPLIANCE "QUIETONES" RATING—110 V. A.C. - D.C. — 5 AMPS

Cat. No.	Radio and Electrical Appliance Uses	List Price	Net Price
IF-4	Small radios, portables. Low intensity noise.	$1.25	**$ .75**
IF-5	Small electric appliances. Low intensity interference.	1.25	**.75**
IF-6	All home appliances. Low intensity interference.	1.95	**1.17**
IF-18	All radios and appliances with severe interference.	9.20	**5.52**
IF-19	All types home appliances with severe interference.	7.70	**4.62**
IF-20	Small appliances with very low interference.	.85	**.51**
IF-21	Electric barber clippers, shavers, small appliances. 1.6 amps.	4.40	**2.64**

IF SERIES

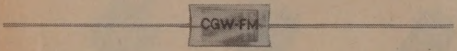
INDUSTRIAL "QUIETONES"

Cat. No.	Volts AC–DC	Amps. Max.	Connections	Housing	List Price	Net Price
IF-7A	110–220	5	BX	Cutout Box	$13.75	**$8.25**
IF-24	110	....	Flex-Leads	Metal	1.25	**.75**
IF-25	110–220	....	Flex-Leads	Metal	4.95	**2.97**
IF-54	110–220	2	Flex-Leads	Metal	2.50	**1.50**

CORNING ELECTRONIC COMPONENTS

FIXED GLASS CAPACITORS

Stack ultrastable glass and foil, attach leads, fuse under heat and pressure, and you have a practically indestructible Corning capacitor. Its properties are entirely those of the closely controlled dielectric, and can't be changed by assembly methods or subsequent treatment. Properties like these at 1 Kc and 25°C.: dissipation factor less than 0.001; temperature coefficient within 10PPM with absolute retrace. Standard values from 0.5 to 10,000 pf are the same as standard decade values in applicable military specifications. Our distributors across the nation can give you fast service at factory prices on top reliability Corning capacitors.

TYPE AND MIL SPEC	MODEL	CAPACITANCE RANGE (pf)	VOLTAGE	NOMINAL DIMENSIONS (inches)	WEIGHT (grams)
CYFR The Minuteman capacitor, for the most exacting applications where extremely high reliability levels to your specifications must be guaranteed. Environment-proof fused construction. MIL-C-11272B.	CYFR10	0.5 to 240	500 and 300	11/32 x 11/64 x 5/64	0.25 - 0.5
	CYFR15	160 to 1200	500 and 300	15/32 x 17/64 x 7/64	0.75 - 1.2
	CYFR20	560 to 5100	500 and 300	47/64 x 27/64 x 9/64	2.50 - 4.0
	CYFR30	3600 to 10000	500 and 300	49/64 x 3/4 x 9/64	5.00 - 7.0
CYFM Fusion-sealed environment-proof performance at cost savings. Electrically and environmentally interchangeable with CYFR. MIL-C-11272B. 	CYFM10	0.5 to 300	500 and 300	11/32 x 11/64 x 5/64	0.25 - 0.5
	CYFM15	220 to 1200	500 and 300	15/32 x 17/64 x 7/64	0.75 - 1.2
	CYFM20	560 to 5100	500 and 300	47/64 x 27/64 x 9/64	2.50 - 4.0
	CYFM30	3600 to 10000	500 and 300	49/64 x 3/4 x 9/64	5.00 - 7.0
TY New printed circuit capacitor provides glass stability in a uniformly symmetric case. Leads spaced on 1/10th inch grids.	TY06	1 to 560	300	.300 x .200 x .115	
	TY07	561 to 1000	300	.300 x .300 x .115	
W, WL Smallest high stability wafer capacitors available. With or without radial leads. Meet performance requirements of MIL-C-11272B.	W, WL1	4700 to 10000	300	.468 x .737 x .125	2.50
	W, WL2	3000 to 4300	300	.468 x .377 x .115	1.12
	W, WL3	1100 to 2700	300	.468 x .234 x .115	0.71
	W, WL4	620 to 1000	300	.218 x .234 x .115	0.37
	W, WL5	5 to 560	300	.218 x .144 x .115	0.30
CY 60-70 Medium-Power Transmitting. This CY style is excellent for radio frequency applications. Small size and weight suits them to airborne and mobile transmitters.	CY60	22 to 56000	4000 to 500	2⅛ x 1⅛ x 3/16 to ⅝	
	CY70	22 to 150000	6000 to 500	2⅝ x 1¾ x ¼ to ¾	

For more information and data sheets on our fixed capacitors, rugged trimmer capacitors with unique direct traverse design, high-stability standard and variable inductors, FOTOCERAM TM printed circuit grid boards for quick and easy breadboarding, or top-performance, low-cost ultrasonic delay lines, write:

CORNING
Electronic Components
CORNING GLASS WORKS, RALEIGH, N. C.

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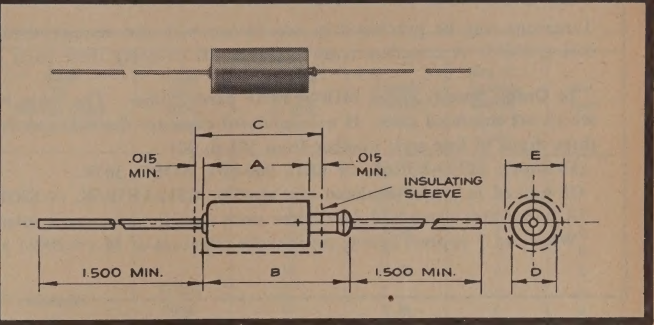
ERIE

TANTACONS

Capacitance • Size • Voltage • Decoding

SIZE

STYLE	A ± .031	B ± .031	C ± .031	D ± .010	E ± .010	LEAD DIA.
900-000	.250	.345	—	.125	—	.020
900-500	.250	.345	.300	—	.131	.020
901-000	.438	.520	—	.175	—	.020
901-500	.438	.520	.488	—	.181	.020
902-000	.650	.745	—	.279	—	.025
902-500	.650	.745	.700	—	.285	.025
903-000	.750	.845	—	.341	—	.025
903-500	.750	.845	.800	—	.347	.025



CAPACITANCE MF / ERIE STYLE

% Decade % Tolerance)		0.33	—	0.47	—	0.68	—	1.0	—	1.5	—	2.2	—	3.3	—	4.7	—	6.8	—	10	—	15	—	22	—	33	—	47	—	68	—	100	—	150	—	220	—	330
% Decade % Tolerance)		0.33	0.39	0.47	0.56	0.68	0.82	1.0	1.2	1.5	1.8	2.2	2.7	3.3	3.9	4.7	5.6	6.8	8.2	10	12	15	18	22	27	33	39	47	56	68	82	100	120	150	180	220	270	330
VOLTAGE—DC	35V	900	900	900	900	900	900	900	901	901	901	901	901	901	901	901	901	901	902	902	902	902	902	902	903	903	903	903										
	20V	↓	↓	↓	↓	↓	↓	↓	900	900	900	900	↓	↓	↓	↓	↓	↓	901	901	901	901	↓	↓	902	902	902	902	903	903	903	903						
	15V	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	900	900	↓	↓	↓	↓	↓	↓	↓	↓	901	901	↓	↓	↓	↓	902	902	↓	↓	903	903				
	10V	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	900	900	↓	↓	↓	↓	↓	↓	↓	↓	901	901	901	↓	↓	↓	902	902	902	↓	903	903		
	6V	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	900	900	↓	↓	↓	↓	↓	↓	↓	↓	↓	901	901	↓	↓	↓	↓	902	902	↓	903	903

Note: ± 5% Tolerance available on values in the 10% decade upon special request.

DECODING PROCEDURE

EXAMPLE OF A TANTACON PART NO.: **901 501 A0B0 336M**

Denotes Tantalum Capacitor

Denotes Case Size

Erie Part No.	900	901	902	903
MIL case	A	B	C	D

Denotes Non-insulated or Insulated Case
"0" = Non-insulated Case
"5" = Insulated Case

Denotes Special Requirements Such as Testing, Marking, etc.

Denotes Characteristic (Operating Temperature Range @ Full Rated Voltage)
A = −55° C to +65° C
B = −80° C to +85° C

Presently Unused

Denotes Rated D.C. Working Voltage

Symbol	B	C	D	E	F	G	H
VDCW	6	10	15	20	35	50	25

Denotes Leakage Current Requirements
0 = Same as Erie Standard

Denotes Capacitance in picofarads (pf) (2 Significant Figures Plus a Multiplier)

Denotes Tolerances: M = ±20%, K = ±10%, J = ±5%

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TANTACONS

Mil-Erie Cross Reference Chart

Tantacons may be purchased in accordance with the requirements of the latest military specification MIL-C-26655. A complete cross reference list covering these parts is shown below.

To Order: Specify either MIL or ERIE part number. The table below shows MIL CS13 part numbers which are insulated cases. If non-insulated cases are desired specify either MIL CS12 or change last three digits of Erie style number from 501 to 001.

Example: **CS13AB5R6K**, or ERIE 900-**501**, AOBO, 565K.

If wanted in a non-insulated case specify: **CS12AB5R6K**, or ERIE 900-**001**, AOBO, 565K.

A † indicates a standard distributor stock item in capacitance tolerance of K (±10%).

Where an * appears below, capacitance tolerance of M (±20%) available on special order.

MIL-C-26655 **FIXED, SOLID ELECTROLYTE, TANTALUM CAPACITORS**

MIL Part No. (See Notes 1 & 2)	Erie Part No. (See Notes 1 & 2)	Rated DC Working Voltage (volts)	Surge Voltage Rating (volts)	Nominal Capacitance @ 25°C (mf)	Capacity Tolerance (%)^2	Max. DC Leakage Current @ 25°C (μa)	MIL Case Size
†CS13AB5R6K	900-501 AOBO 565K	6 VDCW @ +85°C	8 VDC Surge @ +85°C	5.6	K	1	A
†CS13AB6R8K*	900-501 AOBO 685K*			6.8	K, M	1	A
†CS13AB470K*	901-501 AOBO 476K*			47	K, M	6	B
†CS13AB560K	901-501 AOBO 566K			56	K	7	B
†CS13AB151K*	902-501 AOBO 157K*			150	K, M	18	C
†CS13AB181K	902-501 AOBO 187K			180	K	21	C
†CS13AB271K	903-501 AOBO 277K			270	K	32	D
†CS13AB331K*	903-501 AOBO 337K*			330	K, M	40	D
†CS13AC3R9K	900-501 AOCO 395K	10 VDCW @ +85°C	12 VDC Surge @ +85°C	3.9	K	1	A
†CS13AC4R7K*	900-501 AOCO 475K*			4.7	K, M	1	A
†CS13AC270K	901-501 AOCO 276K			27	K	5	B
†CS13AC330K*	901-501 AOCO 336K*			33	K, M	7	B
†CS13AC390K	901-501 AOCO 396K			39	K	8	B
†CS13AC820K	902-501 AOCO 826K			82	K	16	C
†CS13AC101K*	902-501 AOCO 107K*			100	K, M	20	C
†CS13AC121K	902-501 AOCO 127K			120	K	24	C
†CS13AC181K	903-501 AOCO 187K			180	K	36	D
†CS13AC221K*	903-501 AOCO 227K*			220	K, M	44	D
†CS13AD2R7K	900-501 AODO 275K	15 VDCW @ +85°C	17 VDC Surge @ +85°C	2.7	K	1	A
†CS13AD3R3K*	900-501 AODO 335K*			3.3	K, M	1	A
†CS13AD180K	901-501 AODO 186K			18	K	5	B
†CS13AD220K*	901-501 AODO 226K*			22	K, M	7	B
†CS13AD560K	902-501 AODO 566K			56	K	17	C
†CS13AD680K*	902-501 AODO 686K*			68	K, M	20	C
†CS13AD121K	903-501 AODO 127K			120	K	36	D
†CS13AD151K*	903-501 AODO 157K*			150	K, M	45	D

CONT'D.

© U.C.P., I

TANTACONS

Mil-Erie Cross Reference Chart

MIL-C-26655 FIXED, SOLID ELECTROLYTE, TANTALUM CAPACITORS (Cont'd)

MIL Part No. (See Notes)	Erie Part No. (See Notes)	Rated DC Working Voltage (volts)	Surge Voltage Rating (volts)	Nominal Capacitance @ 25°C (mf)	Capacity Tolerance (%)^2	Max. DC Leakage Current @ 25°C (μa)	MIL Case Size
†CS13AE1R2K	900-501 AOEO 125K	20 VDCW @ +85°C	23 VDC Surge @ +85°C	1.2	K	1	A
†CS13AE1R5K*	900-501 AOEO 155K*			1.5	K, M	1	A
†CS13AE1R8K	900-501 AOEO 185K			1.8	K	1	A
†CS13AE2R2K*	900-501 AOEO 225K*			2.2	K, M	1	A
†CS13AE8R2K	901-501 AOEO 825K			8.2	K	3	B
†CS13AE100K*	901-501 AOEO 106K*			10	K, M	4	B
†CS13AE120K	901-501 AOEO 126K			12	K	5	B
†CS13AE150K*	901-501 AOEO 156K*			15	K, M	6	B
†CS13AE270K	902-501 AOEO 276K			27	K	11	C
†CS13AE330K*	902-501 AOEO 336K*			33	K, M	13	C
†CS13AE390K	902-501 AOEO 396K			39	K	16	C
†CS13AE470K*	902-501 AOEO 476K*			47	K, M	19	C
†CS13AE560K	903-501 AOEO 566K			56	K	22	D
†CS13AE680K*	903-501 AOEO 686K*			68	K, M	27	D
†CS13AE820K	903-501 AOEO 826K			82	K	33	D
†CS13AE101K*	903-501 AOEO 107K*			100	K, M	40	D
†CS13AFR33K*	900-501 AOFO 334K*	35 VDCW @ +85°C	41 VDC Surge @ +85°C	.33	K, M	1	A
†CS13AFR39K	900-501 AOFO 394K			.39	K	1	A
†CS13AFR68K*	900-501 AOFO 684K*			.68	K, M	1	A
†CS13AFR82K	900-501 AOFO 824K			.82	K	1	A
†CS13AF010K*	900-501 AOFO 105K*			1.0	K, M	1	A
†CS13AF1R2K	901-501 AOFO 125K			1.2	K	1	B
†CS13AF1R5K*	901-501 AOFO 155K*			1.5	K, M	1	B
†CS13AF1R8K	901-501 AOFO 185K			1.8	K	1	B
†CS13AF2R2K*	901-501 AOFO 225K*			2.2	K, M	2	B
†CS13AF2R7K	901-501 AOFO 275K			2.7	K	2	B
†CS13AF3R3K*	901 501 AOFO 335K*			3.3	K, M	2	B
†CS13AF3R9K	901-501 AOFO 395K			3.9	K	3	B
†CS13AF4R7K*	901-501 AOFO 475K*			4.7	K, M	3	B
†CS13AF5R6K	901-501 AOFO 565K			5.6	K	4	B
†CS13AF6R8K*	901-501 AOFO 685K*			6.8	K, M	5	B
†CS13AF8R2K	902-501 AOFO 825K			8.2	K	6	C
†CS13AF100K*	902-501 AOFO 106K*			10	K, M	7	C
†CS13AF120K	902-501 AOFO 126K			12	K	8	C
†CS13AF150K*	902-501 AOFO 156K*			15	K, M	11	C
†CS13AF180K	902-501 AOFO 186K			18	K	13	C
†CS13AF220K*	902-501 AOFO 226K*			22	K, M	15	C
†CS13AF270K	903-501 AOFO 276K			27	K	19	D
†CS13AF330K*	903-501 AOFO 336K*			33	K, M	23	D
†CS13AF390K	903-501 AOFO 396K			39	K	27	D
†CS13AF470K*	903-501 AOFO 476K*			47	K, M	33	D

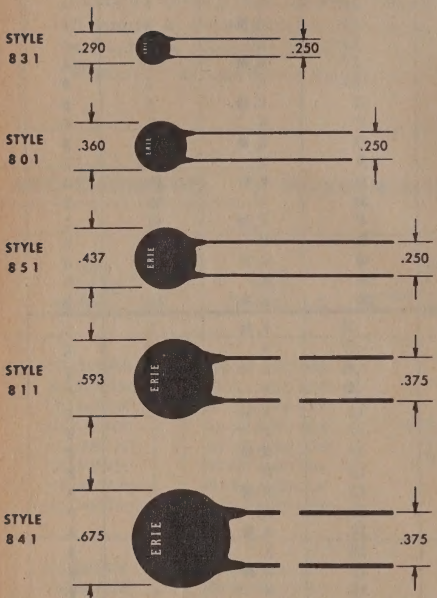
NOTES: †Indicates a standard distributor stock item in capacitance tolerance of ±10%.
*Capacitance tolerance of M (±20%) available on short notice.

DISC CERAMICONS®

Erie produces a complete line of disc ceramic capacitors. All processing steps, from the manufacture of the raw ceramic dielectrics to final testing of the finished product is under the unified Erie control. Erie Disc Ceramicons have an outstanding reputation for quality and performance in meeting all requirements for radio, TV, industrial electronics, and military equipment at +85°C.

GENERAL PURPOSE

600 VDCW AND 1,000 VDCW • 1,500 VDC FLASH TEST



ALL .156" THICK

ORDERING INFORMATION

Utilization of new catalog numbers gives more information about product ordered.

When ordering commercial parts, specify new catalog number.

When ordering MIL parts, specify MIL designation.

CAPACITANCE TOLERANCE ±10%

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)
831 U2M 509D	ED-5	831	5
831 U2M 100F	ED-10	831	10
831 U2M 120K	ED-12	831	12
831 U2M 150K	ED-15	831	15
831 U2M 180K	ED-18	831	18
831 U2M 200K	ED-20	831	20
831 U2M 220K	ED-22	831	22
831 U2M 250K	ED-25	831	25
831 U2M 270K	ED-27	831	27
831 U2M 300K	ED-30	831	30
831 U2M 330K	ED-33	831	33
831 U2M 390K	ED-39	831	39
831 U2M 470K	ED-47	831	47
831 U2M 500K	ED-50	831	50
831 U2M 510K	ED-51	831	51
831 X5R 560K	ED-56	831	56
831 X5R 680K	ED-68	831	68
831 X5R 750K	ED-75	831	75
831 X5R 820K	ED-82	831	82
831 X5R 910K	ED-91	831	91
831 X5R 101K	ED-100	831	100
831 X5R 121K	ED-120	831	120
831 X5R 151K	ED-150	831	150
831 X5R 181K	ED-180	831	180
831 X5R 201K	ED-200	831	200
831 X5R 221K	ED-220	831	220
831 X5R 241K	ED-240	831	240
831 X5R 271K	ED-270	831	270
831 X5R 301K	ED-300	831	300
831 X5R 331K	ED-330	831	330
831 X5R 361K	ED-360	831	360
831 X5R 391K	ED-390	831	390
831 X5R 471K	ED-470	831	470
801 X5R 501K	ED-500	801	500
801 X5R 511K	ED-510	801	510
801 X5R 561K	ED-560	801	560
801 X5R 681K	ED-680	801	680
851 X5R 751K	ED-750	851	750
851 X5R 821K	ED-820	851	820
851 X5R 911K	ED-910	851	910
851 X5R 102K	ED-1000	851	1000
811 X5R 122K	ED-1200	811	1200
811 X5R 152K	ED-1500	811	1500
811 X5R 182K	ED-1800	811	1800

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DISC CERAMICONS
600 VDCW • MIL

HI-K BY PASS and COUPLING CERAMICONS
GMV

New Catalog Number	Old Catalog Number	Body Style	Capacitance
831 Z5V 471P	ED-.00047	831	470 pf
831 Z5V 801P	ED-.0008	831	800 pf
801 Z5V 102P	ED-.001	801	1000 pf
801 Z5V 122P	ED-.0012	801	1200 pf
801 Z5V 152P	ED-.0015	801	1500 pf
801 Z5V 202P	ED-.002	801	2000 pf
851 Z5V 222P	ED-.0022	851	2200 pf
851 Z5V 252P	ED-.0025	851	2500 pf
851 Z5V 272P	ED-.0027	851	2700 pf
851 Z5V 302P	ED-.003	851	3000 pf
851 Z5V 332P	ED-.0033	851	3300 pf
811 Z5V 402P	ED-.004	811	4000 pf
811 Z5V 472P	ED-.0047	811	4700 pf
811 Z5V 502P	ED-.005	811	5000 pf
811 Z5V 682P	ED-.0068	811	6800 pf
811 Z5V 103P	ED-.01	811	.01 mf
841 Z5V 153P	ED-.015	841	.015 mf
841 Z5V 203P	ED-.02	841	.02 mf

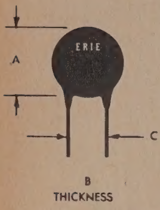
MIL-C-11015B DISC CERAMICONS
±10% CAPACITANCE TOLERANCE (K) and ±20% CAPACITANCE TOLERANCE (M)

MIL Designation	Body Style	Capacitance (pf)
CK60 AW 681K or M	831	680
CK60 AW 821K or M	831	820
CK60 AW 102K or M	831	1,000
CK60 AW 152K or M	831	1,500
CK60 AX 221K or M	831	220
CK60 AX 331K or M	831	330
CK60 AX 471K or M	831	470
CK60 BV 2R2K only	831	2.2
CK60 BV 3R3K only	831	3.3
CK60 BV 4R7K only	831	4.7
CK60 BV 6R8K only	831	6.8
CK60 BV 100K only	831	10
CK60 BV 150K only	831	15
CK60 BV 220K only	831	22
CK60 BX 330K or M	831	33
CK60 BX 470K or M	831	47
CK60 BX 680K or M	831	68

MIL Designation	Body Style	Capacitance (pf)
CK60 BX 101K or M	831	100
CK60 BX 151K or M	831	150
CK61 AW 222K or M	801	2,200
CK61 BX 221K or M	801	220
CK61 BX 331K or M	801	330
CK61 BX 471K or M	801	470
CK61 BX 681K or M	801	680
CK62 AW 332K or M	811	3,300
CK62 AW 472K or M	811	4,700
CK62 AW 682K or M	811	6,800
CK62 AW 822K or M	811	8,200
CK62 AX 222K or M	811	2,200
CK62 BX 821K only	811	820
CK62 BX 102K or M	811	1,000
CK62 BX 152K or M	811	1,500
CK63 AW 103K or M	841	10,000
CK63 BX 222K or M	841	2,200
CK63 BX 332K or M	841	3,300

DISC & PLATE CERAMICONS
LOW VOLTAGE

TRANSISTOR DISC CERAMICONS
100 VDCW • CAPACITANCE TOLERANCE +80% −20%

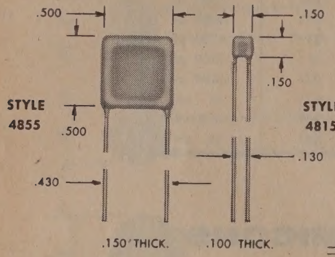


Style	A Dim.	B Dim.	C Dim.	New Catalog Number	Old Catalog Number	Body Style	Capacitance (mf)
835	.275	.125	.250	835 X5V 502Z	ET8-.005	835	.005
805	.344	.125	.250	805 X5V 103Z	ET8-.01	805	.01
855	.420	.125	.250	855 X5V 203Z	ET8-.02	855	.02
815*	.575	.172	.375	*815 X5V 503Z	ET8-.05	815	.05
845	.655	.125	.375	845 X5V 473Z	ET8-.047	845	.047
845	.655	.125	.375	845 X5V 503Z	ET8-.05	845	.05
845*	.675	.172	.375	*845 X5V 104Z	ET8-.1	845	.1

*Dual Ceramicon

*Dual Ceramicon

WEECON†
SUB-MINIATURE CAPACITOR



200 VDCW

Erie's Weecon Ceramicons offer the utmost in miniaturization of ceramic capacitors to the industry. The square shape gives the best available form factor to save expensive printed board space. Weecons are made from the same basic materials and with the manufacturing techniques of ERIE's famous Disc Ceramicons used and proven by many years of service and testing. This vast amount of experience and the conservative ratings make the Weecon the industry's finest miniature capacitor.

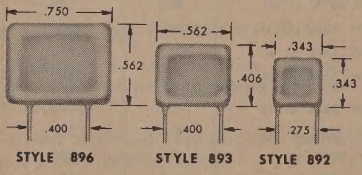
Where compactness is required, specify ERIE Weecon.

† Trademark

±20% CAPACITANCE TOLERANCE

New Catalog Number	Old Catalog Number	Capacitance	New Catalog Number	Old Catalog Number	Capacitance
4815 U2M 479M	——	4.7 pf	4815 X5V 471M	——	470 pf
4815 U2M 689M	——	6.8 pf	4815 X5V 681M	4815-680	680 pf
4815 U2M 100M	4815-10	10 pf	4815 X5V 102M	——	1000 pf
4815 U2M 150M	4815-15	15 pf	4815 X5V 152M	4815-1500	1500 pf
4815 U2M 220M	——	22 pf	4815 X5V 222M	——	2200 pf
4815 U2M 330M	4815-33	33 pf	4815 X5V 332M	4815-3300	3300 pf
4815 S3N 470M	——	47 pf	4855 X5V 472M	——	4700 pf
4815 S3N 680M	——	68 pf	4855 X5V 682M	——	6800 pf
4815 S3N 101M	4815-100	100 pf	4855 X5V 103M	——	.01 mf
4815 S3N 151M	——	150 pf	4855 X5V 153M	——	.015 mf
4815 S3N 221M	——	220 pf	4855 X5V 223M	——	.022 mf
4815 S3N 331M	——	330 pf	4855 X5V 333M	——	.033 mf

ERIE HIGH CAPACITANCE MINIATURE CERAMICONS



.150 THICK IN .015, .022, .047 mf
.170" THICK IN .033, .068, .1 mf

200 VDCW

By employing basically new methods of construction, Erie is able to offer high capacitance Ceramicons in small size for transistor and other miniaturized circuitry.

Rectangular in shape — for the most capacity in the smallest space — these monolithic plate Ceramicons are available in sizes and capacitance values as tabled below.

New Catalog Number	Old Catalog Number	Body Style	Capacitance (mf)	Capacitance Tolerance	New Catalog Number	Old Catalog Number	Body Style	Capacitance (mf)	Capacitance Tolerance
892 X5P 222M	892-.0022	892	.0022	±20%	896 X5S 223M	896-.022	896	.022	±20%
892 X5P 332M	892-.0033	892	.0033	±20%	896 X5S 333M	896-.033	896	.033	±20%
892 X5S 472M	892-.0047	892	.0047	±20%	896 Z5U 473Z	896-.047	896	.047	+80%, −20%
893 X5P 682M	893-.0068	893	.0068	±20%	896 Z5U 683Z	896-.068	896	.068	+80%, −20%
893 X5S 103M	893-.01	893	.01	±20%	896 Z5U 104Z	896-.1	896	.1	+80%, −20%
896 X5P 153M	896-.015	896	.015	±20%					

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DISC CERAMICONS

LOW VOLTAGE • HIGH VOLTAGE

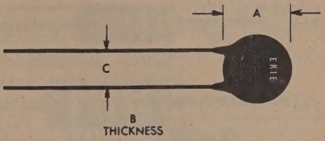
TRANSCAP®

• ULTRA-HIGH CAPACITANCE • SMALL SIZE

• 25 VDCW FOR ALL TRANSISTORIZED CIRCUITS

Transcap is a new ceramic capacitor incorporating thin-film techniques. Transcap combines ultra-high capacitance with small size at a working voltage of 25VDC.

The reliable, rating of Transcap permits its application in nearly all transistor circuits. Transcap reliability is assured by meeting life test specifications of 150% of rated voltage at 85°C for 1,000 hours.



+80%, –20% CAPACITANCE TOLERANCE

New Catalog Number	Old Catalog Number	Capacitance (mf)	Temperature Characteristic	A Max. Diameter	B Max. Thickness	C Lead Spacing
5835 Y5U 103Z	———	.01	Y5U	.290″	.156″	.250″
5835 Y5U 203Z	———	.02	Y5U	.290″	.156″	.250″
5855 Y5U 503Z	5855-.05	.05	Y5U	.437″	.156″	.250″
5815 Y5U 104Z	5815-.1	.1	Y5U	.593″	.156″	.375″
5815 Y5U 204Z	5815-.2*	.2	Y5U	.593″	.200″	.375″

*Dual Ceramicon

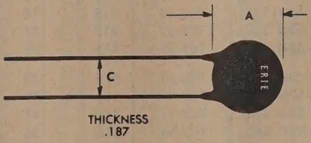
HIGH VOLTAGE CERAMICONS

Erie High Voltage Disc Ceramicons are conservatively designed to meet rigorous high voltage applications. Voltage rating is determined by 1,000 hour life test requirements at 1.5 times rated voltage.

1,000 VDCW DISC CERAMICONS ARE LISTED ON PAGE 2.

3,000 VDCW

Style	A Max. Dia.	C Max. Lead Spacing
808	.360	.250
858	.437	.375
818	.593	.375
828	.750	.375

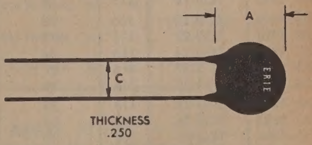


±20% CAPACITANCE TOLERANCE

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)
808 U2M 479M	HD3-4R7	808	4.7
808 U2M 689M	HD3-6R8	808	6.8
818 U2M 100M	HD3-10	818	10
818 U2M 150M	HD3-15	818	15
818 U2M 220M	HD3-22	818	22
818 U2M 330M	HD3-33	818	33
818 U2M 470M	HD3-47	818	47
828 U2M 560M	HD3-56	828	56
828 U2M 680M	HD3-68	828	68
828 U2M 820M	HD3-82	828	82
808 Z5U 101M	HD3-100	808	100
808 Z5U 151M	HD3-150	808	150
808 Z5V 221M	HD3-220	808	220
808 Z5V 331M	HD3-330	808	330
808 Z5V 471M	HD3-470	808	470
808 Z5V 681M	HD3-680	808	680
858 Z5V 821M	HD3-820	858	820
818 Z5V 102M	HD3-1000	818	1000
818 Z5V 152M	HD3-1500	818	1500
818 Z5V 222M	HD3-2200	818	2200
828 Z5V 332M	HD3-3300	828	3300

6,000 VDCW

Style	A Max. Dia.	C Max. Lead Spacing
858	.437	.375
818	.593	.500
828	.750	.500



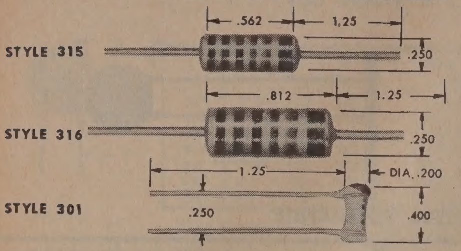
±20% CAPACITANCE TOLERANCE

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)
818 U2M 479M	HD6-4R7	818	4.7
828 U2M 689M	HD6-6R8	828	6.8
818 U2M 100M	HD6-10	818	10
818 U2M 150M	HD6-15	818	15
828 U2M 220M	HD6-22	828	22
828 U2M 330M	HD6-33	828	33
828 U2M 470M	HD6-47	828	47
818 U2M 560M	HD6-56	818	56
828 U2M 680M	HD6-68	828	68
828 U2M 820M	HD6-82	828	82
858 Z5U 101M	HD6-100	858	100
818 Z5U 151M	HD6-150	818	150
828 Z5U 221M	HD6-220	828	220
828 Z5U 331M	HD6-330	828	330
828 Z5U 471M	HD6-470	828	470
828 Z5U 681M	HD6-680	828	680
828 Z5U 821M	HD6-820	828	820

ERIE TUBULAR CERAMICONS

Erie Style 315 and 316 Tubular Ceramicons have molded insulation for excellent durability and uniformity of size. Axial leads are ideal for either point to point wiring or printed board installation. As in the case of Erie Disc Ceramicons, the raw ceramic dielectric tubes are made in Erie's modern Technical Ceramics plant. Erie Tubular Ceramicons meet performance specifications of EIA Standard RS198 for Class 1; Temperature Compensating, class 2 Hi-K; and are on the QPL for MIL-C-20D and MIL-10509B at +85°C.

TEMPERATURE COMPENSATING CERAMICONS



Erie Temperature Compensating Ceramicons are capacity sensitive to temperature in predetermined degrees depending upon the ceramic dielectric used. Because of this controlled and reproducable characteristic, they have found widespread applications as temperature compensating elements in circuits that must be temperature stabilized over wide temperature ranges.

Below 12 pf non insulated Style 301 with white baked enamel coating are supplied. For capacitances 12 pf and above, molded case Styles 315 and 316 are supplied.

600 VDCW • 1,500 VDC FLASH TEST

NPO Temperature Coefficient

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)	Capacitance Tolerance	TC Tolerance PPM/°C
301 COK 508C	TCO-.5	301	0.5	0.25 pf	±250
301 COK 688C	TCO-.68	301	0.68	0.25 pf	±250
301 COK 109C	TCO-1	301	1.0	0.25 pf	±250
301 COK 159C	TCO-1.5	301	1.5	0.25 pf	±250
301 COJ 229C	TCO-2.2	301	2.2	0.25 pf	±120
301 COJ 309C	TCO-3	301	3.0	0.25 pf	±120
301 COJ 339C	TCO-3.3	301	3.3	0.25 pf	±120
301 COH 479C	TCO-4.7	301	4.7	0.25 pf	±60
301 COH 509C	TCO-5	301	5.0	0.25 pf	±60
301 COH 689C	TCO-6.8	301	6.8	0.25 pf	±60
301 COH 829C	TCO-8.2	301	8.2	0.25 pf	±60
301 COG 100C	TCO-10	301	10	0.25 pf	±30
315 COG 120J	TCO-12	315	12	5%	±30
315 COG 150J	TCO-15	315	15	5%	±30
315 COG 180J	TCO-18	315	18	5%	±30
315 COG 200J	TCO-20	315	20	5%	±30
315 COG 220J	TCO-22	315	22	5%	±30
316 COG 240J	TCO-24	316	24	5%	±30
316 COG 270J	TCO-27	316	27	5%	±30
316 COG 300J	TCO-30	316	30	5%	±30
316 COG 330J	TCO-33	316	33	5%	±30
316 COG 360J	TCO-36	316	36	5%	±30
316 COG 390J	TCO-39	316	39	5%	±30
316 COG 430J	TCO-43	316	43	5%	±30

N330 Temperature Coefficient

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)	Capacitance Tolerance	TC Tolerance PPM/°C
301 S2K 109C	TC3-1	301	1.0	0.25 pf	±250
301 S2K 159C	TC3-1.5	301	1.5	0.25 pf	±250
301 S2J 229C	TC3-2.2	301	2.2	0.25 pf	±120
301 S2J 339C	TC3-3.3	301	3.3	0.25 pf	±120
301 S2J 399C	TC3-3.9	301	3.9	0.25 pf	±120
301 S2H 479C	TC3-4.7	301	4.7	0.25 pf	±60
301 S2H 569C	TC3-5.6	301	5.6	0.25 pf	±60
301 S2H 689C	TC3-6.8	301	6.8	0.25 pf	±60
301 S2H 829C	TC3-8.2	301	8.2	0.25 pf	±60
301 S2H 100C	TC3-10	301	10	0.25 pf	±60
315 S2H 120J	TC3-12	315	12	5%	±60
315 S2H 150J	TC3-15	315	15	5%	±60
315 S2H 180J	TC3-18	315	18	5%	±60
315 S2H 220J	TC3-22	315	22	5%	±60
315 S2H 270J	TC3-27	315	27	5%	±60
315 S2H 330J	TC3-33	315	33	5%	±60
316 S2H 390J	TC3-39	316	39	5%	±60
316 S2H 470J	TC3-47	316	47	5%	±60
316 S2H 560J	TC3-56	316	56	5%	±60
316 S2H 680J	TC3-68	316	68	5%	±60

N750 Temperature Coefficient

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)	Capacitance Tolerance	TC Tolerance PPM/°C
301 U2J 229C	TC7-2.2	301	2.2	0.25 pf	±120
301 U2J 339C	TC7-3.3	301	3.3	0.25 pf	±120
301 U2J 509C	TC7-5	301	5.0	0.25 pf	±120
301 U2J 689C	TC7-6.8	301	6.8	0.25 pf	±120
301 U2J 100C	TC7-10	301	10	0.25 pf	±120
315 U2J 120J	TC7-12	315	12	5%	±120
315 U2J 150J	TC7-15	315	15	5%	±120
315 U2J 180J	TC7-18	315	18	5%	±120
315 U2J 200J	TC7-20	315	20	5%	±120
315 U2J 220J	TC7-22	315	22	5%	±120
315 U2J 240J	TC7-24	315	24	5%	±120
315 U2J 270J	TC7-27	315	27	5%	±120
315 U2J 300J	TC7-30	315	30	5%	±120
315 U2J 330J	TC7-33	315	33	5%	±120
315 U2J 360J	TC7-36	315	36	5%	±120
315 U2J 390J	TC7-39	315	39	5%	±120
315 U2J 430J	TC7-43	315	43	5%	±120
315 U2J 470J	TC7-47	315	47	5%	±120
315 U2J 500J	TC7-50	315	50	5%	±120
315 U2J 510J	TC7-51	315	51	5%	±120
315 U2J 560J	TC7-56	315	56	5%	±120
315 U2J 620J	TC7-62	315	62	5%	±120
316 U2J 680J	TC7-68	316	68	5%	±120
316 U2J 750J	TC7-75	316	75	5%	±120
316 U2J 820J	TC7-82	316	82	5%	±120
316 U2J 910J	TC7-91	316	91	5%	±120
316 U2J 101J	TC7-100	316	100	5%	±120
316 U2J 111J	TC7-110	316	110	5%	±120
316 U2J 121J	TC7-120	316	120	5%	±120

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ERIE

TUBULAR CERAMICONS

GENERAL PURPOSE • MIL

ERIE GP® GENERAL PURPOSE CERAMICONS

These rugged tubular units are ideally suited for coupling and by-pass applications in circuits where temperature coefficient is not important, such as non frequency determining circuits. Working voltage is 600 Volts DC based on 1,000 hour life test at 1,000 VDC. Flash test 1,500 VDC, Capacitance Tolerance ±10% 5pf through 1,500 pf; ±20% 1,800 pf through 2,200 pf; +80%, —20% 2,500 pf through 10,000 pf.

GENERAL PURPOSE TUBULARS

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)	Capacitance Tolerance
315 U2M 509D	GP-5	315	5	±0.5 pf
315 U2M 100F	GP-10	315	10	±1 pf
315 U2M 120K	GP-12	315	12	±10%
315 U2M 150K	GP-15	315	15	±10%
315 U2M 180K	GP-18	315	18	±10%
315 U2M 200K	GP-20	315	20	±10%
315 U2M 220K	GP-22	315	22	±10%
315 U2M 240K	GP-24	315	24	±10%
315 U2M 250K	GP-25	315	25	±10%
315 U2M 270K	GP-27	315	27	±10%
315 U2M 300K	GP-30	315	30	±10%
315 U2M 330K	GP-33	315	33	±10%
315 U2M 390K	GP-39	315	39	±10%
315 U2M 470K	GP-47	315	47	±10%
315 U2M 500K	GP-50	315	50	±10%
315 U2M 510K	GP-51	315	51	±10%
315 U2M 560K	GP-56	315	56	±10%
315 U2M 680K	GP-68	315	68	±10%
315 U2M 750K	GP-75	315	75	±10%
315 U2M 820K	GP-82	315	82	±10%
315 X5U 101K	GP-100	315	100	±10%
315 X5U 111K	GP-110	315	110	±10%
315 X5U 121K	GP-120	315	120	±10%
315 X5U 151K	GP-150	315	150	±10%
315 X5U 181K	GP-180	315	180	±10%
315 X5U 201K	GP-200	315	200	±10%
315 X5U 221K	GP-220	315	220	±10%
315 X5U 241K	GP-240	315	240	±10%
315 X5U 251K	GP-250	315	250	±10%
315 X5U 271K	GP-270	315	270	±10%
315 X5U 301K	GP-300	315	300	±10%
315 X5U 331K	GP-330	315	330	±10%
315 X5U 361K	GP-360	315	360	±10%
315 X5U 391K	GP-390	315	390	±10%
315 X5U 471K	GP-470	315	470	±10%
315 X5U 501K	GP-500	315	500	±10%
315 X5U 511K	GP-510	315	510	±10%
315 X5U 561K	GP-560	315	560	±10%
315 X5U 681K	GP-680	315	680	±10%
315 X5U 751K	GP-750	315	750	±10%
315 X5U 821K	GP-820	315	820	±10%
316 X5U 102K	GP-1000	316	1000	±10%
316 X5U 122K	GP-1200	316	1200	±10%
316 X5U 152K	GP-1500	316	1500	±10%
316 Z5U 182M	GP-1800	316	1800	±20%
316 Z5U 202M	GP-2000	316	2000	±20%
316 Z5U 222M	GP-2200	316	2200	±20%
316 Z5U 252Z	GP-2500	316	2500	+80%, —20%
316 Z5U 272Z	GP-2700	316	2700	+80%, —20%
316 Z5U 302Z	GP-3000	316	3000	+80%, —20%
316 Z5U 332Z	GP-3300	316	3300	+80%, —20%
316 Z5U 402Z	GP-4000	316	4000	+80%, —20%
316 Z5U 472Z	GP-4700	316	4700	+80%, —20%
316 Z5V 502Z	GP-5000	316	5000	+80%, —20%
316 Z5V 562Z	GP-5600	316	5600	+80%, —20%
316 Z5V 602Z	GP-6000	316	6000	+80%, —20%
316 Z5V 682Z	GP-6800	316	6800	+80%, —20%
316 Z5V 752Z	GP-7500	316	7500	+80%, —20%
316 Z5V 103Z	GP-10000	316	10000	+80%, —20%

MIL-C-20-D TUBULARS

10 pf and BELOW
±0.25% CAPACITANCE TOLERANCE

NPO Temp. Coefficient			N330 Temp. Coefficient			N750 Temp. Coefficient		
Mil Designation	Body Style	Cap. (pf)	Mil Designation	Body Style	Cap. (pf)	Mil Designation	Body Style	Cap. (pf)
CC20 CK 0R5C	301	0.5	CC20 SK 010C	301	1	CC20 UK 020C	301	2
CC20 CK R75C	301	0.75	CC20 SK 1R5C	301	1.5	CC20 UJ 030C	301	3
CC20 CK 1R5C	301	1.5	CC20 SK 020C	301	2	CC20 UJ 040C	301	4
CC20 CK 020C	301	2	CC20 SJ 030C	301	3	CC20 UJ 050C	301	5
CC20 CJ 030C	301	3	CC20 SH 040C	301	4	CC20 UJ 060C	301	6
CC20 CH 040C	301	4	CC20 SH 050C	301	5	CC20 UJ 070C	301	7
CC20 CH 050C	301	5	CC20 SH 060C	301	6	CC20 UJ 080C	301	8
CC20 CH 060C	301	6	CC20 SH 070C	301	7	CC20 UJ 090C	301	9
CC20 CH 070C	301	7	CC20 SH 080C	301	8	CC20 UJ 100C	301	10
CC20 CH 080C	301	8	CC20 SH 090C	301	9			
CC20 CH 090C	301	9	CC20 SH 100C	301	10			
CC20 CH 100C	301	10						

ABOVE 10 pf
±5% CAPACITANCE TOLERANCE

NPO Temp. Coefficient			N330 Temp. Coefficient			N750 Temp. Coefficient		
Mil Designation	Body Style	Cap. (pf)	Mil Designation	Body Style	Cap. (pf)	Mil Designation	Body Style	Cap. (pf)
CC21 CH 120J	315	12	CC21 SH 270J	315	27	CC21 UJ 430J	315	43
CC21 CH 150J	315	15	CC21 SH 300J	315	30	CC21 UJ 470J	315	47
CC21 CH 180J	315	18	CC21 SH 330J	315	33	CC21 UJ 510J	315	51
CC21 CH 220J	315	22	CC21 SH 360J	315	36	CC21 UJ 560J	315	56
CC21 CH 240J	315	24	CC21 SH 390J	315	39	CC21 UJ 620J	315	62
CC26 CH 270J	316	27	CC26 SH 430J	316	43	CC26 UJ 680J	316	68
CC26 CH 300J	316	30	CC26 SH 470J	316	47	CC26 UJ 750J	316	75
CC26 CH 330J	316	33	CC26 SH 510J	316	51	CC26 UJ 820J	316	82
CC26 CH 360J	316	36	CC26 SH 560J	316	56	CC26 UJ 910J	316	91
CC26 CH 390J	316	39	CC26 SH 620J	316	62	CC26 UJ 101J	316	100
CC26 CH 430J	316	43				CC26 UJ 111J	316	110
CC26 CH 470J	316	47				CC26 UJ 121J	316	120

EXPLANATION OF MIL-C-20D AND MIL-C-11015B DESIGNATIONS

MIL-C-11015B GENERAL PURPOSE FIXED CERAMIC CAPACITORS

Example							
	MIL Part	CK 60	A	W	68	1	M
	Erie Part	831-010	X5	U	68	1	M

MIL Type	Erie Type	MIL Code	Erie Code	Temperature Range	MIL Code	Erie Code	Maximum Capacity Change	Cap. 1st - 2nd Significant Figure[1]	MIL and Erie Code	Multiplier	Tolerance		
											MIL Code	Erie Code	%
CK 21	315	A	X5	−55°C +85°C	V	P	+10% −10%	1	0	1	K	K	±10%
CK 26	316	B	W5	−55°C +125°C	W	U	+22% −56%	2	1	10	M	M	±20%
CK 60	831	C	V5	−55°C +150°C	X	R	+15% −15%	3	2	100			
CK 61	801				Z	S	+30% −20%	4	3	1,000			
CK 62	811							5	4	10,000			
CK 63	841							6	5	100,000			
CK 70	327							7	6	1,000,000			
CK 80	326							8	7				
CK 81	323							9	8	0.01[2]			
								0	9	0.1[2]			

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[1] The letter "R" may appear in MIL Part No. to indicate decimal points. Ex.: 2R2 indicates 2.2 pf.

[2] Multipliers used by Erie to locate decimal points not recognized by MIL. Ex.: 229 indicates 2.2 pf. For capacitance below 10 pf use lowest possible multiplier to avoid alternate codings.

MIL-C-20D TEMPERATURE COMPENSATING FIXED CERAMIC CAPACITORS

Example							
	MIL Part	CC 26	U	J	10	1	J
	Erie Part	316-051	U2	J	10	1	J

MIL Type	Erie Type	MIL Code	Erie Code	TC Nominal	MIL Code	Erie Code	TC Tolerance	Cap. 1st - 2nd Significant Figure[1]	MIL and Erie Code	Multiplier	Tolerance			
											MIL Code	Erie Code	10 pf or Less	Over 10 pf
CC 20	301													
CC 21	315	A	M7	+100 PPM	G	G	± 30 PPM	1	0	1	C	C	±.25 pf	
CC 26	316	C	C0	0 PPM	H	H	± 60 PPM	2	1	10	D	D	±.5 pf	
CC 50	831	H	B1	− 30 PPM	J	J	±120 PPM	3	2	100	F	F	±1 pf	±1%
CC 51	801	L	U1	− 80 PPM	K	K	±250 PPM	4	3	1,000	G	G	±2 pf	±2%
CC 52	811	P	P2	−150 PPM				5	4	10,000	J	J		±5%
CC 53	821	R	R2	−220 PPM				6	5	100,000	K	K		±10%
		S	S2	−330 PPM				7	6	1,000,000				
		T	T2	−470 PPM				8	7					
		U	U2	−750 PPM				9	8	0.01[2]				
								0	9	0.1[2]				

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[1] The letter "R" may appear in MIL Part No. to indicate decimal points. Ex.: 2R2 indicates 2.2 pf.

[2] Multipliers used by Erie to locate decimal points not recognized by MIL. Ex.: 229 indicates 2.2 pf. For capacitance below 10 pf use lowest possible multiplier to avoid alternate codings.

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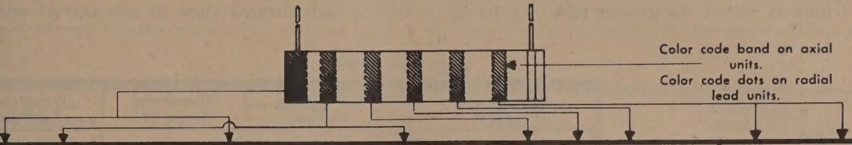
EXPLANATION OF ERIE & EIA, AND MIL-C-20D COLOR CODE

EIA RS 198 CLASS 1 & 2 and ERIE COLOR CODE


Color code band on axial units.
Color code dots on radial lead units.

TC Types Temperature Coefficient				Hi-K Types Temperature Characteristic					Capacitance				Nominal Capacitance Tolerance		
T. C.		1st Color	2nd Color	Symbol	Temperature Range	Symbol	Maximum Cap. Change %	Color	1st Sig. Figure	2nd Sig. Figure	Multi-plier	Color	Nominal 10 pf or Less	Nominal Over 10 pf	Color
100	M7	Red	Violet	X5	−55°C to +85°C	A	±1.0	Gold	0	0	1	Black	±2.0 pf	±20%	Black
030	B6	Green	Blue	Y5	−30°C to +85°C	B	±1.5	Silver	1	1	10	Brown	±0.1 pf	±1%	Brown
PO	C0	Black		W5	−55°C to +125°C	C	±2.2	Black	2	2	100	Red		±2%	Red
030	B1	Brown		Z5	+10°C to +85°C	D	±3.3	Brown	3	3	1,000	Orange		±3%	Orange
080	U1	Red		V5	−55°C to +150°C	E	±4.7	Red	4	4	10,000	Yellow		+100% −0%	Yellow
150	P2	Orange				F	±7.5	Orange	5	5		Green	±0.5 pf	±5%	Green
220	R2	Yellow				P	±10	Yellow	6	6		Blue			Blue
330	S2	Green				R	±15	Green	7	7		Violet			Violet
470	T2	Blue				S	±22	Blue	8	8	.01	Gray	±0.25 pf	+80% −20%	Gray
750	U2	Violet				T	+22 −33	Violet	9	9	.1	White	±1 pf	±10%	White
1500	P3	Orange	Orange			U	+22 −56	Gray							
2200	R3	Yellow	Orange			V	+22 −82	White							
3300	S3	Green	Orange												
4200	G3	Green	Green												
4700	T3	Blue	Orange												
5600	H3	Green	Black												
330															
500	S2L	White													
750															
1000	U2M	Gray													
3300															
2500	S3N	Gray	Black												

MIL-C-20D COLOR CODE

CC20 U J 150 K

STYLE		TEMPERATURE CHARACTERISTIC			T. C. TOLERANCE Parts/million/°C. 25°C.-85°C.		NOMINAL CAPACITY (mmf)		
Erie	MIL	Erie	MIL	Color Code	Tolerance	MIL Letter	1st and 2nd DIGIT	COLOR CODE	MULTIPLIER
301	CC20	P100	A	Gold	± 30	G	0	Black	1
315	CC21	NP0	C	Black	± 60	H	1	Brown	10
316	CC26	N030	H	Brown	±120	J	2	Red	100
		N080	L	Red	±250	K	3	Orange	1000
		N150	P	Orange			4	Yellow	
		N220	R	Yellow			5	Green	
		N330	S	Green			6	Blue	
		N470	T	Blue			7	Violet	
		N750	U	Purple			8	Gray	.01
							9	White	.1

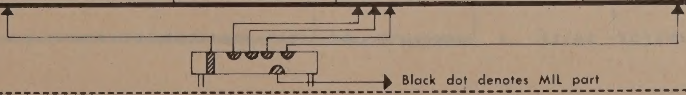
First Digit = First Significant Figure.
Second Digit = Second Significant Figure.
Third Digit = Multiplier.

Example: Brown, Red, Red is 1200 mmf capacitance.

CAPACITY TOLERANCE

If Capacity is 10 pf or less	MIL Letter	Color Code
± .25 pf	C	Red
± .5 pf	D	Green
±1.0 pf	F	White
±2.0 pf	G	Black

If Capacity is Greater than 10 pf	JAN Letter	Color Code
± 1%	F	Brown
± 2%	G	Red
± 5%	J	Green
±10%	K	White

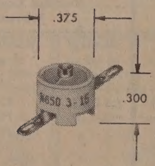


ERIE TRIMMERS

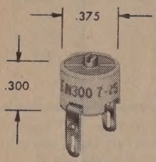
CERAMIC TRIMACONS†

These trimmers have been well known for years for their stability under the most exacting conditions. The top of the base and underside of the titanium dioxide rotor are lapped optically flat, thus eliminating air space variations with temperature. Fired silver electrodes are applied to top of base and rotor, so that capacity is changed by varying the amount of overlap. Capacitance change per degree of rotation is approximately constant, resulting in a smoothness of adjustment not possible with compression type trimmers, where the greater part of capacity change is concentrated close to one end of adjustment.

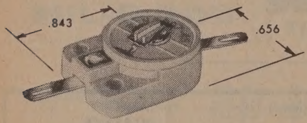
STYLE 538-000



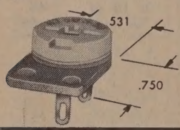
STYLE 538-002



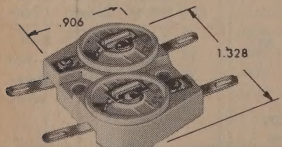
STYLE 503



STYLE 557



STYLE 519



New Catalog Number	Old Catalog Number	Capacitance Range (pf)	Temperature Coefficient
538-000 89R	538A	2-8	NPO
538-000 92R	538-B	5.5-18	NPO
538-000 90R	538-C	2.5-11	N300
538-000 93R	538-D	7-25	N300
538-000 91R	538-E	3-10	N500
538-000 99R	538-F	8-25	N500
538-000 110R	538-G	3-15	N650
538-000 94R	538-H	9-35	N650
538-002 89R	——	2-8	NPO
538-002 92R	——	5.5-18	NPO
538-002 90R	——	2.5-11	N300
538-002 93R	——	7-25	N300
538-002 91R	——	3-10	N500
538-002 99R	——	8-25	N500
538-002 110R	——	3-15	N650
538-002 94R	——	9-35	N650
503 10R	TS-A	1.5-7	NPO
503 17R	TS-B	3-12	NPO
503 24R	TS-C	4-30	N500
503 28R	TS-D	5-20	N300
503 33R	TS-E	7-45	N500
503 34R	TS-F	8-50	N650
557 10R	557-A	1.5-7	NPO
557 17R	557-B	3-12	NPO
557 39R	557-F	5-25	NPO
557 29R	557-G	5-30	N750
557 34R	557-H	8-50	N750
519 10R	TD-A	1.5-7	NPO
519 17R	TD-B	3-12	NPO
519 24R	TD-C	4-30	N500
519 28R	TD-D	5-20	N300
519 33R	TD-E	7-45	N500

† Trademark

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CERAMIC DISC & TUBULAR TRIMMERS

CERAMIC TRIMACONS

MIL-C-81

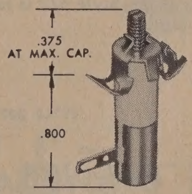
MIL-C-81 Designation	Erie Catalog Number	Capacitance Range (pf)	Temperature Coefficient
CV11 A 070	503-041 10R	1.5-7	NPO
CV11 A 120	503-041 17R	3-12	NPO
CV11 A 250	503-041 37R	4.5-25	NPO
CV11 B 130	503-041 18R	3-13	N300
CV11 B 200	503-041 28R	5-20	N300
CV11 C 300	503-041 24R	4-30	N500
CV11 C 450	503-041 33R	7-45	N500
CV11 D 300	503-041 24R	4-30	N650
CV11 D 450	503-041 33R	7-45	N650

TUBULAR TRIMACONS

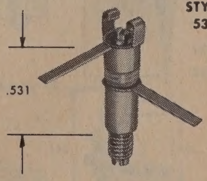
These are compact, economical Tubular Trimmers that are ideal for applications calling for a low minimum capacity and a high ratio of maximum to minimum capacity. Styles 532 and 535 have molded plastic dielectric. Style 3115 has ceramic dielectric.

New Catalog Number	Old Catalog Number	Capacitance Range (pf)	Panel Thickness
532 3R	532-A	0.5-5	.040″ - .065″
532 8R	532-B	1-8	.040″ - .065″
535 4R	535-C	0.7-3	up to .050″
3115-001 1R	3115-D	0.5-3	.025″ to .065″
3115-001 6R	3115-E	1-4	.025″ to .065″

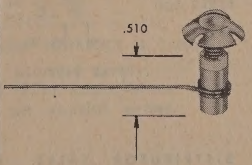
STYLE 532



STYLE 535

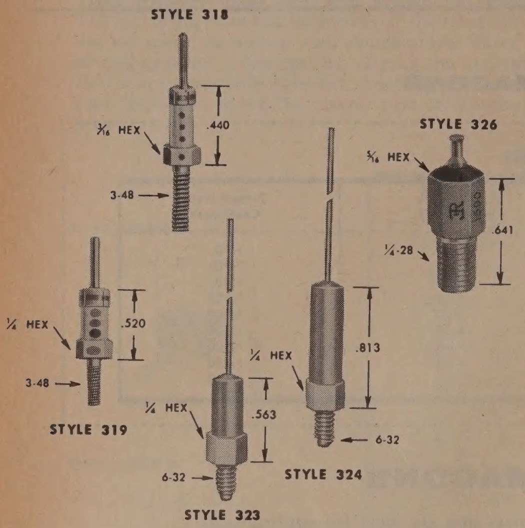


STYLE 3115



ERIE STAND-OFF CERAMICONS

Stand-off Ceramicons, an original Erie development, are now widely used for the dual purpose of by-passin R.F. current to ground, and of mechanically supporting other circuit elements. They are especially suited fo V.H.F. and U.H.F. applications, due to their low-inductance electrical paths and resultant high resonant fre quency.


STYLE 318
3/16 HEX
.440
3-48
STYLE 326
5/16 HEX
.641
1/4-28
1/4 HEX
.520
3-48
STYLE 319
.813
1/4 HEX
1/4 HEX
.563
6-32
6-32
STYLE 324
STYLE 323

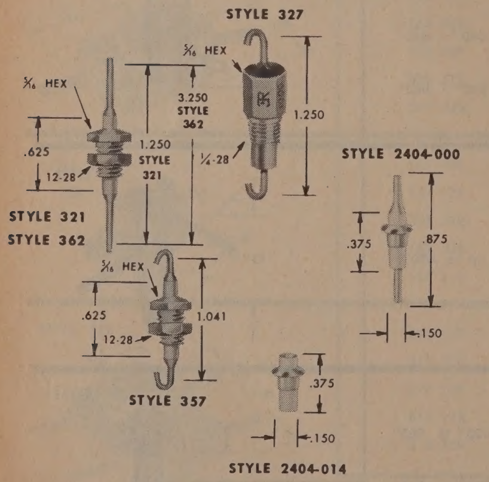
New Catalog Number	Old Catalog Number	Body Style	Capacitance an Tolerance (pf)
318 X5U 501M	318-501	318	500 ±20%
319 X5U 501M	319-501	319	500 ±20%
319 X5U 102M	319-102	319	1000 ±20%
323 X5U 101M	323-101	323	100 ±20%
323 X5U 501M	323-501	323	500 ±20%
324 X5U 102M	324-102	324	1000 ±20%
324 X5U 152M	324-152	324	1500 ±20%
326 X5U 102M	326-102	326	1000 ±20%
326 X5U 152M	326-152	326	1500 ±20%

MIL-C-11015B

MIL Designations	Body Style	Capacitance (pf) and Tolerance
CK80 AW 102M	326	1000 ±20%
CK80 AW 152M	326	1500 ±20%

ERIE FEED-THRU CERAMICONS

These very practical feed-thru capacitors are highly recommended for by-passing R.F. to ground in feed-thru applications. Wire terminals of Style 362 and hook type terminals of Style 327 are sufficiently rugged to serve as tie points for several connections, for supporting other circuit elements, and long enough for point to point wiring. Style 327 is hermetically sealed and ruggedized, and is primarily for military and similar commercial usage.


STYLE 327
5/16 HEX
5/16 HEX
3.250
STYLE
362
1.250
.625
1.250
STYLE
321
1/4-28
12-28
STYLE 2404-000
STYLE 321
STYLE 362
.375
.875
5/16 HEX
.625
1.041
12-28
.150
.375
STYLE 357
.150
STYLE 2404-014

New Catalog Number	Old Catalog Number	Body Style	Capacitance (pf)
321 X5L 102M	321-102	321	1000 ±20%
327 X5U 102M	327-102	327	1000 ±20%
327 X5U 152M	327-152	327	1500 ±20%
327 X5U 202M	327-202	327	2000 ±20%
357 X5U 102M	357-102	357	1000 ±20%
357 X5U 152M	357-152	357	1500 ±20%
362 X5U 102M	362-102	362	1000 ±20%
362 X5U 152M	362-152	362	1500 ±20%
2404-000 U2M 500M	2404-500	2404	50 ±20%
2404-000 X5U 101M	2404-101	2404	100 ±20%
2404-000 X5U 102P	2404-102	2404	1000 GMV
2404-014 X5U 501M	2405-501	2405	500 ±20%
2404-014 X5U 102P	2405-102	2405	1000 GMV

MIL-C-11015B

MIL Designations	Body Style	Capacitance (pf) and Tolerance
CK70 AW 102M	327	1000 ±20%
CK70 AW 152M	327	1500 ±20%

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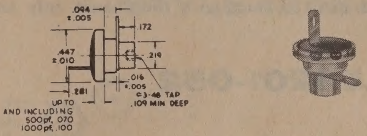
BUTTON®-MICA CAPACITORS

RESIN SEALED BUTTON-MICA CAPACITORS

These Erie developed, midget, silver-mica capacitors should be used where compact size, minimum series inductance, and high leakage resistance are essential. They offer high stability of capacitance over the full temperature range —55°C. to +85°C. Erie Button mica capacitors are unmatched for V.H.F. and U.H.F. work. "Q" at 1 MC is not less than 1000 above 100 pf; not less than 700 between 50 and 100 pf; not less than 500 below 50 pf. Style 654 has ring type metal shell with three soldering ears. High potential terminal at either end for feed-thru connection. Style 662 is fastened to chassis with 3-48 screw.

500 VDCW • FA SERIES MIL CB21

MIL Designation	New Catalog Number	Old Catalog Number	Capacitance (pf)	Capacitance Tolerance
B21 PD 150K	662-003 150K	370-FA-150K	15	±10%
B21 PD 250K	662-003 250K	370-FA-250K	25	±10%
B21 PD 500K	662-003 500K	370-FA-500K	50	±10%
B21 PD 101K	662-003 101K	370-FA-101K	100	±10%
B21 PD 151K	662-003 151K	370-FA-151K	150	±10%
B21 PD 201K	662-003 201K	370-FA-201K	200	±10%
B21 PD 251K	662-003 251K	370-FA-251K	250	±10%
B21 PD 501K	662-003 501K	370-FA-501K	500	±10%
B21 PD 501J	662-003 501J	370-FA-501J	500	± 5%
B21 PD 102K	662-003 102K	370-FA-102K	1000	±10%
B21 PD 102J	662-003 102J	370-FA-102J	1000	± 5%


.094 ±.005
.172
.447 ±.010
.219
.016 ±.005
.281
UP TO AND INCLUDING 500pf, .070 1000pf, .100
⊂3-48 TAP .109 MIN DEEP

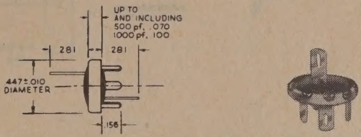
STYLE 662

UNSPECIFIED TOLERANCE IS ±.015

500 VDCW • CB SERIES MIL CB11

MIL Designation	New Catalog Number	Old Catalog Number	Capacitance (pf)	Capacitance Tolerance
CB11 RD 150K	654-017 150K	370-CB-150K	15	±10%
CB11 RD 250K	654-017 250K	370-CB-250K	25	±10%
CB11 RD 500K	654-017 500K	370-CB-500K	50	±10%
CB11 RD 101K	654-017 101K	370-CB-101K	100	±10%
CB11 RD 151K	654-017 151K	370-CB-151K	150	±10%
CB11 RD 201K	654-017 201K	370-CB-201K	200	±10%
CB11 RD 251K	654-017 251K	370-CB-251K	250	±10%
CB11 RD 501K	654-017 501K	370-CB-501K	500	±10%
CB11 RD 501J	654-017 501J	370-CB-501J	500	± 5%
CB11 RD 102K	654-017 102K	370-CB-102K	1000	±10%
CB11 RD 102J	654-017 102J	370-CB-102J	1000	± 5%

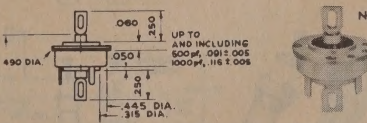
UNSPECIFIED TOLERANCE IS ±.015


UP TO AND INCLUDING 500 pf, .070 1000 pf, 100
281
281
447±.010 DIAMETER
.156

STYLE 654

GOLD SEAL® BUTTON-MICA CAPACITORS

t 200°C, this outstanding capacitor far exceeds requireents of MIL-C-10950 for life test and temperature cycling. nd its all-welded, hermetic glass seal plus gold-plated xterior metal parts provide the ultimate in maintaining xtremely high resistance to moisture.


.060
.250
490 DIA.
.050
UP TO AND INCLUDING 500pf, .091±.005 1000pf, .116±.005
.250
.445 DIA.
.315 DIA.

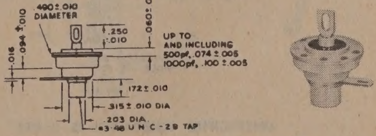
NOTE: A THIRD GROUND TAB IS HIDDEN BY FLAG TAB.

STYLE 2921

UNSPECIFIED TOLERANCE IS ±.010

500 VDCW • —55°C TO +200°C

Catalog Number	Capacitance	Capacitance Tolerance
2921-600 501K	500	±10%
2921-600 102K	1000	±10%
2922-600 501K	500	±10%
2922-600 102K	1000	±10%


.490±.010 DIAMETER
.016
.094 ±.010
.250 ±.010
.060±.010
UP TO AND INCLUDING 500pf, .074±.005 1000pf, .100±.005
172±.010
.315±.010 DIA
.203 DIA.
#3-48 U N C-2B TAP

STYLE 2922

UNSPECIFIED TOLERANCE IS ±.005

Items listed above represent the most popular capacitances. Other capacitance values in ±5% and ±10% tolerance are available on special order.

FILTERCONS[†]

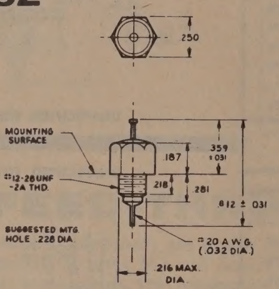
FILTERCON is the name applied to Erie's high frequency, low pass filters.

Standard tubular ceramic feed-thru capacitors have been used for many years in by-pass applications in the RF range. The advent of the UHF range (above 100 MC/sec) requires in many cases the application of new techniques in feed-thru design to eliminate parallel resonance peaks inherent in the UHF range as a result of the conventional design. Erie's Filtercons were designed to provide maximum effective filtering in the UHF range.

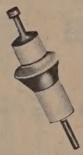
STYLE 1201 is a bushing type FILTERCON intended for rugged applications. The filter element is soldered inside the bushing and then both ends are resin sealed to completely protect the element. The center terminal consisting of formed 20 AWG tinned copper wire is ideal for connection. The bushing is silver plated and silver plated lockwashers and hex nuts are supplied.

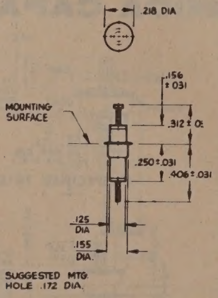
STYLE 1203 is a miniaturized eyelet type FILTERCON similar in performance to Bushing Style 1201. The heavy tinned eyelet and solder coated terminals facilitate ready assembly of the FILTERCON to the chassis. Soldering can be accomplished through oven or iron soldering techniques. In the latter method the soldering iron should make contact with the chassis only and not with the FILTERCON.

STYLE 1201-052



STYLE 1203-050



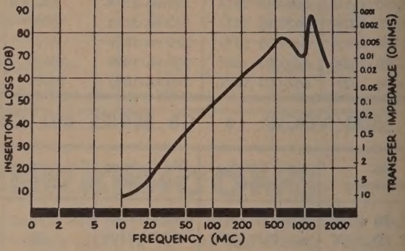


UNSPECIFIED TOLERANCE IS ±.015

When Ordering Specify: the desired seven digit Erie part number.

Typical Attenuation Characteristics

Measured at +25°C.



SPECIFICATIONS:

Minimum Attenuation①: 45 db from 200 MC to 2000 MC, over the temperature range of —55°C to +125°C.

Capacitance: 1000pf minimum @ 1KC, .5 to 5VRMS, 25°C.

Working Voltage: 200VDC.

Dielectric Strength: 600VDC for 1 sec. (50ma max. charging current)

Operating Temperature Range: —55°C to +125°C.

Insulation Resistance: 10K meg Ω min. @ 100VDC, 50ma max. charging current, 25°C.

D.C. Resistance: 0.01 Ω max.

D.C. and low frequency current: 5 amperes max.

R.F. Current: 0.25 amperes max.

Life Test: 1000 hours @ 400VDC @ 125°C. After life IR shall be 1000 meg Ω minimum.

Moisture Resistance:

Temperature and Immersion Cycling: Specification MIL-STD-202B. Methods 102A, Test Condition D; 104A, Test Condition A; and 106A. IR shall be 1000 meg Ω minimum and the units shall withstand the initial dielectric strength test.

① **All measurements made in strict accordance with MIL-STD-220A.**

[†] Trademark

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FILTERCONS

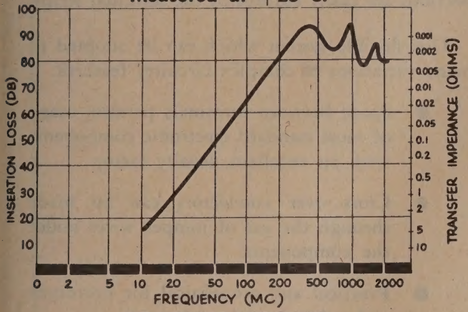
Bushing Mount • Eyelet Mount

YLE 1202 is a larger version of Style 1201 but incorporating the identical husky construction. The resin seal both ends of the FILTERCON assures protection of the element. Headed terminals are formed from 16AWG pper wire and are readily solderable. The bushing is silver plated and silver plated hex nuts and lockwashers e supplied.

YLE 1204 is an eyelet type Filtercon similar in characteristics to Style 1202. Soldering directly to the chassis the means for mounting style 1204. Mounting can be accomplished through using either oven or iron solder-g techniques. Care must be exercised in iron soldering so that the iron contacts the chassis only.

Typical Attenuation Characteristics

Measured at +25°C.



SPECIFICATIONS:

Minimum Attenuation①: 50 db from 100 MC to 2000 MC, over the temperature range of —55°C to +125°C.

Capacitance: 2000pf minimum @ 1KC, .5 to 5VRMS, 25°C.

Working Voltage: 500VDC.

Dielectric Strength: 1500VDC for 1 sec. (50ma max. charging current)

Operating Temperature Range: —55°C to +125°C.

Insulation Resistance: 10K meg Ω min. @ 100VDC, 50ma max. charging current, 25°C.

D.C. Resistance: 0.10 Ω max.

D.C. and low frequency current: 5 amperes max.

R.F. Current: 0.25 amperes max.

Life Test: 1000 hours at 1000VDCW @ 125°C. After life, I.R. shall be 1000 meg Ω minimum.

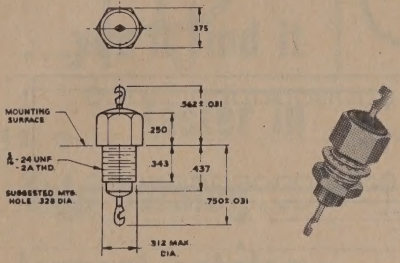
Moisture Resistance:

Temperature and Immersion Cycling:

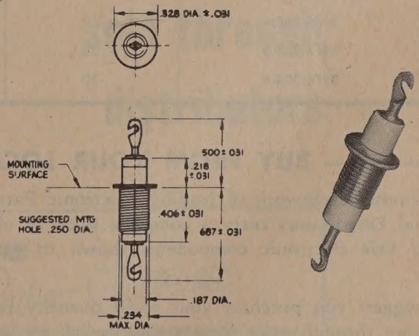
Specification MIL-STD-202B. Methods 102A, Test Condition D; 104A, Test Condition A; and 106A. IR shall be 1000 meg Ω minimum and the units shall withstand the initial dielectric strength test.

① **All measurements made in strict accordance with MIL-STD-220A.**

STYLE 1202-052


.375
.562±.031
MOUNTING SURFACE
.250
5/16-24 UNF -2A THD.
.343
.437
SUGGESTED MTG. HOLE .328 DIA.
.750±.031
.312 MAX. DIA.

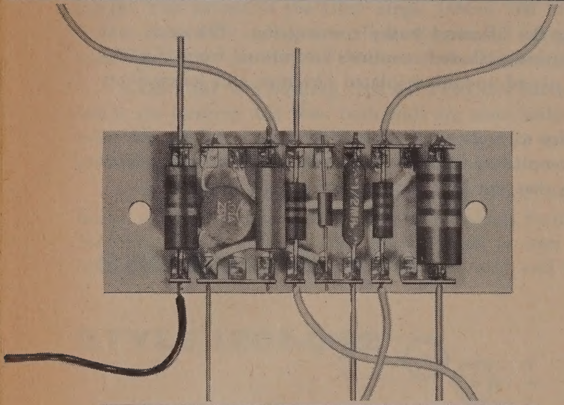
STYLE 1204-050

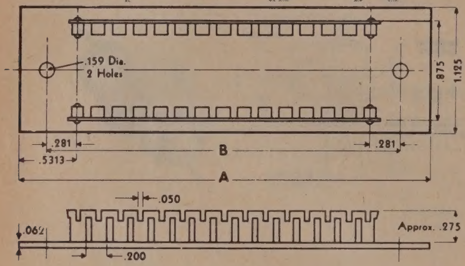

.328 DIA. ±.031
MOUNTING SURFACE
.500±.031
.218 ±.031
.406±.031
SUGGESTED MTG HOLE .250 DIA.
.687±.031
.187 DIA.
.234 MAX. DIA.

UNSPECIFIED TOLERANCE IS ±.015

When Ordering Specify: the desired seven digit Erie part number.

ERIE STRIP-PACK†





Strip-Pack consists of a XXXP phenolic board with continuous metal terminals inserted on that board.

Strip-Pack is ideal for simplified bread-board applications as well as production-line assembly of components. Assembly and circuit make-up is simplified by built in series connection design of the continuous terminals. Unwanted series connections are easily cut out of the terminal strips.

This flexible system which can be adopted to many variations of complex circuitry features:

- Space between terminals permits usage of most standard electronic components with an excellent density factor.
- Cross over connectors can be made through the use of jumper wires under the components.
- Practical and economical for prototype and volume production.
- Reliability, serviceability and neatness inherent in the finished assembly.

† Trademark

Catalog Number	Stations	A Dimension	B Dimensions
3976-205-2	10	2.875	2.362
3976-205-3	15	3.875	3.362
3976-205-4	20	4.875	4.362
3976-205-5	25	5.875	5.362
3976-205-6	30	6.875	6.362

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FILM CAPACITORS, INC.

CAT.A2.3.250
0.25MF 300VWDC
FILM CAPACITORS
INC

F-C-I POLYSTYRENE CAPACITORS

F-C-I Polystyrene capacitors are characterized by a unique combination of low power factor, high insulation resistance and low dielectric absorption ("soakage") which cannot be duplicated by any other type capacitor except Teflon units. Furthermore, the capacitance stability is excellent, and the temperature coefficient of capacitance is very small. F-C-I Polystyrene capacitors are furnished as standard units in hermetically sealed metal shells; in bathtub c with low loss steatite terminals; and in style C metal cans with low loss steatite terminals. Spe units, including multi-section blocks are also av ble to order.

TOLERANCES TO .25% AVAILABLE.

METAL SHELL POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	D	List Price
A4-1-10	100	.01	1	.235	$4.00
A4-1-22	100	.022	1	.312	4.00
A4-1-33	100	.033	1	.312	4.10
A4-1-47	100	.047	1	.400	4.15
A4-1-68	100	.068	1	.400	4.20
A4-1-100	100	.10	1⅜	.400	4.40
A4-1-220	100	.22	1⅜	.562	4.80
A4-1-330	100	.33	1⅜	.670	5.25
A4-1-470	100	.47	1⅞	.670	5.60
A4-2-10	200	.01	1	.312	4.00
A4-2-22	200	.022	1	.400	4.10
A4-2-33	200	.033	1	.400	4.10
A4-2-47	200	.047	1⅜	.400	4.15
A4-2-68	200	.068	1⅜	.400	4.15
A4-2-100	200	.10	1⅜	.562	4.50
A4-2-220	200	.22	1⅞	.562	5.20
A4-2-330	200	.33	1⅞	.750	5.80
A4-2-470	200	.47	1⅞	1.00	6.10
A4-4-10	400	.01	1	.312	4.00
A4-4-22	400	.022	1	.400	4.10
A4-4-33	400	.033	1⅜	.400	4.25
A4-4-47	400	.047	1⅜	.400	4.35
A4-4-68	400	.068	1⅜	.562	4.50
A4-4-100	400	.10	1⅞	.562	4.90
A4-4-220	400	.22	1⅞	.750	5.45
A4-4-330	400	.33	1⅞	.750	6.30
A4-4-470	400	.47	1⅞	1.00	7.20
A4-6-10	600	.01	1	.400	4.00
A4-6-22	600	.022	1⅜	.562	4.25
A4-6-33	600	.033	1⅜	.562	4.25
A4-6-47	600	.047	1⅜	.670	4.50
A4-6-68	600	.068	1⅞	.562	4.80
A4-6-100	600	.10	1⅞	.670	5.10
A4-6-220	600	.22	1⅞	.750	5.45
A4-6-330	600	.33	2⅜	1.00	6.30
A4-6-470	600	.47	2⅜	1.00	7.20

STYLE CP70 CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H	List Price
A2-0-1000	50	1.0	1¾	1	1⅝	$ 8.10
A2-0-2000	50	2	1¾	1	2¼	11.60
A2-0-4000	50	4	2½	1³⁄₁₆	2¼	14.90
A2-0-6000	50	6	3¾	1¼	2¼	20.00
A2-0-8000	50	8	3¾	1¼	2½	23.50
A2-0-10M	50	10	3¾	1¾	2¼	27.50
A2-1-500	100	0.5	1¾	1	1⅝	6.00
A2-1-1000	100	1.0	1¾	1	2¼	9.50
A2-1-2000	100	2.0	2½	1³⁄₁₆	2¼	13.65
A2-1-4000	100	4.0	3¾	1¼	2½	17.55
A2-1-6000	100	6.0	3¾	1¾	2½	23.50
A2-1-8000	100	8.0	3¾	2¼	2½	27.70
A2-1-10M	100	10.0	3¾	2¼	3	32.30
A2-1-20M	100	20.0	3¾	3³⁄₁₆	3½	46.00
A2-2-250	200	0.25	1¾	1	2¼	5.40
A2-2-500	200	0.5	1¾	1	3¼	6.10
A2-2-1000	200	1.0	1¾	1	3	9.60
A2-2-2000	200	2.0	2½	1³⁄₁₆	3	13.75
A2-2-4000	200	4.0	3¾	1¼	3½	17.90
A2-2-6000	200	6.0	3¾	1¾	3½	23.90
A2-2-8000	200	8.0	3¾	2¼	3½	28.00
A2-2-10M	200	10.0	3¾	3³⁄₁₆	3½	32.60
A2-2-20M	200	20.0	4⁹⁄₁₆	3¾	4	48.50
A2-4-250	400	0.25	1¾	1	2¼	5.45
A2-4-500	400	0.5	1¾	1	2½	7.20
A2-4-1000	400	1.0	2½	1³⁄₁₆	2⅞	14.50
A2-4-2000	400	2.0	3¾	1¼	3	21.70
A2-4-4000	400	4.0	3¾	1¾	3½	34.10
A2-4-6000	400	6.0	3¾	3³⁄₁₆	3	47.50
A2-4-8000	400	8.0	3¾	3³⁄₁₆	5⅛	58.50
A2-4-10M	400	10.0	4⁹⁄₁₆	3¾	3½	72.00
A2-6-250	600	0.25	1¾	1	2¼	5.45
A2-6-500	600	0.5	1¾	1	3½	7.20
A2-6-1000	600	1.0	2½	1¼	3½	14.50
A2-6-2000	600	2.0	3¾	1¾	3	22.10
A2-6-4000	600	4.0	3¾	3³⁄₁₆	4	34.60
A2-6-5000	600	5.0	4⁹⁄₁₆	3¾	3½	41.65

BATHTUB CASED POLYSTYRENE CAPACITORS

Part Number	Volts DC	Cap. MFD.	Case Size—Ins. L	W	H
A3-0-50	50	.05	1⅛	1	½
A3-0-100	50	.10	1⅛	1	½
A3-0-250	50	.25	1⅛	1	½
A3-0-500	50	.50	1⅛	1	1
A3-0-1000	50	1.0	1¾	1	¾
A3-1-50	100	.05	1⅛	1	½
A3-1-100	100	.10	1⅛	1	½
A3-1-250	100	.25	1⅛	1	1
A3-1-500	100	.50	1¾	1	¾
A3-1-1000	100	1.0	1¾	1	1
A3-2-50	200	.10	1¾	1	¾
A3-2-100	200	.05	1¾	1	¾
A3-2-250	200	.25	2	1¾	⅞
A3-2-500	200	.50	2	1¾	⅞
A3-2-1000	200	1.0	2	2	1¼
A3-4-10	400	1.0	1¾	1	¾
A3-4-20	400	.02	1¾	1	¾
A3-4-50	400	.05	1¾	1	¾
A3-4-100	400	.10	1¾	1	¾
A3-4-250	400	.25	2	1¾	⅞
A3-4-500	400	.50	2	1¾	⅞
A3-4-1000	400	1.0	2	2	1¼
A3-6-10	600	.01	1¾	1	¾
A3-6-20	600	.02	1¾	1	¾
A3-6-50	600	.05	1¾	1	¾
A3-6-100	600	.10	1¾	1	1
A3-6-250	600	.25	2	1¾	⅞
A3-6-500	600	.50	2	2	1¼

F-C-I TEFLON CAPACITORS

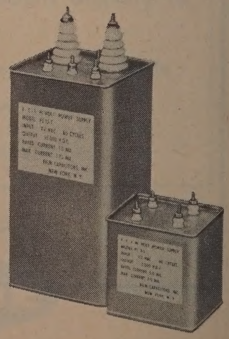
F-C-I Teflon capacitors, available in all capacity and voltage ranges, are essentially identical to polystyrene capacitors in their electrical characteristics, with one important difference—Teflon capacitors may be operated at temperatures up to 200°C, whereas polystyrene capacitors have a maximum operating temperature of 85°C. Furthermore, the insulation resist of Teflon capacitors is many times that of polystyrene at elev temperatures.

SOLID STATE HIGH VOLTAGE PACKAGED POWER SUPPLIES

Completely enclosed and hermetically sealed power supplies operating on 115 volt, 60 or 400 cycle, AC input. Output ranges from 2,000 vdc to 50,000 vdc. Standard sizes as follows: Non-standard supplies available upon request.

PART No.	OUTPUT VOLTAGE	RATED CURRENT OUTPUT	MAX. CURRENT OUTPUT
PS—2S	2 KVDC	5 MA	7.5 MA
PS—5S	5 KVDC	5 MA	7.5 MA
PS—12S	12 KVDC	1 MA	1.75 MA
PS—15S	15 KVDC	1 MA	1.75 MA
PS—20S	20 KVDC	1 MA	1.75 MA
PS—30S	30 KVDC	1 MA	1.75 MA
PS—50S	50 KVDC	1 MA	1.75 MA

® Du Pont Trade Mark



FILM CAPACITORS, INC.

F-C-I HIGH VOLTAGE CAPACITORS

F-C-I Type D-6 capacitors employ a newly developed plastic film, plus Kraft paper dielectric which, with suitable processing, produces capacitors which are better, smaller and cheaper than could ever be produced before. F-C-I Type D-6 capacitors are suitable for practically every type of high voltage D-C application. Type D-6 capacitors can be used up to 125°C with proper derating. With these capacitors available, it is no longer necessary to stock groups of units each outstanding in only one property. F-C-I Type D-6 capacitors are furnished in steatite tubes with hermetically sealed metal end caps and either threaded studs or wire leads. Sizes not listed here can be furnished upon request. Ask for our quotation.

FURNISHED IN STEATITE CASES — NO BREAKAGE . . . NO LEAKAGE

No.	Capacity MFD.	Working Volts DC	Dimensions Dia.	L	List Price
-10	.01	600	½	1⅜	$ 3.10
-20	.02	600	½	1⅜	3.10
-50	.05	600	½	1⅜	3.20
-100	.10	600	11/16	1⅜	3.30
-250	.25	600	11/16	2⅜	3.50
-500	.50	600	1	2⅜	3.90
-1000	1.00	600	1¼	2⅜	4.20
0-10	.01	1000	½	1⅜	3.20
0-20	.02	1000	½	1⅜	3.20
0-50	.05	1000	11/16	1⅜	3.20
0-100	.10	1000	11/16	2⅜	3.40
0-250	.25	1000	⅞	2⅜	3.40
0-500	.50	1000	1	2⅜	3.70
0-2	.002	2000	½	1⅜	3.50
0-5	.005	2000	½	1⅜	3.50
0-10	.01	2000	½	1⅜	3.50
0-20	.02	2000	½	1⅜	3.60
0-50	.05	2000	11/16	1⅜	3.90
0-100	.10	2000	11/16	2⅜	4.00
0-250	.25	2000	1	2⅜	4.50
0-500	.50	2000	1¼	2⅜	5.20
0-2	.002	3000	½	1⅜	4.30
0-5	.005	3000	½	1⅜	4.30
0-10	.01	3000	½	1⅜	4.50
0-20	.02	3000	11/16	1⅜	5.10
0-50	.05	3000	11/16	2⅜	5.50
0-100	.10	3000	⅞	2⅜	6.00
0-250	.25	3000	1¼	2⅜	6.60
0-5	.005	5 KV	⅝	1 11/16	6.50
0-10	.01	5 KV	¾	1 11/16	6.80
0-20	.02	5 KV	¾	2 9/16	7.20
0-50	.05	5 KV	⅞	2 9/16	7.60
0-100	.10	5 KV	1¼	2 9/16	8.50
5-1	.001	7½ KV	⅝	1 11/16	6.50
5-2	.002	7½ KV	⅝	1 11/16	6.80
5-5	.005	7½ KV	¾	1 11/16	7.00
5-10	.01	7½ KV	¾	2 9/16	7.50
5-20	.02	7½ KV	⅞	2 9/16	8.60
5-50	.05	7½ KV	1¼	2 9/16	11.00
5-100	.10	7½ KV	1½	2 9/16	12.50

Cat. No.	Capacity MFD.	Working Volts DC	Dimensions Dia.	L	List Price
D6-100-1	.001	10 KV	⅝	1 11/16	$ 7.20
D6-100-2	.002	10 KV	⅝	1 11/16	7.40
D6-100-5	.005	10 KV	⅝	2 9/16	8.50
D6-100-10	.01	10 KV	⅞	2 9/16	9.20
D6-100-20	.02	10 KV	1	2 9/16	11.40
D6-100-50	.05	10 KV	1½	2 9/16	14.60
D6-150-1	.001	15 KV	⅝	2⅜	13.80
D6-150-2	.002	15 KV	⅞	2⅜	14.60
D6-150-5	.005	15 KV	⅞	2 9/16	17.00
D6-150-10	.01	15 KV	1¼	2 9/16	20.00
D6-150-20	.02	15 KV	1¼	4¾	22.00
D6-150-50	.05	15 KV	1½	4¾	26.00
D6-200-05	.0005	20 KV	⅝	2⅜	18.00
D6-200-1	.001	20 KV	¾	2⅜	19.00
D6-200-2	.002	20 KV	¾	2 9/16	21.00
D6-200-5	.005	20 KV	1	2 9/16	22.50
D6-200-10	.01	20 KV	1½	2 9/16	24.00
D6-200-20	.02	20 KV	1½	4¾	27.00
D6-300-02	.0002	30 KV	⅝	3	21.00
D6-300-05	.0005	30 KV	⅝	3	21.00
D6-300-1	.001	30 KV	⅞	3	23.50
D6-300-2	.002	30 KV	¾	4¾	26.00
D6-300-5	.005	30 KV	1¼	4¾	28.00
D6-300-10	.01	30 KV	1¼	6⅞	35.00
D6-400-01	.0001	40 KV	⅝	3	22.50
D6-400-02	.0002	40 KV	⅝	3	22.50
D6-400-05	.0005	40 KV	¾	3	22.50
D6-400-1	.001	40 KV	¾	4¾	26.00
D6-400-2	.002	40 KV	1	4¾	28.00
D6-400-5	.005	40 KV	1½	4¾	33.00
D6-500-01	.0001	50 KV	⅝	4¼	23.50
D6-500-02	.0002	50 KV	⅝	4¼	23.50
D6-500-05	.0005	50 KV	¾	4¼	24.50
D6-500-1	.001	50 KV	¾	6⅞	28.00
D6-500-2	.002	50 KV	⅞	6⅞	31.50
D6-500-5	.005	50 KV	1¼	6⅞	36.00
D6-600-01	.0001	60 KV	⅝	4¼	24.50
D6-600-02	.0002	60 KV	⅝	4¼	24.50
D6-600-05	.0005	60 KV	⅞	4¼	28.00
D6-600-1	.001	60 KV	⅞	6⅞	34.00
D6-600-2	.002	60 KV	1¼	6⅞	36.50
D6-600-5	.005	60 KV	1¼	13	41.50

FCI TYPE MMS METALLIZED MYLAR CAPACITORS (Glass Button Seal Terminals with Metal Shells)

Catalog Number	Cap. Mfd.	Dia. x Length in inches
MMS 2-01	.010	.235 x ¾
MMS 2-022	.022	.235 x ¾
MMS 2-033	.033	.235 x ¾
MMS 2-047	.047	.312 x ⅞
MMS 2-1	.1	.312 x ⅞
MMS 2-22	.22	.400 x ⅞
MMS 2-33	.33	.400 x 1⅛
MMS 2-47	.47	.500 x 1⅛
MMS 2-1.M	1.0	.562 x 1⅛
MMS 2-1.5M	1.5	.562 x 1⅛
MMS 2-2.M	2.0	.670 x 1⅝
MMS 2-3.M	3.0	.670 x 1⅞
MMS 2-4.M	4.0	.750 x 1⅞
MMS 2-5.M	5.0	1.00 x 1⅞
MMS 2-6.M	6.0	1.00 x 1⅞
MMS 2-8.M	8.0	1.00 x 1⅞
MMS 2-10.M	10.0	1.00 x 2⅜
MMS 2-12.M	12.0	1.00 x 2⅝

andard tolerance plus or minus 20%. lerances to 1% are also available.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
400	MMS 4-01	.010	.312 x ⅞
	MMS 4-022	.022	.312 x ⅞
	MMS 4-033	.033	.312 x 1⅛
	MMS 4-047	.047	.400 x 1⅛
	MMS 4-1	.1	.500 x 1⅛
	MMS 4-22	.22	.562 x 1⅜
	MMS 4-33	.33	.562 x 1⅝
	MMS 4-47	.47	.670 x 1⅝
	MMS 4-1.M	1.0	.750 x 1⅞
	MMS 4-1.5M	1.5	1.00 x 1⅞
	MMS 4-2.M	2.0	1.00 x 1⅞
	MMS 4-3.M	3.0	1.00 x 2⅝

- For flat mylar wrap types specify MMMF.

WVDC	Catalog Number	Cap. Mfd.	Dia. x Length in inches
600	MMS 6-01	.010	.312 x ⅞
	MMS 6-022	.022	.312 x 1⅛
	MMS 6-033	.033	.312 x 1⅛
	MMS 6-047	.047	.400 x 1⅛
	MMS 6-1	.1	.500 x 1⅛
	MMS 6-22	22	.562 x 1⅜
	MMS 6-33	.33	.562 x 1⅜
	MMS 6-47	.47	.670 x 1⅝
	MMS 6-1.M	1.0	1.00 x 1⅞
	MMS 6-1.5M	1.5	1.00 x 1⅞
	MMS 6-2.M	2.0	1.00 x 2⅛
	MMS 6-2.5M	2.5	1.00 x 2⅝

- For round mylar wrap types specify MMMR.

FILM CAPACITORS, INC.

MINIATURE MYLAR® CAPACITORS

HERMETICALLY SEALED — CLOSE TOLERANCE

F-C-I miniature "Mylar" capacitors are furnished in metal shells hermetically sealed with metal-steatite compression type seals. The capacitor elements are non-inductively wound, and wire leads are carefully soldered to the swedged, extended foils to minimize self-inductance, power factor and noise. The Mylar dielectric capacitor are characterized by high insulation resistance (10^6 megohm-microfarads at 20°C); 0.5% power factor; and a temperatur coefficient of +500 PPM/°C.

PART No.	CAP. MFD.	SIZE L	SIZE D	LIST PRICE
100 VWDC				
HD4-1-10	.01	1	.235	$2.25
HD4-1-15	.015	1	.235	2.25
HD4-1-22	.022	1	.235	2.25
HD4-1-33	.033	1	.312	2.25
HD4-1-47	.047	1	.312	2.25
HD4-1-68	.068	1	.400	2.35
HD4-1-100	.10	1	.400	2.40
HD4-1-220	.22	1⅜	.400	2.60
HD4-1-330	.33	1⅜	.562	2.65
HD4-1-470	.47	1⅜	.562	2.75
HD4-1-1000	1.0	1⅜	.670	3.40
200 VWDC				
HD4-2-10	.01	1	.235	2.25
HD4-2-15	.015	1	.235	2.25
HD4-2-22	.022	1	.312	2.25
HD4-2-33	.033	1	.312	2.25
HD4-2-47	.047	1	.400	2.35
HD4-2-68	.068	1	.400	2.40
HD4-2-100	.10	1⅜	.400	2.55
HD4-2-220	.22	1⅜	.562	2.65
HD4-2-330	.33	1⅜	.670	2.70
HD4-2-470	.47	1⅞	.670	4.10
HD4-2-1000	1.0	1⅞	1.00	4.70

The capacitors listed above are suitable for continuous operation at 125° C without derating. For 85° C operation, 100 volt series HD capacitors may be operated at 200 volts; 200 volt capacitors at 400 volts; 400 volt capacitors at 600 volts; and 600 volt capacitors at 1000 volts. To correctly designate 85° C capacitors, omit the letter "H" in the part number, and correct the single number standing for the voltage rating.

PART No.	CAP. MFD.	SIZE L	SIZE D	LIST PRICE
400 VWDC				
HD4-4-10	.01	1	.312	2.90
HD4-4-15	.015	1	.312	2.90
HD4-4-22	.022	1	.400	3.00
HD4-4-33	.033	1	.400	3.05
HD4-4-47	.047	1⅜	.400	3.05
HD4-4-68	.068	1⅜	.400	3.40
HD4-4-100	.10	1⅜	.562	3.45
HD4-4-220	.22	1⅞	.670	4.00
HD4-4-330	.33	1⅞	.750	4.15
HD4-4-470	.47	1⅞	1.00	4.50
HD4-4-1000	1.0	2⅜	1.00	5.70
600 VWDC				
HD4-6-10	.01	1	.400	3.65
HD4-6-15	.015	1	.400	3.70
HD4-6-22	.022	1⅜	.400	3.75
HD4-6-33	.033	1⅜	.400	3.80
HD4-6-47	.047	1⅜	.562	3.85
HD4-6-68	.068	1⅜	.562	3.90
HD4-6-100	.10	1⅜	.670	4.00
HD4-6-220	.22	1⅞	1.00	5.00
HD4-6-330	.33	1⅞	1.00.	6.00
HD4-6-470	.47	2⅜	1.00	7.00

Prices listed above are for ±5% tolerance. For ±2% tolerance, add 20 and for ±1% tolerance, add 50% to these prices. These capacitors are al available in ceramic shells with epoxy resin end fill. Write for prices.

We are set up to produce these capacitors in any quantity to any odd val of capacitance at close tolerance for manufacturers of filter networks, R-networks and the like. Write for information.

HIGH CAPACITANCE MYLAR® CAPACITORS

HERMETICALLY SEALED — HIGH INSULATION RESISTANCE

F-C-I Series D-2 capacitors are Mylar dielectric capacitors which possess extremely high insulation resistance, together with good power factor and dielectric absorption. The insulation resistance runs well over 10^6 megohm-microfarads at room temperature, even for the highest values of capacitance. The power factor and the dielectric absorption are both on the order of 0.5%. These properties make Series D-2 capacitors extremely useful in computers of moderate precision, in timing circuits, and similar types of circuitry. Standard tolerance is ±10%, and closer tolerances are available on order. (Case sizes indicated below are in inches.) (D3 indicates bathtub case and D2 CP70 cases.)

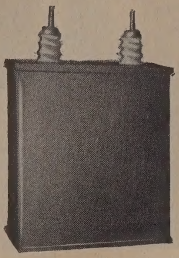
CAP. MFD.	100 VWDC				200 VWDC				300 VWDC				400 VWDC				600 VWDC			
	CASE SIZE L	W	H	LIST PRICE	CASE SIZE L	W	H	LIST PRICE	CASE SIZE L	W	H	LIST PRICE	CASE SIZE L	W	H	LIST PRICE	CASE SIZE L	W	H	LIST PRICE
0.5	1¾	1	¾	$ 3.00	1¾	1	¾	$ 3.00	1¾	1	1	$ 3.20	1¾	1	1	$ 3.38	1¾	1	1	$ 3.38
CAT #	D3-1-500				D3-2-500				D3-3-500				D3-4-500				D3-6-500			
1.0	1¾	1	¾	3.12	1¾	1	1	3.12	1¾	1	1⅝	4.95	1¾	1	2¼	5.37	1¾	1	2¾	5.50
CAT #	D3-1-1000				D3-2-1000				D2-3-1000				D2-4-1000				D2-6-1000			
2.0	1¾	1	1	4.00	1¾	1	1⅝	5.12	1¾	1	2¼	6.35	1¾	1	3¼	6.60	2½	1¼	3½	7.60
CAT #	D3-1-2000				D2-2-2000				D2-3-2000				D2-4-2000				D2-6-2000			
5.0	1¾	1	2¾	6.35	1¾	1	3¼	7.00	2½	1¼	3½	9.50	3¾	1¼	2½	11.25	3¾	1¼	5	11.25
CAT #	D2-1-5000				D2-2-5000				D2-3-5000				D2-4-5000				D2-6-5000			
10.0	2½	1¼	3½	11.00	2½	1¼	3½	11.60	3¾	1¾	3¼	17.75	3¾	1¾	4	19.75	3¾	1¾	5	24.70
CAT #	D2-1-10000				D2-2-10000				D2-3-10000				D2-4-10000				D2-6-10000			
20.0	3¾	1¾	2½	18.80	3¾	1¾	3¼	20.30	4 9/16	3¾	3	29.40	4 9/16	3¾	4	32.50	4 9/16	3¾	4½	42.50
CAT #	D2-1-20000				D2-2-20000				D2-3-20000				D2-4-20000				D2-6-20000			
25.0	3¾	1¾	3¼	22.20	3¾	1¾	4	23.70	4 9/16	3¾	3½	36.10	4 9/16	3¾	4	39.00	4 9/16	3¾	5	51.50
CAT #	D2-1-25000				D2-2-25000				D2-3-25000				D2-4-25000				D2-6-25000			

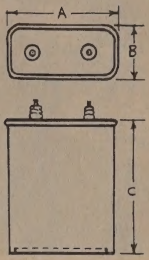
FILM CAPACITORS, INC.

HIGH VOLTAGE

TYPE KM-2 CAPACITORS—85 C OPERATION WITH SOLDER-SEAL CERAMIC BUSHINGS

[type KM-2 capacitors have been designed specifically to meet the for smaller, more reliable capacitors that will withstand the severe ting conditions encountered in military and industrial electronic ment. The dielectric employed is a combination of synthetic Polyester nd the finest grade capacitor tissue. Capacitor cases are of CP70 reclar construction. Units will meet the requirements of proposed fication MIL-C-19978. Terminals are of the solder seal ceramic type screw bolt terminations for easy connections and true hermetic seal-Capacity tolerance is plus or minus 10% with an insulation resistance ,000 megohm microfarads. Specify type KMH-2 for operating tempers up to 125°C. Case sizes for the KMH-2 and engineering data for series are available upon request. CP07 mounting brackets are availfor all sixes.

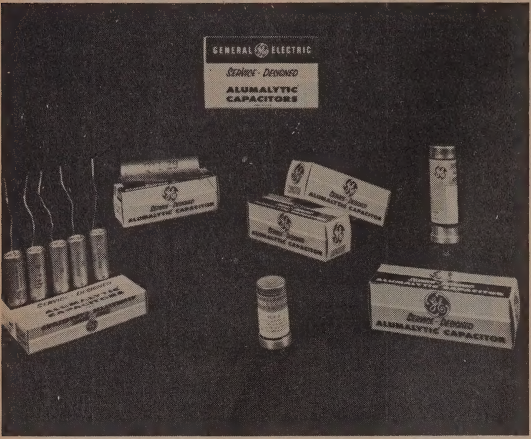




Cat. No.	µf	A	B	C
400 W. V. D. C.				
2-4-500	0.5	1 13/16	1 1/16	1 5/8
2-4-1M	1.0	1 13/16	1 1/16	1 5/8
2-4-2M	2.0	1 13/16	1 1/16	2 1/4
2-4-4M	4.0	2 1/2	1 3/16	2 7/8
2-4-6M	6.0	2 1/2	1 3/16	4 3/4
2-4-8M	8.0	3 3/4	1 1/4	4 1/4
2-4-10M	10.0	3 3/4	1 1/4	4 3/4
2-4-12M	12.0	3 3/4	1 1/4	3 7/8
2-4-15M	15.0	3 3/4	1 3/4	4 3/4
600 W. V. D. C.				
2-6-500	0.5	1 13/16	1 1/16	1 5/8
2-6-1M	1.0	1 13/16	1 1/16	2 1/4
2-6-2M	2.0	1 13/16	1 1/16	2 7/8
2-6-4M	4.0	2 1/2	1 3/16	3 1/2
2-6-6M	6.0	2 1/2	1 3/16	4 3/4
2-6-8M	8.0	3 3/4	1 1/4	3 7/8
2-6-10M	10.0	3 3/4	1 1/4	4 3/4
2-6-12M	12.0	3 3/4	2 1/4	3 3/8
2-6-15M	15.0	3 3/4	2 1/4	4 3/4
1000 W. V. D. C.				
2-10-500	0.5	1 13/16	1 1/16	1 5/8
2-10-1M	1.0	1 13/16	1 1/16	2 1/4
2-10-2M	2.0	1 13/16	1 1/16	3 7/8
2-10-4M	4.0	2 1/2	1 3/16	4 3/4
2-10-6M	6.0	3 3/4	1 1/4	4 3/4
2-10-8M	8.0	3 3/4	1 3/4	3 7/8
2-10-10M	10.0	3 3/4	1 3/4	4 3/4
2-10-12M	12.0	3 3/4	2 1/4	4 1/2
2-10-15M	15.0	3 3/4	2 1/2	4 3/4
1500 W. V. D. C.				
2-15-100	0.1	1 13/16	1 1/16	1 5/8
2-15-250	0.25	1 13/16	1 1/16	1 5/8
2-15-500	0.5	1 13/16	1 1/16	2 1/4
2-15-1M	1.0	1 13/16	1 1/16	3 7/8
2-15-2M	2.0	2 1/2	1 3/16	4 3/4
2-15-4M	4.0	3 3/4	1 3/4	4 3/4
2-15-6M	6.0	3 3/4	3 3/16	4 1/2
2-15-8M	8.0	4 9/16	3 3/4	4 3/8
2-15-10M	10.0	4 9/16	3 3/4	5 1/2
2-15-12M	12.0	4 9/16	3 3/4	6
2-15-15M	15.0	4 9/16	3 3/4	8 1/2
2000 W. V. D. C.				
2-20-2M	2.0	3 3/4	1 1/4	4 3/4
2-20-4M	4.0	3 3/4	2 1/4	4 3/4
2-20-6M	6.0	3 3/4	3 3/16	5 1/8
2-20-8M	8.0	4 9/16	3 3/4	4 3/8
2-20-10M	10.0	4 9/16	3 3/4	5 1/2
2-20-12M	12.0	4 9/16	3 3/4	6
2-20-15M	15.0	4 9/16	3 3/4	9 5/8

Cat. No.	µf	A	B	C
2500 W. V. D. C.				
KM-2-25-2M	2.0	3 3/4	1 1/4	4 3/4
KM-2-25-4M	4.0	3 3/4	2 1/4	5 1/8
KM-2-25-6M	6.0	4 9/16	3 3/4	4 3/8
KM-2-25-8M	8.0	4 9/16	3 3/4	5 1/2
KM-2-25-10M	10.0	4 9/16	3 3/4	6 1/2
KM-2-25-12M	12.0	4 9/16	3 3/4	9 5/8
3000 W. V. D. C.				
KM-2-30-1M	1.0	3 3/4	1 3/4	3 1/4
KM-2-30-2M	2.0	3 3/4	2 1/4	3 7/8
KM-2-30-4M	4.0	3 3/4	3 3/16	5 1/2
KM-2-30-6M	6.0	4 9/16	3 3/4	5 1/2
4000 W. V. D. C.				
KM-2-40-1M	1.0	3 3/4	1 1/4	3 1/4
KM-2-40-2M	2.0	3 3/4	2 1/4	5 1/8
KM-2-40-4M	4.0	4 9/16	3 3/4	5 1/2
5000 W. V. D. C.				
KM-2-50-100	0.1	3 3/4	1 1/4	3 1/4
KM-2-50-250	0.25	3 3/4	1 1/4	3 1/4
KM-2-50-500	0.5	3 3/4	1 1/4	3 1/4
KM-2-50-1M	1.0	3 3/4	1 3/4	3 7/8
KM-2-50-2M	2.0	3 3/4	2 1/2	5 3/4
6000 W. V. D. C.				
KM-2-60-100	0.1	3 3/4	1 1/4	3 1/4
KM-2-60-250	0.25	3 3/4	1 1/4	3 1/4
KM-2-60-500	0.5	3 3/4	1 1/4	3 1/4
KM-2-60-1M	1.0	3 3/4	2 1/4	4 3/4
KM-2-60-2M	2.0	3 3/4	3 3/16	5 1/8
7500 W. V. D. C.				
KM-2-75-100	0.1	3 3/4	1 1/4	3 1/4
KM-2-75-250	0.25	3 3/4	1 1/4	3 7/8
KM-2-75-500	0.5	3 3/4	2 1/4	4 1/2
KM-2-75-1M	1.0	3 3/4	3 3/16	5 1/8
KM-2-75-2M	2.0	4 9/16	3 3/4	8 1/2
10,000 W. V. D. C.				
KM-2-100-100	0.1	3 3/4	1 1/4	3 1/2
KM-2-100-250	0.25	3 3/4	2 1/4	3 7/8
KM-2-100-500	0.5	3 3/4	2 1/2	5 3/4
KM-2-100-1M	1.0	4 9/16	3 3/4	6
12,500 W. V. D. C.				
KM-2-125-100	0.1	3 3/4	2 1/4	3 3/8
KM-2-125-250	0.25	3 3/4	2 1/4	4 1/2
KM-2-125-500	0.5	4 9/16	3 3/4	5 1/2
KM-2-125-1M	1.0	4 9/16	3 3/4	8 1/2

ELECTRONICS service-designed capacit



General Electric has taken the confusion out of the capacitor business! With General Electric's new line of Service-Designed Alumalytic® Capacitors, you will now be able to make **all** your electrolytic capacitor replacements with one-fourth as many types. In fact, you'll be able to handle over 70% of your electrolytic capacitor replacement needs with just 20 G-E types!

Fewer G-E types are needed to meet your requir because every G-E capacitor meets not just one range of capacitance and voltage requirement extended-range approach reduces the total nun types in much the same way you are already doi the rectifier field when, for instance, you use a unit to replace units rated at 500 ma or less.

As a result of the greatly reduced number of types sary to meet your capacitor replacement needs, y

SIMPLIFY YOUR PURCHASING PROBLEMS. You c replace any aluminum electrolytic capacitor used radio and TV manufacturer in the past ten yea one-fourth as many types. Ordering is faster and —because A FEW WILL DO!

MEET MOST NEEDS WITH A SMALL STOCK. If yo General Electric can suggest a stock list of 20 o types which will meet 70% or more of your repla needs. If you presently stock a large number of num electrolytic capacitors, you will be able to your inventory and still meet most of your needs do not presently stock capacitors, you will now to carry a small assortment and save on single- dering and pickup costs—because A FEW WILL

ELECTROLYTIC TUBULARS (Type QT)

Application: General Electric Type QT electrolytic capacitors are designed for all television and other electronic applications requiring high reliability and long life. Each capacitor listed can be used as a replacement in applications requiring a capacitance value at or between the two capacitance values shown and provided the application voltage does not exceed the capacitor's rated voltage.

The larger bold type capacitance value is the lute value or the value normally shown on ord capacitors.

Example: The rating of QT1-10 (15-**20** mfd 475 VDC) means that this is a 20 mfd capacitor can replace capacitors rated 15, 16, 17, 18, 19 mfd at any voltage up to and including 475 VDC still be well within approved limitations.

SINGLE-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price
QT1-1	**2** mfd.	Up to 450V	½ X 1⅜	$1.15
QT1-2	3-**4** mfd.	Up to 300V	½ X 1⅜	1.25
QT1-2.1	3-**4** mfd.	Up to 450V	$\frac{9}{16}$ X 1⅝	1.15
QT1-3	3-**5** mfd.	Up to 150V	½ X 1⅜	1.00
QT1-4	5-**8** mfd.	Up to 450V	⅝ X 1⅝	1.25
QT1-5	8-**10** mfd.	Up to 150V	½ X 1⅜	1.05
QT1-6	8-**10** mfd.	Up to 450V	¾ X 1⅝	1.30
QT1-7	8-**10** mfd.	Up to 600V	1 X 2$\frac{15}{16}$	2.25
QT1-8	12-**16** mfd.	Up to 450V	⅞ X 1⅝	1.40
QT1-8.1	12-**20** mfd.	Up to 150V	$\frac{9}{16}$ X 1$\frac{11}{16}$	1.20
QT1-9	16-**20** mfd.	Up to 350V	⅞ X 1⅝	1.45
QT1-10	15-**20** mfd.	Up to 475V	⅞ X 1⅝	1.60
QT1-11	16-**25** mfd.	Up to 50V	$\frac{9}{16}$ X 1⅝	1.05
QT1-12	25-**30** mfd.	Up to 450V	1 X 1$\frac{13}{16}$	1.70
QT1-13	30-**40** mfd.	Up to 150V	¾ X 1⅝	1.35
QT1-14	30-**40** mfd.	Up to 450V	1 X 2⅛	1.80
QT1-15	25-**50** mfd.	Up to 50V	⅝ X 1⅝	1.20
QT1-16	40-**50** mfd.	Up to 450V	1 X 2⅜	2.10
QT1-17	40-**60** mfd.	Up to 150V	⅞ X 1⅝	1.50
QT1-18	50-**60** mfd.	Up to 350V	1 X 2⅜	$1.
QT1-19	50-**60** mfd.	Up to 450V	1 X 2⅝	2.
QT1-20	60-**80** mfd.	Up to 150V	1 X 1⅝	1.
QT1-21	60-**80** mfd.	Up to 450V	1 X 3⅛	2.
QT1-22	50-**100** mfd.	Up to 15V	$\frac{9}{16}$ X 1⅜	1.
QT1-23	50-**100** mfd.	Up to 50V	¾ X 1⅝	1.
QT1-24	80-**100** mfd.	Up to 450 V	1¼ X 2$\frac{13}{16}$	3.
†QT1-24.1	75-**140** mfd.	Up to 300V	1¼ X 2⅜	3.
QT1-25	100-**150** mfd.	Up to 150V	1 X 2⅛	1.
QT1-26	100-**150** mfd.	Up to 300V	1¼ X 2⅜	3.
QT1-27	150-**200** mfd.	Up to 200V	1¼ X 2⅜	2.
†QT1-27.1	110-**200** mfd.	Up to 200V	1¼ X 2⅜	2.
QT1-28	150-**250** mfd.	Up to 25V	¾ X 1⅝	1.
QT1-29	200-**300** mfd.	Up to 150V	1 X 3⅝	2.
QT1-30	250-**500** mfd.	Up to 15V	¾ X 1$\frac{13}{16}$	1.
QT1-31	250-**500** mfd.	Up to 50V	1 X 2⅜	2.
QT1-32	500-**1000** mfd.	Up to 15V	1 X 1$\frac{13}{16}$	2.
QT1-33	1500-**2000** mfd.	Up to 15V	1 X 2$\frac{13}{16}$	3.

* Add $\frac{1}{16}$″ to diameter and ⅛″ to length to all for insulating sleeve.

† Single ended with 5″ insulated leads and mounting bracket.

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

†DUAL-SECTION TUBULARS

alog No.	Capacitance	Voltage	*Size	List Price	Catalog No.	Capacitance	Voltage	*Size	List Price
T2-1	4-5 150-200	Up to 150V Up to 150V	1 X 2⅞	$2.65	QT2-7	20-30 40-50	Up to 150V Up to 150V	⅞ X 1⅞	$1.95
T2-2	5-8 5-8	Up to 450V Up to 450V	⅞ X 1⅞	1.70	QT2-8	30-40 30-40	Up to 450V Up to 450V	1 X 3⅜	3.40
T2-3	8-10 8-10	Up to 450V Up to 450V	⅞ X 1⅞	1.85	QT2-9	40-50 40-50	Up to 150V Up to 150V	⅞ X 1⅞	2.10
T2-4	8-10 30-40	Up to 350V Up to 350V	⅞ X 2⅝	2.35	QT2-10	40-50 60-80	Up to 150V Up to 150V	⅞ X 2⅝	2.35
T2-5	16-20 16-20	Up to 150V Up to 150V	⅞ X 1⅝	1.65	††QT2-11	60-120 60-120	Up to 150V Up to 150V	1¼ X 3¾	3.45
T2-6	16-20 16-20	Up to 450V Up to 450V	⅞ X 2⅝	2.50					

†TRIPLE-SECTION TUBULARS

atalog No.	Capacitance	Voltage	*Size	List Price	Catalog No.	Capacitance	Voltage	*Size	List Price
)T3-1	8-10 8-10 8-10	450V 450V 450V	1 X 1⅝	$2.80	QT3-5	16-20 30-40 30-40	150V 150V 150V	1 X 1⅞	$2.70
)T3-2	16-20 16-20 16-20	450V 450V 450V	1 X 2⅞	3.80	QT3-6	16-20 30-40 60-80	150V 150V 150V	1 X 2⅜	2.90
)T3-3	16-20 25-30 30-40	150V 150V 150V	1 X 1⅞	2.65	QT3-7	16-20 40-50 40-50	150V 150V 150V	1 X 2⅜	2.70
)T3-4	16-20 25-30 50-60	150V 150V 150V	1 X 2⅜	2.60	QT3-8	30-50 30-50 30-50	150V 150V 150V	1 X 2⅜	3.15

† QUAD-SECTION TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price	Catalog No.	Capacitance	Voltage	*Size	List Price
)T4-1	4-5 mfd. 20-30 100-140 150-200	Up to 300V Up to 200V Up to 350V Up to 200V	1⅜ X 3⅝	$6.85	QT4-3	16-20 16-20 30-40 30-40	Up to 450V Up to 450V Up to 450V Up to 450V	1⅜ X 3⅛	$5.45
)T4-2	8-10 30-40 30-40 60-80	Up to 450V Up to 250V Up to 250V Up to 300V	1⅜ X 2⅝	4.95	QT4-4	16-20 20-30 30-40 40-50	Up to 25V Up to 150V Up to 150V Up to 150V	1⅜ X 2	5.50

NON-POLARIZED TUBULARS

Catalog No.	Capacitance	Voltage	*Size	List Price	Catalog No.	Capacitance	Voltage	*Size	List Price
NPQT-1	3-5	30V	½ X 1⅜	$1.50	NPQT-5	15-30	30V	⅝ X 1⅝	$1.55
NPQT-2	4-5	350V	¾ X 1⅝	1.70	**NPQT-5.1	66.5-90	50V	⅞ X 2⅞	1.50
NPQT-3	8-10	400V	1 X 1⅝	2.00	NPQT-6	250-500	10V	1⅜ X 1⅝	2.00
NPQT-4	15-20	350V	1 X 1⅝	2.50	NPQT-7	500-1000	3V	1⅜ X 1⅝	2.10

Add 1/16" to diameter and ⅛" to length to allow for insulating sleeve.
Replacement for antenna rotator capacitors.

† All designs have mounting bracket and insulated leads.
†† Separate sections.

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ELECTRONICS service-designed capacito

TWIST-PRONG ELECTROLYTICS (Type XC)

Applications: General Electric Type XC electrolytic capacitors are designed for all television and other electronic applications requiring high reliability and long life.

Each capacitor listed can be used as a replacement in applications requiring a capacitance value at or between the two capacitance values shown and provided the application voltage does not exceed the capacitor's rated voltage.

The larger bold type capacitance value is the absolute value or the value normally shown on ordinary capacitors.

Example: The rating of XC1-2 (15-**20** mfd u 500 VDC) means that this is a 20 mfd capacitor w can replace capacitors rated 15, 16, 17, 18, 19 o mfd at any voltage up to and including 500 VDC, still be well within approved limitations.

Description: The 100% use of high purity alumi foil for anodes insures longer shelf and operation with superior capacitance, resistance, and leak current characteristics. These capacitors are her ically sealed in aluminum cans and packaged phenolic mounting wafers.

Temperature Range: —20°C to 85°C.

SINGLE-SECTION CANS

Catalog No.	Capacitance	Voltage	Size	List Price	Catalog No.	Capacitance	Voltage	Size	List Pri
XC1-1	7-**10** mfd.	Up to 500V	1 X 2	$1.70	XC1-16	80-**140** mfd.	Up to 150V	1 X 2½	$2.15
XC1-2	15-**20** mfd.	Up to 500V	1 X 2	1.85	*XC1-16.1	80-**150** mfd.	Up to 150V	1 X 2½	2.20
XC1-3	30-**40** mfd.	Up to 500V	1 X 2½	2.50	XC1-17	100-**150** mfd.	Up to 150V	1⅜ X 2	2.15
XC1-4	25-**50** mfd.	Up to 150V	1 X 2	1.65	XC1-18	100-**150** mfd.	Up to 350V	1⅜ X 3½	3.60
XC1-5	30-**50** mfd.	Up to 350V	1 X 2	2.10	XC1-19	100-**160** mfd.	Up to 250V	1⅜ X 2½	3.40
XC1-6	35-**50** mfd.	Up to 450V	1 X 2½	2.35	XC1-20	120-**200** mfd.	Up to 150V	1 X 3	2.70
XC1-7	50-**80** mfd.	Up to 350V	1⅜ X 2	2.85	XC1-21	120-**200** mfd.	Up to 300V	1⅜ X 2½	4.05
XC1-8	60-**80** mfd.	Up to 450V	1⅜ X 2½	3.05	XC1-22	200-**300** mfd.	Up to 150V	1⅜ X 2½	2.80
XC1-9	60-**80** mfd.	Up to 500V	1⅜ X 2½	3.35	XC1-23	250-**300** mfd.	Up to 350V	1⅜ X 4	5.55
XC1-10	60-**100** mfd.	Up to 150V	1 X 2	2.00	XC1-24	250-**500** mfd.	Up to 25V	1 X 2	2.40
XC1-11	60-**100** mfd.	Up to 300V	1 X 3	2.90	XC1-25	250-**500** mfd.	Up to 50V	1⅜ X 2	2.65
XC1-12	60-**100** mfd.	Up to 300V	1⅜ X 2	2.90	XC1-26	500-**1000** mfd.	Up to 16V	1 X 2	2.55
XC1-13	70-**100** mfd.	Up to 450V	1⅜ X 2½	3.45	XC1-27	750-**1500** mfd.	Up to 50V	1⅜ X 3	4.40
XC1-14	70-**125** mfd.	Up to 200V	1 X 3	2.50	XC1-28	1000-**2000** mfd.	Up to 16V	1⅜ X 2	3.45
XC1-15	100-**125** mfd.	Up to 450V	1⅜ X 3	3.85	XC1-29	1500-**3000** mfd.	Up to 16V	1⅜ X 2½	4.25

DUAL-SECTION CANS

Catalog No.	Capacitance	Voltage	Size	List Price	Catalog No.	Capacitance	Voltage	Size	List Pric
XC2-1	3-60 **4-80** mfd.	350V-450V	1 X 3½	$3.40	XC2-12	8-100 **10-160**	350V-350V	1⅜ X 3	4.30
XC2-2	4-4 **5-5**	450V-450V	1 X 2	1.90	XC2-13	15-15 **20-20**	250V-250V	1 X 2	$1.90
XC2-3	4-15 **5-20**	350V-350V	1 X 2	2.05	XC2-14	15-15 **20-20**	450V-450V	1 X 2½	2.55
XC2-4	4-120 **5-200**	200V-200V	1⅜ X 2½	2.80	XC2-15	15-15 **20-20**	500V-500V	1⅜ X 2	2.85
XC2-5	8-8 **10-10**	500V-500V	1 X 2	2.00	XC2-16	15-30 **20-40**	350V-350V	1 X 2½	2.75
XC2-6	8-16 **10-20**	350V-475V	1 X 2½	2.35	XC2-17	15-30 **20-40**	450V-450V	1⅜ X 2	3.25
XC2-7	5-20 **10-30**	50V-200V	1 X 2	2.00	XC2-18	15-60 **20-80**	350V-350V	1⅜ X 2½	3.50
XC2-8	8-25 **10-30**	500V-500V	1 X 3	2.60	XC2-19	15-60 **20-80**	450V-450V	1⅜ X 2½	3.90
XC2-9	8-30 **10-40**	300V-300V	1 X 2	2.50	XC2-20	15-75 **20-100**	475V-400V	1⅜ X 3	4.50
XC2-10	8-30 **10-40**	450V-450V	1 X 2	2.75	XC2-21	20-30 **30-50**	150V-150V	1 X 2	2.00
XC2-11	8-40 **10-50**	300V-350V	1⅜ X 2	2.90	XC2-22	20-40 **30-60**	350V-350V	1⅜ X 2	3.15
					XC2-23	20-75 **30-100**	50V-400V	1⅜ X 2½	3.90
					XC2-24	30-30 **40-40**	250V-250V	1 X 2½	2.50

* Can insulated.

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Dual-Section Cans (cont.)

alog No.	Capacitance	Voltage	Size	List Price	Catalog No.	Capacitance	Voltage	Size	List Price
C2-25	30-30 **40-40**	450V-450V	1⅜ X 2½	3.45	XC2-35	60-60 **80-80**	450V-450V	1⅜ X 3½	5.40
C2-26	30-35 **40-45**	500V-500V	1⅜ X 2½	4.40	XC2-36	60-75 **80-100**	450V-50V	1⅜ X 3	3.75
C2-27	30-60 **40-80**	350V-350V	1⅜ X 2½	4.10	XC2-37	50-50 **100-100**	50V-50V	1 X 2	2.10
C2-28	30-75 **40-100**	450V-450V	1⅜ X 3½	4.85	XC2-38	75-75 **100-100**	200V-300V	1⅜ X 3	3.45
C2-28.1	30-50 **40-100**	450V-50V	1 X 2½	2.80	XC2-39	75-75 **100-100**	400V-400V	1⅜ X 4	5.75
C2-29	30-30 **50-50**	150V-150V	1 X 2	2.15	XC2-40	75-100 **100-150**	150V-150V	1 X 3½	3.10
C2-30	30-60 **50-80**	150V-150V	1 X 2½	$2.40	XC2-41	75-100 **100-150**	150V-150V	1⅜ X 2	3.25
C2-31	30-60 **50-80**	475V-475V	1⅜ X 3½	5.20	XC2-42	75-90 **100-120**	400V-400V	1⅜ X 4	6.20
C2-32	30-100 **50-150**	50V-150V	1 X 3	2.50	XC2-43	100-120 **200-200**	250V-250V	1⅜ X 4	5.50
C2-32.1	25-250 **50-500**	150V-5V	1 X 2	2.45	XC2-44	500-500 **1000-1000**	16V-16V	1 X 3½	3.80
C2-33	40-40 **60-60**	450V-450V	1⅜ X 3	4.50	XC2-45	500-500 **1000-1000**	30V-30V	1⅜ X 2½	5.35
C2-34	60-60 **80-80**	200V-400V	1⅜ X 2½	3.95					

TRIPLE-SECTION CANS

alog No.	Capacitance	Voltage	Size	List Price	Catalog No.	Capacitance	Voltage	Size	List Price
C3-1	4-8-15 mfd. **5-10-20**	350-400-400	1 X 2	$2.55	XC3-16	8-30-75 **10-40-100**	400-400-350	1⅜ X 3	5.05
C3-2	4-15-30 **5-20-40**	350-475-400	1 X 3	3.70	XC3-17	8-35-75 **10-45-100**	450-450-200	1⅜ X 2½	4.15
C3-3	4-15-50 **5-20-60**	350-350-400	1 X 3½	3.70	XC3-18	8-60-75 **10-80-100**	400-350-400	1⅜ X 3½	5.55
C3-4	4-30-100 **5-40-150**	350-350-350	1⅜ X 3½	5.05	XC3-19	8-75-110 **10-100-150**	450-300-300	1⅜ X 3½	5.75
C3-5	4-40-75 **5-50-100**	450-350-350	1⅜ X 3	4.55	XC3-20	8-150-200 **10-200-250**	450-300-200	1⅜ X 4	6.85
C3-5.1	3-30-100 **5-60-200**	200-200-50	1 X 2½	2.90	XC3-21	12-12-15 **15-15-20**	450-450-450	1 X 3	$3.25
C3-6	4-50-75 **5-100-125**	200-75-350	1⅜ X 3	4.80	XC3-22	12-12-20 **15-15-40**	450-450-25	1 X 2½	2.75
C3-6.1	2-250-500 **5-500-1000**	32-16-16	1 X 2½	4.10	XC3-23	15-15-15 **20-20-20**	350-350-350	1 X 2½	2.90
C3-7	8-8-8 **10-10-10**	450-450-450	1 X 2	2.60	XC3-23.1	15-15-10 **20-20-20**	450-450-25	1 X 2	2.95
C3-8	8-8-30 **10-10-40**	400-400-400	1 X 3	3.35	XC3-24	15-15-15 **20-20-20**	450-450-450	1⅜ X 2	3.60
C3-9	8-8-60 **10-10-80**	450-450-450	1⅜ X 2½	4.80	XC3-25	15-10-20 **20-20-30**	350-25-350	1 X 2½	2.95
C3-10	8-15-10 **10-20-20**	350-350-25	1 X 2	2.55	XC3-26	15-15-30 **20-20-40**	450-450-450	1⅜ X 2½	4.40
C3-11	8-15-20 **10-20-30**	475-475-350	1 X 3	$3.40	XC3-27	15-15-75 **20-20-100**	450-450-350	1⅜ X 3	4.95
C3-12	8-15-60 **10-20-80**	350-450-350	1⅜ X 2½	4.25	XC3-28	15-20-30 **20-30-40**	150-150-150	1 X 2	2.60
C3-13	8-15-75 **10-20-100**	450-350-350	1⅜ X 2½	4.55	XC3-29	15-30-30 **20-40-40**	450-450-450	1⅜ X 2½	4.45
C3-13.1	7-15-50 **10-20-100**	450-450-50	1 X 2½	2.95	XC3-30	15-30-50 **20-40-60**	450-450-450	1⅜ X 3	5.00
C3-14	8-20-75 **10-30-100**	150-150-150	1 X 2½	2.85	XC3-31	15-30-60 **20-40-80**	150-150-150	1 X 2½	2.90
C3-15	8-30-30 **10-40-40**	500-500-500	1⅜ X 2½	5.05	XC3-32	15-30-60 **20-40-80**	450-450-450	1⅜ X 3	5.40

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Triple-Section Cans (cont.)

Catalog No.	Capacitance	Voltage	Size	List Price
XC3-33	15-30-60 **20-40-90**	350-350-350	1⅜ X 3	4.85
XC3-34	15-60-75 **20-80-100**	450-450-350	1⅜ X 3½	5.85
XC3-35	15-75-90 **20-100-140**	450-400-300	1⅜ X 4	6.70
XC3-36	20-20-30 **30-30-40**	475-475-475	1⅜ X 3	$5.15
XC3-37	20-15-150 **30-60-200**	400-350-150	1⅜ X 3	5.00
XC3-38	30-30-30 **40-40-40**	150-150-150	1 X 2½	2.60
XC3-39	30-30-20 **40-40-40**	450-450-25	1⅜ X 2½	3.95
XC3-40	30-30-30 **40-40-40**	450-450-450	1⅜ X 3	4.90
XC3-41	30-60-90 **40-80-125**	450-400-350	1⅜ X 4	6.30

Catalog No.	Capacitance	Voltage	Size	List Pr
XC3-42	30-60-300 **40-80-500**	400-400-50	1⅜ X 3½	5.8
XC3-43	30-70-70 **40-120-120**	150-150-150	1⅜ X 2½	4.0
XC3-44	30-30-30 **50-50-50**	150-150-150	1 X 2½	3.0
XC3-45	40-40-50 **60-60-80**	350-350-350	1⅜ X 3½	5.5
XC3-45.1	30-40-50 **60-80-100**	175-175-175	1 X 3	3.6
XC3-46	40-80-125 **60-140-200**	200-150-150	1⅜ X 3	4.4
XC3-47	60-125-175 **80-200-300**	150-150-150	1⅜ X 3½	5.0
XC3-47.1	30-75-250 **100-200-700**	16-16-16	1 X 1¾	3.3
XC3-48	50-250-250 **100-500-500**	16-16-16	1 X 2	3.3
XC3-48.1	80-80-150 **250-250-500**	16-16-16	1 X 1¾	3.3

QUAD-SECTION CANS

Catalog No.	Capacitance	Voltage	Size*	List Price
XC4-1	3-8-8-10 **4-10-10-20**	300-500-300-25	2″	$3.35
XC4-2	3-8-30-100 **4-10-40-160**	350-475-400-350	4	6.30
XC4-3	3-8-40-100 **4-10-60-160**	300-300-300-350	3½	6.20
XC4-4	3-8-75-100 **4-10-100-160**	350-475-300-350	4	6.70
XC4-4.1	2-100-250-250 **4-350-750-750**	32-16-16-16	2	4.80
XC4-5	4-4-4-4 **5-5-5-5**	450-450-450-450	2	3.00
XC4-6	4-4-20-60 **5-5-25-70**	450-450-450-450	2½	5.10
XC4-7	4-8-8-60 **5-10-10-70**	450-450-450-450	2½	5.00
XC4-8	4-8-30-30 **5-10-35-40**	450-475-450-475	2½	5.00
XC4-9	4-15-40-50 **5-20-50-60**	450-350-350-400	3	5.15
XC4-10	4-25-30-60 **5-30-40-80**	400-400-400-400	3½	5.85
XC4-11	4-30-75-80 **5-40-100-110**	350-350-75-350	3	5.50
XC4-12	8-8-8-8 **10-10-10-10**	450-450-450-450	2	3.35
XC4-13	8-8-15-30 **10-10-20-40**	475-475-475-475	2½	4.85
XC4-14	8-8-15-90 **10-10-20-130**	475-350-350-350	3	$5.60
XC4-15	8-8-30-30 **10-10-35-40**	450-450-450-450	2½	4.80
XC4-16	8-8-50-50 **10-10-60-100**	450-450-200-50	2	3.85
XC4-17	8-8-75-100 **10-10-100-150**	475-400-300-300	3½	6.20
XC4-18	8-15-15-100 **10-20-20-140**	475-300-300-300	2½	5.05
XC4-19	8-10-20-75 **10-20-30-100**	400-50-50-400	2½	5.10

Catalog No.	Capacitance	Voltage	Size*	List Pri
XC4-20	8-15-30-30 **10-20-40-40**	350-350-350-350	2½	4.40
XC4-21	8-15-30-30 **10-20-40-40**	450-25-450-450	2½	4.70
XC4-22	8-15-30-50 **10-20-40-60**	350-475-350-350	2½	4.95
XC4-23	8-15-30-90 **10-20-40-125**	475-450-450-300	3	5.80
XC4-24	8-15-30-90 **10-20-40-130**	350-350-475-350	3½	6.35
XC4-25	8-15-30-90 **10-20-50-120**	350-350-50-350	3	5.10
XC4-26	8-10-30-90 **10-20-50-120**	475-400-50-400	3	5.90
XC4-27	8-10-50-75 **10-20-60-100**	150-50-200-300	2½	$4.55
XC4-28	8-15-60-75 **10-20-80-100**	300-50-350-350	3½	5.35
XC4-29	8-15-75-100 **10-20-100-140**	450-300-300-350	4	6.60
XC4-30	8-15-100-100 **10-20-140-150**	450-300-350-300	4	6.70
XC4-31	8-15-100-150 **10-20-150-250**	250-350-300-50	3	5.55
XC4-32	8-15-30-50 **10-25-40-60**	450-25-350-350	2½	4.60
XC4-33	8-15-30-50 **10-25-40-100**	350-25-350-25	2	3.75
XC4-34	8-25-30-60 **10-30-40-80**	450-450-450-475	3½	6.65
XC4-35	8-25-30-60 **10-30-40-80**	450-300-400-400	3	5.75
XC4-36	8-25-25-75 **10-30-50-150**	475-500-50-50	2½	4.45
XC4-37	8-25-75-150 **10-30-100-200**	300-300-300-300	4	6.80
XC4-38	8-25-100-150 **10-30-140-200**	300-150-300-150	3½	5.70

* All Dia. are 1⅜″.

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Quad-Section Cans (cont.)

alog No.	Capacitance	Voltage	Size*	List Price
C4-39	8-25-150-150 **10-30-200-200**	300-150-200-150	3½	5.50
C4-40	8-30-30-60 **10-40-40-80**	250-300-300-300	3	4.85
C4-41	8-30-25-75 **10-40-50-100**	350-350-50-350	3	5.15
C4-42	8-30-60-75 **10-40-80-100**	475-400-400-400	4	6.95
C4-43	8-30-90-110 **10-40-120-150**	250-400-250-50	3	5.20
C4-44	8-50-50-60 **10-60-60-80**	150-200-350-350	3	5.40
C4-45	12-12-12-30 **15-15-15-40**	450-350-450-350	2½	4.00
C4-46	12-15-10-10 **15-20-20-20**	450-450-25-25	2	3.45
C4-47	12-30-30-20 **15-40-40-40**	450-450-450-50	3	5.20
C4-48	15-15-15-10 **20-20-20-20**	450-450-450-25	2	4.15
C4-49	15-15-15-15 **20-20-20-20**	450-450-450-450	2½	4.55
C4-50	15-15-15-15 **20-20-20-20**	475-475-475-475	2½	4.85
C4-51	15-15-15-50 **20-20-20-60**	450-450-450-450	3	5.50
C4-52	15-15-15-75 **20-20-20-100**	450-450-450-300	3	5.30
C4-53	15-15-15-150 **20-20-20-200**	300-300-300-300	3½	5.95
C4-54	15-15-30-20 **20-20-40-40**	450-450-450-25	2½	4.65
C4-55	15-15-30-30 **20-20-40-40**	450-450-450-450	3	5.55
C4-56	15-15-30-75 **20-20-40-100**	350-350-350-400	3½	6.00
C4-57	15-15-60-150 **20-20-80-200**	350-300-350-150	3½	$5.50
C4-58	15-15-75-75 **20-20-100-100**	400-400-350-100	3½	5.50
C4-59	15-15-75-100 **20-20-100-140**	300-300-300-350	4	5.00
C4-60	15-20-30-75 **20-25-35-100**	200-450-450-50	2½	4.65
C4-61	15-20-30-30 **20-25-40-40**	450-50-450-450	2½	5.05
C4-62	10-25-30-30 **20-30-40-40**	25-350-350-350	2½	4.20
XC4-63	15-25-30-25 **20-30-40-50**	300-300-300-25	2	4.00
XC4-64	15-25-25-150 **20-30-50-200**	350-400-50-350	4	6.75
XC4-65	15-30-50-50 **20-40-60-60**	150-350-350-200	3	4.80
XC4-66	15-30-50-60 **20-40-60-80**	400-300-450-350	3½	6.15
XC4-67	15-30-50-65 **20-40-60-90**	350-350-350-350	3½	5.90
XC4-68	15-30-50-150 **20-40-60-200**	150-150-150-10	2	3.60
XC4-69	15-50-60-50 **20-60-80-100**	350-350-150-50	2½	4.65
XC4-70	15-75-75-170 **20-100-100-240**	350-150-150-150	3½	5.95
XC4-70.1	15-60-50-80 **20-100-100-150**	450-350-50-350	4	6.75
XC4-71	15-30-60-75 **25-40-80-100**	50-400-350-200	3½	5.55
XC4-72	25-25-30-30 **30-30-40-40**	450-350-450-350	3	5.35
XC4-73	25-25-110-110 **30-30-150-150**	450-450-300-300	4	6.95
XC4-74	25-30-20-60 **30-40-40-80**	400-400-25-400	3½	5.90
XC4-75	25-30-25-100 **30-40-50-140**	350-350-50-350	3½	5.90
XC4-76	25-30-40-150 **30-40-50-200**	400-300-250-150	3	5.45
XC4-77	25-45-150-150 **30-60-200-200**	175-175-175-175	3½	6.15
XC4-78	30-30-30-30 **40-40-40-40**	150-150-150-150	2	3.60
XC4-79	30-30-30-20 **40-40-40-40**	450-450-450-25	3	5.50
XC4-80	30-30-30-30 **40-40-40-40**	450-450-450-450	3½	6.25
XC4-81	30-30-20-60 **40-40-40-80**	150-150-25-150	2	3.65
XC4-82	30-30-20-60 **40-40-40-80**	450-450-25-450	3½	6.45
XC4-83	30-30-50-100 **40-40-60-150**	350-350-350-75	3	5.25
XC4-84	30-50-50-75 **40-60-60-100**	400-400-300-400	4	6.85
XC4-85	50-60-75-50 **60-80-100-100**	400-350-200-50	3½	5.90

CAPACITOR ACCESSORIES

alog o.	Description
53	Mounting wafer (phenolic) for 1 inch can
L4	Mounting wafer (phenolic) for 1⅜ inch can
M3	Mounting wafer (metal) for 1 inch can
M4	Mounting wafer (metal) for 1⅜ inch can
MA1	Printed board mounting adapter kit
T5	Insulating sleeves for 1 x 2 inch can
T6	Insulating sleeves for 1 x 2½ inch can

Catalog No.	Description
1T7	Insulating sleeves for 1 x 3 inch can
1T8	Insulating sleeves for 1 x 3½ inch can
1T9	Insulating sleeves for 1 x 4 inch can
1T10	Insulating sleeves for 1⅜ x 2 inch can
1T11	Insulating sleeves for 1⅜ x 2½ inch can
1T12	Insulating sleeves for 1⅜ x 3 inch can
1T13	Insulating sleeves for 1⅜ x 3½ inch can
1T14	Insulating sleeves for 1⅜ x 4 inch can

Dia. are 1⅜".

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

ELECTRONICS service-designed capacit

MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS IN ALUMINUM CASES

Catalog No.	Capacitance	Voltage	Size*	List Price
MT1-1	1-2	50	3/16 X ½	$1.35
MT1-2	1-2	150	5/16 X ⅝	1.45
MT1-3	3-5	50	¼ X ½	1.45
MT1-4	3-5	150	⅜ X ⅝	1.55
MT1-5	6-10	25	¼ X ⅝	1.45
MT1-6	6-10	50	5/16 X ⅝	1.50
MT1-7	6-10	100	⅜ X ⅞	1.55
MT1-8	6-10	150	⅜ X 1	1.60
MT1-9	12-20	100	⅜ X 1½	1.60
MT1-10	15-25	15	5/16 X ⅝	1.45
MT1-11	15-25	25	⅜ X ⅝	1.55
MT1-12	15-25	50	⅜ X ¾	1.60
MT1-13	20-35	6	5/16 X ⅝	1.40

Catalog No.	Capacitance	Voltage	Size*	List P
MT1-14	20-35	50	⅜ X ⅞	$1.7
MT1-15	25-50	6	5/16 X ¾	1.4
MT1-16	25-50	15	⅜ X ⅝	1.6
MT1-17	25-50	50	⅜ X 1¼	1.8
MT1-18	50-100	6	⅜ X ¾	1.5
MT1-19	50-100	15	⅜ X ⅞	1.8
MT1-20	50-100	25	⅜ X 1½	1.8
MT1-21	75-150	6	⅜ X ⅞	1.5
MT1-22	100-200	3	⅜ X ⅞	1.5
MT1-23	100-200	15	⅜ X 1½	2.1
MT1-24	150-300	6	⅜ X 1	1.80
MT1-25	125-250	12	⅜ X 1½	2.10
MT1-26	250-500	3	⅜ X 1½	1.75

* Dimensions are actual dimensions; add 1/64" to diameter and 3/32" to length for plastic sleeving.

PAPER-MYLAR SIDE-LEAD TUBULARS (Type MPC)

G-E Type MPC is especially designed for use in printed circuits as well as conventional wiring in television and radio. It has two dielectrics—Mylar* polyester film and highest grade paper—which provide high insulation resistance and high reliability while saving space. Type MPC capacitors have maximum stability of temperature characteristics because they are dipped in a solid thermosetting compound which will not crack, soften or flow, even at maximum temperatures.

Side leads are held rigidly at fixed spacings b dipped, rock-hard casing with high humidity res ance and high dielectric strength against groundi This tough, durable material is unaffected by cont with soldering iron. Crimped side leads save sp and permit uniform mounting of units parallel to plane of the chassis or printed wiring board.

Temperature Range: 55°C to +125°C. (Derate wo ing voltage by 25% for + 12 operation)
±10%

Catalog No.	Capacitance Mfd.	Size—Inches Diam. X Length	List Price
		200 W.V.D.C.	
MPC-2S2	.02	.350 X .855	$0.25
MPC-2S47	.047	.450 X .855	.30
MPC-2S5	.05	.450 X .855	.30
MPC-2P1	.1	.470 X 1.180	.35
MPC-2P15	.15	.540 X 1.180	.40
MPC-2P25	.25	.620 X 1.300	.45
MPC-2P47	.47	.730 X 1.600	.60
MPC-2P5	.5	.730 X 1.600	.60
		400 W.V.D.C.	
MPC-4S1	.01	.390 X .690	.25
MPC-4S15	.015	.430 X .690	.25
MPC-4S2	.02	.390 X .855	.30
MPC-4S22	.022	.400 X .855	.30
MPC-4S33	.033	.440 X .855	.30
MPC-4S47	.047	.415 X 1.150	.35
MPC-4S5	.05	.415 X 1.150	.35
MPC-4S68	.068	.440 X 1.180	.35
MPC-4P1	.10	.520 X 1.180	.40
MPC-4P15	.15	.560 X 1.300	.50
MPC-4P22	.22	.620 X 1.560	.60
MPC-4P25	.25	.650 X 1.560	.60
MPC-4P47	.47	.850 X 1.600	.70
MPC-4P5	.50	.850 X 1.600	.75
		600 W.V.D.C.	
MPC-6D1	.001	.340 X .690	.25
MPC-6D15	.0015	.340 X .690	.25

Catalog No.	Capacitance Mfd.	Size—Inches Diam. X Length	List Pric
MPC-6D2	.002	.340 X .690	.25
MPC-6D22	.0022	.340 X .690	.25
MPC-6D25	.0025	.350 X .690	.25
MPC-6D27	.0027	.370 X .690	.25
MPC-6D3	.003	.370 X .690	.25
MPC-6D33	.0033	.370 X .690	.25
MPC-6D39	.0039	.370 X .690	.25
MPC-6D4	.004	.370 X .690	.25
MPC-6D47	.0047	.400 X .690	.25
MPC-6D5	.005	.400 X .690	.25
MPC-6D56	.0056	.415 X .690	.25
MPC-6D6	.006	.415 X .690	.25
MPC-6D68	.0068	.430 X .690	.25
MPC-6D75	.0075	.370 X .870	.30
MPC-6D8	.008	.370 X .870	.30
MPC-6S1	.01	.390 X .870	.30
		600 W.V.D.C.	
MPC-6S12	.012	.400 X .870	0.30
MPC-6S15	.015	.415 X .870	.30
MPC-6S2	.02	.445 X .870	.30
MPC-6S22	.022	.470 X .870	.30
MPC-6S25	.025	.400 X 1.150	.35
MPC-6S27	.027	.415 X 1.150	.35
MPC-6S3	.03	.415 X 1.150	.35
MPC-6S33	.033	.430 X 1.150	.35
MPC-6S39	.039	.470 X 1.150	.35

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PAPER-MYLAR SIDE-LEAD TUBULARS (Type MPC)

Catalog No.	Capacitance Mfd.	Dimensions—Inches Diameter X Length	List Price
MPC-6S4	.04	.470 X 1.150	.35
MPC-6S47	.047	.490 X 1.150	.40
MPC-6S5	.05	.490 X 1.150	.40
MPC-6S56	.056	.520 X 1.100	.40
MPC-6S6	.06	.520 X 1.180	.45
MPC-6S68	.068	.540 X 1.300	.45
MPC-6S75	.075	.570 X 1.300	.45
MPC-6S82	.082	.590 X 1.300	.45
MPC-6P1	.10	.640 X 1.300	.45
MPC-6P15	.15	.650 X 1.560	.55
MPC-6P2	.20	.730 X 1.560	.65
MPC-6P22	.22	.750 X 1.560	.65
		1600 W.V.D.C.	
MPC-16D1	.001	.350 X .870	.35
MPC-16D15	.0015	.375 X .870	.35
MPC-16D18	.0018	.400 X .870	.35
MPC-16D2	.002	.405 X .870	.35
MPC-16D22	.0022	.420 X .870	.35
MPC-16D3	.003	.475 X .870	.40
MPC-16D33	.0033	.480 X .870	.40
MPC-16D4	.004	.520 X .870	.40
MPC-16D47	.0047	.540 X .870	.40
MPC-16D5	.005	.565 X .870	.45
MPC-16D6	.006	.460 X 1.180	.45
MPC-16D7	.007	.485 X 1.180	.45
MPC-16D75	.0075	.495 X 1.180	.45
MPC-16D8	.008	.510 X 1.180	.50
MPC-16S1	.01	.525 X 1.180	.50
MPC-16S15	.015	.560 X 1.300	.50
MPC-16S2	.02	.570 X 1.600	.60
MPC-16S3	.03	.665 X 1.600	.70
MPC-16S33	.033	.695 X 1.600	.80
MPC-16S47	.047	.785 X 1.600	.85
MPC-16S5	.05	.815 X 1.600	.85

PAPER-MYLAR AXIAL-LEAD TUBULARS (Type MAL)

Catalog No.	Capacitance Mfd.	Dimensions—Inches Diameter X Length	List Price
		200 V.D.C.W.	
MAL-2S2	.02	⅜ X 1¼	$0.25
MAL-2S47	.047	⅜ X 1¼	.25
MAL-2S5	.05	⅜ X 1¼	.25
MAL-2P1	.10	7⁄16 X 1¼	.35
MAL-2P15	.15	½ X 1½	.35
MAL-2P25	.25	9⁄16 X 1 9⁄16	.45
MAL-2P47	.47	⅝ X 1⅞	.60
MAL-2P5	.50	⅝ X 1⅞	.60
		400 V.D.C.W.	
MAL-4S1	.01	5⁄16 X 1	.25
MAL-4S15	.015	⅜ X 1¼	.25
MAL-4S2	.02	⅜ X 1¼	.25
MAL-4S22	.022	⅜ X 1¼	.30
MAL-4S33	.033	7⁄16 X 1¼	.30
MAL-4S47	.047	7⁄16 X 1¼	.30
MAL-4S5	.05	7⁄16 X 1¼	.30
MAL-4S68	.068	½ X 1½	.35
MAL-4P1	.10	½ X 1½	.35
MAL-4P15	.15	9⁄16 X 1 9⁄16	.40
MAL-4P22	.22	⅝ X 1⅞	.45
MAL-4P25	.25	⅝ X 1⅞	.50
MAL-4P47	.47	¾ X 2¼	.75
MAL-4P50	.50	¾ X 2¼	.80
		600 V.D.C.W.	
MAL-6D1	.001	5⁄16 X 1	.25
MAL-6D15	.0015	5⁄16 X 1	.25
MAL-6D2	.002	5⁄16 X 1	.25
MAL-6D22	.0022	5⁄16 X 1	.25
MAL-6D3	.003	5⁄16 X 1	.25
MAL-6D33	.0033	5⁄16 X 1	.25
MAL-6D4	.004	5⁄16 X 1	.25
MAL-6D47	.0047	5⁄16 X 1	.25
MAL-6D5	.005	5⁄16 X 1	.25
MAL-6D6	.006	5⁄16 X 1	.25
MAL-6D68	.0068	5⁄16 X 1	.30
MAL-6S1	.01	⅜ X 1¼	.30
MAL-6S15	.015	⅜ X 1¼	.30
MAL-6S2	.02	7⁄16 X 1¼	.30
MAL-6S22	.022	7⁄16 X 1¼	.30
		600 V.D.C.W.	
MAL-6S3	.03	7⁄16 X 1¼	$0.35
MAL-6S33	.033	7⁄16 X 1¼	.35
MAL-6S4	.04	7⁄16 X 1¼	.35
MAL-6S47	.047	½ X 1½	.40
MAL-6S5	.05	½ X 1½	.40
MAL-6S6	.06	½ X 1½	.40
MAL-6S68	.068	½ X 1½	.45
MAL-6P1	.10	9⁄16 X 1 9⁄16	.45
MAL-6P15	.15	⅝ X 1⅞	.55
MAL-6P2	.20	⅝ X 1⅞	.65
MAL-6P22	.22	⅝ X 1⅞	.70
MAL-6P25	.25	11⁄16 X 1 15⁄16	.75
MAL-6P33	.33	¾ X 2¼	.90
MAL-6P47	.47	¾ X 2¼	1.25
MAL-6P50	.50	¾ X 2¼	1.25
		1600 V.D.C.W.	
MAL-16D1	.001	⅜ X 1¼	.65
MAL-16D15	.0015	⅜ X 1¼	.65
MAL-16D22	.0022	⅜ X 1¼	.65
MAL-16D33	.0033	⅜ X 1¼	.65
MAL-16D47	.0047	⅜ X 1¼	.65
MAL-16D5	.005	⅜ X 1¼	.65
MAL-16D68	.0068	7⁄16 X 1¼	.65
MAL-16D82	.0082	7⁄16 X 1¼	.65
MAL-16S1	.01	½ X 1½	.70
MAL-16S15	.015	½ X 1½	.70
MAL-16S22	.022	⅝ X 1⅞	.70
MAL-16S33	.033	⅝ X 1⅞	.70
MAL-16S47	.047	⅝ X 1⅞	.90
MAL-16S5	.05	⅝ X 1⅞	.90
		6000 V.D.C.W.	
MAL-60T5	.0005	½ X 1½	1.35
MAL-60D1	.001	9⁄16 X 1 9⁄16	1.35
MAL-60D5	.005	11⁄16 X 1 15⁄16	1.35
		10,000 V.D.C.W.	
MAL-100T5	.0005	½ X 1½	1.50
		12,500 V.D.C.W.	
MAL-125T25	.00025	½ X 1½	1.70

ALL PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.

Dyna-Tan® Tantalum Capacitors in production quantiti

Available Ratings

.0047UF to 330UF
6VDC to 50VDC
−80°C to +125°C

All Series SD capacitors are designed with a porous tantalum or wire tantalum anode formed by electrochemical means to produce an extremely stable oxide dielectric. The anode is then coated with a solid semiconductor type of electrolyte, thus preparing it for a conductive coating that is used for the cathode. entire assembly is then hermetically sealed in a tinned brass can with a time tested glass-to-metal thus giving full protection against all adverse ou environmental conditions for long term operation a temperature range from −80°C to +125°C, under proper conditions can be operated to tem atures approaching 150°C.

GLP Series SD Capacitors are designed to meet or ceed the requirements of style CS 12 and CS 1 MIL C 26655A Characteristic B.

GLP TYPE SD STANDARD RATINGS

	6 VDC 8 VDC Surge	10 VDC 13 VDC Surge	15 VDC 18 VDC Surge	20 VDC 24 VDC Surge	35 VDC 42 VDC Surge	50 VDC 60 VDC Surge
uf	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*
.0047 .0056 .0068 .0082				SD 472-20A- SD 562-20A- SD 682-20A- SD 822-20A-	SD 472-35A- SD 562-35A- SD 682-35A- SD 822-35A-	SD 472-50A- SD 562-50A- SD 682-50A- SD 822-50A-
.01 .012 .015 .018				SD 103-20A- SD 123-20A- SD 153-20A- SD 183-20A-	SD 103-35A- SD 123-35A- SD 153-35A- SD 183-35A-	SD 103-50A- SD 123-50A- SD 153-50A- SD 183-50A-
.022 .027 .033 .039				SD 223-20A- SD 273-20A- SD 333-20A- SD 393-20A-	SD 223-35A- SD 273-35A- SD 333-35A- SD 393-35A-	SD 223-50A- SD 273-50A- SD 333-50A- SD 393-50A-
.047 .056 .068 .082				SD 473-20A- SD 563-20A- SD 683-20A- SD 823-20A-	SD 473-35A- SD 563-35A- SD 683-35A- SD 823-35A-	SD 473-50A- SD 563-50A- SD 683-50A- SD 823-50A-
.1 .12 .15 .18				SD 104-20A- SD 124-20A- SD 154-20A- SD 184-20A-	SD 104-35A- SD 124-35A- SD 154-35A- SD 184-35A-	SD 104-50A- SD 124-50A- SD 154-50A- SD 184-50A-
.22 .27 .33 .39	SD 224-6A- SD 274-6A- SD 334-6A- SD 394-6A-	SD 224-10A- SD 274-10A- SD 334-10A- SD 394-10A-	SD 224-15A- SD 274-15A- SD 334-15A- SD 394-15A-	SD 224-20A- SD 274-20A- SD 334-20A- SD 394-20A-	SD 224-35A- SD 274-35A- SD 334-35A- SD 394-35A-	SD 224-50A- SD 274-50A- SD 334-50A- SD 394-50A-
.47 .56 .68 .82	SD 474-6A- SD 564-6A- SD 684-6A- SD 824-6A-	SD 474-10A- SD 564-10A- SD 684-10A- SD 824-10A-	SD 474-15A- SD 564-15A- SD 684-15A- SD 824-15A-	SD 474-20A- SD 564-20A- SD 684-20A- SD 824-20A-	SD 474-35A- SD 564-35A- SD 684-35A- SD 824-35A-	SD 474-50A- SD 564-50A- SD 684-50A- SD 824-50A-

NOTE: Non-polar units available on request

*Part No. shall be completed by adding capacitance tolerance letter (K, M, or F) after capacitance and type of insulation (2 or 3) after case size. (Refer to page 4 for complete numbering system)

DIMENSIONS IN INCHES

	LEADS		BARE CASE — FIG. 1			FIG. 2	PLASTIC FILM INSULATION—FIG. 3		RIGID INSULATION — FIG. 3	
CASE SIZE CODE	WIRE DIA. +0.005 —0.001	WIRE SIZE AWG	DIA. D +0.016 —0.005	LENGTH L ±0.031	LENGTH L1 ±0.031	LENGTH L2 ±0.031	DIA. D1 ±0.010	LENGTH L3 +0.000 —0.062	DIA. D1 ±0.015	LENGTH L3 ±0.015
A	0.020	24	0.125	0.250	0.325	0.45	0.135	0.312	0.159	0.345
B	0.020	24	0.175	0.438	0.515	0.62	0.183	0.500	0.207	0.562
C	0.025	22	0.279	0.650	0.745	0.89	0.289	0.722	0.312	0.775
D	0.025	22	0.341	0.750	0.845	1.02	0.351	0.822	0.375	0.875

GLP electronics, inc., BRISTOL, CONN.

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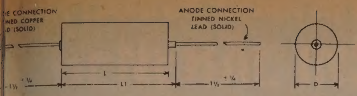


3. 1
ULATED

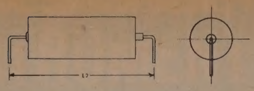


FIG. 2
FOR PRINTED CIRCUIT BOARDS

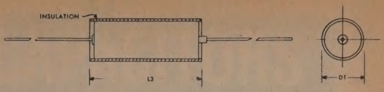


FIG. 3
INSULATED

GLP TYPE SD STANDARD RATINGS

	6 VDC 8 VDC Surge	10 VDC 13 VDC Surge	15 VDC 18 VDC Surge	20 VDC 24 VDC Surge	35 VDC 42 VDC Surge	50 VDC 60 VDC Surge
uf	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*	Part No.*
1.0	SD 105-6A-	SD 105-10A-	SD 105-15A-	SD 105-20A-	SD 105-35A-	SD 105-50A-
1.2	SD 125-6A-	SD 125-10A-	SD 125-15A-	SD 125-20A-	SD 125-35A-	SD 125-50B-
1.5	SD 155-6A-	SD 155-10A-	SD 155-15A-	SD 155-20A-	SD 155-35A-	SD 155-50B-
1.8	SD 185-6A-	SD 185-10A-	SD 185-15A-	SD 185-20A-	SD 185-35B-	SD 185-50B-
2.2	SD 225-6A-	SD 225-10A-	SD 225-15A-	SD 225-20A-	SD 225-35B-	SD 225-50B-
2.7	SD 275-6A-	SD 275-10A-	SD 275-15A-	SD 275-20B-	SD 275-35B-	SD 275-50B-
3.3	SD 335-6A-	SD 335-10A-	SD 335-15A-	SD 335-20B-	SD 335-35B-	SD 335-50B-
3.9	SD 395-6A-	SD 395-10A-	SD 395-15B-	SD 395-20B-	SD 395-35B-	SD 395-50B-
4.7	SD 475-6A-	SD 475-10A-	SD 475-15B-	SD 475-20B-	SD 475-35B-	SD 475-50B-
5.6	SD 565-6A-	SD 565-10B-	SD 565-15B-	SD 565-20B-	SD 565-35B-	SD 565-50C-
6.8	SD 685-6A-	SD 685-10B-	SD 685-15B-	SD 685-20B-	SD 685-35B-	SD 685-50C-
8.2	SD 825-6B-	SD 825-10B-	SD 825-15B-	SD 825-20B-	SD 825-35C-	SD 825-50C-
10	SD 106-6B-	SD 106-10B-	SD 106-15B-	SD 106-20B-	SD 106-35C-	SD 106-50C-
12	SD 126-6B-	SD 126-10B-	SD 126-15B-	SD 126-20B-	SD 126-35C-	SD 126-50C-
15	SD 156-6B-	SD 156-10B-	SD 156-15B-	SD 156-20B-	SD 156-35C-	SD 156-50C-
18	SD 186-6B-	SD 186-10B-	SD 186-15B-	SD 186-20B-	SD 186-35C-	SD 186-50C-
22	SD 226-6B-	SD 226-10B-	SD 226-15B-	SD 226-20C-	SD 226-35C-	SD 226-50D-
27	SD 276-6B-	SD 276-10B-	SD 276-15C-	SD 276-20C-	SD 276-35D-	
33	SD 336-6B-	SD 336-10B-	SD 336-15C-	SD 336-20C-	SD 336-35D-	
39	SD 396-6B-	SD 396-10B-	SD 396-15C-	SD 396-20C-	SD 396-35D-	
47	SD 476-6B-	SD 476-10C-	SD 476-15C-	SD 476-20C-	SD 476-35D-	
56	SD 566-6B-	SD 566-10C-	SD 566-15C-	SD 566-20D-	— —	
60	SD 606-6B-	— —	— —	— —	— —	
68	SD 686-6C-	SD 686-10C-	SD 686-15C-	SD 686-20D-	— —	
82	SD 826-6C-	SD 826-10C-	SD 826-15D-	SD 826-20D-		
100	SD 107-6C-	SD 107-10C-	SD 107-15D-	SD 107-20D-	— —	
120	SD 127-6C-	SD 127-10C-	SD 127-15D-	SD 127-20D-	— —	
150	SD 157-6C-	SD 157-10D-	SD 157-15D-	— —	— —	
180	SD 187-6C-	SD 187-10D-	— —	— —	— —	
220	SD 227-6D-	SD 227-10D-	— —	— —	— —	
330	SD 337-6D-	— —	— —	— —	— —	

NOTE: Non-polar units available on request

*Part No. shall be completed by adding capacitance tolerance letter (K, M, or F) after capacitance and type of insulation (2 or 3) after case size (Refer to page 4 for complete numbering system)

SOLID TANTALUM NUMBERING SYSTEM

SD 475 M 20 B 2

GLP BASIC
TYPE

CAPACITANCE IN mmf.
THE FIRST TWO DIGITS
ARE SIGNIFICANT
FIGURES, THE THIRD
IS THE NUMBER OF
ZEROS.

CAPACITANCE TOLERANCE
K = ±10%
M = ±20%
F = ± 5%

INSULATION
2 = MYLAR*
3 = RIGID SLEEVING
0 FOR UNINSULATED
CASE,

CASE SIZE CODE
REFER TO TABLE
OF DIMENSIONS.

DC VOLTAGE RATING
EXPRESSED IN VOLTS.

* E. I. DUPONT CO. TRADEMARK

GLP electronics, inc., BRISTOL, CONN.

Dyna-Mite® Micro-Miniature Tantalum Capacitato

Available Ratings	.001UF to 10UF 1VDC to 30VDC —55°C to 85°C

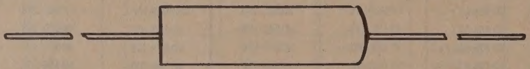
Micro-Miniature Solid Tantalum Capacitors are designed to operate from —55°C to —125°C where reliability and performance are prime factors.

Type MM capacitors are designed with solid non-corrosive elements. In order to obtain extremely low power factor and a maximum operating temperature of 125°C, the capacitor elements are housed in a solid silver case with a securely bonded high temperature epoxy end-fill which completely covers the positive terminal. The end result is a completely moisture-proof unit. Since the case of Type MM capacitors is of a negative potential, two types of insulation are available:

1. Type M—Mylar* Sleeve
2. Type G—Plastic Coating

All units manufactured with weldable leads.

TYPE MM—DIMENSIONS & RATINGS



CASE SIZES

	AA	A	B	C	D	E
Diameter (in.)	.054	.065	.065	.065	.065	.093
Length (in.)	.110	.125	.150	.200	.225	.250
Rated Voltage	MAXIMUM MICROFARADS					
30		.10	.25	.50	1.0	1.5
20		.15	.3	.75	1.5	2.0
15		.25	.5	1.0	2.0	3.0
10	.20	.50	1.0	1.50	3.0	4.0
8	.30	.60	1.2	2.0	5.0	6.0
6	.50	.68	1.5	3.25	6.5	7.0
4	.70	.75	2.0	5.0	8.0	8.0
3.	.90	1.0	2.5	6.50	8.75	8.75
2.	1.0	1.5	3.0	8.0	10.0	10.0
1.	1.125	2.0	4.0			

SOLID TANTALUM NUMBERING SYSTEM

MM 474 Z 20 C 2

GLP BASIC TYPE

CAPACITANCE IN mmf.
THE FIRST TWO DIGITS
ARE SIGNIFICANT
FIGURES, THE THIRD
IS THE NUMBER OF ZEROS.

CAPACITANCE TOLERANCE
K = ±10% M = ±20% Z = +50% —20%

INSULATION
2 = MYLAR*
3 = PLASTIC COATING
0 = FOR UNINSULATED CASE,

CASE SIZE CODE
REFER TO TABLE
OF DIMENSIONS.

DC VOLTAGE RATING
EXPRESSED IN VOLTS.

*E. I. DUPONT CO. TRADEMARK

GLP electronics, inc., BRISTOL, CONN.

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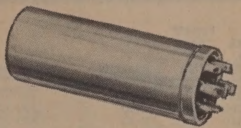
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS

Designed for 85° C operation. Available in single, dual, triple and quadruple capacitors units. Assembled in aluminum containers providing protection against moisture. Easy to mount, low leakage, long shelf life. Highly dependable. For use in applications where high temperatures, voltage, surges, and ripple currents are encountered; as in radio and television receivers, amplifiers and similar equipment. Packaged in new Vu-Pak especially designed for the new General Instrument Capac-O-Mat.



Stock No. TMS	Former Stock No. TMS	Capacity	Voltage	Diameter	Length	Dealer Net
1010	1	1000	6	1⅜	2	1.41
1020	2	2000	6	1⅜	2	1.50
1030	3	3000	10	1⅜	2½	2.16
1040	4	1000	15	1	2½	1.50
1050	5	2000	15	1⅜	2½	2.04
1060	6	3000	15	1⅜	3	2.07
1070	7	4000	15	1⅜	3½	2.22
1080	8	50	25	1	2	.99
1090	9	100	25	1	2	.96
1100	73	250	25	1	2	1.14
1110	10	500	25	1	2	1.50
1120	11	1000	25	1⅜	2	2.10
1130	12	100	50	1	2	.99
1140	13	150	50	1	2	1.08
1150	14	250	50	1	2½	1.17
1160	15	500	50	1⅜	2	1.56
1170	16	1000	50	1⅜	3½	2.22
1180		1500	50	1⅜	4	2.28
1190	17	20	150	1	2	1.05
1200	18	30	150	1	2	.90
1210	19	40	150	1	2	1.17
1220	20	50	150	1	2	.96
1230	21	80	150	1	2	1.08
1240	22	100	150	1	2	1.17
1250	23	120	150	1	2½	1.26
1260	76	120	150	1⅜	2	1.26
1270	24	140	150	1	3	1.26
1280	25	150	150	1	3	1.26
1285		150	150	1⅜	2	1.26
1290	26	200	150	1⅜	2½	1.44
1300	27	300	150	1⅜	2½	1.65
1310	77	40	175	1	2	.99
1320	78	50	175	1	2	1.02
1330	79	80	175	1	2	1.14
1340	80	100	175	1	2	1.23
1350	81	120	175	1	2½	1.29
1360	82	140	175	1	3	1.32
1370	83	150	175	1	2½	1.32
1380	84	200	175	1⅜	2	1.50
1390	85	300	175	1⅜	3	1.71
1400		160	200	1⅜	2½	1.86
1410	74	5	250	1	2	.81
1420	28	15	250	1	2	1.14
1430	29	20	250	1	2	.93
1440	30	30	250	1	2	1.26
1450	31	40	250	1	2	1.05
1460	32	60	250	1	2½	1.50
1470	33	80	250	1	2½	1.59
1480	34	150	250	1⅜	2½	1.83
1490	75	200	250	1⅜	3½	2.16
1500	35	15	300	1	2	1 17
1510	36	30	300	1	2	1.29
1520	37	40	300	1	2½	1.11
1530	38	50	300	1	2½	1.50
1540	39	80	300	1	3	1.50
1550	40	100	300	1	3	1.71
1560	41	125	300	1⅜	2½	2.07
1570	42	150	300	1⅜	3	2.07
1580	89	200	300	1⅜	3½	1.71
1590		250	300	1⅜	4	3.30
1600	43	15	350	1	2	1.20
1610	44	30	350	1	2	1.11
1620	45	40	350	1	2½	1.17
1630	46	50	350	1	3	1.23
1640		60	350	1	3	1.29
1650	47	80	350	1⅜	2½	1.68
1660	48	125	350	1⅜	3	2.34
1670	86	300	350	1⅜	5	3.45
1680	49	10	400	1	2	1.11
1690	50	20	400	1	2	1.29
1700	51	40	400	1	3	1.86
1710	52	80	400	1⅜	2½	2.19
1720		4	450	1	2	.81
1730	53	10	450	1	2	.90
1740	54	15	450	1	2	.99
1750	55	20	450	1	2	1.08
1760	56	30	450	1	2½	1.14
1770	57	40	450	1	3	1.20
1780	58	50	450	1	3	1.38
1790	59	60	450	1⅜	2½	1.53
1800	60	80	450	1⅜	3	1.80
1810	61	100	450	1⅜	3	2.04
1820		125	450	1⅜	3½	2.28
1830	62	150	450	1⅜	4	2.52
1840	87	200	450	1⅜	5	3.60
1850	88	250	450	1⅜	5	4.05
1860	66	10	500	1	2	.99
1870	67	20	500	1	2½	1.08
1880	68	30	500	1	3	1.17
1890	69	40	500	1	3½	1.47
1900	70	80	500	1⅜	3½	1.89
1910	71	90	500	1⅜	3½	2.07
1920	72	10	525	1	2	1.02

Stock No. TMD	Former Stock No. TMD	Capacity	Voltage	Diameter	Length	Net
2005	64	250-1000	10-6	1⅜	2	1.68
2010	1	1000-500	10-10	1⅜	2	2.40
2015	2	1000-1000	15-15	1	3	2.61
2020		1000-1000	15-15	1⅜	2	2.61
2025	109	500-100	16-16	1	2	2.31
2030	3	40-40	25-25	1	2	1.17
2035		100-70	25-25	1	2	1.05
2040	4	150-50	25-25	1	2	1.41
2045	5	50-50	50-50	1	2	.99
2050	107	100-100	50-50	1	2	1.23
2055	94	50-500	150-5	1	3	1.44
2060	65	50-150	150-25	1	2	1.62
2065		150-100	150-25	1⅜	2	1.59
2070	66	40-20	150-50	1	2	1.50
2075	6	20-20	150-150	1	2	.99
2080	7	30-15	150-150	1	2	1.29
2085	8	30-30	150-150	1	2	1.08
2090	9	40-20	150-150	1	2	1.08
2095	10	40-30	150-150	1	2	1.08
2100	11	40-40	150-150	1	2	1.11
2105	12	50-30	150-150	1	2	1.17
2110	13	50-50	150-150	1	2	1.26
2115	14	60-20	150-150	1	2	1.47
2120	15	60-60	150-150	1	2½	1.38
2125		70-30	150-150	1	2½	1.29
2130		75-75	150-150	1	2½	1.53
2135	16	80-40	150-150	1	2½	1.35
2140	17	80-50	150-150	1	2½	1.41
2145	18	80-80	150-150	1	2½	1.56
2150	87	100-30	150-150	1⅜	2½	1.65
2155	19	100-100	150-150	1⅜	2	2.40
2160		125-100	150-150	1⅜	2½	1.98
2165		200-5	150-150	1⅜	2½	1.59
2170	20	200-125	150-150	1⅜	3	2.22
2180		200-150	150-150	1⅜	3½	2.22
2185	21	200-200	150-150	1⅜	3	2.37
2190	105	100-100	175-175	1⅜	2½	1.86
2195	106	200-200	175-175	1⅜	3	2.46
2200		60-60	200-200	1	3	2.01
2205	22	60-60	200-200	1⅜	2	2.01
2210		100-100	200-200	1⅜	3	2.07
2215	67	40-20	250-25	1	2	1.20
2220	68	40-25	250-50	1	2	1.23
2225	69	100-150	250-50	1⅜	3	2.16
2230	23	10-10	250-250	1	2	1.26
2235	24	20-20	250-250	1	2	1.11
2240	25	30-30	250-250	1	2	1.62
2245	26	40-20	250-250	1	2½	1.62
2250	27	40-40	250-250	1	3	1.47
2255	28	150-150	250-250	1⅜	4	3.06
2260	88	200-200	250-250	1⅜	4	3.60
2265		35-500	300-6	1	2½	1.65
2270		10-40	300-50	1	2	.99
2275	111	150-100	300-150	1⅜	4	3.36
2280	97	60-10	300-200	1	3	1.86
2285	96	200-5	300-200	1⅜	3	2.10
2290	98	20-60	300-250	1	3	2.04

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMD	Former Stock No. TMD	Capacity	Voltage	Dia- meter	Length	Dealer Net
2295	29	20-20	300-300	1	2	1.23
2300	30	30-30	300-300	1⅜	2	1.47
2310		40-30	300-300	1	3	1.56
2315	31	40-40	300-300	1⅜	2½	2.22
2320	32	60-60	300-300	1⅜	2½	2.52
2325	104	80-40	300-300	1⅜	3	2.64
2330	33	80-80	300-300	1⅜	3	2.40
2340	110	80-200	300-300	1⅜	4½	3.27
2350	34	120-20	300-300	1⅜	3	2.37
2355		120-40	300-300	1⅜	3	2.58
2360	70	20-20	350-25	1	2	1.41
2365	71	40-25	350-25	1	2½	1.74
2370		15-15	350-350	1	2	1.32
2375	35	20-20	350-350	1	2½	1.71
2380	36	30-20	350-350	1	3	1.92
2385	37	30-30	350-350	1	3	1.71
2390	38	40-40	350-350	1⅜	2½	1.77
2395	39	50-30	350-350	1⅜	2½	1.86
2400		60-30	350-350	1⅜	2½	1.86
2405		80-20	350-350	1⅜	2½	2.07
2410		80-40	350-350	1⅜	3	2.43
2415	40	80-80	350-350	1⅜	3	2.79
2420		90-40	350-350	1⅜	3	2.55
2425	108	100-60	350-350	1⅜	4	2.85
2430	89	100-80	350-350	1⅜	3½	2.94
2435		100-100	350-350	1⅜	4	3.66
2440	90	160-10	350-350	1⅜	3½	2.55
2445		35-100	400-50	1	3	1.53
2450	99	40-100	400-50	1	3½	2.01
2455		100-30	400-50	1⅜	3	2.31
2460		80-80	400-200	1⅜	3½	2.34
2465	100	60-80	400-250	1⅜	3½	2.91
2470	41	15-15	400-400	1	2	1.65
2475	42	30-10	400-400	1	2	1.74
2480	43	40-40	400-400	1⅜	3	2.04
2485	44	60-60	400-400	1⅜	3	3.27
2490	45	80-10	400-400	1⅜	3	2.52
2495		80-60	400-400	1⅜	3	2.79
2500	91	120-40	400-400	1⅜	4	3.12
2510	72	10-20	450-25	1	2	.99
2515	73	20-20	450-25	1	2	1.47
2520	74	40-20	450-25	1	3	1.80
2525	75	80-20	450-25	1⅜	3	2.52
2530	101	20-25	450-50	1	2½	1.68
2535		40-100	450-50	1	3½	1.65
2540		50-100	450-50	1⅜	2½	1.77
2545	76	80-50	450-50	1⅜	3	2.07
2550		80-100	450-50	1⅜	3	2.22
2555	102	100-50	450-50	1⅜	3	2.25
2560	77	20-100	450-100	1⅜	2	2.16
2565	78	30-40	450-150	1⅜	2	2.16
2570		30-200	450-150	1⅜	3	2.07
2575		20-50	450-250	1	3	1.65
2580	103	20-200	450-250	1⅜	3	2.70
2585		40-10	450-300	1	3	1.53
2590	79	20-80	450-350	1⅜	3	2.70
2595	80	40-10	450-350	1⅜	2	1.53
2600	46	4-4	450-450	1	2	.93
2605		5-5	450-450	1	2	.99
2610	47	10-10	450-450	1	2	1.11
2615	48	15-15	450-450	1	2	1.32
2620	49	20-10	450-450	1	2	1.32
2625	50	20-20	450-450	1	3	1.50
2630	51	30-10	450-450	1	3	1.41
2635		30-15	450-450	1	3	1.95
2640	52	30-30	450-450	1⅜	2½	1.80
2645	53	40-20	450-450	1⅜	2	1.92
2650	54	40-40	450-450	1⅜	2½	2.04
2655		50-50	450-450	1⅜	3	2.28
2660	55	60-20	450-450	1⅜	3	2.10
2665	56	60-40	450-450	1⅜	3	2.34
2670		60-60	450-450	1⅜	3½	2.67
2675	57	80-10	450-450	1⅜	3	2.13
2680		80-20	450-450	1⅜	3	2.31
2685		80-30	450-450	1⅜	3½	2.49
2690	58	80-40	450-450	1⅜	3½	3.00
2695	59	80-80	450-450	1⅜	4	2.85
2700		100-40	450-450	1⅜	4	2.88
2705		20-100	475-400	1⅜	3½	2.67
2710		15-15	475-475	1	2½	1.38
2715		30-10	475-475	1	3	1.53
2720		40-10	475-475	1⅜	2½	1.83
2725		80-50	474-475	1⅜	4	3.09
2730	81	80-50	500-50	1⅜	3½	2.82
2735	82	60-80	500-150	1⅜	3½	2.79
2740	83	40-50	500-200	1⅜	2½	2.49
2745	84	15-20	500-300	1	2½	1.71
2750	85	20-100	500-300	1⅜	3	2.91
2755	60	10-10	500-500	1	2½	1.14
2760	61	20-20	500-500	1⅜	2½	1.68
2765		30-10	500-500	1⅜	2½	1.53
2770		30-30	500-500	1⅜	3	1.92
2775	92	40-10	500-500	⅜	3	1.89
2780	62	40-40	500-500	1⅜	3½	2.55
2785	63	60-40	500-500	1⅜	3½	2.73
2790	93	80-50	500-500	1⅜	3½	3.06

Stock No. TMD	Former Stock No. TMT	Capacity	Voltage	Dia- meter	Length	Dealer Net
3003	1	20-20-20	25-25-25	1	2	1.14
3006	2	40-40-40	25-25-25	1	2	1.89
3009	3	30-30-30	50-50-50	1	2	1.92
3012	49	100-50-25	100-25-25	1	3	1.59
3015	50	20-250-100	150-15-15	1⅜	2	2.58
3018	51	40-25-130	150-25-15	1	3	2.94
3021	166	15-15-1200	150-150-2	1	2	1.86
3024	52	30-20-200	150-150-10	1	2	1.44
3027	53	30-30-200	150-150-10	1	2	2.22
3030		40-20-150	150-150-10	1	2	1.41
3033	54	40-20-250	150-150-10	1	2	2.40
3036	208	80-20-200	150-150-10	1	2½	2.55
3039		80-30-300	150-150-10	1⅜	2	1.86
3042	209	80-60-250	150-150-10	1	3	1.77
3045	168	90-40-400	150-150-10	1	3	3.12
3048		100-80-200	150-150-10	1⅜	2	2.13
3051	55	20-20-20	150-150-25	1	2	1.95
3054	56	30-30-20	150-150-25	1	2	2.04
3057	57	40-20-20	150-150-25	1	2	1.35
3060	58	40-20-100	150-150-25	1	2	2.22
3063	59	40-20-200	150-150-25	1	2½	1.59
3066	60	40-30-20	150-150-25	1	2	2.10
3069	61	40-40-20	150-150-25	1	2	1.41
3072	169	40-40-200	150-150-25	1	3	1.65
3075		40-40-250	150-150-25	1	3	1.86
3078	62	50-30-20	150-150-25	1	2	1.47
3081	63	50-30-100	150-150-25	1	3	1.59
3084	64	50-50-20	150-150-25	1	2½	1.56
3087	65	60-20-20	150-150-25	1	2	2.28
3090	66	60-40-20	150-150-25	1	2½	1.59
3093		60-40-200	150-150-25	1	3	1.80
3096	206	60-60-175	150-150-25	1⅜	2	1.98
3097	67	80-40-20	150-150-25	1	2½	1.65
3100		80-40-300	150-150-25	1⅜	2½	2.16
3103	170	100-40-300	150-150-25	1⅜	2½	2.25
3106	68	120-60-20	150-150-25	1⅜	2½	3.00
3109	204	15-15-15	150-150-150	1	2	1.62
3112	4	20-20-20	150-150-150	1	2	1.35
3115	5	30-30-10	150-150150	1	2	1.68
3118	6	40-20-10	150-150-150	1	2	1.38
3121	7	40-20-20	150-150-150	1	2	1.41
3124	8	40-30-20	150-150-150	1	2	1.47
3127	9	40-40-40	150-150-150	1	2½	1.53
3130	162	50-40-10	150-150-150	1	2	1.50
3133	10	50-50-50	150-150-150	1	3	1.74
3136	11	60-40-20	150-150-150	1	2½	1.62
3139		70-15-15	150-150-150	1	2	1.59
3142	12	70-40-40	150-150-150	1	3	2.40
3145		80-30-10	150-150-150	1	2½	1.62
3148	13	80-40-20	150-150-150	1	2½	1.71
3151	14	80-80-80	150-150-150	1⅜	3	3.36
3154		100-30-10	150-150-150	1	2½	1.80
3160	15	120-80-40	150-150-150	1⅜	3	2.25
3163	163	120-120-40	150-150-150	1⅜	3½	2.40
3166		200-100-60	150-150-150	1⅜	3	2.70
3169		200-150-150	150-150-150	1⅜	3½	4.47
3172	203	120-120-40	175-175-175	1⅜	3½	2.52
3175	171	60-140-200	200-150-150	1⅜	4	2.85
3178	69	30-20-20	200-200-25	1	2	2.04
3181	172	60-5-20	200-200-50	1	3	1.47
3184		80-10-20	200-200-50	1	3	1.65
3187	70	100-10-40	200-200-50	1⅜	2	2.82
3190		30-20-40	200-200-150	1	2½	1.59
3193	71	80-40-50	250-150-50	1⅜	2½	1.38
3196	72	15-15-20	250-250-25	1	2	1.38
3199	73	20-15-20	250-250-25	1	2	2.10
3202	74	30-30-20	250-250-25	1	3	1.65
3205	75	70-70-20	250-250-50	1⅜	3	3.48
3208	173	90-90-20	250-250-50	1⅜	3	2.73
3211	76	40-20-10	250-250-150	1⅜	2	2.46
3214	16	15-15-10	250-250-250	1	2	2.19
3217	17	20-20-10	250-250-250	1	2	2.22
3220		20-20-20	250-250-250	1	2	1.53
3223	18	30-20-10	250-250-250	1	2½	2.40

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMT	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Dealer Net
3226	19	40-20-10	250-250-250	1⅜	2	2.55
3229	20	40-20-20	250-250-250	1	3	1.71
3232		80-10-10	250-250-250	1	3	1.89
3235	21	80-80-60	250-250-250	1⅜	3½	2.91
3238		10-500-500	300-15-15	1⅜	2½	2.31
3241	77	100-60-20	300-150-25	1⅜	3	3.75
3244		20-150-80	300-150-150	1⅜	3	2.37
3247		100-200-30	300-150-150	1⅜	4	3.09
3250	174	100-200-60	300-150-150	1⅜	4	2.97
3253	78	30-30-20	300-250-25	1	3	1.89
3256		100-60-20	300-250-250	1⅜	3½	2.91
3259	175	200-60-20	300-250-250	1⅜	4	3.27
3262	79	20-20-20	300-300-25	1	2½	2.46
3265	80	40-15-20	300-300-25	1	2½	2.64
3268	81	30-30-25	300-300-50	1	3	2.58
3271	210	80-60-40	300-300-50	1⅜	3½	5.79
3274	176	100-10-60	300-300-50	1⅜	2½	2.40
3277	211	125-60-40	300-300-50	1⅜	4	4.38
3280	212	140-100-60	300-300-50	1⅜	3½	5.43
3283		200-20-10	300-300-100	1⅜	4	2.91
3286	177	140-10-200	300-300-150	1⅜	4½	2.94
3289	82	10-10-15	300-300-250	1	2	2.19
3292	22	10-10-10	300-300-300	1	2	1.41
3295	23	40-40-40	300-300-300	1⅜	3	2.34
3298	24	60-20-10	300-300-300	1⅜	2½	2.04
3301	25	80-20-10	300-300-300	1⅜	2½	3.39
3304		80-40-40	300-300-300	1⅜	2½	2.82
3307		120-50-40	300-300-300	1⅜	4	3.48
3310	26	120-60-40	300-300-300	1⅜	4	3.45
3313	178	4-100-40	350-25-25	1	2	2.01
3316	213	20-50-50	350-25-25	1	2	2.25
3319	83	20-50-100	350-100-75	1	3	1.83
3322	84	10-50-100	350-150-50	1	3	1.68
3325	179	125-5-100	350-200-75	1⅜	3½	3.15
3328	85	50-10-500	350-250-5	1⅜	2½	3.30
3331	180	10-80-25	350-300-25	1	3½	3.03
3334	87	30-30-20	350-300-25	1	3	1.86
3337	181	40-40-30	350-300-250	1⅜	2½	2.58
3340	88	10-10-20	350-350-25	1	2	2.01
3343	89	15-10-20	350-350-25	1	2	1.47
3346	90	15-15-20	350-350-25	1	2	2.40
3349		20-5-100	350-350-25	1	3	1.53
3352	91	20-10-20	350-350-25	1	2	1.50
3355	92	20-20-20	350-350-25	1	2½	1.71
3358	93	30-10-20	350-350-25	1	2½	2.73
3361	94	30-20-20	350-350-25	1	3	1.83
3364	95	30-30-20	350-350-25	1⅜	2	2.01
3367	96	40-40-25	350-350-25	1⅜	2½	2.16
3370	97	40-40-50	350-350-25	1⅜	2½	3.36
3373	182	90-40-50	350-350-25	1⅜	3½	4.38
3376		200-10-50	350-350-25	1⅜	4	3.12
3379	98	10-5-150	350-350-50	1	3	.40
3382	183	20-5-30	350-350-50	1	2	1.47
3385		20-5-150	350-350-50	1	3	1.74
3388		20-10-100	350-350-50	1⅜	2	1.71
3392	214	80-40-400	350-350-50	1⅜	5	3.12
3395	184	150-4-30	350-350-50	1⅜	3½	2.82
3398		30-20-100	350-350-150	1⅜	2½	2.37
3401	99	40-20-10	350-350-150	1	3	1.89
3404	215	30-5-100	350-350-200	1⅜	2½	3.33
3407		80-40-100	350-350-200	1⅜	4	3.24
3410	207	100-60-20	350-350-200	1⅜	4	3.27
3413		20-10-5	350-350-250	1	2	1.50
3417	100	30-10-20	350-350-250	1	3	2.73
3420	86	30-20-10	350-350-250	1	3	2.61
3423	27	10-10-10	350-350-350	1	2	1.44
3426	28	20-20-10	350-350-350	1	3	2.64
3429	205	30-20-10	350-350-350	1	2½	1.92
3432	216	30-30-30	350-350-350	1	2½	1.98
3435	29	60-40-20	350-350-350	1⅜	3	2.52
3438		60-50-50	350-350-350	1⅜	3½	2.91
3441	30	80-60-60	350-350-350	1⅜	4	3.30
3444	164	90-40-20	350-350-350	1⅜	4	3.12
3447	165	100-100-10	350-350-350	1⅜	4	3.42
3450	101	60-40-20	400-300-25	1⅜	3½	3.75
3453	102	10-40-10	400-300-150	1⅜	2	1.74
3456	103	80-20-10	400-300-300	1⅜	3½	3.81
3459	217	10-4-20	400-350-25	1	2	2.07
3462	104	10-50-30	400-350-25	1	3	2.76
3465	105	15-15-40	400-400-25	1	2½	2.49
3468	106	20-20-20	400-400-25	1	3	1.68
3471	107	20-10-40	400-400-50	1	3	2.37
3474	108	30-10-150	400-400-50	1⅜	2½	3.03
3477	185	40-10-200	400-400-50	1⅜	3½	2.31
3480	109	80-40-150	400-400-50	1⅜	4	3.12
3483	186	100-10-20	400-400-50	1⅜	3½	2.67
3486		20-20-10	400-400-350	1	3	1.77
3489		60-30-20	400-400-350	1⅜	3	2.70
3492		80-20-10	400-400-350	1⅜	3	2.55
3495	187	100-10-80	400-400-350	1⅜	4½	3.63
3498	31	10-10-10	400-400-400	1	2½	1.41
3501		90-10-5	400-400-400	1⅜	3	2.61
3504	188	20-500-500	450-25-25	1⅜	3½	3.15
3507	110	30-100-25	450-25-25	1⅜	2	2.64
3510	189	80-100-20	450-50-50	1⅜	3	3.81
3513	111	10-50-100	450-150-25	1	3	2.46
3516	112	40-40-130	450-150-50	1⅜	3	2.19
3519	113	40-100-50	450-150-50	1⅜	2½	3.54
3522		10-50-100	450-150-75	1	3	1.92
3525	114	40-90-50	450-150-150	1⅜	3	2.37
3528	115	20-60-100	450-250-25	1⅜	2½	2.16
3531		10-80-80	450-250-250	1⅜	3	2.46
3534	116	20-40-10	450-250-250	1⅜	2	2.82
3537		80-40-40	450-250-250	1⅜	3½	2.85
3540		10-40-10	450-300-150	1⅜	2	1.83
3543	117	10-40-20	450-300-150	1⅜	2	1.86
3546		5-80-40	450-300-300	1⅜	3	2.46
3549	118	20-15-10	450-300-300	1	3½	2.55
3552	119	10-10-20	450-350-25	1	2	2.04
3555	190	10-100-25	450-350-25	1⅜	3	2.43
3558		30-15-40	450-350-25	1⅜	2	1.89
3561	120	30-40-50	450-350-25	1	4	2.19
3564	121	20-80-100	450-350-50	1⅜	3½	4.02
3567	191	20-80-50	450-350-300	1⅜	3	2.04
3570	122	40-50-50	450-350-300	1⅜	3½	4.35
3573		20-40-10	450-350-350	1⅜	2½	2.07
3576		20-80-10	450-350-350	1⅜	3	2.52
3577		40-80-40	450-350-350	1⅜	3½	3.21
3580	192	50-80-10	450-350-350	1⅜	3½	4.38
3583	123	30-50-40	450-400-25	1⅜	3	3.48
3586		60-80-20	450-400-250	1⅜	4	3.24
3589	124	10-30-30	450-400-300	1⅜	2½	3.00
3592		10-10-10	450-450-25	1	2	1.41
3595	125	10-10-20	450-450-25	1	2	1.41
3598	126	15-15-20	450-450-25	1	2½	2.40
3601		15-15-40	450-450-25	1	2½	1.62
3604	127	20-10-20	450-450-25	1	2½	1.59
3607	128	20-15-20	450-450-25	1	3	2.58
3610	129	20-20-20	450-450-25	1	3	1.80
3613	130	30-30-20	450-450-25	1⅜	2½	2.10
3616		30-30-125	450-450-25	1⅜	3	2.34
3619	131	30-30-150	450-450-25	1⅜	3	2.43
3622	132	40-20-20	450-450-25	1⅜	2½	2.07
3625	133	40-40-20	450-450-25	1⅜	3	2.31
3628	134	40-40-40	450-450-25	1⅜	3	2.34
3631	135	80-10-125	450-450-25	1⅜	3½	2.64
3634	136	80-40-100	450-450-25	1⅜	4	3.00
3637	137	10-10-40	450-450-50	1	2½	1.47
3640	138	20-10-50	450-450-50	1	3	1.68
3643		30-10-150	450-450-50	1⅜	2½	2.07
3646		30-15-150	450-450-50	1⅜	3	2.19
3649	139	30-30-40	450-450-50	1⅜	3	3.27
3652		35-25-150	450-450-50	1⅜	3	2.34
3655	140	40-10-100	450-450-50	1⅜	3	2.55
3658	141	40-40-100	450-450-50	1⅜	3½	2.55
3661		60-40-75	450-450-50	1⅜	3½	2.76
3664		80-20-100	450-450-50	1⅜	3½	2.85
3667	142	10-10-50	450-450-100	1⅜	2	2.37
3670	143	30-20-30	450-450-150	1⅜	2½	3.12
3673	144	40-40-40	450-450-150	1⅜	3½	2.46
3676	145	40-10-80	450-450-200	1⅜	3	2.31
3679		40-10-100	450-450-200	1⅜	3	2.46
3682		40-40-60	450-450-200	1⅜	3	2.64
3685		40-40-100	450-450-200	1⅜	3½	2.94
3688	146	15-10-120	450-450-300	1⅜	3½	4.20
3691	147	15-15-10	450-450-300	1	3	2.55
3694	148	15-5-15	450-450-350	1	3	2.55
3697	149	20-20-60	450-450-350	1⅜	3	4.53
3700	150	40-40-10	450-450-350	1⅜	2	1.98
3703		40-40-80	450-450-350	1⅜	4	3.30
3706	218	50-5-50	450-450-350	1⅜	3	2.19
3709	193	60-40-20	450-450-400	1⅜	3½	3.03
3712	32	10-10-10	450-450-450	1	2½	1.53
3715	33	15-15-10	450-450-450	1	3	2.64
3718		15-15-15	450-450-450	1	3	1.83
3721		20-10-10	450-450-450	1	3	1.71
3724	34	20-20-20	450-450-450	1⅜	2	2.13
3727		30-10-10	450-450-450	1⅜	2	1.86
3730		30-20-20	450-450-450	1⅜	2½	2.28
3733	35	30-30-30	450-450-450	1⅜	3	2.58

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMS	Former Stock No. TMT	Capacity	Voltage	Diameter	Length	Dealer Net
3736	36	40-10-10	450-450-450	1⅜	3	1.98
3739	37	40-30-20	450-450-450	1⅜	3	2.55
3742	38	40-40-10	450-450-450	1⅜	3	2.46
3745	39	40-40-20	450-450-450	1⅜	3	2.64
3748	40	40-40-40	450-450-450	1⅜	3½	2.91
3751		50-40-30	450-450-450	1⅜	3½	2.91
3754	41	60-20-20	450-450-450	1⅜	3½	2.73
3757	42	60-30-10	450-450-450	1⅜	3	2.67
3760		60-40-20	450-450-450	1⅜	3½	2.97
3763	43	80-40-20	450-450-450	1⅜	4	3.21
3766	194	20-50-20	475-50-25	1	3	1.62
3769		80-80-50	475-150-50	1⅜	3½	2.88
3772	195	10-100-40	475-200-50	1⅜	2½	3.00
3775	196	40-40-100	475-250-100	1⅜	3	3.66
3778	219	5-100-200	475-300-150	1⅜	4	4.65
3781	197	10-100-25	475-350-25	1⅜	3	3.30
3784	220	10-4-100	475-350-50	1	2½	2.31
3787	198	20-10-5	475-350-150	1⅜	2½	2.49
3790	199	10-4-40	475-350-250	1⅜	2	1.62
3793		10-40-100	475-450-200	1⅜	3	2.49
3796	200	10-45-100	475-450-200	1⅜	3	2.52
3799		40-80-10	475-450-450	1⅜	3½	3.27
3802		20-10-100	475-475-50	1⅜	2	1.92
3805		20-10-100	475-475-400	1⅜	3½	3.12
3808		20-20-60	475-475-450	1⅜	3	2.88
3811		30-30-20	475-475-475	1⅜	3	2.64
3814		40-30-10	475-475-475	1⅜	3	2.55
3817		40-30-30	500-200-50	1⅜	2½	3.06
3820	151	10-100-40	475-475-475	1⅜	3½	3.00
3823	152	40-40-100	500-250-50	1⅜	3	3.84
3826	153	20-20-40	500-300-25	1⅜	2	2.76
3829	201	20-40-100	500-300-25	1⅜	2½	3.21
3832	202	10-80-10	500-350-350	1⅜	3	2.91
3835	154	40-40-25	500-400-50	1⅜	3	3.84
3838	155	10-10-100	500-500-50	1	3	2.55
3841	156	20-10-100	500-500-50	1⅜	3	1.95
3844	157	30-10-20	500-500-50	1⅜	2½	2.76
3847	158	40-40-100	500-500-200	1⅜	4	3.45
3850	159	10-10-5	500-500-350	1	2½	2.22
3853	160	20-20-60	500-500-400	1⅜	3½	2.85
3856	45	10-10-10	500-500-500	1	3	1.59
3859		30-20-20	500-500-500	1⅜	3	2.49
3862	46	30-30-20	500-500-500	1⅜	3	2.64
3865	47	40-10-10	500-500-500	1⅜	3	2.31
3868	48	40-40-10	500-500-500	1⅜	4	3.00

Stock No. TMQ	Former Stock No. TMQ	Capacity	Voltage	Diameter	Length	Dealer Net
4001		50-20-150-30	150-150-15-15	1⅜	2	1.86
4004		20-20-160-40	150-150-25-25	1⅜	2	1.89
4007	20	40-40-40-40	150-150-25-25	1⅜	2	1.83
4010	21	40-40-100-100	150-150-25-25	1⅜	2	3.00
4013		50-40-160-40	150-150-25-25	1⅜	2	2.10
4016	22	30-20-20-200	150-150-150-10	1⅜	2	2.76
4019	23	40-40-20-200	150-150-150-10	1⅜	2	1.89
4022	24	60-40-20-200	150-150-150-10	1⅜	2	2.04
4025	25	20-20-20-20	150-150-150-25	1⅜	2	2.58
4028		30-30-30-40	150-150-150-25	1⅜	2	1.83
4031	26	30-30-30-50	150-150-150-25	1⅜	2	1.74
4034	27	40-20-20-20	150-150-150-25	1⅜	2	1.74
4037	28	40-40-30-20	150-150-150-25	1⅜	2	1.83
4040	29	40-40-40-20	150-150-150-25	1⅜	2	1.86
4043	30	40-40-40-100	150-150-150-25	1⅜	2	3.00
4047	31	40-40-40-160	150-150-150-25	1⅜	2	2.10
4050	124	50-10-40-50	150-150-150-25	1⅜	2	1.92
4053		50-20-20-200	150-150-150-25	1⅜	2	2.07
4056	32	50-30-30-100	150-150-150-25	1⅜	2	2.01
4059	33	50-50-50-20	150-150-150-25	1⅜	2	2.07
4052	125	60-60-10-60	150-150-150-25	1⅜	2	3.12
4065	34	75-75-75-30	150-150-150-25	1⅜	3	2.58
4068	35	80-40-30-100	150-150-150-25	1⅜	2½	3.30
4071		80-40-40-20	150-150-150-25	1⅜	2	2.10
4074	36	80-40-40-40	150-150-150-25	1⅜	2	2.13
4077	37	80-40-40-100	150-150-150-25	1⅜	2½	2.22
4080		100-90-60-200	150-150-150-25	1⅜	3	2.94
4083	126	200-250-10-25	150-150-150-25	1⅜	3½	3.18
4086	188	200-200-100-10	150-150-150-75	1⅜	4	3.54
4089	1	40-40-40-30	150-150-150-150	1⅜	2	1.95
4092	115	100-80-60-40	150-150-150-150	1⅜	2½	2.76
4095	38	40-20-10-20	250-250-250-25	1⅜	2	2.49
4098	39	100-40-10-100	250-250-250-50	1⅜	3½	3.06
4101	40	80-60-40-20	250-250-250-150	1⅜	3½	4.56
4104	116	40-40-40-40	250-250-250-250	1⅜	2½	2.76
4107	41	100-40-80-20	300-50-25-25	1⅜	2½	4.08
4110	42	20-150-150-100	300-150-150-30	1⅜	4	3.15
4113	43	10-200-140-30	300-150-150-150	1⅜	4	3.03
4116		10-200-200-30	300-150-150-150	1⅜	4	3.18
4119	127	100-60-10-20	300-200-150-50	1⅜	3	2.88
4122	44	120-20-100-20	300-250-50-25	1⅜	4	4.71
4125	45	200-20-100-20	300-250-50-25	1⅜	5	3.45
4128	189	80-5-60-20	300-300-150-75	1⅜	3	2.55
4131	185	140-10-10-100	300-300-150-50	1⅜	4	3.00
4134	46	100-10-200-30	300-300-150-150	1⅜	4	3.51
4137		150-20-10-250	300-300-250-50	1⅜	4	3.60
4140	47	60-40-20-50	300-300-300-25	1⅜	3½	2.79
4143	129	150-20-10-250	300-300-300-50	1⅜	4	3.60
4146	190	150-30-30-150	300-300-300-50	1⅜	4	2.91
4149	48	40-40-40-20	300-300-300-150	1⅜	3	3.21
4152		120-40-40-10	300-300-300-250	1⅜	4	3.75
4155	2	40-20-10-10	300-300-300-300	1⅜	2	2.34
4158	3	40-40-20-10	300-300-300-300	1⅜	2½	2.70
4161		40-40-30-20	300-300-300-300	1⅜	3	2.88
4164	4	60-40-10-10	300-300-300-300	1⅜	3½	2.70
4167	191	100-20-20-4	300-300-300-300	1⅜	3½	3.15
4170	120	120-40-40-10	300-300-300-300	1⅜	4	3.30
4173	118	200-20-20-20	300-300-300-300	1⅜	4	3.72
4176	49	20-150-80-20	350-150-150-25	1⅜	3	4.08
4179	50	40-50-20-80	350-150-150-50	1⅜	3	3.63
4182	51	15-80-40-200	350-200-200-25	1⅜	3	4.02
4185	130	20-100-100-10	350-200-200-100	1⅜	3½	4.47
4188		20-150-10-250	350-300-150-50	1⅜	4	3.63
4191	52	20-40-10-250	350-300-150-150	1⅜	3	2.76
4194		30-30-50-100	350-300-300-75	1⅜	3	3.12
4197	180	160-60-10-4	350-300-300-300	1⅜	4	3.75
4200	131	40-10-100-25	350-350-25-25	1⅜	2½	2.22
4203	132	60-4-100-40	350-350-25-25	1⅜	2½	2.25
4205	133	140-40-50-30	350-350-50-50	1⅜	4	3.81
4208		60-20-80-100	350-350-150-150	1⅜	4	2.91
4211	134	40-10-100-100	350-350-200-50	1⅜	3½	3.15
4214	135	100-60-60-40	350-350-200-75	1⅜	4	3.75
4217	136	60-40-60-20	350-350-200-150	1⅜	3½	3.00
4220	192	100-80-10-20	350-350-300-50	1⅜	4	3.27
4223		20-10-5-10	350-350-350-25	1⅜	2	1.83
4226	54	20-10-5-20	350-350-350-25	1⅜	2	1.83
4229	53	20-10-10-20	350-350-350-25	1⅜	2	1.83
4232		30-10-5-200	350-350-350-25	1⅜	2	2.25
4235	55	30-20-20-20	350-350-350-25	1⅜	2½	3.66
4238	56	40-20-20-25	350-350-350-25	1⅜	2½	3.81
4241	57	40-40-20-20	350-350-350-25	1⅜	3	2.76
4244		40-40-30-10	350-350-350-25	1⅜	3	2.94
4247	58	40-40-40-40	350-350-350-25	1⅜	3	3.09
4250	59	15-15-15-50	350-350-350-50	1⅜	2	3.36
4253	60	40-30-10-50	350-350-350-50	1⅜	3	3.81
4256	61	40-40-40-150	350-350-350-50	1⅜	3½	3.36
4259	137	60-25-25-100	350-350-350-50	1⅜	3½	4.62
4262		60-30-30-150	350-350-350-50	1⅜	3	3.75
4265	181	70-40-10-50	350-350-350-50	1⅜	3	3.12
4268		100-10-10-20	350-350-350-50	1⅜	3½	3.06
4271		100-20-10-20	350-350-350-50	1⅜	3½	3.21
4274	138	100-40-30-50	350-350-350-50	1⅜	4	3.90
4277	193	140-20-10-100	350-350-350-50	1⅜	4	5.52
4280	139	60-30-30-150	350-350-350-75	1⅜	4	3.33
4283	140	90-30-5-100	350-350-350-75	1⅜	3½	3.66
4286		30-10-5-100	350-350-350-200	1⅜	2½	2.70
4289	182	30-20-5-100	350-350-350-200	1⅜	3	2.79
4292	5	10-10-10-10	350-350-350-350	1⅜	2	2.76
4295		40-20-20-10	350-350-350-350	1⅜	2½	2.58
4298		40-40-40-40	350-350-350-350	1⅜	4	3.54
4301	6	80-10-10-10	350-350-350-350	1⅜	3	3.57
4304		80-60-40-20	350-350-350-350	1⅜	4	3.81
4307		90-40-30-30	350-350-350-350	1⅜	4	4.05
4310	194	130-40-20-10	350-350-350-350	1⅜	4½	3.39
4313		40-120-10-150	400-250-250-50	1⅜	4	3.51
4316	141	10-100-10-100	400-300-75-25	1⅜	3	4.20
4319	142	30-40-50-200	400-300-250-150	1⅜	4	5.37
4322	143	80-40-20-10	400-300-300-300	1⅜	4	4.98
4325	144	20-10-10-20	400-350-200-25	1⅜	2	2.85
4328	145	40-80-100-20	400-350-200-50	1⅜	4	3.54
4331	146	40-10-80-10	400-350-250-250	1⅜	3	4.17
4334	195	20-10-80-20	400-350-350-25	1⅜	3	3.93
4337	62	10-50-30-30	400-350-350-25	1⅜	3	3.93
4340		20-50-40-40	400-350-350-50	1⅜	3	2.97
4343	147	50-25-100-20	400-400-50-25	1⅜	3	4.17
4346		50-40-100-100	400-400-50-25	1⅜	4	3.03
4349	183	100-10-30-20	400-400-50-50	1⅜	3½	3.03
4352		20-10-20-25	400-400-200-25	1⅜	2	2.25
4358	148	10-10-40-10	400-400-200-50	1⅜	2	2.85
4361	63	40-10-80-10	400-400-250-250	1⅜	3½	4.20
4364	64	5-5-50-80	400-400-300-250	1⅜	3	4.17
4367		50-20-20-25	400-400-350-25	1⅜	3	2.64
4370	65	60-40-40-10	400-400-350-50	1⅜	3½	5.16
4373	196	100-10-20-20	400-400-350-50	1⅜	3	3.24
4376	184	80-40-10-20	400-400-400-25	1⅜	4	3.15

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE TM TWIST-MOUNT ELECTROLYTICS (Con't.)

Stock No. TMQ	Former Stock No. TMQ	Capacity	Voltage	Diameter	Length	Dealer Net
4379	149	80-40-30-40	400-400-400-25	1⅜	4	3.54
4382		90-20-10-50	400-400-400-50	1⅜	4	3.21
4385	150	80-40-30-4	400-400-400-350	1⅜	4	3.51
4388	7	30-30-20-20	400-400-400-400	1⅜	3	4.35
4391	119	40-40-30-30	400-400-400-400	1⅜	4	3.39
4394		50-40-30-20	400-400-400-400	1⅜	4	3.36
4397	8	80-25-10-10	400-400-400-400	1⅜	3½	3.12
4400	151	10-80-40-100	450-200-200-50	1⅜	3	3.81
4403	66	20-80-20-50	450-200-200-50	1⅜	3	2.43
4406	152	40-40-40-20	450-250-250-25	1⅜	3	3.99
4409		60-80-40-20	450-250-250-150	1⅜	4	3.36
4412	153	60-30-100-25	450-300-50-50	1⅜	3½	3.06
4415		10-100-10-100	450-300-75-25	1⅜	3	2.82
4418	154	10-100-10-100	450-300-150-25	1⅜	3	2.88
4421	158	10-40-60-100	450-300-250-50	1⅜	3½	2.70
4424	67	10-100-20-20	450-300-300-25	1⅜	3½	2.94
4427		25-100-10-60	450-300-300-50	1⅜	3	3.15
4430	155	30-100-10-60	450-300-300-50	1⅜	3½	3.15
4433	156	40-40-40-20	450-300-300-150	1⅜	3	2.91
4436		10-100-20-20	450-300-300-200	1⅜	3	3.00
4439	157	10-100-20-20	450-300-300-300	1⅜	3	4.71
4442		10-40-100-100	450-350-250-50	1⅜	3	3.30
4445	68	10-60-40-25	450-450-350-25	1⅜	3½	2.73
4448	69	10-100-10-20	450-350-350-25	1⅜	3	3.12
4451	159	20-80-50-100	450-350-350-50	1⅜	4	3.57
4454	70	30-40-40-10	450-350-350-200	1⅜	3½	4.62
4457	160	40-30-10-10	450-350-350-300	1⅜	3	2.79
4460	71	80-10-30-40	450-400-300-150	1⅜	4	4.71
4463		80-10-40-30	450-400-300-300	1⅜	4	3.45
4466	161	5-60-50-20	450-400-350-25	1⅜	3½	4.53
4469	72	10-10-20-20	450-450-25-25	1⅜	2	2.64
4472		20-15-20-20	450-450-25-25	1⅜	2	2.04
4475	73	20-20-20-20	450-450-25-25	1⅜	2	2.10
4478	74	30-30-125-125	450-450-25-25	1⅜	3	2.88
4481		20-20-60-100	450-450-150-25	1⅜	2½	2.52
4484		40-40-125-125	450-450-150-25	1⅜	4	3.39
4487	75	10-10-60-100	450-450-200-50	1⅜	3	2.28
4490	76	35-25-20-100	450-450-200-50	1⅜	3	2.76
4493		40-40-100-60	450-450-200-200	1⅜	4	3.60
4496	77	20-20-30-30	450-450-350-350	1⅜	3½	4.11
4499	78	40-10-35-10	450-450-350-350	1⅜	3	4.11
4502	79	40-40-30-30	450-450-350-350	1⅜	4	3.51
4505	80	10-10-10-20	450-450-450-25	1⅜	2	1.86
4508	81	10-10-10-100	40-450-450-25	1⅜	2	2.91
4511	82	20-10-10-100	450-450-450-25	1⅜	2	3.30
4514	83	20-20-20-20	450-450-450-25	1⅜	2½	2.46
4517	84	30-15-15-40	450-450-450-25	1⅜	2½	3.72
4520	85	30-20-20-20	450-450-450-25	1⅜	3	3.83
4523	86	30-30-10-20	450-450-450-25	1⅜	3	3.90
4526	163	30-30-10-125	450-450-450-25	1⅜	3	2.79
4529	87	30-30-20-20	450-450-450-25	1⅜	3	4.17
4532	88	40-10-10-250	450-450-450-25	1⅜	3	4.20
4535	89	40-20-10-20	450-450-450-25	1⅜	3	3.81
4538	90	40-20-20-20	450-450-450-25	1⅜	3	2.73
4541	91	40-20-20-40	450-450-450-25	1⅜	3	2.76
4544	92	40-30-10-20	450-450-450-25	1⅜	3	2.67
4547		40-40-10-20	450-450-450-25	1⅜	3½	2.79
4550		40-40-20-20	450-450-450-25	1⅜	3½	2.97
4553	164	40-40-40-40	450-450-450-25	1⅜	3½	3.27
4556	93	60-40-10-35	450-450-450-25	1⅜	3½	2.82
4559		60-40-40-10	450-450-450-25	1⅜	4	3.57
4562		60-50-5-20	450-450-450-25	1⅜	4	3.18
4565		80-40-40-40	450-450-450-25	1⅜	4	3.84
4568	94	10-10-10-150	450-450-450-50	1⅜	3	2.70
4571	95	20-20-20-100	450-450-450-50	1⅜	3	2.70
4574	96	30-30-15-30	450-450-450-50	1⅜	3	2.70
4577	97	30-30-15-100	450-450-450-50	1⅜	3½	4.38
4580	98	40-20-10-100	450-450-450-50	1⅜	3½	2.73
4583	99	40-40-10-25	450-450-450-50	1⅜	3½	2.79
4586		40-40-10-50	450-450-450-50	1⅜	4	2.85
4589		60-40-10-25	450-450-450-50	1⅜	4	3.12
4592	100	40-40-10-100	450-450-450-100	1⅜	3½	3.30
4595	101	60-10-10-20	450-450-450-150	1⅜	3	2.70
4598	102	35-35-10-10	450-450-450-200	1⅜	3	4.11
4601		40-20-10-100	450-450-450-250	1⅜	4	3.48
4604		40-10-10-40	450-450-450-350	1⅜	3	2.82
4607	9	5-5-5-5	450-450-450-450	1⅜	2	1.77
4610	10	10-10-10-10	450-450-450-450	1⅜	2	1.98
4613	11	20-10-10-10	450-450-450-450	1⅜	2	2.19
4616	12	20-20-20-20	450-450-450-450	1⅜	2½	2.79
4619	13	30-15-15-15	450-450-450-450	1⅜	3	2.64
4622	14	30-30-15-10	450-450-450-450	1⅜	4	4.20
4625		30-30-20-20	450-450-450-450	1⅜	3½	4.20
4628	15	30-30-30-15	450-450-450-450	1⅜	3½	4.74
4631	16	35-35-10-5	450-450-450-450	1⅜	3½	2.73
4634	17	40-10-10-10	450-450-450-450	1⅜	3	2.43
4637	18	40-20-10-10	450-450-450-450	1⅜	2½	2.67
4640		40-35-10-10	450-450-450-450	1⅜	3	2.85
4643		40-40-4-4	450-450-450-450	1⅜	3½	2.76
4646		40-40-20-20	450-450-450-450	1⅜	4	3.30
4649		40-40-30-30	450-450-450-450	1⅜	4	3.60
4652	120	40-40-40-40	450-450-450-450	1⅜	4	3.84
4655	121	60-20-20-20	450-450-450-450	1⅜	3½	3.36
4658		60-30-10-2	450-450-450-450	1⅜	3	3.03
4661	122	80-10-10-10	450-450-450-450	1⅜	3½	3.00
4664	165	40-40-50-80	475-250-150-50	1⅜	3½	2.97
4667	103	20-40-100-80	475-300-50-25	1⅜	3	2.64
4670	166	10-100-10-100	475-300-300-25	1⅜	3½	2.91
4673	167	20-80-20-10	475-300-300-300	1⅜	3½	2.97
4676	104	10-40-80-100	475-350-200-50	1⅜	3½	4.29
4679		20-40-80-100	475-350-200-100	1⅜	4	3.24
4682		10-40-80-100	475-350-300-100	1⅜	4	3.30
4685	168	20-40-80-100	475-350-300-100	1⅜	4	3.33
4688	169	10-30-5-80	475-350-350-50	1⅜	2½	3.30
4691	186	10-140-4-100	475-350-350-50	1⅜	4	3.48
4694	187	10-130-20-10	475-350-350-350	1⅜	4	3.57
4697		30-130-10-10	475-350-350-350	1⅜	4	3.81
4700	170	30-130-10-20	475-350-350-350	1⅜	5	3.66
4703	171	10-40-100-10	475-400-50-30	1⅜	2½	2.40
4706	172	10-40-4-100	457-400-350-50	1⅜	2½	2.40
4709	173	10-40-100-10	475-400-350-50	1⅜	2½	2.40
4710		5-70-25-5	475-400-400-400	1⅜	3½	3.00
4713	105	10-10-80-50	475-450-200-60	1⅜	3	3.45
4716	174	25-20-20-100	475-450-300-50	1⅜	3	4.11
4719	106	25-20-40-100	475-450-300-50	1⅜	3	4.44
4722	107	10-60-30-125	475-450-400-50	1⅜	4	3.30
4725		10-50-30-30	475-450-450-25	1⅜	3	2.82
4728		10-40-10-100	475-450-450-50	1⅜	2½	2.55
4731	108	15-15-80-40	475-475-300-50	1⅜	3	2.85
4734	109	40-10-4-40	475-475-350-50	1⅜	3	2.94
4737	175	50-10-30-30	475-475-450-25	1⅜	3	2.85
4740	110	10-5-80-40	475-475-450-50	1⅜	3	4.38
4743	111	40-20-10-10	475-475-475-25	1⅜	3	4.35
4746		20-20-10-10	475-475-475-300	1⅜	2½	2.55
4749		50-30-10-20	475-475-475-300	1⅜	3½	3.33
4752		20-20-10-10	475-475-475-475	1⅜	2	3.12
4755		20-20-20-20	475-475-475-475	1⅜	3	3.03
4758		40-20-10-10	475-475-475-475	1⅜	3	3.03
4761	176	5-100-10-20	500-300-300-150	1⅜	4	5.25
4764	177	30-10-150-30	500-450-50-50	1⅜	3	2.49
4767	112	30-30-10-20	500-500-450-25	1⅜	3½	2.94
4770	113	20-20-10-10	500-500-500-300	1⅜	2½	2.58
4773	114	50-30-10-20	500-500-500-300	1⅜	4	3.36
4776	19	10-10-10-10	500-500-500-500	1⅜	2	2.07
4779	123	40-20-20-20	500-500-500-500	1⅜	4	3.51
4782		40-40-8-8	500-500-500-500	1⅜	4	3.39

GENERAL INSTRUMENT CAPACITORS

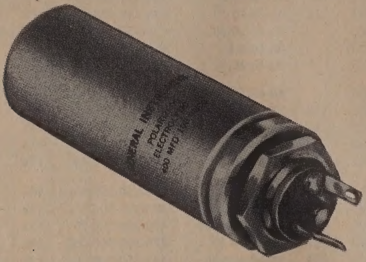
GENERAL INSTRUMENT CAPACITOR DIVISION

Polarized Electrolytic Capacitors to MIL-C-62 (latest revision) specifications

GENERAL INSTRUMENT
POLARIZED
ELECTROLYTIC
100 MFD 250
BW 250100

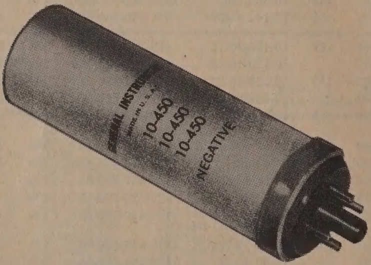
TYPE PFB
STYLE CE 31, 32, 33

Type PFB General Instrument Polarized Electrolytics are available in standard round aluminum containers with convenient solder lugs. Special gasket provides maximum seal. Mounting ring optional.


GENERAL INSTRUMENT
POLARIZED
ELECTROLYTIC

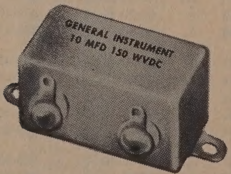
TYPE DI
STYLE CE 41-42

Type DI Electrolytics are provided in chassis mounting aluminum cans. Have standard ⅞-16N-2A thread neck with lock nut. Solder lugs solidly anchored in special leak-proof gasket. Available as CE41 in single and CE42 in dual capacity units.


GENERAL INSTRUMENT
10-450
10-450
10-450
NEGATIVE

TYPE DO
STYLE CE 51, 52, 53

Type DO Electrolytics are available in plug mounting round aluminum containers. Have standard nickel-plated four-pin octal base. Maximum leakage seal provided by famous General Instrument design. Order CE51 for Type DO's in single capacity, CE52 for dual and CE53 for triple capacity units.


GENERAL INSTRUMENT
10 MFD 150 WVDC

TYPE DPD
STYLE CE 61, 62, 63

Type DPD's are hermetically sealed in drawn, hot-tinned steel bath-tub containers. Solder lug terminals are anchored to case with silicone rubber grommets. Type DPD's are single capacity units in CE61, CE62, CE63 and CE64.

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

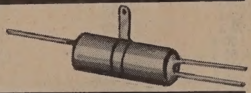
TYPE TD TYNEE-DRY ELECTROLYTICS

Tynee-Dry single capacitor units with 3-inch bare-wire leads. Designed for 85° C operation. Each unit sealed in metal tubular case. Supplied with insulating cardboard sleeve. Low leakage. Long shelf life. Top quality in minimum space.

Catalogue No.	Capacity in UF	Dia.*	Length*	Dealer Net
	6 Volts DC Working			
TD-50-6	50	½	1⅛	.57
TD-100-6	100	½	1⅛	.72
TD-250-6	250	⅝	1⅝	.81
	15 Volts DC Working			
TD-100-15	100	⅝	1¼	.75
TD-250-15	200	⅝	1⅝	.93
TD-500-15	500	¾	2	1.05
TD-1000-15	1000	⅞	2	1.38
	25 Volts DC Working			
TD-2-25	2	7/16	1⅛	.54
TD-4-25	4	7/16	1⅛	.60
TD-5-25	5	7/16	1⅛	.60
TD-10-25	10	7/16	1⅛	.60
TD-25-25	25	½	1⅛	.60
TD-50-25	50	⅝	1¼	.66
TD-100-25	100	⅝	1⅝	.81
TD-250-25	250	⅞	2	1.02
TD-500-25	500	⅞	2	1.38
	50 Volts DC Working			
TD-1-50	1	7/16	1⅛	.54
TD-2-250	2	7/16	1⅛	
TD-4-50	4	7/16	1⅛	.60
TD-5-50	5	7/16	1⅛	.60
TD-10-50	10	7/16	1⅛	.60
TD-25-50	25	⅝	1¼	.63
TD-50-50	50	⅝	1¼	.72
TD-100-50	100	¾	1⅝	.84
TD-150-50	150	¾	1⅝	.93
TD-250-50	250	⅞	1⅝	1.05
TD-500-50	500	1	2½	
	150 Volts DC Working			
TD-4-150	4	7/16	1⅛	.60
TD-8-150	8	⅝	1¼	.63
TD-10-150	10	⅝	1¼	.63
TD-12-150	12	⅝	1¼	.66
TD-16-150	16	⅝	1¼	.69
TD-20-150	20	⅝	1¼	.72
TD-30-150	30	⅝	1⅝	.78
TD-40-150	40	¾	1⅝	.81
TD-50-150	50	¾	1⅝	.84
TD-80-150	80	⅞	1⅝	.96
TD-100-150	100	⅞	2	.84
TD-150-150	150	1	2½	1.14
TD-200-150	200	1	3	1.32
TD-250-150	250	1	3	1.05
TD-300-150	300	1	3¾	1.53
	200 Volts DC Working			
TD-100-200	100	1	3	1.32
TD-150-200	150	1	3½	1.53
TD-200-200	200	1	4	1.71
TD-300-200	300	1	4¼	1.89
	250 Volts DC Working			
TD-4-250	4	½	1⅛	.60
TD-8-250	8	⅝	1¼	.69
TD-10-250	10	⅝	1¼	.72
TD-500-6	500	⅝	1⅝	.93
TD-1000-6	1000	¾	2	1.14
TD-1500-6	1500	¾	2	1.26
TD-2000-6	2000	1	2	1.38
TD-12-250	12	⅝	1¼	.75
TD-16-250	16	⅝	1⅝	.78
TD-20-250	20	⅝	1⅝	.81
TD-30-250	30	¾	1⅝	.87
TD-40-250	40	⅞	1⅝	.93
TD-60-250	60	⅞	2	1.08
TD-100-250	100	1⅜	3	1.62
	300 Volts DC Working			
TD-150-300	150	1	4¼	1.95
TD-200-300	200	1	4¼	2.25
	350 Volts DC Working			
TD-8-350	8	⅝	1⅝	.72
TD-12-350	12	⅝	1⅝	.78
TD-16-350	16	¾	1⅝	.84
TD-20-350	20	¾	1⅝	.87
TD-30-350	30	⅞	2	.99
TD-40-350	40	1	2	1.05
TD-60-350	60	1	2½	1.17
TD-80-350	80	1	2½	1.29
TD-300-350	300	1¼	4	2.64
	400 Volts DC Working			
TD-200-400	200	1¼	4	2.58
	450 Volts DC Working			
TD-2-450	2	⅝	1¼	.66
TD-4-450	4	⅝	1¼	.69
TD-8-450	8	⅝	1⅝	.75
TD-10-450	10	¾	1⅝	.78
TD-12-450	12	¾	1⅝	.81
TD-16-450	16	¾	2	.84
TD-20-450	20	⅞	2	.93
TD-30-450	30	1	2	1.02
TD-40-450	40	1	2½	1.08
TD-50-450	50	1	3	1.26
TD-80-450	80	1	3½	1.68
TD-100-450	100	1	4	1.86
	500 Volts DC Working			
TD-8-500	8	⅞	1⅝	.78
TD-10-500	10	⅞	1⅝	.84
TD-12-500	12	⅞	1⅝	.84
TD-20-500	20	1	2	.96
TD-30-500	30	1	2½	1.05
	600 Volts DC Working			
TD-8-600	8	⅞	2¾	1.23
TD-10-600	10	⅞	2¾	1.29
TD-12-600	12	1	2¾	1.41
TD-16-600	16	1	3 9/16	1.50
TD-20-600	20	1	3 9/16	1.59
	700 Volts DC Working			
TD-8-700	8	⅞	2¾	1.29
TD-10-700	10	1	2¾	1.38
TD-12-700	12	1	3 9/16	1.44
TD-16-700	16	1	3 9/16	1.56

* For sleeve add 1/16" to diameter, 3/16" to length.

DUAL & TRIPLE CAPACITY TYPE TDL ELECTROLYTICS



Stock Number	Catalogue Number	Cap. in UF	Size in Inches Dia.	Size in Inches Length	Dealer Net
	150 Volts DC Working				
TDLD-1A	TDL-D10-150	10-10	¾	1⅝	.96
TDLD-3	TDL-D20-150	20-20	¾	1⅝	.99
TDLD-4	TDL-D30-150	30-30	¾	2	1.08
TDLD-5	TDL-4020-150	40-20	¾	2	1.05
TDLD-6	TDL-4030-150	40-30	¾	2	1.08
TDLD-7	TDL-D40-150	40-40	¾	2	1.11
	Dual 150 Volts DC Working				
TDLD-8	TDL-5030-150	50-30	¾	2	1.17
TDLD-9	TDL-D50-150	50-50	⅞	2	1.26
TDLD-10	TDL-8030-150	80-30	⅞	2	1.32
TDLD-11	TDL-8040-150	80-40	1	2	1.35
TDLD-12	TDL-8050-150	80-50	1	2	1.38
TDLD-13	TDL-D80-150	80-80	1	2½	1.56
TDLD-14	TDL-10050-150	100-50	1	3	1.77
TDLD-15	TDL-D100-150	100-100	1	3	1.92
TDLD-16	TDL-2005-150	200-5	1	3½	2.07
	Triple 150 Volts DC Working				
TDLT-1	TDL-T20-150	20-20-20	1	2	1.29
TDLT-2	TDL-T30-150	30-30-30	1	2	1.38
TDLT-3	TDL-403020-150	40-30-20	1	2	1.41
TDLT-4	TDL-404020-150	40-40-20	1	2	1.41
TDLT-5	TDL-T40-150	40-40-40	1	2	1.47
TDLT-6	TDL-503020-150	50-30-20	1	2	1.44
TDLT-7	TDL-804020-150	80-40-20	1	2	1.65
	Triple 250 Volts DC Working				
TDLT-8	TDL-754010-250	75-40-10	1	3	2.07
	Triple 450 Volts DS Working				
TDLT-9	TDL-T16-450	16-16-16	1	3	1.86
	Dual 250 Volts DC Working				
TDLD-17	TDL-D8-250	8-8	¾	1⅝	.96
TDLD-18	TDL-D16-250	16-16	¾	1⅝	1.05
TDLD-19	TDL-D20-250	20-20	¾	2	1.11
TDLD-20	TDL-D30-250	30-30	⅞	2	1.32
TDLD-21	TDL-4020-250	40-20	⅞	2	1.29
TDLD-22	TDL-D40-250	40-40	1	2	1.29
TDLD-23	TDL-8010-250	80-10	1	2	
	Dual 450 Volts DC Working				
TDLD-24	TDL-D8-450	8-8	⅞	1⅝	1.02
TDLD-25	TDL-816-450	8-16	⅞	2	1.20
TDLD-26	TDL-D10-450	10-10	⅞	2	1.35
TDLD-27	TDL-D16-450	16-16	1	2	1.32
TDLD-28	TDL-D20-450	20-20	1	2½	1.50
TDLD-29	TDL-D30-450	30-30	1	3	1.80
TDLD-30	TDL-4020-450	40-20	1	3½	1.77
TDLD-31	TDL-D40-450	40-40	1	3½	2.04
	Triple Mixed Sections Diameter 1"				
TDLT-10	TDL-8332	80-30-300	150-150-10	3	1.83
TDLT-11	TDL-222	20-20-20	150-150-25	2	1.23
TDLT-12	TDL-432	40-30-20	150-150-25	2	1.32
TDLT-13	TDL-442	40-40-20	150-150-25	2	1.29
TDLT-14	TDL-4412	40-40-100	150-150-25	3½	1.47
TDLT-15	TDL-532	50-30-20	150-150-25	2	1.38
TDLT-16	TDL-5312	50-30-100	150-150-25	2½	1.47
TDLT-17	TDL-5322	50-30-200	150-150-25	2½	1.65
TDLT-18	TDL-8212	80-20-100	150-150-25	2½	1.50
TDLT-19	TDL-552	50-50-20	150-150-25	2½	1.65
TDLT-20	TDL-44225	40-40-20	250-250-25	2½	1.74
TDLT-21	TDL-22245	20-20-20	450-450-25	2½	1.74

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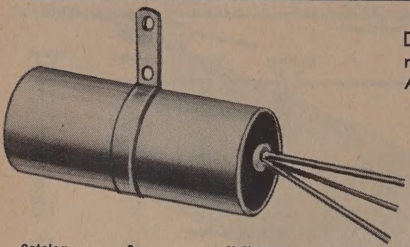
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE CDB CARTRIJ-DRY ELECTROLYTICS



DC dry electrolytic capacitors assembled in wax-filled, impregnated cardboard tubes. 8-inch flexible leads at one end. Assembled mounting strap. Low leakage. Long shelf life.

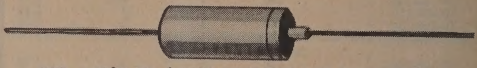
TEMPERATURE RANGE
—20° +75°C

Catalog Number	Cap. in UF	Voltage DC Working	Size in Dia.	Incnes Lgth.	Dealer Net
CDB Dual Capacitor (Common Negative)					
CDB-D20-150CN	20-20	150-150	⅞	2	.99
-D30-150CN	30-30	150-150	1	2	1.08
-D40-150CN	40-40	150-150	1	2¼	1.11
-5030-150CN	50-30	150-150	1	2¼	1.17
-D50-150CN	50-50	150-150	1	2¼	1.26
-D-1014	150-100	300-300	1⅜	4¾	3.33
-816-450CN	8-16	450-450	1	2	1.20
-D20-450CN	20-20	450-450	1	2¾	1.50
CDB Triple Capacitor Units (Common Negative)					
CDBT-1015	200-250-10	150-150-150	1⅜	4⅛	2.37

Catalog Number	Cap. in UF	Voltage DC Working	Size in Dia.	Inches Lgth.	Dealer Net
CDB Triple Capacitor Units (Mixed Sections)					
CDBT-1002	80-30-20	150-150-25	1	2¾	1.65
-1009	100-200-40	300-200-200	1⅜	4½	2.85
-1011	120-40-100	300-250-50	1⅜	4⅛	2.70
CDB Quadruple Capacitor Units (Common Negative)					
CDBQ-1003	20-20-10-10	350-350-350-350	1⅛	3½	2.46
-4422	40-40-20-20	450-450-450-450	1½	4¾	3.27
CDB Quadruple Capacitor (Mixed Sections)					
CDBQ-1013	70-30-30-20	150-150-150-15	1	3½	2.19
-1001	40-40-20-20	150-150-150-25	1	3	1.86
-1008	140-5-200-30	350-350-200-200	1½	5	3.27
-1005	20-120-40-100	450-300-250-50	1½	4½	3.30

TYPE MLV HERMETICALLY-SEALED MINIATURIZED ELECTROLYTICS

Designed for −30°C to +85°C operation. For −40°C to +85°C Extended Life Capacitors write for Bulletin EL6. Features unit Hermetically Sealed with Specially processed rubber. Low Leakage Current. All Welded Construction. Long Shelf and Operating Life. Units supplied with plastic insulated sleeve.



FOR −40°C TO +85°C EXTENDED LIFE CAPACITORS WRITE FOR BULLETIN EL6.

Cat. No.	Cap. in mfd.	Dia.*	Length*	Dealer Net
	3 Volts Working D.C.			
MLV5-3	3	3/16	11/16	.75
MLV10-3	10	¼	11/16	.75
MLV15-3	15	¼	11/16	.75
MLV25-3	25	¼	11/16	.75
MLV40-3	40	¼	11/16	.75
MLV50-3	50	¼	11/16	.75
MLV100-3	100	5/16	11/16	.84
MLV150-3	150	⅜	11/16	.87
MLV200-3	200	⅜	13/16	.90
MLV250-3	250	⅜	15/16	.96
MLV300-3	300	⅜	15/16	.99
	10 Volts Working D.C.			
MLV10-10	10	¼	11/16	.81
MLV15-10	15	¼	11/16	.81
MLV25-10	25	¼	11/16	.81
MLV50-10	50	⅜	11/16	.90
MLV100-10	100	⅜	13/16	1.02
MLV200-10	200	⅜	1¼	1.62
	12 Volts Working D.C.			
MLV2-12	2	3/16	11/16	.75
MLV5-12	5	¼	11/16	.81
MLV10-12	10	¼	11/16	.81
MLV15-12	15	¼	11/16	.84
MLV20-12	20	¼	11/16	.84
MLV25-12	25	¼	11/16	.84
MLV40-12	40	5/16	11/16	.87
MLV50-12	50	⅜	11/16	.93
MLV100-12	100	⅜	13/16	1.05
MLV150-12	150	⅜	1¼	1.14
MLV200-12	200	⅜	1¼	1.23
	15 Volts Working D.C.			
MLV5-15	5	¼	11/16	.84
MLV10-15	10	¼	11/16	.84
MLV15-15	15	¼	11/16	.87
MLV25-15	25	5/16	11/16	.87
MLV35-15	35	5/16	11/16	.93
MLV50-15	50	⅜	11/16	.96
MLV100-15	100	⅜	15/16	1.08
MLV150-15	150	⅜	1¼	1.17

Cat. No.	Cap. in mfd.	Dia.*	Length*	Dealer Net
	6 Volts Working D.C.			
MLV2-6	2	3/16	11/16	.75
MLV5-6	5	¼	11/16	.75
MLV10-6	10	¼	11/16	.81
MLV15-6	15	¼	11/16	.81
MLV25-6	25	¼	11/16	.84
MLV30-6	30	¼	11/16	.84
MLV40-6	40	5/16	11/16	.84
MLV50-6	50	5/16	11/16	.84
MLV100-6	100	⅜	11/16	.90
MLV150-6	150	⅜	15/16	.93
MLV200-6	200	⅜	1¼	.96
	25 Volts Working D.C.			
MLV5-25	5	¼	11/16	.84
MLV10-25	10	¼	11/16	.87
MLV15-25	15	5/16	11/16	.87
MLV25-25	25	⅜	11/16	.93
MLV50-25	50	⅜	15/16	1.08
MLV100-25	100	⅜	1½	
	50 Volts Working D.C.			
MLV2-50	2	¼	11/16	.81
MLV5-50	5	¼	11/16	.87
MLV10-50	10	5/16	11/16	.90
MLV15-50	15	⅜	11/16	.90
MLV25-50	25	⅜	13/16	.90
MLV50-50	50	⅜	1½	1.11
	100 Volts Working D.C.			
MLV2-100	2	⅜	11/16	.84
MLV5-100	5	⅜	15/16	.90
MLV10-100	10	⅜	15/16	.93
MLV15-100	15	⅜	1¼	.93
MLV25-100	25	⅜	1½	.96
	150 Volts Working D.C.			
MLV1-150	1	⅜	15/16	.84
MLV2-150	2	⅜	15/16	.87
MLV5-150	5	⅜	15/16	.93
MLV10-150	10	⅜	1¼	.96
MLV15-150	15	⅜	1½	.96

*These units supplied with plastic insulated sleeve to listed dimension add 1/32 to diam. and 1/16 to length.

General Instrument also manufactures Electrolytics Type MLE for operation at —40°C to+85 — Write to General Instrument Sales Engineering Department for Bulletin EL-6.

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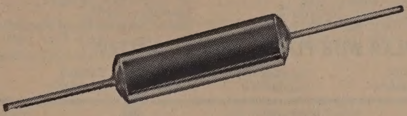
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE BL SUBMINIATURE ELECTROLYTICS

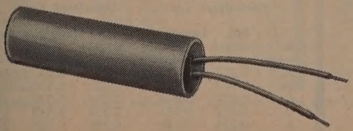
Small, inexpensive and reliable, best describe this versatile new series of Subminiature Electrolytics. For compact transistorized circuits in conventional or printed board construction. New non-conductive plastic case. End seal compounds, offer true moisture resistance. Low leakage. Long shelf life. Operating temp. —20°C to +65°C.



Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.	Cap. Mfd.	Part No.
3 V. D-C. W.V. 4 V. Surge		6 V. D-C. W.V. 8 V. Surge		10 V. D-C. W.V. 12 V. Surge		15 V. D-C. W.V. 18 V. Surge		20 V. D-C. W.V. 25 V. Surge		25 V. DC. W.V. 30 V. Surge		50 V. D-C. W.V. 60 V. Surge	
								2.	BL1050	2.	BL1160	2.	BL1270
				4.	BL1030	4.	BL1140	4.	BL1150	4.	BL1260	4.	BL1370
		5.	BL1020	5.	BL1130	5.	BL1141	5.	BL1250	5.	BL1261	5.	BL1470
6.	BL1010	6.	BL1120	6.	BL1131	6.	BL1142	6.	BL1251	6.	BL1262	6.	BL1471
8.	BL1110	8.	BL1121	8.	BL1230	8.	BL1240	8.	BL1252	8.	BL1360	8.	BL1570
10.	BL1111	10.	BL1220	10.	BL1231	10.	BL1241	10.	BL1350	10.	BL1460	10.	BL1670
12.	BL1112	12.	BL1221	12.	BL1232	12.	BL1242	12.	BL1351	12.	BL1461	12.	BL1671
15.	BL1210	15.	BL1222	15.	BL1233	15.	BL1340	15.	BL1450	15.	BL1560	15.	BL1770
20.	BL1211	20.	BL1223	20.	BL1330	20.	BL1440	20.	BL1451	20.	BL1561	20.	BL1870
25.	BL1212	25.	BL1320	25.	BL1331	25.	BL1441	25.	BL1550	25.	BL1660	25.	BL1970
30.	BL1213	30.	BL1321	30.	BL1430	30.	BL1540	30.	BL1650	30.	BL1760	30.	BL2070
40.	BL1310	40.	BL1420	40.	BL1530	40.	BL1541	40.	BL1750	40.	BL1860	40.	BL2170
50.	BL1410	50.	BL1520	50.	BL1531	50.	BL1640	50.	BL1850	50.	BL1861	50.	BL2171
60.	BL1411	60.	BL1521	60.	BL1630	60.	BL1740	60.	BL1950	60.	BL1960	60.	BL2270
65.	BL1510	65.	BL1522	65.	BL1631	65.	BL1741	65.	BL1951	65.	BL1961	65.	BL2271
75.	BL1511	75.	BL1620	75.	BL1730	75.	BL1840	75.	BL1952	75.	BL2060	75.	BL2370
100.	BL1610	100.	BL1720	100.	BL1731	100.	BL1940	100.	BL2050	100.	BL2160	100.	BL2371
125.	BL1611	125.	BL1721	125.	BL1830	125.	BL1941	125.	BL2051	125.	BL2161	125.	BL2470
150.	BL1710	150.	BL1820	150.	BL1930	150.	BL2040	150.	BL2150	150.	BL2260		
175.	BL1711	175.	BL1920	175.	BL1931	175.	BL2041	175.	BL2151	175.	BL2261		
200.	BL1910	200.	BL1921	200.	BL2030	200.	BL2140	200.	BL2250	200.	BL2360		
250.	BL1911	250.	BL2020	250.	BL2031	250.	BL2141	250.	BL2251	250.	BL2361		
300.	BL1912	300.	BL2021	300.	BL2130	300.	BL2240	300.	BL2350	300.	BL2362		
350.	BL2010	350.	BL2120	350.	BL2131	350.	BL2241	350.	BL2351	350.	BL2460		
400.	BL2011	400.	BL2121	400.	BL2230	400.	BL2340	400.	BL2450	400.	BL2461		
450.	BL2110	450.	BL2220	450.	BL2231	450.	BL2341	450.	BL2451				
500.	BL2111	500.	BL2221	500.	BL2232	500.	BL2342						
600.	BL2210	600.	BL2222	600.	BL2330	600.	BL2440						
750.	BL2211	750.	BL2320	750.	BL2331								
1,000.	BL2310	1,000.	BL2321	1,000.	BL2430								
1,200.	BL2311	1,200.	BL2420										
1,500.	BL2410												

Code Case	Dia. ±.010	Max. Lgth.	Code Case	Dia. ±.010	Max. Lgth.
10	.187	11/16	18	.375	1⅛
11	.187	13/16	19	.437	1⅛
12	.250	11/16	20	.437	1¼
13	.250	13/16	21	.500	1¼
14	.312	11/16	22	.500	1½
15	.312	13/16	23	.625	1½
16	.375	7/8	24	.625	1¾
17	.375	1			

ARC-ROTATOR CAPACITOR



The ARC is an antenna rotator replacement capacitor. Quality construction features an etched cathode design.

50 VOLTS DC

CAT. NO.	CAP/MFD	SIZE	DEALER NET
ARC-1A	75-90	⅞ x 2¾	$.75
ARC-2	100-120	1 x 2¾	.99

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE MCS MINIATURIZED SOLID ELECTROLYTE TANTALUMS (MIL TYPES CS12 & CS13) TO MIL-C-26655A

True Subminiature Sizes
Solid Tantalum Electrolyte
Hermetically Sealed Metal Cases

No Electrolyte Leakage
Tolerance ±20%
Closer Tolerances on Request.

SUPPLIED WITH PLASTIC INSULATED SLEEVE

6 VOLTS

Catalog Number	Capacity in MFD	Case Size
MCS13B565	5.6	A
MCS13B685	6.8	A
MCS13B825	8.2	B
MCS13B106	10.0	B
MCS13B476	47.0	B
MCS13B566	56.0	B
MCS13B107	100.0	C
MCS13B127	120.0	C
MCS13B157	150.0	C
MCS13B187	180.0	C
MCS13B227	220.0	D
MCS13B337	330.0	D

10 VOLTS

Catalog Number	Capacity in MFD	Case Size
MCS13C395	3.9	A
MCS13C475	4.7	A
MCS13C565	5.6	B
MCS13C685	6.8	B
MCS13C276	27.0	B
MCS13C336	33.0	B
MCS13C396	39.0	B
MCS13C686	68.0	C
MCS13C107	100.0	C
MCS13C227	220.0	D

15 VOLTS

Catalog Number	Capacity in MFD	Case Size
MCS13D275	2.7	A
MCS13D335	3.3	A
MCS13D395	3.9	B
MCS13D475	4.7	B
MCS13D186	18.0	B
MCS13D226	22.0	B
MCS13D566	56.0	C
MCS13D826	82.0	D

20 VOLTS

Catalog Number	Capacity in MFD	Case Size
MCS13E125	1.2	A
MCS13E155	1.5	A
MCS13E185	1.8	A
MCS13E225	2.2	A
MCS13E275	2.7	B
MCS13E335	3.3	B
MCS13E106	10.0	B
MCS13E126	12.0	B
MCS13E156	15.0	B
MCS13E336	33.0	C
MCS13E396	39.0	C
MCS13E476	47.0	C

35 VOLTS

Catalog Number	Capacity in MFD	Case Size
MCS13F472	0.0047	A
MCS13F562	0.0056	A
MCS13F682	0.0068	A
MCS13F882	0.0082	A
MCS13F103	0.01	A
MCS13F123	0.012	A
MCS13F153	0.015	A
MCS13F183	0.018	A
MCS13F223	0.022	A
MCS13F273	0.027	A
MCS13F333	0.033	A
MCS13F393	0.039	A
MCS13F473	0.047	A
MCS13F683	0.068	A
MCS13F823	0.082	A
MCS13F104	0.1	A
MCS13F124	0.12	A
MCS13F154	0.15	A
MCS13F184	0.18	A
MCS13F224	0.22	A
MCS13F274	0.27	A
MCS13F334	0.33	A
MCS13F394	0.39	A
MCS13F474	0.47	A
MCS13F564	0.56	A
MCS13F684	0.68	A
MCS13F824	0.82	A
MCS13F105	1.0	A
MCS13F125	1.2	B
MCS13F155	1.5	B
MCS13F185	1.8	B
MCS13F225	2.2	B
MCS13F275	2.7	B
MCS13F335	3.3	B
MCS13F395	3.9	B
MCS13F475	4.7	B
MCS13F565	5.6	B
MCS13F685	6.8	B
MCS13F825	8.2	C
MCS13F106	10.0	C
MCS13F126	12.0	C
MCS13F156	15.0	C
MCS13F186	18.0	C
MCS13F226	22.0	C
MCS13F276	27.0	C
MCS13F336	33.0	D
MCS13F476	47.0	D

	Diameter Length
Case Size A	.125 x .250
Case Size B	.173 x .438
Case Size C	.279 x .650
Case Size D	.341 x .750

GENERAL INSTRUMENT manufactures a wide range of capacity and voltages. Write for engineering bulletin for full information.

TYPE TAK, TAK-C, TAK-H MINIATURE SINTERED ANODE TANTALUMS (MIL TYPES CL64 & CL65)

Afford maximum space economy. Conventional cylindrical cases allow for various methods of mounting. Sealing method and materials used in manufacturing this capacitor assure protection against seepage and defect due to vibration. Manufactured to meet MIL-C-3965 specification, style CL-64 and CL-65 (insulated sleeve). For full details write for Engr. Bulletin ET-8.

TEMPERATURE OPERATING RANGES
No Voltage Rating

TAK	−55°C to 85°C
TAK-C	−55°C to 100°C
TAK-H	−55°C to 125°C

STANDARD LISTING TO −15, +20

6 VOLTS

Mfd.	Cat. No.	Case Size
30	TAK-30T6B	B
50	TAK-30T6B	B
68	TAK-68T6B	B
140	TAK-140T6E	E
200	TAK-200T6E	E
270	TAK-270T6F	F
330	TAK-330T6F	F
450	TAK-450T6F	F
560	TAK-560T6F	F

10 VOLTS

Mfd.	Cat. No.	Case Size
20	TAK-20T10B	B
35	TAK-35T10B	B
47	TAK-47T10B	B
100	TAK-100T10E	E
150	TAK-150T10E	E
180	TAK-180T10E	E
250	TAK-250T10F	F
320	TAK-320T10F	F
390	TAK-390T10F	F

15 VOLTS

Mfd.	Cat. No.	Case Size
15	TAK-15T15B	B
33	TAK-33T15B	B
40	TAK-40T15D	D
70	TAK-70T15E	E
100	TAK-100T15E	E
120	TAK-120T15E	E
170	TAK-170T15F	F
225	TAK-225T15F	F
270	TAK-270T15F	F

25 VOLTS

Mfd.	Cat. No.	Case Size
10	TAK-10T25B	B
22	TAK-22T25B	B
30	TAK-30T25D	D
70	TAK-70T25E	E
100	TAK-100T25E	E
150	TAK-150T25F	F
180	TAK-180T25F	F

30 VOLTS

Mfd.	Cat. No.	Case Size
8	TAK-8T30B	B
15	TAK-15T30B	B
25	TAK-25T30D	D
40	TAK-40T30E	E
68	TAK-68T30E	E
100	TAK-100T30F	F
150	TAK-150T30F	F

50 VOLTS

Mfd.	Cat. No.	Case Size
5	TAK-5T50B	B
10	TAK-10T50B	B
20	TAK-20T50D	D
25	TAK-25T50E	E
40	TAK-40T50E	E
47	TAK-47T50E	E
60	TAK-60T50F	F
82	TAK-82T50F	F
100	TAK-100T50F	F

75 VOLTS

Mfd.	Cat. No.	Case Size
3.5	TAK-3.5T75B	B
6.8	TAK-6.8T75B	B
12	TAK-12T75D	D
15	TAK-15T75E	E
33	TAK-33T75E	E
40	TAK-40T75F	F
56	TAK-56T75F	F
70	TAK-70T75F	F

100 VOLTS

Mfd.	Cat. No.	Case Size
2.5	TAK-2.5T100B	B
4.7	TAK-4.7T100B	B
8	TAK-8T100D	D
11	TAK-11T100E	E
22	TAK-22T100F	F
30	TAK-30T100F	F
43	TAK-43T100F	F

CASE SIZES

	Uninsulated Case		Insulated Case		
A.	Dia. ±0.010	Length ±0.016	Dia. ±0.031	Length ±0.031	Lead Length ±¼
A.	0.212	0.375	0.234	0.437	1½
B.	0.187	0.453	0.203	0.515	1½
C.	0.212	0.468	0.234	0.531	1½
D.	0.212	0.531	0.234	0.593	1½
E.	0.275	0.640	0.296	0.703	2¼
F.	0.375	0.765	0.390	0.828	2¼

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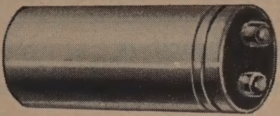
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION



TYPE CQM

Exacting performance of digital computers and related equipment demands components of the highest grade. Improved internal construction provides for low impedance at high frequencies, assures superior operation through the operating range at −20°C to +85°C.

Cases are of heavy guage aluminum. A leak proof seal is obtained by rolling the top of the case into a pliable synthetic rubber gasket. Terminals are available in two styles: tapped terminal inserts, for bus bar connections and solder lug terminals for permanent connections. The capacitors are furnished with bare case, one piece vinyl sleeve, or clear rigid plastic sleeve.

Capacitance Mfd.	Catalog Number	Dia. Length
	2.5 WVDC 3V Surge	
14,000	CQMS 100	1⅜ x 3⅛
20,000	CQMS 101	1⅜ x 4⅛
24,000	CQMS 102	1⅜ x 4⅝
33,000	CQMS 103	1¾ x 4⅛
50,000	CQMS 104	2 x 4⅛
58,000	CQMS 105	2 x 4⅝
75,000	CQMS 106	2 x 5⅝
85,000	CQMS 107	2½ x 4⅛
100,000	CQMS 108	2½ x 4⅝
125,000	CQMS 109	3 x 4⅛
145,000	CQMS 110	3 x 4⅝
185,000	CQMS 111	3 x 5⅝
	5.0 WVDC 7V Surge	
10,700	CQMS 200	1⅜ x 3⅛
16,000	CQMS 201	1⅜ x 4⅛
19,000	CQMS 202	1⅜ x 4⅝
25,000	CQMS 203	1¾ x 4⅛
37,000	CQMS 204	2 x 4⅛
43,000	CQMS 205	2 x 4⅝
55,000	CQMS 206	2 x 5⅝
65,000	CQMS 207	2½ x 4⅛
76,000	CQMS 208	2½ x 4⅝
96,000	CQMS 211	3 x 4⅛
110,000	CQMS 210	3 x 4⅝
145,000	CQMS 211	3 x 5⅝
	7.5 WVDC 10V Surge	
6,200	CQMS 300	1⅜ x 3⅛
9,300	CQMS 301	1⅜ x 4⅛
10,500	CQMS 302	1⅜ x 4⅝
15,000	CQMS 303	1¾ x 4⅛
23,000	CQMS 304	2 x 4⅛
26,000	CQMS 305	2 x 4⅝
35,000	CQMS 306	2 x 5⅝
39,000	CQMS 307	2½ x 4⅛
45,000	CQMS 308	2½ x 4⅝
58,000	CQMS 309	3 x 4⅛
67,000	CQMS 310	3 x 4⅝
87,000	CQMS 311	3 x 5⅝
	10 WVDC 15V Surge	
5,300	CQMS 400	1⅜ x 3⅛
8,000	CQMS 401	1⅜ x 4⅛
9,200	CQMS 402	1⅜ x 4⅝
13,000	CQMS 403	1¾ x 4⅛
18,000	CQMS 404	2 x 4⅛
20,000	CQMS 405	2 x 4⅝
25,000	CQMS 406	2 x 5⅝
33,000	CQMS 407	2½ x 4⅛
38,000	CQMS 408	2½ x 4⅝
48,000	CQMS 409	3 x 4⅛
56,000	CQMS 410	3 x 4⅝
79,000	CQMS 411	3 x 5⅝
	15 WVDC 20V Surge	
4,400	CQMS 500	1⅜ x 3⅛
6,600	CQMS 501	1⅜ x 4⅛
7,700	CQMS 502	1⅜ x 4⅝
10,700	CQMS 503	1¾ x 4⅛
15,500	CQMS 504	2 x 4⅛
18,000	CQMS 505	2 x 4⅝
25,000	CQMS 506	2 x 5⅝
28,000	CQMS 507	2½ x 4⅛
33,000	CQMS 508	2½ x 4⅝
41,500	CQMS 509	3 x 4⅛
47,500	CQMS 510	3 x 4⅝
62,000	CQMS 511	3 x 5⅝
	20 WVDC 30V Surge	
2,900	CQMS 600	1⅜ x 3⅛
4,400	CQMS 601	1⅜ x 4⅛
5,100	CQMS 602	1⅜ x 4⅝
7,100	CQMS 603	1¾ x 4⅛
10,500	CQMS 604	2 x 4⅛
12,200	CQMS 605	2 x 4⅝
17,000	CQMS 606	2 x 5⅝
19,200	CQMS 607	2½ x 4⅛
22,400	CQMS 608	2½ x 4⅝
27,500	CQMS 609	3 x 4⅛
32,000	CQMS 610	3 x 4⅝
42,000	CQMS 611	3 x 5⅝

Capacitance Mfd.	Catalog Number	Dia. Length
	25 WVDC 35V Surge	
2,750	CQMS 700	1⅜ x 3⅛
4,200	CQMS 701	1⅜ x 4⅛
4,800	CQMS 702	1⅜ x 4⅝
6,600	CQMS 703	1¾ x 4⅛
9,200	CQMS 704	2 x 4⅛
10,700	CQMS 705	2 x 4⅝
15,700	CQMS 706	2 x 5⅝
17,000	CQMS 707	2½ x 4⅛
19,300	CQMS 708	2½ x 4⅝
25,000	CQMS 709	3 x 4⅛
29,000	CQMS 710	3 x 4⅝
37,000	CQMS 711	3 x 5⅝
	30 WVDC 45V Surge	
1,850	CQMS 800	1⅜ x 3⅛
2,750	CQMS 801	1⅜ x 4⅛
3,200	CQMS 802	1⅜ x 4⅝
4,500	CQMS 803	1¾ x 4⅛
6,500	CQMS 804	2 x 4⅛
7,500	CQMS 805	2 x 4⅝
10,500	CQMS 806	2 x 5⅝
11,500	CQMS 807	2½ x 4⅛
13,300	CQMS 808	2½ x 4⅝
16,500	CQMS 809	3 x 4⅛
19,000	CQMS 810	3 x 4⅝
25,000	CQMS 811	3 x 5⅝
	40 WVDC 55V Surge	
1,500	CQMS 900	1⅜ x 3⅛
2,300	CQMS 901	1⅜ x 4⅛
2,700	CQMS 902	1⅜ x 4⅝
3,700	CQMS 903	1¾ x 4⅛
5,300	CQMS 904	2 x 4⅛
6,200	CQMS 905	2 x 4⅝
8,700	CQMS 906	2 x 5⅝
9,500	CQMS 907	2½ x 4⅛
11,000	CQMS 908	2½ x 4⅝
13,700	CQMS 909	3 x 4⅛
16,000	CQMS 910	3 x 4⅝
21,000	CQMS 911	3 x 5⅝
	50 WVDC 75V Surge	
1,050	CQMS 1000	1⅜ x 3⅛
1,650	CQMS 1001	1⅜ x 4⅛
1,850	CQMS 1002	1⅜ x 4⅝
2,600	CQMS 1003	1¾ x 4⅛
4,000	CQMS 1004	2 x 4⅛
4,400	CQMS 1005	2 x 4⅝
6,100	CQMS 1006	2 x 5⅝
6,700	CQMS 1007	2½ x 4⅛
7,800	CQMS 1008	2½ x 4⅝
10,000	CQMS 1009	3 x 4⅛
11,000	CQMS 1010	3 x 4⅝
16,000	CQMS 1011	3 x 5⅝
	75 WVDC 100V Surge	
700	CQMS 1100	1⅜ x 3⅛
1,100	CQMS 1101	1⅜ x 4⅛
1,300	CQMS 1102	1⅜ x 4⅝
1,700	CQMS 1103	1¾ x 4⅛
2,500	CQMS 1104	2 x 4⅛
2,900	CQMS 1105	2 x 4⅝
3,750	CQMS 1106	2 x 5⅝
4,300	CQMS 1107	2½ x 4⅛
5,000	CQMS 1108	2½ x 4⅝
6,500	CQMS 1109	3 x 4⅛
7,600	CQMS 1110	3 x 4⅝
9,800	CQMS 1111	3 x 5⅝
	100 WVDC 150 Surge	
550	CQMS 1200	1⅜ x 3⅛
850	CQMS 1201	1⅜ x 4⅛
950	CQMS 1202	1⅜ x 4⅝
1,350	CQMS 1203	1¾ x 4⅛
1,800	CQMS 1204	2 x 4⅛
2,100	CQMS 1205	2 x 4⅝
3,000	CQMS 1206	2 x 5⅝
3,100	CQMS 1207	2½ x 4⅟
3,600	CQMS 1208	2½ x 4⅝
4,800	CQMS 1209	3 x 4⅛
5,600	CQMS 1210	3 x 4⅝
8,000	CQMS 1211	3 x 5⅝

Supplied with plastic sleeve and tapped terminal inserts.

Capacitance Mfd.	Catalog Number	Dia. Length
	150 WVDC 200V Surge	
375	CQMS 1300	1⅜ x 3⅛
550	CQMS 1301	1⅜ x 4⅛
650	CQMS 1302	1⅜ x 4⅝
900	CQMS 1303	1¾ x 4⅛
1,300	CQMS 1304	2 x 4⅛
1,500	CQMS 1305	2 x 4⅝
2,100	CQMS 1306	2 x 5⅝
2,100	CQMS 1307	2½ x 4⅛
2,500	CQMS 1308	2½ x 4⅝
3,200	CQMS 1309	3 x 4⅛
3,800	CQMS 1310	3 x 4⅝
4,800	CQMS 1311	3 x 5⅝
	200 WVDC 250V Surge	
300	CQMS 1400	1⅜ x 3⅛
425	CQMS 1401	1⅜ x 4⅛
500	CQMS 1402	1⅜ x 4⅝
670	CQMS 1403	1¾ x 4⅛
1,000	CQMS 1404	2 x 4⅛
1,150	CQMS 1405	2 x 4⅝
1,500	CQMS 1406	2 x 5⅝
1,600	CQMS 1407	2½ x 4⅛
1,850	CQMS 1408	2½ x 4⅝
2,500	CQMS 1409	3 x 4⅛
2,800	CQMS 1410	3 x 4⅝
	250 WVDC 300V Surge	
200	CQMS 1500	1⅜ x 3⅛
300	CQMS 1501	1⅜ x 4⅛
350	CQMS 1502	1⅜ x 4⅝
450	CQMS 1503	1¾ x 4⅛
700	CQMS 1504	2 x 4⅛
800	CQMS 1505	2 x 4⅝
1,000	CQMS 1506	2 x 5⅝
1,200	CQMS 1507	2½ x 4⅛
1,400	CQMS 1508	2½ x 4⅝
1,850	CQMS 1509	3 x 4⅛
2,150	CQMS 1510	3 x 4⅝
	300 WVDC 350V Surge	
160	CQMS 1600	1⅜ x 3⅛
250	CQMS 1601	1⅜ x 4⅛
290	CQMS 1602	1⅜ x 4⅝
400	CQMS 1603	1¾ x 4⅛
575	CQMS 1604	2 x 4⅛
675	CQMS 1605	2 x 4⅝
800	CQMS 1606	2 x 5⅝
975	CQMS 1607	2½ x 4⅛
1,150	CQMS 1608	2½ x 4⅝
1,500	CQMS 1609	3 x 4⅛
1,750	CQMS 1610	3 x 4⅝
	350 WVDC 400V Surge	
130	CQMS 1700	1⅜ x 3⅛
200	CQMS 1701	1⅜ x 4⅛
235	CQMS 1702	1⅜ x 4⅝
300	CQMS 1703	1¾ x 4⅛
475	CQMS 1704	2 x 4⅛
550	CQMS 1705	2 x 4⅝
600	CQMS 1706	2 x 5⅝
800	CQMS 1707	2½ x 4⅛
925	CQMS 1708	2½ x 4⅝
1,200	CQMS 1709	3 x 4⅛
1,350	CQMS 1710	3 x 4⅝
	400 WVDC 475V Surge	
100	CQMS 1800	1⅜ x 3⅛
150	CQMS 1801	1⅜ x 4⅛
200	CQMS 1802	1⅜ x 4⅝
250	CQMS 1803	1¾ x 4⅛
350	CQMS 1804	2 x 4⅛
400	CQMS 1805	2 x 4⅝
525	CQMS 1806	2 x 5⅝
600	CQMS 1807	2½ x 4⅛
700	CQMS 1808	2½ x 4⅝
900	CQMS 1809	3 x 4⅛
1,000	CQMS 1810	3 x 4⅝
	450 WVDC 525V Surge	
90	CQMS 1900	1⅜ x 3⅛
125	CQMS 1901	1⅜ x 4⅛
160	CQMS 1902	1⅜ x 4⅝
200	CQMS 1903	1¾ x 4⅛
300	CQMS 1904	2 x 4⅛
350	CQMS 1905	2 x 4⅝
500	CQMS 1906	2 x 5⅝
500	CQMS 1907	2½ x 4⅛
600	CQMS 1908	2½ x 4⅝
700	CQMS 1909	3 x 4⅛
800	CQMS 1910	3 x 4⅝

For +65°C Capacitors Order Type PQMS

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type IMP Molded Tubular Paper Capacitors

Noninductive extended-foil section molded in noninflammable thermosetting plastic. High insulation resistance. Excellent power factor. Withstands standard RETMA Humidity-resistance Test. Extremely rugged. Very long life.

Temperature Rating:
—40°C to + 100°C

Standard Tolerance:
.0001- .001 UF: —25% to + 60%
.0011- .009 UF: —20% to + 40%
.01 -1.0 UF: —20% to + 20%

Catalogue Number	Cap. in UF	Diameter	Length	Dealer Net
	200 Volts DC Working			
IMP2-S2	.02	⅜	1¼	.15
IMP2-S47	.047	⅜	1¼	.18
IMP2-S5	.05	⅜	1¼	.18
IMP2-P1	.1	7/16	1¼	.21
IMP2-P15	.15	½	1½	.21
IMP2-P25	.25	⅝	1⅞	.27
IMP2-P47	.47	⅝	1⅞	.36
IMP2-P5	.5	⅝	1⅞	.36
IMP2-1	1.	¾	2¼	.51
	400 Volts DC Working			
IMP4-S1	.01	5/16	1	.15
IMP4-S2	.02	⅜	1¼	.15
IMP4-S22	.022	⅜	1¼	.15
IMP4-S25	.025	⅜	1¼	.15
IMP4-S3	.03	⅜	1¼	.15
IMP4-S4	.04	7/16	1¼	.18
IMP4-S47	.047	7/16	1¼	.18
IMP4-S5	.05	7/16	1¼	.18
IMP4-S68	.068	½	1½	.21
IMP4-P1	.1	½	1½	.21
IMP4-P15	.15	⅝	1⅞	.24
IMP4-P22	.22	⅝	1⅞	.24
IMP4-P25	.25	⅝	1⅞	.27
IMP4-P47	.47	¾	2¼	.36
IMP4-P5	.5	¾	2¼	.36
	600 Volts DC Working			
IMP6-T1	.0001	5/16	1	.15
IMP6-T25	.00025	5/16	1	.15
IMP6-T4	.0004	5/16	1	.15
IMP6-T5	.0005	5/16	1	.15
IMP6-D1	.001	5/16	1	.15
IMP6-D15	.0015	5/16	1	.15
IMP6-D2	.002	5/16	1	.15
IMP6-D22	.0022	5/16	1	.15
IMP6-D3	.003	5/16	1	.15
IMP6-D33	.0033	5/16	1	.15
IMP6-D4	.004	5/16	1	.15
IMP6-D47	.0047	5/16	1	.15
IMP6-D5	.005	5/16	1	.15
IMP6-D6	.006	⅜	1¼	.18
IMP6-D68	.0068	⅜	1¼	.18
IMP6-D8	.008	⅜	1¼	.18
IMP6-S1	.01	⅜	1¼	.18
IMP6-S15	.015	⅜	1¼	.18
IMP6-S2	.02	7/16	1¼	.18
IMP6-S22	.022	7/16	1¼	.18
IMP6-S3	.03	7/16	1¼	.21
IMP6-S33	.033	½	1½	.21
IMP6-S4	.04	½	1½	.24
IMP6-S47	.047	½	1½	.24
IMP6-S5	.05	½	1½	.24
IMP6-S6	.06	⅝	1⅞	.27
IMP6-S68	.068	⅝	1⅞	.27
IMP6-P1	.1	⅝	1⅞	.27
IMP6-P2	.2	¾	2¼	.33
IMP6-P22	.22	¾	2¼	.33
IMP6-P25	.25	¾	2¼	.33
CT6P5*	.5	15/16	2¾	.48

Catalogue Number	Cap. in UF	Diameter	Length	Dealer Net
	1000 Volts DC Working			
IMP10-T5	.0005	5/16	1	.30
IMP10-D1	.001	5/16	1	.30
IMP10-D15	.0015	5/16	1	.30
IMP10-D2	.002	⅜	1¼	.30
IMP10-D22	.0022	⅜	1¼	.30
IMP10-D3	.003	⅜	1¼	.30
IMP10-D4	.004	⅜	1¼	.30
IMP10-D47	.0047	⅜	1¼	.30
IMP10-D5	.005	⅜	1¼	.30
IMP10-D68	.0068	⅜	1¼	.30
IMP10-S1	.01	7/16	1¼	.30
IMP10-S15	.015	½	1½	.30
IMP10-S2	.02	½	1½	.30
IMP10-S22	.022	½	1½	.30
IMP10-S3	.03	⅝	1⅞	.30
IMP10-S35	.035	⅝	1⅞	.30
IMP10-S47	.047	⅝	1⅞	.36
IMP10-S5	.05	⅝	1⅞	.36
IMP10-S68	.068	⅝	1⅞	.39
IMP10-P1	.1	¾	2¼	.45
	1,600 Volts DC Working			
IMP16-T5	.0005	⅜	1¼	.39
IMP16-D1	.001	⅜	1¼	.39
IMP16-D15	.0015	⅜	1¼	.39
IMP16-D2	.002	⅜	1¼	.39
IMP16-D22	.0022	⅜	1¼	.39
IMP16-D3	.003	7/16	1¼	.39
IMP16-D33	.0033	7/16	1¼	.39
IMP16-D4	.004	7/16	1¼	.39
IMP16-D47	.0047	7/16	1¼	.39
IMP16-D5	.005	7/16	1¼	.39
IMP16-D6	.006	½	1½	.39
IMP16-D68	.0068	½	1½	.39
IMP16-D7	.007	½	1½	.39
IMP16-D75	.0075	½	1½	.39
IMP16-D8	.008	½	1½	.39
IMP16-S1	.01	½	1½	.42
IMP16-S15	.015	⅝	1⅞	.42
IMP16-S2	.02	⅝	1⅞	.42
IMP16-S22	.022	⅝	1⅞	.42
IMP16-S3	.03	⅝	1⅞	.42
IMP16-S4	.04	⅝	1⅞	.42
IMP16-S5	.05	¾	2¼	.42
*CT16-S68	.068	15/16	2⅞	.48
*CT16-P1	.1	15/16	2⅞	.51
	6,000 Volts DC Working			
*CT60-T5	.0005	⅝	2	.78
*CT60-D1	.001	⅝	2	.78
*CT60-D5	.005	13/16	2¼	.78
	10,000 Volts DC Working			
*CT100-D1	.001	¾	2⅝	.90
*CT100-T5	.0005	⅝	2	.90
	12,500 Volts DC Working			
*CT125-T25	.00025	¾	2⅝	1.02
*CT125-T5	.0005	¾	2⅝	1.02

* Supplied in ceramic-case units.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type 111 "Gold Standard" Molded Mylar* Capacitors

Noninductive polyester film extended foil section, molded in a noninflammable thermosetting plastic case. Very high insulation resistance. Excellent power factor. Greatly reduced sizes. Dielectric impervious to moisture. Extremely rugged with a very long life.

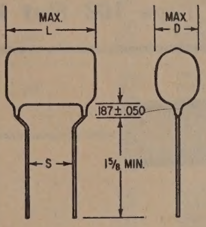
Temperature Rating: —40°C to + 100°C
Standard Tolerance: ± 20%

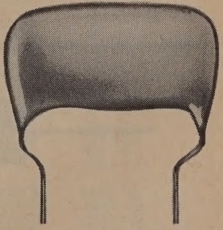
Catalog Number	Cap. in Mfd.	Size in Inches Dia.	Size in Inches Length	Dealer Net
	200 Volts DC Working			
111-2S2	.02	5/16	1	.15
111-2S47	.047	3/8	1 1/4	.15
111-2S5	.05	3/8	1 1/4	.15
111-2P1	.1	3/8	1 1/4	.21
111-2P15	.15	7/16	1 1/4	.21
111-2P22	.22	1/2	1 1/2	.24
111-2P25	.25	1/2	1 1/2	.27
111-2P47	.47	5/8	1 7/8	.36
111-2P5	.5	5/8	1 7/8	.36
111-2-1	1.0	3/4	2 1/4	.57
	400 Volts DC Working			
111-4S1	.01	5/16	1	.15
111-4S15	.015	5/16	1	.15
111-4S2	.02	3/8	1 1/4	.15
111-4S22	.022	3/8	1 1/4	.18
111-4S333	.033	3/8	1 1/4	.18
111-4S47	.047	3/8	1 1/4	.18
111-4S5	.05	3/8	1 1/4	.18
111-4S68	.068	7/16	1 1/4	.21
111-4P1	.1	1/2	1 1/2	.21
111-4P15	.15	1/2	1 1/2	.24
111-4P22	.22	5/8	1 7/8	.30
111-4P25	.25	5/8	1 7/8	.33
111-4P33	.33	5/8	1 7/8	.39
111-4P47	.47	3/4	2 1/4	.48
111-4P5	.5	3/4	2 1/4	.51
111-4P68	.68	3/4	2 1/4	.69
111-6T1	.0001	5/16	1	.15
111-6T25	.00025	5/16	1	.15
111-6T4	.0004	5/16	1	.15
111-6T5	.0005	5/16	1	.15
111-6D1	.001	5/16	1	.15
111-6D15	.0015	5/16	1	.15
111-6D2	.002	5/16	1	.15
111-6D22	.0022	5/16	1	.15
111-6D3	.003	5/16	1	.15
111-6D33	.0033	5/16	1	.15
111-6D4	.004	5/16	1	.15
111-6D47	.0047	5/16	1	.15
111-6D5	.005	5/16	1	.15
111-6D6	.006	5/16	1	.15
111-6D68	.0068	5/16	1	.18
111-6S1	.01	5/16	1	.18
111-6S15	.015	3/8	1 1/4	.18
111-6S2	.02	3/8	1 1/4	.18
111-6S22	.022	3/8	1 1/4	.18
111-6S3	.03	7/16	1 1/4	.21
111-6S33	.033	7/16	1 1/4	.21
111-6S4	.04	7/16	1 1/4	.21
111-6S47	.047	7/16	1 1/4	.24
111-6S5	.05	7/16	1 1/4	.24
111-6S6	.06	7/16	1 1/4	.24
111-6S68	.068	17/32	1 1/4	.24
111-6P1	.1	5/8	1 7/8	.27
111-6P15	.15	5/8	1 7/8	.33
111-6P2	.2	3/4	2 1/4	.39
111-6P22	.22	3/4	2 1/4	.39
111-6P25	.25	3/4	2 1/4	.45
111-6P33	.33	3/4	2 1/4	.54

Type 151 Gold-Dip Mylar* Capacitors

A new Mylar Plastic Dipped Capacitor engineered for highest reliability and especially designed for printed board circuitry as well as conventional application. General Instrument Gold-Dip Capacitors Type 151 feature:

- ▲ New reliable Dipped Plastic Coating
- ▲ New Moisture Resistance
- ▲ −55°C to +100°C operation
- ▲ High insulation resistance
- ▲ 10% capacity tolerance





Catalog Number	Capacity in Mfds.	D	L	S	Dealer Net
	200 Volts DC Working				
151-2P1	.1	5/8	1 1/4	23/32	.21
151-2P15	.15	5/8	1 1/4	23/32	.21
151-2P22	.22	11/16	1 11/32	27/32	.24
151-2P25	.25	11/16	1 11/32	27/32	.27
151-2P47	.47	7/8	1 9/16	1 3/32	.36
151-2P5	.5	7/8	1 9/16	1 3/32	.36
	400 Volts DC Working				
151-4S1	.01	7/16	3/4	1/4	.15
151-4S15	.015	7/16	3/4	1/4	.15
151-4S2	.02	1/2	7/8	7/16	.15
151-4S22	.022	1/2	7/8	7/16	.18
151-2P5	.5	7/8	1 9/16	1 3/32	.36
151-4S33	.033	1/2	7/8	7/16	.18
151-4S47	.047	5/8	1 1/4	23/32	.18
151-4S5	.05	5/8	1 1/4	23/32	.18
151-4S68	.068	5/8	1 1/4	23/32	.21
151-4P1	.1	5/8	1 1/4	23/32	.21
151-4P15	.15	11/16	1 11/32	27/32	.24
151-4P22	.22	7/8	1 9/16	1 3/32	.30
151-4P25	.25	7/8	1 9/16	1 3/32	.33
	600 Volts DC Working				
151-6D1‡	.001	7/16	3/4	1/4	.15
151-6D15‡	.0015	7/16	3/4	1/4	.15
151-6D2‡	.002	7/16	3/4	1/4	.15
151-6D22‡	.0022	7/16	3/4	1/4	.15
151-6D3‡	.003	7/16	3/4	1/4	.15
151-6D33‡	.0033	7/16	3/4	1/4	.15
151-6D4‡	.004	7/16	3/4	1/4	.15
151-6D47‡	.0047	7/16	3/4	1/4	.15
151-6D5‡	.005	7/16	3/4	1/4	.15
151-6D6	.006	7/16	3/4	1/4	.18
151-6D68	.0068	7/16	3/4	1/4	.18
151-6S1	.01	1/2	7/8	7/16	.18
151-6S15	.015	1/2	7/8	7/16	.18
151-6S2	.02	1/2	7/8	7/16	.18
151-6S22	.022	1/2	7/8	7/16	.18
151-6S3	.03	5/8	1 1/4	23/32	.21
151-6S33	.033	5/8	1 1/4	23/32	.21
151-6S4	.04	5/8	1 1/4	23/32	.21
151-6S47	.047	5/8	1 1/4	23/32	.24
151-6S5	.05	5/8	1 1/4	23/32	.24
151-6S6	.06	11/16	1 11/32	27/32	.24
151-6S68	.068	11/16	1 11/32	27/32	.24
151-6P1	.1	11/16	1 11/32	27/32	.27
151-6P15	.15	7/8	1 9/16	1 3/32	.33
151-6P2	.2	7/8	1 9/16	1 3/32	.39
151-6P22	.22	7/8	1 9/16	1 3/32	.39
151-6P25	.25	7/8	1 9/16	1 3/32	.45

‡Indicates Tolerance of +20%

* DuPont Reg.

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type 107 Wrapped Mylar® Capacitors

Noninductive polyester film extended foil section, assembled in Mylar wrapper case. Ends filled with thermosetting Pyroset resin. Tinned leads firmly embedded in the resin and will not pull out. Sizes are greatly reduced. Very high insulation resistance, dielectric impervious to moisture.

Temperature Range:

—30°C. to + 110°C

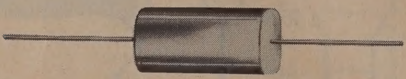
Standard Tolerance.

.001 to .0047 Mfd. ±30%
.005 to 1.0 Mfd. ±20%

Catalog No.	Capacity	Diameter	Length
	150 VDC Working		
107V103	.01	.156	½
107V153	.015	.187	½
107V223	.022	.203	⅝
107V333	.033	.218	⅝
107V473	.047	.234	¾
107V683	.068	.265	¾
107V104	.1	.281	⅞
107V154	.15	.328	⅞
107V224	.22	.328	1
107V334	.33	.375	1⅛
107V474	.47	.468	1¼
107V684	.68	.562	1¼
107V105	1.00	.593	1½
107V155	1.5	.718	1¾
107V205	2.00	.812	1¾
	200 VDC Working		
107C102	.001	.156	½
107C152	.0015	.156	½
107C222	.0022	.156	½
107C332	.0033	.156	½
107C472	.0047	.156	½
107C682	.0068	.156	½
107C103	.01	.171	½
107C153	.015	.203	½
107C223	.022	.250	⅝
107C333	.033	.250	¾
107C473	.047	.296	¾
107C683	.068	.343	¾
107C104	.1	.375	⅞
107C154	.15	.453	⅞
107C224	.22	.438	1⅛
107C334	.33	.484	1⅛
107C474	.47	.546	1¼
107C684	.68	.609	1⅝
107C105	1.	.671	1¾
107C155	1.5	.828	1¾
107C205	2.	.875	1⅞
	400 VDC Working		
107E102	.001	.156	⅝
107E152	.0015	.156	⅝
107E222	.0022	.156	⅝
107E332	.0033	.156	⅝
107E472	.0047	.187	⅝
107E682	.0068	.218	⅝
107E103	.01	.250	⅝
107E153	.015	.296	⅝
107E223	.022	.312	¾
107E333	.033	.312	⅞
107E473	.047	.343	⅞
107E683	.068	.375	1
107E104	.1	.421	1
107E154	.15	.468	1¼
107E224	.22	.546	1⅜
107E334	.33	.593	1⅝
107E474	.47	.671	1⅝
107E684	.68	.796	1⅜
107E105	1.	.812	2
107E155	1.5	.921	2¼
107E205	2.	1.093	2¼
	600 VDC Working		
107F102	.001	.156	¾
107F152	.0052	.171	¾
107F222	.0022	.187	¾
107E332	.0033	.203	¾
107F472	.0047	.234	¾
107F682	.0068	.265	¾
107F103	.01	.312	¾
107F153	.015	.312	⅞
107F223	.022	.375	⅞
107F333	.033	.406	1
107F473	.047	.453	1
107F683	.068	.531	1
107F104	.1	.562	1⅜
107F154	.15	.671	1⅜
107F224	.22	.718	1⅝
107F334	.33	.756	2
107F474	.47	.859	2
107F684	.68	1.016	2
107F105	1.	1.125	2½
107F155	1.5	1.234	3
107F205	2.	1.421	3

Available ±10% tolerance (K) 107F205K 2.0 mfd. 600V ±10 ±20% tolerance (M) 107F205M 2.0 mfd. 600V ±20

Type 103 Flat Mylar® Capacitors



Smallest film capacitors made. Made with nonhygroscopic polyester dielectric and wrapper. Ends sealed with thermosetting resin. Capable of passing rigid humidity requirements (MIL-C-91). Will operate up to 125°C. Extremely high insulation resistance.

Part No.	Cap. Mfd.	T	W	L
	150 Working Volts DC			
103V102	.001	3/16	5/16	13/16
103V152	.0015	3/16	5/16	13/16
103V222	.0022	3/16	5/16	13/16
103V332	.0033	3/16	5/16	13/16
103V472	.0047	3/16	5/16	13/16
103V682	.0068	3/16	5/16	13/16
103V822	.0082	3/16	5/16	13/16
103V103	.01	3/16	5/16	13/16
103V153	.015	7/32	⅜	13/16
103V223	.022	7/32	7/16	13/16
103V333	.033	3/16	11/32	15/16
103V473	.047	3/16	⅜	15/16
103V683	.068	7/32	⅜	15/16
103V823	.082	7/32	13/32	15/16
103V104	0.1	¼	15/32	15/16
103V154	.15	¼	7/16	1 1/16
103V224	.22	¼	17/32	1¼
103V334	.33	5/16	19/32	1¼
103V474	.47	7/16	23/32	1 7/16
103V684	.68	13/32	23/32	1 11/16
103V824	.82	15/32	¾	1 11/16
103V105	1.0	13/32	¾	1⅞
	400 Working Volts DC			
103E102	.001	3/16	5/16	13/16
103E152	.0015	3/16	5/16	13/16
103E222	.0022	3/16	5/16	13/16
103E332	.0033	3/16	5/16	13/16
103E472	.0047	3/16	5/16	13/16
103E682	.0068	3/16	5/16	13/16
103E822	.0082	3/16	5/16	13/16
103E103	.01	3/16	5/16	13/16
103E153	.015	7/32	⅜	13/16
103E223	.022	7/32	7/16	13/16
103E333	.033	7/32	7/16	15/16
103E473	.047	¼	15/32	15/16
103E683	.068	9/32	½	1⅛
103E823	.082	9/32	15/32	1¼
103E104	.1	9/32	17/32	1¼
103E154	.15	5/16	19/32	1 11/16
103E224	.22	⅜	21/32	1⅞
103E334	.33	7/16	¾	1⅞
103E474	.47	½	⅞	1⅞
103E684	.68	17/32	15/16	2⅛
103E824	.82	17/32	31/32	2 5/16
103E105	1.0	9/16	1-	2 7/16
	600 Working Volts DC			
103F102	.001	3/16	5/16	13/16
103F152	.0015	3/16	5/16	13/16
103F222	.0022	3/16	5/16	13/16
103F332	.0033	3/16	⅜	⅞
103F472	.0047	3/16	13/32	⅞
103F682	.0068	7/32	13/32	⅞
103F822	.0082	¼	13/32	⅞
103F103	.01	¼	7/16	⅞
103F153	.015	5/16	½	⅞
103F223	.022	5/16	½	1 1/16
103F333	.033	9/32	½	1⅛
103F473	.047	5/16	17/32	1⅛
103F683	.068	5/16	19/32	1¼
103F823	.082	⅜	⅝	1 9/16
103F104	.1	13/32	21/32	1 9/16
103F154	.15	⅜	23/32	1⅞
103F224	.22	½	27/32	1⅞
103F334	.33	½	29/32	2⅛
103F474	.47	⅝	1 1/16	2⅛
103F684	.68	11/16	1 3/32	2 7/16

ALSO AVAILABLE: **Type 101 Flat Inserted Tab Construction.**
Type 103 Flat Extended Foil Construction.
For further details write for latest Engineering Bulletin.

GENERAL INSTRUMENT CAPACITORS

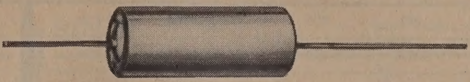
GENERAL INSTRUMENT CAPACITOR DIVISION

Glasseal Capacitors For Military and Commercial Application CPO4 and CPO5 to Mil-C-25C (Inserted Tabs)

G.I. Glasseal capacitors are subminiature metal cased tubular units which have been designed to meet severe and rigid operating requirements, especially where an important design consideration is limited space.

AVAILABLE IN
FOLLOWING CASE
STYLES:
CP10
CP11
CP13

"Glasseals" have proven themselves to be unsurpassed in reliability over the entire operating temp. range from —55° C to + 125° C.



NOTE: The capacitors listed in this table have a capacitance tolerance of ±10%.

		TYPE CP04AI* Plain Metal Case				TYPE CP05AI* Metal Case with Insulating Sleeve	
µF	WVDC	Char. K —55°C to +125°C	Size* D. x L.	µF	WVDC	Char. K —55°C to +125°C	Size * D. x L.
.001	600	CP04A1KF102K3	.235 x ¾	.001	600	CP05A1KF102K3	.298 x 13/16
.0015	600	CP04A1KF152K3	.235 x ¾	.0015	600	CP05A1KF152K3	.298 x 13/16
.0022	600	CP04A1KF222K3	.235 x ¾	.0022	600	CP05A1KF222K3	.298 x 13/16
.0033	600	CP04A1KF332K3	.235 x ¾	.0033	600	CP05A1KF332K3	.298 x 13/16
.0047	600	CP04A1KF472K3	.235 x ¾	.0047	600	CP05A1KF472K3	.298 x 13/16
.0068	600	CP04A1KF682K3	.235 x ¾	.0068	600	CP05A1KF682K3	.298 x 13/16
.01	400 600	CP04A1KE103K3 CP04A1KF103K3	.235 x ¾ .312 x ⅞	.01	400 600	CP05A1KE103K3 CP05A1KF103K3	.298 x 13/16 .375 x 15/16
.015	200 600	CP04A1KC153K3 CP04A1KF153K3	.235 x ¾ .312 x ⅞	.015	200 600	CP05A1KC153K3 CP05A1KF153K3	.298 x 13/16 .375 x 15/16
.022	200 600	CP04A1KC223K3 CP04A1KF223K3	.235 x ¾ .312 x ⅞	.022	200 600	CP05A1KC223K3 CP05A1KF223K3	.298 x 13/16 .375 x 15/16
.033	100 400 600	CP04A1KB333K3 CP04A1KE333K3 CP04A1KF333K3	.235 x ¾ .312 x ⅞ .400 x ⅞	.033	100 400 600	CP05A1KB333K3 CP05A1KE333K3 CP05A1KF333K3	2.98 x 13/16 .375 x 15/16 .463 x 15/16
.047	200 400 600	CP04A1KC473K3 CP04A1KE473K3 CP04A1KF473K3	.312 x ⅞ .400 x ⅞ .400 x 1⅛	.047	200 400 600	CP05A1KC473K3 CP05A1KE473K3 CP05A1KF473K3	.375 x 15/16 .463 x 15/16 .463 x 15/16
.068	200 400 600	CP04A1KC683K3 CP04A1KE683K3 CP04A1KF683K3	.312 x ⅞ .400 x 1⅛ .400 x 1⅜	.068	200 400 600	CP05A1KC683K3 CP05A1KE683K3 CP05A1KF683K3	.375 x 15/16 .463 x 1 3/16 .463 x 1 7/16
.1	100 200 400 600	CP04A1KB104K3 CP04A1KC104K3 CP04A1KE104K3 CP04A1KF104K3	.312 x ⅞ .400 x ⅞ .400 x 1⅜ .562 x 1⅛	.1	100 200 400 600	CP05A1KB104K3 CP05A1KE104K3 CP05A1KF104K3	.375 x 15/16 .463 x 15/16 .463 x 1 7/16 .625 x 1 3/16
.15	100 200 400 600	CP04A1KB154K3 CP04A1KC154K3 CP04A1KE154K3 CP04A1KF154K3	.400 x ⅞ .400 x 1⅛ .562 x 1⅛ .562 x 1⅜	.15	100 200 400 600	CP05A1KB154K3 CP05A1KC154K3 CP05A1KE154K3 CP05A1KF154K3	.463 x 15/16 .463 x 1 3/16 .625 x 1 3/16 .625 x 1 7/16
.22	100 200 400 600	CP04A1KB224K3 CP04A1KC224K3 CP04A1KE224K3 CP04A1KF224K3	.400 x 1⅜ .400 x 1⅜ .562 x 1⅜ .562 x 1⅞	.22	100 200 400 600	CP05A1KB224K3 CP05A1KC224K3 CP05A1KE224K3 CP05A1KF224K3	.463 x 1 3/16 .463 x 1 7/16 .625 x 1 7/16 .625 x 1 15/16
.33	100 200 400 600	CP04A1KB334K3 CP04A1KC334K3 CP04A1KE334K3 CP04A1KF334K3	.400 x 1⅜ .562 x 1⅛ .562 x 1⅞ .670 x 1⅞	.33	100 200 400 600	CP05A1KB334K3 CP05A1KC334K3 CP05A1KE334K3 CP05A1KF334K3	.463 x 1 7/16 .625 x 1 3/16 .625 x 1 15/16 .733 x 1 15/16
.47	100 200 400 600	CP04A1KB474K3 CP04A1KC474K3 CP04A1KE474K3 CP04A1KF474K3	.562 x 1⅛ .562 x 1⅜ .670 x 1⅞ .750 x 2⅛	.47	100 200 400 600	CP05A1KB474K3 CP05A1KC474K3 CP05A1KE474K3 CP05A1KF474K3	.625 x 1 3/16 .625 x 1 7/16 .733 x 1 15/16 .813 x 2 3/16
.68	100 200 400 600	CP04A1KB684K3 CP04A1KC684K3 CP04A1KE684K3 CP04A1KF684K3	.562 x 1⅜ .562 x 1⅞ .750 x 2⅛ 1.0 x 1⅞	.68	100 200 400 600	CP05A1KB684K3 CP05A1KC684K3 CP05A1KE684K3 CP05A1KF684K3	.625 x 1 7/16 .625 x 1 15/16 .813 x 2 3/16 1.063 x 1 15/16
1.0	100 200 400	CP04A1KB105K3 CP04A1KC105K3 CP04A1KE105K3	.562 x 1⅞ .670 x 1⅞ 1.0 x 1⅞	1.0	100 200 400	CP05A1KB105K3 CP05A1KC105K3 CP05A1KE105K3	.625 x 1 15/16 .733 x 1 15/16 1.063 x 1 15/16

*For case grounded reduce L dimension by 1/16″.

Above listing are ratings listed in Mil-C-25C. Other values are available in General Instrument Commercial Equivalents. For wide variety of case styles and mountings write for catalog.

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Glasseal Capacitors For Military and Commercial Application (Cont'd.)

CPO8 and CPO9 to Mil-C-25C (Extended Foil)

	TYPE CPO8AI Plain Metal Case				TYPE CPO9AI Metal Case with Insulating Sleeve		
µF	WVDC	Char. K −55°C to +125°C	Size * D. x L.	µF	WVDC	Char. K −55°C to +125°C	Size* D. x L.
.001	600	CPO8A1KF102K3	.235 x ¾	.001	600	CPO9A1KF102K3	.298 x 13/16
.0015	600	CPO8A1KF152K3	.235 x ¾	.0015	600	CPO9A1KF152K3	.298 x 13/16
.0022	600	CPO8A1KF222K3	.235 x ¾	.0022	600	CPO9A1KF222K3	.298 x 13/16
.0033	400	CPO8A1KE332K3	.235 x ¾	.0033	400	CPO9A1KE332K3	.298 x 13/16
	600	CPO8A1KF332K3	.312 x ⅞		600	CPO9A1KF332K3	.375 x 15/16
.0047	200	CPO8A1KC472K3	.235 x ¾	.0047	200	CPO9A1KC472K3	.298 x 13/16
	600	CPO8A1KF472K3	.312 x ⅞		600	CPO9A1KF472K3	.375 x 15/16
.0068	200	CPO8A1KC682K3	.235 x ¾	.0068	200	CPO9A1KC683K3	.298 x 13/16
	600	CPO8A1KF682K3	.312 x ⅞		600	CPO9A1KF682K3	.375 x 15/16
.01	100	CPO8A1KB103K3	.235 x ¾	.01	100	CPO9A1KB103K3	.298 x 13/16
	600	CPO8A1KF103K3	.312 x ⅞		600	CPO9A1KF103K3	.375 x 15/16
.015	100	CPO8A1KB153K3	.235 x ¾	.015	100	CPO9A1KB153K3	.298 x 13/16
	400	CPO8A1KE153K3	.312 x ⅞		400	CPO9A1KE153K3	.375 x 15/16
	600	CPO8A1KF153K3	.400 x ⅞		600	CPO9A1KF153K3	.463 x 15/16
.022	200	CPO8A1KC223K3	.312 x ⅞	.022	600	CPO9A1KC223K3	.375 x 15/16
	600	CPO8A1KF223K3	.400 x ⅞		200	CPO9A1KF223K3	.463 x 15/16
.033	200	CPO8A1KC333K3	.312 x ⅞	.033	200	CPO9A1KC333K3	.375 x 15/16
	400	CPO8A1KE333K3	.400 x ⅞		400	CPO9A1KE333K3	.463 x 15/16
	600	CPO8A1KF333K3	.400 x 1⅛		600	CPO9A1KF333K3	.463 x 1 3/16
.047	100	CPO8A1KB473K3	.312 x ⅞	.047	100	CPO9A1KB473K3	.375 x 15/16
	200	CPO8A1KC473K3	.400 x ⅞		200	CPO9A1KC473K3	.463 x 15/16
	400	CPO8A1KE473K3	.400 x 1⅛		400	CPO9A1KE473K3	.463 x 1 3/16
	600	CPO8A1KF473K3	.400 x 1⅜		600	CPO9A1KF473K3	.463 x 1 7/16
.068	200	CPO8A1KC683K3	.400 x ⅞	.068	200	CPO9A1KC683K3	.463 x 15/16
	400	CPO8A1KE683K3	.400 x 1⅜		400	CPO9A1KE683K3	.463 x 1 7/16
	600	CPO8A1KF683K3	.562 x ⅛		600	CPO9A1KF683K3	.625 x 1 3/16
.1	100	CPO8A7KB104K3	.400 x ⅞	.1	100	CPO9A1KB104K3	.463 x 15/16
	200	CPO8A1KC104K3	.400 x 1⅛		200	CPO9A1KC104K3	.463 x 1 3/16
	400	CPO8A1KE104K3	.562 x 1⅛		400	CPO9A1KE104K3	.625 x 1 3/16
	600	CPO8A1KF104K3	.562 x 1⅜		600	CPO9A1KF104K3	.625 x 1 7/16
.15	100	CPO8A1KB154K3	.400 x 1⅛	.15	100	CPO9A1KB154K3	.463 x 1 3/16
	200	CPO8A1KC154K3	.400 x 1⅜		200	CPO9A1KC154K3	.463 x 1 7/16
	400	CPO8A1KE154K3	.562 x 1⅜		400	CPO9A1KE154K3	.625 x 1 7/16
	600	CPO8A1KF154K3	.562 x 1⅝		600	CPO9A1KF154K3	.625 x 1 11/16
.22	100	CPO8A1KB224K3	.400 x 1⅜	.22	100	CPO9A1KB224K3	.463 x 1 7/16
	200	CPO8A1KC224K3	.562 x 1⅛		200	CPO9A1KC224K3	.625 x 1 3/16
	400	CPO8A1KE224K3	.562 x 1⅝		400	CPO9A1KE224K3	.625 x 1 11/16
	600	CPO8A1KF224K3	.670 x 1⅝		600	CPO9A1KF224K3	.733 x 1 11/16
.33	100	CPO8A1KB334K3	.562 x 1⅛	.33	100	CPO9A1KB334K3	.625 x 1 3/16
	200	CPO8A1KC334K3	.562 x 1⅜		200	CPO9A1KC334K3	.625 x 1 7/16
	400	CPO8A1KE334K3	.670 x 1⅝		400	CPO9A1KE334K3	.733 x 1 11/16
	600	CPO8A1KF334K3	.750 x 2⅛		600	CPO9A1KF334K3	.813 x 2 3/16
.47	100	CPO8A1KB474K3	.562 x 1⅜	.47	100	CPO9A1KB474K3	.625 x 1 7/16
	200	CPO8A1KC474K3	.562 x 1⅝		200	CPO9A1KC474K3	.625 x 1 11/16
	400	CPO8A1KE474K3	.750 x 2⅛		400	CPO9A1KE474K3	.813 x 2 3/16
	600	CPO8A1KF474K3	.750 x 2⅜		600	CPO9A1KF474K3	.813 x 2 7/16
.68	100	CPO8A1KB684K3	.562 x 1⅝	.68	100	CPO9A1KB684K3	.625 x 1 11/16
	200	CPO8A1KC684K3	.670 x 1⅝		200	CPO9A1KC684K3	.733 x 1 11/16
1.0	100	CPO8A1KB105K3	.670 x 1⅝	1.0	100	CPO9A1KB105K3	.733 x 1 11/16
	200	CPO8A1KC105K3	.750 x 2⅛		200	CPO9A1KC105K3	.813 x 2 3/16

* For case grounded reduce L dimension by 1/16″.

Above listings are ratings listed n Mil-C-25C. For complete listing of Hermetically sealed Capacitor write for catalog.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type 155 Hi-Temp Metallized Paper Capacitors

Assembled in a plastic tube with plastic end-seals. Self-healing. Low R-F impedance. Excellent P-F over wide temperature range.

Replaces M T R Product Line

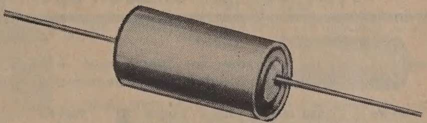
Temperature Rating: —40°C. to +100°C.
Standard Tolerance: —20% to +30%.

Catalog Number	Cap/Mfd	Size in inches ±1/16″ Diameter	Length
	200 VOLTS		
155C103M	.01	1/4	11/16
155C203M	.02	1/4	11/16
155C303M	.03	5/16	11/16
155C503M	.05	5/16	11/16
155C104M	.1	3/8	11/16
155C254M	.25	1/2	11/16
155C504M	.5	7/16	1 1/8
155C105M	1.0	9/16	1 1/8
155C205M	2.0	5/8	1 9/16
	400 VOLTS		
155E103M	.01	1/4	11/16
155E203M	.02	3/8	11/16
155E303M	.03	3/8	11/16
155E503M	.05	7/16	11/16
155E104M	.1	7/16	1 1/8
155E254M	.25	9/16	1 1/8
155E504M	.5	5/8	1 7/16
155E105M	1.0	3/4	1 13/16
155E205M	2.0	7/8	2 3/8
	600 VOLTS		
155F103M	.01	5/16	11/16
155F203M	.02	3/8	11/16
155F303M	.03	3/8	11/16
155F503M	.05	1/2	11/16
155F104M	.1	7/16	1 1/8
155F254M	.25	5/8	1 1/8
155F504M	.5	3/4	1 7/16
155F105M	1.0	7/8	1 13/16
155F205M	2.0	1	2 3/8

Type MPGR Metal-Can-Hi-Temp Metallized Paper Capacitors
MIL TYPE CH04 & 05 CHAR. M
TO MIL-C-18312A

MPGR Variations

MPGR Basis type with grounded case.
MPGIR With floating case. To order: add I after MPG—1/16″ to length.
MPGRV With insulating plastic sleeve. To order: add V after MPGR—1/16″ to Diameter—1/8″ to Length.
3MPGR With threaded end Bushing. To order: add 3 before MPGR.
6MPGR With soldered transverse bracket. To order: add 6 before MPGR.
7MPGR With soldered tangential bracket. To order: add 7 to MPGR.



Standard Tolerance: ± 20%
Temperature Rating: —55°C. to + 125°C.
Derating: 0% at + 100°C. 25% at + 125°C.

MPGR Capacitors, Grounded Case

Catalog Number	Cap. in UF	Size in inches Diameter	Length
	200 Volts DC Working		
MPGR2-S1	.01	.235	3/4
MPGR2-S15	.015	.235	3/4
MPGR2-S2	.02	.235	3/4
MPGR2-S22	.022	.235	3/4
MPGR2-S33	.033	.235	3/4
MPGR2-S4	.04	.235	3/4
MPGR2-S47	.047	.235	3/4
MPGR2-S5	.05	.235	3/4
MPGR2-S68	.068	.312	3/4
MPGR2-P1	.1	.312	3/4
MPGR2-P15	.15	.312	1 1/16
MPGR2-P2	.2	.312	1 1/16
MPGR2-P22	.22	.312	1 1/16
MPGR2-P25	.25	.312	1 1/16
MPGR2-P33	.33	.400	1 1/16
MPGR2-P47	.47	.400	1 1/16
MPGR2-P5	.5	.400	1 1/16
MPGR2-P68	.68	.500	1 1/16
MPGR2-1	1.0	.562	1 1/16
MPGR2-2	2.0	.562	1 3/4
	400 Volts DC Working		
MPGR4-S1	.01	.235	3/4
MPGR4-S15	.015	.235	3/4
MPGR4-S2	.02	.235	3/4
MPGR4-S22	.022	.235	3/4
MPGR4-S33	.033	.312	3/4
MPGR4-S4	.04	.312	3/4
MPGR4-S47	.047	.312	3/4
MPGR4-S5	.05	.312	7/8
MPGR4-S68	.068	.312	1 1/16
MPGR4-P1	.1	.400	1 1/16
MPGR4-P15	.15	.500	1 1/16
MPGR4-P2	.2	.500	1 1/16
MPGR4-P22	.22	.500	1 1/16
MPGR4-P25	.25	.500	1 1/16
MPGR4-P33	.33	.562	1 1/4
MPGR4-P47	.47	.562	1 3/4
MPGR4-P5	.5	.562	1 3/4
MPGR4-P68	.68	.670	1 3/4
MPGR4-1	1.0	.670	2 1/4
MPGR4-2	2.0	1.000	1 3/4
	600 Volts DC Working		
MPGR6-S1	.01	.235	3/4
MPGR6-S15	.015	.312	3/4
MPGR6-S2	.02	.312	3/4
MPGR6-S22	.022	.312	3/4
MPGR6-S33	.033	.400	3/4
MPGR6-S4	.04	.400	3/4
MPGR6-S47	.047	.400	3/4
MPGR6-S5	.05	.400	3/4
MPGR6-S68	.068	.400	1 1/16
MPGR6-P1	.1	.400	1 1/16
MPGR6-P15	.15	.500	1 1/16
MPGR6-P2	.2	.562	1 1/4
MPGR6-P22	.22	.562	1 1/4
MPGR6-P25	.25	.562	1 1/4
MPGR6-P33	.33	.562	1 3/4
MPGR6-P47	.47	.670	1 3/4
MPGR6-P5	.5	.670	1 3/4
MPGR6-P68	.68	.670	2 1/4
MPGR6-1	1.0	.750	2 1/4
MPGR6-1.5	1.5	1.000	2 1/4

For —55°C to +85°C order Type MPGK. Available in same capacity and voltage ratings as shown above for Type MPGR. Same tube size for equivalent ratings.

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type MPTIK AND MPTIM Metal-Tube Metallized Paper Capacitors

HERMETICALLY SEALED — IMPREGNATED IN MINERAL OIL
−55°C TO +85° TOLERANCE −20% +30%

MPTIK, MPTIM VARIATIONS

MPTIK-MPTIM Basic types with floating case. To order: see Catalog Listing. Example: MPTIM1.5-3

MPTK-MPTM With grounded case. To order: delete Letter I after MPT—subtract ⅛" from Length. Example: MPTK1.5-3

MPTIKV-MPTIMV With insulating plastic sleeve. To order: add V after MPTIK or MPTIM—1/16" to Diameter—⅛" to Length. Example: MPTIKV1.5-3

4MPTIK-4MPTIM With riveted radial bracket. To order: add 4 before MPTIK or MPTIM—Example: 4MPTIK1.5-3

4MPTIKV-4MPTIMV With insulating plastic sleeve and riveted radial bracket. To order: add 4 before and V after MPTIK or MPTIM—Example: 4MPTIKV1.5-3

7MPTIK-7MPTIM With soldered tangential bracket. To order: add 7 before MPTIK or MPTIM—Example: 7MPTIK1.5-3

MPTIK-MPTIM CAPACITORS, FLOATING CASE

Cat. No.	Cap. in UF	Diameter	Length
150 Volts DC Working			
MPTIK1.5-3	3.0	¾	1 15/16
MPTIK1.5-4	4.0	⅞	1 15/16
MPTIK1.5-6	6.0	1	1 15/16
200 Volts DC Working			
MPTIK2-S5	.05	⅜	29/32
MPTIK2-P1	.1	⅜	29/32
MPTIK2-P25	.25	½	29/32
MPTIK2-P5	.5	½	1¼
MPTIK2-1	1.0	⅝	1⅜
MPTIK2-2	2.0	⅝	1 15/16
400 Volts DC Working			
MPTIM4-S3	.03	⅜	29/32
MPTIM4-S5	.05	7/16	29/32
MPTIM4-P1	.1	7/16	1¼
MPTIM4-P25	.25	⅝	1¼
MPTIM4-P5	.5	⅝	1 15/16
MPTIM4-1	1.0	¾	2 7/16
MPTIM4-2	2.0	1	2 7/16
600 Volts DC Working			
MPTIM6-S1	.01	⅜	29/32
MPTIM6-S2	.02	⅜	29/32
MPTIM6-S3	.03	7/16	29/32
MPTIM6-S5	.05	½	29/32
MPTIM6-P1	.1	½	1⅜
MPTIM6-P25	.25	⅝	1⅜
MPTIM6-P5	.5	¾	1 15/16
MPTIM6-1	1.0	13/16	2 7/16
MPTIM6-2	2.0	1⅛	2 7/16

Type 227 Metallized-Paper/Mylar® Glass-Sealed Metal Tubulars

MADE TO MEET MIL C-18312A CHAR. N

For operation at +125°C without derating. The finest capacitor of its type available. Encased in hermetic, glass-sealed metal tubes. For complete listing write for Engineering Bulletin.

Part No.	Cap. Mfd.	Dia.	Length
100 Volts D-C. W.V.			
227A1V305M	3	.670	1 13/16
227A1V405M	4	.750	1 11/16
227A1V605M	6	1.000	1 13/16
200 V. D-C. W.V.			
227A1C103M	.01	.175	¾
227A1C123M	.012	.195	¾
227A1C153M	.015	.195	¾
227A1C183M	.018	.235	¾
227A1C223M	.022	.235	¾
227A1C273M	.027	.235	¾
227A1C333M	.033	.235	¾
227A1C393M	.039	.312	⅞
227A1C473M	.047	.312	⅞
227A1C563M	.056	.312	⅞
227A1C683M	.068	.312	⅞
227A1C823M	.082	.312	⅞
227A1C104M	.1	.312	⅞
227A1C124M	.12	.312	1⅛
227A1C154M	.15	.312	1⅛
227A1C184M	.18	.400	⅞
227A1C224M	.22	.400	⅞
227A1C274M	.27	.400	1⅛
227A1C334M	.33	.400	1⅛
227A1C394M	.39	.500	1⅛
227A1C474M	.47	.500	1⅛
227A1C564M	.56	.500	1⅛
227A1C684M	.68	.500	1⅛
227A1C824M	.82	.562	1⅛
227A1C105M	1.0	.562	1⅛
227A1C155M	1.5	.562	1⅝
227A1C205M	2.0	.670	1⅝
227A1C305M	3.0	.670	1⅞
227A1C405M	4.0	.750	1⅞
227A1C505M	5.0	1.000	1⅞
227A1C605M	6.0	1.000	1⅞
227A1C805M	8.0	1.000	1⅞
227A1C106M	10.0	1.000	2⅜
227A1C126M	12.0	1.000	2⅝
400 V. D-C. W.V.			
227A1E103M	.01	.312	⅞
227A1E123M	.012	.312	⅞
227A1E153M	.015	.312	⅞
227A1E183M	.018	.312	⅞
227A1E223M	.022	.312	⅞
227A1E273M	.027	.312	1⅛
227A1E333M	.033	.312	1⅛
227A1E393M	.039	.400	1⅛
227A1E473M	.047	.400	1⅛
227A1E563M	.056	.400	1⅛
227A1E683M	.068	.400	1⅛
227A1E823M	.082	.500	1⅛
227A1E104M	.1	.500	1⅛
227A1E124M	.12	.500	1⅛
227A1E154M	.15	.500	1⅛
227A1E184M	.18	.562	1⅜
227A1E224M	.22	.562	1⅜
227A1E274M	.27	.562	1⅝
227A1E334M	.33	.562	1⅝
227A1E394M	.39	.670	1⅝
227A1E474M	.47	.670	1⅝
227A1E564M	.56	.670	1⅞
227A1E684M	.68	.670	1⅞
227A1E824M	.82	.750	1⅞
227A1E105M	1.0	.750	1⅞
227A1E155M	1.5	1.000	1⅞
227A1E205M	2.0	1.000	1⅞
227A1E305M	3.0	1.000	2⅝
600 V. D-C. W.V.			
227A1F103M	.01	.312	⅞
227A1F123M	.012	.312	⅞
227A1F153M	.015	.312	⅞
227A1F183M	.018	.312	1⅛
227A1F223M	.022	.312	1⅛
227A1F273M	.027	.312	1⅛
227A1F333M	.033	.312	1⅛
227A1F393M	.039	.400	1⅛
227A1F473M	.047	.400	1⅛
227A1F563M	.056	.400	1⅛
227A1F683M	.068	.400	1⅛
227A1F823M	.082	.500	1⅛
227A1F104M	.1	.500	1⅛
227A1F124M	.12	.562	1⅛
227A1F154M	.15	.562	1⅛
227A1F184M	.18	.562	1⅜
227A1F224M	.22	.562	1⅜
227A1F274M	.27	.562	1⅝
227A1F334M	.33	.562	1⅝
227A1F394M	.39	.670	1⅝
227A1F474M	.47	.670	1⅝
227A1F564M	.56	.670	1⅞
227A1F684M	.68	.670	1⅞
227A1F824M	.82	1.000	1⅞
227A1F105M	1.0	1.000	1⅞
227A1F155M	1.5	1.000	1⅞
227A1F205M	2.0	1.000	2⅛
227A1F255M	2.5	1.000	2⅝

NOTE: Type 227's Are Available in All Mil Styles, Mylar and Plastic Insulating Sleeves, Tolerances, and Ratings.

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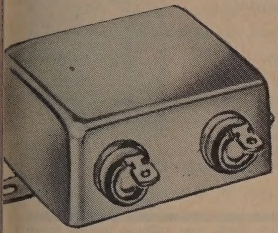
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

PE MPDR BATH-TUB HI-TEMP METALLIZED PAPER CAPACITORS

MIL TYPE CH53 54 55 CHAR. N TO MIL-C-18312A



Temperature Rating: −55°C. to +125°C.
Standard Tolerance: ±20%.

MPDR Variations

MPDR with terminals on side.
MPDT with terminals on top.
MPDRB with terminals on bottom.

Derating: 0% at +100°C. 25% at +125°C.

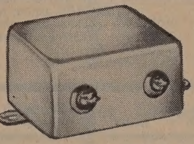
sembled in hermetically sealed tinned bathtub type case. Im- egnated in solid thermosetting resin. Vitrified ceramic (or glass) g-type terminal seals. Self-healing. Low r-f impedance. Excellent wer factor over a very wide temperature range.

mplete line of 55°CT 100°C available under part number MPDK d MPDM, dual or single section units.

Catalog Number	Cap. in UF	Length	Size in inches Width	Height
	150 VOLTS DC WORKING			
MPDR1.5-3	3.0	1 13/16	1	¾
MPDR1.5-4	4.0	1 13/16	1	⅞
MPDR1.5-5	5.0	1 13/16	1	⅞
MPDR1.5-6	6.0	1 13/16	1¼	⅞
MPDR1.5-8	8.0	2	1¾	¾
MPDR1.5-10	10.0	2	1¾	13/16
MPDR1.5-12	12.0	2	2	⅞
	200 VOLTS DC WORKING			
MPDR2-P5	.5	1 13/16	1	¾
MPDR2-1	1.0	1 13/16	1	¾
MPDR2-2	2.0	1 13/16	1	¾
	400 VOLTS DC WORKING			
MPDR4-P25	.25	1 13/16	1	¾
MPDR4-P5	.5	1 13/16	1	¾
MDPR4-1	1.0	1 13/16	1	⅞
MPDR4-2	2.0	2	1¾	¾
MPDR4-3	3.0	2	1¾	1
MPDR4-4	4.0	2	2	1
	600 VOLTS DC WORKING			
MPDR6-P1	.1	1 13/16	1	¾
MPDR6-P25	.25	1 13/16	1	¾
MPDR6-P5	.5	1 13/16	1	¾
MPDR6-1	1.0	1 13/16	1¼	⅞
MPDR6-2	2.0	2	2	⅞

Type PDM Bathtub-Type Oil-Paper Capacitors MIL TYPE CP53 54 55

Section assembled in hermetically sealed tin coated drawn-shell container. Mineral-oil impregnated and filled. Lug-type terminal seals. Meets requirements of MIL-C-25C.



PDM Variations

PDM Similar to MIL Type CP53, with terminals on side. Example: PDM4-S5

PDMT (CP54) With terminals on top. To order: add T after PDM. Example: PDMT4-S5

PDMB (CP55) With terminals on the bottom. To order: add B after PDM. Example: PDMB4-S5

Temperature Rating: —55°C. to + 85°C.
Standard Tolerance: —10% to + 20%

PDM SINGLE-CAPACITOR UNITS

Catalog Number	Cap. in UF	Length	Size in inches Width	Height
	400 Volts DC Working			
PDM4-S5	.05	1 13/16	1	¾
PDM4-P1	.1	1 13/16	1	¾
PDM4-P25	.25	1 13/16	1	¾
PDM4-P5	.5	1 13/16	1	15/16
PDM4-1	1.0	2	1¾	15/16
PDM4-2	2.0	2	2	1 3/16*
	600 Volts DC Working			
PDM6-S5	.05	1 13/16	1	¾
PDM6-P1	.1	1 13/16	1	¾
PDM6-P25	.25	1 13/16	1	¾
PDM6-P5	.5	1 13/16	1	1
PDM6-1	1.0	2	1¾	1
PDM6-2	2.0	2	2	1 3/16*
	1,000 Volts DC Working			
PDM10-S5	.05	1 13/16	1	¾
PDM10-P1	.1	1 13/16	1	¾
PDM10-P25	.25	1 13/16	1	13/16
PDM10-P5	.5	2	1¾	⅞
PDM10-1	1.0	2	2	1⅛*

PDM DUAL-CAPACITOR UNITS
400 Volts DC Working

Catalog Number	Cap. in UF	Length	Size in inches Width	Height
2PDM4-S5	.05-.05	1 13/16	1	¾
2PDM4-P1	.1-.1	1 13/16	1	¾
2PDM4-P25	.25-.25	1 13/16	1	1
2PDM4-P5	.5-.5	2	1¾	15/16
2PDM4-1	1.0-1.0	2	2	1 3/16*

PDM SINGLE-CAPACITOR UNITS (continued)

Catalog Number	Cap. in UF	Length	Size in inches Width	Height
	600 Volts DC Working			
2PDM6-S5	.05-.05	1 13/16	1	¾
2PDM6-P1	.1-.1	1 13/16	1	¾
2PDM6-P25	.25-.25	1 13/16	1	1
2PDM6-P5	.5-.5	2	1¾	15/16
2PDM6-1	1.0-1.0	2	2	1 13/16
	1,000 Volts DC Working			
2PDM10-S5	.05-.05	1 13/16	1	¾
2PDM10-P1	.1-.1	1 13/16	1	⅞
2PDM10-P25	.25-.25	2	1¾	⅞
2PDM10-P5	.5-.5	2	2	1⅛*

PDM TRIPLE-CAPACITOR UNITS

Catalog Number	Cap. in UF	Length	Size in inches Width	Height
	400 Volts DC Working			
3PDM4-P1	.1-.1-.1	1 13/16	1	13/16
3PDM4-P25	.25-.25-.25	2	1¾	⅞
3PDM4-P5	.5-.5-.5	2	2	1
	600 Volts DC Working			
3PDM6-P1	.1-.1-.1	1 13/16	1	13/16
3PDM6-P25	.25-.25-.25	2	1¾	⅞
3PDM6-P5	.5-.5-.5	2	2	1
	1,000 Volts DC Working			
3PDM10-P1	.1-.1-.1	2	1¾	⅞
3PDM10-P25	.25-.25-.25	2	2	1⅛*

* Add 1/16" to Height for units with top or bottom terminals.

GENERAL INSTRUMENT CAPACITORS

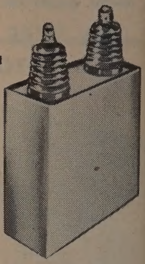
GENERAL INSTRUMENT CAPACITOR DIVISION

Type PJ High-Voltage Oil-Paper Capacitors 6000 thru 25,000 Volt Series

Section assembled in container of heavy gage steel, welded oil tight and hot tinned. Mineral oil impregnated and mineral oil filled. Case and terminals are bonded together. Low leakage current and negligible capacity change over wide range of operating temperature. For higher voltage ratings and engineering data write to Sales Engineering Department.

Temperature Range:
—55°C. to +85°C.
Capacity Tolerance:
±10%

Available in:	Cat. No.
6,000 Volts DC Working	PJ 60
7,500 Volts DC Working	PJ 75
10,000 Volts DC Working	PJ 100
12,500 Volts DC Working	PJ 125
15,000 Volts DC Working	PJ 150
20,000 Volts DC Working	PJ 200
25,000 Volts DC Working	PJ 250



Type PLM High-Voltage Oil-Paper Capacitors (CP70 SERIES)

Section assembled in lacquer-finished terneplate case. Mineral-oil impregnated and filled. Ceramic terminal insulators with screw studs. Designed for heavy-duty continuous service. Fulfills the exacting requirements of power-supply and filter applications. Meets electrical requirements of MIL-C-25C. For higher voltage ratings and engineering data write to Sales Engineering Department.

Temperature Rating:
—55°C. to +85°C.
Standard Tolerance:
±10%

PLM Variations

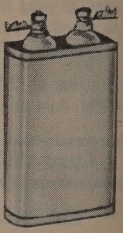
PLM Basic type similar to MIL Type CP70. Example: PLM6-P5.

PLMF Similar to CP70 with CP07F footed bracket. To order: add F after PLM. Example: PLMF6-P5.

PLMS Similar to CP70 with CP07S spade bracket. To order: Add S after PLM. Example: PLMS6-P5.

PLMU With universal mounting bracket. To order: add U after PLM. Example: PLMU6-P5.

PLMR With solder-lug MIL type B terminals (furnished only through 2,000 VDCW rating). To order: add R after PLM. Example: PLMR6-P5.



Catalog Number	Cap. in UF	Case Size in inches Length	Width	Height
	600 Volts DC Working			
PLM6-P5	.5	1 13/16	1 1/16	1⅝
PLM6-1	1.0	1 13/16	1 1/16	2¼
PLM6-2	2.0	1 13/16	1 1/16	3¼
PLM6-3	3.0	1 13/16	1 1/16	4¾
PLM6-4	4.0	2½	1 3/16	3½
PLM6-5	5.0	2½	1 3/16	4¼
PLM6-6	6.0	2½	1 3/16	4¾
PLM6-8	8.0	3¾	1¼	4¼
PLM6-10	10.0	3¾	1¾	4
	1,000 Volts DC Working			
PLM10-P1	.1	1 13/16	1 1/16	1⅝
PLM10-P25	.25	1 13/16	1 1/16	1⅝
PLM10-P5	.5	1 13/16	1 1/16	2¼
PLM10-1	1.0	1 13/16	1 1/16	2⅞
PLM10-2	2.0	1 13/16	1 1/16	4¾
PLM10-3	3.0	2½	1 3/16	4¼
PLM10-4	4.0	3¾	1¼	3⅞
PLM10-5	5.0	3¾	1¼	4¾
PLM10-6	6.0	3¾	1¾	4
PLM10-8	8.0	3¾	1¾	4¾
PLM10-10	10.0	3¾	2¼	4¾
PLM10-12	12.0	3¾	2¼	5⅛
PLM10-15	15.0	3¾	3 3/16	4¾
	1,500 Volts DC Working			
PLM15-P5	.5	1 13/16	1 1/16	2⅞
PLM15-1	1.0	1 13/16	1 1/16	4¾
PLM15-2	2.0	2½	1 3/16	4¾
PLM15-3	3.0	3¾	1¼	4¾
PLM15-4	4.0	3¾	1¾	4¼
PLM15-5	5.0	3¾	2¼	4½
PLM15-6	6.0	3¾	2¼	4¾
PLM15-8	8.0	3¾	2½	5¾
PLM15-10	10.0	3¾	3 3/16	5½
PLM15-12	12.0	4 9/16	3¾	4¾
PLM15-15	15.0	4 9/16	3¾	6

Catalog Number	Cap. in UF	Case Size in inches Length	Width	Height
	2,000 Volts DC Working			
PLM20-P1	.1	1 13/16	1 1/16	2¼
PLM20-P25	.25	1 13/16	1 1/16	2⅞
PLM20-P5	.5	1 13/16	1 1/16	3⅞
PLM20-1	1.0	2½	1 3/16	4¼
PLM20-2	2.0	3¾	1¼	4¾
PLM20-3	3.0	3¾	1¾	4¾
PLM20-4	4.0	3¾	2¼	5⅛
PLM20-5	5.0	3¾	3 3/16	4¾
PLM20-6	6.0	3¾	3 3/16	5½
PLM20-8	8.0	4 9/16	3¾	5⅛
PLM20-10	10.0	4 9/16	3¾	6½
PLM20-12	12.0	4 9/16	3¾	7½
	2,500 Volts DC Working			
PLM25-P5	.5	2½	1 3/16	3⅞
PLM25-1	1.0	3¾	1¾	3¼
PLM25-2	2.0	3¾	2¼	4¾
PLM25-4	4.0	4 9/16	3¾	4⅜
PLM25-10	10.0	4 9/16	3¾	8½
	3,000 Volts DC Working			
PLM30-1	.1	1 13/16	1 1/16	2⅞
PLM30-P25	.25	2½	1 3/16	3½
PLM30-P5	.5	2½	1 3/16	4¾
PLM30-1	1.0	3¾	2¼	4½
PLM30-2	2.0	3¾	3 3/16	4¾
PLM30-4	4.0	4 9/16	3¾	6½
	4,000 Volts DC Working			
PLM40-P1	.1	3¾	2¼	2¾
PLM40-P25	.25	3¾	2¼	2¾
PLM40-P5	.5	3¾	2¼	4¾
PLM40-1	1.0	3¾	3 3/16	4¾
PLM40-2	2.0	4 9/16	3¾	6
PLM40-4	4.0	4 9/16	3¾	9⅝
	5,000 Volts DC Working			
PLM50-P5	.5	3¾	2¼	5⅛
PLM50-1	1.0	4 9/16	3¾	5⅛
PLM50-2	2.0	4 9/16	3¾	9⅝

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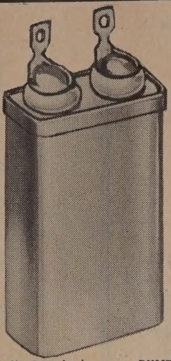
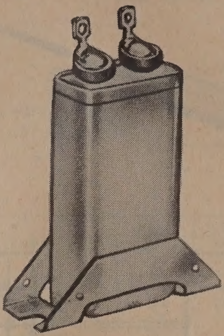
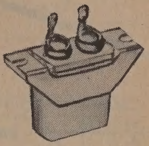
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

Type PKM Small-Base Oil-Paper Capacitors (CP61, CP63, CP65 also CP90 and CP91)







Section assembled in hermetically sealed tincoated container. Mineral-oil impregnated and filled. Lug-type terminal seals. Suitable for use in compact equipment. Meets electrical requirements of MIL-C-25C.

Temperature Rating: —55°C to + 85°C.
Standard Tolerance: —10% to + 20%

PKM VARIATIONS

PKM Basic type similar to MIL Type CP61. Example: PKM4-S5

PKMF Similar to CP61 with CP06F footed bracket. To order: add F after PKM. Example: PKMF4-S5

PKMS Similar to CP61 with CP06S spade bracket. To order: add S after PKM. Example: PKMS4-S5

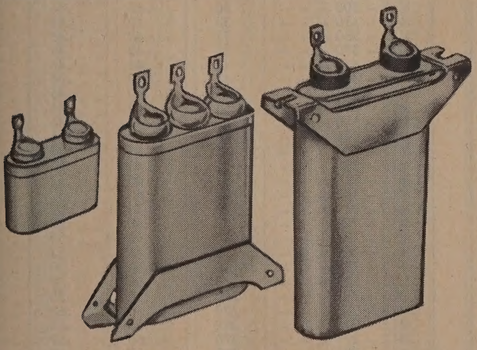
PKMT Similar to CP63 with channel bracket on end opposite terminals. To order: add T after PKM. Example: PKMT4-S5

PKMB Similar to CP65 with channel bracket on same end as terminals. To order: add B after PKM. Example: PKMB4-S5

PKMT, PKMB Channel Bracket Dimensions:
Overall Length: 2 5/16".
Overall Width: 49/64" (max.).
Length between Mounting Slot Centers: 1 15/16".
Mounting Slot Width: 5/32".

Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Dealer Net
		400 Volts DC Working			
PKM4-S5	.05	1 5/16	47/64	1 1/16	1.73
PKM4-P1	.1	1 5/16	47/64	1 1/16	1.82
PKM4-P25	.25	1 5/16	47/64	1 3/8	1.87
PKM4-P5	.5	1 5/16	47/64	1 5/8	1.95
PKM4-1	1.0	1 5/16	47/64	2 1/2	2.14
		600 Volts DC Working			
PKM6-S5	.05	1 5/16	47/64	1 1/16	1.76
PKM6-P1	.1	1 5/16	47/64	1 1/16	1.87
PKM6-P25	.25	1 5/16	47/64	1 5/8	1.93
PKM6-P5	.5	1 5/16	47/64	2	2.00
PKM6-1	1.0	1 5/16	47/64	2 3/4	2.24
		1,000 Volts DC Working			
PKM10-S5	.05	1 5/16	47/64	1 1/16	1.83
PKM10-P1	.1	1 5/16	47/64	1 3/8	1.91
PKM10-P25	.25	1 5/16	47/64	2	1.92
PKM10-P5	.5	1 5/16	47/64	2 1/2	2.43

Type PEM Small-Base Oil-Paper Capacitors (CP67, CP69)



Section assembled in hermetically sealed tin coated container. Mineral-oil impregnated and filled. Lug-type terminal seals. Suitable for use in compact equipment. Meets electrical requirements of MIL-C-25C.

PEM Variations

PEM Basic type. To order: see Catalog Listing. Example: PEM6-S5
PEMT Similar to MIL Type CP67, with channel bracket on end opposite terminals. To order: add T after PEM. Example: PEMT6-S5
PEMB Similar to CP69, with channel bracket on same end as terminals. To order: add B after PEM. Example: PEMB6-S5

Standard Tolerance: —10% to +20%.
Temperature Rating: —55°C. to + 85°C.

PEMT, PEMB Channel Bracket Dimensions:

Overall Length: 2 7/16".
Overall Width: 41/64" (max.).
Length between Mounting Slot Centers: 2 1/8".
Mounting Slot Width: 5/32".

PEM SINGLE-CAPACITOR UNITS

Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Dealer Net
		600 Volts DC Working			
PEM6-S5	.05	1 13/16	5/8	1 1/16	1.86
PEM6-P1	.1	1 13/16	5/8	1 1/16	1.92
PEM6-P25	.25	1 13/16	5/8	1 1/2	1.95
PEM6-P5	.5	1 13/16	5/8	2	2.01
PEM6-1	1.0	1 13/16	5/8	2 1/2	2.25
		1,000 Volts DC Working			
PEM10-S5	.05	1 13/16	5/8	1 1/16	1.89
PEM10-P1	.1	1 13/16	5/8	1 1/16	1.95
PEM10-P25	.25	1 13/16	5/8	1 1/2	2.01
PEM10-P5	.5	1 13/16	5/8	2 1/2	2.19

PEM DUAL-CAPACITOR UNITS

Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Dealer Net
		600 Volts DC Working			
2PEM6-S5	.05-.05	1 13/16	5/8	1 1/16	2.64
2PEM6-P1	.1-.1	1 13/16	5/8	1 1/2	2.69
2PEM6-P25	.25-.25	1 13/16	5/8	2	2.90
2PEM6-P5	.5-.5	1 13/16	5/8	2 1/2	3.25
		1,000 Volts DC Working			
2PEM10-S5	.05-.05	1 13/16	5/8	1 1/16	2.69
2PEM10-P1	.1-.1	1 13/16	5/8	1 1/2	2.79
2PEM10-P25	.25-.25	1 13/16	5/8	2 1/2	2.97

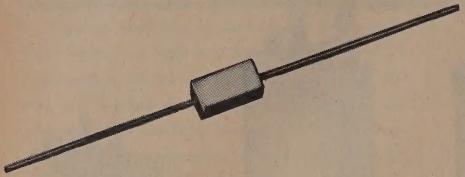
PEM TRIPLE-CAPACITOR UNITS

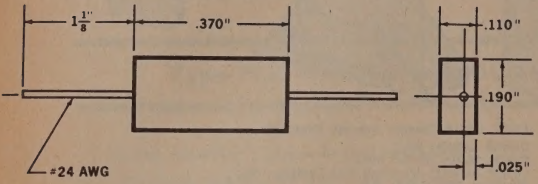
Catalog Number	Cap. in UF	Size in inches Length	Width	Height	Dealer Net
		600 Volts DC Working			
3PEM6-S5	.05-.05-.05	1 13/16	5/8	1 1/16	3.16
3PEM6-P1	.1-.1-.1	1 13/16	5/8	1 1/2	3.25
3PEM6-P25	.25-.25-.25	1 13/16	5/8	2 1/2	3.53
		1,000 Volts DC Working			
3PEM10-S5	.05-.05-.05	1 13/16	5/8	1 1/2	3.25
3PEM10-P1	.1-.1-.1	1 13/16	5/8	2	3.38

GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE MCM MISSILMITE





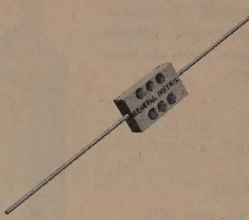
—55°C TO +125°C OPERATION MEETS & EXCEEDS MIL-C-5B

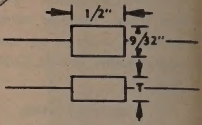
500 VDCW 85°C
300 VDCW 125°C

MISSILMITE subminiature molded mica capacitors are the SMALLEST MOLDED MICA CAPACITORS EVER PRODUCED, and are furnished in Characteristic "C", "D" and "E". MISSILMITES will withstand operating temperatures of −55°C to +125°C (standard ranges is from −55°C to +85°C).

TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		± 20%	± 10%	± 5%
*1 *2 *3 *4				
MCM10 – 050 – – –	5	$1.00	–	–
MCM10 – 100 – – –	10	1.00	$1.20	–
MCM10 – 120 – – –	12	1.00	1.20	–
MCM10 – 150 – – –	15	1.00	1.20	–
MCM10 – 180 – – –	18	1.00	1.20	$1.95
MCM10 – 200 – – –	20	1.00	1.20	1.95
MCM10 – 220 – – –	22	1.00	1.20	1.95
MCM10 – 240 – – –	24	1.00	1.20	1.95
MCM10 – 270 – – –	27	1.00	1.20	1.95
MCM10 – 300 – – –	30	1.00	1.20	1.95
MCM10 – 330 – – –	33	1.00	1.20	1.95
MCM10 – 360 – – –	36	1.00	1.20	1.95
MCM10 – 390 – – –	39	1.00	1.20	1.95
MCM10 – 430 – – –	43	1.00	1.20	1.95
MCM10 – 470 – – –	47	1.00	1.20	1.95
MCM10 – 510 – – –	51	1.00	1.20	1.95
MCM10 – 560 – – –	56	1.00	1.20	1.95
MCM10 – 620 – – –	62	1.00	1.20	1.95
MCM10 – 680 – – –	68	1.10	1.21	2.10
MCM10 – 750 – – –	75	1.10	1.21	2.10
MCM10 – 820 – – –	82	1.15	1.26	2.36
MCM10 – 910 – – –	91	1.15	1.26	2.36
MCM10 – 101 – – –	100	1.15	1.26	2.36
MCM10 – 111 – – –	110	1.15	1.26	2.36
MCM10 – 121 – – –	120	1.15	1.26	2.36
MCM10 – 131 – – –	130	1.15	1.26	2.36
MCM10 – 151 – – –	150	1.10	1.54	2.62
MCM10 – 161 – – –	160	1.40	1.54	2.62
MCM10 – 181 – – –	180	1.50	1.65	2.97
MCM10 – 201 – – –	200	1.50	1.65	2.97
MCM10 – 221 – – –	220	1.65	1.82	3.15
MCM10 – 241 – – –	240	1.65	1.82	3.15

TYPE CM15 SILVERED MICA





T—from 1-300 mmf. 3/16"
T—from 310-510 mmf. 7/32"

—55°C - +150°C
TO MIL-C-5B
500 VDCW

TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"J" ± 5%	"G" ± 2%	"F" ± 1%
*1 *2 *3 *4				
CM15 – 100 – – –	10	$0.40	–	–
CM15 – 120 – – –	12	.40	–	–
CM15 – 150 – – –	15	.40	–	–
CM15 – 180 – – –	18	.40	–	–
CM15 – 200 – – –	20	.40	–	–
CM15 – 220 – – –	22	.40	–	–
CM15 – 240 – – –	24	.40	$0.46	–
CM15 – 270 – – –	27	.40	.46	–
CM15 – 300 – – –	30	.40	.46	–
CM15 – 330 – – –	33	.40	.46	–
CM15 – 360 – – –	36	.40	.46	–
CM15 – 390 – – –	39	.40	.46	–
CM15 – 430 – – –	43	.40	.46	–
CM15 – 470 – – –	47	.40	.46	–
CM15 – 510 – – –	51	.40	.46	.50
CM15 – 560 – – –	56	.40	.46	.50
CM15 – 620 – – –	62	.40	.46	.50
CM15 – 680 – – –	68	.40	.46	.50
CM15 – 750 – – –	75	.40	.46	.50
CM15 – 820 – – –	82	.45	.52	.56
CM15 – 910 – – –	91	.45	.52	.56
CM15 – 101 – – –	100	.45	.52	.56
CM15 – 111 – – –	110	.45	.52	.56
CM15 – 121 – – –	120	.45	.52	.56
CM15 – 131 – – –	130	.45	.52	.56
CM15 – 151 – – –	150	.45	.52	.56
CM15 – 161 – – –	160	.50	.58	.63
CM15 – 181 – – –	180	.50	.58	.63
CM15 – 201 – – –	200	.50	.58	.63
CM15 – 221 – – –	220	.55	.63	.69
CM15 – 241 – – –	240	.55	.63	.69
CM15 – 271 – – –	270	.60	.69	.75
CM15 – 301 – – –	300	.60	.69	.75
CM15 – 331 – – –	330	.65	.75	.81
CM15 – 361 – – –	360	.70	.81	.88
CM15 – 391 – – –	390	.70	.81	.88
CM15 – 431 – – –	430	.75	.86	.94
CM15 – 471 – – –	470	.80	.92	1.00
CM15 – 511 – – –	510	.80	.92	1.00
MCM15–561– – –	†560	.80	.92	1.00
MCM15–621– – –	†620	.85	.98	1.06
MCM15–681– – –	†680	.90	1.04	1.13
MCM15–751– – –	†750	1.00	1.15	1.25
MCM15–821– – –	†820	1.10	1.27	1.38

†300 VDC

NOTE: Consult G. I. Listings to:
*1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature range (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

SPECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

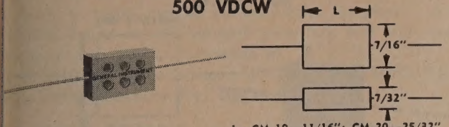
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

MOLDED SILVERED MICA CAPACITORS

TYPE CM20

500 VDCW

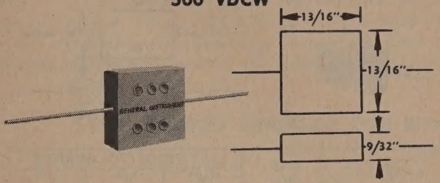


L—CM-19—11/16": CM-20—25/32"

TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"J" ±5%	"G" ±2%	"F" ±1%
*1 *2 *3 *4				
M20 – 050 – – –	5	$0.40	–	–
M20 – 100 – – –	10	.40	–	–
M20 – 120 – – –	12	.40	–	–
M20 – 150 – – –	15	.40	–	–
M20 – 180 – – –	18	.40	–	–
M20 – 200 – – –	20	.40	–	–
M20 – 220 – – –	22	.40	–	–
M20 – 240 – – –	24	.40	–	–
M20 – 270 – – –	27	.40	$0.46	–
M20 – 300 – – –	30	.40	.46	–
M20 – 330 – – –	33	.40	.46	–
M20 – 360 – – –	36	.40	.46	–
M20 – 390 – – –	39	.40	.46	–
M20 – 430 – – –	43	.40	.46	–
M20 – 470 – – –	47	.40	.46	–
M20 – 500 – – –	50	.40	.46	$0.50
M20 – 510 – – –	51	.40	.46	.50
M20 – 560 – – –	56	.40	.46	.50
M20 – 620 – – –	62	.40	.46	.50
M20 – 680 – – –	68	.40	.46	.50
M20 – 750 – – –	75	.40	.46	.50
M20 – 820 – – –	82	.40	.46	.50
M20 – 910 – – –	91	.40	.46	.50
M20 – 101 – – –	100	.40	.46	.50
M20 – 111 – – –	110	.45	.52	.56
M20 – 121 – – –	120	.45	.52	.56
M20 – 131 – – –	130	.45	.52	.56
M20 – 151 – – –	150	.45	.52	.56
M20 – 161 – – –	160	.45	.52	.56
M20 – 181 – – –	180	.45	.52	.56
M20 – 201 – – –	200	.45	.52	.56
M20 – 221 – – –	220	.45	.52	.56
M20 – 241 – – –	240	.55	.63	.69
M20 – 251 – – –	250	.55	.63	.69
M20 – 271 – – –	270	.55	.63	.69
M20 – 301 – – –	300	.55	.63	.69
M20 – 331 – – –	330	.55	.63	.69
M20 – 361 – – –	360	.55	.63	.69
M20 – 391 – – –	390	.65	.75	.81
M20 – 431 – – –	430	.65	.75	.81
M20 – 471 – – –	470	.70	.81	.88
M20 – 501 – – –	500	.70	.81	.88
M20 – 511 – – –	510	.70	.81	.88
M20 – 561 – – –	560	.75	.86	.94
M20 – 621 – – –	620	.75	.86	.94
M20 – 681 – – –	680	.80	.92	1.00
M20 – 751 – – –	750	.80	.92	1.00
M20 – 821 – – –	820	.85	.98	1.06
M20 – 911 – – –	910	.85	.98	1.06
M20 – 102 – – –	1000	.90	1.04	1.13
M20 – 112 – – –	1100	.90	1.04	1.13
M20 – 122 – – –	1200	1.00	1.15	1.25
M20 – 132 – – –	1300	1.00	1.15	1.25
M20 – 152 – – –	1500	1.10	1.27	1.38
M20 – 162 – – –	1600	1.10	1.27	1.38
M20 – 182 – – –	1800	1.20	1.38	1.50
M20 – 202 – – –	2000	1.30	1.50	1.63
M20 – 222 – – –	2200	1.40	1.61	1.75
M20 – 242 – – –	2400	1.45	1.67	1.81
M20 – 252 – – –	2500	1.50	1.73	1.88
M20 – 272 – – –	2700	1.60	1.84	2.00
M20 – 302 – – –	3000	1.80	2.07	2.25
M20 – 332 – – –	3300	1.90	2.19	2.38
M20 – 362 – – –	3600*	1.90	2.19	2.38
M20 – 392 – – –	3900*	2.00	2.30	2.50
M20 – 432 – – –	4300*	2.10	2.42	2.63
M20 – 472 – – –	4700*	2.20	2.53	2.75
M20 – 502 – – –	5000*	2.30	2.65	2.88
M20 – 512 – – –	5100*	2.30	2.65	2.88

TYPE CM30

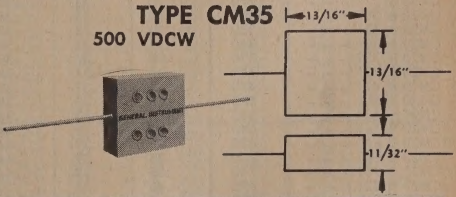
500 VDCW



TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"J" ±5%	"G" ±2%	"F" ±1%
*1 *2 *3 *4				
CM30 – 561 – – –	560	$0.75	$0.86	$0.94
CM30 – 621 – – –	620	.75	.86	.94
CM30 – 681 – – –	680	.80	.92	1.00
CM30 – 751 – – –	750	.80	.92	1.00
CM30 – 821 – – –	820	.85	.98	1.06
CM30 – 911 – – –	910	.90	1.04	1.13
CM30 – 102 – – –	1000	1.00	1.15	1.25
CM30 – 112 – – –	1100	1.00	1.15	1.25
CM30 – 122 – – –	1200	1.15	1.32	1.44
CM30 – 132 – – –	1300	1.15	1.32	1.44
CM30 – 152 – – –	1500	1.25	1.44	1.56
CM30 – 162 – – –	1600	1.25	1.44	1.56
CM30 – 182 – – –	1800	1.25	1.44	1.56
CM30 – 202 – – –	2000	1.35	1.55	1.69
CM30 – 222 – – –	2200	1.35	1.55	1.69
CM30 – 242 – – –	2400	1.60	1.84	2.00
CM30 – 252 – – –	2500	1.60	1.84	2.00
CM30 – 272 – – –	2700	1.80	2.07	2.25
CM30 – 302 – – –	3000	1.90	2.19	2.38
CM30 – 332 – – –	3300	1.90	2.19	2.38
MCM30–362 – – –	3600	2.00	2.30	2.50
MCM30–392 – – –	3900	2.00	2.30	2.50
MCM30–432 – – –	4300	2.10	2.42	2.63
MCM30–472 – – –	4700	2.10	2.42	2.63
MCM30–502 – – –	5000	2.15	2.47	2.69
MCM30–512 – – –	5100	2.15	2.47	2.69
MCM30–562 – – –	5600	2.25	2.59	2.81
MCM30–622 – – –	6200	2.40	2.76	3.00

TYPE CM35

500 VDCW



TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"J" ±5%	"G" ±2%	"F" ±1%
*1 *2 *3 *4				
CM35 — 362 — — —	3600	$2.00	$2.30	$2.50
CM35 — 392 — — —	3900	2.00	2.30	2.50
CM35 — 432 — — —	4300	2.10	2.42	2.63
CM35 — 472 — — —	4700	2.10	2.42	2.63
CM35 — 512 — — —	5100	2.15	2.47	2.69
CM35 — 562 — — —	5600	2.25	2.59	2.81
CM35 — 622 — — —	6200	2.40	2.76	3.00
CM35 — 682 — — —	6800*	2.65	3.05	3.31
CM35 — 752 — — —	7500*	2.80	3.22	3.50
CM35 — 822 — — —	8200*	3.00	3.95	3.75
CM35 — 912 — — —	9100*	3.20	3.68	4.00
CM35 — 103 — — —	10000*	3.50	4.08	4.38

*300 VDC

TE: Consult G. I. Listings to:
*1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operating temperature range (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

ECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

†MIL-C-5B Ratings

0 VDC

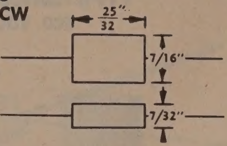
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

MOLDED FOIL CAPACITORS

TYPE CM20
500 VDCW

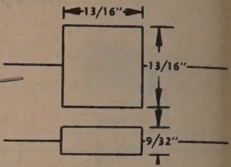
GENERAL INSTRUMENT



TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"M" ±20%	"K" ±10%	"J" ±5%
*1*2*3				
CM20 B 050 – – –	5	$0.30	$0.33	–
CM20 B 100 – – –	10	.30	.33	$0.38
CM20 B 120 – – –	12	.30	.33	.38
CM20 B 150 – – –	15	.30	.33	.38
CM20 B 180 – – –	18	.30	.33	.38
CM20 B 200 – – –	20	.30	.33	.38
CM20 B 220 – – –	22	.30	.33	.38
CM20 B 240 – – –	24	.30	.33	.38
CM20 B 270 – – –	27	.30	.33	.38
CM20 B 300 – – –	30	.30	.33	.38
CM20 B 330 – – –	33	.20	.22	.25
CM20 B 360 – – –	36	.20	.22	.25
CM20 B 390 – – –	39	.20	.22	.25
CM20 B 430 – – –	43	.20	.22	.25
CM20 B 470 – – –	47	.20	.22	.25
CM20 B 500 – – –	50	.20	.22	.25
CM20 B 510 – – –	51	.20	.22	.25
CM20 B 560 – – –	56	.20	.22	.25
CM20 B 620 – – –	62	.20	.22	.25
CM20 B 680 – – –	68	.20	.22	.25
CM20 B 750 – – –	75	.20	.22	.25
CM20 B 820 – – –	82	.20	.22	.25
CM20 B 910 – – –	91	.20	.22	.25
CM20 B 101 – – –	100	.20	.22	.25
CM20 B 111 – – –	110	.20	.22	.25
CM20 B 121 – – –	120	.20	.22	.25
CM20 B 131 – – –	130	.25	.28	.31
CM20 B 151 – – –	150	.25	.28	.31
CM20 B 161 – – –	160	.25	.28	.31
CM20 B 181 – – –	180	.25	.28	.31
CM20 B 201 – – –	200	.25	.28	.31
CM20 B 221 – – –	220	.25	.28	.31
CM20 B 241 – – –	240	.30	.33	.38
CM20 B 251 – – –	250	.30	.33	.38
CM20 B 271 – – –	270	.30	.33	.38
CM20 B 301 – – –	300	.30	.33	.38
CM20 B 331 – – –	330	.30	.33	.38
CM20 B 361 – – –	360	.30	.33	.38
CM20 B 391 – – –	390	.30	.33	.38
CM20 B 431 – – –	430	.30	.33	.38
CM20 B 471 – – –	470	.30	.33	.38
CM20 B 501 – – –	500	.30	.33	.38
CM20 B 511 – – –	510	.30	.33	.38
†CM20 B 561 – – –	560	.35	.39	.44
†CM20 B 621 – – –	620	.35	.39	.44
†CM20 B 681 – – –	680	.35	.39	.44
†CM20 B 751 – – –	750	.35	.39	.44
†CM20 B 821 – – –	820	.40	.44	.50
†CM20 B 911 – – –	910	.45	.50	.56
†CM20 B 102 – – –	1000	.45	.50	.56
CM20 B 112 – – –	1100	.50	.55	.63
CM20 B 122 – – –	1200	.50	.55	.63
CM20 B 132 – – –	1300	.50	.55	.63
CM20 B 152 – – –	1500	.60	.66	.75
CM20 B 162 – – –	1600	.60	.66	.75
CM20 B 182 – – –	1800	.70	.77	.88
CM20 B 202 – – –	2000	.75	.83	.94
CM20 B 222 – – –	2200	.80	.88	1.00
CM20 B 242 – – –	2400	.85	.94	1.06
CM20 B 252 – – –	2500	.90	.99	1.13
CM20 B 272 – – –	2700	.95	1.05	1.19
CM20 B 302 – – –	3000	1.00	1.10	1.25
CM20 B 332 – – –	3300	1.05	1.16	1.31
CM20 B 362 – – –	3600*	1.00	1.10	1.25
CM20 B 392 – – –	3900*	1.05	1.16	1.31
CM20 B 432 – – –	4300*	1.10	1.21	1.38
CM20 B 472 – – –	4700*	1.20	1.32	1.50
CM20 B 502 – – –	5000*	1.25	1.38	1.56
CM20 B 512 – – –	5100*	1.25	1.38	1.56

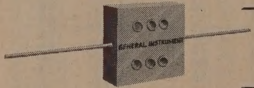
TYPE CM30
500 VDCW

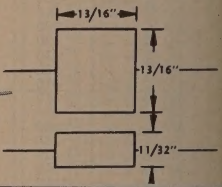
GENERAL INSTRUMENT



TYPE	CAP. PF.	LIST PRICE/TOLERANCE		
		"M" ±20%	"K" ±10%	"J" ±5%
*1*2*3				
CM30 B 511 – – –	510	$0.30	$0.36	$0.39
CM30 B 561 – – –	560	.30	.36	.39
CM30 B 621 – – –	620	.30	.36	.39
CM30 B 681 – – –	680	.30	.36	.39
CM30 B 751 – – –	750	.30	.36	.39
CM30 B 821 – – –	820	.30	.36	.39
CM30 B 911 – – –	910	.30	.36	.39
CM30 B 102 – – –	1000	.35	.39	.44
CM30 B 112 – – –	1100	.35	.39	.44
CM30 B 122 – – –	1200	.35	.39	.44
CM30 B 132 – – –	1300	.35	.39	.44
CM30 B 152 – – –	1500	.40	.44	.50
CM30 B 162 – – –	1600	.40	.44	.50
CM30 B 182 – – –	1800	.45	.50	.56
CM30 B 202 – – –	2000	.45	.50	.56
CM30 B 222 – – –	2200	.45	.50	.56
CM30 B 242 – – –	2400	.50	.55	.63
CM30 B 252 – – –	2500	.50	.55	.63
CM30 B 272 – – –	2700	.50	.55	.63
CM30 B 302 – – –	3000	.60	.66	.75
CM30 B 332 – – –	3300	.60	.66	.75
CM30 B 362 – – –	3600	.60	.66	.75
CM30 B 392 – – –	3900	.65	.75	.85
CM30 B 432 – – –	4300	.65	.75	.85
CM30 B 472 – – –	4700	.65	.75	.85
CM30 B 502 – – –	5000	.70	.81	.91
CM30 B 512 – – –	5100	.70	.81	.91
CM30 B 562 – – –	5600	.70	.81	.91
CM30 B 622 – – –	6200	.90	1.04	1.17

TYPE CM35 500 VDCW





TYPE *1*2*3	CAP. PF.	LIST PRICE/TOLERANCE		
		"J" ±20%	"G" ±10%	"F" ±5%
CM36 B 362 — — —	3600	$ .60	$ .66	$ .75
CM35 B 392 — — —	3900	.65	.75	.85
CM35 B 432 — — —	4300	.65	.75	.85
CM35 B 472 — — —	4700	.65	.75	.85
CM35 B 512 — — —	5100	.70	.81	.91
CM35 B 562 — — —	5600	.70	.81	.91
CM35 B 622 — — —	6200	.90	1.04	1.17
CM35 B 682 — — —	6800*	.95	1.05	1.19
CM35 B 752 — — —	7500*	1.00	1.10	1.25
CM35 B 822 — — —	8200*	1.15	1.27	1.44
CM35 B 912 — — —	91.00*	1.30	1.43	1.62
CM35 B 103 — — —	10,000*	1.40	1.54	1.75

*300 VDC

NOTE: Consult G. I. Listings to:
*1 Include applicable tolerance letter, (K, J, M).
*2 Include applicable code letter for operating temperature range (N;85°C: O;125°C: P;150°C).
*3 Include applicable vibration grade.
†MIL-C-5B Ratings

SPECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

*300 VDCW

Trade Discount Applies To List Prices Only

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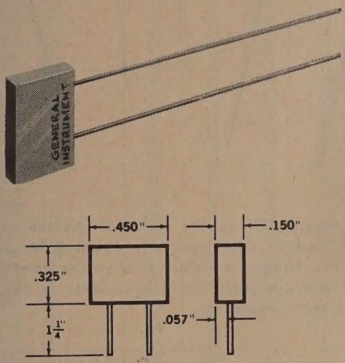
GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

MOLDED RADIAL LEAD SILVERED MICA CAPACITORS

I.'s new "modern designed" MECAPS are the first MOLDED, radial-lead mica capacitors available with precisely con-olled body dimensions. Being molded . . . not dipped or encapsulated, each capacitor is exactly the same size, and sym-etrical, so units can be conveniently "stacked" in an assembly to reduce component space requirements. MECAPS are ailable taped for mechanical insertion, and with leads straight or crimped. These MECAPS meet and exceed MIL-C-5B ecifications, can be furnished in "B", "C", "D", "E" and "F" characteristics. Operating temperatures from −55°C to 25°C (standard range is from −40°C to 85°C). MECAPS, with their consistently high quality, and many advantages of design, e no more expensive than dipped types.

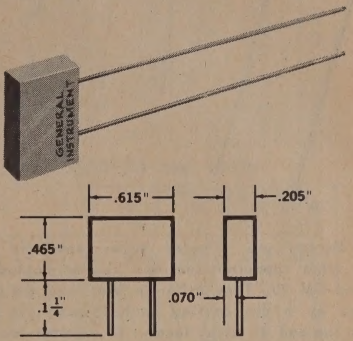
TYPE PCM15 (FORMERLY TYPE RPQ)



TYPE	CAP. PF.	LIST PRICE/TOLERANCE ±2% "G"	±5% "J"	±10% "K"	±20% "M"
*1 *2 *3 *4					
PCM15 – 050 – – –	5	–	–	$0.33	$0.30
PCM15 – 100 – – –	10	–	–	.33	.30
PCM15 – 120 – – –	12	–	$0.40	.33	.30
PCM15 – 150 – – –	15	.40	.40	.33	.30
PCM15 – 180 – – –	18	–	.40	.33	.30
PCM15 – 200 – – –	20	–	.40	.33	.30
PCM15 – 220 – – –	22	–	.40	.33	.30
PCM15 – 240 – – –	24	–	.40	.33	.30
PCM15 – 270 – – –	27	–	.40	.33	.30
PCM15 – 300 – – –	30	–	.40	.33	.30
PCM15 – 330 – – –	33	–	.40	.22	.20
PCM15 – 360 – – –	36	–	.40	.22	.20
PCM15 – 390 – – –	39	–	.40	.22	.20
PCM15 – 430 – – –	43	–	.40	.22	.20
PCM15 – 470 – – –	47	$0.46	.40	.22	.20
PCM15 – 510 – – –	51	.46	.40	.22	.20
PCM15 – 560 – – –	56	.46	.40	.22	.20
PCM15 – 620 – – –	62	.46	.40	.22	.20
PCM15 – 680 – – –	68	.46	.40	.22	.20
PCM15 – 750 – – –	75	.46	.40	.22	.20
PCM15 – 820 – – –	82	.52	.45	.22	.20
PCM15 – 910 – – –	91	.52	.45	.22	.20
PCM15 – 101 – – –	100	.52	.45	.22	.20
PCM15 – 111 – – –	110	.52	.45	.22	.20
PCM15 – 121 – – –	120	.52	.45	.28	.25
PCM15 – 131 – – –	130	.52	.45	.28	.25
PCM15 – 151 – – –	150	.52	.45	.28	.25
PCM15 – 161 – – –	160	.58	.50	.28	.25
PCM15 – 181 – – –	180	.58	.50	.28	.25
PCM15 – 201 – – –	200	.58	.50	.28	.25
PCM15 – 241 – – –	240	.63	.55	.33	.30
PCM15 – 271 – – –	270	.69	.60	.33	.30
PCM15 – 301 – – –	300	.69	.60	.33	.30
PCM15 – 331 – – –	330	.75	.65	.33	.30
PCM15 – 361 – – –	360	.81	.70	.33	.30
PCM15 – 391 – – –	390	.81	.70	.33	.30
PCM15 – 431 – – –	430*	.86	.75	.33	.30
PCM15 – 471 – – –	470*	.92	.80	.33	.30
PCM15 – 511 – – –	510*	.92	.80	.33	.30

*300 VDC

TYPE PCM20 (FORMERLY TYPE RPO)



TYPE	CAP. PF.	LIST PRICE/TOLERANCE ±2% "G"	±5% "J"	±10% "K"	±20% "M"
*1 *2 *3 *4					
PCM20 – 510 – – –	51	$0.46	$0.40	$0.22	$0.20
PCM20 – 560 – – –	56	.46	.40	.22	.20
PCM20 – 620 – – –	62	.46	.40	.22	.20
PCM20 – 680 – – –	68	.46	.40	.22	.20
PCM20 – 750 – – –	75	.46	.40	.22	.20
PCM20 – 820 – – –	82	.46	.40	.22	.20
PCM20 – 910 – – –	91	.46	.40	.22	.20
PCM20 – 101 – – –	100	.46	.40	.22	.20
PCM20 – 121 – – –	110	.52	.45	.22	.20
PCM20 – 121 – – –	120	.52	.45	.22	.20
PCM20 – 131 – – –	130	.52	.45	.28	.25
PCM20 – 151 – – –	150	.52	.45	.28	.25
PCM20 – 161 – – –	160	.52	.45	.28	.25
PCM20 – 181 – – –	180	.52	.45	.28	.25
PCM20 – 201 – – –	200	.52	.45	.28	.25
PCM20 – 221 – – –	220	.52	.45	.28	.25
PCM20 – 241 – – –	240	.63	.55	.33	.30
PCM20 – 271 – – –	270	.63	.55	.33	.30
PCM20 – 301 – – –	300	.63	.55	.33	.30
PCM20 – 331 – – –	330	.63	.55	.33	.30
PCM20 – 361 – – –	360	.63	.55	.33	.30
PCM20 – 391 – – –	390	.75	.65	.33	.30
PCM20 – 413 – – –	430	.75	.65	.33	.30
PCM20 – 471 – – –	470	.81	.70	.33	.30
PCM20 – 511 – – –	510	.81	.70	.33	.30
PCM20 – 561 – – –	560	.86	.75	.39	.35
PCM20 – 621 – – –	620	.86	.75	.39	.35
PCM20 – 681 – – –	680	.92	.80	.39	.35
PCM20 – 751 – – –	750	.92	.80	.39	.35
PCM20 – 821 – – –	820	.98	.85	.44	.40
PCM20 – 911 – – –	910	.98	.85	.50	.45
PCM20 – 102 – – –	1000	1.04	.90	.50	.45
PCM20 – 110 – – –	1100	1.04	.90	.50	.45
PCM20 – 122 – – –	1200	1.15	1.00	.55	.50
PCM20 – 132 – – –	1300	1.15	1.00	.55	.50
PCM20 – 152 – – –	1500	1.27	1.10	.66	.60
PCM20 – 162 – – –	1600	1.27	1.10	.66	.60
PCM20 – 182 – – –	1800	1.38	1.20	.77	.70
PCM20 – 202 – – –	2000	1.50	1.30	.83	.75
PCM20 – 222 – – –	2200	1.61	1.40	.88	.80
PCM20 – 242 – – –	2400	1.67	1.45	.94	.85
PCM20 – 272 – – –	2700	1.84	1.60	1.05	.95
PCM20 – 302 – – –	3000	2.07	1.80	1.10	1.00
PCM20 – 332 – – –	3300	2.19	1.90	1.16	1.05

NOTE: Consult G. I. Listings to:
*1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operation temperature range (N:85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

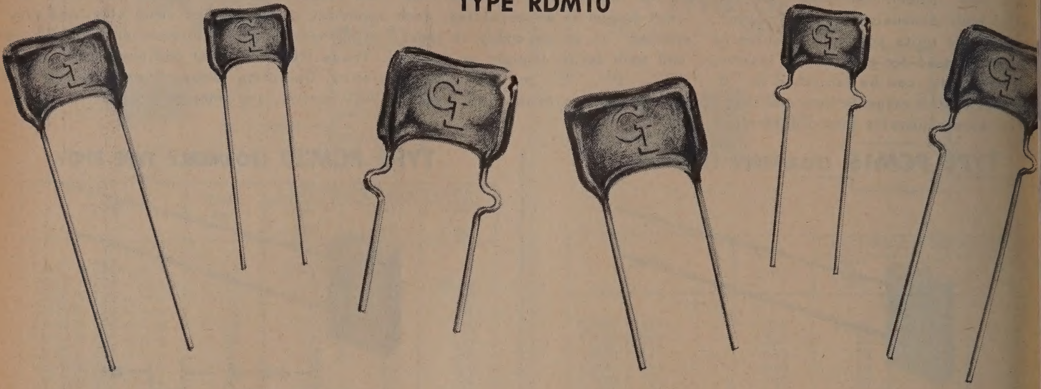
SPECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

GENERAL INSTRUMENT CAPACITORS

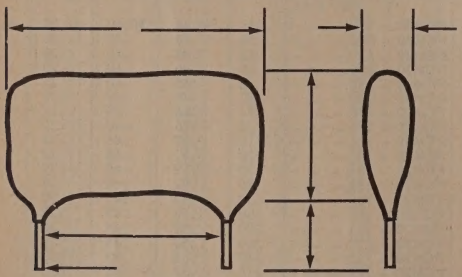
GENERAL INSTRUMENT CAPACITOR DIVISION

DIPPED SILVER MICA CAPACITORS

TYPE RDM10



G.I. Micaps are silvered mica capacitors having the same mica capacitor sections as the molded styles CM 15 and CM 20. They differ in that they are hermetically sealed by a dip coating method and have radial wire leads instead of axial leads. This latter feature results in a shorter RF current path and greater ease of insta lation, making them specially suitable for use in print circuitry. Micaps are smaller than the comparable mold types and are particularly applicable in the developme of miniature equipment.



TO MIL-C-5B
CM-05-06-07

	S ± 1/32	LEAD WIRE GAGE
RDM 10	9/64	#24
RDM 15	15/64	#22
RDM 19	11/32	#20
RDM 20	7/16	#20
RDM 30	7/16	#18

All leads of Micaps capacitors are tinned brass except RDM10 which are copper-clad steel.

TYPE	CAP. PF.	LIST PRICE/TOLERANCE ± 10% "K"	± 5% "J"	± 2% "G"	± 1% "F"
*1 *2 *3 *4					
RDM10 – 010 – – –	1	$0.30	–	–	–
RDM10 – 020 – – –	2	.30	–	–	–
RDM10 – 030 – – –	3	.30	–	–	–
RDM10 – 050 – – –	5	.30	–	–	–
RDM10 – 100 – – –	10	.30	$0.33	–	–
RDM10 – 120 – – –	12	.35	.39	–	–
RDM10 – 150 – – –	15	.35	.39	–	–
RDM10 – 180 – – –	18	.35	.39	–	–
RDM10 – 200 – – –	20	.35	.39	–	–
RDM10 – 220 – – –	22	.35	.39	–	–
RDM10 – 240 – – –	24	.35	.39	–	–
RDM10 – 270 – – –	27	.35	.39	$0.46	–
RDM10 – 300 – – –	30	.35	.39	.46	–
RDM10 – 330 – – –	33	.35	.39	.46	
RDM10 – 360 – – –	36	.35	.39	.46	–
RDM10 – 390 – – –	39	.35	.39	.46	–
RDM10 – 430 – – –	43	.35	.39	.46	–
RDM10 – 470 – – –	47	.40	.44	.52	–
RDM10 – 500 – – –	50	.40	.44	.52	$0.64
RDM10 – 510 – – –	51	.40	.44	.52	.64
RDM10 – 560 – – –	56	.40	.44	.52	.64
RDM10 – 620 – – –	62	.40	.44	.52	.64
RDM10 – 680 – – –	68	.40	.44	.52	.64
RDM10 – 750 – – –	75	.40	.44	.52	.64
RDM10 – 820 – – –	82	.40	.44	.52	.64
RDM10 – 910 – – –	91	.40	.44	.52	.64
RDM10 – 101 – – –	100	.40	.44	.52	.64
RDM10 – 111 – – –	110	.40	.44	.52	.64
RDM10 – 121 – – –	120	.45	.50	.59	.72
RDM10 – 131 – – –	130	.45	.50	.59	.72
RDM10 – 151 – – –	150	.50	.55	.65	.80
RDM10 – 161 – – –	160	.55	.61	.72	.88
RDM10 – 181 – – –	180	.60	.66	.78	.96
RDM10 – 201 – – –	200	.60	.66	.78	.96
RDM10 – 221 – – –	220	.65	.72	.85	1.04
RDM10 – 241 – – –	240	.70	.77	.91	1.12
RDM10 – 251 – – –	250	.70	.77	.91	1.12
RDM10 – 271 – – –	270*	.70	.77	.91	1.12
RDM10 – 301 – – –	300*	.75	.83	.98	1.20
RDM10 – 331 – – –	330**	.75	.83	.98	1.20
RDM10 – 361 – – –	360**	.80	.88	1.04	1.28
RDM10 – 391 – – –	390**	.85	.94	1.11	1.36

*300 VDCW
**100 VDCW

NOTE: Consult G. I. Listings to:
*1 Include applicable characteristic, (B, C, D, E, F).
*2 Include applicable tolerance letter, (K, J, G, F).
*3 Include applicable code letter for operation temperature range (N;85°C: O;125°C: P;150°C).
*4 Include applicable vibration grade.

SPECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

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GENERAL INSTRUMENT CAPACITORS

GENERAL INSTRUMENT CAPACITOR DIVISION

TYPE RDM15

FORMERLY TYPE MQ

TYPE	CAP. PF.	LIST PRICE/TOLERANCE			
		±10% "K"	±5% "J"	±2% "G"	±1% "F"
*1 *2 *3 *4					
RDM15 – 010 – – –	1	$0.25	–	–	–
RDM15 – 020 – – –	2	.25	–	–	–
RDM15 – 030 – – –	3	.25	–	–	–
RDM15 – 050 – – –	5	.25	–	–	–
RDM15 – 100 – – –	10	.25	$0.28	–	–
RDM15 – 120 – – –	12	.25	.28	–	–
RDM15 – 150 – – –	15	.25	.28	–	–
RDM15 – 180 – – –	18	.25	.28	–	–
RDM15 – 200 – – –	20	.25	.28	–	–
RDM15 – 220 – – –	22	.25	.28	–	–
RDM15 – 240 – – –	24	.25	.28	–	–
RDM15 – 270 – – –	27	.25	.28	$0.33	–
RDM15 – 300 – – –	30	.25	.28	.33	–
RDM15 – 330 – – –	36	.25	.28	.33	–
RDM15 – 360 – – –	36	.25	.28	.33	–
RDM15 – 390 – – –	39	.25	.28	.33	–
RDM15 – 430 – – –	43	.25	.28	.33	–
RDM15 – 470 – – –	47	.25	.28	.33	–
RDM15 – 500 – – –	50	.25	.28	.33	$0.40
RDM15 – 510 – – –	51	.25	.28	.33	.40
RDM15 – 560 – – –	56	.25	.28	.33	.40
RDM15 – 620 – – –	62	.25	.28	.33	.40
RDM15 – 680 – – –	68	.25	.28	.33	.40
RDM15 – 750 – – –	75	.25	.28	.33	.40
RDM15 – 820 – – –	82	.25	.28	.33	.40
RDM15 – 910 – – –	91	.25	.28	.33	.40
RDM15 – 101 – – –	100	.25	.28	.33	.40
RDM15 – 111 – – –	110	.30	.33	.39	.48
RDM15 – 121 – – –	120	.30	.33	.39	.48
RDM15 – 131 – – –	130	.30	.33	.39	.48
RDM15 – 151 – – –	150	.30	.33	.39	.48
RDM15 – 161 – – –	160	.35	.39	.46	.56
RDM15 – 181 – – –	180	.35	.39	.46	.56
RDM15 – 201 – – –	200	.35	.39	.46	.56
RDM15 – 221 – – –	220	.40	.44	.52	.64
RDM15 – 241 – – –	240	.40	.44	.52	.64
RDM15 – 251 – – –	250	.40	.44	.52	.64
RDM15 – 271 – – –	270	.45	.50	.59	.72
RDM15 – 301 – – –	300	.45	.50	.59	.72
RDM15 – 331 – – –	330	.50	.55	.65	.80
RDM15 – 361 – – –	360	.50	.55	.65	.80
RDM15 – 391 – – –	390	.55	.61	.72	.88
RDM15 – 431 – – –	430*	.55	.61	.72	.88
RDM15 – 471 – – –	470*	.60	.66	.78	.96
RDM15 – 501 – – –	500*	.60	.66	.78	.96
RDM15 – 511 – – –	510*	.60	.66	.78	.96
RDM15 – 561 – – –	560*	.65	.72	.85	1.04
RDM15 – 621 – – –	620*	.70	.77	.91	1.12
RDM15 – 681 – – –	680*	.75	.83	.98	1.20
RDM15 – 751 – – –	750*	.80	.88	1.04	1.28
RDM15 – 821 – – –	820*	.85	.94	1.11	1.36
RDM15 – 911 – – –	910**	.95	1.04	1.24	1.43
RDM15 – 102 – – –	1000**	1.00	1.10	1.30	1.60

TYPE RDM19 500 VDCW

FORMERLY TYPE MO

TYPE	CAP. PF.	LIST PRICE/TOLERANCE			
		±10% "K"	±5% "J"	±2% "G"	±1% "F"
*1 *2 *3 *4					
RDM19 – 101 – – –	100	$0.25	$0.28	$0.30	$0.38
RDM19 – 111 – – –	110	.30	.28	.36	.45
RDM19 – 121 – – –	120	.30	.33	.36	.45
RDM19 – 131 – – –	130	.30	.33	.36	.45
RDM19 – 151 – – –	150	.30	.33	.36	.45
RDM19 – 161 – – –	160	.30	.33	.36	.45
RDM19 – 181 – – –	180	.30	.33	.36	.45
RDM19 – 201 – – –	200	.30	.33	.36	.45
RDM19 – 221 – – –	220	.30	.33	.36	.45
RDM19 – 241 – – –	240	.35	.39	.42	.53
RDM19 – 251 – – –	250	.35	.39	.42	.53
RDM19 – 271 – – –	270	.40	.44	.48	.60
RDM19 – 301 – – –	300	.40	.44	.48	.60
RDM19 – 331 – – –	330	.40	.44	.48	.60
RDM19 – 361 – – –	360	.45	.50	.54	.68
RDM19 – 391 – – –	390	.45	.50	.54	.68
RDM19 – 431 – – –	430	.45	.50	.54	.68
RDM19 – 471 – – –	470	.50	.55	.60	.75
RDM19 – 501 – – –	500	.50	.55	.60	.75
RDM19 – 511 – – –	510	.50	.55	.60	.75
RDM19 – 561 – – –	560	.55	.61	.66	.83
RDM19 – 621 – – –	620	.55	.61	.66	.83
RDM19 – 681 – – –	680	.60	.66	.72	.90
RDM19 – 751 – – –	750	.60	.66	.72	.90
RDM19 – 821 – – –	820	.60	.66	.72	.90
RDM19 – 911 – – –	910	.65	.72	.78	.98
RDM19 – 102 – – –	1000	.70	.77	.84	1.05
RDM19 – 112 – – –	1100	.70	.77	.84	1.05
RDM19 – 122 – – –	1200	.75	.83	.90	1.13
RDM19 – 132 – – –	1300	.80	.88	.96	1.20
RDM19 – 152 – – –	1500	.85	.94	1.02	1.28

TYPE RDM19 CONT.

TYPE	CAP. PF.	LIST PRICE/TOLERANCE			
		±10% "K"	±5% "J"	±2% "K"	±1% "F"
*1 *2 *3 *4					
RDM19 – 162 – – –	1600	.90	.99	1.08	1.35
RDM19 – 182 – – –	1800	1.00	1.10	1.20	1.50
RDM19 – 202 – – –	2000	1.10	1.21	1.32	1.65
RDM19 – 222 – – –	2200	1.20	1.32	1.44	1.80
RDM19 – 242 – – –	2400	1.30	1.43	1.56	1.95
RDM19 – 252 – – –	2500	1.35	1.49	1.62	2.03
RDM19 – 272 – – –	2700	1.40	1.54	1.68	2.10
RDM19 – 302 – – –	3000	1.50	1.65	1.80	2.25
RDM19 – 332 – – –	3300	1.60	1.76	1.92	2.40
RDM19 – 362 – – –	3600	1.70	1.87	2.04	2.55
RDM19 – 392 – – –	3900	1.80	1.98	2.16	2.70
RDM19 – 432 – – –	4300	1.90	2.09	2.28	2.85
RDM19 – 472 – – –	4700	2.00	2.20	2.40	3.00
RDM19 – 502 – – –	5000	2.10	2.31	2.52	3.15
RDM19 – 512 – – –	5100	2.10	2.31	2.52	3.15
RDM19 – 562 – – –	5600*	2.20	2.42	2.64	3.30
RDM19 – 622 – – –	6200*	2.30	2.53	2.76	3.45
RDM19 – 682 – – –	6800**	2.30	2.53	2.76	3.45
RDM19 – 752 – – –	7500**	2.40	2.64	2.88	3.60
RDM19 – 822 – – –	8200**	2.50	2.75	3.00	3.75

TYPE RDM20 500 VDCW

TYPE	CAP. PF.	LIST PRICE/TOLERANCE			
		±10% "K"	±5% "J"	±2% "G"	±1% "F"
*1 *2 *3 *4					
RDM20 – 681 – – –	680	$0.50	$0.55	$0.60	$0.75
RDM20 – 751 – – –	750	.50	.55	.60	.75
RDM20 – 821 – – –	820	.50	.55	.60	.75
RDM20 – 911 – – –	910	.55	.61	.66	.83
RDM20 – 102 – – –	1000	.60	.66	.72	.90
RDM20 – 112 – – –	1100	.60	.66	.72	.90
RDM20 – 122 – – –	1200	.65	.72	.78	.98
RDM20 – 132 – – –	1300	.70	.77	.84	1.05
RDM20 – 152 – – –	1500	.75	.83	.90	1.13
RDM20 – 162 – – –	1600	.80	.88	.96	1.20
RDM20 – 182 – – –	1800	.90	.99	1.08	1.35
RDM20 – 202 – – –	2000	.95	1.05	1.14	1.43
RDM20 – 222 – – –	2200	1.05	1.16	1.26	1.58
RDM20 – 242 – – –	2400	1.10	1.21	1.32	1.65
RDM20 – 252 – – –	2500	1.10	1.21	1.32	1.65
RDM20 – 272 – – –	2700	1.20	1.32	1.44	1.80
RDM20 – 302 – – –	3000	1.30	1.43	1.56	1.95
RDM20 – 332 – – –	3300	1.40	1.54	1.68	2.10
RDM20 – 362 – – –	3600	1.50	1.65	1.80	2.25
RDM20 – 392 – – –	3900	1.60	1.76	1.92	2.40
RDM20 – 432 – – –	4300	1.70	1.87	2.04	2.55
RDM20 – 472 – – –	4700	1.80	1.98	2.16	2.70
RDM20 – 502 – – –	5000	1.90	2.09	2.28	2.85
RDM20 – 512 – – –	5100	1.95	2.15	2.34	2.93
RDM20 – 562 – – –	5600	2.00	2.20	2.40	3.00
RDM20 – 622 – – –	6200*	2.00	2.20	2.40	3.00
RDM20 – 682 – – –	6800*	2.10	2.31	2.52	3.15
RDM20 – 752 – – –	7500**	2.20	2.42	2.64	3.30
RDM20 – 822 – – –	8200**	2.40	2.64	2.88	3.60
RDM20 – 912 – – –	9100**	2.70	2.97	3.24	4.05
RDM20 – 103 – – –	10000**	3.00	3.30	3.60	4.50

TYPE RDM30 500 VDCW

TYPE	CAP. PF.	LIST PRICE/TOLERANCE			
		±10% "K"	±5% "J"	±2% "G"	±1% "F"
*1 *2 *3 *4					
RDM30 – 432 – – –	4300	$1.60	$1.76	$1.92	$2.08
RDM30 – 472 – – –	4700	1.70	1.87	2.04	2.21
RDM30 – 502 – – –	5000	1.75	1.93	2.10	2.28
RDM30 – 512 – – –	5100	1.75	1.93	2.10	2.28
RDM30 – 562 – – –	5600	1.80	1.98	2.16	2.34
RDM30 – 622 – – –	6200	1.90	2.09	2.28	2.47
RDM30 – 682 – – –	6800	2.10	2.31	2.52	2.73
RDM30 – 752 – – –	7500	2.30	2.53	2.76	2.99
RDM30 – 822 – – –	8200	2.50	2.75	3.00	3.25
RDM30 – 912 – – –	9100	2.70	2.97	3.24	3.51
RDM30 – 103 – – –	10000	3.00	3.30	3.60	3.90
RDM30 – 123 – – –	12000	3.50	3.85	4.20	4.55
RDM30 – 133 – – –	13000	3.75	4.13	4.50	4.88
RDM30 – 153 – – –	15000	4.25	4.68	5.10	5.53
RDM30 – 163 – – –	16000	4.50	4.95	5.40	5.85
RDM30 – 183 – – –	18000	5.00	5.50	6.00	6.50
RDM30 – 203 – – –	20000	5.50	6.05	6.60	7.15
RDM30 – 223 – – –	22000*	5.70	6.27	6.84	7.41
RDM30 – 243 – – –	24000*	6.15	6.77	7.38	8.00
RDM30 – 253 – – –	25000*	6.40	7.04	7.68	8.32
RDM30 – 273 – – –	27000*	6.85	7.54	8.22	8.91
RDM30 – 303 – – –	30000*	7.50	8.25	9.00	9.75
RDM30 – 333 – – –	33000**	8.25	9.08	9.90	10.73
RDM30 – 363 – – –	36000**	9.00	9.90	10.80	11.70

NOTE: Consult G. I. Listings to:

*1 Include applicable characteristic, (B, C, D, E, F).

*2 Include applicable tolerance letter, (K, J, G, F).

*3 Include applicable code letter for operation temperature range (N:85°C: O;125°C: P;150°C).

*4 Include applicable vibration grade.

SPECIAL NOTE: For operating temperatures of 150°C, add 50% to above prices.

*300 VDC

**100 VDC

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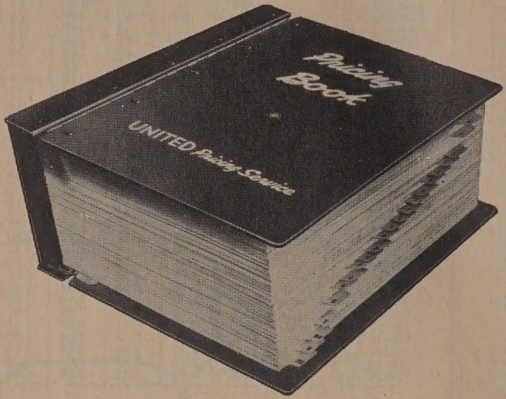

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DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

ITT Wet Tantalum Capacitors

Feature — low leakage current — long shelf life — maximum performance with minimum size. Manufactured in conformance to MIL specifications.

These High Reliability Tantalum Capacitors are designed for a wide range of applications, in the missile, airborne and mobile service, as well as conventional circuits where extreme reliability and minimum size are of prime importance.

The sintered anode slug, sealed in a fine-silver case with tantalum-oxide electrolyte, assures complete stability and trouble-free operation.

TYPE MA

For Average Temperature Use —55 C to +85 C
Standard Tolerance: A+50% —15% B+20% —15%

ase Size	Code Number	Capacity MFD at 120 cps 25°C	Max. Working Voltage D-C at 85°C	Max. Surge Voltage D-C @ 85°C	Max. D-C Leakage at Rated Voltage Microamperes @ 25°C	@ 85°C	Max. E. S. R. at 120 cps OHMS @ 25°C	Max. Imped. at 120 cps OHMS @ 55°C
-1	MA30D	30	6	7	1.0	4.0	4.0	100
	MA25F	25	8	10	1.0	4.0	4.0	100
	MA20G	20	10	12	1.0	4.0	4.0	125
	MA15J	15	15	18	1.5	6.0	5.0	150
	MA10L	10	25	30	1.5	6.0	6.0	195
	MA8M	8	30	36	2.0	8.0	7.0	240
	MA5Q	5	50	60	2.0	8.0	8.0	365
	MA4R	4	60	72	2.0	10.0	8.7	415
	MA3.5T	3.5	75	87	2.5	10.0	9.0	515
	MA2.5V	2.5	100	115	2.5	10.0	10.0	870
	MA1.75W	1.75	125	140	3.0	12.0	13.5	980
-2	MA140D	140	6	7	2.0	8.0	2.0	40
	MA100G	100	10	12	2.0	8.0	2.0	60
	MA70J	70	15	18	3.0	12.0	2.5	68
	MA40M	40	30	36	3.0	12.0	4.0	65
	MA25Q	25	50	60	4.0	16.0	4.0	95
	MA20R	20	60	72	4.0	16.0	4.3	105
	MA15T	15	75	87	5.0	20.0	5.0	145
	MA11V	11	100	115	6.0	24.0	5.0	200
	MA9W	9	125	140	7.0	28.0	5.0	240
-3	MA330D	330	6	7	3.0	12.0	2.0	20
	MA250G	250	10	12	3.0	12.0	2.0	30
	MA175J	175	15	18	4.0	16.0	2.0	35
	MA100M	100	30	36	5.0	20.0	2.5	40
	MA60Q	60	50	60	5.0	20.0	3.0	45
	MA50R	50	60	72	5.0	20.0	4.0	50
	MA40T	40	75	87	6.0	24.0	4.7	60
	MA30V	30	100	115	7.0	28.0	4.0	80
	MA25W	25	125	140	8.0	32.0	5.0	93

Refer to Specification Form #900018-1260

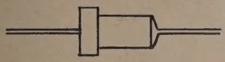
TYPE PA

For High Temperature Use —55 C to +125 C
Standard Tolerance: A+50—15% B+20—15%

Case Size	Code Number	Capacity MFD at 120 cps 25°C	Max. Working Voltage D-C @ 125°C	@ 85°C	Max. D-C Leakage Microamperes @ 25°C	@ 85°C	@ 125°C	Max. E. S. R. at 120 cps OHMS @ 25°C	Max. Imped. at 120 cps OHMS @ 55°C
T-1	PA30B	30	4	6	1.0	4.0	4.0	4.0	100
	PA25C	25	5	8	1.0	4.0	4.0	4.0	100
	PA20E	20	7	10	1.0	4.0	5.0	4.0	125
	PA15G	15	10	15	1.5	6.0	6.0	5.0	150
	PA10J	10	15	25	1.5	6.0	6.0	6.0	195
	PA8K	8	20	30	2.0	8.0	8.0	7.0	240
	PA5M	5	30	50	2.0	8.0	8.0	8.0	365
	PA4P	4	40	60	2.0	10.0	12.0	8.7	415
	PA3.5Q	3.5	50	75	2.5	10.0	12.0	9.0	515
	PA2.5S	2.5	70	100	2.5	10.0	12.0	10.0	870
	PA1.75U	1.75	85	125	3.0	12.0	12.0	13.5	980
T-2	PA140B	140	4	6	2.0	8.0	8.0	2.0	40
	PA100E	100	7	10	2.0	8.0	8.0	2.0	60
	PA70G	70	10	15	3.0	12.0	12.0	2.5	68
	PA40K	40	20	30	3.0	12.0	15.0	4.0	65
	PA25M	25	30	50	4.0	16.0	20.0	4.0	95
	PA20P	20	40	60	4.0	16.0	20.0	4.3	105
	PA15Q	15	50	75	5.0	20.0	24.0	5.0	145
	PA11S	11	70	100	6.0	24.0	28.0	5.0	200
	PA9U	9	85	125	7.0	28.0	28.0	5.0	240
T-3	PA330B	330	4	6	3.0	12.0	12.0	2.0	20
	PA250E	250	7	10	3.0	12.0	12.0	2.0	30
	PA175G	175	10	15	4.0	16.0	16.0	2.0	35
	PA100K	100	20	30	5.0	20.0	20.0	2.5	40
	PA60M	60	30	50	5.0	20.0	24.0	3.0	45
	PA50P	50	40	60	5.0	20.0	24.0	4.0	50
	PA40Q	40	50	75	6.0	24.0	28.0	4.7	60
	PA30S	30	70	100	7.0	28.0	32.0	4.0	80
	PA25U	25	85	125	8.0	32.0	32.0	5.0	93

Refer to Specification Form #900019-1260

CASE TYPES and DIMENSIONS



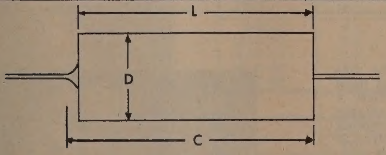
	Body Length	Shoulder Diameter	Body Diameter	Lead Length	Lead Diameter
T-1	15/32	5/16	7/32	1-1/2	.032
T-2	11/16	15/32	9/32	2-1/4	.042
T-3	49/64	37/64	3/8	2-1/4	.042

ITT Solid Anode Tantalum Capacitors

YPE SM For average temperature use —55° C to +65° C
125° C operation requires derating.

FEATURES Wide operating temperature range — Hermetically sealed — Low leakage — Long shelf life
Meets MIL Specifications.

CASE SIZE	Film Insul. C±.031	D $^{+.016}_{-.010}$	L±.031	LEADS Length $^{+1/4''}_{-0.000}$	Diameter $^{+.005}_{-.001}$
S-1	0.394	0.129	0.254	1½	0.020
S-2	0.582	0.179	0.442	1½	0.020
S-3	0.794	0.283	0.654	1½	0.025
S-4	0.894	0.345	0.754	1½	0.025



Part numbers shown are for **Plastic Film Insulated Cases** and **10% Tolerance.**
For **Non Insulated Sleeve,** substitute letter 'A' for second character 'M'.
For **Rigid Insulated Sleeve,** substitute letter 'P' for second character 'A'.
Refer to Specification Form #900021-161

For **20% Tolerance** (capacitance value in bold type), substitute the letter 'E' for last character 'F'. Refer to Specification Form #900021-161

ORDERING INFORMATION

Capacity µf. @ 120 CPS 25°C	CASE SIZE	Max. DC Working Voltage 6V	Max. DC Working Voltage 10V	Max. DC Working Voltage 15V	Max. DC Working Voltage 20V	Max. DC Working Voltage 35V
1.0	S1	SM1.0DF	SM1.0GF	SM1.0JF	SM1.0KF	SM1.0NF
1.2		SM1.2DF	SM1.2GF	SM1.2JF	SM1.2KF	SM1.2NF
1.5		SM1.5DF	SM1.5GF	SM1.5JF	SM1.5KF	SM1.5NF
1.8		SM1.8DF	SM1.8GF	SM1.8JF	SM1.8KF	SM1.8NF
2.2		SM2.2DF	SM2.2GF	SM2.2JF	SM2.2KF	SM2.2NF
2.7		SM2.7DF	SM2.7GF	SM2.7JF	SM2.7KF	SM2.7NF
3.3		SM3.3DF	SM3.3GF	SM3.3JF	SM3.3KF	SM3.3NF
3.9		SM3.9DF	SM3.9GF	SM3.9JF	SM3.9KF	SM3.9NF
4.7		SM4.7DF	SM4.7GF	SM4.7JF	SM4.7KF	SM4.7NF
5.6		SM5.6DF	SM5.6GF	SM5.6JF	SM5.6KF	SM5.6NF
6.8		SM6.8DF	SM6.8GF	SM6.8JF	SM6.8KF	SM6.8NF
8.2	S2	SM8.2DF	SM8.2GF	SM8.2JF	SM8.2KF	SM8.2NF
10.0		SM10DF	SM10GF	SM10JF	SM10KF	SM10NF
12.0		SM12DF	SM12GF	SM12JF	SM12KF	SM12NF
15.0		SM15DF	SM15GF	SM15JF	SM15KF	SM15NF
18.0		SM18DF	SM18GF	SM18JF	SM18KF	SM18NF
22.0		SM22DF	SM22GF	SM22JF	SM22KF	SM22NF
27.0		SM27DF	SM27GF	SM27JF	SM27KF	SM27NF
33.0		SM33DF	SM33GF	SM33JF	SM33KF	SM33NF
39.0		SM39DF	SM39GF	SM39JF	SM39KF	SM39NF
47.0		SM47DF	SM47GF	SM47JF	SM47KF	SM47NF
56.0		SM56DF	SM56GF	SM56JF	SM56KF	
68.0	S3	SM68DF	SM68GF	SM68JF	SM68KF	
82.0		SM82DF	SM82GF	SM82JF	SM82KF	
100.0		SM100DF	SM100GF	SM100JF	SM100KF	
120.0		SM120DF	SM120GF	SM120JF		
150.0		SM150DF	SM150GF	SM150JF		
180.0		SM180DF	SM180GF			
220.0	S4	SM220DF	SM220GF			
270.0		SM270DF				
330.0		SM330DF				

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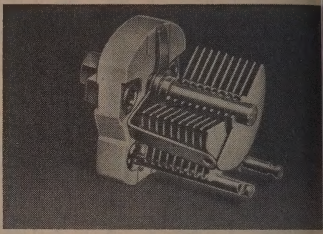
STANDARD VARIABLE CAPACITORS

"APC" CAPACITORS



FEATURES—The "APC" trimmer capacitor originated by Hammarlund over twenty years ago is still widely recognized as the standard capacitor of its type. Its use is indicated in all classes of equipment where a compact, high quality air dielectric trimmer is required. It was designed to resist effects of temperature, moisture and vibration. Silicone treated steatite insulation is used to insure high leakage resistance.

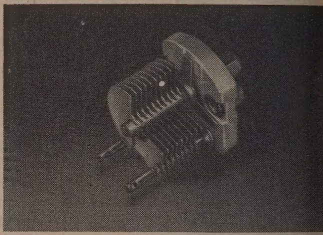
CONSTRUCTION—Brass rotor and stator plates are soldered to brass supports. Nickel-plated phosphor bronze wiper assures positive rotor contact. All metal parts are nickel-plated. Terminals are hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding the rotor.

SPECIFICATIONS—Straight line capacity characteristic. Available either with hexagonal collar on slotted shaft to permit rotor adjustments to be made with wrench or screwdriver or with ½″ extended shaft for knob control or shaft coupling. (Type "B") "APC-C" Lock Type now also available through distributors. Air Gap is 0.015″ nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
APC-15	17.	2.8	5	$1.25
APC-25	25.	3.0	7	1.35
APC-50	50.	3.9	14	1.55
APC-75	75.	4.6	20	1.70
APC-100	100.	5.5	27	1.85
APC-140	140.	6.7	37	2.15

"B" and "C" types slightly higher

"MAPC" CAPACITORS



FEATURES—The "MAPC" capacitor is representative of Hammarlund's efforts to meet the demand for smaller dependable components. It is a scaled-down version of the popular "APC" with everything reduced except the quality and performance characteristics. For example, an "MAPC" is about half the size and weight of an "APC". Lower minimum capacities and low inductance make the "MAPC" suitable for VHF use.

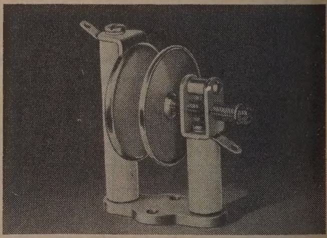
CONSTRUCTION—The standard "APC" construction is used in this capacitor. Rotors and stators are fabricated by soldering brass plates to supporting members and nickel-plating the assemblies. Nickel-plated phosphor bronze wiper assures positive rotor contact. Tapped brass mounting studs fastened to silicone treated steatite base permit mounting capacitor without grounding rotor.

SPECIFICATIONS—Straight line capacity. Available either with screwdriver or socket wrench adjustment or with 7/16″ extended shaft for knob control or shaft coupling. (Type "B") "MAPC-C" Lock Type now also available through distributors. Air Gap is 0.0135″ nominal. Tested at 600 V. R.M.S., 60 cycles.

Code	Capacity		Plates	Net Price
	Max.	Min.		
MAPC-15	15.	2.3	6	$1.01
MAPC-25	25.	2.6	10	1.10
MAPC-35	35.	2.9	14	1.10
MAPC-50	50.	3.2	19	1.19
MAPC-75	75.	3.9	29	1.28
MAPC-100	100.	4.5	38	1.44
MAPC-140	140.	5.5	52	1.62

"B" and "C" types slightly higher

"NZ-10" CAPACITORS

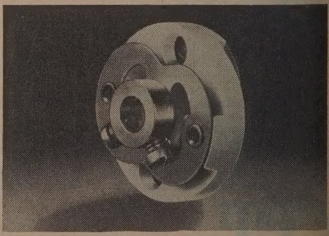


FEATURES—The "NZ-10" is a compact transmitter neutralizing capacitor designed for easy and accurate adjustment. The rotor is attached to a fine-thread lead screw which may be adjusted with smooth and precise action by a screwdriver and locked securely by a readily accessible clamping screw. A stop prevents shorting of plates at maximum capacity. Long leakage paths to ground from both rotor and stator are provided. Glazed steatite insulators and smoothly rounded aluminum plates minimize flashover.

SPECIFICATIONS—Capacity is adjustable from 2.3 to 10 mmf. Peak voltage rating is 3000 V. at maximum capacity (minimum gap) position.

Net Price $4.77

"FC" and "FNC" COUPLINGS



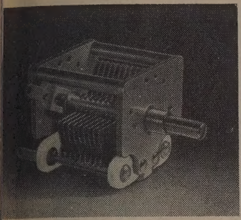
FEATURES—The "FC-46-S" is an insulated flexible coupling designed to provide for mechanical ganging of shafts even though angularly misaligned. The smallest dimensions have been incorporated consistent with the rugged construction necessary for general service. A high degree of electrical isolation is achieved through the use of silicone treated steatite insulation. Flashover voltage is approximately 5000 V. R.M.S. Brass hubs and spring temper phosphor bronze flexible arms axe nickel plated. An exclusive and important feature of this coupling is its characteristic of uniform side-thrust through 360° of rotation. This eliminates tendency to vibrate at high speeds, minimizes bearing wear and assures accurate tracking.

The "FNC-46-S" is a non-insulated coupling for use where electrical continuity between shafts is required. The flexible arms are held securely to a nickel plated brass ring instead of an insulator.

Standard Stock Types		Net Price
CODE FC-46-S	Insulated flexible coupling	$1.10
CODE FNC-46-S	Non-insulated flexible coupling	.93

HAMMARLUND

STANDARD VARIABLE CAPACITORS

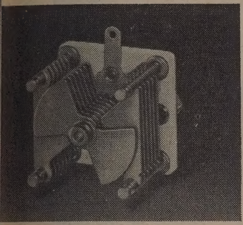


Code	Capacity		Plates	Net Price
	Max.	Min.		
RMC-50-S	50.	7.3	7	$4.14
RMC-100-S	105.	9.5	14	4.40
RMC-140-S	143.5	11.0	19	4.56
RMC-325-S	327.	17.5	43	5.15

SPECIFICATIONS—Straight line capacity. Air gap is 0.0245″ nominal. Tested at 1000 V. R.M.S., 60 cycles.

"RMC" CAPACITORS

FEATURES—The "RMC" was designed specifically for applications requiring an "MC" type tuning capacitor with very rigid construction. Its sturdy frame consists of heavy gauge aluminum end panels held together by three aluminum tie rods. It has a brass sleeve front bearing and a single ball thrust rear bearing for smooth tuning and a high degree of resetability. The rotor contact is a forked silver plated phosphor bronze spring wiping against a wide disc on the rotor. The plate shape and other constructional features are the same as on the "MC". Tapped holes in front panel and in mounting feet, as well as additional brackets for inverted mounting permit a wide variety of assembly methods. "M" type plates and ball-bearing construction can also be made available as specials.



"BFC" CAPACITORS

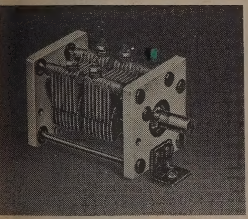
FEATURES — The "BFC" "butterfly" type capacitor has very low minimum capacity, low in inductance and isolated rotor for use in VHF applications as a series capacitor with no rotor connection. For dual split-stator capacitor use, it has a low-loss positive rotor contact. Mechanical and electrical symmetry and stator terminal locations minimize circuit inductance.

CONSTRUCTION — Brass rotors and stators are soldered and nickel-plated. The contact wiper is heavily silver plated phosphor bronze. Tapped studs on the silicone treated steatite front panel permit mounting the capacitor without grounding the rotor. The sleeve type bearing is nickel-plated brass.

SPECIFICATIONS—Straight line capacity. 90° rotation from minimum to maximum capacity position. Air gap is 0.030″ nominal. Tested at 1200 V. R.M.S., 60 cycles between rotor and each stator.

High Speed Ball-Bearing Models Also Are Available

Code	Capacity/Section		Series Capacity		Plates		Net Price
	Max.	Min.	Max.	Min.	Rotor	Ea. Stator	
BFC-12	14.5	3.4	7.6	2.2	4	3	$1.95
BFC-25	27.3	4.8	14.1	2.9	7	6	2.25
BFC-38	40.1	6.2	20.6	3.6	10	9	2.60
BFC-50	52.4	7.6	27.1	4.3	13	12	2.75



Dial % Rotation	Effective Series Capacity		
	VU-20	VU-30	VU-45
0	0.	0.	0.
10	.55	.8	1.15
20	1.55	2.2	3.15
30	2.75	3.85	5.45
40	4.2	5.85	8.35
50	6.0	8.4	12.0
60	8.35	11.65	16.65
70	11.2	15.7	22.4
80	14.65	20.55	29.35
90	18.6	26.05	37.2
100	22.5	31.5	45.0

PECIAL CALIBRATED CAPACITORS
The "VU" type capacitors can be sup-
lied in quantity lots specially calibrated
the nominal curve with a tolerance of
0.15 mmf or 1¼%, whichever is greater.

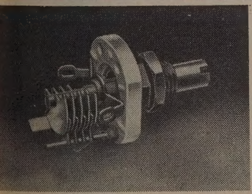
Code	Series Capacity		Plates/ Section	Net Price
	Eff.	Min.		
VU-20	22.5	3.35	11	6.72
VU-30	31.5	3.5	15	6.92
VU-45	45.0	3.8	21	7.34

"VU" CAPACITORS

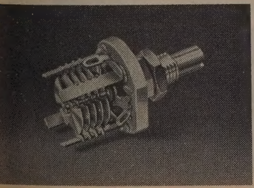
FEATURES — The "VU" is a uniquely designed UHF tuning capacitor using completely original concepts. With it, conventional "lumped constant" circuits, rather than tuned cavity techniques, can be efficiently used up to 500 megacycles. In addition to employing the capacitor sections in series to eliminate the rotor wiper, the design also utilizes Pyrex balls to form precision bearings and to completely isolate the rotor. Thus, noise generated by rubbing metal-to-metal contacts and variable resistance paths in the bearings have been totally eliminated. Circuit connections are made to threaded studs on each stator. This permits vacuum tube and inductor to be mounted adjacent to and on opposite sides of the capacitor to minimize circuit inductance. The symmetrical design is ideal for tuned circuits operating up to 500 megacycles.

CONSTRUCTION—Rotors and stators are of brass with plates soldered in precisely located grooves and then silver plated to increase the "Q" of the capacitor. The insulation is silicone treated steatite. All lengthwise frame members are of brass to minimize temperature effects. Base mounting brackets are provided.

SPECIFICATIONS—The capacity characteristic approaches a straight line frequency curve as indicated by nominal values in table at left. Air gap is .0168″ nominal. Tested at 700 V. R.M.S., 60 cycles, between rotor and each stator.



Code	Capacity		Plates	Net Price
	Max.	Min.		
MAC-5	5.4	1.3	5	$1.00
MAC-10	9.6	1.5	9	1.05
MAC-15	15.8	1.9	15	1.20
MAC-20	21.5	2.2	21	1.35
MAC-30	32.0	2.5	27	1.40



Code	Capacity/Sect.		Plates		Net Price
	Max.	Min.	Rotor	Ea. Stato	
Butterfly					
MACBF-3	3.1	1.3	3	2	$1.40
MACBF-5	5.0	1.6	5	4	1.60
MACBF-8	7.9	2.0	8	7	1.80
MACBF-11	10.8	2.4	11	10	2.00
Differential					
MAC-5-5	5.4	1.3	3	2	1.38
MAC-10-10	9.6	1.5	5	4	1.52
MAC-15-15	15.8	1.9	8	7	1.68
MAC-20-20	21.5	2.2	11	10	1.77

"MAC" and "MACBF" CAPACITORS

FEATURES—The "MAC" provides the low minimum capacity essential for use as a trimmer in the VHF range. It was engineered and designed to produce a rugged, stable, highly reliable miniature component for today's equipment.

CONSTRUCTION — Its silicone treated steatite base is only ¾″ x ⅝″. Rotor and stator are soldered assemblies and are of brass, nickel-plated. Rotor and stator terminals are positioned to permit short leads. The threaded bearing is provided with flat sides to permit single hole mounting.

SPECIFICATIONS—Straight line capacity. Screwdriver adjustment. Air gap is 0.017″ nominal and tested at 880 V. R.M.S., 60 cycles, except the MAC-30 which has an air gap of 0.0135″ nominal and is tested at 600 V. R.M.S., 60 cycles. "MACBF" is the butterfly version of the "MAC." It is designed for dual split-stator capacitor use.

HAMMARLUND

STANDARD VARIABLE CAPACITORS

"MC", "MCA" and "MCD" CAPACITORS

FEATURES—The “MC” is a versatile single section tuning capacitor designed to give the equipment engineer a choice of mountings, connections and capacity characteristics. The threaded brass front bearing and tapped aluminum end brackets permit panel or base mounting. “MC-S” capacitors have a straight line capacity characteristic. “MC-M” units have offset plates resulting in a “Midline” characteristic which more equally spaces frequencies. “MC-X” units are wide-spaced for high voltages. Hammarlund “MC” capacitors, except for “MCA” types, have silver plated phosphor bronze wiping contact, silicone-treated steatite insulation, soldered nickel-plated brass rotors and stators, rotor shaft supported on bearings at both front and rear of capacitor.

The “MCD” is a split-stator panel-mounted capacitor with all the “MC” features. Stators have terminals on both sides. Stators on single-spaced capacitors are separated by a shield. Wide-spaced units have no shield. Multi-section capacitors can be designed for special applications.

A rotor stop is available on “MC” capacitors on special order.

SPECIFICATIONS—Straight line or “Midline” capacity characteristic. Single-spaced types have 0.0245″ nominal air gap and are tested at 1000 V. R.M.S., 60 cycles. Wide-spaced (“X”) types have 0.0715″ nominal air gap and are tested at 1750 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
MC-20-S	20.	5.5	3	$2.27
MC-35-S	35.	6.0	5	2.31
MC-50-M	50.	6.3	7	2.46
MC-50-S	50.	6.5	7	2.48
MC-75-M	80.	7.3	11	2.57
MC-75-S	80.	8.0	11	2.55
MC-100-M	100.	7.7	14	2.72
MC-100-S	100.	8.3	14	2.69
MC-140-M	140.	9.0	19	2.88
MC-140-S	140.	10.0	19	2.85
MC-200-M	200.	10.3	27	3.27
MC-250-M	250.	12.0	34	3.41
MC-325-M	320.	13.5	43	3.90
MC-20-SX	20.	6.8	7	2.63
MC-35-MX	32.	7.8	11	2.69
MC-35-SX	32.	8.5	11	2.79
MC-50-MX	53.	10.5	19	3.02
MC-50-SX	53.	11.5	19	3.05
MC-100-SX	100.	16.5	35	3.87
MCA-20-S	17.5	3.5	3	1.70
MCA-35-S	33.0	3.9	5	1.79
MCA-50-S	47.8	4.4	7	1.91
MCA-75-S	78.0	5.2	11	2.08
MCA-100-S	99.6	5.8	14	2.16
MCA-140-S	137.5	7.0	19	2.30
MCD-50-M	50.	5.5	7	7.25
MCD-100-M	100.	6.3	14	7.74
MCD-100-S	100.	7.0	14	6.74
MCD-140-M	140.	7.8	19	8.16
MCD-35-MX	31.	6.0	11	7.44
MCD-35-SX	31.	6.8	11	6.51

M-Midline plates **S-Straightline plates**
X-Wide-Spaced

"HF" and "HFD" CAPACITORS

SINGLE SECTION CAPACITOR—The “HF” is a single section tuning capacitor employing “APC” rotor and stator design. Extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper make this unit ideally suited to high frequency applications. Silicone treated steatite insulation. Single hole or base mounting. Special spacing, capacity values, finishes and other modifications are available to manufacturers on special order.

DOUBLE SECTION CAPACITOR — The “HFD” dual capacitors, like the “HF” singles, incorporate advanced features providing for maximum efficiency at high frequency. Soldered brass plates are nickel-plated. Aluminum front and rear end panels are mounted on a heavy silicone treated steatite base. Front and rear bearings with wide individual silver plated phosphor bronze wipers for each section assure long life and maximum contact efficiency. Single hole panel mount or base mounting. Electrostatic shield between sections. Terminals are provided on both sides of each stator to permit mounting tube and inductor on opposite sides. Multi-section capacitors can also be made available to customer specifications.

SPECIFICATIONS—Straight line capacity. Single spaced types (HF and HFD) have 0.015″ air gap and are tested at 600 V. R.M.S., 60 cycles. Wide spaced types (HF-X and HFD-X) have 0.045″ air gap and are tested at 1400 V. R.M.S., 60 cycles.

Code	Capacity Max.	Capacity Min.	Plates/ Section	Net Price
HF-15	17.5	2.8	5	$1.14
HF-35	36.	3.2	10	1.25
HF-50	52	3.7	14	1.31
HF-100	102.	5.3	27	1.49
HF-140	142.	6.3	37	1.74
HF-15-X	15.	3.6	10	1.29
HF-30-X	30.	5.2	20	1.43
HFD-25	25.	2.9	7	4.37
HFD-50	52.	3.6	14	4.55
HFD-100	102.	5.0	27	4.98
HFD-140	142.	6.0	37	5.15
HFD-15-X	16.	3.8	11	4.55
HFD-30-X	28.5	5.0	19	4.65

D—Split stator (Duals) **X**—Wide-Spaced

"HFA", "HFA DIFFERENTIAL", "HFA DUAL", and "HFBD" CAPACITORS

SINGLE SECTION CAPCITORS—The “HFA” is a single section tuning capacitor similar to the “HF” except that larger plates permit wider air-gaps for the same capacitance values. Resultant higher breakdown ratings extend the use of the capacitor into the high frequency low-power transmitter field. A threaded sleeve bearing permits single hole mounting and the bracket supplied may be used for base mounting. A lug type terminal mounted with the bearing provides an efficient rotor connection.

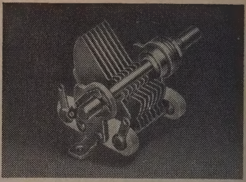
DIFFERENTIAL TYPE CAPACITORS — The “HFA” type units are now available as standard items in the differential type construction. The unit is mounted with an ungrounded rotor making it suitable for a wide field of application. In addition to the features of the “HFA” the design also incorporates the use of a spring bronze silver plated wiping contact on the rotor.

DOUBLE SECTION CAPACITORS—The “HFAD” and the “HFBD” are dual balanced rotor capacitors employing front and rear panels plus a single ball rear thrust. Both units are applicable to transmitter design. The construction features are similar to the “HFA” and the “HFA Differential” type capacitors. Additional special feature employed on the “HFBD” type incorporates the use of an insulated shaft extension on the rotor to safeguard against shock hazards with the application of high voltages.

SPECIFICATIONS—Straight line capacity. Air gaps and test voltages are as indicated in table. However, “HFBD” breakdown voltages are doubled and capacitance values approximately halved when stator sections are connected in series.

Code	Capacity Max.	Capacity Min.	Spacing	Plates/ Section	Net Price
HFA-100-A	102	4.5	0.020	19	$2.13
HFA-140-A	145	6.0	0.020	27	2.39
HFA-200-A	200	8.0	0.020	38	2.76
HFA-10-B	9	2,3	0.030	3	1.62
HFA-15-B	16	2.8	0.030	5	1.71
HFA-25-B	25	3.0	0.030	7	1.74
HFA-50-B	50	4.3	0.030	14	1.92
HFA-100-B†	100	7.5	0.030	27	3.05
HFA-15-E	16	4.0	0.070	9	1.85
Differentials					
HFA-10-10B	9	2.3	0.030	3	2.00
HFA-25-25B	25	3.0	0.030	7	2.20
HFA-50-50B	50	4.3	0.030	14	2.50
HFA-Duals					
HFAD-25B	27	5.0	0.030	7	3.59
HFAD-50B	52	6.8	0.030	14	4.04
HFAD-100B	100	8.0	0.030	27	4.94
HFBD-50-C	50	9.0	0.050	11	7.85
HFBD-100-C	105	14.0	0.050	23	9.24
HFBD-35-E*	37	9.5	0.070	11	7.86
HYBD-65-E*	63	12.5	0.070	19	8.69

60 cycle test voltage:
“HFA”, “A” 800 V. R.M.S. “B” 1200 V. R.M.S.
“E” 1750 V. R.M.S. “HFBD”, “C” 1500 V. R.M.S.
“E*” 3000 V. R.M.S.; plates have rounded edges.
†Has front and rear supporting panels.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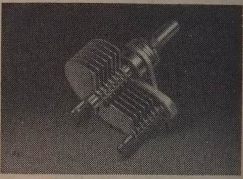
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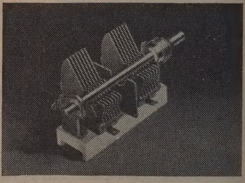
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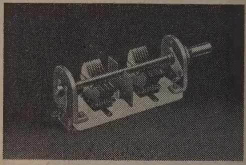
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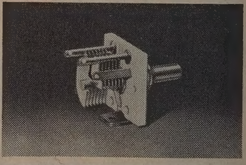
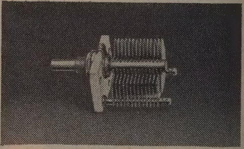

HF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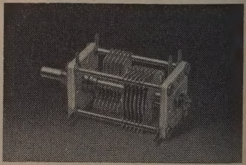
HFA
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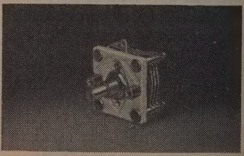
HFA
DUAL

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HAMMARLUND

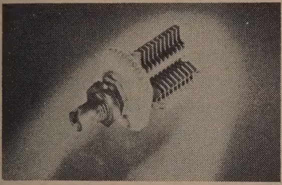
"CT" CAPACITORS MIL TYPES

ATURES—Compact, high quality air dielectric trimmer types designed resist the effects of temperature, moisture and vibration. Silicone ted steatite insulation insures high leakage resistance.

NSTRUCTION—All brass parts nickel-plated. Brass rotor and stator es soldered to brass supports. Terminals hot-tin dipped. Tapped brass mounting studs fastened to silicone treated steatite base eliminates grounding the rotor when mounting capacitor. CT06 types are bushing mounted for grounded rotor operation.

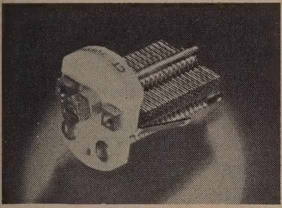
SPECIFICATIONS—CT types designed to meet military specification MIL-C-92.

PE
06



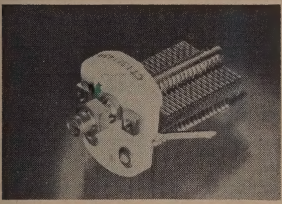
Type designation	DC working voltage	Capacitance		*Rotational life	†Length from mounting surface to end of stator rod
	volts	minimum μμf	maximum μμf		
CT06E004	500	1.3	4.0	J, M	10/16
CT06E013	500	2.1	12.9	J, M	59/64
CT06E017	500	2.4	16.8	J, M	1 3/64
CT06E019	500	3.0	19.0	J, M	1 3/16

PE
12



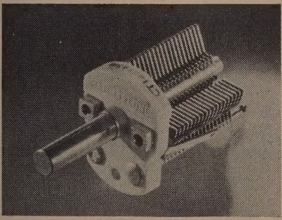
Type designation	DC working voltage	Capacitance		*Rotational life	†Length from mounting surface to end of stator rod
	volts	minimum μμf	maximum μμf		
CT12E042	500	5.0	42	J, M	1 3/16
CT12E075	500	6.0	75	J, M	1 1/2
CT12E099	500	7.5	99	J, M	1 11/16
CT12E135	500	9.0	135	J, M	1 15/16
CT12E143	500	9.0	143	J, M	1 31/32
CT12F010	600	3.0	10	J, M	15/16
CT12F025	600	4.0	25	J, M	1 3/32
CT12F042	600	5.0	42	J, M	1 3/8
CT12F075	600	6.0	75	J, M	1 5/8
CT12F099	600	7.5	99	J, M	1 29/32
CT12G009	700	4.0	9	J, M	1
CT12G023	700	4.5	23	J, M	1 1/4
CT12G042	700	5.5	42	J, M	1 3/4
CT12G075	700	6.5	75	J, M	2

PE
13



Type designation	DC working voltage	Capacitance		*Rotational life	†Length from mounting surface to end of stator rod
	volts	minimum μμf	maximum μμf		
CT13E0442	500	5.0	42	J, M	1 3/16
CT13E075	500	6.0	75	J, M	1 1/2
CT13E099	500	7.5	99	J, M	1 11/16
CT13E135	500	9.0	135	J, M	1 15/16
CT13E143	500	9.0	143	J, M	1 31/32
CT13F010	600	3.0	10	J, M	15/16
CT13F025	600	4.0	25	J, M	1 3/32
CT13F042	600	5.0	42	J, M	1 3/8
CT13F075	600	6.0	75	J, M	1 5/8
CT13F099	600	7.5	99	J, M	1 29/32
CT13G009	700	4.0	9	J, M	1
CT13G023	700	4.5	23	J, M	1 1/4
CT13G042	700	5.5	42	J, M	1 3/4
CT13G075	700	6.5	75	J, M	2

PE
15



Type designation	Dc working voltage	Capacitance		*Rotational life	†Length from mounting surface to end of stator rod
	volts	minimum μμf	maximum μμf		
CT1-E042	500	5.0	42	J, M	1 3/16
CT1-E075	500	6.0	75	J, M	1 1/2
CT1-E090	500	7.5	99	J, M	1 11/16
CT1-E135	500	9.0	135	J, M	1 15/16
CT1-E143	500	9.0	143	J, M	1 31/32
CT1-F010	600	3.0	10	J, M	15/16
CT1-F025	600	4.0	25	J, M	1 3/32
CT1-F042	600	5.0	42	J, M	1 3/8
CT1-F075	600	6.0	75	J, M	1 5/8
CT1-F099	600	7.5	99	J, M	1 29/32
CT1-G009	700	4.0	9	J, M	1
CT1-G023	700	4.5	23	J, M	1 1/4
CT1-G042	700	5.5	42	J, M	1 3/4
CT1-G075	700	6.5	75	J, M	2

*J=250 cycle rotational life—M=10,000 cycle rotational life
†For dimensional drawings refer to military specifications MIL-C-92
Suffix "J" or "M" to be added to type designation.
CT14 1" shaft, CT15 1½" shaft

PRICES ON REQUEST

SPECIAL VARIABLE CAPACITORS FOR ALL NEEDS

AVAILABLE MODIFICATIONS

Hammarlund's more than 50 years experience in the development and manufacture of capacitors has resulted in an endless knowledge of techniques. Such "know-how" includes the making of special capacitors using standard techniques and/or components, or giving birth to a completely new custom product—from concept through to production.

An example of this extended knowledge is the fact that Hammarlund now manufactures over 750 different types of APC capacitors.

These capacitors came into being as a result of the many modifications required by our customers for their specific applications. Any standard capacitor listed in this catalog can be modified to customer requirements. Such variations include end-panels, shaft diameter and lengths, bearings, special materials and finishes, special air gaps on most units, etc.

Custom made precision units to suit all electrcial and environmental specifications can be fabricated on special order. The combinations are endless.

JFD

JFD ELECTRONICS CORPORATION

Components Division . Brooklyn, New York

model	type mount	capacitance range PF measured per JFD =5177 min.	max.	D.C. working volts	dielectric strength measured at max. rated cap.	insulation resistance 500 VDC	Q factor measured at 1 mc. per JFD =5178	temp. coeff. of capacitance P.P.M. °C +25° to+125°C for glass −55° to +125°C for quartz	material (dielectric-piston)	length (front of panel)	page no.
SEALCAP MINIATURE PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ											
SC131*, 141 & 151	Prt. Ct.	0.8	4.5	750	1500 VDC	2x10⁶ Meg.	500	±50	Glass - Invar	13/32†	16
SC133*, 143 & 153	Prt. Ct.	0.8	8.5	1250	2500 VDC	10x10⁶ Meg.	500	±50	Glass - Invar	21/32†	16
SC134*	Prt. Ct.	0.7	12.0	1250	2500 VDC	10x10⁶ Meg.	500	±75	Glass - Invar	7/8	
SC144 & 154	Prt. Ct.	0.8	12.0	1250	2500 VDC	10x10⁶ Meg.	500	±75	Glass - Invar	1.09	16
SC136*, 146 & 156	Prt. Ct.	0.8	18.0	1250	2500 VDC	10x10⁶ Meg.	500	±100	Glass - Invar	1 3/32†	16
SC139*	Prt. Ct.	1.0	30.0	1250	2500 VDC	10x10⁶ Meg.	500	±100	Glass - Invar	1 1/4	16
SC149 & 159	Prt. Ct.	0.8	30.0	1250	2500 VDC	10x10⁶ Meg.	500	±100	Glass - Invar	1.94	16
QS171*, 181 & 191	Prt. Ct.	0.6	1.8	750	1500 VDC	2x10⁶ Meg.	1500	+25 ±25	Quartz - Invar	13/32†	17
QS173*, 183 & 193	Prt. Ct.	0.6	5.5	1250	2500 VDC	10x10⁶ Meg.	1500	+25 ±25	Quartz - Invar	21/32†	17
QS176*, 186 & 196	Prt. Ct.	0.6	9.5	1250	2500 VDC	10x10⁶ Meg.	1500	+25 ±25	Quartz - Invar	1 3/32†	17
QS179*, 189 & 199	Prt. Ct.	0.8	16.0	1250	2500 VDC	10x10⁶ Meg.	1500	+25 ±25	Quartz - Invar	1 1/4†	17
STANDARD SPLIT-STATOR PANEL MOUNT, GLASS AND QUARTZ											
VC16G	Panel	(A) 0.5 (B) 0.8	5.0 2.5	500	1000 VDC	10⁴ Meg.	700	±50	Glass - Invar	11/16	22
VC17G.	Panel	(A) 0.6 (B) 1.1	8.5 4.5	500	1000 VDC	10⁴ Meg.	700	±50	Glass - Invar	1 1/32	22
VC18G	Panel	(A) 0.7 (B) 1.8	14.0 7.5	500	1000 VDC	10⁴ Meg.	700	±50	Glass - Invar	1 11/32	22
VC80A	Panel	(A) 0.4 (B) 0.5	1.5 0.8	750	1500 VDC	10⁴ Meg.	1000	+25 ±25	Quartz - Invar	7/16	22
VC81A	Panel	(A) 0.55 (B) 0.75	2.8 1.3	750	1500 VDC	10⁴ Meg.	1000	+25 ±25	Quartz - Invar	5/8	22
VC82A	Panel	(A) 0.65 (B) 0.95	5.0 2.5	750	1500 VDC	10⁴ Meg.	1000	+25 ±25	Quartz - Invar	1	22
VC83A	Panel	(A) 5 3 (B) 3.5	10.5 5.5	750	1500 VDC	10⁴ Meg.	1000	+25 ±25	Quartz - Invar	1 19/32	22
MINIATURE SPLIT-STATOR SERIES											
SP86G*, 206G & 216G	Prt. Ct.	(A) 0.8 (B) 0.8	4.2 2.0	750	1500 VDC	10⁵ Meg.	500	±50	Glass - Invar	17/32†	23
SP87G*, 207G & 217G	Prt. Ct.	(A) 0.8 (B) 1.5	9.0 4.5	750	1500 VDC	10⁵ Meg.	500	±100	Glass - Invar	1†	23
SP88G*, 208G & 218G	Prt. Ct.	(A) 1.0 (B) 2.0	14.0 7.0	750	1500 VDC	10⁵ Meg.	500	±100	Glass - Invar	1 19/32†	23
MINIATURE SPLIT-STATOR SEALCAP SERIES											
SPS226G*, 236G & 246G	Prt. Ct.	(A) 0.8 (B) 0.8	4.2 2.0	750	1500 VDC	10⁵ Meg.	500	±50	Glass - Invar	41/64	24
SPS227G*, 237G & 247G	Prt. Ct.	(A) 0.8 (B) 1.5	9.0 4.5	750	1500 VDC	10⁵ Meg.	500	±100	Glass - Invar	1 3/32†	24
SPS228G*, 238G & 248G	Prt. Ct.	(A) 1.0 (B) 2.0	14.0 7.0	750	1500 VDC	10⁵ Meg.	500	±100	Glass - Invar	1 45/64†	24
DIFFERENTIAL SERIES, STANDARD PANEL MOUNT, MINIATURE TYPES FOR PANEL MOUNT*, AND PRINTED CIRCUIT TYPES**											
DC401**, 411* , 421 & 431	Prt. Ct.	(1) 0.7 (2) 2.0	3.0 3.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	5/16†	20
DC403**, 413* , 423 & 433	Prt. Ct.	(1) 0.8 (2) 2.5	8.0 8.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	35/64†	20
DC404**, 414* , 424 & 434	Prt. Ct.	(1) 0.8 (2) 3.0	12.0 12.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	3/4†	20
DC406**, 416* , 426 & 436	Prt. Ct.	(1) 0.9 (2) 3.5	16.0 16.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	15/16†	20
DC409**, 419* , 429 & 439	Prt. Ct.	(1) 1.5 (2) 5.0	28.0 28.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	1 1/16†	20
MINIATURE DIFERENTIAL SEALCAP SERIES											
DS441*, 451 & 461	Prt. Ct.	(1) 0.7 (2) 2.0	3.0 3.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	7/16†	21
DS443*, 453 & 463	Prt. Ct.	(1) 0.8 (2) 2.5	8.0 8.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	43/64†	21
DS444*, 454 & 464	Prt. Ct.	(1) 0.8 (2) 3.0	12.0 12.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	7/8†	21
DS446*, 456 & 466	Prt. Ct.	(1) 0.9 (2) 3.5	16.0 16.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	1 1/16†	21
DS449*, 459 & 469	Prt. Ct.	(1) 1.5 (2) 5.0	28.0 28.0	500	1000 VDC	10⁴ Meg.	500	±100	Glass - Invar	1 3/16†	21
MAX-C SEALCAP SERIES											
MC601*, 611 & 621	Prt. Ct.	1.0	14.0	1000	2000 VDC	10⁶ Meg.	500	±50	Glass - Nickel Alloy Steel	29/64†	18
MC603*, 613 & 623	Prt. Ct.	1.0	28.0	1000	2000 VDC	10⁶ Meg.	500	±50	Glass - Nickel Alloy Steel	11/16†	18
MC604*, 614 & 624	Prt. Ct.	1.0	42.0	1000	2000 VDC	10⁶ Meg.	500	±50	Glass - Nickel Alloy Steel	29/32†	18
MC606*, 616 & 626	Prt. Ct.	1.0	60.0	1000	2000 VDC	10⁶ Meg.	500	±50	Glass - Nickel Alloy Steel	1 3/32†	18
MC609*, 619 & 629	Prt. Ct.	1.0	90.0	1000	2000 VDC	10⁶ Meg.	500	±50	Glass - Nickel Alloy Steel	1 3/4†	18
PC SERIES PANEL MOUNTS											
PC35H030	PANEL	0.5	3	500		These units meet the requirements of MIL-C-14409A				1/2	25
PC35H080	PANEL	1	8	500						5/8	25
PC35H160	PANEL	1	16	500						1 1/32	25
PC35H300	PANEL	1	30	500						1 5/8	25

LC TUNERS*	self-resonating frequency (MC)		nominal induct (microhenries)		nominal capacitance pf		Q factor	operating temperature °C	material	length (front of panel)
LC303* , 313 , 323 & 333**	400 MIN	725 MAX	.0248 MIN	.0277 MAX	.54 MIN	6.56 MAX	170-200	—55 to +125	Glass - Invar	43/64
LC304* , 314 , 324 & 334**	275 MIN	550 MAX	.0367 MIN	.0396 MAX	.85 MIN	11.66 MAX	150-175	—55 to +125	Glass - Invar	57/64
LC306* , 316 , 326 & 336**	200 MIN	500 MAX	.0507 MIN	.0544 MAX	.86 MIN	20.19 MAX	135-170	—55 to +125	Glass - Invar	1 9/64
LC309* , 319 , 329 & 339**	125 MIN	375 MAX	.0748 MIN	.0798 MAX	.88 MIN	24.49 MAX	145-155	—55 to +125	Glass - Invar	1 47/64

FOR JFD LC TUNERS, WITH SEALCAP CONSTRUCTION(LCS343, LCS353, AND LCS363 SERIES) SEE CATALOG TI72

**Standard panel mount * miniature panel mount †Length Applicable for Panel Mount Types Only.

FIXED METALIZED INDUCTORS FOR PANEL MOUNT, (LF1P SERIES), OR PRINTED CIRCUIT MOUNT, (LF2W SERIES), ARE AVAILABLE "OFF THE SHELF" IN 23 VALUES ON A 15 32 INCH GLASS DIAMETER. THEY RANGE FROM .05 uh TO 2.00 uh. FIXED METALIZED INDUCTORS FOR PANEL MOUNT (LF3P SERIES), OR PRINTED CIRCUIT MOUNT (LF4W SERIES), ARE ALSO AVAILABLE "OFF THE SHELF" IN 22 VALUES ON A 19 64 INCH GLASS DIAMETER. THESE RANGE FROM .05 uh to 1.00 uh. THESE FOUR SERIES ARE DESCRIBED IN JFD CATALOG TI72

TANK CIRCUITS, (SERIES LC371), AVAILABLE IN FIVE MODELS COVERING FIVE OVERLAPPING RANGES BETWEEN 170 Mc AND 1000 Mc ARE ALSO DESCRIBED IN JFD CATALOG TI72

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MORE ENGINEERS SPECIFY JFD

VARIABLE TRIMMER PISTON CAPACITORS LC TUNERS AND METALIZED INDUCTORS

For complete data on LC Tuners and Metalized Inductors, refer to Catalog No. TI72.
For complete data on Delay Lines, refer to Catalog No. D82.
For custom modifications please contact the JFD sales engineering office or JFD Sales Representative nearest you as listed on page 32

model	type mount	capacitance range pf measured per JFD #5177 min.	max.	D.C. working volts	dielectric strength measured at max. rated cap.	insulation resistance 500 V D C.	Q factor measured at 1 mc. per JFD #5178	temp. coeff. of capacitance P P M /°C +25° to+125°C for glass —55° to +125°C for quartz	material (dielectric-piston)	length (front of panel)	page no.
ANDARD PANEL MOUNT, GLASS AND QUARTZ											
1G	Panel	0.7	9.0	1250	2500 VDC	10⁶ Meg. Min.	500	—60 to +10	Glass - Invar	21/32	7
4G	Panel	0.8	18.0	750	1500 VDC	10⁶ Meg. Min.	500	+350 to +450	Glass - Brass	1	7
5G	Panel	0.8	18.0	750	1500 VDC	10⁶ Meg. Min.	500	—20 to +40	Glass - Invar	1	7
11G	Panel	0.6	14.0	750	1500 VDC	10⁶ Meg. Min.	500	—30 to +40	Glass - Invar	1	7
11GRA	Panel	0.6	14.0	750	1500 VDC	10⁶ Meg. Min.	500	—40 to +50	Glass - Invar	1	7
11GRB	Panel	0.6	14.0	750	1500 VDC	10⁶ Meg. Min.	500	+350 to +450	Glass - Brass	1	7
11GRC	Panel	0.8	18.0	750	1500 VDC	10⁶ Meg. Min.	500	+20 to +100	Glass - Invar	1	7
30G	Panel	0.8	30.0	750	1500 VDC	10⁶ Meg. Min.	500	—10 to +50	Glass - Invar	1 19/32	7
2	Panel	0.7	4.5	750	1500 VDC	10⁶ Meg. Min.	LARGELY IN EXCESS OF 2000	+25 ±25	Quartz - Invar	7/16	7
5	Panel	0.6	6.0	750	1500 VDC	10⁶ Meg. Min.		+25 ±25	Quartz - Invar	5/8	7
11	Panel	0.8	10.0	750	1500 VDC	10⁶ Meg. Min.		+25 ±25	Quartz - Invar	1	7
12	Panel	9.0	21.0	750	1500 VDC	10⁶ Meg. Min.		+25 ±25	Quartz - Invar	1 19/32	7
99	Panel	0.8	10.0	2500	5000 VDC	10⁶ Meg. Min.		+25 ±25	Quartz - Invar	1 7/32	25
LIT BUSHING SERIES PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ											
3G	Panel	0.7	9.0	1250	2500 VDC	10⁶ Meg. Min.	650	+300 to +500	Glass - Brass	21/32	8
3GI	Panel	0.7	9.0	1250	2500 VDC	10⁶ Meg. Min.	650	+0 to —150	Glass - Invar	21/32	8
6GA	Panel	0.7	17.0	750	1500 VDC	10⁶ Meg. Min.	750	+400 to +600	Glass - Brass	1 1/32	8
6GI	Panel	0.8	17.0	750	1500 VDC	10⁶ Meg. Min.	600	—100 to +100	Glass - Invar	1 1/32	8
7G	Panel	2.0	30.0	750	1500 VDC	10⁶ Meg. Min.	600	—100 to +100	Glass - Invar	1 5/8	8
801GW	Prt. Ct.	0.8	4.5	750	1500 VDC	10⁶ Meg.	500	±50	Glass - Invar	13/32	9
803GWA	Prt. Ct.	0.8	8.5	750	1500 VDC	10⁶ Meg.	500	±50	Glass - Invar	19/32	9
804GWA	Prt. Ct.	0.8	12.0	750	1500 VDC	10⁶ Meg.	500	±75	Glass - Invar	51/64	9
806GWA	Prt. Ct.	0.8	18.0	750	1500 VDC	10⁶ Meg.	500	±100	Glass - Invar	1 1/32	9
809GWA	Prt. Ct.	0.8	30.0	750	1500 VDC	10⁶ Meg.	500	±100	Glass - Invar	1 41/64	9
811QWA	Prt. Ct.	0.6	1.8	750	1500 VDC	10⁶ Meg.	2000	+25 ±25	Quartz - Invar	13/32	9
813QWA	Prt. Ct.	0.6	5.0	750	1500 VDC	10⁶ Meg.	2000	+25 ±25	Quartz - Invar	19/32	9
816QWA	Prt. Ct.	0.6	9.5	750	1500 VDC	10⁶ Meg.	2000	+25 ±25	Quartz - Invar	1 3/64	9
819QWA	Prt. Ct.	0.6	16.0	750	1500 VDC	10⁶ Meg.	2000	+25 ±25	Quartz - Invar	1 41/64	9
ECT TRAVERSE, LOW COST, HIGH QUALITY, PANEL MOUNT, PRINTED CIRCUIT, GLASS AND CERAMIC, FOR COMMERCIAL APPLICATIONS											
13GB	Panel	0.8	13.0	2500	5000 VDC	10⁶ Meg. Min.	500	+225 to +375	Glass - Ph. Bronze	1 3/16	10
50CB	Panel	5.0	50.0	1250	2500 VDC	10⁵ Meg. Min.	450	+250 to +450	Ceram - Ph. Bronze	1	10
51CB	Prt. Ct.	5.0	50.0	1250	2500 VDC	10⁵ Meg. Min.	450	+250 to +450	Ceram - Ph. Bronze	1 13/64	10
52	Panel	1.0	12.0	750	1500 VDC	10⁶ Meg. Min.	500	+225 to +375	Glass - Ph. Bronze	1	10
53	Prt. Ct.	1.0	12.0	750	1500 VDC	10⁶ Meg. Min.	500	+225 to +375	Glass - Ph. Bronze	1 13/64	10
IT BUSHING, PANEL MOUNT, PRINTED CIRCUIT, GLASS SUBMINIATURE SERIES											
76	Panel	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	19/32	11
77	Panel	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	19/32	11
78	Panel	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	19/32	11
79	Prt. Ct.	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	49/64	11
TRIM, PANEL MOUNT, PRINTED CIRCUIT, GLASS, "WORLD'S SMALLET PISTON CAPACITOR"											
901	Panel	0.5	2.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	3/8	12
902	Panel	0.5	3.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	1/2	12
903	Panel	0.5	5.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	3/4	12
904	Panel	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	1	12
911	Prt. Ct.	0.5	2.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	9/16	12
912	Prt. Ct.	0.5	3.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	43/64	12
913	Prt. Ct.	0.5	5.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	59/64	12
914	Prt. Ct.	0.5	7.0	500	1000 VDC	10⁶ Meg. Min.	500	—	Glass-Nickel Alloy Steel	1 11/64	12
DING PISTON, SPLIT BUSHING, PANEL MOUNT, GLASS											
481	Panel	0.8	4.5	750	1500	10⁶ Meg. Min.	500	±50	Glass - Invar	5/16	13
483	Panel	0.8	8.5	750	1500	10⁶ Meg. Min.	500	±50	Glass - Invar	9/16	13
484	Panel	0.8	12.0	750	1500	10⁶ Meg. Min.	500	±50	Glass - Invar	49/64	13
486	Panel	0.8	18.0	750	1500	10⁶ Meg. Min.	500	±50	Glass - Invar	1	13
489	Panel	0.8	30.0	750	1500	10⁶ Meg. Min.	500	±50	Glass - Invar	1 5/8	13
IATURE PANEL MOUNT, PRINTED CIRCUIT, GLASS AND QUARTZ						* Panel Mount					
20G * VC9G, VC9GW	Prt. Ct.	0.8	8.5	750	1500 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	9/16	14
21G* VC10G, VC10GW	Prt. Ct.	0.8	4.5	750	1500 VDC	10⁶ Meg. Min.	500	±50	Glass - Invar	5/16	14
22G*	Panel	0.7	12.0	750	1500 VDC	10⁶ Meg. Min.	500	±75	Glass - Invar	49/64	14
23G* VC32G, VC32GW	Prt. Ct.	0.8	18.0	750	1500 VDC	10⁶ Meg. Min.	500	±100	Glass - Invar	1	14
24G *	Panel	1.0	30.0	750	1500 VDC	10⁶ Meg. Min.	500	±100	Glass - Invar	1 5/8	14
31G, VC31GW	Prt. Ct.	0.8	12.0	750	1500 VDC	10⁶ Meg. Min.	500	±75	Glass - Invar	23/32	14
42G & VC42GW	Prt. Ct.	1.0	21.0	750	1500 VDC	10⁶ Meg. Min.	500	±100	Glass - Invar	1 5/32	14
43G, VC43GW	Prt. Ct.	0.8	30.0	750	1500 VDC	10⁶ Meg. Min.	500	±100	Glass - Invar	1 5/8	14
101*, 111 & 121	Prt. Ct.	0.6	1.8	750	1500 VDC	10⁶ Meg. Min.	1500	+25 ±25	Quartz - Invar	5/16	15
103*, 113 & 123	Prt. Ct.	0.6	5.5	750	1500 VDC	10⁶ Meg. Min.	1500	+25 ±25	Quartz - Invar	9/16	15
106*, 116 & 126	Prt. Ct.	0.6	9.5	750	1500 VDC	10⁶ Meg. Min.	1500	+25 ±25	Quartz - Invar	1	15
109*, 119 & 129	Prt. Ct.	0.8	16.0	750	1500 VDC	10⁶ Meg. Min.	1500	+25 ±25	Quartz - Invar	1 5/8	15

JFD Capacitors meet or exceed applicable requirements of MIL-C-14409A.

Jennings® VACUUM

Vacuum Variable Capacitors

	FIG.	TYPE NICKEL	TYPE COPPER	CAPACITY MMFD	PEAK VOLTAGE KILOVOLTS	RMS AMPERES① NICKEL	RMS AMPERES① COPPER	NOMINAL DIMENSIONS② LENGTH	NOMINAL DIMENSIONS② DIAMETER
2 to 5 KV	E		UCSL	4-250	3, 5		30	4⅛	2¼
	B		USL	5-500	3, 5		40	5½	2⅜
	B		USLS	5-465 shorting	3, 5		40	5⅝	2⅜
	B		USL	10-1000	3, 5		40	5	3⅛
	A		UCSL	5-750, 7-1000	3, 5		42	7⅝	3⅛
	A		UCSL	20-2000 , 50-3000	2, 3		42	8⅜	3 9/16
7.5 to 15 KV	E		UCSB	5-100	7.5, 10, 15		40	4⅞	2⅜
	I		UCSV	8-110, 125-250	7.5, 10, 15		40	5¼	2⅞
	K		ATCS	10-150, 15-200	7.5, 10, 15		20	7	3⅛
	L		UCS	5-200, 10-300	7.5, 10, 15		42	8¾	2⅝
	L		UCS	10-400, 25-500	7.5, 10, 15		42	9	3⅛
	A		UCSF	5-250, 12-500	7.5, 10, 15		45	7¾	3⅝
	H		UCSX	25-700, 25-1000	7.5, 10, 15		45	9⅞	3¾
	M		UCSXF	12-1000, 15-1200	7.5, 10, 15		45	10	4⅜
	M		UCSXF	20-1500, 50-2000	7.5, 10, 12		45	10	5⅛
10 to 20 KV	C		ECS	2-8, 3-30	10, 15		20	4	1⅜
	K	T	TC	5-25	20	10.5	20	6⅝	2¼
	K	AT	ATC	10-50, 15-75	20, 30	10.5	20	6⅞	3⅛
	F	U	UC	50-250	10, 15, 20	21	60	11½	5
	D	UX	UXC	25-500	10, 15, 20	21	60	14	5
	M		UXCF	10-250, 20-500	10, 15, 20		45	9⅞	4⅜
	J	VMM	VMMC	50-1000, 100-2000	10, 15	35	125	15⅞	6⅛
	G		VMMC	100-5000	7.5, 10, 15		125	19	9¼
35 to 60 KV	I		UCSVH	8-35	25, 35		40	4¾	3
	F	UH	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5
	D	UXH	UXHC	25-150	35, 45, 55	21	60	14⅝	5
	H		UCSXH	10-200	35, 45		45	10	4½
	M		UCSXHF	25-450	35, 40		60	10½	5⅛
	J		VMMHC	10-250, 25-450 , 30-650	35, 45, 55		125	17	8⅛
	N		VMMHCW	25-250, 50-400	35, 45, 55		500	17	9⅝
	G		VMMHC	60-1000	35, 40, 45		125	19⅜	9¼
120 KV	G		VMMHHC	25-200	120		125	20¼	9¼

Type GCS
5-100 mmf
15 kv

Type UCS
7-1000 mm
5 kv

Type UCSX
50-2000 mm
12 kv

①Current ratings can usually be doubled with forced air cooling. Water cooled units are also available

②Nominal Dimensions are for the largest unit of each type.

NOTE: A series of adjustable capacitors are available to cover the range of 8 to 1000 mmfd at 10 KV.

Vacuum Transfer Relays

Jennings Type	RA Series	RB7B	RB1D	RB2A	RB3	RB4	RE6B
Contact arrangement	1, 2, 3 & 4PDT	2PDT	SPDT	2PDT	2PDT	4PDT	SPDT
Rated operating voltage—dc or 60 cycle 16 mc	300v	7kv 3kv	12 kv 8 kv	20 kv 10 kv	12 kv 8 kv	20 kv 10 kv	25 kv 12 kv
Test voltage—60 cycle peak	2000v	9kv	18 kv	25 kv	15 kv	25 kv	30 kv
Continuous current—rms amps—60 cycle	30, 40 amps	14 amps	15 amps	20 amps	30 amps	20 amps	25 amps
2.5 mc		9 amps	10 amps	12 amps	10 amps	10 amps	13 amps
16 mc		4 amps	6 amps	6 amps	6 amps	6 amps	8 amps
Contact resistance	.01 ohms max.	.01 ohms max.	.012 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms max.	.01 ohms m
Contact capacitance	17 mmfd	1 mmfd	0.5 mmfd	1 mmfd	1 mmfd	1 mmfd	1 mmfd
Capacitance to ground	11 mmfd	2 mmfd	1.5 mmfd	2.5 mmfd	2.5 mmfd	2.5 mmfd	2.5 mmfd
Operate times	25 msec max.	15 msec max.	18 ms max.	20 ms max.	20 ms max.	45 ms max.	25 ms max.
Release times	9 msec max.	4 msec max.	8 ms max.	10 ms max.	8 ms max.	10 ms max.	10 ms max.
DC actuating coil—resistance+10%	225 ohms	270 ohms	265 ohms	225 ohms	120 ohms	131 ohms	120 ohms
voltage	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc	26.5 vdc
Shock	50G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms	30G-11 ms
Vibration	20G to 2000 cps	10G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 2000 cps	5G to 500 cps	10G to 400

NOTE: Most of the rf voltage and current ratings can be increased approx. 30% by the use of special brass terminals.

JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

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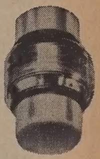
CAPACITORS & RELAYS

Vacuum Fixed Capacitors

	FIG.	TYPE		CAPACITY	PEAK VOLTAGE	RMS AMPERES①		NOMINAL DIMENSIONS②	
		NICKEL	COPPER	MMFD	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV	L		JCSL	100, 250	3, 5		35	2⅝	1⅞
	M		JSLF	250, 450	3, 5		30	1¾	1⅞
	B		JSLF	1000, 1500, 2000	3, 5		30	1⅝	3⅛
	B		JCSL	500, 750, 1000, 1500, 2000	2, 3		42	4	2⅞
7.5 to 15 KV	M		JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1⅝	1⅝
	L		JCS2	10, 20, 25, 50, 75, 100, 150	7.5, 10, 15		20	3⅛	1⅞
	B		JCS1	25, 50, 75, 100, 150	7.5, 10, 15		50	3¾	2⅛
	B		JCS	250, 400, 500	7.5, 10, 15		42	4	3⅛
	A		JCS	900, 1000	7.5, 10, 12		42	4⅝	3⅝
	D		MC1	500, 750, 1000	10, 15		75	4⅛	4⅛
	C	M	MC	500, 750, 1000	10, 15, 20	21	120	8⅜	5
	J	MM	MMC	1500, 2000	10, 15	35	125	9¼	6⅛
	F		MMC1	2000	10, 15		125	5	6⅛
	E		MMC	3000, 4000, 5000	10, 15		125	13	9¼
17 to 30 KV	K	Y		1, 2, 3, 4, 5	17	7		3¼	¾
	K	X		5, 10, 15, 20, 25	17	7		3¼	1⅛
	N	W		6, 12, 25, 50, 100	20, 25	10.5		4⅝	2¼
	I		VCCA	6, 12, 25, 50, 75, 100, 150	20, 30		60	4½	2⅜
	I	VC	VCCE	6, 12, 25, 50, 75, 100, 150	20, 30, 35	14	60	6½	2⅝
	I	VC	VCCE	200, 250	20, 30	14	60	6½	2⅝
	M		JMF	50, 75, 100	20, 30		40	2¾	2⅛
	H		JC2	25, 50, 75, 100	20, 30		42	4	3¼
	C	ML	MLC	500, 750, 1000	25, 30	21	125	9¼	5
35 to 60 KV	A		JHC	75	50, 60		42	4	3½
	G		JC3	20, 40, 50, 60	35, 45, 55, 60		140	8¼	3½
	G		JC4	75, 100, 125	35, 45, 55, 60		175	9¼	5
	G		JC5	200	35, 45, 55, 60		225	11¼	7
	J		MMHC	450	35, 45, 55		125	9¼	6⅛
	E		MMHC	1000	35, 40, 45		150	13	9¼

Type JCSF
150 mmfd
15 kv

Type JCSL
1500 mmfd
5 kv


Type MMC
2000 mmfd
15 kv

①Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.

②Nominal Dimensions are for the largest unit of each type.

NOTE: Intermediate capacities, feed-thru capacitors, and glass insulators are available.

The all copper construction of Vacuum Fixed Capacitors give high current ratings, long life and stability of operation.

Vacuum Coaxial Relays

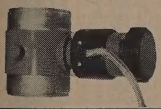
FOR 50 OHM 3⅛ LINES

TYPE RC21F SPDT VACUUM RELAY

Impedance: 50 ohms.

Frequency: (0-600 MC)	—Crosstlk	—VSWR
200 MC	—47.12 db	—1.03
225 MC	—46.1 db	—1.04
250 MC	—45.0 db	—1.05
300 MC	—43.6 db	—1.05
400 MC	—41.2 db	—1.06
500 MC	—39.2 db	—1.07
600 MC	—37.5 db	—1.09

Power Rating: 3 megawatt pk. 20 kw average at 600 MC.
Insertion Loss: 0.01 db max.



TYPE RC 10 VACUUM RELAY

A SPST latching relay for use at frequencies up to 60 mc at 50 kw average power. Simple fittings are available that permit assembling multiple units in crossbar networks in a minimum of space. As an example a 4 x 5 (4 inputs, 5 outputs) network can be assembled occupying less than 9 cu. ft. of space.

TYPE RC21F SPDT VACUUM RELAY

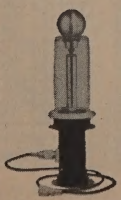
Size: 3⅛ inch. **Fittings:** "RETMA," Flange type.
Inner Connector: Anchor type. "EIA" Bullet to Jennings spring type.
Configuration "T": May be installed in place of "EIA" 50 ohm standard elbow without modification of existing coaxial line.
Actuation: Electro-mechanical latching type. Momentary energize to open/close. 24 or 115 V DC or manual operation.
Indicator: Auxiliary Microswitches 2PDT. (Two each.)
Transfer time: Less than 50 millisec. **Weight:** 18 lbs. (approx.).

TYPE RC 10 LATCHING VACUUM RELAY

Characteristic Impedance: 50 ohms
Power Rating: 50 kw average to 60 mc
Frequency Range: 0 to 100 mc
VSWR: 1.02 max. at 30 mc; 1.05 max. at 60 mc
Crosstalk: Greater than —60 db isolation at 60 mc
Actuating Voltage: 24, 48, 115 vdc
Actuator: Latching type
Position Indicators: SPDT or DPDT microswitches

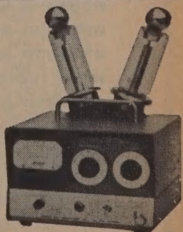
High Voltage Measuring Equipment

MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft of RG-58 A U cable.
INPUT IMPEDANCE:
Resistance: above 10^{12} ohms.
Capacitance: 4 mmfd.
FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 1000 cps if operating into 1 megohm shunt resistance.



MODEL J-1003 HIGH VOLTAGE VACUUM TUBE VOLTMETER
for use in pulse, rf and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts full Scale):
Single Ended: 2.5, 5, 10, 25, 50 KV.
Double Ended: 2.5, 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)

OSCILLOSCOPE CONNECTION:
300 to 1 division ratio.
FREQUENCY RESPONSE: 10 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.
INPUT IMPEDANCE: 10^{12} ohms and 4 mmfd.
CALIBRATION ACCURACY: — 3% of full scale.
POWER SUPPLY: 117 volt, 50, 60 cy.
DIMENSIONS: 16¼" v 11" x 9"



JENNINGS RADIO MANUFACTURING CORPORATION · SAN JOSE, CALIF.

P. R. MALLORY & CO. Inc.
MALLORY

Electrolytic Capacitors

FP AND WP CAPACITORS

For top chassis mounting in filter and audio bypass circuits and TV applications. Extremely dependable under heavy ripple current and high surge voltage. All WP and FP capacitors are designed for high temperature (85° C) operation at full rated voltage. Single, dual, triple and quad section units encased in compact rubber sealed aluminum cases with self-contained mounting feature.

MALLORY
MALLORY

FP-WP—SINGLES

Mallory No.	Cap., µf	WV DC	*	Net Each
WP510	.5Z/15750†	3NP	B	**$1.32**
WP540	1.0Z/60†	3NP	H	**2.40**
WP505	10Z/30†	3NP	A	**1.20**
WP035	225	15	A	**1.05**
WP039	1000	15	C	**1.53**
WP041	2000	15	G	**2.07**
WP042	3000	15	H	**2.10**
WP052	40	25	A	**.81**
WP055	100	25	B	**.96**
WP057	500	25	C	**1.53**
WP059	1000	25	F	**2.13**
WP063	4	50	A	**.75**
WP064	100	50	B	**.99**

Mallory No.	Cap., µf	WV DC	*	Net Each
WP064.2	150	50	B	**$1.08**
WP065	500	50	F	**1.59**
WP066	500	50	D	**1.59**
WP068	1500	50	H	**2.31**
FP113	30	150	A	**.93**
FP115	50	150	B	**.99**
FP116	100	150	C	**1.20**
FP116.5	120	150	D	**1.23**
FP116.6	120	150	F	**1.23**
FP117	150	150	D	**1.29**
FP117.5	150	150	F	**1.29**
FP118	200	150	G	**1.47**
FP119	300	150	H	**1.68**
FP121	120	200	F	**1.41**
FP122	125	200	D	**1.47**
WP123	500	200	I	**2.19**

Mallory No.	Cap., µf	WV DC	*	Net Each
FP125	15	250	A	**$0.93**
WP125.5	140	250	D	**1.74**
WP125.9	150	250	K	**1.71**
FP128	80	300	D	**1.53**
FP129.1	100	300	D	**1.74**
WP131.5	160	300	G	**2.31**
WP132	200	300	G	**2.58**
FP135	30	350	B	**1.14**
FP137	50	350	C	**1.26**
FP137.2	60	350	D	**1.32**
FP138	80	350	G	**1.71**
FP140	125	350	H	**2.37**
FP140.5	140	350	H	**2.34**
FP140.6	150	350	H	**2.55**
FP141	320	350	I	**3.45**

Mallory No.	Cap., µf	WV DC	*	Net Each
FP142	10	450	A	**$0.93**
FP143	15	450	B	**1.02**
FP144	20	450	B	**1.08**
FP145	30	450	C	**1.17**
FP146	40	450	C	**1.23**
FP148	60	450	G	**1.68**
FP149	80	450	G	**1.83**
FP150	100	450	H	**2.07**
FP155	125	450	J	**2.76**
FP171	10	500	B	**.96**
FP173	20	500	B	**1.11**
FP175	30	500	C	**1.20**
FP176	40	500	F	**1.50**
FP177	40	500	D	**1.50**
FP187	90	500	H	**2.10**

FP-WP—DUALS

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP204	250-1000	10-6	F	**$1.71**
WP205	.5Z-2.5Z/15750†-60†	12-6	I	**2.16**
WP200	1000-1000	15-15	F	**2.64**
WP200.1	1000-1000	15-15	D	**2.64**
WP200.23	1500-1000	16-10	F	**2.55**
WP200.6	500-500	16-16	B	**1.95**
WP200.18	800-200	16-16	B	**1.68**
WP200.21	1000-500	16-16	C	**2.28**
WP200.5	500-100	20-20	B	**1.65**
WP200.7	500-200	20-20	B	**1.80**
WP200.2	1000-2000	25-15	H	**3.87**
WP201.1	40-40	25-25	B	**.93**
WP201.5	1000-1000	35-35	G	**3.93**
WP202.1	50-50	50-50	B	**1.02**
WP202.5	100-100	50-50	B	**1.26**
WP205.6	50-500	150-5	C	**1.41**
WP205.8	50-1000	150-8	B	**1.71**
WP206	50-150	150-25	C	**1.32**
FP208	20-20	150-150	B	**1.02**
FP211	30-30	150-150	B	**1.11**
FP210	40-20	150-150	B	**1.08**
FP212	40-40	150-150	B	**1.14**
FP213	50-30	150-150	B	**1.29**
FP214	50-50	150-150	C	**1.56**
FP214.5	75-75	150-150	F	**1.56**
FP214.6	75-75	150-150	E	**1.38**
FP216.2	80-40	150-150	C	**1.38**
WP216.24	80-50	150-150	B	**1.50**
FP215	125-100	150-150	G	**2.04**
FP216.3	200-150	150-150	I	**2.25**
FP216.4	200-200	150-150	I	**2.40**
FP216.6	60-60	200-200	D	**1.53**
FP216.1	200-5	200-200	G	**1.65**
FP216.8	40-25	250-150	C	**1.29**
FP217	20-20	250-250	B	**1.14**
FP221	40-40	250-250	D	**1.50**
FP217.7	150-150	250-250	I	**3.09**
FP217.74	200-200	250-250	I	**3.60**

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP217.85	35-500	300-6	C	**$1.68**
FP217.86	30-20	300-50	B	**1.14**
FP217.8	20-60	300-250	D	**1.65**
FP217.87	40-40	300-300	F	**1.77**
FP217.88	50-10	300-300	F	**1.53**
FP217.9	75-75	300-300	H	**2.28**
FP218	120-20	300-300	H	**2.40**
WP219	125-60	300-300	G	**2.70**
FP219.7	150-100	300-300	H	**3.11**
FP223	5-75	350-150	D	**1.26**
FP225	15-15	350-350	B	**1.35**
FP227	20-20	350-350	C	**1.38**
FP227.3	30-30	350-350	D	**1.74**
WP227.35	80-20	350-350	D	**2.10**
FP227.4	80-20	350-350	G	**2.10**
FP227.5	80-40	350-350	H	**2.16**
FP227.6	80-80	350-350	I	**2.82**
FP227.7	100-100	350-350	I	**3.69**
FP228.3	150-20	350-350	H	**2.73**
FP229	35-100	400-50	D	**1.56**
FP229.2	40-4	400-350	D	**1.41**
FP229.25	80-4	400-350	E	**2.10**
FP229.3	75-75	400-400	I	**2.91**
FP229.4	80-60	400-400	I	**2.82**
FP229.5	120-40	400-400	I	**3.15**
WP229.52	120-120	400-400	I	**4.17**
FP229.53	40-50	450-50	D	**1.73**
FP229.55	40-100	450-50	E	**1.68**
FP229.6	50-100	450-50	G	**1.80**
FP244	80-50	450-50	H	**2.10**
FP229.8	80-100	450-50	H	**2.25**
FP229.9	30-200	450-150	H	**2.10**
FP230	20-50	450-250	D	**1.68**
WP230.2	20-200	450-250	F	**2.73**
FP230.3	40-10	450-300	D	**1.56**
FP230.5	10-50	450-350	D	**1.71**
FP230.6	10-100	450-350	H	**2.40**
FP235	20-80	450-350	G	**2.19**
WP230.9	5-5	450-450	B	**1.02**

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP231	10-10	450-450	B	**$1.14**
FP231.2	20-5	450-450	B	**1.46**
FP231.3	20-10	450-450	C	**1.32**
FP234	20-20	450-450	D	**1.53**
FP237	30-30	450-450	G	**1.83**
FP238	40-40	450-450	H	**2.07**
FP239	50-40	450-450	H	**2.19**
FP240‡‡	50-50	450-450	H	**2.31**
FP242	60-20	450-450	H	**2.10**
FP242.5	60-60	450-450	I	**2.70**
FP245	80-10	450-450	H	**2.16**
FP245.2	80-20	450-450	H	**2.34**
FP245.3	80-30	450-450	I	**2.49**
FP247	100-40	450-450	I	**2.91**
FP248	100-60	450-450	I	**3.51**
FP250	40-80	475-200	G	**2.19**
FP252	80-80	475-250	I	**2.79**
FP255	20-100	475-300	H	**2.37**
FP256	20-100	475-400	I	**2.70**
FP258	15-15	475-475	C	**1.41**
FP259	30-10	475-475	D	**1.56**
FP260	40-10	475-475	H	**1.86**
FP262	40-40	475-475	H	**2.58**
FP263	60-40	475-475	I	**2.73**
FP264.5	80-40	475-475	I	**3.03**
FP266	80-50	475-475	I	**3.12**
WP272	10-100	500-50	B	**1.38**
FP277	60-80	500-150	H	**2.25**
FP280	40-50	500-200	G	**1.98**
FP282	10-10	500-500	C	**1.17**
FP282.5	20-20	500-500	F	**2.09**
FP283	30-10	500-500	F	**1.56**
FP284	30-30	500-500	G	**1.95**
FP288	40-40	500-500	H	**2.58**
FP290	60-40	500-500	J	**2.73**

‡‡Recommended for photoflash applications. Can is ungrounded. †Cycles.

FP-WP—TRIPLES

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP300.15	200-200-30	10-10-10	B	**$1.35**
WP300.6	850-400-2.2	16-16-11.5 rms	C	**2.97**
WP300.7	850-400-4	16-16-11.5 rms	C	**2.97**
WP300.88	1000-400-4	16-16-11.5 rms	C	**2.16**
WP300.89	1000-400-4	16-16-11.5 rms	F	**2.58**
WP300.9	1000-500-4	16-16-11.5 rms	C	**3.12**
WP300.95	1000-200-200	25-25-25	F	**2.96**
WP300.5	400-100-100	16-16-16	B	**1.80**
WP300.8	500-100-100	16-16-16	B	**2.64**
WP300.85	500-500-100	16-16-16	B	**2.40**
WP300.87	700-200-100	16-16-16	B	**1.89**
WP300	1000-500-20	16-16-16	F	**2.52**
WP300.17	500-200-5	16-16-25	B	**1.92**
WP520	40-40-40	25-25-25	B	**1.29**
WP301	30-30-30	50-50-50	B	**1.29**
FP312	100-50-25	150-50-25	D	**1.80**
WP302.1	15-15-1200	150-150-2	B	**1.80**
FP302.4	80-20-200	150-150-10	F	**1.71**
FP302.5	80-60-250	150-150-10	D	**2.04**
FP302.7	80-30-300	150-150-10	F	**1.89**

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP302.8	100-80-200	150-150-10	G	**$2.16**
FP302.9	80-20-100	150-150-15	F	**1.68**
FP306	40-20-20	150-150-25	B	**1.38**
FP307	40-20-100	150-150-25	C	**1.50**
FP304	40-20-200	150-150-25	C	**1.62**
FP310	40-40-20	150-150-25	C	**1.44**
FP314	40-40-200	150-150-25	D	**1.68**
WP308.1	40-40-250	150-150-25	D	**1.89**
FP309	50-30-100	150-150-25	C	**1.62**
FP311	50-50-20	150-150-25	D	**1.59**
FP311.05	80-20-200	150-150-25	B	**1.76**
FP311.1	80-40-25	150-150-25	D	**1.65**
FP311.15	80-40-300	150-150-25	G	**2.22**
FP311.2	20-20-20	150-150-150	B	**1.38**
FP311.4	40-20-20	150-150-150	C	**1.44**
FP311.5	40-40-40	150-150-150	D	**1.56**
FP311.55	50-20-20	150-150-150	C	**1.53**
FP311.6	50-40-10	150-150-150	B	**1.53**
FP311.65	50-50-50	150-150-150	D	**1.80**
FP311.66	70-15-15	150-150-150	C	**1.62**
FP311.8	70-40-40	150-150-150	E	**1.74**
FP311.67	80-30-10	150-150-150	D	**1.65**
FP311.7	80-40-20	150-150-150	F	**1.74**
FP311.71	80-40-20	150-150-150	B	**1.67**
FP311.85	120-80-40	150-150-150	H	**2.22**
FP311.9	120-120-40	150-150-150	H	**2.43**
FP311.95	150-50-50	150-150-150	G	**2.22**
FP312.5	200-100-60	150-150-150	I	**2.73**
FP312.6	300-100-80	150-150-150	I	**2.97**
FP312.8	60-200-140	200-150-150	I	**2.85**
FP318.3	30-20-40	200-200-150	C	**1.62**

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP318.5	20-20-20	200-200-200	C	**$1.50**
FP318.7	30-20-20	200-200-200	C	**1.62**
FP318.74	40-40-20	200-200-200	F	**1.77**
WP318.77	60-60-40	200-200-200	F	**2.16**
FP318.8	250-200-10	200-200-200	I	**4.02**
FP319	80-40-50	250-150-50	G	**1.98**
FP360	15-20-20	250-150-150	B	**1.50**
FP319.5	90-90-20	250-250-50	H	**2.76**
WP319.6	60-5-100	250-250-50	C	**1.80**
WP319.7	60-5-50	250-250-200	F	**2.13**
FP319.8	20-20-20	250-250-250	C	**1.56**
FP320	40-20-20	250-250-250	F	**1.74**
FP321	40-20-20	250-250-250	D	**1.74**
FP321.5	40-40-40	250-250-250	C	**1.92**
FP323	80-80-60	250-250-250	I	**2.94**
FP326	100-60-20	300-150-25	H	**2.52**
FP326.2	20-150-80	300-150-150	H	**2.37**
FP326.3	100-200-60	300-150-150	I	**3.27**
FP326.4	60-30-30	300-250-250	G	**2.25**
FP335	100-60-20	300-250-250	H	**2.94**
FP336	200-60-20	300-250-250	I	**3.48**
WP326.35	20-100-100	300-200-50	K	**1.95**
FP326.5	150-10-25	300-300-25	H	**2.37**
FP326.6	100-10-60	300-300-50	G	**2.43**
FP326.62	80-40-40	300-300-300	H	**2.64**
WP326.63	30-10-20	300-300-250	C	**1.71**
WP326.64	60-5-20	300-300-250	C	**1.83**
FP326.7	140-100-60	300-300-50	I	**3.57**

*See table of sizes on another page.

FP-WP triples continued on next page.

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P. R. MALLORY & CO. Inc.
MALLORY

Electrolytic Capacitors

FP-WP—TRIPLES (CONTINUED)

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP326.71	140-100-100	300-300-50	J	$3.36
FP326.74	140-10-200	300-300-150	I	3.30
FP326.65	100-60-4	300-300-300	H	2.82
FP326.67	120-50-40	300-300-300	I	3.33
FP326.75	150-30-30	300-300-300	I	3.00
FP326.78	140-100-20	300-300-300	I	3.45
WP326.8	4-100-40	350-25-25	B	1.35
FP327	40-100-25	350-50-25	F	1.92
WP327.2	20-50-100	350-100-75	D	1.98
FP327.3	60-200-30	350-150-150	J	2.82
FP327.35	10-150-200	350-200-75	F	2.52
FP327.4	125-5-100	350-200-75	I	3.18
FP327.5	10-40-40	350-200-200	D	2.58
FP327.6	30-20-100	350-250-50	D	1.95
FP331	30-30-20	350-300-25	D	1.89
FP327.8	30-50-20	350-300-25	G	2.16
FP327.89	40-40-40	350-300-300	G	2.61
WP327.896	160-120-30	350-300-300	I	3.99
FP328	15-10-20	350-350-25	B	1.50
FP329.1	20-4-100	350-350-25	C	1.56
FP329.5	20-20-20	350-350-25	B	1.68
FP330	30-20-20	350-350-25	D	1.86
FP330.13	200-10-50	350-350-25	I	3.06
FP330.15	10-5-30	350-350-50	B	1.32
FP330.2	10-5-150	350-350-50	C	1.62
FP330.21	20-5-150	350-350-50	D	1.77
FP330.23	80-40-400	350-350-50	H	3.39
FP330.22	100-20-50	350-350-50	H	2.91
FP330.244	150-4-30	350-350-50	G	2.90
FP330.25	30-20-100	350-350-150	G	2.40
FP330.248	70-40-50	350-350-150	H	2.64
FP330.24	125-20-20	350-350-150	H	2.85
FP330.29	30-5-100	350-350-200	G	2.25
FP330.26	100-60-20	350-350-200	I	3.30
FP330.27	125-60-40	350-350-200	I	3.54
FP330.28	100-60-100	350-350-200	I	3.36
FP330.3	20-10-5	350-350-250	B	1.53
FP330.5	10-10-10	350-350-350	B	1.44
FP330.7	30-20-10	350-350-350	D	1.95
FP330.9	60-50-50	350-350-350	I	2.94
FP331.2	80-20-20	350-350-350	G	2.57
FP331.3	80-60-60	350-350-350	I	3.33
FP331.6	90-40-20	350-350-350	I	3.15
WP331.7	100-40-5	350-350-350	H	2.82
FP331.76	100-40-40	350-350-350	I	3.15
FP331.8	100-60-40	350-350-350	I	3.39
FP332.4	100-100-10	350-350-350	I	4.08
WP332.44	140-140-20	350-350-350	I	4.16
FP332.5	40-200-60	400-200-200	I	3.33
FP332.7	10-4-40	400-350-25	B	1.32

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP333	10-50-30	400-350-25	F	$1.86
FP333.05	100-10-200	450-350-25	H	2.99
FP333.1	40-4-4	400-350-150	D	1.71
FP333.2	80-40-100	400-400-50	I	3.00
FP333.3	80-40-150	400-400-50	I	3.09
FP333.15	100-20-20	400-400-50	H	2.88
FP333.5	20-10-40	400-400-350	E	2.04
FP333.6	20-20-10	400-400-350	D	1.80
FP333.7	60-30-20	400-400-350	H	2.73
FP333.8	80-20-10	400-400-350	H	2.58
FP333.85	100-10-80	400-400-350	I	3.66
FP333.86	100-40-100	400-400-350	I	4.04
FP333.88	50-30-4	400-400-400	G	2.31
FP333.89	80-60-40	400-400-400	J	3.63
FP333.9	90-10-5	400-400-400	H	2.64
FP333.95	100-30-20	400-400-400	I	3.30
WP334.6	20-500-500	450-25-25	H	3.21
FP342	40-40-130	450-150-50	G	2.22
FP343	40-100-50	450-150-50	H	2.37
WP339.5	10-50-100	450-150-75	D	1.95
FP340	20-50-100	450-150-75	F	2.04
FP341	40-90-50	450-150-150	H	2.40
FP341.2	10-100-200	450-200-25	E	2.04
FP341.24	10-100-100	450-200-50	D	1.94
FP341.28	10-150-100	450-200-150	G	2.55
FP341.3	20-80-50	450-200-150	G	2.16
FP341.5	20-60-100	450-250-25	G	2.19
FP341.6	50-160-50	450-250-50	I	3.09
FP341.8	10-80-80	450-250-250	H	2.61
FP342.2	5-80-40	450-300-300	H	2.49
FP342.5	30-15-40	450-350-25	F	1.92
FP342.7	30-40-50	450-350-25	E	2.22
FP342.8	80-50-100	450-350-200	I	3.51
FP343.1	15-20-20	450-350-250	D	1.77
FP343.4	20-15-15	450-350-350	D	1.95
FP343.6	20-40-10	450-350-350	G	2.10
FP343.9	10-30-150	450-400-5	D	1.80
FP344.2	60-80-20	450-400-250	I	3.27
FP344.4	4-40-40	450-400-300	G	2.22
FP344.5	10-30-40	450-400-300	G	2.19
FP345.2	10-10-20	450-450-25	B	1.44
FP345.5	15-15-40	450-450-25	C	1.65
FP345.8	20-20-20	450-450-25	C	1.83
FP345.3	40-20-20	450-450-25	G	2.10
FP346	40-40-20	450-450-25	H	2.37
FP345.4	80-10-125	450-450-25	H	2.64
FP364	80-40-100	450-450-25	I	3.06
FP365	10-10-40	450-450-50	C	1.47
FP366	20-10-50	450-450-50	D	1.71
FP366.5	30-10-150	450-450-50	G	2.10
FP367	35-25-100	450-450-50	H	2.37
FP367.5	40-30-25	450-450-50	G	2.25
FP368	60-40-75	450-450-50	I	2.76
FP368.3	80-20-100	450-450-50	I	2.88

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP368.5	80-50-50	450-450-50	I	$3.12
FP368.6	30-30-125	450-450-75	H	2.70
FP368.68	10-4-20	450-450-150	B	1.50
FP369.1	40-40-40	450-450-150	H	2.49
FP370	40-10-80	450-450-200	H	2.34
FP375	40-40-100	450-450-200	I	2.97
FP375.2	15-10-120	450-450-300	I	2.70
FP375.6	60-20-40	450-450-350	I	2.94
FP375.7	20-10-15	450-450-400	D	1.86
FP375.8	10-10-10	450-450-450	C	1.56
FP376.1	15-15-10	450-450-450	D	1.77
FP376.3	20-10-10	450-450-450	D	1.74
FP376.5	20-20-20	450-450-450	G	2.16
FP376.6	30-10-10	450-450-450	F	1.89
FP376.7	30-30-30	450-450-450	H	2.67
FP376.8	40-40-10	450-450-450	H	2.49
FP376.9	40-40-20	450-450-450	H	2.67
FP377.1	40-40-40	450-450-450	J	3.12
FP377.2	50-40-30	450-450-450	I	2.94
FP377.4	60-10-10	450-450-450	H	2.34
FP377.6	60-30-10	450-450-450	H	2.70
FP377.7	60-40-40	450-450-450	I	3.41
FP378	80-40-20	450-450-450	I	3.24
FP378.1	80-40-30	450-450-450	I	3.53
FP378.4	80-40-40	450-450-450	I	3.66
FP379.1	20-50-20	450-50-25	D	1.65
FP381.1	80-80-50	475-150-50	I	2.91
FP382.1	40-40-100	475-250-100	H	2.46
FP384	20-20-40	475-300-25	F	1.86
FP384.12	30-100-50	475-300-50	H	2.46
FP384.14	5-100-200	475-300-150	I	3.09
FP384.16	10-4-100	475-350-50	B	2.37
FP384.2	10-4-40	475-350-300	F	1.80
FP384.35	20-10-5	475-350-350	C	1.71
FP384.5	10-45-100	475-450-50	G	2.19
FP384.7	40-40-25	475-450-50	H	2.64
FP385	10-40-100	475-450-200	H	2.52
FP385.5	40-80-10	475-450-450	I	3.30
FP386	10-10-5	475-475-25	C	1.47
FP387.1	10-10-150	475-475-50	D	1.80
FP388.1	25-10-20	475-475-50	D	1.77
FP389.1	20-10-100	475-475-400	I	3.15
FP391.1	20-20-60	475-475-450	I	2.91
FP394	10-10-10	475-475-475	D	1.62
FP396	30-30-20	475-475-475	H	2.67
FP396.2	40-10-10	475-475-475	G	2.31
FP396.1	40-20-20	475-475-475	H	2.85
FP396.12	40-30-10	475-475-475	H	2.70
FP396.14	40-30-30	475-475-475	I	3.09
FP397	40-35-10	475-475-475	H	2.73
FP398	10-40-40	500-450-450	H	2.49
FP399	20-10-100	500-500-50	K	1.95
FP399.5	40-20-20	500-500-500	H	2.85
FP399.55	40-40-20	500-500-500	J	3.42

FP-WP—QUADS

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
WP401.5	750-600-350-4	16-16-16-11.5rms	F	$3.24
WP401.8	750-750-350-4	16-16-16-11.5rms	F	3.87
FP403	50-20-150-30	150-150-15-15	F	1.92
FP405	20-20-160-40	150-150-25-25	F	1.92
WP405.5	50-40-160-40	150-150-25-25	F	2.01
WP406	40-40-200-100	150-150-25-25	F	2.13
FP407	30-20-20-200	150-150-150-10	F	1.86
FP407.5	40-40-20-200	150-150-150-10	F	1.92
FP408	60-40-20-200	150-150-150-10	F	2.07
FP408.5	80-80-10-200	150-150-150-10	G	2.34
FP408.7	300-30-10-100	150-150-150-10	H	2.73
FP408.9	30-30-30-40	150-150-150-25	F	1.86
FP409	40-40-30-20	150-150-150-25	F	1.86
FP409.4	50-20-20-200	150-150-150-25	F	2.10
FP409.6	50-40-10-50	150-150-150-25	F	1.89
FP410	50-50-50-20	150-150-150-25	G	2.13
FP410.3	60-40-20-20	150-150-150-25	F	1.98
FP410.7	60-60-10-60	150-150-150-25	G	2.10
FP411	80-40-30-100	150-150-150-25	G	2.22
FP411.3	80-40-40-20	150-150-150-25	G	2.10
FP411.32	80-40-40-40	150-150-150-25	G	2.16
FP411.4	80-50-50-25	150-150-150-25	G	2.28
FP411.5	100-90-60-200	150-150-150-25	H	2.97
FP411.7	125-125-40-100	150-150-150-25	I	2.91
FP412	100-80-60-40	150-150-150-150	H	2.73
WP412.1	200-200-60-30	175-175-175-175	I	3.12
WP412.15	200-200-100-10	200-200-200-200	I	3.75
FP412.2	40-40-50-80	250-250-150-150	G	2.46
WP412.8	40-40-40-40	250-250-250-250	F	2.49
FP417	100-40-80-20	300-50-25-25	G	2.73
FP417.2	20-150-150-100	300-150-150-30	I	3.09
FP417.3	10-200-140-30	300-150-150-150	I	3.06
FP417.8	10-200-200-30	300-150-150-150	I	3.21
FP417.9	100-60-10-20	300-200-150-50	H	2.91
FP419	200-20-100-20	300-250-50-25	I	3.48
FP423	40-40-40-40	300-250-250-25	G	2.64
FP419.11	60-5-50-20	300-300-50-50	F	2.16
FP418.7	140-10-10-100	300-300-150-50	I	2.97
FP419.4	100-10-200-30	300-300-150-150	I	3.54
FP419.1	150-20-10-250	300-300-250-50	I	3.63
FP419.2	40-30-20-50	300-300-300-25	G	2.49
FP419.7	60-40-20-50	300-300-300-25	H	2.73
FP419.35	60-30-10-60	300-300-300-50	G	2.52
FP419.37	150-30-30-150	300-300-300-50	I	3.66
WP419.39	80-20-20-200	300-300-300-150	J	3.12
FP419.45	120-40-40-10	300-300-300-250	I	3.63
FP419.53	60-40-10-10	300-300-300-300	H	2.73
FP419.55	150-100-10-10	300-300-300-300	I	3.96
WP415.554	150-100-30-10	300-300-300-300	J	3.69
WP419.52	150-150-30-30	300-300-300-300	I	4.17

Mallory No.	Capacity µf	Working Volts DC	*	Net Each
FP419.54	200-20-20-20	300-300-300-300	I	$3.87
FP419.56	60-60-30-160	350-150-150-25	H	2.76
FP419.58	20-60-160-40	350-200-25-25	G	2.40
FP414	15-80-40-200	350-200-200-25	H	2.70
FP418.3	120-20-100-20	350-250-50-25	I	3.03
WP419.51	40-80-10-10	350-300-300-300	H	2.72
WP419.585	50-60-5-100	350-250-250-50	G	2.58
FP419.59	160-30-30-20	350-300-300-50	I	3.54
FP419.65	160-60-10-4	350-300-300-300	I	3.84
FP419.6	40-10-100-25	350-350-25-25	F	2.25
FP419.62	60-4-100-40	350-350-25-25	G	2.28
FP419.61	100-4-50-50	350-350-50-25	H	3.03
FP419.63	200-10-4-20	350-350-50-25	I	3.36
FP419.635	40-40-50-50	350-350-50-50	H	2.52
FP419.64	40-20-50-25	350-350-150-25	G	2.49
FP419.649	40-20-100-100	350-350-200-50	G	2.70
FP419.67	100-60-60-40	350-350-200-75	I	3.93
FP419.66	60-40-60-20	350-350-250-150	I	3.24
FP419.68	15-15-15-15	350-350-300-25	F	2.07
FP419.8	35-35-10-20	350-350-300-25	G	2.49
FP419.82	20-10-5-10	350-350-350-25	F	1.86
FP419.84	30-10-5-200	350-350-350-25	F	2.28
FP419.86	40-20-5-10	350-350-350-25	G	2.28
FP419.87	40-20-20-50	350-350-350-25	G	2.55
FP419.88	40-30-15-30	350-350-350-25	G	2.70
FP419.3	40-40-20-20	350-350-350-25	H	2.79
FP419.89	100-30-10-40	350-350-350-25	H	2.94
FP419.9	15-15-15-50	350-350-350-50	F	2.25
FP420.15	70-40-10-50	350-350-350-50	H	3.15
FP420.2	50-40-40-160	350-350-350-50	I	3.45
FP420.23	100-10-10-20	350-350-350-50	H	3.09
WP420.25	100-40-4-100	350-350-350-50	J	3.09
FP420.26	100-40-30-50	350-350-350-50	I	3.93
FP420.273	100-100-60-100	350-350-350-50	I	4.08
FP420.276	120-20-10-50	350-350-350-50	G	3.00
FP420.28	140-20-10-100	350-350-350-50	I	3.63
FP420.29	90-30-5-100	350-350-350-75	I	3.54
FP420.31	100-80-10-20	350-350-350-150	I	3.42
FP420.32	20-10-5-60	350-350-350-200	G	2.13
FP420.33	30-10-5-100	350-350-350-200	G	2.64
WP420.34	40-40-40-40	350-350-350-300	H	3.00
FP420.35	40-20-20-10	350-350-350-350	G	2.61
FP420.36	40-40-30-20	350-350-350-350	H	2.82
FP420.38	40-40-40-40	350-350-350-350	I	3.60
FP420.4	80-60-40-20	350-350-350-350	I	3.84
FP420.405	100-20-10-5	350-350-350-350	H	2.85

*See table of sizes on following page.

FP-WP Quads continued on next page.

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P. R. MALLORY & CO. Inc.
MALLORY

Electrolytic Capacitors

FP-WP—QUADS (CONTINUED)

Mallory No.	Capacity, µf	WVDC	*	Net Each
FP420.39	100-40-25-25	350-350-350-350	I	$4.20
FP420.41	40-120-10-150	400-250-250-50	I	3.48
FP420.44	30-40-50-200	400-300-250-150	I	3.60
FP420.43	80-80-100-100	400-350-25-25	I	3.78
FP420.45	40-80-100-25	400-350-200-50	I	3.63
FP420.46	80-40-20-20	400-350-300-300	I	3.48
FP420.47	20-50-40-80	400-350-350-50	H	3.00
FP420.5	30-60-20-100	400-350-350-50	I	3.00
FP420.51	20-20-50-50	400-400-15-15	F	2.04
FP420.53	20-5-20-20	400-400-25-25	F	1.83
FP420.54	80-50-25-25	400-400-25-25	H	3.21
FP420.56	50-25-100-20	400-400-50-25	H	2.79
FP420.6	80-40-100-20	400-400-50-25	I	3.36
FP420.7	100-10-30-20	400-400-50-50	H	3.06
FP420.8	20-10-10-25	400-400-100-25	F	1.86
WP420.9	20-20-100-100	400-400-100-100	H	3.15
FP420.95	80-40-100-100	400-400-200-50	I	3.63
FP421	5-5-50-80	400-400-300-250	H	2.79
FP421.2	60-40-40-10	400-400-350-50	I	3.45
FP421.3	100-10-20-20	400-400-350-50	I	3.27
FP421.4	30-30-15-20	400-400-400-25	H	2.58
FP421.6	80-40-30-40	400-400-400-25	I	3.57
FP421.8	40-40-40-150	400-400-400-50	I	3.42
WP421.85	40-80-10-100	400-400-400-200	I	3.36
FP421.87	80-40-30-4	400-400-400-350	I	3.49
FP421.9	50-40-30-20	400-400-400-400	I	3.39
WP422	60-40-40-40	400-400-400-400	I	3.78
FP422.1	20-80-20-50	450-200-200-50	G	2.46
FP422.7	60-80-40-20	450-250-250-150	I	3.39
FP422.8	25-100-10-60	450-300-300-50	H	3.18
FP413X	40-40-40-20	450-300-300-150	H	2.94
FP422.9	10-100-20-20	450-300-300-300	H	3.15
FP423.4	10-40-100-100	450-350-250-50	H	3.33
WP423.5	10-140-100-20	450-350-300-300	I	3.87
FP424.1	10-100-10-20	450-350-350-25	H	3.12
FP424.3	20-80-50-100	450-350-350-50	I	3.60
FP425	30-40-40-10	450-350-350-200	H	3.09
FP425.6	40-100-20-10	450-350-350-350	I	3.84
FP425.1	80-10-40-30	450-400-300-300	I	3.48
FP426	20-15-20-20	450-450-25-25	F	2.07
FP426.2	80-40-100-100	450-450-25-25	I	3.48
FP426.5	20-20-60-100	450-450-150-25	G	2.55
FP426.9	40-40-125-125	450-450-150-25	I	3.42
FP427.5	10-10-60-100	450-450-200-50	G	2.31
FP427.6	35-25-20-100	450-450-200-50	H	2.79
FP427.65	40-40-100-60	450-450-200-200	I	3.63
FP427.7	10-10-10-50	450-450-300-25	F	1.89
FP427.9	20-20-20-10	450-450-350-350	H	2.49
FP428	40-10-35-10	450-450-350-350	H	2.76
FP428.4	40-40-30-30	450-450-350-350	I	3.54
FP424	15-15-10-20	450-450-450-25	F	2.10
FP428.9	30-30-10-125	450-450-450-25	H	2.58
FP432	40-10-10-250	450-450-450-25	H	2.82
FP431	40-15-10-25	450-450-450-25	G	2.46
FP430.2	40-20-20-25	450-450-450-25	H	2.76
FP436	40-20-20-40	450-450-450-25	H	2.79
FP429	40-30-10-20	450-450-450-25	H	2.70
FP429.2	40-40-30-100	450-450-450-25	J	3.21
FP430.6	40-40-40-40	450-450-450-25	I	3.30
FP430.9	60-40-40-10	450-450-450-25	I	3.60
FP430.95	60-50-5-20	450-450-450-25	I	3.21
FP430.97	20-20-20-20	450-450-450-50	G	2.49
FP437	20-20-20-100	450-450-450-50	G	2.73

Mallory No.	Capacity, µf	WVDC	*	Net Each
FP431.2	40-40-10-25	450-450-450-50	H	$2.82
FP431.3	40-40-10-50	450-450-450-50	I	2.13
FP431.35	04-40-20-40	450-450-450-50	H	3.03
FP431.4	60-40-10-25	450-450-450-50	I	3.15
FP431.7	40-40-10-100	450-450-450-100	I	3.18
FP433	60-10-10-20	450-450-450-150	H	2.76
FP432.4	40-40-30-10	450-450-450-200	I	3.21
FP432.8	35-35-15-25	450-450-450-250	H	2.91
FP432.9	40-20-10-100	450-450-450-250	I	3.51
FP433.2	40-10-10-40	450-450-450-350	H	2.85
FP433.4	40-20-20-20	450-450-450-350	H	3.00
WP433.6	5-5-5-5	450-450-450-450	F	1.80
FP434	10-10-10-10	450-450-450-450	F	2.01
FP434.5	20-10-10-10	450-450-450-450	F	2.22
FP444	20-20-20-20	450-450-450-450	H	2.82
FP444.4	30-15-15-15	450-450-450-450	H	2.67
FP444.5	30-20-20-10	450-450-450-450	H	2.76
FP444.6	30-30-15-10	450-450-450-450	H	2.82
FP444.8	30-30-20-20	450-450-450-450	H	3.12
FP444.9	30-30-30-15	450-450-450-450	I	3.18
FP444.54	40-20-20-4	450-450-450-450	H	2.79
FP444.95	40-20-20-20	450-450-450-450	H	3.06
FP445	35-35-10-5	450-450-450-450	H	2.76
FP446	40-35-10-10	450-450-450-450	H	2.88
FP447	40-40-20-20	450-450-450-450	I	3.33
FP447.5	40-40-30-30	450-450-450-450	I	3.63
WP447.7	40-40-40-40	450-450-450-450	I	3.78
FP448	60-20-20-20	450-450-450-450	I	3.39
FP448.5	60-30-10-2	450-450-450-450	H	3.06
FP449	70-10-10-5	450-450-450-450	H	2.85
FP450	80-10-10-10	450-450-450-450	I	3.03
FP450.08	80-40-20-10	450-450-450-450	I	3.66
FP450.16	80-40-20-20	450-450-450-450	I	3.79
FP450.5	40-40-50-80	475-250-150-50	H	3.00
FP451	10-100-10-100	475-300-300-25	H	2.94
FP451.3	10-140-4-100	475-300-300-50	I	3.18
FP452	20-80-20-10	475-300-300-300	H	3.00
FP452.5	10-20-100-50	475-350-25-25	F	2.07
FP453	20-40-80-100	475-350-200-100	I	3.27
FP453.4	10-40-80-100	475-350-300-100	I	3.33
FP453.8	10-30-5-80	475-350-350-50	G	2.22
FP454.4	10-130-20-10	475-350-350-350	I	3.54
FP454.2	20-60-40-10	475-350-350-350	H	3.12
FP454.6	10-40-4-100	475-400-350-50	G	2.43
FP454.8	10-80-40-100	475-400-400-50	I	3.48
FP455.5	25-20-20-100	475-450-300-50	G	2.73
FP456	25-20-40-100	475-450-300-50	H	2.97
FP456.5	10-60-30-125	475-450-400-50	I	3.33
FP455	10-50-30-30	475-450-450-25	H	2.85
FP457	10-40-10-20	475-450-450-50	G	2.37
FP459	10-40-10-100	475-450-450-50	G	2.58
FP461	15-15-80-40	475-475-300-50	H	2.88
FP463	50-30-20-20	475-475-300-300	I	3.42
FP464.9	40-10-4-40	475-475-350-300	H	2.97
FP467	20-10-20-100	475-475-450-25	G	2.52
FP474	10-10-10-10	475-475-475-475	F	2.10
FP474.5	20-20-10-10	475-475-475-475	G	2.61
FP475	20-20-20-20	475-475-475-475	H	3.12
FP475.5	40-10-10-10	475-475-475-475	H	2.79
FP476	40-20-10-10	475-475-475-475	H	3.06
FP485	10-20-10-4	500-300-300-300	F	1.98
FP490	30-10-150-30	500-450-50-50	G	2.52
FP495	40-40-8-8	500-500-500-500	I	3.42

PFP AND PWP PRINTED CIRCUIT TYPES

Identical to FP and WP types except designed for inserting terminals in printed circuit boards. Mounting lugs conform with EIA standard RS-154A. Straight standard terminal ¾" long. May be substituted in applications normally calling for an FP or WP type.

Mallory FPA Adapter Kit—Converts FP's for printed circuit applications on values not listed below. Net Each.......... **27c**

Mallory Number	Capacity µf	Working Volts DC	*	Net Each
PWP030	750	6	A	$1.17
PWP031	2500	10	D	1.74
PWP036	400	15	A	1.17
PWP056	400	25	B	1.38
PWP060	1500	25	D	2.25
PWP063.9	100	50	A	.99
PWP067	1250	50	H	2.25
PFP116.8	140	150	D	1.26
PFP122	160	200	G	1.71
PFP144	20	450	B	1.08
PFP176.5	40	500	D	1.50
PWP200.13	1000-1000	16-10	C	2.43
PWP200.3	250-250	20-20	B	1.71
PWP200.6	500-100	20-20	B	1.77
PWP200.4	800-250	20-20	C	2.40
PWP201.13	400-200	25-25	B	1.80
PWP201.15	1000-1000	25-25	G	3.90
PWP201.3	1500-1500	25-25	H	4.14
PFP213.1	50-30	150-150	B	1.20
PFP214.3	70-30	150-150	B	1.32
PWP214.4	80-40	150-150	C	1.35
PFP214.7	100-50	150-150	D	1.62
PFP216.4	200-200	150-150	H	2.40
PFP216.45	50-100	200-150	F	1.68
PFP216.5	40-20	200-200	B	1.23
PFP216.1	200-5	200-200	G	2.16
PFP217.86	10-10	300-300	F	1.17
PFP217.11	2-20	450-400	B	1.17

Mallory Number	Capacity µf	Working Volts DC	*	Net Each
PFP284.1	30-30	500-500	H	$1.95
PWP300.3	250-250-50	16-16-16	B	1.95
PWP300.4	500-250-250	16-16-16	C	2.58
PFP302.38	70-30-100	150-150-10	C	1.68
PWP302.55	80-60-250	150-150-10	D	2.04
PFP302.75	90-40-400	150-150-10	D	2.10
PFP311.1	40-20-20	150-150-25	B	1.38
PFP311.12	70-30-20	150-150-25	C	2.40
PFP311.63	50-30-40	150-150-150	C	1.92
PFP311.53	60-60-40	150-150-150	F	1.83
PWP311.75	80-60-20	150-150-150	D	1.86
PWP315	80-100-40	160-160-160	D	2.04
PWP326.16	10-20-10	300-150-150	B	1.29
PFP326.4	60-10-25	300-300-25	F	2.25
PWP326.77	150-100-30	300-300-300	I	3.81
PWP327.95	20-20-1000	350-350-15	G	2.55
PFP330.4	10-10-60	350-350-300	F	1.92
PFP330.6	20-20-20	350-350-350	D	1.92
PFP330.8	40-40-40	350-350-350	H	3.33
PFP333.16	40-30-20	400-350-300	G	2.37
PFP368.9	40-30-8	450-450-150	G	2.25
PFP397.5	40-40-60	500-200-50	G	2.37
PFP397.7	40-40-20	500-350-250	H	2.67
PFP411.9	60-60-40-10	150-150-150-150	G	2.19
PFP419.42	20-20-20-100	300-300-300-150	G	2.73
PFP420.17	40-20-10-100	350-350-350-50	G	2.58
PFP420.52	40-30-20-20	400-350-350-350	H	2.97

*SIZES

Key	Diameter	Length	Key	Diameter	Length
A	¾"	2"	G	1⅜"	2½"
B	1"	2"	H	1⅜"	3"
C	1"	2½"	I	1⅜"	4"
D	1"	3"	J	1⅜"	3½"
E	1"	4"	K	1"	3½"
F	1⅜"	2"			

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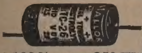
P. R. MALLORY & CO. Inc.

MALLORY Electrolytic Capacitors

TYPES TC-TCD-TCS AND TCT TUBULAR DRY ELECTROLYTICS



Tolerance: Up to 50 WVDC, −10%, +250%; 51 through 350 WVDC, −10%, +100%; over 350 WVDC, −10%, +50%. Rated 85° C, except units marked *, 65° C. All TC's with 13/16″ dia. or more and TCD, TCS and TCT types have fixed mounting strap. **Types TC** and **TCN** are single section; have 3″ bare solid copper tinned leads. **Type TCD** are dual common negative; have 7″ insulated wire leads. **Type TCS** are dual separate section; have soldering lugs. **Type TCT** are triple common negative with 7″ insulated wire leads.

TYPE TC SINGLE SECTION

No. TC-	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
304	200	3	11/16 x 1¼	$0.69
305	500	3	11/16 x 1½	.84
310	1000	3	15/16 x 1¾	1.02
605	500	6	13/16 x 1¾	.93
610	1000	6	15/16 x 2	1.14
1502	200	15	13/16 x 1½	.84
1505	500	15	15/16 x 2	1.05
1501	1000	15	1 1/16 x 2¼	1.38
22	10	25	7/16 x ¾	.60
26	25	25	7/16 x ¾	.60
29	50	25	9/16 x 1½	.66
2501	100	25	11/16 x 1¾	.81
25015	150	25	11/16 x 1¾	.87
2505	500	25	1 1/16 x 2¼	1.38
31	1	50	¼ x 11/16	.54
302	2	50	5/16 x ¾	.54
30	5	50	5/16 x ⅞	.60
32	10	50	7/16 x ¾	.60
36	25	50	11/16 x 1¼	.63
39	50	50	13/16 x 1¼	.72
3501	100	50	11/16 x 1¾	.84
50025	250	50	15/16 x 1¾	1.05
40	5	150	7/16 x ⅞	.60
41	8	150	7/16 x 1	.63
42	10	150	7/16 x 1¼	.63
43	12	150	7/16 x 1¼	.66
44	16	150	11/16 x 1½	.69
45	20	150	13/16 x 1½	.72
47	30	150	13/16 x 1½	.78
48	40	150	15/16 x 1¾	.81
49	50	150	15/16 x 1¾	.84
492	80	150	15/16 x 2	.96
493	100	150	1 1/16 x 2¼	1.05
495	150	150	1 1/16 x 2¼	1.14
496	200	150	1 1/16 x 2⅞	1.58
499	300	150	1 7/16 x 3	1.53
50X	5	250	11/16 x 1¼	.63
51	8	250	11/16 x 1¾	.69
52	10	250	11/16 x 1¾	.72
53	12	250	13/16 x 1¾	.75
54	16	250	13/16 x 1¾	.78
55	20	250	13/16 x 1¾	.81
58	40	250	1 1/16 x 1¾	.93
59	50	250	1 1/16 x 1¾	1.02
1265	100	250	1 1/16 x 2⅞	1.47
595	2	350	7/16 x 1½	1.26
60	5	350	11/16 x 1¾	.63
61	8	350	13/16 x 1¾	.72
62	10	350	13/16 x 1¾	.75
63	12	350	13/16 x 1¾	.78
64	16	350	15/16 x 1¾	.84
65	20	350	15/16 x 1¾	.87
68	60	350	1 1/16 x 2¼	1.17
69	100	350	1 1/16 x 4	1.86
692	150	350	1 7/16 x 3⅞	3.16
695	2	450	11/16 x 1½	.66
697	4	450	1 1/16 x 1¾	.97
70	5	450	11/16 x 1¾	.72
71	8	450	13/16 x 1¾	.75
72	10	450	13/16 x 1¾	.78
73	12	450	15/16 x 1¾	.81
74	16	450	15/16 x 1¾	.84
75	20	450	1 1/16 x 1¾	.93
77	30	450	1 1/16 x 2¼	1.02
78	40	450	1 1/16 x 2¼	1.08
79	50	450	1 1/16 x 2⅞	1.26
795	60	450	1 1/16 x 2⅞	1.38
80	80	450	1 1/16 x 4	1.68
805	100	450	1 7/16 x 3	1.92
81*	10	500	15/16 x 1¾	.81
82	10	500	1 1/16 x 3	1.62
83*	20	500	1 1/16 x 1¾	.96
84*	30	500	1 1/16 x 2¼	1.05
90	4	600	¾ x 2½	2.30
92	10	600	1 1/16 x 2⅞	1.77
N308†	.5Z‡	3	1 1/16 x 2	1.32
420†	1.5Z§	4	1 1/16 x 2⅞	2.10
421†	1.5Z#	6	1 1/16 x 2	1.80
N105†	5	10	11/16 x 1¼	.69
N106†	6	10	9/16 x 1¼	.69
N108†	8	10	11/16 x 1½	.69
N1025†	25	10	7/16 x ⅞	.84
N412†	500	10	15/16 x 2	1.20
N1550†	500	15	15/16 x 2¼	1.32
N415†	1000	15	1 1/16 x 3½	1.71
N2516†	16	25	9/16 x 1½	.60
N425†	100	25	13/16 x 1½	1.02
N502†	2	50	9/16 x 1¼	.69
N503†	3	50	9/16 x 1¼	.72
N504†	4	50	9/16 x 1¼	.75

†Non-polar. ‡15750 cps. §60 cps. #120 cps.

No. TC-	Cap., µf	WV DC	Size, In. Dia. x Lg.	Net Each
N505†	5	50	9/16 x 1¼	$0.90
N5010†	10	50	9/16 x 1¼	.75
N5099†	100	50	15/16 x 1¾	1.29
N510†	4	150	9/16 x 1¼	.75
N1512†	12	150	⅝ x 1¾	1.01
N1540†	40	150	15/16 x 1¾	1.30
N1551†	50	150	⅞ x 2¼	1.34
N3520†	20	350	1 1/16 x 2⅞	1.08
N511†	10	450	1 1/16 x 2¼	.99

†Non-polar.

TCD DUAL COMMON NEGATIVE

No. TCD-	Cap., µf	WVDC	Size, In. Dia. x Lg.	Net Each
204	250-1000	10-6	1 1/16x2¼	$1.68
16	500-100	16-16	15/16x2	.78
26	25-25	25-25	13/16x1¼	.84
40	10-10	100-100	1 3/16x1¼	.87
45	20-20	150-150	13/16x1¾	.99
47	30-30	150-150	15/16x1¾	1.11
485	40-20	150-150	15/16x1¾	1.05
475	40-30	150-150	15/16x2	1.08
48	40-40	150-150	1 1/16x2	1.11
497	50-30	150-150	15/16x2	1.17
49	50-50	150-150	1 1/16x2¼	1.26
50	60-20	150-150	15/16x1⅞	1.53
4975	80-40	150-150	1 1/16x2¼	1.32
498	80-50	150-150	1 1/16x2¼	1.41
2155	100-100	150-150	1 1/16x4	1.92
46	30-20	200-200	15/16x2	1.17
2165	30-30	200-200	1 1/16x2¼	1.32
2169	50-75	250-50	1 1/16x2¼	1.44
2174	100-150	250-50	1 1/16x4	2.16
2173	8-8	250-250	15/16x1¾	.96
52	10-10	250-250	15/16x2	.99
55	20-20	250-250	1 1/16x2	1.11
2274	40-40	300-300	1 1/16x3⅛	1.77
58	80-40	300-300	1 1/16x4	2.07
62	10-10	350-350	15/16x2	1.02
65	20-20	350-350	1 1/16x2⅜	1.35
2297	40-50	450-50	1 1/16x3⅛	1.50
2302	30-60	450-300	1 1/16x4	1.92
71	8-8	450-450	15/16x2	1.02
72	10-10	450-450	1 1/16x2	1.11
74	15-15	450-450	1 1/16x3⅛	1.32
745	20-8	450-450	1 1/16x2¼	1.26
75	20-20	450-450	1 1/16x3⅛	1.50
77	30-30	450-450	1 1/16x4	1.80
78	40-40	450-450	1 1/16x4	2.04

TCS DUAL SEPARATE SECTION

No. TCS-	Cap. µf	WV DC*	Size, In. Dia. x Lg.	Net Each
44	15-15	150	13/16 x 2⅜	$1.20
45	20-20	150	15/16 x 2⅜	1.26
47	30-30	150	1 1/16 x 2⅜	1.35
48	40-40	150	1 1/16 x 2⅞	1.41
49	120-120	150	1 1/16 x 3⅞	1.98
505	70-70	175	1 1/16 x 3⅞	2.16
52	10-10	250	15/16 x 2⅜	1.26
55	20-20	250	1 1/16 x 2⅞	1.41
61	8-8	350	15/16 x 2⅜	1.26
64	15-15	350	1 1/16 x 2⅞	1.65
71	8-8	450	1 1/16 x 2⅜	1.29
74	15-15	450	1 1/16 x 2⅞	1.65
75	20-20	450	1 1/16 x 3½	1.89

TCT TRIPLE COMMON NEGATIVE

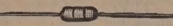
No. TCT-	Cap. µf	Volts†	Size, In. Dia.x L.	Net Each
3053	20-20-20	150-150-25	15/16x2¼	$1.23
3055	30-30-20	150-150-25	1 1/16x2¼	1.32
3094	50-30-200	150-150-25	1 1/16x2⅞	1.65
3109	20-10-10	150-150-150	15/16x1¾	1.20
3112	20-20-20	150-150-150	1 1/16x1¾	1.29
3113	30-30-30	150-150-150	1 1/16x2¼	1.41
3114	40-20-20	150-150-150	1 1/16x2¼	1.35
3105	40-30-20	150-150-150	1 1/16x1¾	1.38
3116	40-40-20	150-150-150	1 1/16x2¼	1.41
3115	40-40-40	150-150-150	1 1/16x2¼	1.47
3107	50-30-20	150-150-150	1 1/16x2¼	1.41
3110	60-30-10	150-150-150	1 1/16x2	2.22
3119	60-50-20	150-150-150	1 1/16x2⅞	1.62
3117	80-40-20	150-150-150	1 1/16x2⅞	1.65
3118	80-50-50	150-150-150	1 1/16x4	1.86
3120	80-80-20	150-150-150	15/16x3	2.47
3285	40-30-40	350-250-150	1 1/16x4	1.98
3405	30-50-100	450-150-25	1 1/16x4	1.92
3432	30-30-30	450-350-250	1 1/16x4	2.25
3764	40-20-10	450-450-450	1 1/16x4	2.25

*Each section †Non-polarized.

CLIPS FOR TC CAPACITORS

Mall. No.	Spring Clip for	Size, In.	Net Each
TH-13	TC	⅜	3c
TH-15	TC	½-9/16	3c
TH-17	TC	⅝-11/16	3c
TH-19	TC and FP	¾-13/16	3c
TH-21	TC	⅞-15/16	3c
TH-23	TC and FP	1 -1 1/16	3c
TH-25	TC and FP	1⅜-1 7/16	6c

TYPE TT TINY TUBULAR ELECTROLYTIC CAPACITORS



High purity, etched aluminum plate for low leakage current limits; high ratings and small size. Conforms to EIA standards RS-154-A. Axial leads 1¾″ long. **Temperature Range:** −20°, +85° C. **Tolerance:** Up to 50 WVDC, −10%, +150%; above 50 WVDC, −10%, +100%.

Mallory Number	Cap., µf	WV DC	Size, In.* Dia.xLgth.	Net Each
TT1X5	5	1	7/32x9/16	$0.75
TT2X150	150	2	25/64x13/16	.90
TT3X10	10	3	7/32x9/16	.75
TT3X25	25	3	9/32x11/16	.75
TT3X40	40	3	9/32x11/16	.75
TT3X50	50	3	9/32x13/16	.75
TT3X110	110	3	25/64x13/16	.84
TT3X200	200	3	25/64x15/16	.90
TT3X250	250	3	25/64x1 1/16	.96
TT3X300	300	3	25/64x1 3/16	.99
TT6X2	2	6	7/32x9/16	.75
TT6X3	3	6	7/32x9/16	.75
TT6X4	4	6	7/32x9/16	.75
TT6X5	5	6	7/32x9/16	.81
TT6X8	8	6	7/32x⅝	.81
TT6X10	10	6	7/32x11/16	.81
TT6X15	15	6	9/32x11/16	.84
TT6X25	25	6	9/32x11/16	.84
TT6X30	30	6	25/64x11/16	.84
TT6X40	40	6	25/64x11/16	.84
TT6X50	50	6	25/64x11/16	.84
TT6X60	60	6	25/64x11/16	.84
TT6X80	80	6	25/64x13/16	.90
TT6X100	100	6	25/64x13/16	.90
TT6X150	150	6	25/16x15/16	.93
TT6X200	200	6	25/64x1 1/16	.96
TT6X250	250	6	25/64x1 3/16	1.02
TT6X300	300	6	25/64x1 7/16	1.08
TT10X6	6	10	7/32x11/16	.81
TT10X15	15	10	9/32x11/16	.81
TT10X25	25	10	25/64x11/16	.81
TT10X30	30	10	21/64x11/16	.90
TT10X40	40	10	21/64x13/16	.90
TT10X50	50	10	25/64x13/16	.90
TT10X60	60	10	25/64x13/16	.90
TT12X1	1	12	7/32x9/16	.75
TT12X2	2	12	7/32x9/16	.75
TT12X3	3	12	7/32x⅝	.75
TT12X5	5	12	7/32x11/16	.81
TT12X10	10	12	9/32x11/16	.81
TT12X20	20	12	9/32x11/16	.84
TT12X35	35	12	21/64x11/16	.87
TT12X100	100	12	25/64x15/16	1.05
TT12X150	150	12	25/64x1 1/16	1.11
TT12X250	250	12	25/64x1 7/16	1.26
TT15X8	8	15	9/32x11/16	.84
TT15X10	10	15	9/32x11/16	.84
TT15X15	15	15	9/32x11/16	.87
TT15X20	20	15	25/64x11/16	.87
TT15X25	25	15	9/32x13/16	.87
TT15X30	30	15	25/64x11/16	.90
TT15X35	35	15	21/64x13/16	.93
TT15X40	40	15	25/64x13/16	.96
TT15X50	50	15	25/64x13/16	.96
TT15X100	100	15	25/64x1 3/16	1.05
TT15X150	150	15	25/64x1 3/16	1.14
TT15X200	200	15	25/64x1 7/16	1.20
TT25X5	5	25	9/32x11/16	.84
TT25X6	6	25	9/32x11/16	.84
TT25X8	8	25	25/64x11/16	.87
TT25X10	10	25	9/32x11/16	.87
TT25X15	15	25	25/64x11/16	.87
TT25X20	20	25	25/64x11/16	.90
TT25X25	25	25	25/64x11/16	.93
TT25X50	50	25	25/64x15/16	1.05
TT25X100	100	25	25/64x1 7/16	1.17
TT50X2	2	50	9/32x11/16	.81
TT50X3	3	50	9/32x11/16	.81
TT50X4	4	50	9/32x11/16	.81
TT50X5	5	50	9/32x13/16	.87
TT50X8	8	50	9/32x13/16	.90
TT50X10	10	50	25/64x11/16	.90
TT50X15	15	50	21/64x13/16	.90
TT50X20	20	50	25/64x13/16	.90
TT50X35	35	50	25/64x1 3/16	1.02
TT50X50	50	50	25/64x1 3/16	1.11
TT80X4	4	80	9/32x13/16	.84
TT100X6	6	100	21/64x13/16	.90
TT100X10	10	100	25/64x13/16	.93
TT100X15	15	100	25/64x15/16	.93
TT100X20	20	100	25/64x1 1/16	.96
TT150X1	1	150	9/32x11/16	.84
TT150X2	2	150	9/32x13/16	.87
TT150X3	3	150	25/64x11/16	.87
TT150X4	4	150	25/64x11/16	.87
TT150X5	5	150	25/64x13/16	.93
TT150X6	6	150	25/64x13/16	.93
TT150X8	8	150	25/64x15/16	.96
TT150X10	10	150	25/64x1 3/16	.96
TT150X12	12	150	25/64x1 3/16	.96
TT250X1	1	250	25/64x11/16	1.02
TT350X2	2	350	25/64x1 7/16	1.05

*Includes mylar insulating sleeves.

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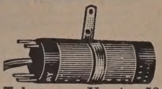
P. R. MALLORY & CO. Inc. MALLORY Electrolytic Capacitors

HIGH TEMPERATURE WAX TUBULARS



Single-ended, wax-dipped cardboard sleeve for high capacity at high voltages and temperatures. FP construction; 5″ flexible leads. **Tolerance:** Up to 50 WVDC, −10% +250%; 51 to 350 WVDC, −10% +100%; over 351 WVDC, −10% +50%. No. WQ240 is double-ended.

Mall. No.	Cap. µf @ WVDC	Size, In. D. x L.	Net Each
WD270	120-120 @ 150	1 x4⅜	**$2.61**
WD210	50-30 @ 150	⅞x2⅞	**1.17**
WD215	50-50 @ 150	⅞x2⅞	**1.26**
WD220	70-30 @ 150	⅞x2⅞	**1.29**
WD235	100-50 @ 150	1 x3⅜	**1.59**
WD251	250-50 @ 150	1⅜x2⅞	**1.98**
WS342	200 @ 200	1⅛x3⅜	**1.74**
WS427	140 @ 300	1¼x3⅜	**1.89**
WS560	150 @ 400	1¼x4⅜	**2.79**
WS730	100 @ 450	1⁵⁄₁₆x3⅜	**2.76**
WT217	40-40-20 @ 150	1 x2⅞	**1.41**
WT460	60-60-4 @ 350	1¼x3⅜	**3.15**
WD340	60-125 @ 200-50	1¹⁄₁₆x2⅞	**1.44**
WD345	5-200 @ 200-200	1⅛x3⅜	**2.13**
WD425	150-100 @ 300-300	1⅜x3⅜	**2.31**
WD355	250-120 @ 200-200	1⅜x3⅝	**2.82**
WD410	200-100 @ 300-50	1⅛x4⅜	**2.94**
WD446	100-150 @ 350-300	1⅜x4⅜	**3.42**
WD450	5-140 @ 350-350	1⅛x4⅜	**2.25**
WT312	250-120-50 @ 150-150-25	1⅜x3⅞	**2.61**
WT630	5-40-80 @ 450-400-400	1³⁄₁₆x4⅜	**2.73**
WT700	10-10-150 @ 450-450-50	1⅛x2⅞	**1.65**
WT458	60-60-60 @ @ 350-350-300	1¼x4⅜	**2.85**
WT455	100-40-40 @ 350-350-250	1⅛x4⅜	**3.42**
WT407	70-50-30 @ 300-300-250	1¼x3⅞	**2.52**
WT430	100-60-100 @ 300-300-50	1¼x4⅜	**3.06**
WT434	120-40-100 @ 300-300-50	1¼x4⅜	**3.09**
WT449	140-5-200 @ 350-300-200	1⅜x4⅜	**4.11**
WT240	60-60-100 @ 150-150-25	1¹⁄₁₆x2¾	**2.73**
WT316	150-150-150 @ 150-150-150	1¼x4⅜	**2.91**
WT320	200-250-10 @ 150-150-150	1¼x4⅜	**2.73**
WT201	60-40-250 @ 150-150-15	1 x2⅞	**1.95**
WT447	10-100-200 @ 350-150-150	1⅜x3⅜	**2.55**
WQ209	60-40-20-200 @ 150-150-150-10	1¹⁄₁₆x3	**2.07**
WQ240	10-10-40-200 @ 150-150-150-35	1⅛x2⅜	**1.95**
WQ290	60-50-40-20 @ 150-150-150-150	⅞x2⅞	**2.10**
WQ402	150-100-20-100 @ 300-300-300-25	1½x4⅜	**4.17**
WQ775	10-20-20-40 @ 450-450-450-450	1¼x3⅜	**2.82**
WQ650	10-40-80-100 @ 450-300-400-50	1¼x4⅜	**3.30**
WQ505	5-30-140-200 @ 300-200-350-200	1½x4⅜	**4.50**
WQ511	140-5-200-100 @ 350-300-200-150	1½x4⅜	**4.92**
WQ525	50-40-20-50 @ 350-350-350-50	1¼x3⅜	**2.97**
WQ520	150-100-20-100 @ 350-350-350-50	1¼x4⅜	**4.77**
WQ640	10-80-40-40 @ 450-300-300-300	1¼x4⅜	**3.21**
WQ795	20-20-40-40 @ 450-450-450-450	1¼x4⅜	**3.27**
WQ230	40-40-20-20 @ 150-150-150-25	¹⁵⁄₁₆x2⅞	**1.83**
WQ215	40-20-20-100 @ 150-150-150-25	1¹⁄₁₆x2⅞	**1.98**
WQ250	60-40-40-20 @ 150-150-150-25	1¹⁄₁₆x2⅞	**1.95**
WQ635	100-25-10-50 @ 300-450-300-50	1⅜x3⅜	**2.82**
WQ405	120-40-40-10 @ 300-300-300-250	1⅜x4¼	**2.91**
WQ349	40-20-20-100 @ 350-300-250-50	1⅜x2⅞	**2.70**
WV404	40-20-20-20-50 @ 300-300-300-300-50	1¼x3⅜	**3.21**

ELECTROLYTIC CAPACITORS

Designed for antenna rotators.

ST75	70 @ 50 v. AC	⅞x2⅝	**$0.75**
ST100	100-200 @ 50 v. AC	1 x2¾	**1.02**

PRINTED CIRCUIT HIGH TEMPERATURE WAX TUBULARS

Same as W Series, except designed for printed circuit applications.

PWD SERIES

Mallory No.	Cap., µf	WV DC*	Size, In. Dia. x L.	Net Each
PWD211	50-30	150	1 x 2	**$0.86**
PWD221	50-50	150	1 x 2	**.94**
PWD231	75-30	150	1 x 2⅜	**.97**
PWD240	80-30	150	1 x 2⅜	**.97**
PWD252	80-50	150	1 x 2⅜	**1.06**
PWD263	100-50	150	1 x 2⅜	**1.88**

*WVDC each section.

PWT SERIES

Mallory No.	Cap., µf	WVDC	Size, In. Dia. x L.	Net Each
PWT205	30-25-20	150*	1x1¾	**$1.73**
PWT225	50-30-20	150*	1x2	**1.83**
PWT245	60-20-5	150*	1x3	**1.77**
PWT260	60-80-20	150*	1x2⅜	**2.01**
PWT275	80-40-150	150-150-25	1x2⅜	**2.03**
PWT285	80-60-250	150-150-25	1⅛x2⅜	**2.19**
PWT360	60-120-20	200*	1⅛x2⅞	**2.55**

*WVDC each section.

PET SERIES MINIATURE BAKELITE ELECTROLYTICS

Miniaturized version of FP and TC types designed for printed circuit applications. Low-impedance electrolyte assure long shelf and operating life, outstanding stability, and higher capacitance for the size. Enclosed in bakelite case with epoxy resin end seal. **Type PET-A** has axial leads 1½″ long. **Type PET** is single-end design for p-c board mounting; leads 1″ long. **Temperature Range:** −30°C to +85°C. **Tolerance:** −10%, +150% at 25°C.

Mallory No.PET-	Cap., µf	WV DC	Size, In.	Net Each
120	1000	1	⅝ x 1⅞	**$1.14**
118	8	3	⅜ x ⅝	**.87**
122	15	3	⅜ x ⅝	**.87**
130	30	3	⅜ x ¾	**.87**
140	40	3	⅜ x ¾	**.90**
180	150	3	⁷⁄₁₆ x ¹⁵⁄₁₆	**.90**
1260	60	6	⁷⁄₁₆ x ¾	**.96**
1340	10	10	⅜ x ⅝	**.87**
1400	100	10	½ x ⅞	**1.08**
1500	100	12	⁷⁄₁₆ x 1⅛	**1.14**
1535	6	15	⅜ x ⅝	**.90**
1570	20	15	⅜ x ¾	**.93**
1575	50	15	⁷⁄₁₆ x ⅞	**.99**
1760	10	25	⅜ x ¾	**.93**
1930	2	50	⅜ x ⅝	**.90**
1935	4	50	⅜ x ¾	**.99**
1960	25	50	⁷⁄₁₆ x 1	**.99**
1980	50	50	½ x 1⅛	**1.11**
2290	100-40	6-3	½ x ⅞	**1.26**
2410	200-20	8-8	½ x 1½	**1.47**
2365C*	50-25	10-10	½ x ¾	**1.20**
2370	50-50	10-10	½ x 1	**1.29**
3400	100-100-65	8-8-8	⅝ x 1	**1.56**
A190	750	3	⅝ x 1⅜	**1.17**
A1675	65	16	⁷⁄₁₆ x 1⅛	**1.02**
A2300	250-100	7-3	½ x 1⅜	**1.47**
A2385	80-50	10-10	½ x 1¼	**1.35**
A2395	100-40	10-3	½ x 1⅛	**1.35**

*Uses common positive construction.

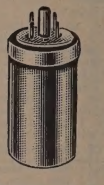
BATHTUB DRY ELECTROLYTICS

For filter and bypass circuits under extreme operating conditions. Corrosion-resistant, hot-tinned steel case is hermetically sealed with internal insulation from case. Two solder lug terminals and mounting flanges. Temp. range, −55°C to +65°C. Tol.: Up to 50 WVDC, −10%, +150%; 100-150 WVDC, −10%, +100%; above 350 WVDC, −10%, +50%.

Mall. No.	Cap. µf	WV DC	Size, Inches H. x W. x L.	Net Each
BS26	25	25	¾ x 1 x 1¾	**$2.70**
BS29	50	25	¾ x 1 x 1¾	**2.76**
BS36	25	50	¾ x 1 x 1¾	**2.73**
BS39	50	50	⅞ x 1 x 1¾	**2.82**
BS45	20	150	⅞ x 1 x 1¾	**2.82**
BS48	40	150	1 x 1¼ x 1¾	**2.91**
BS62	10	300	⅞ x 1 x 1¾	**2.85**
BS65	20	300	1⅛ x 1¼ x 1¾	**2.94**
BS81*	8	500	1 x 1¾ x 2	**3.45**
BS91*	8	600	1 x 1¾ x 2	**3.51**

*Mtg. centers 2⅜″; all others 2⅛″.

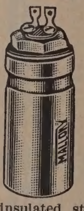
OCTAL BASE, PLUG-IN ELECTROLYTICS



Designed for military and communications parts replacement. Ideal for designers and builders. Meet all ML-C-62 requirements. Plug-in base for easy replacement in standard octal tube socket. Can be mounted in any position; though if in inverted position, provisions should be made to hold unit securely in socket.

Mallory No.	Cap. µf	WV DC	Size, In. Dia.x L.	Net Each
PB110	20	150	1⁵⁄₃₂x2½	**$2.37**
PB114	40	150	1⁵⁄₃₂x2½	**2.46**
PB139	100	350	1⅜x3½	**3.51**
PB142	10	450	1⁵⁄₃₂x2½	**2.43**
PB144	20	450	1⁵⁄₃₂x2½	**2.58**
PB146	40	450	1⅜x2½	**2.73**
PB149	80	450	1⅜x4¼	**3.33**
PB208	20-20	150	1⁵⁄₃₂x2½	**2.52**
PB212	40-40	150	1⁵⁄₃₂x2½	**2.61**
PB234	20-20	450	1⅜x2½	**3.03**
PB238	40-40	450	1⅜x4¼	**3.57**
PB311.2	20-20-20	150	1⁵⁄₃₂x2½	**2.88**
PB345.8	20-20-20	450-450-25	1⅜x2½	**3.33**
PB375.8	10-10-10	450	1⁵⁄₃₂x2½	**3.06**

THREADED NECK DRY ELECTROLYTICS



Single and multiple separate-section capacitors operable to 65° C., encased in aluminum cans equipped with threaded necks for mounting. Type HD is heavy duty. Type HS is for high-surge voltage conditions, operable to 85° C. Type SR638 is lug-type dual. Type SR645 has special internal connections; one terminal common anode, one terminal negative to one section and case negative to the other section. RS, RM types have 8″ and HS type has 5″ flexible, insulated stranded-copper leads out the threaded neck end of case. Type HD is supplied with one solder lug terminal for positive; case is negative. Type SR has two positive-lug terminals with case common negative. Types RS, RM, HD and HS have threaded necks (⅝-16 for 1″ dia. —¾-16 for 1⅜″ dia.) equipped with Palnut and special washer. All 1″ dia. units are supplied with turn-over washer for 1⅜″ clamp mounting. Type SR has ⅞-16 threaded molded neck with solid nut.

Mallory No.	Cap. µf	WV DC	Size, In. Dia. x L.	Net Each
RS207	30	250	1 x 3½	**$1.23**
RS212	8	450	1⅜ x 3	**1.32**
RS213	8	450	1 x 2¾	**1.32**
RS214	12	450	1⅜ x 3	**1.44**
RS215	12	450	1 x 2¾	**1.44**
RS216	16	450	1 x 3½	**1.47**
RS217	16	450	1⅜ x 3	**1.47**
RS219	20	450	1⅜ x 3	**1.62**
RS223	30	450	1⅜ x 3	**1.80**
RS224	40	450	1⅜ x 3	**1.89**
HD684	10	450	1 x 3	**1.38**
HS691	4	600	1⅜ x 4	**1.77**
HS693	8	600	1⅜ x 3¾	**1.89**
HS696	20	600	1⅜ x 4¼	**2.31**
RM262	8-8	450	1⅜ x 3	**1.80**
RM265	8-8-8	450	1⅜ x 4¼	**3.00**
SR638	8-8	450	1⅜ x 2¾	**1.80**
SR645	8-8	450	1⅜ x 2¾	**1.80**

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P. R. MALLORY & CO. Inc. MALLORY Capacitors, Hardware

HC, NP, LOW-VOLTAGE, HIGH CAPACITY DRY ELECTROLYTICS

HC, NP

HB

PL

TYPE HC POLARIZED TYPE

Supplied with a VR bracket for vertical mounting.

Capacity Tolerances: Up to 150 WVDC, −10%, +100%. Above 150 WVDC, −10%, +50%.

Mallory No. HC-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1020A	2000	10	1 7/16 x 2 3/4	$3.36
1040A	4000	10	1 7/16 x 3 3/8	4.60
1060A*	6000	10	1 1/2 x 4 1/8	5.20
10100	10000	10	2 1/16 x 4 3/8	7.81
1520A	2000	15	1 7/16 x 2 3/4	3.47
1540A	4000	15	1 7/16 x 4 3/8	5.37
1560A	6000	15	1 13/16 x 3 3/8	5.62
2060	6000	20	2 1/16 x 4 3/8	6.11
2060A	6000	20	1 13/16 x 4 3/8	6.11
20250*	25000	20	3 x 4 1/8	10.71
2510A	1000	25	1 7/16 x 2 3/4	3.19
2520A	2000	25	1 7/16 x 3 3/8	4.15
2540A	4000	25	1 13/16 x 3 3/8	5.58
4040	4000	40	2 1/16 x 4 3/8	6.98
4040A	4000	40	1 13/16 x 4 3/8	6.98
5005	500	50	1 7/16 x 3 3/8	3.33
5005A	500	50	1 7/16 x 2 3/4	3.33
5010A	1000	50	1 7/16 x 3 3/8	4.25
5020A	2000	50	1 13/16 x 3 3/8	5.06
5040	4000	50	2 1/16 x 4 3/8	7.32
15010	1000	150	2 1/16 x 4 3/8	6.44
15010A	1000	150	1 13/16 x 4 3/8	6.44
20005	500	200	2 1/16 x 4 3/8	5.53
20005A	500	200	1 13/16 x 3 3/8	5.53
45003	300	450	2 1/16 x 4 3/8	8.47
2050-50	2 x 5000	20–20	2 1/16 x 4 3/8	8.00

*Aluminum can with solder lug terminals.

TYPE NP NON-POLARIZED TYPE

Supplied with a VR bracket for vertical mounting.

Capacity Tolerances: −25%, +25% except NP3003 is −15%, +25%.

Mallory No. NP-	Cap., µf	WV DC	Size, In. Dia. x Lgth.	Net Each
1225A	200	125	1 7/16 x 3 3/8	$4.04
1235A	300	125	1 13/16 x 3 3/8	4.87
1255A	500	125	1 13/16 x 4 3/8	6.30
3003A	15	300	1 7/16 x 2 3/4	2.87
3008	50	300	1 7/16 x 3 3/8	5.25
3014A	100	300	1 13/16 x 3 3/8	6.13
3025	200	300	2 1/16 x 4 3/8	7.00
4505	50	450	1 13/16 x 3 3/8	6.30
4510	100	450	2 1/16 x 4 3/8	7.70

HARDWARE FOR HC AND NP TYPES

Mall. No.	Description	Size In.	Net Ea.
PL-3	Plastic end cap–on motor	1 7/16	12c
PL-6	Plastic end cap–on motor	1 13/16	15c
PL-8	Plastic end cap–on motor	2 1/16	18c
PL-10	Plastic end cap–on motor	2 9/16	27c
PL-A3	Plastic end cap–off motor	1 7/16	12c
PL-A6	Plastic end cap–off motor	1 13/16	15c
PL-A8	Plastic end cap–off motor	2 1/16	18c
PL-A10	Plastic end cap–off motor	2 9/16	27c
HB-2	Horiz. bkt. (plastic cases)	3 1/64	15c
HB-4	Horiz. bkt. (plastic cases)	3 21/32	18c
HB-8	Horiz. bkt. (plastic cases)	4 21/32	21c

COMPUTER GRADE CAPACITORS

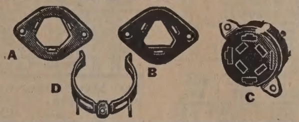
Ultra-reliable, high capacity aluminum electrolytic capacitors. Pressure sensitive safety vent. Temperature range, −20° C to +85° C. **Capacity Tolerances:** (U) 3–150 WVDC, −10% +75%; (T) 151–450 WVDC, −10% +50%. Furnished with Mylar* insulating sleeve and high post (7/32″) 10-32 screw terminals.

†Can Size: Stock types shown below are furnished with "D" (2″ x 4 1/8″) or "F" (3″ x 4 1/8″) cans. **Eight other can sizes and thousands of other ratings are available on special order.** Ask for Bulletin 9-282.

Mallory No. CG-	Cap., µf	WVDC	Size †	Net Each
363U3D1	36000	3	D	$3.79
753U3F1	75000	3	F	6.05
2752U5D1	27500	5	D	3.69
653U5F1	65000	5	F	5.99
183U10D1	18000	10	D	3.65
4352U10D1	43500	10	F	6.89
143U15D1	14000	15	D	3.70
343U15F1	34000	15	F	5.99
852U25D1	8500	25	D	3.34
24U25F1	20000	25	F	5.60
452U50D1	4500	50	D	2.97
15U50F1	10000	50	F	5.74
3451U75D1	3450	75	D	3.45
822U75F1	8200	75	F	6.40
2251U100D1	2250	100	D	3.50
532U100F1	5300	100	F	5.91
1551U150D1	1550	150	D	3.48
362U150F1	3600	150	F	6.02
13T200D1	1000	200	D	3.87
2451T200F1	2450	200	F	5.83
82T250D1	800	250	D	4.05
192T250F1	1900	250	F	6.49
72T300D1	700	300	D	4.06
1651T300F1	1650	300	F	7.17
551T350D1	550	350	D	4.31
132T350F1	1300	350	F	6.98
3250T400D1	325	400	D	3.24
241T450D1	240	450	D	3.11

CAPACITOR HARDWARE

For FP or WP capacitors use MP, BP, PS and MW-100 units. For TC, FP, WP and other tubulars use VR brackets for vertical mtg. or TH spring clips for horizontal mtg.



Mallory No.	Fig.	Size, Inches	Net	Mallory No.	Fig.	Size, Inches	Net
MP-2	A‡	3/4	3c	TH-13	D	3/8	3c
MP-4	A‡	1	3c	TH-15	D	1/2-9/16	3c
MP-6	A‡	1 3/8	3c	TH-17	D	5/8-11/16	3c
BP-2	B†	3/4	3c	TH-19	D	3/4-13/16	3c
BP-4	B†	1	3c	TH-21	D	7/8-15/16	3c
BP-4A	B†	1	3c	TH-25	D	1 3/8-1 7/16	6c
BP-6	B†	1 3/8	3c	MW-100	....	Mtg. Wrench	#
PS-4	C	1	42c	CE-1**	....	3/4 x 2	6c
PS-6	C	1 3/8	54c	CE-2**	....	1 x 1 1/2	6c
PSC-4	Ret. Clamp		6c	CE-3**	....	1 x 2	6c
VR-1	....	1-1 1/16	9c	CE-4**	....	1 x 3	6c
VR-3	....	1 3/8-1 7/16	9c	CE-5**	....	1 3/8 x 2	6c
VR-4	....	1 1/2-1 9/16	12c	CE-6**	....	1 3/8 x 3	6c
VR-6	....	1 3/4-1 13/16	15c	CE-7**	....	1 x 2 1/2	6c
VR-8	....	2-2 1/16	18c	CE-8**	....	1 x 4	9c
VR-10	....	2 1/2	21c	CE-9**	....	1 3/8 x 2 1/2	6c
VR-12	....	3	48c	CE-10**	....	1 3/8 x 4	9c

‡Metal. †Phenolic. **FP insulating sleeves, closed end type.
#Net Each **$1.05.**

PHOTOFLASH CAPACITORS

Mallory photoflash capacitors are especially engineered to meet the requirements of electronic flash circuits. All three types offer exceptionally low leakage and minimum charging resistance to provide maximum battery life.

Model HC45003—Plastic case, 2 1/16″ dia. x 4 3/8″, 300 µf at 450 v. DC. Maximum Series Resistance: 0.8 ohm. Maximum DC Leakage (at 5 minutes): 5.5 ma. May be used with VR clamps, or HB bracket and PL caps for mounting (not included). Net Each.................... **$8.47**

Model FF45052—Plastic case, 2 1/16″ dia. x 4 3/8″, 525 µf at 450 v. DC. Maximum Series Resistance: 0.35 ohm. Maximum DC Leakage (at 5 minutes): 2.0 ma. May be used with VR clamps, or HB bracket and PL cap for mounting (not included). Net Each.................. **$13.50**

Model FP240—Metal can, 1 3/8″ x 3″, dual section, 50 µf each section at 450 v. DC. May be paralled for 100 µf or used with switch to provide high and low outputs. Maximum Series Resistance: 4.8 ohms. Maximum DC Leakage (at 5 minutes): 1.29 ma per section. May be used with TH-25 clip and CE-6 insulating tube (not included). Uses standard FP twist-prong terminals. Net Each.................................... **$2.31**

MALLORY TANTALUM CAPACITORS

the industry's widest selection

FOIL
SOLID
WET-SLUG

Ask for Catalog 9-169

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P. R. MALLORY & CO. Inc.

MALLORY Tantalum Capacitors

Mallory Tantalum Capacitors are specified by either the 13 digit Mallory number or the 12 digit MIL number where it applies.

TAF	**254**	**M**	**150**	**N**	**0**	**A**
a	b	c	d	e	f	g

"**a**"—Type.
"**b**"—Capacity in $\mu\mu f$, first 2 digits are significant and 3rd shows zeros.
"**c**"—Tolerance: M, ±20%, K, 10%, etc.
"**d**"—WVDC at designated temperature.
"**e**"—Polarized (P) or non-polarized (N).
"**f**"—Uninsulated (0) or Mylar* sleeve (1)
"**g**"—Size or configuration.

See appropriate specifications for explanation of MIL numbers or ask for **Mallory Cross-Reference.**

TANTALUM FOIL CAPACITORS

Furnished in both plain and etched foil types, polarized and non-polarized and either of two operating temperature ranges, −55° to +85° C and −55° to +125° C. All foil types except TAF non-polarized are specified by the appropriate MIL-C-3965 style number.

CASE SIZES—FOIL

Case Size	Uninsulated		Insulated	
	Dia.	L.	Dia.	L.
A	3/16"	11/16"	13/64"	3/4"
B	9/32"	7/8"	19/64"	15/16"
C	3/8"	1 7/16"	25/64"	1 1/2"
D	3/8"	2 1/8"	25/64"	2 3/16"
E	3/8"	2 3/4"	25/64"	2 13/16"

CL34/35 AND TAF PLAIN FOIL −55° TO +85° C

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 2.55	$ 1.90	$ 1.40	$ 1.21
B	6.60	3.65	2.75	2.00	1.84
C	10.40	5.80	4.35	3.15	2.91
D	14.60	8.10	6.10	4.45	4.07
E	19.60	10.85	8.15	5.95	5.45

For Mylar* sleeve (CL35 and TAF "N1"-) add **10c** to prices shown.

CL34/35—POLARIZED +85° C
CL34 LISTED BELOW (USE CL35 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
10	3	CL34BA100MP3	A
50	3	CL34BA500MP3	B
8	6	CL34BB080MP3	A
30	6	CL34BB300MP3	B
100	6	CL34BB101MP3	C
200	6	CL34BB201MP3	D
300	6	CL34BB301MP3	E
6	10	CL34BD060MP3	A
25	10	CL34BD250MP3	B
80	10	CL34BD800MP3	C
160	10	CL34BD161MP3	D
220	10	CL34BD221MP3	E
4.5	15	CL34BE4R5MP3	A
10	15	CL34BE100MP3	B
18	15	CL34BE180MP3	B
55	15	CL34BE550MP3	C
110	15	CL34BE111MP3	D
160	15	CL34BE161MP3	E
2.5	30	CL34BH2R5MP3	A
30	30	CL34BH300MP3	C
60	30	CL34BH600MP3	D
85	30	CL34BH850MP3	E
1.5	50	CL34BJ1R5MP3	A
6	50	CL34BJ060MP3	B
20	50	CL34BJ200MP3	C
40	50	CL34BJ400MP3	D
55	50	CL34BJ550MP3	E
1	75	CL34BL010MP3	A
4	75	CL34BL040MP3	B
14	75	CL34BL140MP3	C
28	75	CL34BL280MP3	D
40	75	CL34BL400MP3	E
.8	100	CL34BN0R8MP3	A
3	100	CL34BN030MP3	B
20	100	CL34BN200MP3	D
30	100	CL34BN300MP3	E
.5	150	CL34BQ0R5MP3	A
2	150	CL34BQ020MP3	B
4	150	CL34BQ040MP3	C
7	150	CL34BQ070MP3	C
8	150	CL34BQ080MP3	D
12	150	CL34BQ120MP3	D
14	150	CL34BQ140MP3	D
20	150	CL34BQ200MP3	E

TAF—NON-POLARIZED +85° C (CHANGE 12th DIGIT TO "1" FOR MYLAR* SLEEVE)

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
.25	150	TAF254M150N0A	A
.4	100	TAF404M100N0A	A
.5	75	TAF504M075N0A	A
.6	60	TAF604M060N0A	A
.8	50	TAF804M050N0A	A
1.0	150	TAF105M150N0B	B
1.4	30	TAF145M030N0A	A
1.5	25	TAF155M025N0A	A
1.5	100	TAF155M100N0B	B
2.0	75	TAF205M075N0B	B
2.5	15	TAF255M015N0A	A
2.5	60	TAF255M060N0B	B
3.0	10	TAF305M010N0A	A
3.0	50	TAF305M050N0B	B
3.5	150	TAF355M150N0C	C
5.0	6	TAF505M006N0A	A
5.0	100	TAF505M100N0C	C
5.5	30	TAF555M030N0B	B
6.0	25	TAF605M025N0B	B
7.0	75	TAF705M075N0C	C
7.0	150	TAF705M150N0D	D
8.5	60	TAF855M060N0C	C
10.0	15	TAF106M015N0B	B
10.0	50	TAF106M050N0C	C
10.0	100	TAF106M100N0D	D
10.0	150	TAF106M150N0E	E
14.0	75	TAF146M075N0D	D
15.0	100	TAF156M100N0E	E
16.0	10	TAF166M010N0B	B
17.0	60	TAF176M060N0D	D
18.0	30	TAF186M030N0C	C
20.0	25	TAF206M025N0C	C
20.0	50	TAF206M050N0D	D
20.0	75	TAF206M075N0E	E
24.0	60	TAF246M060N0E	E
25.0	6	TAF256M006N0B	B
30.0	50	TAF306M050N0E	E
35.0	15	TAF356M015N0C	C
36.0	30	TAF366M030N0D	D
40.0	25	TAF406M025N0D	D
45.0	30	TAF456M030N0E	E
55.0	10	TAF556M010N0C	C
60.0	25	TAF606M025N0E	E
70.0	15	TAF706M015N0D	D
85.0	6	TAF856M006N0C	C
100.0	15	TAF107M015N0E	E
110.0	10	TAF117M010N0D	D
150.0	10	TAF157M010N0E	E
170 0	6	TAF177M006N0D	D
250.0	6	TAF257M006N0E	E

CL30/31 AND CL32/33 PLAIN FOIL −55° TO +125° C

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 4.20	$ 3.15	$ 2.30	$ 2.11
B	9.80	5.60	4.20	3.05	2.80
C	14.20	8.10	6.10	4.45	4.05
D	18.30	10.45	7.85	5.70	5.23
E	23.55	13.45	10.10	7.35	6.72

For Mylar* sleeve (CL31 and CL33), add **10c** to prices shown.

CL30/31—POLARIZED +125° C
CL30 LISTED BELOW (USE CL31 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
4.5	10	CL30CD4R5MP3	A
18	10	CL30CD180MP3	B
55	10	CL30CD550MP3	C
110	10	CL30CD111MP3	D
160	10	CL30CD161MP3	E
3	15	CL30CE030MP3	A
12	15	CL30CE120MP3	B
35	15	CL30CE350MP3	C
70	15	CL30CE700MP3	D
100	15	CL30CE101MP3	E
1.5	30	CL30CH1R5MP3	A
6	30	CL30CH060MP3	B
20	30	CL30CH200MP3	C
40	30	CL30CH400MP3	D
55	30	CL30CH550MP3	E
1	50	CL30CJ010MP3	A
4	50	CL30CJ040MP3	B
14	50	CL30CJ140MP3	C
28	50	CL30CJ280MP3	D
40	50	CL30CJ400MP3	E
.8	60	CL30CK0R8MP3	A
3	60	CL30CK030MP3	B
10	60	CL30CK100MP3	C
20	60	CL30CK200MP3	D
30	60	CL30CK300MP3	E
.5	100	CL30CN0R5MP3	A
2	100	CL30CN020MP3	B
7	100	CL30CN070MP3	C
14	100	CL30CN140MP3	D
20	100	CL30CN200MP3	E
.35	150	CL30CQR35MP3	A
1.5	150	CL30CQ1R5MP3	B
5	150	CL30CQ050MP3	C
10	150	CL30CQ100MP3	D
15	150	CL30CQ150MP3	E

CL32/33—
NON-POLARIZED +125° C
CL32 LISTED BELOW (USE CL33 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
2.5	10	CL32CD2R5MN3	A
10	10	CL32CD100MN3	B
35	10	CL32CD350MN3	C
70	10	CL32CD700MN3	D
100	10	CL32CD101MN3	E
1.5	15	CL32CE1R5MN3	A
6	15	CL32CE060MN3	B
20	15	CL32CE200MN3	C
40	15	CL32CE400MN3	D
60	15	CL32CE600MN3	E
.8	30	CL32CH0R8MN3	A
3	30	CL32CH030MN3	B
10	30	CL32CH100MN3	C
20	30	CL32CH200MN3	D
30	30	CL32CH300MN3	E
.5	50	CL32CJ0R5MN3	A
2	50	CL32CJ020MN3	B
7	50	CL32CJ070MN3	C
14	50	CL32CJ140MN3	D
20	50	CL32CJ200MN3	E
.4	60	CL32CK0R5MN3	A
1.5	60	CL32CK1R5MN3	B
5	60	CL32CK050MN3	C
10	60	CL32CK100MN3	D
15	60	CL32CK150MN3	E
.25	100	CL32CNR25MN3	A
1	100	CL32CN010MN3	B
3.5	100	CL32CN3R5MN3	C
7	100	CL32CN070MN3	D
10	100	CL32CN100MN3	E
.15	150	CL32CQR15MN3	A
.75	150	CL32CQR75MN3	B
2.5	150	CL32CQ2R5MN3	C
5	150	CL32CQ050MN3	D
7.5	150	CL32CQ7R5MN3	E

CL24/25 ETCHED FOIL
POLARIZED +85° C

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$ 4.20	$ 2.55	$ 1.90	$ 1.40	$ 1.21
B	7.55	4.00	3.00	2.20	2.02
C	12.60	7.00	5.25	3.85	3.51
D	20.55	11.40	8.55	6.25	5.72
E	27.35	15.20	11.40	8.35	7.61

For Mylar* sleeve (CL25) add **10c** to prices shown.

CL24/25—
POLARIZED +85° C
CL24 LISTED BELOW (USE CL25 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
15	15	CL24BE150UP3	A
60	15	CL24BE600UP3	B
200	15	CL24BE201UP3	C
400	15	CL24BE401UP3	D
580	15	CL24BE581UP3	E
10	25	CL24BG100UP3	A
40	25	CL24BG400UP3	B
120	25	CL24BG121UP3	C
250	25	CL24BG251UP3	D
350	25	CL24BG351UP3	E
8	30	CL24BH080UP3	A
32	30	CL24BH320UP3	B
110	30	CL24BH111UP3	C
220	30	CL24BH221UP3	D
300	30	CL24BH301UP3	E
4.5	50	CL24BJ4R5UP3	A
18	50	CL24BJ180UP3	B
60	50	CL24BJ600UP3	C
100	50	CL24BJ101UP3	D
150	50	CL24BJ151UP3	E
3	75	CL24BL030UP3	A
12	75	CL24BL120UP3	B
30	75	CL24BL300UP3	C
70	75	CL24BL700UP3	D
100	75	CL24BL101UP3	E
2	100	CL24BN020UP3	A
8	100	CL24BN010UP3	B
25	100	CL24BN250UP3	C
50	100	CL24BN500UP3	D
70	100	CL24BN700UP3	E
1	150	CL24BQ010UP3	A
4	150	CL24BQ040UP3	B
13	150	CL24BQ130UP3	C
25	150	CL24BQ250UP3	D
36	150	CL24BQ360UP3	E

*Du Pont Trademark.

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P. R. MALLORY & CO. Inc.
MALLORY

Tantalum Capacitors

CL20/21 AND CL22/23—ETCHED FOIL −55° TO +125° C

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$ 7.35	$ 4.20	$ 3.15	$ 2.30	$ 2.11
B	10.50	6.00	4.50	3.28	3.00
C	16.15	9.25	6.95	5.05	4.62
D	24.55	14.00	10.50	7.70	7.01
E	31.75	18.15	13.60	9.95	9.07

For Mylar* sleeve (CL21 and CL23) add **10c** to prices shown.

CL20/21—POLARIZED +125° C
CL20 LISTED BELOW
(USE CL21 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
15	10	CL20CD150UP3	A
60	10	CL20CD600UP3	B
200	10	CL20CD201UP3	C
400	10	CL20CD401UP3	D
580	10	CL20CD581UP3	E
10	15	CL20CE100UP3	A
40	15	CL20CE400UP3	B
120	15	CL20CE121UP3	C
250	15	CL20CE251UP3	D
350	15	CL20CE351UP3	E
4.5	30	CL20CH4R5TP3	A
18	30	CL20CH180TP3	B
60	30	CL20CH600TP3	C
100	30	CL20CH101TP3	D
150	30	CL20CH151TP3	E
3	50	CL20CJ030TP3	A
12	50	CL20CJ120TP3	B
30	50	CL20CJ300TP3	C
70	50	CL20CJ700TP3	D
100	50	CL20CJ101TP3	E
2	60	CL20CK020TP3	A
8	60	CL20CK080TP3	B
25	60	CL20CK250TP3	C
50	60	CL20CK500TP3	D
70	60	CL20CK700TP3	E
1	100	CL20CN010SP3	A
4	100	CL20CN040SP3	B
13	100	CL20CN130SP3	C
25	100	CL20CN250SP3	D
36	100	CL20CN360SP3	E

CL22/23—NON-POLAR. +125° C
CL22 LISTED BELOW
(USE CL23 FOR MYLAR* SLEEVE)

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
10	10	CL22CD100UN3	A
40	10	CL22CD400UN3	B
120	10	CL22CD121UN3	C
250	10	CL22CD251UN3	D
350	10	CL22CD351UN3	E
5	15	CL22CE052UN3	A
20	15	CL22CE200UN3	B
70	15	CL22CE700UN3	C
140	15	CL22CE141UN3	D
200	15	CL22CE201UN3	E
2.5	30	CL22CH2R5TN3	A
10	30	CL22CH100TN3	B
30	30	CL22CH300TN3	C
60	30	CL22CH600TN3	D
80	30	CL22CH800TN3	E
1.5	50	CL22CJ1R5TN3	A
6	50	CL22CJ060TN3	B
15	50	CL22CJ150TN3	C
35	50	CL22CJ350TN3	D
50	50	CL22CJ500TN3	E
1	60	CL22CK010TN3	A
4	60	CL22CK040TN3	B
12	60	CL22CK120TN3	C
25	60	CL22CK250TN3	D
35	60	CL22CK350TN3	E
.5	100	CL22CN0R5SN3	A
2	100	CL22CN020SN3	B
6	100	CL22CN060SN3	C
12	100	CL22CN120SN3	D
18	100	CL22CN180SN3	E

TAM SOLID ELECTROLYTE

Printed circuit solid electrolyte types with parallel leads (0.175″ spacing) and plastic encapsulation. Tolerance: ±20%. Temperature Range: −55° to +85° C.

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size§
6.8	25	TAM685M025P5C	C
10	25	TAM106M025P5C	C
15	25	TAM156M025P5C	C
22	15	TAM226M015P5C	C
33	10	TAM336M010P5C	C
39	10	TAM396M010P5C	C
56	6	TAM566M006P5C	C

§.325″ square, .175″ thick.

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-459	500-999
C	$1.20	$0.96	$0.82	$0.69	$0.63

TAS SOLID ELECTROLYTE −80° TO +125° C

Commercial equivalent to MIL-C-26655/2 Style CS12 (uninsulated) and CS13 (insulated). Available in ±20% or ±10% tolerance. Items indicated by † are preferred CS12 (or CS13) values.

TAS CASE SIZES

Case	Diameter	Length
A	.125″	.250″
C	.75″	.438″
F	.279″	.650″
G	.341″	.750″

TAS ±20%

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.43	$1.15	$0.98	$0.73	$0.69
C	1.52	1.22	1.03	.75	.71
F	2.50	2.00	1.69	1.24	1.19
G	4.64	3.72	3.14	2.45	2.34

For Mylar* sleeve ("P1") add **2c** to prices shown.

Listed below are uninsulated case. For Mylar* sleeve (CS13), change 12th digit to "1" and add 2c to prices shown.

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
.33	6	TAS334M006P0A	A
.33	10	TAS334M010P0A	A
.33	15	TAS334M015P0A	A
.33	20	TAS334M020P0A	A
.33	35	TAS334M035P0A†	A
.47	6	TAS474M006P0A	A
.47	10	TAS474M010P0A	A
.47	15	TAS474M015P0A	A
.47	20	TAS474M020P0A	A
.47	35	TAS474M035P0A†	A
.68	6	TAS684M006P0A	A
.68	10	TAS684M010P0A	A
.68	15	TAS684M015P0A	A
.68	20	TAS684M020P0A	A
.68	35	TAS684M035P0A†	A
1	6	TAS105M006P0A	A
1	10	TAS105M010P0A	A
1	15	TAS105M015P0A	A
1	20	TAS105M020P0A	A
1	35	TAS105M035P0A†	A
1.5	6	TAS155M006P0A	A
1.5	10	TAS155M010P0A	A
1.5	15	TAS155M015P0A	A
1.5	20	TAS155M020P0A†	A
1.5	35	TAS155M035P0C†	C
2.2	6	TAS225M006P0A	A
2.2	10	TAS225M010P0A	A
2.2	15	TAS225M015P0A	A
2.2	20	TAS225M020P0A†	A
2.2	35	TAS225M035P0C†	C
3.3	6	TAS335M006P0A	A
3.3	10	TAS335M010P0A	A
3.3	15	TAS335M015P0A†	A
3.3	20	TAS335M020P0C	C
3.3	35	TAS335M035P0C†	C
4.7	6	TAS475M006P0A	A
4.7	10	TAS475M010P0A†	A
4.7	15	TAS475M015P0C	C
4.7	20	TAS475M020P0C	C
4.7	35	TAS475M035P0C†	C
6.8	6	TAS685M006P0A†	A
6.8	10	TAS685M010P0C	C
6.8	15	TAS685M015P0C	C
6.8	20	TAS685M020P0C	C
6.8	35	TAS685M035P0C†	C
10	6	TAS106M006P0C	C
10	10	TAS106M010P0C	C
10	15	TAS106M015P0C	C
10	20	TAS106M020P0C†	C
10	35	TAS106M035P0F†	F
15	6	TAS156M006P0C	C
15	10	TAS156M010P0C	C
15	15	TAS156M015P0C	C
15	20	TAS156M020P0C†	C
15	35	TAS156M035P0F†	F
22	6	TAS226M006P0C	C
22	10	TAS226M010P0C	C
22	15	TAS226M015P0C†	C
22	20	TAS226M020P0F	F
22	35	TAS226M035P0F†	F
33	6	TAS336M006P0C	C
33	10	TAS336M010P0C†	C
33	15	TAS336M015P0F	F
33	20	TAS336M020P0F†	F
33	35	TAS336M035P0G†	G
47	6	TAS476M006P0C†	C
47	10	TAS476M010P0F	F
47	15	TAS476M015P0F	F
47	20	TAS476M020P0F†	F
47	35	TAS476M035P0G†	G
68	6	TAS686M006P0F	F
68	10	TAS686M010P0F	F
68	15	TAS686M015P0F†	F
68	20	TAS686M020P0G†	G
68	35	TAS686M035P0G	G
100	6	TAS107M006P0F	F
100	10	TAS107M010P0F†	F

TAS

TAS ±20% (CONTINUED)

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
100	15	TAS107M015P0G	G
100	20	TAS107M020P0G†	G
150	6	TAS157M006P0F†	F
150	10	TAS157M010P0G	G
150	15	TAS157M015P0G†	G
220	6	TAS227M006P0G	G
220	10	TAS227M010P0G†	G
330	6	TAS337M006P0G†	G

TAS ±10%

All ±10% values are preferred CS13 (or CS12) types.

Case Size	Net Each, Lots of 1-24	25-49	50-99	100-499	500-999
A	$1.72	$1.38	$1.17	$0.96	$0.91
C	1.92	1.54	1.30	.97	.92
F	3.30	2.64	2.23	1.65	1.57
G	6.12	4.90	4.14	3.21	3.07

TAS ±10% stocked with Mylar* sleeve only.

For uninsulated case (CS12), change 12th digit to "0" and deduct 2c from prices shown.

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
5.6	6	TAS565K006P1A	A
6.8	6	TAS685K006P1A	A
47	6	TAS476K006P1C	C
56	6	TAS566K006P1C	C
150	6	TAS157K006P1F	F
180	6	TAS187K006P1F	F
270	6	TAS277K006P1G	G
330	6	TAS377K006P1G	G
3.9	10	TAS395K010P1A	A
4.7	10	TAS475K010P1A	A
27	10	TAS276K010P1C	C
33	10	TAS336K010P1C	C
39	10	TAS396K010P1C	C
82	10	TAS826K010P1F	F
100	10	TAS107K010P1F	F
120	10	TAS127K010P1F	F
180	10	TAS187K010P1G	G
220	10	TAS227K010P1G	G
2.7	15	TAS275K015P1A	A
3.3	15	TAS335K015P1A	A
18	15	TAS186K015P1C	C
22	15	TAS226K015P1C	C
56	15	TAS566K015P1F	F
68	15	TAS686K015P1F	F
120	15	TAS127K015P1G	G
150	15	TAS157K015P1G	G
1.2	20	TAS125K020P1A	A
1.5	20	TAS155K020P1A	A
1.8	20	TAS185K020P1A	A
2.2	20	TAS225K020P1A	A
8.2	20	TAS825K020P1C	C
10	20	TAS106K020P1C	C
12	20	TAS126K020P1C	C
15	20	TAS156K020P1C	C
27	20	TAS276K020P1F	F
33	20	TAS336K020P1F	F
39	20	TAS396K020P1F	F
47	20	TAS476K020P1F	F
56	20	TAS566K020P1G	G
68	20	TAS686K020P1G	G
82	20	TAS826K020P1G	G
100	20	TAS107K020P1G	G
.33	35	TAS334K035P1A	A
.39	35	TAS394K035P1A	A
.47	35	TAS474K035P1A	A
.56	35	TAS564K035P1A	A
.68	35	TAS684K035P1A	A
.82	35	TAS824K035P1A	A
1.0	35	TAS105K035P1A	A
1.2	35	TAS125K035P1C	C
1.5	35	TAS155K035P1C	C
1.8	35	TAS185K035P1C	C
2.2	35	TAS225K035P1C	C
2.7	35	TAS275K035P1C	C
3.3	35	TAS335K035P1C	C
3.9	35	TAS395K035P1C	C
4.7	35	TAS475K035P1C	C
5.6	35	TAS565K035P1C	C
6.8	35	TAS685K035P1C	C
8.2	35	TAS825K035P1F	F
10	35	TAS106K035P1F	F
12	35	TAS126K035P1F	F
15	35	TAS156K035P1F	F
18	35	TAS186K035P1F	F
22	35	TAS226K035P1F	F
27	35	TAS276K035P1G	G
33	35	TAS336K035P1G	G
39	35	TAS396K035P1G	G
47	35	TAS476K035P1G	G

*Du Pont Trademark.

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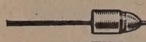
MALLORY

Tantalum Capacitors

TNT-TAP-TAH MINIATURE PELLET TYPES


TNT

Metal case types with axial leads and epoxy end seals. Available with Mylar* sleeve; change 12th digit to "1" and add **5c** to all prices shown. *Du Pont T.M.

TNT +85° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
2	50	TNT205U050P0A	A
4	50	TNT405U050P0A	A
6	35	TNT605U035P0A	A
8	50	TNT805U050P0B	B
12	15	TNT126U015P0A	A
12	35	TNT126U035P0B	B
15	30	TNT156U030P0B	B
25	6	TNT256U006P0A	A
25	15	TNT256U015P0B	B
35	12	TNT356U012P0B	B
40	3	TNT406U003P0A	A
50	6	TNT506U006P0B	B
80	3	TNT806U003P0B	B

TNT PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.24	$0.99	$0.84	$0.714	$0.651
B	1.46	1.17	.99	.84	.766

TNT CASE SIZES

Case	Diameter	Length
A	.165″	.350″
B	.165″	.500″

TAP +85° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Case Size
2	90	TAP205U090P0A	A
3.5	75	TAP355U075P0A	A
4	60	TAP405U060P0A	A
5	50	TAP505U050P0A	A
6	40	TAP605U040P0A	A
7	35	TAP705U035P0A	A
8	30	TAP805U030P0A	A
10	25	TAP106U025P0A	A
11	90	TAP116U090P0B	B
12	20	TAP126U020P0A	A
15	15	TAP156U015P0A	A
15	75	TAP156U075P0B	B
20	10	TAP206U010P0A	A
20	60	TAP206U060P0B	B
25	50	TAP256U050P0B	B
30	6	TAP306U006P0A	A
30	40	TAP306U040P0B	B
40	30	TAP406U030P0B	B
70	15	TAP706U015P0B	B
100	10	TAP107U010P0B	B
140	6	TAP147U006P0B	B

TAP PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$1.46	$1.17	$0.99	$0.84	$0.766
B	2.46	1.97	1.66	1.415	1.29

TAP AND TAH CASE SIZES

Case	Diameter	Length
A	.238″	.500″
B	.238″	.660″
C	.238″	.875″

TAH +125° C

Cap. µf	WVDC +125°C	Mallory Catalog No.	Case Size
2	60	TAH205R060P0A	A
3.5	50	TAH355R050P0A	A
4	40	TAH405R040P0A	A
5	30	TAH505R030P0A	A
6	25	TAH605R025P0A	A
7	23	TAH705R023P0A	A
8	20	TAH805R020P0A	A
10	15	TAH106R015P0A	A
11	60	TAH116R060P0B	B
12	13	TAH126R013P0A	A
15	10	TAH156R010P0A	A
15	50	TAH156R050P0B	B
20	7	TAH206R007P0A	A
20	40	TAH206R040P0B	B
25	30	TAH256R030P0B	B
30	4	TAH306R004P0A	A
30	25	TAH306R025P0B	B
30	60	TAH306R060P0C	C
40	20	TAH406R020P0B	B
40	50	TAH406R050P0C	C
50	40	TAH506R040P0C	C
60	30	TAH606R030P0C	C
70	10	TAH706R010P0B	B
100	7	TAH107R007P0B	B
100	20	TAH107R020P0C	C
140	4	TAH147R004P0B	B
170	10	TAH177R010P0C	C
250	7	TAH257R007P0C	C
330	4	TAH337R004P0C	C

TAH PRICES

Case Size	Net Each, Lots of				
	1-24	25-49	50-99	100-499	500-999
A	$2.20	$1.75	$1.48	$1.26	$1.15
B	3.68	2.94	2.49	2.12	1.935
C	7.05	5.65	4.76	4.50	3.72

HERMETICALLY SEALED—HIGH TEMPERATURE

MALLORY
MTF
XT Series

MTF −55° TO +150° C

Axial leads, commercial equivalent to MIL-C-3965 Style CL44.

Cap. µf	WVDC +85°C	Mallory Catalog No.	Cap. µf	WVDC +85°C	Mallory Catalog No.
11	90	MTF116T090P0H	40	30	MTF406T030P0H
15	75	MTF156T075P0H	70	15	MTF706T015P0H
20	60	MTF206T060P0H	100	10	MTF107T010P0H
25	50	MTF256T050P0H	140	6	MTF147T006P0H
30	40	MTF306T040P0H			

Any Model listed above—Net Each, Lots of 1–24, **$6.76; 25–49, $5.41;** 50–99, **$4.56;** 100-499, **$3.89.**

XTM −55° TO +175° C

Cap. µf	WVDC +85° C	Mallory Catalog No.*	Net Each, Lots of		
			1-24	25-49	50-99
4	340	XTM405T340P0A	$16.20	$15.12	$14.04
5	255	XTM505T255P0A	12.96	12.10	11.23
8	170	XTM805T170P0A	9.90	9.24	8.56
16	90	XTM166T090P0A	6.56	6.12	5.68
25	60	XTM256T060P0A	6.56	6.12	5.68
40	35	XTM406T035P0A	6.56	6.12	5.68

*Suffix letter **A** indicates MIL-C-3965/20A, style CL-10. Also available in Style C-13; change suffix letter to **D**, add **5c** to prices shown.

XTH-XTL-XTV HIGH TEMP.—HIGH CAPACITY

XTH, XTL, and XTV types are available in twelve case configurations. Only those cases which are normally stocked are shown here. All others are available on special order. Cases listed conform fully to MIL-C-3965B Styles CL10, 13, 14, 16, 17, and 18.

XTH −55° TO +200° C

Cap. µf	WVDC +85° C	Mallory Catalog No.†	Net Each, Lots of		
			1-24	25-49	50-99
7	630	XTH705U630P0C	$42.62	$39.78	$36.94
8	540	XTH805U540P0C	37.13	34.66	32.19
12	360	XTH126U360P0C	26.06	24.33	22.59
12	360	XTH126U360P0L	26.41	24.68	22.94
16	270	XTH166U270P0C	20.48	19.12	17.76
16	270	XTH166U270P0L	20.83	19.47	18.11
25	180	XTH256U180P0C	14.80	13.81	12.83
25	180	XTH256U180P0L	15.15	14.16	13.18
50	90	XTH506U090P0C	9.30	8.69	8.07
80	60	XTH806U060P0C	9.30	8.69	8.07
80	60	XTH806U060P0L	9.65	9.04	8.42
120	35	XTH127U035P0C	9.30	8.69	8.07
150	30	XTH157U030P0C	9.30	8.69	8.07
150	30	XTH157U030P0L	9.65	9.04	8.42
240	18	XTH247U018P0L	9.65	9.04	8.42

†**C**, MIL-C-3965/1D, CL-14; **L**, MIL-C-3965/1D, CL-16.

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XTL −55° TO +200° C

Cap. µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of		
			1-24	25-49	50-99
3.5	630	XTL355U630P0C*	$34.30	$32.01	$29.73
4	540	XTL405U540P0C*	29.89	27.90	25.91
5	450	XTL505U450P0C*	25.70	23.99	22.28
6	360	XTL605U360P0C*	21.16	19.75	18.34
6	360	XTL605U360P0L‡	21.50	20.10	18.69
8	270	XTL805U270P0C*	16.70	15.59	14.48
12	180	XTL126U180P0C*	12.38	11.56	10.64
12	180	XTL126U180P0L‡	12.73	11.91	11.09
25	90	XTL256U090P0C*	8.24	7.69	7.15
40	60	XTL406U060P0C*	8.24	7.69	7.15
40	60	XTL406U060P0L‡	8.59	8.04	7.50
75	30	XTL756U030P0C*	8.24	7.69	7.15
75	30	XTL756U030P0L‡	8.59	8.04	7.50
120	18	XTL127U018P0C*	8.24	7.69	7.15

*Stock Items (MIL-C-3965/1D, Style CL-14). ‡Stock Items (MIL-C-3965/1D, Style CL-16).

XTV −55° TO +200° C

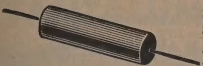
XTV listed by MIL-C-3965/19A Style CL17 ("C") and CL18 ("B") are stocked. Ten other case configurations available on special order.

Cap. µf	WVDC +85° C	Mallory Catalog No.	Net Each, Lots of		
			1-24	25-49	50-99
25	450	XTV256T450P0B	$79.55	$74.25	$68.95
40	270	XTV406T270P0B	49.55	46.25	42.95
60	180	XTV606T180P0B	35.00	32.67	30.34
120	90	XTV127T090P0B	19.55	18.25	16.95
190	40	XTV197T040P0B	13.55	12.65	11.75
200	60	XTV207T060P0B	19.55	18.25	16.95
220	75	XTV227T075P0B	30.05	28.05	26.05
290	40	XTV297T040P0B	19.55	18.25	16.95
350	60	XTV357T060P0B	30.05	28.05	26.05
450	75	XTV457T075P0B	43.55	40.65	37.75
500	40	XTV507T040P0B	30.05	28.05	26.05
700	60	XTV707T060P0B	43.55	40.65	37.75
750	60	XTV757T060P0B	43.55	40.65	37.75
1000	40	XTV108T040P0B	43.55	40.65	37.75
1300	30	XTV138T030P0B	43.55	40.65	37.75
25	450	XTV256T450P0C	79.55	74.25	68.95
40	270	XTV406T270P0C	49.55	46.25	42.95
60	180	XTV606T180P0C	35.00	32.67	30.34
120	90	XTV127T090P0C	19.55	18.25	16.95
200	60	XTV207T060P0C	19.55	18.25	16.95
220	75	XTV227T075P0C	30.05	28.05	26.05
350	60	XTV357T060P0C	30.05	28.05	26.05
290	40	XTV297T040P0C	19.55	18.25	16.95
370	30	XTV377T030P0C	19.55	18.25	16.95
450	75	XTV457T075P0C	43.55	40.65	37.75
500	40	XTV507T040P0C	30.05	28.05	26.05
650	30	XTV657T030P0C	30.05	28.05	26.05
700	60	XTV707T060P0C	43.55	40.65	37.75
750	60	XTV757T060P0C	43.55	40.65	37.75
1000	40	XTV108T040P0C	43.55	40.65	37.75
1300	30	XTV138T030P0C	43.55	40.65	37.75

P. R. MALLORY & CO. Inc. MALLORY

Mylar, Molded Capacitors

GEM SERIES MOLDED TUBULAR CAPACITORS



Molded tubular paper capacitors sealed against moisture with Epoxy resin and molded bakelite. Tolerance ±20% at 85°C except those marked (*), which have ±10% tolerance. Double tinned copperweld leads—20 gauge on case sizes up to ½"; 18 gauge over ½" case size. Use attached leads for mounting. TH clips available for large sizes.

Cap. µf	200 WVDC			400 WVDC			600 WVDC			1000 WVDC		
	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each
.001				421	A	15c	621	A	15c	1021	A	30c
.0015							6215	A	15c	10215	A	30c
.002							622	A	15c	1022	B	30c
.0022							6222	A	15c	10222	B	30c
.0025							6225	A	15c			
.003							623	A	15c	1023	B	30c
.0033							6233	A	15c			
.004							624	A	15c	1024	B	30c
.0047							6247	A	15c	10247	B	30c
.005				425	A	15c	625	B	15c	1025	B	30c
.006							626	B	15c			
.0068							6268	B	18c	10268	B	30c
.007							627	B	18c			
.008							628	B	18c			
.0082							6282	B	18c			
.01				411	A	15c	611	B	18c	1011	C	30c
.012							6112	B	18c			
.015				4115	B	15c	6115	B	18c	10115	D	30c
.02				412	B	15c	612	C	18c	1012	D	30c
.022				4122	B	18c	6122	C	18c	10122	D	30c
.025				4125	B	18c	6125	C	21c			
.03				413	B	18c	613	C	21c	1013	E	30c
.033				4133	C	18c	6133	D	21c	10133	E	30c
.04				414	C	18c	614	D	21c	1014	E	36c
.047				4147	C	18c	6147	D	24c	10147	E	36c
.05				415	C	18c	615	D	24c	1015	E	36c
.056							6156	E	24c			
.06				416	D	21c	616	E	24c			
.068				4168	D	21c	6168	E	27c	10168	E	39c
.1	201*	C	21c	401	D	21c	601	E	27c	1001*	F	45c
.15	2015*	E	21c	4015*	E	24c	6015*	E	30c			
.2				402*	F	27c	602*	F	42c			
.22	2022*	E	24c	4022*	F	27c	6022*	F	42c			
.25	2025*	E	24c	4025*	F	27c	6025*	F	42c			
.27							6027*	H	42c			
.33	2033*	E	30c	4033*	F	30c	6033*	H	42c			
.47	2047*	E	36c	4047*	H	36c	6047*	H	48c			
.5	205*	E	36c	405*	H	36c	605*	H	48c			
.68							6068*	G	48c			
1.0	21*	F	54c	41*	H	75c	61*	G	75c			

GEM MOLDED TUBULAR 1600 WVDC CAPACITORS

±10% Tolerance

Cap. µf	Mall. No. GEM-	‡	Net Each	Cap. µf	Mall. No. GEM-	‡	Net Each	Cap. µf	Mall. No. GEM-	‡	Net Each
.001	1621	B	39c	.005	1625	D	39c	.01	1611	D	42c
.0015	16215	B	39c	.0056	16256	D	39c	.0125	161125	E	42c
.002	1622	B	39c	.006	1626	D	39c	.02	1612	E	36c
.0025	16225	C	45c	.0068	16268	D	39c	.022	16122	E	45c
.003	1623	C	39c	.007	1627	D	39c	.03	1613	E	42c
.0033	16233	C	39c	.0075	16275	D	39c	.04	1614	F	42c
.004	1624	C	39c	.008	1628	D	39c	.05	1615	F	42c
.0047	16247	D	39c	.0082	16282	D	39c	.06	1616	F	42c

GEM MOLDED TUBULAR HIGH VOLTAGE CAPACITORS

±20% Tolerance

Cap. µf	3000 WVDC			6000 WVDC			10,000 WVDC			15,000 WVDC		
	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each	Mall.No. GEM-	‡	Net Each
.0001	3031	C	$0.93							15031	J	$1.98
.00025							125325†	E	$1.32	150325	K	2.01
.0005	3035	C	.66	6X35	D	$0.81	10035	E	.90	15035	L	2.04
.001	3021	C	.66	6X21	E	.81	10021	I	1.26			
.002				6X22	E	.87						
.003	3023	D	.69	6X23	F	1.05						
.005	3025	E	.69	6X25	F	1.11						
.0075				6X275	H	1.26						
.01	3011	E	.84	6X11	H	1.26						
.03	3013	H	.84									
.05	3015	H	.96									

†12,500 WVDC.

‡MOLDED CAPACITOR CASE SIZES, INCHES

Key	Dia. x L.	Key	Dia. x L.	Key	Dia. x L.	Key	Dia. x L.
A	5/16 x 1	D	½ x 1½	G	1 x 2⅝	J	17/32 x 2½
B	⅜ x 1¼	E	⅝ x 1⅞	H	1 x 2⅜	K	¾ x 2½
C	7/16 x 1¼	F	¾ x 2¼	I	15/16 x 2¼	L	⅞ x 2½

ACE SERIES SINGLE ENDED MOLDED TUBULAR CAPACITORS

Same construction as "GEM" line. Designed for replacement use in automation and printed circuit radio and TV applications. Units provide substantial safety factor over original equipment components. Wire leads designed to fit automation and printed circuit chassis. Mounting by means of attached leads. Tolerance, ±20%.

Cap., µf	No. ACE-	WVDC	Size, In. Dia. x Lgth.	Net Each	Cap., µf	No. ACE-	WVDC	Size, In. Dia. x Lgth.	Net Each
.10	401	400	⅝ x 1¼	27c	.033	6133	600	½ x 1¼	24c
.001	621	600	⅜ x 1	18c	.047	6147	600	½ x 1½	27c
.0015	6215	600	⅜ x 1	18c	.05	615	600	½ x 1½	27c
.0022	6222	600	⅜ x 1	18c	.068	6168	600	⅝ x 1¼	30c
.0033	6233	600	⅜ x 1	18c	.10	601	600	½ x 1⅞	33c
.0039	6239	600	⅜ x 1	18c	.15	6015	600	⅝ x 1⅞	36c
.0047	6247	600	⅜ x 1	18c	.22	6022	600	¾ x 1⅞	42c
.01	611	600	⅜ x 1⅜	21c	.01	1011	1000	7/16 x 1⅜	33c
.015	6115	600	⅜ x 1⅜	21c	.015	10115	1000	½ x 1¼	33c
.02	612	600	7/16 x 1⅜	24c	.033	10133	1000	⅝ x 1¼	36c
.022	6122	600	7/16 x 1⅜	24c	.047	10147	1000	⅝ x 1⅞	39c

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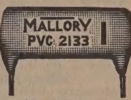
PVC POLYVINYL CHLORIDE MYLAR® CAPACITORS



Moistureproof, flexible polyvinyl, chloride-coated capacitors. High purity aluminum foil used throughout. Dielectric is 100% DuPont Mylar®. Leads are solid copper radial type; ideal for printed circuitry. Flexible moisture seal at leads. Feature low capacitance drift. Temperature range, −40° C to +105° C; may be operated at 105° C at two times rated voltage with no derating. Tolerance, ±10%.

100 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
1118	.018	24c	1027	.27	33c
1122	.022	24c	1033	.33	33c
1133	.033	24c	104	.40	39c
114	.04	24c	1047	.47	39c
1147	.047	24c	105	.5	39c
1156	.056	24c	1056	.56	45c
1168	.068	24c	1068	.68	48c
101	.10	24c	11	1.0	57c
1015	.15	24c	11P5	1.5	78c
1022	.22	27c	12	2.0	96c
1025	.25	30c			

200 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
211	.01	$0.24	2022	.22	$0.36
2115	.015	.24	2025	.25	.36
212	.02	.24	2027	.27	.39
2122	.022	.24	2033	.33	.39
2133	.033	.24	204	.40	.42
214	.04	.24	2047	.47	.45
2147	.047	.24	205	.5	.45
215	.05	.24	2056	.56	.51
2156	.056	.27	2068	.68	.54
2168	.068	.27	21	1.0	.78
201	.10	.27	21P5	1.5	1.02
2015	.15	.30	22	2.0	1.26

400 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
4222	.0022	21c	415	.05	27c
423	.003	21c	4156	.056	27c
4233	.0033	21c	4168	.068	27c
424	.004	21c	401	.10	30c
4247	.0047	21c	4015	.15	36c
4256	.0056	21c	4022	.22	45c
4268	.0068	21c	4025	.25	45c
411	.01	21c	4027	.27	48c
4115	.015	21c	4033	.33	51c
412	.02	21c	404	.40	57c
4122	.022	21c	4047	.47	60c
4133	.033	24c	405	.5	69c
414	.04	27c	4056	.56	78c
4147	.047	27c	4068	.68	90c

600 WVDC UNITS

Mallory No. PVC-	Cap. µf	Net Each	Mallory No. PVC-	Cap. µf	Net Each
621	.001	21c	6122	.022	24c
6212	.0012	21c	6125	.025	24c
6215	.0015	21c	613	.03	24c
622	.002	21c	6133	.033	24c
6222	.0022	21c	6139	.039	27c
6225	.0025	21c	614	.04	27c
623	.003	21c	6147	.047	27c
6233	.0033	21c	615	.05	27c
6239	.0039	21c	6156	.056	27c
624	.004	21c	616	.06	27c
6247	.0047	21c	6168	.068	30c
625	.005	21c	6175	.075	33c
6256	.0056	21c	6182	.082	33c
626	.006	21c	601	.10	36c
6268	.0068	21c	6015	.15	42c
6275	.0075	21c	602	.20	54c
628	.008	21c	6022	.22	57c
611	.01	21c	6025	.25	47c
6112	.012	21c	6027	.27	60c
6115	.015	21c	6033	.33	69c
612	.02	24c	6047	.47	81c

P. R. MALLORY & CO. Inc.
MALLORY

Ceramic Capacitors

RMC
0068
Z5U

For radio, TV and industrial uses in general purpose or temperature compensating applications. Heavy-duty, dual shielded, bypass, high and low voltage discs are free from failure under adverse heat, humidity and voltage overloads. Durez phenolic insulating vacuum wax.

MINIATURE 100 VOLT

Tolerance, +80%, −20%.

Cap. μf	Mallory Number	Net Each	Cap. μf	Mallory Number	Net Each
.005	TA-250*	24c	.025	TA-125†	24c
.01	TA-110*	24c	.05	TA-150‡	39c
.02	TA-120†	24c	.1	TA-010‡	57c

Dia. *11/32". †½". ‡⅝".

TYPE SM

Rated 500 WVDC. Tol., −20%, +80% except SM-210 and SM-215, GMV*.

Mallory Number	Cap., μf	Dia., In.	Net Each
SM-210	.001	¼	12c
SM-215	.0015	9/32	12c
SM-250	.005	13/32	12c
SM-110	.01	½	12c
SM-120	.02	11/16	18c

GENERAL PURPOSE

Rated 1000 WVDC except, 20K-50K values rated 600 WVDC. Tol., ±0.25 μμf, 3.3 and 5.0 μμf; ±5%, 6.8 and 8.0 μμf; ±10%, 10-2200 μμf; ±20%, 2500-40K μμf; −20%, +80%, 50K μμf.

Mall. No. GP-	Cap., μμf	Net Ea.	Mall. No. GP-	Cap., μμf	Net Ea.
533*	3.3	15c	336*	360	15c
550*	5.0	15c	339*	390	15c
568*	6.8	15c	340*	400	15c
580*	8.0	15c	347*	470	15c
410*	10	15c	350*	500	15c
412*	12	15c	356*	560	15c
415*	15	15c	360*	600	15c
418*	18	15c	368*	680	15c
420*	20	15c	375†	750	15c
422*	22	15c	382†	820	15c
425*	25	15c	210†	1000	15c
427*	27	15c	212‡	1200	15c
430*	30	15c	215‡	1500	15c
433*	33	15c	216‡	1600	15c
439*	39	15c	218‡	1800	15c
447*	47	15c	220‡	2000	15c
450*	50	15c	222‡	2200	15c
456†	56	15c	225‡	2500	15c
468†	68	15c	227‡	2700	15c
475†	75	15c	230‡	3000	15c
482†	82	15c	233‡	3300	15c
491†	91	15c	239‡	3900	15c
310†	100	15c	240‡	4000	15c
312†	120	15c	243‡	4300	15c
313†	130	15c	247‡	4700	15c
315*	150	15c	250‡	5000	18c
318*	180	15c	256#	5600	18c
320*	200	15c	268#	6800	18c
322*	220	15c	275#	7500	18c
324*	240	15c	110#	10K	18c
325*	250	15c	115#	15K	18c
327*	270	15c	120•	20K	18c
330*	300	15c	130•	30K	36c
333*	330	15c	140•	40K	39c
335*	350	15c	150•	50K	42c

Dia.: *¼". †5/16". ‡½". #⅝". •15/16".

AC LINE AND BUFFER

Rated 1400 WVDC. Tol., GMV*.

Mall. No. UAC-	Cap., μμf	Net. Ea.	Mall. No. UAC-	Cap., μμf	Net Ea.
210*	.001	21c	260‡	.006	21c
220†	.002	21c	270‡	.007	21c
222†	.0022	21c	275‡	.0075	21c
230†	.003	21c	280‡	.008	21c
233†	.0033	21c	110§	.01	21c
240†	.004	21c	120§	.02	24c
247‡	.0047	21c	2X110§	2x.01	27c
250‡	.005	21c			

Dia.: *⅜". †9/16". ‡13/16". §29/32".

TEMPERATURE STABILIZING

Rated 1000 WVDC. Tolerance, ±10%. Commercial equiv. to MIL-C-11015B.

Mall. No. JL-	Cap., μμf	Net Ea.	Mall. No. JL-	Cap., μμf	Net Ea.
315†	150	30c	212#	1200	30c
322†	220	30c	215#	1500	30c
333†	330	30c	218#	1800	30c
347‡	470	30c	220•	2000	30c
356‡	560	30c	222•	2200	30c
368‡	680	30c	233■	3300	30c
375‡	750	30c	239■	3900	30c
382#	820	30c	247▲	4700	33c
210#	1000	30c	250▲	5000	33c

Dia.: †9/32". ‡23/64". #17/32". •⅝". ■47/64". ▲⅞".

RMC CERAMIC DISCAPS®

TEMPERATURE COMPENSATING

Rated 1000 WVDC. Tolerance, ±5%.

Cap., μμf	"O" Temp. Comp.		N750 Negative Temp. Comp.	
	Mall. No.	Net Ea.	Mall. No.	Net Ea.
1	CNO-510*	30c	....	......
1.5	CNO-515*	30c	....	......
2.2	CNO-522*	30c	CN7-522*	30c
3.3	CNO-533*	30c	CN7-533*	30c
4.7	CNO-547*	30c	CN7-547*	30c
5	....	......	CN7-550*	30c
6.8	CNO-568*	30c	CN7-568*	30c
10	CNO-410*	30c	CN7-410*	30c
12	CNO-412*	30c	CN7-412*	30c
15	CNO-415*	30c	CN7-415*	30c
18	CNO-418†	30c	CN7-418*	30c
20	....	......	CN7-420*	30c
22	CNO-422†	30c	CN7-422*	30c
25	CNO-425†	30c	....	......
27	CNO-427†	30c	CN7-427*	30c
33	CNO-433‡	30c	CN7-433*	30c
39	CNO-439‡	30c	CN7-439*	30c
47	CNO-447‡	30c	CN7-447*	30c
50	CNO-450‡	30c	....	......
56	CNO-456‡	30c	CN7-456*	30c
68	CNO-468‡	30c	CN7-468*	30c
75	CNO-475§	30c	CN7-475‡	30c
82	CNO-482§	30c	CN7-482‡	30c
100	CNO-310#	30c	CN7-310‡	30c
120	CNO-312•	30c	CN7-312‡	30c
150	CNO-315•	33c	CN7-315‡	30c
180	CNO-318#	33c	CN7-318§	33c
200	CNO-320#	33c	CN7-320#	33c
220	CNO-322▲	33c	CN7-322#	33c
270	CNO-327▲	33c	CN7-327•	33c
330	....	......	CN7-333•	33c

Dia.: *¼". †5/16". ‡½". §⅝". #¾". •⅞". ▲15/16".

FREQUENCY STABLE 1000 WVDC

For use in oscillators and other closely controlled circuits where it is desirable to have superior frequency and temperature stability. Tolerance, ±10%.

Cap. μμf	Mallory No. JF-	Net Each	Cap. μμf	Mallory No. JF-	Net Each
150	315*	24c	1500	215‡	24c
220	322*	24c	1800	218‡	24c
330	333*	24c	2000	220‡	24c
470	347*	24c	2200	222‡	24c
500	350*	24c	3300	233§	24c
560	356*	24c	3900	239#	24c
680	368*	24c	4700	247#	24c
750	375†	24c	5000	250#	24c
820	382†	24c	6800	268•	24c
1000	210†	24c	10K	110•	24c
1200	212‡	24c			

Dia.: *19/64". †⅜". ‡35/64". §41/64". #25/32". •59/64".

HIGH VOLTAGE

Tol., GMV* except values 100-470 μμf, ±20%. Not recommended for yoke application.

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC		3000 WVDC	
	Mall. No. 2HV-	Net Ea.	Mall. No. 3HV-	Net Ea.
100	310*	21c	....	......
120	312*	21c	....	......
150	315*	21c	....	......
220	322†	21c	322†	24c
270	327§	21c	327†	24c
330	333‡	21c	333†	24c
470	347‡	21c	347†	24c
560	356*	21c	356†	24c
680	368*	21c	368†	24c
750	375*	21c	375†	24c
820	382*	21c	382†	24c
1000	210*	33c	210†	24c
1200	212‡	33c	212§	24c
1500	215‡	33c	215§	24c
1800	218‡	33c	218§	24c
2200	222‡	33c	222§	24c
3300	233§	33c	233§	24c
3900	239§	33c	239§	24c
4700	247§	33c	247§	24c
6800	268§	42c	....	......
10K	110§	42c	....	......

6000 WVDC

Mall. No. 6HV-	Cap., μμf	Net Ea.	Mall. No. 6HV-	Cap., μμf	Net Ea.
310†	100	35c	347§	470	35c
312†	120	35c	356§	560	35c
315†	150	35c	368§	680	35c
322†	220	35c	375§	750	35c
327§	270	35c	382§	820	35c
333§	330	35c	210§	1K	35c

Dia.: *⅝". †¾". ‡9/16". §⅞".
***Guaranteed Minimum Value.**

DEFLECTION YOKE

Tolerance, ±10%.

2000 AND 3000 WVDC

Cap., μμf	2000 WVDC		3000 WVDC	
	Mall. No. 2DY-	Net Ea.	Mall. No. 3DY-	Net Ea.
4.7	547*	21c	547†	24c
6.8	568*	21c	568†	24c
10	410*	21c	410†	24c
12	412*	21c	412†	24c
15	415*	21c	415†	24c
22	422†	21c	422‡	24c
27	427†	21c	427‡	24c
33	433†	21c	433§	24c
39	439†	21c	439§	24c
47	447†	21c	447§	24c
56	456‡	21c	456§	24c
68	468‡	21c	468§	24c
82	482‡	21c	482§	24c
100	310§	21c	310§	24c

6000 WVDC

Mall. No. 6DY-	Cap., μμf	Net Ea.	Mall. No. 6DY-	Cap., μμf	Net Ea.
547#	4.7	33c	427#	27	33c
568#	6.8	33c	433•	33	33c
410#	10	33c	439•	39	33c
412#	12	33c	447•	47	33c
415#	15	33c	456•	56	33c
422#	22	33c	468•	68	33c

Dia.: *¼". †5/16". ‡½". §⅝". #¾". •⅞".

BYPASS, GENERAL PURPOSE

Heavy duty, rated 1000 WVDC. Tol., GMV* to 10K; +80%, −20%, 15K and 20K. Values to meet MIL-C-11015B available on special order.

Mall. No.	Cap., μμf	Net Ea.	Mall. No.	Cap., μμf	Net Ea.
B-315*	150	15c	B-220†	2000	15c
B-318*	180	15c	B-222†	2200	15c
B-322*	220	15c	B-227†	2700	15c
B-327*	270	15c	B-233‡	3300	15c
B-333*	330	15c	B-240‡	4000	15c
B-339*	390	15c	B-247§	4700	18c
B-347*	470	15c	B-250§	5000	18c
B-350*	500	15c	B-256§	5600	18c
B-356*	560	15c	B-260§	6000	18c
B-368*	680	15c	B-268#	6800	18c
B-382*	820	15c	B-282#	8200	18c
B-210*	1000	15c	B-110•	10K	18c
B-212*	1200	15c	B-115■	15K	18c
B-215†	1500	15c	B-120■	20K	18c
B-218†	1800	15c			

Dia.: *9/32". †⅜". ‡9/16". §19/32". #⅝". •¾". ■29/32".

SPECIAL CERAMIC CAPACITORS

UNIVERSAL HIGH VOLTAGE CERAMIC CAPACITORS

Filter high voltage power supplies in TV sets, etc. Hi-voltage, high insulation resistant ceramic. Four universal screw-in terminals. Capacity, 500 μμf. Tol., −20%, +50%.

Mallory Number	WV DC	Flash Volts	Size, In. H. x Dia.	Net Ea.
HV20035U	20K	30K	1.068x.950"	$1.11
HV30035U	30K	40K	1.381x1.375"	1.80

CERAMIC TRIMMERS

Small and stable for high frequency FM and TV uses. Fired silver electrodes; ceramic rotator and base. Sealed against dust. Solder lug terminals. Two-hole screw mounting. Single or dual units available. Constant capacity change on 360° rotator. Size: 21/32" x 37/32" x ⅜", single units. Rated 600 v. DC.

Mallory Number	Cap. Range μμf	Temp. Coef.	Net Each
ST-5515-Z	1.5 to 7	Zero	$1.05
ST-553-Z	3 to 12	Zero	.90
ST-554-N	4 to 30	Neg. 500*	1.05
ST-557-N	7 to 45	Neg. 500*	1.05

*Parts/Million/°C.

FEED-THRU CAPACITORS

For TV bypass. Wire terminals as tie points. Body solders to chassis or mounted by hex nut. **Type CT:** Silvered steatite trimmer. **Type FC:** Feed-thru for bypassing RF. Wire terminals.

Mallory Number	Cap., μf	WV DC	Size, In.	Net Ea.
CT565*	.5 to 3	500	7/32x½	30c
CT551*	1 to 4	500	7/32x½	30c
CT552*	2 to 6	500	7/32x⅝	30c
CT250A†	1000	600	7/64x¾	30c
CT254A†	1000	600	17/64x13/16	30c
CT280A†	1000	600	3/16x15/16	45c
CT282A‡	1000	600	7/32x1 1/32	60c
FC5215‡	1500	500	7/32x¾	60c

Tol.: *±0.5 μμf. †GMV*. ‡±20%.

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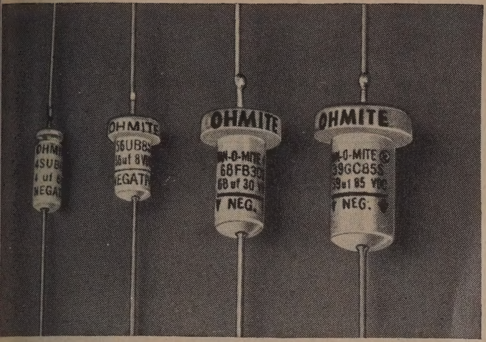
TANTALUM SLUG CAPACITORS — TAN-O-MITE® SERIES TS



1½″ Leads	1½″ Leads	2¼″ Leads	2¼″ Leads
om'l Size SU,	Com'l Size U,	Com'l Size F,	Com'l Size G,
MIL Size T1	MIL Size T1	MIL Size T2	MIL Size T3

e "slug" type of tantalum capacitor utilizes a porous ode of sintered tantalum; with axial leads. Intended for lar applications, these capacitors offer the best charac-ristics of all the types described on these pages. They ceed the vibration test of MIL-C-3965B, Grade 3, thereby eting the requirements of Grades 1 and 2 as well.

Available from stock in two physical types—the "hat-aped" type, 3 sizes (U,F,G) and the "straight-cylindrical" pe, 1 size (SU) which, while smaller than size U, has the ne range of capacitance and voltage. Hat-shape types offered in two operating temperature ranges, −55°C to 5°C and −55°C to +125°C. Tolerances are shown in footnote under price tables. All tolerances are not supplied on all stock capacitors — see footnotes under stock table. Units designed to meet MIL-C-3965B, are also stocked. Units insulated with plastic sleeve are available at slight extra cost. Stock listings below and on next page.

COMMERCIAL SLUG CAPACITORS 1-24 QTY. NET PRICES

HAT-SHAPE — UNINSULATED*

Case Size	Dimensions* Dia.	Dimensions* Lgth.	85°C Tolerance† S or M	85°C Tolerance† K	125°C Tolerance† S or M	125°C Tolerance† K
U	5/16	15/32	$2.94	$3.23	$4.12	$4.53
F	15/32	11/16	6.37	7.01	8.92	9.81
G	37/64	49/64	7.74	8.51	10.84	11.92
STRAIGHT-CYLINDRICAL SHAPE — UNINSULATED*						
SU	3/16	15/32	$2.94	3.23	—	—

*For plastic insulating sleeve (.015″ wall thickness) add 10c each for case sizes U, F, G; add 5c for size SU.

†Tolerances—S = −15+20%; K = ±10%; M = ±20%. K and M tolerances only furnished on high capacitance units — see ‡, stock table below and on next page.

MIL-C-3965B SLUG CAPACITORS 1-24 QTY. NET PRICES

MIL STYLE CL44 — UNINSULATED*

Case Size	Dimensions* Dia.	Dimensions* Lgth.	85°C Tolerance† T	85°C Tolerance† S or M	125°C Tolerance† T	125°C Tolerance† S or M
T1	5/16	15/32	$4.14	$4.56	$5.43	$5.97
T2	15/32	11/16	8.40	9.24	10.94	12.04
T3	37/64	49/64	10.20	11.22	13.30	14.63
MIL STYLE CL64 — UNINSULATED*						
T1	3/16	15/32	$4.14	$4.56	—	—

*For plastic insulating sleeve (.015″ wall thickness)—MIL styles CL45, CL65—add 10c each.

†Tolerances—T = −15+50%; S = −15±20%; M = ±20%. M tolerance only furnished on high capacitance units—see ‡, stock table below and on next page.

HAT-SHAPE SLUG CAPACITORS — CASE SIZES U, F, G — MIL STYLES CL44, CL45 — CASE SIZES T1, T2, T3

Mfd.	D.C. Volts		Commercial		MIL-C-3965B	
	85°C	125°C	Case Size	Stock No. (Incomplete†)	Case Size	Type Designation (Incomplete*)
30	6		U	30UB6__	T1	CL4__BB300__P3
30	6	4	U	30UC4__	T1	CL4__CB300__P3
68‡	6		U	68UB6__	T1	CL4__BB680MP3
68‡	6	4	U	68UC4__		
140	6		F	140FB6__	T2	CL4__BB141__P3
140	6	4	F	140FC4__	T2	CL4__CB141__P3
270‡	6		F	270FB6__	T2	CL4__BB271MP3
270‡	6	4	F	270FC4__		
330	6		G	330GB6__	T3	CL4__BB331__P3
330	6	4	G	330GC4__	T3	CL4__CB331__P3
560‡	6		G	560GB6__	T3	CL4__BB561MP3
560‡	6	4	G	560GC4__		
25	8		U	25UB8__	T1	CL4__BC250__P3
25	8	5	U	25UC5__	T1	CL4__CC250__P3
56‡	8		U	56UB8__	T1	CL4__BC560MP3
56‡	8	5	U	56UC5__		
20‡	8		F	220FB8__	T2	CL4__BC221MP3
20‡	8	5	F	220FC5__		
30‡	8		G	430GB8__	T3	CL4__BC431MP3
30‡	8	5	G	430GC5__		
20	10		U	20UB10__	T1	CL4__BD200__P3
20	10	7	U	20UC7__	T1	CL4__CD200__P3
47‡	10		U	47UB10__	T1	CL4__BD470MP3
47‡	10	7	U	47UC7__		
00	10		F	100FB10__	T2	CL4__BD101__P3
00	10	7	F	100FC7__	T2	CL4__CD101__P3
80‡	10		F	180FB10__	T2	CL4__BD181MP3
80‡	10	7	F	180FC7__		
50	10		G	250GB10__	T3	CL4__BD251__P3
50	10	7	G	250GC7__	T3	CL4__CD251__P3
90‡	10		G	390GB10__	T3	CL4__BD391MP3
90‡	10	7	G	390GC7__		
15	15		U	15UB15__	T1	CL4__BE150__P3
15	15	10	U	15UC10__	T1	CL4__CE150__P3
33‡	15		U	33UB15__	T1	CL4__BE330MP3
33‡	15	10	U	33UC10__		
70	15		F	70FB15__	T2	CL4__BE700__P3
70	15	10	F	70FC10__	T2	CL4__CE700__P3
120‡	15		F	120FB15__	T2	CL4__BE121MP3
120‡	15	10	F	120FC10__		
170	15		G	170GB15__	T3	CL4__BE171__P3
170	15	10	G	170GC10__	T3	CL4__CE171__P3
270‡	15		G	270GB15__	T3	CL4__BE271MP3
270‡	15	10	G	270GC10__		
10	25		U	10UB25__	T1	CL4__BG100__P3
10	25	17	U	10UC17__	T1	CL4__CG100__P3
22‡	25		U	22UB25__	T1	CL4__BG220MP3
22‡	25	17	U	22UC17__		
100‡	25		F	100FB25__	T2	CL4__BG101MP3
100‡	25	17	F	100FC17__		
180‡	25		G	180GB25__	T3	CL4__BG181MP3
180‡	25	17	G	180GC17__		
8	30		U	8UB30__	T1	CL4__BH080__P3
8	30	20	U	8UC20__	T1	CL4__CH080__P3
15‡	30		U	15UB30__	T1	CL4__BH150MP3
15‡	30	20	U	15UC20__		
40	30		F	40FB30__	T2	CL4__BH400__P3
40	30	20	F	40FC20__	T2	CL4__CH400__P3
68‡	30		F	68FB30__	T2	CL4__BH680MP3
68‡	30	20	F	68FC20__		
100	30		G	100GB30__	T3	CL4__BH101__P3
100	30	20	G	100GC20__	T3	CL4__CH101__P3
150‡	30		G	150GB30__	T3	CL4__BH151MP3
150‡	30	20	G	150GC20__		

Continued Next Page

mplete stock no. as follows: Add K, S or M to indicate tolerance ext on high -capacitance‡ units for which use only K or M. Add "A" er tolerance letter if insulating sleeve is desired.

mplete type designation as follows: For uninsulated insert "4" after L4__" or "CL6__" for insulated insert "5" instead. Insert S, T or M before "__P" to indicate tolerance, except for high-capacitance units which are supplied only in M tolerance.

‡High-capacitance units.

Tolerances: K = ±10%; S = −15+20%; M = ±20%; T = −15+50%.

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TANTALUM SLUG AND WIRE CAPACITORS

HAT-SHAPE CONTINUED

Mfd.	D.C. Volts 85°C	D.C. Volts 125°C	Commercial Case Size	Commercial Stock No. (Incomplete†)	MIL-C-3965B Case Size	MIL-C-3965B Type Designation (Incomplete*)
5	50		U	5UB50_	T1	CL4_BJ050_P3
5	50	33	U	5UC33_	T1	CL4_CJ050_P3
10‡	50		U	10UB50_	T1	CL4_BJ100MP3
10‡	50	33	U	10UC33_		
25	50		F	25FB50_	T2	CL4_BJ250_P3
25	50	33	F	25FC33_	T2	CL4_CJ250_P3
47‡	50		F	47FB50_	T2	CL4_BJ470MP3
47‡	50	33	F	47FC33_		
60	50		G	60GB50_	T3	CL4_BJ600_P3
60	50	33	G	60GC33_	T3	CL4_CJ600_P3
82‡	50		G	82GB50_	T3	CL4_BJ820MP3
82‡	50	33	G	82GC33_		
4	60		U	4UB60_	T1	CL4_BK040_P3
4	60	40	U	4UC40_	T1	CL4_CK040_P3
8.2‡	60		U	8R2UB60_	T1	CL4_BK8R2MP3
8.2‡	60	40	U	8R2UC40_		
20	60		F	20FB60_	T2	CL4_BK200_P3
20	60	40	F	20FC40_	T2	CL4_CK200_P3
39‡	60		F	39FB60_	T2	CL4_BK390MP3
39‡	60	40	F	39FC40_		
50	60		G	50GB60_	T3	CL4_BK500_P3
50	60	40	G	50GC40_	T3	CL4_CK500_P3
68‡	60		G	68GB60_	T3	CL4_BK680MP3
68‡	60	40	G	68GC40_		
3.5	75		U	3R5UB75_	T1	CL4_BL3R5_P3
3.5	75	50	U	3R5UC50_	T1	CL4_CL3R5_P3
6.8‡	75		U	6R8UB75_	T1	CL4_BL6R8MP3
6.8‡	75	50	U	6R8UC50_		
15	75		F	15FB75_	T2	CL4_BL150_P3
15	75	50	F	15FC50_	T2	CL4_CL150_P3
33‡	75		F	33FB75_	T2	CL4_BL330MP3
33‡	75	50	F	33FC50_		

Mfd.	D.C. Volts 85°C	D.C. Volts 125°C	Commercial Case Size	Commercial Stock No. (Incomplete†)	MIL-C-3965B Case Size	MIL-C-3965B Type Designati (Incomplete*
40	75		G	40GB75_	T3	CL4_BL400_P
40	75	50	G	40GC50_	T3	CL4_CL400_P
56‡	75		G	56GB75_	T3	CL4_BL560MP
56‡	75	50	G	56GC50_		
2.5	100		U	2R5UB100_	T1	CL4_BN2R5_
2.5	100	70	U	2R5UC70_	T1	CL4_CN2R5_
4.7‡	100		U	4R7UB100_	T1	CL4_BN4R7M
4.7‡	100	70	U	4R7UC70_		
11	100		F	11FB100_	T2	CL4_BN110_P
11	100	70	F	11FC70_	T2	CL4_CN110_P
22‡	100		F	22FB100_	T2	CL4_BN220MP
22‡	100	70	F	22FC70_		
30	100		G	30GB100_	T3	CL4_BN300_P
30	100	70	G	30GC70_	T3	CL4_CN300_P
43‡	100		G	43GB100_	T3	CL4_BN430MP
43‡	100	70	G	43GC70_		
1.7	125		U	1R7UB125_	T1	CL4_BP1R7_P
1.7	125	85	U	1R7UC85_	T1	CL4_CP1R7_P
3.6‡	125		U	3R6UB125_		
3.6‡	125	85	U	3R6UC85_		
9	125		F	9FB125_	T2	CL4_BP090_P
9	125	85	F	9FC85_	T2	CL4_CP090_P
22‡	125		F	22FB125_		
22‡	125	85	F	22FC85_		
25	125		G	25GB125_	T3	CL4_BP250_P
25	125	85	G	25GC85_	T3	CL4_CP250_P
39‡	125		G	39GB125_		
39‡	125	85	G	39GC85_		

STRAIGHT-CYLINDRICAL CAPACITORS — CASE SIZE SU
MIL STYLES CL64, CL65 — CASE SIZE T1

Mfd.	D.C. Volts 85°C	Commercial Case SU Stock No. (Incomplete†)	MIL-C-3965B Case T1 Type Designation (Incomplete*)
30	6	30SUB6_	CL6_BB300_P3
68‡	6	68SUB6_	CL6_BB680MP3
25	8	25SUB8_	CL6_BC250_P3
56‡	8	56SUB8_	CL6_BC560MP3
20	10	20SUB10_	CL6_BD200_P3
47‡	10	47SUB10_	CL6_BD470MP3
15	15	15SUB15_	CL6_BE150_P3
33‡	15	33SUB15_	CL6_BE330MP3
10	25	10SUB25_	CL6_BG100_P3
22‡	25	22SUB25_	CL6_BG220MP3
8	30	8SUB30_	CL6_BH080_P3
15‡	30	15SUB30_	CL6_BH150MP3

Mfd.	D.C. Volts 85°C	Commercial Case SU Stock No. (Incomplete†)	MIL-C-3965B Case T1 Type Designation (Incomplete*)
5	50	5SUB50_	CL6_BJ050_P3
10‡	50	10SUB50_	CL6_BJ100MP3
4	60	4SUB60_	CL6_BK040_P3
8.2‡	60	8R2SUB60_	CL6_BK8R2MP3
3.5	75	3R5SUB75_	CL6_BL3R5_P3
6.8‡	75	6R8SUB75_	CL6_BL6R8MP3
2.5	100	2R5SUB100_	CL6_BN2R5_P3
4.7‡	100	4R7SUB100_	CL6_BN4R7MP3
1.7	125	1R7SUB125_	CL6_BP1R7_P3
3.6‡	125	3R6SUB125_	

FOOTNOTES FOR SLUG CAPACITOR TABLES

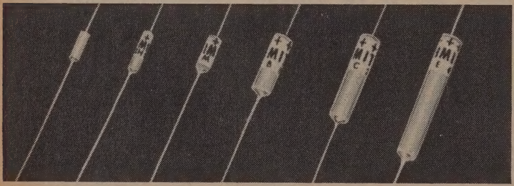
†Complete stock no. as follows: Add K, S or to indicate tolerance except on high-capa tance‡ units for which use only K or M. A "A" after tolerance letter if insulating sle is desired.

*Complete type designation as follows: For insulated insert "4" after "CL4_" or "CL6 for insulated insert "5" instead. Insert S, T M before "_P" to indicate tolerance, exc for high-capacitance units which are suppl only in M tolerance.

‡High-capacitance units.

Tolerances: K = ±10%; S= −15+20%; M = ±20%; T = −15+50%.

TANTALUM WIRE CAPACITORS — SERIES TW



Size	Dia.	Lgth.
TK	.060	.150
TJ	.060	.190
HK	.075	.150
HJ	.075	.190
S	.080	.234

Size	Dia.	Lgth.
M	.100	.218
B	.134	.375
C	.134	.562
E	.134	.812

Smallest subminiature electrolytic capacitors available. The anode is specially processed tantalum wire sealed into a silver case. Axial leads are 2" long. Units are insulated with Mylar plastic sleeve. These polar type units are used in DC circuits where capacitance can exceed nominal circuit values (standard tolerance, −0 + 100%). Wide use in hearing aids and other subminiature apparatus. Operating temperature range: −55°C to +85°C. Nine of thirte available case sizes stocked.

Mfd.	DCWV	Stock No.*	Net 1-24
0.1	20	R1TJ20	**$1.65**
	60	R1M60	**1.65**
0.2	20	R2TK20	**1.65**
	150	R2E150	**3.44**
0.5	10	R5TK10	**1.65**
	16	R5TJ16	**1.65**
	20	R5S20	**1.65**
	80	R5B80	**2.19**
1.0	4	1TK4	**1.65**
	8	1HK8	**1.65**
	10	1HJ10	**1.65**
	20	1M20	**1.65**
	60	1B60	**2.19**
	80	1C80	**2.56**
2	1.25	2TK1R25	**1.65**
	4	2HJ4	**1.65**
	8	2S8	**1.65**
	40	2B40	**2.19**
3	1.25	3HK1R25	**1.65**
	80	3E80	**3.44**
	4	3HJ4	**1.65**

Mfd.	DCWV	Stock No.*	N 1-
4	3	4HJ3	**$1.**
	4	4S4	**1.**
	20	4B20	**1.**
5	30	5C30	**2.**
	60	5E60	**3.**
6	1.25	6HJ1R25	**1.**
8	1.25	8S1R25	**1.**
	4	8M4	**1.**
10	8	10B8	**1.**
	16	10C16	**1.**
	30	10E30	**3.**
15	1.25	15M1R25	**1.**
20	2	20B2	**1.**
25	6	25C6	**1.**
30	10	30E10	**2.**
50	2	50C2	**1.**
60	4	60E4	**2.**
75	2	75E2	**2.**

*MIDDLE LETTERS IN STOCK NO. INDICATE PHYSICAL SIZE

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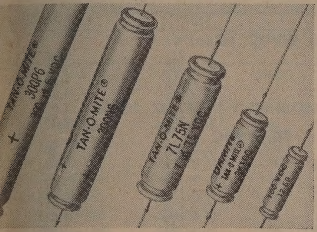
TAN-O-MITE® SERIES TF TANTALUM FOIL CAPACITORS

r & Non-Polar Electrolytic — Plain & Etched
MIL & Commercial — 55°C to +85°C

plain or etched foil. Polar units will stand reversals up to 3.75 VDC. Temture range −55°C to +85°C. Capace tolerance plain foil ±20%; etched less than 50 volts, −15 +75%; 50-volts, −15 +50%; 100-150 volts, +30%. Considerably better leakage power factor than wire type units. Meets -C-3965B, Styles CL24, 25, 34, 35, also vibration Grade 3 which covers Grades 2. Also available with plastic insulating e .007″ wall thickness, 1½″ leads.



PRICES, DIMENSIONS

Case Size 'l.	MIL Styles CL34*,-24*	Uninsulated* Dia.	Uninsulated* Lgth.	Net 1-24 Qty. Plain Foil	Net 1-24 Qty. Etched Foil
	C1	3/16″	11/16″	$ 4.81	$ 4.81
	C2	9/32″	7/8″	7.33	8.06
	C3	3/8″	1 7/16″	11.60	13.92
	C4	3/8″	2 1/8″	16.24	22.74
	C5	3/8″	2 3/4″	21.74	30.44

lastic insulating sleeve (.007″ wall thickness)—MIL CL35, CL25—add 10c extra.

STOCK—PLAIN FOIL

UNINSULATED‡

	Commercial		MIL-C-3965B	
Mfd.	Case	Stock No.‡	Case	Type Designation‡
10*	J	10J3	C1	CL34BA100MP3
50*	K	50K3	C2	CL34BA500MP3
10	J	10J3R75N†		
45	K	45K3R75N†		
140	L	140L3R75N†		
280	N	280N3R75N†		
400	P	400P3R75N†		
8	J	8J6	C1	CL34BB080MP3
30	K	30K6	C2	CL34BB300MP3
35	K	35K6		
100	L	100L6	C3	CL34BB101MP3
200	N	200N6	C4	CL34BB201MP3
300	P	300P6	C5	CL34BB301MP3
7	J	7J6N†		
25	K	25K6N†		
85	L	85L6N†		
175	N	175N6N†		
250	P	250P6N†		
6	J	6J10	C1	CL34BD060MP3
25	K	25K10	C2	CL34BD250MP3
80	L	80L10	C3	CL34BD800MP3
160	N	160N10	C4	CL34BD161MP3
220	P	220P10	C5	CL34BD221MP3
4	J	4J10N†		
16	K	16K10N†		
55	L	55L10N†		
110	N	110N10N†		
150	P	150P10N†		

Continued next column

NOTES FOR FOIL STOCK TABLES

polar units. Non-polar units may be used as units.

nsulating sleeve add "S" to commercial stock er; on MIL designations, change "CL24" to ," or, "CL34" to "CL35."

rdless of polarity indicated, these low voltage can be used as either polar or non-polar units.

STOCK—PLAIN FOIL (cont.)

UNINSULATED‡

DC Volts		Commercial		MIL-C-3965B	
	Mfd.	Case	Stock No.‡	Case	Type Designation‡
15	4.5	J	4R5J15	C1	CL34BE4R5MP3
	10	K	10K15	C2	CL34BE100MP3
	18	K	18K15	C2	CL34BE180MP3
	55	L	55L15	C3	CL34BE550MP3
	110	N	110N15	C4	CL34BE111MP3
	160	P	160P15	C5	CL34BE161MP3
	2.5	J	2R5J15N†		
	10	K	10K15N†		
	35	L	35L15N†		
	70	N	70N15N†		
	100	P	100P15N†		
25	3	J	3J25		
	12	K	12K25		
	35	L	35L25		
	70	N	70N25		
	100	P	100P25		
	1.5	J	1R5J25N†		
	6	K	6K25N†		
	20	L	20L25N†		
	40	N	40N25N†		
	60	P	60P25N†		
30	2.5	J	2R5J30	C1	CL34BH2R5MP3
	10	K	10K30		
	30	L	30L30	C3	CL34BH300MP3
	60	N	60N30	C4	CL34BH600MP3
	85	P	85P30	C5	CL34BH850MP3
	1.4	J	1R4J30N†		
	5.5	K	5R5K30N†		
	18	L	18L30N†		
	36	N	36N30N†		
	45	P	45P30N†		
50	1.5	J	1R5J50	C1	CL34BJ1R5MP3
	6	K	6K50	C2	CL34BJ060MP3
	20	L	20L50	C3	CL34BJ200MP3
	40	N	40N50	C4	CL34BJ400MP3
	55	P	55P50	C5	CL34BJ550MP3
	0.8	J	R8J50N†		
	3	K	3K50N†		
	10	L	10L50N†		
	20	N	20N50N†		
	30	P	30P50N†		
60	1.25	J	1R25J60		
	5	K	5K60		
	17	L	17L60		
	34	N	34N60		
	48	P	48P60		
	0.6	J	R6J60N†		
	2.5	K	2R5K60N†		
	8.5	L	8R5L60N†		
	17	N	17N60N†		
	24	P	24P60N†		
75	1	J	1J75	C1	CL34BL010MP3
	4	K	4K75	C2	CL34BL040MP3
	14	L	14L75	C3	CL34BL140MP3
	28	N	28N75	C4	CL34BL280MP3
	40	P	40P75	C5	CL34BL400MP3
	0.5	J	R5J75N†		
	2	K	2K75N†		
	7	L	7L75N†		
	14	N	14N75N†		
	20	P	20P75N†		
100	0.8	J	R8J100	C1	CL34BN0R8MP3
	3	K	3K100	C2	CL34BN030MP3
	10	L	10L100	C3	CL34BN100MP3
	20	N	20N100	C4	CL34BN200MP3
	30	P	30P100	C5	CL34BN300MP3
	0.4	J	R4J100N†		
	1.5	K	1R5K100N†		
	5	L	5L100N†		
	10	N	10N100N†		
	15	P	15P100N†		
150	0.5	J	R5J150	C1	CL34BQ0R5MP3
	2	K	2K150	C2	CL34BQ020MP3
	4	L	4L150	C3	CL34BQ040MP3
	7	L	7L150	C3	CL34BQ070MP3
	8	N	8N150	C4	CL34BQ080MP3
	12	N	12N150	C4	CL34BQ120MP3
	14	N	14N150	C4	CL34BQ140MP3
	20	P	20P150	C5	CL34BQ200MP3
	0.25	J	R25J150N†		
	1	K	1K150N†		
	3.5	L	3R5L150N†		
	7	N	7N150N†		
	10	P	10P150N†		

STOCK—ETCHED FOIL

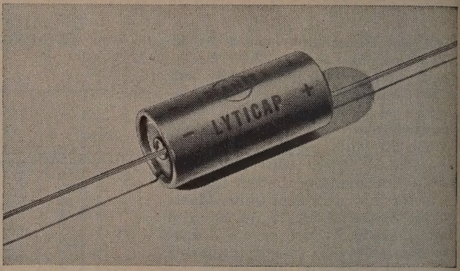
UNINSULATED‡

DC Volts		Commercial		MIL-C-3965B	
	Mfd.	Case	Stock No.‡	Case	Type Designation‡
15	15	J	15JE15	C1	CL24BE150UP3
	60	K	60KE15	C2	CL24BE600UP3
	200	L	200LE15	C3	CL24BE201UP3
	400	N	400NE15	C4	CL24BE401UP3
	580	P	580PE15	C5	CL24BE581UP3
	10	J	10JE15N†		
	40	K	40KE15N†		
	120	L	120LE15N†		
	125	L	125LE15N†		
	250	N	250NE15N†		
	350	P	350PE15N†		
25	10	J	10JE25	C1	CL24BG100UP3
	40	K	40KE25	C2	CL24BG400UP3
	120	L	120LE25	C3	CL24BG121UP3
	125	L	125LE25		
	250	N	250NE25	C4	CL24BG251UP3
	350	P	350PE25	C5	CL24BG351UP3
	5	J	5JE25N†		
	20	K	20KE25N†		
	70	L	70LE25N†		
	140	N	140NE25N†		
	200	P	200PE25N†		
30	8	J	8JE30	C1	CL24BH080UP3
	32	K	32KE30	C2	CL24BH320UP3
	110	L	110LE30	C3	CL24BH111UP3
	220	N	220NE30	C4	CL24BH221UP3
	300	P	300PE30	C5	CL24BH301UP3
	4.5	J	4R5JE30N†		
	18	K	18KE30N†		
	60	L	60LE30N†		
	120	N	120NE30N†		
	170	P	170PE30N†		
50	4.5	J	4R5JE50	C1	CL24BJ4R5UP3
	18	K	18KE50	C2	CL24BJ180UP3
	60	L	60LE50	C3	CL24BJ600UP3
	100	N	100NE50	C4	CL24BJ101UP3
	150	P	150PE50	C5	CL24BJ151UP3
	2.5	J	2R5JE50N†		
	10	K	10KE50N†		
	30	L	30LE50N†		
	60	N	60NE50N†		
	80	P	80PE50N†		
60	4	J	4JE60		
	15	K	15KE60		
	50	L	50LE60		
	88	N	88NE60		
	125	P	125PE60		
	2	J	2JE60N†		
	7.5	K	7R5KE60N†		
	25	L	25LE60N†		
	50	N	50NE60N†		
	67	P	67PE60N†		
75	3	J	3JE75	C1	CL24BL030UP3
	12	K	12KE75	C2	CL24BL120UP3
	30	L	30LE75	C3	CL24BL300UP3
	70	N	70NE75	C4	CL24BL700UP3
	100	P	100PE75	C5	CL24BL101UP3
	1.5	J	1R5JE75N†		
	6	K	6KE75N†		
	15	L	15LE75N†		
	35	N	35NE75N†		
	50	P	50PE75N†		
100	2	J	2JE100	C1	CL24BN020UP3
	8	K	8KE100	C2	CL24BN080UP3
	25	L	25LE100	C3	CL24BN250UP3
	50	N	50NE100	C4	CL24BN500UP3
	70	P	70PE100	C5	CL24BN700UP3
	1	J	1JE100N†		
	4	K	4KE100N†		
	12	L	12LE100N†		
	25	N	25NE100N†		
	35	P	35PE100N†		
150	1	J	1JE150	C1	CL24BQ010UP3
	4	K	4KE150	C2	CL24BQ040UP3
	13	L	13LE150	C3	CL24BQ130UP3
	25	N	25NE150	C4	CL24BQ250UP3
	36	P	36PE150	C5	CL24BQ360UP3
	0.5	J	R5JE150N†		
	2	K	2KE150N†		
	6	L	6LE150N†		
	12	N	12NE150N†		
	18	P	18PE150N†		

PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY

Universal Replacement Type Capacitors
"LYTICAP"
Single Section Electrolytics — Type "L"

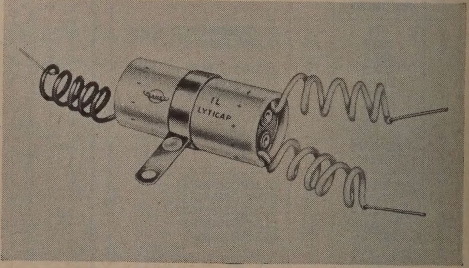
Hermetically sealed in aluminum tubes, covered with red Kraftboard insulating jackets — tinned brass leads, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		500 WVDC	
L-5-500	5	3/4 x 1 5/8	**$1.25**
L-10-500	10	7/8 x 2 1/16	**1.35**
L-20-500	20	1 x 2 3/8	**1.60**
L-30-500	30	1 x 2 11/16	**1.75**
		450 WVDC	
L-2-450	2	5/8 x 1 1/8	**1.10**
L-4-450	4	5/8 x 1 5/8	**1.15**
L-8-450	8	3/4 x 1 5/8	**1.25**
L-10-450	10	3/4 x 1 5/8	**1.30**
L-12-450	12	7/8 x 1 5/8	**1.35**
L-16-450	16	7/8 x 2 1/16	**1.40**
L-20-450	20	1 x 2 1/16	**1.55**
L-30-450	30	1 x 2 3/8	**1.70**
L-40-450	40	1 x 2 11/16	**1.80**
L-50-450	50	1 1/4 x 2 11/16	**2.10**
L-60-450	60	1 1/4 x 2 11/16	**2.40**
L-80-450	80	1 3/8 x 2 11/16	**2.80**
L-100-450	100	1 3/8 x 2 11/16	**3.20**
		350 WVDC	
L-8-350	8	5/8 x 1 5/8	**1.20**
L-16-350	16	7/8 x 1 5/8	**1.40**
L-20-350	20	7/8 x 1 5/8	**1.45**
L-30-350	30	7/8 x 2 1/16	**1.65**
L-40-350	40	1 x 2 1/16	**1.75**
		250 WVDC	
L-5-250	5	5/8 x 1 5/8	**1.00**
L-10-250	10	5/8 x 1 5/8	**1.20**
L-20-250	20	3/4 x 1 5/8	**1.35**
L-24-250	24	3/4 x 1 5/8	**1.35**
L-30-250	30	3/4 x 1 5/8	**1.45**
L-40-250	40	7/8 x 1 3/4	**1.55**
		150 WVDC	
L-5-150	5	5/8 x 1 1/8	**$1.00**
L-8-150	8	1/2 x 1 5/8	**1.05**
L-10-150	10	1/2 x 1 5/8	**1.05**
L-16-150	16	5/8 x 1 5/8	**1.15**
L-20-150	20	5/8 x 1 5/8	**1.20**
L-30-150	30	3/4 x 1 5/8	**1.30**
L-40-150	40	3/4 x 1 5/8	**1.35**
		150 WVDC (Cont'd)	
L-50-150	50	3/4 x 2 1/16	**1.40**
L-60-150	60	3/4 x 2 1/16	**1.50**
L-80-150	80	7/8 x 2 1/16	**1.60**
L-100-150	100	7/8 x 2 3/8	**1.75**
L-150-150	150	1 x 2 11/16	**1.90**
L-200-150	200	1 1/16 x 3 15/16	**2.20**
		50 WVDC	
L-1-50	1	1/2 x 1 1/8	**.90**
L-2-50	2	1/2 x 1 1/8	**.90**
L-3-50	3	1/2 x 1 1/8	**.90**
L-5-50	5	1/2 x 1 1/8	**1.00**
L-10-50	10	1/2 x 1 1/8	**1.00**
L-25-50	25	1/2 x 1 5/8	**1.05**
L-50-50	50	5/8 x 1 5/8	**1.20**
L-100-50	100	3/4 x 1 5/8	**1.40**
L-150-50	150	7/8 x 1 5/8	**1.55**
L-250-50	250	1 x 2 1/16	**1.75**
L-500-50	500	1 x 3	**2.75**
		25 WVDC	
L-10-25	10	1/2 x 1 1/8	**1.00**
L-25-25	25	1/2 x 1 5/8	**1.00**
L-50-25	50	5/8 x 1 5/8	**1.10**
L-100-25	100	5/8 x 1 5/8	**1.35**
L-250-25	250	7/8 x 2 1/16	**1.70**
L-500-25	500	1 x 2 3/8	**2.30**
		15 WVDC	
L-1000-15	1000	1 x 3	**2.30**
		12 WVDC	
L-100-12	100	5/8 x 1 9/16	**1.20**
L-250-12	250	3/4 x 2 1/16	**1.45**
L-500-12	500	7/8 x 2 3/8	**1.70**
		6 WVDC	
L-500-6	500	3/4 x 1 5/8	**1.55**
L-1000-6	1000	7/8 x 2 1/16	**1.90**
L-1500-6	1500	7/8 x 2 3/8	**2.10**
L-2000-6	2000	1 x 2 3/8	**2.30**
		3 WVDC	
L-500-3	500	5/8 x 1 5/8	**1.55**
L-1000-3	1000	7/8 x 2 1/16	**1.80**
L-1500-3	1500	7/8 x 2 1/16	**2.10**
L-2000-3	2000	1 x 2 3/8	**2.30**

Dual Section Electrolytics — Type "IL"

Hermetically sealed in aluminum tubes with completely flexible leads. U/L Approved, plastic coated leads are rivetted directly to the condenser end disc, eliminating the use of rigid terminal risers, allowing capacitor to fit into smaller space and eliminating lead breakage. IL capacitors have wrap around mounting strap and are common negative, guaranteed for one year.



CAT. NO.	MFD.	SIZE*	LIST PRICE
		450 WVDC	
IL-2x8-450	8+ 8	7/8 x 2 1/16	**$1.70**
IL-2x20-450	20+20	1 x 2 11/16	**2.50**
IL-2x30-450	30+30	1 1/4 x 2 11/16	**3.00**
IL-2x40-450	40+40	1 3/8 x 2 11/16	**3.40**
IL-2x50-450	50+50	1 3/8 x 2 11/16	**3.80**
		150 WVDC	
IL-2x20-150	20+20	3/4 x 1 5/8	**1.65**
IL-2x30-150	30+30	7/8 x 1 5/8	**1.80**
IL-4020-150	40+20	7/8 x 1 5/8	**1.75**
IL-2x40-150	40+40	7/8 x 2 1/16	**1.85**
IL-5030-150	50+30	7/8 x 2 1/16	**1.95**
IL-2x50-150	50+50	1 x 2 1/16	**2.10**
IL-8040-150	80+40	1 x 2 3/8	**2.25**
IL-2x120-150-SS	120+120	1 x 4 1/4	**5.20**

* Dimensions are for metal tubes. Add 1/16" to diameter and 1/8" to length for over-all dimensions over cardboard insulating tube.

All Prices Subject to Change Without Notice

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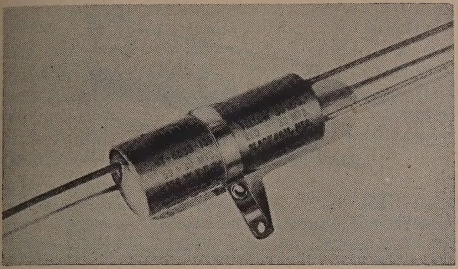
PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY



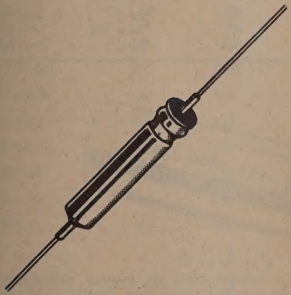
Universal Replacement Type Capacitors

Cardboard Tube Electrolytics — Type "CT"

Constructed in strong red cardboard tubes, wax impregnated — long insulated stranded leads of U/L approved wire — high temperature wax end-fill — wrap around mounting strap. Guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
DUAL UNITS — COMMON NEGATIVE				
CT-2x20-150	20+20	150	¾ x 2½	$1.65
CT-2x30-150	30+30	150	⅞ x 2½	1.80
CT-4020-150	40+20	150	⅞ x 2½	1.75
CT-2x40-150	40+40	150	1 x 2½	1.85
CT-5030-150	50+30	150	1 x 2½	1.95
CT-2x50-150	50+50	150	1 x 3	2.10
CT-8040-150	80+40	150	1 x 3¼	2.25
CTC-100+50-150	100+50	150	1 x 3⅜	2.50
CT-2x100-150	100+100	150	1⅜ x 3⅜	3.20

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TRIPLE UNITS — COMMON NEGATIVE				
CT-3x20-150	20+20+20	150	1 x 2½	$2.20
CT-302520-150	30+25+30	150	1 x 2½	2.25
CT-3x30-150	30+30+30	150	1 x 3	2.35
CT-402020-150	40+20+20	150	1 x 3	2.25
CT-403020-150	40+30+20	150	1 x 3	2.35
CT-404020-150	40+40+20	150	1 x 3	2.40
CT-3x40-150	40+40+40	150	1 x 3¼	2.45
CT-503020-150	50+30+20	150	1 x 3	2.45
CT-804020-150	80+40+20	150	1 x 3⅝	2.75
CT-302	30+20/20	150/25	1 x 2½	2.10
CT-303	40+30/20	150/25	1 x 3	2.20
CT-304	50+50/20	150/25	1 x 3¼	2.50
CT-305	50+30/20	150/25	1 x 3	2.35
CTC-306	100+50/30	150/25	1⅛ x 3½	2.85
CT-307	200+100/30	150/25	1¼ x 3¼	3.75



TRANSISTOR LYTICAPS
TYPE "TL"

Type "TL" . . . Sub-miniature aluminum foil capacitors . . . hermetically sealed in aluminum tubes . . . clear plastic outer insulating sleeves . . . all mechanical internal connections . . . no "cold weld" or "pressure" connections . . . **engineered for quality** for replacement in all transistorized circuits.

THE COMPACT REPLACEMENT LINE

Cat. No.	Mfg.	List
50 WVDC		
(Also use for 25, 15, 12, 10, 6 and 3 volts)		
TL-1-50	1	$1.30
TL-2-50	2	1.35
TL-3-50	3	1.35
TL-4-50	4	1.35
TL-5-50	5	1.45
TL-6-50	6	1.45
25 WVDC		
(Also use for 15, 12, 10, 6 and 3 volts)		
TL-8-25	8	1.45
TL-10-25	10	1.45
TL-12-25	12	1.45

Cat. No.	Mfg.	List
15 WVDC		
(Also use for 12, 10, 6 and 3 volts)		
TL-15-15	15	$1.45
TL-20-15	20	1.45
TL-25-15	25	1.45
12 WVDC		
(Also use for 10, 6 and 3 volts)		
TL-30-12	30	1.40
6 WVDC		
(Also use for 3 volts)		
TL-35-6	35	1.40
TL-40-6	40	1.40
3 WVDC		
TL-50-3	50	1.25

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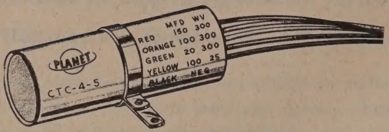
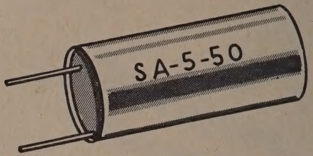
PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY



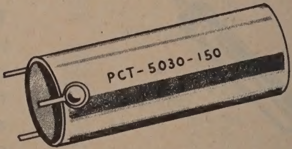
Type "CTC" . . . cardboard tube electrolytics especially designed for exact replacement in television sets . . . one end closed . . . long insulated leads out other end . . . sealed with high melting point wax . . . guaranteed for one year . . . individually packaged.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
CTC-1-5	300	150	1⅜ x 3⅞	**$2.55**
CTC-1-10	150	200	1½ x 3¾	**3.95**
CTC-1-15	200	200	1⅜ x 3⅜	**2.90**
CTC-1-20	140	300	1⅜ x 3½	**3.15**
CTC-1-25	200	300	1½ x 4	**3.95**
CTC-2-1	10/100	100/3	¾ x 1¾	**1.90**
CTC-2-5	200+5	150	1 x 3⅞	**2.65**
CTC-2-6	200+5	200	1⅜ x 3⅜	**3.55**
CTC-2-15	250+50	150	1⅜ x 3	**3.25**
CTC-2-20	80+120	200	1⅜ x 3	**3.85**
CTC-2-24	200+100	300/50	1¼ x 4½	**4.30**
CTC-2-25	150+100	300	1⅜ x 4½	**5.35**
CTC-2-30	140+5	350	1¼ x 3⅞	**4.15**
CTC-3-1	30/1000+1000	100/15	1⅜ x 3½	**3.60**
CTC-3-1.5	60+40/250	150/15	1 x 2⅞	**3.25**
CTC-3-2	60+60+60	300	1⅜ x 3½	**4.70**
CTC-3-3	250+120/50	150/25	1⅜ x 3⅞	**4.40**
CTC-3-4	250+200+10	150	1⅜ x 3⅝	**4.60**
CTC-3-5	5/80+40	450/400	1⅜ x 4⅛	**4.55**
CTC-3-7	50+30/250	150/10	1 x 2¾	**2.75**
CTC-3-22	60+60+4	350	1⅜ x 3¼	**3.85**
CTC-4-1	40+20+20/100	150/25	1⅛ x 3	**3.05**
CTC-4-5	150+100+20/100	300/25	1⅝ x 5¼	**7.65**
CTC-4-10	120+40+40/10	300/250	1⅜ x 4⅝	**6.20**
CTC-4-11	80+40/40/10	300/250/300	1⅜ x 3¼	**5.15**
CTC-4-15	140/5/200/30	350/300/200	1⅝ x 4⅜	**7.65**
CTC-4-20	80+60/40/20	350/300/150	1⅝ x 4½	**5.90**
CTC-4-21	140/5/200/100	350/300/200/150	1⅝ x 4⅜	**8.20**
CTC-4-23	40/20/20/100	350/300/250/50	1⅜ x 2⅞	**4.50**
CTC-4-24	80/40/100/10	400/300/50/400	1⅜ x 4	**5.45**
CTC-4-25	10/80/40/100	450/300/250/50	1⅜ x 4⅛	**4.80**
CTC-4-26	10/80+40/100	450/300/50	1⅜ x 4⅛	**4.95**
CTC-4-30	20/120/40/100	450/300/250/50	1½ x 4⅜	**6.15**
CTC-4-35	10/80/40+40	450/300/250	1⅜ x 4⅜	**4.95**
CTC-4-36	10/80+40+40	450/300	1⅜ x 4⅜	**5.25**
CTC-4-40	40+40+20+20	450	1½ x 4⅜	**5.45**
CTC-5-5	40+20+20+20/50	300/75	1⅜ x 3	**5.00**



Type "SA" . . . small single section electrolytics for printed circuit boards . . . hermetically sealed in aluminum tubes covered with red kraftboard insulating jackets . . . extra heavy tinned terminals anchored for proper spacing by a high melting point wax . . . for 85°C operation . . . individually packaged. Recommended for TV, radio and industrial applications . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		SINGLES		
SA-8-3	8	3	9/16 x 1 7/16	**$1.05**
SA-50-6	50	6	11/16 x 1¾	**1.05**
SA-100-6	100	6	9/16 x 1 7/16	**1.30**
SA-5-10	5	10	9/16 x 1 7/16	**1.05**
SA-25-10	25	10	9/16 x 1 7/16	**1.10**
SA-10-25	10	25	9/16 x 1 7/16	**1.10**
SA-50-25	50	25	11/16 x 2⅛	**1.20**
SA-100-25	100	25	23/32 x 2	**1.45**
SA-1-50	1	50	9/16 x 1 7/16	**1.00**
SA-4-50	4	50	9/16 x 1 7/16	**1.10**
SA-10-50	10	50	9/16 x 1 7/16	**1.10**
SA-25-50	25	50	19/32 x 2	**1.15**
SA-50-50	50	50	11/16 x 2⅛	**1.30**
SA-100-50	100	50	27/32 x 2	**1.50**



Type "PCT" . . . constructed in strong red cardboard tubes, wax impregnated, one end closed, printed circuit board terminals.

Type "PCTL" . . . has insulated lead out top providing for low voltage section.

For 65°C operation . . . recommended for table and clock radios . . . individually packaged . . . guaranteed for one year.

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
		DUALS		
PCT-2-5	50+30	150	1 x 2¼	**1.95**
PCT-2-10	50+50	150	1 x 2¼	**2.10**
PCT-2-15	75+30	150	1 x 3	**2.20**
PCT-2-20	100+50	150	1 x 3⅝	**2.50**
		TRIPLES		
PCTL-3-5	40+20/5	150/25	1 x 2¾	**2.20**
PCTL-3-10	60+20/5	150/25	1 x 3	**2.40**

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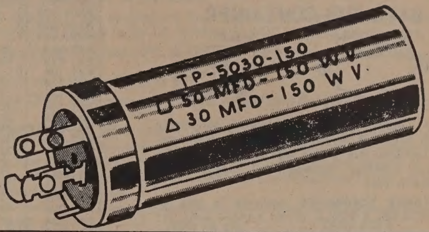
PLANET SALES CORPORATION
BLOOMFIELD, NEW JERSEY

PLANET

Type "TP" . . . twist-prong can electrolytics with mounting ring and solder lug terminals. The mounting ring is grounded by two spot welded connections to the negative tab . . . for 85°C operation . . . complete with metal grounding plate . . . individually packaged. Guaranteed for one year.

Type "PTP" . . . same as Type "TP" except made with printed circuit board terminals.



SINGLES

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TP-1-5	2000	12	1 x 3½	$3.25
PTP-1-10	1000	15	1 x 2½	2.55
PTP-1-15	50	150	1 x 2½	1.65
TP-1-20	80	150	1 x 2	1.85
PTP-1-25	100	150	1 x 2½	2.00
TP-1-30	120	150	1 x 3	2.15
TP-1-31	120	150	1⅜ x 2½	2.15
PTP-1-35	140	150	1 x 3½	2.15
TP-1-40	150	150	1⅜ x 2½	2.15
TP-1-45	150	150	1 x 3	2.15
TP-1-50	200	150	1⅜ x 2½	2.45
TP-1-55	300	150	1⅜ x 4	2.80
PTP-1-60	150	165	1 x 3½	2.35
PTP-1-65	375	165	1⅜ x 3½	4.25
PTP-1-70	80	175	1 x 2½	1.95
TP-1-75	125	350	1⅜ x 3½	3.90
TP-1-80	10	450	1 x 2	1.55
TP-1-85	20	450	1 x 2	1.80
TP-1-90	40	450	1 x 3	2.05
TP-1-95	80	450	1⅜ x 3	3.05

DUALS

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
PTP-2-5	500+150	15	1 x 2	$3.25
PTP-2-10	250+250	16	1 x 2	2.50
TP-2-13	60+20	150	1 x 2½	2.15
PTP-2-15	70+30	150	1 x 2⅛	2.20
TP-2-20	50+50	150	1 x 2½	2.15
PTP-2-25	50+30	150	1 x 2	2.00
TP-2-30	50+30	150	1 x 2	2.00
TP-2-35	40+40	150	1 x 2	1.90
TP-2-40	20+20	150	1 x 2	1.70
TP-2-45	100+80	200	1⅜ x 2½	3.35
TP-2-50	200+5	200	1⅜ x 2½	3.40
TP-2-55	30+30	250	1 x 2½	2.75
TP-2-60	200+15	250	1⅜ x 2½	4.00
TP-2-65	30+10	300	1 x 3	2.40
TP-2-70	60/10	300/200	1 x 3	3.15
TP-2-75	125/100	350/10	1⅜ x 3½	5.20
TP-2-80	5/100	350/50	1 x 2	1.90
PTP-2-85	10/10	350/50	1 x 2	2.00
TP-2-90	100/80	350/175	1⅜ x 3½	$4.60
TP-2-95	100+50	350	1⅜ x 3½	5.80
TP-2-100	100+100	350	1⅜ x 4	6.15
TP-2-105	140+20	350	1⅜ x 4	4.30
TP-2-110	30+10	400	1 x 3	2.95
TP-2-115	10+10	450	1 x 2	1.90
TP-2-120	20+20	450	1 x 3	2.55
TP-2-125	40+40	450	1⅜ x 3	3.45

TRIPLES

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
TP-3-5	90+40/400	150/10	1 x 3½	$5.25
PTP-3-10	70+30/10	150/25	1 x 2½	2.55
TP-3-15	40+40+40	150	1 x 2½	2.60
PTP-3-20	50+25+150	150	1⅜ x 2½	3.75
TP-3-25	50+50+50	150	1 x 3	3.00
TP-3-30	40+20+20	250	1 x 3	2.90
TP-3-35	30+10/20	300/25	1 x 3	4.15
PTP-3-40	60+10/25	300/25	1⅜ x 2	4.85
PTP-3-45	30/25/100	350/25/6	1 x 2½	4.65
PTP-3-50	125/5/100	350/150/10	1⅜ x 3½	6.60
PTP-3-51	60/200+30	350/150	1⅜ x 4	5.00
TP-3-55	20+20/20	350/25	1 x 2	2.90
TP-3-60	100+100/25	350/25	1⅜ x 4½	7.00
TP-3-65	80+40/100	350/50	1⅜ x 4	6.50
TP-3-70	10/40+40	350/200	1 x 3	3.25
TP-3-75	80+40+40	350	1⅜ x 4	7.95
TP-3-80	30+10/20	400/25	1 x 3	2.85
TP-3-82	10+10+10	450	1 x 3	2.60
TP-3-85	40+40+40	450	1⅜ x 4	4.90

QUADS

CAT. NO.	MFD.	WVDC	SIZE	LIST PRICE
PTP-4-5	250+30+20/100	150/10	1⅜ x 3½	$5.30
TP-4-6	100+10/200+30	300/150	1⅜ x 4	5.90
PTP-4-9	60+100/100/100	350/150/10	1⅜ x 5	8.50
PTP-4-10	100+60/60/40	350/200/75	1⅜ x 4½	8.50
TP-4-12	80+40+30/40	400/25	1⅜ x 4	5.95
TP-4-13	40+40/100+60	450/200	1⅜ x 4	6.05
TP-4-14	40+20+20/40	450/25	1⅜ x 3	4.65
TP-4-15	40+40+10/100	450/50	1⅜ x 3½	5.45
TP-4-20	20+20+20+20	450	1⅜ x 3	4.50
TP-4-25	30+30+30+30	450	1⅜ x 4	5.65
TP-4-30	40+40+40+40	450	1⅜ x 4	6.45

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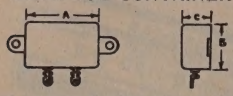
Plastic Capacitors, INC.

CHICAGO ILLINOIS

Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

TYPE PX — CLOSE TOLERANCE

BATH TUB CONTAINER



TYPE PX Capacitors are close tolerance polystyrene capacitors housed in hermetically sealed bathtub containers. Terminals are solder lugs mounted on glass solder-seal bushings. Extended foil (non-inductive) construction is used.

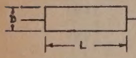
CAPACITANCE TOLERANCE available is plus or minus 1%, 0.5%, 0.25% or 0.1%. Add the suffix "E" and the numbers 1 for 1%, 05 for 5%, 025 for 0.25% and 01 for 0.1% capacitance tolerance to the part number required.

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PX05-124	.12	50	1 1/8	1	13/16
PX05-154	.15	50	1 1/8	1	13/16
PX05-224	.22	50	1 1/8	1	13/16
PX05-254	.25	50	1 3/4	1	3/4
PX05-304	.30	50	1 3/4	1	3/4
PX05-334	.33	50	1 3/4	1	3/4
PX05-404	.40	50	1 3/4	1	3/4
PX05-474	.47	50	1 3/4	1 1/4	7/8
PX05-504	.50	50	1 3/4	1 1/4	7/8
PX05-604	.60	50	1 3/4	1 1/4	7/8
PX05-684	.68	50	1 3/4	1 1/4	7/8
PX05-804	.80	50	1 3/4	1 1/4	7/8
PX05-824	.82	50	1 3/4	1 1/4	7/8
PX05-105	1.0	50	2	1 3/4	7/8

POLYSTYRENE CAPACITORS

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PX05-205	2	50	2	2	1 1/8
PX05-305	3	50	2	2	1 1/4
PX05-405	4	50	2	2	1 1/2
PX1-803	.08	100	1 1/8	1	13/16
PX1-823	.082	100	1 1/8	1	13/16
PX1-104	0.1	100	1 1/8	1	13/16
PX1-124	.12	100	1 3/4	1	3/4
PX1-154	.15	100	1 3/4	1	3/4
PX1-204	.20	100	1 3/4	1	3/4
PX1-224	.22	100	1 3/4	1 1/4	7/8
PX1-254	.25	100	1 3/4	1 1/4	7/8
PX1-304	.30	100	1 3/4	1 1/4	7/8
PX1-334	.33	100	1 3/4	1 1/4	7/8
PX1-404	.40	100	1 3/4	1 1/4	7/8
PX1-474	.47	100	2	1 3/4	7/8
PX1-504	.50	100	2	1 3/4	7/8
PX1-604	.60	100	2	1 3/4	7/8
PX1-804	.80	100	2	1 3/4	7/8
PX1-824	.82	100	2	2	1 1/8
PX1-105	1.0	100	2	2	1 1/8
PX1-205	2	100	2	2	1 1/2
PX2-303	.03	200	1 1/8	1	13/16
PX2-333	.033	200	1 1/8	1	13/16
PX2-403	.04	200	1 1/8	1	13/16
PX2-473	.047	200	1 1/8	1	13/16
PX2-503	.05	200	1 1/8	1	13/16
PX2-603	.06	200	1 1/8	1	13/16
PX2-683	.068	200	1 1/8	1	13/16
PX2-803	.08	200	1 3/4	1	3/4
PX2-823	.082	200	1 3/4	1	3/4
PX2-104	0.1	200	1 3/4	1	3/4
PX2-124	.12	200	1 3/4	1 1/4	7/8
PX2-154	.15	200	1 3/4	1 1/4	7/8
PX2-204	.20	200	1 3/4	1 1/4	7/8
PX2-224	.22	200	1 3/4	1 1/4	7/8
PX2-254	.25	200	1 3/4	1 1/4	7/8
PX2-304	.30	200	2	1 3/4	7/8
PX2-334	.33	200	2	1 3/4	7/8
PX2-404	.40	200	2	1 3/4	7/8
PX2-474	.47	200	2	1 3/4	7/8
PX2-504	.50	200	2	2	1 1/8
PX2-604	.60	200	2	2	1 1/8
PX2-684	.68	200	2	2	1 1/8
PX2-804	.80	200	2	2	1 1/8
PX2-824	.82	200	2	2	1 1/8
PX2-105	1.0	200	2	2	1 1/4
PX4-102	.001	400	1 1/8	1	13/16
PX4-122	.0012	400	1 1/8	1	13/16
PX4-152	.0015	400	1 1/8	1	13/16
PX4-202	.002	400	1 1/8	1	13/16
PX4-222	.222	400	1 1/8	1	13/16
PX4-302	.003	400	1 1/8	1	13/16
PX4-332	.0033	400	1 1/8	1	13/16
PX4-402	.004	400	1 1/8	1	13/16
PX4-472	.0047	400	1 1/8	1	13/16
PX4-502	.005	400	1 1/8	1	13/16
PX4-602	.006	400	1 1/8	1	13/16
PX4-682	.0068	400	1 1/8	1	13/16
PX4-802	.008	400	1 1/8	1	13/16
PX4-822	.0082	400	1 1/8	1	13/16
PX4-103	.01	400	1 1/8	1	13/16
PX4-123	.012	400	1 1/8	1	13/16
PX4-153	.015	400	1 1/8	1	13/16
PX4-203	.02	400	1 1/8	1	13/16
PX4-223	.022	400	1 1/8	1	13/16
PX4-303	.03	400	1 3/4	1	3/4
PX4-333	.033	400	1 3/4	1	3/4
PX4-403	.04	400	1 3/4	1	3/4
PX4-473	.047	400	1 3/4	1 1/4	7/8
PX4-503	.05	400	1 3/4	1 1/4	7/8
PX4-603	.06	400	1 3/4	1 1/4	7/8
PX4-683	.068	400	1 3/4	1 1/4	7/8
PX4-803	.08	400	1 3/4	1 1/4	7/8
PX4-823	.082	400	1 3/4	1 1/4	7/8
PX4-104	0.1	400	2	1 3/4	7/8
PX4-124	.12	400	2	1 3/4	7/8
PX4-154	.15	400	2	1 3/4	7/8
PX4-204	.2	400	2	2	1 1/8
PX4-224	.22	400	2	2	1 1/8
PX4-254	.25	400	2	2	1 1/8
PX4-304	.3	400	2	2	1 1/4

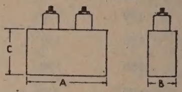
TYPE PM



TYPE PM polystyrene dielectric capacitors are hermetically sealed tubular capacitors with tinned copper wire axial leads. Sizes are given for the floating case style and 20% capacitance tolerance. Each part number shown should be ordered with the suffix "BW 20" added. Other styles and tolerances are also available.

PART NUMBER	CAP. MFD.	VOLTS DC	SIZE D	L
PM05–402	.004	50	.175	3/4
PM05–502	.005	50	.175	3/4
PM05–602	.006	50	.175	3/4
PM05–103	.01	50	.195	3/4
PM05–203	.02	50	.312	7/8
PM05–303	.03	50	.312	7/8
PM05–403	.04	50	.312	7/8
PM05–503	.05	50	.400	7/8
PM05–603	.06	50	.400	7/8
PM05–104	0.1	50	.400	1-1/8
PM05–204	.2	50	.562	1-1/8
PM05–254	.25	50	.562	1-5/8
PM05–304	.3	50	.562	1-5/8
PM05–404	.4	50	.562	1-7/8
PM05–504	.5	50	.670	1-5/8
PM05–604	.6	50	.670	1-13/16
PM05–105	1.0	50	1.0	1-13/16
PM05–155	1.5	50	1.0	1-13/16
PM1–302	.003	100	.175	3/4
PM1–402	.004	100	.195	3/4
PM1–502	.005	100	.195	3/4
PM1–103	.01	100	.312	7/8
PM1–203	.02	100	.312	7/8
PM1–303	.03	100	.400	7/8
PM1–403	.04	100	.400	1-1/8
PM1–503	.05	100	.400	1-1/8
PM1–104	0.1	100	.562	1-1/8
PM1–204	.2	100	.562	1-7/8
PM1–254	.25	100	.670	1-5/8
PM1–304	.3	100	.670	1-13/16
PM1–404	.4	100	.750	1-13/16
PM1–504	.5	100	1.0	1-13/16
PM1–604	.6	100	1.0	1-13/16
PM2–102	.001	200	.175	3/4
PM2–202	.002	200	.195	3/4
PM2–302	.003	200	.195	3/4
PM2–402	.004	200	.235	3/4
PM2–502	.005	200	.312	7/8
PM2–103	.01	200	.312	7/8
PM2–203	.02	200	.400	7/8
PM2–303	.03	200	.562	1-1/8
PM2–403	.04	200	.562	1-1/8
PM2–503	.05	200	.562	1-1/8
PM2–104	0.1	200	.670	1-5/8
PM2–204	.2	200	.750	1-13/16
PM2–254	.25	200	.750	1-13/16
PM2–304	.3	200	1.0	1-13/16
PM2–404	.4	200	1.0	1-13/16
PM4–402	.004	400	.312	7/8
PM4–502	.005	400	.400	7/8
PM4–103	.01	400	.400	1-1/8
PM4–203	.02	400	.562	1-1/8
PM4–303	.03	400	.562	1-1/8
PM4–403	.04	400	.562	1-5/8
PM4–503	.05	400	.562	1-7/8
PM4–104	0.1	400	.750	1-13/16
PM4–204	.2	400	1.0	1-13/16
PM6–102	.001	600	.312	7/8
PM6–202	.002	600	.312	7/8
PM6–302	.003	600	.312	7/8
PM6–402	.004	600	.312	7/8
PM6–502	.005	600	.400	7/8

TYPE PD



TYPE PD capacitors are housed in hermetically sealed fabricated CP70 style containers and meet the most stringent environmental conditions. Windings are extended foil (non-inductive) construction.

CAPACITANCE TOLERANCE Standard tolerance is 5%. Also available are 2%, 1% and 0.5% tolerances.

PART NUMBER	CAP. MFD.	VOLTS DC	CONTAINER SIZE A	B	C
PD05-205	2	50	1 3/4	1	2 1/4
PD05-305	3	50	1 3/4	1	2 1/2
PD05-405	4	50	2 1/2	1 3/16	2 1/4
PD05-505	5	50	2 1/2	1 3/16	2 1/2
PD05-605	6	50	3 3/4	1 1/4	2 1/4
PD05-805	8	50	3 3/4	1 1/4	2 1/2
PD05-106	10	50	3 3/4	1 3/4	2 1/4
PD1-105	1	100	1 3/4	1	2 1/4
PD1-205	2	100	2 1/2	1 3/16	2 1/4
PD1-305	3	100	2 1/2	1 3/16	3
PD1-405	4	100	3 3/4	1 1/4	2 1/2
PD1-505	5	100	3 3/4	1 1/4	3
PD1-605	6	100	3 3/4	1 3/4	2 1/2
PD1-805	8	100	3 3/4	2 1/4	2 1/2
PD1-106	10	100	3 3/4	2 1/4	3
PD2-105	1	200	1	1 3/4	3
PD2-205	2	200	2 1/2	1 3/16	3
PD2-305	3	200	3 3/4	1 1/4	3
PD2-405	4	200	3 3/4	1 1/4	3 1/2
PD2-505	5	200	3 3/4	1 3/4	3 1/2
PD2-605	6	200	3 3/4	1 3/4	3 1/2
PD2-805	8	200	3 3/4	2 1/4	3 1/2
PD2-106	10	200	3 3/4	3 3/16	3 1/2
PD4-254	.25	400	1 3/4	1	2 1/4
PD4-504	.5	400	2 1/2	1 3/16	2 1/4
PD4-105	1.0	400	3 3/4	1 1/4	2 1/2
PD4-205	2	400	3 3/4	1 1/4	4
PD4-305	3	400	3 3/4	1 3/4	4
PD4-405	4	400	3 3/4	2 1/4	4
PD4-505	5	400	3 3/4	3 3/16	4
PD4-605	6	400	3 3/4	3 3/16	4
PD4-805	8	400	3 3/4	4 9/16	4
PD4-106	10	400	3 3/4	3 3/16	7 1/2
PD6-254	.25	600	1 3/4	1	2 1/2
PD6-504	.5	600	1 3/4	1	4
PD6-105	1.0	600	2 1/2	1 3/16	4
PD6-205	2	600	3 3/4	1 3/4	4
PD6-305	3	600	3 3/4	2 1/4	4
PD6-405	4	600	3 3/4	3 3/16	4
PD6-505	5	600	3 3/4	4 9/16	3 1/2
PD6-605	6	600	3 3/4	4 9/16	4
PD6-805	8	600	3 3/4	3 3/16	7 1/2
PD6-106	10	600	3 3/4	4 9/16	6 1/2

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Plastic Capacitors, INC.

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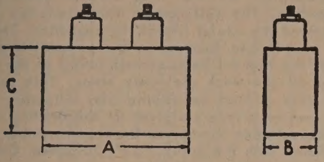
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

TYPE LK
DC FILTER CAPACITORS



Type LK capacitors are an entirely new design which have been proved by rigorous testing in the laboratory and by usage in the field for several years. This is the first listing to be published.

Type LK capacitors are smaller and have a reliability factor which is unexcelled. Their primary usage is for DC filtering and DC blocking applications.

Temperature Range is minus 65°C to 105°C. With full rated voltate from –65°C to 85°C.

Life 2500 hours at rated voltage at 85°C.

Case is the CP70 style terne plate metal, primed and finished with a synthetic enamel.

ENVIRONMENTAL and other testing may be performed per MIL-C-25A, Characteristic E. Type LK exceeds the best characteristics of paper capacitors in a much smaller size. Comparison of sizes will show that the volume is much less than required for MIL-C-25A equivalents in Characteristic F and are better than characteristic E quality.

PART NUMBER	CAP. MFD	VOLTS DC	CASE SIZE A	B	C
LK10-504	0.5	1000	1 3/4	1	2 1/8
LK10-105	1.0	1000	1 3/4	1	2 1/8
LK10-205	2	1000	1 3/4	1	3 1/2
LK10-405	4	1000	1 3/4	1	5 3/4
LK10-605	6	1000	2 1/2	1 3/16	5
LK10-805	8	1000	2 1/2	1 3/16	6 1/4
LK10-106	10	1000	3 3/4	1 1/4	5
LK10-126	12	1000	3 3/4	1 1/4	5 3/4
LK10-156	15	1000	3 3/4	1 3/4	5 1/4
LK10-206	20	1000	3 3/4	1 3/4	6 1/4
LK20-104	0.1	2000	1 3/4	1	2 1/8
LK20-254	.25	2000	1 3/4	1	2 1/8
LK20-504	.5	2000	1 3/4	1	2 1/8
LK20-105	1.0	2000	1 3/4	1	3 1/4
LK20-205	2	2000	2 1/2	1 3/16	3 1/2
LK20-405	4	2000	2 1/2	1 3/16	5 1/2
LK20-605	6	2000	3 3/4	1 1/4	5
LK20-805	8	2000	3 3/4	1 1/4	6 1/4
LK20-106	10	2000	3 3/4	1 3/4	5 1/4
LK20-126	12	2000	3 3/4	1 3/4	6 1/4
LK20-156	15	2000	3 3/4	2 1/4	6
LK30-104	0.1	3000	1 3/4	1	2 1/8
LK30-254	.25	3000	1 3/4	1	2 1/2
LK30-504	.5	3000	1 3/4	1	3 1/4
LK30-105	1.0	3000	1 3/4	1	5 1/4
LK30-205	2	3000	2 1/2	1 3/16	5 1/2
LK30-405	4	3000	3 3/4	1 1/4	6 1/4
LK30-605	6	3000	3 3/4	1 3/4	6 1/4
LK30-805	8	3000	3 3/4	2 1/4	6 1/2
LK30-106	10	3000	3 3/4	3 3/16	5 3/4
LK40-503	.05	4000	1 3/4	1	2 1/8
LK40-104	0.1	4000	1 3/4	1	2 1/8
LK40-254	.25	4000	1 3/4	1	2 3/4
LK40-504	.5	4000	1 3/4	1	4
LK40-105	1.0	4000	2 1/2	1 3/16	4
LK40-205	2	4000	2 1/2	1 3/16	6 3/4
LK40-405	4	4000	3 3/4	1 3/4	6
LK40-605	6	4000	3 3/4	2 1/4	6 1/2
LK40-805	8	4000	3 3/4	3 3/16	6
LK40-106	10	4000	4 9/16	3 3/4	5 1/2
LK 50-503	.05	5000	1 3/4	1	2 1/8
LK 50-104	0.1	5000	1 3/4	1	2 1/8
LK 50-254	.25	5000	1 3/4	1	3
LK 50-504	.5	5000	1 3/4	1	4 3/4
LK 50-105	1.0	5000	2 1/2	1 3/16	5
LK 50-205	2	5000	3 3/4	1 1/4	6
LK 50-405	4	5000	3 3/4	2 1/4	6 1/4
LK 50-605	6	5000	3 3/4	3 3/16	6 1/2
LK 50-805	8	5000	4 9/16	3 3/4	6 1/4
LK 50-106	10	5000	4 9/16	3 3/4	7 1/2
LK 60-503	.05	6000	3 3/4	1 1/4	2 1/4
LK 60-104	0.1	6000	3 3/4	1 1/4	2 1/4
LK 60-254	.25	6000	3 3/4	1 1/4	2 1/2
LK 60-504	.5	6000	3 3/4	1 1/4	3 3/4
LK 60-105	1.0	6000	3 3/4	1 1/4	6 1/2
LK 60-205	2	6000	3 3/4	2 1/4	6 1/4
LK 60-405	4	6000	4 9/16	3 3/4	6
LK 60-605	6	6000	4 9/16	3 3/4	8 1/4
LK 60-805	8	6000	4 9/16	3 3/4	10 1/4
LK 60-106	10	6000	8	4	9 1/4
LK 80-503	.05	8000	3 3/4	1 1/4	2 1/4
LK 80-104	0.1	8000	3 3/4	1 1/4	2 1/2
LK 80-254	.25	8000	3 3/4	1 1/4	3 3/4
LK 80-504	.5	8000	3 3/4	1 1/4	5 3/4
LK 80-105	1.0	8000	3 3/4	1 3/4	7
LK 80-205	2	8000	3 3/4	3 3/16	7
LK 80-405	4	8000	4 9/16	3 3/4	10
LK 80-605	6	8000	8	4	9 1/4
LK 80-805	8	8000	13 1/2	4 1/8	7
LK 80-106	10	8000	13 1/2	4 1/8	9 1/4
LK100-503	.05	10KV	3 3/4	1 3/4	3 1/4
LK100-104	0.1	10KV	3 3/4	1 3/4	3 1/4
LK100-254	.25	10KV	3 3/4	1 3/4	3 3/4
LK100-504	.5	10KV	3 3/4	1 3/4	5 3/4
LK100-105	1.0	10KV	3 3/4	2 1/4	7 1/4
LK100-205	2	10KV	4 9/16	3 3/4	6 3/4
LK100-405	4	10KV	8	4	9 1/4
LK100-605	6	10KV	13 1/2	4 1/8	7
LK100-805	8	10KV	13 1/2	4 1/8	9 1/4
LK100-106	10	10KV	13 1/2	4 1/8	11

HIGH VOLTAGE POWER PACKS

V STANDARD TYPE have as their major feature special tube wells ich permit easy access for replacement of the rectifier tubes.

8 V 60 cycles input.

e HV STANDARD TYPE is designed for sea level to 10,000 feet eration in the temperature range of minus 40°C to plus 70°C.

ey must be operated in an upright position.

e height indicated is the height including the terminals.

do not guarantee rectifier tube life.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	OVERALL HEIGHT	NET PRICE
V50-502	0-5	5	6 5/8	4 3/8	7 1/4	$ 89.40
V100-102	0-10	1	7 1/2	5	7 1/4	108.00
V100-502	0-10	5	8 1/4	6	8 1/4	120.00
V150-102	0-15	1	7 1/2	5	8	118.80
V150-502	0-15	5	8 1/4	6	8	130.80
V200-102	0-20	1	7 1/2	5	8 1/2	138.00
V200-502	0-20	5	10 1/4	7	12 3/4	191.40
V300-102	0-30	1	8 3/4	6 3/4	11	207.00
V300-502	0-30	5	10 1/4	7	12 3/4	222.00
V500-502	0-50	5	12 1/2	11	17 1/2	426.00
V750-202	0-75	2	19	11 1/2	20	744.00

HV SELENIUM RECTIFER TYPE

HV SELENIUM RECTIFIER TYPE is smaller than the **HV SEALED TUBE.** **INPUT** 118 volts 60 to 400 cycles. **HV SELENIUM RECTIFIER TYPE** is designed to avoid rectifier type failures by the use of long life selenium rectifiers with an estimated life of 20,000 hours at 50°C temperature. Lower ambient temperature will increase life.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	H	NET PRICE
HV20-202S	2	2	3 3/4	3 3/16	5 1/2	$ 45.80
HV50-302S	0-5	3	3 3/4	4 9/16	5 1/2	70.60
HV100-102S	0-12	1	3 3/4	4 9/16	7 1/2	102.30
HV150-102S	0-15	1	3 3/4	4 9/16	8 1/2	134.00

HV SEALED TUBE TYPE

HV SEALED TUBE TYPE is smaller than the **HV STANDARD TYPE.** **INPUT** 118 volts 60 to 400 cycles.

PART NUMBER	OUTPUT KV	MA.	CASE SIZE L	W	H	NET PRICE
HV20-202H	2	2	3 3/4	3 3/16	5 1/2	$ 54.00
HV50-302H	5	3	3 3/4	4 9/16	6	74.40
HV100-102H	0-12	1	3 3/4	4 9/16	8	93.60
HV150-102H	0-15	1	3 3/4	4 9/16	9	108.00

This is but a partial listing of capacitances and voltages available.

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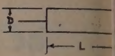
METALLIZED MYLAR* CAPACITORS

PART	CAP. MFD.	VOLTS D.C.	SIZE D	SIZE L	NET PRICES 1/24	NET PRICES 25/49	NET PRICES 50/99
AM2–103	.01	200	.174	5/8	$1.08	$ .83	$ .77
AM2–153	.015	200	.174	5/8	1.08	.83	.77
AM2–223	.022	200	.187	5/8	1.08	.84	.77
AM2–333	.033	200	.235	5/8	1.15	.88	.82
AM2–473	.047	200	.235	5/8	1.16	.89	.83
AM2–683	.068	200	.235	13/16	1.16	.90	.83
AM2–104	0.1	200	.235	13/16	1.17	.90	.84
AM2–154	.15	200	.312	13/16	1.18	.91	.84
AM2–224	.22	200	.312	13/16	1.21	.93	.86
AM2–334	.33	200	.400	13/16	1.36	1.05	.97
AM2–474	.47	200	.400	1-1/8	1.40	1.08	1.00
AM2 684	.68	200	.400	1-1/8	1.46	1.13	1.04
AM2–105	1.0	200	.562	1-1/8	1.70	1.31	1.21
AM2–155	1.5	200	.562	1-5/16	1.85	1.43	1.32
AM2–205	2	200	.670	1-5/16	2.31	1.79	1.65
AM2–305	3	200	.670	1-9/16	2.65	2.05	1.89
AM2–405	4	200	.670	1-13/16	2.93	2.26	2.09
AM2–505	5	200	.750	1-13/16	3.08	2.38	2.20
AM2–805	8	200	1.0	1-13/16	4.52	3.49	3.23
AM2–106	10	200	1.0	2-5/16	5.81	4.49	4.15
AM3–103	.01	300	.174	5/8	1.08	.84	.77
AM3–153	.015	300	.174	5/8	1.08	.84	.77
AM3–223	.022	300	.187	5/8	1.09	.84	.78
AM3–333	.033	300	.235	5/8	1.14	.88	.81
AM3–473	.047	300	.235	13/16	1.14	.88	.81
AM3–683	.068	300	.312	13/16	1.18	.91	.84
AM3–104	0.1	300	.312	13/16	1.19	.92	.85
AM3–154	.15	300	.400	13/16	1.29	1.00	.92
AM3–224	.22	300	.400	1-1/8	1.32	1.02	.95
AM3–334	.33	300	.400	1-1/8	1.38	1.07	.99
AM3–474	.47	300	.562	1-1/8	1.65	1.27	1.18
AM3–684	.68	300	.562	1-1/8	1.75	1.35	1.25
AM3–105	1.0	300	.562	1-9/16	1.90	1.47	1.36
AM3–155	1.5	300	.670	1-9/16	2.41	1.86	1.72
AM3–205	2	300	.670	1-13/16	2.93	2.26	2.09
AM3–305	3	300	1.0	1-5/16	3.40	2.63	2.43
AM3–405	4	300	1.0	1-7/16	4.06	3.13	2.90
AM3–605	7	300	1.0	2-5/16	6.11	4.72	4.37
AM4–103	.01	400	.187	13/16	1.08	.84	.77
AM4–153	.015	400	.235	13/16	1.09	.84	.78
AM4–223	.022	400	.235	13/16	1.10	.85	.78
AM4–333	.033	400	.312	13/16	1.12	.87	.80
AM4–473	.047	400	.312	13/16	1.14	.88	.81
AM4–683	.068	400	.400	13/16	1.23	.95	.88
AM4–104	0.1	400	.400	1-1/8	1.25	.97	.90
AM4–154	.15	400	.400	1-5/16	1.29	1.00	.92
AM4–224	.22	400	.562	1-1/8	1.34	1.03	.96
AM4–334	.33	400	.562	1-1/8	1.59	1.23	1.14
AM4–474	.47	400	.562	1-5/8	1.69	1.31	1.21
AM4–684	.68	400	.670	1-5/8	2.05	1.58	1.46
AM4–105	1	400	.750	1-5/8	2.53	1.95	1.81
AM4–155	1.5	400	1.0	1-5/8	3.05	2.36	2.18
AM4–205	2	400	1.0	1-13/16	3.42	2.64	2.44
AM4–305	3	400	1.0	2-5/16	4.66	3.59	3.33
AM4–405	4	400	1.0	3-1/16	5.38	4.15	3.84

TYPE AM LISTING



METALLIZED MYLAR* has several advantages the outstanding. The self-healing characteristics are well. and extend the useful life of the capacitor. The secon most over-looked feature, is the possibility of makin use of the highest volts-per-mil rating of the film by nating all the weak dielectric areas. This results in small size without sacrificing life, reliability and eco Sizes and net prices are given for the floating case styl 20% capacitance tolerance. Each part number shown s be ordered with the suffix "BW" 20 added. Other style tolerances are also available.

200 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB2-504	0.5	1 1/8	1	13/16
AB2-105	1.0	1 1/8	1	13/16
AB2-205	2.0	1 1/8	1	13/16
AB2-405	4.0	1 3/4	1	3/4
AB2-505	5.0	1 3/4	1	3/4
AB2-605	6 0	1 3/4	1 1/4	7/8
AB2-805	8.0	1 3/4	1 1/4	7/8
AB2-106	10.0	2	1 3/4	7/8
AB2-126	12.0	2	1 3/4	7/8
AB2-156	15.0	2	1 3/4	7/8
AB2-206	20.0	2	2	1 1/8
AB2-306	30.0	2	2	1 1/4

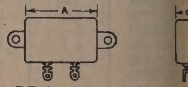
300 VOLTS D.C.

PART NUMBER	CAP. MFD.	CASE SIZE A	CASE SIZE B
AB3-504	0.5	1 1/8	1
AB3-105	1.0	1 1/8	1
AB3-205	2.0	1 3/4	1
AB3-405	4.0	1 3/4	1 1/4
AB3-505	5.0	2	1 3/4
AB3-605	6.0	2	1 3/4
AB3-805	8.0	2	1 3/4
AB3-106	10.0	2	2
AB3-126	12.0	2	2
AB3-156	15.0	2	2

400 VOLTS D.C.

PART NUMBER	CAP MFD.	CASE SIZE A	CASE SIZE B	CASE SIZE C
AB4-104	0.1	1 1/8	1	13/16
AB4-254	0.25	1 1/8	1	13/16
AB4-504	0.5	1 1/8	1	13/16
AB4-105	1.0	1 3/4	1	3/4
AB4-205	2.0	1 3/4	1 1/4	7/8
AB4-405	4.0	2	1 3/4	7/8
AB4-505	5.0	2	2	1 1/8
AB4-605	6.0	2	2	1 1/8
AB4-805	8.0	2	2	1 1/4

BATH TUB CONTAIN



TYPE AB Capacitors are m lized Mylar* elements herm ally sealed in a bathtub container. The self-healing clearing characteristics possible the smallest quality capacitor for the g rating.

TYPE AZ

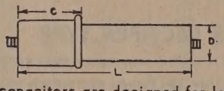
Miniature Epoxy Sealed Capacitors

TYPE AZ capacitors are a rather recent development. Metallized Mylar* is used for the capacitor element. The protective housing is a specially formulated epoxy material such that a multiple dipped finish coating may be applied. The housing is relatively flexible, resistant to heat, and adheres well to the transfer bond at the point of lead entry. All the fine electrical characteristics are maintained of the Mylar* film.

TYPE AZ capacitors are available in a tubular and a flat oval shape with either radial or axial tinned-copper wire leads. A short list of the 200 volt type (AZ2) follows. The complete part number consists of the letters AZ followed by the voltage in hundreds of volts capacitance is the standard designation and is hyphenated in the prefix plus a letter for the style; i.e. AZ2-104Z is a 200 volt 0.1 mfd. capacitor in the flat oval style.

PART NUMBER	CAP. MFD.	W MAX.	T MAX.
AZ2-273Z	.027	5/16	5/32
AZ2-473Z	.047	11/32	3/16
AZ2-104Z	0.1	5/16	5/32
AZ2-224Z	0.22	7/16	1/4
AZ2-334Z	0.33	1/2	5/16
AZ2-474Z	0.47	7/16	5/16
AZ2-105Z	1.0	9/16	11/32

TYPE OT – TUBULAR TO 120KV



TYPE OT capacitors are designed for long life at high voltage in the medium temperature range. Type OT capacitors are the smallest and most economical capacitors available for high voltage DC filtering.

CASE is hermetically sealed and designed for operation under oil. Many of the lower voltage units may be operated in air. Many capacitance values at stated voltages are available in two physical sizes, providing the design engineer flexibility in placement of parts and circuit wiring.

MOUNTING. Must be mounted vertically, corona cap at top.

TEMPERATURE RANGE. Type OT capacitors will give long life in the temperature range of −40°C to 55°C with the rated voltage applied.

TERMINALS and mounting studs are axial 3/8-16x3/4" long.

*DU PONT POLYESTER FILM

PART NUMBER	CAP MFD.	KILO-VOLTS	D ±1/16	L ±1/8
OT100-104	.1	10	2 1/8	5
OT100-254	.25	10	2 3/4	5 3/4
OT100-504	.5	10	3 3/4	8 5/8
OT200-203	.02	20	1 1/2	7 5/8
OT200-503	.05	20	2 1/8	7 5/8
OT200-104	.1	20	2 3/4	8 7/8
OT200-254	.25	20	2 3/4	14 1/2
OT200-254A	.25	20	3 3/4	9 3/4
OT200-504	.5	20	3 3/4	12 3/4
OT300-103	.01	30	1 1/2	8 5/8
OT300-203	.02	30	2 1/8	8
OT300-203A	.02	30	1 1/2	11 5/8
OT300-503	.05	30	2 3/4	10 3/8
OT300-104	0.1	30	2 3/4	13 7/8
OT300-104A	0.1	30	3 3/4	9 3/8
OT300-254	.25	30	3 3/4	18
OT400-502	.005	40	1 1/2	9 3/4
OT400-103	.01	40	1 1/2	12 3/4
OT400-203	.02	40	1 1/2	18 3/4
OT400-203A	.02	40	2 1/8	11 3/4
OT400-503	.05	40	2 1/8	19 3/4
OT400-503A	.05	40	2 3/4	13 3/4
OT400-104	0.1	40	3 3/4	14 3/4
OT500-202	.002	50	1 1/2	8
OT500-502	.005	50	1 1/2	11 1/2
OT500-103	.01	50	1 1/2	16 1/2
OT500-103A	.01	50	2 1/8	11 1/2
OT500-203	.02	50	2 3/4	11 1/2
OT500-503	.05	50	2 3/4	17 3/4
OT500-503A	.05	50	3 3/4	11 1/2
OT500-104	0.1	50	3 3/4	19
OT600-202	.002	60	1 1/2	10 3/8
OT600-502	.005	60	1 1/2	14 7/8
OT600-502A	.005	60	2 1/8	11 7/8

PART NUMBER	CAP MFD.	KILO-VOLTS	D ±1/16
OT600-103	.01	60	2 1/8
OT600-103A	.01	60	2 3/4
OT600-203	.02	60	2 3/4
OT600-203A	.02	60	3 3/4
OT600-503	.05	60	3 3/4
OT600-104	0.1	60	3 3/4
OT800-102	.001	80	1 1/2
OT800-202	.002	80	1 1/2
OT800-502	.005	80	1 1/2
OT800-502A	.005	80	2 1/8
OT800-103	.01	80	2 1/8
OT800-103A	.01	80	2 3/4
OT800-203	.02	80	2 3/4
OT800-203A	.02	80	3 3/4
OT800-503	.05	80	3 3/4
OT1000-501	.0005	100	1 1/2
OT1000-102	.001	100	1 1/2
OT1000-202	.002	100	1 1/2
OT1000-202A	.002	100	2 1/8
OT1000-502	.005	100	2 1/8
OT1000-502A	.005	100	2 3/4
OT1000-103	.01	100	2 3/4
OT1000-103A	.01	100	3 3/4
OT1000-203	.02	100	3 3/4
OT1000-303	.03	100	3 3/4
OT1200-501	.0005	120	1 1/2
OT1200-102	.001	120	1 1/2
OT1200-202	.002	120	1 1/2
OT1200-202A	.002	120	2 1/8
OT1200-502	.005	120	2 3/4
OT1200-103	.01	120	2 3/4
OT1200-103A	.01	120	3 3/4
OT1200-203	.02	120	3 3/4

This is but a partial listing of capacitances and voltages availal

© U.C.P.,

Plastic Capacitors, INC.

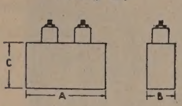
CHICAGO ILLINOIS

Mfrs. of
- Plastic Film Capacitors
- Pulse Forming Networks
- High Voltage Power Supplies
- Paper Dielectric Capacitors

TYPE EP HIGH VOLTAGE CAPACITORS

UMBER	CAP. MFD.	VOLTS DC	A	B	C	NET PRICES 1/4	5/9	10/24	25/49	50/99
P20-105	1.0	2,000	2-1/2	1-3/16	2-3/4	$ 5.28	$ 5.28	$ 2.74	$ 2.44	$ 2.33
P20-205	2	2,000	2-1/2	1-3/16	4	6.55	6.55	3.40	3.02	2.90
P20-405	4	2,000	3-3/4	1-3/4	3-1/2	9.05	9.05	4.70	4.18	4.00
P20-605	6	2,000	3-3/4	1-3/4	4-3/4	11.78	11.78	6.12	5.44	5.21
P20-805	8	2,000	3-3/4	2-1/4	4-3/4	14.12	14.12	7.33	6.52	6.24
P20-106	10	2,000	3-3/4	3-3/16	4-1/2	18.72	18.72	9.72	8.64	8.28
P30-104	0.1	3,000	2-1/2	1-3/16	2-1/8	4.72	4.72	3.37	3.03	2.80
P30-254	.25	3,000	2-1/2	1-3/16	2-1/8	4.96	4.96	3.54	3.18	2.95
P30-504	.5	3,000	2-1/2	1-3/16	2-1/2	5.45	5.45	3.90	3.52	3.25
P30-105	1	3,000	2-1/2	1-3/16	3-3/4	6.33	6.33	4.52	4.07	3.77
P30-205	2	3,000	3-3/4	1-1/4	4-1/2	8.60	8.60	6.11	5.50	5.11
P30-405	4	3,000	3-3/4	2-1/4	4-3/4	13.00	13.00	9.37	8.40	7.80
P30-805	8	3,000	4-9/16	3-3/4	4-3/4	20.20	20.20	14.40	12.80	12.00
P40-504	0.5	4,000	2-1/2	1-3/16	3-1/4	5.90	5.90	4.22	3.79	3.52
P40-105	1	4,000	3-3/4	1-1/4	3-1/2	7.55	7.55	5.40	4.86	4.48
P40-205	2	4,000	3-3/4	1-3/4	4-1/2	11.50	11.50	8.20	7.36	6.85
P40-405	4	4,000	4-9/16	3-3/4	3-3/4	20.30	20.30	14.50	13.00	12.10
P50-104	0.1	5,000	2-1/2	1-3/16	2-1/8	4.85	4.85	3.13	2.90	2.55
P50-254	.25	5,000	2-1/2	1-3/16	2-3/4	5.46	5.46	3.90	3.52	3.25
P50-504	.5	5,000	2-1/2	1-3/16	4	6.43	6.43	4.60	4.13	3.83
P50-105	1	5,000	3-3/4	1-3/4	3-3/4	9.90	9.90	7.10	6.35	5.88
P50-205	2	5,000	3-3/4	2-1/4	4-3/4	14.65	14.65	10.42	9.40	8.70
P50-405	4	5,000	4-9/16	3-3/4	4-3/4	24.30	24.30	17.35	15.60	14.40
P60-104	0.1	6,000	3-3/4	1-1/4	2-1/2	10.80	7.76	6.97	6.46	5.68
P60-254	.25	6,000	3-3/4	1-3/4	2-1/2	12.65	9.00	8.12	7.53	6.62
P60-504	.5	6,000	3-3/4	1-3/4	4	14.80	10.60	9.52	8.81	7.76
P60-105	1	6,000	3-3/4	2-1/4	5-1/4	19.80	14.20	12.80	11.85	10.42
P60-205	2	6,000	4-9/16	3-3/4	5-1/4	29.70	21.20	19.22	17.70	15.60
P60-405	4	6,000	4-9/16	3-3/4	9-1/2	53.20	38.00	34.20	31.65	27.80
P80-104	0.1	8,000	3-3/4	1-3/4	2-1/2	11.60	8.28	7.46	6.92	6.08
P80-254	.25	8,000	3-3/4	1-3/4	2-1/2	13.65	9.75	8.75	8.12	7.16
P80-504	.5	8,000	3-3/4	2-1/4	4-3/4	15.90	11.35	10.22	9.43	8.31
P80-105	1	8,000	3-3/4	3-3/16	5-1/4	21.50	15.35	13.84	12.75	11.25
P80-205	2	8,000	4-9/16	3-3/4	8-1/2	33.60	24.05	21.60	20.00	17.62
P100-104	0.1	10,000	3-3/4	1-3/4	3	12.80	8.86	7.97	7.40	6.52
P100-254	.25	10,000	3-3/4	1-3/4	4-1/4	14.90	10.62	9.56	8.86	7.79
P100-504	.5	10,000	3-3/4	2-1/4	5-3/4	18.40	13.17	11.82	10.98	9.64
P100-105	1	10,000	4-9/16	3-3/4	5-1/2	28.00	20.00	17.98	16.63	14.62
P100-205	2	10,000	4-9/16	3-3/4	10	49.50	35.40	31.80	29.40	25.95

TYPE EP

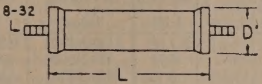


TYPE EP capacitors are designed for commercial service. Economy and reliability were the determination factors for the resulting physical construction and electrical characteristics.

TEMPERATURE RANGE is minus 60°C to 85°C. Full nameplate voltage rating applies in the temperature range from minus 50°C to plus 60°C.

LIFE CHARACTERISTICS At full nameplate DC voltage in the temperature range of minus 50°C to plus 60°C mean life is 10,000 hours of operation. For temperatures above 60°C to 85°C derate the operating voltage according to the derating curve to maintain the 10,000 hour life expectancy. For increased life at any temperature range voltage derating to 87% will double and derating to 75% will quadruple life expectancy.

ASS CAPS TYPE OF Voltage rated for operation −65°C to 85°C. Glass style container with 8-3/8" axial studs, except 19/32 diameter which #18x2½" hot tinned copper wire. This capacitor apable of passing environmental and electrical s of MIL-L-25A characteristic E terminal D.



RF AND PULSE GLASS CAPS The plastic films used in the manufacture of RF and PULSE GLASS CAPS have very low losses. These capacitors will handle large peak currents such as encountered in a 25 ohm type E plus forming network charged to the peak pulse voltage at a repetition rate of 1000 PPS.

PART UMBER	CAP. MFD	VOLTS DC	DIMENSIONS LGTH.	DIA.
20-502	.005	2000	1 3/36	19/32
20-103	.01	2000	1 3/16	19/32
20-203	.02	2000	1 9/16	19/32
20-503	.05	2000	1 3/4	3/4
20-104	0.1	2000	2 1/4	3/4
20-254	0.25	2000	2 3/4	29/32
30-502	.005	3000	1 3/16	19/32
30-103	.01	3000	1 9/16	19/32
30-203	.02	3000	1 3/4	3/4
30-503	.05	3000	2 1/4	3/4
30-104	0.1	3000	1 3/4	1 1/8
30-254	0.25	3000	2	1 3/8
40-502	.005	4000	1 3/16	19/32
40-103	.01	4000	1 3/16	3/4
40-203	.02	4000	1 3/4	3/4
40-503	.05	4000	2	13/16
40-104	0.1	4000	2	1 1/8
40-254	0.25	4000	2 1/4	1 5/8
50-502	.005	5000	1 5/8	19/32
50-103	.01	5000	1 3/4	3/4
50-203	.02	5000	2 1/4	3/4
50-503	.05	5000	2 1/4	29/32
50-104	0.1	5000	2 1/4	1 3/8
50-254	0.25	5000	3	1 5/8
80-202	.002	8000	1 3/4	19/32
80-502	.005	8000	1 3/4	3/4
80-103	.01	8000	2 1/4	3/4
80-203	.02	8000	2 3/4	29/32
80-503	.05	8000	2 3/4	1 3/8
80-104	0.1	8000	3 5/8	1 5/8
100-102	.001	10 KV	1 5/8	19/32
100-202	.002	10 KV	1 5/8	3/4
100-502	.005	10 KV	1 3/4	13/16
100-103	.01	10 KV	2 1/4	29/32
100-203	.02	10 KV	2 3/4	1 1/8
100-503	.05	10 KV	2 3/4	1 5/8
100-603	.06	10 KV	3	1 5/8

PART NUMBER	CAP. MFD	VOLTS DC	DIMENSIONS LGTH.	DIA.
OF150-102	.001	15 KV	2 1/4	3/4
OF150-202	.002	15 KV	2 1/4	3/4
OF150-502	.005	15 KV	2 3/4	1 1/8
OF150-103	.01	15 KV	3 3/4	1 1/8
OF150-203	.02	15 KV	4 1/4	1 3/8
OF150-503	.05	15 KV	7	1 5/8
OF200-501	.0005	20 KV	3 1/2	19/32
OF200-102	.001	20 KV	3 1/2	3/4
OF200-202	.002	20 KV	3 1/2	13/16
OF200-502	.005	20 KV	3 1/2	1 1/8
OF200-103	.01	20 KV	4 1/2	1 1/8
OF200-203	.02	20 KV	4 1/2	1 5/8
OF300-201	.0002	30 KV	4 9/16	19/32
OF300-501	.0005	30 KV	4 9/16	19/32
OF300-102	.001	30 KV	5	3/4
OF300-202	.002	30 KV	5	29/32
OF300-502	.005	30 KV	5	1 3/8
OF300-103	.01	30 KV	6 1/2	1 5/8
OF400-101	.0001	40 KV	5 3/4	3/4
OF400-201	.0002	40 KV	5 3/4	3/4
OF400-501	.0005	40 KV	5 3/4	3/4
OF400-102	.001	40 KV	6 1/2	13/16
OF400-202	.002	40 KV	6 1/2	1 1/8
OF400-502	.005	40 KV	6 1/2	1 5/8
OF500-101	.0001	50 KV	8 1/4	3/4
OF500-201	.0002	50 KV	8 1/4	3/4
OF500-501	.0005	50 KV	8 1/4	3/4
OF500-102	.001	50 KV	8 1/4	13/16
OF500-202	.002	50 KV	8 1/4	1 1/8
OF500-502	.005	50 KV	10 3/4	1 3/8
OF600-101	.0001	60 KV	10	3/4
OF600-201	.0002	60 KV	10	3/4
OF600-501	.0005	60 KV	10	3/4
OF600-102	.001	60 KV	10	29/32
OF600-202	.002	60 KV	10	1 3/8
OF600-502	.005	60 KV	11 1/2	1 5/8

TYPE HG VOLTAGE RATED FOR −65°C TO 65°C

PART NUMBER	CAP. MFD	VOLTS DC	P P VOLTS	DIMENSIONS LGTH.	DIA.
HG25-103	.01	2500	1500	1	1 1/8
HG25-203	.02	2500	1500	1 1/2	1 1/8
HG25-503	.05	2500	1500	2	1 3/8
HG25-104	0.1	2500	1500	2 1/2	1 5/8
HG35-502	.005	3500	2500	1	1 1/8
HG35-103	.01	3500	2500	1	1 5/8
HG35-203	.02	3500	2500	1 1/2	1 3/8
HG35-503	.05	3500	2500	2 1/2	1 5/8
HG50-502	.005	5000	3000	2	1 1/8
HG50-103	.01	5000	3000	2	1 3/8
HG50-203	.02	5000	3000	3	1 3/8
HG50-503	.05	5000	3000	5 1/2	1 1/8
HG70-202	.002	7000	5000	2	29/32
HG70-502	.005	7000	5000	2	1 5/8
HG70-103	.01	7000	5000	4	1 1/8
HG70-203	.02	7000	5000	4	1 5/8
HG100-102	.001	10 KV	7000	3	29/32
HG100-202	.002	10 KV	7000	3	1 1/8
HG100-502	.005	10 KV	7000	6	1 1/8
HG100-103	.01	10 KV	7000	6	1 3/8
HG140-102	.001	14 KV	10 KV	4	29/32
HG140-202	.002	14 KV	10 KV	4	1 3/8
HG140-502	.005	14 KV	10 KV	8	1 1/8
HG140-103	.01	14 KV	10 KV	8	1 5/8
HG200-201	.0002	20 KV	15 KV	5 3/4	3/4
HG200-501	.0005	20 KV	15 KV	5 3/4	29/32
HG200-102	.001	20 KV	15 KV	5 3/4	1 1/8
HG200-202	.002	20 KV	15 KV	5 3/4	1 5/8
HG250-201	.0002	25 KV	20 KV	7 1/4	3/4
HG250-501	.0005	25 KV	20 KV	7 1/4	29/32
HG250-102	.001	25 KV	20 KV	7 1/4	1 3/8
HG250-202	.002	25 KV	20 KV	7 1/4	1 5/8

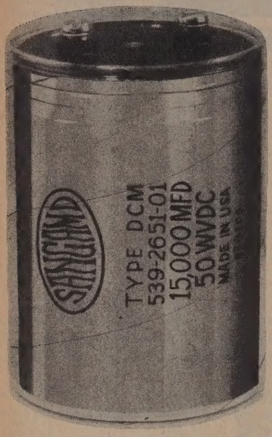
THE ABOVE ARE PARTIAL LISTINGS. WRITE FOR COMPLETE ENGINEERING INFORMATION.

This is but a partial listing of capacitances and voltages available.

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS



TYPE DCM

(Mounting Bracket Optional)

Type DCM COMPUTER GRADE FILTER AND ENERGY STORAGE ELECTROLY

The SANGAMO Type DCM is a high quality, long life, electrolytic capacit specially designed for use as an energy storage or filter capacitor. The Ty DCM is enclosed in an aluminum can and is normally furnished with a cl plastic insulating sleeve. Aluminum terminals, which are permanently mold into the top, include #10-32 machine screws. A pressure-sensitive vent provided as a safety mechanism in each top. In the listings, the Sanga specification number has been adopted as the catalog number. The numbe "539" in the catalog number indicate the type as DCM. The new catalog nu bers reflect the change in terminal spacings as noted in the table below. footed, wrap-around mounting bracket is available at extra cost. For mo complete information write for Engineering Bulletin 2231A.

New Catalog Number	Old Catalog Number	Capacitance in mF.	Working Volts DC	Case Size		Net Each 1-24*
				Diameter	Length	
539-2619-01	539-1807-01	33,000	5	2- 1/16	4-1/2	$ 7.56
539-2621-01	539-1768-01	125,000	5	3- 1/16	6	16.71
539-2622-01	539-1811-01	10,000	10	1- 7/16	4-1/2	5.10
539-2736-01	539-1812-01	15,000	10	1-13/16	4-1/2	5.73
539-2623-01	539-1814-01	20,000	10	2- 1/16	4-1/2	7.77
539-2624-01	539-1769-01	35,000	10	2- 1/16	6	10.92
539-2626-01	539-1809-01	60,000	10	3- 1/16	4-1/2	15.39
539-2627-01	539-1770-01	90,000	10	3- 1/16	6	19.77
539-2628-01	539-1241-01	6,000	15	1- 7/16	4-1/2	4.23
539-2737-01	539-1291-01	10,000	15	1-13/16	4-1/2	5.34
539-2738-01	539-1825-01	14,000	15	1-13/16	4-1/2	6.96
539-2629-01	539-1826-01	18,000	15	2- 1/16	4-1/2	8.49
539-2630-01	539-1771-01	25,000	15	2- 1/16	6	10.95
539-2631-01	539-1827-01	33,000	15	2- 9/16	4-1/2	11.28
539-2632-01	539-1817-01	40,000	15	3- 1/16	4-1/2	12.48
539-2673-01	539-1740-01	50,000	15	3- 1/16	6	15.12
539-2634-01	539-1653-01	5,000	25	1- 7/16	4-1/2	4.74
539-2635-01	539-1084-01	10,000	25	2- 1/16	4-1/2	7.26
539-2636-01	539-2235-01	15,000	25	2- 1/16	6	10.20
539-2637-01	539-2423-01	20,000	25	2- 9/16	4-1/2	10.59
539-2639-01	539-2118-01	40,000	25	3- 1/16	6	17.55
539-2640-01	539-2236-01	1,500	35	1- 7/16	3-1/2	3.18
539-2641-01	539-1893-01	4,000	35	1- 7/16	4-1/2	5.22
539-2740-01	539-1889-01	5,000	35	1-13/16	4-1/2	5.85
539-2642-01	539-1892-01	8,000	35	2- 1/16	4-1/2	8.55
539-2643-01	539-1777-01	10,000	35	2- 1/16	6	10.20
539-2644-01	539-1895-01	15,000	35	2- 9/16	4-1/2	11.22
539-2645-01	539-1897-01	20,000	35	3- 1/16	4-1/2	11.46
539-2646-01	539-1778-01	30,000	35	3- 1/16	6	12.84
539-2647-01	539-1872-01	2,500	50	1- 7/16	4-1/2	4.08
539-2741-01	539-1758-01	4,000	50	1-13/16	4-1/2	5.49
539-2648-01	539-1697-01	5,000	50	2- 1/16	4-1/2	7.11
539-2649-01	539-1781-01	8,000	50	2- 1/16	6	8.79
539-2650-01	539-1832-01	10,000	50	2- 9/16	4-1/2	11.46
539-2651-01	539-1820-01	15,000	50	3- 1/16	4-1/2	13.65
539-2652-01	539-1782-01	20,000	50	3- 1/16	6	16.71
539-2653-01	539-1229-01	1,000	75	1- 7/16	4-1/2	4.02
539-2654-01	539-1836-01	3,000	75	2- 1/16	4-1/2	6.27
539-2656-01	539-1698-01	5,000	75	2- 9/16	4-1/2	10.23
539-2657-01	539-1783-01	10,000	75	3- 1/16	6	16.20
539-2658-01	539-1871-01	1,000	100	1- 7/16	4-1/2	4.41
539-2742-01	539-1859-01	1,500	100	1-13/16	4-1/2	4.83
539-2597-01	539-1792-01	3,000	100	2- 1/16	6	9.42
539-2660-01	539-1335-01	4,000	100	2- 9/16	4-1/2	$ 9.
539-2661-01	539-1093-01	5,000	100	3- 1/16	4-1/2	10.
†539-2663-01	539-1654-01	500	150	1- 7/16	3-1/2	3.
539-2664-01	539-1861-01	700	150	1- 7/16	4-1/2	4.
539-2743-01	539-1864-01	1,000	150	1-13/16	4-1/2	4.
539-2744-01	539-1862-01	1,250	150	1-13/16	4-1/2	5.
539-2665-01	539-1763-01	2,000	150	2- 1/16	6	8.
539-2666-01	539-1222-01	2,500	150	2- 9/16	4-1/2	9.
539-2667-01	539-1625-01	4,000	150	3- 1/16	4-1/2	12.
539-2668-01	539-1791-01	6,000	150	3- 1/16	6	15.
539-2669-01	539-1847-01	500	200	1- 7/16	4-1/2	4.
539-2745-01	539-1702-01	750	200	1-13/16	4-1/2	5.
539-2670-01	539-1761-01	1,500	200	2- 1/16	6	7.
539-2671-01	539-2008-01	2,000	200	2- 9/16	4-1/2	9.
539-2672-01	539-1515-01	2,500	200	3- 1/16	4-1/2	10.
539-2746-01	539-2259-01	500	250	1-13/16	4-1/2	4.
†539-2575-01	539-1762-01	1,000	250	2- 1/16	4-1/2	9.
539-2874-01	539-1885-01	1,500	250	2- 9/16	4-1/2	10.
539-2675-01	539-1949-01	275	300	1- 7/16	4-1/2	4.
539-2747-01	539-2260-01	450	300	1-13/16	4-1/2	5.
539-2676-01	539-1992-01	1,000	300	2- 9/16	4-1/2	11.
539-2677-01	539-2233-01	1,500	300	3- 1/16	4-1/2	17.
†539-2584-01	539-2262-01	150	350	1- 7/16	3-1/2	4.
539-2748-01	539-1920-01	350	350	1-13/16	4-1/2	5.
539-2678-01	539-1251-01	1,000	350	3- 1/16	4-1/2	11.
539-2749-01	539-2261-01	250	450	1-13/16	4-1/2	5.
539-2683-01	539-1863-01	300	450	2- 1/16	4-1/2	6.
539-2684-01	539-1803-01	500	450	2- 1/16	6	8.
539-2685-01	539-1080-01	600	450	2- 9/16	4-1/2	9.
539-2686-01	539-1167-01	800	450	3- 1/16	4-1/2	11.

* O.E.M. prices for larger quantities are available on request.
† Reduced case sizes.

NOTE: Capacitor dimensions include insulating sleeve.
NOTE: All units are supplied with screw terminals.
NOTE: Mounting brackets are furnished at extra cost.
NOTE: New catalog numbers issued to reflect changes in terminal spacing as indicated the table below.

	Capacitor Diameter in Inches	Net Price
MOUNTING	1-7/16	$ .24
BRACKETS	1-13/16	.33
FOR TYPE	2-1/16	.36
DCM	2-9/16	.48
	3-1/16	.60

Case Diameter	Terminal spacing center to center	
	New Catalog No.	Old Catalog No.
1-7/16	.500	.547
1-13/16	.750	.750
2-1/16	.875	.937
2-9/16	1.125	.875
3-1/16	1.25	1.375

NOTE: 1-7/16 bracket available with two feet only. All others available with two or three feet. Specify required number of feet.

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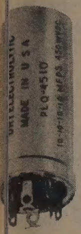
SANGAMO ELECTRIC COMPANY

capacitors

SANGAMO ELECTRONIC COMPONENTS

Type PL and Type PLP Electrolytics



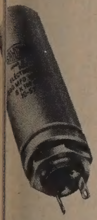
YPE PL
Twist Tab
ounting

The Sangamo Types PL and PLP, "Twist Tab", electrolytic capacitors are specially designed for television and electronic applications requiring long life and dependable performance at 85°C. They are sealed in round aluminum cans with the element tabs securely clamped and staked to the terminal lugs, thus assuring permanent, low resistive connections. In all cases the aluminum can and mounting ring are grounded. All units are manufactured to satisfy conditions of high ripple currents and high surge voltages.

The Type PLP has a combination base allowing interchangeable use for mounting in printed circuit boards and also for conventional twist tab mounting. For a complete listing of available ratings write for Catalog 2152E.

TYPE PLP
For Printed Circuit
Mounting

Types BK, BW, TS and BT Electrolytics

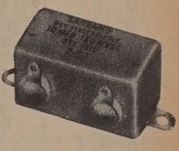


TYPE BK
7/8-16 threaded
ck and hex nut

TYPE BW
for bracket mounting

The Sangamo Types BK, BW, TS and BT which are furnished in aluminum containers, meet all specifications of Mil-C-62B. The Type BK corresponds to the military type CE41 & 42, the BW to CE31, 32 and 33, the TS to CE51, 52 and 53, and the BT to CE63 and 64. For complete listings and information on these types write for Bulletin 2233.

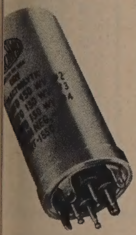
TYPE TS
with four pin octal base
for socket mounting



TYPE BT
with side or top
terminals

ype TR *TELEPHONE GRADE*

HIGH RELIABILITY ELECTROLYTIC



SANGAMO Type TR "High Reliability" electrolytic capacitors are specially designed and manufactured for applications requiring an extremely high level of reliability over long periods of time. The Type TR is ideally suited for high-frequency filtering, by-passing and coupling applications in communications equipment, electronic industrial controls, laboratory test instruments, computers and similar equipment where a high degree of reliability for a minimum of 10 years is essential to the operation of the equipment in which it is used. The SANGAMO Type TR "High Reliability" capacitors are designed to operate throughout the temperature range from -20°C to +85°C. For more complete information write for Engineering Bulletin 2227. Metal or Bakelite mounting washers are available.

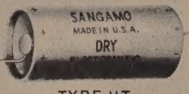
Catalog Number	Capacitance in mF.	Working Voltage DC	Diameter In Inches	Length In Inches	Net Each 1-24*
SINGLE SECTION					
TR-620	2000	6	1-3/8	2-1/2	$4.81
TR-0110	1000	15	1	4	4.53
TR-0250	500	25	1	4	4.70
TR-0520	200	50	1	3-1/2	4.37
TR-1510	100	150	1	4	4.61
TR-2550	50	250	1	3	4.17
TR-3520	20	350	1	2-1/2	4.02
TR-3550	50	350	1	4	4.39
TR-4520	20	450	1	3	4.17
TR-4550	50	450	1-3/8	3	4.81
DUAL SECTIONS					
TRD-1550	50-50	150	1	4	$4.90
TRD-2520	20-20	250	1	3-1/2	4.86
TRD-4510	10-10	450	1	4	4.65
TRD-4520	20-20	450	1-3/8	3-1/2	5.25
TRD-4540	40-40	450	1-3/8	4	5.88
TRIPLE SECTIONS					
TRT-1550	50-50-50	150	1-3/8	4	$5.69
TRT-2540	40-40-40	250	1-3/8	4	5.91
TRT-3520	20-20-20	350	1-3/8	4	5.75
TRT-4520	20-20-20	450	1-3/8	4	6.08

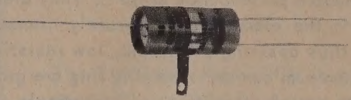
* O.E.M. prices for larger quantities are available on request.

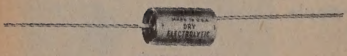
SANGAMO ELECTRIC COMPANY
capacitors

ELECTRONIC COMPONENTS

Types MT, MMT and MTD, Electrolytics


TYPE MT


TYPE MTD


TYPE MMT

SANGAMO Types MT, MTD and MMT are specially designe radio and television applications and other electronic equipment o ating at temperatures up to 85°C. They are encased in drawn al num containers with cardboard insulating sleeves on which pola is clearly marked. The Type MMT, whic a miniature version of the MT, is ide suited to meet the precise operating requ ments of low voltage circuits. Becaus their small physical size the MMT and up to ¾" diameter, are self-supported means of reinforced bare tinned copper leads. The MT and MTD units are provi with mounting straps in 7/8" and 1" diame

Catalog Number	Capacitance in mF.	Working Volts DC	Case Size		Net Each 1-24*
			Diameter	Length	
SINGLE SECTION MT AND MMT					
MMT-325	25	3	3/8	1- 1/16	$0.53
MMT-350	50	3	3/8	1- 1/16	0.58
MT-101	200	3	1/2	1- 1/16	0.78
MT-103	500	3	5/8	1- 5/16	0.97
MT-105	1000	3	3/4	1- 9/16	1.16
MMT-605	5	6	3/8	1- 1/16	0.50
MMT-625	25	6	3/8	1- 1/16	0.51
MMT-650	50	6	3/8	1- 1/16	0.59
MMT-680	80	6	1/2	1- 1/16	0.66
MT-107	100	6	1/2	1- 1/16	0.73
MT-109	250	6	1/2	1- 5/16	0.93
MT-111	500	6	5/8	1- 5/16	1.06
MT-113	1000	6	3/4	1- 9/16	1.31
MT-115	1500	6	3/4	1-13/16	1.43
MT-117	2000	6	7/8	2- 1/16	1.62
MT-119	100	12	1/2	1- 5/16	0.75
MT-121	250	12	5/8	1- 5/16	0.99
MT-123	500	12	3/4	1- 5/16	1.15
MT-125	1000	12	7/8	2- 1/16	1.58
MT-127	100	15	1/2	1- 5/16	0.76
MT-129	250	15	5/8	1- 5/16	1.08
MT-131	500	15	3/4	1- 5/16	1.20
MT-133	1000	15	7/8	2- 1/16	1.61
MT-135	2000	15	1	2- 7/8	1.90
MMT-0210	10	25	3/8	1- 1/16	0.62
MMT-0220	20	25	3/8	1- 1/16	0.62
MT-0225	25	25	1/2	1- 1/16	0.64
MT-0250	50	25	1/2	1- 1/16	0.68
MT-02100	100	25	5/8	1- 1/16	0.84
MT-02250	250	25	3/4	1- 5/16	1.15
MT-02500	500	25	3/4	1-13/16	1.57
MT-0501	1	50	1/2	1- 1/16	0.57
MT-0502	2	50	1/2	1- 1/16	0.57
MT-0504	4	50	1/2	1- 1/16	0.60
MMT-0505	5	50	3/8	1- 1/16	0.60
MMT-0510	10	50	3/8	1- 1/16	0.60
MT-0520	20	50	1/2	1- 1/16	0.63
MT-0525	25	50	1/2	1- 1/16	0.64
MMT-0530	30	50	1/2	1- 5/16	0.69
MT-0550	50	50	5/8	1- 1/16	0.75
MT-05100	100	50	5/8	1- 9/16	0.87
MT-05150	150	50	3/4	1- 9/16	0.96
MT-05250	250	50	7/8	1- 9/16	1.25
MT-1504	4	150	1/2	1- 1/16	0.62
MMT-1505	5	150	3/8	1- 1/16	0.62
MT-1508	8	150	1/2	1- 1/16	0.65
MT-1510	10	150	1/2	1- 1/16	0.66
MT-1512	12	150	1/2	1- 5/16	0.68
MT-1516	16	150	5/8	1- 1/16	0.72
MT-1520	20	150	5/8	1- 1/16	$0.73
MT-1525	25	150	5/8	1- 5/16	0.77
MT-1530	30	150	5/8	1- 5/16	0.81
MT-1540	40	150	5/8	1- 9/16	0.85
MT-1550	50	150	3/4	1- 5/16	0.88
MT-1560	60	150	3/4	1- 9/16	0.92
MT-1580	80	150	3/4	1-13/16	1.00
MT-15100	100	150	7/8	1- 9/16	1.13
MT-15150	150	150	1	1- 9/16	1.23
MT-15200	200	150	1	2- 5/16	1.35
MT-15300	300	150	1	2- 7/8	1.46
MT-2504	4	250	1/2	1- 1/16	0.62
MT-2508	8	250	5/8	1- 1/16	0.78
MT-2510	10	250	5/8	1- 5/16	0.81
MT-2512	12	250	5/8	1- 5/16	0.83
MT-2516	16	250	5/8	1- 9/16	0.88
MT-2520	20	250	5/8	1-13/16	0.93
MT-2530	30	250	3/4	1-13/16	1.00
MT-2540	40	250	7/8	1- 9/16	1.12
MT-25100	100	250	1	2- 5/16	1.44
MMT-3003	3	300	1/2	1- 1/16	0.69
MT-3504	4	350	5/8	1- 1/16	0.71
MT-3508	8	350	5/8	1- 9/16	0.81
MT-3510	10	350	5/8	1-13/16	0.86
MT-3516	16	350	3/4	1-13/16	0.96
MT-3520	20	350	7/8	1- 9/16	1.03
MT-3530	30	350	1	1-13/16	1.17
MT-3540	40	350	1	2- 1/16	1.21
MT-3560	60	350	1	2- 7/8	1.32
MMT-4501	1	450	3/8	1- 1/16	0.74
MT-4502A	2	450	1/2	1- 1/16	0.75
MMT-4503	3	450	1/2	1- 5/16	0.76
MT-4504	4	450	5/8	1- 5/16	0.77
MT-4508	8	450	3/4	1- 5/16	0.87
MT-4510	10	450	3/4	1- 9/16	0.87
MT-4512	12	450	3/4	1-13/16	0.94
MT-4516	16	450	3/4	2- 5/16	0.99
MT-4520	20	450	7/8	1-13/16	1.11
MT-4530	30	450	1	1-13/16	1.21
MT-4540	40	450	1	2- 5/16	1.26
MT-4550	50	450	1	2- 7/8	1.47
MT-4560	60	450	1	3- 3/16	1.58
MT-4580	80	450	1	3-11/16	1.79
MT-4710	10	475	3/4	1-13/16	0.93
MT-4720	20	475	7/8	2- 5/16	1.46
MT-5008	8	500	7/8	1- 9/16	0.93
MT-5010	10	500	7/8	1- 9/16	0.99
MT-5016	16	500	7/8	2- 1/16	1.07
MT-5020	20	500	1	1-13/16	1.13
DUAL SECTION MTD					
MTD-1520	20-20	150	7/8	1- 1/16	$1.17
MTD-1530	30-30	150	7/8	1- 9/16	1.21
MTD-302	40-20	150	7/8	1- 9/16	1.23
MTD-304	40-30	150	7/8	1-13/16	1.25
MTD-1540	40-40	150	7/8	1-13/16	1.29
MTD-301	50-30	150	7/8	1-13/16	1.29
MTD-1550	50-50	150	7/8	2- 1/16	1.35
MTD-303	80-40	150	7/8	2- 1/16	$1.41
MTD-2520	20-20	250	7/8	1-13/16	1.29
MTD-3520	20-20	350	1	2- 7/8	1.55
MTD-4508	8-8	450	7/8	1- 9/16	1.29
MTD-4510	10-10	450	7/8	1-13/16	1.35
MTD-4520	20-20	450	1	2- 7/8	1.76
MTD-4530	30-30	450	1	3- 3/16	2.12
MTD-4540	40-40	450	1	3-11/16	2.46

NOTE: Dimensions are for metal cases. Add 1/16" to diameter and 3/16" to length for cardboard insulating sleeve.

* O.E.M. prices for larger quantities are available on re

SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

ype MJ *MOTOR STARTING ELECTROLYTIC*

MOTOR STARTING CAPACITOR
DRY ELECTROLYTIC
318-440 MFD 110 VAC
60 CYCLES

The SANGAMO Type MJ motor starting capacitor is designed for maximum capacitance per unit volume, heavy duty applications and long life--all of which provide dependable performance under performance under unusual environmental conditions.

These capacitors are encased in black plastic cases. A plastic end cap is available at extra cost. All Type MJR capacitors are equipped with combination lug and screw terminals adaptable for solder, quick disconnect or screw connections, making them ideal for the replacement market. For more complete engineering information write for Bulletin No. 2228.

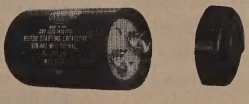
Catalog Number	Capacitance in mF.	Diameter in Inches	Length in Inches	Net Price 1-24*
110 VOLTS AC				
MJ-11021F	21-25	1 7/16	2 3/4	$1.22
MJ-11025F	25-30	1 7/16	2 3/4	1.23
MJ-11030F	30-36	1 7/16	2 3/4	1.26
MJ-11036F	36-43	1 7/16	2 3/4	1.30
MJ-11043F	43-53	1 7/16	2 3/4	1.35
MJ-11047F	47-56	1 7/16	2 3/4	1.37
MJ-11053F	53-64	1 7/16	2 3/4	1.40
MJ-11064F	64-77	1 7/16	2 3/4	1.49
MJ-11072F	72-88	1 7/16	2 3/4	1.53
MJ-11088F	88-108	1 7/16	2 3/4	1.64
MJ-11108F	108-130	1 7/16	2 3/4	1.78
MJ-11124F	124-149	1 7/16	2 3/4	1.87
MJ-11130F	130-156	1 7/16	2 3/4	1.91
MJ-11145F	145-175	1 7/16	2 3/4	2.02
MJ-11161F	161-193	1 7/16	3 3/8	2.20
MJ-11189F	189-227	1 7/16	3 3/8	2.42
MJ-11216F	216-259	1 7/16	3 3/8	2.67
MJ-11233F	233-280	1 13/16	3 3/8	2.83
MJ-11243F	243-292	1 13/16	3 3/8	2.92
MJ-11270F	270-324	1 13/16	3 3/8	3.06
MJ-11340F	340-408	1 13/16	3 3/8	3.55
MJ-11378F	378-440	1 13/16	3 3/8	3.99
MJ-11400F	400-480	1 13/16	3 3/8	4.20
MJ-11430F	430-516	1 13/16	4 3/8	4.48
MJ-11460F	460-552	1 13/16	4 3/8	4.75
MJ-11540F	540-648	1 13/16	4 3/8	5.50
MJ-11590F	590-708	1 13/16	4 3/8	6.18
125 VOLTS AC				
MJ-12021F	21-25	1 7/16	2 3/4	$1.27
MJ-12025F	25-30	1 7/16	2 3/4	1.29
MJ-12030F	30-36	1 7/16	2 3/4	1.32
MJ-12036 F	36-43	1 7/16	2 3/4	1.37
MJ-12043F	43-53	1 7/16	2 3/4	1.45
MJ-12047F	47-56	1 7/16	2 3/4	1.49
MJ-12053F	53-64	1 7/16	2 3/4	1.55
MJ-12064F	64-77	1 7/16	2 3/4	1.66
MJ-12072F	72-88	1 7/16	2 3/4	1.76
MJ-12088F	88-108	1 7/16	2 3/4	1.93
MJ-12108F	108-130	1 7/16	2 3/4	2.14
MJ-12124F	124-149	1 7/16	2 3/4	2.28
MJ-12130F	130-156	1 7/16	2 3/4	2.35
MJ-12145F	145-175	1-7/16	3 3/8	2.47
MJ-12161F	161-193	1 7/16	3 3/8	2.62
MJ-12189F	189-227	1 7/16	3 3/8	2.89
MJ-12216F	216-259	1 13/16	3 3/8	3.10
MJ-12233F	233-280	1 13/16	3 3/8	3.26
MJ-12243F	243-292	1 13/16	3 3/8	3.34
MJ-12270F	270-324	1 13/16	3 3/8	3.76
MJ-12340F	340-408	1 13/16	3 3/8	4.35
MJ-12378F	378-440	1 13/16	3 3/8	4.64
MJ-12400F	400-480	1 13/16	4 3/8	4.81
MJ-12430F	430-516	2 1/16	3 3/8	5.03
MJ-12460F	460-552	2 1/16	3 3/8	5.33
MJ-12540F	540-648	2 1/16	4 3/8	6.18
MJ-12590F	590-708	2-1/16	4 3/8	6.83

.E.M. prices for larger quantities are available on request.

Catalog Number	Capacitance in mF.	Diameter in Inches	Length in Inches	Net Price 1-24*
160 VOLTS AC				
MJ-16021F	21-25	1-7/16	2-3/4	$1.55
MJ-16025F	25-30	1-7/16	2-3/4	1.61
MJ-16030F	30-36	1-7/16	2-3/4	1.69
MJ-16036F	36-43	1-7/16	2-3/4	1.78
MJ-16043F	43-53	1-7/16	2-3/4	1.90
MJ-16047F	47-56	1-7/16	2-3/4	1.97
MJ-16053F	53-64	1-7/16	3-3/8	2.07
MJ-16064F	64-77	1-7/16	3-3/8	2.25
MJ-16072F	72-88	1-7/16	3-3/8	2.46
MJ-16088F	88-108	1-13/16	3-3/8	2.80
MJ-16108F	108-130	1-13/16	3-3/8	3.12
MJ-16124F	124-149	1-13/16	3-3/8	3.40
MJ-16130F	130-156	1-13/16	3-3/8	3.47
MJ-16145F	145-175	1-13/16	3-3/8	3.73
MJ-16161F	161-193	1-13/16	4-3/8	4.11
MJ-16189F	189-227	1-13/16	4-3/8	4.59
MJ-16216F	216-259	1-13/16	4-3/8	4.93
MJ-16233F	233-280	1-13/16	4-3/8	5.21
MJ-16243F	243-292	1-13/16	4-3/8	5.37
MJ-16270F	270-324	2-9/16	4-3/8	6.07
220 VOLTS AC				
MJ-22021F	21-25	1-7/16	2-3/4	$2.19
MJ-22025F	25-30	1-7/16	2-3/4	2.28
MJ-22030F	30-36	1-7/16	2-3/4	2.39
MJ-22036F	36-43	1-7/16	3-3/8	2.56
MJ-22043F	43-53	1-7/16	3-3/8	2.69
MJ-22047F	47-56	1-7/16	3-3/8	2.80
MJ-22053F	53-64	1-13/16	3-3/8	2.96
MJ-22064F	64-77	1-13/16	3-3/8	3.34
MJ-22072F	72-88	1-13/16	3-3/8	3.54
MJ-22088F	88-108	1-13/16	3-3/8	3.85
MJ-22108F	108-130	1-13/16	4-3/8	4.26
MJ-22124F	124-149	1-13/16	4-3/8	4.60
MJ-22130F	130-156	1-13/16	4-3/8	4.75
MJ-22145F	145-175	2-1/16	4-3/8	5.09
MJ-22161F	161-193	2-1/16	4-3/8	5.65
320 VOLTS AC				
MJ-32021F	21-25	1-7/16	3-3/8	$2.89
MJ-32025F	25-30	1-13/16	3-3/8	3.24
MJ-32030F	30-36	1-13/16	3-3/8	3.43
MJ-32036F	36-43	1-13/16	3-3/8	3.73
MJ-32043F	43-53	1-13/16	4-3/8	4.04
MJ-32047F	47-56	1-13/16	4-3/8	4.24
MJ-32053F	53-64	1-13/16	4-3/8	4.54
MJ-32064F	64-77	2-1/16	4-3/8	5.13
MJ-32072F	72-88	2-1/16	4-3/8	5.59
MJ-32088F	88-108	2-9/16	4-3/8	6.44
MJ-32108F	108-130	2-9/16	4-3/8	7.64

NOTE: Type MJ capacitors are also available with lug terminal only (Type MJL) or screw terminal only, (Type MJS). The terminal designation (R, L or S) must be included in the catalog number.

NOTE: To include end cap in overall length, add 1/2 inch to capacitor length.



TYPE MJ End-Cap

Diameter in Inches	Net Price
1-7/16	$.11
1-13/16	.13
2-1/16	.15
2-9/16	.22

SANGAMO ELECTRIC COMPANY

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SANGAMO ELECTRONIC COMPONENTS

GENERAL SPECIFICATIONS FOR MICA CAPACITORS

Mica capacitors have been continuously manufactured and improved by Sangamo for over 35 years. The quality of Sangamo mica capacitor is the result of long experience in the selection of superior grades of India ruby mica, and know-how in the formulation and selection of unique enclosing materials such as molding compounds. Our laboratory and manufacturing facilities are equipped with specialized and modern equipment and are staffed to provide con attention to continuing development of quality and cust Service. All Sangamo micas are designed to exceed the formance requirements of applicable Military Specifica such as Mil-C-5B and Mil-C-10950B.

NOTE: In line with industry standardization, p used in place of mmF.

MARKING

Sangamo wire lead mica capacitors can be marked by either ink stamping or color coding. Ink stamping can be supplied to the Sangamo identification or the Military designation, both of which are defined below. Color coding be supplied for Mil-C-5 or E. I. A. Other ink stampings color codes are available on request.

INK STAMPING

COMMERCIAL

DR 5 B 100 K N

SANGAMO TYPE
TABLE I

DC VOLTAGE IN HUNDREDS

CHARACTERISTIC
TABLE II

CAPACITANCE (PF)
TABLE VI

TOLERANCE
TABLE III

TEMPERATURE
TABLE V

Mil-C-5B

CM15 B 100 K N 3

MIL TYPE
TABLE I

CHARACTERISTIC
TABLE II

CAPACITANCE (PF)
TABLE VI

TOLERANCE
TABLE III

TEMP. RANGE
TABLE V

VIBRATION GR
TABLE IV

Table I Comparable Case Size

MIL Type	Sangamo Type	MIL Type	Sangamo Type
CM15	RR-DR	CM60	AK
CM20	KR	CM65	F1
CM30	C-CR	CM70	F2
CM35	CK-CRK	CM75	G1
CM45	HT	CM80	G2
CM50	HK	CM85	G3
CM55	AT	CM90	G4
		CM95	G5

Table II Characteristic

Letter designation	Temperature coefficient Parts/million/°C.	Capacitance drift
B.	Not specified	Not Specifie
C.	−200 to +200	±0.5 percent
D.	−100 to +100	±0.3 percent
E.	−20 to +100	±(0.1 percen +0.1 pF)
F.	0 to +70	±(0.05 perce +0.1 pF)

Table III Tolerance

Letter designation	% Tolerance
F	±1
G	±2
J	±5
K	±10
M	±20

Table IV Vibration Grade

Symbol	Vibration Condition
	Cycles per second (cps)
1	10 to 55
3	10 to 2,000

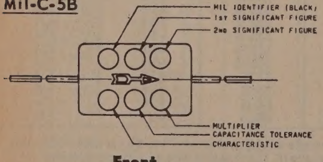
All Commercial units supplied to Vibration grade 3 at no additional charge

Table V Operating Temperature Range

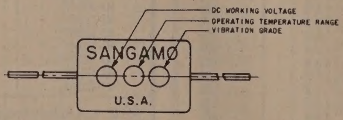
Letter designation	Temperature Range °C
M	−55 to +70
N	−55 to +85
O	−55 to +125
P	−55 to +150

COLOR CODE

Mil-C-5B



Front



Back

Mil-C-5A

Same as Mil-C-5B except

1) dots on reverse side are omitte (w.v.d.c., temp., vibration)
2) 5% tolerance coded GOLD
3) 20% tolerance coded BLACK

E. I. A.

Same as Mil-C-5A except

1) first dot coded WHITE
2) "A" characteristic coded BLA
3) 10,000 multiplier coded YELLO
4) 0.01 multiplier coded SILVER
5) 1% tolerance coded BROWN
6) 3% tolerance coded ORANGE

Table VI

Color	Characteristic	Capacitance 1st & 2nd Significant Figure	Capacitance Multiplier*	Capacitance Tolerance Percent (±)	DC Working Voltage	Operating Temperature	Vibration Range
Black	---	0	1	---	---	(M) −55° to +70°C	(1) 10-55 CPS
Brown	B	1	10	---	---	---	---
Red	C	2	100	2(G)	---	(N) −55° to +85°C	---
Orange	D	3	1000	---	300	---	---
Yellow	E	4	---	---	---	(O) −55° to +125°C	(3) 10-2000 CPS
Green	F	5	---	5(J)	500	---	---
Blue	---	6	---	---	---	(P) −55° to +150°C	---
Purple (Violet)	---	7	---	---	---	---	---
Gray	---	8	---	---	---	---	---
White	---	9	---	---	---	---	---
Gold	---	---	0.1	---	---	---	---
Silver	---	---	---	10(K)	---	---	---

*The Multiplier is the Factor by which the two Significant Figures are multiplied to yield the nominal capacitance.

Capacitance: First 2 digits are significant figures. 3rd digit indicates number of zeros following significant figures.

SANGAMO ELECTRIC COMPANY

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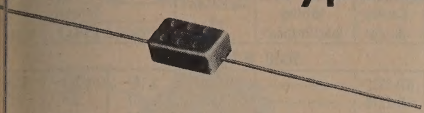
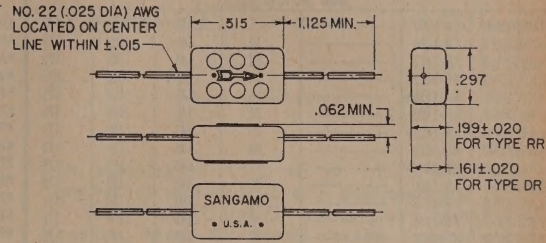
ELECTRONIC COMPONENTS

Type DR-RR *SILVERED MICA*



ype DR and RR capacitors are molded in red niditite. These units are normally supplied as 6, "C" characteristic 20 pF and below, and " characteristic above 20 pF. Units can be plied to ±½ pF or ±½% tolerance whichever is ater. For more complete engineering informa- write for Bulletin 2320



TYPE DR and RR

(125° C)

500 W.V.D.C.

New atalog imber*	Old Catalog Number	Applicable Military Specification*	Capacitance pF.	Net Price (1-49)**		
				Tolerance		
				± 10% (K)	± 5% (J)	± 2% (G)
5C050-0	DR-1550	------------------	5	$.129	$.143	$.157
5C100-0	DR-1410	CM15B100-03	10	.129	.143	.157
5C120-0	DR-1412	CM15B120-03	12	.129	.143	.157
5C150-0	DR-1415	CM15B150-03	15	.129	.143	.157
5C180-0	DR-1418	CM15B180-03	18	.129	.143	.157
5E200-0	DR-1420	CM15C200-03	20	.129	.143	.157
5E220-0	DR-1422	CM15C220-03	22	.129	.143	.157
5E240-0	DR-1424	CM15C240-03	24	.129	.143	.157
5E270-0	DR-1427	CM15C270-03	27	.129	.143	.157
5E300-0	DR-1430	CM15C300-03	30	.129	.143	.157
5E330-0	DR-1433	CM15C330-03	33	.129	.143	.157
5E360-0	DR-1436	CM15C360-03	36	.129	.143	.157
5E390-0	DR-1439	CM15C390-03	39	.129	.143	.157
5E430-0	DR-1443	CM15C430-03	43	.129	.143	.157
5E470-0	DR-1447	CM15C470-03	47	.129	.143	.157
5E500-0	DR-1450	------------------	50	.129	.143	.157
5E510-0	DR-1451	CM15C510-03	51	.129	.143	.157
5E560-0	DR-1456	CM15C560-03	56	.129	.143	.157
5E620-0	DR-1462	CM15C620-03	62	.129	.143	.157
5E680-0	DR-1468	CM15C680-03	68	.140	.155	.186
5E750-0	DR-1475	CM15C750-03	75	.140	.155	.186
5E820-0	DR-1482	CM15C820-03	82	.150	.167	.200
5E910-0	DR-1491	CM15C910-03	91	.150	.167	.200

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pF.	Net Price (1-49)**		
				Tolerance		
				± 10% (K)	± 5% (J)	± 2% (G)
DR5E101-0	DR-1310	CM15C101-03	100	$.150	$.167	$.184
DR5E111-0	DR-1311	CM15C111-03	110	.162	.179	.197
DR5E121-0	DR-1312	CM15C121-03	120	.162	.179	.197
DR5E131-0	DR-1313	CM15C131-03	130	.173	.191	.210
DR5E151-0	DR-1315	CM15C151-03	150	.173	.191	.210
DR5E161-0	DR-1316	CM15C161-03	160	.183	.203	.223
DR5E181-0	DR-1318	CM15C181-03	180	.195	.215	.236
DR5E201-0	DR-1320	CM15D201-03	200	.195	.215	.236
DR5E221-0	DR-1322	CM15D221-03	220	.206	.228	.251
DR5E241-0	DR-1324	CM15D241-03	240	.217	.240	.264
DR5E251-0	DR-1325	------------------	250	.217	.240	.264
DR5E271-0	DR-1327	CM15D271-03	270	.227	.252	.277
DR5E301-0	DR-1330	CM15D301-03	300	.239	.264	.290
†DR3E331-0	DR-06333	------------------	330	.250	.276	.330
†DR3E361-0	DR-06336	------------------	360	.261	.278	.345
†DR3E391-0	DR-06339	------------------	390	.271	.300	.360
RR5E391-0	RR-1339	CM15D391-03	390	.283	.312	.375
RR5E431-0	RR-1343	CM15D431-03	430	.285	.321	.390
RR5E471-0	RR-06347	------------------	470	.304	.337	.371
RR5E501-0	RR-06350	------------------	500	.315	.348	.383
RR5E511-0	RR-06351	------------------	510	.315	.348	.383
RR5E561-0	RR-06356	------------------	560	.336	.370	.450

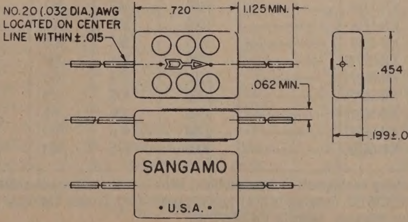
Complete catalog number will include additional letter to designate capacitive tolerance. Example: DR5E270J0. Complete Military type designation will include additional letter for capacitive tolerance. Example: CM15C270J03.

** O.E.M. prices for larger quantities are available on request.

† Voltage rating 300 W.V.D.C.

ype KR *MICA*

ype KR capacitors are molded in Humiditite. ese capacitors are normally supplied at ±5% erance, "C" characteristic 20 pF and below, d "E" characteristic above 20 pF. Units can supplied to ±1/2 pF or ±1/2% tolerance which- er is greater. For more complete engineering ormation write for Bulletin 2320.



SANGAMO ELECTRIC COMPANY

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SANGAMO ELECTRONIC COMPONENTS

Type KR Mica - continued -

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pF.	Net Price (1-49)** Tolerance ± 10%(K)	± 5%(J)	± 2%(G)
			500 W.V.D.C.			
KR5C050-0	KR-1550	----------------	5	$.145	$.159	$.175
KR5C100-0	KR-1410	----------------	10	.145	.159	.175
KR5C120-0	KR-1412	----------------	12	.145	.159	.175
KR5C150-0	KR-1415	----------------	15	.145	.159	.175
KR5C180-0	KR-1418	----------------	18	.145	.159	.175
KR5C200-0	KR-1420	----------------	20	.145	.159	.175
KR5E220-0	KR-1422	----------------	22	.145	.159	.175
KR5E240-0	KR-1424	----------------	24	.145	.159	.175
KR5E270-0	KR-1427	----------------	27	.145	.159	.175
KR5E300-0	KR-1430	----------------	30	.145	.159	.175
KR5E330-0	KR-1433	----------------	33	.145	.159	.175
KR5E360-0	KR-1436	----------------	36	.145	.159	.175
KR5E390-0	KR-1439	----------------	39	.145	.159	.175
KR5E430-0	KR-1443	----------------	43	.145	.159	.175
KR5E470-0	KR-1447	----------------	47	.145	.159	.175
KR5E500-0	KR-1450	----------------	50	.145	.159	.175
KR5E510-0	KR-1451	----------------	51	.145	.159	.175
KR5E560-0	KR-1456	----------------	56	.145	.159	.175
KR5E620-0	KR-1462	----------------	62	.145	.159	.175
KR5E680-0	KR-1468	----------------	68	.145	.159	.175
KR5E750-0	KR-1475	----------------	75	.145	.159	.175
KR5E820-0	KR-1482	----------------	82	.145	.159	.175
KR5E910-0	KR-1491	----------------	91	.145	.159	.175
KR5E101-0	KR-1310	----------------	100	.145	.159	.175
KR5E111-0	KR-1311	----------------	110	.145	.159	.175
KR5E121-0	KR-1312	----------------	120	.145	.159	.175
KR5E131-0	KR-1313	----------------	130	.145	.159	.175
KR5E151-0	KR-1315	----------------	150	.145	.159	.175
KR5E161-0	KR-1316	----------------	160	.165	.182	.200
KR5E181-0	KR-1318	----------------	180	.165	.182	.200
KR5E201-0	KR-1320	----------------	200	.165	.182	.200
KR5E221-0	KR-1322	----------------	220	.165	.182	.200
KR5E241-0	KR-1324	----------------	240	.165	.182	.200
KR5E251-0	KR-1325	----------------	250	.165	.182	.200
KR5E271-0	KR-1327	----------------	270	.165	.182	.200
KR5E301-0	KR-1330	----------------	300	.186	.199	.219
KR5E331-0	KR-1333	----------------	330	.186	.199	.219
KR5E361-0	KR-1336	----------------	360	.186	.199	.219
KR5E391-0	KR-1339	----------------	390	.186	.199	.219
KR5E401-0	KR-1340	----------------	400	.186	.199	.219
KR5E431-0	KR-1343	CM20D431-03	430	.205	.227	.250
KR5E471-0	KR-1347	CM20D471-03	470	.205	.227	.250
KR5E501-0	KR-1350	----------------	500	.205	.227	.250
KR5E511-0	KR-1351	----------------	510	.205	.227	.250
KR5E561-0	KR-1356	CM20D561-03	560	.226	.249	.274
KR5E601-0	KR-1360	----------------	600	.226	.249	.274
KR5E621-0	KR-1362	CM20D621-03	620	.226	.249	.274
KR5E681-0	KR-1368	CM20D681-03	680	.226	.249	.274
KR5E701-0	KR-1370	----------------	700	.246	.271	.298
KR5E751-0	KR-1375	CM20D751-03	750	.246	.271	.298
KR5E801-0	KR-1380	----------------	800	.246	.271	.298
KR5E821-0	KR-1382	CM20D821-03	820	.246	.271	.298
KR5E901-0	KR-1390	----------------	900	.266	.293	.323
KR5E911-0	KR-1391	CM20D911-03	910	.266	.293	.323
KR5E102-0	KR-1210	CM20D102-03	1000	.286	.315	.346
KR5E112-0	KR-1211	----------------	1100	.306	.336	.370
KR5E122-0	KR-1212	----------------	1200	.306	.336	.370
KR5E132-0	KR-1213	----------------	1300	.326	.360	.420
KR5E152-0	KR-1215	----------------	1500	.345	.381	.442
KR5E162-0	KR-1216	----------------	1600	.365	.402	.468
KR5E182-0	KR-1218	----------------	1800	.387	.425	.468
†KR3E202-0	KR-06220	----------------	2000	.396	.440	.485
†KR3E222-0	KR-06222	----------------	2200	.416	.461	.510
†KR3E242-0	KR-06224	----------------	2400	.436	.478	.525
†KR3E252-0	KR-06225	----------------	2500	.436	.478	.525
†KR3E272-0	KR-06227	----------------	2700	.456	.502	.550
†KR3E302-0	KR-06230	----------------	3000	.475	.524	.575

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pF.	Net Price (1-49)** Tolerance ± 10%(K)	± 5%(J)	± 2%
			1000 W.V.D.C.			
KR10E121-0	KR-2312	----------------	120	$.167	$.184	$.20
KR10E131-0	KR-2313	----------------	130	.167	.184	.20
KR10E151-0	KR-2315	----------------	150	.167	.184	.20
KR10E181-0	KR-2318	----------------	180	.167	.184	.20
KR10E201-0	KR-2320	----------------	200	.188	.207	.22
KR10E221-0	KR-2322	----------------	220	.188	.207	.22
KR10E241-0	KR-2324	----------------	240	.188	.207	.22
KR10E271-0	KR-2327	----------------	270	.188	.207	.22
KR10E301-0	KR-2330	----------------	300	.209	.230	.25
KR10E331-0	KR-2333	----------------	330	.209	.230	.25
KR10E361-0	KR-2336	----------------	360	.209	.230	.25
KR10E391-0	KR-2339	----------------	390	.230	.253	.27
KR10E431-0	KR-2343	----------------	430	.230	.253	.27
KR10E451-0	KR-2345	----------------	450	.230	.253	.27
KR10E471-0	KR-2347	----------------	470	.230	.253	.27
KR10E511-0	KR-2351	----------------	510	.251	.277	.30
KR10E561-0	KR-2356	----------------	560	.251	.277	.30
KR10E621-0	KR-2362	----------------	620	.271	.300	.33
KR10E681-0	KR-2368	----------------	680	.293	.325	.35
KR10E751-0	KR-2375	----------------	750	.293	.325	.35
KR10E821-0	KR-2382	----------------	820	.313	.345	.38
KR10E921-0	KR-2392	----------------	920	.334	.370	.40
			1500 W.V.D.C.			
KR15E750-0	KR-3475	----------------	75	$.169	$.185	$.20
KR15E820-0	KR-3482	----------------	82	.191	.210	.23
KR15E910-0	KR-3491	----------------	91	.191	.210	.23
KR15E101-0	KR-3310	----------------	100	.191	.210	.23
KR15E111-0	KR-3311	----------------	110	.191	.210	.23
KR15E121-0	KR-3312	----------------	120	.191	.210	.23
KR15E131-0	KR-3313	----------------	130	.212	.234	.25
KR15E151-0	KR-3315	----------------	150	.212	.234	.25
KR15E161-0	KR-3316	----------------	160	.212	.234	.25
KR15E181-0	KR-3318	----------------	180	.229	.258	.28
KR15E201-0	KR-3320	----------------	200	.229	.258	.28
KR15E221-0	KR-3322	----------------	220	.257	.282	.31
KR15E231-0	KR-3323	----------------	230	.257	.282	.31
KR15E251-0	KR-3325	----------------	250	.279	.310	.34
KR15E271-0	KR-3327	----------------	270	.279	.310	.34
KR15E301-0	KR-3330	----------------	300	.300	.330	.36
KR15E331-0	KR-3333	----------------	330	.321	.354	.39
KR15E361-0	KR-3336	----------------	360	.321	.354	.39
KR15E391-0	KR-3339	----------------	390	.342	.378	.41
KR15E411-0	KR-3341	----------------	410	.366	.402	.44
			2500 W.V.D.C.			
KR25C150-0	KR-5415	----------------	15	$.149	$.165	$.18
KR25C180-0	KR-5418	----------------	18	.172	.190	.20
KR25C200-0	KR-5420	----------------	20	.172	.190	.20
KR25E220-0	KR-5422	----------------	22	.172	.190	.20
KR25E240-0	KR-5424	----------------	24	.172	.190	.20
KR25E270-0	KR-5427	----------------	27	.172	.190	.20
KR25E300-0	KR-5430	----------------	30	.172	.190	.20
KR25E330-0	KR-5433	----------------	33	.196	.216	.23
KR25E360-0	KR-5436	----------------	36	.196	.216	.23
KR25E390-0	KR-5439	----------------	39	.196	.216	.23
KR25E430-0	KR-5443	----------------	43	.196	.216	.23
KR25E470-0	KR-5447	----------------	47	.220	.244	.26
KR25E500-0	KR-5450	----------------	50	.220	.244	.26
KR25E510-0	KR-5451	----------------	51	.220	.244	.26
KR25E560-0	KR-5456	----------------	56	.220	.244	.26
KR25E620-0	KR-5462	----------------	62	.243	.270	.29
KR25E680-0	KR-5468	----------------	68	.243	.270	.29
KR25E750-0	KR-5475	----------------	75	.243	.270	.29
KR25E820-0	KR-5482	----------------	82	.267	.297	.32
KR25E910-0	KR-5491	----------------	91	.292	.321	.35
KR25E101-0	KR-5310	----------------	100	.292	.321	.35
KR25E111-0	KR-5311	----------------	110	.315	.345	.38
KR25E121-0	KR-5312	----------------	120	.315	.345	.38
KR25E131-0	KR-5313	----------------	130	.339	.372	.40

* Complete catalog number must include additional letter to indicate capacitive tolerance. Example: KR5C561J0. Complete military type designation will include additional letter for capacitive tolerance. Example: CM20D561J03

** O.E.M. prices for larger quantities are available on request.

† Voltage rating 300 W.V.D.C.

PAGE 7

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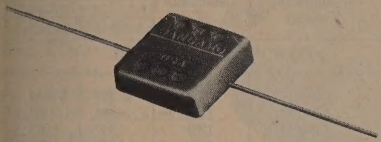
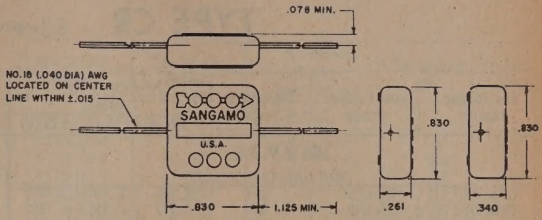
SANGAMO ELECTRONIC COMPONENTS

ype C-CR *MICA CAPACITOR*





ype C foil mica capacitors are molded in tan iiditite in either 10% or 20% tolerance. These s are only supplied as "B" characteristic.

ype CR silvered mica capacitors are molded in Humiditite. These units are normally supplied 5% tolerance and "C" characteristic. Units can be supplied to ±1/2 pF or ±1/2% whichever is greater, as well as D, E or F characteristic.

Both Types C and CR are available in two thicknesses. Where the thicker version is required, the letter "K" should follow the type designation (for example CRK5C682-0). For additional engineering information write for Bulletin 2320.

TYPE C (Foil Mica)

(125° C)

Catalog nber*	Old Catalog Number	Applicable Military Specification*	Capacitance pF	Net Price (1-49)** Tolerance ± 20% (M)	± 10% (K)
		500 W.V.D.C. .281" MAX. THICKNESS			
B471-0	C-1347	----------------	470	$.185	$.203
B501-0	C-1350	----------------	500	.185	.203
B511-0	C-1351	----------------	510	.185	.203
B561-0	C-1356	CM30B561-03	560	.185	.203
B621-0	C-1362	CM30B621-03	620	.205	.225
B681-0	C-1368	CM30B681-03	680	.205	.225
B751-0	C-1375	CM30B751-03	750	.205	.225
B801-0	C-1380	----------------	800	.205	.225
B821-0	C-1382	CM30B821-03	820	.205	.225
B901-0	C-1390	----------------	900	.226	.249
B911-0	C-1391	CM30B911-03	910	.226	.249
B102-0	C-1210	CM30B102-03	1000	.226	.249
B112-0	C-1211	CM30B112-03	1100	.226	.249
B122-0	C-1212	CM30B122-03	1200	.247	.272
B132-0	C-1213	CM30B132-03	1300	.247	.272
B152-0	C-1215	CM30B152-03	1500	.267	.294
B162-0	C-1216	CM30B162-03	1600	.267	.294
B182-0	C-1218	CM30B182-03	1800	.267	.316
B202-0	C-1220	CM30B202-03	2000	.302	.332
B222-0	C-1222	CM30B222-03	2200	.302	.332
B242-0	C-1224	CM30B242-03	2400	.328	.361
B252-0	C-1225	----------------	2500	.328	.361
B272-0	C-1227	CM30B272-03	2700	.348	.383
B302-0	C-1230	CM30B302-03	3000	.370	.407
B332-0	C-1233	CM30B332-03	3300	.387	.426
B362-0	C-1236	----------------	3600	.411	.452
B392-0	C-1239	----------------	3900	.430	.473
B402-0	C-1240	----------------	4000	.453	.498
B432-0	C-1243	----------------	4300	.472	.519
B472-0	C-1247	----------------	4700	.491	.540
B502-0	C-1250	----------------	5000	.515	.566
B512-0	C-1251	----------------	5100	.530	.583
B562-0	C-1256	----------------	5600	.551	.606
B602-0	C-1260	----------------	6000	.600	.660
B622-0	C-1262	----------------	6200	.630	.693
B682-0	C-1268	----------------	6800	.550	.605
B752-0	C-1275	----------------	7500	.600	.660
B802-0	C-06280	----------------	8000	.630	.693
B822-0	C-06282	----------------	8200	.650	.715
B912-0	C-06291	----------------	9100	.710	.781
B952-0	C-06295	----------------	9500	.750	.825

TYPE C (Foil Mica) (Continued)

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pF	Net Price (1-49)** Tolerance ± 20% (M)	± 10% (K)
		.359" MAX. THICKNESS			
CK5B802-0	C-1280	----------------	8000	$ .780	$ .858
CK5B822-0	C-1282	----------------	8200	.800	.880
CK5B912-0	C-1291	----------------	9100	.880	.968
CK5B103-0	C-1110	----------------	10000	.960	1.056
†CK3B123-0	C-06112	----------------	12000	.930	1.023
†CK3B133-0	C-06113	----------------	13000	1.010	1.111
†CK3B1452-0	C-061145	----------------	14500	1.090	1.199

TYPE CR (Silvered Mica)

(125° C)

New Catalog Number*	Old Catalog Number	Applicable Military Specification*	Capacitance pF	Net Price (1-49)** Tolerance ± 10%(K)	± 5% (J)	± 2%(G)
		500 W.V.D.C. .281" MAX. THICKNESS				
CR5C471-0	CR-1347	----------------	470	$.233	$.258	$.297
CR5C501-0	CR-1350	----------------	500	.233	.258	.297
CR5C511-0	CR-1351	----------------	510	.233	.258	.297
CR5C561-0	CR-1356	CM30E561-03	560	.233	.258	.297
CR5C621-0	CR-1362	CM30E621-03	620	.275	.303	.348
CR5C681-0	CR-1368	CM30E681-03	680	.275	.303	.348
CR5C751-0	CR-1375	CM30E751-03	750	.275	.303	.348
CR5C801-0	CR-1380	----------------	800	.275	.303	.348
CR5C821-0	CR-1382	CM30E821-03	820	.275	.303	.348
CR5C901-0	CR-1390	----------------	900	.326	.349	.401
CR5C911-0	CR-1391	CM30E911-03	910	.326	.349	.401
CR5C102-0	CR-1210	CM30E102-03	1000	.326	.349	.401
CR5C112-0	CR-1211	CM30E112-03	1100	.326	.349	.401
CR5C122-0	CR-1212	CM30E122-03	1200	.358	.397	.456
CR5C132-0	CR-1213	CM30E132-03	1300	.358	.397	.456
CR5C152-0	CR-1215	CM30E152-03	1500	.401	.441	.507
CR5C162-0	CR-1216	CM30E162-03	1600	.401	.441	.507
CR5C182-0	CR-1218	CM30E182-03	1800	.443	.487	.560
CR5C202-0	CR-1220	CM30E202-03	2000	.443	.487	.560
CR5C222-0	CR-1222	CM30E222-03	2200	.485	.535	.615
CR5C242-0	CR-1224	CM30E242-03	2400	.526	.580	.667
CR5C252-0	CR-1225	---------- -------	2500	.526	.580	.667
CR5C272-0	CR-1227	CM30E272-03	2700	.569	.625	.719
CR5C302-0	CR-1230	CM30E302-03	3000	.607	.670	.770
CR5C332-0	CR-1233	CM30E332-03	3300	.650	.720	.828
CR5C362-0	CR-1236	----------------	3600	.693	.765	.880

See notes on following page

SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

TYPE CR - *Silvered Mica (continued)*

New Catalog Number*	Old Catalog Number	Capacitance pF.	Net Price (1-49)** Tolerance ± 10% (K)	± 5% (J)	± 2% (G)
500 W.V.D.C.					
.281" MAX. THICKNESS					
CR5C392-0	CR-1239	3900	$ .735	$ .810	$ .882
CR5C402-0	CR-1240	4000	.777	.855	.933
CR5C432-0	CR-1243	4300	.820	.905	.984
CR5C472-0	CR-1247	4700	.860	.950	1.034
CR5C502-0	CR-1250	5000	.920	.995	1.085
CR5C512-0	CR-1251	5100	.920	.995	1.085
CR5C562-0	CR-1256	5600	.987	1.090	1.185
CR5C602-0	CR-1260	6000	1.070	1.180	1.286
CR5C622-0	CR-1262	6200	1.070	1.180	1.286
CR5C682-0	CR-06268	6800	1.110	1.230	1.335
CR5C752-0	CR-06275	7500	1.200	1.320	1.436
CR5C802-0	CR-06280	8000	1.281	1.410	1.537
†CR3C822-0	CR-06282	8200	1.281	1.410	1.537
†CR3C902-0	CR-06290	9000	1.404	1.640	1.686
†CR3C103-0	CR-06110	10000	1.432	1.686	1.840
.359" MAX. THICKNESS					
CRK5C682-0	CR-1268	6800	1.151	1.270	1.385
CRK5C752-0	CR-1275	7500	1.281	1.410	1.535
CRK5C802-0	CR-1280	8000	1.365	1.500	1.638
CRK5C822-0	CR-1282	8200	1.365	1.500	1.638
CRK5C902-0	CR-1290	9000	1.490	1.640	1.790
CRK5C103-0	CR-1110	10000	1.660	1.840	1.990
CRK5C123-0	CR-06112	12000	1.825	2.100	2.190
†CRK3C153-0	CR-06115	15000	2.241	2.475	2.690
†CRK3C163-0	CR-06116	16000	2.730	2.610	2.840
1000 W.V.D.C.					
CR10C122-0	CR-2212	1200	.497	.550	.613
CR10C152-0	CR-2215	1500	.556	.600	.662
CR10C182-0	CR-2218	1800	.628	.690	.764
CR10C202-0	CR-2220	2000	.673	.740	.825
CR10C222-0	CR-2222	2200	.715	.790	.873
CR10C272-0	CR-2227	2700	.845	.930	1.026
CR10C302-0	CR-2223	3000	.934	1.025	1.119
CR10C332-0	CR-2233	3300	1.020	1.110	1.222
CR10C362-0	CR-2236	3600	1.105	1.221	1.346
CR10C422-0	CR-2242	4200	1.237	1.362	1.508
CRK10C512-0	CR-2251	5100	1.453	1.603	1.763
CRK10C622-0	CR-2262	6200	1.757	1.944	2.140
CRK10C682-0	CR-2268	6800	1.970	2.186	2.403
CRK10C742-0	CR-2274	7400	2.031	2.271	2.504
1500 W.V.D.C.					
CR15C681-0	CR-3368	680	.466	.522	.574
CR15C751-0	CR-3375	750	.466	.522	.574
CR15C821-0	CR-3382	820	.524	.567	.626
CR15C911-0	CR-3391	910	.562	.610	.675
CR15C201-0	CR-3210	1000	.604	.674	.748
CR15C122-0	CR-3212	1200	.645	.718	.780
CR15C152-0	CR-3215	1500	.780	.863	.956
CR15C182-0	CR-3218	1800	.919	1.011	1.111
CR15C202-0	CR-3220	2000	1.005	1.112	1.229
CR15C222-0	CR-3222	2200	1.051	1.167	1.287
CR15C242-0	CR-3224	2400	1.141	1.265	1.391
CRK15C272-0	CR-3227	2700	1.278	1.414	1.554
CRK15C302-0	CR-3223	3000	1.412	1.608	1.673
CRK15C332-0	CR-3233	3300	1.509	1.667	1.833
CRK15C362-0	CR-3236	3600	1.641	1.824	2.001
CRK15C422-0	CR-3242	4200	2.063	2.178	2.277
2000 W.V.D.C.					
CR20C431-0	CR-4343	430	.477	.535	.583
CR20C471-0	CR-4347	470	.477	.535	.583
CR20C501-0	CR-4350	500	.524	.584	.642
CR20C511-0	CR-4351	510	.524	.584	.642
CR20C561-0	CR-4356	560	.524	.584	.642
CR20C621-0	CR-4362	620	.572	.631	.693
CR20C681-0	CR-4368	680	.619	.684	.751
CR20C751-0	CR-4375	750	.664	.745	.810
CR20C821-0	CR-4382	820	.711	.796	.871
CR20C911-0	CR-4391	910	.759	.841	.933

New Catalog Number*	Old Catalog Number	Capacitance pF.	Net Price (1-49)** Tolerance ± 10% (K)	± 5% (J)	± 2%
2000 W.V.D.C. (Continued)					
CR20C102-0	CR-4210	1000	$ .852	$ .948	$1.0
CR20C112-0	CR-4211	1100	.899	.992	1.0
CR20C122-0	CR-4212	1200	.992	1.083	1.
CR20C132-0	CR-4213	1300	1.037	1.154	1.
CR20C152-0	CR-4215	1500	1.175	1.302	1.4
CR20C162-0	CR-4216	1600	1.275	1.353	1.4
CR20C182-0	CR-4218	1800	1.367	1.511	1.6
CR20C202-0	CR-4220	2000	1.507	1.663	1.8
CRK20C222-0	CR-4222	2200	1.649	1.820	2.0
CRK20C242-0	CR-4224	2400	1.787	1.974	2.1
CRK20C332-0	CR-4233	3300	2.258	2.493	2.6
2500 W.V.D.C.					
CR25C241-0	CR-5324	240	.434	.481	.5
CR25C251-0	CR-5325	250	.434	.481	.5
CR25C271-0	CR-5327	270	.434	.481	.5
CR25C301-0	CR-5330	300	.458	.542	.5
CR25C331-0	CR-5333	330	.537	.596	.6
CR25C361-0	CR-5336	360	.537	.596	.6
CR25C391-0	CR-5339	390	.585	.652	.7
CR25C431-0	CR-5343	430	.633	.700	.7
CR25C471-0	CR-5347	470	.683	.751	.8
CR25C501-0	CR-5350	500	.731	.813	.8
CR25C511-0	CR-5351	510	.731	.813	.8
CR25C561-0	CR-5356	560	.780	.864	.9
CR25C621-0	CR-5362	620	.824	.920	1.1
CR25C681-0	CR-5368	680	.927	1.021	1.1
CR25C751-0	CR-5375	750	.974	1.073	1.1
CR25C821-0	CR-5382	820	1.070	1.186	1.3
CR25C911-0	CR-5391	910	1.165	1.300	1.4
CR25C102-0	CR-5210	1000	1.265	1.404	1.5
CRK25C112-0	CR-5211	1100	1.360	1.507	1.6
CRK25C122-0	CR-5212	1200	1.457	1.611	1.7
CRK25C142-0	CR-5214	1400	1.700	1.870	2.0
CRK25C152-0	CR-5215	1500	1.790	1.980	2.1
CRK25C172-0	CR-5217	1700	1.979	2.178	2.3
3000 W.V.D.C.					
CR30C121-0	CR-6312	120	.348	.391	.4
CR30C151-0	CR-6315	150	.398	.443	.4
CR30C161-0	CR-6316	160	.450	.502	.5
CR30C181-0	CR-6318	180	.450	.502	.5
CR30C201-0	CR-6320	200	.500	.563	.6
CR30C241-0	CR-6324	240	.550	.611	.6
CR30C251-0	CR-6325	250	.600	.665	.7
CR30C271-0	CR-6327	270	.600	.665	.7
CR30C301-0	CR-6330	300	.610	.726	.7
CR30C331-0	CR-6333	330	.700	.780	.8
CR30C361-0	CR-6336	360	.750	.831	.9
CR30C391-0	CR-6339	390	.800	.892	.9
CR30C431-0	CR-6343	430	.900	1.000	1.1
CR30C471-0	CR-6347	470	.950	1.052	1.1
CR30C501-0	CR-6350	500	1.010	1.100	1.2
CR30C511-0	CR-6351	510	1.010	1.100	1.2
CR30C561-0	CR-6356	560	1.100	1.211	1.3
CR30C621-0	CR-6362	620	1.200	1.332	1.4
CR30C681-0	CR-6368	680	1.300	1.436	1.5
CR30C751-0	CR-6375	750	1.402	1.542	1.6
CRK30C821-0	CR-6382	820	1.552	1.713	1.8
CRK30C911-0	CR-6391	910	1.700	1.872	2.0
CRK30C102-0	CR-6210	1000	1.850	2.050	2.2
CRK30C112-0	CR-6211	1100	2.001	2.211	2.4
CRK30C122-0	CR-6212	1200	2.150	2.384	2.6
CRK30C132-0	CR-6213	1300	2.250	2.482	2.7
CRK30C142-0	CR-6214	1400	2.357	2.602	2.8
CRK30C152-0	CR-6215	1500	2.737	3.0152	3.1

* Complete Military Type designation will include additional letter for capacitive tolerance. Example: CM30E561J03. Complete catalog number will include additio letter to indicate capacitive tolerance. Example: CR5C561J0.

** O.E.M. prices for larger quantities are available on request.

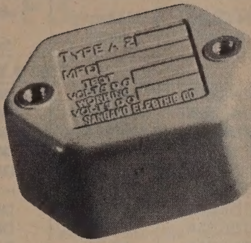
† Voltage rating 300 W.V.D.C.

SANGAMO ELECTRIC COMPANY
capacitors

ELECTRONIC COMPONENTS

ype A *MICA*

e Type A mica dielectric
pacitor is enclosed in a
lded bakelite case with
eaded insert terminals.
s supplied in ±10% cap-
tive tolerance and "B"
racteristic unless other-
e specified.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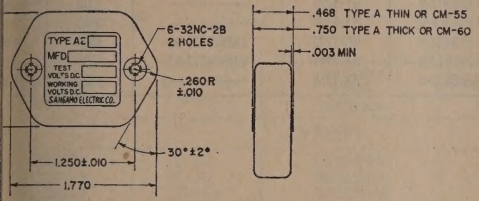
WORKING VOLTS DC
SANGAMO ELECTRIC CO.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MFD
TEST VOLTS DC
WORKING VOLTS DC
SANGAMO ELECTRIC CO.
6-32NC-2B
2 HOLES
.260R
±.010
30°±2°
1.250±.010
1.770
.468 TYPE A THIN OR CM-55
.750 TYPE A THICK OR CM-60
.003 MIN

Catalog Number	Old Catalog Number	Applicable Military Specification †	Capacitance pF	Net Price 1-9*
		600 W.V.D.C.		
6B500-N	AT-1450	----------------	50	$0.63
6B101-N	AT-1310	----------------	100	0.63
6B151-N	AT-1315	----------------	150	0.63
6B201-N	AT-1320	----------------	200	0.63
6B251-N	AT-1325	----------------	250	0.63
6B501-N	AT-1350	----------------	500	0.63
6B102-N	AT-1210	----------------	1,000	0.63
6B202-N	AT-1220	----------------	2,000	0.71
6B252-N	AT-1225	----------------	2,500	0.74
6B302-N	AT-1230	----------------	3,000	0.81
6B402-N	AT-1240	----------------	4,000	0.86
6B502-N	AT-1250	----------------	5,000	0.92
6B602-N	AT-1260	----------------	6,000	0.96
6B802-N	AT-1280	----------------	8,000	1.08
6B103-N	AT-1110	----------------	10,000	1.22
6B153-N	AT-1115	CM55-153-N3	15,000	1.32
6B203-N	AT-1120	CM55-203-N3	20,000	1.55
6B253-N	AT-1125	----------------	25,000	1.89
6B303-N	AT-1130	CM55-303-N3	30,000	1.97
6B403-N	AK-1140	----------------	40,000	2.54
6B503-N	AK-1150	----------------	50,000	3.09
6B603-N	AK-1160	----------------	60,000	3.51
6B703-N	AK-1170	----------------	70,000	3.87

New Catalog Number	Old Catalog Number	Applicable Military Specification †	Capacitance pF	Net Price 1-9*
		1200 W.V.D.C.		
AT12B500-N	AT-2450	----------------	50	$0.70
AT12B101-N	AT-2310	----------------	100	0.70
AT12B151-N	AT-2315	----------------	150	0.70
AT12B201-N	AT-2320	----------------	200	0.70
AT12B251-N	AT-2325	----------------	250	0.70
AT12B501-N	AT-2350	----------------	500	0.70
AT12B102-N	AT-2210	----------------	1,000	0.83
AT12B202-N	AT-2220	----------------	2,000	1.10
AT12B252-N	AT-2225	----------------	2,500	1.22
AT12B302-N	AT-2230	----------------	3,000	1.30
AT12B402-N	AT-2240	----------------	4,000	1.34
AT12B502-N	AT-2250	----------------	5,000	1.43
AT12B602-N	AT-2260	----------------	6,000	1.50
AT12B802-N	AT-2280	----------------	8,000	1.79
AT12B103-N	AT-2110	CM55-103-N3	10,000	2.05
AT12B153-N	AT-2115	----------------	15,000	2.53
AT12B183-N	AT-2118	----------------	18,000	2.86
AK12B203-N	AK-2120	CM60-203-N3	20,000	3.07
AK12B253-N	AK-2125	----------------	25,000	3.43
AK12B303-N	AK-2130	CM60-303-N3	30,000	3.52
AK12B403-N	AK-2140	----------------	40,000	3.90
		2500 W.V.D.C.		
AT25B500-N	AT-5450	----------------	50	$0.83
AT25B101-N	AT-5310	CM55-101-N3	100	0.83
AT25B251-N	AT-5325	----------------	250	0.94
AT25B501-N	AT-5350	----------------	500	1.11
AT25B102-N	AT-5210	CM55-102-N3	1,000	1.28
AT25B202-N	AT-5220	CM55-202-N3	2,000	1.85
AT25B252-N	AT-5225	----------------	2,500	2.01
AT25B302-N	AT-5230	CM55-302-N3	3,000	2.21
AT25B402-N	AT-5240	----------------	4,000	2.46
AT25B502-N	AT-5250	----------------	5,000	2.70
AT25B702-N	AT-5270	----------------	7,000	2.85
AK25B802-N	AK-5280	----------------	8,000	2.98
AK25B103-N	AK-5110	CM60-103-N1	10,000	3.18
AK25B163-N	AK-5116	CM60-163-N1	16,000	3.51

* O.E.M. prices for larger quantities are available on request.

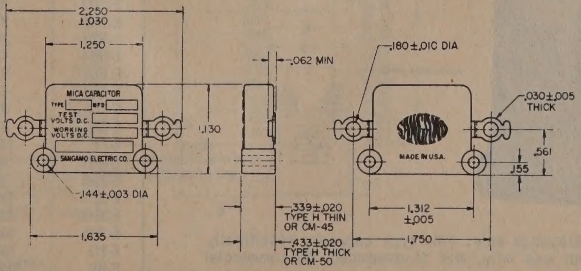
† Refer to Mil-C-5B for listings of characteristics, tolerances, temperature ranges and vibration grade.

NOTE: Standard tolerance ± 10%. "B" characteristic unless otherwise specified.

NOTE: For ± 5% tolerance (J) add 10% to above prices.
For ± 2% tolerance (G) add 50% to above prices.
For "C" characteristics add 20% to above prices.
For "D" characteristics add 20% to above prices.
For "E" characteristics add 50% to above prices.

ype H *MICA*

TYPE
MICA CAPACITOR
MFD
TEST
VOLTS DC
WORKING
VOLTS DC
SANGAMO ELECTRIC CO.


2.250
±.030
1.250
MICA CAPACITOR
TYPE
MFD
TEST VOLTS D.C.
WORKING VOLTS D.C.
SANGAMO ELECTRIC CO.
1.130
.144±.003 DIA
1.635
.062 MIN
.339±.020
TYPE H THIN
OR CM-45
.433±.020
TYPE H THICK
OR CM-50
.180±.010 DIA
.030±.005
THICK
SANGAMO
MADE IN USA
.561
.155
1.312
±.005
1.750

The Type H mica dielectric capacitor is enclosed in a molded bakelite case with lug terminals. The capacitor can be screw mounted through untapped holes in the molded case. It is supplied in ±10% tolerance and "B" characteristic unless otherwise specified.

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

TYPE H - Mica Capacitor (continued)

New Catalog Number*	Old Catalog Number	Applicable* Military Specification	Capacitance pF.	Net Price 1-9†
600 W.V.D.C				
HT6B500-N	HT-1450	----------------	50	$ .52
HT6B101-N	HT-1310	----------------	100	.52
HT6B201-N	HT-1320	----------------	200	.52
HT6B251-N	HT-1325	----------------	250	.52
HT6B301-N	HT-1330	----------------	300	.52
HT6B401-N	HT-1340	----------------	400	.52
HT6B501-N	HT-1350	----------------	500	.52
HT6B102-N	HT-1210	----------------	1000	.52
HT6B152-N	HT-1215	----------------	1500	.52
HT6B202-N	HT-1220	----------------	2000	.56
HT6B252-N	HT-1225	----------------	2500	.58
HT6B302-N	HT-1230	----------------	3000	.63
HT6B402-N	HT-1240	----------------	4000	.66
HT6B502-N	HT-1250	----------------	5000	.67
HT6B602-N	HT-1260	----------------	6000	.77
HT6B702-N	HT-1270	----------------	7000	.79
HT6B802-N	HT-1280	----------------	8000	.83
HT6B103-N	HT-1110	----------------	10000	.94
HT6B163-N	HT-1116	----------------	16000	1.16
HK6B203-N	HK-1120	CM50B203-N3	20000	1.33
HK6B253-N	HK-1125	----------------	25000	1.57
HK6B303-N	HK-1130	----------------	30000	1.95
1200 W.V.D.C.				
HT12B500-N	HT-2450	----------------	50	$ .69
HT12B101-N	HT-2310	----------------	100	.69
HT12B201-N	HT-2320	----------------	200	.69
HT12B251-N	HT-2325	----------------	250	.69
HT12B301-N	HT-2330	----------------	300	.69
HT12B401-N	HT-2340	----------------	400	.69
HT12B501-N	HT-2350	----------------	500	.69
HT12B102-N	HT-2210	----------------	1000	.77
HT12B152-N	HT-2215	----------------	1500	1.00
HT12B202-N	HT-2220	----------------	2000	1.05
HT12B252-N	HT-2225	----------------	2500	1.22
HT12B302-N	HT-2230	----------------	3000	1.33
HT12B402-N	HT-2240	----------------	4000	1.33
HT12B502-N	HT-2250	----------------	5000	1.44
HT12B602-N	HT-2260	----------------	6000	1.44
HT12B822-N	HT-2282	----------------	8200	1.69
HK12B103-N	HK-2110	CM50B103-N3	10000	2.22
HK12B163-N	HK-2116	CM50B163-N3	16000	2.48

New Catalog Number*	Old Catalog Number	Applicable* Military Specification	Capacitance pF.	Net Pr 1-9
2500 W.V.D.C.				
HT25B510-N	HT-5451	CM45B510-N3	51	$ .8
HT25B101-N	HT-5310	CM45B101-N3	100	.8
HT25B201-N	HT-5320	CM45B201-N3	200	.8
HT25B241-N	HT-5324	CM45B241-N3	240	.8
HT25B301-N	HT-5330	CM45B301-N3	300	.9
HT25B401-N	HT-5340	----------------	400	.9
HT25B511-N	HT-5351	CM45B511-N3	510	1.0
HT25B102-N	HT-5210	CM45B102-N3	1000	1.2
HT25B152-N	HT-5215	CM45B152-N3	1500	1.5
HT25B202-N	HT-5220	----------------	2000	1.8
HT25B302-N	HT-5230	----------------	3000	2.1
HK25B432-N	HK-5243	CM50B432-N3	4300	2.4
HK25B512-N	HK-5251	CM50B512-N3	5100	2.7
HK25B552-N	HK-5255	----------------	5500	2.9

* Complete catalog number will include additional letter to indicate capacitive tolerance. Example: HT25B510JN. Complete Military type designation will include additional letter for capacitive tolerance. Example: CM45B510JN3.

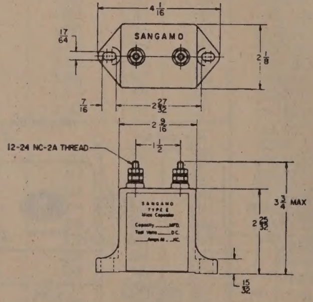
† O.E.M. prices for larger quantities are available on request.

NOTE: For meter mounting bracket add letter "E" to type designation. (Example: HTE-1450). Add $0.12 net each to above prices and specify case sizes.

NOTE: Standard tolerance ± 10% and "B" characteristic unless otherwise specified.
For ± 5% tolerance add 10% to above prices.
For ± 2% tolerance add 50% to above prices.

Type E *MICA*

SANGAMO
TYPE E
MICA CAPACITOR
CAPACITY
MFD.
TEST VOLTS
D. C.
Amps. At
KC.
SANGAMO ELECTRIC CO.
SPRINGFIELD, ILLINOIS U. S. A.



Available in ±20% tolerance only. This type capacitor specifically designed for amateur use only. Not recommended for commercial applications.

Catalog Number	Capacitance pF.	WVDC	Net Price Eac ALL Quantities
E-1245	50	12500	$ 6.48
E-1231	100	12500	6.48
E-12325	250	12500	6.48
E-1235	500	12500	6.48
E-1221	1000	12500	6.48
E-12215	1500	12500	7.56
E-1222	2000	12500	9.00
E-1022	2000	10000	9.36
E-1023	3000	10000	9.72
E-1024	4000	10000	10.74
E-1025	5000	10000	11.66
E-721	1000	7000	5.80
E-722	2000	7000	7.56
E-723	3000	7000	8.28
E-711	10000	7000	12.24
E-3524	4000	3500	7.56
E-3525	5000	3500	7.67
E-3511	10000	3500	11.66
E-3512	20000	3500	11.66
E-3515	50000	3500	13.54
E-215	50000	2000	11.59
E-201	100000	2000	13.54

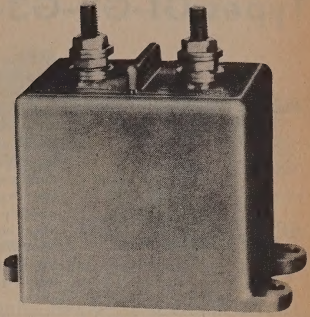
SANGAMO ELECTRIC COMPANY capacitors

SANGAMO ELECTRONIC COMPONENTS

ypes F1-F2-F3 *MICA CAPACITORS*

Type F1—F2

Types F1, F2, and F3 capacitors, the smallest of the Sangamo line of transmitting types, possess a range of voltage and current ratings suitable for many applications. They are housed in low loss molded bakelite cases. The mica and foil sections are permanently clamped, vacuum impregnated, and installed in the case in such a manner as to provide stable characteristics and adequate moisture proofing.



Type F3

New Catalog Number*	Old Catalog Number	Applicable Military Specification	Capacitance pF.	Peak Working Voltage	Net Price 1-9**
TYPE F1					
F130B101-M	F1-331	CM65B101-M1	100	3000	$ 4.99
F130B201-M	F1-332	CM65B201-M1	200	3000	4.99
F130B241-M	F1-3324	CM65B241-M1	240	3000	4.99
F130B501-M	F1-335	CM65B501-M1	500	3000	4.99
F130B102-M	F1-321	CM65B102-M1	1000	3000	4.99
F130B202-M	F1-322	CM65B202-M1	2000	3000	4.99
F120B302-M	F1-223	CM65B302-M1	3000	2000	4.99
F120B402-M	F1-224	CM65B402-M1	4000	2000	4.99
F120B512-M	F1-2251	CM65B512-M1	5100	2000	4.99
F120B602-M	F1-226	-----------------	6000	2000	4.99
F115B822-M	F1-15282	CM65B822-M1	8200	1500	4.99
F110B103-M	F1-111	CM65B103-M1	10000	1000	4.99
F110B203-M	F1-112	CM65B203-M1	20000	1000	5.67
F12B104-M	F1-02151	CM65B513-M1	51000	250	5.67
F12B104-M	F1-0201	CM65B104-M1	100000	250	6.00
TYPE F2					
F250B101-M	F2-531	CM70B101-M1	100	5000	$ 6.86
F250B241-M	F2-5324	CM70B241-M1	240	5000	6.86
F250B511-M	F2-5351	CM70B511-M1	510	5000	6.86
F250B601-M	F2-536	-----------------	600	5000	6.86
F250B102-M	F2-521	CM70B102-M1	1000	5000	6.86
F250B202-M	F2-522	CM70B202-M1	2000	5000	6.86
F250B302-M	F2-523	-----------------	3000	5000	6.86
F230B512-M	F2-3251	CM70B512-M1	5100	3000	6.86
F230B602-M	F2-326	-----------------	6000	3000	6.86
F220B103-M	F2-211	CM70B103-M1	10000	2000	6.86
F220B203-M	F2-212	CM70B203-M1	20000	2000	6.86
F215B513-M	F2-15151	CM70B513-M1	51000	1500	9.58
F25B104-M	F2-0501	CM70B104-M1	100000	500	7.61
F22B204-M	F2-0202	-----------------	200000	250	10.00
F22B154-M	F2-02025	-----------------	250000	250	11.06

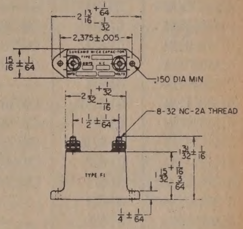
TYPE F3

New Catalog Number*	Old Catalog Number	Capacitance pF.	Peak Working Voltage	Net Price 1-9**
F380B251-M	F3-8325	250	8000	$14.65
F380B501-M	F3-835	500	8000	14.65
F380B102-M	F3-821	1000	8000	16.34
F380B202-M	F3-822	2000	8000	16.34
F380B302-M	F3-823	3000	8000	17.41
F380B502-M	F3-825	5000	8000	20.22
F380B103-M	F3-811	10000	8000	22.96
F340B503-M	F3-415	50000	4000	25.73
F320B104-M	F3-201	100000	2000	20.20
F36B254-M	F3-06025	250000	600	18.55
F36B504-M	F3-0605	500000	600	21.85
F34B105-M	F3-0410	1000000	400	34.03

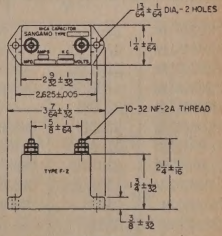
* Complete catalog number will include additional letter to indicate capacitive tolerance. Example: F130B101JM. Complete Type Military designation will include additional letter for capacitive tolerance. Example: CM65B101JM.

** O.E.M. prices for larger quantities are available on request.

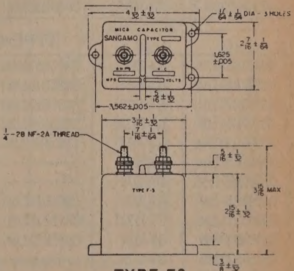
NOTES: Standard tolerance ±5%.
"B" characteristic only in stock.
For ±2% tolerance add 20% to above prices.


$2\frac{13}{16}{}^{+\frac{1}{64}}_{-\frac{1}{32}}$
2.375±.005
$\frac{15}{16}\pm\frac{1}{64}$
SANGAMO MICA CAPACITOR
TYPE
AMPS
R.C.
MFD
VOLTS
.150 DIA MIN
$2\frac{1}{32}{}^{+\frac{1}{32}}_{-\frac{1}{16}}$
$1\frac{1}{2}\pm\frac{1}{64}$
8-32 NC-2A THREAD
TYPE F1
$1\frac{31}{32}\pm\frac{1}{16}$
$1\frac{15}{32}{}^{+\frac{1}{16}}_{-\frac{3}{64}}$
$\frac{1}{4}\pm\frac{1}{64}$

TYPE F1


$\frac{13}{64}\pm\frac{1}{64}$ DIA.- 2 HOLES
MICA CAPACITOR
SANGAMO TYPE
AMPS
R.C.
MFD
VOLTS
$1\frac{1}{4}\pm\frac{1}{64}$
$2\frac{9}{32}\pm\frac{1}{32}$
2.625±.005
$3\frac{7}{64}\pm\frac{1}{32}$
10-32 NF-2A THREAD
$1\frac{5}{8}\pm\frac{1}{64}$
TYPE F-2
$2\frac{1}{4}\pm\frac{1}{16}$
$1\frac{3}{4}\pm\frac{1}{32}$
$\frac{3}{8}\pm\frac{1}{32}$

TYPE F2


$4\frac{1}{32}\pm\frac{1}{32}$
$\frac{17}{64}\pm\frac{1}{64}$ DIA - 3 HOLES
MICA CAPACITOR
SANGAMO
TYPE
AMPS
R.C.
MFD
VOLTS
$2\frac{7}{16}\pm\frac{1}{64}$
1.625 ±.005
$\frac{5}{16}\pm\frac{1}{32}$
3.562±.005
$3\frac{1}{16}\pm\frac{1}{32}$
$\frac{1}{4}$-28 NF-2A THREAD
$1\frac{7}{16}\pm\frac{1}{64}$
$\frac{5}{16}\pm\frac{1}{32}$
TYPE F-3
$3\frac{15}{16}$ MAX
$2\frac{15}{16}\pm\frac{1}{32}$
$\frac{3}{8}\pm\frac{1}{32}$

TYPE F3

SANGAMO ELECTRIC COMPANY

capacitors

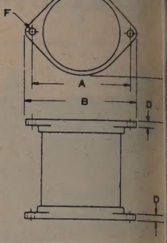
ELECTRONIC COMPONENTS

Types G1-G2-G3-G4-G5 *MICA*

Type G ceramic cased capacitors are intended for service where high voltage and R.F. current ratings are required, such as in commercial transmitting or induction heating applications. All possible steps are taken in design and manufacturing operations to insure permanence of quality. Terminal plates are designed to permit any usual connecting or mounting practices. Case sizes are in accordance with Mil-C-5B specification covering type CM75, 80, 85, 90 and 95. For additional engineering information write for Bulletin 2322.

TYPE G MICA CAPACITOR DIMENSIONS - INCHES

Type	A	B	C	D	E	F
G1	3¼	3-13/16	2-13/16	¼	2½	17/64
G2	4¼	5	3½	¼	3	.272
G3	5¾	6½	5	3/8	4	.377
G4	5¾	6½	5	3/8	5¾	.377
G5	8	9	6¾	½	10	13/32



TYPES G1, G2, G3, G4 and

New Catalog Number	Old Catalog Number	Applicable Military Specification	Capacitance pF	Peak Working Voltage	Net Price 1-9*
TYPE G1					
G160B100JM	G1-641	-----------------	10	6000	$14.04
G160B510JM	G1-6451	CM75B510JM1	51	6000	15.53
G160B101JM	G1-631	CM75B101JM1	100	6000	16.07
G160B201JM	G1-632	CM75B201JM1	200	6000	16.07
G160B401JM	G1-634	-----------------	400	6000	17.68
G160B511JM	G1-6351	CM75B511JM1	510	6000	18.47
G160B102JM	G1-621	CM75B102JM1	1000	6000	18.47
G160B152JM	G1-6215	CM75B152JM1	1500	6000	19.37
G160B202JM	G1-622	CM75B202JM1	2000	6000	19.37
G160B302JM	G1-623	CM75B302JM1	3000	6000	20.04
G160B402JM	G1-624	-----------------	4000	6000	20.04
G160B502JM	G1-625	-----------------	5000	6000	20.04
G150B602JM	G1-526	-----------------	6000	5000	20.37
G150B103JM	G1-511	-----------------	10000	5000	20.37
G140B153JM	G1-4115	-----------------	15000	4000	20.37
G130B203JM	G1-312	-----------------	20000	3000	20.37
TYPE G2					
G2100B101JM	G2-1031	CM80B101JM1	100	10000	$25.96
G2100B151JM	G2-10315	CM80B151JM 1	150	10000	25.96
G2100B201JM	G2-1032	CM80B201JM1	200	10000	25.96
G2100B241JM	G2-10324	CM80B241JM1	240	10000	25.96
G2100B501JM	G2-1035	-----------------	500	10000	25.96
G2100B102JM	G2-1021	CM80B102JM1	1000	10000	25.96
G2100B122JM	G2-10212	CM80B122JM1	1200	10000	25.96
G2100B152JM	G2-10215	CM80B152JM1	1500	10000	25.96
G2100B202JM	G2-1022	CM80B202JM1	2000	10000	25.96
G280B302JM	G2-823	CM80B302JM1	3000	8000	25.96
G280B402JM	G2-824	-----------------	4000	8000	25.96
G250B502JM	G2-525	-----------------	5000	5000	25.96
G250B622JM	G2-5262	CM80B622JM1	6200	5000	27.38
G250B103JM	G2-511	CM80B103JM1	10000	5000	27.38
G240B153JM	G2-4115	CM80B153JM1	15000	4000	27.38
G230B203JM	G2-312	CM80B203JM1	20000	3000	27.38
TYPE G3					
G3200B510JM	G3-20451	CM85B510JM1	51	20000	$43.92
G3200B101JM	G3-2031	CM85B101JM1	100	20000	47.92
G3200B201JM	G3-2032	CM85B201JM1	200	20000	51.91
G3200B241JM	G3-20324	CM85B241JM1	240	20000	51.91
G3200B301JM	G3-2033	CM85B301JM1	300	20000	51.91
G3200B501JM	G3-2035	-----------------	500	20000	59.15
G3200B801JM	G3-2038	-----------------	800	20000	59.15
G3200B102JM	G3-2021	CM85B102JM1	1000	20000	55.90
G3150B152JM	G3-15215	CM85B152JM1	1500	15000	56.71
G3150B202JM	G3-1522	CM85B202JM1	2000	15000	56.71
G3150B302JM	G3-1523	-----------------	3000	15000	59.90
G3150B402JM	G3-1524	-----------------	4000	15000	59.90
G3100B502JM	G3-1025	-----------------	5000	10000	59.90
TYPE G3 (Continued)					
G3100B622JM	G3-10262	CM85B622JM1	6200	10000	$59.90
G3100B802JM	G3-1028	-----------------	8000	10000	59.90
G380B103JM	G3-1011	CM85B103JM1	10000	8000	59.90
G350B203JM	G3-512	CM85B203JM1	20000	5000	59.90
G330B303JM	G3-313	CM85B303JM1	30000	3000	59.90
TYPE G4					
G4300B300JM	G4-3043	-----------------	30	30000	$69.81
G4300B500JM	G4-3045	-----------------	50	30000	69.81
G4300B101JM	G4-3031	CM90B101JM1	100	30000	87.45
G4300B151JM	G4-30315	CM90B151JM1	150	30000	87.45
G4300B251JM	G4-30325	-----------------	250	30000	91.95
G4300B501JM	G4-3035	-----------------	500	30000	91.95
G4300B801JM	G4-3038	-----------------	800	30000	91.95
G4300B102JM	G4-3021	CM90B102JM1	1000	30000	95.25
G4250B152JM	G4-25215	CM90B152JM1	1500	25000	95.25
G4200B202JM	G4-2022	CM90B202JM1	2000	20000	95.25
G4200B302JM	G4-2023	CM90B302JM1	3000	20000	95.25
G4200B402JM	G4-2024	-----------------	4000	20000	97.43
G4150B502JM	G4-1525	-----------------	5000	15000	100.51
G4200B502JM	G4-2025	-----------------	5000	20000	104.76
G4150B602JM	G4-1526	-----------------	6000	15000	104.76
G4120B802JM	G4-1228	-----------------	8000	12000	108.11
G4100B103JM	G4-1011	CM90B103JM1	10000	10000	113.28
G460B203JM	G4-612	CM90B203JM1	20000	6000	113.28
G450B403JM	G4-514	-----------------	40000	5000	113.28
TYPE G5					
G5500B500JM	G5-5045	-----------------	50	50000	$175.69
G5350B101JM	G5-3531	CM95B101JM1	100	35000	183.68
G5350B251JM	G5-35325	-----------------	250	35000	199.65
G5350B401JM	G5-3534	-----------------	400	35000	199.65
G5350B501JM	G5-3535	-----------------	500	35000	215.62
G5350B102JM	G5-3521	CM95B102JM1	1000	35000	222.28
G5300B202JM	G5-3022	CM95B202JM1	2000	30000	212.96
G5300B252JM	G5-30225	-----------------	2500	30000	216.95
G5300B302JM	G5-3023	CM95B302JM1	3000	30000	224.94
G5250B502JM	G5-2525	-----------------	5000	25000	235.59
G5200B602JM	G5-2026	-----------------	6000	20000	235.59
G5150B103JM	G5-1511	CM95B103JM1	10000	15000	235.59

* O.E.M. prices for larger quantities are available on request.

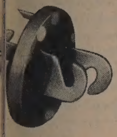
NOTE: Standard tolerance all Type G Capacitors ± 5%, B characteristic.

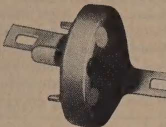
© U.C.P., In

SANGAMO ELECTRIC COMPANY
capacitors

SANGAMO ELECTRONIC COMPONENTS

ype M *BUTTON® CAPACITORS - Silvered Mica -*


M63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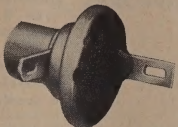
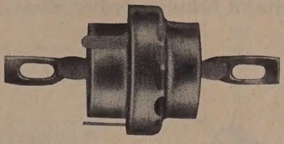
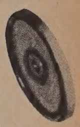

M72

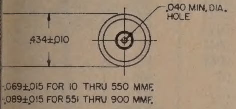

MHC519


M100

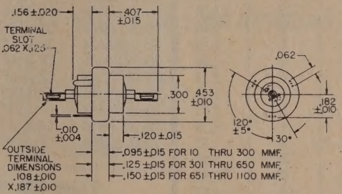
ANGAMO Type M Silvered Mica Button® Capaci-
are designed particularly for application in high
uency circuits. Their high "Q" is indicative of
low loss. These units meet all requirements for
F. and U.H.F. applications and are constructed
electrically and mechanically stable.

he silver-plated case design performs the dual
ose of shielding and being the low potential
inal. The high potential terminal through the
er of the capacitor allows 360 degrees electrical current distribution, resulting in extremely low series inductance and more efficient performance in high frequency applications.

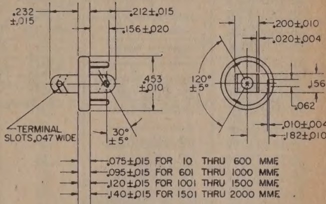
All units are normally furnished in characteristic "E" and in 500 working volts D.C. Case sizes are in accordance with Mil-C-10950B as general types CB11, CB21, CB75 and CB76. The Type MHC are hermetically sealed and will far exceed the environmental requirements of Mil-C-10950B. For more complete engineering information write for Bulletin 2311A.


.040 MIN. DIA. HOLE
.434±.010
.069±.015 FOR 10 THRU 550 MMF.
.089±.015 FOR 551 THRU 900 MMF.

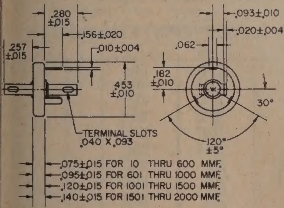
M100


.156±.020
.407 ±.015
TERMINAL SLOT .062 X.125
.062
.300
.453 ±.010
.182 ±.010
.010 ±.004
.120±.015
120° ±5°
30°
OUTSIDE TERMINAL DIMENSIONS .108±.010 X.187±.010
.095±.015 FOR 10 THRU 300 MMF.
.125±.015 FOR 301 THRU 650 MMF.
.150±.015 FOR 651 THRU 1100 MMF.

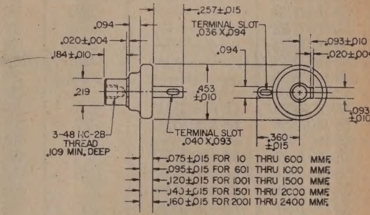
MHC519


.232 ±.015
.212±.015
.156±.020
.200±.010
.020±.004
.453 ±.010
120° ±5°
.156
.062
.010±.004
.182±.010
TERMINAL SLOTS .047 WIDE
30° ±5°
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.

M63


.280 ±.015
.156±.020
.257 ±.015
.010±.004
.093±.010
.020±.004
.062
.182 ±.010
.453 ±.010
30°
TERMINAL SLOTS .040 X .093
120° ±5°
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.

M23


.257±.015
.094
TERMINAL SLOT .036 X.094
.020±.004
.184±.010
.094
.093±.010
.020±.004
.219
.453 ±.010
.093 ±.010
3-48 NC-2B THREAD .109 MIN. DEEP
TERMINAL SLOT .040 X.093
.360 ±.015
.075±.015 FOR 10 THRU 600 MMF.
.095±.015 FOR 601 THRU 1000 MMF.
.120±.015 FOR 1001 THRU 1500 MMF.
.140±.015 FOR 1501 THRU 2000 MMF.
.160±.015 FOR 2001 THRU 2400 MMF.

M72

Catalog Number	Capacitance pF.	Capacitive Tolerance	Net Price 1-49*		
			Type Designation		
			M23, M63 M72	M100	MHC519
415K	15	± 10%	$0.99	$0.93	$3.93
415J	15	± 5%	1.26	1.20	4.77
425K	25	± 10%	0.99	0.93	3.93
425J	25	± 5%	1.26	1.20	4.20
450K	50	± 10%	0.99	0.93	3.93
450J	50	± 5%	1.26	1.20	4.20
310K	100	± 10%	0.99	0.93	3.93
310J	100	± 5%	1.26	1.20	4.20
315K	150	± 10%	0.99	0.93	3.93
315J	150	± 5%	1.26	1.20	4.20
320K	200	±10%	0.99	0.93	3.93
320J	200	± 5%	1.26	1.20	4.20
325K	250	± 10%	0.99	0.93	3.93
325J	250	± 5%	1.26	1.20	4.20
330K	300	± 10%	1.08	0.99	3.99
M-330J	300	± 5%	$1.29	$1.23	$4.35
M-340K	400	± 10%	1.14	1.08	4.14
M-340J	400	± 5%	1.38	1.32	4.47
M-350K	500	± 10%	1.20	1.14	4.26
M-350J	500	± 5%	1.47	1.41	4.65
M-375K	750	± 10%	1.71	1.68	4.56
M-375J	750	± 5%	2.13	2.04	5.01
M-210K	1000	± 10%	2.01	1.92	4.80
M-210J	1000	± 5%	2.52	2.40	5.28

* O.E.M. prices for larger quantities are available on request.

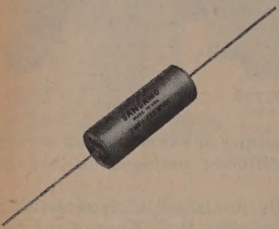
NOTE: For complete Catalog Number add Type Designation.
Example: M23-415K.

SANGAMO ELECTRIC COMPANY

capacitors

ELECTRONIC COMPONENTS

Type S *Subminiature hermetically sealed metal tubular paper dielectric capacitors*



SANGAMO Type S capacitors are designed to meet the dem for a high quality, hermetically sealed paper tubular capa These units are encased in brass tubular cases finished w high tin content alloy. Hermetic sealing is accomplished u glass-to-metal, solder seal terminals. The impregnant used ir Type S is Etherm-an oil of high thermal stability and sup electrical characteristics over the temperature range of -55° +125°C. Styles listed below are supplied with the case flo (circuit o—| |—o). To complete catalog and military nomenclatures insert proper designation to indicate type de in accordance with the following cross reference table.

SANGAMO TYPE	MILITARY TYPE	Description
SBA	CP04	bare case (tab construction)
SBB	CP05	insulated case (tab constructio
SDA	CP08	bare case (Extended foil)
SDB	CP09	insulated case (Extended foil)

The Type S is also available in many other designs. Case sizes are in accord with Mil-C-25C specification. For more detailed information write for Bulletin

Types SBA (CP04) and SBB (CP05) Inserted Tab

Catalog Number	Applicable Military Specification	Cap. pF.	Working Volts DC	Case Size*	Net Price 1-9**
SB-1KO1102K	-------------------	.001	100	A	$1.55
SB-1KO1152K	-------------------	.0015	100	A	1.55
SB-1KO1222K	-------------------	.0022	100	A	1.55
SB-1KO1332K	-------------------	.0033	100	A	1.55
SB-1KO1472K	-------------------	.0047	100	A	1.55
SB-1KO1682K	-------------------	.0068	100	A	1.55
SB-1KO1103K	-------------------	.01	100	A	1.58
SB-1KO1153K	-------------------	.015	100	A	1.58
SB-1KO1223K	-------------------	.022	100	A	1.58
SB-1KO1333K	CP-A1KB333K3	.033	100	A	1.63
SB-1KO1473K	-------------------	.047	100	B	1.70
SB-1KO1683K	-------------------	.068	100	B	1.70
SB-1KO1104K	CP-A1KB104K3	.1	100	B	1.76
SB-1KO1154K	CP-A1KB154K3	.15	100	C	1.85
SB-1KO1224K	CP-A1KB224K3	.22	100	D	1.85
SB-1KO1334K	CP-A1KB334K3	.33	100	E	2.11
SB-1KO1474K	CP-A1KB474K3	.47	100	F	2.24
SB-1KO1684K	CP-A1KB684K3	.68	100	G	2.33
SB-1KO1105K	CP-A1KB105K3	1.0	100	J	2.38
SB-1KO2102K	-------------------	.001	200	A	1.63
SB-1KO2152K	-------------------	.0015	200	A	1.63
SB-1KO2222K	-------------------	.0022	200	A	1.63
SB-1KO2332K	-------------------	.0033	200	A	1.63
SB-1KO2472K	-------------------	.0047	200	A	1.63
SB-1KO2682K	-------------------	.0068	200	A	1.63
SB-1KO2103K	-------------------	.01	200	A	1.67
SB-1KO2153K	CP-A1KC153K3	.015	200	A	1.67
SB-1KO2223K	CP-A1KC223K3	.022	200	A	1.67
SB-1KO2333K	-------------------	.033	200	B	1.74
SB-1KO2473K	CP-A1KC473K3	.047	200	B	1.74
SB-1KO2683K	CP-A1KC683K3	.068	200	B	1.78
SB-1KO2104K	CP-A1KC104K3	.1	200	C	1.80
SB-1KO2154K	CP-A1KC154K3	.15	200	D	1.83
SB-1KO2224K	CP-A1KC224K3	.22	200	E	2.00
SB-1KO2334K	CP-A1KC334K3	.33	200	F	2.16
SB-1KO2474K	CP-A1KC474K3	.47	200	G	2.29
SB-1KO2684K	CP-A1KC684K3	.68	200	J	2.42
SB-1KO2105K	CP-A1KC105K3	1.0	200	P	2.90
SB-1KO4102K	-------------------	.001	400	A	1.67
SB-1KO4152K	-------------------	.0015	400	A	1.67
SB-1KO4222K	-------------------	.0022	400	A	1.67
SB-1KO4332K	-------------------	.0033	400	A	1.70
SB-1KO4472K	-------------------	.0047	400	A	1.70
SB-1KO4682K	-------------------	.0068	400	A	1.70
SB-1KO4103K	CP-A1KE103K3	.01	400	A	1.72
SB-1KO4153K	-------------------	.015	400	B	1.78
SB-1KO4223K	-------------------	.022	400	B	1.78
SB-1KO4333K	CP-A1KE333K3	.033	400	B	1.78
SB-1KO4473K	CP-A1KE473K3	.047	400	C	1.85
SB-1KO4683K	CP-A1KE683K3	.068	400	D	1.89
SB-1KO4104K	CP-A1KE104K3	.1	400	E	1.94
SB-1KO4154K	CP-A1KE154K3	.15	400	F	2.11
SB-1KO4224K	CP-A1KE224K3	.22	400	G	2.24
SB-1KO4334K	CP-A1KE334K3	.33	400	J	2.29
SB-1KO4474K	CP-A1KE474K3	.47	400	L	2.73
SB-1KO4684K	CP-A1KE684K3	.68	400	M	$3.6
SB-1KO4105K	CP-A1KE105K3	1.0	400	P	3.
SB-1KO6102K	CP-A1KF102K3	.001	600	A	1.6
SB-1KO6152K	CP-A1KF152K3	.0015	600	A	1.6
SB-1KO6222K	CP-A1KF222K3	.0022	600	A	1.6
SB-1KO6332K	CP-A1KF332K3	.0033	600	A	1.7
SB-1KO6472K	CP-A1KF472K3	.0047	600	A	1.7
SB-1KO6682K	CP-A1KF682K3	.0068	600	A	1.7
SB-1KO6103K	CP-A1KF103K3	.01	600	B	1.7
SB-1KO6153K	CP-A1KF153K3	.015	600	B	1.8
SB-1KO6223K	CP-A1KF223K3	.022	600	B	1.8
SB-1KO6333K	CP-A1KF333K3	.033	600	C	1.8
SB-1KO6473K	CP-A1KF473K3	.047	600	D	1.8
SB-1KO6683K	CP-A1KF683K3	.068	600	E	1.9
SB-1KO6104K	CP-A1KF104K3	.1	600	F	2.1
SB-1KO6154K	CP-A1KF154K3	.15	600	G	2.2
SB-1KO6224K	CP-A1KF224K3	.22	600	J	2.3
SB-1KO6334K	CP-A1KF334K3	.33	600	L	2.6
SB-1KO6474K	CP-A1KF474K3	.47	600	M	2.9
SB-1KO6684K	CP-A1KF684K3	.68	600	P	3.7

Types SDA (CP08) and SDB (CP09) Extended Foil

SD-1KO1102K	-------------------	.001	100	A	$1.62
SD-1KO1152K	-------------------	.0015	100	A	1.62
SD-1KO1222K	-------------------	.0022	100	A	1.62
SD-1KO1332K	-------------------	.0033	100	A	1.63
SD-1KO1472K	-------------------	.0047	100	A	1.63
SD-1KO1682K	-------------------	.0068	100	A	1.64
SD-1KO1103K	CP-A1KB103K3	.01	100	A	1.67
SD-1KO1153K	CP-A1KB153K3	.015	100	A	1.67
SD-1KO1223K	-------------------	.022	100	B	1.75
SD-1KO1333K	-------------------	.033	100	B	1.75
SD-1KO1473K	CP-A1KB473K3	.047	100	B	1.80
SD-1KO1683K	-------------------	.068	100	C	1.81
SD-1KO1104K	CP-A1KB104K3	.1	100	C	1.85
SD-1KO1154K	CP-A1KB154K3	.15	100	D	1.85
SD-1KO1224K	CP-A1KB224K3	.22	100	E	1.98
SD-1KO1334K	CP-A1KB334K3	.33	100	F	2.20
SD-1KO1474K	CP-A1KB474K3	.47	100	G	2.29
SD-1KO1684K	CP-A1KB684K3	.68	100	H	2.46
SD-1KO1105K	CP-A1KB105K3	1.0	100	K	2.64
SD-1KO2102K	-------------------	.001	200	A	1.68
SD-1KO2152K	-------------------	.0015	200	A	1.68
SD-1KO2222K	-------------------	.0022	200	A	1.68
SD-1KO2332K	-------------------	.0033	200	A	1.69
SD-1KO2472K	CP-A1KC472K3	.0047	200	A	1.69
SD-1KO2682K	CP-A1KC682K3	.0068	200	A	1.72
SD-1KO2103K	-------------------	.01	200	B	1.79
SD-1KO2153K	-------------------	.015	200	B	1.80
SD-1KO2223K	CP-A1KC223K3	.022	200	B	1.85
SD-1KO2333K	CP-A1KC333K3	.033	200	B	1.85
SD-1KO2473K	CP-A1KC473K3	.047	200	C	1.89
SD-1KO2683K	CP-A1KC683K3	.068	200	C	1.89

See following page for notes

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SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

ype S - continued -

Catalog Number	Applicable Military Specification	Cap. mF.	Working Volts DC	Case Size*	Net Price 1-9**
SD-1K02104K	CP-A1KC104K3	.1	200	D	$1.91
SD-1K02154K	CP-A1KC154K3	.15	200	E	1.98
SD-1K02224K	CP-A1KC224K3	.22	200	F	2.11
SD-1K02334K	CP-A1KC334K3	.33	200	G	2.24
D-1K02474K	CP-A1KC474K3	.47	200	H	2.33
D-1K02684K	CP-A1KC684K3	.68	200	K	2.64
D-1K02105K	CP-A1KC105K3	1.0	200	M	2.97
D-1K04102K	------------------	.001	400	A	1.73
D-1K04152K	------------------	.0015	400	A	1.74
D-1K04222K	------------------	.0022	400	A	1.74
D-1K04332K	CP-A1KE332K3	.0033	400	A	1.76
D-1K04472K	------------------	.0047	400	B	1.83
D-1K04682K	------------------	.0068	400	B	1.84
D-1K04103K	------------------	.01	400	B	1.85
D-1K04153K	CP-A1KE153K3	.015	400	B	1.89
D-1K04223K	------------------	.022	400	C	1.90
D-1K04333K	CP-A1KE333K3	.033	400	C	1.94
D-1K04473K	CP-A1KE473K3	.047	400	D	1.98
D-1K04683K	CP-A1KE683K3	.068	400	E	1.98
D-1K04104K	CP-A1KE104K3	.1	400	F	2.11
D-1K04154K	CP-A1KE154K3	.15	400	G	2.20

Catalog Number	Applicable Military Specification	Cap. mF.	Working Volts DC	Case Size*	Net Price 1-9**
SD-1K04224K	CP-A1KE224K3	.22	400	H	$2.33
SD-1K04334K	CP-A1KE334K3	.33	400	K	2.55
SD-1K04474K	CP-A1KE474K3	.47	400	M	2.95
SD-1K06102K	CP-A1KF102K3	.001	600	A	1.76
SD-1K06152K	CP-A1KF152K3	.0015	600	A	1.76
SD-1K06222K	CP-A1KF222K3	.0022	600	A	1.76
SD-1K06332K	CP-A1KF332K3	.0033	600	B	1.80
SD-1K06472K	CP-A1KF472K3	.0047	600	B	1.87
SD-1K06682K	CP-A1KF682K3	.0068	600	B	2.06
SD-1K06103K	CP-A1KF103K3	.01	600	B	1.91
SD-1K06153K	CP-A1KF153K3	.015	600	C	1.94
SD-1K06223K	CP-A1KF223K3	.022	600	C	1.96
SD-1K06333K	CP-A1KF333K3	.033	600	D	1.96
SD-1K06473K	CP-A1KF473K3	.047	600	E	2.02
SD-1K06683K	CP-A1KF683K3	.068	600	F	2.16
SD-1K06104K	CP-A1KF104K3	.1	600	G	2.20
SD-1K06154K	CP-A1KF154K3	.15	600	H	2.33
SD-1K06224K	CP-A1KF224K3	.22	600	K	2.64
SD-1K06334K	CP-A1KF334K3	.33	600	M	2.95
SD-1K06474K	CP-A1KF474K3	.47	600	N	3.08

** O.E.M. prices for larger quantities are available on request.

NOTE: Above prices cover ± 10% or ± 20% tolerance.

NOTE: If insulating sleeve is required, add 5% to above prices.

NOTE: Capacitance values not listed herein but included in Mil-C-25C are also available.

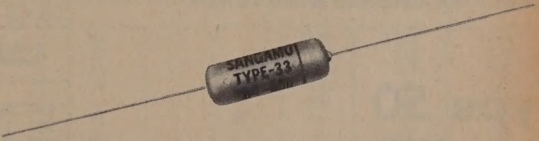
* Key to Case Sizes:

Letter	Diameter	Length	Letter	Diameter	Length
A	.235	3/4	H	.562	1-5/8
B	.312	7/8	J	.562	1-7/8
C	.400	7/8	K	.670	1-5/8
D	.400	1-1/8	L	.670	1-7/8
E	.400	1-3/8	M	.750	2-1/8
F	.562	1-1/8	N	.750	2-3/8
G	.562	1-3/8	P	1.0	1-7/8

Above dimensions do not include sleeve. For overall dimension of sleeve add 3/32" to length and .064" to diameter.

ype 33 MOLDED PAPER TUBULAR CAPACITORS

The SANGAMO "Telechief" is molded in Humiditite to provide surpassed moisture resistance, excellent seal and operation up +125°C without derating. Small in physical size and rugged in nstruction, this tubular paper capacitor is suited for television, uto radio, and similar applications. The leads are firmly imbedd in the hard plastic case and have been specially designed to sist breakage. The Type 33 assures operating dependability der extremes of heat, humidity and physical stress.



Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches	Net Price 1-49*
330221	.001	200	5/16	1	$.136
330225	.005	200	5/16	1	.142
330211	.01	200	3/8	1-1/8	.144
330212	.02	200	3/8	1-1/8	.151
3302147	.047	200	7/16	1-1/4	.168
330215	.05	200	7/16	1-1/4	.170
330201	.1	200	1/2	1-1/2	.192
3302015	.15	200	9/16	1-5/8	.273
3302022	.22	200	9/16	2	.314
3302025	.25	200	5/8	2	.359
3302047	.47	200	3/4	2	.484
330205	.5	200	3/4	2	.488
330421	.001	400	5/16	1	.137
330425	.005	400	5/16	1	.142
330411	.01	400	3/8	1-1/8	.144
330412	.02	400	7/16	1-3/16	.153
3304122	.022	400	7/16	1-3/16	.155
3304147	.047	400	15/32	1-1/2	.175
330415	.05	400	15/32	1-1/2	.183
3304168	.068	400	1/2	1-1/2	.189
330401	.1	400	9/16	1-5/8	.213
3304015	.15	400	9/16	2	.289
330402	.2	400	5/8	2	.349
3304022	.22	400	5/8	2	.371
3304025	.25	400	5/8	2	.408
330635	.0005	600	5/16	1	.143
330621	.001	600	5/16	1	.138
3306215	.0015	600	5/16	1	.138

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches	Net Price 1-49*
330622	.002	600	5/16	1	$.140
3306222	.0022	600	5/16	1	.144
3306225	.0025	600	5/16	1	.142
330623	.003	600	5/16	1	.143
3306233	.0033	600	5/16	1	.143
330624	.004	600	5/16	1	.144
3306247	.0047	600	5/16	1	.145
330625	.005	600	5/16	1	.146
330626	.006	600	3/8	1-1/8	.149
3306268	.0068	600	3/8	1-1/8	.150
330628	.008	600	7/16	1-3/16	.153
330611	.01	600	7/16	1-3/16	.157
3306115	.015	600	7/16	1-3/16	.165
330612	.02	600	7/16	1-1/4	.174
3306122	.022	600	7/16	1-1/4	.175
3306125	.025	600	15/32	1-1/2	.177
330613	.03	600	15/32	1-1/2	.183
3306133	.033	600	15/32	1-1/2	.186
330614	.04	600	1/2	1-1/2	.193
3306147	.047	600	1/2	1-1/2	.200
330615	.05	600	1/2	1-1/2	.203
330616	.06	600	9/16	1-5/8	.222
3306168	.068	600	9/16	1-5/8	.232
330601	.1	600	9/16	2	.277
3306015	.15	600	5/8	2	.442
330602	.2	600	3/4	2	.504
3306022	.22	600	3/4	2	.545
3306025	.25	600	3/4	2	.593

NOTE: Standard Tolerances: .0005 mF. up to .001 mF. ±40%
.001 mF. up to .1 mF. ±20%
.1 mF. and up ±10%

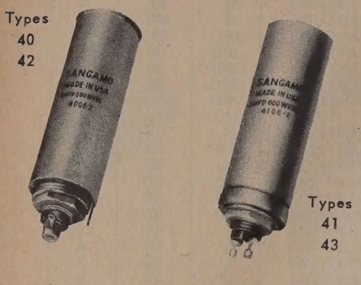
* O.E.M. prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY capacitors

SANGAMO ELECTRONIC COMPONENTS

Types 40-41-42-43

PAPER



Sangamo Types 40, 41, 42, and 43 paper dielectri capacitors are ideal for use in high voltage filter appli cations. Enclosed in aluminum containers, they moun to the chassis by means of a 3/4-16 threaded neck. In th Types 40 and 42, one connection is provided by an insulated terminal and the other is provided by the case an washer with a solder lug. In the Types 41 and 43, bot terminals are completely insulated from the case. Eac of the 4 types is provided with mounting nut and lockwasher. The Types 40 and 41 are impregnated with Diaclo to provide an F characteristic. Types 42 and 43 are impregnated with mineral oil to provide an E characteristic. All units are designed in accordance with electrical characteristics of Mil-C-25C. For more complete engineering information write for Bulletin 2424.

Catalog Number	Capacitance mF.	Working Volts D.C.	Diameter In Inches	Length In Inches		Net Price 1-9*
				Type 40	Type 42	
TYPES 40-42						
4–06-1	1	600	1-1/2	1-5/8	2	$3.81
4–06-2	2	600	1-1/2	2-3/8	2-7/8	3.95
4–06-4	4	600	1-1/2	3-5/8	5-1/4	5.13
4–10-1	1	1000	1-1/2	2-3/8	2-7/8	3.54
4–10-2	2	1000	1-1/2	3-5/8	5	4.54
4–15- .25	.25	1500	1-1/2	1-5/8	2	4.18
4–15- .5	.5	1500	1-1/2	2-3/8	2-7/8	4.49
4–15-1	1	1500	1-1/2	3-3/8	4-1/2	4.95

Catalog Number	Capacitance mF.	Working Volts D.C.	Diameter In Inches	Length In Inches		Net Price 1-9*
				Type 41	Type 43	
TYPES 41-43						
4–06-1	1	600	1-1/2	1-5/8	2	$3.91
4–06-2	2	600	1-1/2	2-3/8	2-7/8	4.05
4–06-4	4	600	1-1/2	3-5/8	5-1/4	5.23
4–10-1	1	1000	1-1/2	2-3/8	2-7/8	3.64
4–10-2	2	1000	1-1/2	3-5/8	5	4.64
4–15- .25	.25	1500	1-1/2	1-5/8	2	4.28
4–15- .5	.5	1500	1-1/2	2-3/8	2-7/8	4.59
4–15-1	1	1500	1-1/2	3-3/8	4-1/2	5.05

NOTE: Complete catalog number includes type designation. Example: 4206-1.

NOTE: Standard capacitive tolerance +20%, – 10%.

* O.E.M. prices for larger quantities are available on request.

Type 50

PAPER

SANGAMO
MADE IN USA
3X.5 MFD
600 WVDC
5006-3X.5RS

SANGAMO Type 50 paper dielectric capacitors are primarily intended for bypass applications. They are non-inductively wound, supplied in fractional capacitive values and will provide efficient and continuous operation in coupling and bypass circuits. These capacitors are impregnated with mineral oil and may be operated under severe humidity conditions at temperatures between -55° and 85°C. All units are designed in accordance with electrical characteristics of Mil-C-25C. For more complete engineering information write for Bulletin 2424.

Catalog Number	Applicable Military Specification	Capacitance mF.	Dimensions in Inches			Net Price 1-9**
			Length	Width	Height	
600 W.V.D.C.						
5006- .05	----------------------	.05	1-13/16	1	3/4	$1.68
5006- .1	----------------------	.1	1-13/16	1	3/4	1.80
5006- .25	CP53B1EF254K1	.25	1-13/16	1	3/4	1.83
5006- .5	CP53B1EF504K1	.5	1-13/16	1	1	1.95
5006-1.0	CP53B1EF105K1	1.0	2	1-3/4	7/8	2.31
*5006-2.0	CP53B1EF205K1	2.0	2	2	1-1/8	3.00
5006-2 x .05	CP53B4EF503V1	.05-.05	1-13/16	1	3/4	2.76
5006-2 x .1	CP53B4EF104V1	.1 -.1	1-13/16	1	3/4	2.43
5006-2 x .25	CP53B4EF254V1	.25-.25	1-13/16	1	7/8	2.46
5006-2 x .5	CP53B4EF504V1	.5 -.5	2	1-3/4	7/8	2.76
*5006-2 x 1.0	CP53B4EF105V1	1.0 -1.0	2	2	1-1/8	3.42
5006-3 x .1	CP53B5EF104V1	.1 -.1 -.1	1-13/16	1	3/4	2.73
5006-3 x .25	CP53B5EF254V1	.25-.25-.25	2	1-3/4	7/8	3.09
*5006-3 x .5	CP53B5EF504V1	.5 -.5 -.5	2	2	1-1/8	3.75
1000 W.V.D.C.						
5010- .05	CP53B1EG503K1	.05	1-13/16	1	3/4	$1.80
5010- .1	CP53B1EG104K1	.1	1-13/16	1	3/4	1.83
5010- .25	CP53B1EG254K1	.25	1-13/16	1	7/8	1.89
5010- .5	CP53B1EG504K1	.5	2	1-3/4	7/8	2.07
*5010-1.0	CP53B1EG105K1	1.0	2	2	1-1/8	2.76
5010-2 x .05	CP53B4EG503V1	.05-.05	1-13/16	1	3/4	2.49
5010-2 x .1	CP53B4EG104V1	.1 -.1	1-13/16	1	7/8	2.52
5010-2 x .25	CP53B4EG254V1	.25-.25	2	1-3/4	7/8	2.70
*5010-2 x .5	CP53B4EG504V1	.5 -.5	2	2	1-1/8	3.57
5010-3 x .1	CP53B5EG104V1	.1 -.1 -.1	2	1-3/4	7/8	3.09
*5010-3 x .25	CP53B5EG254V1	.25-.25-.25	2	2	1-1/8	3.78

* For bottom or top terminal, case size becomes 2" x 2" x 1-1/4".

** O.E.M. prices for larger quantities are available on request.

NOTE: 1. Standard capacitive tolerance: +20% – 10% on catalog items.

2. Units supplied with side terminals unless otherwise specified. For top terminals add the letters "RT" following the catalog number. Example: 5006-.05RT. For bottom terminals add "RB" to catalog number.
Military type designation changes from "CP53---------" to "CP54" and "CP55" respectively.

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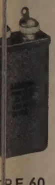
SANGAMO ELECTRIC COMPANY

capacitors

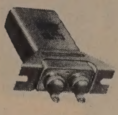
SANGAMO ELECTRONIC COMPONENTS

ypes 60-62-64-66-68 *PAPER*



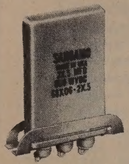
PE 60

TYPE 62



TYPE 64

TYPE 66



TYPE 68

Sangamo Types 60, 62, 64, 66 and 68 non-inductively wound paper capacitors are impregnated with mineral oil and hermetically sealed in drawn metal cans. The mineral oil assures dependable service between the temperature range of -55°C to +85°C. The standard capacitive tolerance is +20, -10% on catalog items. Mounting brackets are supplied as shown. All units are designed in accordance with electrical characteristics of MIL-C-25C. For more complete engineering information write for Bulletin 2423.

Catalog Number	Applicable Military Specification	Case Size* CP 90-63-65 Type 60-62-64	Case Size* CP 67-69 Type 66-68	Capacitance mF.	Net Price 1-9 † CP90 Type 60	Net Price 1-9 † CP63-65 Type 62-64	Net Price 1-9 † CP67-69 Type 66-68
600 W.V.D.C.							
6-V06- .01	--------------------	A1	---	.01	$1.74	$1.90	$-----
6-V06- .05	CP-B1EF503K1	A1	B1	.05	1.86	1.94	2.27
6-V06- .1	--------------------	A2	B1	.1	1.94	2.02	2.36
6-V06- .25	CP-B1EF254K1	A3	B2	.25	2.01	2.09	2.43
6-V06- .5	CP-B1EF504K1	A4	B3	.5	2.08	2.16	2.52
6-V06-1.0	CP-B1EF105K1	A6	B5	1.0	2.34	2.42	2.78
6-V06-2.0	--------------------	F	---	2.0	2.92	3.20	-----
6-X06-2 x .05	CP-B4EF503V1	---	B1	.05-.05	-----	-----	2.77
6-X06-2 x .1	CP-B4EF104V1	---	B2	.1 -.1	-----	-----	2.85
6-X06-2 x .25	CP-B4EF254V1	---	B3	.25-.25	-----	-----	3.06
6-X06-2 x .5	CP-B4EF504V1	---	B5	.5 -.5	-----	-----	3.34
6-Y06-3 x .05	CP-B5EF503V1	---	B2	.05-.05-.05	-----	-----	3.34
6-Y06-3 x .1	CP-B5EF104V1	---	B2	.1 -.1 -.1	-----	-----	3.42
6-Y06-3 x .25	CP-B5EF254V1	---	B5	.25-.25-.25	-----	-----	3.67
1000 W.V.D.C.							
6-V10- .05	CP-B1EG503K1	A2	B1	.05	$1.93	$2.01	$2.32
6-V10- .1	CP-B1EG104K1	A2	B2	.1	2.00	2.08	2.39
6-V10- .25	CP-B1EG254K1	A4	B3	.25	2.06	2.14	2.46
6-V10- .5	CP-B1EG504K1	A6	B5	.5	2.25	2.33	2.68
6-V10-1.0	--------------------	F	---	1.0	2.55	2.63	-----
6-X10-2 x .05	CP-B4EG503V1	---	B2	.05-.05	-----	-----	2.83
6-X10-2 x .1	CP-B4EG104V1	---	B3	.1 -.1	-----	-----	2.95
6-X10-2 x .25	CP-B4EG254V1	---	B5	.25-.25	-----	-----	3.13
6-Y10-3 x .05	CP-B5EG503V1	---	B2	.05-.05-.05	-----	-----	3.40
6-Y10-3 x .1	CP-B5EG104V1	---	B4	.1 -.1 -.1	-----	-----	3.52

Key to case sizes. (All dimensions in inches.)

etter	Length	Width	Thickness	Letter	Length	Width	Thickness
A1	1-1/16	1-5/16	.725	B1	1-1/16	1-3/4	.580
A2	1-3/8	1-5/16	.725	B2	1-1/2	1-3/4	.580
A3	1-5/8	1-5/16	.725	B3	2	1-3/4	.580
A4	2	1-5/16	.725	B4	2-1/2	1-3/4	.580
A6	2-3/4	1-5/16	.725	B5	2-3/4	1-3/4	.580
F	2-1/4	1-3/16	1.188	Add .75" max. to length for terminals.			

† O.E.M. prices for larger quantities available on request.

NOTE: Complete Catalog Number will include type designation. Example: 62V06-.01. Complete military specification will include type designation CP90; CP91; CP63; or CP65. Example: CP90B1EF254K1.

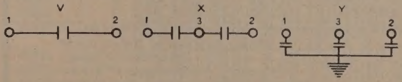
NOTE: Type 60 without bracket; Type 62 with channel bracket, 2 terminals on the top. Type 64 with channel bracket, 2 terminals at the bottom.

NOTE: Type 60 can be furnished with spade (S) or footed (F) bracket. When ordering, state type of bracket desired following Catalog Number. Add $.20 to above price.

NOTE: Type 66 with channel bracket and the terminals at the top; Type 68 with channel bracket and the terminals at the bottom.

NOTE: Overall bracket dimensions for Type 62-64; Length 2-5/16", Width .766". Mounting screw slots center-to-center 1-5/16". Overall bracket dimensions for Type 66-68; Length 2-7/16", Width .640". Mounting screw slots center-to-center 2-1/8".

NOTE: Letter V, X and Y denote electrical circuit as follows:

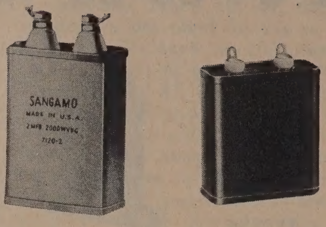


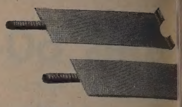
SANGAMO ELECTRIC COMPANY capacitors

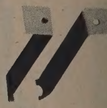
ELECTRONIC COMPONENTS

Type 71 PAPER

SANGAMO Type 71 paper dielectric capacitors are impregnated with Diaclor - a specially compounded, chemically pure, chlorinated dielectric oil, SANGAMO Diaclor is a synthetic impregnant whose characteristics can be controlled with great uniformity and possesses a high dielectric constant, high resistivity, low power factor, high dielectric strength and is non-flammable and non-explosive. The Type 71 is an excellent choice in medium and high voltage circuits where light weight per unit volume is an important factor. Each unit is finished with grey lacquer paint over a zinc chromate under coat. All units are built in accordance with applicable paragraphs of Specification Mil-C-25C. For more complete Engineering information write for catalog 2423.




TYPE A
SPADE BRACKET


TYPE B
FOOTED BRACKET

Catalog Number	Case Size*	Applicable Military Specification	Case Size**	Capacitance mF.	Net Price 1-9 †
600 WVDC					
7106- .5	A1	----------------------	---	.5	$ 2.39
7106-1	S1	----------------------	---	1.0	2.54
7106-2	S3	CP70B1FF205K1	A3	2.0	3.14
7106-4	B2	CP70B1FF405K1	B3	4.0	4.39
7106-6	T4	CP70B1FF605K1	B6	6.0	4.83
7106-8	Y1	CP70B1FF805K1	C2	8.0	6.49
7106-10	C2	CP70B1FF106K1	C4	10.0	6.99
1000 WVDC					
7110- .1	A1	----------------------	---	.1	$ 2.31
7110- .25	A1	----------------------	---	.25	2.69
7110- .5	S1	----------------------	---	.5	2.78
7110-1	S2	CP70B1FG105K1	A2	1.0	2.83
7110-2	A5	CP70B1FG205K1	A5	2.0	3.60
7110-4	T5	CP70B1FG405K1	B6	4.0	4.98
7110-6	C2	CP70B1FG605K1	C4	6.0	6.19
7110-8	Y3	CP70B1FG805K1	D2	8.0	7.32
7110-10	D4	CP70B1FG106K1	D5	10.0	8.44
7110-12	E3	CP70B1FG126K1	E4	12.0	9.54
7110-15	X1	CP70B1FG156K1	F1	15.0	11.23
1500 WVDC					
7115- .1	A1	----------------------	---	.5	$ 3.31
7115-1	A4	CP70B1FH105K1	A5	1.0	3.39
7115-2	T3	CP70B1FH205K1	B5	2.0	4.40
7115-4	C3	CP70B1FH405K1	C4	4.0	6.54
7115-6	V2	CP70B1FH605K1	D5	6.0	8.45
7115-8	X1	CP70B1FH805K1	F1	8.0	10.62
7115-10	Y1	CP70B1FH106K1	G2	10.0	12.29
7115-12	G2	CP70B1FH126K1	G2	12.0	12.41
7115-15	Z1	CP70B1FH156K1	J3	15.0	17.07
2000 WVDC					
7120- .5	A2	----------------------	---	.1	$ 3.99
7120- .25	S1	----------------------	---	.25	4.18
7120- .5	A3	----------------------	---	.5	4.47
7120-1	T2	CP70E1FJ105K1	B3	1.0	5.04
7120-2	U2	CP70E1FJ205K1	C3	2.0	6.27
7120-4	W1	CP70E1FJ405K1	E3	4.0	8.68
7120-6	F1	CP70E1FJ605K1	G1	6.0	11.10
7120-8	G2	CP70E1FJ805K1	G3	8.0	12.95
7120-10	J3	CP70E1FJ106K1	J3	10.0	15.14
7120-12	J4	CP70E1FJ126K1	J5	12.0	17.61

Catalog Number	Case Size*	Applicable Military Specification	Case Size**	Capacitance mF.	Net Price 1-9 †
2500 WVDC					
7125- .5	B2	CP70E1FK504K1	B3	.5	$ 5.97
7125-1	U1	CP70E1FK105K1	D1	1.0	7.10
7125-2	D5	CP70E1FK205K1	D5	2.0	9.71
7125-4	E6	----------------------	---	4.0	13.99
7125-10	J6	CP70E1FK106K1	J8	10.0	26.96
3000 WVDC					
7130- .1	S1	CP70E1FL104K1	B1	.1	$ 7.64
7130- .25	B1	CP70E1FL254K1	B2	.25	8.13
7130- .5	T4	CP70E1FL504K1	B5	.5	8.90
7130-1	C3	CP70E1FL105K1	E3	1.0	10.51
7130-2	E4	CP70E1FL205K1	G1	2.0	13.69
7130-4	Z1	CP70E1FL405K1	J3	4.0	19.38
4000 WVDC					
7140- .1	D1	----------------------	---	.1	$ 7.95
7140- .25	D1	CP70E1FM254K1	E1	.25	8.63
7140- .5	V1	CP70E1FM504K1	E3	.5	9.94
7140-1	W2	CP70E1FM105K1	E6	1.0	12.46
7140-2	G4	CP70E1FM205K1	J4	2.0	17.10
7140-4	J8	CP70E1FM405K1	J10	4.0	27.06
5000 WVDC					
7150- .1	D1	----------------------	---	.1	$ 8.17
7150- .25	D1	----------------------	---	.25	9.04
7150- .5	W2	CP70E1FN504K1	E4	.5	10.79
7150-1	Z1	CP70E1FN105K1	J2	1.0	14.90
7150-2	Z3	CP70E1FN205K1	J6	2.0	22.55
6000 WVDC					
7160- .1	D1	CP70E1FP104K1	E2	.1	$11.83
7160- .25	D4	CP70E1FP254K1	E4	.25	14.47
7160- .5	E6	CP70E1FP504K1	J2	.5	16.32
7160-1	Z2	CP70E1FP105K1	J9	1.0	21.43
7500 WVDC					
7175- .1	D2	CP70E1FR104K1	E3	.1	$14.79
7175- .25	E4	CP70E1FR254K1	J1	.25	15.58
7175- .5	Y2	CP70E1FR504K1	J4	.5	17.59

* Key to case sizes

Case Size	Base Dimensions Width	Base Dimensions Thickness	Can Height	Case Size	Base Dimensions Width	Base Dimensions Thickness	Can Height	Case Size	Base Dimensions Width	Base Dimensions Thickness	Can Height
A1	1-13/16	1-1/16	1-5/8	E3	3-3/4	2-1/4	3-7/8	S3	1-13/16	1-1/16	2-3/4
A2	1-13/16	1-1/16	2-1/4	E4	3-3/4	2-1/4	4-1/2	T1	2-1/2	1-3/16	2
A3	1-13/16	1-1/16	2-7/8	E6	3-3/4	2-1/4	5-1/8	T2	2-1/2	1-3/16	3-1/4
A4	1-13/16	1-1/16	3-1/4	F1	3-3/4	2-1/2	4-3/4	T3	2-1/2	1-3/16	3-5/8
A5	1-13/16	1-1/16	3-7/8	G1	3-3/4	3-3/16	4-1/2	T4	2-1/2	1-3/16	3-3/4
B1	2-1/2	1-3/16	2-1/2	G2	3-3/4	3-3/16	4-3/4	T5	2-1/2	1-3/16	4-1/8
B2	2-1/2	1-3/16	2-7/8	G3	3-3/4	3-3/16	5-1/8	U1	3-3/4	1-1/4	3-1/4
B3	2-1/2	1-3/16	3-1/2	G4	3-3/4	3-3/16	5-1/2	U2	3-3/4	1-1/4	3-3/4
B5	2-1/2	1-3/16	4-1/4	J1	4-9/16	3-3/4	3-7/8	U3	3-3/4	1-1/4	4-5/8
B6	2-1/2	1-3/16	4-3/4	J2	4-9/16	3-3/4	4-3/8	V1	3-3/4	1-3/4	3-1/2
C2	3-3/4	1-1/4	3-7/8	J3	4-9/16	3-3/4	4-3/4	V2	3-3/4	1-3/4	4-1/2
C3	3-3/4	1-1/4	4-1/4	J4	4-9/16	3-3/4	5-1/8	W1	3-3/4	2-1/4	3-3/4
C4	3-3/4	1-1/4	4-3/4	J5	4-9/16	3-3/4	5-1/2	W2	3-3/4	2-1/4	4-1/4
D1	3-3/4	1-3/4	3-1/4	J6	4-9/16	3-3/4	6	X1	3-3/4	2-1/2	4-5/8
D2	3-3/4	1-3/4	3-7/8	J8	4-9/16	3-3/4	7	Y1	3-3/4	3-3/16	4-1/8
D4	3-3/4	1-3/4	4-1/4	J9	4-9/16	3-3/4	7-1/2	Y2	3-3/4	3-3/16	6
D5	3-3/4	1-3/4	4-3/4	J10	4-9/16	3-3/4	8	Z1	4-9/16	3-3/4	4-1/4
E1	3-3/4	2-1/4	2-3/4	S1	1-13/16	1-1/16	2	Z2	4-9/16	3-3/4	5
E2	3-3/4	2-1/4	3-3/8	S2	1-13/16	1-1/16	2-1/8	Z3	4-9/16	3-3/4	5-3/4

NOTE: All dimensions in inches.

† O.E.M. prices for larger quantities available on request.

NOTE: Spade, footed or wrap-around brackets are available at additional cost. Designate bracket by adding type letter to catalog number. Example: 7106-.5C indicates unit with wrap-around bracket. See illustrations abov

NOTE: Above values and sizes are available in drawn seamless cans, as Type 72 (CP72). Example: 7206-.5A indicates unit in drawn can.

NOTE: All units 1500 W.V.D.C. and below are supplied with riveted silicone rubber bushing solder terminals. All units above 1500 W.V.D.C. are supplied with ceramic pillar terminals with removable solder lugs.

NOTE: Standard capacitive tolerance ± 10%.

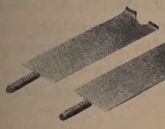
NOTE: Voltage ratings up to 50 KV available upon request.

SANGAMO ELECTRIC COMPANY

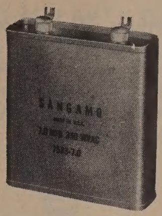
capacitors

SANGAMO ELECTRONIC COMPONENTS

Type 75 *MOTOR-RUN AND BALLAST CAPACITORS*



SPADE BRACKET



SANGAMO Type 75 paper dielectric capacitors are impregnated with Diaclor and designed for continuous A.C. duty in ambient temperatures up to 70°C. They are recommended for use in motor-run, ballast and light-duty power factor correction applications. For more complete engineering information write for Bulletin 2424.

at. No.	Capacitance mF.	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Terminal Spacing ±1/16	Net Price 1–9*
522-1	1	220	1-13/16	1-1/16	1-5/8	13/16	$ 3.80
522-2	2	220	1-13/16	1-1/16	2-1/4	13/16	4.55
522-3	3	220	1-13/16	1-1/16	2-7/8	13/16	4.84
522-3.75	3.75	220	1-13/16	1-1/16	3-1/4	13/16	5.20
522-4	4	220	1-13/16	1-1/16	3-1/4	13/16	5.32
522-5	5	220	2-1/2	1-3/16	2-7/8	1-1/8	5.61
522-6	6	220	2-1/2	1-3/16	3-1/2	1-1/8	6.22
522-7.5	7.5	220	2-1/2	1-3/16	3-7/8	1-1/8	7.24
522-8	8	220	2-1/2	1-3/16	3-7/8	1-1/8	7.44
522-10	10	220	2-1/2	1-3/16	4-3/4	1-1/8	8.56
522-12	12	220	3-3/4	1-1/4	3-7/8	2	9.79
522-15	15	220	3-3/4	1-1/4	4-1/4	2	10.21
522-20	20	220	3-3/4	1-3/4	4	2	16.01
522-25	25	220	3-3/4	2-1/4	4-1/8	2	20.01
533-1	1	330	1-13/16	1-1/16	2-1/8	13/16	4.00
533-2	2	330	1-13/16	1-1/16	2-7/8	13/16	4.65
533-3	3	330	1-13/16	1-1/16	3-7/8	13/16	5.32
533-4	4	330	1-13/16	1-1/16	4-3/4	13/16	6.01
533-5	5	330	2-1/2	1-3/16	3-1/2	1-1/8	6.66
533-6	6	330	2-1/2	1-3/16	3-7/8	1-1/8	7.34
533-7	7	330	3-3/4	1-1/4	3-1/4	2	8.01
533-9	9	330	3-3/4	1-1/4	3-7/8	2	9.39
533-10	10	330	3-3/4	1-1/4	3-7/8	2	10.01
533-12	12	330	3-3/4	1-3/4	3-7/8	2	12.00
533-15	15	330	3-3/4	1-3/4	4-1/4	2	13.33
533-20	20	330	3-3/4	2-1/4	4-1/2	2	15.99
533-25	25	330	3-3/4	2-1/2	4-3/4	2	20.01
533-30	30	330	3-3/4	3-3/16	4-1/2	2	24.16

Cat. No.	Capacitance mF.	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension w±1/16	Height H±1/16	Terminal Spacing ±1/16	Net Price 1–9*
7544-1	1	440	1-13/16	1-1/16	2-1/4	13/16	$ 4.43
7544-2	2	440	1-13/16	1-1/16	3-1/4	13/16	5.63
7544-3	3	440	1-13/16	1-1/16	4-3/4	13/16	6.55
7544-3.75	3.75	440	2-1/2	1-3/16	3-7/8	1-1/8	6.79
7544-4	4	440	2-1/2	1-3/16	3-7/8	1-1/8	6.88
7544-5	5	440	2-1/2	1-3/16	4-3/4	1-1/8	8.01
7544-6	6	440	3-3/4	1-1/4	4-1/8	2	8.93
7544-8	8	440	3-3/4	1-1/4	4-1/4	2	10.12
7544-10	10	440	3-3/4	2-1/4	3-3/8	2	11.30
7544-12	12	440	3-3/4	2-1/4	3-7/8	2	12.49
7544-15	15	440	3-3/4	2-1/4	4-1/2	2	13.65
7544-20	20	440	3-3/4	3-3/16	4-1/8	2	16.51
7544-25	25	440	3-3/4	3-3/16	4-3/4	2	20.37
7544-30	30	440	3-3/4	3-3/16	5-1/2	2	24.39
7566-1	1	660	1-13/16	1-1/16	3-7/8	13/16	4.83
7566-2	2	660	2-1/2	1-3/16	3-7/8	1-1/8	6.07
7566-4	4	660	3-3/4	1-1/4	4-3/4	2	7.52
7566-5	5	660	3-3/4	1-3/4	4-1/4	2	8.65
7566-6	6	660	3-3/4	1-3/4	4-3/4	2	9.35
7566-8	8	660	3-3/4	2-1/4	3-7/8	2	11.30
7566-10	10	660	3-3/4	3-3/16	4-1/8	2	13.13

NOTE: All units supplied with riveted silicone rubber bushing terminals with solder lugs. Cup type terminal insulator available at no extra cost.
NOTE: Standard Tolerance ±10%.
NOTE: Spade type, footed or universal wrap-around bracket can be furnished at additional cost.
*O.E.M. prices for larger quantities are available on request.

SANGAMO
MADE IN USA
3.75 MFD 330 W
8033-3.75

Type 80 *MOTOR RUN AND BALLAST CAPACITORS*

The SANGAMO Type 80 paper dielectric capacitor is designed for continuous duty in flourescent-light ballast, heating, ventilating and air conditioning motor run applications. These units are impregnated with Diaclor and hermetically sealed in drawn oval metal containers. For more complete engineering information write for Bulletin 2424.

Catalog Number	Capacitance mF.	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Net Price 1–9*
022-2	2	236	2-1/16	1-1/4	2-1/4	$ 2.86
022-3	3	236	2-1/16	1-1/4	2-1/4	2.99
022-4	4	236	2-1/16	1-1/4	2-7/8	3.26
022-5	5	236	2-1/16	1-1/4	2-7/8	3.65
022-6	6	236	2-1/16	1-1/4	3-3/4	4.40
022-7.5	7.5	236	2-13/16	2-1/8	2-17/32	6.44
022-10	10	236	2-13/16	2-1/8	3-1/32	7.46
022-15	15	236	2-13/16	2-1/8	4-5/32	8.09
022-20	20	236	2-13/16	2-1/8	4-7/8	11.77
033-2	2	330	2-1/16	1-1/4	2-1/4	3.10
033-3	3	330	2-1/16	1-1/4	2-7/8	3.14
033-3.75	3.75	330	2-1/16	1-1/4	3-1/8	3.25
033-4	4	330	2-1/16	1-1/4	3-1/8	3.26
033-5	5	330	2-1/16	1-1/4	3-3/4	4.19
033-6	6	330	2-1/16	1-1/4	3-3/4	5.34
033-7	7	330	2-13/16	2-1/8	3-1/32	6.38
033-7.5	7.5	330	2-13/16	2-1/8	3-1/32	6.74
033-8	8	330	2-13/16	2-1/8	3-3/8	7.02
033-10	10	330	2-13/16	2-1/8	3-3/8	7.54
033-12.5	12.5	330	2-13/16	2-1/8	4-5/32	7.95
033-14.5	14.5	330	2-13/16	2-1/8	4-21/32	8.09
033-15	15	330	2-13/16	2-1/8	4-21/32	9.13
033-17.5	17.5	330	2-13/16	2-1/8	5-3/16	9.90

Catalog Number	Capacitance mF.	Working Voltage A.C.	Base Dimension W±1/16	Base Dimension D±1/16	Height H±1/16	Net Price 1–9*
8033-20	20	330	2-13/16	2-1/8	5-3/16	$11.94
8044-2	2	440	2-1/16	1-1/4	2-1/4	3.80
8044-3	3	440	2-1/16	1-1/4	3-1/8	4.04
8044-4	4	440	2-1/16	1-1/4	3-3/4	4.49
8044-5	5	440	2-13/16	2-1/8	2-17/32	5.63
8044-6	6	440	2-13/16	2-1/8	2-25/32	6.63
8044-7	7	440	2-13/16	2-1/8	3-13/32	7.15
8044-7.5	7.5	440	2-13/16	2-1/8	3-13/32	7.28
8044-8	8	440	2-13/16	2-1/8	3-25/32	7.80
8044-10	10	440	2-13/16	2-1/8	4-5/32	7.92
8044-12.5	12.5	440	2-13/16	2-1/8	5-3/16	9.27
8044-15	15	440	2-13/16	2-1/8	6-1/4	11.00
8066-1	1	660	2-1/16	1-1/4	2-1/4	3.52
8066-2	2	660	2-1/16	1-1/4	3-3/4	4.98
8066-3	3	660	2-13/16	2-1/8	2-25/32	5.92
8066-4	4	660	2-13/16	2-1/8	3-3/8	7.26
8066-5	5	660	2-13/16	2-1/8	4-5/32	8.25
8066-6	6	660	2-13/16	2-1/8	4-21/32	9.57

NOTE: All units supplied with riveted silicone rubber bushing terminals with solder lugs. Cup type terminal insulator available at no extra cost.
NOTE: Standard Tolerance ±10%.
NOTE: Add 3/32" to above dimensions for lip on can.
*O.E.M. prices for larger quantities are available on request.

SANGAMO ELECTRIC COMPANY

capacitors

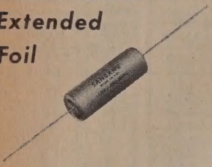
ELECTRONIC COMPONENTS

PLASTIC FILM CAPACITORS

Sangamo plastic film capacitors exhibit exceptional electrical characteristics which are necessary to meet the critical application requirements of the electronic industry. Sangamo's extensive experience with plastic films will enable you to select the most suitable capacitors in a variety of sizes, ratings, and styles. The following is a representative listing o our hermetically sealed tubular construction capacitors which are manufactured with the highest grade of material to assure the most reliable product available. Other sizes, ratings, and styles are available upon request.

TYPE SPTX TEFLON® Film Capacitors

Construction Extended Foil

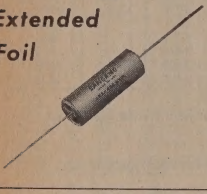


- * Dielectric-Teflon Film
- * Temperature Range
  - −55°C to +165°C Full Rating
  - −55°C to +200°C 50% De-Rating
- * Insulation Resistance—100,000 megohm-microfarads
- * Dissipation Factor—0.05% maximum
- * Temperature Coefficient of Capacitance—200±20ppm/°C
- * Dielectric Absorption—.01% maximum

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches
SPTX0221	.001	200	.235	7/8
SPTX0211	.01	200	.400	7/8
SPTX0215	.05	200	.562	1-3/8
SPTX0201	.1	200	.670	1-1/2
SPTX02025	.25	200	.750	2
SPTX0421	.001	400	.235	7/8
SPTX0411	.01	400	.400	7/8
SPTX0415	.05	400	.562	1-1/2
SPTX0401	.1	400	.750	1-1/2
SPTX04025	.25	400	1.000	7/8
SPTX0621	.001	600	.235	7/8
SPTX0611	.01	600	.400	7/8
SPTX0615	.05	600	.562	1-1/2
SPTX0601	.1	600	1.000	2

TYPE SPSX POLYSTYRENE Film Capacitors

Construction Extended Foil



- * Dielectric-Polystyrene Film
- * Temperature Range—
  - −55°C to +70°C Full Rating
- * Insulating Resistance—100,000 megohm-microfarads
- * Dissipation Factor—.02% maximum
- * Temperature coefficient of capacitance—100±20ppm/°C
- * Stability ±0.1% maximum

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches
SPSX0121	.001	100	.235	13/16
SPSX0111	.01	100	.235	13/16
SPSX0101	.1	100	.400	1-1/8
SPSX01022	.22	100	.562	1-1/8
SPSX0221	.001	200	.235	13/16
SPSX0211	.01	200	.312	7/8
SPSX0201	.1	200	.562	1-3/8
SPSX02022	.22	200	.670	1-7/8
SPSX0421	.001	400	.235	13/16
SPSX0411	.01	400	.312	1
SPSX0401	.1	400	.562	1-7/8
SPSX0621	.001	600	.235	1-3/16
SPSX0611	.01	600	.400	1
SPSX0601	.1	600	.670	1-5/8

NOTE:—Standard capacitive tolerance .001 mF. to .047, ±20%; .047 mF. and up, ±10%. Other tolerances available.

Type SPX Polyester *FILM CAPACITORS*

CONSTRUCTION:
EXTENDED FOIL

CIRCUIT O——| |——O

- * Dielectric—Mylar Film
- * Temperature Range—55° to +85°C Full Rating
  - −55°C to +125°C 50% Derating
- * Insulation Resistance—50,000 megohm-microfarads
- * Dissipation Factor—1% maximum
- * Dielectric Absorption—0.1% maximum
- * Stability Retrace—±0.2% maximum

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches
SPX0121	.001	100	.235	13/16
SPX01268	.0068	100	.235	13/16
SPX0111	.01	100	.235	13/16
SPX01122	.022	100	.235	13/16
SPX01147	.047	100	.312	15/16
SPX01168	.068	100	.312	15/16
SPX0101	.1	100	.400	15/16
SPX01022	.22	100	.400	1-5/16
SPX01047	.47	100	.562	1-1/8
SPX0110	1.0	100	.562	1-7/8
SPX0221	.001	200	.235	13/16
SPX02268	.0068	200	.235	13/16
SPX0211	.01	200	.235	13/16
SPX02122	.022	200	.235	13/16
SPX02147	.047	200	.312	15/16
SPX02168	.068	200	.400	15/16
SPX0201	.1	200	.400	1-1/16
SPX02022	.22	200	.400	1-7/16
SPX02047	.47	200	.562	1-7/16

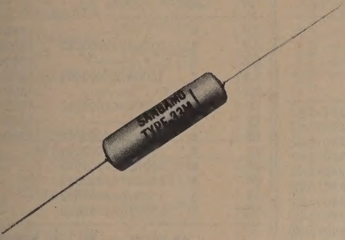
Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches
SPX0210	1.0	200	.670	1-7/8
SPX0421	.001	400	.235	13/16
SPX04268	.0068	400	.312	13/16
SPX0411	.01	400	.312	15/16
SPX04122	.022	400	.400	15/16
SPX04147	.047	400	.400	1-1/4
SPX04168	.068	400	.400	1-3/8
SPX0401	.1	400	.562	1-1/4
SPX04022	.22	400	.670	1-1/2
SPX04047	.47	400	.670	1-7/8
SPX0621	.001	600	.235	13/16
SPX06268	.0068	600	.312	15/16
SPX0611	.01	600	.312	15/16
SPX06122	.022	600	.400	1
SPX06147	.047	600	.400	1-1/2
SPX06168	.068	600	.562	1-1/8
SPX0601	.1	600	.562	1-3/8
SPX06022	.22	600	.670	1-7/8

NOTE—Standard Tolerance ±10%

SANGAMO ELECTRIC COMPANY capacitors

ELECTRONIC COMPONENTS

Type 33M *MOLDED MYLAR® TUBULAR CAPACITORS*



The Sangamo Type 33M, which uses a Mylar® dielectric is molded in thermosetting plastic to provide more stable capacitances, high insulating resistance, excellent seal and operation up to 125°C when the voltage is derated to 50% of the 85°C value.

They are specially recommended for use in test equipment, instrumentation and filter networks all of which require small physical size and dependability under extreme heat, humidity and physical stress. The Type 33M is manufactured to meet moisture requirements of Mil-C-91A specifications. For more complete Engineering information write for Bulletin TSC-206C.

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches	Net Price 1-49*
33MO121	.001	100	5/16	1	$0.150
33MO125	.005	100	5/16	1	0.156
33MO111	.01	100	5/16	1	0.157
33MO112	.02	100	5/16	1	0.165
33MO1147	.047	100	5/16	1	0.184
33MO115	.05	100	5/16	1	0.186
33MO101	.1	100	3/8	1-1/8	0.210
33MO1015	.15	100	7/16	1-3/16	0.300
33MO1022	.22	100	7/16	1-1/4	0.344
33MO1025	.25	100	7/16	1-1/4	0.394
33MO1047	.47	100	9/16	1-5/8	0.532
33MO105	.5	100	9/16	1-5/8	0.537
33MO110	1.0	100	5/8	2	0.116
33MO221	.001	200	5/16	1	0.152
33MO225	.005	200	5/16	1	0.159
33MO211	.01	200	5/16	1	0.161
33MO212	.02	200	5/16	1	0.169
33MO2147	.047	200	3/8	1-1/8	0.188
33MO215	.05	200	3/8	1-1/8	0.191
33MO201	.1	200	7/16	1-3/16	0.215
33MO2015	.15	200	7/16	1-1/4	0.306
33MO2022	.22	200	1/2	1-1/2	0.351
33MO2025	.25	200	1/2	1-1/2	0.369
33MO2047	.47	200	9/16	2	0.542
33MO205	.5	200	9/16	2	0.547
33MO210	1.0	200	3/4	2	0.926
33MO421	.001	400	5/16	1	0.153
33MO425	.005	400	5/16	1	0.159
33MO411	.01	400	5/16	1	0.161
33MO412	.02	400	3/8	1-1/8	0.172
33MO4122	.022	400	3/8	1-1/8	0.173
33MO4147	.047	400	7/16	1-3/16	0.196
33MO415	.05	400	7/16	1-3/16	0.204
33MO4168	.068	400	15/32	1-1/2	0.209
33MO401	.1	400	1/2	1-1/2	0.239
33MO4015	.15	400	9/16	1-5/8	0.324
33MO402	.2	400	9/16	2	0.391
33MO4022	.22	400	9/16	2	0.416

Catalog Number	Capacitance mF.	Working Voltage D.C.	Diameter In Inches	Length In Inches	Net Price 1-49*
33MO4025	.25	400	9/16	2	$0.457
33MO405	.5	400	3/4	2	0.710
33MO635	.0005	600	5/16	1	0.154
33MO621	.001	600	5/16	1	0.154
33MO6215	.0015	600	5/16	1	0.154
33MO622	.002	600	5/16	1	0.154
33MO6222	.0022	600	5/16	1	0.157
33MO6225	.0025	600	5/16	1	0.158
33MO623	.003	600	5/16	1	0.159
33MO6233	.0033	600	5/16	1	0.160
33MO624	.004	600	5/16	1	0.161
33MO6247	.0047	600	5/16	1	0.161
33MO625	.005	600	5/16	1	0.162
33MO626	.006	600	5/16	1	0.163
33MO6268	.0068	600	5/16	1	0.168
33MO628	.008	600	5/16	1	0.169
33MO611	.01	600	3/8	1-1/8	0.172
33MO6115	.015	600	3/8	1-1/8	0.176
33MO612	.02	600	7/16	1-3/16	0.185
33MO6122	.022	600	7/16	1-3/16	0.194
33MO6125	.025	600	7/16	1-3/16	0.196
33MO613	.03	600	7/16	1-1/4	0.200
33MO6133	.033	600	7/16	1-1/4	0.206
33MO614	.04	600	15/32	1-1/2	0.209
33MO6147	.047	600	15/32	1-1/2	0.217
33MO615	.05	600	15/32	1-1/2	0.225
33MO616	.06	600	9/16	1-5/8	0.228
33MO6168	.068	600	9/16	1-5/8	0.250
33MO601	.1	600	9/16	2	0.261
33MO6015	.15	600	5/8	2	0.311
33MO602	.2	600	3/4	2	0.495
33MO6022	.22	600	3/4	2	0.565
33MO6025	.25	600	3/4	2	0.611

NOTE: Standard Capacitive Tolerance:
.0005 mF. up to .001 mF. ±40%
.001 mF. up to .04 mF. ±20%
.04 mF. and up ±10%

* O.E.M. prices for larger quantities are available on request.

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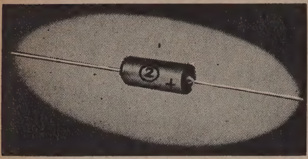
SPRAGUE CAPACITORS

TYPE 150D SOLID-ELECTROLYTE TANTALEX® CAPACITORS



- Combine True Miniaturization with Characteristics Previously Unobtainable in Electrolytic Capacitors.
- Hermetically Sealed Metal Case.
- Solid Electrolyte Cannot Leak or Corrode, Even if Hermetic Seal is Accidentally Broken.
- Exhibit Stable Capacitance and Low Dissipation Factor over Temperature Range of —80°C to +85°C. With Appropriate Voltage De ing, May Be Operated to +125°C.
- Listed Units have Plastic Sleeves. For B Case, end Cat. No. in "0" instead of ' and subtract $.05 from unit price.
- For complete technical data, refer to lat issue of Engineering Bulletin 3520.
- Also available in 50, 60 and 75 volt ratin

6 WVDC — 8 VDC SURGE

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
.22	A	150D224X0006A2	150D224X9006A2
.27	A	———	150D274X9006A2
.33	A	150D334X0006A2	150D334X9006A2
.39	A	———	150D394X9006A2
.47	A	150D474X0006A2	150D474X9006A2
.56	A	———	150D564X9006A2
.68	A	150D684X0006A2	150D684X9006A2
.82	A	———	150D824X9006A2
1.0	A	150D105X0006A2	150D105X9006A2
1.2	A	———	150D125X9006A2
1.5	A	150D155X0006A2	150D155X9006A2
1.8	A	———	150D185X9006A2
2.2	A	150D225X0006A2	150D225X9006A2
2.7	A	———	150D275X9006A2
3.3	A	150D335X0006A2	150D335X9006A2
3.9	A	———	150D395X9006A2
4.7	A	150D475X0006A2	150D475X9006A2
5.6	A	———	150D565X9006A2
6.8	A	150D685X0006A2	150D685X9006A2
8.2	B	———	150D825X9006B2
10	B	150D106X0006B2	150D106X9006B2
12	B	———	150D126X9006B2
15	B	150D156X0006B2	150D156X9006B2
18	B	———	150D186X9006B2
22	B	150D226X0006B2	150D226X9006B2
27	B	———	150D276X9006B2
33	B	150D336X0006B2	150D336X9006B2
39	B	———	150D396X9006B2
47	B	150D476X0006B2	150D476X9006B2
56	B	———	150D566X9006B2
60	B	150D606X0006B2	———
68	R	150D686X0006R2	———
100	R	150D107X0006R2	———
120	R	150D127X0006R2	———
150	R	150D157X0006R2	———
180	R	150D187X0006S2	———
220	S	150D227X0006S2	———
330	S	150D337X0006S2	———

10 WVDC — 13 VDC SURGE

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
.22	A	150D224X0010A2	150D224X9010A2
.27	A	———	150D274X9010A2
.33	A	150D334X0010A2	150D334X9010A2
.39	A	———	150D394X9010A2
.47	A	150D474X0010A2	150D474X9010A2
.56	A	———	150D564X9010A2
.68	A	150D684X0010A2	150D684X9010A2
.82	A	———	150D824X9010A2
1.0	A	150D105X0010A2	150D105X9010A2
1.2	A	———	150D125X9010A2
1.5	A	150D155X0010A2	150D155X9010A2
1.8	A	———	150D185X9010A2
2.2	A	150D225X0010A2	150D225X9010A2
2.7	A	———	150D275X9010A2
3.3	A	150D335X0010A2	150D335X9010A2
3.9	A	———	150D395X9010A2
4.7	A	150D475X0010A2	150D475X9010A2
5.6	B	———	150D565X9010B2
6.8	B	150D685X0010B2	150D685X9010B2
8.2	B	———	150D825X9010B2
10	B	150D106X0010B2	150D106X9010B2
12	B	———	150D126X9010B2
15	B	150D156X0010B2	150D156X9010B2
18	B	———	150D186X9010B2
22	B	150D226X0010B2	150D226X9010B2
27	B	———	150D276X9010B2
33	B	150D336X0010B2	150D336X9010B2
39	B	———	150D396X9010B2
40	B	150D406X0010B2	———
68	R	150D686X0010R2	———
100	R	150D107X0010R2	———
120	R	150D127X0010R2	———
150	S	150D157X0010S2	———
220	S	150D227X0010S2	———

15 WVDC — 18 VDC SURGE

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
.22	A	150D224X0015A2	150D224X9015A2
.27	A	———	150D274X9015A2
.33	A	150D334X0015A2	150D334X9015A2
.39	A	———	150D394X9015A2
.47	A	150D474X0015A2	150D474X9015A2
.56	A	———	150D564X9015A2
.68	A	150D684X0015A2	150D684X9015A2
.82	A	———	150D824X9015A2
1.0	A	150D105X0015A2	150D105X9015A2
1.2	A	———	150D125X9015A2
1.5	A	150D155X0015A2	150D155X9015A2
1.8	A	———	150D185X9015A2
2.2	A	150D225X0015A2	150D225X9015A2
2.7	A	———	150D275X9015A2
3.3	A	150D335X0015A2	150D335X9015A2
3.9	B	———	150D395X9015B2
4.7	B	150D475X0015B2	150D475X9015B2
5.6	B	———	150D565X9015B2
6.8	B	150D685X0015B2	150D685X9015B2
8.2	B	———	150D825X9015B2
10	B	150D106X0015B2	150D106X9015B2
12	B	———	150D126X9015B2
15	B	150D156X0015B2	150D156X9015B2
18	B	———	150D186X9015B2
22	B	150D226X0015B2	150D226X9015B2
33	R	150D336X0015R2	———
47	R	150D476X0015R2	———
68	R	150D686X0015R2	———
100	S	150D107X0015S2	———
150	S	150D157X0015S2	———

20 WVDC — 23 VDC SURGE

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
.0047	A	150D472X0020A2	150D472X9020A2
.0056	A	———	150D562X9020A2
.0068	A	150D682X0020A2	150D682X9020A2
.0082	A	———	150D822X9020A2
.01	A	150D103X0020A2	150D103X9020A2
.012	A	———	150D123X9020A2
.015	A	150D153X0020A2	150D153X9020A2
.018	A	———	150D183X9020A2
.022	A	150D223X0020A2	150D223X9020A2
.027	A	———	150D273X9020A2
.033	A	150D333X0020A2	150D333X9020A2
.039	A	———	150D393X9020A2
.047	A	150D473X0020A2	150D473X9020A2
.056	A	———	150D563X9020A2
.068	A	150D683X0020A2	150D683X9020A2
.082	A	———	150D823X9020A2
.1	A	150D104X0020A2	150D104X9020A2
.12	A	———	150D124X9020A2
.15	A	150D154X0020A2	150D154X9020A2
.18	A	———	150D184X9020A2
.22	A	150D224X0020A2	150D224X9020A2
.27	A	———	150D274X9020A2
.33	A	150D334X0020A2	150D334X9020A2
.39	A	———	150D394X9020A2
.47	A	150D474X0020A2	150D474X9020A2
.56	A	———	150D564X9020A2
.68	A	150D684X0020A2	150D684X9020A2
.82	A	———	150D824X9020A2
1.0	A	150D105X0020A2	150D105X9020A2
1.2	A	———	150D125X9020A2
1.5	A	150D155X0020A2	150D155X9020A2
1.8	A	———	150D185X9020A2
2.2	A	150D225X0020A2	150D225X9020A2
2.7	B	———	150D275X9020B2
3.3	B	150D335X0020B2	150D335X9020B2
3.9	B	———	150D395X9020B
4.7	B	150D475X0020B2	150D475X9020B
5.6	B	———	150D565X9020B
6.8	B	150D685X0020B2	150D685X9020B
8.2	B	———	150D825X9020B
10	B	150D106X0020B2	150D106X9020B
12	B	———	150D126X9020B
15	B	150D156X0020B2	150D156X9020B
22	R	150D226X0020R2	———
33	R	150D336X0020R2	———
47	R	150D476X0020R2	———
68	S	150D686X0020S2	———
100	S	150D107X0020S2	———

35 WVDC — 40 VDC SURGE

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
.0047	A	150D472X0035A2	150D472X9035A
.0056	A	———	150D562X9035A
.0068	A	150D682X0035A2	150D682X9035A
.0082	A	———	150D822X9035A
.01	A	150D103X0035A2	150D103X9035A
.012	A	———	150D123X9035A
.015	A	150D153X0035A2	150D153X9035A
.018	A	———	150D183X9035A
.022	A	150D223X0035A2	150D223X9035A2
.027	A	———	150D273X9035A2
.033	A	150D333X0035A2	150D333X9035A2
.039	A	———	150D393X9035A2
.047	A	150D473X0035A2	150D473X9035A2
.056	A	———	150D563X9035A2
.068	A	150D683X0035A2	150D683X9035A2
.082	A	———	150D823X9035A2
.10	A	150D104X0035A2	150D104X9035A2
.12	A	———	150D124X9035A2
.15	A	150D154X0035A2	150D154X9035A2
.18	A	———	150D184X9035A2
.22	A	150D224X0035A2	150D224X9035A2
.27	A	———	150D274X9035A2
.33	A	150D334X0035A2	150D334X9035A2
.39	A	———	150D394X9035A2
.47	A	150D474X0035A2	150D474X9035A2
.56	A	———	150D564X9035A2
.68	A	150D684X0035A2	150D684X9035A2
.82	A	———	150D824X9035A2
1.0	A	150D105X0035A2	150D105X9035A2
1.2	B	———	150D125X9035B2
1.5	B	150D155X0035B2	150D155X9035B2
1.8	B	———	150D185X9035B2
2.2	B	150D225X0035B2	150D225X9035B2
2.7	B	———	150D275X9035B2
3.3	B	150D335X0035B2	150D335X9035B2
3.9	B	———	150D395X9035B2
4.7	B	150D475X0035B2	150D475X9035B2
5.6	B	———	150D565X9035B2
6.8	B	150D685X0035B2	150D685X9035B2
10	R	150D106X0035R2	———
15	R	150D156X0035R2	———
22	R	150D226X0035R2	———
33	S	150D336X0035S2	———
47	S	150D476X0035S2	———

DIMENSIONS AND NET PRICES (1-24*)

Code	D. x L.	±20% Tol.	±10% Tol.
A	.104" x .312"	$1.32 (thru .1μF) 1.48 (above .1μF)	$1.72 (thru .1μF) 1.92 (above .1μF)
B	.190" x .500"	1.54	2.00
P	.285" x .759"	2.54	3.30
S	.347" x .859"	4.72	6.12

*For quantity prices on 25 to 999 pieces, see you Sprague distributor.

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All prices and sizes subject to change without notice

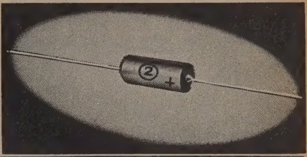
SPRAGUE CAPACITORS

L-C-26655A SOLID ELECTROLYTE TUBULAR TANTALUM CAPACITORS

Military Version of Type 150D. Truly Miniature With Characteristics Previously Unobtainable in Electrolytics.

Hermetically Sealed Case, CS-12, Bare Tube; CS13, Insulating Sleeve

- Cannot Leak or Corrode—Solid Electrolyte Will Not Seep Even if Hermetic Seal is Accidentally Broken
- Temperature Range of −80C to +85C. May Be Operated to +125C With Appropriate Voltage Derating



	Size	MILITARY DESIGNATION		Net Ea.
	Code	±20% Tol.	±10% Tol.	(1-24)
		CS12—6 WVDC		
6	A	....	CS12AB5R6K	$1.90
8	A	....	CS12AB6R8K	1.90
8	A	CS12AB6R8M	....	1.46
	B	....	CS12AB470K	1.98
	B	CS12AB470M	....	1.52
	B	....	CS12AB560K	1.98
	R	....	CS12AB151K	3.28
	R	CS12AB151M	....	2.52
	R	....	CS12AB181K	3.28
	S	....	CS12AB271K	6.10
	S	....	CS12AB331K	6.10
	S	CS12AB331M	....	4.70
		CS12—10 WVDC		
9	A	....	CS12AC3R9K	1.90
7	A	....	CS12AC4R7K	1.90
7	A	CS12AC4R7M	....	1.46
	B	....	CS12AC270K	1.98
	B	....	CS12AC330K	1.98
	B	CS12AC330M	....	1.52
	B	....	CS12AC390K	1.98
	R	....	CS12AC820K	3.28
	R	....	CS12AC101K	3.28
	R	CS12AC101M	....	2.52
	R	....	CS12AC121K	3.28
	S	....	CS12AC181K	6.10
	S	....	CS12AC221K	6.10
	S	CS12AC221M	....	4.70
		CS12—15 WVDC		
.7	A	....	CS12AD2R7K	1.90
.3	A	....	CS12AD3R3K	1.90
.3	A	CS12AD3R3M	....	1.46
	B	....	CS12AD180K	1.98
	B	....	CS12AD220K	1.98
	B	CS12AD220M	....	1.52
	R	CS12AD560M	....	3.28
	R	....	CS12AD680K	3.28
	R	CS12AD680M	....	2.52
	S	....	CS12AD121K	6.10
	S	....	CS12AD151K	6.10
	S	CS12AD151M	....	4.70
		CS12—20 WVDC		
.2	A	....	CS12AE1R2K	1.90
.5	A	....	CS12AE1R5K	1.90
.5	A	CS12AE1R5M	....	1.46
.8	A	....	CS12AE1R8K	1.90
.2	A	....	CS12AE2R2K	1.90
.2	A	CS12AE2R2M	....	1.46
.2	B	....	CS12AE8R2K	1.98
	B	....	CS12AE100K	1.98
	B	CS12AE100M	....	1.52
	B	....	CS12AE120K	1.98
	B	....	CS12AE150K	1.98
	B	CS12AE150M	....	1.52
	R	....	CS12AE270K	3.28
	R	....	CS12AE330K	3.28
	R	CS12AE330M	....	2.52
	R	....	CS12AE390K	3.28
	R	....	CS12AE470K	3.28
	R	CS12AE470M	....	2.52
	S	....	CS12AE560K	6.10
	S	....	CS12AE680K	6.10
	S	CS12AE680M	....	4.70
	S	....	CS12AE820K	6.10
	S	....	CS12AE101K	6.10
	S	CS12AE101M	....	4.70
		CS12—35 WVDC		
.33	A	....	CS12AFR33K	1.90
.33	A	CS12AFR33M	....	1.46
.39	A	....	CS12AFR39K	1.90
.47	A	....	CS12AFR47K	1.90
.47	A	CS12AFR47M	....	1.46
.56	A	....	CS12AFR56K	1.90
.68	A	....	CS12AFR68K	1.90
.68	A	CS12AFR68M	....	1.46
.82	A	....	CS12AFR82K	1.90
.0	A	....	CS12AF010K	1.90
.0	A	CS12AF010M	....	1.46
.2	B	....	CS12AF1R2K	1.98
.5	B	....	CS12AF1R5K	1.98
.5	B	CS12AF1R5M	....	1.52
.8	B	....	CS12AF1R8K	1.98
.2	B	....	CS12AF2R2K	1.98
.2	B	CS12AF2R2M	....	1.52
.7	B	....	CS12AF2R7K	1.98
.3	B	....	CS12AF3R3K	1.98

	Size	MILITARY DESIGNATION		Net Ea.
µF	Code	±20% Tol.	±10% Tol.	(1-24)
		CS12—35 WVDC		
3.3	B	CS12AF3R3M	....	$1.52
3.9	B	....	CS12AF3R9K	1.98
4.7	B	....	CS12AF4R7K	1.98
4.7	B	CS12AF4R7M	....	1.52
5.6	B	....	CS12AF5R6K	1.98
6.8	B	....	CS12AF6R8K	1.98
6.8	B	CS12AF6R8M	....	1.52
8.2	R	....	CS12AF8R2K	3.28
10	R	....	CS12AF100K	3.28
10	R	CS12AF100M	....	2.52
12	R	....	CS12AF120K	3.28
15	R	....	CS12AF150K	3.28
15	R	CS12AF150M	....	2.52
18	R	....	CS12AF180K	3.28
22	R	....	CS12AF220K	3.28
22	R	CS12AF220M	....	2.52
27	S	....	CS12AF270K	6.10
33	S	....	CS12AF330K	6.10
33	S	CS12AF330M	....	4.70
39	S	....	CS12AF390K	6.10
47	S	....	CS12AF470K	6.10
47	S	CS12AF470M	....	4.70
		CS12—50 WVDC		
1.0	A	....	CS12AGO10K	2.46
1.0	A	CS12AG010M	....	1.90
1.2	B	....	CS12AG1R2K	2.60
1.5	B	....	CS12AG1R5K	2.60
1.5	B	CS12AG1R5M	....	2.00
1.8	B	....	CS12AG1R8K	2.60
2.2	B	....	CS12AG2R2K	2.60
2.2	B	CS12AG2R2M	....	2.00
2.7	B	....	CS12AG2R7K	2.60
3.3	B	....	CS12AG3R3K	2.60
3.3	B	CS12AG3R3M	....	2.00
3.9	B	....	CS12AG3R9K	2.60
4.7	B	....	CS12AG4R7K	2.60
4.7	B	CS12AG4R7M	....	2.00
		CS13—6 WVDC		
5.6	A	....	CS13AB5R6K	1.92
6.8	A	....	CS13AB6R8K	1.92
6.8	A	CS13AB6R8M	....	1.48
47	B	....	CS13AB470K	2.00
47	B	CS13AB470M	....	1.54
56	B	....	CS13AB560K	2.00
150	R	....	CS13AB151K	3.30
150	R	CS13AB151M	....	2.54
180	R	....	CS13AB181K	3.30
270	S	....	CS13AB271K	6.12
330	S	....	CS13AB331K	6.12
330	S	CS13AB331M	....	4.72
		CS13—10 WVDC		
3.9	A	....	CS13AC3R9K	1.92
4.7	A	....	CS13AC4R7K	1.92
4.7	A	CS13AC4R7M	....	1.48
27	B	....	CS13AC270K	2.00
33	B	....	CS13AC330K	2.00
33	B	CS13AC330M	....	1.54
39	B	....	CS13AC390K	2.00
82	R	....	CS13AC820K	3.30
100	R	....	CS13AC101K	3.30
100	R	CS13AC101M	....	2.54
120	R	....	CS13AC121K	3.30
180	S	....	CS13AC181K	6.12
220	S	....	CS13AC221K	6.12
220	S	CS13AC221M	....	4.72
		CS13—15 WVDC		
2.7	A	....	CS13AD2R7K	1.92
3.3	A	....	CS13AD3R3K	1.92
3.3	A	CS13AD3R3M	....	1.48
18	B	....	CS13AD180K	2.00
22	B	....	CS13AD220K	2.00
22	B	CS13AD220M	....	1.54
56	R	....	CS13AD560K	3.30
68	R	....	CS13AD680K	3.30
68	R	CS13AD680M	....	2.54
120	S	....	CS13AD121K	6.12
150	S	....	CS13AD151K	6.12
150	S	CS13AD151M	....	4.72
		CS13—20 WVDC		
1.2	A	....	CS13AE1R2K	1.92
1.5	A	....	CS13AE1R5K	1.92
1.5	A	CS13AE1R5M	....	1.48

	Size	MILITARY DESIGNATION		Net Ea.
µF	Code	±20% Tol.	±10% Tol.	(1-24)
		CS13—20 WVDC		
1.8	A	....	CS13AE1R8K	$1.92
2.2	A	....	CS13AE2R2K	1.92
2.2	A	CS13AE2R2M	....	1.48
8.2	B	....	CS13AE8R2K	2.00
10	B	....	CS13AE100K	2.00
10	B	CS13AE100M	....	1.54
12	B	....	CS13AE120K	2.00
15	B	....	CS13AE150K	2.00
15	B	CS13AE150M	....	1.54
27	R	....	CS13AE270K	3.28
33	R	....	CS13AE330K	3.28
33	R	CS13AE330M	....	2.54
39	R	....	CS13AE390K	3.30
47	R	....	CS13AE470K	3.30
47	R	CS13AE470M	....	2.54
56	S	....	CS13AE560K	6.12
68	S	....	CS13AE680K	6.12
68	S	CS13AE680M	....	4.72
82	S	....	CS13AE820K	6.12
100	S	....	CS13AE101K	6.12
100	S	CS13AE101M	....	4.72
		CS13—35 WVDC		
.33	A	....	CS13AFR33K	1.92
.33	A	CS13AFR33M	....	1.48
.39	A	....	CS13AFR39K	1.92
.47	A	....	CS13AFR47K	1.92
.47	A	CS13AFR47M	....	1.48
.56	A	....	CS13AFR56K	1.92
.68	A	....	CS13AFR68K	1.92
.68	A	CS13AFR68M	....	1.48
.82	A	....	CS13AFR82K	1.92
1.0	A	....	CS13AF010K	1.92
1.0	A	CS13AF010M	....	1.48
1.2	B	....	CS13AF1R2K	2.00
1.5	B	....	CS13AF1R5K	2.00
1.5	B	CS13AF1R5M	....	1.54
1.8	B	....	CS13AF1R8K	2.00
2.2	B	....	CS13AF2R2K	2.00
2.2	B	CS13AF2R2M	....	1.54
2.7	B	....	CS13AF2R7K	2.00
3.3	B	....	CS13AF3R3K	2.00
3.3	B	CS13AF3R3M	....	1.54
3.9	B	....	CS13AF3R9K	2.00
4.7	B	....	CS13AF4R7K	2.00
4.7	B	CS13AF4R7M	....	1.54
5.6	B	....	CS13AF5R6K	2.00
6.8	B	....	CS13AF6R8K	2.00
6.8	B	CS13AF6R8M	....	1.54
8.2	R	....	CS13AF8R2K	3.30
10	R	....	CS13AF100K	3.30
10	R	CS13AF100M	....	2.54
12	R	....	CS13AF120K	3.30
15	R	....	CS13AF150K	3.30
15	R	CS13AF150M	....	2.54
18	R	....	CS13AF180K	3.30
22	R	....	CS13AF220K	3.30
22	R	CS13AF220M	....	2.54
27	S	....	CS13AF270K	6.12
33	S	....	CS13AF330K	6.12
33	S	CS13AF330M	....	4.72
39	S	....	CS13AF390K	6.12
47	S	....	CS13AF470K	6.12
47	S	CS13AF470M	....	4.72
		CS13—50 WVDC		
1.0	A	....	CS13AG010K	2.48
1.0	A	CS13AG010M	....	1.92
1.2	B	....	CS13AG1R2K	2.62
1.5	B	....	CS13AG1R5K	2.62
1.5	B	CS13AG1R5M	....	2.02
1.8	B	....	CS13AG1R8K	2.62
2.2	B	....	CS13AG2R2K	2.62
2.2	B	CS13AG2R2M	....	2.02
2.7	B	....	CS13AG2R7K	2.62
3.3	B	....	CS13AG3R3K	2.62
3.3	B	CS13AG3R3M	....	2.02
3.9	B	....	CS13AG3R9K	2.62
4.7	B	....	CS13AG4R7K	2.62
4.7	B	CS13AG4R7M	....	2.02

SIZE CODE

A = .104" dia. x .312" long
B = .190" dia. x .500" long
R = .285" dia. x .759" long
S = .347" dia. x .859" long

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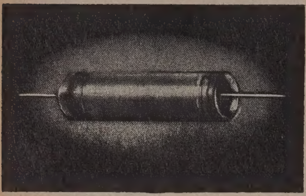
All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

85°C FOIL TANTALEX® CAPACITORS



- For applications where small physical size, stable electrical characteristics, and long service life are important.
- Type 110D and 112D also available marked to meet MIL-C-3965B. Order by complete military type designation.
- High capacitance stability even at low operating temperatures, unlike aluminum-foil electrolytics.
- Extremely low leakage current.
- Standard capacitance tolerance: Types 110D and 111D. ±20 Type 112D and 113D +75, −15
- Listed units have plastic wrap. bare case, end Cat. No. in instead of "1" and subtract $ from price.
- For complete technical data refe latest issue Engineering Bulletin 36
- For prices on quantities from 25 999 pieces, see your Sprague Inc trial Distributor.

µF	Size Code	Catalog Number	Net Price (1-9)
		TYPE 110D	
		POLARIZED PLAIN-FOIL	
		3 WORKING VOLTS D-C	
10	D	110D106X0003D1	$ 4.30
55	G	110D556X0003G1	6.70
160	J	110D167X0003J1	10.55
350	M	110D357X0003M1	14.70
440	P	110D447X0003P1	19.70
		6 WORKING VOLTS D-C	
8	D	110D805X0006D1	4.30
30	G	110D306X0006G1	6.70
35	G	110D356X0006G1	6.70
100	J	110D107X0006J1	10.55
200	M	110D207X0006M1	14.70
300	P	110D307X0006P1	19.70
		10 WORKING VOLTS D-C	
6	D	110D605X0010D1	4.30
25	G	110D256X0010G1	6.70
80	J	110D806X0010J1	10.55
160	M	110D167X0010M1	14.70
220	P	110D227X0010P1	19.70
		15 WORKING VOLTS D-C	
4.5	D	110D455X0015D1	4.30
18	G	110D186X0015G1	6.70
55	J	110D556X0015J1	10.55
110	M	110D117X0015M1	14.70
160	P	110D167X0015P1	19.70
		25 WORKING VOLTS D-C	
3	D	110D305X0025D1	4.30
12	G	110D126X0025G1	6.70
35	J	110D356X0025J1	10.55
70	M	110D706X0025M1	14.70
100	P	110D107X0025P1	19.70
		30 WORKING VOLTS D-C	
2.5	D	110D255X0030D1	4.30
10	G	110D106X0030G1	6.70
30	J	110D306X0030J1	10.55
60	M	110D606X0030M1	14.70
85	P	110D856X0030P1	19.70
		50 WORKING VOLTS D-C	
1.5	D	110D155X0050D1	4.30
6	G	110D605X0050G1	6.70
20	J	110D206X0050J1	10.55
40	M	110D406X0050M1	14.70
55	P	110D556X0050P1	19.70
		60 WORKING VOLTS D-C	
1.2	D	110D125X0060D1	4.30
5	G	110D505X0060G1	6.70
17	J	110D176X0060J1	10.55
34	M	110D346X0060M1	14.70
48	P	110D486X0060P1	19.70
		75 WORKING VOLTS D-C	
1	D	110D105X0075D1	4.30
4	G	110D405X0075G1	6.70
14	J	110D146X0075J1	10.55
28	M	110D286X0075M1	14.70
40	P	110D406X0075P1	19.70
		100 WORKING VOLTS D-C	
.8	D	110D804X0100D1	4.30
3	G	110D305X0100G1	6.70
10	J	110D106X0100J1	10.55
20	M	110D206X0100M1	14.70
30	P	110D306X0100P1	19.70

µF	Size Code	Catalog Number	Net Price (1-9)
		150 WORKING VOLTS D-C	
.5	D	110D504X0150D1	$ 4.30
1	G	110D105X0150G1	6.70
2	G	110D205X0150G1	6.70
7	J	110D705X0150J1	10.55
14	M	110D146X0150M1	14.70
20	P	110D206X0150P1	19.70
		200 WORKING VOLTS D-C	
.35	D	110D354X8200D1	10.95
1.5	G	110D155X8200G1	14.35
5.0	J	110D505X8200J1	20.58
10.0	M	110D106X8200M1	25.41
15.0	P	110D156X8200P1	32.02
		250 WORKING VOLTS D-C	
.3	D	110D304X8250D1	10.95
1.2	G	110D125X8250G1	14.35
4.0	J	110D405X8250J1	20.58
8.0	M	110D805X8250M1	25.41
12.0	P	110D126X8250P1	32.02
		TYPE 111D	
		NON-POLARIZED PLAIN-FOIL	
		6 WORKING VOLTS N.P.	
5	D	111D505X0006D1	4.30
25	G	111D256X0006G1	6.70
85	J	111D856X0006J1	10.55
170	M	111D177X0006M1	14.70
250	P	111D257X0006P1	19.70
		10 WORKING VOLTS N.P.	
3	D	111D305X0010D1	4.30
16	G	111D166X0010G1	6.70
55	J	111D556X0010J1	10.55
110	M	111D117X0010M1	14.70
150	P	111D157X0010P1	19.70
		15 WORKING VOLTS N.P.	
2.5	D	111D255X0015D1	4.30
10	G	111D106X0015G1	6.70
35	J	111D356X0015J1	10.55
70	M	111D706X0015M1	14.70
100	P	111D107X0015P1	19.70
		25 WORKING VOLTS N.P.	
1.5	D	111D155X0025D1	4.30
6	G	111D605X0025G1	6.70
20	J	111D206X0025J1	10.55
40	M	111D406X0025M1	14.70
60	P	111D606X0025P1	19.70
		30 WORKING VOLTS N.P.	
1.4	D	111D145X0030D1	4.30
5.5	G	111D555X0030G1	6.70
18	J	111D186X0030J1	10.55
36	M	111D366X0030M1	14.70
45	P	111D456X0030P1	19.70
		50 WORKING VOLTS N.P.	
.8	D	111D804X0050D1	4.30
3	G	111D305X0050G1	6.70
10	J	111D106X0050J1	10.55
20	M	111D206X0050M1	14.70
30	P	111D306X0050P1	19.70
		60 WORKING VOLTS N.P.	
.6	D	111D604X0060D1	4.30
2.5	G	111D255X0060G1	6.70
8.5	J	111D855X0060J1	10.55
17	M	111D176X0060M1	14.70
24	P	111D246X0060P1	19.70

µF	Size Code	Catalog Number	Net Price (1-9)
		75 WORKING VOLTS N.P.	
.5	D	111D504X0075D1	$4.30
2	G	111D205X0075G1	6.70
7	J	111D705X0075J1	10.55
14	M	111D146X0075M1	14.70
20	P	111D206X0075P1	19.70
		100 WORKING VOLTS N.P.	
.4	D	111D404X0100D1	4.30
1.5	G	111D155X0100G1	6.70
5	J	111D505X0100J1	10.55
10	M	111D106X0100M1	14.70
15	P	111D156X0100P1	19.70
		150 WORKING VOLTS N.P.	
.25	D	111D254X0150D1	4.30
1	G	111D105X0150G1	6.70
3.5	J	111D355X0150J1	10.55
7	M	111D705X0150M1	14.70
10	P	111D106X0150P1	19.70
		200 WORKING VOLTS N.P.	
.15	D	111D154X8200D1	12.53
.75	G	111D754X8200G1	16.52
2.5	J	111D255X8200J1	23.66
5.0	M	111D505X8200M1	29.15
7.5	P	111D755X8200P1	36.85
		250 WORKING VOLTS N.P.	
.15	D	111D154X8250D1	12.53
.6	G	111D604X8250G1	16.52
2.0	J	111D205X8250J1	23.66
4.0	M	111D405X8250M1	29.15
6.0	P	111D605X8250P1	36.85
		TYPE 112D	
		POLARIZED ETCHED-FOIL	
		15 WORKING VOLTS D-C	
15	D	112D156C7015D1	4.30
60	G	112D606C7015G1	7.65
200	J	112D207C7015J1	12.70
400	M	112D407C7015M1	20.65
580	P	112D587C7015P1	27.45
		25 WORKING VOLTS D-C	
10	D	112D106C7025D1	4.30
40	G	112D406C7025G1	7.65
120	J	112D127C7025J1	12.70
250	M	112D257C7025M1	20.65
350	P	112D357C7025P1	27.45
		30 WORKING VOLTS D-C	
8	D	112D805C7030D1	4.30
32	G	112D326C7030G1	7.65
110	J	112D117C7030J1	12.70
220	M	112D227C7030M1	20.65
300	P	112D307C7030P1	27.45
		50 WORKING VOLTS D-C	
4.5	D	112D455C7050D1	4.30
18	G	112D186C7050G1	7.65
60	J	112D606C7050J1	12.70
100	M	112D107C7050M1	20.65
150	P	112D157C7050P1	27.45
		60 WORKING VOLTS D-C	
4	D	112D405C7060D1	4.30
		75 WORKING VOLTS D-C	
3	D	112D305C7075D1	4.30
12	G	112D126C7075G1	7.65
30	J	112D306C7075J1	12.70
70	M	112D706C7075M1	20.65
100	P	112D107C7075P1	27.45

µF	Size Code	Catalog Number	Net
		100 WORKING VOLTS D-C	
2	D	112D205C7100D1	$
8	G	112D805C7100G1	
25	J	112D256C7100J1	1
50	M	112D506C7100M1	2
70	P	112D706C7100P1	2
		150 WORKING VOLTS D-C	
1	D	112D105C7150D1	
4	G	112D405C7150G1	
13	J	112D136C7150J1	1
25	M	112D256C7150M1	2
36	P	112D366C7150P1	2
		TYPE 113D	
		NON-POLARIZED ETCHED-FOI	
		15 WORKING VOLTS N.P.	
10	D	113D106C7015D1	
40	G	113D406C7015G1	
120	J	113D127C7015J1	1
250	M	113D257C7015M1	2
350	P	113D357C7015P1	2
		25 WORKING VOLTS N.P.	
5	D	113D505C7025D1	
20	G	113D206C7025G1	
70	J	113D706C7025J1	1
140	M	113D147C7025M1	2
200	P	113D207C7025P1	2
		30 WORKING VOLTS N.P.	
4.5	D	113D455C7030D1	
18	G	113D186C7030G1	7
60	J	113D606C7030J1	12
120	M	113D127C7030M1	20
170	P	113D177C7030P1	27
		50 WORKING VOLTS N.P.	
2.5	D	113D255C7050D1	4
10	G	113D106C7050G1	7
30	J	113D306C7050J1	12
60	M	113D606C7050M1	20
80	P	113D806C7050P1	27
		75 WORKING VOLTS N.P.	
1.5	D	113D155C7075D1	4
6	G	113D605C7075G1	7
15	J	113D156C7075J1	12
35	M	113D356C7075M1	20
50	P	113D506C7075P1	27
		100 WORKING VOLTS N.P.	
1	D	113D105C7100D1	4
4	G	113D405C7100G1	7.
12	J	113D126C7100J1	12.
25	M	113D256C7100M1	20.
35	P	113D356C7100P1	27.
		150 WORKING VOLTS N.P.	
.5	D	113D504C7150D1	4.
2	G	113D205C7150G1	7.
6	J	113D605C7150J1	12.
12	M	113D126C7150M1	20.
18	P	113D186C7150P1	27.

DIMENSIONS

D	13/64 diam. x 3/4 lo
G	19/64 diam. x 15/16 lo
J	25/64 diam. x 1 1/2 lo
M	25/64 diam. x 2 3/16 lo
P	25/64 diam. x 2 13/16 lo

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REM-3-6225

All prices and sizes subject to change without notic

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SPRAGUE CAPACITORS

125°C FOIL TANTALEX® CAPACITORS

- Small size, electrically stable, long life. For data, see latest Engineering Bulletin 3602.
- 120D, 122D available as MIL-C-3965-B units.
- Tol., 120D, 121D, ±20%; 122D, 123D, −15, +75%.
- Listed units have plastic wrap. For bare metal case units, end Cat. No. in "0" instead of "1" and subtract $.10 from the unit price.

SIZE CODE (Diam. x Length)

E (13/16" x 23/32"), H (19/64" x 15/16"),
K (25/64" x 15/32"), N (25/64" x 2 5/32"),
Q (25/64" x 2 25/32").

F	Code	Catalog Number	Net Ea. (1-24)
TYPE 120D		**POLARIZED PLAIN-FOIL**	
10 WORKING VOLTS D-C			
4.5	E	120D455X0010E1	$7.47
18	H	120D186X0010H1	9.90
55	K	120D556X0010K1	14.28
10	N	120D117X0010N1	18.41
60	Q	120D167X0010Q1	23.64
15 WORKING VOLTS D-C			
3	E	120D305X0015E1	7.47
12	H	120D126X0015H1	9.90
35	K	120D356X0015K1	14.28
70	N	120D706X0015N1	18.41
00	Q	120D107X0015Q1	23.64
30 WORKING VOLTS D-C			
1.5	E	120D155X0030E1	7.47
6	H	120D605X0030H1	9.90
20	K	120D206X0030K1	14.28
40	N	120D406X0030N1	18.41
55	Q	120D556X0030Q1	23.64
50 WORKING VOLTS D-C			
1	E	120D105X0050E1	7.47
4	H	120D405X0050H1	9.90
14	K	120D146X0050K1	14.28
28	N	120D286X0050N1	18.41
40	Q	120D406X0050Q1	23.64
65 WORKING VOLTS D-C			
.8	E	120D804X0065E1	7.47
3	H	120D305X0065H1	9.90
10	K	120D106X0065K1	14.28
20	N	120D206X0065N1	18.41
30	Q	120D306X0065Q1	23.64
100 WORKING VOLTS D-C			
.5	E	120D504X0100E1	7.47

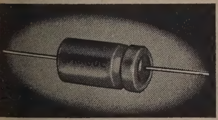
µF	Code	Catalog Number	Net Ea. (1-24)
2	H	120D205X0100H1	9.90
7	K	120D705X0100K1	14.28
14	N	120D146X0100N1	18.41
20	Q	120D206X0100Q1	23.64
150 WORKING VOLTS D-C			
.35	E	120D354X0150E1	7.47
1.5	H	120D155X0150H1	9.90
5	K	120D505X0150K1	14.28
10	N	120D106X0150N1	18.41
15	Q	120D156X0150Q1	23.64
200 WORKING VOLTS D-C			
1.0	H	120D105X8200H1	14.35
3.0	K	120D305X8200K1	20.58
7.0	N	120D705X8200N1	25.41
10.0	Q	120D106X8200Q1	32.02
TYPE 121D		**NON-POLARIZED PLAIN-FOIL**	
10 WORKING VOLTS N.P.			
2.5	E	121D255X0010E1	7.47
10	H	121D106X0010H1	9.90
35	K	121D356X0010K1	14.28
70	N	121D706X0010N1	18.41
100	Q	121D107X0010Q1	23.64
15 WORKING VOLTS N.P.			
1.5	E	121D155X0015E1	7.47
6	H	121D605X0015H1	9.90
20	K	121D206X0015K1	14.28
40	N	121D406X0015N1	18.41
60	Q	121D606X0015Q1	23.64
30 WORKING VOLTS N.P.			
.8	E	121D804X0030E1	7.47
3	H	121D305X0030H1	9.90
10	K	121D106X0030K1	14.28
20	N	121D206X0030N1	18.41

µF	Code	Catalog Number	Net Ea. (1-24)
30	Q	121D306X0030Q1	23.64
50 WORKING VOLTS N.P.			
.5	E	121D504X0050E1	7.47
2	H	121D205X0050H1	9.90
7	K	121D705X0050K1	14.28
14	N	121D146X0050N1	18.41
20	Q	121D206X0050Q1	23.64
65 WORKING VOLTS N.P.			
.4	E	121D404X0065E1	7.47
1.5	H	121D155X0065H1	9.90
5	K	121D505X0065K1	14.28
10	N	121D106X0065N1	18.41
15	Q	121D156X0065Q1	23.64
100 WORKING VOLTS N.P.			
.25	E	121D254X0100E1	7.47
1.0	H	121D105X0100H1	9.90
3.5	K	121D335X0100K1	14.28
7	N	121D705X0100N1	18.41
10	Q	121D106X0100Q1	23.64
150 WORKING VOLTS N.P.			
.15	E	121D154X0150E1	7.47
.75	H	121D754X0150H1	9.90
2.5	K	121D255X0150K1	14.28
5.0	N	121D505X0150N1	18.41
7.5	Q	121D755X0150Q1	23.64
200 WORKING VOLTS N. P.			
0.5	H	121D504X8200H1	16.52
1.5	K	121D155X8200K1	23.66
3.5	N	121D355X8200N1	29.15
5.0	Q	121D505X8200Q1	36.85

µF	Code	Catalog Number
TYPE 122D		**POLARIZED ETCHED-FOIL**
15 WORKING VOLTS D-C		
9	E	122D905C7015E1
37	H	122D376C7015H1
120	K	122D127C7015K1
250	N	122D257C7015N1
350	Q	122D357C7015Q1
30 WORKING VOLTS D-C		
4.5	E	122D455C7030E1
18	H	122D186C7030H1
60	K	122D606C7030K1
100	N	122D107C7030N1
150	Q	122D157C7030Q1
50 WORKING VOLTS D-C		
3	E	122D305C7050E1
12	H	122D126C7050H1
30	K	122D306C7050K1
70	N	122D706C7050N1
100	Q	122D107C7050Q1
65 WORKING VOLTS D-C		
2	E	122D205C7065E1
8	H	122D805C7065H1
25	K	122D256C7065K1
50	N	122D506C7065N1
70	Q	122D706C7065Q1
100 WORKING VOLTS D-C		
1	E	122D105C7100E1
4	H	122D405C7100H1
13	K	122D136C7100K1
25	N	122D256C7100N1
36	Q	122D366C7100Q1
TYPE 123D		**NON-POLARIZED ETCHED-FOIL**
10 WORKING VOLTS N.P.		

µF	Code	Catalog Number
10	E	123D106C7010E1
40	H	123D406C7010H1
120	K	123D127C7010K1
250	N	123D257C7010N1
350	Q	123D357C7010Q1
15 WORKING VOLTS N.P.		
5	E	123D505C7015E1
20	H	123D206C7015H1
70	K	123D706C7015K1
140	N	123D147C7015N1
200	Q	123D207C7015Q1
30 WORKING VOLTS N.P.		
2.5	E	123D255C7030E1
10	H	123D106C7030H1
30	K	123D306C7030K1
60	N	123D606C7030N1
80	Q	123D806C7030Q1
50 WORKING VOLTS N.P.		
1.5	E	123D155C7050E1
6	H	123D605C7050H1
15	K	123D156C7050K1
35	N	123D356C7050N1
50	Q	123D506C7050Q1
65 WORKING VOLTS N.P.		
1	E	123D105C7065E1
4	H	123D405C7065H1
12	K	123D126C7065K1
25	N	123D256C7065N1
35	Q	123D356C7065Q1
100 WORKING VOLTS N.P.		
0.5	E	123D504C7100E1
2	H	123D205C7100H1
6	K	123D605C7100K1
12	N	123D126C7100N1
18	Q	123D186C7100Q1

125°C SINTERED-ANODE TANTALEX® CAPACITORS



- ● Meets 2000 cy. MIL Vibration Requirements
- ● Listed Units Have Plastic Wrap
- ● For Complete Data, See Engineering Bulletin 3701
- ● For Prices on 25 to 499 pieces, See Your Sprague Industrial Distributor.

Case Size	+20 −15% and ±20% Net Ea.	±10% Net Ea.
C	$3.61	$ 4.05
F	7.79	8.55
T	9.39	10.51

For bare metal case change last digit of Cat. No. to 0 and subtract $.05 from net price.

IZE CODE: C=13/64" dia. x 33/64" L., F=19/64" Dia. x 45/64" L., T=25/64 dia. x 53/64" L.

GROUP 1: +20%, −15% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number +20, −15% Tol.	Catalog Number ±10% Tol.
30	4	C	130D306C2004C2	130D306X9004C2
40	4	F	130D147C2004F2	130D147X9004F2
30	4	T	130D337C2004T2	130D337X9004T2
25	5	C	130D256C2005C2	130D256X9005C2
20	5	F	130D127C2005F2	130D127X9005F2
90	5	T	130D297C2005T2	130D297X9005T2
20	7	C	130D206C2007C2	130D206X9007C2
00	7	F	130D107C2007F2	130D107X9007F2
50	7	T	130D257C2007T2	130D257X9007T2
15	10	C	130D156C2010C2	130D156X9010C2

µF	WVDC	Size Code	Catalog Number +20, −15% Tol.	Catalog Number ±10% Tol.
70	10	F	130D706C2010F2	130D706X9010F2
170	10	T	130D177C2010T2	130D177X9010T2
10	15	C	130D106C2015C2	130D106X9015C2
50	15	F	130D506C2015F2	130D506X9015F2
110	15	T	130D117C2015T2	130D117X9015T2
8	20	C	130D805C2020C2	130D805X9020C2
40	20	F	130D406C2020F2	130D406X9020F2
100	20	T	130D107C2020T2	130D107X9020T2
5	30	C	130D505C2030C2	130D505X9030C2
25	30	F	130D256C2030F2	130D256X9030F2

µF	WVDC	Size Code	Catalog Number +20, −15% Tol.	Catalog Number ±10% Tol.
60	30	T	130D606C2030T2	130D606X9030T2
4	40	C	130D405C2040C2	130D405X9040C2
20	40	F	130C206C2040F2	130D206X9040F2
50	40	T	130D506C2040T2	130D506X9040T2
3.5	50	C	130D355C2050C2	130D355X9050C2
15	50	F	130D156C2050F2	130D156X9050F2
40	50	T	130D406C2050T2	130D406X9050T2
2.5	70	C	130D255C2070C2	130D255X9070C2
11	70	F	130D116C2070F2	130D116X9070F2
30	70	T	130D306C2070T2	130D306X9070T2

GROUP 2: ±20% and ±10% Capacitance Tolerance with plastic insulation tube

µF	WVDC	Size Code	Catalog Number ±20%	Catalog Number ±10% Tol.
68	4	C	130D686X0004C2	130D686X9004C2
70	4	F	130D277X0004F2	130D277X9004F2
60	4	T	130D567X0004T2	130D567X9004T2
47	7	C	130D476X0007C2	130D476X9007C2
80	7	F	130D187X0007F2	130D187X9007F2
90	7	T	130D397X0007T2	130D397X9007T2
33	10	C	130D336X0010C2	130D336X9010C2
20	10	F	130D127X0010F2	130D127X9010F2
70	10	T	130D277X0010T2	130D277X9010T2

µF	WVDC	Size Code	Catalog Number ±20%	Catalog Number ±10% Tol.
22	15	C	130D226X0015C2	130D226X9015C2
100	15	F	130D107X0015F2	130D107X9015F2
180	15	T	130D187X0015T2	130D187X9015T2
15	20	C	130D156X0020C2	130D156X9020C2
68	20	F	130D686X0020F2	130D686X9020F2
150	20	T	130D157X0020T2	130D157X9020T2
10	30	C	130D106X0030C2	130D106X9030C2
47	30	F	130D476X0030F2	130D476X9030F2
82	30	T	130D826X0030T2	130D826X9030T2

µF	WVDC	Size Code	Catalog Number ±20%	Catalog Number ±10% Tol.
8.2	40	C	130D825X0040C2	130D825X9040C2
39	40	F	130D396X0040F2	130D396X9040F2
68	40	T	130D686X0040T2	130D686X9040T2
6.8	50	C	130D685X0050C2	130D685X9050C2
33	50	F	130D336X0050F2	130D336X6050F2
56	50	T	130D566X0050T2	130D566X9050T2
4.7	70	C	130D475X0070C2	130D475X9070C2
22	70	F	130D226X0070F2	130D226X9070F2
43	70	T	130D436X0070T2	130D436X9070T2

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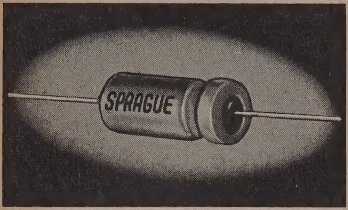
SPRAGUE CAPACITORS

TYPE 109D SINTERED-ANODE TANTALEX® CAPACITORS



- Intended for Applications Where Reliable Design in Military Equipment is Required.
- Double Spun TFE-fluorocarbon Elastomer High Temp. End Seals.
- Large Values of Capacitance in Small Physical Size.
- Listed Units Have Plastic Sleeves.

For Bare Case, End Cat. No. in "0" instead of "2," and Subtract $.05 From Price.

- May Be Operated at 85°C
Rated Voltage and to 105°C
15% Voltage Derating.
- Will Meet 2000 Cycle Mi
Vibration Requirements.
- For Complete Technical Data,
fer to Latest Issue of Enginee
Bulletin 3700.
- For Prices on Quantities From
to 499 Pieces, See Your Spra
Industrial Distributor.

DIMENSIONS AND NET PRICES (1-24)

Code	Dia. x Length	±10%	±20%	+20, −15%	+75, −15%
C	3/16 x 29/64	$3.02	$2.75	$2.75	$1.53
F	9/32 x 41/64	6.53	5.90	5.90	3.43
T	3/8 x 49/64	7.97	7.16	7.16	4.35

GROUP 1: Available in Capacitance Tolerances of ±10%, +20, −15%; +75, −15%

μF	Size Code	Catalog Number ±10%	Catalog Number +20, −15%	Catalog Number +75, −15%
6 WORKING VOLTS D-C				
27	C	109D276X9006C2	109D276C2006C2	109D276C7006C2
30	C	109D306X9006C2	109D306C2006C2	109D306C7006C2
120	F	109D127X9006F2	109D127C2006F2	109D127C7006F2
140	F	109D147X9006F2	109D147C2006F2	109D147C7006F2
290	T	109D297X9006T2	109D297C2006T2	109D297C7006T2
330	T	109D337X9006T2	109D337C2006T2	109D337C7006T2
8 WORKING VOLTS D-C				
22	C	109D226C2008C2	109D226X9008C2	109D226C7008C2
25	C	109D256C2008C2	109D256X9008C2	109D256C7008C2
100	F	109D107X9008F2	109D107C2008F2	109D107C7008F2
120	F	109D127X9008F2	109D127C2008F2	109D127C7008F2
260	T	109D276X9008T2	109D267C2008T2	109D276C7008T2
290	T	109D297X9008T2	109D297C2008T2	109D297C7008T2
10 WORKING VOLTS D-C				
18	C	109D186X9010C2	109D186C2010C2	109D186C7010C2
20	C	109D206X9010C2	109D206C2010C2	109D206C7010C2
85	F	109D856X9010F2	109D856C2010F2	109D856C7010F2
100	F	109D107X9010F2	109D107C2010F2	109D107C7010F2
220	T	109D227X9010T2	109D227C2010T2	109D227C7010T2
250	T	109D257X9010T2	109D257C2010T2	109D257C7010T2
15 WORKING VOLTS D-C				
13	C	109D136X9015C2	109D136C2015C2	109D136C7015C2
15	C	109D156X9015C2	109D156C2015C2	109D156C7015C2
55	F	109D556X9015F2	109D556C2015F2	109D556C7015F2
70	F	109D706X9015F2	109D706C2015F2	109D706C7015F2
150	T	109D157X9015T2	109D157C2015T2	109D157C7015T2
170	T	109D177X9015T2	109D177C2015T2	109D177C7015T2
25 WORKING VOLTS D-C				
9	C	109D905X9025C2	109D905C2025C2	109D905C7025C2
10	C	109D106X9025C2	109D106C2025C2	109D106C7025C2
45	F	109D456X9025F2	109D456C2025F2	109D456C7025F2
50	F	109D506X9025F2	109D506C2025F2	109D506C7025F2
100	T	109D107X9025T2	109D107C2025T2	109D107C7025T2
110	T	109D117X9025T2	109D117C2025T2	109D117C7025T2
30 WORKING VOLTS D-C				
7	C	109D705X9030C2	109D705C2030C2	109D705C70
8	C	109D805X9030C2	109D805C2030C2	109D805C70
35	F	109D356X9030F2	109D356C2030F2	109D356C70
40	F	109D406X9030F2	109D406C2030F2	109D406C70
80	T	109D806X9030T2	109D806C2030T2	109D806C70
100	T	109D107X9030T2	109D107C2030T2	109D107C70
50 WORKING VOLTS D-C				
4.5	C	109D455X9050C2	109D455C2050C2	109D455C70
5	C	109D505X9050C2	109D505C2050C2	109D505C70
22	F	109D226X9050F2	109D226C2050F2	109D226C70
25	F	109D256X9050F2	109D256C2050F2	109D256C70
55	T	109D556X9050T2	109D556C2050T2	109D556C70
60	T	109D606X9050T2	109D606C2050T2	109D606C70
60 WORKING VOLTS D-C				
3.6	C	109D365X9060C2	109D365C2060C2	109D365C70
4	C	109D405X9060C2	109D405C2060C2	109D405C70
18	F	109D186X9060F2	109D186C2060F2	109D186C70
20	F	109D206X9060F2	109D206C2060F2	109D206C70
45	T	109D456X9060T2	109D456C2060T2	109D456C70
50	T	109D506X9060T2	109D506C2060T2	109D506C70
75 WORKING VOLTS D-C				
3	C	109D305X9075C2	109D305C2075C2	109D305C70
3.5	C	109D355X9075C2	109D355C2075C2	109D355C70
13	F	109D136X9075F2	109D136C2075F2	109D136C70
15	F	109D156X9075F2	109D156C2075F2	109D156C70
35	T	109D356X9075T2	109D356C2075T2	109D356C70
40	T	109D406X9075T2	109D406C2075T2	109D406C70
100 WORKING VOLTS D-C				
2.5	C	109D255X9100C2	109D255C2100C2	109D255C71
10	F	109D106X9100F2	109D106C2100F2	109D106C71
11	F	109D116X9100F2	109D116C2100F2	109D116C71
27	T	109D276X9100T2	109D276C2100T2	109D276C71
30	T	109D306X9100T2	109D306C2100T2	109D306C71

GROUP 2. Available in Capacitance Tolerances of ±20% and ± 10%

These capacitors have approximately twice the capacitance of Group I Capacitors of the same physical size at a given voltage rating.

μF	Size Code	Catalog Number ±20% Tol.	Catalog Number ±10% Tol.
6 WORKING VOLTS D-C			
68	C	109D686X0006C2	109D686X9006C2
270	F	109D277X0006F2	109D277X9006F2
560	T	109D567X0006T2	109D567X9006T2
8 WORKING VOLTS D-C			
56	C	109D566X0008C2	109D566X9008C2
220	F	109D227X0008F2	109D227X9008F2
430	T	109D437X0008T2	109D437X9008T2
10 WORKING VOLTS D-C			
47	C	109D476X0010C2	109D476X9010C2
180	F	109D187X0010F2	109D187X9010F2
390	T	109D397X0010T2	109D397X9010T2
15 WORKING VOLTS D-C			
33	C	109D336X0015C2	109D336X9015C2
120	F	109D127X0015F2	109D127X9015F2
270	T	109D277X0015T2	109D277X9015T2
25 WORKING VOLTS D-C			
22	C	109D226X0025C2	109D226X9025C2
100	F	109D107X0025F2	109D107X9025F2
180	T	109D187X0025T2	109D187X9025T2
30 WORKING VOLTS D-C			
15	C	109D156X0030C2	109D156X9030C2
68	F	109D686X0030F2	109D686X9030F2
150	T	109D157X0030T2	109D157X9030T2
50 WORKING VOLTS D-C			
10	C	109D106X0050C2	109D106X9050C2
47	F	109D476X0050F2	109D476X9050F2
82	T	109D826X0050T2	109D826X9050T2
60 WORKING VOLTS D-C			
8.2	C	109D825X0060C2	109D825X9060
39	F	109D396X0060F2	109D396X9060
68	T	109D686X0060T2	109D686X9060
75 WORKING VOLTS D-C			
6.8	C	109D685X0075C2	109D685X9075
33	F	109D336X0075F2	109D336X9075
56	T	109D566X0075T2	109D566X9075
100 WORKING VOLTS D-C			
4.7	C	109D475X0100C2	109D475X9100
22	F	109D226X0100F2	109D226X9100
43	T	109D436X0100T2	109D436X9100

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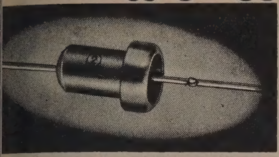
SPRAGUE CAPACITORS

85°C "CUP STYLE" TANTALEX® CAPACITORS



ize ode	Dimensions Dia. x Length	1-24 Net Prices (Type 132D only) ±10%	−15, +20%
U	7/32 x 15/32	$3.97	$2.70
V	9/32 x 11/16	6.48	5.85
T	3/8 x 49/64	8.92	7.11

- −55°C to +85°C operation at full rating. 100°C operation with 15% derating.
- Stable in performance characteristics over entire temp. range.
- Large capacitance in small size.
- Extremely low leakage currents.
- 132D designed to withstand severe military vibration tests. Also available as CL44 and CL45 capacitors to meet MIL-C-3965B. See MIL listings elsewhere in these pages.
- 131D for industrial electronics is similar to 132D but designed for static use in ground equipment.
- For plastic tube on units, change "0" to "4" at end of Cat. No. and add $.10 to price.
- For complete technical data refer to latest issue Engineering Bulletin 3710.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor. Prices for types 131D and 133D available upon request.

INDUSTRIAL TYPE 131D

μF	Size Code	Catalog Number −15, +75% Tol.
6 WVDC — 7 VDC SURGE		
	U	131D276C7006U0
	U	131D306C7006U0
	V	131D127C7006V0
	V	131D147C7006V0
	T	131D297C7006T0
	T	131D327C7006T0
8 WVDC — 10 VDC SURGE		
	U	131D226C7008U0
	U	131D256C7008U0
10 WVDC — 12 VDC SURGE		
	U	131D186C7010U0
	U	131D206C7010U0
	V	131D856C7010V0
	V	131D107C7010V0
	T	131D227C7010T0
	T	131D257C7010T0
15 WVDC — 18 VDC SURGE		
13	U	131D136C7015U0
15	U	131D156C7015U0
55	V	131D556C7015V0
70	V	131D706C7015V0
150	T	131D157C7015T0
170	T	131D177C7015T0
25 WVDC — 30 VDC SURGE		
9	U	131D905C7025U0
10	U	131D106C7025U0
30 WVDC — 36 VDC SURGE		
7	U	131D705C7030U0
8	U	131D805C7030U0
35	V	131D356C7030V0
40	V	131D406C7030V0
80	T	131D806C7030T0
100	T	131D107C7030T0
50 WVDC — 60 VDC SURGE		
4.5	U	131D455C7050U0
5	U	131D505C7050U0
22	V	131D226C7050V0
25	V	131D256C7050V0
55	T	131D556C7050T0
60	T	131D606C7050T0
60 WVDC — 72 VDC SURGE		
3.6	U	131D365C7060U0
4	U	131D405C7060U0
18	V	131D186C7060V0
20	V	131D206C7060V0
45	T	131D456C7060T0
50	T	131D506C7060T0
75 WVDC — 87 VDC SURGE		
3.0	U	131D305C7075U0
3.5	U	131D355C7075U0
13	V	131D136C7075V0
15	V	131D156C7075V0
35	T	131D356C7075T0
40	T	131D406C7075T0
100 WVDC — 115 VDC SURGE		
1.8	U	131D185C7100U0
2	U	131D205C7100U0
10	V	131D106C7100V0
11	V	131D116C7100V0
27	T	131D276C7100T0
30	T	131D306C7100T0
125 WVDC — 140 VDC SURGE		
1.7	U	131D175C7125U0
8	V	131D805C7125V0
9	V	131D905C7125V0
20	T	131D206C7125T0
25	T	131D256C7125T0

VIBRATION-PROOF TYPE 132D

μF	Size Code	Catalog Number ±10%	−15, +20% Tol.
6 WVDC — 7 VDC SURGE			
	U	132D306X9006U0	132D306C2006U0
	V	132D147X9006V0	132D147C2006V0
	T	132D327X9006T0	132D327C2006T0
8 WVDC — 10 VDC SURGE			
	U	132D256X9008U0	132D256C2008U0
10 WVDC — 12 VDC SURGE			
	U	132D206X9010U0	132D206C2010U0
	V	132D107X9010V0	132D107C2010V0
	T	132D257X9010T0	132D257C2010T0
15 WVDC — 18 VDC SURGE			
	U	132D156X9015U0	132D156C2015U0
	V	132D706X9015V0	132D706C2015V0
	T	132D177X9015T0	132D177C2015T0
25 WVDC — 30 VDC SURGE			
10	U	132D106X9025U0	132D106C2025U0
30 WVDC — 36 VDC SURGE			
8	U	132D805X9030U0	132D805C2030U0
40	V	132D406X9030V0	132D406C2030V0
100	T	132D107X9030T0	132D107C2030T0
50 WVDC — 60 VDC SURGE			
5	U	132D505X9050U0	132D505C2050U0
25	V	132D256X9050V0	132D256C2050V0
60	T	132D606X9050T0	132D606C2050T0
60 WVDC — 72 VDC SURGE			
4	U	132D405X9060U0	132D405C2060U0
20	V	132D206X9060V0	132D206C2060V0
50	T	132D506X9060T0	132D506C2060T0
75 WVDC — 87 VDC SURGE			
3.5	U	132D355X9075U0	132D355C2075U0
15	V	132D156X9075V0	132D156C2075V0
40	T	132D406X9075T0	132D406C2075T0
100 WVDC — 115 VDC SURGE			
2	U	132D205X9100U0	132D205C2100U0
11	V	132D116X9100V0	132D116C2100V0
30	T	132D306X9100T0	132D306C2100T0
125 WVDC — 140 VDC SURGE			
1.7	U	132D175X9125U0	132D175C2125U0
9	V	132D905X9125V0	132D905C2125V0
25	T	132D256X9125T0	132D256C2125T0

125°C 'CUP STYLE' TANTALEX® CAPACITORS

−55°C to +125°C operation at full rating. May be up-rated 50% for operation at 85°C.

Meet stringent requirements in military and missile applications.

- Sintered anode for unusual capacitance stability, large values of capacitance in small physical size.
- Non-tarnish finish to prevent discoloration during storage or use.
- For units with outer plastic insulating tube, substitute "4" for "0" at end of Cat. No.
- Housed in miniature silver thimble.

μF	Size Code	Catalog Number −15, +20% Tol.	±10%
4 WORKING VOLTS D-C			
	U	133D306C2004U0	133D306X9004U0
	V	133D147C2004V0	133D147X9004V0
	T	133D327C2004T0	133D327X9004T0
5 WORKING VOLTS D-C			
	U	133D256C2005U0	133D256X9005U0
7 WORKING VOLTS D-C			
	U	133D206C2007U0	133D206X9007U0
	V	133D107C2007V0	133D107X9007V0
	T	133D257C2007T0	133D257X9007T0
10 WORKING VOLTS D-C			
	U	133D156C2010U0	133D156X9010U0
	V	133D706C2010V0	133D706X9010V0
	T	133D177C2010T0	133D177X9010T0
15 WORKING VOLTS D-C			
10	U	133D106C2015U0	133D106X9015U0
20 WORKING VOLTS D-C			
8	U	133D805C2020U0	133D805X9020U0
40	V	133D406C2020V0	133D406X9020V0
100	T	133D107C2020T0	133D107X9020T0
30 WORKING VOLTS D-C			
5	U	133D505C2030U0	133D505X9030U0
25	V	133D256C2030V0	133D256X9030V0
60	T	133D606C2030T0	133D606X9030T0
40 WORKING VOLTS D-C			
4	U	133D405C2040U0	133D405X9040U0
20	V	133D206C2040V0	133D206X9040V0
50	T	133D506C2040T0	133D506X9040T0
50 WORKING VOLTS D-C			
3.5	U	133D355C2050U0	133D355X9050U0
15	V	133D156C2050V0	133D156X9050V0
40	T	133D406C2050T0	133D406X9050T0
70 WORKING VOLTS D-C			
2	U	133D205C2070U0	133D205X9070U0
11	V	133D116C2070V0	133D116X9070V0
30	T	133D306C2070T0	133D306X9070T0
85 WORKING VOLTS D-C			
1.7	U	133D175C2085U0	133D175X9085U0
9	V	133D905C2085V0	133D905X9085V0
25	T	133D256C2085T0	133D256X9085T0

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REM-6-6225

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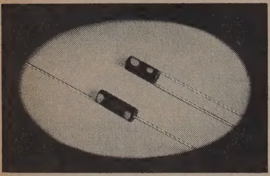
SPRAGUE CAPACITORS

TYPE 160D SOLID ELECTROLYTE TANTALEX® CAPACITORS



For Hearing Aids, Ultra-Miniature Radios, and Allied Applicatio

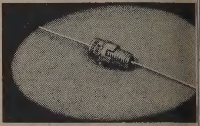
- Meet the need for a tiny, leakproof high-capacitance capacitor with long trouble-free service life.
- Solid, non-corrosive electrolyte—nothing to leak.
- Long shelf and service life.
- Completely moisture-proof—capacitor element sealed in polyester tube with epoxy end-fill.
- Available with axial as well as sin ended leads.
- For complete technical data refe latest issue Engineering Bulletin 3!
- Prices available upon request.

Case Size A—.065″ D. x .150″ L.			Case Size A—.065″ D. x .150″ L.			Case Size B—.065″ D. x .190″ L.			Case Size C—.065″ D. x .240″		
μF	WVDC	Cat. No.	μF	WVDC	Cat. No.	μF	WVDC	Cat. No.	μF	WVDC	Cat
3.0	2	160D28	0.2	15	160D32	8.0	2	160D19	10.0	2	16
2.0	4	160D27	0.15	15	160D33	5.0	4	160D36	8.0	4	16
1.5	4	160D29	0.1	15	160D34	4.0	4	160D10	5.0	8	16
1.0	8	160D25	0.05	15	160D35	2.0	8	160D20	4.0	8	16
0.8	8	160D41	0.01	15	160D42	1.5	8	160D37	2.0	15	16
0.5	15	160D30	0.02	15	160D43	1.0	15	160D21	1.5	15	16
0.4	15	160D31				0.8	15	160D38			

TYPE 180D SOLID ELECTROLYTE TANTALEX® FEED-THRU CAPACITOR

- Effectively bypasses r-f interference on low voltage d-c power circuits
- First of its kind available to designers. Positive mounting is assured with Sprague's new design.
- Large values of capacitance available in small physical size. Will carry 5 amperes d-c at 25C, 2 amperes d-c at 125C.
- Hermetically sealed in corrosion-resistant cases. Glass-to-metal solder seal terminals for maximum protection.
- Performance characteristics similar to Sprague Type 150D solid electrolyte Tantalex capacitors.
- Case measures .312 in. dia. x .689 in. long. Leads measure 1 ½ inches.

μF	WVDC	Surge VDC	Cat. No.
60	6	8	180D606X0006
39	10	13	180D396X0010
22	15	20	180D226X0015
15	20	26	180D156X0020
6.8	35	46	180D685X0035



- For complete techn data refer to la issue Engineering letin 3525.
- Prices available u request.

TYPE 200D TANTAPAK® TANTALUM ELECTROLYTIC CAPACITOR

SPRAGUE 200D
SPRAGUE 200D
SPRAGUE 200D

Code	Height	Width	Thickness
A1	1 1/16	1 9/32	3/4
A2	1 3/8	1 9/32	3/4
A3	1 5/8	1 9/32	3/4
A4	2	1 9/32	3/4
A5	2 1/2	1 9/32	3/4

- For high capacitance, low voltage applications—meet difficult operating conditions. Dual rated for operation at both 85C and 125C.
- Find wide application in filtering, coupling, bypass, and time delay circuits in computer, missile, radar and fire control equipment.
- Porous anode construction offers better leakage and temperat coefficient characteristics th foil type capacitor section comparable ratings.
- Superior to foil units at h temperatures and higher quencies.
- For complete technical data fer to latest issue Engineer Bulletin 3705.
- Prices available upon request

	WVDC					WVDC			
μF	125C	85C	Size Code	Catalog Number	μF	125C	85C	Size Code	Catalog Nu
960	10	15	A1	200D130	1000	30	45	A4	200D
1200	10	15	A2	200D131	1100	30	45	A5	200D
1400	10	15	A3	200D132	1000	35	50	A5	200D
2100	10	15	A4	200D133	270	50	75	A1	200D
2400	10	15	A5	200D134	330	50	75	A2	200D
520	20	30	A1	200D150	400	50	75	A3	200D
660	20	30	A2	200D151	600	50	75	A4	200D
820	20	30	A3	200D152	660	50	75	A5	200D
1200	20	30	A4	200D153	140	75	110	A1	200D
1300	20	30	A5	200D154	180	75	110	A2	200D
430	30	45	A1	200D170	220	75	110	A3	200D
550	30	45	A2	200D171	320	75	110	A4	200D
660	30	45	A3	200D172	360	75	110	A5	200D

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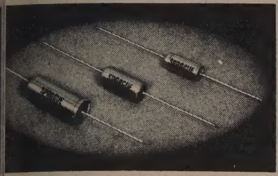
SPRAGUE CAPACITORS

IL-C-3965-B FOIL TANTALUM CAPACITORS TYPES CL24 and CL25



IMENSIONS AND NET PRICES (1-24)

ode	D. x L.	CL24	CL25
D	3/16 x 11/16	$ 4.20	$ 4.30
G	9/32 x 7/8	7.55	7.65
J	3/8 x 1 7/16	12.60	12.70
M	3/8 x 2 1/8	20.55	20.65
P	3/8 x 2 3/4	27.35	27.45

- For −55C to +85C operation up to 150 volts in military and industrial electronic equipment.
- Low leakage current and stable temperature coefficient makes possible its use in many circuits where aluminum foil designs are undesirable.
- The electrolyte system used assures long operating and shelf life, excellent low temperature performance, chemical stability and inertness.
- MIL version of Sprague Type 112D.
- Type CL24 is a bare metal-case unit. If an outer insulating sleeve is desired, order Type CL25.
- For prices on quantities from 25 to 999 pieces, see your Sprague Industrial Distributor.

μF	WVDC	Size Code	Military Designation*	
	15	D	CL24BE150UP3	CL25BE150UP3
	15	G	CL24BE600UP3	CL25BE600UP3
	15	J	CL24BE201UP3	CL25BE201UP3
	15	M	CL24BE401UP3	CL25BE401UP3
	15	P	CL24BE581UP3	CL25BE581UP3
	25	D	CL24BG100UP3	CL25BG100UP3
	25	G	CL24BG400UP3	CL25BG400UP3
	25	J	CL24BG121UP3	CL25BG121UP3
	25	M	CL24BG251UP3	CL25BG251UP3
	25	P	CL24BG351UP3	CL25BG351UP3
	30	D	CL24BH080UP3	CL25BH080UP3
	30	G	CL24BH320UP3	CL25BH320UP3
110	30	J	CL24BH111UP3	CL25BH111UP3
220	30	M	CL24BH221UP3	CL25BH221UP3
300	30	P	CL24BH301UP3	CL25BH301UP3
4.5	50	D	CL24BJ4R5UP3	CL25BJ4R5UP3
18	50	G	CL24BJ180UP3	CL25BJ180UP3
60	50	J	CL24BJ600UP3	CL25BJ600UP3
100	50	M	CL24BJ101UP3	CL25BJ101UP3
150	50	P	CL24BJ151UP3	CL25BJ151UP3
3	75	D	CL24BL030UP3	CL25BL030UP3
12	75	G	CL24BL120UP3	CL25BL120UP3
30	75	J	CL24BL300UP3	CL25BL300UP3
70	75	M	CL24BL700UP3	CL25BL700UP3
100	75	P	CL24BL101UP3	CL25BL101UP3
2	100	D	CL24BN020UP3	CL25BN020UP3
8	100	G	CL24BN080UP3	CL25BN080UP3
25	100	J	CL24BN250UP3	CL25BN250UP3
50	100	M	CL24BN500UP3	CL25BN500UP3
70	100	P	CL24BN700UP3	CL25BN700UP3
1	150	D	CL24BQ010UP3	CL25BQ010UP3
4	150	G	CL24BQ040UP3	CL25BQ040UP3
13	150	J	CL24BQ130UP3	CL25BQ130UP3
25	150	M	CL24BQ250UP3	CL25BQ250UP3
36	150	P	CL24BQ360UP3	CL25BQ360UP3

te: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

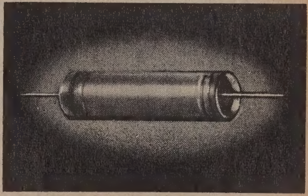
IL-C-3965-B FOIL TANTALUM CAPACITORS TYPES CL34 and CL35

For use in military and industrial electronic equipment. Designed to operate over the temperature range of −55C to +85C up to 150 volts.

Long operation and shelf life, excellent low temperature performance, and optimum electrical characteristics.

For use in circuits where aluminum foil units are unsatisfactory. Low leakage current and good temperature coefficient.

- Type CL34 is a bare metal case unit. If an outer insulating sleeve is desired, order Type CL35.
- MIL version of Sprague Type 110D.
- For prices on quantities from 25 to 999 pieces, see your Sprague Industrial Distributor.



DIMENSIONS AND NET PRICES (1-24)

Code	D. x L.	CL34	CL35
D	3/16 x 11/16	$ 4.20	$ 4.30
G	9/32 x 7/8	6.60	6.70
J	3/8 x 1 7/16	10.45	10.55
M	3/8 x 2 1/8	14.60	14.70
P	3/8 x 2 3/4	19.60	19.70

μF	WVDC	Size Code	Military Designation*	
	3	D	CL34BA100MP3	CL35BA100MP3
	3	G	CL34BA500MP3	CL35BA500MP3
	6	D	CL34BB080MP3	CL35BB080MP3
	6	G	CL34BB300MP3	CL35BB300MP3
	6	J	CL34BB101MP3	CL35BB101MP3
	6	M	CL34BB201MP3	CL35BB201MP3
	6	P	CL34BB301MP3	CL35BB301MP3
	10	D	CL34BD060MP3	CL35BD060MP3
	10	G	CL34BD250MP3	CL35BD250MP3
	10	J	CL34BD800MP3	CL35BD800MP3
	10	M	CL34BD161MP3	CL35BD161MP3
	10	P	CL34BD221MP3	CL35BD221MP3
5	15	D	CL34BE4R5MP3	CL35BE4R5MP3
	15	G	CL34BE100MP3	CL35BE100MP3
	15	G	CL34BE180MP3	CL35BE180MP3
55	15	J	CL34BE550MP3	CL35BE550MP3
110	15	M	CL34BE111MP3	CL35BE111MP3
160	15	P	CL34BE161MP3	CL35BE161MP3
2.5	30	D	CL34BH2R5MP3	CL35BH2R5MP3
30	30	J	CL34BH300MP3	CL35BH300MP3
60	30	M	CL34BH600MP3	CL35BH600MP3
85	30	P	CL34BH850MP3	CL35BH850MP3
1.5	50	D	CL34BJ1R5MP3	CL35BJ1R5MP3
6	50	G	CL34BJ060MP3	CL35BJ060MP3
20	50	J	CL34BJ200MP3	CL35BJ200MP3
40	50	M	CL34BJ400MP3	CL35BJ400MP3
55	50	P	CL34BJ550MP3	CL35BJ550MP3
1	75	D	CL34BL010MP3	CL35BL010MP3
4	75	G	CL34BL040MP3	CL35BL040MP3
14	75	J	CL34BL140MP3	CL35BL140MP3
28	75	M	CL34BL280MP3	CL35BL280MP3
40	75	P	CL34BL400MP3	CL35BL400MP3
0.8	100	D	CL34BN0R8MP3	CL35BN0R8MP3
3	100	G	CL34BN030MP3	CL35BN030MP3
10	100	J	CL34BN100MP3	CL35BN100MP3
20	100	M	CL34BN200MP3	CL35BN200MP3
30	100	P	CL34BN300MP3	CL35BN300MP3
0.5	150	D	CL34BQ0R5MP3	CL35BQ0R5MP3
2	150	G	CL34BQ020MP3	CL35BQ020MP3
4	150	G	CL34BQ040MP3	CL35BQ040MP3
7	150	J	CL34BQ070MP3	CL35BQ070MP3
8	150	J	CL34BQ080MP3	CL35BQ080MP3
12	150	M	CL34BQ120MP3	CL35BQ120MP3
14	150	M	CL34BQ140MP3	CL35BQ140MP3
20	150	P	CL34BQ200MP3	CL35BQ200MP3

te: For vibration grade 1 or 2, change last digit of military designation to 1 or 2.

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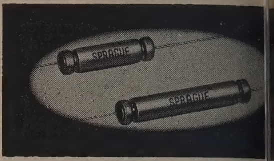
SPRAGUE CAPACITORS

MIL-C-3965B TUBULAR FOIL TANTALUM ELECTROLYTICS

- Meet Requirements of Military Specification MIL-C-3965B
- Small Electrically Stable Foil Tantalums, Long, Reliable Life
- Available in Industrial Equivalents as Types 120D, 121D, 122D
- Temperature Rating 125C
- Types Marked (*) Have Insulating Sleeves. All Others are Bare Case
- Capacitance Tolerance ±20%

SIZE CODE (Diam x Length)
E (13/16" x 23/32"). H (19/64" x 15/16").
K (25/64" x 1 15/32"). N (25/64" x 2 5/32").
Q (25/64" x 2 25/32").



TYPE CL20

POLARIZED ETCHED FOIL

µF	Size Code	MIL Type	Net Ea. (1-24)
10 WORKING VOLTS D-C			
15	E	CL20CD150UP3	$ 7.37
60	H	CL20CD600UP3	10.49
200	K	CL20CD201UP3	16.16
400	N	CL20CD401UP3	24.54
580	Q	CL20CD581UP3	31.75
15 WORKING VOLTS D-C			
10	E	CL20CE100UP3	7.37
40	H	CL20CE400UP3	10.49
120	K	CL20CE121UP3	16.16
250	N	CL20CE251UP3	24.54
350	Q	CL20CE351UP3	31.75
30 WORKING VOLTS D-C			
4.5	E	CL20CH4R5TP3	7.37
18	H	CL20CH180TP3	10.49
60	K	CL20CH600TP3	16.16
100	N	CL20CH101TP3	24.54
150	Q	CL20CH151TP3	31.75
50 WORKING VOLTS D-C			
3	E	CL20CJ030TP3	7.37
12	H	CL20CJ120TP3	10.49
30	K	CL20CJ300TP3	16.16
70	N	CL20CJ700TP3	24.54
100	Q	CL20CJ101TP3	31.75
60 WORKING VOLTS D-C			
2	E	CL20CK020TP3	7.37
8	H	CL20CK080TP3	10.49
25	K	CL20CK250TP3	16.16
30	N	CL20CK500TP3	24.54
70	Q	CL20CK700TP3	31.75
100 WORKING VOLTS D-C			
1	E	CL20CN010SP3	7.37
4	H	CL20CN040SP3	10.49
13	K	CL20CN130SP3	16.16
25	N	CL20CN250SP3	24.54
36	Q	CL20CN360SP3	31.75

TYPE CL21*

POLARIZED ETCHED FOIL

µF	Size Code	MIL Type	Net Ea. (1-24)
10 WORKING VOLTS D-C			
15	E	CL21CD150UP3	7.47
60	H	CL21CD600UP3	10.59
200	K	CL21CD201UP3	16.26
400	N	CL21CD401UP3	24.64
580	Q	CL21CD581UP3	31.85
15 WORKING VOLTS D-C			
10	E	CL21CE100UP3	7.47
40	H	CL21CE400UP3	10.59
120	K	CL21CE121UP3	16.26
250	N	CL21CE251UP3	24.64
350	Q	CL21CE351UP3	31.85
30 WORKING VOLTS D-C			
4.5	E	CL21CH4R5TP3	7.47
18	H	CL21CH180TP3	10.59
60	K	CL21CH600TP3	16.26
100	N	CL21CH101TP3	24.64
150	Q	CL21CH151TP3	31.85
50 WORKING VOLTS D-C			
3	E	CL21CJ030TP3	7.47
12	H	CL21CJ120TP3	10.59
30	K	CL21CJ300TP3	16.26
70	N	CL21CJ700TP3	24.64
100	Q	CL21CJ101TP3	31.85
60 WORKING VOLTS D-C			
2	E	CL21CK020TP3	$ 7.47
8	H	CL21CK080TP3	10.59
25	K	CL21CK250TP3	16.26
50	N	CL21CK500TP3	24.64
70	Q	CL21CK700TP3	31.85
100 WORKING VOLTS D-C			
1	E	CL21CN010SP3	7.47
4	H	CL21CN040SP3	10.59
13	K	CL21CN130SP3	16.26
25	N	CL21CN250SP3	24.64
36	Q	CL21CN360SP3	31.85

TYPE CL30

POLARIZED PLAIN FOIL

µF	Size Code	MIL Type	Net Ea. (1-24)
10 WORKING VOLTS D-C			
4.5	E	CL30CD4R5MP3	7.37
18	H	CL30CD180MP3	9.80
55	K	CL30CD550MP3	14.18
110	N	CL30CD111MP3	18.31
160	Q	CL30CD161MP3	23.54
15 WORKING VOLTS D-C			
3	E	CL30CE030MP3	7.37
12	H	CL30CE120MP3	9.80
35	K	CL30CE350MP3	14.18
70	N	CL30CE700MP3	18.31
100	Q	CL30CE101MP3	23.54
30 WORKING VOLTS D-C			
1.5	E	CL30CH1R5MP3	7.37
6	H	CL30CH060MP3	9.80
20	K	CL30CH200MP3	14.18
40	N	CL30CH400MP3	18.31
55	Q	CL30CH550MP3	23.54
50 WORKING VOLTS D-C			
1	E	CL30CJ010MP3	7.37
4	H	CL30CJ040MP3	9.80
14	K	CL30CJ140MP3	14.18
28	N	CL30CJ280MP3	18.31
40	Q	CL30CJ400MP3	23.54
60 WORKING VOLTS D-C			
0.8	E	CL30CK0R8MP3	7.37
3	H	CL30CK030MP3	9.80
10	K	CL30CK100MP3	14.18
20	N	CL30CK200MP3	18.31
30	Q	CL30CK300MP3	23.54
100 WORKING VOLTS D-C			
0.5	E	CL30CN0R5MP3	7.37
2	H	CL30CN020MP3	9.80
7	K	CL30CN070MP3	14.18
14	N	CL30CN140MP3	18.31
20	Q	CL30CN200MP3	23.54
150 WORKING VOLTS D-C			
0.35	E	CL30CQR35MP3	7.37
1.5	H	CL30CQ1R5MP3	9.80
5	K	CL30CQ050MP3	14.18
10	N	CL30CQ100MP3	18.31
15	Q	CL30CQ150MP3	23.54

TYPE CL31*

POLARIZED PLAIN FOIL

µF	Size Code	MIL Type	Net Ea. (1-24)
10 WORKING VOLTS D-C			
4.5	E	CL31CD4R5MP3	7.47
18	H	CL31CD180MP3	9.90
55	K	CL31CD550MP3	14.28
110	N	CL31CD111MP3	18.41
160	Q	CL31CD161MP3	23.64
15 WORKING VOLTS D-C			
3	E	CL31CE030MP3	$ 7.47
12	H	CL31CE120MP3	9.90
35	K	CL31CE350MP3	14.28
70	N	CL31CE700MP3	18.41
100	Q	CL31CE101MP3	23.64
30 WORKING VOLTS D-C			
1.5	E	CL31CH1R5MP3	7.47
6	H	CL31CH060MP3	9.90
20	K	CL31CH200MP3	14.28
40	N	CL31CH400MP3	18.41
55	Q	CL31CH550MP3	23.64
50 WORKING VOLTS D-C			
1	E	CL31CJ010MP3	7.47
4	H	CL31CJ040MP3	9.90
14	K	CL31CJ140MP3	14.28
28	N	CL31CJ280MP3	18.41
40	Q	CL31CJ400MP3	23.64
60 WORKING VOLTS D-C			
0.8	E	CL31CK0R8MP3	7.47
3	H	CL31CK030MP3	9.90
10	K	CL31CK100MP3	14.28
20	N	CL31CK200MP3	18.41
30	Q	CL31CK300MP3	23.64
100 WORKING VOLTS D-C			
0.5	E	CL31CN0R5MP3	7.47
2	H	CL31CN020MP3	9.90
7	K	CL31CN070MP3	14.28
14	N	CL31CN140MP3	18.41
20	Q	CL31CN200MP3	23.64
150 WORKING VOLTS D-C			
0.35	E	CL31CQR35MP3	7.47
1.5	H	CL31CQ1R5MP3	9.90
5	K	CL31CQ050MP3	14.28
10	N	CL31CQ100MP3	18.41
15	Q	CL31CQ150MP3	23.64

TYPE CL32

NON-POLARIZED PLAIN FOIL

µF	Size Code	MIL Type	Net Ea. (1-24)
10 WORKING VOLTS D-C			
2.5	E	CL32CD2R5MN3	7.37
10	H	CL32CD100MN3	9.80
35	K	CL32CD350MN3	14.18
70	N	CL32CD700MN3	18.31
100	Q	CL32CD101MN3	23.54
15 WORKING VOLTS D-C			
1.5	E	CL32CE1R5MN3	7.37
6	H	CL32CE060MN3	9.80
20	K	CL32CE200MN3	14.18
40	N	CL32CE400MN3	18.31
60	Q	CL32CE600MN3	23.54
30 WORKING VOLTS D-C			
0.8	E	CL32CH0R8MN3	7.37
3	H	CL32CH030MN3	9.80
10	K	CL32CH100MN3	14.18
20	N	CL32CH200MN3	18.31
30	Q	CL32CH300MN3	23.54
50 WORKING VOLTS D-C			
0.5	E	CL32CJ0R5MN3	7.37
2	H	CL32CJ020MN3	9.80
7	K	CL32CJ070MN3	14.18
14	N	CL32CJ140MN3	18.31
20	Q	CL32CJ200MN3	23.54
60 WORKING VOLTS D-C			
0.4	E	CL32CK0R4MN3	
1.5	H	CL32CK1R5MN3	
5	K	CL32CK050MN3	
10	N	CL32CK100MN3	
15	Q	CL32CK150MN3	
100 WORKING VOLTS D-C			
0.25	E	CL32CNR25MN3	
1	H	CL32CN010MN3	
3.5	K	CL32CN3R5MN3	
7	N	CL32CN070MN3	
10	Q	CL32CN100MN3	
150 WORKING VOLTS D-C			
0.15	E	CL32CQR15MN3	
0.75	H	CL32CQR75MN3	
2.5	K	CL32CQ2R5MN3	
5	N	CL32CQ050MN3	
7.5	Q	CL32CQ7R5MN3	

TYPE CL33*

NON-POLARIZED PLAIN FOI

µF	Size Code	MIL Type
10 WORKING VOLTS D-C		
2.5	E	CL33CD2R5MN3
10	H	CL33CD100MN3
35	K	CL33CD350MN3
70	N	CL33CD700MN3
100	Q	CL33CD101MN3
15 WORKING VOLTS D-C		
1.5	E	CL33CE1R5MN3
6	H	CL33CE060MN3
20	K	CL33CE200MN3
40	N	CL33CE400MN3
60	Q	CL33CE600MN3
30 WORKING VOLTS D-C		
0.8	E	CL33CH0R8MN3
3	H	CL33CH030MN3
10	K	CL33CH100MN3
20	N	CL33CH200MN3
30	Q	CL33CH300MN3
50 WORKING VOLTS D-C		
0.5	E	CL33CJ0R5MN3
2	H	CL33CJ020MN3
7	K	CL33CJ070MN3
14	N	CL33CJ140MN3
20	Q	CL33CJ200MN3
60 WORKING VOLTS D-C		
0.4	E	CL33CK0R4MN3
1.5	H	CL33CK1R5MN3
5	K	CL33CK050MN3
10	N	CL33CK100MN3
15	Q	CL33CK150MN3
100 WORKING VOLTS D-C		
0.25	E	CL33CNR25MN3
1	H	CL33CN010MN3
3.5	K	CL33CN3R5MN3
7	N	CL33CN070MN3
10	Q	CL33CN100MN3
150 WORKING VOLTS D-C		
0.15	E	CL33CQR15MN3
0.75	H	CL33CQR75MN3
2.5	K	CL33CQ2R5MN3
5	N	CL33CQ050MN3
7.5	Q	CL33CQ7R5MN3

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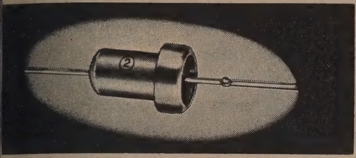
SPRAGUE CAPACITORS

MIL-C-3965-B 'CUP-TYPE' TANTALEX® CAPACITORS TYPES CL44 and CL45



DIMENSIONS AND NET PRICES (1-24)

e	D. x L.	Tol. M	Tol. S	Tol. T
	7/32 x 15/32	$ 4.23	$ 4.23	$ 3.78
	9/32 x 11/16	8.28	8.28	7.65
	3/8 x 49/64	10.35	10.35	9.45

- Type CL44 and CL45 Tantalex capacitors are manufactured to specification MIL-3965-B. Also available as Sprague Industrial Type 131D and 132D.
- Large capacitance values in small physical size.
- Intended for industrial, communication and ground military electronic equipment.
- Extremely low leakage currents and virtually no shelf aging.
- CL44 is a bare metal-case unit. CL45 has outer insulating sleeve.
- Capacitance tolerance: M = +20, −20%; S = +30, −15%; T = +50, −15%.
- For prices on quantities from 25 to 499 pieces, see your Sprague Industrial Distributor.

TYPE CL44

	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*
	6	U	CL44BB300MP	15	15	U	CL44BE150SP	5	50	U	CL44BJ050TP	40	75	T	CL44BL400MP
	6	U	CL44BB300SP	15	15	U	CL44BE150TP	25	50	V	CL44BJ250MP	40	75	T	CL44BL400SP
	6	U	CL44BB300TP	70	15	V	CL44BE700MP	25	50	V	CL44BJ250SP	40	75	T	CL44BL400TP
	6	V	CL44BB141MP	70	15	V	CL44BE700SP	25	50	V	CL44BJ250TP	2.5	100	U	CL44BN2R5MP
	6	V	CL44BB141SP	70	15	V	CL44BE700TP	60	50	T	CL44BJ600MP	2.5	100	U	CL44BN2R5SP
	6	V	CL44BB141TP	170	15	T	CL44BE171MP	60	50	T	CL44BJ600SP	2.5	100	U	CL44BN2R5TP
	6	T	CL44BB331MP	170	15	T	CL44BE171SP	60	50	T	CL44BJ600TP	11	100	V	CL44BN110MP
	6	T	CL44BB331SP	170	15	T	CL44BE171TP	4	60	U	CL44BK040MP	11	100	V	CL44BN110SP
	6	T	CL44BB331TP	10	25	U	CL44BG100MP	4	60	U	CL44BK040SP	11	100	V	CL44BN110TP
	8	U	CL44BC250MP	10	25	U	CL44BG100SP	4	60	U	CL44BK040TP	30	100	T	CL44BN300MP
	8	U	CL44BC250SP	10	25	U	CL44BG100TP	20	60	V	CL44BK200MP	30	100	T	CL44BN300SP
	8	U	CL44BC250TP	8	30	U	CL44BH080MP	20	60	V	CL44BK200SP	30	100	T	CL44BN300TP
	10	U	CL44BD200MP	8	30	U	CL44BH080SP	20	60	V	CL44BK200TP	1.7	125	U	CL44BP1R7MP
	10	U	CL44BD200SP	8	30	U	CL44BH080TP	50	60	T	CL44BK500MP	1.7	125	U	CL44BP1R7SP
	10	U	CL44BD200TP	40	30	V	CL44BH400MP	50	60	T	CL44BK500SP	1.7	125	U	CL44BP1R7TP
	10	V	CL44BD101MP	40	30	V	CL44BH400SP	50	60	T	CL44BK500TP	9	125	V	CL44BP090MP
	10	V	CL44BD101SP	40	30	V	CL44BH400TP	3.5	75	U	CL44BL3R5MP	9	125	V	CL44BP090SP
	10	V	CL44BD101TP	100	30	T	CL44BH101MP	3.5	75	U	CL44BL3R5SP	9	125	V	CL44BP090TP
	10	T	CL44BD251MP	100	30	T	CL44BH101SP	3.5	75	U	CL44BL3R5TP	25	125	T	CL44BP250MP
	10	T	CL44BD251SP	100	30	T	CL44BH101TP	15	75	V	CL44BL150MP	25	125	T	CL44BP250SP
	10	T	CL44BD251TP	5	50	U	CL44BJ050MP	15	75	V	CL44BL150SP	25	125	T	CL44BP250TP
	15	U	CL44BE150MP	5	50	U	CL44BJ050SP	15	75	V	CL44BL150TP				

Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

TYPE CL45

	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*	µF	WVDC	Size Code	Type Number*
	6	U	CL45BB300MP	15	15	U	CL45BE150SP	5	50	U	CL45BJ050TP	15	75	V	CL45BL150TP
	6	U	CL45BB300SP	15	15	U	CL45BE150TP	25	50	V	CL45BJ250MP	40	75	T	CL45BL400MP
	6	U	CL45BB300TP	70	15	V	CL45BE700MP	25	50	V	CL45BJ250SP	40	75	T	CL45BL400SP
	6	V	CL45BB141MP	70	15	V	CL45BE700SP	25	50	V	CL45BJ250TP	40	75	T	CL45BL400TP
	6	V	CL45BB141SP	70	15	V	CL45BE700TP	60	50	T	CL45BJ600MP	2.5	100	U	CL45BN2R5MP
	6	V	CL45BB141TP	170	15	T	CL45BE171MP	60	50	T	CL45BJ600SP	2.5	100	U	CL45BN2R5SP
	6	T	CL45BB331MP	170	15	T	CL45BE171SP	60	50	T	CL45BJ600TP	2.5	100	U	CL45BN2R5TP
	6	T	CL45BB331SP	170	15	T	CL45BE171TP	4	60	U	CL45BK040MP	11	100	V	CL45BN110MP
	6	T	CL45BB331TP	10	25	U	CL45BG100MP	4	60	U	CL45BK040SP	11	100	V	CL45BN110SP
	8	U	CL45BC250MP	10	25	U	CL45BG100SP	4	60	U	CL45BK040TP	11	100	V	CL45BN110TP
	8	U	CL45BC250SP	10	25	U	CL45BG100TP	20	60	V	CL45BK200MP	30	100	T	CL45BN300MP
	8	U	CL45BC250TP	8	30	U	CL45BH080MP	20	60	V	CL45BK200SP	30	100	T	CL45BN300SP
	10	U	CL45BD200MP	8	30	U	CL45BH080SP	20	60	V	CL45BK200TP	30	100	T	CL45BN300TP
	10	U	CL45BD200SP	8	30	U	CL45BH080TP	50	60	T	CL45BK500MP	1.7	125	U	CL45BP1R7MP
	10	U	CL45BD200TP	40	30	V	CL45BH400MP	50	60	T	CL45BK500SP	1.7	125	U	CL45BP1R7SP
	10	V	CL45BD101MP	40	30	V	CL45BH400SP	50	60	T	CL45BK500TP	1.7	125	U	CL45BP1R7TP
	10	V	CL45BD101SP	40	30	V	CL45BH400TP	3.5	75	U	CL45BL3R5MP	9	125	V	CL45BP090MP
	10	V	CL45BD101TP	100	30	T	CL45BH101MP	3.5	75	U	CL45BL3R5SP	9	125	V	CL45BP090SP
	10	T	CL45BD251MP	100	30	T	CL45BH101SP	3.5	75	U	CL45BL3R5TP	9	125	V	CL45BP090TP
	10	T	CL45BD251SP	100	30	T	CL45BH101TP	15	75	V	CL45BL150MP	25	125	T	CL45BP250MP
	10	T	CL45BD251TP	5	50	U	CL45BJ050MP	15	75	V	CL45BL150SP	25	125	T	CL45BP250SP
	15	U	CL45BE150MP	5	50	U	CL45BJ050SP					25	125	T	CL45BP250TP

Vibration Grade 1, 2, or 3, add 1, 2, or 3 at end of Type Number.

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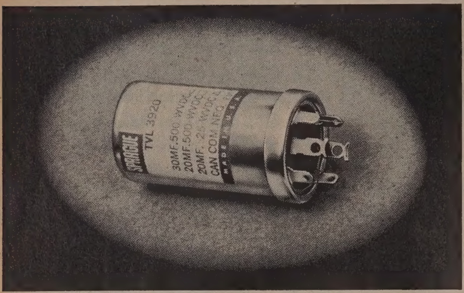
SPRAGUE CAPACITORS

TVL TWIST-LOK® ELECTROLYTICS



- Hermetically Sealed in Aluminum Cans for Long Life and Dep able Performance in TV, Radio and Hi-Fi
- Designed for 85°C (185°F) Operation
- Stand Up Under Extremely High Temperatures Often Encount in TV, Hi-Fi, and Auto Radio Cabinets
- Withstand High Surge Voltages
- Ideal for High Ripple Selenium Rectifier Circuits
- Can Be Safely Mounted "Above Ground" Using Phenolic Mour Plate and Insulating Tube
- Easy to Mount — Unit Locks Firmly in Place with a Twist of the
- Furnished Complete with Both Phenolic and Metal Mounting Pl

The Twist-lok Capacitors listed here include only those ratings which would be applic-able to industrial applications. For the complete line of more than 1000 Twist-loks, refer to Sprague Catalog C-614.

μF	WVDC	Dia. x Length	Cat. No.	Net
SINGLE UNITS				
2000	6	1⅜ x 2	TVL-1115	$1.83
225	15	¾ x 2	TVL-1160	1.05
1000	15	1 x 2½	TVL-1165	1.53
2000	15	1⅜ x 2	TVL-1168	2.07
3000	15	1⅜ x 3	TVL-1170	2.55
4000	15	1⅜ x 3½	TVL-1173	2.25
40	25	¾ x 2	TVL-1210	.81
500	25	1 x 2	TVL-1220	1.53
1000	25	1⅜ x 2	TVL-1230	2.13
100	50	¾ x 2	TVL-1317	.99
150	50	¾ x 2½	TVL-1320	1.08
250	50	1 x 2½	TVL-1324	1.20
500	50	1⅜ x 2½	TVL-1330	1.59
1000	50	1⅜ x 3½	TVL-1338	2.25
1500	50	1⅜ x 4	TVL-1341	2.64
30	150	1 x 2	TVL-1408	.93
50	150	1 x 2	TVL-1415	.99
80	150	1 x 2½	TVL-1420	1.11
100	150	1 x 2½	TVL-1423	1.20
120	150	1 x 2½	TVL-1425	1.29
120	150	1⅜ x 2½	TVL-1426	1.29
140	150	1 x 3	TVL-1428	1.29
150	150	1 x 3	TVL-1429	1.29
150	150	1⅜ x 3	TVL-1430	1.29
200	150	1⅜ x 4	TVL-1431	1.47
300	150	1⅜ x 3½	TVL-1434	1.68
160	200	1⅜ x 3	TVL-1473	1.89
20	250	1 x 2	TVL-1509	.96
40	250	1 x 2	TVL-1519	1.08
100	250	1 x 3	TVL-1535	1.62
150	250	1⅜ x 2½	TVL-1540	1.86
200	250	1⅜ x 3½	TVL-1547	2.19
80	300	1 x 3½	TVL-1573	1.53
100	300	1 x 4	TVL-1578	1.74
125	300	1⅜ x 3½	TVL-1580	2.10
150	300	1⅜ x 3½	TVL-1584	2.10
250	300	1⅜ x 4	TVL-1590	3.33
30	350	1 x 2	TVL-1617	1.14
40	350	1 x 2	TVL-1621	1.20
50	350	1 x 2	TVL-1622	1.26
60	350	1 x 3	TVL-1624	1.32
80	350	1⅜ x 2	TVL-1630	1.71
125	350	1⅜ x 3½	TVL-1638	2.37
150	350	1⅜ x 4	TVL-1642	2.37
4	450	1 x 2	TVL-1702	.84

μF	WVDC	Dia. x Length	Cat. No.
10	450	1 x 2	TVL-1705
15	450	1 x 2	TVL-1709
20	450	1 x 2	TVL-1714
30	450	1 x 2½	TVL-1720
40	450	1 x 3	TVL-1725
50	450	1 x 3	TVL-1728
60	450	1⅜ x 2½	TVL-1730
80	450	1⅜ x 2½	TVL-1735
100	450	1⅜ x 3	TVL-1750
125	450	1⅜ x 4	TVL-1760
40	475	1⅜ x 2	TVL-1820
10	500	1 x 2	TVL-1940
20	500	1 x 2½	TVL-1943
30	500	1 x 3	TVL-1947
40	500	1 x 3½	TVL-1950
80	500	1⅜ x 3	TVL-1958
90	500	1⅜ x 3½	TVL-1960
DUAL UNITS			
20-20	150-150	1 x 2	TVL-2415
30-30	150-150	1 x 2	TVL-2422
40-20	150-150	1 x 2	TVL-2425
40-30	150-150	1 x 2	TVL-2427
40-40	150-150	1 x 2½	TVL-2428
50-30	150-150	1 x 2½	TVL-2432
50-50	150-150	1 x 2½	TVL-2435
60-60	150-150	1 x 3½	TVL-2438
70-30	150-150	1 x 2½	TVL-2439
75-75	150-150	1 x 3	TVL-2440
80-40	150-150	1⅜ x 2½	TVL-2442
80-50	150-150	1 x 2½	TVL-2442.1
80-80	150-150	1⅜ x 2	TVL-2442.4
125-100	150-150	1⅜ x 2½	TVL-2443.3
150-80	150-150	1⅜ x 2½	TVL-2443.5
200-5	150-150	1⅜ x 3	TVL-2444
200-125	150-150	1⅜ x 3½	TVL-2445
200-150	150-150	1⅜ x 4	TVL-2446
200-200	150-150	1⅜ x 4	TVL-2447
60-60	200-200	1 x 3	TVL-2461
60-60	200-200	1⅜ x 2	TVL-2462
100-100	200-200	1⅜ x 3	TVL-2464
200-5	200-200	1⅜ x 2	TVL-2470
20-20	250-250	1 x 2	TVL-2515
40-40	250-250	1 x 2	TVL-2520
150-150	250-250	1⅜ x 4	TVL-2535
200-200	250-250	1⅜ x 4	TVL-2538

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SPRAGUE CAPACITORS

VL TWIST-LOK ELECTROLYTICS, continued

μF	WVDC	Dia. x Length	Cat. No.	Net
-30	300-300	1 x 3	TVL-2574	$1.59
-80	300-300	1⅜ x 3	TVL-2585	2.43
-20	300-300	1⅜ x 3½	TVL-2588	2.40
-40	300-300	1⅜ x 3½	TVL-2589	2.61
-15	350-350	1 x 2	TVL-2625	1.35
-30	350-350	1 x 3	TVL-2628	1.74
-30	350-350	1⅜ x 2½	TVL-2630	1.89
-30	350-350	1⅜ x 3	TVL-2631	1.89
-20	350-350	1⅜ x 3	TVL-2633	2.10
-40	350-350	1⅜ x 3	TVL-2634	2.46
-80	350-350	1⅜ x 4	TVL-2635	2.82
-40	350-350	1⅜ x 3	TVL-2637	2.58
-60	350-350	1⅜ x 3½	TVL-2639	2.88
-100	350-350	1⅜ x 4	TVL-2641	3.69
-10	350-350	1⅜ x 3	TVL-2643	2.58
-30	400-50	1⅜ x 3	TVL-2655	2.34
-80	400-200	1⅜ x 3½	TVL-2656	2.37
-60	400-400	1⅜ x 3	TVL-2677	2.82
-40	400-400	1⅜ x 4	TVL-2679	3.15
-200	450-150	1⅜ x 3	TVL-2715	2.10
-10	450-300	1 x 3	TVL-2724	1.56
-5	450-450	1 x 2	TVL-2748	1.02
-10	450-450	1 x 2	TVL-2750	1.14
-15	450-450	1 x 2½	TVL-2753	1.35
-10	450-450	1 x 2½	TVL-2754	1.35
-10	450-450	1 x 3	TVL-2757	1.44
-30	450-450	1⅜ x 2½	TVL-2759	1.83
-20	450-450	1⅜ x 3	TVL-2762	1.95
-40	450-450	1⅜ x 3	TVL-2764	2.07
-50	450-450	1⅜ x 3	TVL-2767	2.31
-20	450-450	1⅜ x 3	TVL-2768	2.13
-40	450-450	1⅜ x 3½	TVL-2770	2.37
-60	450-450	1⅜ x 3½	TVL-2772	2.70
-10	450-450	1⅜ x 3	TVL-2776	2.16
-20	450-450	1⅜ x 3	TVL-2776.5	2.34
-30	450-450	1⅜ x 4	TVL-2777	2.52
-40	450-450	1⅜ x 3½	TVL-2778	3.03
-40	450-450	1⅜ x 4	TVL-2780	2.91
-15	475-475	1 x 2½	TVL-2820	1.41
-10	475-475	1 x 3	TVL-2824	1.56
-10	475-475	1⅜ x 2½	TVL-2827	1.86
-50	475-475	1⅜ x 4	TVL-2851	3.12
-10	500-500	1 x 2½	TVL-2933	1.17
-20	500-500	1⅜ x 2½	TVL-2935	1.71
-10	500-500	1⅜ x 3	TVL-2936	1.56
-30	500-500	1⅜ x 3	TVL-2937	1.95
-40	500-500	1⅜ x 3	TVL-2940	2.58
-40	500-500	1⅜ x 3½	TVL-2944	2.76

TRIPLE UNITS

μF	WVDC	Dia. x Length	Cat. No.	Net
-20-20	150-150-25	1 x 2½	TVL-3422	$1.38
-30-20	150-150-25	1 x 2½	TVL-3426.7	1.50
-50-20	150-150-25	1 x 3	TVL-3430	1.59
-40-20	150-150-25	1 x 2½	TVL-3432	1.68
-40-300	150-150-25	1⅜ x 2½	TVL-3432.4	2.22
-20-20	150-150-150	1 x 2	TVL-3433	1.38
-30-10	150-150-150	1 x 2	TVL-3435	1.71
-20-10	150-150-150	1 x 2	TVL-3436	1.41
-20-20	150-150-150	1 x 2½	TVL-3437	1.44
-30-20	150-150-150	1 x 2	TVL-3438	1.50
-40-40	150-150-150	1 x 3½	TVL-3440	1.56
-40-10	150-150-150	1 x 2½	TVL-3441	1.53
-50-50	150-150-150	1 x 3	TVL-3442	1.80
-40-20	150-150-150	1 x 3	TVL-3443	1.65
-15-15	150-150-150	1 x 2½	TVL-3443.3	1.62
-40-40	150-150-150	1 x 3	TVL-3443.4	2.43
-30-10	150-150-150	1 x 3	TVL-3443.8	1.65
-40-20	150-150-150	1 x 3	TVL-3444	1.74
-30-10	150-150-150	1 x 3	TVL-3447	1.83
-80-40	150-150-150	1⅜ x 3½	TVL-3448	2.28
-120-40	150-150-150	1⅜ x 3	TVL-3448.2	2.43
-100-60	150-150-150	1⅜ x 3½	TVL-3450	2.73
-150-150	150-150-150	1⅜ x 4	TVL-3452	4.50
-10-20	200-200-50	1 x 3	TVL-3471	1.68
20-20	250-250-250	1 x 2	TVL-3532	1.56
20-20	250-250-250	1 x 3½	TVL-3540	1.74
80-10-10	250-250-250	1 x 3	TVL-3543	$1.92
80-80-60	250-250-250	1⅜ x 3	TVL-3545	2.94
10-10-10	300-300-300	1 x 2	TVL-3580	1.44
60-20-10	300-300-300	1⅜ x 2	TVL-3581	2.07
80-40-40	300-300-300	1⅜ x 2½	TVL-3583	2.85
120-50-40	300-300-300	1⅜ x 4	TVL-3585	3.51
140-100-20	300-300-300	1⅜ x 4½	TVL-3585.5	3.72
20-10-10	350-350-350	1 x 2	TVL-3639.6	1.62
30-20-10	350-350-350	1 x 2½	TVL-3639.8	1.95
60-40-20	350-350-350	1⅜ x 4	TVL-3640	2.55
60-50-50	350-350-350	1⅜ x 4	TVL-3641	2.94
80-60-60	350-350-350	1⅜ x 4	TVL-3642	3.33
90-40-20	350-350-350	1⅜ x 4	TVL-3645	3.15
20-20-20	400-400-25	1 x 3	TVL-3678	1.71
10-10-10	400-400-400	1 x 2½	TVL-3690	1.44
90-10-5	400-400-400	1⅜ x 3	TVL-3696	2.64
10-10-10	450-450-25	1 x 2½	TVL-3729	1.44
10-10-20	450-450-25	1 x 2	TVL-3731	1.44
40-20-20	450-450-25	1⅜ x 2½	TVL-3743.7	2.10
10-10-10	450-450-450	1 x 3	TVL-3776	1.56
15-15-15	450-450-450	1 x 3	TVL-3778.2	1.86
20-10-10	450-450-450	1 x 3	TVL-3779	1.74
20-20-20	450-450-450	1⅜ x 2½	TVL-3780	2.16
30-10-10	450-450-450	1⅜ x 2	TVL-3780.5	1.89
30-20-20	450-450-450	1⅜ x 3	TVL-3781	2.31
30-30-30	450-450-450	1⅜ x 3½	TVL-3782	2.61
40-10-10	450-450-450	1⅜ x 3	TVL-3783	2.01
40-30-20	450-450-450	1⅜ x 3	TVL-3784	2.58
40-40-10	450-450-450	1⅜ x 2½	TVL-3785	2.49
40-40-20	450-450-450	1⅜ x 3	TVL-3786	2.67
40-40-40	450-450-450	1⅜ x 3½	TVL-3787	2.94
50-40-30	450-450-450	1⅜ x 3½	TVL-3788	2.94
60-20-20	450-450-450	1⅜ x 3	TVL-3789	2.76
60-30-10	450-450-450	1⅜ x 3	TVL-3790	2.70
60-40-20	450-450-450	1⅜ x 3½	TVL-3791	3.00
80-40-20	450-450-450	1⅜ x 4	TVL-3793	3.24
30-30-20	475-475-475	1⅜ x 3	TVL-3840	2.67
40-30-10	475-475-475	1⅜ x 3	TVL-3842.6	2.70
40-30-30	475-475-475	1⅜ x 4	TVL-3843	3.09
10-10-10	500-500-500	1 x 3	TVL-3952	1.62
30-20-20	500-500-500	1⅜ x 3	TVL-3956	2.52
40-10-10	500-500-500	1⅜ x 3	TVL-3962	2.34
40-40-10	500-500-500	1⅜ x 3½	TVL-3965	3.03

QUADRUPLE UNITS

μF	WVDC	Dia. x Length	Cat. No.	Net
40-40-40-30	150-150-150-150	1⅜ x 2	TVL-4441	$1.98
100-80-60-40	150-150-150-150	1⅜ x 3	TVL-4445	2.79
200-200-60-30	175-175-175-175	1⅜ x 4⅜	TVL-4450	3.33
60-40-20-50	300-300-300-25	1⅜ x 3½	TVL-4570	2.82
40-20-10-10	300-300-300-300	1⅜ x 2	TVL-4578	2.37
40-40-20-10	300-300-300-300	1⅜ x 3½	TVL-4579	2.73
40-40-30-20	300-300-300-300	1⅜ x 3	TVL-4580	2.91
60-40-10-10	300-300-300-300	1⅜ x 2½	TVL-4583	2.73
200-20-20-20	300-300-300-300	1⅜ x 4	TVL-4590	3.75
40-20-20-10	350-350-350-350	1⅜ x 2½	TVL-4635	2.61
40-40-40-40	350-350-350-350	1⅜ x 4	TVL-4635.3	3.60
80-60-40-20	350-350-350-350	1⅜ x 4	TVL-4635.7	3.84
90-40-30-30	350-350-350-350	1⅜ x 4	TVL-4635.8	4.08
50-40-30-20	400-400-400-400	1⅜ x 4	TVL-4674	3.39
80-25-10-10	400-400-400-400	1⅜ x 4	TVL-4680	3.15
30-30-20-20	450-450-450-450	1⅜ x 3	TVL-4769.4	3.12
35-35-10-5	450-450-450-450	1⅜ x 3½	TVL-4771	2.76
40-10-10-10	450-450-450-450	1⅜ x 3	TVL-4771.3	2.46
40-35-10-10	450-450-450-450	1⅜ x 3	TVL-4771.8	2.88
40-40-20-20	450-450-450-450	1⅜ x 4	TVL-4773	3.33
40-40-30-30	450-450-450-450	1⅜ x 4	TVL-4774	3.63
40-40-40-40	450-450-450-450	1⅜ x 4	TVL-4775	3.87
60-20-20-20	450-450 450-450	1⅜ x 4	TVL-4778	3.39
60-30-10-2	450-450-450-450	1⅜ x 3	TVL-4779	3.06
80-10-10-10	450-450-450-450	1⅜ x 4	TVL-4783	3.03
20-20-10-10	475-475-475-475	1⅜ x 2½	TVL-4832	2.61
20-20-20-20	475-475-475-475	1⅜ x 3	TVL-4834	3.06
40-20-10-10	475-475-475-475	1⅜ x 3	TVL-4840	3.06
10-10-10-10	500-500-500-500	1⅜ x 2	TVL-4940	2.10
40-40-8-8	500-500-500-500	1⅜ x 4	TVL-4944	3.42

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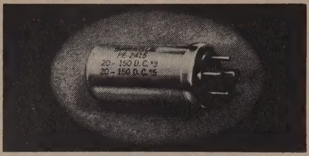
SPRAGUE CAPACITORS

PE OCTAL-BASE ELECTROLYTICS

- For Applications where Rapid Changing of Capacitors is Desired
- Will Fit Standard Octal-Base Tube Sockets
- Hermetically Sealed in Metal Cans for Long Life
- Will Stand Up Under High Temperatures, High Ripple Currents, High Surge Voltages



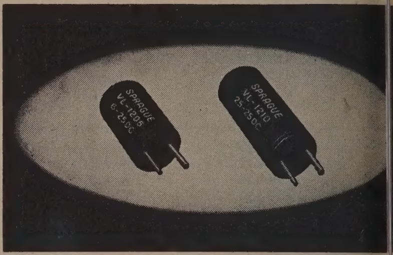
Terminal Code

Sections	—	+
Single	1	5
Dual	1	3,5
Triple	1	3,5,7
Quadruple	Gnd Lug	1,3,5,7

μF	WVDC	Diam. x Lgth.	Cat. No.	N
100	350	1⅜ x 3	PE-1636	$3.
10	450	1⁵⁄₃₂ x 2½	PE-1705	2.
20	450	1⁵⁄₃₂ x 2½	PE-1714	2.
40	450	1⅜ x 2½	PE-1725	2.
80	450	1⅜ x 3½	PE-1730	3.
20-20	150-150	1⁵⁄₃₂ x 2½	PE-2415	2.
40-40	150-150	1⁵⁄₃₂ x 2½	PE-2428	2.
10-10	450-450	1⁵⁄₃₂ x 2½	PE-2750	2.
20-20	450-450	1⅜ x 2½	PE-2755	3.
40-40	450-450	1⅜ x 3½	PE-2764	3.
10-10-10	450-450-450	1⁵⁄₃₂ x 2½	PE-3776	3.
20-20-20	450-450-450	1⅜ x 3	PE-3780	3.
30-30-10-20	450-450-450-50	1⅜ x 3½	PE-4741	4.

VL VERTI-LYTIC® ELECTROLYTICS

- For Replacement of Units of this Type Found on Printed Wiring Boards in Original Equipment
- Sections Housed in Sturdy, Pre-Molded Phenolic Cases
- Resin End Fill Will Not Contaminate Electrolyte — Protects Against Drying or Entrance of External Moisture
- Low Leakage Current and Long Shelf Life
- Polarity Easily Determined by Larger Diameter of Negative Lead
- For Complete Technical Data, See Latest Issue of Sprague Engineering Bulletin 3060



μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		3 WVDC		
1	⅜ x ¾	VL-1031	89D100	$ .87
2	⅜ x ¾	VL-1032	89D101	.87
3	⅜ x ¾	VL-1033	89D102	.87
4	⅜ x ¾	VL-1034	89D103	.87
5	⅜ x ¾	VL-1035	89D104	.87
6	⅜ x ¾	VL-1036	89D105	.87
8	⅜ x ¾	VL-1037	89D106	.87
10	⅜ x ¾	VL-1038	89D107	.87
15	⅜ x ¾	VL-1039	89D108	.87
20	⅜ x ¾	VL-1040	89D109	.87
25	⅜ x ¾	VL-1041	89D110	.87
35	⅜ x ¾	VL-1043	89D111	.90
50	⅜ x ¾	VL-1045	89D112	.93
75	⅜ x ¾	VL-1048	89D113	1.02
100	⅜ x ⅞	VL-1051	89D114	1.05
150	⁷⁄₁₆ x ⅞	VL-1055	89D115	1.05
200	⁷⁄₁₆ x ⅞	VL-1059	89D116	1.08
250	½ x ⅞	VL-1063	89D117	1.17
290	½ x ⅞	VL-1067	89D118	1.20
		6 WVDC		
1	⅜ x ¾	VL-1080	89D119	.87
2	⅜ x ¾	VL-1081	89D120	.87
3	⅜ x ¾	VL-1082	89D121	.87
4	⅜ x ¾	VL-1083	89D122	.87
5	⅜ x ¾	VL-1084	89D123	.87
6	⅜ x ¾	VL-1085	89D124	.87
8	⅜ x ¾	VL-1086	89D125	.87
10	⅜ x ¾	VL-1087	89D126	.87
15	⅜ x ¾	VL-1088	89D127	.87
20	⅜ x ¾	VL-1089	89D128	.87
25	⅜ x ¾	VL-1090	89D129	.87
35	⅜ x ¾	VL-1092	89D130	.90
50	⅜ x ¾	VL-1094	89D131	.93
75	⅜ x ⅞	VL-1097	89D132	1.02
100	⁷⁄₁₆ x ⅞	VL-1100	89D133	1.05
150	½ x ⅞	VL-1104	89D134	1.08
200	½ x ⅞	VL-1108	89D135	1.17

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		12 WVDC		
1	⅜ x ¾	VL-1120	89D136	$ .87
2	⅜ x ¾	VL-1121	89D137	.87
3	⅜ x ¾	VL-1122	89D138	.87
4	⅜ x ¾	VL-1123	89D139	.87
5	⅜ x ¾	VL-1124	89D140	.90
6	⅜ x ¾	VL-1125	89D141	.90
8	⅜ x ¾	VL-1126	89D142	.90
10	⅜ x ¾	VL-1127	89D143	.90
15	⅜ x ¾	VL-1128	89D144	.93
20	⅜ x ¾	VL-1129	89D145	.93
25	⅜ x ¾	VL-1130	89D146	.93
35	⅜ x ¾	VL-1132	89D147	.93
50	⅜ x ⅞	VL-1134	89D148	.99
75	⁷⁄₁₆ x ⅞	VL-1137	89D149	1.05
100	½ x ⅞	VL-1140	89D150	1.14
140	½ x ⅞	VL-1144	89D151	1.17
		15 WVDC		
1	⅜ x ¾	VL-1160	89D152	.87
2	⅜ x ¾	VL-1161	89D153	.87
3	⅜ x ¾	VL-1162	89D154	.87
4	⅜ x ¾	VL-1163	89D155	.87
5	⅜ x ¾	VL-1164	89D156	.90
6	⅜ x ¾	VL-1165	89D157	.90
8	⅜ x ¾	VL-1166	89D158	.90
10	⅜ x ¾	VL-1167	89D159	.93
15	⅜ x ¾	VL-1168	89D160	.93
20	⅜ x ¾	VL-1169	89D161	.93
25	⅜ x ¾	VL-1170	89D162	.93
35	⅜ x ⅞	VL-1172	89D163	.93
50	⁷⁄₁₆ x ⅞	VL-1174	89D164	.99
75	½ x ⅞	VL-1177	89D165	1.08
90	½ x ⅞	VL-1180	89D166	1.17
		25 WVDC		
1	⅜ x ¾	VL-1200	89D167	.90
2	⅜ x ¾	VL-1201	89D168	.90

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
		25 WVDC ctd.	
3	⅜ x ¾	VL-1202	89D169
4	⅜ x ¾	VL-1203	89D170
5	⅜ x ¾	VL-1204	89D171
6	⅜ x ¾	VL-1205	89D172
8	⅜ x ¾	VL-1206	89D173
10	⅜ x ¾	VL-1207	89D174
15	⅜ x ¾	VL-1208	89D175
20	⅜ x ⅞	VL-1209	89D176
25	⅜ x ⅞	VL-1210	89D177
35	⁷⁄₁₆ x ⅞	VL-1212	89D178
50	½ x ⅞	VL-1215	89D179
70	½ x ⅞	VL-1218	89D180
		50 WVDC	
1	⅜ x ¾	VL-1300	89D181
2	⅜ x ¾	VL-1301	89D182
3	⅜ x ¾	VL-1302	89D183
4	⅜ x ¾	VL-1303	89D184
5	⅜ x ¾	VL-1304	89D185
6	⅜ x ¾	VL-1305	89D186
8	⅜ x ¾	VL-1306	89D187
10	⅜ x ⅞	VL-1307	89D188
15	⁷⁄₁₆ x ⅞	VL-1308	89D189
20	⁷⁄₁₆ x ⅞	VL-1309	89D190
25	½ x ⅞	VL-1310	89D191
		6-6 WVDC	
100-30	⁷⁄₁₆ x 1³⁄₁₆	VL-2150	....
		10-10 WVDC	
50-50	½ x ⅞	VL-2250	....
80-80	½ x ⅞	VL-2350	....
		8-8-8 WVDC	
100-100-60	½ x 1⁷⁄₁₆	VL-3320	....
		10-10-3 WVDC	
50-50-15	½ x ⅞	VL-3350	....

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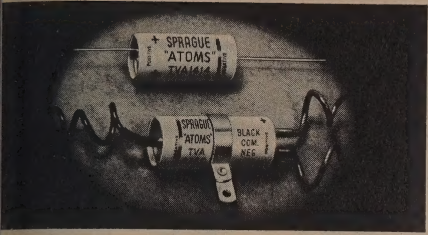
SPRAGUE CAPACITORS

ATOM ELECTROLYTICS



- The Smallest Dependable Standard Tubular—Designed for 85°C (185°F) Operation in Voltages to 475 WVDC
- Whether For AC-DC Sets, Auto Radios, Home Radio-phono Combinations, Or TV Sets, The SPRAGUE Line Will Handle All Your Replacement Requirements—No Dual Inventory Problems
- Have Low Leakage And Long Shelf Life
- Will Withstand High Temperatures, High Ripple Currents, High Surge Voltages
- Metal Case Construction with Outer Kraftboard Insulating Case Except as Noted by † Sign

WVDC	Diam. x Length*	Cat. No.	Net
SINGLE UNITS			
6	⅜ x 1¼	TVA-1100	$ .57
6	½ x 1⅛	TVA-1101	.72
6	⅝ x 1 7/16	TVA-1102	.81
6	⅝ x 2 3/16	TVA-1103	.93
6	¾ x 2 3/16	TVA-1104	1.14
6	13/16 x 2 11/16	TVA-1105	1.26
6	13/16 x 2 15/16	TVA-1106	1.38
12	9/16 x 1 3/16	TVA-1130	.72
12	⅝ x 1 11/16	TVA-1131	.87
12	¾ x 1 11/16	TVA-1132	1.02
12	13/16 x 2 3/16	TVA-1133	1.35
15	⅝ x 1 3/16	TVA-1160	.75
15	⅝ x 1 11/16	TVA-1161	.93
15	11/16 x 2 3/16	TVA-1162	1.05
15	⅞ x 2 3/16	TVA-1163	1.38
25	⅜ x 1¼	TVA-1201	.54
25	⅜ x 1¼	TVA-1203	.60
25	⅜ x 1¼	TVA-1204	.60
25	⅜ x 1¼	TVA-1205	.60
25	9/16 x 1 3/16	TVA-1206	.66
25	9/16 x 1 11/16	TVA-1207	.81
25	¾ x 1 11/16	TVA-1208	1.02
25	⅞ x 2 3/16	TVA-1209	1.38
50	⅜ x 1¼	TVA-1300	.54
50	⅜ x 1¼	TVA-1301	.54
50	⅜ x 1¼	TVA-1303	.60
50	⅜ x 1¼	TVA-1304	.60
50	7/16 x 1⅜	TVA-1305.5	.60
50	7/16 x 1⅜	TVA-1306	.63
50	9/16 x 1 11/16	TVA-1308	.72
50	11/16 x 1 11/16	TVA-1310	.84
50	¾ x 1 11/16	TVA-1311	.93
50	15/16 x 1 11/16	TVA-1312	1.05
50	1 x 1 15/16	TVA-1315	1.44
150	⅜ x 1¼	TVA-1402	.60
150	⅜ x 1¼	TVA-1403	.60
150	⅜ x 1¾	TVA-1405	.63
150	⅜ x 1¾	TVA-1406	.63
150	½ x 1⅝	TVA-1407	.66
150	9/16 x 1 11/16	TVA-1409	.69
150	9/16 x 1 11/16	TVA-1410	.72
150	⅝ x 1 11/16	TVA-1411	.75
150	⅝ x 1 11/16	TVA-1412	.78
150	¾ x 1 11/16	TVA-1413	.81
150	13/16 x 1 11/16	TVA-1414	.84
150	⅞ x 1 11/16	TVA-1415	.90
150	⅞ x 1 15/16	TVA-1418	.96
150	⅞ x 2 3/16	TVA-1420	1.05
150	1 x 2 3/16	TVA-1422	1.14
150	1 x 3 13/16	TVA-1423	1.32
150	1⅜ x 3⅞	TVA-1425†	1.53
200	1⅜ x 3⅜	TVA-1447	1.53
200	1⅜ x 3⅜	TVA-1480†	1.74
250	7/16 x 1⅝	TVA-1501	.60
250	½ x 1⅝	TVA-1503	.69

µF	WVDC	Diam. x Length*	Cat. No.	Net
10	250	9/16 x 1 11/16	TVA-1504	$ .72
12	250	9/16 x 1 11/16	TVA-1505	.75
16	250	⅝ x 1 11/16	TVA-1507	.78
20	250	11/16 x 1 11/16	TVA-1508	.87
30	250	11/16 x 2 3/16	TVA-1510	.81
40	250	¾ x 2 3/16	TVA-1511	.93
50	250	¾ x 2 3/16	TVA-1512	1.02
60	250	13/16 x 2 3/16	TVA-1513	1.08
140	300	1⅜ x 3⅜	TVA-1575†	1.89
4	350	½ x 1⅝	TVA-1601	.63
8	350	⅝ x 1 11/16	TVA-1603	.72
10	350	11/16 x 1 11/16	TVA-1604	.75
12	350	11/16 x 1 11/16	TVA-1605	.78
16	350	¾ x 1 11/16	TVA-1607	.84
20	350	13/16 x 1 11/16	TVA-1608	.87
30	350	13/16 x 2 3/16	TVA-1610	.99
40	350	⅞ x 2 7/16	TVA-1611	1.05
60	350	1 x 2 7/16	TVA-1613	1.17
10	400NP	1 1/16 x 2 1/16	TVAN-1650	.90
1	450	7/16 x 1⅛	TVA-1700	.66
2	450	7/16 x 1⅝	TVA-1701	.66
4	450	9/16 x 1 11/16	TVA-1702	.69
8	450	11/16 x 1 11/16	TVA-1704	.75
10	450	11/16 x 1 11/16	TVA-1705	.78
12	450	¾ x 1 11/16	TVA-1706	.81
16	450	¾ x 2 3/16	TVA-1708	.84
20	450	¾ x 2 3/16	TVA-1709	.93
30	450	⅞ x 2 3/16	TVA-1711	1.02
40	450	⅞ x 2 11/16	TVA-1712	1.08
50	450	⅞ x 3 3/16	TVA-1713	1.26
60	450	1 x 3 11/16	TVA-1714	1.41
80	450	1 x 3 11/16	TVA-1716	1.68
100	450	1⅜ x 4⅛	TVA-1718†	1.92
10	475	¾ x 1 15/16	TVA-1802	.81
20	475	⅞ x 2 7/16	TVA-1804	.96
8	500	⅞ x 1 11/16	TVA-1902	.78
10	500	⅞ x 1 11/16	TVA-1903	.81
16	500	15/16 x 2 3/16	TVA-1905	.90
20	500	1 x 2 3/16	TVA-1906	.96
8	600	1 x 3 1/16	TVA-1962	1.71
10	600	1 x 3 1/16	TVA-1963	1.77
16	600	1 x 4 1/16	TVA-1965	2.07
20	600	1 x 4 1/16	TVA-1966	2.13

DUAL UNITS (COMMON NEGATIVE — 3 LEADS)

µF	WVDC	Diam. x Length*	Cat. No.	Net
10-10	25-25	⅞ x 1 7/16	TVA-2210	$ .84
10-10	50-50	⅞ x 1 7/16	TVA-2315	.84
8-8	150-150	⅞ x 1 7/16	TVA-2415	.90
16-16	150-150	⅞ x 1 7/16	TVA-2420	1.08
20-12	150-150	⅞ x 1 7/16	TVA-2425	.96
20-20	150-150	⅞ x 1 7/16	TVA-2428	.99
30-20	150-150	⅞ x 1 11/16	TVA-2421	1.02
30-30	150-150	⅞ x 1 11/16	TVA-2434	1.08
40-20	150-150	⅞ x 1 11/16	TVA-2438	1.05
40-30	150-150	⅞ x 1 15/16	TVA-2442	1.08
40-40	150-150	⅞ x 1 15/16	TVA-2445	1.11
50-30	150-150	⅞ x 1 15/16	TVA-2450	1.17
50-50	150-150	⅞ x 2 7/16	TVA-2453	1.26

1/16" to diameter and ⅛" to length to allow for outer insulating tube on all units except those marked (†) which are of Kraftboard construction.

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All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

ATOM ELECTROLYTICS, continued

µF	WVDC	Diam. x Length*	Cat. No.	Net
80-30	150-150	7/8 x 2 7/16	TVA-2460	$1.32
80-40	150-150	7/8 x 2 7/16	TVA-2461	1.32
80-50	150-150	7/8 x 2 15/16	TVA-2462	1.41
100-100	150-150	1 3/8 x 3 3/8	TVA-2464†	1.92
200-5	150-150	1 x 3 7/8	TVA-2467†	1.59
250-50	150-150	1 3/8 x 3 1/8	TVA-2473	1.86
20-20	250-250	7/8 x 1 15/16	TVA-2515	1.11
40-10	250-250	7/8 x 2 3/16	TVA-2520	1.23
80-10	250-250	15/16 x 3 3/16	TVA-2525	1.53
120-80	250-250	1 3/8 x 3 7/8	TVA-2535†	2.40
140-5	350-350	1 1/4 x 3 7/8	TVA-2640†	2.49
80-100	450-50	1 3/8 x 4 3/8	TVA-2711†	2.22
8-8	450-450	7/8 x 1 11/16	TVA-2720	1.02
10-10	450-450	7/8 x 1 15/16	TVA-2722	1.11
16-8	450-450	7/8 x 2 3/16	TVA-2725	1.20
20-20	450-450	7/8 x 2 15/16	TVA-2730	1.50
30-30	450-450	1 x 3 3/16	TVA-2735	1.80
40-40	450-450	1 x 3 15/16	TVA-2740	2.04
50-30	450-450	1 x 3 15/16	TVA-2743	2.04

DUAL UNITS (SEPARATE SECTIONS — 4 LEADS)

µF	WVDC	Diam. x Length*	Cat. No.	Net
20-20	150-150	1 x 2 3/8	TU-220 †	1.23
40-20	150-150	1 1/16 x 2 5/8	TU-420 †	1.32
16-16	250-250	1 x 2 7/8	TU-216 †	1.32
8-8	450-450	1 1/16 x 3 3/8	TU-88 †	1.29
16-16	450-450	1 3/8 x 3 1/8	TU-1616†	1.68
120-120	150-150	1 1/8 x 5	TU-2120	2.07

TRIPLE UNITS

µF	WVDC	Diam. x Length*	Cat. No.	Net
30-30-100	150-150-12	7/8 x 1 15/16	TVA-3419	1.38
20-20-20	150-150-25	7/8 x 1 7/16	TVA-3415	1.47
40-20-20	150-150-25	7/8 x 1 11/16	TVA-3422.9	1.53
40-30-20	150-150-25	7/8 x 1 15/16	TVA-3423	1.56
40-40-20	150-150-25	7/8 x 2 3/16	TVA-3425	1.59
40-40-100	150-150-25	7/8 x 2 7/16	TVA-3427	1.68
50-30-20	150-150-25	7/8 x 2 3/16	TVA-3430	1.59
50-30-100	150-150-25	7/8 x 2 7/16	TVA-3432	1.68

µF	WVDC	Diam. x Length	Cat. No.
50-30-200	150-150-25	1 x 2 3/16	TVA-3433
50-50-20	150-150-25	15/16 x 2 3/16	TVA-3436
80-20-100	150-150-25	1 1/4 x 2 7/8	TVA-3437†
80-40-20	150-150 25	1 x 1 15/16	TVA-3437.1
250-120-50	150-150-25	1 3/8 x 3 7/8	TVA-3437.6
20-20-20	150-150-150	7/8 x 1 11/16	TVA-3440
30-30-30	150-150-150	7/8 x 2 3/16	TVA-3444
40-30-20	150-150-150	7/8 x 2 3/16	TVA-3448
40-40-20	150-150-150	7/8 x 2 7/16	TVA-3450
40-40-40	150-150-150	1 x 2 7/16	TVA-3451
50-30-20	150-150-150	1 x 2 7/16	TVA-3453
80-40-20	150-150-150	1 x 2 15/16	TVA-3455
250-200-10	150-150-150	1 3/8 x 3 3/8	TVA-3460
80-10-100	300-250-50	1 3/8 x 3 3/8	TVA-3556†
120-40-10	300-300-250	1 1/4 x 3 1/8	TVA-3563†
140-5-200	350-350-200	1 1/2 x 5 1/8	TVA-3620†
5-80-40	450-400-400	1 3/8 x 4 1/8	TVA-3712†
12-12-20	450-450-25	1 x 1 15/16	TVA-3716
20-20-20	450-450-25	1 x 2 7/16	TVA-3718
40-40-20	450-450-25	1 x 3 15/16	TVA-3720

QUADRUPLE UNITS

µF	WVDC	Diam. x Length	Cat. No.
120-40-40-10	300-300-300-250	1 3/8 x 4 5/8	TVA-4584†
140-5-200-30	350-300-200-150	1 1/2 x 4 7/8	TVA-4576†
140-5-200-30	350-300-200-200	1 1/2 x 5 1/8	TVA-4607†
80-60-40-20	350-350-300-150	1 1/2 x 4 5/8	TVA-4618†
80-10-40-100	400-400-300-50	1 3/8 x 4 1/8	TVA-4659†
10-80-40-100	450-300-250-50	1 3/8 x 4 1/8	TVA-4705†
20-120-40-100	450-300-250-50	1 3/8 x 4 3/8	TVA-4706†
10-80-40-40	450-300-250-250	1 3/8 x 4 3/8	TVA-4708†
10-20-20-10	450-300-300-300	1 3/8 x 3 1/8	TVA-4712†
20-20-20-10	450-450-450-450	1 3/8 x 3 5/8	TVA-4742†
40-20-20-10	450-450-450-450	1 3/8 x 4 3/8	TVA-4748†
40-40-20-20	450-450-450-450	1 1/2 x 4 1/4	TVA-4750†

QUINTUPLE UNITS

µF	WVDC	Diam. x Length	Cat. No.
40-20-20-20-50	300-300-300-300-50	1 3/8 x 4	TVA-5100†

*Add 1/16" to diameter and 1/8" to length to allow for outer insulating tube on all units except those marked (†) which are of cardboard construction.

SPRAGUE
HLVB-2050
2000MFD-50V.D.C.
RED POS.
MADE IN U.S.A.

TYPE HLVB HIGH-MF ELECTROLYTICS

- Designed for low-voltage filter circuits.
- Large values of capacitance in relatively small physical size.
- Molded phenolic case for physical protection and moisture resistance. Assures long and dependable service life.
- Easily and securely mounted with hardware listed below.

µF	WVDC	Diam. x Length	Cat. No.	Net
500	6	1 7/16 x 2 3/4	HLVB-56	$1.83
1000	6	1 7/16 x 2 3/4	HLVB-106	2.04
1500	6	1 7/16 x 2 3/4	HLVB-156	2.16
2000	6	1 7/16 x 2 3/4	HLVB-206	2.28
4000	10	1 7/16 x 3 3/8	HLVB-4010	2.85
6000	10	1 7/16 x 3 3/8	HLVB-6010	4.50
10000	10	1 13/16 x 4 3/8	HLVB-10010	4.95
500	12	1 7/16 x 2 3/4	HLVB-512	1.92
1000	12	1 7/16 x 2 3/4	HLVB-1012	2.25
1500	12	1 7/16 x 2 3/4	HLVB-1512	2.37
2000	12	1 7/16 x 2 3/4	HLVB-2012	2.49
500	15	1 7/16 x 2 3/4	HLVB-515	1.95
1000	15	1 7/16 x 2 3/4	HLVB-1015	2.28
1500	15	1 7/16 x 2 3/4	HLVB-1515	2.40
2000	15	1 7/16 x 2 3/4	HLVB-2015	2.82
4000	15	1 7/16 x 4 3/8	HLVB-4015	4.26
6000	15	1 13/16 x 4 3/8	HLVB-6015	4.83
6000	20	2 1/16 x 4 3/8	HLVB-6020	5.19
500	25	1 7/16 x 2 3/4	HLVB-525	2.28
1000	25	1 7/16 x 2 3/4	HLVB-1025	2.91
2000	25	1 7/16 x 4 3/8	HLVB-2025	3.45
4000	25	1 13/16 x 4 3/8	HLVB-4025	4.77
500	50	1 7/16 x 3 3/8	HLVB-550	2.55
1000	50	1 13/16 x 3 3/8	HLVB-1050	4.20
2000	50	1 13/16 x 4 3/8	HLVB-2050	5.46
3000	50	1 13/16 x 4 3/8	HLVB-3050	6.90

µF	WVDC	Diam. x Length	Cat. No.
4000	50	2 1/16 x 4 3/8	HLVB-4050
1000	150	1 13/16 x 4 3/8	HLVB-10150
500	200	1 13/16 x 4 3/8	HLVB-5200

HLVB MOUNTING HARDWARE
HORIZONTAL "U" BRACKETS

Capacitor Size Dia. x Length	Cat. No.
1 7/16 x 2 3/4	ABB-1
1 7/16 x 3 3/8 1 13/16 x 3 3/8	ABB-2
1 13/16 x 4 3/8 2 1/16 x 4 3/8	ABB-3

END CAPS

Cap. Diam.	Cat. No.
1 7/16	ABC-2
1 13/16	ABC-4
2 1/16	ABC-6

VERTICAL MOUNTING CLAMPS

Cap. Diam.	Cat. No.
1 13/16	CMC-28A
2 1/16	CMC-32

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REM-14-6128

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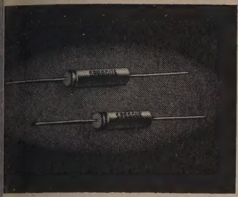
SPRAGUE CAPACITORS

TE LITTL-LYTIC® ELECTROLYTICS



- Ultra-Small — Excellent, Dependable Replacement Units for Transistorized Equipment Presently on the Market
- Reliability at Reasonable Prices
- All-Welded Construction — No Pressure Joints to Cause "Open" or Intermittent Circuits
- No Corrosion as with Competitive Units
- Extremely Low Leakage Current, Long Shelf Life
- Withstand Temperatures Up to 85°C (185°F)
- Furnished with Clear Plastic Outer Insulating Sleeves
- Packed 5 to a Handy Rigid Kleer Pak® Plastic Box

For Complete Technical Data, See Latest Sprague Engineering Bulletin 3110

D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	1 WVDC		
¼ x 11/16	TE-1010	....	$ .75
	3 WVDC		
¼ x 11/16	TE-1050	30D100A1	.75
¼ x 11/16	TE-1051	30D101A1	.75
¼ x 11/16	TE-1052	30D102A1	.75
¼ x 11/16	TE-1052.1	30D103A1	.75
¼ x 11/16	TE-1052.2	30D104A1	.75
¼ x 11/16	TE-1052.3	30D105A1	.75
¼ x 11/16	TE-1052.5	30D106A1	.75
¼ x 11/16	TE-1053	30D107A1	.75
¼ x 11/16	TE-1053.5	30D108A1	.75
¼ x 11/16	TE-1054	30D109A1	.75
¼ x 11/16	TE-1055	30D110A1	.75
¼ x 11/16	TE-1056	30D111A1	.75
¼ x 11/16	TE-1057	....	.75
¼ x 11/16	TE-1058	30D112A1	.75
5/16 x 11/16	TE-1059	30D113A1	.84
5/16 x 11/16	TE-1059.5	30D114A1	.84
⅜ x 11/16	TE-1060	....	.84
⅜ x 11/16	TE-1061	30D115A1	.87
⅜ x 13/16	TE-1064	30D116A1	.90
⅜ x 15/16	TE-1065	30D117A1	.96
⅜ x 15/16	TE-1066	30D118A1	.99
⅜ x 1¼	TE-1067	30D119A1	1.02
⅜ x 1½	TE-1068	30D120A1	1.05
	6 WVDC		
¼ x 11/16	TE-1080	30D121A1	.75
¼ x 11/16	TE-1081	30D122A1	.75
¼ x 11/16	TE-1082	30D123A1	.75
¼ x 11/16	TE-1083	30D124A1	.75
¼ x 11/16	TE-1084	30D125A1	.75
¼ x 11/16	TE-1085	30D126A1	.75
¼ x 11/16	TE-1086	30D127A1	.81
¼ x 11/16	TE-1087	30D128A1	.81
¼ x 11/16	TE-1089	30D129A1	.81
¼ x 11/16	TE-1090	30D130A1	.81
¼ x 11/16	TE-1091	30D131A1	.81
¼ x 11/16	TE-1092	....	.84
¼ x 11/16	TE-1093	30D132A1	.84
¼ x 11/16	TE-1095	....	.84
5/16 x 11/16	TE-1100	30D133A1	.84
5/16 x 11/16	TE-1101	....	.84
⅜ x 11/16	TE-1101.5	30D134A1	.87
⅜ x 11/16	TE-1102	30D135A1	.90
⅜ x 15/16	TE-1103	30D136A1	.93
⅜ x 1¼	TE-1104	30D137A1	.96
⅜ x 1¼	TE-1105	30D138A1	1.02
⅜ x 1½	TE-1106	30D139A1	1.08

µF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		10 WVDC		
10	¼ x 11/16	TE-1114	....	$ .81
15	¼ x 11/16	TE-1116	....	.81
25	¼ x 11/16	TE-1118	....	.81
50	⅜ x 11/16	TE-1119	....	.90
100	⅜ x 13/16	TE-1119.3	....	1.02
200	⅜ x 1¼	TE-1119.6	....	1.20
		12 WVDC		
1	¼ x 11/16	TE-1120	30D140A1	.75
2	¼ x 11/16	TE-1121	30D141A1	.75
3	¼ x 11/16	TE-1122	30D142A1	.75
4	¼ x 11/16	TE-1123	30D143A1	.75
5	¼ x 11/16	TE-1127	30D144A1	.81
6	¼ x 11/16	TE-1127.1	30D145A1	.81
8	¼ x 11/16	TE-1127.3	30D146A1	.81
10	¼ x 11/16	TE-1128	30D147A1	.81
15	¼ x 11/16	TE-1129	30D148A1	.84
20	¼ x 11/16	TE-1130	30D149A1	.84
25	¼ x 11/16	TE-1131	30D150A1	.84
35	5/16 x 11/16	TE-1132	30D151A1	.87
50	⅜ x 11/16	TE-1133	30D152A1	.93
75	⅜ x 13/16	TE-1134	30D153A1	.99
100	⅜ x 13/16	TE-1135	30D154A1	1.05
150	⅜ x 1¼	TE-1136	30D155A1	1.14
200	⅜ x 1¼	TE-1137	30D156A1	1.23
250	⅜ x 1½	TE-1138	30D157A1	1.32
		15 WVDC		
1	¼ x 11/16	TE-1148	30D158A1	.75
2	¼ x 11/16	TE-1149	30D159A1	.75
3	¼ x 11/16	TE-1150	30D160A1	.75
4	¼ x 11/16	TE-1151	30D161A1	.78
5	¼ x 11/16	TE-1152	30D162A1	.84
6	¼ x 11/16	TE-1153	30D163A1	.84
8	¼ x 11/16	TE-1154	30D164A1	.84
10	¼ x 11/16	TE-1155	30D165A1	.84
15	¼ x 11/16	TE-1156	30D166A1	.87
20	¼ x 11/16	TE-1157	30D167A1	.87
25	5/16 x 11/16	TE-1157.1	30D168A1	.87
30	5/16 x 11/16	TE-1158	....	.90
35	⅜ x 11/16	TE-1159	30D169A1	.93
50	⅜ x 11/16	TE-1160	30D170A1	.96
75	⅜ x 13/16	TE-1161	30D171A1	1.02
100	⅜ x 15/16	TE-1162	30D172A1	1.08
150	⅜ x 1¼	TE-1163	30D173A1	1.17
200	⅜ x 1½	TE-1164	30D174A1	1.26

µF	D. x L.*	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		25 WVDC		
1	¼ x 11/16	TE-1200	30D175A1	$ .75
2	¼ x 11/16	TE-1201	30D176A1	.78
3	¼ x 11/16	TE-1201.1	30D177A1	.78
4	¼ x 11/16	TE-1201.2	30D178A1	.78
5	¼ x 11/16	TE-1202	30D179A1	.84
6	¼ x 11/16	TE-1203	30D180A1	.84
8	¼ x 11/16	TE-1203.5	30D181A1	.87
10	¼ x 11/16	TE-1204	30D182A1	.87
15	5/16 x 11/16	TE-1205	30D183A1	.87
20	⅜ x 11/16	TE-1206	....	.90
25	⅜ x 11/16	TE-1207	30D184A1	.93
35	⅜ x 13/16	TE-1208	30D185A1	.99
50	⅜ x 15/16	TE-1209	30D186A1	1.08
75	⅜ x 1¼	TE-1210	30D187A1	1.17
100	⅜ x 1½	TE-1211	30D188A1	1.26
		50 WVDC		
1	¼ x 11/16	TE-1300	30D189A1	.78
2	¼ x 11/16	TE-1301	30D190A1	.81
3	¼ x 11/16	TE-1302	30D191A1	.81
4	¼ x 11/16	TE-1302.1	30D192A1	.81
5	¼ x 11/16	TE-1303	30D193A1	.87
6	5/16 x 11/16	TE-1303.1	30D194A1	.87
8	5/16 x 11/16	TE-1303.3	30D195A1	.90
10	5/16 x 11/16	TE-1304	30D196A1	.90
15	⅜ x 11/16	TE-1304.2	30D197A1	.90
20	⅜ x 13/16	TE-1305	30D198A1	.90
35	⅜ x 1¼	TE-1306	30D199A1	1.02
50	⅜ x 1½	TE-1307	30D200A1	1.11
		100 WVDC		
1	⅜ x 15/16	TE-1400	30D201A1	.81
2	⅜ x 15/16	TE-1401	30D202A1	.84
3	⅜ x 15/16	TE-1402	30D203A1	.84
4	⅜ x 15/16	TE-1403	30D204A1	.84
5	⅜ x 15/16	TE-1404	30D205A1	.90
6	⅜ x 15/16	TE-1405	30D206A1	.90
8	⅜ x 15/16	TE-1406	30D207A1	.93
10	⅜ x 15/16	TE-1407	30D208A1	.93
15	⅜ x 1¼	TE-1408	30D209A1	.93
20	⅜ x 1½	TE-1409	30D210A1	.96
		150 WVDC		
1	⅜ x 15/16	TE-1500	30D211A1	.84
2	⅜ x 15/16	TE-1501	30D212A1	.87
3	⅜ x 15/16	TE-1502	30D213A1	.87
4	⅜ x 15/16	TE-1503	30D214A1	.87
5	⅜ x 15/16	TE-1504	30D215A1	.93
6	⅜ x 1¼	TE-1505	30D216A1	.93
8	⅜ x 1¼	TE-1506	30D217A1	.96
10	⅜ x 1¼	TE-1507	30D218A1	.96
12	⅜ x 1½	TE-1508	30D219A1	.96

d 1/16" to dimensions to allow for insulating sleeve.

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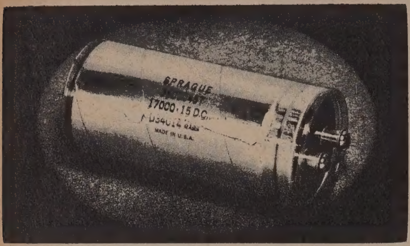
Net

SPRAGUE CAPACITORS

TYPE 36D POWERLYTIC® ALUMINUM ELECTROLYTIC

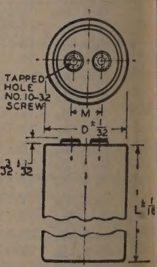


- For Maximum Capacitance in a Given Case Size.
- Especially Suitable for Transistorized Circuitry where High Capac tance is Required.
- Maximum Space Economy at Operating Temperatures Up To 65
- Low ESR and Leakage Currents. • Extremely Long Shelf Life.
- Uses Most Reliable Seal Developed by Sprague for Aluminum Ele trolytic Capacitors. Pressure-type Safety Vents Employing Silicon Rubber Are Used On All Cases.
- High Screw Insert Terminal, 9/32" high. • Plastic Outer Tub
- Superior Electrical and Life Characteristics Are Insured By Careful Raw Material Inspection, High Quality Contr Standards and Close Manufacturing Supervision. For Complete Technical Data, Consult Sprague Engineering Bulletin 3431

μF	Size Code	WVDC	Catalog No.	Net Ea. (1-24)
3600	A1	10	36D1026T	$ 3.309
7300	A2	10	36D1027T	3.915
11000	A3	10	36D1029T	4.458
27000	D2	10	36D1033T	8.610
2600	A1	15	36D1039T	3.318
5300	A2	15	36D1040T	3.927
8000	A3	15	36D1042T	4.482
17000	C3	15	36D1045T	7.380
20000	D2	15	36D1046T	8.670
30000	D3	15	36D1048T	10.740
35000	D4	15	36D1049T	12.060
1500	A1	25	36D1065T	3.333
3100	A2	25	36D1066T	3.945
4700	A3	25	36D1068T	4.512
7000	C2	25	36D1070T	6.135
10000	C3	25	36D1071T	7.395
17000	D3	25	36D1074T	10.800
27000	E3	25	36D1076T	15.420
32000	E4	25	36D1077T	17.040
23000	E3	30	36D1089T	15.540
27000	E4	30	36D1090T	17.070
2000	A3	40	36D1094T	4.560
4000	C2	40	36D1096T	6.330
6000	C3	40	36D1097T	7.440
10000	D3	40	36D1100T	10.935
12000	D4	40	36D1101T	12.330
750	A1	50	36D1104T	3.360
1500	A2	50	36D1105T	3.993
2200	A3	50	36D1107T	4.593
3300	C2	50	36D1109T	6.210
5000	C3	50	36D1110T	7.470
8600	D3	50	36D1113T	11.010

μF	Size Code	WVDC	Catalog No.	Net E (1-24
2000	C2	75	36D1122T	$ 6.3
6200	D4	75	36D1127T	12.51
1000	A3	100	36D1133T	4.6
4000	D3	100	36D1139T	11.1
900	A3	150	36D1146T	4.67
1300	C2	150	36D1147T	6.37
2000	C3	150	36D1148T	7.59
3400	D3	150	36D1150T	11.17
5300	E3	150	36D1151T	16.14
400	A2	200	36D1154T	4.11
600	A3	200	36D1156T	4.11
1600	D2	200	36D1159T	9.24
530	A3	250	36D1166T	4.76
1100	C3	250	36D1168T	7.63
240	A2	300	36D1174T	4.15
190	A2	350	36D1184T	4.17
1000	D3	350	36D1190T	11.32
330	C3	450	36D1208T	7.68
860	E3	450	36D1211T	16.56

Size Code	Diameter	Length
A1	1 7/16	2 1/2
A2	1 7/16	3 1/2
A3	1 7/16	4 1/2
C2	2 1/16	3 1/2
C3	2 1/16	4 1/2
D2	2 9/16	3 1/2
D3	2 9/16	4 1/2
D4	2 9/16	5
E3	3 1/16	4 1/2
E4	3 1/16	5



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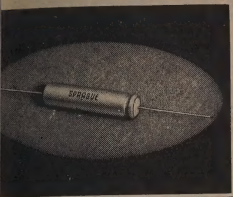
SPRAGUE CAPACITORS

TYPE 40D Miniature Extended-Life 85°C ELECTROLYTICS



- THE MOST RELIABLE TUBULAR ALUMINUM ELECTROLYTIC MANUFACTURED
- Premium quality. Service life of 10 years in actual circuit applications under typical operating conditions
- Special design and processing techniques result in ultra low leakage currents and high stability
- All critical terminations are welded to prevent open circuits even after extended service in the millivolt range
- Operating Temperature: —40°C to +85°C
- Units listed here have thermoplastic insulating sleeves; for rigid phenolic sleeve, change end of catalog number from A2 to A1; for bare metal tubes, delete last letter and digit
- Capacitance tolerance: —10, +100%
- Write for Engineering Bulletin No. 3205 to compare this outstanding capacitor with any other unit on the market.
- Prices available upon request.

3 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
	5/16 x 3/4	40D100A2
	5/16 x 3/4	40D101A2
	5/16 x 3/4	40D102A2
	5/16 x 3/4	40D103A2
	5/16 x 3/4	40D104A2
	5/16 x 3/4	40D105A2
	5/16 x 3/4	40D106A2
	5/16 x 3/4	40D107A2
	5/16 x 3/4	40D108A2
	5/16 x 3/4	40D109A2
	5/16 x 3/4	40D110A2
	3/8 x 3/4	40D111A2
	7/16 x 3/4	40D112A2
	7/16 x 3/4	40D113A2
	7/16 x 7/8	40D114A2
	7/16 x 1	40D115A2
	7/16 x 1 5/16	40D116A2
	7/16 x 1 5/16	40D117A2
	7/16 x 1 9/16	40D118A2
	7/16 x 1 9/16	40D119A2

6 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
	5/16 x 3/4	40D120A2
	5/16 x 3/4	40D121A2
	5/16 x 3/4	40D122A2
	5/16 x 3/4	40D123A2
	5/16 x 3/4	40D124A2
	5/16 x 3/4	40D125A2
	5/16 x 3/4	40D126A2
	5/16 x 3/4	40D127A2
	5/16 x 3/4	40D128A2
	3/8 x 3/4	40D129A2
25	3/8 x 3/4	40D130A2
35	7/16 x 3/4	40D131A2
50	7/16 x 3/4	40D132A2
75	7/16 x 7/8	40D133A2
100	7/16 x 1	40D134A2
150	7/16 x 1 5/16	40D135A2
175	7/16 x 1 5/16	40D136A2
200	7/16 x 1 9/16	40D137A2
250	7/16 x 1 9/16	40D138A2

12 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D139A2
2	5/16 x 3/4	40D140A2
3	5/16 x 3/4	40D141A2
4	5/16 x 3/4	40D142A2
5	5/16 x 3/4	40D143A2
6	5/16 x 3/4	40D144A2
8	5/16 x 3/4	40D145A2
10	5/16 x 3/4	40D146A2
15	5/16 x 3/4	40D147A2
20	3/8 x 3/4	40D148A2
25	3/8 x 3/4	40D149A2
35	7/16 x 3/4	40D150A2
50	7/16 x 7/8	40D151A2
75	7/16 x 1	40D152A2
100	7/16 x 1	40D153A2
150	7/16 x 1 5/16	40D154A2
200	7/16 x 1 9/16	40D155A2

15 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D156A2
2	5/16 x 3/4	40D157A2
3	5/16 x 3/4	40D158A2
4	5/16 x 3/4	40D159A2
5	5/16 x 3/4	40D160A2
6	5/16 x 3/4	40D161A2
8	5/16 x 3/4	40D162A2
10	5/16 x 3/4	40D163A2
15	3/8 x 3/4	40D164A2
20	7/16 x 3/4	40D165A2
25	7/16 x 3/4	40D166A2
35	7/16 x 7/8	40D167A2
50	7/16 x 7/8	40D168A2
75	7/16 x 1	40D169A2
100	7/16 x 1 5/16	40D170A2
150	7/15 x 1 9/16	40D171A2

25 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D172A2
2	5/16 x 3/4	40D173A2
3	5/16 x 3/4	40D174A2
4	5/16 x 3/4	40D175A2
5	5/16 x 3/4	40D176A2
6	3/8 x 3/4	40D177A2
8	3/8 x 3/4	40D178A2
10	7/16 x 3/4	40D179A2
15	7/16 x 3/4	40D180A2
20	7/16 x 7/8	40D181A2
25	7/16 x 1	40D182A2
35	7/16 x 1	40D183A2
50	7/16 x 1 5/16	40D184A2
75	7/16 x 1 9/16	40D185A2

50 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	5/16 x 3/4	40D186A2
2	3/8 x 3/4	40D187A2
3	3/8 x 3/4	40D188A2
4	7/16 x 3/4	40D189A2
5	7/16 x 3/4	40D190A2
6	7/16 x 3/4	40D191A2
8	7/16 x 7/8	40D192A2
10	7/16 x 7/8	40D193A2
15	7/16 x 1	40D194A2
20	7/16 x 1 5/16	40D195A2
25	7/16 x 1 9/16	40D196A2
30	7/16 x 1 9/16	40D197A2

100 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D198A2
2	7/16 x 1	40D199A2
3	7/16 x 1	40D200A2
4	7/16 x 1	40D201A2
5	7/16 x 1	40D202A2
6	7/16 x 1	40D203A2
8	7/16 x 1	40D204A2
10	7/16 x 1 5/16	40D205A2
15	7/16 x 1 9/16	40D206A2
18	7/16 x 1 9/16	40D207A2

150 WORKING VOLTS D-C

µF	D. x L.	Catalog Number
1	7/16 x 1	40D208A2
2	7/16 x 1	40D209A2
3	7/16 x 1	40D210A2
4	7/16 x 1	40D211A2
5	7/16 x 1	40D212A2
6	7/16 x 1 5/16	40D213A2
8	7/16 x 1 5/16	40D214A2
10	7/16 x 1 9/16	40D215A2

CAPACITOR HARDWARE

Sprague Mounting Clamps and Straps Provide Quick, Dependable Means for Securing a Wide Variety of Capacitors and Resistors to a Mounting Surface

All Clamps and Straps are Made from Plated Steel

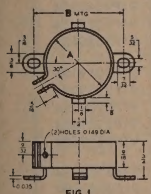


FIG. 1

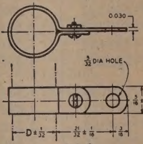


FIG. 3

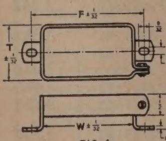


FIG. 4

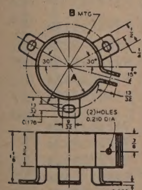


FIG. 2

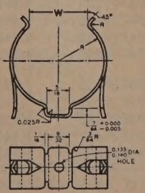


FIG. 5

VERTICAL MOUNTING CLAMPS FOR CYLINDRICAL CAPACITORS

Cat. No.	A Dia.	B Mounting	Figure No.	Net Price
CMC-16	1	1 7/16	1	$.15
CMC-20	1 1/4	1 11/16	1	.15
CMC-22	1 3/8	1 25/32	1	.15
CMC-24	1 1/2	1 15/16	1	.18
CMC-28	1 3/4	2 3/16	1	$.18
CMC-28A	1 3/4	2 3/16	2	.18
CMC-32	2	2 1/2	2	.36
CMC-40	2 1/2	3	2	.36

WRAP AROUND CLAMPS FOR RECTANGULAR CAPACITORS

Cat. No.	Dimensions T	W	F	Fig. No.	Net Price
RMC-17	1 1/16	1 13/16	2 1/4	4	$.30
RMC-19	1 3/16	2 1/2	3	4	.30
RMC-20	1 1/4	3 3/4	4 3/8	4	.30
RMC-28	1 3/4	3 3/4	4 3/8	4	.30
RMC-36	2 1/4	3 3/4	4 3/8	4	$.33
RMC-40	2 1/2	3 3/4	4 3/8	4	.33
RMC-51	3 3/16	3 3/4	4 3/8	4	.36
RMC-73	4 9/16	3 3/4	4 3/8	4	.39

MOUNTING STRAPS FOR TUBULAR CAPACITORS

Catalog No.	Tube Diameter	Figure No.	Net Price
TMS-4	1/4	3	$.04
TMS-5	5/16	3	.04
TMS-6	3/8	3	0.4
TMS-7	7/16	3	.04
TMS-8	1/2	3	.04
TMS-9	9/16	3	.04
TMS-10	5/8	3	.04
TMS-11	11/16	3	.04
TMS-12	3/4	3	.04
TMS-13	13/16	3	.04
TMS-14	7/8	3	$.04
TMS-15	15/16	3	.04
TMS-16	1	3	.06
TMS-17	1 1/16	3	.06
TMS-18	1 1/8	3	.06
TMS-19	1 3/16	3	.06
TMS-20	1 1/4	3	.09
TMS-21	1 5/16	3	.09
TMS-22	1 3/8	3	.09

HORIZONTAL MOUNTING CLIPS FOR CYLINDRICAL CAPACITORS

Catalog No.	Capacitor Diameter	Figure No.	Net Price
UMC-6	3/8	5	$.04
UMC-8	1/2	5	.04
UMC-10	5/8	5	.04
UMC-12	3/4	5	.04
UMC-14	7/8	5	$.04
UMC-16	1	5	.06
UMC-22	1 3/8	5	.09

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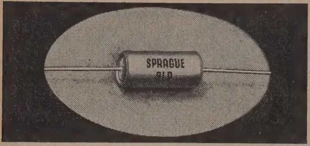
SPRAGUE CAPACITORS

VITAMIN Q® SUBMINIATURE PAPER CAPACITORS



These capacitors are the most widely used of all paper capacitors in commercial and military electronic equipment. Hermetically sealed in metal cases, they are electrically and mechanically designed to meet stringent operating requirements.

Impregnated with Vitamin Q, a substantially linear, controlled molecular weight, hydrocarbon polymer, which is exclusive with Sprague, these dependable capacitors are available for operation in two temperature ranges: −55°C to +85°C and −55°C to +125°C. Because of their Vitamin Q impregnation, these subminiature capacitors have a higher insulation resistance and longer life than compa units with ordinary oils.

Sprague Subminiature paper capacitors exceed the formance requirements of military specification MIL-C A limited number of the ratings shown here are listed i military specification and should be ordered by their MIL designation where equipment specifications so require. page after next.)

Listed below are the most popular insulated section grounded case) capacitors. For technical data on these other types, ratings, and tolerances, as well as on impregnated units for absolute minimum size, refer tc latest issue of Engineering Bulletin 2110.

For prices on quantities from 10 to 499, see your Spr Industrial Distributor.

CHOICE OF INSERTED TAB OR EXTENDED FOIL CONSTRUCTION

In the past, inserted tab capacitors have not been recommended for low-voltage applications (e.g., below 10 volts) but recent improvements in design now make it possible to recommend them for operation at all voltages from 1 to rated, in nearly all applications.

From the application standpoint, the principal difference between the two construction types is that, at resonance, losses are likely to be lower in the extended foil type. Th because the resistive component of impedance is likely t higher at resonance in the inserted tab type of construc Unless unusual circuit requirements make the losses at r nance a critical factor, the inserted tab construction is re mended, primarily because of the smaller size of the capa roll.

TYPE 91P, INSERTED TAB CONSTRUCTION, 85°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic slee	
µF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1
.001	100	.175 x ¾	91P10201S2	$1.440	91P10201S4	$1.504	91P10291S2	$1.584	91P10291S4	$1.64
	200	.235 x ¾	91P10202S2	1.360	91P10202S4	1.424	91P10292S2	1.496	91P10292S4	1.56
	300	.235 x ¾	91P10203S2	1.380	91P10203S4	1.444	91P10293S2	1.518	91P10293S4	1.58
	400	.235 x ¾	91P10204S2	1.400	91P10204S4	1.464	91P10294S2	1.540	91P10294S4	1.60
	600	.235 x ¾	91P10206S2	1.420	91P10206S4	1.484	91P10296S2	1.562	91P10296S4	1.62
.0015	100	.175 x ¾	91P15201S2	1.440	91P15201S4	1.504	91P15291S2	1.584	91P15291S4	1.64
	200	.235 x ¾	91P15202S2	1.360	91P15202S4	1.424	91P15292S2	1.496	91P15292S4	1.56
	300	.235 x ¾	91P15203S2	1.380	91P15203S4	1.444	91P15293S2	1.518	91P15293S4	1.58
	400	.235 x ¾	91P15204S2	1.400	91P15204S4	1.464	91P15294S2	1.540	91P15294S4	1.60
	600	.235 x ¾	91P15206S2	1.420	91P15206S4	1.484	91P15296S2	1.562	91P15296S4	1.62
.0022	100	.175 x ¾	91P22201S2	1.440	91P22201S4	1.504	91P22291S2	1.584	91P22291S4	1.64
	200	.235 x ¾	91P22202S2	1.360	91P22202S4	1.424	91P22292S2	1.496	91P22292S4	1.56
	300	.235 x ¾	91P22203S2	1.380	91P22203S4	1.444	91P22293S2	1.518	91P22293S4	1.58
	400	.235 x ¾	91P22204S2	1.400	91P22204S4	1.464	91P22294S2	1.540	91P22294S4	1.604
	600	.235 x ¾	91P22206S2	1.420	91P22206S4	1.484	91P22296S2	1.562	91P22296S4	1.626
.0033	100	.175 x ¾	91P33201S2	1.440	91P33201S4	1.504	91P33291S2	1.584	91P33291S4	1.648
	200	.235 x ¾	91P33202S2	1.360	91P33202S4	1.424	91P33292S2	1.496	91P33292S4	1.560
	300	.235 x ¾	91P33203S2	1.380	91P33203S4	1.444	91P33293S2	1.418	91P33293S4	1.582
	400	.235 x ¾	91P33204S2	1.400	91P33204S4	1.464	91P33294S2	1.540	91P33294S4	1.604
	600	.235 x ¾	91P33206S2	1.420	91P33206S4	1.484	91P33296S2	1.562	91P33296S4	1.626
.0047	100	.175 x ¾	91P47201S2	1.480	91P47201S4	1.544	91P47291S2	1.628	91P47291S4	1.692
	200	.235 x ¾	91P47202S2	1.360	91P47202S4	1.424	91P47292S2	1.496	91P47292S4	1.560
	300	.235 x ¾	91P47203S2	1.380	91P47203S4	1.444	91P47293S2	1.518	91P47293S4	1.582
	400	235 x ¾	91P47204S2	1.400	91P47204S4	1.464	91P47294S2	1.540	91P47294S4	1.604
	600	.235 x ¾	91P47206S2	1.420	91P47206S4	1.484	91P47296S2	1.562	91P47296S4	1.626
.0068	100	.175 x ¾	91P68201S2	1.480	91P68201S4	1.554	91P68291S2	1.628	91P68291S4	1.692
	200	.235 x ¾	91P68202S2	1.360	91P68202S4	1.424	91P68292S2	1.496	91P68292S4	1.560
	300	.235 x ¾	91P68203S2	1.380	91P68203S4	1.444	91P68293S2	1.518	91P68293S4	1.582
	400	.235 x ¾	91P68204S2	1.400	91P68204S4	1.464	91P68294S2	1.540	91P68294S4	1.604
	600	.235 x ¾	91P68206S2	1.420	91P68206S4	1.484	91P68296S2	1.562	91P68296S4	1.626

*For Style 4 units add .0625″ to diameter and 1⁄16″ to length.

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REM-18-6128

All prices and sizes subject to change without not

SPRAGUE CAPACITORS

E 91P, continued

WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
		Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
100	.175 x ¾	91P10301S2	$1.480	91P10301S4	$1.544	91P10391S2	$1.628	91P10391S4	$1.692
200	.235 x ¾	91P10302S2	1.380	91P10302S4	1.444	91P10392S2	1.518	91P10392S4	1.582
300	.235 x ¾	91P10303S2	1.400	91P10303S4	1.464	91P10393S2	1.540	91P10393S4	1.604
400	.235 x ¾	91P10304S2	1.440	91P10304S4	1.464	91P10394S2	1.540	91P10394S4	1.604
600	.312 x ⅞	91P10306S2	1.440	91P10306S4	1.504	91P10396S2	1.584	91P10396S4	1.648
100	.175 x ¾	91P15301S2	1.480	91P15301S4	1.544	91P15391S2	1.628	91P15391S4	1.692
200	.235 x ¾	91P15302S2	1.380	91P15302S4	1.444	91P15392S2	1.518	91P15392S4	1.582
300	.235 x ¾	91P15303S2	1.400	91P15303S4	1.464	91P15393S2	1.540	91P15393S4	1.604
400	.312 x ⅞	91P15304S2	1.440	91P15304S4	1.504	91P15394S2	1.584	91P15394S4	1.648
600	.312 x ⅞	91P15306S2	1.480	91P15306S4	1.544	91P15396S2	1.628	91P15396S4	1.692
100	.195 x ¾	91P22301S2	1.480	91P22301S4	1.544	91P22391S2	1.628	91P22391S4	1.692
200	.235 x ¾	91P22302S2	1.380	91P22302S4	1.444	19P22392S2	1.518	91P22392S4	1.582
300	.312 x ⅞	91P22303S2	1.480	91P22303S4	1.544	91P22393S2	1.628	91P22393S4	1.692
400	.312 x ⅞	91P22304S2	1.500	91P22304S4	1.564	91P22394S2	1.650	91P22394S4	1.714
600	.312 x ⅞	91P22306S2	1.520	91P22306S4	1.584	91P22396S2	1.672	91P22396S4	1.736
100	.235 x ¾	91P33301S2	1.440	91P33301S4	1.504	91P33391S2	1.584	91P33391S4	1.648
200	.312 x ⅞	91P33302S2	1.480	91P33302S4	1.544	91P33392S2	1.628	91P33392S4	1.648
300	.312 x ⅞	91P33303S2	1.480	91P33303S4	1.544	91P33393S2	1.628	91P33393S4	1.692
400	.312 x ⅞	91P33304S2	1.500	91P33304S4	1.564	91P33394S2	1.650	91P33394S4	1.714
600	.400 x ⅞	91P33306S2	1.560	91P33306S4	1.632	91P33396S2	1.716	91P33396S4	1.942
100	.312 x ⅞	91P47301S2	1.460	91P47301S4	1.524	91P47391S2	1.606	91P47391S4	1.670
200	.312 x ⅞	91P47302S2	1.480	91P47302S4	1.544	91P47392S2	1.628	91P47392S4	1.648
300	.312 x ⅞	91P47303S2	1.520	91P47303S4	1.584	91P47393S2	1.672	91P47393S4	1.736
400	.400 x ⅞	91P47304S2	1.540	91P47304S4	1.612	91P47394S2	1.694	91P47394S4	1.766
600	.400 x 1⅜	91P47306S2	1.560	91P47306S4	1.632	91P47396S2	1.716	91P47396S4	1.788
100	.312 x ⅞	91P68301S2	1.460	91P68301S4	1.524	91P68391S2	1.606	91P68391S4	1.670
200	.312 x ⅞	91P68302S2	1.480	91P68302S4	1.544	91P68392S2	1.628	91P68392S4	1.648
300	.400 x ⅞	91P68303S2	1.560	91P68303S4	1.632	91P68393S2	1.716	91P68393S4	1.788
400	.400 x 1⅛	91P68304S2	1.600	91P68304S4	1.672	91P68394S4	1.694	91P68394S4	1.832
600	.400 x 1⅛	91P68306S2	1.680	91P68306S4	1.752	91P68396S2	1.848	91P68396S4	1.880
100	.312 x ⅞	91P10401S2	1.480	91P10401S4	1.544	91P10491S2	1.628	91P10491S4	1.692
200	.400 x ⅞	91P10402S2	1.500	91P10402S4	1.572	91P10492S2	1.650	91P10492S4	1.722
300	.400 x 1⅛	91P10403S2	1.640	91P10403S4	1.712	91P10493S2	1.804	91P10493S4	1.876
400	.400 x 1⅛	91P10404S2	1.720	91P10404S4	1.792	91P10494S2	1.892	91P10494S4	1.964
600	.562 x 1⅛	91P10406S2	1.760	91P10406S4	1.856	91P10496S2	1.936	91P10496S4	2.032
100	.400 x ⅞	91P15401S2	1.580	91P15401S4	1.652	91P15491S2	1.738	91P15491S4	1.810
200	.400 x 1⅛	91P15402S2	1.600	91P15402S4	1.672	91P15492S2	1.760	91P15492S4	1.830
300	.400 x 1⅜	91P15403S2	1.720	91P15403S4	1.792	91P15493S2	1.892	91P15493S4	1.964
400	.562 x 1⅛	91P15404S2	1.880	91P15404S4	1.976	91P15494S2	2.068	91P15494S4	2.164
600	.562 x 1⅜	91P15406S2	1.900	91P15406S4	1.996	91P15496S2	2.090	91P15496S4	2.188
100	.400 x 1⅛	91P22401S2	1.640	91P22401S4	1.712	91P22491S2	1.804	91P22491S4	1.876
200	.400 x 1⅜	91P22402S2	1.800	91P22402S4	1.872	91P22492S2	1.980	91P22492S4	2.052
300	.562 x 1⅛	91P22403S2	1.840	91P22403S4	1.936	91P22493S2	2.024	91P22493S4	2.080
400	.562 x 1⅜	91P22404S2	2.000	91P22404S4	2.072	91P22494S2	2.200	91P22494S4	2.296
600	.562 x 1⅞	91P22406S2	2.040	91P22406S4	2.136	91P22496S2	2.244	91P22496S4	2.340
100	.400 x 1⅜	91P33401S2	1.880	91P33401S4	1.952	91P33491S2	2.068	91P33491S4	2.140
200	.562 x 1⅛	91P33402S2	1.920	91P33402S4	2.016	91P33492S2	2.112	91P33492S4	2.208
300	.562 x 1⅜	91P33403S2	2.000	91P33403S4	2.096	91P33493S2	2.200	91P33493S4	2.296
400	.562 x 1⅞	91P33404S2	2.020	91P33404S4	2.116	91P33494S2	2.222	91P33494S4	2.318
600	.670 x 1⅞	91P33406S2	2.240	91P33406S4	2.380	91P33496S2	2.464	91P33496S4	2.604
100	.562 x 1⅛	91P47401S2	2.000	91P47401S4	2.096	91P47491S2	2.200	91P47491S4	2.296
200	.562 x 1⅜	91P47402S2	2.040	91P47402S4	2.136	91P47492S2	2.244	91P47492S4	2.340
300	.562 x 1⅞	91P47403S2	2.440	91P47403S4	2.536	91P47493S2	2.684	91P47493S4	2.780
400	.670 x 1⅞	91P47404S2	2.464	91P47404S4	2.604	91P47494S2	2.710	91P47494S4	2.850
600	.750 x 2⅛	91P47406S2	2.680	91P47406S4	2.840	91P47496S2	2.948	91P47496S4	3.108
100	.562 x 1⅜	91P68401S2	2.080	91P68401S4	2.176	91P68491S2	2.288	91P68491S4	2.384
200	.562 x 1⅞	91P68402S2	2.116	91P68402S4	2.212	91P68492S2	2.328	91P68492S4	2.424
300	.670 x 1⅞	91P68403S2	2.600	91P68403S4	2.740	91P68493S2	2.860	91P68493S4	3.000
400	.750 x 2 1/16	91P68404S2	3.280	91P68404S4	3.440	91P68494S2	3.630	91P68494S4	3.768
600	1.000 x 1 13/16	91P68406S2	3.360	91P68406S4	3.520	91P68496S2	3.696	91P68496S4	3.852
100	.562 x 1⅞	91P10501S2	2.520	91P10501S4	2.560	91P10591S2	2.772	91P10591S4	2.816
200	.670 x 1⅞	91P10502S2	2.600	91P10502S4	2.740	91P10592S2	2.860	91P10592S4	3.000
300	.750 x 2 1/16	91P10503S2	3.360	91P10503S4	3.520	91P10593S2	3.696	91P10593S4	3.856
400	1.000 x 1 13/16	91P10504S2	3.400	91P10504S4	3.600	91P10594S2	3.740	91P10594S4	3.940

Style 4 units add .0625" to diameter and 1/16" to length.

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REM-19-6225

All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

TYPE 96P, INSERTED TAB CONTRUCTION, 125°C OPERATION

			Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic s	
µF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	N
.001	100	.175 x ¾	96P10201S2	$1.500	96P10201S4	$1.572	96P10291S2	$1.650	96P10201S4	$
	200	.235 x ¾	96P10202S2	1.440	96P10202S4	1.512	96P10292S2	1.584	96P10202S4	
	300	.235 x ¾	96P10203S2	1.480	96P10203S4	1.552	96P10293S2	1.628	96P10203S4	
	400	.235 x ¾	96P10204S2	1.500	96P10204S4	1.572	96P10294S2	1.650	96P10204S4	
	600	.235 x ¾	96P10206S2	1.520	96P10206S4	1.592	96P10296S2	1.672	96P10206S4	
.0012	600	.235 x 11/16	—	—	—	—	96P12296S2	1.672	96P12296S4	
.0015	100	.175 x ¾	96P15201S2	1.500	96P15201S4	1.572	96P15291S2	1.650	96P15291S4	
	200	.235 x ¾	96P15202S2	1.440	96P15202S4	1.512	96P15292S2	1.584	96P15292S4	
	300	.235 x ¾	96P15203S2	1.480	96P15203S4	1.552	96P15293S2	1.628	96P15293S4	
	400	.235 x ¾	96P15204S2	1.500	96P15204S4	1.572	96P15294S2	1.650	96P15294S4	
	600	.235 x ¾	96P15206S2	1.520	96P15206S4	1.592	96P15296S2	1.672	96P15296S4	
.0018	600	.235 x 11/16	—	—	—	—	96P18296S2	1.672	96P18296S4	1
.0022	100	.175 x ¾	96P22201S2	1.500	96P22201S4	1.572	96P22291S2	1.650	96P22201S4	1
	200	.235 x ¾	96P22202S2	1.440	96P22202S4	1.512	96P22292S2	1.584	96P22202S4	1
	300	.235 x ¾	96P22203S2	1.480	96P22203S4	1.552	96P22293S2	1.628	96P22203S4	1
	400	.235 x ¾	96P22204S2	1.500	96P22204S4	1.572	96P22294S2	1.650	96P22204S4	1
	600	.235 x ¾	96P22206S2	1.520	96P22206S4	1.592	96P22296S2	1.672	96P22026S4	1
.0027	600	.235 x 11/16	—	—	—	—	96P27296S2	1.716	96P27296S4	1
.0033	100	.175 x ¾	96P33201S2	1.500	96P33201S4	1.572	96P33291S2	1.650	96P33291S4	1
	200	.235 x ¾	97P33202S2	1.480	96P33202S4	1.552	96P33292S2	1.628	96P33292S4	1
	300	.235 x ¾	96P33203S2	1.480	96P33203S4	1.552	96P33293S2	1.628	96P33293S4	1
	400	.235 x ¾	96P33204S2	1.540	96P33204S4	1.612	96P33294S2	1.694	96P33294S4	1
	600	.235 x ¾	96P33206S2	1.560	96P33206S4	1.632	96P33296S2	1.716	96P33296S4	1
.0039	600	.235 x 11/16	—	—	—	—	96P39296S2	1.716	96P33296S4	1
.0047	100	.175 x ¾	96P47201S2	1.520	96P47201S4	1.592	96P47291S2	1.672	96P47291S4	1
	200	.235 x ¾	96P47202S2	1.480	96P47202S4	1.552	96P47292S2	1.628	96P47292S4	1
	300	.235 x ¾	96P47203S2	1.480	96P47203S4	1.552	96P47293S2	1.628	96P47293S4	1.
	400	.235 x ¾	96P47204S2	1.540	96P47204S4	1.612	96P47294S2	1.694	96P47294S4	1.
	600	.235 x ¾	96P47206S2	1.560	96P47206S4	1.632	96P47296S2	1.716	96P47296S4	1.
.0056	600	.235 x 11/16	—	—	—	—	96P56296S2	1.716	96P56296S4	1.
.0068	100	.175 x ¾	96P68201S2	1.520	96P68201S4	1.592	96P68291S2	1.672	96P68391S4	1.
	200	.235 x ¾	96P68202S2	1.480	96P68202S4	1.552	96P68292S2	1.628	96P68392S4	1.
	300	.235 x ¾	96P68203S2	1.520	96P68203S4	1.592	96P68293S2	1.672	96P68393S4	1.
	400	.235 x 8/4	96P68204S2	1.540	96P68204S4	1.612	96P68294S2	1.694	96P68394S4	1.
	600	.235 x ¾	96P68206S2	1.560	96P68206S4	1.632	96P68296S2	1.716	96P68396S4	1.
.0082	400	.400 x 1 5/16	—	—	—	—	96P82294S2	1.716	96P82294S4	1.
	600	.562 x 1 1/16	—	—	—	—	96P82296S2	1.760	96P82296S4	1.
.01	100	.175 x ¾	96P10301S2	1.520	96P10301S4	1.592	96P10391S2	1.672	96P10391S4	1.
	200	.235 x ¾	96P10302S2	1.480	96P10302S4	1.552	96P10392S2	1.628	96P10392S4	1.
	300	.235 x ¾	96P10303S2	1.520	96P10303S4	1.592	97P10393S2	1.672	96P10393S4	1.
	400	.235 x ¾	96P10304S2	1.560	96P10304S4	1.632	96P10394S2	1.716	96P10394S4	1.
	600	.312 x ⅞	96P10306S2	1.600	96P10306S4	1.680	96P10396S2	1.760	96P10396S4	1.8
.012	200	.235 x 11/16	—	—	—	—	96P12392S2	1.672	96P12392S4	1.7
	600	.312 x 11/16	—	—	—	—	96P12396S2	1.804	96P12396S4	1.8
.015	100	.175 x ¾	96P15301S2	1.520	96P15301S4	1.592	96P15391S2	1.672	96P15391S4	1.7
	200	.235 x ¾	96P15302S2	1.500	96P15302S4	1.572	96P15392S2	1.650	96P15392S4	1.7
	300	.235 x ¾	96P15303S2	1.540	96P15303S4	1.612	96P15393S2	1.694	96P15393S4	1.7
	400	.312 x ⅞	96P15304S2	1.600	96P15304S4	1.680	96P15394S2	1.750	96P15394S4	2.1
	600	.312 x ⅞	96P15306S2	1.640	96P15306S4	1.720	96P15396S2	1.804	96P15396S4	1.8
	1000	.400 x 11/16	—	—	—	—	96P153910S2	2.068	96P153910S4	2.1
.018	200	.235 x 11/16	—	—	—	—	96P18392S2	1.650	96P18392S4	1.7
	600	.312 x 13/16	—	—	—	—	96P18396S2	1.804	96P18396S4	1.8
	1000	.400 x 1 1/16	—	—	—	—	96P183910S2	2.068	96P183910S4	2.1
.022	100	.195 x ¾	96P22301S2	1.520	96P22301S4	1.592	96P22391S2	1.672	96P22391S4	1.7
	200	.235 x ¾	96P22302S2	1.500	96P22302S4	1.572	96P22392S2	1.650	96P22392S4	1.7
	300	.312 x ⅞	96P22303S2	1.600	96P22303S4	1.680	96P22393S2	1.760	96P22393S4	1.8
	400	.312 x ⅞	96P22304S2	1.620	96P22304S4	1.700	96P22394S2	1.782	96P22394S4	1.8
	600	.312 x ⅞	96P22306S2	1.640	96P22306S4	1.720	96P22396S2	1.804	96P22396S4	1.8
	1000	.400 x 1 1/16	—	—	—	—	96P223910S2	2.068	96P223910S4	2.1
.027	100	.235 x 1 11/16	—	—	—	—	96P27391S2	1.628	96P27391S4	1.7
	400	.312 x 13/16	—	—	—	—	96P27394S2	1.782	96P27394S4	1.8
	600	.312 x 13/16	—	—	—	—	96P27396S2	1.870	96P27396S4	1.9
	1000	.400 x 1 1/16	—	—	—	—	96P273910S2	2.134	96P273910S4	2.2
.033	100	.235 x ¾	96P33301S2	1.480	96P33301S4	1.552	96P33391S2	1.628	96P33391S4	1.70
	200	.312 x ⅞	96P33302S2	1.520	96P33302S4	1.600	96P33392S2	1.672	96P33392S4	1.7
	300	.312 x ⅞	96P33303S2	1.600	96P33303S4	1.680	96P33393S2	1.760	96P33393S4	1.84
	400	.312 x ⅞	96P33304S2	1.620	96P33304S4	1.700	96P33394S2	1.782	96P33394S4	1.86
	600	.400 x ⅞	96P33306S2	1.700	96P33306S4	1.788	96P33396S2	1.870	96P33396S4	1.95
	1000	.400 x 1 5/16	—	—	—	—	96P333910S2	2.134	96P333910S4	2.22
.039	200	.312 x 13/16	—	—	—	—	96P39392S2	1.716	96P39392S4	1.79
	400	.400 x 13/16	—	—	—	—	96P39394S2	1.848	96P39394S4	1.93
	600	.400 x 1 1/16	—	—	—	—	96P39396S2	1.892	96P39396S4	1.98
	1000	.562 x 1 1/16	—	—	—	—	96P393910S2	2.156	96P393910S4	2.28
.047	100	.312 x ⅞	96P47301S2	1.480	96P47301S4	1.560	96P47391S2	1.628	96P47391S4	1.70
	200	.312 x ⅞	96P47302S2	1.560	96P47302S4	1.640	96P47392S2	1.716	96P47392S4	1.79
	300	.312 x ⅞	96P47303S2	1.640	96P47303S4	1.720	96P473932S	1.804	96P47393S4	1.88
	400	.400 x ⅞	96P47304S2	1.680	96P47304S4	1.768	96P47394S2	1.848	96P47394S4	1.93
	600	.400 x 1⅛	96P47306S2	1.720	96P47306S4	1.808	96P47396S2	1.892	96P47396S4	1.98
	1000	.562 x 1 5/16	—	—	—	—	96P473910S2	2.156	96P473910S4	2.28
.056	200	.312 x 13/16	—	—	—	—	96P56392S2	1.760	96P56392S4	1.84
	400	.400 x 1 1/16	—	—	—	—	96P56394S2	1.892	96P56394S4	1.97
	600	.400 x 1 5/16	—	—	—	—	96P56396S2	1.980	96P56396S4	2.06
	1000	.562 x 1 5/16	—	—	—	—	96P563910S2	2.244	96P563910S4	2.37

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

TYPE 96P, continued

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*		Style 2 (bare metal case)		Style 4 (w/plastic sleeve)*	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
.068	100	.312 x ⅞	96P68301S2	$1.560	96P68301S4	$1.640	96P68391S2	$1.716	96P68391S4	$1.788
	200	.312 x ⅞	96P68302S2	1.600	96P68302S4	1.680	96P68392S2	1.760	96P68392S4	1.840
	300	.400 x ⅞	96P68303S2	1.680	96P68303S4	1.768	96P68393S2	1.848	96P68393S4	1.936
	400	.400 x 1⅛	96P68304S2	1.720	96P68304S4	1.808	96P68394S2	1.892	96P68394S4	1.980
	600	.400 x 1⅜	96P68306S2	1.800	96P68306S4	1.888	96P68396S2	1.980	96P68396S4	2.068
	1000	.562 x 1 5/16	———	———	———	———	96P683910S2	2.420	96P683910S4	2.372
.082	100	.312 x 13/16	———	———	———	———	96P82391S2	1.760	96P82391S4	1.840
	200	.400 x 13/16	———	———	———	———	96P82392S2	1.804	96P82392S4	1.892
	400	.400 x 1 5/16	———	———	———	———	96P82394S2	1.936	96P82394S4	2.024
	600	.562 x 1 1/16	———	———	———	———	96P82396S2	2.112	96P82396S4	2.240
	1000	.562 x 1 9/16	———	———	———	———	96P823910S2	2.376	96P823910S4	2.504
.1	100	.312 x ⅞	96P10401S2	1.600	96P10401S4	1.680	96P10491S2	1.760	96P10491S4	1.840
	200	.400 x ⅞	96P10402S2	1.640	96P10402S4	1.728	96P10492S2	1.804	96P10492S4	1.892
	300	.400 x 1⅛	96P10403S2	1.680	96P10403S4	1.768	96P10493S2	1.848	96P10493S4	1.936
	400	.400 x 1⅜	96P10404S2	1.760	96P10404S4	1.848	96P10494S2	1.936	96P10494S4	2.024
	600	.562 x 1⅛	96P10406S2	1.920	96P10406S4	2.048	96P10496S2	2.112	96P10496S4	2.240
	1000	.562 x 1 9/16	———	———	———	———	96P104910S2	2.376	96P104910S4	2.504
.12	100	.400 x 13/16	———	———	———	———	96P12491S2	1.848	96P12491S4	1.936
	200	.400 x 1 1/16	———	———	———	———	96P12492S2	1.826	96P12492S4	1.912
	400	.562 x 1 1/16	———	———	———	———	96P12494S2	2.112	96P12494S4	2.332
	600	.562 x 1 5/16	———	———	———	———	96P12496S2	2.200	96P12496S4	2.328
	1000	.670 x 1 9/16	———	———	———	———	96P124910S2	2.464	96P124910S4	2.580
.15	100	.400 x ⅞	96P15491S2	1.680	96P15401S4	2.768	96P15491S2	1.848	96P15491S4	1.936
	200	.400 x 1⅛	96P15492S2	1.660	96P15402S4	1.748	96P15492S2	1.826	96P15492S4	1.914
	300	.400 x 1⅜	96P15493S2	1.760	96P15403S4	1.848	96P15493S2	1.936	96P15493S4	2.024
	400	.562 x 1⅛	96P15494S2	1.920	96P15404S4	2.048	96P15494S2	2.112	96P15494S4	2.332
	600	.562 x 1⅜	96P15496S2	2.000	96P15406S4	2.128	96P15496S2	2.200	96P15496S4	2.328
	1000	.670 x 1 9/16	———	———	———	———	96P154910S2	2.464	96P154910S4	2.580
.18	100	.400 x 1 1/16	———	———	———	———	96P18491S2	1.848	96P18491S4	1.936
	200	.400 x 1 5/16	———	———	———	———	96P18492S2	2.002	96P18492S4	2.090
	400	.562 x 1 5/16	———	———	———	———	96P18494S2	2.244	96P18494S4	2.372
	600	.562 x 1 13/16	———	———	———	———	96P18496S2	2.376	96P18496S4	2.504
	1000	.750 x 2 1/16	———	———	———	———	96P184910S2	2.640	96P184910S4	2.860
.22	100	.400 x 1⅛	96P22401S2	1.680	96P22401S4	1.768	96P22491S2	1.848	96P22491S4	1.936
	200	.400 x 1⅜	96P22402S2	1.820	96P22402S4	1.908	96P22492S2	2.002	96P22492S4	2.090
	300	.562 x 1⅛	96P22403S2	1.880	96P22403S4	2.008	96P22493S2	2.068	96P22493S4	2.196
	400	.562 x 1⅜	96P22404S2	2.040	96P22404S4	2.168	96P22494S2	2.244	96P22494S4	2.372
	600	.562 x 1⅞	96P22406S2	2.160	96P22406S4	2.288	96P22496S2	2.376	96P22496S4	2.504
	1000	.750 x 2 1/16	———	———	———	———	96P224910S2	2.640	96P224910S4	2.860
.27	100	.400 x 1 1/16	———	———	———	———	96P27491S2	2.112	96P27491S4	2.200
	200	.562 x 1 5/16	———	———	———	———	96P27492S2	2.156	96P27492S4	2.284
	400	.562 x 1 5/16	———	———	———	———	96P27494S2	2.288	96P27494S4	2.416
	600	.562 x 1 13/16	———	———	———	———	96P27496S2	2.640	96P27496S4	2.768
	1000	.750 x 2 1/16	———	———	———	———	96P274910S2	2.904	96P274910S4	3.124
.33	100	.400 x 1⅜	96P33401S2	1.920	96P33401S4	2.008	96P33491S2	2.112	96P33491S4	2.200
	200	.562 x 1⅛	96P33402S2	1.960	96P33402S4	2.088	96P33492S2	2.156	96P33492S4	2.284
	300	.562 x 1⅜	96P33403S2	2.040	96P33403S4	2.168	96P33493S2	2.244	96P33493S4	2.372
	400	.562 x 1⅞	96P33404S2	2.080	96P33404S4	2.208	96P33494S2	2.288	96P33494S4	2.416
	600	.670 x 1⅞	96P33406S2	2.400	96P33406S4	2.560	96P33496S2	2.640	96P33496S4	2.768
	1000	.750 x 1 9/16	———	———	———	———	96P334910S2	2.904	96P334910S4	3.124
.39	100	.562 x 1 1/16	———	———	———	———	96P39491S2	2.244	96P39491S4	2.372
	200	.562 x 1 5/16	———	———	———	———	96P39492S2	2.288	96P39492S4	2.416
	400	.670 x 1 13/16	———	———	———	———	96P39494S2	2.728	96P39494S4	2.948
	600	.750 x 2 1/16	———	———	———	———	96P39496S2	2.970	96P39496S4	3.190
	1000	1.000 x 2 1/16	———	———	———	———	96P394910S2	3.234	96P394910S4	3.514
.47	100	.562 x 1⅛	96P47401S2	2.040	96P47401S4	2.178	96P47491S2	2.244	96P47491S4	2.372
	200	.562 x 1⅜	96P47402S2	2.080	96P47402S4	2.208	96P47492S2	2.288	96P47492S4	2.416
	300	.562 x 1⅞	96P47403S2	2.480	96P47403S4	2.608	96P47493S2	2.728	96P47493S4	2.888
	400	.670 x 1⅞	96P47404S2	2.480	96P47404S4	2.640	96P47494S2	2.728	96P47494S4	2.948
	600	.750 x 2⅛	96P47406S2	2.700	96P47406S4	2.840	96P47496S2	2.970	96P47496S4	3.190
	1000	1.000 x 2 1/16	———	———	———	———	96P474910S2	3.234	96P474910S4	3.514
.56	100	.562 x 1 5/16	———	———	———	———	96P56491S2	2.332	96P56491S4	2.460
	200	.562 x 1 13/16	———	———	———	———	96P56492S2	2.420	96P56492S4	2.548
	400	.750 x 2 1/16	———	———	———	———	96P56494S2	3.630	96P56494S4	3.850
	600	1.000 x 1 13/16	———	———	———	———	96P56496S2	3.696	96P56496S4	3.976
.68	100	.562 x 1⅜	96P68401S2	2.120	96P68401S4	2.248	96P68491S2	2.332	96P68491S4	2.460
	200	.562 x 1⅞	96P68402S2	2.200	96P68402S4	2.328	96P68492S2	2.420	96P68492S4	2.548
	300	.670 x 1⅞	96P68403S2	2.640	96P68403S4	2.800	96P68493S2	2.900	96P68493S4	3.064
	400	.750 x 2 1/16	96P68404S2	3.300	96P68404S4	3.520	96P68494S2	3.630	96P68494S4	3.850
	600	1.000 x 1 13/16	96P68406S2	3.360	96P68406S4	3.640	96P68496S2	3.696	96P68496S4	3.976
.82	100	.562 x 1 13/16	———	———	———	———	96P82491S2	2.816	96P82491S4	2.504
	200	.670 x 1 13/16	———	———	———	———	96P82492S2	2.904	96P82492S4	3.064
	400	1.000 x 1 13/16	———	———	———	———	96P82494S2	3.762	96P82494S4	4.042
1.0	100	.562 x 1⅞	96P10501S2	2.156	96P10501S4	2.288	96P10591S2	2.816	96P10591S4	2.504
	200	.670 x 1⅞	96P10502S2	2.640	96P10502S4	2.800	96P10592S2	2.904	96P10592S4	3.064
	300	.750 x 2 1/16	96P10503S2	3.400	96P10503S4	3.620	96P10593S2	3.740	96P10593S4	3.960
	400	1.000 x 1 13/16	96P10504S2	3.420	96P10504S4	3.700	96P10594S2	3.762	96P10594S4	4.042

*For Style 4 units add .0625″ to diameter and 1/16″ to length.

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SPRAGUE CAPACITORS

TYPE 191P, EXTENDED FOIL CONSTRUCTION, 85°C OPERATI

µF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic slee	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net
.001	100	.175 x ¾	191P10201S2	$1.480	191P10201S4	$1.544	191P10291S2	$1.628	191P10291S4	$1.6
	200	.235 x ¾	191P10202S2	1.388	191P10202S4	1.452	191P10292S2	1.527	191P10292S4	1.5
	300	.235 x ¾	191P10203S2	1.400	191P10203S4	1.464	191P10293S2	1.540	191P10293S4	1.6
	400	.235 x ¾	191P10204S2	1.440	191P10204S4	1.504	191P10294S2	1.584	191P10294S4	1.6
	600	.235 x ¾	191P10206S2	1.460	191P10206S4	1.524	191P10296S2	1.606	191P10296S4	1.6
.0015	100	.175 x ¾	191P15201S2	1.480	191P15201S4	1.544	191P15291S2	1.628	191P15291S4	1.6
	200	.235 x ¾	191P15202S2	1.388	191P15202S4	1.452	191P15292S2	1.527	191P15292S4	1.5
	300	.235 x ¾	191P15203S2	1.400	191P15203S4	1.464	191P15293S2	1.540	191P15293S4	1.6
	400	.235 x ¾	191P15204S2	1.440	191P15204S4	1.504	191P15294S2	1.584	191P15294S4	1.6
	600	.235 x ¾	191P15206S2	1.460	191P15206S4	1.524	191P15296S2	1.606	191P15296S4	1.6
.0022	100	.175 x ¾	191P22201S2	1.480	191P22201S4	1.544	191P22291S2	1.628	191P22291S4	1.6
	200	.235 x ¾	191P22202S2	1.388	191P22202S4	1.452	191P22292S2	1.527	191P22292S4	1.5
	300	.235 x ¾	191P22203S2	1.420	191P22203S4	1.484	191P22293S2	1.562	191P22293S4	1.6
	400	.235 x ¾	191P22204S2	1.480	191P22204S4	1.504	191P22294S2	1.584	191P22294S4	1.6
	600	.235 x ¾	191P22206S2	1.500	191P22206S4	1.524	191P22296S2	1.606	191P22296S4	1.67
.0033	100	.175 x ¾	191P33201S2	1.480	191P33201S4	1.544	191P33291S2	1.628	191P33291S4	1.6
	200	.235 x ¾	191P33202S2	1.388	191P33202S4	1.452	191P33292S2	1.527	191P33292S4	1.5
	300	.235 x ¾	191P33203S2	1.420	191P33203S4	1.484	191P33293S2	1.562	191P33293S4	1.62
	400	.235 x ¾	191P33204S2	1.480	191P33204S4	1.504	191P33294S2	1.584	191P33294S4	1.64
	600	.235 x ¾	191P33206S2	1.500	191P33206S4	1.544	191P33296S2	1.628	191P33296S4	1.69
.0047	100	.175 x ¾	191P47201S2	1.480	191P47201S4	1.544	191P47291S2	1.628	191P47291S4	1.69
	200	.235 x ¾	191P47202S2	1.388	191P47202S4	1.452	191P47292S2	1.527	191P47292S4	1.59
	300	.235 x ¾	191P47203S2	1.420	191P47203S4	1.484	191P47293S2	1.562	191P47293S4	1.62
	400	.235 x ¾	191P47204S2	1.480	191P47204S4	1.544	191P47294S2	1.628	191P47294S4	1.69
	600	.235 x ¾	191P47206S2	1.500	191P47206S4	1.564	191P47296S2	1.650	191P47296S4	1.71
.0068	100	.175 x ¾	191P68201S2	1.480	191P68201S4	1.544	191P68291S2	1.628	191P68291S4	1.69
	200	.235 x ¾	191P68202S2	1.388	191P68202S4	1.452	191P68292S2	1.527	191P68292S4	1.59
	300	.235 x ¾	191P68203S2	1.420	191P68203S4	1.504	191P68293S2	1.562	191P68293S4	1.64
	400	.235 x ¾	191P68204S2	1.480	191P68204S4	1.544	191P68294S2	1.628	191P68294S4	1.69
	600	.235 x ¾	191P68206S2	1.500	191P68206S4	1.584	191P68296S2	1.672	191P68296S4	1.73
.01	100	.175 x ¾	191P10301S2	1.480	191P10301S4	1.544	191P10391S2	1.628	191P10391S4	1.69
	200	.235 x ¾	191P10302S2	1.460	191P10302S4	1.524	191P10392S2	1.606	191P10392S4	1.67
	300	.235 x ¾	191P10303S2	1.480	191P10303S4	1.544	191P10393S2	1.628	191P10393S4	1.69
	400	.235 x ¾	191P10304S2	1.520	191P10304S4	1.584	191P10394S2	1.672	191P10394S4	1.73
	600	.312 x ⅞	191P10306S2	1.540	191P10306S4	1.604	191P10396S2	1.694	191P10396S4	1.71
.015	100	.175 x ¾	191P15301S2	1.440	191P15301S4	1.544	191P15391S2	1.584	191P15391S4	1.648
	200	.235 x ¾	191P15302S2	1.460	191P15302S4	1.524	191P15392S2	1.606	191P15392S4	1.670
	300	.235 x ¾	191P15303S2	1.500	191P15303S4	1.564	191P15393S2	1.650	191P15393S4	1.714
	400	.312 x ⅞	191P15304S2	1.520	191P15304S4	1.584	191P15394S2	1.672	191P15394S4	1.736
	600	.312 x ⅞	191P15306S2	1.560	191P15306S4	1.632	191P15396S2	1.716	191P15396S4	1.788
.022	100	.195 x ¾	191P22301S2	1.440	191P22301S4	1.504	191P22391S2	1.584	191P22391S4	1.648
	200	.235 x ¾	191P22302S2	1.460	191P22302S4	1.524	191P22392S2	1.606	191P22392S4	1.670
	300	.312 x ⅞	191P22303S2	1.500	191P22303S4	1.564	191P22393S2	1.650	191P22393S4	1.714
	400	.312 x ⅞	191P22304S2	1.520	191P22304S4	1.584	191P22394S2	1.672	191P22394S4	1.744
	600	.312 x ⅞	191P22306S2	1.560	191P22306S4	1.632	191P22396S2	1.716	191P22394S4	1.788

***For Style 4 units add .0625″ to diameter and 1/16″ to length**

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SPRAGUE CAPACITORS

E 191P, continued

WVDC	Size D. x L.	Capacitance Tolerance ±20% Style 2 (bare metal case) Cat. No.	Net (1-9)	Style 4 (w/plastic sleeve*) Cat. No.	Net (1-9)	Capacitance Tolerance ±10% Style 2 (bare metal case) Cat. No.	Net (1-9)	Style 4 (w/plastic sleeve*) Cat. No.	Net (1-9)
100	.235 x ¾	191P33301S2	$1.600	191P33301S4	$1.504	191P33391S2	$1.584	191P33391S4	$1.648
200	.312 x ⅞	191P33302S2	1.480	191P33302S4	1.544	191P33392S2	1.628	191P33392S4	1.692
300	.312 x ⅞	191P33303S2	1.500	191P33303S4	1.564	191P33393S2	1.650	191P33393S4	1.722
400	.312 x ⅞	191P33304S2	1.520	191P33304S4	1.584	191P33394S2	1.672	191P33394S4	1.744
600	.400 x ⅞	191P33306S2	1.600	191P33306S4	1.672	191P33396S2	1.760	191P33396S4	1.832
100	.312 x ⅞	191P47301S2	1.540	191P47301S4	1.584	191P47391S2	1.694	191P47391S4	1.758
200	.312 x ⅞	191P47302S2	1.560	191P47302S4	1.632	191P47392S2	1.716	191P47392S4	1.788
300	.312 x ⅞	191P47303S2	1.568	191P47303S4	1.640	191P47393S2	1.725	191P47393S4	1.797
400	.400 x ⅞	191P47304S2	1.600	191P47304S4	1.672	191P47394S2	1.760	191P47394S4	1.832
600	.400 x 1⅛	191P47306S2	1.680	191P47306S4	1.752	191P47396S2	1.848	191P47396S4	1.920
100	.312 x ⅞	191P68301S2	1.540	191P68301S4	1.584	191P68391S2	1.694	191P68391S4	1.766
200	.312 x ⅞	191P68302S2	1.560	191P68302S4	1.632	191P68392S2	1.716	191P68392S4	1.788
300	.400 x ⅞	191P68303S2	1.600	191P68303S4	1.672	191P68393S2	1.760	191P68393S4	1.832
400	.400 x 1⅛	191P68304S2	1.660	191P68304S4	1.732	191P68394S2	1.826	191P68394S4	1.898
600	.400 x 1⅜	191P68306S2	1.760	191P68306S4	1.856	191P68396S2	1.936	191P68396S4	2.032
100	.312 x ⅞	191P10401S2	1.600	191P10401S4	1.672	191P10491S2	1.760	191P10491S4	1.832
200	.400 x ⅞	191P10402S2	1.604	191P10402S4	1.676	191P10492S2	1.764	191P10492S4	1.836
300	.400 x 1⅛	191P10403S2	1.660	191P10403S4	1.732	191P10493S2	1.826	191P10493S4	1.898
400	.400 x 1⅜	191P10404S2	1.720	191P10404S4	1.816	191P10494S2	1.892	191P10494S4	1.988
600	.562 x 1⅛	191P10406S2	1.840	191P10406S4	1.936	191P10496S2	2.024	191P10496S4	2.120
100	.400 x ⅞	191P15401S2	1.640	191P15401S4	1.712	191P15491S2	1.804	191P15491S4	1.875
200	.400 x 1⅛	191P15402S2	1.700	191P15402S4	1.772	191P15492S2	1.870	191P15492S4	1.942
300	.400 x 1⅜	191P15403S2	1.880	191P15403S4	1.976	191P15493S2	2.068	191P15493S4	2.164
400	.562 x 1⅛	191P15404S2	1.900	191P15404S4	1.996	191P15494S2	2.090	191P15494S4	2.186
600	.562 x 1⅜	191P15406S2	1.960	191P15406S4	2.056	191P15496S2	2.156	191P15496S4	2.472
100	.400 x 1⅛	191P22401S2	1.640	191P22401S4	1.712	191P22491S2	1.804	191P22491S4	1.876
200	.400 x 1⅜	191P22402S2	1.840	191P22402S4	1.936	191P22492S2	2.024	191P22492S4	2.120
300	.562 x 1⅛	191P22403S2	1.960	191P22403S4	2.055	191P22493S2	2.156	191P22493S4	2.252
400	.562 x 1⅜	191P22404S2	2.040	191P22404S4	2.136	191P22494S2	2.244	191P22494S4	2.340
600	.562 x 1⅞	191P22406S2	2.160	191P22406S4	2.300	191P22496S2	2.376	191P22496S4	2.516
100	.400 x 1⅜	191P33401S2	1.880	191P33401S4	1.976	191P33491S2	2.068	191P33491S4	2.164
200	.562 x 1⅛	191P33402S2	2.000	191P33402S4	2.096	191P33492S2	2.200	191P33492S4	2.296
300	.562 x 1⅜	191P33403S2	2.000	191P33403S4	2.096	191P33493S2	2.200	191P33493S4	2.296
400	.562 x 1⅞	191P33404S2	2.120	191P33404S4	2.260	191P33494S2	2.332	191P33494S4	2.472
600	.670 x 1⅞	191P33406S2	2.640	191P33406S4	2.800	191P33496S2	2.904	191P33496S4	3.000
100	.562 x 1⅛	191P47401S2	2.000	191P47401S4	2.096	191P47491S2	2.200	191P47491S4	2.296
200	.562 x 1⅜	191P47402S2	2.040	191P47402S4	2.136	191P47492S2	2.240	191P47492S4	2.340
300	.562 x 1⅞	191P47403S2	2.560	191P47403S4	2.700	191P47493S2	2.816	191P47493S4	2.956
400	.670 x 1⅞	191P47404S2	2.640	191P47404S4	2.800	191P47494S2	2.904	191P47494S4	3.064
600	.750 x 2⅛	191P47406S2	2.760	191P47406S4	2.920	191P47496S2	2.036	191P47496S4	3.196
100	.562 x 1⅜	191P68401S2	2.120	191P68401S4	2.216	191P68491S2	2.332	191P68491S4	2.428
200	.562 x 1⅞	191P68402S2	2.360	191P68402S4	2.500	191P68492S2	2.596	191P68492S4	2.736
300	.670 x 1⅞	191P68403S2	2.640	191P68403S4	2.800	191P68493S2	2.900	191P68493S4	3.064
100	.562 x 1⅞	191P10501S2	2.320	191P10501S4	2.460	191P10591S2	2.552	191P10591S4	2.692
200	.670 x 1⅞	191P10502S2	2.680	191P10502S4	2.840	191P10592S2	2.946	191P10592S4	3.108

Style 4 units add .0625" to diameter and 1/16" to length

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SPRAGUE CAPACITORS

TYPE 196P, EXTENDED FOIL CONSTRUCTION, 125°C OPERATION

μF	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sle	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net
.001	100	.175 x ¾	196P10201S2	$1.520	196P10201S4	$1.592	196P10291S2	$1.672	196P10291S4	$1.
	200	.235 x ¾	196P10202S2	1.500	196P10202S4	1.572	196P10292S2	1.650	196P10292S4	1.
	300	.235 x ¾	196P10203S2	1.560	196P10203S4	1.632	196P10293S2	1.716	196P10293S4	1.
	400	.235 x ¾	196P10204S2	1.580	196P10204S4	1.652	196P10294S2	1.738	196P10294S4	1.8
	600	.235 x ¾	196P10206S2	1.600	196P10206S4	1.672	196P10296S2	1.760	196P10296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P102910S2	2.024	196P102910S4	2.1
.0012	600	.235 x 11/16	———	———	———	———	196P12296S2	1.760	196P12296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P122910S2	2.024	196P122810S4	2.1
.0015	100	.175 x ¾	196P15201S2	1.520	196P15201S4	1.592	196P15291S2	1.672	196P15291S4	1.7
	200	.235 x ¾	196P15202S2	1.500	196P15202S4	1.572	196P15292S2	1.650	196P15292S4	1.7
	300	.235 x ¾	196P15203S2	1.560	196P15203S4	1.632	196P15293S2	1.716	196P15293S4	1.7
	400	.235 x ¾	196P15204S2	1.580	196P15204S4	1.652	196P15294S2	1.738	196P15294S4	1.8
	600	.235 x ¾	196P15206S2	1.600	196P15206S4	1.672	196P15296S2	1.760	196P15296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P152910S2	2.024	196P152910S4	2.1
0018	600	.235 x 11/16	———	———	———	———	196P18296S2	1.760	196P18296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P182910S2	2.024	196P182910S4	2.1
.0022	100	.175 x ¾	196P22201S2	1.520	196P22201S4	1.592	196P22291S2	1.672	196P22291S4	1.7
	200	.235 x ¾	196P22202S2	1.500	196P22202S4	1.572	196P22292S2	1.650	196P22292S4	1.7
	300	.235 x ¾	196P22203S2	1.560	196P22203S4	1.632	196P22292S2	1.716	196P22293S4	1.7
	400	.235 x ¾	196P22204S2	1.580	196P22204S4	1.652	196P22294S2	1.738	196P22294S4	1.8
	600	.235 x ¾	196P22206S2	1.600	196P22206S4	1.720	196P22296S2	1.760	196P22296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P222910S2	2.024	196P222910S4	2.1
.0027	400	.312 x 13/16	———	———	———	———	196P27294S2	1.760	196P27294S4	1.8
	600	.235 x 11/16	———	———	———	———	196P27296S2	1.804	196P27296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P272910S2	2.024	196P272910S4	2.1
.0033	100	.175 x ¾	196P33201S2	1.520	196P33201S4	1.592	196P33291S2	1.672	196P33291S4	1.7
	200	.235 x ¾	196P33202S2	1.540	196P33202S4	1.612	196P33292S2	1.694	196P33292S4	1.7
	300	.235 x ¾	196P33203S2	1.560	196P33203S4	1.632	196P33293S2	1.716	196P33293S4	1.7
	400	.235 x ¾	196P33204S2	1.600	196P33204S4	1.672	196P33294S2	1.760	196P33294S4	1.8
	600	.312 x ⅞	196P33206S2	1.640	196P33206S4	1.720	196P33296S2	1.804	196P33296S4	1.8
	1000	.400 x 13/16	———	———	———	———	196P332910S2	2.024	196P332910S4	2.1
.0039	200	.235 x 11/16	———	———	———	———	196P39292S2	1.694	196P39292S4	2.7
	600	.235 x 11/16	———	———	———	———	196P39296S2	1.870	196P39296S4	1.9
	1000	.400 x 13/16	———	———	———	———	196P392910S2	2.134	196P392910S4	2.2
.0047	100	.175 x ¾	196P47201S2	1.520	196P47201S4	1.592	196P47291S2	1.672	196P47291S4	1.7
	200	.235 x ¾	196P47202S2	1.540	196P47202S4	1.612	196P47292S2	1.694	196P47292S4	1.7
	300	.235 x ¾	196P47203S2	1.560	196P47203S4	1.632	196P47293S2	1.716	196P47293S4	1.7
	400	.235 x ¾	196P47204S2	1.680	196P47204S4	1.760	196P47294S2	1.848	196P47294S4	1.9
	600	.235 x ¾	196P47206S2	1.700	196P47206S4	1.780	196P47296S2	1.870	196P47296S4	1.9
	1000	.400 x 13/16	———	———	———	———	196P472910S2	2.134	196P472910S4	2.22
.0056	200	.235 x 11/16	———	———	———	———	196P56292S2	1.716	196P56292S4	1.78
	600	.235 x 11/16	———	———	———	———	196P56296S2	2.156	196P56296S4	1.97
	1000	.400 x 13/16	———	———	———	———	196P562910S2	2.420	196P562910S4	2.24
.0068	100	.175 x ¾	196P68201S2	1.520	196P68201S4	1.592	196P68291S2	1.672	196P68291S4	1.74
	200	.235 x ¾	196P68202S2	1.560	196P68202S4	1.632	196P68292S2	1.716	196P68282S4	1.78
	300	.235 x ¾	196P68203S2	1.640	196P68203S4	1.720	196P68293S2	1.804	196P68293S4	1.88
	400	.235 x ¾	196P68204S2	1.680	196P68204S4	1.760	196P68294S2	1.848	196P68294S4	1.92
	600	.235 x ¾	196P68206S2	1.720	196P68206S4	1.800	196P68296S2	2.156	196P68296S4	1.97
	1000	.400 x 13/16	———	———	———	———	196P682910S2	2.420	196P682910S4	2.24
.0082	100	.175 x 11/16	———	———	———	———	196P82291S2	1.672	196P82291S4	1.74
	600	.312 x 13/16	———	———	———	———	196P82296S2	1.914	196P82296S4	1.99
	1000	.400 x 13/16	———	———	———	———	196P822910S2	2.178	196P822910S4	2.26
.01	100	.175 x ¾	196P10301S2	1.520	196P10301S4	1.592	196P10391S2	1.672	196P10391S4	1.74
	200	.235 x ¾	196P10302S2	1.640	196P10302S4	1.720	196P10392S2	1.804	196P10392S4	1.88
	300	.235 x ¾	196P10303S2	1.680	196P10303S4	1.760	196P10393S2	1.848	196P10393S4	1.92
	400	.235 x ¾	196P10304S2	1.720	196P10304S4	1.800	196P10394S2	1.892	196P10394S4	1.97
	600	.312 x ⅞	196P10306S2	1.740	196P10306S4	1.820	196P10396S2	1.914	196P10396S4	1.99
	1000	.400 x 13/16	———	———	———	———	196P103910S2	2.178	196P103910S4	2.26
.012	100	.175 x 11/16	———	———	———	———	196P12391S2	1.672	196P12391S4	1.74
	400	.312 x 13/16	———	———	———	———	196P12394S2	1.892	196P12394S4	1.97
	600	.312 x 13/16	———	———	———	———	196P12396S2	1.936	196P12396S4	2.024
	1000	.400 x 13/16	———	———	———	———	196P123910S2	2.200	196P123910S4	2.288
.015	100	.175 x ¾	196P15301S2	1.520	196P15301S4	1.592	196P15391S2	1.672	196P15391S4	1.744
	200	.235 x ¾	196P15302S2	1.640	196P15302S4	1.720	196P15392S2	1.804	196P15392S4	1.884
	300	.235 x ¾	196P15303S2	1.700	196P15303S4	1.780	196P15393S2	1.870	196P15393S4	1.950
	400	.312 x ⅞	196P15304S2	1.720	196P15304S4	1.800	196P15394S2	1.892	196P15394S4	1.972
	600	.312 x ⅞	196P15306S2	1.760	196P15306S4	1.848	196P15396S2	1.936	196P15396S4	2.024
	1000	.400 x 13/16	———	———	———	———	196P153910S2	2.200	196P153910S4	2.288
.018	200	.235 x 11/16	———	———	———	———	196P18392S2	1.848	196P18392S4	1.928
	600	.312 x 13/16	———	———	———	———	196P18396S2	1.958	196P18396S4	2.046
	1000	.400 x 1 1/16	———	———	———	———	196P183910S2	2.222	196P183910S4	2.310
.022	100	.195 x ¾	196P22301S2	1.560	196P22301S4	1.640	196P22391S2	1.716	196P22391S4	1.796
	200	.235 x ¾	196P22302S2	1.680	196P22302S4	1.760	196P22392S2	1.848	196P22392S4	1.928
	300	.312 x ⅞	196P22303S2	1.720	196P22303S4	1.800	196P22393S2	1.892	196P22393S4	1.994
	400	.312 x ⅞	196P22304S2	1.760	196P22304S4	1.848	196P22394S2	1.936	196P22394S4	2.024
	600	.312 x ⅞	196P22306S2	1.780	196P22306S4	1.868	196P22396S2	1.958	196P22396S4	2.046
	1000	.400 x 1 1/16	———	———	———	———	196P223910S2	2.222	196P223910S4	2.310
.027	200	.312 x 13/16	———	———	———	———	196P27392S2	1.848	196P27392S4	1.928
	400	.312 x 13/16	———	———	———	———	196P27294S2	1.936	196P27394S4	2.024
	600	.400 x 13/16	———	———	———	———	196P27396S2	1.958	196P27396S4	2.046
	1000	.400 x 1 5/16	———	———	———	———	196P273910S2	2.222	196P273910S4	2.350
.033	100	.400 x 1⅜	196P33301S2	1.600	196P33301S4	1.680	196P33391S2	1.760	196P33391S4	1.840
	200	.562 x 1⅛	196P33302S2	1.680	196P33302S4	1.760	196P33392S2	1.848	196P33392S4	1.928
	300	.562 x 1⅜	196P33303S2	1.740	196P33303S4	1.828	196P33393S2	1.910	196P33393S4	1.926
	400	.562 x 1⅞	196P33304S2	1.760	196P33304S4	1.848	196P33394S2	1.936	196P33394S4	2.024
	600	.670 x 1⅞	196P33306S2	1.780	196P33306S4	1.868	196P33396S2	1.958	196P33396S4	2.046
	1000	.400 x 1 5/16	———	———	———	———	196P333910S2	2.222	196P333910S4	2.350

*For Style 4 units add .0625" to diameter and 1/16" to length.

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SPRAGUE CAPACITORS

PE 196P, continued

F	WVDC	Size D. x L.	Capacitance Tolerance ±20%				Capacitance Tolerance ±10%			
			Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)		Style 2 (bare metal case)		Style 4 (w/plastic sleeve*)	
			Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)
39	100	.312 x 13/16	———	———	———	———	196P39391S2	1.804	196P39391S4	1.884
	200	.312 x 13/16	———	———	———	———	196P39392S2	1.892	196P39392S4	1.980
	400	.400 x 13/16	———	———	———	———	196P39394S2	1.980	196P39394S4	2.068
	600	.400 x 1 1/16	———	———	———	———	196P39396S2	2.024	196P39396S4	2.112
	1000	.562 x 1 1/16	———	———	———	———	196P393910S2	2.288	196P393910S4	2.416
47	100	.312 x 7/8	196P47301S2	1.640	196P47301S4	1.720	196P47391S2	1.804	196P47391S4	1.884
	200	.312 x 7/8	196P47302S2	1.720	196P47302S4	1.808	196P47392S2	1.892	196P47392S4	1.980
	300	.312 x 7/8	196P47303S2	1.740	196P47303S4	1.828	196P47393S2	1.910	196P47393S4	2.002
	400	.400 x 7/8	196P47304S2	1.800	196P47304S4	1.888	196P47394S2	1.980	196P47394S4	2.068
	600	.400 x 1 1/8	196P47306S2	1.840	196P47306S4	1.928	196P47396S2	2.024	196P47396S4	2.112
	1000	.562 x 1 1/16	———	———	———	———	196P473910S2	2.288	196P473910S4	2.416
56	200	.312 x 13/16	———	———	———	———	196P56392S2	1.892	196P56392S4	1.980
	400	.400 x 1 1/16	———	———	———	———	196P56394S2	1.980	196P56394S4	2.068
	600	.400 x 1 5/16	———	———	———	———	196P56396S2	2.156	196P56396S4	2.284
	1000	.562 x 1 5/16	———	———	———	———	196P563910S2	2.420	196P563910S4	2.548
68	100	.312 x 7/8	196P68301S2	1.640	196P68301S4	1.728	196P68391S2	1.804	196P68391S4	1.892
	200	.312 x 7/8	196P68302S2	1.720	196P68302S4	1.808	196P68392S2	1.892	196P68392S4	1.980
	300	.400 x 7/8	196P68303S2	1.740	196P68303S4	1.828	196P68393S2	1.910	196P68393S4	2.002
	400	.400 x 1 1/8	196P68304S2	1.800	196P68304S4	1.888	196P68394S2	1.980	196P68394S4	2.068
	600	.400 x 1 3/8	196P68306S2	1.960	196P68306S4	2.088	196P68396S2	2.156	196P68396S4	2.284
	1000	.562 x 1 5/16	———	———	———	———	196P683910S2	2.420	196P683910S4	2.548
82	100	.312 x 13/16	———	———	———	———	196P82391S2	1.848	196P82391S4	1.936
	200	.400 x 13/16	———	———	———	———	196P82392S2	1.914	196P82392S4	2.002
	400	.400 x 1 5/16	———	———	———	———	196P82394S2	2.112	196P82394S4	2.240
	600	.562 x 1 1/16	———	———	———	———	196P82396S2	2.200	196P82396S4	2.328
	1000	.562 x 1 9/16	———	———	———	———	196P823910S2	2.420	196P823910S4	2.580
	100	.312 x 7/8	196P10401S2	1.680	196P10401S4	1.768	196P10491S2	1.848	196P10491S4	1.936
	200	.400 x 7/8	196P10402S2	1.740	196P10402S4	1.808	196P10492S2	1.914	196P10492S4	2.002
	300	.400 x 1 1/8	196P10403S2	1.760	196P10403S4	1.828	196P10493S2	1.936	196P10493S4	2.024
	400	.400 x 1 3/8	196P10404S2	1.920	196P10404S4	1.888	196P10494S2	2.112	196P10494S4	2.240
	600	.562 x 1 1/8	196P10406S2	2.000	196P10406S4	2.088	196P10496S2	2.200	196P10496S4	2.328
	1000	.562 x 1 9/16	———	———	———	———	196P104910S2	2.420	196P104910S4	2.580
2	100	.400 x 13/16	———	———	———	———	196P12491S2	1.848	196P12491S4	1.936
	200	.400 x 1 1/16	———	———	———	———	196P12492S2	1.980	196P12492S4	2.068
	400	.562 x 1 1/16	———	———	———	———	196P12494S2	2.200	196P12494S4	2.328
	600	.562 x 1 5/16	———	———	———	———	196P12496S2	2.332	196P12496S4	2.460
	1000	.670 x 1 9/16	———	———	———	———	196P124910S2	2.596	196P124910S4	2.876
5	100	.400 x 7/8	196P15401S2	1.680	196P15401S4	1.768	196P15491S2	1.848	196P15491S4	1.936
	200	.400 x 1 1/8	196P15402S2	1.800	196P15402S4	1.888	196P15492S2	1.980	196P15492S4	2.068
	300	.400 x 1 3/8	196P15403S2	1.920	196P15403S4	2.008	196P15493S2	2.112	196P15493S4	2.240
	400	.562 x 1 1/8	196P15404S2	2.000	196P15404S4	2.128	196P15494S2	2.200	196P15494S4	2.328
	600	.562 x 1 3/8	196P15406S2	2.120	196P15406S4	2.248	196P15496S2	2.332	196P15496S4	2.460
	1000	.670 x 1 9/16	———	———	———	———	196P154910S2	2.596	196P154910S4	2.876
8	100	.400 x 1 1/16	———	———	———	———	196P18491S2	1.980	196P18491S4	2.068
	200	.400 x 1 5/16	———	———	———	———	196P18492S2	2.112	196P18492S4	2.240
	400	.562 x 1 5/16	———	———	———	———	196P18494S2	2.332	196P18494S4	2.460
	600	.562 x 1 13/16	———	———	———	———	196P18496S2	2.640	196P18496S4	2.800
	1000	.750 x 2 1/16	———	———	———	———	196P184910S2	2.904	196P184910S4	3.124
2	100	.400 x 1 1/8	196P22401S2	1.800	196P22401S4	1.888	196P22491S2	1.980	196P22491S4	2.068
	200	.400 x 1 3/8	196P22402S2	1.920	196P22402S4	2.048	196P22492S2	2.112	196P22492S4	2.240
	300	.562 x 1 1/8	196P22403S2	2.040	196P22403S4	2.168	196P22493S2	2.244	196P22493S4	2.372
	400	.562 x 1 3/8	196P22404S2	2.120	196P22404S4	2.252	196P22494S2	2.332	196P22494S4	2.460
	600	.562 x 1 7/8	196P22406S2	2.400	196P22406S4	2.680	196P22496S2	2.640	196P22496S4	2.800
	1000	.750 x 2 1/16	———	———	———	———	196P224910S2	2.904	196P224910S4	3.124
7	100	.400 x 1 5/16	———	———	———	———	196P27491S2	2.200	196P27491S4	2.328
	200	.562 x 1 1/16	———	———	———	———	196P27492S2	2.240	196P27492S4	2.372
	400	.562 x 1 13/16	———	———	———	———	196P27494S2	2.552	196P27494S4	2.712
	600	.670 x 1 13/16	———	———	———	———	196P27496S2	2.948	196P27496S4	3.168
	1000	.750 x 2 9/16	———	———	———	———	196P274910S2	3.212	196P274910S4	3.492
3	100	.400 x 1 3/8	196P33401S2	2.000	196P33401S4	2.128	196P33491S2	2.200	196P33491S4	2.328
	200	.562 x 1 1/8	196P33402S2	2.040	196P33402S4	2.168	196P33492S2	2.240	196P33492S4	2.372
	300	.562 x 1 3/8	196P33403S2	2.160	196P33403S4	2.288	196P33493S2	2.376	196P33493S4	2.504
	400	.562 x 1 7/8	196P33404S2	2.320	196P33404S4	2.480	196P33494S2	2.552	196P33494S4	2.712
	600	.670 x 1 7/8	196P33406S2	2.680	196P33406S4	2.900	196P33496S2	2.948	196P33496S4	3.168
	1000	.750 x 2 9/16	———	———	———	———	196P334910S2	3.212	196P334910S4	3.492
9	100	.562 x 1 1/16	———	———	———	———	196P39491S2	2.288	196P39491S4	2.416
	200	.562 x 1 5/16	———	———	———	———	196P39492S2	2.332	196P39492S4	2.460
	400	.670 x 1 13/16	———	———	———	———	196P39494S2	2.948	196P39494S4	3.168
	600	.750 x 2 1/16	———	———	———	———	196P39496S2	3.080	196P39496S4	2.860
	1000	1.000 x 2 1/16	———	———	———	———	196P394910S2	3.344	196P394910S4	3.624
7	100	.562 x 1 1/8	196P47401S2	2.080	196P47401S4	2.208	196P47491S2	2.288	196P47491S4	2.416
	200	.562 x 1 3/8	196P47402S2	2.120	196P47402S4	2.248	196P47492S2	2.332	196P47492S4	2.460
	300	.562 x 1 7/8	196P47403S2	2.580	196P47403S4	2.740	196P47493S2	2.838	196P47493S4	2.998
	400	.670 x 1 7/8	196P47404S2	2.680	196P47404S4	2.900	196P47494S2	2.948	196P47494S4	3.168
	600	.750 x 2 1/8	196P47406S2	2.800	196P47406S4	3.020	196P47496S2	3.080	196P47496S4	2.860
	1000	1.000 x 2 1/16	———	———	———	———	196P474910S2	3.344	196P474910S4	3.624
6	100	.562 x 1 9/16	———	———	———	———	196P56491S2	2.464	196P56491S4	2.592
	200	.670 x 1 9/16	———	———	———	———	196P56492S2	2.640	196P56492S4	2.800
8	100	.562 x 1 3/8	196P68401S2	2.240	196P68401S4	2.368	196P68491S2	2.464	196P68491S4	2.592
	200	.562 x 1 7/8	196P68402S2	2.400	196P68402S4	2.560	196P68492S2	2.640	196P68492S4	2.800
	300	.670 x 1 7/8	196P68403S2	2.680	196P68403S4	2.840	196P68493S2	2.680	196P68493S4	3.108
2	100	.670 x 1 9/16	———	———	———	———	196P82491S2	2.640	196P82491S4	2.800
	200	.750 x 2 1/16	———	———	———	———	196P82492S2	2.970	196P82492S4	3.190
	100	.562 x 1 7/8	196P10501S2	2.400	196P10501S4	2.560	196P10591S2	2.640	196P10591S4	2.800
	200	.670 x 1 7/8	196P10502S2	2.700	196P10502S4	1.920	196P10592S2	2.970	196P10592S4	3.190

tyle 4 units add .0625″ to diameter and 1/16″ to length.

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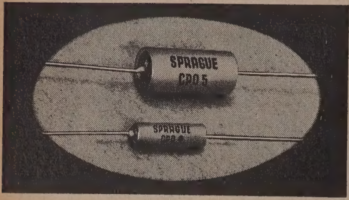
REM-25-6128

All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25A



- Impregnation with Vitamin Q assures capacitors exceed MIL-C-25A performance requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP04 has plain metal case.
- Available in Characteristic E (–
to +85°C) or Characterist
(–55°C to +125°C).
- Only popular insulated section
grounded case) capacitors are l
For information on grounded
units, consult your Sprague Indu
Distributor.
- For prices on quantities from 10 to
pieces, see your Sprague Indu
Distributor.

			Characteristic E —55°C to +85°C				Characteristic K —55°C to +125°C		
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.
µF	WVDC	Size D. x L.	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.
.001	600	.235 x ¾	CP04A1EF102M	$1.420	CP04A1EF102K	$1.560	CP04A1KF102M	$1.520	CP04A1KF102K
0015	600	.235 x ¾	CP04A1EF152M	1.420	CP04A1EF152K	1.562	CP04A1KF152M	1.520	CP04A1KF152K
.0022	600	.235 x ¾	CP04A1EF222M	1.420	CP04A1EF222K	1.562	CP04A1KF222M	1.520	CP04A1KF222K
.0033	600	.235 x ¾	CP04A1EF332M	1.420	CP04A1EF332K	1.562	CP04A1KF332M	1.560	CP04A1KF332K
.0047	600	.235 x ¾	CP04A1EF472M	1.420	CP04A1EF472K	1.562	CP04A1KF472M	1.560	CP04A1KF472K
.0068	600	.235 x ¾	CP04A1EF682M	1.420	CP04A1EF682K	1.562	CP04A1KF682M	1.560	CP04A1KF682K
.01	400	.235 x ¾	CP04A1EE103M	1.420	CP04A1EE103K	1.540	CP04A1KE103M	1.560	CP04A1KE103K
	600	.312 x ⅞	CP04A1EF103M	1.440	CP04A1EF103K	1.584	CP04A1KF103M	1.600	CP04A1KF103K
.015	200	.235 x ¾	CP04A1EC153M	1.380	CP04A1EC153K	1.518	CP04A1KC153M	1.500	CP04A1KC153K
	600	.312 x ⅞	CP04A1EF153M	1.480	CP04A1EF153K	1.628	CP04A1KF153M	1.640	CP04A1KF153K
.022	200	.235 x ¾	CP04A1EC223M	1.380	CP04A1EC223K	1.518	CP04A1KC223M	1.500	CP04A1KC223K
	600	.312 x ⅞	CP04A1EF223M	1.520	CP04A1EF223K	1.672	CP04A1KF223M	1.640	CP04A1KF223K
.033	100	.235 x ¾	CP04A1EB333M	1.440	CP04A1EB333K	1.584	CP04A1KB333M	1.480	CP04A1KB333K
	400	.312 x ⅞	CP04A1EE333M	1.500	CP04A1EE333K	1.650	CP04A1KE333M	1.620	CP04A1KE333K
	600	.400 x ⅞	CP04A1EF333M	1.560	CP04A1EF333K	1.716	CP04A1KF333M	1.700	CP04A1KF333K
.047	200	.312 x ⅞	CP04A1EC473M	1.480	CP04A1EC473K	1.628	CP04A1KC473M	1.560	CP04A1KC473K
	400	.400 x ⅞	CP04A1EE473M	1.540	CP04A1EE473K	1.694	CP04A1KE473M	1.680	CP04A1KE473K
	600	.400 x 1⅛	CP04A1EF473M	1.560	CP04A1EF473K	1.716	CP04A1KF473M	1.720	CP04A1KF473K
.068	200	.312 x ⅞	CP04A1EC683M	1.480	CP04A1EC683K	1.628	CP04A1KC683M	1.600	CP04A1KC683K
	400	.400 x 1⅛	CP04A1EE683M	1.600	CP04A1EE683K	1.694	CP04A1KE683M	1.720	CP04A1KE683K
	600	.400 x 1⅜	CP04A1EF683M	1.680	CP04A1EF683K	1.848	CP04A1KF683M	1.800	CP04A1KF683K
.1	100	.312 x ⅞	CP04A1EB104M	1.480	CP04A1EB104K	1.628	CP04A1KB104M	1.600	CP04A1KB104K
	200	.400 x ⅞	CP04A1EC104M	1.500	CP04A1EC104K	1.650	CP04A1KC104M	1.640	CP04A1KC104K
	400	.400 x 1⅜	CP04A1EE104M	1.720	CP04A1EE104K	1.892	CP04A1KE104M	1.760	CP04A1KE104K
	600	.562 x 1⅛	CP04A1EF104M	1.760	CP04A1EF104K	1.936	CP04A1KF104M	1.920	CP04A1KF104K
.15	100	.400 x ⅞	CP04A1EB154M	1.580	CP04A1EB154K	1.738	CP04A1KB154M	1.680	CP04A1KB154K
	200	.400 x 1⅛	CP04A1EC154M	1.600	CP04A1EC154K	1.760	CP04A1KC154M	1.660	CP04A1KC154K
	400	.562 x 1⅛	CP04A1EE154M	1.880	CP04A1EE154K	2.068	CP04A1KE154M	1.920	CP04A1KE154K
	600	.562 x 1⅜	CP04A1EF154M	1.900	CP04A1EF154K	2.090	CP04A1KF154M	2.000	CP04A1KF154K
.22	100	.400 x 1⅜	CP04A1EB224M	1.640	CP04A1EB224K	1.804	CP04A1KB224M	1.680	CP04A1KB224K
	200	.400 x 1⅜	CP04A1EC224M	1.800	CP04A1EC224K	1.980	CP04A1KC224M	1.820	CP04A1KC224K
	400	.562 x 1⅜	CP04A1EE224M	2.000	CP04A1EE224K	2.200	CP04A1KE224M	2.040	CP04A1KE224K
	600	.562 x 1⅞	CP04A1EF224M	2.040	CP04A1EF224K	2.244	CP04A1KF224M	2.160	CP04A1KF224K
.33	100	.400 x 1⅜	CP04A1EB334M	1.880	CP04A1EB334K	2.068	CP04A1KB334M	1.920	CP04A1KB334K
	200	.562 x 1⅛	CP04A1EC334M	1.920	CP04A1EC334K	2.112	CP04A1KC334M	1.960	CP04A1KC334K
	400	.562 x 1⅞	CP04A1EE334M	2.020	CP04A1EE334K	2.222	CP04A1KE334M	2.080	CP04A1KE334K
	600	.670 x 1⅞	CP04A1EF334M	2.240	CP04A1EF334K	2.464	CP04A1KF334M	2.400	CP04A1KF334K
.47	100	.562 x 1⅛	CP04A1EB474M	2.000	CP04A1EB474K	2.200	CP04A1KB474M	2.040	CP04A1KB474K
	200	.562 x 1⅜	CP04A1EC474M	2.040	CP04A1EC474K	2.244	CP04A1KC474M	2.080	CP04A1KC474K
	400	.670 x 1⅜	CP04A1EE474M	2.464	CP04A1EE474K	2.710	CP04A1KE474M	2.480	CP04A1KE474K
	600	.750 x 2⅛	CP04A1EF474M	2.680	CP04A1EF474K	2.948	CP04A1KF474M	2.700	CP04A1KF474K
.68	100	.562 x 1⅜	CP04A1EB684M	2.080	CP04A1EB684K	2.288	CP04A1KB684M	2.120	CP04A1KB684K
	200	.562 x 1⅞	CP04A1EC684M	2.116	CP04A1EC684K	2.328	CP04A1KC684M	2.200	CP04A1KC684K
	400	.750 x 2⅛	CP04A1EE684M	2.280	CP04A1EE684K	3.630	CP04A1KE684M	3.300	CP04A1KE684K
	600	1.0 x 1⅞	CP04A1EF684M	3.360	CP04A1EF684K	3.696	CP04A1KF684M	3.360	CP04A1KF684K
1.0	100	.562 x 1⅞	CP04A1EB105M	2.520	CP04A1EB105K	2.772	CP04A1KB105M	2.056	CP04A1KB105K
	200	.670 x 1⅞	CP04A1EC105M	2.600	CP04A1EC105K	2.860	CP04A1KC105M	2.640	CP04A1KC105K
	400	1.0 x 1⅞	CP04A1EE105M	3.400	CP04A1EE105K	3.740	CP04A1KE105M	3.420	CP04A1KE105K

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REM-26-6225

All prices and sizes subject to change without n

SPRAGUE CAPACITORS

TYPE CP04 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

WVDC	D. x L.	Cat. No.*	Net (1-9)
600	.235 x ¾	CP04A1KF102K3	$1.672
600	.235 x ¾	CP04A1KF122K3	1.672
600	.235 x ¾	CP04A1KF152K3	1.672
600	.235 x ¾	CP04A1KF182K3	1.672
600	.235 x ¾	CP04A1KF222K3	1.672
600	.235 x ¾	CP04A1KF272K3	1.716
600	.235 x ¾	CP04A1KF332K3	1.716
600	.235 x ¾	CP04A1KF392K3	1.716
600	.235 x ¾	CP04A1KF472K3	1.716
600	.235 x ¾	CP04A1KF562K3	1.716
600	.235 x ¾	CP04A1KF682K3	1.716
400	.235 x ¾	CP04A1KE822K3	1.716
600	.312 x ⅞	CP04A1KF822K3	1.760
400	.235 x ¾	CP04A1KE103K3	1.716
600	.312 x ⅞	CP04A1KF103K3	1.760
200	.235 x ¾	CP04A1KC123K3	1.672
600	.312 x ⅞	CP04A1KF123K3	1.804
200	.235 x ¾	CP04A1KC153K3	1.650
600	.312 x ⅞	CP041AKF153K3	1.804
1000	.400 x ⅞	CP04A1KG153K3	2.068
200	.235 x ¾	CP04A1KC183K3	1.650
600	.312 x ⅞	CP04A1KF183K3	1.804
1000	.400 x 1⅛	CP04A1KG183K3	2.068
200	.235 x ¾	CP04A1KC223K3	1.650
600	.312 x ⅞	CP04A1KF223K3	1.804
1000	.400 x 1⅛	CP04A1KG223K3	2.068
100	.235 x ¾	CP04A1KB273K3	1.628
400	.312 x ⅞	CP04A1KE273K3	1.782
600	.400 x ⅞	CP04A1KF273K3	1.870
1000	.400 x 1⅜	CP04A1KG273K3	2.134
100	.235 x ¾	CP04A1KB333K3	1.628
400	.312 x ⅞	CP04A1KE333K3	1.782
600	.400 x ⅞	CP04A1KF333K3	1.870
1000	.400 x 1⅜	CP04A1KG333K3	2.134
200	.312 x ⅞	CP04A1KC393K3	1.716
400	.400 x ⅞	CP04A1KE393K3	1.848
600	.400 x 1⅛	CP04A1KF393K3	1.892
1000	.562 x 1⅛	CP04A1KG393K3	2.156
200	.312 x ⅞	CP04A1KC473K3	1.716
400	.400 x ⅞	CP04A1KE473K3	1.848
600	.400 x 1⅛	CP041AKF473K3	1.892
1000	.562 x 1⅛	CP04A1KG473K3	2.156
200	.312 x ⅞	CP04A1KC563K3	1.760
400	.400 x 1⅛	CP04A1KE563K3	1.892
600	.400 x 1⅜	CP04A1KF563K3	1.980
1000	.562 x 1⅜	CP04A1KG563K3	2.244
200	.312 x ⅞	CP04A1KC683K3	1.760
400	.400 x 1⅛	CP04A1KE683K3	1.892
600	.400 x 1⅜	CP04A1KF683K3	1.980
1000	.562 x 1⅜	CP04A1KG683K3	2.420
100	.312 x ⅞	CP04A1KB823K3	1.760
200	.400 x ⅞	CP04A1KC823K3	1.804
400	.400 x 1⅜	CP04A1KE823K3	1.936
600	.562 x 1⅛	CP04A1KF823K3	2.112
1000	.562 x 1⅝	CP04A1KG823K3	2.376

μF	WVDC	D. x L.	Cat. No.*	Net (1-9)
.1	100	.312 x ⅞	CP04A1KB104K3	$1.760
	200	.400 x ⅞	CP04A1KC104K3	1.804
	400	.400 x 1⅜	CP04A1KE104K3	1.936
	600	.562 x 1⅛	CP04A1KF104K3	2.112
	1000	.562 x 1⅝	CP04A1KG104K3	2.376
.12	100	.400 x ⅞	CP04A1KB124K3	1.848
	200	.400 x 1⅛	CP04A1KC124K3	1.826
	400	.562 x 1⅛	CP04A1KE124K3	2.112
	600	.562 x 1⅜	CP04A1KF124K3	2.200
	1000	.670 x 1⅝	CP04A1KG124K3	2.464
.15	100	.400 x ⅞	CP04A1KB154K3	1.848
	200	.400 x 1⅛	CP04A1KC154K3	1.826
	400	.562 x 1⅛	CP04A1KE154K3	2.112
	600	.562 x 1⅜	CP04A1KF154K3	2.200
	1000	.670 x 1⅝	CP04A1KG154K3	2.464
.18	100	.400 x 1⅛	CP04A1KB184K3	1.848
	200	.400 x 1⅜	CP04A1KC184K3	2.002
	400	.562 x 1⅜	CP04A1KE184K3	2.244
	600	.562 x 1⅞	CP04A1KF184K3	2.376
	1000	.750 x 2⅛	CP04A1KG184K3	2.640
.22	100	.400 x 1⅛	CP04A1KB224K3	1.848
	200	.400 x 1⅜	CP04A1KC224K3	2.002
	400	.562 x 1⅜	CP04A1KE224K3	2.244
	600	.562 x 1⅞	CP04A1KF224K3	2.376
	1000	.750 x 2⅛	CP04A1KG224K3	2.640
.27	100	.400 x 1⅜	CP04A1KB274K3	2.112
	200	.562 x 1⅛	CP04A1KC274K3	2.156
	400	.562 x 1⅞	CP04A1KE274K3	2.288
	600	.670 x 1⅞	CP04A1KF274K3	2.640
	1000	.750 x 2⅝	CP04A1KG274K3	2.904
.33	100	.400 x 1⅜	CP04A1KB334K3	2.112
	200	.562 x 1⅛	CP04A1KC334K3	2.156
	400	.562 x 1⅞	CP04A1KE334K3	2.288
	600	.670 x 1⅞	CP04A1KF334K3	2.640
	1000	.750 x 2⅝	CP04A1KG334K3	2.904
.39	100	.562 x 1⅛	CP04A1KB394K3	2.244
	200	.562 x 1⅜	CP04A1KC394K3	2.288
	400	.670 x 1⅞	CP05A1KE394K3	2.728
	600	.750 x 2⅛	CP04A1KF394K3	2.970
	1000	1.000 x 2⅛	CP04A1KG394K3	3.234
.47	100	.562 x 1⅛	CP04A1KB474K3	2.244
	200	.562 x 1⅜	CP04A1KC474K3	2.288
	400	.670 x 1⅞	CP04A1KE474K3	2.728
	600	.750 x 2⅛	CP04A1KF474K3	2.970
	1000	1.000 x 2⅛	CP04A1KG474K3	3.234
.56	100	.562 x 1⅜	CP04A1K5B64K3	2.332
	200	.562 x 1⅞	CP04A1KC564K3	2.420
	400	.750 x 2⅛	CP04A1KE564K3	3.630
	600	1.000 x 1⅞	CP04A1KF564K3	3.696
.68	100	.562 x 1⅜	CP04A1KB684K3	2.332
	200	.562 x 1⅞	CP04A1KC684K3	2.420
	400	.750 x 2⅛	CP04A1KE684K3	3.630
	600	1.000 x 1⅞	CP04A1KF684K3	3.696
.82	100	.562 x 1⅞	CP04A1KB824K3	2.816
	200	.670 x 1⅞	CP04A1KC824K3	2.904
	400	1.000 x 1⅞	CP04A1KE824K3	3.762
1.0	100	.562 x 1⅞	CP05A1KB105K3	2.816
	200	.670 x 1⅞	CP05A1KC105K3	2.904
	400	1.000 x 1⅞	CP04A1KE105K3	3.762

ibration Grade 1, change last digit of cat. no. to 1

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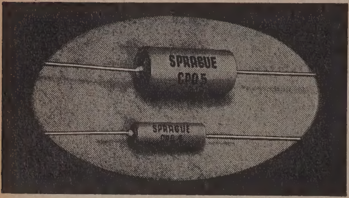
SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25A



- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Inserted tab construction for applications where minimum size is necessary.
- Positive hermetic closure of the metal cases assured by glass-to-metal solder-seal terminals.
- Type CP05 has insulating sleeve.
- Available in Characteristic E (−5 to +85°C) or Characteristi (−55°C to +125°C).
- Only popular insulated section grounded case) capacitors are lis For information on grounded units, consult your Sprague Indus Distributor.
- For prices on quantities from 10 to pieces, see your Sprague Indus Distributor.

			Characteristic E —55°C to +85°C				Characteristic K —55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net
.001	600	.298 x 13/16	CP05A1EF102M	$1.484	CP05A1EF102K	$1.626	CP05A1KF102M	$1.592	CP05A1KF102K	$1.
.0015	600	.298 x 13/16	CP05A1EF152M	1.484	CP05A1EF152K	1.626	CP05A1KF152M	1.592	CP05A1KF152K	1.
.0022	600	.298 x 13/16	CP05A1EF222M	1.484	CP05A1EF222K	1.626	CP05A1KF222M	1.592	CP05A1KF222K	1.
.0033	600	.298 x 13/16	CP05A1EF332M	1.484	CP05A1EF332K	1.626	CP05A1KF332M	1.632	CP05A1KF332K	1.
.0047	600	.298 x 13/16	CP05A1EF472M	1.484	CP05A1EF472K	1.626	CP05A1KF472M	1.632	CP05A1KF472K	1.
.0068	600	.298 x 13/16	CP05A1EF682M	1.484	CP05A1EF862K	1.626	CP05A1KF682M	1.632	CP05A1KF682K	1.
.01	400	.298 x 13/16	CP05A1EE103M	1.464	CP05A1EE103K	1.604	CP05A1KE103M	1.632	CP05A1KE103K	1.
	600	.375 x 15/16	CP05A1EF103M	1.504	CP05A1EF103K	1.648	CP05A1KF103M	1.680	CP05A1KF103K	1.
.015	200	.298 x 13/16	CP05A1EC153M	1.504	CP05A1EC153K	1.648	CP05A1KC153M	1.572	CP05A1KC153K	1.
	600	.375 x 15/16	CP05A1EF153M	1.544	CP05A1EF153K	1.692	CP05A1KF153M	1.720	CP05A1KF153K	1.
.022	200	.298 x 13/16	CP05A1EC223M	1.564	CP05A1EC223K	1.714	CP05A1KC223M	1.572	CP05A1KC223K	1.
	600	.375 x 15/16	CP05A1EF223M	1.584	CP05A1EF223K	1.736	CP05A1KF223M	1.720	CP05A1KF223K	1.
.033	100	.298 x 13/16	CP05A1EB333M	1.504	CP05A1EB333K	1.648	CP05A1KB333M	1.552	CP05A1KB333K	1.
	400	.375 x 15/16	CP05A1EE333M	1.564	CP05A1EE333K	1.714	CP05A1KE333M	1.700	CP05A1KE333K	1.
	600	.463 x 15/16	CP05A1EF333M	1.932	CP05A1EF333K	1.942	CP05A1KF333M	1.788	CP05A1KF333K	1.
.047	200	.375 x 15/16	CP05A1EC473M	1.544	CP05A1EC473K	1.648	CP05A1KC473M	1.560	CP05A1KC473K	1.
	400	.463 x 15/16	CP05A1EE473M	1.612	CP05A1EE473K	1.766	CP05A1KE473M	1.768	CP05A1KE473K	1.
	600	.463 x 15/16	CP05A1EF473M	1.632	CP05A1EF473K	1.788	CP05A1KF473M	1.808	CP05A1KF473K	1.
068	200	.375 x 15/16	CP05A1EC683M	1.544	CP05A1EC683K	1.648	CP05A1KC683M	1.640	CP05A1KC683K	1.
	400	.463 x 1 3/16	CP05A1EE683M	1.672	CP05A1EE683K	1.832	CP05A1KE683M	1.808	CP05A1KE683K	1.
	600	.463 x 1 7/16	CP05A1EF683M	1.752	CP05A1EF683K	1.880	CP05A1KF683M	1.888	CP05A1KF683K	2.
.1	100	.375 x 15/16	CP05A1EB104M	1.544	CP05A1EB104K	1.692	CP05A1KB104M	1.680	CP05A1KB104K	1.
	200	.463 x 15/16	CP05A1EC104M	1.572	CP05A1EC104K	1.722	CP05A1KC104M	1.728	CP05A1KC104K	1.
	400	.463 x 1 7/16	CP05A1EE104M	1.792	CP05A1EE104K	1.964	CP05A1KE104M	1.848	CP05A1KE104K	2.
	600	.625 x 1 3/16	CP05A1EF104M	1.856	CP05A1EF104K	2.032	CP05A1KF104M	2.048	CP05A1KF104K	2.
.15	100	.463 x 15/16	CP05A1EB154M	1.652	CP05A1EB154K	1.810	CP05A1KB154M	1.768	CP05A1KB154K	1.
	200	.463 x 1 3/16	CP05A1EC154M	1.672	CP05A1EC154K	1.830	CP05A1KC154M	1.748	CP05A1KC154K	1.
	400	.625 x 1 3/16	CP05A1EE154M	1.976	CP05A1EE154K	2.164	CP05A1KE154M	2.048	CP05A1KE154K	2.
	600	.625 x 1 7/16	CP05A1EF154M	1.996	CP05A1EF154K	2.188	CP05A1KF154M	2.128	CP05A1KF154K	2.
.22	100	.463 x 1 3/16	CP05A1EB224M	1.712	VP05A1EB224K	1.876	CP05A1KB224M	1.768	CP05A1KB224K	1.
	200	.463 x 1 7/16	CP05A1EC224M	1.872	CP05A1EC224K	2.052	CP05A1KC224M	1.908	CP05A1KC224K	2.
	400	.625 x 1 7/16	CP05A1EE224M	2.072	CP05A1EE224K	2.296	CP05A1KE224M	2.168	CP05A1KE224K	2.
	600	.625 x 1 15/16	CP05A1EF224M	2.136	CP05A1EF224K	2.340	CP05A1KF224M	2.288	CP05A1KF224K	2.
.33	100	.463 x 1 7/16	CP05A1EB334M	1.952	CP05A1EB334K	2.140	CP05A1KB334M	2.008	CP05A1KB334K	2.
	200	.625 x 1 3/16	CP05A1EC334M	2.016	CP05A1EC334K	2.208	CP05A1KC334M	2.088	CP05A1KC334K	2.
	400	.625 x 1 15/16	CP05A1EE334M	2.116	CP05A1EE334K	2.318	CP05A1KE334M	2.208	CP05A1KE334K	2.
	600	.733 x 1 15/16	CP05A1EF334M	2.380	CP05A1EF334K	2.604	CP05A1KF334M	2.560	CP05A1KF334K	2.
.47	100	.625 x 1 3/16	CP05A1EB474M	2.096	CP05A1EB474K	2.296	CP05A1KB474M	2.048	CP05A1KB474K	2.
	200	.625 x 1 3/16	CP05A1EC474M	2.136	CP05A1EC474K	2.340	CP05A1KC474M	2.208	CP05A1KC474K	2.
	400	.733 x 1 15/16	CP05A1EE474M	2.604	CP05A1EE474K	2.850	CP05A1KE474M	2.640	CP05A1KE474K	2.
	600	.813 x 2 3/16	CP05A1EF474M	2.840	CP05A1EF474K	3.108	CP05A1KF474M	2.840	CP05A1KF474K	3.
.68	100	.625 x 1 7/16	CP05A1EB684M	2.176	CP05A1EB684K	2.384	CP05A1KB684M	2.248	CP05A1KB684K	2.
	200	.625 x 1 15/16	CP05A1EC684M	2.212	CP05A1EC684K	2.424	CP05A1KC684M	2.328	CP05A1KC684K	2.
	400	.813 x 2 3/16	CP05A1EE684M	3.440	CP05A1EE684K	3.768	CP05A1KE684M	4.520	CP05A1KE684K	3.
	600	1.063 x 1 15/16	CP05A1EF684M	3.520	CP05A1EF684K	3.852	CP05A1KF684M	3.640	CP05A1KF684K	3.
1.0	100	.625 x 1 15/16	CP05A1EB105M	2.616	CP05A1EB105K	2.868	CP05A1KB105M	2.688	CP05A1KB105K	2.
	200	.733 x 1 15/16	CP05A1EC105M	2.740	CP05A1EC105K	3.000	CP05A1KC105M	2.800	CP05A1KC105K	3.
	400	1.063 x 1 15/16	CP05A1EE105M	3.600	CP05A1EE105K	3.940	CP05A1KE105M	3.700	CP05A1KE105K	4.

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REM-28-6225

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SPRAGUE CAPACITORS

TYPE CP05 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

	WVDC	D. x L.	Cat. No.*	Net (1-9)
	600	.298 x 13/16	CP05A1KF102K3	$1.744
2	600	.298 x 13/16	CP05A1KF122K3	1.744
5	600	.298 x 13/16	CP05A1KF152K3	1.744
3	600	.298 x 13/16	CP05A1KF182K3	1.744
2	600	.298 x 13/16	CP05A1KF222K3	1.744
7	600	.298 x 13/16	CP05A1KF272K3	1.778
3	600	.298 x 13/16	CP05A1KF332K3	1.788
9	600	.298 x 13/16	CP05A1KF392K3	1.788
7	600	.298 x 13/16	CP05A1KF472K3	1.788
6	600	.298 x 13/16	CP05A1KF562K3	1.788
8	600	.298 x 13/16	CP05A1KF682K3	1.788
2	400	.298 x 13/16	CP05A1KE822K3	1.796
	600	.375 x 15/16	CP05A1KF822K3	1.840
	400	.298 x 13/16	CP05A1KE103K3	1.796
	600	.375 x 15/16	CP05A1KF103K3	1.840
	200	.298 x 13/16	CP05A1KC123K3	1.722
	600	.375 x 15/16	CP05A1KF123K3	1.884
	200	.298 x 13/16	CP05A1KC153K3	1.722
	600	.375 x 15/16	CP05A1KF153K3	1.884
	1000	.463 x 15/16	CP05A1KG153K3	2.156
	200	.298 x 13/16	CP05A1KC183K3	1.722
	600	.375 x 15/16	CP05A1KF183K3	1.884
	1000	.463 x 1 3/16	CP05A1KG183K3	2.156
	200	.298 x 13/16	CP05A1KC223K3	1.722
	600	.375 x 15/16	CP05A1KF223K3	1.884
	1000	.463 x 1 3/16	CP05A1KG223K3	2.156
	100	.298 x 13/16	CP05A1KB273K3	1.700
	400	.375 x 15/16	CP05A1KE273K3	1.862
	600	.463 x 15/16	CP05A1KF273K3	1.958
	1000	1.463 x 1 7/16	CP05A1KG273K3	2.222
	100	.298 x 13/16	CP05A1KB333K3	1.700
	400	.375 x 15/16	CP05A1KE333K3	1.862
	600	.463 x 15/16	CP05A1KF333K3	1.958
	1000	1.463 x 1 7/16	CP05A1KG333K3	2.222
	200	.375 x 15/16	CP05A1KC393K3	1.796
	400	.463 x 15/16	CP05A1KE393K3	1.936
	600	.463 x 1 3/16	CP05A1KF293K3	1.980
	1000	.625 x 1 3/16	CP05A1KG393K3	2.284
	200	.375 x 15/16	CP05A1KC473K3	1.796
	400	.463 x 15/16	CP05A1KE473K3	1.936
	600	.463 x 1 3/16	CP05A1KF473K3	1.980
	1000	.625 x 1 3/16	CP05A1KG473K3	2.284
	200	.375 x 15/16	CP05A1KC563K3	1.840
	400	.463 x 1 3/16	CP05A1KE563K3	1.972
	600	.463 x 1 7/16	CP05A1KF563K3	2.068
	1000	.625 x 1 7/16	CP05A1KG563K3	2.372
	200	.375 x 15/16	CP05A1KC683K3	1.840
	400	.463 x 1 3/16	CP05A1KE683K3	1.980
	600	.463 x 1 7/16	CP05A1KF683K3	2.068
	1000	.625 x 1 7/16	CP05A1KG683K3	2.372
	100	.375 x 15/16	CP05A1KB823K3	1.840
	200	.463 x 15/16	CP05A1KC823K3	1.892
	400	.463 x 1 7/16	CP05A1KE823K3	2.024

µF	WVDC	D. x L.	Cat. No.*	Net (1-9)
	600	.625 x 1 3/16	CP05A1KF823K3	$2.240
	1000	.625 x 1 11/16	CP05A1KG823K3	2.504
.1	100	.463 x 15/16	CP05A1KB104K3	1.840
	200	.463 x 15/16	CP05A1KC104K3	1.892
	400	.463 x 1 7/16	CP05A1KE104K3	2.024
	600	.625 x 1 3/16	CP05A1KF104K3	2.240
	1000	.625 x 1 11/16	CP05A1KG104K3	2.504
.12	100	.463 x 15/16	CP05A1KB124K3	1.936
	200	.463 x 1 3/16	CP05A1KC124K3	1.914
	400	.625 x 1 3/16	CP05A1KE124K3	2.332
	600	.625 x 1 7/16	CP05A1KF124K3	2.328
	1000	.733 x 1 11/16	CP05A1KG124K3	2.580
.15	100	.463 x 15/16	CP05A1KB154K3	1.936
	200	.463 x 1 1/8	CP05A1KC154K3	1.914
	400	.625 x 1 3/16	CP05A1KE154K3	2.332
	600	.625 x 1 7/16	CP05A1KF154K3	2.328
	1000	.733 x 1 11/16	CP05A1KG154K3	2.580
.18	100	.463 x 1 3/16	CP05A1KB184K3	1.936
	200	.463 x 1 7/16	CP05A1KC184K3	2.090
	400	.625 x 1 7/16	CP05A1KE184K3	2.372
	600	.625 x 1 15/16	CP05A1KF184K3	2.504
	1000	.813 x 2 3/16	CP05A1KG184K3	2.860
.22	100	.463 x 1 3/16	CP05A1KB224K3	1.936
	200	.463 x 1 7/16	CP05A1KC224K3	2.090
	400	.625 x 1 7/16	CP05A1KE224K3	2.372
	600	.625 x 1 15/16	CP05A1KF224K3	2.504
	1000	.813 x 2 3/16	CP05A1KG224K3	2.860
.27	100	.463 x 1 7/16	CP05A1KB274K3	2.200
	200	.625 x 1 3/16	CP05A1KC274K3	2.284
	400	.625 x 1 15/16	CP05A1KE274K3	2.416
	600	.733 x 1 15/16	CP05A1KF274K3	2.768
	1000	.813 x 2 11/16	CP05A1KG274K3	3.124
.33	100	.463 x 1 7/16	CP05A1KB334K3	2.200
	200	.625 x 1 3/16	CP05A1KC334K3	2.284
	400	.625 x 1 15/16	CP05A1KE334K3	2.416
	600	.733 x 1 15/16	CP05A1KF334K3	2.768
	1000	.813 x 2 11/16	CP05A1KG334K3	3.124
.39	100	.625 x 1 3/16	CP05A1KB394K3	2.372
	200	.625 x 1 7/16	CP05A1KC394K3	2.416
	400	.733 x 1 15/16	CP05A1KE394K3	2.948
	600	.813 x 2 3/16	CP05A1KF394K3	3.190
	1000	1.063 x 2 3/16	CP05A1KG394K3	3.514
.47	100	.625 x 1 3/16	CP05A1KB474K3	2.372
	200	.625 x 1 7/16	CP05A1KC474K3	2.416
	400	.733 x 1 15/16	CP05A1KE474K3	2.948
	600	.813 x 2 3/16	CP05A1KF474K3	3.190
	1000	1.063 x 2 3/16	CP05A1KG474K3	3.514
.56	100	.625 x 1 7/16	CP05A1KB564K3	2.460
	200	.625 x 1 15/16	CP05A1KC564K3	2.548
	400	.813 x 2 3/16	CPo5A1KE564K3	3.850
	600	1.063 x 1 15/16	CP05A1KF564K3	3.976
.68	100	.625 x 1 7/16	CP05A1KB684K3	2.460
	200	.625 x 1 15/16	CP05A1KC684K3	2.548
	400	.813 x 2 3/16	CP05A1KE684K3	3.850
	600	1.063 x 1 15/16	CP05A1KF684K3	3.976
.82	100	.625 x 1 13/16	CP05A1KB824K3	2.944
	200	.733 x 1 15/16	CP05A1KC824K3	3.064
	400	1.063 x 1 15/16	CP05A1KE824K3	4.042
1.0	100	.625 x 1 15/16	CP05A1KB105K3	2.944
	200	.733 x 1 15/16	CP05A1KC105K3	3.064
	400	1.063 x 1 15/16	CP05A1KE105K3	4.042

Vibration Grade 1, change last digit of Catalog Number to 1.

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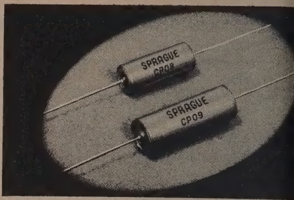
SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (−55°C to +85°C) or Characteristic K (−55°C to +125°C).
- Type CP08 has plain metal case.
- Extended foil (so-called non-inductive section) construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.



			Characteristic E −55°C to +85°C				Characteristic K −55°C to +125°C		
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.
µF	WVDC	Size D. x L.	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.	Net (1-9)	Cat. No.
.001	600	.235 x ¾	CP08A1EF102M	$1.764	CP08A1EF102K	$1.940	CP08A1KF102M	$1.976	CP08A1KF102K
.0015	600	.235 x ¾	CP08A1EF152M	1.764	CP08A1EF152K	1.940	CP08A1KF152M	1.976	CP08A1KF152K
.022	600	.235 x ¾	CP08A1EF222M	1.764	CP08A1EF222K	1.940	CP08A1KF222M	1.976	CP08A1KF222K
.0033	400	.235 x ¾	CP08A1EE332M	1.764	CP08A1EE332K	1.940	CP08A1KE332M	1.976	CP08A1KE332K
	600	.312 x ⅞	CP08A1EF332M	1.840	CP08A1EF332K	2.024	CP08A1KF332M	2.060	CP08A1KF332K
.0047	200	.235 x ¾	CP08A1EC472M	1.712	CP08A1EC472K	1.883	CP08A1KC472M	1.920	CP08A1KC472K
	600	.312 x ⅞	CP08A1EF472M	1.848	CP08A1EF472K	2.033	CP08A1KF472M	2.068	CP08A1KF472K
.0068	200	.235 x ¾	CP08A1EC682M	1.712	CP08A1EC682K	1.883	CP08A1KC682M	1.920	CP08A1KC682K
	600	.312 x ⅞	CP08A1EF682M	1.860	CP08A1EF682K	2.046	CP08A1KF682M	2.084	CP08A1KF682K
.01	100	.235 x ¾	CP08A1EB103M	1.688	CP08A1EB103K	1.857	CP08A1KB103M	1.892	CP08A1KB103K
	600	.312 x ⅞	CP08A1EF103M	1.868	CP08A1EF103K	2.055	CP08A1KF103M	2.092	CP08A1KF103K
.015	100	.235 x ¾	CP08A1EB153M	1.700	CP08A1EB153K	1.870	CP08A1KB153M	1.904	CP08A1KB153K
	400	.312 x ⅞	CP08A1EE153M	1.868	CP08A1EE153K	2.055	CP08A1KE153M	2.092	CP08A1KE153K
	600	.400 x ⅞	CP08A1EF153M	1.940	CP08A1EF153K	2.134	CP08A1KF153M	2.176	CP08A1KF153K
.022	200	.312 x ⅞	CP08A1EC223M	1.816	CP08A1EC223K	1.998	CP08A1KC223M	2.036	CP08A1KC223K
	600	.400 x ⅞	CP08A1EF223M	1.952	CP08A1EF223K	2.147	CP08A1KF223M	2.188	CP08A1KF223K
.033	200	.312 x ⅞	CP08A1EC333M	1.828	CP08A1EC333K	2.011	CP08A1KC333M	2.048	CP08A1KC333K
	400	.400 x ⅞	CP08A1EE333M	1.920	CP08A1EE333K	2.112	CP08A1KE333M	2.152	CP08A1KE333K
	600	.400 x 1⅛	CP08A1EF333M	1.964	CP08A1EF333K	2.160	CP08A1KF333M	2.200	CP08A1KF333K
.047	100	.312 x ⅞	CP08A1EB473M	1.784	CP08A1EB473K	1.962	CP08A1KB473M	2.000	CP08A1KB473K
	200	.400 x ⅞	CP08A1EC473M	1.868	CP08A1EC473K	2.055	CP08A1KC473M	2.092	CP08A1KC473K
	400	.400 x 1⅛	CP08A1EE473M	1.952	CP08A1EE473K	2.147	CP08A1KE473M	2.188	CP08A1KE473K
	600	.400 x 1⅜	CP08A1EF473M	2.040	CP08A1EF473K	2.244	CP08A1KF473M	2.288	CP08A1KF473K
.068	200	.400 x ⅞	CP08A1EC683M	1.884	CP08A1EC683K	2.072	CP08A1KC683M	2.108	CP08A1KC683K
	400	.400 x 1⅜	CP08A1EE683M	2.016	CP08A1EE683K	2.218	CP08A1KE683M	2.260	CP08A1KE683K
	600	.562 x 1⅛	CP08A1EF683M	2.168	CP08A1EF683K	2.385	CP08A1KF683M	2.428	CP08A1KF683K
.1	100	.400 x ⅞	CP08A1EB104M	1.828	CP08A1EB104K	2.011	CP08A1KB104M	2.048	CP08A1KB104K
	200	.400 x 1⅛	CP08A1EC104M	1.888	CP08A1EC104K	2.077	CP08A1KC104M	2.116	CP08A1KC104K
	400	.562 x 1⅛	CP08A1EE104M	2.120	CP08A1EE104K	2.332	CP08A1KE104M	2.372	CP08A1KE104K
	600	.562 x 1 5/16	CP08A1EF104M	2.244	CP08A1EF104K	2.468	CP08A1KF104M	2.512	CP08A1KF104K
.15	100	.400 x 1⅛	CP08A1EB154M	1.860	CP08A1EB154K	2.046	CP08A1KB154M	2.084	CP08A1KB154K
	200	.400 x 1⅜	CP08A1EC154M	1.996	CP08A1EC154K	2.196	CP08A1KC154M	2.236	CP08A1KC154K
	400	.562 x 1⅜	CP08A1EE154M	2.244	CP08A1EE154K	2.468	CP08A1KE154M	2.516	CP08A1KE154K
	600	.562 x 1 9/16	CP08A1EF154M	2.396	CP08A1EF154K	2.636	CP08A1KF154M	2.684	CP08A1KF154K
.22	100	.400 x 1⅜	CP08A1EB224M	1.940	CP08A1EB224K	2.134	CP08A1KB224M	2.176	CP08A1KB224K
	200	.562 x 1⅛	CP08A1EC224M	2.120	CP08A1EC224K	2.332	CP08A1KC224M	2.372	CP08A1KC224K
	400	.562 x 1⅝	CP08A1EE224M	2.352	CP08A1EE224K	2.587	CP08A1KE224M	2.636	CP08A1KE224K
	600	.670 x 1 9/16	CP08A1EF224M	2.648	CP08A1EF224K	2.913	CP08A1KF224M	2.964	CP08A1KF224K
.33	100	.562 x 1⅛	CP08A1EB334M	2.088	CP08A1EB334K	2.297	CP08A1KB334M	2.340	CP08A1KB334K
	200	.562 x 1⅜	CP08A1EC334M	2.244	CP08A1EC334K	2.468	CP08A1KC334M	2.516	CP08A1KC334K
	400	.670 x 1⅝	CP08A1EE334M	2.584	CP08A1EE334K	2.842	CP08A1KE334M	2.892	CP08A1KE334K
	600	.750 x 2⅛	CP08A1EF334M	2.768	CP08A1EF334K	3.045	CP08A1KF334M	3.096	CP08A1KF334K
.47	100	.562 x 1⅜	CP08A1EB474M	2.208	CP08A1EB474K	2.429	CP08A1KB474M	2.472	CP08A1KB474K
	200	.562 x 1⅝	CP08A1EC474M	2.376	CP08A1EC474K	2.614	CP08A1KC474M	2.660	CP08A1KC474K
	400	.750 x 2⅛	CP08A1EE474M	2.728	CP08A1EE474K	3.001	CP08A1KE474M	2.056	CP08A1KE474K
	600	.750 x 2⅜	CP08A1EF474M	2.936	CP08A1EF474K	3.230	CP08A1KF474M	3.288	CP08A1KF474K
68	100	.562 x 1⅝	CP08A1EB684M	2.328	CP08A1EB684K	2.559	CP08A1KB684M	2.608	CP08A1KB684K
	200	.670 x 1⅝	CP08A1EC684M	2.584	CP08A1EC684K	2.842	CP08A1KC684M	2.892	CP08A1KC684K
1.0	100	.670 x 1⅝	CP08A1EB105M	2.584	CP08A1EB105K	2.842	CP08A1KB105M	2.892	CP08A1KB105K
	200	.750 x 2⅛	CP08A1EC105M	2.708	CP08A1EC105K	2.979	CP08A1KC105M	3.032	CP08A1KC105K

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SPRAGUE CAPACITORS

TYPE CP08 CAPACITORS TO MIL-C-25C

(± 10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

	WVDC	D. x L.	Cat. No.*	Net (1-9)
	600	.235 x ¾	CP08A1KF102K3	$1.760
	1000	.400 x ⅞	CP08A1KG102K3	2.024
2	600	.235 x ¾	CP08A1KF122K3	1.760
	1000	.400 x ⅞	CP08A1KG122K3	2.024
5	600	.235 x ¾	CP08A1KF152K3	1.760
	1000	.400 x ⅞	CP08A1KG152K3	2.024
8	600	.235 x ¾	CP08A1KF182K3	1.760
	1000	.400 x ⅞	CP08A1KG182K3	2.024
2	600	.235 x ¾	CP08A1KF222K3	1.760
	1000	.400 x ⅞	CP08A1KG222K3	2.024
	400	.235 x ¾	CP08A1KE272K3	1.760
7	600	.312 x ⅞	CP08A1KF272K3	1.804
	1000	.400 x ⅞	CP08A1KG272K3	2.024
	400	.235 x ¾	CP08A1KE332K3	1.760
3	600	.312 x ⅞	CP08A1KF332K3	1.804
	1000	.400 x ⅞	CP08A1KG332K3	2.024
	200	.235 x ¾	CP08A1KC392K3	1.694
9	600	.312 x ⅞	CP08A1KF392K3	1.870
	1000	.400 x ⅞	CP08A1KG392K3	2.134
	200	.235 x ¾	CP08A1KC472K3	1.694
7	600	.312 x ⅞	CP08A1KF472K3	1.870
	1000	.400 x ⅞	CP08A1KG472K3	2.134
	200	.235 x ¾	CP08A1KC562K3	1.716
6	600	.312 x ⅞	CP08A1KF562K3	1.892
	1000	.400 x ⅞	CP08A1KG562K3	2.156
	200	.235 x ¾	CP08A1KC682K3	1.716
8	600	.312 x ⅞	CP08A1KF682K3	1.892
	1000	.400 x ⅞	CP08A1KG682K3	2.156
	100	.235 x ¾	CP08A1KB822K3	1.672
2	600	.312 x ⅞	CP08A1KF822K3	1.914
	1000	.400 x ⅞	CP08A1KG822K3	2.178
	100	.235 x ¾	CP08A1KB103K3	1.672
	600	.312 x ⅞	CP08A1KF103K3	1.914
	1000	.400 x ⅞	CP08A1KG103K3	2.178
	100	.235 x ¾	CP08A1KB123K3	1.672
	400	.312 x ⅞	CP08A1KE123K3	1.892
	600	.400 x ⅞	CP08A1KF123K3	1.936
	1000	.400 x 1⅛	CP08A1KG123K3	2.200
	100	.235 x ¾	CP08A1KB153K3	1.672
	400	.312 x ⅞	CP08A1KE153K3	1.892
	600	.400 x ⅞	CP08A1KF153K3	1.936
	1000	.400 x 1⅛	CP08A1KG153K3	2.200
	200	.312 x ⅞	CP08A1KC183K3	1.848
	600	.400 x ⅞	CP08A1KF183K3	1.958
	1000	.400 x 1⅜	CP08A1KG183K3	2.222
	200	.312 x ⅞	CP08A1KC223K3	1.848
	600	.400 x ⅞	CP08A1KF223K3	1.958
	1000	.400 x 1⅜	CP08A1KG223K3	2.222
	200	.312 x ⅞	CP08A1KC273K3	1.848
	400	.400 x ⅞	CP08A1KE273K3	1.936
	600	.400 x 1⅛	CP08A1KF273K3	1.958
	1000	.562 x 1⅛	CP08A1KG273K3	2.222

µF	WVDC	D. x L.	Cat. No.*	Net (1-9)
.033	200	.312 x ⅞	CP08A1KC333K3	$1.848
	400	.400 x ⅞	CP08A1KE333K3	1.936
	600	.400 x 1⅛	CP08A1KF333K3	1.958
	1000	.562 x 1⅛	CP08A1KG333K3	2.222
.039	100	.312 x ⅞	CP08A1KB393K3	1.804
	200	.400 x ⅞	CP08A1KC393K3	1.892
	400	.400 x 1⅛	CP08A1KE393K3	1.980
	600	.400 x 1⅜	CP08A1KF393K3	2.024
	1000	.562 x 1⅜	CP08A1KG393K3	2.288
.047	100	.312 x ⅞	CP08A1KB473K3	1.804
	200	.400 x ⅞	CP08A1KC473K3	1.892
	400	.400 x 1⅛	CP08A1KE473K3	1.980
	600	.400 x 1⅜	CP08A1KF473K3	2.024
	1000	.562 x 1⅜	CP08A1KG473K3	2.288
.056	200	.400 x ⅞	CP08A1KC563K3	1.892
	400	.400 x 1⅜	CP08A1KE563K3	1.980
	600	.562 x 1⅛	CP08A1KF563K3	2.156
	1000	.562 x 1⅝	CP08A1KG563K3	2.420
.068	200	.400 x ⅞	CP08A1KC683K3	1.892
	400	.400 x 1⅜	CP08A1KE683K3	1.980
	600	.562 x 1⅛	CP08A1KF683K3	2.156
	1000	.562 x 1⅝	CP08A1KG683K3	2.420
.082	100	.400 x ⅞	CP08A1KB823K3	1.848
	200	.400 x 1⅛	CP08A1KC823K3	1.914
	400	.562 x 1⅛	CP08A1KE823K3	2.112
	600	.562 x 1⅜	CP08A1KF823K3	2.200
	1000	.670 x 1⅝	CP08A1KG823K3	2.420
.1	100	.400 x ⅞	CP08A1KB104K3	1.848
	200	.400 x 1⅛	CP08A1KC104K3	1.914
	400	.562 x 1⅛	CP08A1KE104K3	2.112
	600	.562 x 1⅜	CP08A1KF104K3	2.200
	1000	.670 x 1⅝	CP08A1KG104K3	2.420
.12	100	.400 x 1⅛	CP08A1KB124K3	1.848
	200	.400 x 1⅜	CP08A1KC124K3	1.980
	400	.562 x 1⅜	CP08A1KE124K3	2.200
	600	.562 x 1⅝	CP08A1KF124K3	2.332
	1000	.670 x 1⅞	CP08A1KG124K3	2.596
.15	100	.400 x 1⅛	CP08A1KB154K3	1.848
	200	.400 x 1⅜	CP08A1KC154K3	1.980
	400	.562 x 1⅜	CP08A1KE154K3	2.200
	600	.562 x 1⅝	CP08A1KF154K3	2.332
	1000	.670 x 1⅞	CP08A1KG154K3	2.596
.18	100	.400 x 1⅜	CP08A1KB184K3	1.980
	200	.562 x 1⅛	CP08A1KC184K3	2.112
	400	.562 x 1⅝	CP08A1KE184K3	2.332
	600	.670 x 1⅝	CP08A1KF184K3	2.640
	1000	.750 x 2⅛	CP08A1KG184K3	2.904
.22	100	.400 x 1⅜	CP08A1KB224K3	1.980
	200	.562 x 1⅛	CP08A1KC224K3	2.112
	400	.562 x 1⅝	CP08A1KE224K3	2.332
	600	.670 x 1⅝	CP08A1KF224K3	2.640
	1000	.750 x 2⅛	CP08A1KG224K3	2.904
.27	100	.562 x 1⅛	CP08A1KB274K3	2.200
	200	.562 x 1⅜	CP08A1KC274K3	2.240
	400	.670 x 1⅝	CP08A1KE274K3	2.552
	600	.750 x 2⅛	CP08A1KF274K3	2.948
	1000	1.000 x 2⅛	CP08A1KG274K3	3.212

Vibration Grade 1, change last digit in Catalog Number to 1.

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REM-31-6224

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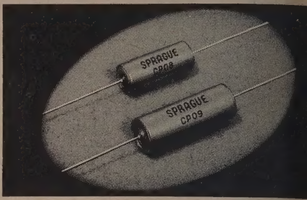
SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25A

- Vitamin Q impregnation assures performance above and beyond MIL-C-25A requirements.
- Positive hermetic closure of the metal cases with glass-to-metal solder-seal terminals.
- Available in Characteristic E (—55°C to +85°C) or Characteristic K (—55°C to +125°C).
- Type CP09 has insulating sleeve.
- Extended foil, non-inductive section construction.
- Listed below are popular insulated section (ungrounded case) capacitors. Consult your Sprague Industrial Distributor for information on grounded case units.
- For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor.



			Characteristic E —55°C to +85°C				Characteristic K —55°C to +125°C			
			±20% Tol.		±10% Tol.		±20% Tol.		±10% Tol.	
µF	WVDC	Size D. x L.	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net (1
.001	600	.298 x 13/16	CP09A1EF102M	$1.524	CP09A1EF102K	$1.670	CP09A1KF102M	$1.672	CP09A1KF102K	$1.
.0015	600	.298 x 13/16	CP09A1EF152M	1.524	CP09A1EF152K	1.670	CP09A1KF152M	1.672	CP09A1KF152K	1.
.0022	600	.298 x 13/16	CP09A1EF222M	1.524	CP09A1EF222K	1.670	CP09A1KF222M	1.672	CP09A1KF222K	1.
.0033	400	.298 x 13/16	CP09A1EE332M	1.504	CP09A1EE332K	1.648	CP09A1KE332M	1.672	CP09A1KE332K	1.
	600	.375 x 15/16	CP09A1EF332M	1.544	CP09A1EF332K	1.692	CP09A1KF332M	1.720	CP09A1KF332K	1.
.0047	200	.298 x 13/16	CP09A1EC472M	1.452	CP09A1EC472K	1.591	CP09A1KC472M	1.612	CP09A1KC472K	1.
	600	.375 x 15/16	CP09A1EF472M	1.564	CP09A1EF472K	1.714	CP09A1KF472M	1.780	CP09A1KF472K	1.9
.0068	200	.298 x 13/16	CP09A1EC682M	1.452	CP09A1EC682K	1.591	CP09A1KC682M	1.632	CP09A1KC682K	1.
	600	.375 x 15/16	CP09A1EF682M	1.584	CP09A1EF682K	1.736	CP09A1KF682M	1.800	CP09A1KF682K	1.9
.01	100	.298 x 13/16	CP09A1EB103M	1.544	CP09A1EB103K	1.692	CP09A1KB103M	1.592	CP09A1KB103K	1.
	600	.375 x 15/16	CP09A1EF103M	1.604	CP09A1EF103K	1.718	CP09A1KF103M	1.820	CP09A1KF103K	1.9
.015	100	.298 x 13/16	CP09A1EB153M	1.544	CP09A1EB153K	1.648	CP09A1KB153M	1.592	CP09A1KB153K	1.
	400	.375 x 15/16	CP09A1EE153M	1.584	CP09A1EE153K	1.736	CP09A1KE153M	1.800	CP09A1KE153K	1.9
	600	.463 x 15/16	CP09A1EF153M	1.632	CP09A1EF153K	1.788	CP09A1KF153M	1.848	CP09A1KF153K	2.0
.022	200	.375 x 15/16	CP09A1EC223M	1.524	CP09A1EC223K	1.670	CP09A1KC223M	1.760	CP09A1KC223K	1.9
	600	.463 x 15/16	CP09A1EF223M	1.632	CP09A1EF223K	1.788	CP09A1KF223M	1.868	CP09A1KF223K	2.0
.033	200	.375 x 15/16	CP09A1EC333M	1.544	CP09A1E333K	1.692	CP09A1KC333M	1.760	CP09A1KC333K	1.9
	400	.463 x 15/16	CP09A1EE333M	1.584	CP09A1EE333K	1.744	CP09A1KE333M	1.848	CP09A1KE333K	2.0
	600	.463 x 1 3/16	CP09A1EF333M	1.672	CP09A1EF333K	1.832	CP09A1KF333M	1.868	CP09A1KF333K	2.0
.047	100	.375 x 15/16	CP09A1EB473M	1.584	CP09A1EB473K	1.758	CP09A1KB473M	1.720	CP09A1KB473K	1.8
	200	.463 x 15/16	CP09A1EC473M	1.632	CP09A1EC473K	1.788	CP09A1KC473M	1.808	CP09A1KC473K	1.9
	400	.463 x 1 3/16	CP09A1EE473M	1.672	CP09A1EE473K	1.832	CP09A1KE473M	1.888	CP09A1KE473K	2.0
	600	.463 x 1 7/16	CP09A1EF473M	1.752	CP09A1EF473K	1.920	CP09A1KF473M	1.928	CP09A1KF473K	2.1
.068	200	.463 x 15/16	CP09A1EC683M	1.632	CP09A1EC683K	1.788	CP09A1KC683M	1.808	CP09A1KC683K	1.9
	400	.463 x 1 7/16	CP09A1EE683M	1.732	CP09A1EE683K	1.898	CP09A1KE683M	1.880	CP09A1KE683K	2.0
	600	.625 x 1 3/16	CP09A1EF683M	1.856	CP09A1EF683K	2.032	CP09A1KF683M	2.088	CP09A1KF683K	2.2
.1	100	.463 x 15/16	CP09A1EB104M	1.672	CP09A1EB104K	1.832	CP09A1KB104M	1.768	CP09A1KB104K	1.9
	200	.463 x 1 3/16	CP09A1EC104M	1.676	CP09A1EC104K	1.836	CP09A1KC104M	1.828	CP09A1KC104K	2.0
	400	.625 x 1 3/16	CP09A1EE104M	1.816	CP09A1EE104K	1.988	CP09A1KE104M	2.048	CP09A1KE104K	2.2
	600	.625 x 1 7/16	CP09A1EF104M	1.936	CP09A1EF104K	2.120	CP09A1KF104M	2.128	CP09A1KF104K	2.3
.15	100	.463 x 1 3/16	CP09A1EB154M	1.712	CP09A1EB154K	1.876	CP09A1KB154M	1.768	CP09A1KB154K	1.9
	200	.463 x 1 7/16	CP09A1EC154M	1.772	CP09A1EC154K	1.942	CP09A1KC154M	1.888	CP09A1KC154K	2.0
	400	.625 x 1 7/16	CP09A1EE154M	1.996	CP09A1EE154K	2.186	CP09A1KE154M	2.128	CP09A1KE154K	2.3
	600	.625 x 1 11/16	CP09A1EF154M	2.056	CP09A1EF154K	2.472	CP09A1KF154M	2.248	CP09A1KF154K	2.4
.22	100	.463 x 1 7/16	CP09A1EB224M	1.712	CP09A1EB224K	1.876	CP09A1KB224M	1.888	CP09A1KB224K	2.0
	200	.625 x 1 3/16	CP09A1EC224M	1.936	CP09A1EC224K	2.120	CP09A1KC224M	2.048	CP09A1KC224K	2.2
	400	.625 x 1 11/16	CP09A1EE224M	2.136	CP09A1EE224K	2.340	CP09A1KE224M	2.252	CP09A1KE224K	2.4
	600	.733 x 1 11/16	CP09A1EF224M	2.300	CP09A1EF224K	2.516	CP09A1KF224M	2.680	CP09A1KF224K	2.8
.33	100	.625 x 1 3/16	CP09A1EB334M	1.976	CP09A1EB334K	2.164	CP09A1KB334M	2.128	CP09A1KB334K	2.3
	200	.625 x 1 7/16	CP09A1EC334M	2.096	CP09A1EC334K	2.296	CP09A1KC334M	2.168	CP09A1KC334K	2.3
	400	.733 x 1 11/16	CP09A1EE334M	2.260	CP09A1EE334K	2.472	CP09A1KE334M	2.480	CP09A1KE334K	2.7
	600	.813 x 2 3/16	CP09A1EF334M	2.800	CP09A1EF334K	3.000	CP09A1KF334M	2.900	CP09A1KF334K	3.1
.47	100	.625 x 1 7/16	CP09A1EB474M	2.096	CP09A1EB474K	2.296	CP09A1KB474M	2.208	CP09A1KB474K	2.4
	200	.625 x 1 11/16	CP09A1EC474M	2.136	CP09A1EC474K	2.340	CP09A1KC474M	2.248	CP09A1KC474K	2.4
	400	.813 x 2 3/16	CP09A1EE474M	2.800	CP09A1EE474K	3.064	CP09A1KE474M	2.900	CP09A1KE474K	3.1
	600	.813 x 2 7/16	CP09A1EF474M	2.920	CP09A1EF474K	3.196	CP09A1KF474M	3.029	CP09A1KF474K	2.8
.68	100	.625 x 1 11/16	CP09A1EB684M	2.216	CP09A1EB684K	2.428	CP09A1KB684M	2.368	CP09A1KB684K	2.5
	200	.733 x 1 11/16	CP09A1EC684M	2.500	CP09A1EC684K	2.736	CP09A1KC684M	2.560	CP09A1KC684K	2.8
1.0	100	.733 x 1 11/16	CP09A1EB105M	2.460	CP09A1EB105K	2.692	CP09A1KB105M	2.560	CP09A1KB105K	2.8
	200	.813 x 2 3/16	CP09A1EC105M	2.840	CP09A1EC105K	3.108	CP09A1KC105M	2.920	CP09A1KC105K	3.1

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SPRAGUE CAPACITORS

TYPE CP09 CAPACITORS TO MIL-C-25C

(±10% CAPACITANCE TOLERANCE, CHARACTERISTIC K)

	WVDC	D. x L.	Cat. No.	Net (1-9)
	600	.298 x 13/16	CP09A1KF102K3	$1.830
	1000	.463 x 15/16	CP09A1KG102K3	2.112
2	600	.298 x 13/16	CP09A1KF122K3	1.830
	1000	.463 x 15/16	CP09A1KG122K3	2.112
5	600	.298 x 13/16	CP09A1KF152K3	1.830
	1000	.463 x 15/16	CP09A1KG152K3	2.112
8	600	.298 x 13/16	CP09A1KF182K3	1.830
	1000	.463 x 15/16	CP09A1KG182K3	2.112
2	600	.298 x 13/16	CP09A1KF222K3	1.830
	1000	.463 x 15/16	CP09A1KG222K3	2.112
	400	.298 x 13/16	CP09A1KE272K3	1.832
7	600	.375 x 15/16	CP09A1KF272K3	1.884
	1000	.463 x 15/16	CP09A1KG272K3	2.112
	400	.298 x 13/16	CP09A1KE332K3	1.832
3	600	.375 x 15/16	CP09A1KF332K3	1.884
	1000	.463 x 15/16	CP09A1KG332K3	2.112
	200	.298 x 13/16	CP09A1KC392K3	1.766
9	600	.375 x 15/16	CP09A1KF393K3	1.950
	1000	.463 x 15/16	CP09A1KG393K3	2.222
	200	.298 x 13/16	CP09A1KC472K3	1.766
7	600	.375 x 15/16	CP09A1KF472K3	1.950
	1000	.463 x 15/16	CP09A1KG472K3	2.222
	200	.298 x 13/16	CP09A1KC562K3	1.788
6	600	.375 x 15/16	CP09A1KF562K3	1.972
	1000	.463 x 15/16	CP09A1KG562K3	2.244
	200	.298 x 13/16	CP09A1KC682K3	1.788
8	600	.375 x 15/16	CP09A1KF682K3	1.972
	1000	.463 x 15/16	CP09A1KG682K3	2.244
	100	.298 x 13/16	CP09A1KB822K3	1.744
2	600	.375 x 15/16	CP09A1KF822K3	1.994
	1000	.463 x 15/16	CP09A1KG822K3	2.266
	100	.298 x 13/16	CP09A1KB103K3	1.744
	600	.375 x 15/16	CP09A1KF103K3	1.994
	1000	463 x 15/16	CP09A1KG103K3	2.266
	100	.298 x 13/16	CP09A1KB123K3	1.744
	400	.375 x 15/16	CP09A1KE123K3	1.972
	600	.463 x 15/16	CP09A1KF123K3	2.024
	1000	.463 x 13/16	CP09A1KG123K3	2.288
	100	.298 x 13/16	CP09A1KB153K3	1.744
	400	.375 x 15/16	CP09A1KE153K3	1.972
	600	.463 x 15/16	CP09A1KF153K3	2.024
	1000	.463 x 13/16	CP09A1KG153K3	2.288
	200	.375 x 15/16	CP09A1KC183K3	1.928
	600	.463 x 15/16	CP09A1KF183K3	2.046
	1000	.463 x 17/16	CP09A1KG183K3	2.310
	200	.375 x 15/16	CP09A1KC223K3	1.928
	600	.463 x 15/16	CP09A1KF223K3	2.046
	1000	.463 x 17/16	CP09A1KG223K3	2.310

µF	WVDC	D. x L.	Cat. No.	Net (1-9)
	200	.375 x 15/16	CP09A1KC273K3	$1.928
	400	.463 x 15/16	CP09A1KE273K3	2.024
.027	600	.463 x 13/16	CP09A1KF273K3	2.046
	1000	.625 x 13/16	CP09A1KG273K3	2.350
	200	.375 x 15/16	CP09A1KC333K3	1.928
.033	400	.463 x 15/16	CP09A1KE333K3	2.024
	600	.463 x 13/16	CP09A1KF333K3	2.046
	1000	.625 x 13/16	CP09A1KG333K3	2.350
	100	.375 x 15/16	CP09A1KB393K3	1.884
	200	.463 x 15/16	CP09A1KC393K3	1.980
.039	400	.463 x 13/16	CP09A1KE393K3	2.068
	600	.463 x 17/16	CP09A1KF393K3	2.112
	1000	.625 x 17/16	CP09A1KG393K3	2.416
	100	.375 x 15/16	CP09A1KB473K3	1.884
	200	.463 x 15/16	CP09A1KC473K3	1.980
.047	400	.463 x 13/16	CP09A1KE473K3	2.068
	600	.463 x 17/16	CP09A1KF473K3	2.112
	1000	.625 x 17/16	CP09A1KG473K3	2.416
	200	.463 x 15/16	CP09A1KC563K3	1.980
	400	.463 x 17/16	CP09A1KE563K3	2.068
.056	600	.625 x 13/16	CP09A1KF563K3	2.284
	1000	.625 x 111/16	CP09A1KG563K3	2.548
	200	.463 x 15/16	CP09A1KC683K3	1.980
.068	400	.463 x 17/16	CP09A1KE683K3	2.068
	600	.625 x 13/16	CP09A1KF683K3	2.284
	1000	.625 x 111/16	CP09A1KG683K3	2.548
	100	.463 x 15/16	CP09A1KB823K3	1.936
	200	.463 x 13/16	CP09A1KC823K3	2.002
.082	400	.625 x 13/16	CP09A1KE823K3	2.240
	600	.625 x 17/16	CP09A1KF823K3	2.328
	1000	.733 x 111/16	CP09A1KG823K3	2.580
	100	.463 x 15/16	CP09A1KB104K3	1.936
	200	.463 x 13/16	CP09A1KC104K3	2.002
.1	400	.625 x 13/16	CP09A1KE104K3	2.240
	600	.625 x 17/16	CP09A1KF104K3	2.328
	1000	.733 x 111/16	CP09A1KG104K3	2.580
	100	.463 x 13/16	CP09A1KB124K3	1.936
	200	.463 x 17/16	CP09A1KC124K3	2.068
.12	400	.625 x 17/16	CP09A1KE124K3	2.328
	600	.625 x 111/16	CP09A1KF124K3	2.460
	1000	.733 x 115/16	CP09A1KG124K3	2.876
	100	.463 x 13/16	CP09A1KB154K3	1.936
	200	.463 x 17/16	CP09A1KC154K3	2.068
.15	400	.625 x 17/16	CP09A1KE154K3	2.328
	600	.625 x 111/16	CP09A1KF154K3	2.460
	1000	.733 x 115/16	CP09A1KG154K3	2.876
	100	.463 x 17/16	CP09A1KB184K3	2.068
	200	.625 x 13/16	CP09A1KC184K3	2.240
.18	400	.625 x 111/16	CP09A1KE184K3	2.460
	600	.733 x 111/16	CP09A1KF184K3	2.800
	1000	.813 x 23/16	CP09A1KG184K3	3.124
	100	.463 x 17/16	CP09A1KB224K3	2.068
	200	.625 x 13/16	CP09A1KC224K3	2.240
.22	400	.625 x 111/16	CP09A1KE224K3	2.460
	600	.733 x 111/16	CP09A1KF224K3	2.800
	1000	.813 x 23/16	CP09A1KG224K3	3.124

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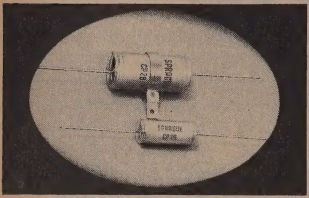
SPRAGUE CAPACITORS

MIL-C-25A CAPACITORS — TYPES CP26 and CP28



- Impregnated with specially processed mineral oil to exceed performance requirements of Specification MIL-C-25A
- Type CP26 has outer insulating sleeve — Type CP28 has insulating sleeve plus metal strap for radial mounting.
- Hermetically sealed for protection against leakage and contamination
- Meet temperature characteristic E (—55 +85°C operation)
- Capacitor sections are insulated from cases
- For prices on quantities from 25 to 499 pi see your Sprague Industrial Distributor

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, ch last letter in catalog number from K to M and subtract $.025 from unit net price.

TYPE CP26 (without Mounting Bracket)

μF	Volts	Diam. x Length	Cat. No.	Net Each (1-24)
.006	600	½ x 1 5/16	CP26A1EF602K	$ .906
.01	600	½ x 1 5/16	CP26A1EF103K	.906
.02	600	½ x 1 13/16	CP26A1EF203K	.919
.05	600	11/16 x 1 11/16	CP26A1EF503K	.998
.5	200	1 1/16 x 2 5/16	CP26A1EC504K	1.797

TYPE CP28 (Radial Mounting Bracket)

μF	Volts	Diam. x Length	Cat. No.	Net (
.1	600	11/16 x 2 1/16	CP28A1EF104K	$1
.25	600	1 1/16 x 2 5/16	CP28A1EF254K	1
.5	600	1 1/16 x 2 13/16	CP28A1EF504K	1

MIL-C-25A CAPACITORS — TYPES CP40 and CP41

- Designed and manufactured for service life and performance characteristics exceeding MIL requirements
- Type CP40 has screw and nut connection on positive terminal, can is negative — Type CP41 has two solder-lug terminals, with capacitor section insulated from metal case
- Impregnated with specially processed mineral oil for characteristic E operation — Will withstand wide temperature variations (—55°C to +85°C)
- Hermetically sealed in metal cases, with threaded screw necks for mounting purposes
- For prices on quantities from 10 to 99 pieces, see your Sprague Industrial Distributor.

NOTE: Capacitors listed below have a capacitance tolerance of ±10%. For ±20% units, change last letter in catalog number from K to M.

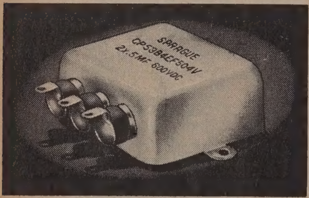
TYPE CP40 (One Terminal)

μF	Volts	Diam. x Length	Cat. No.	Net Each (1-9)
2.0	600	1½ x 3⅜	CP40C2EF205K	$4.619
4.0	600	1½ x 5¼	CP40C2EF405K	5.554

TYPE CP41 (Two Terminals)

μF	Volts	Diam. x Length	Cat. No.	Net
2.0	600	1½ x 3⅜	CP41B1EF204K	$4
4.0	600	1½ x 5¼	CP41B1EF405K	5

MIL-C-25A CAPACITORS—TYPE CP53



- Impregnated with specially processed mineral oil to exceed performance requirements of MIL-C-25A
- Hermetically sealed, with silicone rubber compression terminals
- Rated for—55°C to +85°C operation
- Drawn metal cases have mounting flange integral part of containers
- Single and dual capacitance units have insul sections — triple capacitance units have gro ed cases
- For prices on quantities from 10 to 499 pi see your Sprague Industrial Distributor.

NOTE: Capacitors listed below have capacitance tolerances of +20%, —10% (V) or ±10% For ±20% units, change last letter in catalog number from K to M or V to M.

μF	Volts	L. x W. x H.	Cat. No.	Net Each (1-9)
Single Capacitance				
.05	600	1 13/16 x 1 x ¾	CP53B1EF503K	$1.792
.05	1000	1 13/16 x 1 x ¾	CP53B1EG503K	1.840
.1	600	1 13/16 x 1 x ¾	CP53B1EF104K	1.849
.1	1000	1 13/16 x 1 x ¾	CP53B1EG104K	1.956
.25	600	1 13/16 x 1 x ¾	CP53B1EF254K	1.912
.25	1000	1 13/16 x 1 x ⅞	CP53B1EG254K	2.022
.5	400	1 13/16 x 1 x ⅞	CP53B1EE504K	2.019
.5	600	1 13/16 x 1 x 1	CP53B1EF504K	2.066
.5	1000	2 x 1¾ x ⅞	CP53B1EG504K	2.161
1.0	600	2 x 1¾ x 1	CP53B1EF105K	2.410
1.0	1000	2 x 2 x 1⅛	CP53B1EG105K	2.901
2.0	100	2 x 1¾ x ⅞	CP53B1EB205K	2.639
2.0	200	2 x 2 x 1	CP53B1EC205K	2.895
2.0	600	2 x 2 x 1⅛	CP53B1EF205K	3.216
4.0	100	2 x 2 x 1⅛	CP53B1EB405K	3.267

μF	Volts	L. x W. x H.	Cat. No.	Net
Dual Capacitance				
.05 + .05	600	1 13/16 x 1 x ¾	CP53B4EF503V	$2
.05 + .05	1000	1 13/16 x 1 x ¾	CP53B4EG503V	2
.1 + .1	600	1 13/16 x 1 x ¾	CP53B4EF104V	2
.1 + .1	1000	1 13/16 x 1 x ⅞	CP53B4EG104V	2
.25 + .25	600	1 13/16 x 1 x 1	CP53B4EF254V	2
.25 + .25	1000	2 x 1¾ x ⅞	CP53B4EG254V	2
.5 + .5	600	2 x 1¾ x 1	CP53B4EF504V	2
.5 + .5	1000	2 x 2 x 1⅛	CP53B4EG504V	3
1.0 + 1.0	600	2 x 2 x 1⅛	CP53B4EF105V	3
Triple Capacitance				
.05 + .05 + .05	600	1 13/16 x 1 x ¾	CP53B5EF503V	2
.1 + .1 + .1	600	1 13/16 x 1 x ⅞	CP53B5EF104V	2
.5 + .5 + .5	600	2 x 2 x 1⅛	CP53B5EF504V	3

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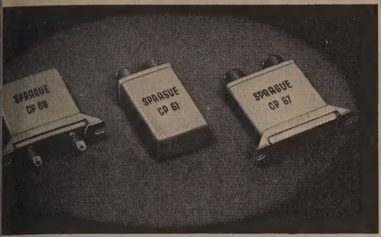
SPRAGUE CAPACITORS

TYPE CP61, CP67, CP69, CP91 CAPACITORS to MIL-C-25A

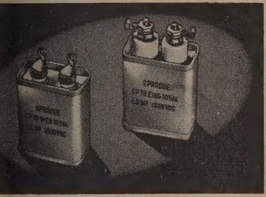


neral Oil Impregnated for Minimum Capacitance Change
h Temperature
rmetically Sealed in Drawn Metal Cases
ve Silicone Rubber Compression Terminals for Positive
evention Against Entrance of Moisture or Leakage of
pregnant
signed and Manufactured for Service Life Beyond
ecification Requirements
its Listed are Most Popular Ratings. Complete Military
e Available from Sprague
61 and CP91 require separate mounting brackets.
67 and CP69 have integral channel brackets
r prices on quantities from 10 to 499 pieces, see your
rague Industrial Distributor
: These units have capacitance tolerances of ±10% (K)
20, —10% (V). For ±20% units, change the last letter
catalog number from K to M.

μF	WVDC	CAT. NO.	SIZE	NET EA. (1-9)	Mounting Brackets* CAT. NO.
TYPE CP61					
.05	600	CP61B1EF503K	1 5/16 x 11/16 x 1 1/16	$1.752	CP06-FA1
.1	600	CP61B1EF104K	1 5/16 x 11/16 x 1 3/8	1.869	CP06-FA2
.25	600	CP61B1EF254K	1 5/16 x 11/16 x 1 5/8	1.920	CP06-FA3
.5	600	CP61B1EF504K	1 5/16 x 11/16 x 2	1.998	CP06-FA4
1.0	600	CP61B1EF105K	1 5/16 x 11/16 x 2 1/2	2.235	CP06-FA5
.1 + .1	600	CP61B6EF104K	1 5/16 x 11/16 x 1 5/8	2.439	CP06-FA3
.25 + .25	600	CP61B6EF254V	1 5/16 x 11/16 x 2	2.580	CP06-FA4
.5 + .5	600	CP61B6EF504V	1 5/16 x 11/16 x 2 3/4	2.733	CP06-FA6
TYPE CP91					
.05	600	CP91B1EF503K	1 5/16 x 5/8 x 1 1/16		CP091-FB1
.1	600	CP91B1EF104K	1 5/16 x 5/8 x 1 3/8		CP091-FB2
.25	600	CP91B1EF254K	1 5/16 x 5/8 x 1 5/8	Prices upon request	CP091-FB3
.5	600	CP91B1EF504K	1 5/16 x 5/8 x 2		CP091-FB4
1.0	600	CP91B1EF105K	1 5/16 x 5/8 x 2 3/4		CP091-FB6
.1 + .1	600	CP91B6EF104V	1 5/16 x 5/8 x 1 5/8		CP091-FB3
.25 + .25	600	CP91B6EF254V	1 5/16 x 5/8 x 2		CP091-FB4
.5 + .5	600	CP91B6EF504V	1 5/16 x 5/8 x 2 3/4		CP091-FB6
TYPE CP67 Terminals opposite channel bracket					
.1	600	CP67B1EF104K	1 3/4 x 41/64 x 1 1/16	2.235	Integral Channel Brackets
.25	600	CP67B1EF254K	1 3/4 x 41/64 x 1 1/2	2.298	
.5	600	CP67B1EF504K	1 3/4 x 41/64 x 2	2.400	
1.0	600	CP67B1EF105K	1 3/4 x 41/64 x 2 3/4	2.631	
TYPE CP69 Terminals on same end as channel bracket					
.05	600	CP69B1EF503K	1 3/4 x 41/64 x 1 1/16	2.133	
.1	600	CP69B1EF104K	1 3/4 x 41/64 x 1 1/16	2.235	Integral Channel Brackets
.25	600	CP69B1EF254K	1 3/4 x 41/64 x 1 1/2	2.298	
.5	600	CP69B1EF504K	1 3/4 x 41/64 x 2	2.400	
1.0	600	CP69B1EF105K	1 3/4 x 41/64 x 2 3/4	2.631	

*Footed Brackets are listed: for spade type change F in Catalog No. to S

TYPE CP70 CAPACITORS to MIL-C-25A



- Ruggedly Constructed for Exacting Heavy-Duty Applications
- Long Life and Reliable Service under High Ambient Temperatures
- Terminals have Ceramic Pillar Insulators (E) or Rubber Compression Seals (B)
- Impregnated with a Specially Processed Mineral Oil to Withstand Severe Operating Conditions
- Char. F Units Recommended Primarily for Ground Equipment Where no Low Temperatures are Encountered
- For Prices on Quantities From 10 to 99 Pieces, See Your Sprague Industrial Distributor.

NOTE: These units have a capacitance tolerance of ±10%. For ±20% tolerance, change the last letter in the catalog number from K to M.

	Char. E (E Term.)		Net Ea.	Char. F (B Term.)		Net Ea.	Char. E (B Term.)		Net Ea.
WVDC	Cat. No.	W x T x H	(1-9)	Cat. No.	W x T x H	(1-9)	Cat. No.	W x T x H	(1-9)
1000	CP70E1EG104K	1 13/16 x 1 1/16 x 1 5/8	$ 2.705	—	—	—	—	—	—
2000	CP70E1EJ104K	2 1/2 x 1 3/16 x 2 1/2	4.129	—	—	—	—	—	—
1000	CP70E1EG254K	1 13/16 x 1 1/16 x 2 1/4	3.058	—	—	—	—	—	—
2000	CP70E1EJ254K	2 1/2 x 1 3/16 x 2 1/2	4.470	—	—	—	—	—	—
600	CP70E1EF504K	1 13/16 x 1 1/16 x 2 1/4	2.919	—	—	—	—	—	—
1000	CP70E1EG504K	1 13/16 x 1 1/16 x 2 1/4	3.245	—	—	—	CP70B1EG504K	1 13/16 x 1 1/16 x 2 1/4	$ 3.108
1500	CP70E1EH504K	1 13/16 x 1 1/16 x 2 7/8	3.950	—	—	—	—	—	—
2000	CP70E1EJ504K	2 1/2 x 1 3/16 x 2 7/8	4.644	—	—	—	—	—	—
2500	CP70E1EK504K	2 1/2 x 1 3/16 x 3 7/8	6.987	—	—	—	—	—	—
600	CP70E1EF105K	1 13/16 x 1 1/16 x 2 1/4	3.614	—	—	—	CP70B1EF105K	1 13/16 x 1 1/16 x 2 1/4	3.058
1000	CP70E1EG105K	1 13/16 x 1 1/16 x 2 7/8	4.138	—	—	—	CP70B1EG105K	1 13/16 x 1 1/16 x 2 7/8	3.676
1500	CP70E1EH105K	1 13/16 x 1 1/16 x 4 3/4	4.643	—	—	—	—	—	—
2000	CP70E1EJ105K	2 1/2 x 13/16 x 4 3/4	5.670	—	—	—	—	—	—
2500	CP70E1EK105K	3 3/4 x 1 3/4 x 3 7/8	7.970	—	—	—	—	—	—
600	CP70E1EF205K	1 13/16 x 1 1/16 x 3 1/4	4.288	CP70B1FF205K	1 13/16 x 1 1/16 x 2 7/8	$ 3.770	CP70B1EF205K	1 13/16 x 1 1/16 x 3 1/4	3.963
1000	CP70E1EG205K	1 13/16 x 1 1/16 x 4 3/4	5.405	CP70B1FG205K	1 13/16 x 1 1/16 x 3 7/8	4.502	CP70B1EG205K	1 13/16 x 1 1/16 x 4 3/4	4.726
1500	CP70E1EH205K	2 1/2 x 1 3/16 x 4 3/4	6.535	—	—	—	CP70B1EH205K	2 1/2 x 1 3/16 x 4 3/4	5.509
2000	CP70E1EJ205K	3 3/4 x 1 1/4 x 4 3/4	6.707	—	—	—	—	—	—
2500	CP70E1EK205K	3 3/4 x 2 1/4 x 4 3/4	12.884	—	—	—	—	—	—
600	CP70E1EF405K	2 1/2 x 1 3/16 x 3 7/8	5.675	CP70B1FF405K	2 1/2 x 1 3/16 x 3 1/2	5.258	CP70B1EF405K	2 1/2 x 1 3/16 x 3 7/8	5.522
1000	CP70E1EG405K	3 3/4 x 1 1/4 x 3 7/8	6.844	CP70B1FG405K	2 1/2 x 1 3/16 x 4 3/4	6.225	CP70B1EG405K	3 3/4 x 1 1/4 x 3 7/8	6.383
1500	CP70E1EH405K	3 3/4 x 1 3/4 x 4 1/4	8.770	—	—	—	CP70B1EH405K	3 3/4 x 1 3/4 x 4 1/4	8.202
2000	CP70E1EJ405K	3 3/4 x 2 1/4 x 5 1/8	9.451	—	—	—	—	—	—
2500	CP70E1EK405K	4 9/16 x 3 3/4 x 4 3/8	17.957	—	—	—	—	—	—
600	CP70E1EF605K	3 3/4 x 1 1/4 x 3 7/8	6.865	CP70B1FF605K	2 1/2 x 1 3/16 x 4 3/4	6.231	CP70B1EF605K	3 3/4 x 1 1/4 x 3 7/8	6.546
1000	CP70E1EG605K	3 3/4 x 1 3/4 x 4	8.461	CP70B1FG605K	3 3/4 x 1 1/4 x 4 3/4	7.747	CP70B1EG605K	3 3/4 x 1 3/4 x 4	8.130
1500	CP70E1EH605K	3 3/4 x 2 1/4 x 4 3/4	10.661	—	—	—	CP70B1EH605K	3 3/4 x 2 1/4 x 4 3/4	10.529
600	CP70E1EF805K	3 3/4 x 1 1/4 x 4 1/4	8.424	CP70B1FF805K	3 3/4 x 1 1/4 x 3 7/8	7.751	CP70B1EF805K	3 3/4 x 1 1/4 x 4 1/4	8.139
1000	CP70E1EG805K	3 3/4 x 1 3/4 x 4 3/4	9.055	CP70B1FG805K	3 3/4 x 1 3/4 x 3 7/8	9.156	CP70B1EG805K	3 3/4 x 1 3/4 x 4 3/4	8.930
1500	CP70E1EH805K	3 3/4 x 2 1/2 x 5 3/4	13.066	—	—	—	CP70B1EH805K	3 3/4 x 2 1/2 x 5 3/4	12.936
600	CP70E1EF106K	3 3/4 x 1 3/4 x 4	9.108	CP70B1FF106K	3 3/4 x 1 1/4 x 4 3/4	8.367	CP70B1EF106K	3 3/4 x 1 3/4 x 4	8.781
1000	CP70E1EG106K	3 3/4 x 2 1/4 x 4 3/4	10.989	CP70B1FG106K	3 3/4 x 1 3/4 x 4 3/4	10.078	CP70B1EG106K	3 3/4 x 2 1/4 x 4 3/4	10.821
1500	CP70E1EH106K	3 3/4 x 3 3/16 x 5 1/2	15.639	—	—	—	CP70B1EH106K	3 3/4 x 3 3/16 x 5 1/2	13.791
1000	CP70E1EG126K	3 3/4 x 2 1/4 x 5 1/8	11.888	—	—	—	CP70B1EG126K	3 3/4 x 2 1/4 x 5 1/8	11.750
1000	CP70E1EG156K	3 3/4 x 3 3/16 x 4 3/4	13.149	—	—	—	—	—	—

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REM-35-6128

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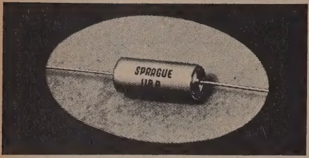
SPRAGUE CAPACITORS

118P DIFILM® METALLIZED CAPACITORS



- The Best of Their Type Possible to Produce at the Present State of the Art
- Rated for Operation at 125°C WITHOUT VOLTAGE DERATING
- Unique Dual Dielectric—a Combination of Metallized Paper and of Polyester Film, Impregnated With Special High-Temperature Mineral Wax
- Subjected to Stringent Quality Control During Manufacture
- Higher Insulation Resistance Than Any Other Metallized Paper Capacitors—at 125°C, Minimum Product of Insulation Resistance and Capacitance is 10 Megohm-microfarads for 200 V Units or 40 Megohm-microfarads for 400 and 600 V Units
- Capacitor Sections are Effectively of Non-inductive Construction, sulting in Capacitors Unmatched in Performance Quality by any C Metallized Capacitors
- Hermetically Sealed, with Glass-to-metal Solder-seal Terminals
- Have Unusual Self-healing Characteristics, in the Rare Even Capacitor Dielectric Breakdown
- May be Used at Extremely Low Voltages Where Metallized P Construction has Previously Been Unsatisfactory
- For Complete Performance Characteristics, see Latest Issue of gineering Bulletin 2211
- For Units With Outer Plastic Insulating Sleeves, Change Last Dig Cat. No. From 2 to 4 and add $.075 to Price.
- Capacitors Listed Below Are Ungrounded Case (Insulating Sec Units Without Outer Insulating Sleeves. For Information on C Styles Consult Your Sprague Industrial Distributor
- For Prices on Quantities From 25 to 999 Pieces, see your Spr Industrial Distributor.

		±20% Tol.		±10% Tol.	
μF	D. x L.	Cat. No.	Net Each (1-24)	Cat. No.	Net Each (1-24)
		200 WVDC			
.01	.175 x 11/16	118P10302S2	$1.500	118P10392S2	$1.950
.012	.195 x 11/16			118P12392S2	1.950
.015	.195 x 11/16	118P15302S2	1.554	118P15392S2	1.950
.018	.235 x 11/16			118P18392S2	1.950
.022	.235 x 11/16	118P22302S2	1.500	118P22392S2	1.950
.027	.235 x 11/16			118P27392S2	1.950
.033	.235 x 11/16	118P33302S2	1.500	118P33392S2	1.950
.039	.312 x 13/16			118P39392S2	1.959
.047	.312 x 13/16	118P47302S2	1.518	118P47392S2	1.968
.056	.312 x 13/16			118P56392S2	1.980
.068	.312 x 13/16	118P68302S2	1.566	118P68392S2	2.016
.082	.312 x 13/16			118P82392S2	2.025
.1	.312 x 13/16	118P10402S2	1.584	118P10492S2	2.034
.12	.312 x 1 1/16			118P12492S2	2.040
.15	.312 x 1 1/16	118P15402S2	1.620	118P15492S2	2.070
.18	.400 x 13/16			118P18492S2	2.070
.22	.400 x 13/16	118P22402S2	1.620	118P22492S2	2.070
.27	.400 x 1 1/16			118P27492S2	2.145
.33	.400 x 1 1/16	118P33402S2	1.770	118P33492S2	2.220
.39	.500 x 1 1/16			118P39492S2	2.280
.47	.500 x 1 1/16	118P47402S2	1.875	118P47492S2	2.325
.56	.500 x 1 1/16			118P56492S2	2.370
.68	.500 x 1 1/16	118P68402S2	1.950	118P68492S2	2.400
.82	.562 x 1 1/16			118P82492S2	2.475
1.0	.562 x 1 1/16	118P10502S2	2.100	118P10592S2	2.550
1.5	.562 x 1 9/16	118P15502S2	3.165	118P15592S2	3.165
2.0	.670 x 1 9/16	118P20502S2	3.840	118P20592S2	4.290
3.0	.670 x 1 13/16	118P30502S2	4.050	118P30592S2	4.500
4.0	.750 x 1 13/16	118P40502S2	4.350	118P40592S2	4.800
5.0	1.000 x 1 13/16	118P50502S2	4.800	118P50592S2	5.250
6.0	1.000 x 1 13/16	118P60502S2	5.550	118P60592S2	6.000
8.0	1.000 x 1 13/16	118P80502S2	5.700	118P80592S2	6.150
10.0	1.000 x 2 5/16	118P10602S2	6.120	118P10692S2	6.570
12.0	1.000 x 2 9/16	118P12602S2	6.960	118P12692S2	7.410

		±20% Tol.		±10% Tol.	
μF	D. x L.	Cat. No.	Net Each (1-24)	Cat. No.	N Ec (1-
		400 WVDC			
.01	.312 x 13/16	118P10304S2	$1.518	118P10394S2	$1
.015	.312 x 13/16	118P15304S2	1.518	118P15394S2	1
.022	.312 x 13/16	118P22304S2	1.554	118P22394S2	2
.033	.312 x 1 1/16	118P33304S2	1.554	118P33394S2	2
.047	.400 x 1 1/16	118P47304S2	1.554	118P47394S2	2
.068	.400 x 1 1/16	118P68304S2	1.554	118P68394S2	2
.1	.500 x 1 1/16	118P10404S2	1.860	118P10494S2	2
.15	.500 x 1 1/16	118P15404S2	1.920	118P15494S2	2
.22	.562 x 1 5/16	118P22404S2	1.980	118P22494S2	2
.33	.562 x 1 9/16	118P33404S2	2.055	118P33494S2	2
.47	.670 x 1 9/16	118P47404S2	2.319	118P47494S2	2
.68	.670 x 1 13/16	118P68404S2	2.640	118P68494S2	3
1.0	.750 x 1 13/16	118P10504S2	2.943	118P10594S2	3
1.5	1.000 x 1 13/16	118P15504S2	3.840	118P15594S2	4
2.0	1.000 x 1 13/16	118P20504S2	4.500	118P20594S2	4
3.0	1.000 x 2 9/16	118P30504S2	5.400	118P30594S2	5
		600 WVDC			
.01	.312 x 13/16	118P10306S2	1.560	118P10396S2	2
.015	.312 x 13/16	118P15306S2	1.575	118P15396S2	2
.022	.312 x 1 1/16	118P22306S2	1.590	118P22396S2	2
.033	.312 x 1 1/16	118P33306S2	1.590	118P33396S2	2
.047	.400 x 1 1/16	118P47306S2	1.614	118P47396S2	2
.068	.400 x 1 1/16	118P68306S2	1.710	118P68396S2	2
.1	.500 x 1 1/16	118P10406S2	1.890	118P10496S2	2
.15	.562 x 1 1/16	118P15406S2	1.980	118P15496S2	2
.22	.562 x 1 5/16	118P22406S2	2.115	118P22496S2	2
.33	.562 x 1 9/16	118P33406S2	2.400	118P33496S2	2
.47	.670 x 1 9/16	118P47406S2	2.625	118P47496S2	3
.68	.670 x 1 13/16	118P68406S2	2.880	118P68496S2	3
1.0	1.000 x 1 13/16	118P10506S2	3.900	118P10596S2	4
1.5	1.000 x 1 13/16	118P15506S2	4.140	118P15596S2	4
2.0	1.000 x 2 1/16	118P20506S2	5.100	118P20596S2	5
2.5	1.000 x 2 9/16	118P25506S2	5.850	118P25596S2	6

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SPRAGUE CAPACITORS

121P METALLIZED PAPER CAPACITORS

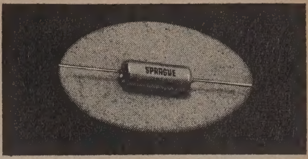
gned to operate at 125°C WITHOUT TAGE DERATING — extremely important nilitary and industrial equipment where er temperatures are encountered.

ility of these capacitors is surpassed only by e 118P units described on opposite page.

n insulation resistance — at 85°C, minimum duct of insulation resistance and capacitance) megohm-microfarads. At 125°C, minimum duct is 1.0 megohm-microfarads.

metically sealed with glass-to-metal solder- terminals — capacitor cases are of corrosion resistant materials — similar in appearance to Type 118P.

- May be operated at low voltages, unlike many other metallized capacitors.
- For complete performance data, see latest issue of Engineering Bulletin 2210.
- Capacitors listed below are ungrounded case (insulated section) units without outer insulating sleeves. For information on other styles consult your Sprague Industrial Distributor.
- For prices on quantities from 25 to 999 pieces, see your Sprague Industrial Distributor.



- For units with outer plastic insulating sleeve, change last digit in cat. no. from 2 to 4 and add $.075 to price.

		±20% Tol.		±10% Tol.	
	D. x L.	Cat. No.	Net Price	Cat. No.	Net Each (1-24)
		150 WVDC			
	.562 x 1⅛	121P15501R5S2	Available upon request	121P15591R5S2	$2.730
	.562 x 1⅜	121P20501R552		121P20591R5S2	3.000
	.562 x 1⅝	121P25501R5S2		121P25591R5S2	3.090
	.670 x 1⅜	121P30501R5S2		121P30591R5S2	3.450
	.670 x 1⅝	121P35501R5S2		121P35591R5S2	3.660
	.670 x 1⅝	121P40501R5S2		121P40591R5S2	3.720
	.670 x 1⅞	121P50501R5S2		121P50591R5S2	4.080
	.750 x 1⅞	121P60501R5S2		121P60591R5S2	4.440
	.750 x 2⅜	121P80501R5S2		121P80591R5S2	5.160
	.750 x 2⅝	121P10601R5S2		121P10691R5S2	5.970
	1.000 x 1⅞	121P12601R5S2		121P12691R5S2	6.750
	1.000 x 2⅛	121P14601R5S2		121P14691R5S2	7.530
	1.000 x 2⅜	121P16601R5S2		121P16691R5S2	8.010
	1.000 x 2⅝	121P18601R5S2		121P18691R5S2	9.120
		200 WVDC			
	.235 x ¾	121P47302S2	Available upon request	121P47392S2	Available upon request
	.312 x ⅞			121P56392S2	
	.312 x ⅞	121P68302S2		121P68392S2	
	.312 x ⅞			121P82392S2	
	.312 x ⅞	121P10402S2		121P10492S2	
	.312 x ⅞			121P12492S2	
	.312 x ⅞	121P15402S2		121P15492S2	
	.312 x 1⅛			121P18492S2	
	.312 x 1⅛	121P22402S2		121P22492S2	
	.400 x 1⅛			121P27492S2	
	.400 x 1⅛	121P33402S2		121P33492S2	
	.400 x 1⅛			121P39492S2	
	.400 x 1⅛	121P47402S2		121P47492S2	
	.500 x 1⅛			121P56492S2	
	.500 x 1⅛	121P68402S2		121P68492S2	
	.562 x 1⅛			121P82492S2	
	.562 x 1⅛	121P10502S2		121P10592S2	
	.562 x 1⅜	121P15502S2		121P15592S2	
	.562 x 1⅞	121P20502S2		121P20592S2	
	.670 x 1⅝	121P25502S2		121P25592S2	
	.670 x 1⅞	121P30502S2		121P30592S2	
	.750 x 1⅞	121P35502S2		121P35592S2	
	.750 x 1⅞	121P40502S2		121P40592S2	
	.750 x 2⅛	121P50502S2		121P50592S2	
	.750 x 2⅜	121P60502S2		121P60592S2	
	1.000 x 1⅞	121P80502S2		121P80592S2	
	1.000 x 2⅛	121P10602S2		121P10692S2	
	1.000 x 2⅝	121P12602S2		121P12692S2	
		400 WVDC			
	.235 x ¾	121P10304S2	Available upon request	121P10394S2	Available upon request
2	.312 x ⅞			121P12394S2	
5	.312 x ⅞	121P15304S2		121P15394S2	
3	.312 x ⅞			121P18394S2	
2	.312 x ⅞	121P22304S2		121P22394S2	
7	.312 x ⅞			121P27394S2	
3	.312 x ⅞	121P33304S2		121P33394S2	
9	.312 x 1⅛			121P39394S2	
7	.312 x 1⅛	121P47304S2		121P47394S2	
5	.312 x 1⅛			121P56394S2	
3	.312 x 1⅛	121P68304S2		121P68394S2	
2	.400 x 1⅛			121P82394S2	

		±20% Tol.		±10% Tol.	
μF	D. x L.	Cat. No.	Net Price	Cat. No.	Net Price ea.
.1	.400 x 1⅛	121P10404S2	Available upon request	121P10494S2	Available upon request
.12	.400 x 1⅜			121P12494S2	
.15	.400 x 1⅜	121P15404S2		121P15494S2	
.18	.500 x 1⅛			121P18494S2	
.22	.500 x 1⅛	121P22404S2		121P22494S2	
.27	.562 x 1⅜			121P27494S2	
.33	.562 x 1⅜	121P33404S2		121P33494S2	
.39	.562 x 1⅝			121P39494S2	
.47	.562 x 1⅝	121P47404S2		121P47494S2	
.56	.670 x 1⅝			121P56494S2	
.68	.670 x 1⅝	121P68404S2		121P68494S2	
.82	.670 x 1⅞			121P82494S2	
1.0	.670 x 1⅞	121P10504S2		121P10594S2	
1.5	.750 x 2⅜	121P15504S2		121P15594S2	
2.0	1.000 x 1⅞	121P20504S2		121P20594S2	
2.5	1.000 x 2⅛	121P25504S2		121P25594S2	
3.0	1.000 x 2⅜	121P30504S2		121P30594S2	
3.5	1.000 x 2⅝	121P35504S2		121P35594S2	
		600 WVDC			
.001	.235 x ¾	121P10206S2	Available upon request	121P10296S2	Available upon request
.0012	.235 x ¾			121P12296S2	
.0015	.235 x ¾	121P15206S2		121P15296S2	
.0018	.235 x ¾			121P18296S2	
.0022	.235 x ¾	121P22206S2		121P22296S2	
.0027	.235 x ¾			121P27296S2	
.0033	.235 x ¾	121P33206S2		121P33296S2	
.0039	.235 x ¾			121P39296S2	
.0047	.235 x ¾	121P47206S2		121P47296S2	
.0056	.312 x ⅞			121P56296S2	
.0068	.312 x ⅞	121P68206S2		121P68296S2	
.0082	.312 x ⅞			121P82296S2	
.01	.312 x ⅞	121P10306S2		121P10396S2	
.012	.312 x ⅞			121P12396S2	
.015	.312 x ⅞	121P15306S2		121P15396S2	
.018	.312 x 1⅛			121P18396S2	
.022	.312 x 1⅛	121P22306S2		121P22396S2	
.027	.312 x 1⅛			121P27396S2	
.033	.312 x 1⅛	121P33306S2		121P33396S2	
.039	.400 x 1⅛			121P39396S2	
.047	.400 x 1⅛	121P47306S2		121P47396S2	
.056	.400 x 1⅛			121P56396S2	
.068	.400 x 1⅛	121P68306S2		121P68396S2	
.082	.500 x 1⅛			121P82396S2	
.1	.500 x 1⅛	121P10406S2		121P10496S2	
.12	.562 x 1⅛			121P12496S2	
.15	.562 x 1⅛	121P15406S2		121P15496S2	
.18	.562 x 1⅜			121P18496S2	
.22	.562 x 1⅜	121P22406S2		121P22496S2	
.27	.562 x 1⅞			121P27496S2	
.33	.562 x 1⅞	121P33406S2		121P33496S2	
.39	.670 x 1⅞			121P39496S2	
.47	.670 x 1⅞	121P47406S2		121P47496S2	
.56	.670 x 1⅞			121P56496S2	
.68	.670 x 1⅞	121P68406S2		121P68496S2	
.82	.750 x 2⅜			121P82496S2	
1.0	.750 x 2⅜	121P10506S2		121P10596S2	
1.5	1.000 x 2⅛	121P15506S2		121P15596S2	
2.0	1.000 x 2⅜	121P20506S2		121P20596S2	

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REM-37-6225

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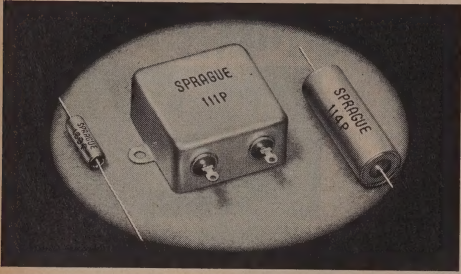
SPRAGUE CAPACITORS



METAL-CLAD FILM CAPACITOR

Polystyrene film dielectric capacitors have the lowest dielectric absorption o film capacitors. The exceptionally high insulation resistance will generally ex 10,000,000 megohm-microfarads. They have extremely low power factor, c capacitance tolerance, high capacitance stability with temperature change high operating temperatures. The unusual properties of these capacitors m them particularly suitable for circuit applications demanding such characteri All capacitors listed here are hermetically sealed in metal cases.

114P STYRACON® TUBULARS

Specially processed polystyrene film dielectric • Operating temperature range, —55°C to +85°C • High insulation resistance • Low dielectric absorption (under .05%) • High capacitance stability (less than ±.2% drift) • Extremely low power factor (high Q) • Units listed below have capacitance tolerance of ±5%. For ±20%, change 8th digit in catalog number f 5 to 0; for ±10% change to 9; for ±2% change to 2; for ±1% change • Units listed below have plastic insulating sleeves. For plain metal c change last digit in catalog number from 4 to 2 • For complete technical d refer to latest issue of Engineering Bulletin 2510 • Prices available u request.

200 WVDC			400 WVDC			600 WVDC		
µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. N
.001	.235 x ⅞	114P10252S4	.001	.235 x ⅞	114P10254S4	.001	.400 x ⅞	114P102
.0015	.235 x ⅞	114P15252S4	.0015	.312 x ⅞	114P15254S4	.0015	.400 x 1⅛	114P152
.0022	.235 x ⅞	114P22252S4	.0022	.312 x ⅞	114P22254S4	.0022	.400 x 1⅛	114P222
.0033	.312 x ⅞	114P33252S4	.0033	.312 x ⅞	114P33254S4	.0033	.400 x 1⅛	114P332
.0047	.312 x ⅞	114P47252S4	.0047	.400 x ⅞	114P47254S4	.0047	.400 x 1⅛	114P472
.0068	.400 x ⅞	114P68252S4	.0068	.400 x 1⅛	114P68254S4	.0068	.400 x 1⅛	114P682
.01	.400 x 1⅛	114P10352S4	.01	.400 x 1⅛	114P10354S4	.01	.400 x 1⅜	114P103
.015	.400 x 1⅛	114P15352S4	.015	.400 x 1⅜	114P15354S4	.015	.400 x 1⅜	114P153
.022	.400 x 1⅜	114P22352S4	.022	.562 x 1⅛	114P22354S4	.022	.562 x 1⅜	114P223
.033	.562 x 1⅛	114P33352S4	.033	.562 x 1⅜	114P33354S4	.033	.562 x 1⅝	114P333
.047	.562 x 1⅜	114P47352S4	.047	.562 x 1⅝	114P47354S4	.047	.670 x 1⅝	114P473
.068	.562 x 1⅝	114P68352S4	.068	.670 x 1⅝	114P68354S4	.068	.750 x 2⅛	114P683
.1	.670 x 1⅝	114P10452S4	.1	.750 x 2⅛	114P10454S4	.1	.750 x 2⅛	114P104
.15	.750 x 2⅛	114P15452S4	.15	.750 x 2⅛	114P15454S4	.15	1.000 x 2⅛	114P154
.22	.750 x 2⅛	114P22452S4	.22	1.000 x 2⅛	114P22454S4	.22	1.000 x 2⅝	114P224
.33	1.000 x 2⅛	114P33452S4	.33	1.000 x 2⅛	114P33454S4			
.47	1.000 x 2⅛	114P47452S4	.47	1.000 x 2⅝	114P47454S4			

111P STYRACON® BATHTUBS

Same electrical characteristics as Type 114P • Drawn metal bathtub cases • Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F • For complete technical data, refer to latest issue of Engineering Bulletin 2510 • Prices available upon request.

µF	WVDC	L. x W. x H.	Cat. No.	µF	WVDC	L. x W. x H.	Cat
1.5	50	2 x 1¾ x 1	111P7J	2.0	200	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	111
2.0	50	2 x 2 x 1¼	111P8J	.68	400	2 x 2 x 1¼	111
3.0	50	2 x 2 x 1½	111P9J	1.0	400	2 x 2 x 1½	111
5.0	50	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	111P10J	1.5	400	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	111
1.0	100	2 x 1¾ x ⅞	111P11J	.33	600	2 x 1¾ x 1	111
2.0	100	2 x 2 x 1½	111P12J	.47	600	2 x 2 x 1⅛	111
3.0	100	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	111P13J	.68	600	2 x 2 x 1½	111
.68	200	2 x 1¾ x 1	111P14J	1.0	600	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	111
1.0	200	2 x 2 x 1¼	111P15J				

139P FILMITE 'F' TUBULARS

For circuit applications requiring constant capacitance with varying temperatures • Practically zero capacitance change at temperatures from —10°C to +85°C. May be operated at +125°C with not more than 2.5% capacitance change • Operating temperature: —55°C to +125°C • Insulation resistance and dielectric absorption characteristics approach those of p styrene capacitors • Listed units have capacitance tolerance of ±5%. ±20% change 8th digit in catalog number from 5 to 0; for ±10%, chang 9; for ±2%, change to 2 • For complete technical data, refer to latest i of Engineering Bulletin 2560 • Prices available upon request.

200 WVDC			400 WVDC			600 WVDC		
µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat. No.	µF	Diam. x Length	Cat N
.001	.235 x ¾	139P10252S4	.001	.235 x ¾	139P10254S4	.001	.235 x ¾	139P102
.0015	.235 x ¾	139P15252S4	.0015	.235 x ¾	139P15254S4	.0015	.312 x ⅞	139P152
.0022	.235 x ¾	139P22252S4	.0022	.312 x ⅞	139P22254S4	.0022	.312 x ⅞	139P222
.0033	.312 x ⅞	139P33252S4	.0033	.312 x ⅞	139P33254S4	.0033	.312 x ⅞	139P332
.0047	.312 x ⅞	139P47252S4	.0047	.312 x ⅞	139P47254S4	.0047	.312 x 1	139P472
.0068	.312 x ⅞	139P68252S4	.0068	.312 x 1	139P68254S4	.0068	.400 x 1	139P682
.01	.312 x 1	139P10352S4	.01	.400 x ⅞	139P10354S4	.01	.400 x 1⅛	139P103
.015	.400 x ⅞	139P15352S4	.015	.400 x 1	139P15354S4	.015	.400 x 1⅜	139P153
.022	.400 x 1	139P22352S4	.022	.400 x 1¼	139P22354S4	.022	.562 x 1⅛	139P223
.033	.400 x 1¼	139P33352S4	.033	.562 x 1⅛	139P33354S4	.033	.562 x 1⅜	139P333
.047	.500 x 1⅛	139P47352S4	.047	.562 x 1¼	139P47354S4	.047	.670 x 1⅝	139P473
.068	.562 x 1⅛	139P68352S4	.068	.670 x 1⅝	139P68354S4	.068	.750 x 1⅞	139P683
.1	.670 x 1⅝	139P10452S4	.1	.750 x 1⅞	139P10454S4	.1	.750 x 2⅛	139P104
.15	.750 x 1⅞	139P15452S4	.15	.750 x 2⅛	139P15454S4	.15	1.000 x 1⅞	139P154
.22	.750 x 2⅛	139P22452S4	.22	1.000 x 1⅞	139P22454S4	.22	1.000 x 2⅜	139P224
.33	1.000 x 1⅞	139P33452S4	.33	1.000 x 2⅜	139P33454S4			
.47	1.000 x 2⅜	139P47452S4						

140P FILMITE 'F' BATHTUBS

Same electrical characteristics as Type 139P • Drawn metal bathtub cases • Listed units have capacitance tolerance of ±5%. For ±20%, change last letter in catalog number from J to M; for ±10% change to K; for ±2% change to G; for ±1% change to F • For complete technical data, refer to latest issue of Engineering Bulletin 2560 • Prices available upon request.

µF	WVDC	L. x W. x H.	Cat.
.68	200	2 x 2 x 1	14
1.0	200	2 x 2 x 1½	14
.47	400	2 x 2 x 1	14
.68	400	2 x 2 x 1½	14
1.0	400	2⁵⁄₁₆ x 2¹⁄₁₆ x 1¾	14
.33	600	2 x 2 x 1	14
.47	600	2 x 2 x 1½	14
.68	600	2⁵⁄₁₆ x 2¹⁄₁₆ x 1¾	14
1.0	600	2⁵⁄₁₆ x 2¹⁄₁₆ x 2⅛	14

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SPRAGUE CAPACITORS

M CAPACITORS, continued

127P FILMITE 'E' TUBULARS

ating temperature range, —55°C to +150°C • Even at 150°C, tion resistance is higher than that of best paper capacitors • These citors use polyester-film dielectric • Dissipation factor will not exceed 1.3% • Extended foil construction for low series resistance • For complete technical data, refer to latest issue of Engineering Bulletin 2410 • For prices on quantities from 10 to 499 pieces, see your Sprague Industrial Distributor • Dimensions shown are for units with sleeves, for plain cases, subtract 1/16″ from length and .032″ from diameter.

μF	WVDC	Size D. x L.	±20% Cap. Tol.				±10% Cap. Tol.			
			Plain Case		w/plastic sleeve		Plain Case		w/plastic sleeve	
			Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.	Cat. No.	Net (1-9) ea.
0068	200	.235 x 13/16	127P68202S2	$3.156	127P68202S4	$3.316	127P68292S2	$3.472	127P68292S4	$3.648
01	200	.235 x 13/16	127P10302S2	3.312	127P10302S4	3.472	127P10392S2	3.642	127P10392S4	3.819
015	200	.235 x 13/16	127P15302S2	3.340	127P15302S4	3.500	127P15392S2	3.674	127P15392S4	3.850
022	200	.235 x 13/16	127P22302S2	3.352	127P22302S4	3.512	127P22392S2	3.687	127P22392S4	3.863
033	200	.312 x 15/16	127P33302S2	3.388	127P33302S4	3.548	127P33392S2	3.727	127P33392S4	3.903
047	200	.312 x 15/16	127P47302S2	3.436	127P47302S4	3.596	127P47392S2	3.780	127P47392S4	3.956
068	200	.312 x 15/16	127P68302S2	3.484	127P68302S4	3.644	127P68392S2	3.832	127P68392S4	4.008
1	200	.400 x 15/16	127P10402S2	3.496	127P10402S4	3.656	127P10492S2	3.846	127P10492S4	4.022
15	200	.400 x 1 1/16	127P15402S2	3.688	127P15402S4	3.848	127P15492S2	4.057	127P15492S4	4.233
22	200	.400 x 1 5/16	127P22402S2	3.924	127P22402S4	4.084	127P22492S2	4.316	127P22492S4	4.492
33	200	.400 x 1 9/16	127P33402S2	4.172	127P33402S4	4.332	127P33492S2	4.589	127P33492S4	4.765
47	200	.562 x 1 1/8	127P47402S2	4.392	127P47402S4	4.552	127P47492S2	4.831	127P47492S4	5.007
68	200	.562 x 1 3/8	127P68402S2	4.804	127P68402S4	4.964	127P68492S2	5.284	127P68492S4	5.460
0	200	.562 x 1 7/8	127P10502S2	5.344	127P10502S4	5.504	127P10592S2	5.878	127P10592S4	6.054

141P FILMITE 'G' TUBULARS

uorocarbon film dielectric • Operating temperature range, —55°C to)°C • Unusually high insulation resistance (in excess of 100,000 hm-microfarads at 25°C) • Low dielectric absorption • Low dissipation (less than .02%) • Excellent humidity resistance • Small capacitance change with temperature • Units listed below have capacitance tolerance of ±10%. For ±20%, change 8th digit in catalog number from 9 to 0; For ±5% change to 5; For ±2% change to 2; For ±1% change to 1 • Units listed below have plastic insulating sleeves. For plain metal case, change last digit in catalog number from 4 to 2 • For complete technical data, refer to latest issue of Engineering Bulletin 2610 • Prices available upon request.

	Diam. x Length	Cat. No.
	200 WVDC	
	.235 x 13/16	141P15292S4
	.312 x 15/16	141P39292S4
	.312 x 15/16	141P47292S4
	.400 x 15/16	141P82292S4
	.400 x 15/16	141P10392S4
	.400 x 1 3/16	141P12392S4
	.400 x 1 3/16	141P15392S4
	.400 x 1 5/16	141P18392S4
	.400 x 1 5/16	141P22392S4
	.562 x 1 1/8	141P27392S4
	.562 x 1 1/8	141P33392S4
	.562 x 1 1/4	141P39392S4
	.562 x 1 1/4	141P47392S4
	.562 x 1 1/2	141P56392S4
	.562 x 1 1/2	,41P68392S4
	.562 x 1 7/8	141P82392S4
	.562 x 1 7/8	141P10492S4

μF	Diam. x Length	Cat. No.
	400 WVDC	
.1	.670 x 1 7/8	141P10494S4
.12	.750 x 2 1/8	141P12494S4
.15	.750 x 2 1/8	141P15494S4
.18	1.000 x 1 7/8	141P18494S4
.22	1.000 x 1 7/8	141P22494S4
.27	1.000 x 2 3/8	141P27494S4
.33	1.000 x 2 3/8	141P33494S4
	600 WVDC	
.001	.235 x 13/16	141P10296S4
.0012	.312 x 15/16	141P12296S4
.0015	.312 x 15/16	141P15296S4
.0018	.312 x 15/16	141P18296S4
.0022	.312 x 15/16	141P22296S4
.0027	.312 x 15/16	141P27296S4
.0033	.312 x 15/16	141P33296S4
.0039	.400 x 15/16	141P39296S4

μF	Diam. x Length	Cat. No.
.0047	.400 x 15/16	141P47296S4
.0056	.400 x 15/16	141P56296S4
.0068	.400 x 15/16	141P68296S4
.0082	.400 x 1 3/16	141P82296S4
.01	.400 x 1 3/16	14,P10396S4
.012	.400 x 1 5/16	141P12396S4
.015	.400 x 1 5/16	141P15396S4
.018	.562 x 1 1/8	141P18396S4
.022	.562 x 1 1/8	141P22396S4
.027	.562 x 1 1/4	141P27396S4
.033	.562 x 1 1/4	141P33396S4
.039	.562 x 1 1/2	141P39396S4
.047	.562 x 1 1/2	141P47396S4
.056	.562 x 1 7/8	141P56396S4
.068	.562 x 1 7/8	141P68396S4
.082	1.000 x 1 7/8	141P82396S4
.1	1.000 x 1 7/8	141P10496S4
.12	1.000 x 2 3/8	141P12496S4
.15	1.000 x 2 3/8	141P15496S4

142P FILMITE 'G' OVALS

electrical characteristics as Type 141P • Drawn metal oval cases ed units have capacitance tolerance of ±5%. For ±20%, change last in catalog number from J to M; for ±10% change to K; for ±2% je to G; for ±1% change to F • For complete technical data, refer to issue of Engineering Bulletin 2610 • Prices available upon request.

μF	WVDC	W. x T. x H.	Cat. No.
.68	200	2 5/32 x 1 5/16 x 2 1/8	142P1J
1.0	200	2 5/32 x 1 5/16 x 2 3/4	142P2J
.68	400	2 5/32 x 1 5/16 x 2 1/2	142P3J
1.0	400	2 5/32 x 1 5/16 x 3 3/8	142P4J
.33	600	2 5/32 x 1 5/16 x 2 5/8	142P5J
.47	600	2 5/32 x 1 5/16 x 3 1/2	142P6J

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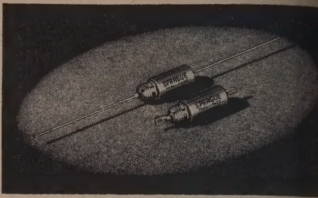
SPRAGUE CAPACITORS

TYPE 102P, 103P 'THRU-PASS' CAPACITORS

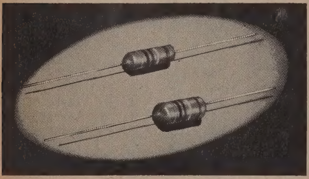
- Designed for Radio Interference Reduction in Radar and Communication Equipment
- Performance Closer to That of Theoretically Ideal Capacitor than Any Other Paper Capacitor Ever Made
- Three-Terminal Feed-Thru Design — Connect in a Circuit in Same Manner as Low-Pass Filter
- Hermetically Sealed, with Glass-to-Metal Solder-Seal Terminals
- Impregnated with Vitamin Q, for High Insulation Resistance and Minimum Capacitance Change with Temperature
- Type 102P is Designed for Operation from −55°C to +85°C; Type 103P for −55°C to +125°C
- Capacitors listed below have wire leads. For tab terminals, which are also available, see your Sprague Industrial Distributor.
- For complete technical data, refer to latest issue of Engineering Bulletin 8015
- Prices available upon request



μF	Size Diam. x Length	Catalog Number 85°C	125°C
		100 WVDC	
.001	.400 x ¾	102P101	103P101
.0047	.400 x ¾	102P106	103P106
.01	.400 x ¾	102P111	103P111
.047	.400 x ¾	102P116	103P116
.1	.400 x ⅞	102P121	103P121
.22	.400 x 1⅜	102P126	103P126
.33	.562 x 1⅛	102P131	103P131
.47	.562 x 1⅜	102P136	103P136
.68	.562 x 1⅞	102P141	103P141
1.0	.670 x 1⅞	102P146	103P146
		200 WVDC	
.001	.400 x ¾	102P102	103P102
.0047	.400 x ¾	102P107	103P107
.01	.400 x ¾	102P112	103P112
.047	.400 x ⅞	102P117	103P117
.1	.400 x 1⅛	102P122	103P122
.22	.562 x 1⅛	102P127	103P127
.33	.562 x 1⅝	102P132	103P132
.47	.562 x 1⅞	102P137	103P137
.68	.670 x 1⅞	102P142	103P142
1.0	.750 x 2⅛	102P147	103P147
		300 WVDC	
.001	.400 x ¾	102P103	103P103
.0047	.400 x ¾	102P108	103P108
.01	.400 x ¾	102P113	103P113

μF	Size Diam. x Length	Catalog Number 85°C	125
		300 WVDC (Continued)	
.047	.400 x 1⅛	102P118	103P
.1	.400 x 1⅜	102P123	103P
.22	.562 x 1⅜	102P128	103P
.33	.562 x 1⅞	102P133	103P
.47	.670 x 1⅞	102P138	103P
.68	.750 x 2⅛	102P143	103P
		400 WVDC	
.001	.400 x ¾	102P104	103P
.0047	.400 x ¾	102P109	103P
.01	.400 x ¾	102P114	103P
.047	.400 x 1⅜	102P119	103P
.1	.562 x 1⅛	102P124	103P
.22	.562 x 1⅞	102P129	103P
.33	.670 x 1⅞	102P134	103P
.47	.750 x 2⅛	102P139	103P
.68	.750 x 2⅜	102P144	103P
		600 WVDC	
.001	.400 x ¾	102P105	103P
.0047	.400 x ¾	102P110	103P
.01	.400 x ¾	102P115	103P
.047	.400 x 1⅜	102P120	103P
.1	.562 x 1⅜	102P125	103P
.22	.670 x 1⅞	102P130	103P
.33	.750 x 2⅛	102P135	103P
.47	.750 x 2⅜	102P140	103P

TYPE 65P PROKAR® MOLDED TUBULARS



- For Applications Requiring Small Paper Capacitors for Continuous Operation at High Temperatures
- No Voltage Derating Required for 125°C Operation
- Impregnated with an Exclusive Sprague Organic Material which Polymerizes to Form a Solid Capacitor Section
- Sections Molded in Mineral-Filled High-Temperature Plastic — All cases c 1¹⁄₁₆″ long
- Capacitance Tolerance of these Cap itors is ±5%
- For complete technical data, refer latest issue of Engineering Bulletin 21
- For prices on quantities from 25 to 4 pieces, see your Sprague Industr Distributor.

μF	WVDC	Diam.	Cat. No.	Net (1-24) ea.
.01	200	.175	65P10352	$ .90
.015	200	.195	65P15352	.90
.02	200	.250	65P20352	1.20
.022	200	.250	65P22352	1.20
.03	200	.250	65P30352	1.20
.033	200	.250	65P33352	1.20
.039	200	.375	65P39352	1.50
.047	200	.375	65P47352	1.50
.051	200	.375	65P51352	1.50
.056	200	.375	65P56352	1.50
.062	200	.375	65P62352	1.50
.082	200	.375	65P82352	1.50

μF	WVDC	Diam.	Cat. No.	Net (1-24) e
.091	200	.375	65P91352	1.50
.1	200	.375	65P10452	1.50
.001	300	.175	65P10253	.90
.0015	300	.175	65P15253	.90
.002	300	.175	65P20253	.90
.0039	300	.175	65P39253	.90
.0047	300	.175	65P47253	.90
.0051	300	.175	65P51253	.90
.0056	300	.175	65P56253	.90
.0068	300	.175	65P68253	.90
.0082	300	.195	65P82253	.90
.0091	300	.195	65P91253	.90

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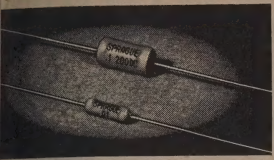
SPRAGUE CAPACITORS



TYPE 192P PACER® FILMITE® 'E' CAPACITORS

For Minimum Size In Commercial And Industrial Electronics

- Completely New Construction—Extended Foil Film Sections Terminate in End Caps With Wire Leads Assuring Best Possible Non-inductive Section.
- Controlled Dimensions Permit Use of Automatic Insertion Equipment for Installing Pacer Capacitors on Printed Wiring Boards.

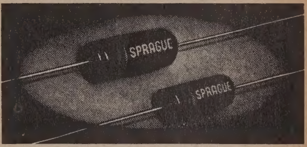
Pacers are Wound With Ultra-thin Polyester Film Dielectric and Thin Gage Foil Under Controlled Atmospheric Conditions. Entire Assembly Protected by Hard, Durable Orange Epoxy Coating. Rated for Operation from −55C to +85C. Also Available in Kleer-Paks. For Complete Technical Data, Refer to Latest Issue of Sprague Engineering Bulletin 2066.

F	D.	x L.	Catalog Number	Net ea. (1-24)
		200 VOLTS D-C		
01	.138	5/16	192P10292	$.27
012	.138	5/16	192P12292	.27
015	.138	5/16	192P15292	.27
018	.170	5/16	192P18292	.27
022	.170	5/16	192P22292	.27
027	.170	5/16	192P27292	.27
033	.170	5/16	192P33292	.27
039	.170	7/16	192P39292	.27
047	.170	7/16	192P47292	.27
056	.170	7/16	192P56292	.27
068	.170	7/16	192P68292	.27
082	.170	½	192P82292	.30
1	.170	½	192P10392	.30

µF	D.	x L.	Catalog Number	Net ea. (1-24)
		200 VOLTS D-C		
.012	.204	7/16	192P12392	$.30
.015	.204	7/16	192P15392	.30
.018	.204	9/16	192P18392	.30
.022	.204	9/16	192P22392	.30
.027	.225	9/16	192P27392	.33
.033	.225	9/16	192P33392	.33
.039	.290	½	192P39392	.36
.047	.290	½	192P47392	.39
.056	.290	⅝	192P56392	.39
.068	.290	⅝	192P68392	.42
.082	.318	⅝	192P82392	.45
.1	.318	⅝	192P10492	.45

YPE 155P & 156P MOLDED METALLIZED PAPER CAPACITORS

derate Cost Approach to Commercial and Industrial Electronic Miniaturization



Superior to Most Competitive Units—Will Withstand Tests of Twice-rated Voltage Providing Extra Safety Factor for the Equipment Designer.

Superior to Paper-jacketed or Film-wrapped Metallized Capacitors Under Conditions of High Humidity. Useful in Low-noise Level Circuits—Self-generated Noise is Practically Non-existent.

Type 155P are Molded in Case—Type 156P are in Premolded Cases, Sealed With Epoxy, Bonding Tightly to Lead and Case. Also Available in Kleer-Paks. For Complete Technical Data, Refer to Latest Issue of Sprague Bulletin 2330.

uF	D.	x L.	Ordering Information	Net ea. (1-24)
		200 VOLTS D-C		
1	5/16	1	155P .01-200	$ .42
15	5/16	1	155P .015-200	.42
2	5/16	1	155P .02-200	.42
22	5/16	1	155P .022-200	.42
3	5/16	1	155P .03-200	.45
33	5/16	1	155P .033-200	.45
47	5/16	1	155P .047-200	.45
5	5/16	1	155P .05-200	.45
68	5/16	1	155P .068-200	.45
	5/16	1	155P .1-200	.45
5	⅜	1¼	155P .15-200	.45
22	⅜	1¼	155P .22-200	.45
25	7/16	1¼	155P .25-200	.66
33	7/16	1¼	155P .33-200	.66
47	7/16	1¼	155P .47-200	.66
5	½	1½	155P .5-200	.78
58	½	1½	155P .68-200	.78
)	½	1½	155P 1.0-200	1.05
5	⅝	1⅞	155P 1.5-200	1.20
)	⅝	1⅞	155P 2.0-200	1.41
5	¾	2¼	156P 2.5-200	1.65
)	¾	2¼	156P 3.0-200	1.80
5	¾	2¼	156P 3.5-200	2.10
)	¾	2¼	156P 4.0-200	2.22
5	⅞	2½	156P 4.5-200	2.40
)	⅞	2½	156P 5.0-200	2.55
5	⅞	2½	156P 5.5-200	2.70
)	⅞	2½	156P 6.0-200	3.00
5	⅞	2½	156P 6.5-200	3.15

µF	D.	x L.	Ordering Information	Net ea. (1-24)
		200 VOLTS D-C (Cont.)		
7.0	⅞	2½	156P 7.0-200	$3.33
7.5	⅞	2½	156P 7.5-200	3.51
8.0	1	2½	156P 8.0-200	3.75
8.5	1	2½	156P 8.5-200	3.90
9.0	1	2½	156P 9.0-200	4.05
9.5	1	2½	156P 9.5-200	4.20
		400 VOLTS D-C		
.01	5/16	1	155P .01-400	.42
.015	5/16	1	155P .015-400	.42
.02	5/16	1	155P .02-400	.42
.022	5/16	1	155P .022-400	.42
.025	⅜	1¼	155P .025-400	.42
.03	⅜	1¼	155P .03-400	.42
.033	⅜	1¼	155P .033-400	.42
.04	⅜	1¼	155P .04-400	.42
.047	⅜	1¼	155P .047-400	.42
.05	⅜	1¼	155P .05-400	.45
.068	7/16	1¼	155P .068-400	.45
.1	7/16	1¼	155P .1-400	.51
.15	½	1½	155P .15-400	.66
.2	½	1½	155P .2-400	.69
.22	½	1½	155P .22-400	.69
.25	⅝	1⅞	155P .25-400	.72
.33	⅝	1⅞	155P .33-400	.72
.47	⅝	1⅞	155P .47-400	.90
.5	¾	2¼	155P .5-400	.93
.68	¾	2¼	156P .68-400	1.05

µF	D.	x L.	Ordering Information	Net ea. (1-24)
		400 VOLTS D-C (Cont.)		
1.0	¾	2¼	156P 1.0-400	$1.29
1.5	⅞	2½	156P 1.5-400	1.59
2.0	⅞	2½	156P 2.0-400	1.80
2.5	1	2½	156P 2.5-400	2.25
		600 VOLTS D-C		
.01	5/16	1	155P .01-600	.45
.015	⅜	1¼	155P .015-600	.45
.02	⅜	1¼	155P .02-600	.45
.022	⅜	1¼	155P .022-600	.45
.03	⅜	1¼	155P .03-600	.48
.033	⅜	1¼	155P .033-600	.48
.04	⅜	1¼	155P .04-600	.51
.047	⅜	1¼	155P .047-600	.51
.05	7/16	1¼	155P .05-600	.51
.06	7/16	1¼	155P .06-600	.51
.068	7/16	1¼	155P .068-600	.51
.1	½	1½	155P .1-600	.57
.15	½	1½	155P .15-600	.72
.2	⅝	1⅞	155P .2-600	.90
.22	⅝	1⅞	155P .22-600	.90
.25	⅝	1⅞	155P .25-600	.90
.33	⅝	1⅞	155P .33-600	.93
.47	¾	2¼	156P .47-600	1.14
.5	¾	2¼	156P .5-600	1.14
.68	¾	2¼	156P .68-600	1.14
1.0	⅞	2½	156P 1.0-600	1.38
1.5	1	2½	156P 1.5-600	1.89

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REM-40a-6224

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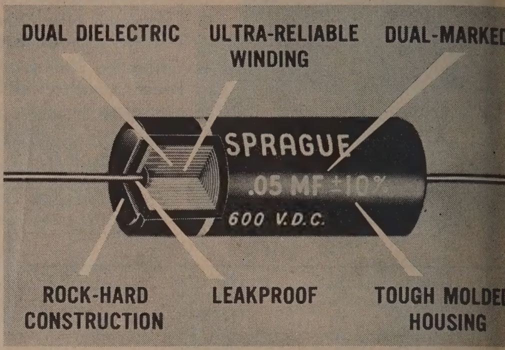
SPRAGUE CAPACITORS

DIFILM® BLACK BEAUTY® MOLDED TUBULARS

SPRAGUE
4TM-P22



- Developed Especially for Long Life Under High Humidity and Temperature Operating Conditions
- Dual Dielectric (film and paper) Combines Best Features of Both Polyester Film and Paper Capacitors
- Exclusive HCX® Solid Impregnant Construction Produces Rock-hard Capacitor Section
- Won't Leak or Drip

LOOK FOR THE RED MARKINGS ON THE BLACK CASE

- No Derating for 105°C Operation
- Mica-filled, Non-flammable Molded Case. Wo Crack when Dropped; Soldering won't Harm
- Every Capacitor Marked Twice. No Twisting Case to Read Ratings
- Also Available in Handy Sprague Kleer-Pak®
- **Capacitance Tolerance: ±10%** from .001 μF up Except 2TM-M1 ±20%

For Complete Technical Data, See Latest Sprague Engineering Bulletin 2025

The World's Best Molded Tubular at No Extra Cost!

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
200 WVDC				
.01	5/16 x 1	2TM-S10	160P10392	$.15
.02	3/8 x 1 1/4	2TM-S20	....	.15
.022	3/8 x 1 1/4	2TM-S22	160P22392	.15
.047	7/16 x 1 1/4	2TM-S47	160P47392	.15
.05	7/16 x 1 1/4	2TM-S50	....	.15
.1	1/2 x 1 1/2	2TM-P10	160P10492	.21
.15	1/2 x 1 1/2	2TM-P15	160P15492	.21
.22	5/8 x 1 7/8	2TM-P22	160P22492	.24
.25	5/8 x 1 7/8	2TM-P25	....	.24
.47	3/4 x 2 1/4	2TM-P47	160P47492	.36
.5	3/4 x 2 1/4	2TM-P50	....	.36
1.0	3/4 x 2 1/4	2TM-M1	160P10592	.63
400 WVDC				
.001	5/16 x 1	4TM-D10	160P10294	.15
.005	5/16 x 1	4TM-D50	....	.15
.01	3/8 x 1 1/4	4TM-S10	160P10394	.15
.015	3/8 x 1 1/4	4TM-S15	160P15394	.15
.02	3/8 x 1 1/4	4TM-S20	....	.15
.022	3/8 x 1 1/4	4TM-S22	160P22394	.18
.025	7/16 x 1 1/4	4TM-S25	....	.18
.03	7/16 x 1 1/4	4TM-S30	....	.18

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
400 WVDC (Cont.)				
.04	7/16 x 1 1/4	4TM-S40	....	$.18
.047	7/16 x 1 1/4	4TM-S47	160P47394	.18
.05	7/16 x 1 1/4	4TM-S50	....	.18
.068	1/2 x 1 1/2	4TM-S68	160P68394	.21
.1	1/2 x 1 1/2	4TM-P10	160P10494	.21
.15	5/8 x 1 7/8	4TM-P15	160P15494	.24
.2	5/8 x 1 7/8	4TM-P20	....	.27
.22	5/8 x 1 7/8	4TM-P22	160P22494	.27
.25	3/4 x 2 1/4	4TM-P25	....	.30
.47	3/4 x 2 1/4	4TM-P47	160P47494	.45
.5	3/4 x 2 1/4	4TM-P50	....	.45
1.0	1 x 2 1/2	4TM-M1	160P10594	.75
600 WVDC				
.0001	5/16 x 1	6TM-T10	....	.15
.00025	5/16 x 1	6TM-T25	....	.15
.0004	5/16 x 1	6TM-T40	....	.15
.0005	5/16 x 1	6TM-T50	....	.15
.001	5/16 x 1	6TM-D10	160P10296	.15
.0015	5/16 x 1	6TM-D15	160P15296	.15
.002	5/16 x 1	6TM-D20	....	.15

μF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
600 WVDC (Cont.)			
.0022	5/16 x 1	6TM-D22	160P22296
.0025	5/16 x 1	6TM-D25	....
.003	5/16 x 1	6TM-D30	....
.0033	5/16 x 1	6TM-D33	160P33296
.004	3/8 x 1 1/4	6TM-D40	....
.0047	3/8 x 1 1/4	6TM-D47	160P47296
.005	3/8 x 1 1/4	6TM-D50	....
.006	3/8 x 1 1/4	6TM-D60	....
.0068	3/8 x 1 1/4	6TM-D68	160P68296
.008	3/8 x 1 1/4	6TM-D80	....
.01	3/8 x 1 1/4	6TM-S10	160P10396
.015	3/8 x 1 1/4	6TM-S15	160P15396
.02	7/16 x 1 1/4	6TM-S20	....
.022	7/16 x 1 1/4	6TM-S22	160P22396
.025	7/16 x 1 1/4	6TM-S25	....
.03	7/16 x 1 1/4	6TM-S30	....
.033	7/16 x 1 1/4	6TM-S33	160P33396
.035	7/16 x 1 1/4	6TM-S35	....
.04	1/2 x 1 1/2	6TM-S40	....
.047	1/2 x 1 1/2	6TM-S47	160P47396

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SPRAGUE CAPACITORS

IFILM BLACK BEAUTY MOLDED TUBULARS, continued

F	D. x l.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	600 WVDC (Cont.)			
5	½ x 1½	6TM-S50	....	$ .24
	½ x 1½	6TM-S60	....	.24
8	½ x 1½	6TM-S68	160P68396	.27
	⅝ x 1⅞	6TM-P10	160P10496	.27
	⅝ x 1⅞	6TM-P15	160P15496	.30
	¾ x 2¼	6TM-P20	....	.39
2	¾ x 2¼	6TM-P22	160P22496	.42
5	¾ x 2¼	6TM-P25	....	.45
	1 x 2½	6TM-P47	160P47496	.75
	1 x 2½	6TM-P50	....	.75
	1 x 2½	6TM-M1	....	1.05

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	1000 WVDC			
.0005	5/16 x 1	10TM-T50	....	$.30
.001	5/16 x 1	10TM-D10	160P102910	.30
.0015	5/16 x 1	10TM-D15	160P152910	.30
.002	⅜ x 1¼	10TM-D20	....	.30
.0022	⅜ x 1¼	10TM-D22	160P222910	.30
.003	⅜ x 1¼	10TM-D30	....	.30
.004	⅜ x 1¼	10TM-D40	....	.30
.0047	⅜ x 1¼	10TM-D47	160P472910	.30
.005	⅜ x 1¼	10TM-D50	....	.30
.0068	⅜ x 1¼	10TM-D68	160P682910	.30

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	1000 WVDC (cont.)			
.01	7/16 x 1¼	10TM-S10	160P103910	$.30
.015	½ x 1½	10TM-S15	160P153910	.30
.02	½ x 1½	10TM-S20	....	.30
.022	½ x 1½	10TM-S22	160P223910	.30
.03	⅝ x 1⅞	10TM-S30	....	.30
.035	⅝ x 1⅞	10TM-S35	....	.30
.047	⅝ x 1⅞	10TM-S47	160P473910	.36
.05	⅝ x 1⅞	10TM-S50	....	.36
.068	⅝ x 1⅞	10TM-S68	160P683910	.42
.1	¾ x 2¼	10TM-P10	160P104910	.45

MINERAL-OIL BLACK BEAUTY MOLDED TUBULARS

imilar in appearance to Difilm Black Beauty Capacitors except all paper dielectric, impregnated with mineral oil for best igh voltage performance ● Maximum Operating Temperature: 85°C

F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	1600 WVDC (Buffer)			
005	⅜ x 1¼	MB-T5	....	$.39
01	⅜ x 1¼	MB-D1	73P102916	.39
015	⅜ x 1¼	MB-D15	73P152916	.39
02	⅜ x 1¼	MB-D2	....	.39
022	⅜ x 1¼	MB-D22	73P222916	.39
03	7/16 x 1¼	MB-D3	....	.39
033	7/16 x 1¼	MB-D33	73P332916	.39
04	7/16 x 1¼	MB-D4	....	.39
047	7/16 x 1¼	MB-D47	73P472916	.39
05	7/16 x 1¼	MB-D5	....	.39
06	½ x 1½	MB-D6	....	.39

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.0068	½ x 1½	MB-D68	73P682916	$.39
.007	½ x 1½	MB-D7	....	.39
.0075	½ x 1½	MB-D75	....	.39
.008	½ x 1½	MB-D8	....	.39
.01	½ x 1½	MB-S1	73P103916	.42
.015	⅝ x 1⅞	MB-S15	73P153916	.42
.02	⅝ x 1⅞	MB-S2	....	.42
.022	⅝ x 1⅞	MB-S22	73P223916	.42
.03	⅝ x 1⅞	MB-S3	....	.42
.04	⅝ x 1⅞	MB-S4	....	.42
.05	¾ x 2⅛	*TR-15	....	.42
2 x .015	¾ x 2	*TR-215	....	.48

*Supplied in wax cardboard units

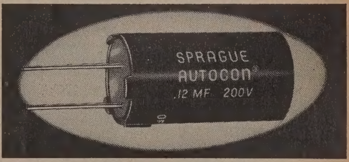
µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
	6000 WVDC (Buffer)			
.0005	½ x 1½	TVM-356	....	$.81
.001	½ x 1½	TVM-216	184P102060	.81
.005	⅝ x 1⅞	TVM-256	....	.81
	10,000 WVDC (Buffer)			
.0005	⅝ x 1⅞	TVM-351	....	.90
	12,500 WVDC (Buffer)			
.00025	⅝ x 1⅞	12TVM-325	....	1.02

AUTOCON® MOLDED TUBULAR CAPACITORS

enerous 1″ Lead Lengths Make Autocons niversal Replacements For All Single Ended riginal Equipment Types Used on Printed iring Boards

re-molded Thermosetting Plastic Shell with lastic Resin Endseal for Humidity Protection, utside Foil Identified by Index Key

- Autocons Have High Insulation Resistance, Low Power Factor, and a Flat Temperature-Capacitance Curve
- Impregnated with HCX®, an Exclusive Solid Dielectric Material
- "Standoff" Feet Prevent Dust and Moisture Traps. Also Prevent Printed Wiring Board Shorts



	WVDC	Diam.	Length	Cat. No.	Net
1	200	⅜	1⅜	2SE-D10	$.18
15	200	⅜	1⅜	2SE-D15	.18
22	200	⅜	1⅜	2SE-D22	.18
33	200	⅜	1⅜	2SE-D33	.18
47	200	⅜	1⅜	2SE-D47	.18
68	200	⅜	1⅜	2SE-D68	.18
	200	⅜	1⅜	2SE-S10	.18
5	200	⅜	1⅜	2SE-S15	.18
2	200	⅜	1⅜	2SE-S22	.21
3	200	⅜	1⅜	2SE-S33	.21
7	200	7/16	1⅜	2SE-S47	.21
8	200	7/16	1⅜	2SE-S68	.21
	200	½	1½	2SE-P10	.24
	200	⅝	1⅞	2SE-P15	.27
	200	⅝	1⅞	2SE-P22	.30
	200	⅝	1⅞	2SE-P33	.33
	200	¾	1⅞	2SE-P47	.39
1	400	⅜	1⅜	4SE-D10	.18
15	400	⅜	1⅜	4SE-D15	.18
22	400	⅜	1⅜	4SE-D22	.18
33	400	⅜	1⅜	4SE-D33	.18
47	400	⅜	1⅜	4SE-D47	.18
68	400	⅜	1⅜	4SE-D68	.18
	400	⅜	1⅜	4SE-S10	.18

µF	WVDC	Diam.	Length	Cat. No.	Net
.015	400	⅜	1⅜	4SE-S15	$.18
.022	400	7/16	1⅜	4SE-S22	.21
.033	400	7/16	1⅜	4SE-S33	.21
.047	400	½	1½	4SE-S47	.21
.068	400	½	1½	4SE-S68	.24
.1	400	⅝	1⅞	4SE-P10	.27
.15	400	⅝	1⅞	4SE-P15	.30
.22	400	⅝	1⅞	4SE-P22	.33
.33	400	¾	1⅞	4SE-P33	.39
.001	600	⅜	1⅜	6SE-D10	.18
.0015	600	⅜	1⅜	6SE-D15	.18
.0022	600	⅜	1⅜	6SE-D22	.18
.0033	600	⅜	1⅜	6SE-D33	.18
.0047	600	⅜	1⅜	6SE-D47	.18
.0068	600	⅜	1⅜	6SE-D68	.18
.01	600	⅜	1⅜	6SE-S10	.21
.015	600	7/16	1⅜	6SE-S15	.21
.022	600	7/16	1⅜	6SE-S22	.24
.033	600	½	1½	6SE-S33	.24
.047	600	½	1½	6SE-S47	.27
.068	600	⅝	1⅞	6SE-S68	.30
.1	600	⅝	1⅞	6SE-P10	.33
.15	600	¾	1⅞	6SE-P15	.36

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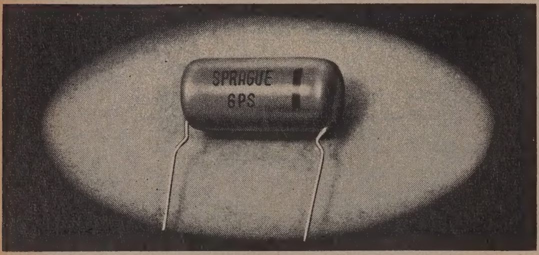
SPRAGUE CAPACITORS

DIFILM® ORANGE DROP® DIPPED TUBULARS



- Especially Made for Exact, Original Replacement
- Dual Dielectric (Film-paper) Solidly Impregnated With Exclusive HCX®—Produces Rock-Hard Capacitor Section
- Outperforms Any Other Dipped Tubular Capacitor
- Crimped Wire Leads for Correct Spacing When Mount
On Printed Wiring Boards.
- Voltage Ratings From 200 VDC to 1000 VDC
- Outside Foil on All Units Identified by Black Striping
- Double Dipped in Bright Orange Epoxy Resin—Be
Heat and Humidity
- Won't Leak or Drip
- Also Available in Handy Sprague Kleer-Pak® Boxes
- Write for Engineering Bulletin No. 2004

200 VOLTS D-C

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.02	3/8 x 7/8	2PS-S20	....	$.15
.022	25/64 x 7/8	2PS-S22	220P22392	.15
.047	29/64 x 7/8	2PS-S47	220P47392	.15
.05	15/32 x 7/8	2PS-S50	....	.15
.1	31/64 x 1 3/16	2PS-P10	220P10492	.21
.15	9/16 x 1 3/16	2PS-P15	220P15492	.21
.2	19/32 x 1 5/16	2PS-P20	....	.24
.22	39/64 x 1 5/16	2PS-P22	220P22492	.24
.25	5/8 x 1 5/16	2PS-P25	....	.24
.33	5/8 x 1 5/8	2PS-P33	220P33492	.30
.47	45/64 x 1 5/8	2PS-P47	220P47492	.36
.5	23/32 x 1 5/8	2PS-P50	....	.36

400 VOLTS D-C

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.01	13/32 x 11/16	4PS-S10	220P10394	.15
.015	29/64 x 11/16	4PS-S15	220P15394	.15
.02	13/32 x 7/8	4PS-S20	....	.15
.022	27/64 x 7/8	4PS-S22	220P22394	.18
.025	7/16 x 7/8	4PS-S25	....	.18
.03	29/64 x 7/8	4PS-S30	....	.18
.033	15/32 x 7/8	4PS-S33	220P33394	.18
.04	27/64 x 1 3/16	4PS-S40	....	.18
.047	29/64 x 1 3/16	4PS-S47	220P47394	.18
.05	29/64 x 1 3/16	4PS-S50	....	.18
.056	31/64 x 1 3/16	4PS-S56	220P56394	.21
.068	33/64 x 1 3/16	4PS-S68	220P68394	.21
.075	33/64 x 1 3/16	4PS-S75	....	.21
.1	37/64 x 1 3/16	4PS-P10	220P10494	.21
.15	39/64 x 1 5/16	4PS-P15	220P15494	.24
.2	19/32 x 1 5/8	4PS-P20	....	.27
.22	39/64 x 1 5/8	4PS-P22	220P22494	.27
.25	41/64 x 1 5/8	4PS-P25	....	.30

600 VOLTS D-C

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
.001	21/64 x 11/16	6PS-D10	220P10296	.15
.0012	21/64 x 11/16	6PS-D12	220P12296	.15
.0015	21/64 x 11/16	6PS-D15	220P15296	.15
.0018	21/64 x 11/16	6PS-D18	220P18296	.15
.002	21/64 x 11/16	6PS-D20	....	.15
.0022	21/64 x 11/16	6PS-D22	220P22296	.15
.0025	21/64 x 11/16	6PS-D25	....	.15
.0027	11/32 x 11/16	6PS-D27	220P27296	.15
.003	11/32 x 11/16	6PS-D30	....	.15
.0033	23/64 x 11/16	6PS-D33	220P33296	.15

600 VOLTS D-C (cont.)

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.0039	3/8 x 11/16	6PS-D39	220P39296
.004	3/8 x 11/16	6PS-D40	....
.0047	25/64 x 11/16	6PS-D47	220P47296
.005	25/64 x 11/16	6PS-D50	....
.0056	25/64 x 11/16	6PS-D56	220P56296
.006	13/32 x 11/16	6PS-D60	....
.0068	13/32 x 11/16	6PS-D68	220P68296
.0075	23/64 x 7/8	6PS-D75	....
.008	23/64 x 7/8	6PS-D80	....
.0082	3/8 x 7/8	6PS-D82	220P82296
.01	25/64 x 7/8	6PS-S10	220P10396
.012	25/64 x 7/8	6PS-S12	220P12396
.015	27/64 x 7/8	6PS-S15	220P15396
.02	31/64 x 7/8	6PS-S20	....
.022	31/64 x 7/8	6PS-S22	220P22396
.025	17/32 x 7/8	6PS-S25	....
.027	7/16 x 1 3/16	6PS-S27	220P27396
.03	7/16 x 1 3/16	6PS-S30	....
.033	15/32 x 1 3/16	6PS-S33	220P33396
.035	15/32 x 1 3/16	6PS-S35	....
.039	31/64 x 1 3/16	6PS-S39	220P39396
.04	1/2 x 1 3/16	6PS-S40	....
.047	17/32 x 1 3/16	6PS-S47	220P47396
.05	17/32 x 1 3/16	6PS-S50	....
.056	35/64 x 1 3/16	6PS-S56	220P56396
.06	9/16 x 1 3/16	6PS-S60	....
.068	37/64 x 1 3/16	6PS-S68	220P68396
.075	9/16 x 1 5/16	6PS-S75	....
.082	37/64 x 1 5/16	6PS-S82	220P82396
.1	5/8 x 1 5/16	6PS-P10	220P10496
.15	43/64 x 1 5/8	6PS-P15	220P15496
.2	3/4 x 1 5/8	6PS-P20	....
.22	25/32 x 1 5/8	6PS-P22	220P22496
.25	13/16 x 1 5/8	6PS-P25	....

1000 VOLTS D-C

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.
.001	21/64 x 11/16	10PS-D10	220P102910
.0015	11/32 x 11/16	10PS-D15	220P152910
.002	3/8 x 11/16	10PS-D20	....
.0022	3/8 x 11/16	10PS-D22	220P222910
.003	11/32 x 7/8	10PS-D30	....
.004	3/8 x 7/8	10PS-D40	....
.0047	13/32 x 7/8	10PS-D47	220P472910
.005	13/32 x 7/8	10PS-D50	....

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SPRAGUE CAPACITORS

BF ISOFARAD® PLASTIC FILM CAPACITORS

For Applications Where the Best in Tubulars is None Too Good

SPRAGUE
ISOFARAD®

- Isofarad Quality is a Must in Color TV Synchroguide Circuits, Horizontal and Vertical Oscillators, Bridge and Parallel T Circuits and Other Tuned Circuit Applications Requiring Close Tolerance and Zero Temperature Coefficient of Capacitance
- Superior to Silvered Mica Capacitors in Most Applications, Yet Considerably Less Expensive
- Constant Capacitance—Will Not Change More Than ±0.5% from Room Temperature to +80°C at Maximum Rated Voltage Will Withstand Operating Temperatures to 85°C (185°F)
- **Capacitance Tolerance: ±5%**
- Also Available in Handy Sprague Kleer-Pak® Boxes
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 2073

F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		500 WVDC		
1	⅜ x 1	5BF-D10	145P10255	$.45
12	⅜ x 1	5BF-D12	145P12255	.45
15	⅜ x 1	5BF-D15	145P15255	.45
18	⅜ x 1	5BF-D18	145P18255	.45
22	⅜ x 1	5BF-D22	145P22255	.45
27	⅜ x 1	5BF-D27	145P27255	.45
33	⅜ x 1	5BF-D33	145P33255	.45
39	⅜ x 1	5BF-D39	145P39255	.48
47	⅜ x 1	5BF-D47	145P47255	.48
56	⅜ x 1¼	5BF-D56	145P56255	.48
68	⅜ x 1¼	5BF-D68	145P68255	.48
82	7/16 x 1¼	5BF-D82	145P82255	.48
	7/16 x 1¼	5BF-S10	145P10355	.54
2	½ x 1¼	5BF-S12	145P12355	.54
5	½ x 1¼	5BF-S15	145P15355	.75
8	½ x 1½	5BF-S18	145P18355	.75

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		500 WVDC (cont.)		
.022	½ x 1½	5BF-S22	145P22355	$.90
.027	⅝ x 1⅞	5BF-S27	145P27355	.90
.033	⅝ x 1⅞	5BF-S33	145P33355	1.08
.039	⅝ x 1⅞	5BF-S39	145P39355	1.08
.047	⅝ x 1⅞	5BF-S47	145P47355	1.26
.056	⅝ x 1⅞	5BF-S56	145P56355	1.26
.068	⅝ x 1⅞	5BF-S68	145P68355	1.59
.082	¾ x 1¼	5BF-S82	145P82355	2.16
.1	¾ x 2¼	5BF-P10	145P10455	2.16
.12	⅞ x 2½	5BF-P12	145P12455	2.94
.15	⅞ x 2½	5BF-P15	145P15455	2.94
.18	⅞ x 2½	5BF-P18	145P18455	4.05
.22	⅞ x 2½	5BF-P22	145P22455	4.05
.27	1 x 2½	5BF-P27	145P27455	4.95
.33	1 x 2½	5BF-P33	145P33455	4.95

WF YELLOW-JACKET® FILMITE® 'E' CAPACITORS

Excellent for Use in Transistorized Circuits and Low-Voltage Electron Tube Circuits

Extended Foil Type Sections, Wound from Selected, Ultra-Thin Polyester Film and Thin Gauge Foil

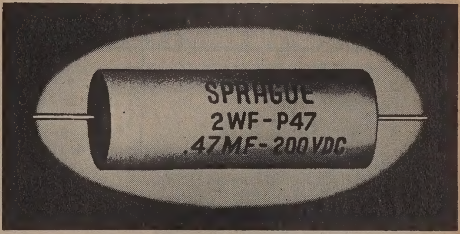
Outer Plastic Film Wrap and Resin End Seals Protect Against Moisture and Humidity

'Smaller Than Small'' — These Capacitors Will Fit Anywhere

Rated to **200 WVDC** — Capacitance Tolerance: ±10%

Designed for Operation to 85°C (185°F)

Available in Kleer-Pak® Boxes.



F	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 WVDC		
	13/64 x 11/16	2WF-S10	148P10392	$.57
2	13/64 x 11/16	2WF-S12	148P12392	.57
5	13/64 x 11/16	2WF-S15	148P15392	.57
8	13/64 x 11/16	2WF-S18	148P18392	.57
2	13/64 x 11/16	2WF-S22	148P22392	.57
7	7/32 x 11/16	2WF-S27	148P27392	.57
3	7/32 x 11/16	2WF-S33	148P33392	.60
9	¼ x 11/16	2WF-S39	148P39392	.60
7	¼ x 11/16	2WF-S47	148P47392	.60
6	¼ x 13/16	2WF-S56	148P56392	.60
8	¼ x 13/16	2WF-S68	148P68392	.60
2	5/16 x 13/16	2WF-S82	148P82392	.60
	5/16 x 13/16	2WF-P10	148P10492	.63

µF	D. x L.	Sprague Products Cat. No.	Sprague O.E.M. Part No.	Net
		200 WVDC (cont.)		
.12	23/64 x 13/16	2WF-P12	148P12492	$.63
.15	23/64 x 13/16	2WF-P15	148P15492	.63
.18	23/64 x 1 1/16	2WF-P18	148P18492	.66
.22	23/64 x 1 1/16	2WF-P22	148P22492	.66
.27	15/32 x 1 3/16	2WF-P27	148P27492	.66
.33	15/32 x 1 3/16	2WF-P33	148P33492	.66
.39	35/64 x 1 3/16	2WF-P39	148P39492	.72
.47	35/64 x 1 3/16	2WF-P47	148P47492	.72
.56	35/64 x 1 9/16	2WF-P56	148P56492	.90
.68	35/64 x 1 9/16	2WF-P68	148P68492	.90
.82	19/32 x 1 13/16	2WF-P82	148P82492	.90
1.0	19/32 x 1 13/16	2WF-M1	148P10592	.90

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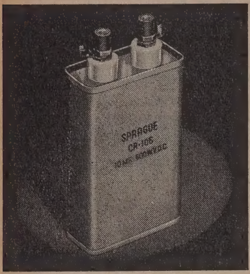
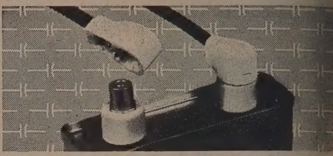
SPRAGUE CAPACITORS



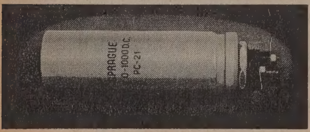
TYPE CR RECTANGULAR OILS

- Hermetically sealed in Rugged Rectangular Metal Cans
- Oil-Impregnated and Oil-Filled
- Extremely High Insulation Resistance
- Will Withstand High Surge Voltages and High Ambient Temperatures
- Widely Used in Transmitter Power Supplies and Other High-Voltage Applications
- Furnished With Adapters (as shown below) Standard Transmitting Tube Plate Caps .



µF	WVDC	T. x W. x L.	Cat. No.	Net
.5	600	1⅟₁₆ x 1¹³⁄₁₆ x 2¼	CR-056	$2.82
1.0	600	1⅟₁₆ x 1¹³⁄₁₆ x 2¼	CR-16	3.48
2.0	600	1⅟₁₆ x 1¹³⁄₁₆ x 2⅞	CR-26	4.29
3.0	600	1⅟₁₆ x 1¹³⁄₁₆ x 3¼	CR-36	4.95
4.0	600	1³⁄₁₆ x 2½ x 3½	CR-46	5.46
6.0	600	1³⁄₁₆ x 2½ x 4¾	CR-66	6.78
8.0	600	1¼ x 3¾ x 3⅞	CR-86	8.10
10.0	600	1¼ x 3¾ x 4¾	CR-106	9.09
.1	1000	1⅟₁₆ x 1¹³⁄₁₆ x 1⅝	CR-011	2.49
.25	1000	1⅟₁₆ x 1¹³⁄₁₆ x 2¼	CR-0251	2.82
.5	1000	1⅟₁₆ x 1¹³⁄₁₆ x 2¼	CR-051	2.97
1.0	1000	1⅟₁₆ x 1¹³⁄₁₆ x 2¼	CR-11	3.81
2.0	1000	1⅟₁₆ x 1¹³⁄₁₆ x 3⅞	CR-21	4.95
4.0	1000	1³⁄₁₆ x 2½ x 4¾	CR-41	6.27
8.0	1000	1¼ x 3¾ x 4¾	CR-81	9.09
10.0	1000	1¾ x 3¾ x 4¾	CR-101	10.08
12.0	1000	2¼ x 3¾ x 4½	CR-121	10.89
15.0	1000	2½ x 3¾ x 4¾	CR-151	12.06
.5	1500	1⅟₁₆ x 1¹³⁄₁₆ x 2⅞	CR-0515	3.81
1.0	1500	1⅟₁₆ x 1¹³⁄₁₆ x 3⅞	CR-115	4.47
2.0	1500	1³⁄₁₆ x 2½ x 4¼	CR-215	6.12
4.0	1500	1¼ x 3¾ x 4¾	CR-415	8.43
5.0	1500	1¼ x 3¾ x 4¾	CR-515	9.09
8.0	1500	2½ x 3¾ x 4¾	CR-815	12.54
10.0	1500	3³⁄₁₆ x 3¾ x 4¾	CR-1015	15.03
.1	2000	1³⁄₁₆ x 2½ x 2½	CR-012	3.96
.25	2000	1³⁄₁₆ x 2½ x 2½	CR-0252	4.29
.5	2000	1³⁄₁₆ x 2½ x 2⅞	CR-052	4.47
1.0	2000	1³⁄₁₆ x 2½ x 3½	CR-12	5.46
2.0	2000	1¼ x 3¾ x 4¼	CR-22	6.45
3.0	2000	1¼ x 3¾ x 4¾	CR-32	
4.0	2000	2¼ x 3¾ x 3⅞	CR-42	
6.0	2000	3³⁄₁₆ x 3¾ x 4½	CR-62	
10.0	2000	4⁹⁄₁₆ x 3¾ x 4¾	CR-102	
.1	2500	1³⁄₁₆ x 2½ x 2½	CR-0125	
.5	2500	1¼ x 3¾ x 3¼	CR-0525	
1.0	2500	1¾ x 3¾ x 3¼	CR-125	
2.0	2500	1¾ x 3¾ x 4¾	CR-225	
4.0	2500	4⁹⁄₁₆ x 3¾ x 4⅜	CR-425	
.1	3000	1³⁄₁₆ x 2½ x 2½	CR-013	
.25	3000	1³⁄₁₆ x 2½ x 2⅞	CR-0253	
.5	3000	1³⁄₁₆ x 2½ x 4¼	CR-053	
1.0	3000	2¼ x 3¾ x 3⅞	CR-13	
2.0	3000	3³⁄₁₆ x 3¾ x 4½	CR-23	
4.0	3000	4⁹⁄₁₆ x 3¾ x 4¾	CR-43	
.1	4000	2¼ x 3¾ x 2¾	CR-014	
.25	4000	2¼ x 3¾ x 2¾	CR-0254	
.5	4000	2¼ x 3¾ x 3⅞	CR-054	
1.0	4000	2¼ x 3¾ x 5⅛	CR-14	
2.0	4000	4⁹⁄₁₆ x 3¾ x 5⅛	CR-24	
.2	5000	1¾ x 3¾ x 3⅞	CR-025	
.5	5000	2¼ x 3¾ x 4½	CR-055	
1.0	5000	4⁹⁄₁₆ x 3¾ x 4⅜	CR-15	
2.0	5000	4⁹⁄₁₆ x 3¾ x 6	CR-25	
.1	6000	2¼ x 3¾ x 3⅜	CR-0160	
.2	6000	1¾ x 3¾ x 4¼	CR-0260	
1.0	6000	4⁹⁄₁₆ x 3¾ x 7½	CR-160	
.1	7500	2¼ x 3¾ x 3⅞	CR-0175	
.2	7500	1¾ x 3¾ x 4¾	CR-0275	

SCREWBASE PC OILS

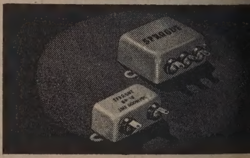


- Oil-Impregnated
- Oil-Filled
- Screwbase Can For Easy Single Hole Mounting
- Small Size — Will Fit Tight Spaces

µF	WVDC	Diam. x Lgth.	Cat. No.	Net
2	600	1½ x 2⅞	PC-26	$3.24
3	600	1½ x 3½	PC-36	3.69
4	600	1½ x 4½	PC-46	4.26
1	1000	1½ x 2⅞	PC-11	3.00
2	1000	1½ x 4½	PC-21	3.78
0.5	1500	1½ x 2⅜	PC-515	3.51
1	1500	1½ x 3⅞	PC-115	3.78

TYPE BP BATHTUB CAPACITORS

- For Applications Where Severe Operating Conditions Are Encountered
- Hermetically Sealed for Extra Protection
- Seamless Drawn Metal Can
- Oil-Filled and Oil-impregnated for Long, Dependable Service Life
- Convenient Mounting Ears are Integral Part of Metal Container



µF	L. x W. x H.	Cat. No.	Net
400 WVDC			
.1	1¹³⁄₁₆ x 1 x ¾	BP-1	$1.32
.25	1¹³⁄₁₆ x 1 x ¾	BP-25	1.50
.5	1¹³⁄₁₆ x 1 x ⅞	BP-50	1.59
1.0	2 x 1¾ x ⅞	BP-10	1.89
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-21	1.98
.25 + .25	1¹³⁄₁₆ x 1 x ⅞	BP-225	2.16
.5 + .5	2 x 1¾ x ⅞	BP-250	2.49
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-31	2.40
600 WVDC			
.05	1¹³⁄₁₆ x 1 x ¾	BP-56	1.74
.1	1¹³⁄₁₆ x 1 x ¾	BP-16	1.77
.25	1¹³⁄₁₆ x 1 x ¾	BP-256	1.86
.5	1¹³⁄₁₆ x 1 x ⅞	BP-506	1.98
1.0	2 x 1¾ x ⅞	BP-106	2.25
2.0	2 x 2 x 1⅛	BP-206	3.00
.05 + .05	1¹³⁄₁₆ x 1 x ¾	BP-2056	2.19
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-216	
.25 + .25	1¹³⁄₁₆ x 1 x ⅞	BP-2256	
.5 + .5	2 x 1¾ x ⅞	BP-2506	
1.0 + 1.0	2 x 2 x 1⅛	BP-116	
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-316	
.25 + .25 + .25	2 x 1¾ x ⅞	B2-3256	
.5 + .5 + .5	2 x 2 x 1⅛	BP-356	
1000 WVDC			
.05	1¹³⁄₁₆ x 1 x ¾	BP-51	
.1	1¹³⁄₁₆ x 1 x ¾	BP-11	
.25	1¹³⁄₁₆ x 1 x ¾	BP-251	
.5	2 x 1¾ x ⅞	BP-501	
1.0	2 x 2 x 1⅛	BP-101	
.05 + .05	1¹³⁄₁₆ x 1 x ¾	BP-2051	
.1 + .1	1¹³⁄₁₆ x 1 x ¾	BP-211	
.25 + .25	2 x 1¾ x ⅞	BP-2251	
.5 + .5	2 x 2 x 1⅛	BP-2501	
.1 + .1 + .1	1¹³⁄₁₆ x 1 x ⅞	BP-311	
.25 + .25 + .25	2 x 2 x 1⅛	BP-3251	

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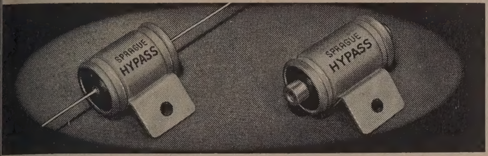
SPRAGUE FILTERS

YPASS® CAPACITORS



xclusive Sprague 3-terminal Network Feed-thru Capacitors

ypass V-H-F Currents Where Ordinary Capacitors are Ineffective

uppress TVI from Short-wave Transmitters, Diathermy Machines, Electronic eating Apparatus, etc.

iminate Interference caused by Line-conducted Radiation Between eighboring TV Sets

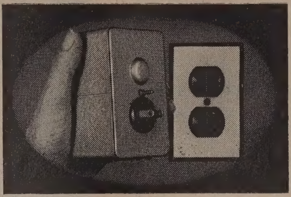
stall Leads in Series with Circuit Being Filtered and Ground the Case

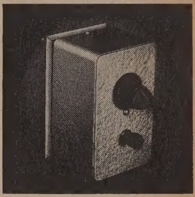
	Amps.	WVDC	Dia. x Length	Cat. No.	Net
	40	50	1 x 1$\frac{13}{16}$	*48P18	$2.28
	20	200	¾ x 1$\frac{13}{16}$	*48P10	1.56
	20	200	1 x 1$\frac{13}{16}$	*48P14	1.89
	20	250(VAC)	$\frac{11}{16}$ x 1$\frac{13}{16}$	*48P9	1.56
	20	400	$\frac{11}{16}$ x 1$\frac{13}{16}$	*48P6	1.53
	20	400	$\frac{11}{16}$ x 1$\frac{13}{16}$	†80P1	1.74
2	15	600	¼ x 1⅜	46P12	1.29
5	15	600	¼ x 1⅝	46P8	1.29
	20	600	$\frac{7}{16}$ x 1¼	47P6	1.41
	20	600	$\frac{7}{16}$ x 1½	47P8	1.44
	20	600	$\frac{11}{16}$ x 1$\frac{13}{16}$	*48P8	1.56
	20	600	$\frac{11}{16}$ x 1$\frac{13}{16}$	*†80P3	1.77
	20	600	1 x 1$\frac{13}{16}$	*48P12	1.65
	20	600	1 x 2¼	*48P16	2.10
5	20	1000	$\frac{7}{16}$ x 1¼	47P12	1.44
	20	1000	$\frac{7}{16}$ x 1½	47P13	1.56
5	20	2500	1 x 1$\frac{9}{16}$	47P14	1.74
	20	2500	1 x 1$\frac{9}{16}$	47P15	1.86
2	20	5000	1 x 1$\frac{9}{16}$	47P16	1.92

female screw terminals †Bulkhead mounting

TYPE F-400

MIRACLE FILTEROL®



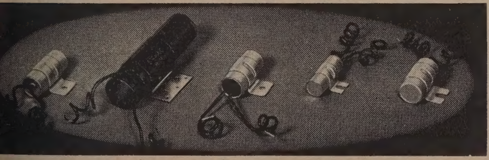


A LINE FILTER THAT REALLY WORKS

- Effectively Suppresses Radio Interference by Filtering Power Lines of Receivers and Appliances
- Maximum Noise Eliminating Efficiency because of Practically Zero Length of Ground Lead
- Plugs into Standard Duplex Wall Outlet — Captive Screw Fastens Filtero F-400 to Outlet for Safe, Secure Mounting
- Direct Wall-Mounting Provides Neat Installation — No Unsightly Cord — Receiver or Appliance Plugs into Standard Outlet on Face of F-400.
- Will Also Operate at Slightly Reduced Efficiency in Older Homes where Wiring is of Knob and Tube or 2-Conductor Non-Metallic Sheathed Cable Type by Using the External Grounding Post Provided for this Purpose
- Handsomely Finished in Tan Hammerloid Baked Enamel
- Rated at 5 Amperes, 125 Volts AC or DC

TYPE F-400 FILTEROL.................................$7.45 net

TYPE IF FILTERS



5 — TRIPLE-SECTION FILTER for small motor-operated devices such as drills, etc. designed to prevent shocks from discharge of filter capacitors.

1 — DUAL HIGH-CAPACITY FILTER designed for use on motors over 1 hp 220 volts ac-dc. Also used on high-current arcing devices.

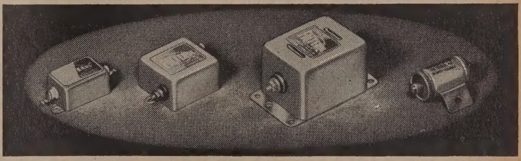
1 — COMPACT DUAL FILTER for use on fractional horsepower motors case grounded to motor frame. Also used across line terminals of motors.

1 — SINGLE SECTION 2-LEAD FILTER for use across make-and-break cts, such as thermostats, circuit breakers, etc.

7 — 3-SECTION DELTA-CONNECTED FILTER especially designed for escent fixtures. Also used on governor-type motors. *UL Approved.*

No.	Volts AC or DC	Dia. x Length	Net
	220	1 x 2$\frac{3}{16}$	$1.56
	220	1⅜ x 5¼	4.68
	220	1 x 2$\frac{3}{16}$	1.05
	220	¾ x 2$\frac{1}{16}$	.69
	220	1 x 2″	1.35

FILTEROL® FILTERS



Filterol Types 1, 2, and 3 — Designed for connection in series with power supply lines to interference-producing devices . . . A 3-terminal network with the case as one terminal . . . The selected filter should have a rating higher than the continuous operating current of the offending device . . . A single Filterol connected to the high side of the line is usually sufficient . . . In severe cases a Filterol in each leg of the power line may be necessary . . . For three or four-wire systems, a Filterol in each wire is necessary.

Filterol Type 4 — A new, exclusive Sprague development incorporating a Sprague HYPASS® Capacitor . . . Provides exceptionally high attenuation at frequencies above 5 megacycles . . . Intended for small devices with continuous current ratings up to 20 amperes.

Cat. No.	Amps.	Volts AC or DC	Size	Net
Filterol 1	1	115	⅞ x 1¼ x 1¾	$ 8.10
Filterol 2	10	115	1⅛ x 2 x 2	8.88
Filterol 3	35	115	1⅞ x 2⅞ x 3⅛	16.44
Filterol 4	20	115	1″ dia. x 1$\frac{13}{16}$″ long	1.83

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SPRAGUE CAPACITORS

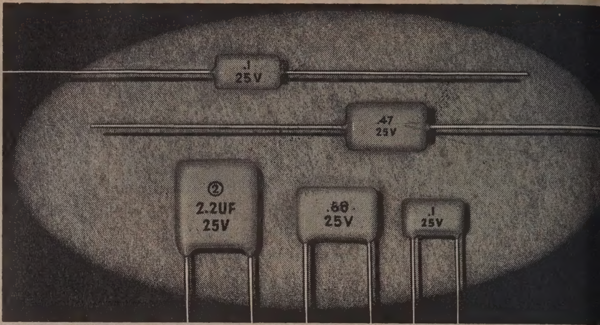
MONOLYTHIC® LAYER-BUILT CERAMIC CAPACITORS

Types 3C and 4C—Formulation N030

- Temperature Compensating Units, N030 Dielectric Offers Greater Capacitance Per Unit Volume and Greater Stability Than Previously Available.
- Highly Reliable, Small in Size, Axial or Radial Leads.
- Temperature Coefficient Guaranteed Less Than ±.6% Between —55C and +125C.

Types 3C, 4C, 5C—Formulation C23

- High-K General Application—High Capacitances in Small Physical Size, Axial or Radial Leads.
- Well Suited for By-pass and Filtering Applications
- For Complete Technical Data, See Latest Sprague Engineering Bulletin 6212 (N030) or 6201 (C23)



Type 3C, 4C Monolythic Ceramic Capacitors—Formulation N030—Temperature Compensating—200 V

μF	Tol.	Cat. No.	Net. Ea. (1-24)
TYPE 3C AXIAL LEADS			
51	5%	3C5105BH1	$1.400
51	2%	3C5102BH1	2.440
56	10%	3C5609BH1	.840
56	5%	3C5605BH1	1.400
56	2%	3C5602BH1	2.480
62	5%	3C6205BH1	1.400
62	2%	3C6202BH1	2.480
68	10%	3C6809BH1	.840
68	5%	3C6805BH1	1.400
68	2%	3C6802BH1	2.480
75	5%	3C7505BH1	1.400
75	2%	3C7502BH1	2.480
82	10%	3C8209BH1	.840
82	5%	3C8205BH1	1.400
82	2%	3C8202BH1	2.480
91	5%	3C9105BH1	1.400
91	2%	3C9102BH1	2.480
100	10%	3C1019BH1	1.080
100	5%	3C1015BH1	1.680
100	2%	3C1012BH1	2.480
110	5%	3C1115BH1	1.686
110	2%	3C1112BH1	2.640
120	10%	3C1219BH1	1.080
120	5%	3C1215BH1	1.686
120	2%	3C1212BH1	2.640
130	5%	3C1315BH1	1.686
130	2%	3C1312BH1	2.640
150	10%	3C1519BH1	1.080
150	5%	3C1515BH1	1.686
150	2%	3C1512BH1	2.640
160	5%	3C1615BH1	1.686
160	2%	3C1612BH1	2.640
180	10%	3C1819BH1	1.100
180	5%	3C1815BH1	1.720
180	2%	3C1812BH1	2.640
200	5%	3C2015BH1	1.780
200	2%	3C2012BH1	2.640
220	10%	3C2219BH1	1.140
220	5%	3C2215BH1	1.820
220	2%	3C2212BH1	2.840
240	5%	3C2415BH1	1.820
240	2%	3C2412BH1	2.840
270	10%	3C2719BH1	1.200
270	5%	3C2715BH1	1.900
270	2%	3C2712BH1	2.920
300	5%	3C3015BH1	1.900
300	2%	3C3012BH1	2.920
330	10%	3C3319BH1	1.200
330	5%	3C3315BH1	1.900

μF	Tol.	Cat. No.	Net. Ea. (1-24)
330	2%	3C3312BH1	$2.920
360	5%	3C3615BH1	1.900
360	2%	3C3612BH1	3.000
390	10%	3C3919BH1	1.200
390	5%	3C3915BH1	1.900
390	2%	3C3912BH1	3.000
430	5%	3C4315BH1	1.980
430	2%	3C4312BH1	3.040
470	10%	3C4719BH1	1.200
470	5%	3C4715BH1	1.980
470	2%	3C4712BH1	3.080
510	5%	3C5115BH1	1.980
510	2%	3C5112BH1	3.080
560	10%	3C5619BH1	1.200
560	5%	3C5615BH1	1.980
560	2%	3C5612BH1	3.080
620	5%	3C6215BH1	1.980
620	2%	3C6212BH1	3.240
680	10%	3C6819BH1	1.200
680	5%	3C6815BH1	1.980
680	2%	3C6812BH1	3.240
TYPE 4C AXIAL LEADS			
750	5%	4C7515BH1	2.040
750	2%	4C7512BH1	3.360
820	10%	4C8219BH1	1.320
820	5%	4C8215BH1	2.160
820	2%	4C8212BH1	3.520
910	5%	4C9115BH1	2.240
910	2%	4C9112BH1	3.680
1000	10%	4C1029BH1	1.360
1000	5%	4C1025BH1	2.240
1000	2%	4C1022BH1	3.680
1100	5%	4C1125BH1	2.340
1100	2%	4C1122BH1	3.840
1200	10%	4C1229BH1	1.480
1200	5%	4C1225BH1	2.440
1200	2%	4C1222BH1	4.000
1300	5%	4C1325BH1	2.500
1300	2%	4C1322BH1	4.100
1500	10%	4C1529BH1	1.620
1500	5%	4C1525BH1	2.680
1500	2%	4C1522BH1	4.380
1600	5%	4C1625BH1	2.780
1600	2%	4C1622BH1	4.540
1800	10%	4C1829BH1	1.880
1800	5%	4C1825BH1	2.940
1800	2%	4C1822BH1	4.800
2000	5%	4C2025BH1	3.800
2000	2%	4C2022BH1	6.260

μF	Tol.	Cat. No.	Net. Ea. (1-24)
2200	10%	4C2229BH1	$2.320
2200	5%	4C2225BH1	3.800
2200	2%	4C2222BH1	6.520
2400	5%	4C2425BH1	4.140
2400	2%	4C2422BH1	6.800
2700	10%	4C2729BH1	2.660
2700	5%	4C2725BH1	4.140
2700	2%	4C2722BH1	6.980
3000	5%	4C3025BH1	4.560
3000	2%	4C3022BH1	7.440
3300	10%	4C3329BH1	2.760
3300	5%	4C3325BH1	4.560
3300	2%	4C3322BH1	7.720
3600	5%	4C3625BH1	6.620
3600	2%	4C3622BH1	8.240
3900	10%	4C3929BH1	4.380
3900	5%	4C3925BH1	6.620
3900	2%	4C3922BH1	11.080
4300	5%	4C4325BH1	7.240
4300	2%	4C4322BH1	11.820
4700	10%	4C4729BH1	4.380
4700	5%	4C4725BH1	7.240
4700	2%	4C4722BH1	12.260
5100	5%	4C5125BH1	7.280
5100	2%	4C5122BH1	12.960
TYPE 3C RADIAL LEADS			
51	5%	3C5105BH3	1.320
51	2%	3C5102BH3	2.360
56	10%	3C5609BH3	.760
56	5%	3C5605BH3	1.320
56	2%	3C5602BH3	2.400
62	5%	3C6205BH3	1.320
62	2%	3C6202BH3	2.400
68	10%	3C6809BH3	.760
68	5%	3C6805BH3	1.320
68	2%	3C6802BH3	2.400
75	5%	3C7505BH3	1.320
75	2%	3C7502BH3	2.400
82	10%	3C8209BH3	.760
82	5%	3C8205BH3	1.320
82	2%	3C8202BH3	2.400
91	5%	3C9105BH3	1.320
91	2%	3C9102BH3	2.400
100	10%	3C1019BH3	1.000
100	5%	3C1015BH3	1.600
100	2%	3C1012BH3	2.400
110	5%	3C1115BH3	1.600
110	2%	3C1112BH3	2.560
120	10%	3C1219BH3	1.000
120	5%	3C1215BH3	1.600

μF	Tol.	Cat. No.	Ne
120	2%	3C1212BH3	$
130	5%	3C1315BH3	
130	2%	3C1312BH3	
150	10%	3C1519BH3	
150	5%	3C1515BH3	
150	2%	3C1512BH3	
160	5%	3C1615BH3	
160	2%	3C1612BH3	
180	10%	3C1819BH3	
180	5%	3C1815BH3	
180	2%	3C1812BH3	
200	5%	3C2015BH3	
200	2%	3C2012BH3	
220	10%	3C2219BH3	
220	5%	3C2215BH3	
220	2%	3C2212BH3	
240	5%	3C2415BH3	
240	2%	3C2412BH3	
270	10%	3C2719BH3	
270	5%	3C2715BH3	
270	2%	3C2712BH3	
300	5%	3C3015BH3	
300	2%	3C3012BH3	
330	10%	3C3319BH3	
330	5%	3C3315BH3	
330	2%	3C3312BH3	
360	5%	3C3615BH3	
360	2%	3C3612BH3	
390	10%	3C3919BH3	
390	5%	3C3915BH3	
390	2%	3C3912BH3	
430	5%	3C4315BH3	
430	2%	3C4312BH3	
470	10%	3C4719BH3	
470	5%	3C4715BH3	
470	2%	3C4712BH3	
510	5%	3C5115BH3	
510	2%	3C5112BH3	
560	10%	3C5619BH3	
560	5%	3C5615BH3	
560	2%	3C5612BH3	
620	5%	3C6215BH3	
620	2%	3C6212BH3	
680	10%	3C6819BH3	
680	5%	3C6815BH3	
680	2%	3C6812BH3	
TYPE 4C RADIAL LEADS			
750	5%	4C7515BH3	
750	2%	4C7512BH3	
820	10%	4C8219BH3	

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SPRAGUE CAPACITORS

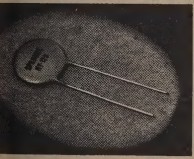
ONOLYTHIC® CERAMIC CAPACITORS, TYPE 4C RADIAL LEADS (Cont.)

µF	Tol.	Cat. No.	Net Ea. (1-24)
0	5%	4C8215BH3	$2.080
0	2%	4C8212BH3	3.440
0	5%	4C9115BH3	2.160
0	2%	4C9112BH3	3.600
0	10%	4C1029BH3	1.280
0	5%	4C1025BH3	2.160
0	2%	4C1022BH3	3.600
0	5%	4C1125BH3	2.260
0	2%	4C1122BH3	3.760
0	10%	4C1229BH3	1.400
0	5%	4C1225BH3	2.360
0	2%	4C1222BH3	3.920
1300	5%	4C1325BH3	$2.420
1300	2%	4C1322BH3	4.020
1500	10%	4C1529BH3	1.540
1500	5%	4C1525BH3	2.600
1500	2%	4C1522BH3	4.300
1600	5%	4C1625BH3	2.700
1600	2%	4C1622BH3	4.460
1800	10%	4C1829BH3	1.800
1800	5%	4C1825BH3	2.860
1800	2%	4C1822BH3	4.720
2000	5%	4C2025BH3	3.720
2000	2%	4C2022BH3	6.180
2200	10%	4C2229BH3	$2.240
2200	5%	4C2225BH3	3.720
2200	2%	4C2222BH3	6.440
2400	5%	4C2425BH3	4.060
2400	2%	4C2422BH3	6.720
2700	10%	4C2729BH3	2.580
2700	5%	4C2725BH3	4.060
2700	2%	4C2722BH3	6.900
3000	5%	4C3025BH3	4.480
3000	2%	4C3022BH3	7.360
3300	10%	4C3329BH3	2.680
3300	5%	4C3325BH3	4.480
3300	2%	4C3322BH3	$7.640
3600	5%	4C3625BH3	6.540
3600	2%	4C3622BH3	8.160
3900	10%	4C3929BH3	4.300
3900	5%	4C3925BH3	6.540
3900	2%	4C3922BH3	11.000
4300	5%	4C4325BH3	7.160
4300	2%	4C4322BH3	11.740
4700	10%	4C4729BH3	4.300
4700	5%	4C4725BH3	7.160
4700	2%	4C4722BH3	12.180
5100	5%	4C5125BH3	7.200
5100	2%	4C5122BH3	12.880

PE 3C, 4C, 5C Monolythic Ceramic Capacitors—High-K Formulation C23 ±20% Cap. Tol.

µF	VDC	Cat. No.	Net Ea. (1-24)
		RADIAL LEADS	
	25	3C3	$1.740
5	25	3C6	1.740
2	25	3C9	1.740
3	25	3C12	1.740
7	25	3C15	1.740
8	25	3C18	1.840
	25	3C21	1.920
	25	4C38	2.180
	25	4C41	2.380
	25	4C44	3.020
.47	25	4C47	$4.064
.68	25	4C50	5.136
.1	25	5C7	.800
.15	25	5C8	.920
.22	25	5C9	1.060
.33	25	5C10	1.200
.47	25	5C11	1.380
.68	25	5C12	1.480
1.0	25	5C13	1.960
1.5	25	5C14	2.520
2.2	25	5C15	3.020
.1	50	5C50	1.060
.15	50	5C51	$1.200
.22	50	5C52	1.380
.33	50	5C53	2.000
.47	50	5C54	2.520
		AXIAL LEADS	
.01	25	3C1	1.820
.015	25	3C4	1.820
.022	25	3C7	1.820
.033	25	3C10	$1.820
.047	25	3C13	1.820
.068	25	3C16	1.920
.1	25	3C19	2.000
.15	25	4C36	2.260
.22	25	4C39	2.460
.33	25	4C42	3.100

HYPERCON® CERAMIC DISCS



- Ultra-miniature Ceramic Discs Ideal for use in Transistorized Circuitry
- Superior to Electrolytic Capacitors of Similar Capacitance Values because of the Very Low Power Factor of Hypercons
- Designed for By-pass and Coupling Applications but Particularly Well-suited for any Low Voltage use Where High Capacitance and Low Power Factor are Important Considerations
- Tolerance: 3 Volt Series; GMV; 12 Volt Series, +80−20%

µF	Cat. No.	Net Ea.
	3 VOLTS D-C	
.1	HY-120	$.54
.22	HY-125	.33
.47	HY-130	.33
1.0	HY-135	.45
2.2	HY-150	.54
	12 VOLTS D-C	
.047	HY-310	.33
.1	HY-320	.33
.22	HY-325	.45
.33	HY-327	.48
.47	HY-330	.54

SPECIAL APPLICATION CERA-MITE® DISC CAPACITORS

AC APPLICATIONS

ated at 125 VAC

d. Tolerance ±20%

r AC Line Bypass Application eets Underwriters Laboratory equirements. Unlike Standard C Rated Discs.

	Cat. No.	Net
	125L-D10	$.15
5	125L-D15	.15
	125L-D20	.15
7	125L-D47	.18
	125L-D50	.18
	125L-S10	.18
	125L-S15	.30
	125L-S20	.30
.005	125L-2D50	.30
.01	125L-2S10	.33

BUFFER APPLICATIONS

- Rated at 2000 WVDC
- Std. Tolerance ±20%

µF	Cat. No.	Net
.001	BL-D10	$.21
.002	BL-D20	.21
.003	BL-D30	.21
.004	BL-D40	.21
.005	BL-D50	.21
.006	BL-D60	.21
.007	BL-D70	.21
.0075	BL-D75	.21
.008	BL-D80	.21
.01	BL-S10	.21

MINIATURIZED DISCS

- High-K Type for Coupling and Bypass

µF	Volts	Cat. No.	Net
.005	50	TG-D50	$.27
.01	50	TG-S10	.39
.02	50	TG-S20	.39
.025	50	TG-S25	.39
.03	50	TG-S30	.39
.05	50	TG-S50	.42
.1	50	TG-P10	.54
.005	100	TH-D50	.27
.01	100	TH-S10	.39
.02	100	TH-S20	.39
.025	100	TH-S25	.39
.03	100	TH-S30	.39
.05	100	TH-S50	.42
.1	100	TH-P10	.54

TV YOKE CAPACITORS

- 30 TCY rated at 3000 WVDC
- 50 TCY rated at 5000 WVDC
- Std. Tolerance ±10%

µµF	Cat. No.	Net
50	30TCY-Q50	$.24
75	30TCY-Q75	.24
100	30TCY-T10	.24
135	30TCY-T135	.24
150	30TCY-T15	.24
180	30TCY-T18	.24
50	50TCY-Q50	.30
75	50TCY-Q75	.30
100	50TCY-T10	.30
135	50TCY-T135	.30
150	50TCY-T15	.30
180	50TCY-T18	.30

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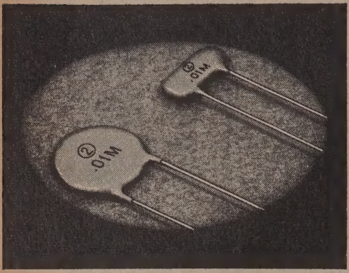
SPRAGUE CAPACITORS

CERA-MITE® CERAMIC CAPACITORS



- Tiny, Tough, Dependable In Every Application
- Low Self-Inductance Of Silvered Flat-plate Design Means Very High By-p Efficiency In All TV Circuits
- Flat-plate Construction Permits Higher Self-resonant Frequency Than Tubu Ceramic Or Molded Mica Capacitors
- Tough Moisture-proof Coating Protects Against Short-circuiting And Assu Good Performance Under Severe Conditions Of Humidity And Vibration
- Cera-mite Capacitors Easily Fit Into Tight Spaces, Even Across Subminiat Tube Sockets
- Designed For 85°C (185°F) Continuous Operation

GENERAL APPLICATION TYPES

- Excellent Where Temperature Coefficient Is Not Important, Such As By-pass and Coupling Applications
- Ideal For Replacing Older Types Of General Applicat Capacitors Such as Molded Micas, Tubular Ceramics, e

μμF	Cat. No.	Net
500 WVDC (plates) Std. Tolerance: ±20%		
470	5GAB-T47	$.21
.001μF	5GAB-D10	.21
.0022	5GAB-D22	.27
.0047	5GAB-D47	.27
.01	5GAB-S10	.39
.022	5GAB-S22	.39
.047	5GAB-S47	.42
.1	5GAB-P10	.45
.15	5GAB-P15	.48
1000 WVDC (discs) Std. Tolerance: ±20%		
5	5GA-V50	.15
6	5GA-V60	.15
7.5	5GA-V75	.15
8	5GA-V80	.15
10	5GA-Q10	.15
12	5GA-Q12	.15
15	5GA-Q15	.15
18	5GA-Q18	.15
20	5GA-Q20	.15
22	5GA-Q22	.15
25	5GA-Q25	.15
27	5GA-Q27	.15
30	5GA-Q30	.15
33	5GA-Q33	.15
39	5GA-Q39	.15
47	5GA-Q47	.15
50	5GA-Q50	.15
56	5GA-Q56	.15
68	5GA-Q68	.15
75	5GA-Q75	.15
82	5GA-Q82	.15
91	5GA-Q91	.15
100	5GA-T10	.15
120	5GA-T12	.15
130	5GA-T13	.15
150	5GA-T15	.15
180	5GA-T18	.15
200	5GA-T20	.15

μμF	Cat. No.	Net
220	5GA-T22	$.15
240	5GA-T24	.15
250	5GA-T25	.15
270	5GA-T27	.15
300	5GA-T30	.15
330	5GA-T33	.15
350	5GA-T35	.15
360	5GA-T36	.15
390	5GA-T39	.15
400	5GA-T40	.15
470	5GA-T47	.15
500	5GA-T50	.15
560	5GA-T56	.15
600	5GA-T60	.15
680	5GA-T68	.15
750	5GA-T75	.15
800	5GA-T80	.15
820	5GA-T82	.15
.001μF	5GA-D10	.15
.0012	5GA-D12	.15
.0013	5GA-D13	.15
.0015	5GA-D15	.15
.0016	5GA-D16	.15
.0018	5GA-D18	.15
.002	5GA-D20	.15
.0022	5GA-D22	.15
.0025	5GA-D25	.15
.0027	5GA-D27	.15
.003	5GA-D30	.15
.0033	5GA-D33	.15
.0039	5GA-D39	.15
.004	5GA-D40	.15
.0043	5GA-D43	.18
.0047	5GA-D47	.18
.005	5GA-D50	.18
.01	5GA-S10	.18
.015	5GA-S15	.18
.02	5GA-S20	.18

μμF	Cat. No.	Net
3000 WVDC (discs) Standard Tolerances: 1.5 μμF ± .25 μμF thru 5μμF ± .5 μμF thru 68 μμF ± 10% thru .002 μF ±20%		
1.5	30GA-V15	$.24
3.3	30GA-V33	.24
4.7	30GA-V47	.24
5	30GA-V50	.24
6	30GA-V60	.24
6.8	30GA-V68	.24
7.5	30GA-V75	.24
8.2	30GA-V82	.24
10	30GA-Q10	.24
12	30GA-Q12	.24
15	30GA-Q15	.24
18	30GA-Q18	.24
20	30GA-Q20	.24
22	30GA-Q22	.24
25	30GA-Q25	.24
27	30GA-Q27	.24
30	30GA-Q30	.24
33	30GA-Q33	.24
39	30GA-Q39	.24
47	30GA-Q47	.24
50	30GA-Q50	.24
56	30GA-Q56	.24
60	30GA-Q60	.24
62	30GA-Q62	.24
68	30GA-Q68	.24
75	30GA-Q75	.24
82	30GA-Q82	.24
100	30GA-T10	.24
120	30GA-T12	.24
150	30GA-T15	.24
180	30GA-T18	.24
200	30GA-T20	.24
220	30GA-T22	.24
250	30GA-T25	.24
270	30GA-T27	.24
300	30GA-T30	.24
330	30GA-T33	.24
390	30GA-T39	.24
400	30GA-T40	.24
470	30GA-T47	.24

μμF	Cat. No.	Net
500	30GA-T50	$.24
560	30GA-T56	.24
680	30GA-T68	.24
750	30GA-T75	.24
820	30GA-T82	.24
.001μF	30GA-D10	.24
.0012	30GA-D12	.24
.0015	30GA-D15	.24
.002	30GA-D20	.24
.0022	30GA-D22	.24
.0025	30GA-D25	.24
.0027	30GA-D27	.24
.003	30GA-D30	.24
.0033μF	30GA-D33	.24
.0039	30GA-D39	.24
.004	30GA-D40	.24
.0047	30GA-D47	.24
.005	30GA-D50	.27
.006	30GA-D60	.27
.0068	30GA-D68	.27
.008	30GA-D80	.27
.0082	30GA-D82	.27
.01	30GA-S10	.27
6000 WVDC (discs) Standard Tolerance: ±20%		
1.5	60GA-V15	.30
4.7	60GA-V47	.30
6.8	60GA-V68	.30
8.2	60GA-V82	.30
10	60GA-Q10	.30
12	60GA-Q12	.30
15	60GA-Q15	.30
18	60GA-Q18	.30
20	60GA-Q20	.30
22	60GA-Q22	.30
25	60GA-Q25	.30
27	60GA-Q27	.30
30	60GA-Q30	.30
33	60GA-Q33	.30
39	60GA-Q39	.30
47	60GA-Q47	.30
50	60GA-Q50	.30
56	60GA-Q56	.30
60	60GA-Q60	.30
68	60GA-Q68	.30

μμF	Cat. No.
75	60GA-Q75
82	60GA-Q82
100	60GA-T10
120	60GA-T12
150	60GA-T15
180	60GA-T18
200	60GA-T20
220	60GA-T22
250	60GA-T25
270	60GA-T27
300	60GA-T30
330	60GA-T33
390	60GA-T39
400	60GA-T40
470	60GA-T47
500	60GA-T50
560	60GA-T56
680	60GA-T68
750	60GA-T75
820	60GA-T82
.001μF	60GA-D10
.0012	60GA-D12
.0015	60GA-D15
.0022	60GA-D22
7500 WVDC (discs) Standard Tolerances: 4.7 μF ±.5 μμF thru 18 μF ±10% thru 470 μF ±20%	
4.7	75GA-V47
8.2	75GA-V82
10	75GA-Q10
12	75GA-Q12
15	75GA-Q15
18	75GA-Q18
20	75GA-Q20
22	75GA-Q22
30	75GA-Q30
33	75GA-Q33
47	75GA-Q47
56	75GA-Q56
100	75GA-T10
470	75GA-T47

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REM-49-6224

All prices and sizes subject to change without no

SPRAGUE CAPACITORS

RA-MITE CERAMIC CAPACITORS, continued

HIGH-K TYPES

signed for By-pass and Coupling Applications Where
ditional Capacitance Will Not Affect Circuit Operation

allest Physical Size

IK-S15 thru 5HK-P10, 5HK-2S20, 500 WVDC, Capaci-
ce Tolerance: +80-20%

l Other 5HK Types are Rated at 1000 WVDC, With
GMV Capacitance Tolerance

	Cat. No.	Net	µF	Cat. No.	Net
SINGLE UNITS			.022	5HK-S22	$.39
			.025	5HK-S25	.39
	5HK-D10	$.15	.03	5HK-S30	.39
5	5HK-D15	.15	.04	5HK-S40	.42
	5HK-D20	.15	.05	5HK-S50	.42
2	5HK-D22	.15	.1	5HK-P10	.96
5	5HK-D25	.15			
3	5HK-D33	.15	**DUAL UNITS**		
	5HK-D40	.15	2 x .001	5HK-2D10	.24
7	5HK-D47	.15	2 x .0015	5HK-2D15	.24
	5HK-D50	.15	2 x .002	5HK-2D20	.24
8	5HK-D68	.15	2 x .0022	5HK-2D22	.24
			2 x .004	5HK-2D40	.27
	5HK-S10	.18	2 x .0047	5HK-2D47	.27
	5HK-S15	.24	2 x .01	5HK-2S10	.30
	5HK-S20	.36	2 x .02	5HK-2S20	.42

TEMPERATURE-STABLE TYPES

- Used Where Minimum Capacitance Change With Temperature is Important
- Standard Capacitance Tolerance: ±10% Except 10TS-S15, 10TS-S20, ±15%
- Rated at **1000 WVDC**

µµF	Cat. No.	Net	µµF	Cat. No.	Net	µF	Cat. No.	Net
3.3	10TS-V33	$.15	100	10TS-T10	$.15	.001	10TS-D10	$.15
5	10TS-V50	.15	120	10TS-T12	.15	.0012	10TS-D12	.15
6	10TS-V60	.15	130	10TS-T13	.15	.0013	10TS-D13	.15
6.8	10TS-V68	.15	150	10TS-T15	.15	.0015	10TS-D15	.15
7.5	10TS-V75	.15	180	10TS-T18	.15	.0016	10TS-D16	.15
8	10TS-V80	.15	200	10TS-T20	.15	.0018	10TS-D18	.15
10	10TS-Q10	.15	220	10TS-T22	.15	.002	10TS-D20	.15
12	10TS-Q12	.15	240	10TS-T24	.15	.0022	10TS-D22	.15
15	10TS-Q15	.15	250	10TS-T25	.15	.0025	10TS-D25	.15
18	10TS-Q18	.15	270	10TS-T27	.15	.0027	10TS-D27	.15
20	10TS-Q20	.15	300	10TS-T30	.15	.003	10TS-D30	.15
22	10TS-Q22	.15	330	10TS-T33	.15	.0033	10TS-D33	.15
25	10TS-Q25	.15	350	10TS-T35	.15	.0039	10TS-D39	.15
27	10TS-Q27	.15	360	10TS-T36	.15	.004	10TS-D40	.15
30	10TS-Q30	.15	390	10TS-T39	.15	.0043	10TS-D43	.18
33	10TS-Q33	.15	400	10TS-T40	.15	.0047	10TS-D47	.18
39	10TS-Q39	.15	470	10TS-T47	.15	.005	10TS-D50	.18
47	10TS-Q47	.15	500	10TS-T50	.15	.0056	10TS-D56	.18
50	10TS-Q50	.15	560	10TS-T56	.15	.0068	10TS-D68	.18
56	10TS-Q56	.15	600	10TS-T60	.15	.0075	10TS-D75	.18
68	10TS-Q68	.15	680	10TS-T68	.15	.01	10TS-S10	.18
75	10TS-Q75	.15	750	10TS-T75	.15	.015	10TS-S15	.18
82	10TS-Q82	.15	800	10TS-T80	.15	.02	10TS-S20	.18
91	10TS-Q91	.15	820	10TS-T82	.15			

NPO TYPES

ro Temperature-coefficient Capacitors used
here Capacitance Change with Tempera-
e is Undesirable

perior to Silvered-mica Types in Stability,
gh "Q", and Insulation Resistance

ted at **1000 WVDC**

andard Capacitance Tolerance of 5µµF and
: ±5%. On 4.7µµF and below: ±.25µµF

its listed below are discs

	Cat. No.	Net	µµF	Cat. No.	Net
	10TCC-V10	$.30	27	10TCC-Q27	$.30
	10TCC-V12	.30	30	10TCC-Q30	.30
	10TCC-V15	.30	33	10TCC-Q33	.30
	10TCC-V18	.30	39	10TCC-Q39	.33
	10TCC-V22	.30	47	10TCC-Q47	.33
	10TCC-V27	.30	50	10TCC-Q50	.33
	10TCC-V33	.30	56	10TCC-Q56	.33
	10TCC-V39	.30	68	10TCC-Q68	.33
	10TCC-V47	.30	75	10TCC-Q75	.33
	10TCC-V50	.30	82	10TCC-Q82	.33
	10TCC-V56	.30	100	10TCC-T10	.33
	10TCC-V68	.30	120	10TCC-T12	.36
	10TCC-V82	.30	150	10TCC-T15	.36
	10TCC-Q10	.30	175	10TCC-T175	.30
	10TCC-Q12	.30	180	10TCC-T18	.36
	10TCC-Q15	.30	200	10TCC-T20	.42
	10TCC-Q18	.30	220	10TCC-T22	.42
	10TCC-Q20	.30	270	10TCC-T27	.48
	10TCC-Q22	.30	300	10TCC-T30	.48
	10TCC-Q25	.30	330	10TCC-T33	.48

TEMPERATURE-COMPENSATING TYPES

- Eliminate Oscillator Drift in TV, FM, VHF, and AM Receivers
- Negative Temperature Coefficient is 150 ppm/°C for N150 types, 220 ppm/°C for N220, 330 ppm/°C for N330, and 750 ppm/°C for N750 types
- Rated at **1000 WVDC**
- Standard Capacitance Tolerance of 5µµF and up; ±5%. On 4.7µµF and below: ±.25µµF.

µµF	Cat. No.	Net
	N150	
5	10TCP-V50	$.30
6.8	10TCP-V68	.30
8.2	10TCP-V82	.30
10	10TCP-Q10	.30
12	10TCP-Q12	.30
15	10TCP-Q15	.30
18	10TCP-Q18	.30
22	10TCP-Q22	.30
27	10TCP-Q27	.30
33	10TCP-Q33	.30
39	10TCP-Q39	.33
47	10TCP-Q47	.33
56	10TCP-Q56	.33
68	10TCP-Q68	.33
82	10TCP-Q82	.33
100	10TCP-T10	.33
120	10TCP-T12	.36
150	10TCP-T15	.36
	N220	
3	10TCR-V30	.30
3.3	10TCR-V33	.30
3.9	10TCR-V39	.30
4.7	10TCR-V47	.30
5	10TCR-V50	.30
5.6	10TCR-V56	.30
6.8	10TCR-V68	.30
8.2	10TCR-V82	.30
10	10TCR-Q10	.30
12	10TCR-Q12	.30

µµF	Cat. No.	Net
15	10TCR-Q15	$.30
18	10TCR-Q18	.30
22	10TCR-Q22	.30
27	10TCR-Q27	.30
33	10TCR-Q33	.30
39	10TCR-Q39	.33
47	10TCR-Q47	.33
56	10TCR-Q56	.33
68	10TCR-Q68	.33
82	10TCR-Q82	.33
100	10TCR-T10	.33
120	10TCR-T12	.36
150	10TCR-T15	.36
	N330	
10	10TCS-Q10	.30
12	10TCS-Q12	.30
15	10TCS-Q15	.30
18	10TCS-Q18	.30
22	10TCS-Q22	.30
27	10TCS-Q27	.30
33	10TCS-Q33	.30
39	10TCS-Q39	.33
47	10TCS-Q47	.33
56	10TCS-Q56	.33
68	10TCS-Q68	.33
82	10TCS-Q82	.33
100	10TCS-T10	.33
120	10TCS-T12	.36
150	10TCS-T15	.36

µµF	Cat. No.	Net
	N750	
2.2	10TCU-V22	$.30
3.3	10TCU-V33	.30
5	10TCU-V50	.30
10	10TCU-Q10	.30
12	10TCU-Q12	.30
15	10TCU-Q15	.30
18	10TCU-Q18	.30
20	10TCU-Q20	.30
22	10TCU-Q22	.30
25	10TCU-Q25	.30
27	10TCU-Q27	.30
33	10TCU-Q33	.30
39	10TCU-Q39	.30
47	10TCU-Q47	.30
56	10TCU-Q56	.30
68	10TCU-Q68	.30
75	10TCU-Q75	.30
82	10TCU-Q82	.30
100	10TCU-T10	.30
120	10TCU-T12	.30
150	10TCU-T15	.30
180	10TCU-T18	.30
200	10TCU-T20	.30
220	10TCU-T22	.30
270	10TCU-T27	.30
330	10TCU-T33	.30
390	10TCU-T39	.36
470	10TCU-T47	.42
560	10TCU-T56	.48
680	10TCU-T68	.48

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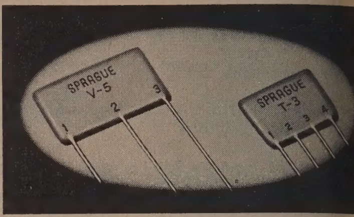
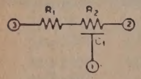
SPRAGUE PRINTED CIRCUITS

BULPLATE® and MULTI-COMP® PRINTED CIRCUITS

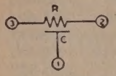
- Bulplates (rectangular plates) and Multi-comps (circular discs) are especially designed to save space and reduce assembly time
- Combinations of resistors and capacitors of maximum compactness
- Integral connections are "printed" and brought out to external leads which are anchored to the basic ceramic plate
- Completed units are protected by a tough moisture-proof coating
- Maximum voltage to be applied across these units is 250 volts d-c, except on D-1 which is rated at 100 volts d-c
- Types V-14 and V-15 are Multi-comp disc-type units — All others are Bulplate rectangular plates


SPRAGUE
V-5
1
2
3
SPRAGUE
T-3
1
2
3
4



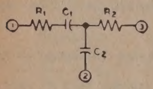
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	R_2	Net
V1/V3	.012μF	22KΩ	16.4KΩ	$.75



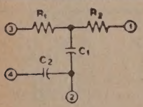
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	Net
V-4	.012μF	16.4KΩ	$.78


R1
C1
R2
C2
1
2
3

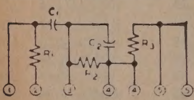
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	Net
V-5	.0047μF	.0047μF	22KΩ	10KΩ	$.78


R1
R2
C1
C2
1
2
3
4

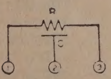
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	Net
V-9	.0025μF	.00033μF	33KΩ	15KΩ	$.54


C1
R1
C2
R2
R3
1
2
3
4
5
6

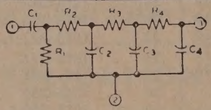
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	R_1	R_2	R_3	Net
V-12	.05μF	.002μF	1000Ω	1000Ω	10KΩ	$2.40



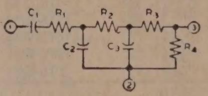
VERTICAL INTEGRATOR

Cat. No.	C_1	R_1	Net
V-14	.001μF	70KΩ	$.42
V-15	.001μF	90KΩ	.42


C1
R2
R3
R4
R1
C2
C3
C4
1
2
3

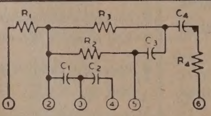
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	R_4
V-2	.01μF	.002μF	.005μF	.005μF	22KΩ	22KΩ	8.2KΩ	8.2KΩ


C1
R1
R2
R3
C2
C3
R4
1
2
3

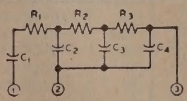
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	R_4
V-6	.004μF	.01μF	.01μF	10KΩ	10KΩ	10KΩ	100KΩ


R1
R3
C4
R2
C3
R4
C1
C2
1
2
3
4
5
6

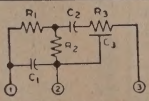
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3	R_4
V-7	.00018μF	.00013μF	.0008μF	.0008μF	47KΩ	47KΩ	68KΩ	100KΩ


R1
R2
R3
C1
C2
C3
C4
1
2
3

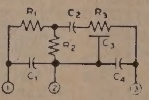
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3
V-8	.01μF	.002μF	.005μF	.005μF	22KΩ	8.2KΩ	8.2KΩ


R1
C2
R3
R2
C3
C1
1
2
3

VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3
V-10	.00015μF	.005μF	.004μF	.004μF	33KΩ	33KΩ	90KΩ


R1
C2
R3
R2
C3
C1
C4
1
2
3

VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3
V-11	.00015μF	.005μF	.004μF	33KΩ	33KΩ	90KΩ

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REM-51-6128

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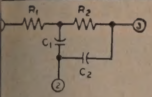
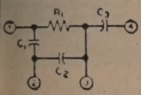
SPRAGUE PRINTED CIRCUITS

.PLATE and MULTI-COMP PRINTED CIRCUITS, continued


R₁
R₂
C₁
C₂
③
②

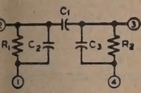
VERTICAL INTEGRATOR

o.	C_1	C_2	R_1	R_2	Net
6	.001μF	.002μF	82KΩ	39KΩ	$.90


R₁
C₃
C₁
C₂
①
④
②
③

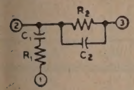
VERTICAL INTEGRATOR

o.	C_1	C_2	C_3	R_1	Net
7	.001μF	.004μF	.01μF	22KΩ	$.75


C₁
R₁
C₂
C₃
R₂
③
①
④

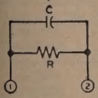
TRIODE COUPLING

o.	C_1	C_2-C_3	R_1	R_2	Net
	.01 μF	250μμF	500KΩ	500KΩ	$.63
	.01 μF	250μμF	250KΩ	500KΩ	.63
	.005μF	250μμF	500KΩ	500KΩ	.63
	.005μF	250μμF	250KΩ	500KΩ	.63


R₂
②
③
C₁
R₁
C₂
①

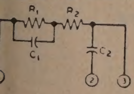
RETRACE SUPPRESSION

o.	C_1	C_2	R_1	R_2	Net
2	.005μF	.002μF	10KΩ	1MΩ	$.78
3	.01 μF	.01 μF	2.7KΩ	56KΩ	.78



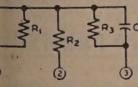
PARALLEL RESISTOR-CAPACITOR

.	C_1	R_1	Net
C-2	330μF	220KΩ	$.30


R₁
R₂
C₁
C₂
②
③

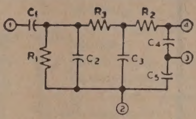
SYNC TAKEOFF

.	C_1	C_2	R_1	R_2	Net
5	.005μF	.0014μF	4700KΩ	220KΩ	$.60


R₁
R₂
R₃
C₂
②
③

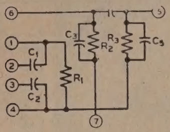
SYNC TAKEOFF

.	C_1	C_2	R_1	R_2	R_3	Net
	.00033μF	.00033μF	270KΩ	2.2MΩ	460KΩ	$.75
	.00033μF	.00033μF	1MΩ	2.2MΩ	270KΩ	.75


C₁
R₃
R₂
①
④
C₄
R₁
C₂
C₃
③
C₅
②

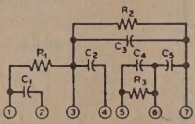
VERTICAL INTEGRATOR

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
V-13	.0051μF	.01μF	.0022μF	.001μF	470μμF	47KΩ	33KΩ	82KΩ	$1.14


⑥
⑤
C₃
R₂
R₃
C₅
①
C₁
②
R₁
③
C₂
④
⑦

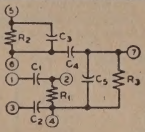
DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-1	.0022μF	220μμF	220μμF	.0047μF	220μμF	6.8MΩ	470KΩ	470KΩ	$.90
DT-2	.005 μF	220μμF	220μμF	.005 μF	220μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-3	.002 μF	220μμF	500μμF	.005 μF	500μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-4	.002 μF	220μμF	250μμF	.005 μF	250μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-5	.005 μF	220μμF	250μμF	.005 μF	250μμF	6.8MΩ	470KΩ	470KΩ	.90
DT-6	.005 μF	220μμF	250μμF	.005 μF	250μμF	10MΩ	470KΩ	470KΩ	.90


R₂
C₃
R₁
C₂
C₄
C₅
C₁
R₃
①
②
③
④
⑤
⑥
⑦

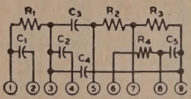
DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-8	.002μF	400μμF	220μμF	.00022μF	5000μμF	6.8MΩ	470KΩ	470KΩ	$.93


⑤
R₂
C₃
⑦
⑥
C₁
C₄
①
②
C₅
R₃
R₁
③
C₂
④

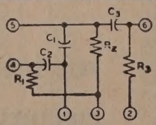
DETECTOR PENTODE COUPLING

Cat. No.	C_1	C_2	C_3	C_4	C_5	R_1	R_2	R_3	Net
DT-9	.002μF	400μμF	220μμF	.005μF	220μμF	6.8MΩ	470KΩ	470KΩ	$.75


R₁
C₃
R₂
R₃
C₁
C₂
C₄
R₄
C₅
①
②
③
④
⑤
⑥
⑦
⑧
⑨

DETECTOR TRIODE COUPLING

Cat. No.	C_1	C_2, C_3	C_4	C_5	R_1	R_2	R_3	R_4	Net
DP-1	.002μF	150μμF	.01μF	.005 μF	10MΩ	4.7MΩ	1.0MΩ	3.3MΩ	$1.20
DP-4	.001μF	68μμF	.01μF	.0025μF	10MΩ	4.7MΩ	1.0MΩ	3.3MΩ	1.08


C₃
⑤
⑥
C₁
R₂
C₂
④
R₁
R₃
①
③
②

PENTODE COUPLING

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
P-2	100μμF	.0047μF	.0047μF	4.7MΩ	1.0MΩ	2.2MΩ	$.96

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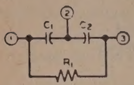
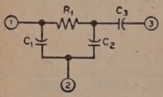
SPRAGUE PRINTED CIRCUITS

BULPLATE and MULTI-COMP PRINTED CIRCUITS, continued



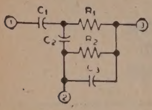
DIODE FILTER

Cat. No.	C_1	C_2	R_1	Net
D-1	100μμF	100μμF	47KΩ	$.42
D-2	150μμF	150μμF	47KΩ	.42
D-3	50μμF	50μμF	47KΩ	.42
D-4	100μμF	100μμF	100KΩ	.42


R1
C3
C1
C2
1
2
3

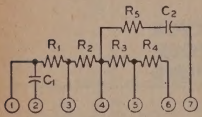
DIODE FILTER

Cat. No.	C_1	C_2	C_3	R_1	Net
D-5	330μμF	680μμF	.01μF	100KΩ	$.75


C1
R1
C2
R2
C3
1
2
3

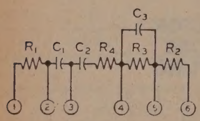
VERTICAL FEEDBACK

Cat. No.	C_1, C_2	C_3	R_1, R_2	Net
VF-1	.001μF	.002μF	100KΩ	$.78


R5
C2
R1
R2
R3
R4
C1
1
2
3
4
5
6
7

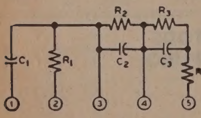
VERTICAL FEEDBACK

Cat. No.	C_1, C_2	R_1	R_2	R_3	R_4	R_5	Net
VF-2	.01μF	6.8MΩ	520KΩ	470KΩ	680KΩ	1KΩ	.14


C3
R1
C1
C2
R4
R3
R2
1
2
3
4
5
6

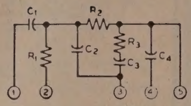
VERTICAL FEEDBACK

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3	Net
VF-3	.0033μF	.002μF	.0047μF	2.2KΩ	27KΩ	180KΩ	$1.02


R2
R3
C1
R1
C2
C3
R4
1
2
3
4
5

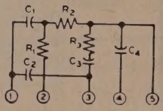
PHASE COMPARATOR

Cat. No.	C_1	C_2	C_3	R_1, R_2	R_3	R_4	Net
C-1	82μμF	100μμF	1000μμF	680KΩ	4.7KΩ	200KΩ	$.75


C1
R2
R1
C2
R3
C3
C4
1
2
3
4
5

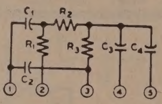
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3
HN-1	.001μF	.0015μF	390μμF	.003μF	10KΩ	39KΩ	5.6KΩ


C1
R2
R1
R3
C4
C2
C3
1
2
3
4
5

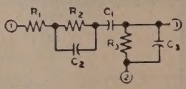
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3
HN-2	.001μF	.002μF	390μμF	.003μF	15KΩ	39KΩ	5.6KΩ


C1
R2
R1
R3
C3
C4
C2
1
2
3
4
5

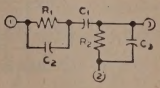
HORIZONTAL NETWORK

Cat. No.	C_1	C_2	C_3	C_4	R_1	R_2	R_3
HN-3	.001		390μμF	.003μF	8.2KΩ	39KΩ	8.2KΩ


R1
R2
C1
R3
C3
C2
1
2
3

SYNC TAKEOFF

Cat. No.	C_1	C_2	C_3	R_1	R_2	R_3
ST-1	.01μF	.00027μF	25μμF	10KΩ	330KΩ	2200Ω
ST-2	.01μF	.00027μF	25μμF	10KΩ	220KΩ	2200Ω


R1
C1
R2
C3
C2
1
2
3

SYNC TAKEOFF

Cat. No.	C_1	C_2	C_3	R_1	R_2
ST-3	.01μF	.00027μF	25μμF	220KΩ	2200Ω

FOR SPRAGUE'S COMPLETE LINE OF 179 PRINTED CIRCUITS, SEE LATEST ISSUE OF CATALOG C-614

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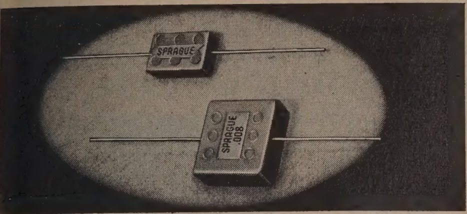
SPRAGUE CAPACITORS

MICA CAPACITORS

- Each Mica Capacitor Section Receives a Radio Frequency Test Before Molding
- Careful Selection and Electrical Grading of Raw Mica Assures Maximum Quality
- Section Foils on Foil Micas are Connected to Terminals through Special Low-resistance R-F Bonds
- R-F Current Tested for Peak Ratings After Impregnation and Molding

TYPE MS and 1FM MICAS



TYPE MS — SILVERED MICA
(Standard Capacitance Tolerance ±5%)

	Cat. No.	Net Ea.
500 WVDC, 1000 V Test		
0005	MS-55	$.27
0010	MS-41	.24
0012	MS-412	.24
0015	MS-415	.24
0018	MS-418	.24
0020	MS-42	.24
0022	MS-422	.24
0024	MS-424	.24
0025	MS-425	.24
0027	MS-427	.24
0030	MS-43	.24
0033	MS-433	.24
0036	MS-436	.24
0039	MS-439	.24
0040	MS-44	.24
0043	MS-443	.24
0047	MS-447	.24
0050	MS-45	.24
0051	MS-451	.24
0056	MS-456	.24
0060	MS-46	.24
0062	MS-462	.24
0068	MS-468	.24
0070	MS-47	.24
0075	MS-475	.24
0082	MS-482	.24
0091	MS-491	.24
0100	MS-31	.24
0110	MS-311	.27

MF	Cat. No.	Net Ea.
.000120	MS-312	$.27
.000130	MS-313	.27
.000150	MS-315	.27
.000160	MS-316	.27
.000180	MS-318	.27
.000200	MS-32	.27
.000220	MS-322	.27
.000240	MS-324	.33
.000250	MS-325	.33
.000270	MS-327	.33
.000300	MS-33	.33
.000330	MS-333	.33
.000360	MS-336	.33
.000390	MS-339	.39
.000400	MS-34	.39
.000430	MS-343	.39
.000470	MS 347	.42
.000500	MS-35	.42
.000510	MS-351	.42
.000560	MS-356	.45
.000600	MS-36	.48
.000620	MS-362	.48
.000680	MS-368	.51
.000700	MS-37	.51
.000750	MS-375	.54
.000800	MS-38	.57
.000820	MS-382	.57
.000900	MS-39	.60
.000910	MS-391	.60
.001000	MS-21	.66
.001100	MS-211	.72
.001200	MS-212	.78

MF	Cat. No.	Net Ea.
.001300	MS-213	$.75
.001500	MS-215	.81
.001600	MS-216	.81
.001800	MS-218	.81
.002000	MS-22	.81
.002200	MS-222	.90
.002400	MS-224	1.08
.002500	MS-225	1.08
.002700	MS-227	1.14
.003000	MS-23	1.23
.003300	MS-233	1.23
.003600	MS-236	1.26
.003900	MS-239	1.29
.004000	MS-24	1.29
.004300	MS-243	1.29
.004700	MS-247	1.29
.005000	MS-25	1.35
.005100	MS-251	1.35
.005600	MS-256	1.50
.006000	MS-26	1.44
.006200	MS-262	1.56
300 WVDC, 600 V Test		
.006800	MS-268	1.56
.007000	MS 27	1.56
.007500	MS-275	1.68
.008000	MS-28	1.68
.008200	MS-282	1.68
.009000	MS-29	1.86
.009100	MS-291	1.86
.010000	MS-11	2.04

TYPE 1FM
(Standard Capacitance Tolerance ±20%)

F	Cat. No.	Net Ea.
500 WVDC, 1000 V Test		
00010	1FM-41	$.15
00012	1FM-412	.15
00015	1FM-415	.15
00018	1FM-418	.15
00020	1FM-42	.15
00022	1FM-422	.15
00024	1FM-424	.15
00027	1FM-427	.15
00030	1FM-43	.15
00033	1FM-433	.15
00036	1FM-436	.15
00039	1FM-439	.15
00040	1FM-44	.15
00043	1FM-443	.12
00047	1FM-447	.12
00050	1FM-45	.12
00051	1FM-451	.12
00056	1FM-456	.12
00062	1FM 462	.12
00068	1FM-468	.12
00075	1FM-475	.12
00082	1FM-482	.12
00091	1FM-491	.12
00100	1FM-31	.12
00110	1FM-311	.12
00120	1FM-312	.12
00130	1FM-313	.12

MF	Cat. No.	Net Ea.
.000150	1FM-315	$.12
.000160	1FM-316	.12
.000180	1FM-318	.12
.000200	1FM-32	.12
.000220	1FM-322	.15
.000240	1FM-324	.15
.000250	1FM-325	.15
.000270	1FM-327	.15
.000300	1FM-33	.15
.000330	1FM-333	.15
.000350	1FM-335	.15
.000360	1FM-336	.15
.000390	1FM-339	.15
.000400	1FM-34	.15
.000430	1FM-343	.15
.000470	1FM-347	.15
.000500	1FM-35	.15
.000510	1FM-351	.15
.000560	1FM-356	.15
.000620	1FM-362	.15
.000680	1FM-368	.15
.000700	1FM-37	.15
.000750	1FM-375	.18
.000820	1FM-382	.18
.000910	1FM-391	.18
.001000	1FM-21	.18
.001100	1FM 211	.18
.001200	1FM-212	.18
.001300	1FM-213	.18

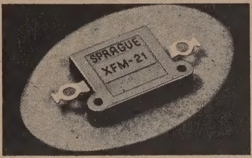
MF	Cat. No.	Net Ea
.001500	1FM-215	$.18
.001600	1FM-216	.18
.001800	1FM-218	.24
.002000	1FM-22	.24
.002200	1FM-222	.24
.002400	1FM-224	.30
.002500	1FM-225	.30
.002700	1FM-227	.30
.003000	1FM-23	.30
.003300	1FM-233	.36
.003600	1FM-236	.36
.003900	1FM-239	.36
.004000	1FM-24	.33
.004300	1FM-243	.36
.004700	1FM-247	.36
.005000	1FM-25	.36
.005100	1FM-251	.36
.005600	1FM-256	.39
.006000	1FM-26	.39
.006200	1FM-262	.39
300 WVDC, 600 V Test		
.006800	1FM-268	.51
.007000	1FM-27	.51
.007500	1FM-275	.51
.008000	1FM-28	.60
.008200	1FM-282	.60
.009000	1FM-29	.60
.009100	1FM-291	.60
.010000	1FM-11	.72

MS and 1FM Dimensions

alog Numbers	L x W x T
-55 through MS-356	21/32 x 13/32 x 7/32
-36 through MS-236	25/32 x 25/32 x 9/32
-239 through MS-282	25/32 x 25/32 x 11/32
-29 through MS-11	1 x 5/8 x 5/16

Catalog Numbers	L x W x T
1FM-41 through 1 FM-356	51/64 x 15/32 x 7/32
1FM-362 through 1FM-236	53/64 x 53/64 x 9/32
1FM-239 through 1FM-282	53/64 x 53/64 x 11/32
1FM-29 through 1FM-11	1 x 5/8 x 5/16

TYPES XFM, YFM and ZFM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
XFM — 600 WVDC, 1200 V TEST		
.00005	XFM-45	$ .72
.0001	XFM-31	.72
.0002	XFM-32	.72
.00025	XFM-325	.72
.0003	XFM-33	.72
.0004	XFM-34	.72
.0005	XFM-35	.72
.001	XFM-21	.72
.0015	XFM-215	.72
.002	XFM-22	.78
.0025	XFM-225	.78
.003	XFM-23	.87
.004	XFM-24	.90
.005	XFM-25	.93
.006	XFM-26	1.08
.007	XFM-27	1.11
.008	XFM-28	1.14
.01	XFM-11	1.29
.02	XFM-12	1.83
.03	XFM-13	2.67

Catalog Numbers	L x W x T
XFM-45 thru XFM-11	1 5/8 x 1 1/8 x 11/32
XFM-12 thru XFM-13	1 5/8 x 1 1/8 x 7/16

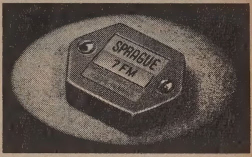
YFM — 1200 WVDC, 2500 V TEST		
.00005	YFM-45	.96
.0001	YFM-31	.96
.0002	YFM-32	.96
.00025	YFM-325	.96
.0003	YFM-33	.96
.0004	YFM-34	.96
.0005	YFM-35	.96
.001	YFM-21	1.08
.0015	YFM-215	1.38
.002	YFM-22	1.44
.0025	YFM-225	1.68
.003	YFM-23	1.83
.004	YFM-24	1.83
.005	YFM-25	1.98
.006	YFM-26	1.98
.007	YFM-27	2.07
.008	YFM-28	2.31
.01	YFM-11	3.06

Catalog Numbers	L x W x T
YFM-45 thru YFM-24	1 5/8 x 1 1/8 x 11/32
YFM-25 thru YFM-11	1 5/8 x 1 1/8 x 7/16

ZFM — 2500 WDVC, 5000 V TEST		
.00005	ZFM-45	1.14
.0001	ZFM-31	1.14
.0002	ZFM-32	1.14
.00025	ZFM-325	1.32
.0003	ZFM-33	1.35
.0004	ZFM-34	1.38
.0005	ZFM-35	1.44
.001	ZFM-21	1.68
.0015	ZFM-215	2.13
.002	ZFM-22	2.49
.003	ZFM-23	2.94
.004	ZFM-24	3.39
.005	ZFM-25	3.84

Catalog Numbers	L x W x T
ZFM-45 thru ZFM-22	1 5/8 x 1 1/8 x 11/32
ZFM-23 thru ZFM-25	1 5/8 x 1 1/8 x 7/16

TYPES 7FM, 8FM and 9FM



(Standard Capacitance Tolerance ±10%)

MF	Cat. No.	Net Ea.
7FM — 600 WVDC, 1200 V TEST		
.00005	7FM-45	$ .87
.0001	7FM-31	.87
.00015	7FM-315	.87
.0002	7FM-32	.87
.00025	7FM-325	.87
.0005	7FM-35	.87
.001	7FM-21	.87
.002	7FM-22	.99
.0025	7FM-225	1.02
.003	7FM-23	1.11
.004	7FM-24	1.20
.005	7FM-25	1.26
.006	7FM-26	1.32
.008	7FM-28	1.47
.01	7FM-11	1.68
.015	7FM-115	1.83
.02	7FM-12	2.13
.03	7FM-13	2.73
.04	7FM-14	3.51
.05	7FM-15	4.26
.06	7FM-16	4.83

Catalog Numbers	L x W x T
7FM-45 thru 7FM-13	1 3/4 x 1 5/16 x 7/16
7FM-14 thru 7FM-16	1 3/4 x 1 5/16 x 3/4

8FM — 1200 WVDC, 2500 V TEST		
.00005	8FM-45	.96
.0001	8FM-31	.96
.00015	8FM-315	.96
.0002	8FM-32	.96
.00025	8FM-325	.96
.0005	8FM-35	.96
.001	8FM-21	1.14
.002	8FM-22	1.50
.0025	8FM-225	1.68
.003	8FM-23	1.77
.004	8FM-24	1.86
.005	8FM-25	1.98
.006	8FM-26	2.07
.008	8FM-28	2.46
.01	8FM-11	2.82
.015	8FM-115	3.48
.02	8FM-12	4.23
.025	8FM-125	4.74
.03	8FM-13	4.86

Catalog Numbers	L x W x T
8FM-45 thru 8FM-115	1 3/4 x 1 5/16 x 7/16
8FM-12 thru 8FM-13	1 3/4 x 1 5/16 x 3/4

9FM — 2500 WVDC, 5000 V TEST		
.00005	9FM-45	1.14
.0001	9FM-31	1.14
.00025	9FM-325	1.29
.0005	9FM-35	1.53
.001	9FM-21	1.74
.002	9FM-22	2.55
.0025	9FM-225	2.76
.003	9FM-23	3.06
.004	9FM-24	3.39
.005	9FM-25	3.72
.006	9FM-26	3.81
.008	9FM-28	4.11
.01	9FM-11	4.28
.015	9FM-115	4.83

Catalog Numbers	L x W x T
9FM-45 thru 9FM-26	1 3/4 x 1 5/16 x 7/16
9FM-28 thru 9FM-115	1 3/4 x 1 5/16 x 3/4

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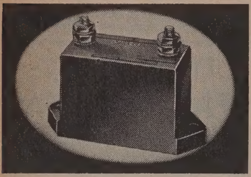
REM-54-6128

All prices and sizes subject to change without notice.

SPRAGUE CAPACITORS

MICA CAPACITORS, continued

TYPES 1MC & 2MC



(Standard Capacity Tolerance ±5%)

TYPE 1MC

Dimensions — 2″ L. x 15⁄16″ W. x 119⁄32″ H.

MF	VAC Peak	Cat. No.	Net
.00005	3000	1MC-45	$ 7.56
.0001	3000	1MC-31	7.56
.00015	3000	1MC-315	7.56
0002	3000	1MC-32	7.56
.00025	3000	1MC-325	7.56
.0003	3000	1MC-33	7.56
.0004	3000	1MC-34	7.56
.0005	3000	1MC-35	7.56
.0006	3000	1MC-36	7.56
.0007	3000	1MC-37	7.56
.0008	3000	1MC-38	7.56
.001	3000	1MC-21	7.56
.0015	3000	1MC-215	7.56
.002	3000	1MC-22	7.56
.003	2000	1MC-23	7.56
.004	2000	1MC-24	7.56
.005	2000	1MC-25	7.56
.006	2000	1MC-26	7.56
.007	2000	1MC-27	7.56
.008	1500	1MC-28	7.56
.01	1000	1MC-11	7.56
.015	1000	1MC-115	7.56
.02	1000	1MC-12	8.58
.03	500	1MC-13	8.58
.04	500	1MC-14	8.58
.05	250	1MC-15	8.58
.1	250	1MC-1	9.06

TYPE 2MC

Dimensions — 2¼″ L. x 1¼″ W. x 113⁄16″ H.

MF	VAC Peak	Cat. No.	Net
.00005	5000	2MC-45	$10.38
.0001	5000	2MC-31	10.38
.00015	5000	2MC-315	10.38
.0002	5000	2MC-32	10.38
.00025	5000	2MC-325	10.38
.0003	5000	2MC-33	10.38
.0004	5000	2MC-34	10.38
.0005	5000	2MC-35	10.38
.0006	5000	2MC-36	10.38
.0007	5000	2MC-37	10.38
.0008	5000	2MC-38	10.38
.001	5000	2MC-21	10.38
.0015	5000	2MC-215	10.38
.002	5000	2MC-22	10.38
.003	3000	2MC-23	10.38
.004	3000	2MC-24	10.38
.005	3000	2MC-25	10.38
.006	3000	2MC-26	10.38
.007	3000	2MC-27	10.38
.008	2000	2MC-28	10.38
.01	2000	2MC-11	10.38
.015	2000	2MC-115	10.38
.02	2000	2MC-12	10.38
.03	1500	2MC-13	10.38
.04	1500	2MC-14	10.38
.05	1500	2MC-15	10.38
.06	1000	2MC-16	11.16
.07	1000	2MC-17	11.16
.08	500	2MC-18	11.52
.1	500	2MC-1	11.52

TYPES 1CC, 2CC, 3CC & 4CC

(Standard Capacity Tolerance ±5%)

TYPE 1CC

Dimensions — 213⁄16″ D. x 2½″ H.

MF	Cat. No.	Net
6000 VAC Peak		
.00005	1CC-45	$22.92
.000075	1CC-475	24.00
.0001	1CC-31	24.36
.00015	1CC-315	24.36
.0002	1CC-32	24.36
.00025	1CC-325	24.36
.0003	1CC-33	26.61
.0004	1CC-34	26.61
.0005	1CC-35	27.99
.0006	1CC-36	27.99
.0007	1CC-37	27.99
.0008	1CC-38	27.99
.001	1CC-21	27.99
.0015	1CC-215	29.34
.002	1CC-22	29.34
.003	1CC-23	30.36
.004	1CC-24	30.36
4000 VAC Peak		
.005	1CC-25	30.36
.006	1CC-26	30.87
.007	1CC-27	30.37
.008	1CC-28	30.87
.01	1CC-11	30.87
3000 VAC Peak		
.015	1CC-115	30.87
2000 VAC Peak		
.02	1CC-12	30.87
.025	1CC-125	31.08
1500 VAC Peak		
.03	1CC-13	33.45
.04	1CC-14	35.10
.05	1CC-15	36.45
.06	1CC-16	37.68
1000 VAC Peak		
.07	1CC-17	38.55
.08	1CC-18	39.45
.1	1CC-1	41.10

TYPE 2CC

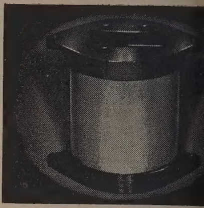
Dimensions — 3½″ D. x 3″ H.

MF	Cat. No.	Net
10,000 VAC Peak		
.00005	2CC-45	39.33
.000075	2CC-475	39.33
.0001	2CC-31	39.33
.00015	2CC-315	39.33
.0002	2CC-32	39.33
.0003	2CC-33	39.33
.0004	2CC-34	39.33
.0005	2CC-35	39.33
.0006	2CC-36	39.33
.0007	2CC-37	29.33
.0008	2CC-38	39.33
.001	2CC-21	39.33
.0015	2CC-215	39.33
.002	2CC-22	39.33
8000 VAC Peak		
.003	2CC-23	39.33
.004	2CC-24	39.33
6000 VAC Peak		
.005	2CC-25	39.33
5000 VAC Peak		
.006	2CC-26	41.49
.007	2CC-27	41.49
.008	2CC-28	41.49
.01	2CC-11	41.49
4000 VAC Peak		
.015	2CC-115	41.49
3000 VAC Peak		
.02	2CC-12	41.49
.025	2CC-125	43.20
2000 VAC Peak		
.03	2CC-13	44.10
.04	2CC-14	46.68
.05	2CC-15	48.45
.06	2CC-16	49.80
1500 VAC Peak		
.07	2CC-17	51.00
.08	2CC-18	51.90
.1	2CC-1	54.00

TYPE 3CC

Dimensions — 5″ D. x 4″ H.

MF	Cat. No.	Net
20,000 VAC Peak		
.00005	3CC-45	66.54
.000075	3CC-475	72.60
.0001	3CC-31	72.60
.00015	3CC-315	78.66
.0002	3CC-32	78.66
.0003	3CC-33	78.66
.0004	3CC-34	82.29
.0005	3CC-35	82.29
.0006	3CC-36	82.29
.0007	3CC-37	82.29
.0008	3CC-38	82.29
.001	3CC-21	84.69
15,000 VAC Peak		
.0015	3CC-215	85.92
.002	3CC-22	85.92
12,000 VAC Peak		
.003	3CC-23	90.75
.004	3CC-24	90.75
10,000 VAC Peak		
.005	3CC-25	90.75
.006	3CC-26	90.75
.007	3CC-27	90.75
.008	3CC-28	90.75
8000 VAC Peak		
.01	3CC-11	90.75
5000 VAC Peak		
.015	3CC-115	90.75
.02	3CC-12	90.75
3000 VAC Peak		
.025	3CC-125	90.75
.03	3CC-13	90.75
.04	3CC-14	90.75
.05	3CC-15	90.75
.06	3CC-16	95.10
2000 VAC Peak		
.07	3CC-17	98.40
.08	3CC-18	103.20
.1	3CC-1	109.20



TYPE 4CC

Dimensions — 5″ D. x 5¾″ H

MF	Cat. No.
30,000 VAC Peak	
.0001	4CC-31
.00015	4CC-315
.0002	4CC-32
.0003	4CC-33
.0004	4CC-34
.0005	4CC-35
.0006	4CC-36
.0007	4CC-37
.0008	4CC-38
.001	4CC-21
25,000 VAC Peak	
.0015	4CC-215
20,000 VAC Peak	
.002	4CC-22
.003	4CC-23
15,000 VAC Peak	
.004	4CC-24
.005	4CC-25
.006	4CC-26
.007	4CC-27
12,000 VAC Peak	
.008	4CC-28
.009	4CC-29
10,000 VAC Peak	
.01	4CC-11
8000 VAC Peak	
.015	4CC-115
6000 VAC Peak	
.02	4CC-12
.03	4CC-13
5000 VAC Peak	
.04	4CC-14
.05	4CC-15
.06	4CC-16
4000 VAC Peak	
.07	4CC-17
3000 VAC Peak	
.08	4CC-18
.1	4CC-1

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REM-55-6128

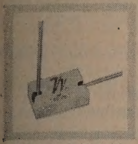
All prices and sizes subject to change without

Vitramon® CAPACITORS

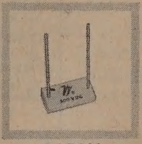
stable • rugged • low loss • miniature low noise • humidity immunity wide temperature range

VY T.M. solid state PORCELAIN CAPACITORS

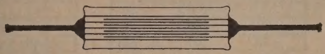
Conforms with MIL-C-11272B


AXIAL-RADIAL
VY 12

AXIAL
VY 17


RADIAL
VY 04

The superior electrical and mechanical characteristics exhibited by Vitramon® capacitors are attributes of their solid state composition — fine silver electrodes molecularly fused within a solid block of high grade porcelain, forming a monolithic unit that requires no case or hermetic seal.



"Layering" of electrodes makes possible a much greater active dielectric area within the same cubic content. Perfect bonding of materials minimizes loss and noise and results in greater stability over a temperature range of —55°C to 200°C.

Vitramon® capacitors are used extensively in guided missiles, jet ignition, proximity fuses, and in radar, servo, guidance, fire control, telemetering, and carrier telephone systems.

STANDARD TYPES AND VALUES

All series A, AR and R are available in the following values from factory or distributor stocks in 10%, 5%, 2% and 1% tolerances.

VY 12C or VY 13C
0.5 to 200 mmf at 500 vdc
220 to 300 mmf at 300 vdc

VY 16C or VY 17C
220 to 470 mmf at 500 vdc
510 to 1000 mmf at 300 vdc

VY 21C or VY 22C
510 to 1000 mmf at 500 vdc
1100 to 2400 mmf at 300 vdc*

VY 31C or VY 32C
1100 to 3300 mmf at 500 vdc
3600 to 6800 mmf at 300 vdc**

VY 05C
300 to 620 mmf at 100 vdc
680 to 1200 mmf at 50 vdc

VY 04C
0.5 to 22 mmf at 500 vdc
24 to 100 mmf at 300 vdc
110 to 220 mmf at 100 vdc
240 to 510 mmf at 50 vdc

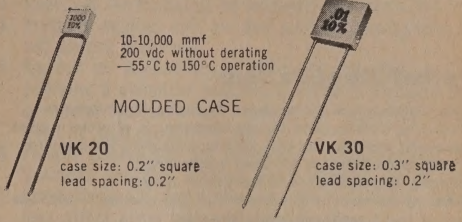
*2200 and 2400 not available in - Axial Series
**6200 and 6800 not available in - Axial-Radial Series

HIGH RELIABILITY SPECIFICATION S-1002B

Every VITRAMON® Capacitor purchased against our High Reliability Specification S-1002B is accompanied by a detailed documentation verifying a reliability of better than 0.5% per 1000 hours. Continuous control testing of in-process material for all parameters, including 300,000 unit hours of life tests every six weeks, has consistently demonstrated an A.Q.L. for VITRAMON® Capacitors 12 times higher than Mil Specifications.

VK® micro-miniature CERAMIC CAPACITORS

Conforms with MIL-C-11015C/18A/19A



10-10,000 mmf
200 vdc without derating
—55°C to 150°C operation

MOLDED CASE

VK 20
case size: 0.2" square
lead spacing: 0.2"

VK 30
case size: 0.3" square
lead spacing: 0.2"

GENERAL CHARACTERISTICS

Temperature Co-efficient: Maximum deviation from 25°C measurement over range of —55°C to +150°C is ± 15%.

Voltage Co-efficient: Negative at the average rate of 0.025% per volt above 25 vdc for values through 680 mmf, and 0.1% per volt above 680 mmf.

Insulation Resistance: Minimum of 1,000 ohmfarads (100,000 megohms) at 25°C and 10 ohmfarads (1,000 megohms) at 150°C.

Dissipation Factor (at 1 kc): Less than 1.5% at 25°C and less than 1.0% at 150°C through 680 mmf; from 820 through 10,000 mmf, DF is less than 2.5% and 1.5% respectively.

Lead Strength: Withstands a force of five pounds exerted in the direction of the leads as required by MIL-C-11015B.

Dip-soldering: All units thermal shock proofed, may be dip-soldered up to the case at 600°F.

Dielectric Strength: A potential of 400% of rated voltage may be applied for 10 seconds at 25°C.

Part Number	Capacity mmf.	Part Number	Capacity mmf.	Part Number	Capacity mmf.
VK 20CW100*	10	VK 20CW330*	33	VK 20CW101*	100
VK 20CW120*	12	VK 20CW390*	39	VK 20CW121*	120
VK 20CW150*	15	VK 20CW470*	47	VK 20CW151*	150
VK 20CW180*	18	VK 20CW560*	56	VK 20CW181*	180
VK 20CW220*	22	VK 20CW680*	68	VK 20CW221*	220
VK 20CW270*	27	VK 20CW820*	82	VK 20CW271*	270

Part Number	Capacity mmf.	Part Number	Capacity mmf.	Part Number	Capacity mmf.
VK 20CW331*	330	VK 30CW122*	1200	VK 30CW392*	3900
VK 20CW391*	390	VK 30CW152*	1500	VK 30CW472*	4700
VK 20CW471*	470	VK 30CW182*	1800	VK 30CW562*	5600
VK 20CW561*	560	VK 30CW222*	2200	VK 30CW682*	6800
VK 20CW681*	680	VK 30CW272*	2700	VK 30CW822*	8200
VK 20CW821*	820	VK 30CW332*	3300	VK 30CW103*	10000
VK 20CW102*	1000				

*Tolerance code to be added to complete part number.
K = 10%, M = 20%.

NOTE: When ordering against MIL Specifications, substitute CK 05 for VK 20 and CK 06 for VK 30 in Part Number.

ALSO AVAILABLE WITH EPOXY COATING FOR COMPLETE ASSEMBLY ENCAPSULATION

Same electrical characteristics as standard "VK" series. Each unit coated with a resilient protective compound. Leads .016 Diam. (nominal); .032 max. recommended hole diam. Dimensions: 10-100 mmf., .12" square; 120-470 mmf., .145" square; 560-1000 mmf., .170" square; 1200-10,000 mmf., .270" square. When ordering, substitute VK 21 for VK 20 and VK 31 for VK 30.

VITRAMON® INCORPORATED

BRIDGEPORT, CONNECTICUT

ALPHA-TEMPIL° Temperature Indicators

Marketed to the Electronic Industry by Alpha Wire and Sold Nationally Through Alpha Distributors.

TEMPILAQ
319°F
159°C

TEMPILAQ° (Liquid)

TEMPILSTIK° (Solid)

Measure surface heat with better than 1% accuracy — at a cost of less than 1 cent per application!

Typical Applications

- Determining critical temperatures of electronic components.
- Monitoring metal-to-glass sealing temperatures of vacuum tubes.
- Measuring shaft bearing and rotating component temperatures.
- Preventive maintenance to detect overheating.
- Studying temperature rise of transmitter tubes.
- Detecting overloads in power switches and electrical equipment.
- Testing cooling and ventilation efficiency.
- Measuring temperature on surface of circuit elements adjacent to heated component.
- Checking efficiency of heat sinks used in soldering.
- Safeguarding against hot spots in environmental testing ovens.
- Testing temperature of soldering irons and other heated devices.
- Simulating heat dissipation tests.
- Working within prescribed metallurgical temperature limits.

ALPHA-TEMPIL° products tell you instantly when any critical temperature is reached. Below rated temperature, the TEMPIL°mark is dull and chalky. When exact temperature is reached, the mark liquifies sharply and becomes glossily transparent . . . a change easy to recognize. Components throughout the entire circuit can be temperature-checked to ±1% without expensive and complex thermocouples. Complete temperature profiles of any component can be determined by using several different TEMPILSTIK° or TEMPILAQ° marks.

Characteristics

Accuracy	— Within plus or minus 1% of stated temperature rating.
Response	— Melting action begins within a millisecond of reaching desired temperature.
Permanence	— Once melted, TEMPIL°heat indicators remain glossily transparent . . . do not revert to the original dull, chalky appearance.
Readability	— Melting action is fast and unmistakable.
Shelf life	— Lasts indefinitely.

Using TEMPIL° temperature indicators...

TEMPILAQ°: Apply a thin dab to the surface to be heated. This will dry almost instantly to a dull mark, ready for use.

TEMPILSTIK°: For temperatures below 500°F, stroke a mark on the working surface before beginning the heating cycle. For higher temperatures, stroke the surface occasionally during heating.

Prices:

TEMPILAQ° —	2 oz. bottle............	$ 2.00
	1 pt. bottle............	12.00
Thinner*	2 oz......................	1.00
	1 pt......................	6.00

TEMPILSTIK°— Individual 5¼" stick $2.00

Optional metal holder designed for TEMPILSTIK°...........$.50

*Thinner: dilutes TEMPILAQ°to desired consistency for special application, or replaces evaporated solvent.

ALPHA electronic WIRE

Alpha Temperature Indicating Kits

- Ideal for laboratory, prototype or production use
- Packaged in handy durable metal storage case

KIT NO. TEMP-200 Temp. range 175° F (79° C) to 294° F (146°
KIT NO. TEMP-300 Temp. range 300° F (149° C) to 388° F (198°
KIT NO. TEMP-400 Temp. range 400° F (204° C) to 525° F (274°

CONTENTS:

10 — ½ oz. bottles of TEMPILAQ°in systematically spaced te perature ranges.

20 sample TEMPILSTIKS°(Pellet form) in the same systematica spaced temperature ranges as the TEMPILAQ°.

2 — ½ oz. bottles of thinner for TEMPILAQ°. Price $18. Each Ki

Ordering Information:

All TEMPILAQ° and TEMPILSTIK° products are available f stock. When ordering please refer to the specific part num indicating LAQ for TEMPILAQ° or STK for TEMPILSTIK°. I important to note that the part number you order is also Fahrenheit Temperature Rating.

Alpha No. *	F°	C°
100	100	38
103	103	39
106	106	41
109	109	43
113	113	45
119	119	48
125	125	52
131	131	55
138	138	59
144	144	62
150	150	66
156	156	69
163	163	73
169	169	76
175	175	79
182	182	83
188	188	87
194	194	90
200	200	93
206	206	97
213	213	101
219	219	104
225	225	107
231	231	111
238	238	114
244	244	118
250	250	121
256	256	124
263	263	128
269	269	132
275	275	135
282	282	139
288	288	142
294	294	146
300	300	149
306	306	152
313	313	156
319	319	159
325	325	163
331	331	166
338	338	170
344	344	173
350	350	177
363	363	184
375	375	191
388	388	198
400	400	204
413	413	212
425	425	218
438	438	226
450	450	232

Alpha No. *	F°
463	463
475	475
488	488
500	500
525	525
550	550
575	575
600	600
650	650
700	700
750	750
800	800
850	850
900	900
932	932
950	950
977	977
1000	1000
1022	1022
1050	1050
1100	1100
1150	1150
1200	1200
1250	1250
1300	1300
1350	1350
1400	1400
1425	1425
1450	1450
1480	1480
1500	1500
1550	1550
1600	1600
1650	1650
1700	1700
1750	1750
1800	1800
1850	1850
1900	1900
1950	1950
2000	2000
2050	2050
2100	2100
2150	2150
2200	2200
2250	2250
2300	2300
2350	2350
2400	2400
2450	2450
2500	2500

*Add prefix LAQ for liquid type or STK for solid type

© U.C.P

AIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

Cramolin® products

AMOLIN fluid is a combination protection and cleaning
paration. It is preferably applied on contacts already in
, or on apparatus where contact deficiency has occurred
l where these contacts should be protected against oxida-
n. May be used on old and new contacts, and with other
AMOLIN products.

RAMOLIN-SPECIAL fluid is not a cleaning preparation, how-
r, it does provide the essential protection needed. It is
inly used in the manufacture of new instruments or appa-
us where the improvement of performance is desired as
l as to preserve and increase the life of the apparatus.
uld be used on new contacts or those contacts that have
n previously cleaned with CRAMOLIN.

RAMOLIN-PASTE is a semi-solid form and is also a com-
ation protection and cleaning preparation. Usually used for
h amperage and/or high voltage use. Can be used after
lications of CRAMOLIN for good results.

or write for Bulletin C-200 for complete Technical Data.

ATURES

CLEANER
LUBRICANT
PRESERVATIVE
ANTI-CORROSIVE

"PEEL OFF THOSE HIGH
RESISTANCE OXIDE FILMS"

PRICES

DESCRIPTION	CRAMOLIN (Red Color)	CRAMOLIN-SPECIAL (Blue Color)	CRAMOLIN-PASTE
z. Glass Bottle	$1.95	$2.25	
pint, Glass Bottle	6.75	7.50	
int, Glass Bottle	13.00	14.50	
uart, Glass Bottle	25.50	28.00	
Kg Can (½ lb.)			$2.90
z. Spray	3.00	3.50	
gineers Kit	6.75		

HERE ARE 14 REASONS WHY CRAMOLIN IS THE MODERN CONCEPT ON IMPROVING CONTACT PERFORMANCE

1. **Reduces contact resistances to their minimum values.**
2. **Reduces sparking of brushes on commutators.**
3. **Improves performance of contacts and collector rings.**
4. **Protects against salt air and sulfidic atmosphere and will not absorb moisture.**
5. **Applied on moving parts, Cramolin will stay on. Cramolin contains a chemical compound which is strongly attracted by metal surfaces and cannot be removed completely, even by high pressure friction.**
6. **Fungus growth will not develop on Cramolin-films, because Cramolin contains mineral and synthetic ingredients only.**
7. **Cramolin is not aggressive on baked varnishes, although it may affect some nitro-cellulose lacquers.**
8. **Max. effective operating temperature range is —34°C to +150°C.**
9. **Cramolin can be safely used at a relative humidity of 95% and temperatures up to 100°C.**
10. Cramolin will perform equally as well under air pressure as well as in a vacuum.
11. Insulation resistance of 10^{13} ohms between contacts at distance of 1 cm on Trolitul (phenol-formaldehyde resin).
12. Tests have indicated that no injurious secondary effects arise.
13. Cramolin may be applied on old contacts without special precautions. All non-metallic layers, dust, resin, etc., will be dissolved and removed at once by rubbing it off, or by operating the contact several times.
14. **Under general operating conditions Cramolin should be reapplied after two to three years (on high frequency and low current contacts). In highly corrosive atmosphere (containing acid, sulphide, etc.) reapplication should take place after one year. If the air contains unusual quantities of ammonia, contacts should be treated with Cramolin-Special.**

NEW

ramolin Spray R

$3.00
6 oz. can

FOR CONTACTS
CRAMOLIN SPRAY
R
CLEANS
LUBRICATES
PROTECTS

6" Extension Spray Tube — FREE!

w—for those who prefer the spray can method of
plication. CRAMOLIN SPRAY R has same properties
CRAMOLIN FLUID. Packaged in neat spray can with
tomatic valve. Equipped with a whirl spray head,
ich will apply CRAMOLIN—breath thin—to most
mote areas. The Hygrade propellant and speedy
aporating solvent leaves only a microfilm of actual
AMOLIN on contact area.

EACH KIT CONTAINS:

- 2 OZ. CRAMOLIN
- 2 OZ. CRAMOLIN-SPECIAL
- ½ LB. CRAMOLIN-PASTE
- TECHNICAL GUIDE TO PROPERTIES & APPLICATIONS

$6.75
complete plus postage

A Technical Guide to PROPERTIES and APPLICATIONS
Cramolin products
CAIG LABORATORIES
CRAMOLIN ENGINEERS PRODUCT KIT

NEW *Cramolin* ENGINEERS PRODUCT KIT

The Engineers Kit provides the experimenter the opportunity to evaluate the best combination of CRAMOLIN product preservatives for his own particular contact problems.

THE NEW MIRACLE T. V. TUNER CLEANER

CHEMICALLY ENGINEERED FOR ELECTRONIC TECHNICIANS

HUSH®

NEW
HUSH
MIRACLE
TV
TUNER CLEANER
Engineered for tuners
CHEMICAL
ELECTRONIC ENGINEERING, INC.
Matawan, N. J.

"Spray It and Forget It"

Chemically engineered for that tuner and switching mechanism. Hush comes in a 6 oz. pressure can with sufficient pressure to reach all contacts to wash-a-way that dirt, leaving clean and positive contacts, protected with a lasting lubricant film and with no powder residue.

FREE 6" Plastic Extender With Every Can

6 oz. ECONOMY SPRAY CAN $2.25
Hush also available in 2 oz., 8 oz. and 32 oz. containers. Net

NEW
TRANSPARENT
PLASTIC
SEALER
Chemically Engineered
for the
Professional Technicia
EE

STOPS

Corrosion

Corona Loss

Short Circuits

NEW TRANSPARENT

PLASTIC SEALER

INSULATES and WATER PROOFS
with HIGH DIELECTRIC STRENGTH

16 ounces $1.95 Net

NEW
EVER
QUIET
CONTROL AND
CONTACT RESTORER
CLEANS
LUBRICATES
PROTECTS
TV-RADIO
AND
ELECTRONIC
CONTACTS

NEW
EVER
QUIET
CLEANS
LUBRICATES
PROTECTS
TV-RADIO
AND
ELECTRONIC
CONTACTS

**A FEW
DROPS
DOES THE
JOB**

2 oz. Net 79c
(32 oz. sizes available)

SINCE 1949 THE ORIGINAL

SUPER EVER-QUIET®

VOLUME CONTROL and CONTACT RESTORE

EVER-QUIET is a free-flowing liquid that leaves no power residue. Scientifically designed to seep around the shaft and penetrate the control or potentiometer, cleaning the contacts and leaving a safe protecting film.

EVER-QUIET is harmless to metals, wire or carbon.

FREE 6" Plastic Extender With Every Can

6 oz. SPRAY CAN $1.59 Net

EVER-KLEER T.V. Picture Tubes, Protecting Glass Cleaner

CHEMICAL ELECTRONIC ENGINEERING, INC.

MATAWAN, NEW JERSEY

CHEMTRONICS

ECTRONIC CHEMICALS FOR SERVICEMEN

TROL AID
TROL AID
FROST AID
CHEM OIL
WIPE -A- WAY
SOL VENT
NO ARC
MASK -N- GLAS CLEANER
TUN O LUBE
TUN O LUBE
302
820
850
870
860
880
830
840
810
301

TROL-AID CONTROL AND ELECTRICAL CONTACT CLEANER

CHEMTRONICS' TROL-AID is a highly successful control and contact cleaner. A multi-purpose product, TROL-AID cleans as well as lubricates electronic controls and switches, thus extending their operational life.

Cat. No. 820 Net Wt. 8 oz. Dealer Net **$1.98**

Convenient "CADDY SIZE" Cat. No. 302 Net Wt. 3 oz. Dealer Net **98c**

FROST-AID FOR LOCATING THERMAL INTERMITTENT COMPONENTS

FROST AID is used to instantly cool and pinpoint suspected intermittent resistors, condensers, coils, and other components, for instant detection . . . thus saving hours of trial and error operations. FROST-AID is very effective in chilling leads of transistors and phono cartridges to reduce possibility of heat damage during soldering.

Cat. No. 850 Net Wt. 8 oz. Dealer Net **$1.98**

CHEM-OIL A NEW PENETRATING & LUBRICATING OIL • FROZEN YOKE REMOVER

Electronic CHEM-OIL is a revolutionary new penetrating and lubricating oil based on an exclusive formula of chemicals and oils, highly recommended for use in record changers, tape recorders and instruments . . . and also as a "FROZEN YOKE REMOVER".

Cat. No. 870 Net Wt. 8 oz. Dealer Net **$1.79**

WIPE-A-WAY A NEW WATERLESS HAND CLEANER

CHEMTRONICS' WIPE-A-WAY is an exclusive formulated waterless hand cleaner. Immediately removes grease, grime, and cements . . . ideal for every type of hand cleaning problem. Contains no harsh abrasives or strong chemicals, and is fortified with activated lanolin and germ-killing trichlorphenate.

Cat. No. 860 Net Wt. 6 oz. Dealer Net **$1.49**

SOL-VENT A UNIVERSAL SOLVENT AND THINNER FOR ALL CEMENTS

SOL-VENT is a non-inflammable, non-toxic, all purpose thinner and solvent especially prepared to thin all types of cements, liquid insulators and dopes.

Cat. No. 880 Net Wt. 8 oz. Dealer Net **98c**

NO-ARC HI-VOLTAGE INSULATOR WITH 20,000 VOLTS DIELECTRIC STRENGTH

A revolutionary approach to Hi-Voltage insulation and protective coating for H.V. transformers, yokes, HV leads and printed circuits. Waterproofs and protects exposed wiring, etc. Employs NEW JET STREAM ACTION—Not a Spray. **MEETS MIL-C-12599**

Cat. No. 830 Net. Wt. 8 oz. Dealer Net **$2.79**

MASK-N-GLAS GLASS AND PLASTIC CLEANER AND POLISHER

Another CHEMTRONICS Service-Aid is the new MASK-N-GLAS Cleaner and Polisher. This exclusive anti-static glass and plastic cleaner is a non-staining, non-abrasive dirt and grime remover . . . for the cleaning of TV masks, safety glass and picture tubes.

Cat. No. 840 Net Wt. 6 oz. Dealer Net **$1.79**

TUN-O-LUBE MIRACLE ACTIVATED TUNER CLEANER

CHEMTRONICS' "Non-Drift" TUN-O-LUBE with activated TC-3 is a non-inflammable, non-toxic tuner cleaner . . . designed to clean and lubricate all types of tuners in one operation.

Cat. No. 810 Net. Wt. 8 oz. Dealer Net **$1.98**

Convenient "CADDY SIZE" Cat. No. 301 Net Wt. 3 oz. Dealer Net **98c**

NO-ARC
LTAGE INSULATOR
WITH ACTIVATED SILICONE
Positively PREVENTS ARCING
Eliminates Corona Shorts in High Voltage Circuits
SATISFACTION GUARANTEED or money refunded

HEMTRONICS
NO-ARC
EETS MIL-C-12599
same high quality, Hi-
ge insulation and pro-
on provided in the
sol can above. Pro-
s excellent HV insula-
protection for HV
formers, yokes, etc.
lied with brush appli-

Cat. No. 501-1
2 oz. Bottle
Dealer Net **98c**

Chemtronics
TV-Radio Cement
. . . the most dependable cement known!
TV-Radio Cement

CHEMTRONICS
TV-RADIO CEMENT

is an unexcelled high grade cement especially prepared for repairing speakers. It can also be used for glass or bakelite.

Cat. No. 502-2
2 oz. Bottle
Dealer Net **55c**

Chemtronics
ALL PURPOSE GLUE
. . . the finest glue known
STRONGER • FAST DRYING EASY TO USE
ALL PURPOSE GLUE
SATISFACTION GUARANTEED or money refunded

CHEMTRONICS
ALL-PURPOSE GLUE

The best all-purpose glue for servicemen. Stronger, faster drying, easy to use. Dries to a permanent clear bond. Excellent for joining plastic, glass, wood and metals.

Cat. No. 503-6
2 oz. Bottle
Dealer Net **55c**

Chemtronics
TAPE RECORDER CLEANER
with Miracle Activated TR2
TAPE RECORDER CLEANER

CHEMTRONICS
TAPE RECORDER CLEANER

With miracle activated TR-2 is scientifically designed to clean heads, tape guides, capstan rollers and all other critical parts. Improves fidelity, eliminates tape squeal.

Cat. No. 504-3
2 oz. Bottle
Dealer Net **89c**

New!
NON-INFLAMMABLE
TUN O LUBE
WITH ACTIVATED TC 3
Tuner Cleaner
DESIGNED FOR ALL TUNERS
TUNER CLEANER
SATISFACTION GUARANTEED or money refunded

CHEMTRONICS
TUN-O-LUBE

A bottled version of the high quality aerosol unit described above. The extremely popular non-drift miracle activated cleaner —cleans and lubricates all types of tuners. Non-Inflammable, non-toxic.

Cat. No. 505-4
2 oz. Bottle
Dealer Net **79c**

contains miracle activated cleaner VC3
New! NON-INFLAMMABLE
TROL AID
VOLUME CONTROL and CONTACT CLEANER

CHEMTRONICS
TROL-AID

Equivalent of the Aerosol version described above. A highly successful control and contact cleaner; cleans as well as lubricates. Eyedropper included.

Cat. No. 506-5
2 oz. Bottle
Dealer Net **79c**

BOTTLED ITEMS ALSO AVAILABLE IN PINTS, QUARTS AND GALLONS

CHEMTRONICS INC.
BROOKLYN, N. Y.

electronic chemical new formula . . . **EC-44**

• LUBRICATES
• CLEANS
• CONDITIONS *All* ELECTRICAL CONTACTS

ECONOMICAL! A LITTLE DOES A LOT! 6 oz. spray can **$3.50** Net with **FREE** 5″ plastic extender push button assembly

always insist on . . . **PROVED BRAND NAMES**

ask by name for GENUINE "NOISE" PRODUCT

FREE with
"NOISE"
VOLUME CONTROL
and CONTACT RESTORER
or
"NOISE"
TUNER-TONIC

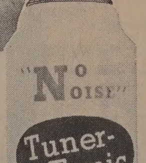
now available **FREE**

5″ PLASTIC EXTENDER

with Push Button Assembly

Fastens easily and securely for the finest pin-point applications. Invaluable on all kinds of jobs. Positively won't cause shorts.

ALL "NO-NOISE" PRODUCTS S WITH MONEY BACK GUARAN


"NOISE"
Tuner-Tonic
with PERMA-FILM
• CLEANS
• RESTORES
• LUBRICATES

"NOISE"

Tuner-Tonic
with
Perma-Film

- Economical—a little does a lot.
- Cleans, lubricates, restores all tuners — including wafer type.
- Non-toxic, non-inflammable.
- Use for TV, radio and FM.

6 oz. Aerosol Can NET To Servicemen **$3.25**

"NOISE"
Volume Con
and
Contact Resto
ELECTRONIC CHEMICAL
SHAKE BEFORE USING

"NOISE"

Volume Control
and
Contact Restorer

• CLEANS
• PROTECTS • LUBRICATES

NOT A CARBON TET SOLUTION

2 oz. Bottle	6 oz. Spray Car
$1	$2.25

NET To Servicemen

At Your DISTRIBUTOR Only

ELECTRONIC CHEMICAL Corp.

JERSEY CITY, NEW JERSEY

electronic chemical • new formula **EC-44**

Economical! A little does a lot! 6 oz. spray can **$3.50** Net

LUBRICATES • CLEANS
CONDITIONS
ALL ELECTRICAL CONTAC
with **FREE** 5″ plastic extende
push button assembly

GC CHEMICALS AND KITS

ELECTRONICS

GC
ELECTRONICS
Radio TV
SERVICE
CEMENT
No. 30-2

GC Chemicals (Cements, Thinners, Paints, Oils, Varnishes, etc.), are available in handy 2 oz. bottles with brush-in-cap. Also supplied in larger sizes.

G-C RADIO-TELEVISION SERVICE CEMENT—This high grade cement is specially prepared for Radio, Television and Speaker Work. Unexcelled for cementing and replacing cones on dynamic speakers, repairing rattling or torn cones, cementing voice coils, spiders, etc.
Cat. No. 30-2 2-oz. Net $ .48

G-C PLASTIC CEMENT—Excellent for cementing broken plastic cabinets, cementing grille cloth in place, cementing dial and glass crystal assemblies, cementing knots in dial, cords, etc.
Cat. No. 32-2A 2-oz. Net $ .48

G-C "BAKELITE" CEMENT—This cement is especially made for cementing "BAKELITE" to "BAKELITE" and to other materials.
Cat. No. 32-2 2-oz. Net $ .70

G-C "VINYLITE" CEMENT—This new G-C Cement based upon "VINYLITE" vinyl resins, has great adhesion, high tackiness and extreme flexibility.
Cat. No. 58-2 2-oz. Net $ .48

G-C HOUSEHOLD and MODEL CEMENT—Fast-drying cement, suitable for many uses. Excellent "Household Cement"; will cement wood, paper, plastics, metal, china, crockery, ceramics, etc.
Cat. No. 45-2 2-oz. Net $ .48

G-C FABRIC AND GRILLE CLOTH CEMENT—For cementing grille cloth and fabrics to either metal, plastic or wood cabinets.
Cat. No. 22-2 2-oz. Net $ .53

G-C WOOD CABINET GLUE—This is the ordinary well-known wood glue that is used in repair of furniture, chairs, radio cabinets, etc.
Cat. No. 39-2 2-oz. Net $ .48

G-C No. 28 CEMENT THINNER— This thinner is made of same solvents as G-C Service Cement and makes the best thinner for G-C Service Cement.
Cat. No. 28-2 2-oz. Net $ .45

G-C RADIO SERVICE SOLVENT—The best solvent for loosening cement on speaker cones, frames, etc., made to dissolve all types of cements. Can also be used as a thinner for G-C Cement and other cements.
Cat. No. 31-2 2-oz. Net $ .45

G-C No. 29 LACQUER THINNER—Solvent for thinning all lacquers, lacquer enamels, telephone black and gray, touch-up lacquers.
Cat. No. 29-2 2-oz. Net $ .45

G-C No. 67 PAINT THINNER—Excellent for Ruf-Koat, Krome-Koat, B-K Cement, Insulating Varnish and Rubber Cements.
Cat. No. 67-2 2-oz. Net $ .45

G-C No. 41 Q-DOPE THINNER—Excellent solvent for Polystyrene, Q-Dope and any other Polystyrene Coil Dopes and Cements. Will soften and disolve polystyrene rous, sheets, etc. Clear water-white solvent will not change characteristics of original materials.
Cat. No. 41-2 2-oz. Net $ .45

G-C RUBBER-TO-METAL & PHONO DRIVE CEMENT
Specially prepared for cementing ruber phono and dial drives to shafts and pulleys.
Cat. No. 35-2 2-oz. Net $ .53

G-C PLIOBOND CEMENT—Bonds anything to anything—iron, steel, plastic, glass, aluminum, cotton, vinyl sheets, stainless steel, etc. A truly universal cement.
Cat. No. 43-2 2-oz. Net $ .53

G-C ELECTRICAL AND RESISTOR CEMENT—Here's the heat-proof cement that hardens like porcelain, same as used on resistors, flat irons, electrical appliances, etc.
Cat. No. 27-2 2-oz. Net $ .48

G-C ACRYLIC-PLEXIGLASS CEMENT — Specially prepared for cementing Lucite, Plexiglass and other arcylic materials.
Cat. No. 40-2 2-oz. Net $ .53

G-C NE-O-PRENE CEMENT—For cementing neoprene rubber to neoprene or neoprene to other products, such as metal, wood, paper, etc.
Cat. No. 52-2 2-oz. Net $ .53

G-C VINYL PLASTIC FABRIC CEMENT—Made for cementing vinyl plastic sheets together. Ideal for vinyl insulating tubings, patching plastic rain coats, covers, etc.
Cat. No. 16-2 2-oz. Net $ .53

G-C LABEL CEMENT—Here's a label cement that will make labels stick to anything—metal, glass, wood, tin, etc.
Cat. No. 46-2 2-oz. Net $ .48

G-C TV HIGH VOLTAGE CORONA DOPE—Prevents corona shorts on high voltage circuits in Television sets.
Cat. No. 47-2 2-oz. Net $ .72

G-C RED-X TV CORONA DOPE—Prevents corona shorts in high voltage circuits in TV sets. Coat surfaces and sharp corners to stop corona effect.
Cat. No. 50-2 2-oz. Net $ .72

G-C TV TUBE KOAT—For recoating the outside of TV picture tubes that have become scratched or the surface is peeling.
Cat. No. 49-2 2-oz. Net $ .72

G-C TV LINE SEAL FOR UHF AND VHF—Outdoor special acrylic sealer for sealing TV wires, terminals, screws, antennas, junction boxes.
Cat. No. 17-2 2-oz. Net $ .53

G-C PHONO NON-SLIP COMPOUND—Prevents slippage of phono drives on changers, tape recorders, and all types of recorder drives.
Cat. No. 86-2 2-oz. Net $ .90

G-C RED GLYPTAL INSULATING VARNISH—Most common of all protective insulating coatings, used on all solder connections, high voltage points, anti-corona.
Cat. No. 90-2 2-oz. Net $ .57

NON-SLIP COMPOUND FOR RADIO DIALS—Powder Compound for treating friction type dial drives such as cords, cabels and belts.
Cat. No. 1210 Non-Slip, 2-oz. Net $ .45

LIQUID NON-SLIP—Penetrating and fast-drying liquid dressing. Shrinks fibres, prolongs life of cables and belts and prevents slipping.
Cat. No. 1211 ½-oz. Net $ .33

G-C DE-OX-ID—Cleans and prevents oxidation on sensitive circuit contacts. Use in Television, Radio, Telephone, Relays, Instruments, etc.
Cat. No. 19-1 1-oz. Net $ .67
19-2 2-oz. Net $ .97

G-C CONTACT AND CRYSTAL CLEANER—A fast-evaporating cleaner specially prepared for cleaning contacts and crystals. Cleans easily and will not injure delicate parts, crystals, etc.
Cat. No. 127-2 2-oz. Net $ .45

NEW G-C ELECTRONIC CONTACT CLEANER—Most popular all-purpose contact cleaner on the market. Fast drying and fast acting. Leaves a non-corrosive film on the contacts that insures long, trouble-free action.
Cat. No. 210-2 2-oz. Net $ .53

G-C DE-NOIZ ELECTRONIC TV CONTACT AND DETENT CLEANER—Stops Noise on all types of contacts, volume controls, tuners, detents, switches, relays, etc.
Cat. No. 51-2 2-oz. Net $ .97

G-C CARBON CONTROL CLEANER—Makes it easy to repair most noisy volume controls, tone controls, switches, band switches, push-buttons—in fact, most all types of moving contacts. A special chemical that both removes oxidation and minimizes future trouble by coating the contacts.
Cat. No. 212-2 2-oz. Net $ .45

G-C CARBON TETRA-CHLORIDE—100% pure Carbon Tetra-Chloride, non-explosive and non-inflammable. For cleaning electrical controls and contacts.
Cat. No. 211-2 2-oz. Net $ .38

G-C LUBE-REX—The best contact cleaner on the market. Fine for attenuators, push-button switches, all-wave switches, contacts, etc. Cleans contacts and prevents corrosion.
Cat. No. 1206 2-oz. Net $ .45

G-C GRAFOLINE—Insures proper and lasting repairs for all air-exposed contacts, switches, and wire-wound volume controls—wherever dust and dirt affect the quiet action of adjustable radio parts or controls.
Cat. No. 120-2 2-oz. Net $ .53

G-C CARBON-X—A practical method to touch up those worn and noisy spots on carbon volume controls.
Cat. No. 1205 2-oz. Net $ .80

G-C CONTACT DOPE—Ideal contact cleaner for electronic switches, controls and contacts. Specially prepared to resist corrosion and oxidation on contacts.
Cat. No. 1214 2-oz. Net $ .48

G-C NON-CORROSIVE LIQUID SOLDERING FLUX—Best quality non-corrosive flux for all types of radio and electrical soldering, for copper, brass, steel, nickel, etc.
Cat. No. 42-2 2-oz. Net $ .48

G-C Q-DOPE (COIL DOPE)—Specially prepared for coating, doping, sealing, cementing and impregnating coils and paints in "Very High" and "Ultra High" frequency ranges.
Cat. No. 37-2 2-oz. Net $ .48

G-C LIQUIDOPE—Gives coils a tough protective film that insures firmness and prevents characteristic changes due to weather.
Cat. No. 36-2 2-oz. Net $ .53

G-C INSULATING & DIPPING VARNISH—Produces a smooth, tough film that is water-proof, oil-proof and non-corrosive. Recommended for treating field coils, noisy or buzzing transformers and choke coils.
Cat. No. 56-2 2-oz. Net $ .53

G-C FUNGUS VARNISH—Used on all types of Radio, Electronics and Communication equipment to prevent moisture absorption and fungus growth, when equipment is used in hot and humid climates.
Cat. No. 57-2 2-oz. Net $ .57

G-C STRIP-X—Removes insulating enamel from wires for easy soldering. Use on magnet wire, etc.
Cat. No. 26-2 2-oz. Net $ .67

G-C RECO-STATIC CHASER—Minimize dust accumulation on records and picture tube. Reduces dust attracting static electricity.
Cat. No. 48-2 2-oz. Net $ .45

G-C MAG-NETIK RECORDING HEAD CLEANER—Cleans without injury to the recording head that gradually lose their sensitivity if oxide accumulates.
Cat. No. 53-1 1-oz. Net $ .57
53-2 2-oz. $ .97

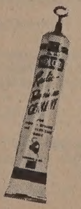
G-C RUF-KOAT—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color)).
Cat. No. 60-2 2-oz. Net $ .67

G-C No. 14-2 PRINT-KOTE SILICONE RESIN—After repairing or replacing parts in printed circuits, protect the panel joints and parts. Fast air drying.
Cat. No. 14-2 2-oz. Net $1.30

G-C No. 13-2 PRINT-KOTE SOLVENT FOR SILICONE RESIN—The only solvent for G-C 14-2 Silicone Resin. Will dissolve and remove silicone resin from printed circuits.
Cat. No. 13-2 2-oz. Net $ .37

G-C PRINT-KOTE SOLDERING FLUX—Non-corrosive liquid flux for easy soldering and repairing of printed circuits.
Cat. No. 12-2 2-oz. Net $ .50

G-C CEMENT SAMPLER KIT—A sampler kit containing a complete selection for every application. Kit includes 2-oz. samples of Service, Pli-O-Bond, Acrylic, Plastic, Bakelite, Vinylite, Grille Cloth, Model, Wood, Rubber-to-Metal, Electrical and Resistor, Neoprene, Label and Vinyl Cements. Ideal for research and development.
Cat. No. 345 Net $5.97



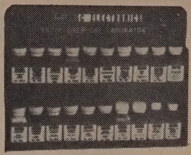
G-C RADIO AND TELEVISION CEMENT—High grade speaker cement in a handy tube for those who prefer to use a tube. Cement can be applied directly from tube on the parts to be cemented without the use of a brush. Also used for television work, sealing nuts, bolts, etc., on antennas, rotators, etc.
Cat. No. 34-2
2-oz. tube Net $ .48

GC CHEMICALS AND KITS

ELECTRONICS

(B)

(D)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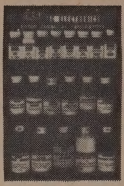
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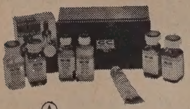
(A)

(C)

(H)

(A) G-C TV CHEMICAL KIT—A complete kit of essential chemicals needed for servicing TV sets. Complete in a handy metal box you can carry with you on the job or keep in the shop.
Cat. No. 904 TV Chemical Kit Net **$6.30**

(B) G-C E.I.A. COLOR CODING KIT—Complete kit of all standard E.I.A. colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Grey and White. Brushes furnished and E.I.A. color chart is on box.
Cat. No. 677 Color Coding Kit Net **$1.47**

(C) G-C DIAL AND SIGNAL LIGHT COLORING—Long-lasting coloring for signal systems, radio dials, decorative lighting, etc. Instant drying. Bright, durable colors of Red, Green, Blue, Amber, Purple and solvent.
Cat. No. 66-5 Kit of 5, no purple Net **$1.23**
66-6 Kit of 6 Net **$1.43**

(D) G-C DIAL AND APPLIANCE OIL—A fine free-running oil for lubricating dial mechanisms, loosening and freeing controls, shafts, etc. Also use on small motors, appliances, etc.
Cat. No. 1245 4-oz. Net **$ .67**

(E) G-C RADIO-TV CHEMICAL LAB—Twenty 2-oz. bottles in permanent rack that can be placed on your bench or hung on the wall. Every needed chemical and cement is included for all kinds of repairs, speakers, coils, contacts, dials, controls. etc.
Cat. No. 997 Net **$12.75**

(F) G-C DELUXE RADIO-TV CHEMICAL LAB—For service shop and industrial plant. Complete practical laboratory designed to the needs of all service men in their everyday work. Ideal for the service man, engineer, experimenter, etc.
Cat. No. 998 Net **$16.17**

(G) G-C ROOF-SEEL COMPOUND—Eliminate callbacks on roof antenna installations by sealing all contacts or fastenings; to the roof.
Cat. No. 18-16 Pint Net **$ .92**

(H) G-C LUMINOUS LITE-KOAT KIT—Long-life, non-poisonous luminous coating that absorbs light in daytime and glows in the dark. Coat or stripe dials, knobs, switch plates, meter boxes, key holes, panels, Instruments, hallways, staircases, etc.
Cat. No. 184-0 Net **$3.23**

(J)

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Soldering
PASTE
(M)

(N) (O)

(P)

(Q)

(R)

(S)

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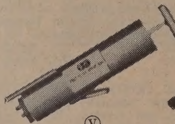
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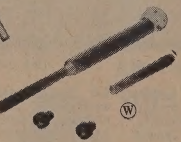
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(J) G-C ELECTRONIC CONTACT CLEANER HYPODERMIC NEEDLE INJECTOR—Here's a handy applicator made on the hypodermic principle to inject cleaners and oils into shafts, controls and tight places.
Cat. No. 8383 Net **$ .48**

(K) G-C DE-OX-ID KIT WITH NEEDLE INJECTOR—Kit contains 2 oz. bottle of De-Ox-Id and a hypodermic needle type injector for making it easy to apply.
Cat. No. 8460 Net **$1.42**

G-C CONTROL KLEENER—Cleans and lubricates Volume, Brightness, Tone and other controls. Also good for push buttons, switches, contacts and tuners.
Cat. No. 65-16 16-oz. Net **$1.95**

(L) G-C NON-TOXIC ELECTRO-TET CLEANER—Chlorothene, one of the least toxic of the Chlorinated Solvents. Closely parallels Carbon Tetrachloride, but much safer. Non-inflammable and fast drying.
Cat. No. 10-G 1 Gallon Net **$7.08**

G-C KLEEN-TEX CLEANER—A safe, slow-burning, high flash, inexpensive cleaner for motors, chassis, vacuum cleaners, etc. Removes grease, oil, wax and tars.
Cat. No. 11-G 1-Gallon Net **$3.27**

(M) G-C SOLDERING PASTE—New high quality, non-corrosive soldering paste for radio and electrical work.
Cat. No. 1207 2-oz. Net **$ .42**

(N) G-C PHONO-TURNTABLE MOTOR & GEAR LUBRICANT—A new special lubricant for phonographs. Formulated so that the lubricant clings to the surface of the parts. Eliminate trouble on phono repairs by using the best.
Cat. No. 1223 2-oz. Net **$ .53**

(O) TRANSISTOR Z5 SILICONE COMPOUND—G-C Silicone Compound is applied to transistor and chassis at the factory. IT MUST BE RE-APPLIED to transistor and chassis when replacing transistors.
Cat. No. 8101 1-oz. Net **$2.10**

(P) G-C RUF-KOAT WRINKLE VARNISH—The only finish that will air dry and give you a professional wrinkle job without baking. Colors: Black, Gray and Brown (Specify Color).
Cat. No. 60-2 2-oz. Net **$ .67**

(Q) RUF-KOAT SPRA-KOAT—In power spray cans.
Cat. No. 60-12 12-oz. Black Net **$2.25**
60-13 12-oz. Gray **$2.25**

(R) G-C FELT-KOAT FLOCK FINISH SPRAY KITS—The new G-C method of applying flock with the G-C patented gun. It distributes flock evenly and blows each fibre into the undercoat vertically with great power. The flock in reality "flocks to the undercoat in a heavy velvet coat."
Cat. No. 180-2 Deluxe Kit Complete Net **$11.10**

(S) G-C FELT-KOAT FLOCK—Genuine rayon flock 1/16" length fibers. Colors available: Brown, Taupe, Blue, Black, Ivory, Red, Green and Gold. Specify Color wanted.
Cat. No. 180-5 Flock, Kit Size, 2-oz.
Sifter/Can Net **$1.07**

(T) G-C FLOCK SIZING UNDERCOAT—A neutral base undercoat. This is first applied to the surface being flocked and then the flock spread over the wet surface.
Cat. No. 180-4 4-oz. Net **$ .72**

(V) G-C FELT-KOAT SPECIAL FLOCK PATENTED BLOWER GUN—This gun distributes the flock evenly and blows each fibre into the undercoat vertically with great force, thereby giving a smooth, velvet finish.
Cat. No. 180-3 Flock Blower Gun Net **$4.50**

(W) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust.
Cat. No. 9285 Net **$4.50**

(X) CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operating conditions.
Cat. No. 9339 Complete Kit Net **$ .75**

FREE 400-PAGE CATALOG

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GC ELECTRONICS

CHEMICALS AND KITS

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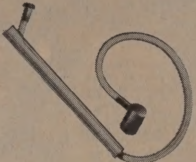
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(A) NEW REK-O-MAGIC ANTI-STATIC SPRAY—Eliminates abrasive dust that ruins records. Cleans and keeps clean. Easy to use.

Cat. No. 98-12 12 oz. Net $1.88

(B) DE-OX-ID—Electrical contact cleaner for silver, detent and radar contacts. Use in television, radio, telephone, relays, instruments, etc., the greatest development in electronic contact fluids.

Cat. No. 19-6 6 oz. Net $2.33

(C) K-27 PRINT-KOTE—T-V Silicone resin for printed circuits. This is the original clear silicone resin as used by manufacturers on all printed circuit sets. It insulates, protects and prevents shorts.

Cat. No. 14-6 6 oz. Net $2.42

(D) SPRA-KLEEN—Eliminates noise due to dust, dirt and corrosion on electrical contacts the easy way. Just spray onto contacts or controls.

No. 8666 6 oz. Spray Can Net $ .99

NEW 16 OUNCE KING SIZE THAT SPRAYS UPSIDE DOWN. A full 16 ounces that works equally well right side up or upside down for those hard to reach places.

No. 8666-16 16 oz. Spray Can Net $1.95

(E) ZERO-MIST SPRA KOAT—Instantly locates defective circuit components of an intermittent nature due to temperature change. Circuits cooled instantly . . . intermittent components isolated.

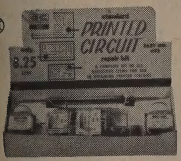
Cat. No. 8667 16-oz. Net $2.42

(F) G-C FLEX-SOL SPRA-CAN EXTENSION—The device that adapts Spra-Cans to ANY use. Now you can reach and clean controls and tuners without removing them from the chassis. Speeds up and simplifies bench work.

Cat. No. 9344-1 Net $ .68

(G) NEW GUN TYPE SPRAY CAN HANDLE—Converts any spray can to a professional spray gun. The easy method of applying paints, service chemicals, cleaners, special finishes, etc. is made even easier!

Cat. No. 9288 Net $ .89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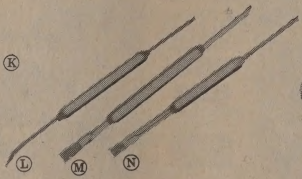
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(H) NEW G-C STANDARD PRINTED CIRCUIT KIT—Includes one box each of foil, solder washers, solder wire, one solder probe tool and brush, silicone resin lacquer and solvent, tweezers and complete instructions.

Cat. No. 682 Net $4.95

(I) G-C MASTER PRINTED CIRCUIT KIT—Includes all items in G-C standard kit plus one Ungar Soldering iron with one special tip and a 6-oz. spray can G-C No. 14-6 Print-Kote Silicone Resin Spray and complete instructions.

Cat. No. 683 Net $9.50

(J) G-C No. 680—PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—Here's a complete kit with the materials you need to repair any Printed Circuits in radio and TV sets using Printed Circuits. Used by leading set manufacturers.

Cat. No. 680 Net $5.85

G-C No. 681—TV PRINTED CIRCUIT SILICONE RESIN SERVICE KIT—No. 681 kit is the same kit as No. 680, except the 21-1 Pure Silver Print is not included in kit.

Cat. No. 681 Net $3.48

(K) G-C PRINT-KOTE SILICONE RESIN SPRAY—Genuine Silicone Resin as used by leading TV set manufacturers to protect printed circuits. After repairing or replacing parts in printed circuit sets.

Cat. No. 14-6 6-oz. Net $2.42

(L) G-C No. 9093 PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.

Cat. No. 9093 Net $1.00

(M) G-C No. 9094 PRINT-KOTE BRUSH AND SCRAPER—Fine stainless steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits before any repair can be made.

Cat. No. 9094 Net $ .98

(N) G-C HEAVY DUTY SOLDERING AID TOOL—One end has a stiff wire brush for cleaning wire and terminal strip before soldering, and the other end is machined to hold the wires while being soldered.

Cat. No. 9088 Net $1.00

(O) G-C PRINT-KOTE SOLDER—Special non-corrosive flux and low-melting solder combined with Pure Silver.

Cat. No. 9131 11-foot Coil Net $ .52

(P) G-C SILVER PRINT—Same Pure Silver compounded as used by manufacturers in printed circuit design. Repair those printed circuits, touch up circuit around eyelets, rivets, parts, etc.

Cat. No. 21-1 ½ Troy oz. Net $2.47
21-2 1 Troy oz. $4.75

NEW G-C COPPERPRINT—Excellent for repairing printed circuits. A high conductive, fast drying compound to touch up printed circuits.

Cat. No. 20-2 2 oz. Net $1.43

(R) G-C SKRATCH STIKS—Available for Walnut, Mahogany and Light Wood. Removes scratches on all shades and colors of woods—makes them vanish like magic.

Cat. No. 909-W Net $ .48

(S) G-C No. 900 MASTER DELUXE CABINET REPAIR KIT—With this Master Repair Kit all repairs can be made even for the most exacting customer. All of the essentials for a really satisfactory repair job are included in this Kit. Our new spirit stains, varnishes and enamels are included in this kit (all spirit solvent).

Cat. No. 900 Master Deluxe Kit Net $9.10

G-C No. 901 CABINET REPAIR KIT—Here's a kit that is second to none. It is a complete kit that will meet any emergency or do any repair job. With this kit you can repair wood cabinets, as well as plastic and bakelite cabinets, knobs, etc. On dents or nicks you can use the shellac sticks and melt them in with the spatula and alcohol lamp.

Cat. No. 901 Net $6.57

No. 907 MASTER CABINET TOUCH-UP KIT—A high-grade, complete fast Touch-Up Kit for repairing scratches and dents on radio cabinets and furniture.

Cat. No. 907 Touch-Up Kit Net $4.78

(T) G-C MAGIC SCRATCH REMOVER KIT—This kit is a combination of 6 shades of Scratch Crayon fillers and Light and Dark Scratch Fluid.

Cat. No. 915 Net $2.25

1
KRYLON
Electronic Contact
CLEANER
LUBRICANT
SPRAY
No. 1324
2
Dry in 20 Minutes
Top Coat in 2 Hours
KRYLON
RUST
MAGIC
METAL PRIMER SPRAY
STOPS RUST
No. 1317
KRYLON
RUST MAGIC
METAL PRIMER
STOPS RUST
No. 13173
3
SEMI-DRYING
KRYLON
DULLING
SPRAY
No. 1310
ELIMINATES GLARE FROM REFLECTING SURFACES
4
KRYLON
All-Purpose
SILICONE
SPRAY
No. 1325
STOPS SQUEAKS
STOPS STICKING
REPELS WATER
5
KRYLON
RUST
RELEASE
PENETRATING OIL
SPRAY
No. 1326
6
PROTECT IT WITH
KRYLON
CRYSTAL
CLEAR
SPRAY COATING
No. 1302
RADIO, TV, ELECTRONICS
7
KRYLON
GLOWING
Fluorescent
SPRAY PAINT
RED ORANGE—633
DRY IN MINUTES
KRYLON
GLOSSY
WHITE
SPRAY ENAMEL
No. 1501
NO brush muss fuss
8
DRY IN MINUTES
KRYLON
HIGH-HEAT
ALUMINUM
SPRAY PAINT
No. 1402
NO brush muss fuss

KRYLON SPRAYS SPEED YOUR WORK

No fuss—no muss

1. CLEANER-LUBRICANT—For tuners, volume controls, switches. Provides long-lasting protection from corrosion. Removes dirt and gummy deposits. Leaves a non-drying film lubricant. Comes with 5-in. plastic tube for hard-to-reach areas. 16 oz., only $1.95; 6 oz., 98c.

2. RUST MAGIC—Tough, penetrating primer. Stops rust, protects metal. Dry in 20 minutes . . . top coat in 2 hours. Compatible with lacquers, enamels, vinyls, acrylic latex finishes, etc. 16 oz., $1.79. Also available for brush application.

3. DULLING SPRAY—A "must" in TV and photographic studios. Reduces glare and reflections from shiny surfaces. Simplifies lighting. Use for both black & white and color work. Semi-drying, removable. 16 oz., $1.95.

4. SILICONE ALL-PURPOSE SPRAY—Stops sticking and squeaking of doors, windows, drawers, hinges. Lubricates and protects at same time. Retards rust on metals. Repels water. 16 oz., $1.95; 6 oz., 98c.

5. RUST RELEASE—Penetrating oil spray, instantly a easily frees rusted bolts and nuts that a wrench ca budge. Lubricates as it penetrates. Easy to use. 16 o $1.69; 6 oz., 98c.

6. CRYSTAL CLEAR—Acrylic spray coating for T radio, electronic use. Protects against humidity and du Prevents rusting and pitting. Has high dielectric streng 16 oz., $1.95; 6 oz., 98c.

7. BEAUTIFUL COLORS—Choice of 26 regular enan colors and 7 glowing fluorescent paints. Use for repai ing, color coding, touch-up or safety. Indoors or ou doors. Enamels: 16 oz., $1.79; 6 oz., 98c. Fluorescen 16 oz., $2.79; 6 oz., $1.19.

8. HIGH-HEAT ALUMINUM—Withstands temperatu up to 500°F for long periods . . . up to 1000° for int mittent periods. Exceptional film thickness. 16 oz., $2.

If you prize it . . . KRYLON-ize it!

Contact your radio-TV jobber or write for Krylon's new industrial products catalog

KRYLON INC., NORRISTOWN, PA

Heeger, Inc., Los Angeles, California, as national sales administrators, present the following chemicals that have found favor with engineers, laboratory technicians and production in industry, to assist them in procuring the best proven material to enable them to arrive at the best results.

PROPELLON
Patent Applied For
Instant Freeze
For Detecting Defective Electrical and Electronic Parts, due to Thermal Intermittance
Propellon gives a much colder freeze and also, quicker than Competitive Brands, so it takes a shorter blast to accomplish Superior results; therefore use Propellon always.
Product of H.M.H. Industries Whittier, Calif., U.S.A.
Net Wt. 6 Oz

From the laboratories of

H. M. H. INDUSTRIES

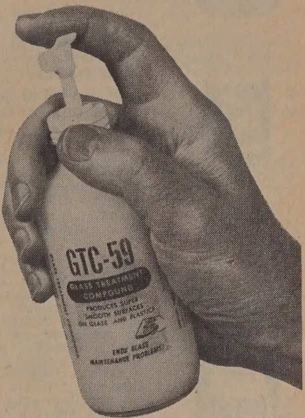
PROPELLON INSTANT FREEZE

Used by electronic engineers and technicians for detecting defective electronic and electrical parts, due to thermal intermittance. Valuable in the laboratory, field testing, service bench or field work, maintenance of equipment and in the electronic and electrical analysis of trouble. Propellon "Instant Freeze" delivers the lowest temperature practical for above uses. Odorless, non-toxic and non-flammable.

The extender facilitates in directing the spray directly onto the area tested. Also aids in getting into inaccessible places.

PACKED IN 6 OZ. CANS WITH 12" EXTENDER FREE WITH EACH CAN

6 OZ. CAN WITH 12" EXTENDER ....ea. $1.45


GTC-59
GLASS TREATMENT COMPOUND
PRODUCES SUPER SMOOTH SURFACES ON GLASS AND PLASTICS
ENDS GLASS MAINTENANCE PROBLEMS

From BEAVER LABORATORIES

GTC-59

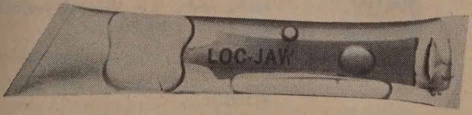
GLASS TREATMENT COMPOUND

Produces super-smooth surfaces on glass and plastics. Water repellent, smear proof and anti-static and imparts a lustrous glaze that stays dust and dirt free 10 times longer.

1. Cleans and degreases in one application.
2. Deposits tough, super-smooth and water repellent protective hard surface.
3. Cancels static fields which attract dirt and dust.
4. Keeps surface free of carbon dust build-up and other foreign matter 10 times longer.

Satisfaction guaranteed.

6 oz. bottle with sprayer....1.00 16 oz. can....2.00 32 oz. can....3.50 Gal. can....12.00



From the laboratories of

HASCOL ENTERPRISES

LOC-JAW

A SCIENTIFICALLY COMPOUNDED ADHERENT FORMULA

"Loc-Jaw" is an "Epoxy" base compound for bonding metal to metal, glass to metal, glass to glass, glass to wood, wood to wood, metal to wood, etc. Properly proportioned, it hermetically seals small parts and connections. After setting, it actively resists salt water and salt air, gasoline, chemicals and solvents of all types and withstands temperatures up to 300° F. Applicable to many industrial uses. Packed in its own plastic container and applicator. Indispensable where an adherent or sealer is needed.

INDIVIDUAL PLASTIC CONTAINER ....ea. 50c

BAG OF 10 ....per bag 4.50

Liqui-tape
LIQUID INSULATING TAPE
A superior insulator that's faster and easier to use!
JUST BRUSH IT ON
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From BEAVER LABORATORIES

LIQUI-TAPE

LIQUID INSULATING TAPE

A superior insulating compound that's faster and easier to use. This unique product was developed to meet the specialized demands of industry. Close spacing, moisture barriers, mechanical seals and electrical insulation are only a few of the uses for Liqui-Tape. May be applied after hard to get at equipment is installed. Dries to a hard pliable surface that will not crack, chip or peel.

SOME OF MANY USES

Damp proofing, for added insulation, motor winding, electrical connections, sealing compound, tool handles, rust proofing, all terminal connections, cementing compound, shock proofing, anti-corona compound, weather seal.

2 oz. Bottle....$ 1.00 32 oz. Bottle..$10.00
16 oz. Bottle..$ 6.00 Gallon $26.75

From HASCOL LABORATORIES

SAL-MET

NON-CORROSIVE FLUX

- **SOLDERS COPPER TO ALUMINUM**
- **ALUMINUM TO ALUMINUM**
- **SOLDERS ALL METALS**

A scientific laboratory non-corrosive flux for soldering all metals. By using "SAL-MET," copper can be soldered to aluminum, aluminum to aluminum, copper to steel, copper to copper; in fact, any metal to metal is possible. No special preparation on material to be soldered. Use conventional solder, applied with quick heat, regular soldering iron, torch or pot.

1 oz. Tubes ....ea. .72c
1 lb. Can ....ea. $5.65

SAL-MET
SOLDERS ALL METALS
NON CORROSIVE
FLUX
HASCOL ENTERPRISES

PRICES SUBJECT TO CHANGE

L M B • LOS ANGELES, CALIF.

Walsco ELECTRONICS SPRAY CHEMICALS

KLEEN-TUNE
TV
TUNER
CLEANER
40-800

KLEEN-TUNE

TUNER CLEANER

Completely cleans and lubricates all tuners. Kleen-Tune is a non-flammable, non-toxic cleaner . . . formulated to clean, lubricate and renew all styles of TV tuners in one simple operation.

Kleen-Tune provides a protective film against noise and oxidation and is not harmful to other components. Just apply Kleen-Tune, then work the control a few times. Kleen-Tune does the rest. Saves time and money.

Kleen-Tune is easy to apply, dries quickly and gives complete satisfaction to the serviceman and customer.

Cat. No. 40-800 Net **$1.98**
Std. Pkg.: 12

KLEEN
TV TUNER
CLEANER

TUBE CADDY SIZE

KLEEN-TUBE
TUNER CLEANER

Same High Quality Tuner cleaner in a 3 oz. spray can that fits in tube caddies.

Cat. No. 40-300 Net **$ .98**

INSUL-VOLT
Hi-Volt
INSULATOR
40-804

INSUL-VOLT

HI-VOLTAGE INSULATOR WITH SURE SHOT CONFINED STREAM

Insul-Volt is specifically designed to meet the requirements of Military Specification MIL-V-1137-A, Grade BA, Types M & N.

Insul-Volt is positive insulation against Hi-Voltage leaks, arcing and corona shorts such as Hi-Voltage sections of TV sets, or any electrical apparatus requiring this superior protection.

Insul-Volt is formulated and recommended for application and use on transformers, electrical motors, generators and other types of electrical windings, operating at a maximum temperature of 275°F.

Insul-Volt is flexible, heat and acid resistant and impervious to oil, grease and moisture. Insul-Volt is an excellent protection for any exposed wiring or open connection requiring positive lasting insulation. Insul-Volt when applied properly will provide better than 20,000 volts and up of dielectrical strength. Follow directions carefully to insure maximum Hi-Voltage dielectric strength.

Cat. No. 40-804 8 Oz. Spray Can Net **$2.79**
Std. Pkg.: 12

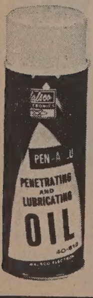
FREEZE-MIST
FAST ACTING
CIRCUIT
COOLER

FREEZE-MIST

CIRCUIT COOLER

Saves hours locating defective intermittent circuit components caused by temperature changes. Walsco Freeze-Mist cools instantly pinpointing faulty capacitors, resistors, transistors, cold solder and oxidized junctions, etc. due to temperature variances. Plus thousands of other uses in electronic field.

Cat. No. 40-800 8 oz. Spray Can Net **$1.98**
Std. Pkg.: 12



PEN-A-LUBE

VERY FINE PENETRATING & LUBRICATING OIL FROZEN YOKE REMOVER

Pen-A-Lube is a formulation of very fine penetrates and lubricants formulated for those hard to get at spots.

Pen-A-Lube is highly recommended as a lubricant for use on delicate instruments, record changes, tape recorders and stereo controls.

Pen-A-Lube's exacting formulation gives you positive action against rust and corrosion. Pen-A-Lubrication as a liquid wrench for loosening badly rusted or frozen parts such as frozen yokes or rusty control nuts and screws has been found to be highly effective.

Pen-A-Lube provides the answers to questions concerning rust, penetration, lubrication and is a very fine all purpose light machine oil.

Cat. No. 40-812 8 oz. Spray Can Net **$1.79**
Std. Pkg.: 12

OX-NOX
VOLUME
CONTROL
and CONTACT
CLEANER

OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Ox-Nox is the answer for removing oxidation and noise from volume controls and electrical contacts. Ox-Nox cleans, lubricates and restores controls and tuning condensers back to like new operating condition.

Ox-Nox is a non-inflammable and non-toxic cleaner and lubricant. Ox-Nox is blended to provide against oxidation and noise.

Cat. No. 40-802 8 Oz. Spray Can Net **$1.98**
Std. Pkg.: 12

OX-NOX
VOLUME CONTROL
and CONTACT
CLEANER

TUBE CADDY SIZE OX-NOX

VOLUME CONTROL & CONTACT CLEANER

Same High Quality cleaner in handy 3 oz. tube caddy sized spray can.

Cat. No. 40-302 Net **$ .98**

KLEEN-VUE
TUBE
AND SHIELD
CLEANER
and POLISH
ANTI-STATIC

KLEEN-VUE

ANTI-STATIC — TUBE AND SHIELD CLEANER & POLISHER

Kleen-Vue is an anti-static, non-staining and non-abrasive tube and shield cleaner and polisher for glass, plastic and wood.

Kleen-Vue gives you the wanted protection against dust, dirt and grime. Kleen-Vue does not leave a filmy coating but imparts a crystal clear view.

Kleen-Vue is sprayed on lightly and wiped dry with a clean cloth leaving a crystal clear view.

Cat. No. 40-806 8 Oz. Spray Can Net **$1.79**
Std. Pkg.: 12

KLEEN-UP
WATERLESS
HAND
CLEANER
WITH LANOLIN
40-810

KLEEN-UP

WATERLESS HAND CLEANER

Walsco's own waterless hand cleaner Kleen-Up is so simple to use — just press the button. Using a handful of suds, wash hands and wipe off with clean towel.

Kleen-Up is ideal for every type of hand cleaning problem whether it's grease, grime, cement or ink. Kleen-Up does not contain harsh abrasives or strong irritating chemicals.

Kleen-Up is formulated from high grade liquid detergents fortified with lanolin and germ killing trichlorphenate with an aromatic additive. Kleen-Up is considered a very fine hand and skin conditioner and regular use is not harmful.

Cat. No. 40-810 8 Oz. Spray Can Net **$1.49**
Std. Pkg.: 12

Walsco
ELECTRONICS
UNI-SOL
UNIVERSAL
SOLVENT
AND
THINNER
NON TOXIC
40-814

UNI-SOL

UNIVERSAL SOLVENT & THINNER FOR CEMENTS, LACQUERS AND LIQUID INSULATORS

Uni-Sol is the all purpose fast acting solvent to loosen and remove most cements, liquid insulators and thinners and all commercial lacquers.

Uni-Sol is a specially engineered safe solvent and thinner prepared as a loosening agent in speaker repair to remove old cones, frames, spiders and voice coils.

Walsco's Uni-Sol is highly recommended for use as a general purpose all around loosening and thinning agent.

Cat. No. 40-814 8 Oz. Can Net **$ .98**
Std. Pkg.: 12

© U.C.P., Inc.

Walsco ELECTRONICS

CHEMICALS

(A) WALSCO CONTACTENE

Lubricates as it cleans; fast acting, quick drying. Eliminate volume control noise with this specially compounded electronic contact cleaner. Absolutely anti-oxidant.

Cat. No.		Net $
80-02	2-oz. bottle	.53
80-04	4-oz. bottle	.67
80-08	8-oz. bottle	1.13
80-16	16-oz. can	1.50
80-06	6-oz. spray can	.98
80-12	16-oz. spray can	1.95

(B) CONTACTENE INJECTOR

A fine surgical-grade steel needle. Designed to be inserted into places where ordinary applicators cannot reach. Makes lubrication of most volume controls and other parts possible without unsoldering or dismantling.

Cat. No. 989 Net $ .45

(C) CHLOROTHENE (NON-TOXIC)

An amazing, new powerful solvent for all-purpose cleaning of any electronic component, switch, chassis, etc. Quickly dissolves grease, dirt, oils, tar, and waxes. Safe even indoors, under normal conditions.

Cat. No.		Net
113-04	4-oz. bottle	$ .57
113-16	16-oz. bottle	1.32

(D) WALSCO RADIO CEMENT

A fast drying, elastic adhesive that will not become brittle with age. Compounded especially for speaker repair. Not affected by cold or high temperature, moisture or oil.

Cat. No.		Net $
50-01	1¾ oz. tube	.48
50-02	2 oz. bottle	.48
50-04	4 oz. bottle	.72
50-08	8 oz. bottle	1.27
50-16	1 pt. bottle	2.18

(E) WALSCOLUB-B

Electrically neutral lubricant that prevents corrosion. Walscolub-B makes for smooth, noise-free operation of electrical contacts, band switches, attenuators, push button tuners, remote control switches and other contacts.

Cat. No. 22-01 1¾ oz. tube Net $ .48

(F) WALSCO "NO-OX"

A liquid, non-gumming chemical that dissolves corrosion with amazing speed without the use of drastic solvents. Lubricates and protects slide contacts long after application.

Cat. No.		Net $
100-01	1 oz. bottle	.67
100-02	2 oz. bottle	.97
100-16	1 pt. bottle	7.50
100-33	1 gal. can	38.17
100-34	5 gal. can	177.99
100-06	6 oz. spray can	2.33

(G) WALSCO "LUBRIPLATE"

Super lubricant, grease type, protective. Lubriplate reduces friction loss, prevents rust and corrosion. Extends bearing life 50% . . . increases mechanical efficiency 20% over ordinary lubricant.

Cat. No. 23-02 2 oz. tube Net $ .67

(H) DIAL CORD FRICTION STICK

To prevent slipping, simply rub Walsco Friction Stick on dial cord or belt. Increase grip, lengthens life of cord.

Cat. No. 259-01 Net $ .25

(J) WALSCO GLYPTAL

An outstanding insulating varnish. Resists heat, oils and acid. High arc resistance makes it essential in electrical and electronic application.

Cat. No.		Net $
134-02	2 oz. bottle	.57
134-08	8 oz. bottle	1.65

(K) WALSCO RED CORONA DOPE

Positively stops high voltage "Corona". Protects against "shorts" in high voltage circuits of TV sets. Completely coat surfaces and sharp corners to stop dangerous corona effect.

Cat. No. 198-02 2 oz. bottle Net $ .72

WRINKLE
VARNISH

AIR-DRY WRINKLE VARNISH

Factory like finish without baking. Can be used on wood or metal. Gives a hard tough, durable finish. Covers in one, easy to apply coat.

Cat. No.		Net $
145-02	Black, 2 oz. jar	.67
145-06	Black, 6 oz. jar.	1.87
145-12	Black, 16 oz. Spray can	2.25
145-33	Black, 1 Gallon Can	15.17
146-02	Gray, 2 oz. jar	.67
146-06	Gray, 6 oz. jar	1.87
146-12	Gray, 16 oz. Spray can	2.25
146-33	Gray, 1 Gallon Can	15.17

WALSCO SOLVENT AND THINNERS

TYPE CEMENT	USE SOLVENT	CAT. NO.	QTY.	NET
Plastic Cement Radio Cement	*Cement Solvent	201-02	2 oz.	$ .45
		201-04	4 oz.	.72
		201-08	8 oz.	.82
		201-16	16 oz.	1.32
		201-33	1 gal.	4.80
Polystyrene Cement	Polystyrene Solvent	202-02	2 oz.	.45
		202-04	4 oz.	.67
		202-33	1 gal.	3.68
Vinylite Cement Radio Cement Crystallizing Lacquer Fungus Lacquer Telephone Black & Grey Light Bulb Coloring Anti-Corona Lacquer CR-Tubecoat	Lacquer	203-02	2 oz.	.48
		203-33	1 gal.	4.95
		203-34	5 gal.	21.30
Rubber Cement Wrinkle Varnish Flock Undercoat	Thinner	204-04	4 oz.	.67
		204-33	1 gal.	3.68
Elec. & Resistor Cement Wood Glue Aluma-Flux	Water			

* Cement Solvent should be used to loosen hardened cement on speaker cones, voice coils, etc., Solvent will discolor Plastic and Radio Cements if used as a thinner; Lacquer Thinner is recommended for this purpose.

"QUIETROLE"...

TRADE MARK REG. U.S. PAT. OFF.

the original LUBRICANT CLEANER

SPRAY IT or DROP IT...

QUIETROLE
TRADE MARK REG. U.S. PAT. OFF.
NON-INFLAMMABLE . NON-CONDUCTIVE
Spray-Pack
LUBRI-CLEANER
for
TV Tuners
AND ALL OTHER CLEANING & LUBRICATING JOBS WHERE SPRAY APPLICATION IS DESIRABLE.
manufactured by
QUIETROLE
COMPANY, Inc.
Spartanburg, South Carolina

the New QUIETROLE SPRAY-PACK

or the

QUIETROLE BOTTLE with the Eye Dropper

"QUIETROLE" is the preferred, standard product of the industry! Your guarantee for quieting noisy television and radio controls, switches and other moving parts is QUIETROLE. Here is the original, non-inflammable, most reliable lubricant-cleaner on the market today—developed through years of factual and authentic research.

There is no substitute for QUALITY . . . get QUIETROLE TODAY

A First of the Industry . . . A Twelve Year Plus Record of Proven Superiority. Built to Meet a Demand, Not a Price

QUIETROLE BOTTLE

Size	Cat. No.	Min. Order	Min. Re-order	Distr. Net Resale Price
2 oz.	10-2	24	24	$1.69
4 oz.	10-3	16	8	2.54
8 oz.	10-4	8	6	5.07

Effective Savings on Gross Lot Purchase 10-2 Size

QUIETROLE SPRAY-PACK (CAN)

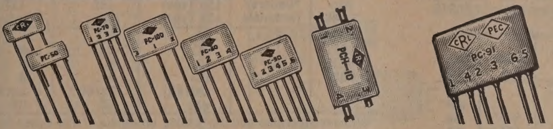
6 oz.	10-5	12	12	2.79

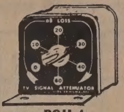
QUIETROLE
TRADE MARK REG. U.S. PAT. OFF.
TV
AND RADIOS
LUBRICANT
& CLEANER
STOPS NOISY OPERATION OF CONTROLS & SWITCHES
WITHOUT REMOVAL FROM CHASSIS

Mfd. by

QUIETROLE *COMPANY, SPARTANBURG, S. C.*

Centralab. Packaged Circuits





PCH-4

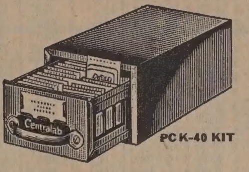
TA-12-B

PACKAGED ELECTRONIC CIRCUITS

These compact units contain resistors, capacitors, conductors and in some instances, inductance integrally bound to a ceramic base plate. Completely sealed against moisture, temperature change and shock. **Write for your Free copy of the current Packaged Electronic Circuit Guide.**

CRL No.	Description	Net Each
PC-2	Single Resistor	$0.60
PC-21	Series Resistor	.60
PC-30	Series R-C Network	.60
PC-33	Series R-C Network	.60
PC-36	Parallel R-C Network	.60
PC-37	Parallel R-C Network	.60
PC-50	Diode Filter	.60
PC-51	Diode Filter	.60
PC-52	Diode Filter	.60
PC-60	Parallel R-C Network	.60
PC-61	Parallel R-C Network	.60
PC-70	Triode Couplate*	.60
PC-71	Triode Couplate*	.60
PC-80	Triode Couplate*	.60
PC-81	Triode Couplate*	.60
PC-82	Triode Couplate*	.60
PC-84	Triode Couplate*	.60
PC-90	Pentode Couplate*	.90
PC-91	Pentode Couplate*	.90
PC-92	Pentode Couplate*	.90
PC-100	Vertical Integrator	.75
PC-101	Vertical Integrator	1.05
PC-104	Vertical Integrator	.75
PC-105	Vertical Integrator	.75
PC-106	Vertical Integrator	.75
PC-110	R-C Filter Bypass	.60
PC-111	R-C Filter Bypass	.60
PC-150	Audio Detector Couplate*	.90
PC-151	Audio Detector Couplate*	.90
PC-154	Audio Detector Couplate*	.90
PC-157	Audio Detector Couplate*	.90
PC-158	Audio Detector Couplate*	.90
PC-159	Audio Detector Couplate*	.90
PC-160	Pentode Diode Couplate*	1.20
PC-165	Pentode Diode Couplate*	1.20
PC-166	Pentode Diode Couplate*	1.20
PC-175	R-C Network	.60
PC-176	Integrator	.90
PC-177	R-C Network	.90
PC-178	R-C Network	.60
PC-179	Sound IF Network	.90
PC-184	R-C Network	.75
PC-185	R-C Network	.75
PC-186	Integrator	.75
PC-190	Baxandall Tone Control	1.05
PC-260	Sync. Take-off	.90
PC-262	Sync. Take-off	.90
PC-263	Sync. Take-off	.90
PC-264	Sync. Take-off	.90
PC-304	R-C Network	.75
PC-305	Elect. Organ Network	1.20
PC-306	R-C Network	.75
PC-307	R-C Network	.60
PC-308	Horizontal Oscillator	1.05
PC-309	Retrace Suppression Network	.75
PC-310	First Audio Couplate*	.90
PC-311	Vertical Feed-Back	.75
PC-312	Vertical Integrator	.75
PC-313	Audio Detector Couplate*	.90
PC-314	Retrace Suppression Network	.75
PC-315	Audio Detector Couplate*	.90
PC-316	Sync. Take-off	1.20
PC-317	Audio Couplate*	.60
PC-318	Audio Det. Pentode Couplate*	1.20
PC-319	Phase Comparator	.75
PC-320	Discriminator Network	.75
PC-321	Sync. Sep. Grid Network	.60
PC-322	Electronic Organ Network	.75
PC-323	Electronic Organ Network	.75
PC-324	Compentrol Network	.75
PC-325	Compentrol Network	.75
PC-326	Diode Filter	.60
PC-327	Pentode Diode Couplate*	1.05
PC-328	Pentode Diode Couplate*	.90
PC-329	Sound IF Network	.75
PC-330	Sync. Take-off	.90
PC-331	Diode-Triode Couplate*	.75
PC-332	R-C Network	.75
PC-333	Vertical Integrator	.90
PC-334	Audio Network	.60
PC-336	Retrace Suppression	.75
PC-337	Phase Comparator	.90
PC-338	Sync. Time K Network	$0.90
PC-339	Sync. Time K Network	.90
PC-340	AGC Voltage Divider	.75
PC-341	Series R-C Network	.60
PC-342	FM Balanced Ratio Detector	1.20
PC-343	Diode-Pentode Couplate*	1.20
PC-344	Loudness Contour Network	.90
PC-345	Loudness Contour Network	.90
PC-346	Loudness Contour Network	.75
PC-347	Phono Input Network	.75
PC-348	Diode-Triode Couplate*	.75
PC-349	R-C Network	.60
PC-350	Integrator Network	.90
PC-351	De-Emphasis Network	.60
PC-352	Sync. Circuit Resistor Bank	.75
PC-353	Horizontal AFC Network	.75
PC-354	Ratio Detector Network	1.05
PC-355	Sync. Coupling Network	1.05
PC-356	Tone Control Network	.75
PC-357	Phase Detector Network	.90
PC-358	Sync. Coupling Network	1.05
PC-359	Balanced Dual Capacitor	.60
PC-360	Antenna Isolation Network	.60
PC-361	Ant. Filter Output Coupling Network	.60
PC-362	Sync. Take-off Network	.75
PC-363	Tone Control Network	.60
PC-364	Horizontal AFC Network	.90
PC-365	Ant. Filter Output Coupling Network	.60
PC-366	Ground Chassis Circuit	.75
PC-367	Horiz. Oscillator and Phase Detector	1.20
PC-368	Vertical Integrator	.75
PC-369	Phase Comparator Network	.75
PC-370	Horizontal Oscillator Network	.90
PC-371	Audio Couplate*	.75
PC-372	Audio Couplate*	.60
PC-373	Audio Coupling Network	.90
PC-374	Vertical Integrator	.90
PC-375	Phase Comparator Network	.90
PC-376	Retrace Suppression Network	.75
PC-377	Antenna Isolation Network	.60
PC-378	Tone Control Network	.90
PC-379	Audio Coupling Network	.90
PC-380	De-Coupling Network	.90
PC-381	Sync. Coupling Network	.75
PC-382	Parallel R-C Network	.60
PC-383	Parallel R-C Network	.60
PC-384	Series R-C Network	.60
PC-385	Vertical Integrator	.90
PC-386	Vertical Feedback Network	.90
PC-387	IF De-Coupling Network	1.05
PC-388	Yoke Balancing Network	.90
PC-389	Yoke Balancing Network	1.05
PC-390	Audio Detector Couplate*	.90
PC-391	Sync. Take-off Network	.75
PC-392	Integrator Network	.75
PC-393	Tone Control Network	.75
PC-394	Horizontal Oscillator Network	1.20
PC-395	Vertical Integrator	1.20
PC-396	Video Coupling Network	1.05
PC-397	Sound Detector Couplate*	.90
PC-400	Audio Coupling Network	1.05
PC-402	Twin T Rumble Filter Network	1.20
PC-403	Flip Flop Network	.75
PC-404	Compentrol Network	.75
PC-405	Compentrol Network	.60
PC-406	Audio Network	.60
PC-407	Integrator Network	.60
PC-408	Integrator Network	1.20
PC-409	Phase Detector Network	1.20

*Registered Trade Mark.



PCK-40 KIT

PCK-40 PACKAGED ELECTRONIC CIRCUIT KIT

Contains 40 PEC units in 13 of the most frequently used types. All units packaged in transparent plastic with identification clearly visible. Supplied in one-drawer, sturdy steel cabinet with attractive blue baked enamel finish. **Size:** 11⅛" x 6 9/16" x 4¼". Shpg. Wt., 5 lbs. 8 oz.
CRL No. PCK-40—Net Each... $\$34^{25}$

KIT CONTAINS

Quan.	Part No.	Quan.	Part No.
2	**PC-51**	5	**PC-150**
2	**PC-81**	2	**PC-151**
10	**PC-100**	2	**PC-158**
2	**PC-101**	2	**PC-165**
5	**PC-104**	2	**PC-387**
2	**PC-105**	2	**PC-408**
2	**PC-106**		

PCH-4 TV ATTENUATOR SWITCH

Permits proper attenuation required for best TV reception through use of "H" pads. Eliminates tearing of image due to high powered nearby stations. Six switching positions from regular antenna to 60 db loss. Comes complete with knob, leads, dial plate and container.
CRL No. PCH-4—Net Each..... $\$6^{00}$

CRL No. PCH-10 (10 db), **PCH-20** (20 db), **PCH-30** (30 db) **or PCH-40** (40 db). **"H" Pads**—Net Each........... 90^{c}

CRL No. PCH-100—Set of 4 "H" pads; one each of above in plastic box. Net Per Set.................... $\$3^{60}$

TA-12-B FOUR-STAGE PACKAGED TRANSISTOR AMPLIFIER

Complete, ultra-miniature audio amplifier has 4 stages, yet only 0.531" dia. x .228" thick. Patented layerized construction assembles resistors, capacitors and transistors in extremely compact and efficient amplifier. Ideal for pocket radios, recorders, mike amplifiers, hearing aids, etc. **Gain:** 78 db min. at 1 kc. **Power Output:** Up to 0.5 mw. **Frequency Characteristic:** ±5 db, 300-20,000 cps. **Input Imped.:** 2,500 ohms, nom. **Signal-to-Noise:** 30 db below signal for signal input of 25 μv at 1 kc, max. Input shorted to ground for no signal noise. **Supply Voltage:** 1.34 v. mercury cell. **Current Drain:** 1.6 to 2.2 ma, nom. **Design Load:** 1,000 ohms imped. at 1 kc; 450 ohms max. DC resistance.

CRL No. TA-12-B—Complete with instructions. Net Each.... $\$45^{00}$

TYPE RC TUBE-R-CAPS®

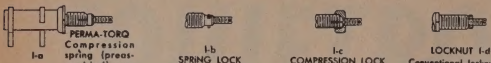
Radial lead ceramic tubular capacitor and resistor in parallel in the same space as a tubular capacitor alone.

CRL No.	Capacitor		Resistor			Size, In. Dia. x L.	Net Each
	$\mu\mu$f	Tolerance	Ohms	Tolerance	Rating		
RC-421	56	±10%	47K	±20%	¼ watt	.260 x .503	**18c**
RC-428	150	GMV	3.3 meg.	±30%	½ watt	.260 x .790	**18c**
RC-431	330	±20%	220K	±20%	½ watt	.260 x .790	**18c**
RC-465	470	±20%	470K	±20%	¼ watt	.260 x .503	**18c**
RC-471	470	GMV	.3-1 meg.	....	½ watt	.280 x .910	**18c**
RC-476	800	GMV	22K	±20%	¼ watt	.260 x .503	**18c**
RC-485	4700	+80, −20%	180	±20%	¼ watt	.260 x .790	**18c**
RC-490	4700	+80, −20%	.75-1.5 meg.	....	½ watt	.330 x .910	**18c**

CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

COIL FORMS

CERAMIC AND PHENOLIC COIL FORMS


I-a PERMA-TORQ Compression spring (preassembled) provides permanent locking action.

I-b SPRING LOCK Locking spring (unassembled) maintains tension against slug screw.

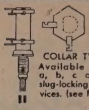
I-c COMPRESSION LOCK Locknut (unassembled) securely clamps split mounting stud.

LOCKNUT I-d Conventional locknut (jam nut) (unassembled) tightens against mounting stud.

Tuning slugs supplied assembled; mounting hardware unassembled. Available wound to specifications in any quantity. Order the following items from CHARTS I and II.

Cambion No.	Fig.	Mounting Stud L. x Thread x Base Dia.	Ht. Above Panel	Body O. D.	‡	Collar O. D.	Net 1-49*
LS3*	III	¼" x ¼-28 x none	1⅛"	⅜"	#	....	$.46
LS4*	V	⅜" x ¼-28 x 9/16"	2.0"	½"	#	....	.68
LS5†	I-b, II-b	9/32" x ¼-28 x ½"	1 1/16"	.375"	⅝"	.545"	.64
PLS5†	I-a, II-a	5/16" x ¼-28 x ½" hex	1 1/16"	.375"	⅝"	.545"	.64
SLS5†	I-c, II-c	27/64" x ¼-28 x ½" hex	1 1/16"	.375"	⅝"	.545"	.66
LS6†	I-b, II-b	9/32" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.59
PLS6†	I-a, II-a	5/16" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.59
SLS6†	I-c, II-c	13/32" x 10-32 x ⅜" hex	55/64"	.260"	15/32"	.430"	.61
LS7†	I-b, II-b	5/16" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.69
PLS7†	I-a, II-a	5/16" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.69
SLS7†	I-c, II-c	29/64" x ¼-28 x ⅝" hex	1 45/64"	.500"	1 1/32"	.670"	.71
LS8†	VI-b	9/32" x ¼-28 x ½"	23/32"	.290"	§	....	.85
PLS8†	VI-a	5/16" x ¼-28 x ½"	23/32"	.290"	§	....	.85
LSM*	IV-d	¼" x 8-32 x 5/16"	27/32"	¼"	15/32"	.365"	.46
LSML*	IV-b	¼" x 10-32 x 5/16"	27/32"	¼"	15/32"	.365"	.46
LST†	I-d, II-d	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
LSTL†	I-b, II-b	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
PLST†	I-a, II-a	¼" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.54
SLST†	I-c, II-c	21/64" x 8-32 x ¼" hex	19/32	.205"	9/32"	.326"	.56
Order the following from Chart III.							
2770†	I-a, II-a	13/32" x 10-32 x ¼" hex	25/32"	.205"	9/32"	21/64"	**
2771†	I-a, II-a	35/64" x 12-28 x ⅜" hex	1 3/32"	.260"	15/32"	7/16"	**

*Body material, phenolic. †Body material, ceramic. ‡Space between collars (-2C4L, -2C2L). #Ring terminals only. §Clip terminals only. **See Chart III for prices.


II

COLLAR TYPE Available with a, b, c or d slug-locking devices. (see Fig. I)

III

IV

Available with b or d slug-locking devices (See Fig. I) and with collars (see Fig. II)

V

VI

CLIP-TER TYP Available or b slug- devices (s

CHART I		CHART II			
Part No. Suffix	*Collars/ Terminals	LSM Types LS6 Types LS8 Types	LS3† LS5 Types	LST Types	Frequenc Range M
-2C4L	2/2 ea.	-F	-C	-I	0.2-1.5‡
-2C2L	2/1 ea.	-E	-B	-H	1-20‡
-CT2L	1 top/2	-O	-N	-P	20-50‡
-CB2L	1 bot./2	-D	-A	-G	30 and u
		-2018B	-2018C	-2018A	100 and
		-NS	-NS	-NS	No slug

*Silicone fiberglas collars, solder terminals. † For brass load, add L to par suffix, as LS3-CL. ‡Powdered iron slug.

Specify slug-locking device, collar and frequency when ordering. For exam PLS6-2C4L/E—PermaTorq® locking device, 2 collars with 2 terminals 1-20 frequency. LST-CB2L/2018A—Locknut type, 1 collar at bottom with 2 minals, 100 and up frequency. SLS7—Compression lock, ring terminals (no lar), no slug.

LS3, LS4, and **LS8** are not available with collars.

CHART III

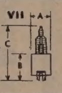
Ordering involves the use of the basic number and two suffixes. Suffix One termines the frequency range; Suffix Two determines the collar, ring and t nal combinations and the price. (i.e., 2770-1-2). **Suffix One:** -1) 0.2-1.5 mc; - 20 mc; -3) 20-50 mc; -4) 30 mc or more; -5) 100 mc or more; -6) 2-40 mc 40-300 mc.

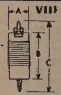
2nd Suffix	Description	Net Each, 1-49 Cambion No. 2770-*	2771
-1	2 ring terminals	$.80	$1.2
-2	2 collars, 4 terminals	.94	1.3
-3	2 collars, 2 terminals	.94	1.3
-4	1 top collar, 2 terminals	.87	1.3
-5	1 bottom collar, 2 terminals	.87	1.3

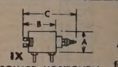
*Be sure to include both first and second suffixes when ordering.

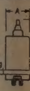
SHIELDED COIL FORMS

Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware included. **Material:** Housing LS9, LS10, LS14, brass with nickel plate; LS11 brass with cadmium plate; all others aluminum with alodine finish. Board, Silicone-fiberglas.


VII
STUD-MOUNT


VIII
DOUBLE-TUNED


IX
SQUARE, HORIZONTAL
Also available without pins.


FLANGE-MOUNT Also available with fixed tuning
X

Paper-Phenolic	Net 1-49*	Poly-penco	Net 1-49*	Kel-F	Net 1-49*	Pwd. Iron	Net 1-49*	Fig.	Size, Inches A x B x C	Flange Dia., In. Max. x Min.	Terminals	Winding Area, Max. L. x O.D. (Inches)	Freq.	Tuning Tool	Notes
LS9	$ .90	LS9-1	$ .96	LS9-2	$1.01	*	*	VII	7/16 x 39/64 x 1 31/64	....	2—6	11/64 x 17/64	Chart I	2033	Mtg. stud 1/
LS10	1.03	LS10-1	1.17	LS10-2	1.22	*	*	VII	⅝ x 57/64 x 2 7/64	....	2—6	13/32 x 29/64	Chart I	1971	Mtg. stud 3/
LS11	.86	LS11-1	.98	LS11-2	1.03	*	*	VII	11/32 x 17/32 x 1⅛	....	2—4	13/64 x 7/32	Chart I	2375	Mtg. stud 1
*	*	LS14	2.50	*	*	*	*	VIII	29/64 x 1 1/16 x 1 25/32	....	4—6	23/32 x 5/16	Chart I	2375	12-32 threa
2560	1.41	2561	1.47	2562	1.53	*	*	IX	½ sq. x ¾ x 1 27/64	....	2—6	11/64 x 17/64	Chart II	2033	Without pin
2565	1.69	2566	1.75	2567	1.82	*	*	IX	½ sq. x ¾ x 1 27/64	....	2—6	11/64 x 17/64	Chart II	2033	With pins
2585	2.00	2586	2.10	2587	2.20	*	*	X	7/16 x 35/64 x 1 5/64	27/32 x 33/64	2—6	11/64 x 17/64	Chart II	2516	Traverse tu
2590	2.30	2591	2.40	2592	2.50	*	*	X	⅝ x 57/64 x 1 43/64	1.0 x 45/64	2—6	13/32 x 29/64	Chart II	2516	Traverse tu
2665	1.41	2666	1.53	2667	1.58	*	*	IX	⅜ sq. x 41/64 x 1⅛	....	2—4	13/64 x 7/32	Chart II	2375	Without pin
2670	1.69	2671	1.82	2672	1.87	*	*	IX	⅜ sq. x 41/64 x 1⅛	....	2—4	13/64 x 7/32	Chart II	2375	With pins
2685	.86	2686	.91	2687	.98	2688	$ .91	X	7/16 x ⅜ x —	27/32 x 33/64	2—6	11/64 x 17/64	Chart II	....	Fixed
2690	.99	2691	1.11	2692	1.17	2693	1.05	X	⅝ x 49/64 x —	1.0 x 45/64	2—6	13/32 x 29/64	Chart II	....	Fixed
2695	.86	2696	.98	2697	1.03	2698	.91	X	11/32 x ⅜ x —	¾ x 27/64	2—4	13/64 x 7/32	Chart II	....	Fixed

*Not Available. See Printed Circuit Coil Form Section for No. LS12.

CHART I

LS9	LS10	LS11	LS14	Freq. MC
-T	-F	-X	-X	0.2-1.5*
-S	-E	-W	-W	1-20*
-U	-O	-Y	-Y	20-50*
-R	-D	-V	Not avail.	30 & up*

*Powdered iron slug.
Specify frequency in combination with number of terminals. For example: LS9-4T—4 terminals. 0.2-1.5 frequency.

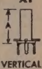
CHART II

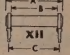
Number of Terminals 2	3	4	5	6	Freq. MC
-1	-5	-9	-13	-17	0.2-1.5*
-2	-6	-10	-14	-18	1-20*
-3	-7	-11	-15	-19	20-50*
-4	-8	-12	-16	-20	30 & up

*Powdered iron slug.
Specify frequency in com tion with number of termi For example: 2562-15—4 minals, 20-50 frequency.

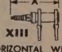
Note: From descriptive charts that not all shielded coil forms are available with all terminal quantities.

PRINTED CIRCUIT COIL FORMS


XI
• VERTICAL


XII
HORIZONTAL

RIGHT-END VIEW FIGS. XII, XIII


XIII
HORIZONTAL WITH PERMA-TORQ®

XIV
SHIELDED

★WRITE FOR DISCOU ON LARGER QUANTIT

No.	Fig.	A‡ In.	Body O.D.	B# In.	Terms./ Collar	C• In.	D▲ In.	Freq. Chart	Net 1-49*
2270†	XII	⅝	.260"	7/16	2	.500	.200	I	$ .74
2271†	XII	⅝	.260"	⅝	2	.700	.200	I	.74
2500†	XII§	1 21/64	.260"	1⅛	2	1.200	.200	I	.98
2501†	XI	⅝	.260"	★	5	.404■	72°	I	.29
2525†	XIII	1 21/64	.205"	21/64	2	.400	.300	II	.96
2530†	XIII	1 47/64	.260"	17/32	2	.600	.300	II	1.09
2540†	XIII	2 11/64	.375"	⅝	2	.700	.400	II	1.16
2550†	XIII	3 11/64	.500"	1 7/32	2	1.300	.400	II	1.35
SPC-11†	XI	⅝	.260"	★	2/6	.404■	Ch. IV	III	.29
SPC-12†	XI	13/16	.260"	★	2/6	.404■	Ch. IV	III	.29
LS12*	XIV	9/16	½" sq.	**	2/6	.136♦	♦	III	.76

*Body material: Phenolic. †Body material: Ceramic. §2 tuning cores. ‡Overall length, less terminals. #Distance between collars. •Length between mtg. terminal centers. ▲Width between mtg. terminal centers. ■Mtg. dia. ♦Basic circle rad. ★1 collar. **No collar. **Note:** Figs. XI and XII: Kel-F Locking insert available (supplied unassembled). Specify by adding suffix L to part number, e.g., 2500L-1, SPCL-11-A-2L. Fig. IV: Supplied with tuning slug assembled; all other parts in bulk. Mounting hardware is included.

CHART I		CHART II	
Dash No.	Frequency Range MC	Dash No.	Frequency Range MC
-1	0.2-1.5 pwd. iron core	-1	0.2-1.5 pwd. iron slug
-2	1-20 pwd. iron core	-2	1-20 pwd. iron slug
-3	20-50 pwd. iron core	-3	20-50 pwd. iron slug
-4	30-150 pwd. iron core	-4	30 and up, pwd. iron s
-5	100 and up, brass core	-5	100 and up, brass slu
-NS	No core	-NS	No slug

CHART III*			CHART IV	
SPC-11, SPC-12	LS12	Frequency Range MC	No. of Terms.	Spaci
-F	-C	0.2-1.5 pwd. iron core	2	180
-A	-B	1-20 pwd. iron core	3	90
-C	-D	20-50 pwd. iron core	4	90
-I	Not avail.	30-150 pwd. iron core	5	60
-NS	Not avail.	No core	6	60

*Specify frequency in combination with number of terminals when ordering. example: LS12-4B—4 terminals, 1-20 frequency.

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CAMBION®
The guaranteed electronic components

COMPONENTS

SERIES 2082 CHOKES (FIG. A)

nd on phenolic coil forms; varnish finish. Body ½" . Leads 1½" long.

ambion Number	Ind., µh	Q	Max. O.D.	Net Each 1-9*
082-1	6.8	25	5/16"	43c
082-2	10	20	5/16"	43c
082-3	15	15	5/16"	43c
082-4	22	15	5/16"	43c
082-5	33	15	3/8"	43c
082-6	47	15	3/8"	43c
082-7	68	12	3/8"	45c
082-8	100	12	7/16"	45c
082-9	150	20	7/16"	45c
082-10	220	20	7/16"	46c
082-11	330	20	9/16"	46c
082-12	470	20	9/16"	46c
082-13	680	30	9/16"	49c
082-14	1000	35	19/32"	52c

SERIES 2950 CHOKES (FIG. B)

valent to MS91189-1 thru -13 respectively. Epoxy psulated. Body 15/16" l. x 9/32" O.D.; leads 1½" long. r coded. Inductance, ±10% unless otherwise noted.

ambion Number	Ind., µh	Min. Q	DC Ma	Net Each 1-9*
950-1	1.1*	60	2800	99c
950-2	2.2*	65	1800	91c
950-3	3.3	50	1500	91c
950-4	4.7	45	1100	99c
950-5	6.8	40	800	99c
950-6	10	40	600	99c
950-7	15	40	500	99c
950-8	22	30	1500	91c
950-9	33	45	1100	91c
950-10	47	70	700	91c
950-11	82	85	600	91c
950-12	100	85	500	91c
950-13	120	85	400	91c

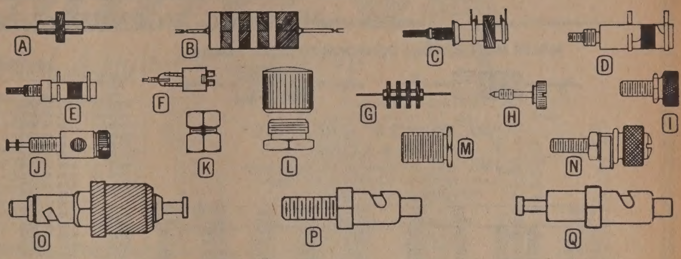
uctance, ±20%.

SERIES 2960 CHOKES (FIG. B)

nd on powdered iron coil forms; varnish finish. 7/16" long; leads 1 7/16" long. Max. O.D. 3/16". MIL LT7K.

mbion® Part No.	Inductance µH	Q Min.	DC MA	Net Each 1-9
960- 1	.15	55	2,500	$1.16
960- 2	.22	55	2,100	1.16
960- 3	.33	55	2,000	1.16
960- 4	.47	55	1,050	1.16
960- 5	.68	40	700	1.16
960- 6	1.00	35	600	1.16
960- 7	1.50	30	500	1.16
960- 8	2.20	30	350	1.16
960- 9	2.70	30	300	1.16
960-10	3.30	30	725	1.16

ese parts conform to MS 75008-1 thru -20 per MIL-C-15305B



PANEL HARDWARE

Nickel plate finish (unless otherwise noted) on brass. Dial lock and binding post supplied with mounting hardware. Binding post finished in bright alloy plate.

Cambion Number	Fig.	Description	Stud Size Suffix* -A	-B	-C	Thread	Stud Lgth.	Cap Size Dia. x H.	Body Ht.	Net 1-9*
1786•	H	Capt. screw	1/8"	3/16"#	1/4"#	1/4-20	1 1/8"	3/4" x 3/8"	5/16"	$.73
1120†	I	Thumb screw	6-32	8-32	10-32	*	13/32"	7/16" x 3/8"	......	.25
1775	J	Bindg. post	7/16"	9/16"	11/16"	10-32	*	3/8" x 3/16"	1/2"	.43
1774 •	K	Shaft lock	......	......	......	3/8-32	....	7/16"§ x 1/4"	9/16"	.25
2038 •	K	Shaft lock	......	......	......	1/4-32	....	5/16"§ x 5/32"	3/8"	.20
2142 •	L	Bush. & cvr.	......	......	......	1/2-32	....	5/8" x 1/2"	3/8"	.39
1818▲	M	Panel bush.	5/16"#	7/16"#	9/16"#	1/4-28	#	3/8"§ x 1/16"	......	.16
2117■	M	Panel bush.	5/16"	7/16"	9/16"	3/8-32	*	1/2"§ x 1/16"	.....	.19
1552 ◆•	N	Dial lock	......	......	......	8-32	23/32"	1/2" x 3/8"	15/32"	.39

*Add appropriate suffix to number (example: 1120-A) to indicate stud size desired. †Available with black oxide finish, add suffix -BO. #Add suffix 1-, -2 or -3 (instead of -A, -B, or -C respectively), to indicate stud size desired. §Hex. size. •Also available with nickel plate or black oxide finish; specify by adding suffix -02 for nickel plate, -12 for black oxide to number (example: 1786-1-12). ▲1/8" shaft. ■1/4" shaft. ◆ For dials 1/8" from panel.

SPRING-LOADED DIODE CLIPS

Brass construction; stud base type has nickel plated finish; feed thru and press-mount types have bright alloy finish. Press-mount type (Fig. O) has teflon insulator; mounts in .205" dia. hole in panels 1/16" to 1/8" thick.

Cambion Number	Fig.	Size, In. H. x Base Dia.	Slot Width	Wire Gauge Min.	Max.	Shank Dia. or Thread	Panel Thck.	Tooling PSP 45/	Net 1-9*
2146	P	11/32 x 5/32*	.040"	36	20	2-56	7/32"	....	$.24
2247	Q	11/32 x 5/32*	.040"	36	20	.116"	†	PSA-40	.24
2329	P	15/32 x 5/32*	.055"	22	17	2-56	7/32"	....	.35
2330	Q	15/32 x 3/16*	.055"	22	17	.116"	†	PSA-44	.35
2339	P	23/32 x 3/16*	.085"	19	13	3-48	5/16"	....	.43
2340	Q	23/32 x 7/32*	.085"	19	13	.116"	†	PSA-41	.43
2405	O	51/64 x 1/4	.085"	19	13	7/32"	1/8"	....	.67
2422	O	35/64 x 1/4	.055"	22	17	7/32"	1/8"	....	.53
2424	O	27/64 x 1/4	.040"	36	20	7/32"	1/8"	....	.48

*Hex size. †Specify by adding suffix (example: 2247-1): -1, 1/32". -2, 1/16". -3, 3/32", -4, 1/8". -5, 3/16".

SERIES 2952 AND 2953 CHOKES

nd on phenolic choke form. Inductance tolerance, ±15%. Leads 1½" long. ½" l., 2952 series; 1" l., 2953 series.

ambion Number	Fig.	Inductance	Q	Max. Dia.	Net Ea., 1-9*
952-1	A	1.0 µh at 7.9 mc	55 ± 10	.180"	48c
952-2	A	10 µh at 7.9 mc	28 ± 5	.300"	53c
952-3	A	50 µh at 2.5 mc	18 ± 4	.320"	58c
952-4	A	100 µh at 2.5 mc	16 ± 4	.345"	64c
952-5	A	500 µh at 790 kc	27 ± 6	.400"	69c
952-6	A	1000 µh at 790 kc	40 ± 8	.415"	74c
953-1	G	0.5 mh at 790 kc	17 ± 3	.535"	76c
953-2	G	1.0 mh at 250 kc	45 ± 8	.535"	81c
953-3	G	2.5 mh at 250 kc	55 ± 10	.550"	90c
953-4	G	5 mh at 250 kc	60 ± 12	.515"	99c

CAMBION COILS

ish finish. Wound on ceramic and phenolic coil forms.

ambion Number	Fig.	Ind. Range µh	Q Mean	Coil Form	Net Ea. 1-9*
60-1	C	2.0-3.7	60	PLS6-2C2L/O	$1.06
60-2	C	3.5-7.0	65	PLS6-2C2L/O	1.06
60-3	C	6.5-10.6	70	PLS6-CB2L/E	1.16
60-4	C	10-18	79	PLS6-CB2L/E	1.16
60-5	C	16-28	83	PLS6-CB2L/F	1.23
60-6	C	28-63	85	PLS6-CB2L/F	1.32
60-7	C	61-122	80	PLS6-CB2L/F	1.42
60-8	C	120-243	85	PLS6-CB2L/F	1.51
60-9	C	238-450	85	PLS6-CB2L/F	1.59
60-10	C	440-800	85	PLS6-CB2L/F	1.64
3-1mc	D	250-650	15	LS3/CL	1.12
3-3mc	D	45-95	20	LS3/BL	1.10
3-5mc	D	30-70	20	LS3/BL	1.07
3-10mc	D	5-10	20	LS3/BL	1.03
3-30mc	D	0.45-0.7	40	LS3/AL	1.00
3-60mc	D	0.098-0.1	35	LS3/AL	.93
M-1mc	E	725-1250	30	LSM/F	1.12
M-3mc	E	70-110	30	LSM/E	1.10
M-5mc	E	45-75	30	LSM/E	1.07
M-10mc	E	2-4	40	LSM/E	1.03
M-30mc	E	0.28-0.35	55	LSM/D	1.00
M-60mc	E	0.09-0.1	30	LSM/D	.93

right 1962, Cambridge Thermionic Corporation

SERIES 1500 COILS (FIG. F)

Varnish impregnated coils. Windings and powdered iron components are complete moisture-proofed. Standard LS9, 10 and 11 mounting hardware supplied unassembled. Rated 500 v. rms dielectric strength. **Type 1505:** 1.498" h. x 0.438" O.D. Slug threaded 2-56; second section, 1/4-28. **Type 1506:** 2.146" h. x .625" O.D. Slug threaded 3-48; section, 3/8-32 threaded. **Type 1507:** 1.146" h. x .344" O.D. Slug threaded 0-80; section 12-28 threaded.

Cambion Number	Inductance Minimum µh	Freq.	Maximum µh	Freq.	Min. Q at Induct. of Min.	Max.	DC Ma	Net Each 1-9*
1505-1	.55	25mc	1.0	25mc	80	70	500	$2.30
1505-2	.9	25mc	1.75	7.9mc	75	70	250	2.30
1505-3	1.7	7.9mc	3.5	7.9mc	45	60	125	2.30
1505-4	3.2	7.9mc	8.3	7.9mc	50	75	50	2.30
1505-5	7.8	7.9mc	16	2.5mc	50	90	50	2.50
1505-6	14.5	2.5mc	33	2.5mc	55	90	50	2.50
1505-7	30	2.5mc	73	2.5mc	25	50	50	2.20
1505-8	66	2.5mc	160	790kc	20	60	50	2.20
1505-9	144	790kc	430	790kc	30	50	50	2.20
1505-10	400	790kc	1.0*	250kc	30	40	50	2.20
1506-1	1.0*	250kc	2.2*	250kc	40	50	100	2.75
1506-2	2.0*	250kc	4.7*	250kc	40	45	80	2.75
1506-3	4.5*	250kc	11*	250kc	35	35	60	3.17
1506-4	9.0*	79kc	22*	79kc	30	35	50	3.17
1506-5	20*	79kc	40*	79kc	30	35	40	3.17
1507-1	.11	25mc	.165	25mc	55	70	640	2.20
1507-2	.16	25mc	.28	25mc	60	70	640	2.20
1507-3	.27	25mc	.55	25mc	60	60	640	2.20
1507-4	.5	25mc	1.1	25mc	70	50	500	2.20
1507-5	.9	7.9mc	2.0	7.9mc	35	40	250	2.20
1507-6	1.6	7.9mc	3.6	7.9mc	45	40	150	2.20
1507-7	3.5	7.9mc	8.0	7.9mc	45	45	100	2.20

*Millihenries

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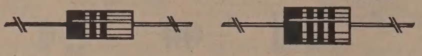
Miller

MIL-SPEC MOLDED CHOKES

MILLER MOLDED COILS CONFORM TO MIL-C-15305 B



"MICRO MITE" SERIES 9210

MOLDED R. F. CHOKES

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG # 22 TCW; 1.44 ± .125 length.
Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9210-54	36 ± 5%	50	2.5	10.5	2.50	320	IRON	$ .90
9210-56	39 ± 5%	50	2.5	10.3	2.60	315	IRON	.90
9210-58	43 ± 5%	50	2.5	10.3	2.65	310	IRON	.90
9210-60	47 ± 5%	50	2.5	10.0	2.70	305	IRON	.90
9210-62	51 ± 5%	50	2.5	9.7	2.75	300	IRON	.90
9210-64	56 ± 5%	50	2.5	9.5	2.80	295	IRON	.90
9210-66	62 ± 5%	45	2.5	9.0	2.95	290	IRON	.90
9210-68	68 ± 5%	45	2.5	8.7	3.25	285	IRON	.90
9210-70	75 ± 5%	45	2.5	8.5	3.40	275	IRON	.90
9210-72	82 ± 5%	45	2.5	8.0	3.55	270	IRON	.90
9210-74	91 ± 5%	45	2.5	7.7	3.70	265	IRON	.90
9210-76	100 ± 5%	45	2.5	7.7	4.00	260	IRON	.96
9210-78	110 ± 5%	60	.790	7.3	4.45	255	IRON	.96
9210-80	120 ± 5%	65	.790	6.7	4.65	250	IRON	.96
9210-82	130 ± 5%	65	.790	6.7	4.95	240	IRON	.96
9210-84	150 ± 5%	65	.790	6.5	5.30	235	IRON	.96
9210-86	160 ± 5%	65	.790	6.5	5.90	230	IRON	.99
9210-88	180 ± 5%	65	.790	6.3	6.20	225	IRON	.99
9210-90	200 ± 5%	65	.790	6.0	6.60	215	IRON	.99
9210-92	220 ± 5%	65	.790	5.5	7.20	210	IRON	.99
9210-94	240 ± 5%	65	.790	5.3	7.60	205	IRON	.99

"MICRO MITE" SERIES 9220

MOLDED R. F. CHOKES

MOLD SIZE	MOLD DIAMETER	MOLD LENGTH	LEAD SIZE	LEAD LENGTH	MAX. WATT AT 90° C.
A	.190 ± .010	.440 ± .010	AWG #22	1.44 ± .125	½
B	.215 ± .010	.560 ± .010	AWG #21	1.44 ± .125	½
C	.240 ± .010	.740 ± .010	AWG #20	1.44 ± .125	½

PART No.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9220-00	270 ± 5%	65	.790	4.7	7.8	205	A	IRON	$1.05
9220-02	300 ± 5%	65	.790	4.5	8.3	200	A	IRON	1.05
9220-04	330 ± 5%	65	.790	4.5	8.7	195	A	IRON	1.05
9220-06	360 ± 5%	65	.790	4.0	9.0	190	A	IRON	1.17
9220-08	390 ± 5%	65	.790	4.0	9.5	185	A	IRON	1.17
9220-10	430 ± 5%	65	.790	4.0	10.0	180	A	IRON	1.17
9220-12	470 ± 5%	65	.790	3.7	10.5	175	A	IRON	1.17
9220-14	500 ± 5%	65	.790	3.7	11.0	170	A	IRON	1.17
9220-16	560 ± 5%	65	.790	3.3	11.5	165	A	IRON	1.20
9220-18	620 ± 5%	60	.790	3.0	12.5	160	A	IRON	1.20
9220-20	680 ± 5%	60	.790	3.0	13.0	155	A	IRON	1.20
9220-22	750 ± 5%	55	.790	3.0	14.0	150	A	IRON	1.20
9220-24	820 ± 5%	55	.790	2.8	14.5	145	A	IRON	1.26
9220-26	910 ± 5%	55	.790	2.7	15.0	140	A	IRON	1.26
9220-28	1000 ± 5%	55	.790	2.6	16.0	135	A	IRON	1.26
9220-30	1100 ± 5%	60	.250	2.7	20.0	135	B	IRON	1.35
9220-32	1200 ± 5%	60	.250	2.7	21.0	130	B	IRON	1.35
9220-34	1300 ± 5%	60	.250	2.6	21.5	130	B	IRON	1.35
9220-36	1500 ± 5%	65	.250	2.3	23.5	125	B	IRON	1.35
9220-38	1600 ± 5%	65	.250	2.2	24.5	120	B	IRON	1.35
9220-40	1800 ± 5%	65	.250	2.2	26.0	120	B	IRON	1.35
9220-42	2000 ± 5%	65	.250	2.0	27.5	115	B	IRON	1.35
9220-44	2200 ± 5%	70	.250	2.0	28.5	110	B	IRON	1.35
9220-46	2400 ± 5%	70	.250	1.9	30.0	110	B	IRON	1.35
9220-48	2700 ± 5%	70	.250	1.9	31.5	105	B	IRON	1.35
9220-50	3000 ± 5%	70	.250	1.8	33.5	100	B	IRON	1.35
9220-52	3300 ± 5%	70	.250	1.6	36.0	100	B	IRON	1.35
9220-54	3600 ± 5%	70	.250	1.5	37.5	95	B	IRON	1.35
9220-56	3900 ± 5%	80	.250	1.5	41.0	95	C	IRON	1.41
9220-58	4300 ± 5%	80	.250	1.5	43.0	90	C	IRON	1.41
9220-60	4700 ± 5%	80	.250	1.4	45.0	90	C	IRON	1.41
9220-62	5000 ± 5%	80	.250	1.3	46.0	85	C	IRON	1.41
9220-64	5600 ± 5%	80	.250	1.3	49.5	85	C	IRON	1.50
9220-66	6200 ± 5%	80	.250	1.2	51.5	80	C	IRON	1.50
9220-68	6800 ± 5%	80	.250	1.2	54.0	80	C	IRON	1.50
9220-70	7500 ± 5%	80	.250	1.2	57.0	80	C	IRON	1.50
9220-72	8200 ± 5%	80	.250	1.1	59.5	75	C	IRON	1.59
9220-74	9100 ± 5%	80	.250	1.0	64.0	75	C	IRON	1.59
9220-76	10000 ± 5%	80	.250	1.0	66.5	75	C	IRON	1.59

MILLER SERIES 9310

(MS 16225)

Mold Size: .155 ± .010 diameter; .375 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length.
Power Rating: ¼ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9310-00	.15 ± 20%	50	25	525	.03	2630	PHENOLIC	$ .60
9310-02	.22 ± 20%	45	25	450	.05	2235	PHENOLIC	.60
9310-04	.33 ± 20%	45	25	390	.09	1490	PHENOLIC	.60
9310-06	.47 ± 20%	45	25	310	.12	1340	PHENOLIC	.60
9310-08	.68 ± 20%	55	25	250	.14	1165	PHENOLIC	.60
9310-10	.82 ± 20%	55	25	220	.22	930	PHENOLIC	.60
9310-12	1.00 ± 10%	50	25	200	.25	875	PHENOLIC	.60
9310-14	1.20 ± 10%	35	7.9	180	.42	675	PHENOLIC	.60
9310-16	1.50 ± 10%	35	7.9	160	.50	600	PHENOLIC	.60
9310-18	1.80 ± 10%	35	7.9	150	.65	500	PHENOLIC	.60
9310-20	2.20 ± 10%	35	7.9	135	.95	400	PHENOLIC	.60
9310-22	2:70 ± 10%	35	7.9	120	1.20	370	PHENOLIC	.60
9310-24	3.30 ± 10%	35	7.9	110	2.00	325	PHENOLIC	.66
9310-26	3.90 ± 10%	35	7.9	100	2.30	300	PHENOLIC	.66
9310-28	4.70 ± 10%	35	7.9	90	2.60	270	PHENOLIC	.66
9310-30	5.60 ± 10%	45	7.9	60	.32	780	IRON	.66
9310-32	6.80 ± 10%	50	7.9	55	.50	600	IRON	.66
9310-34	8.20 ± 10%	50	7.9	50	.60	540	IRON	.66
9310-36	10.0 ± 10%	55	7.9	45	.90	460	IRON	.66
9310-38	12.0 ± 10%	65	2.5	42	1.10	375	IRON	.66
9310-40	15.0 ± 10%	65	2.5	40	1.30	350	IRON	.66
9310-42	18.0 ± 10%	75	2.5	34	2.25	300	IRON	.66
9310-44	22.0 ± 10%	75	2.5	30	2.50	275	IRON	.66
9310-46	24.0 ± 5%	60	2.5	26	2.50	275	IRON	.75
9310-48	27.0 ± 5%	60	2.5	25	2.60	260	IRON	.75
9310-50	30.0 ± 5%	65	2.5	19	2.80	245	IRON	.75
9310-52	33.0 ± 5%	65	2.5	19	2.90	230	IRON	.75

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog on your Company Letterhead.

MILLER SERIES 9320

(MS 16224)
(MS 75008)

Mold Size: 0.185 ± .010 diameter; 0.437 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: ⅓ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9320-00	.15 ± 20%	65	25	600	.03	3400	PHENOLIC	$ .60
9320-02	.22 ± 20%	60	25	470	.04	2950	PHENOLIC	.60
9320-04	.33 ± 20%	60	25	390	.05	2500	PHENOLIC	.60
9320-06	.47 ± 20%	60	25	320	.08	1875	PHENOLIC	.60
9320-08	.68 ± 20%	65	25	240	.12	1400	PHENOLIC	.60
9320-10	1.00 ± 10%	60	25	190	.25	900	PHENOLIC	.60
9320-12	1.50 ± 10%	40	7.9	150	.50	720	PHENOLIC	.60
9320-14	2.20 ± 10%	40	7.9	130	.90	460	PHENOLIC	.60
9320-16	2.70 ± 10%	40	7.9	120	1.10	450	PHENOLIC	.60
9320-18	3.30 ± 10%	35	7.9	68	.12	1300	IRON	.66
9320-20	3.90 ± 10%	35	7.9	62	.16	1130	IRON	.66
9320-22	4.70 ± 10%	40	7.9	58	.22	915	IRON	.66
9320-24	5.60 ± 10%	40	7.9	50	.30	900	IRON	.66
9320-26	6.80 ± 10%	40	7.9	45	.40	800	IRON	.66
9320-28	8.20 ± 10%	40	7.9	43	.45	770	IRON	.66
9320-30	10.0 ± 10%	40	7.9	40	.60	690	IRON	.66
9320-32	12.0 ± 10%	55	2.5	35	.85	480	IRON	.66
9320-34	15.0 ± 10%	60	2.5	30	1.20	480	IRON	.66
9320-36	22.0 ± 10%	65	2.5	24	2.00	375	IRON	.66
9320-38	27.0 ± 10%	70	2.5	22	2.80	300	IRON	.66

MILLER SERIES 9330

(MS 16222)

Mold Size: 0.215 ± .010 diameter; 0.560 ± .010 length.
Leads: AWG #22 TCW; 1.437 ± .125 length. Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9330-00	.47 ± 20%	70	25	280	.06	2000	PHENOLIC	$ .66
9330-02	.68 ± 20%	70	25	240	.07	1275	PHENOLIC	.66
9330-04	1.00 ± 10%	70	.25	200	.13	1180	PHENOLIC	.66
9330-06	1.50 ± 10%	45	7.9	160	.28	1080	PHENOLIC	.66
9330-08	2.20 ± 10%	45	7.9	135	.50	700	PHENOLIC	.66
9330-10	2.70 ± 10%	45	7.9	120	.65	660	PHENOLIC	.66
9330-12	3.30 ± 10%	45	7.9	105	1.00	600	PHENOLIC	.66
9330-14	3.90 ± 10%	45	7.9	100	1.20	460	PHENOLIC	.66
9330-16	4.70 ± 10%	45	7.9	90	1.80	350	PHENOLIC	.66
9330-18	5.60 ± 10%	35	7.9	55	.13	1500	IRON	.75
9330-20	6.80 ± 10%	35	7.9	50	.20	1250	IRON	.75
9330-22	8.20 ± 10%	35	7.9	44	.22	1190	IRON	.75
9330-24	10.0 ± 10%	35	7.9	42	.26	990	IRON	.75
9330-26	12.0 ± 10%	45	2.5	34	.45	800	IRON	.75
9330-28	15.0 ± 10%	45	2.5	32	.52	730	IRON	.75
9330-30	18.0 ± 10%	50	2.5	28	.70	680	IRON	.75
9330-32	22.0 ± 10%	60	2.5	24	1.00	640	IRON	.75
9330-34	27.0 ± 10%	65	2.5	22	1.30	550	IRON	.75
9330-36	33.0 ± 10%	65	2.5	20	1.50	510	IRON	.75
9330-38	39.0 ± 10%	70	2.5	18	2.00	440	IRON	.75

MILLER SERIES 9340

(MS 16221)

Mold Size: 0.280 ± .010 diameter; 0.900 ± .010 length.
Leads: AWG #21 TCW; 1.437 ± .125 length. Power Rating: 1 Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9340-00	1.2 ± 10%	60	7.9	170	.08	2800	PHENOLIC	$ .78
9340-02	1.5 ± 10%	65	7.9	160	.10	2600	PHENOLIC	.78
9340-04	2.2 ± 10%	65	7.9	125	.17	1980	PHENOLIC	.78
9340-06	2.7 ± 10%	65	7.9	115	.23	1600	PHENOLIC	.78
9340-08	3.3 ± 10%	65	7.9	100	.32	1275	PHENOLIC	.75
9340-10	3.9 ± 10%	65	7.9	95	.45	1145	PHENOLIC	.75
9340-12	4.7 ± 10%	65	7.9	90	.60	950	PHENOLIC	.75
9340-14	5.6 ± 10%	65	7.9	80	.80	860	PHENOLIC	.75
9340-16	6.8 ± 10%	65	7.9	75	1.10	775	PHENOLIC	.75
9340-18	8.2 ± 10%	65	7.9	68	1.50	590	PHENOLIC	.75
9340-20	10.0 ± 10%	65	7.9	60	2.00	510	PHENOLIC	.75
9340-22	12.0 ± 10%	40	2.5	53	2.70	425	PHENOLIC	.75
9340-24	15.0 ± 10%	40	2.5	50	3.30	410	PHENOLIC	.75
9340-26	18.0 ± 10%	40	2.5	45	4.20	350	PHENOLIC	.75
9340-28	22.0 ± 10%	50	2.5	25	.30	1330	IRON	.84
9340-30	27.0 ± 10%	50	2.5	22	.36	1240	IRON	.84
9340-32	33.0 ± 10%	60	2.5	20	.56	1060	IRON	.84
9340-34	39.0 ± 10%	60	2.5	18	.65	760	IRON	.84
9340-36	47.0 ± 10%	65	2.5	16	1.10	750	IRON	.84
9340-38	56.0 ± 10%	60	2.5	14	1.20	700	IRON	.84
9340-39	68.0 ± 10%	75	2.5	13	1.85	600	IRON	.84
9340-40	82.0 ± 10%	80	2.5	13	2.20	550	IRON	.84
9340-42	100.0 ± 10%	80	2.5	12	2.60	530	IRON	.84
9340-44	120.0 ± 10%	100	.790	10	4.00	425	IRON	.84

MILLER SERIES 9350

(MS 16223)

COIL DIMENSIONS	A	B	C	D	LEAD DIMENSIONS
DIAMETER ± .010	.250	.310	.375	.468	AWG 20, 21 ,22 TCW
LENGTH ± .010	.560	.560	.625	.687	1.437 ± .125
MAX. WATT. AT 90° C.	¾	¾	1	1⅓	

PART No.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo MIN. (Mc)	Rdc. MAX.	Ma. MAX.	MOLD SIZE	CORE MTL.	NET PRICE
9350-00	47 ± 10%	18	2.5	9.5	5.9	275	A	PHENOLIC	$1.02
9350-02	56 ± 10%	18	2.5	9.0	6.4	225	A	PHENOLIC	1.02
9350-04	68 ± 10%	45	2.5	6.8	3.3	330	A	IRON	1.08
9350-06	82 ± 10%	40	2.5	6.3	3.5	310	A	IRON	1.08
9350-08	100 ± 10%	35	2.5	5.8	3.8	300	A	IRON	1.08
9350-10	120 ± 10%	60	.790	5.0	4.7	290	A	IRON	1.08
9350-12	150 ± 10%	60	.790	4.6	5.3	280	A	IRON	1.08
9350-14	180 ± 10%	60	.790	3.4	5.5	275	B	IRON	1.11
9350-16	220 ± 10%	60	.790	3.2	5.9	265	B	IRON	1.11
9350-18	270 ± 10%	60	.790	3.0	6.6	255	B	IRON	1.11
9350-20	330 ± 10%	55	.790	2.7	7.8	245	B	IRON	1.11
9350-22	390 ± 10%	55	.790	2.5	8.7	235	B	IRON	1.11
9350-24	470 ± 10%	50	.790	2.3	9.0	230	C	IRON	1.11
9350-26	560 ± 10%	45	.790	2.1	10.0	215	C	IRON	1.11
9350-28	680 ± 10%	45	.790	2.0	11.2	205	C	IRON	1.11
9350-30	820 ± 10%	40	.790	1.8	13.0	195	C	IRON	1.11
9350-32	1000 ± 10%	35	.790	1.7	14.5	185	C	IRON	1.11
9350-34	1500 ± 10%	55	.250	2.0	22.0	180	D	IRON	1.14
9350-36	2000 ± 10%	55	.250	1.7	26.0	165	D	IRON	1.14
9350-38	2500 ± 10%	55	.250	1.5	30.0	150	D	IRON	1.14
9350-40	5000 ± 10%	50	.250	1.0	65.0	105	D	IRON	1.20
9350-42	10000 ± 10%	40	.250	0.8	70.0	105	D	FERRITE	1.50

MILLER SERIES 9360

(MS 91189)

Mold Size: 0.281 ± .031 diameter; 0.937 ± .062 length.
Leads: AWG #21 TCW; 1.500 ± .125 length.
Power Rating: ½ Watt Max. at 90° C.

PART NO.	L uh	Q MIN.	TEST FREQ. (Mc)	Fo (Mc) ±10%	Rdc. MAX.	Ma. MAX.	CORE MTL.	NET PRICE
9360-01	1.1 ± 20%	60	10.0	200	.09	2800	PHENOLIC	$1.05
9360-02	2.2 ± 20%	65	10.0	165	.20	1800	PHENOLIC	1.05
9360-03	3.3 ± 10%	50	6.0	130	.32	1500	PHENOLIC	1.05
9360-04	4.7 ± 10%	45	5.0	100	.60	1100	PHENOLIC	1.05
9360-05	6.8 ± 10%	40	4.0	90	1.10	800	PHENOLIC	1.05
9360-06	10.0 ± 10%	40	3.5	70	1.80	600	PHENOLIC	1.05
9360-07	15.0 ± 10%	40	3.0	55	3.00	500	PHENOLIC	1.05
9360-08	22.0 ± 10%	30	2.5	27	.30	1500	IRON	1.08
9360-09	33.0 ± 10%	45	2.0	21	.60	1100	IRON	1.08
9360-10	47.0 ± 10%	70	1.5	16	1.20	700	IRON	1.08
9360-11	82.0 ± 10%	85	1.2	14	2.20	600	IRON	1.08
9360-12	100.0 ± 10%	85	1.0	14	2.80	500	IRON	1.08
9360-13	120.0 ± 10%	85	1.0	13	4.00	420	IRON	1.08

J. W. MILLER COMPANY Los Angeles 3, Calif.

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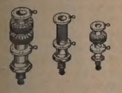
Industrial Adjustable R.F. Coils

Ceramic Adjustable R.F. Coils



The forms used in this series feature terminal rings machined from the ceramic form material. Coils wound on these forms exhibit high Q and good stability. The adjusting core is held rigidly at any setting through the use of a newly designed tension device on the bushing.

Sub Miniature Adjustable R.F. Coils

Dimensions (form) 7/32″ dia. x 19/32″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
40A000CBI	Coil Form w/hdw. and Core		$1.14
40A107CBI	.125 uh	.091 uh	1.68
40A157CBI	.188 uh	.124 uh	1.68
40A227CBI	.275 uh	.184 uh	1.68
40A337CBI	.413 uh	.265 uh	1.68
40A477CBI	.587 uh	.327 uh	1.71
40A687CBI	.850 uh	.482 uh	1.71
40A827CBI	1.02 uh	.630 uh	1.80
40A106CBI	1.25 uh	.730 uh	1.80
40A156CBI	1.88 uh	1.06 uh	1.80
40A226CBI	2.75 uh	1.50 uh	1.83
40A336CBI	4.13 uh	2.15 uh	1.83
40A476CBI	5.87 uh	3.00 uh	1.92
40A686CBI	8.50 uh	4.40 uh	1.92
40A826CBI	10.2 uh	5.25 uh	1.92
40A105CBI	12.5 uh	8.06 uh	1.98
40A155CBI	18.8 uh	11.9 uh	1.98
40A225CBI	27.5 uh	17.1 uh	2.04
40A335CBI	41.3 uh	26.6 uh	2.04
40A475CBI	58.7 uh	39.0 uh	2.13
40A685CBI	85.0 uh	58.0 uh	2.13
40A825CBI	102 uh	69.0 uh	2.31
40A104CBI	125 uh	84.0 uh	2.31
40A000CBI	Bulk pack per 100		99.00

Miniature Adjustable R.F. Coils

Dimensions (form) ¼″ dia. x 13/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
41A000CBI	Coil Form w/hdw. and Core		$1.20
41A106CBI	1.25 uh	.69 uh	1.80
41A156CBI	1.87 uh	1.20 uh	1.80
41A226CBI	2.75 uh	1.42 uh	1.80
41A336CBI	4.10 uh	2.00 uh	1.83
41A476CBI	5.80 uh	2.80 uh	1.83
41A686CBI	8.50 uh	4.00 uh	1.83
41A826CBI	10.0 uh	4.50 uh	1.86
41A105CBI	12.5 uh	6.50 uh	1.86
41A155CBI	18.7 uh	10.8 uh	1.86
41A225CBI	27.5 uh	15.2 uh	1.86
41A335CBI	41.0 uh	26.0 uh	1.92
41A475CBI	58.0 uh	32.5 uh	1.92
41A685CBI	85.0 uh	48.5 uh	1.98
41A825CBI	100 uh	61.0 uh	1.98
41A104CBI	125 uh	65.0 uh	2.04
41A154CBI	187 uh	110 uh	2.04
41A224CBI	275 uh	160 uh	2.13
41A334CBI	410 uh	253 uh	2.13
41A474CBI	580 uh	390 uh	2.25
41A684CBI	850 uh	560 uh	2.31
41A824CBI	1.00 mh	670 uh	2.37
41A103CBI	1.25 mh	700 uh	2.46
41A000CBI	Bulk pack per 100		108.60

Standard Adjustable R.F. Coils

Dimensions (form) ⅜″ dia. x 1″ long

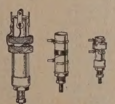
Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
42A000CBI	Coil Form w/hdw. and Core		$1.26
42A106CBI	1.25 uh	.68 uh	1.80
42A156CBI	1.87 uh	1.00 uh	1.80
42A226CBI	2.75 uh	1.35 uh	1.80
42A336CBI	4.10 uh	2.12 uh	1.83
42A476CBI	5.80 uh	2.40 uh	1.83
42A686CBI	8.50 uh	3.60 uh	1.86
42A826CBI	10.0 uh	4.45 uh	1.86
42A105CBI	12.5 uh	6.05 uh	1.98
42A155CBI	18.7 uh	9.40 uh	1.98
42A225CBI	27.5 uh	12.9 uh	2.01
42A335CBI	41.0 uh	18.8 uh	2.01
42A475CBI	58.0 uh	27.5 uh	2.16
42A685CBI	85.0 uh	37.5 uh	2.19
42A825CBI	100 uh	45.0 uh	2.25
42A104CBI	125 uh	54.0 uh	2.34
42A154CBI	187 uh	92.0 uh	2.34
42A224CBI	275 uh	123 uh	2.34
42A334CBI	410 uh	200 uh	2.37
42A474CBI	580 uh	300 uh	2.37
42A684CBI	850 uh	430 uh	2.37
42A824CBI	1.00 mh	510 uh	2.43
42A103CBI	1.25 mh	780 uh	2.43
42A153CBI	1.87 mh	1.10 mh	2.46
42A223CBI	2.90 mh	1.66 mh	2.46
42A333CBI	4.10 mh	2.40 mh	2.46
42A473CBI	5.80 mh	3.46 mh	2.52
42A683CBI	8.50 mh	5.25 mh	2.52
42A823CBI	10.0 mh	6.00 mh	2.61
42A102CBI	12.5 mh	9.20 mh	2.61
42A000CBI	Bulk pack per 100		112.20

Jumbo Adjustable R.F. Coils

Dimensions (form) ½″ dia. x 1-7/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
43A000CBI	Coil Form w/hdw. and Core		$1.32
43A105CBI	12.5 uh	5.70 uh	1.95
43A155CBI	18.7 uh	9.00 uh	1.95
43A225CBI	27.5 uh	12.0 uh	1.95
43A335CBI	41.0 uh	17.0 uh	1.98
43A475CBI	58.0 uh	25.0 uh	1.98
43A685CBI	85.0 uh	38.0 uh	2.25
43A825CBI	100 uh	42.0 uh	2.25
43A104CBI	125 uh	65.0 uh	2.25
43A154CBI	187 uh	95.0 uh	2.37
43A224CBI	275 uh	138 uh	2.37
43A334CBI	410 uh	205 uh	2.37
43A474CBI	580 uh	240 uh	2.40
43A684CBI	850 uh	370 uh	2.40
43A824CBI	1.00 mh	450 uh	2.40
43A103CBI	1.25 mh	600 uh	2.40
43A153CBI	1.87 mh	900 uh	2.46
43A223CBI	2.75 mh	1.30 mh	2.46
43A333CBI	4.10 mh	1.95 mh	2.49
43A473CBI	5.80 mh	2.90 mh	2.49
43A683CBI	8.50 mh	4.30 mh	2.55
43A823CBI	10.0 mh	5.10 mh	2.55
43A102CBI	12.5 mh	6.50 mh	2.58
43A152CBI	18.7 mh	9.80 mh	2.58
43A222CBI	27.5 mh	13.0 mh	2.61
43A332CBI	41.0 mh	20.0 mh	2.61
43A472CBI	58.0 mh	29.0 mh	2.64
43A682CBI	85.0 mh	42.0 mh	2.70
43A822CBI	100 mh	50.0 mh	2.76
43A101CBI	125 mh	66.0 mh	2.97
43A000CBI	Bulk pack per 100		118.80

Resinite Adjustable R.F. Coils



Resinite is a phenolic impregnated tubing which can be certified to MIL-P-79B type PBG. This material combines good mechanical and electrical characteristics along with the noncorrosive properties of cellulose acetate.

Miniature Adjustable R.F. Coils

Dimensions (form) ¼″ dia. x 13/16″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
20A000RBI	Coil Form w/hdw. and Core		$ .63
20A107RBI	.125 uh	.079 uh	.87
20A157RBI	.187 uh	.119 uh	.87
20A227RBI	.275 uh	.170 uh	.87
20A337RBI	.410 uh	.240 uh	.90
20A477RBI	.580 uh	.310 uh	.90
20A687RBI	.850 uh	.430 uh	.90
20A827RBI	1.00 uh	.580 uh	.90
20A106RBI	1.25 uh	.670 uh	.90
20A156RBI	1.87 uh	.900 uh	.90
20A226RBI	2.75 uh	1.60 uh	.90
20A336RBI	4.10 uh	2.00 uh	.90
20A476RBI	5.80 uh	2.80 uh	.93
20A686RBI	8.50 uh	3.80 uh	.93
20A826RBI	10.0 uh	4.70 uh	.93
20A105RBI	12.5 uh	6.40 uh	.93
20A155RBI	18.7 uh	9.20 uh	.93
20A225RBI	27.5 uh	12.0 uh	.93
20A335RBI	41.0 uh	19.0 uh	.93
20A475RBI	58.0 uh	27.0 uh	.93
20A685RBI	85.0 uh	37.0 uh	.93
20A825RBI	100 uh	53.0 uh	.93
20A104RBI	125 uh	65.0 uh	.93
20A154RBI	187 uh	92.0 uh	.93
20A224RBI	275 uh	140 uh	.96
20A334RBI	410 uh	215 uh	.96
20A474RBI	580 uh	310 uh	.96
20A684RBI	850 uh	450 uh	.96
20A824RBI	1.00 mh	620 uh	.96
20A103RBI	1.25 mh	830 uh	.96

Standard Adjustable R.F. Coils

Dimensions (form) ⅜″ dia. x 1⅛″ long

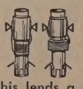
Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
21A000RBI	Coil Form w/hdw. and Core		$ .66
21A106RBI	1.25 uh	0.68 uh	.90
21A156RBI	1.87 uh	1.00 uh	.90
21A226RBI	2.75 uh	1.35 uh	.90
21A336RBI	4.10 uh	2.12 uh	.90
21A476RBI	5.80 uh	2.40 uh	.90
21A686RBI	8.50 uh	3.60 uh	.93
21A826RBI	10.0 uh	4.45 uh	.93
21A105RBI	12.5 uh	6.05 uh	.93
21A155RBI	18.7 uh	9.40 uh	.93
21A225RBI	27.5 uh	12.9 uh	.93
21A335RBI	41.0 uh	18.8 uh	.93
21A475RBI	58.0 uh	27.5 uh	.96
21A685RBI	85.0 uh	37.5 uh	.96
21A825RBI	100 uh	45.0 uh	.96
21A104RBI	125 uh	54.0 uh	.96
21A154RBI	187 uh	92.0 uh	.99
21A224RBI	275 uh	123 uh	.99
21A334RBI	410 uh	200 uh	1.02
21A474RBI	580 uh	300 uh	1.02
21A684RBI	850 uh	430 uh	1.05
21A824RBI	1.00 mh	510 uh	1.05
21A103RBI	1.25 mh	780 uh	1.08
21A153RBI	1.87 mh	1.10 mh	1.08
21A223RBI	2.75 mh	1.66 mh	1.11
21A333RBI	4.10 mh	2.40 mh	1.11
21A473RBI	5.80 mh	3.46 mh	1.23
21A683RBI	8.50 mh	5.25 mh	1.32
21A823RBI	10.0 mh	6.00 mh	1.41
21A102RBI	12.5 mh	9.20 mh	1.50

Jumbo Adjustable R.F. Coils

Dimensions (form) ½″ dia. x 1⅞″ long

Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
22A000RBI	Coil Form w/hdw. and Core		$ .81
22A105RBI	12.5 uh	5.70 uh	1.23
22A155RBI	18.7 uh	9.0 uh	1.23
22A225RBI	27.5 uh	12.0 uh	1.26
22A335RBI	41.0 uh	17.0 uh	1.26
22A475RBI	58.0 uh	24.5 uh	1.29
22A685RBI	85.0 uh	38.0 uh	1.29
22A825RBI	100 uh	41.0 uh	1.32
22A104RBI	125 uh	65.0 uh	1.32
22A154RBI	187 uh	94.0 uh	1.35
22A224RBI	275 uh	138 uh	1.35
22A334RBI	410 uh	205 uh	1.38
22A474RBI	580 uh	290 uh	1.38
22A684RBI	850 uh	430 uh	1.41
22A824RBI	1.00 mh	595 uh	1.41
22A103RBI	1.25 mh	760 uh	1.44
22A153RBI	1.87 mh	1.04 mh	1.44
22A223RBI	2.75 mh	1.56 mh	1.44
22A333RBI	4.10 mh	2.30 mh	1.47
22A473RBI	5.80 mh	3.40 mh	1.47
22A683RBI	8.50 mh	5.00 mh	1.47
22A823RBI	10.0 mh	4.20 mh	1.50
22A102RBI	12.5 mh	5.30 mh	1.50
22A152RBI	18.7 mh	8.20 mh	1.62
22A222RBI	27.5 mh	12.7 mh	1.62
22A332RBI	41.0 mh	17.8 mh	1.65
22A472RBI	58.0 mh	27.5 mh	1.68
22A682RBI	85.0 mh	42.0 mh	1.71
22A822RBI	100 mh	51.0 mh	1.80
22A101RBI	125 mh	64.0 mh	1.95

Economy Adjustable R.F. Chokes



Through the use of a recently developed Nylon molding process we are able to offer an inexpensive line of adjustable chokes. They can be adjusted from either the top or bottom. This lends a degree of flexibility to your design. Mounting is achieved by means of a metal clip in a 5/16″ hole.

Dimensions: ⅜″ x 1⅜″ long.

Cat. No.	Microhenries	Net Price
4200	Form only	$ .60
4202	1- 2.5	.96
4203	2- 5.5	.99
4204	5- 12	1.02
4205	10- 25	1.05
4206	20- 55	1.14
4207	50-140	1.17
4208	120-330	1.20
4209	310-860	1.23

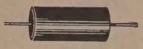
#4200 complete with hardware and core

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles 3, Calif.

Industrial R.F. Chokes and Filters

Encapsulated R.F. Chokes



The following series of R.F. chokes range in value from 0.1 uh to 50 mh. Basically identical to our standard series of axial lead R.F. chokes bearing the equivalent number, these coils are encapsulated in epoxy resin and conform to MIL-C-15305B.

Part No.	L*	R Max.	Current MA	Net Price
4580-E	0.1 uh.	.012	300	$1.26
4582-E	0.15 uh.	.015	300	1.26
4584-E	0.22 uh.	.021	300	1.26
4586-E	0.33 uh.	.023	300	1.26
4588-E	0.47 uh.	.026	300	1.26
4590-E	0.68 uh.	.036	300	1.26
4592-E	0.75 uh.	.040	300	1.26
4594-E	0.82 uh.	.042	300	1.26
4602-E	1.0 uh.	.06	300	1.26
4604-E	1.5 uh.	.096	300	1.26
4606-E	2.4 uh.	.192	300	1.26
4608-E	3.9 uh.	.6	300	1.26
4609-E	5.5 uh.	.83	300	1.26
4610-E	6.2 uh.	.90	300	1.29
4611-E	8.2 uh.	1.34	300	1.29
4612-E	10.0 uh.	1.8	200	1.29
4622-E	10.0 uh.	.072	300	1.32
4624-E	15.0 uh.	.144	300	1.32
4626-E	24.0 uh.	.336	300	1.35
4628-E	39.0 uh.	.78	300	1.35
4629-E	55.0 uh.	1.10	300	1.35
4630-E	62.0 uh.	1.2	300	1.35
4631-E	82.0 uh.	1.92	300	1.35
4632-E	100.0 uh.	2.4	200	1.35
4642-E	0.10 mh.	4.92	125	1.50
4644-E	0.15 mh.	6.84	125	1.50
4646-E	0.24 mh.	8.16	125	1.50
4648-E	0.39 mh.	12.0	125	1.56
4649-E	0.55 mh.	13.2	125	1.98
4650-E	0.62 mh.	15.1	125	1.98
4651-E	0.75 mh.	16.4	125	1.98
4652-E	1.0 mh.	19.8	125	1.98
4662-E	1.0 mh.	8.4	125	2.01
4664-E	1.5 mh.	10.8	125	2.04
4666-E	2.4 mh.	14.4	125	2.13
4668-E	3.9 mh.	20.4	125	2.19
4669-E	5.5 mh.	26.4	125	2.31
4670-E	6.2 mh.	39.6	100	2.31
4671-E	8.2 mh.	54.0	100	2.37
4672-E	10.0 mh.	56.4	50	2.70
6302-E	2.5 mh.	9.36	200	2.28
6304-E	5.0 mh.	14.9	200	2.37
6306-E	10.0 mh.	36.0	125	2.52
6308-E	25.0 mh.	83.4	75	2.70
6310-E	50.0 mh.	133	75	2.94

Frequency Selective R.F. Chokes

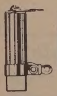


FIGURE 1

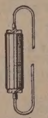


FIGURE 2

Designed for maximum efficiency and highest impedance at specific operating frequencies this group of R.F. chokes eliminates the designers task of attempting to choose the best coil for a particular application from miscellaneous and often insufficient design data. Designed to cover the major Amateur, Industrial, and Citizens bands the coils will also operate efficiently at frequencies approximating the recommended frequencies.

The RFC-3.5, RFC-7, and RFC-14 are the standoff type, mounted by a single 6-32 screw. All other coils are mounted with axial leads.

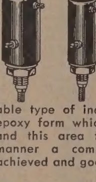
Part No.	L*	Freq. Mc.	Fig.	Net Pr.
RFC-3.5	266 uh	1.8-5	1	$1.20
RFC-7	208 uh	3-13	1	1.04
RFC-14	84 uh	7-20	1	.69
RFC-21	38.5 uh	15-30	2	.60
RFC-28	24 uh	25-40	2	.60
RFC-50	8.2 uh	30-90	2	.60
RFC-144	1.72 uh	75-180	2	.51
RFC-220	.82 uh	160-340	2	.51
RFC-420	.22 uh	325-500	2	.51

Sub-Miniature R.F. Chokes

An extremely versatile series of iron core R.F. chokes designed to meet the industries' demand for high reliability, ultra-miniature components. The coils are ideally suited to network and filter design, delay lines, and computer applications. Rated at 50 milliamperes.

Part No	L*	Min. Q @ F	Net Pr.
70F106AI	1 uh	41 @ 7.9 Mc.	$ .57
70F126AI	1.2 uh	44 @ 7.9 Mc.	.57
70F156AI	1.5 uh	48 @ 7.9 Mc.	.57
70F186AI	1.8 uh	39 @ 7.9 Mc.	.57
70F226AI	2.2 uh	48 @ 7.9 Mc.	.57
70F276AI	2.7 uh	39 @ 7.9 Mc.	.57
70F336AI	3.3 uh	48 @ 7.9 Mc.	.57
70F396AI	3.9 uh	44 @ 7.9 Mc.	.57
70F476AI	4.7 uh	46 @ 7.9 Mc.	.57
70F566AI	5.6 uh	44 @ 7.9 Mc.	.57
70F686AI	6.8 uh	44 @ 7.9 Mc.	.57
70F756AI	7.5 uh	40 @ 7.9 Mc.	.57
70F826AI	8.2 uh	40 @ 7.9 Mc.	.57
70F916AI	9.1 uh	40 @ 7.9 Mc.	.57
70F105AI	10 uh	48 @ 2.5 Mc.	.66
70F125AI	12 uh	52 @ 2.5 Mc.	.66
70F155AI	15 uh	52 @ 2.5 Mc.	.66
70F185AI	18 uh	52 @ 2.5 Mc.	.66
70F225AI	22 uh	51 @ 2.5 Mc.	.66
70F255AI	25 uh	48 @ 2.5 Mc.	.66
70F275AI	27 uh	49 @ 2.5 Mc.	.66
70F335AI	33 uh	50 @ 2.5 Mc.	.66
70F395AI	39 uh	48 @ 2.5 Mc.	.66
70F475AI	47 uh	48 @ 2.5 Mc.	.66
70F565AI	56 uh	45 @ 2.5 Mc.	.66
70F685AI	68 uh	45 @ 2.5 Mc.	.66
70F755AI	75 uh	40 @ 2.5 Mc.	.66
70F825AI	82 uh	44 @ 2.5 Mc.	.66
70F915AI	91 uh	39 @ 2.5 Mc.	.66
70F104AI	100 uh	40 @ 790 Kc.	.66
70F124AI	120 uh	44 @ 790 Kc.	.66
70F154AI	150 uh	44 @ 790 Kc.	.66
70F184AI	180 uh	45 @ 790 Kc.	.66
70F204AI	200 uh	45 @ 790 Kc.	.66
70F224AI	220 uh	45 @ 790 Kc.	.66
70F254AI	250 uh	46 @ 790 Kc.	.66
70F274AI	270 uh	45 @ 790 Kc.	.66
70F304AI	300 uh	42 @ 790 Kc.	.66
70F334AI	330 uh	47 @ 790 Kc.	.66
70F354AI	350 uh	44 @ 790 Kc.	.66
70F394AI	390 uh	42 @ 790 Kc.	.75
70F474AI	470 uh	47 @ 790 Kc.	.75
70F504AI	500 uh	42 @ 790 Kc.	.75
70F564AI	560 uh	39 @ 790 Kc.	.75
70F684AI	680 uh	44 @ 790 Kc.	.75
70F754AI	750 uh	35 @ 790 Kc.	.75
70F824AI	820 uh	42 @ 790 Kc.	.75
70F914AI	910 uh	35 @ 790 Kc.	.75
70F103AI	1.00 mh	40 @ 790 Kc.	.75
70F123AI	1.20 mh	37 @ 250 Kc.	.75
70F153AI	1.50 mh	40 @ 250 Kc.	.75
70F183AI	1.80 mh	40 @ 250 Kc.	.75
70F223AI	2.20 mh	40 @ 250 Kc.	.81
70F253AI	2.50 mh	48 @ 250 Kc.	.84
70F273AI	2.70 mh	50 @ 250 Kc.	.84
70F333AI	3.30 mh	56 @ 250 Kc.	.84
70F393AI	3.90 mh	47 @ 250 Kc.	.84
70F473AI	4.70 mh	54 @ 250 Kc.	.84
70F563AI	5.60 mh	46 @ 250 Kc.	.84
70F683AI	6.80 mh	51 @ 250 Kc.	.84
70F753AI	7.50 mh	44 @ 250 Kc.	.84
70F823AI	8.20 mh	48 @ 250 Kc.	.99
70F913AI	9.10 mh	37 @ 250 Kc.	.99
70F102AI	10.0 mh	48 @ 250 Kc.	.99

Encapsulated Adjustable R.F. Coils



This series of encapsulated coils offer the maximum possible performance from an adjustable type of inductor. The coil is wound on an epoxy form which is placed inside an epoxy cup and this area filled with epoxy resin. In this manner a complete seal against moisture is achieved and good mechanical stability is assured.

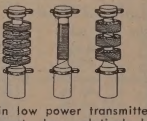
Part No.	L Max. ± 5%	L Min. ± 10%	Net Price
50A106EBI	1.25 uh	0.62 uh	$3.60
50A156EBI	1.87 uh	0.98 uh	3.60
50A226EBI	2.75 uh	1.26 uh	3.60
50A336EBI	4.10 uh	1.82 uh	3.63
50A476EBI	5.87 uh	2.56 uh	3.63
50A686EBI	8.50 uh	3.80 uh	3.63
50A826EBI	10.2 uh	4.40 uh	3.63
50A105EBI	12.5 uh	5.40 uh	3.69
50A155EBI	18.8 uh	7.80 uh	3.69
50A225EBI	27.5 uh	11.7 uh	3.78
50A335EBI	41.3 uh	18.8 uh	3.78
50A475EBI	58.7 uh	26.5 uh	3.81
50A685EBI	85.0 uh	36.0 uh	3.81
50A825EBI	102 uh	44.0 uh	3.84
50A104EBI	125 uh	63.0 uh	4.23
50A154EBI	187 uh	92.0 uh	4.26
50A224EBI	275 uh	130 uh	4.26
50A334EBI	410 uh	200 uh	4.29
50A474EBI	580 uh	280 uh	4.29
50A684EBI	850 uh	400 uh	4.32
50A824EBI	1.00 mh	540 uh	4.32
50A103EBI	1.25 mh	770 uh	4.35
50A153EBI	1.87 mh	950 uh	4.35
50A223EBI	2.75 mh	1.58 mh	4.38
50A333EBI	4.13 mh	2.40 mh	4.38
50A473EBI	5.80 mh	3.35 mh	4.44
50A683EBI	8.50 mh	5.20 mh	4.44
50A823EBI	10.00 mh	6.20 mh	4.44

Printed Circuit Air Core R.F. Chokes

The following R.F. Chokes have been designed to offer a wide range of inductance values for use in printed circuit applications. Our standard stock of these coils is impregnated with a high grade coil varnish to prevent moisture absorption. On special orders we can supply these items treated with fungus resistant material, or encapsulated in epoxy resin to meet MIL-C-15305-B.

Part No.	L*	DC R Max.	Current	Net Price
970	1.0 mh.	20.6 ohms	125 ma.	$ .57
971	1.2 mh.	23.8 ohms	125 ma.	.57
972	1.5 mh.	26.4 ohms	125 ma.	.57
973	1.8 mh.	29.6 ohms	125 ma.	.60
974	2.2 mh.	32.9 ohms	125 ma.	.60
975	2.7 mh.	37.4 ohms	125 ma.	.60
976	3.3 mh.	41.8 ohms	125 ma.	.63
977	3.9 mh.	46.7 ohms	125 ma.	.63
978	4.7 mh.	51.8 ohms	125 ma.	.63
979	5.6 mh.	57.6 ohms	125 ma.	.63
980	6.8 mh.	64.4 ohms	125 ma.	.66
981	8.2 mh.	73.0 ohms	100 ma.	.66
982	10.0 mh.	81.6 ohms	100 ma.	.72
983	12.0 mh.	92.4 ohms	100 ma.	.75
984	15.0 mh.	105 ohms	100 ma.	.78
985	18.0 mh.	117 ohms	100 ma.	.81
986	22.0 mh.	130 ohms	75 ma.	.93
987	27.0 mh.	145 ohms	75 ma.	.96
988	33.0 mh.	251 ohms	75 ma.	1.02
989	39.0 mh.	277 ohms	75 ma.	1.05
990	47.0 mh.	316 ohms	50 ma.	1.08
991	56.0 mh.	351 ohms	50 ma.	1.14
992	68.0 mh.	391 ohms	50 ma.	1.20
993	82.0 mh.	442 ohms	50 ma.	1.26
994	100.0 mh.	473 ohms	50 ma.	1.32

Ceramic Form R.F. Chokes



A series of high quality fixed coils wound on a silicone impregnated steatite form. The coils are the standoff type and are mounted by a single 6-32 screw. They find primary application in low power transmitters and associated equipment where relatively high current capacity and low distributed capacitance are important.

Part Number	L*	Rated Current	Net Price
4552	0.25 mh.	150 ma.	$ .75
4553	0.50 mh.	150 ma.	.75
4554	1.0 mh.	150 ma.	.81
4555	2.5 mh.	150 ma.	.93
4556	5.0 mh.	150 ma.	.96
4557	0.25 mh.	300 ma.	.81
4558	0.50 mh.	300 ma.	.81
4559	1.0 mh.	300 ma.	.99
4560	2.5 mh.	300 ma.	1.08
4561	5.0 mh.	300 ma.	1.14

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

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J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

Radio Frequency Chokes

R.F. Chokes with Axial Leads

These chokes cover an inductance range from .1 microhenry to 10 millihenries in 5 decades with 8 coils per decade. Inductance values increase in steps of approximately 50%. Either single layer or 3-pi universal windings are used to insure low distributed capacity. Chokes are wound on low-loss molded phenolic or powdered iron core forms and are impregnated with a moisture- and fungus-resistant varnish. The type of powdered iron used allows the chokes to operate at all frequencies up into the ultra-high frequency region.

Dimensions: Phenolic form 3/16" diameter x 3/4" long. Iron core form 7/32" diameter x 7/8" long. Leads are 1½" long.

Phenolic Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	ma	Net Pr.
4580	0.1	.012	300	$ .45
4582	0.15	.014	300	.45
4584	0.22	.024	300	.45
4586	0.33	.023	300	.45
4588	0.47	.026	300	.45
4590	0.68	.036	300	.45
4592	0.75	.039	300	.45
4594	0.82	.042	300	.45
4602	1.	.060	300	.45
4604	1.5	.096	300	.45
4606	2.4	.192	300	.45
4608	3.9	.600	300	.45
4609	5.5	.828	300	.48
4610	6.2	.900	300	.48
4611	8.2	1.34	300	.48
4612	10	1.80	200	.48

Iron Core Form
Single Layer Windings

Cat. No.	uh.*	Ohms Max.	ma	Net Pr.
4622	10	.072	300	$ .51
4624	15	.144	300	.51
4626	24	.336	300	.54
4628	39	.780	300	.54
4629	55	1.10	300	.57
4630	62	1.20	300	.57
4631	82	1.92	300	.57
4632	100	2.40	200	.57

Phenolic Form
3-Section Windings

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4642	0.1	4.92	125	$ .57
4644	0.15	6.84	125	.57
4646	0.24	8.16	125	.57
4648	0.39	12.0	125	.63
4649	0.55	13.2	125	.63
4650	0.62	15.1	125	.63
4651	0.75	16.4	125	.63
4652	1.0	19.8	125	.63

Iron Core Form
3-Section Windings

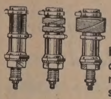
Cat. No.	mh*	Ohms Max.	ma	Net Pr.
4662	1	8.4	125	$ .66
4664	1.5	10.8	125	.69
4666	2.4	14.4	125	.75
4668	3.9	20.4	125	.81
4669	5.5	26.4	125	.93
4670	6.2	39.6	125	.93
4671	8.2	54.0	125	1.11
4672	10	56.4	50	1.29

Ferrite Core R.F. Chokes

A new series of R.F. Chokes taking advantage of the high permeability of ferrite cores. These chokes combine high inductance and low D.C. resistance with a small physical size.

Dimensions of core: ¼" diameter x 7/8" long. 1½" long axial leads.

Cat. No.	mh*	Ohms Max.	ma	Net Pr.
6302	2.5	9.36	200	$ .81
6304	5	14.9	200	.93
6306	10	36.0	125	1.08
6308	25	83.4	75	1.26
6310	50	133	75	1.44



Adjustable Ceramic Forms and R.F. Coils

Permeability tuned coils wound on silicone impregnated ceramic forms. Hardware necessary for assembly is supplied.

Standard Adjustable Ceramic Form and R.F. Coils

Dimensions (form): 3/8" diameter x 1 1/16" long.

Cat. No.	Microhenries	Net Price
4400	Form only	$1.14
4403	0.9- 1.6	1.62
4404	1.5- 3.2	1.65
4405	3.1- 6.8	1.68
4406	6.7- 15	1.74
4407	14.8- 31	1.80
4408	30 - 69	1.83
4409	68 - 130	1.89
4410	126 - 250	1.92
4411	245 - 475	1.95
4412	450 - 800	1.98
4413	750 -1400	2.01
4414	1300 -2100	2.01

#4400 comes complete with hardware and core*

#4400 Bulk packed per 100 Net Price 99.00

Miniature Adjustable R.F. Coils

Dimensions (form): ¼" diameter x 7/8" long.

Cat No.	Microhenries	Net Price
4500	Form only	$1.05
4501	.4- .8	1.50
4502	1.0- 1.6	1.50
4503	1.6- 2.8	1.56
4504	2.8- 5	1.59
4505	5 - 9	1.65
4506	9 - 16	1.71
4507	16 - 24	1.77
4508	24 - 35	1.80
4509	35 - 60	1.83
4511	60 -120	1.86
4512	110 -200	1.89
4513	190 -330	1.92
4514	320 -500	1.95
4514-1	480 -800	2.01

#4500 comes complete with hardware and core*

#4500 Bulk packed per 100 Net Price 81.00

Sub-Miniature Adjustable R.F. Coils

Dimensions (form): 3/16" diameter x 5/8" long.

Cat No.	Microhenries	Net Price
4300	Form only	$1.05
4301	0.17- 0.27	1.50
4302	0.27- 0.41	1.50
4303	0.40- 0.65	1.56
4304	0.64- 0.95	1.59
4305	0.94- 1.55	1.65
4306	1.5 - 2.57	1.71
4307	2.5 - 4.40	1.77
4308	4.3 - 7.15	1.80
4309	7.1 - 12.5	1.83
4310	12.4 - 20.3	1.86
4311	20.1 - 32.8	1.89
4312	32.5 - 51.5	1.92
4313	51. -102.	1.95
4314	101. -180.	1.95
4315	178. -300.	1.95

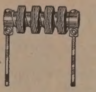
#4300 comes complete with hardware and core*

#4300 Bulk packed per 100 Net Price 81.00

Quantity orders can be wound to your specific requirements with extended inductances and Q values other than those shown. Your inquiries invited.

*When ordering forms alone, the type of core should be specified by the addition of a suffix taken from the following.

Suffix	Frequency Range of Core Material
Y	50-1000 kc.
R	1- 30 Mc.
W	30- 300 Mc.



Multiple Pi Chokes

These Multiple Pi duo-lateral chokes have a low distributed capacity of 1.2-1.3 mmf. The current carrying capacity is comparatively high for this type of choke. Inductance tol. ±5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
4531-0	.25	9.6	200	$ .75
4531	.5	14.4	200	.75
4531-1	1	20.4	200	.75
4532	1.5	25.2	200	.78
4537	2.5	33.6	200	.81
4538	5	50.4	125	.96
4539	7.5	98.4	125	1.08
4540	10	114	125	1.20
4541	25	192	125	1.41

#4537 Bulk packed per 100 — Net Pr. 66.00

R.F. Chokes wound to closer tolerances if required in lots of 100 pieces or more at slightly higher prices.

Unshielded Chokes

These single section R.F. Chokes are ideally suited for general purpose applications in receiver and filter circuit. Solder lug terminals and single hole mounting. Inductance tol. ±5%.

Air Core Type

Dimensions: 1⅛" diameter x 5/8".

Cat. No.	Mh.	Ohms Max.	MA	Net Price
610	.25	9.6	125	$ .60
615	.5	14.4	125	.60
620	.75	19.2	125	.60
622	1.0	21.6	125	.60
630	1.5	25.2	125	.66
640	2.5	34.8	125	.75
650	5.0	52.8	125	.75
660	7.5	66.0	125	.78
670	10	81.0	125	.81
680	12.5	92.5	125	.84
690	15	102	125	.87
691	20	120	125	.96
692	30	156	100	.99
693	60	240	100	1.14
694	80	264	100	1.23

Center Tapped Types

Cat. No.	Mh.	Ohms Max.	MA	Net Price
670-T	10	80.4	125	.87
691-T	20	120	125	.99
693-T	60	240	100	1.32

Iron Core Type

These chokes are similar in construction to the No. 600 series except that they are wound on powdered iron cores. Inductance tol. ±5%.

Cat. No.	Mh.	Ohms Max.	MA	Net Price
951	.5	8.40	125	$ .78
952	1.0	13.2	125	.84
953	2.5	22.8	125	.93
954	5.0	34.8	125	1.05
955	7.5	44.4	125	1.14
956	10.0	56.4	125	1.20
957	25.0	99.5	100	1.32
958	50.0	156	100	1.50
959	75.0	204	100	1.65
960	100.0	240	100	1.86
961	150.0	312	100	1.98

Shielded Chokes

Single section wound R.F. Chokes assembled in round aluminum shield with two spade bolts for mounting. Solder lug terminals.

Iron Core Type

Dimensions: 1¼" dia. x 1⅛" high

Cat. No.	Mh.	Ohms Max.	MA	Net Price
851	.5	9.60	125	$1.17
852	1.0	13.2	125	1.23
853	2.5	24.0	125	1.26
854	5.0	37.2	125	1.32
855	7.5	50.4	125	1.38
856	10.0	56.4	125	1.50
857	25.0	112	125	1.65
Dimensions: 1⅝" dia. x 1⅛" high				
858	50.0	192	100	1.71
859	75.0	228	100	1.89
860	100.0	384	100	2.04
861	150.0	576	100	2.31

*TOLERANCE 0.1 TO 1.0 UH ± 20%, 1.1 TO 10 UH ± 10%, OVER 10 UH ± 5%

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J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

Television Components

Single Pi R.F. Coils

These fixed inductors are wound on a mineral filled phenolic form which has axial leads. The coils are impregnated with an R.F. varnish to assure against moisture absorption.

Part No.	L*	Q Min.	Min. Fo. Mc	Net Price
72F105AP	10 uh	23	13	$ .60
72F125AP	12 uh	21	12	.60
72F155AP	15 uh	20	11	.60
72F185AP	18 uh	20	9.8	.60
72F225AP	22 uh	18	9.6	.60
72F275AP	27 uh	17	8.9	.60
72F335AP	33 uh	16	8.1	.60
72F395AP	39 uh	15	7.5	.60
72F475AP	47 uh	14	7.2	.60
72F565AP	56 uh	13	6.5	.60
72F685AP	68 uh	12	6.1	.60
72F825AP	82 uh	12	5.8	.60
72F104AP	100 uh	20	5.3	.69
72F124AP	120 uh	19	5.0	.69
72F154AP	150 uh	18	4.6	.69
72F184AP	180 uh	17	4.3	.69
72F224AP	220 uh	17	4.0	.75
72F274AP	270 uh	16	3.5	.75
72F334AP	330 uh	16	3.3	.81
72F394AP	390 uh	16	3.1	.81
72F474AP	470 uh	15	2.9	.84
72F564AP	560 uh	14	2.6	.84
72F684AP	680 uh	14	2.4	.84
72F824AP	820 uh	13	2.2	.84
72F103AP	1000 uh	28	1.9	.84

Video Peaking Coils, Filament Choke

No. 6175 Filament Choke—9/32″ dia. x 7/8″ long; Video Peaking Coils—3/16″ dia. x 3/8″ long.

Cat. No.	Use	—uhy	Resistor	Net Price
6175	Filament	0.8	None	$ .57
6152	Peaking	20	None	.57
6176	Peaking	36	None	.57
6110	Peaking	60	None	.57
6172	Peaking	73	None	.57
6177	Peaking	93	None	.57
6112	Peaking	100	None	.57
6178	Peaking	120	22K	.57
6153	Peaking	120	None	.57
6120	Peaking	155	None	.57
6179	Peaking	180	39K	.57
6180	Peaking	180	None	.57
6154	Peaking	200	None	.57
6173	Peaking	250	22K	.57
6181	Peaking	250	None	.57
6130	Peaking	275	None	.57
6155	Peaking	300	None	.57
6132	Peaking	330	None	.57
6134	Peaking	375	None	.57
6136	Peaking	420	None	.57
6138	Peaking	470	None	.57
6174	Peaking	500	None	.57
6144	Peaking	550	None	.57
6146	Peaking	600	None	.57
6148	Peaking	700	None	.57
6156	Peaking	800	None	.57
6157	Peaking	950	None	.57

21.25 MC Television I.F. Transformers

Miller
6187-TV
2nd PIX. TRANS.

Dimensions:
6185-6186-6187 7/8″ Sq. x 2¼″ high
6170, 6190 and 6191 7/8″ sq. x 2¼″ hi
6184 and 6192 1⅛″x1⅛″x2½″ high.
6261 and 6262 3/4″ sq. x 2″ high clip mtg.

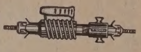
	Item	Freq.	Net Pr.
6185	21.8 MC Conv. I.F. Trans.	21.25 MC	$2.04
6186	25.3 MC 1st Pix I.F. Trans.	27.25 MC	2.04
6187	22.3 MC 2nd Pix I.F. Trans.	19.75 MC	1.65
6190	1st Sound I.F. Trans.	21.25 MC	1.80
6191	2nd Sound I.F. Trans.	21.25 MC	1.80
6192	Sound Disc. Trans.	21.25 MC	2.16
6184	Sound Ratio Det. Trans.	21.25 MC	2.52
6170	Sound Disc. Trans.	21.25 MC	2.46
6261	Sound Disc. Trans.	21.25 MC	2.43
6262	Sound Ratio Det. Trans.	21.25 MC	2.43

Picture I.F. Inductors Unshielded

Dimensions: ½″ max. o.d. x 1½″ long.

Cat. No.	Description	Freq.	Net Pr.
6188	3rd Pix I.F. Trans.	25.2 MC	$ .99
6189	Video Detector I.F. Trans.	23.4 MC	.99
6193	Cathode Sound Trap	21.25 MC	1.50
6171	Tunable Choke	21-25 MC	.96
6171A	Tunable Choke	25-29 MC	.96

24 MC Unshielded Picture I.F. Transformers

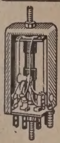


For use as replacement units in television receivers where unshielded coils are called for and standard circuitry is employed. Mounting clip to fit 5/16″ hole in chassis.

Shielded I.F. trans. are 3/4″ sq. x. 1⅜″ high.
Maximum Dimensions: 2½″ long.

Cat. No.	Description	Trap	Price
6245	25.5 MC First I.F.	27.25 MC	$1.86
6246	22 MC Second I.F.	21.2 MC	1.86
6247	21.25 MC Cathode Trap		1.86
6248	24.5 MC Video Det. I.F.		1.17
6249	21-25 MC Bifilar Wound I.F.		1.17
6250	25-29 MC Bifilar Wound I.F.		1.17
6251	21-25 MC Bifilar I.F. Shielded		1.65
6252	25-29 MC Bifilar I.F. Shielded		1.65
6253	21-30 MC Bifilar I.F.	20-30 MC	2.13
6254	22-32 MC Bifilar I.F.	24-29 MC	2.13

"40 MC" TV Picture I.F. Transformers

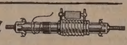


Converter transformer and 1st pix I.F. grid transformer have 75-ohm link winding.

Dimensions
6215-16-17-18 7/8″ Sq. x 2¼″ high
6240 1⅛″ Sq. x 2⅜″ high

	Description	Trap	Net Pr.
6215	Converter I.F. Trans.		$1.80
6216	1st Pix I.F. Grid Trans.	39.25 MC	2.16
6217	1st Pix I.F. Plate Trans.	41.25 MC	2.16
6218	2nd Pix I.F. Grid Trans.	47.25 MC	2.04
6240	Video Detector with Diode	43.7 MC	4.80

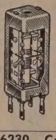
Unshielded



Max. Dim: 3/42 O.D. x 2½″ long. Mtg. hole 5/16″

6219	40-46 MC. 3rd, 4th, 5th I.F.		$ .99
6220	40-46 MC. Converter I.F.		.99
6221	40-46 MC. First I.F.	41.25 MC.	1.92
6222	42-48 MC. Second I.F.	47.25 MC.	1.92
6223	40-46 MC. Third I.F.	39.25 MC.	1.92
6224	39-46 MC. Fourth I.F.		1.02
6225	36-49 MC. Single winding I.F.		1.14
6226	Hi Q Trap	40-46 MC.	1.02

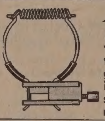
Miniature 44 MC Picture Trans.



Converter and 1st pix I.F. Grid transformer have 75 ohm link winding.
Dimensions: 3/4″ Square x 2″ high.

	Description	Trap	Net Price
6230	Converter I.F.		$1.65
6231	44 MC First I.F.		1.65
6232	42.5 MC Second I.F.	41.25 MC	1.44
6233	45.5 MC Third I.F.	47.25 MC	1.74
6234	44 MC Fourth I.F.		1.35

Adjustable Ion Trap



Due to its adjustable feature, which allows the magnetic field to be varied between 32-55 gausses, this trap will, in most instances, replace the older style ion traps having a specific magnetic field.

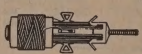
6295	Adjustable Ion Trap	$ .90

4.5 MC Intercarrier Sound Components

Dimensions 1466-67-68: 1⅛″x1⅛″ x2⅛″ high.
#1469, 1470 and 1480 Unshielded, Mounting hole 5/16″
1470-A and 1481 3/4″ x 3/4″ x 2″ hi
#1498 1⅜″ x 1⅜″ x 2½″high
1483-84-95-86-87 7/8″ Sq. x 2¼″ high

Cat. No.	Item	Freq.	Net Pr.
1466	Input or Inter. I.F. Trans.	4.5 MC	$1.98
1467	Sound Discrim. Trans.	4.5 MC	2.31
1468	Sound Ratio Det. Trans.	4.5 MC	2.46
1469	Sound Pick Off Coil	4.5 MC	.99
1470	Sound Trap Unshielded	4.5 MC	.99
1470-A	Sound Trap Shielded	4.5 MC	1.26
1480	Quadrature Coil	4.5 MC	.99
1481	Quadrature Coil Sh'l'd.	4.5 MC	1.29
1482IFT	Sound I.F. Trap	4.5 MC	1.35
1483IF	Sound I.F.	4.5 MC	1.80
1484RD	Sound Ratio Det	4.5 MC	2.10
1485RD	Sound Ratio Det	4.5 MC	2.10
1486RD	Sound Ratio Det	4.5 MC	2.10
1487RD	Sound Ratio Det	4.5 MC	2.10
1488RD	Sound Ratio Det	4.5 MC	2.25
1489RD	Sound Ratio Det	4.5 MC	2.25
1498	Sound Ratio Det. Trans.	4.5 MC	2.43

Linearity & Width Controls



Dimensions: 3/4″ x 2½″ Max.
The coils will mount in either a 5/16″ or 7/16″ hole with adapter supplied.

Cat. No.	Inductance Range Millihenries	Net Price
6313	.5-5	$1.32
6314	2-18	1.23
6315	4-30	1.32
6316	4-30 (2.8-6.5 AGC)	1.80
6317	3.2-9 (.17-1.31 AGC)	1.65
6318	.3-3	1.11
6319	8-60	1.65
6320	.3-3 Tapped	1.14
6321	1-5 Tapped	1.32
6322	1.5-10	1.23
6323	.5-5 Tapped	1.14
6324	60-130 Tapped	1.65
6325	4.2-30 (.78-1.37 AGC)	1.65
6326	2.5-19 Parallel (.18-1.7 Series)	2.25
6327	4-30 Parallel (.225-2.4 Series)	2.25
6328	9-24 (.19-1.1 AGC)	1.65
6329	2.2-10 Tapped	1.50
6330	45-215	1.80
6331	4-30 Parallel (.080-.7 Series)	2.10
6195	.185-1	.99
6196	.054-.245	.84
6196-A	.054-.5 Tapped	.96
6197	.55-2.3 Tapped	.96
6198	.17-.61	.84
6199-A	1.3-4.1 Tapped	1.02
6199-B	.5-1.7	.99

Horizontal Oscillator & Sync. Control Coils

6194-TV
A.F.C.
DISC. TRANS.

Dimensions: 1 7/16″x1 7/16″x2½″ high. 6212 Unshielded, Mounting hole 5/16″ 6211 and 6324 Unshielded, Mountinghole 7/16″—6183 may be reversed in shield for top or bottom mounting. 6183-A coils reversed on form to tune Horiz. Osc. through chassis.

Cat. No.	Item	Net Price
6194	Osc. & A.F.C. Discrim. Trans.	$2.04
6182	Osc. and Sync. Control Coil	1.65
6183	Osc. and Sync. Stabilizer Coil	2.10
6210	Sync. Stabilizer Coil 16-42 mh	1.65
6211	Sync. Stabilizer tapped 16-42 mh	1.65
6212	Horiz. Osc. tapped 12-35 mh	1.65
6324	Horiz. Osc. tapped 60-130 mh	1.65
6183-A	Horiz. Osc. coil position reversed	2.10

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

R. F. and I. F. Transformers

Miniature Adjustable R.F. Coils

These high Q adjustable iron core coils are for general replacement use.

Dimensions:

70-A and 70-RF	½″ dia x 1½″ long
69-Osc and 70-Osc	½″ dia x 1⅛″ long
67-Osc	⅜″ dia x 1⅝″ long
71-RF	¾″ dia x 1¾″ long

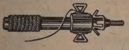
Cat No.	Item		Net Price
67-OSC	Oscillator Stage	540-1600 kc	$1.29
	Autodyne type Oscillator		
69-OSC	Oscillator Stage	540-1600 kc	1.14
	Capacity coupled type		
70-A	Antenna Stage	540-1600 kc	1.14
70-RF	R.F. Stage	540-1600 kc	1.14
70-OSC	Oscillator Stage	540-1600 kc	1.14
71-RF	R.F. Coil	540-1600 kc	1.80

Universal Adjustable Oscillator Coil

These adjustable iron core oscillator coils are for general replacement use.

Dimensions: ⅝″ x 1½″ high.

Cat. No.	Use	Freq. Range	Net Price
71-OSC	Oscillator Stage	R.F. 500-1800 KC (I.F. 100-550 KC)	$1.65



High-Q Ferrite Antenna Coil

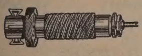
Supplied with mounting bracket

Dimensions: ⅜″ diameter x 2¼″ long.

Cat. No.	Use	Freq. Range	Net Price
6300	Antenna Stage	540-1700 KC	$ .90

Adjustable FM R.F. Coils

Dimensions: ½″ O.D. x 1⅝″ long.		Net. Pr.
1447	88-108 MC Antenna Coil	$1.20
1448	88-108 MC R.F. Coil	1.20
1449	88-108 MC Osc. Coil (10.7 MC I.F.)	1.20



Unshielded High-Q R.F. Coils

A complete line of Unshielded Permeability tuned coils for replacement use or as the front end components in new receiver design.

These #5495 series coils can be shielded in our #S-33 shields (1⅛″ sq.) with very little loss in Q. Mounting is by means of a single ¼″ hole.

Dimensions (form): ⅜″ x 2″.

Ranges shown are for use with a 365 mmfd. variable tuning condenser.

Cat. No.	Use	Net Price
Long Wave Coils (140-420 KC)		
X-5495-A	Antenna Stage	$1.65
X-5495-RF	RF Stage	1.65
X-5495-C	Standard Osc. 455 KC	1.65
X-5496-C	Tapped Osc. 455 KC	1.65
Broadcast Band Coils (540-1700 KC)		
A-5495-A	Antenna Stage	1.65
A-5495-RF	RF Stage	1.65
A-5495-C	Standard Osc. 455 KC	1.65
A-5496-C	Tapped Osc. 455 KC	1.65
Medium Wave Coils (1.7-5.5 MC)		
B-5495-A	Antenna Stage	1.65
B-5495-RF	RF Stage	1.65
B-5495-C	Standard Osc. 455 KC	1.65
B-5496-C	Tapped Osc. 455 KC	1.65
Short Wave Broadcast Coils (5-18 MC)		
C-5495-A	Antenna Stage	1.65
C-5495-RF	RF Stage	1.65
C-5495-C	Standard Osc. 455 KC	1.65
C-5496-C	Tapped Osc. 455 KC	1.65
High Frequency Coils (12-36 MC)		
D-5495-A	Antenna Stage	1.65
D-5495-RF	RF Stage	1.65
D-5495-C	Standard Osc. 455 KC	1.65
D-5496-C	Tapped Osc. 455 KC	1.65

Miniature J-Tran Top Tuned I.F. Transformers

The standard J-TRAN series of miniature I.F. transformers has hollow hexagonal-hole cores and thereby, with the aid of a suitable tuning tool (#182), permits either double or single ended tuning. The transformer is mounted with a unique snap fastener which is permanently attached to the shield.

Dimensions: ¾″ by ¾″ by 2″ high. *(With diode filter capacitors)

Cat. No.	Item	Net Price
14-H1	262 kc Input I.F.	$1.74
14-H2	262 kc Output I.F.	1.74
14-H6	262 kc Output I.F.*	1.80
14-C1	455 kc Input I.F.	1.62
14-C2	455 kc Output I.F.	1.62
14-C6	455 kc Output I.F.*	1.71
14-C7	455 kc Input I.F. Battery Radios	1.62
14-C8	455 kc Output I.F. Battery Radios	1.62
14-C9	455 kc Input I.F. AC-DC Radios	1.62
14-C10	455 kc Output I.F. AC-DC Radios	1.62
6270	4.5 Mc Input or Interstage	1.74
6271	4.5 Mc Ratio Detector	2.97

Miniature Printed Circuit Top Tuned I.F. Transformers

The printed circuit series of miniature J-TRAN I.F. transformers is similar to the standard J-TRAN shown in that both cores may be tuned from either end of the shield.

Dimensions: ¾″ by ¾″ by 2″ high. *(With diode filter capacitors)

Cat. No.	Item	Net Price
16-PH1	262 kc Input I.F.	$1.71
16-PH2	262 kc Output I.F.	1.71
16-PH6	262 kc Output I.F.*	1.80
16-PC1	455 kc Input I.F.	1.65
16-PC2	455 kc Output I.F.	1.65
16-PC6	455 kc Output I.F.*	1.74
16-PC7	455 kc Input I.F. Battery Radios	1.65
16-PC8	455 kc Output I.F. Battery Radios	1.65
16-PC9	455 kc Input I.F. AC-DC Radios	1.65
16-PC10	455 kc Output I.F. AC-DC Radios	1.65
6270-PC	4.5 Mc Input or Interstage	1.74
6271-PC	4.5 Mc Ratio Detector	2.97

Universal I.F. Transformers

For general replacement purposes in auto receivers and many types of household and portable receivers.

Dimensions: 1¼″ square x 2½″ high.

Cat. No.	Freq.	KC Range	Use	Net Price
312-H1	262	250-275	Input	$1.89
312-H2	262	250-275	Interstage	1.89
312-H4	262	250-275	Output	1.89
312-H6	262	250-275	Output & Filter	2.13
312-C1	455	440-470	Input	1.89
312-C2	455	440-470	Interstage	1.89
312-C4	455	440-475	Output	1.89
312-C6	455	440-470	Output & Filter	2.13

Type No. 412 Iron Core Transformers

Dimensions: 1¼″ square x 2½″ high.

Cat. No.	Freq.	KC Range	Use	Net Price
412-H1	262	250-275	Input	$1.89
412-H2	262	250-275	Interstage	1.89
412-H4	262	250-275	Output	1.89
412-C1	455	440-470	Input	1.89
412-C2	455	440-470	Interstage	1.89
412-C4	455	440-470	Output	1.89

Miniature I.F. Trans.

Designed for experimental use and for general replacement in "personal" radio receivers, this series of shell core permeability tuned transformers are becoming increasingly popular. Tuning from top and bottom of the shield. Transformers are available for all standard I.F.

*(With diode filter capacitors)

Dimensions: ¾″ by ¾″ by 2″ high.

Cat. No.	Item		Net Price
12-H1	262 KC Input I.F. Trans		$1.74
12-H2	262 KC Output I.F. Trans.		1.74
12-H6	262 KC Output I.F. Trans.*		1.80
12-C1	455 KC Input	16 KC @ 6db	1.62
12-C2	455 KC Output	21 KC @ 6db	1.62
12-C6	455 KC Output I.F. Trans.		1.71
12-C7	455 KC Input I.F.	Battery	1.62
12-C8	455 KC Output I.F.	Battery	1.62
12-C9	455 KC Input I.F.	AC-DC	1.62
12-C10	455 KC Output I.F.	AC-DC	1.62
12-C12	455 KC Tapped Pri. I.F. Trans.		1.95
12-C30	455 KC Input	11.4 KC @ 6db	1.62
12-C31	455 KC Output	13.6 KC @ 6db	1.62
12-C45	455 KC Discriminator		2.37
13-W1	1500 KC Input or Interstage		1.65
13-W2	1500 KC Output I.F. Trans.		1.65
1463	10.7 MC Input or Interstage		1.95
1464	10.7 MC Discriminator		2.25
1465	10.7 MC Ratio Detector		2.34
1464-WB	10.7 MC Disc. 900 KC. P/P		2.25
1465-WB	10.7 MC Ratio Det. 800 KC. P/P		2.34
1725	455 kc Xtal Filter I.F. Input		1.95
1726	455 kc Xtal Filter I.F. Output		1.95
6203	4.5 MC Input or Interstage		1.98
6204	4.5 MC Discriminator		2.25
6205	4.5 MC Ratio Detector		2.25
6260	21.25 MC I.F. Trans.		2.55
6261	21.25 MC Discriminator		2.43
6262	21.25 MC Radio Detector		2.43
6230	TV Converter I.F.		1.65
6231	TV 44 MC First I.F.	Trap	1.65
6232	TV 42.5 MC Second I.F.	41.25 MC	1.44
6233	TV 45.5 MC Third I.F.	47.25 MC	1.74
6234	TV 44 MC Fourth I.F.		1.35

Miniature Printed Circuit I.F. Trans.

Same as our regular miniature I.F. transformers shown above, except for terminals and mounting. Supplied in all standard frequencies.

*(With diode filter capacitors)

Dimensions: ¾″ sq. x 2″ high.			Net Price
13-PH1	262 KC Input I.F. Trans.		$1.71
13-PH2	262 KC Output I.F. Trans.		1.71
13-PH6	262 KC Output I.F. Trans. *		1.80
13-PC1	455 KC Input I.F. Trans.		1.65
13-PC2	455 KC Output I.F. Trans.		1.65
13-PC6	455 KC Output I.F. Trans. *		1.74
13-PC7	455 KC Input I.F. Trans.	Battery	1.65
13-PC8	455 KC Output I.F. Trans.	Battery	1.65
13-PC9	455 KC Input I.F. Trans.	AC-DC	1.65
13-PC10	455 KC Output I.F. Trans.	AC-DC	1.65
1463-PC	10.7 MC Input or Interstage		1.95
1464-PC	10.7 MC Discriminator Trans.		2.25
1465-PC	10.7 MC Ratio Detector Trans.		2.34
6203-PC	4.5 MC Input or Interstage		1.98
6204-PC	4.5 MC Discriminator Trans.		2.25
6205-PC	4.5 MC Ratio Detector Trans.		2.25
6230-PC	TV 44 MC Converter I.F. Trans.		1.86
6231-PC	TV 44 MC First I.F. Trans.	Trap	1.86
6232-PC	TV 42.5 MC Second I.F.	41.25 MC	1.68
6233-PC	TV 45.5 MC Third I.F.	47.25 MC	1.86
6234-PC	TV 44 MC Fourth I.F. Trans.		1.65

Sub-Miniature I.F. Trans.

Miller
10-C1
455 KC I.F.
INPUT

Through the use of a Ferrite shell core material these Sub-Miniature I.F. Transformers offer the gain and bandwidth characteristics previously obtained in only larger I.F. assemblies. (For Battery or AC-DC Radios.)

Dimensions: ½″ sq. x 1½″ high.

	Item	Net Price
10-C1	455 KC Input I.F. Trans.	$1.68
10-C2	455 KC Output I.F. Trans.	1.68

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles 3, Calif.

Miller

Transistor Components and R. F. Coils

Wide Range Adjustable Inductors

Due to the wide range of these coils they will find immediate application in many prototype designs where the exact value of the required inductance is not known.

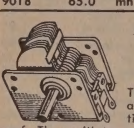
Dimensions: Max. dia. ¾"x1¼" long both types
Inductance measured at 1000 cycles

Untapped Inductors

Cat. No.	L Min.	L Max.	Net Price
9001	35 uh	.300 mh	$1.11
9002	.150 mh	1.00 mh	1.44
9003	.500 mh	3.50 mh	1.65
9004	1.75 mh	10.0 mh	1.65
9005	5.00 mh	20.0 mh	1.77
9006	10.0 mh	50.0 mh	1.89
9007	25.0 mh	130 mh	1.95
9008	65.0 mh	300 mh	2.07

Tapped Osc. Inductors

Cat. No.	L Min.	L Max.	Net Price
9011	35 uh	.300 mh	$1.29
9012	.150 mh	1.00 mh	1.59
9013	.500 mh	3.50 mh	1.80
9014	1.75 mh	10.0 mh	1.80
9015	5.00 mh	20.0 mh	1.89
9016	10.0 mh	50.0 mh	2.07
9017	25.0 mh	130 mh	2.07
9018	65.0 mh	300 mh	2.25

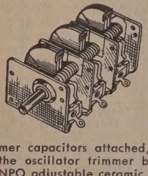


Midget Variable Condensers

Shaft dia. ¼" x 1" long. The #2110, 2-gang variable condenser antenna section has a range of 10-130 mmf. The oscillator section has a range of 10-78 mmf. The #2111, #2112 and #2113 are the standard size condensers having a range of 10-365 mmf. Mounting is provided by tapped holes in the frame of the condensers. Counterclock rotation for capacity increase.

Cat. No.	Sections	Dimensions	Net Price
2110	2	15/16"x1⅜"x1 15/16"	1.98
2111	1	1 3/16"x1⅜"1 5/16"	1.95
2112	2	2 3/16"x1 13/16"x1⅝"	2.40
2113	3	3 3/16"x1 13/16"x1⅝"	3.30

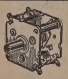
F.M. Variable Capacitor



This 3-gang 7-plate variable capacitor is rigidly constructed with widely spaced (.042 Air Gap) plates to assure highest stability. The plate contour results in an almost linear frequency versus rotation characteristics. Although the capacitor is supplied with 3 trimmer capacitors attached, it is recommended that the oscillator trimmer be replaced with a small NPO adjustable ceramic. The tuning capacitor has a ¼" diameter shaft 15/16" long. Capacitor range is 6.6-23 mmfd. Trimmer capacitor will add to these values.

Dimensions: 3 3/16"x1 13/16"x1⅝"

Cat. No.	Item	Net Price
1461-BS	3-Gang FM Tuning Capacitor	$3.60



Sub-Miniature Variable Condenser

Shaft Dia. ¼" x ½" Long

It was necessary to use a four point suspension for the capacitor frame to insure against the frame becoming distorted and resultant shorting of plates. R.F. Cap. (11 Plates) 5.3 mmf—122.4 mmf

Os. Cap. (9 Plates) 4.2 mmf—78.6 mmf

Effective trimmer range: 1.8—8 mmf

Cat.	Sections	Dimensions	Net
2109	2	1⅛"x1⅛"x¾"	$2.10

AdjustablePadderCondensers

Used as adjustable oscillator padding condenser in super-het receivers to insure proper three-point tracking. They also find application as the horizontal drive control in television receivers. ¼" single hole mounting.
Dimensions: ⅞" x 1" x ⅜" thick.

Cat. No.	Capacity Range	Net Price
160-A	360-1000 mmfd.	$ .84
160-B	50-400 mmfd.	.75
160-C	200-600 mmfd.	.84
160-D	10-160 mmfd.	.66
160-E	25-280 mmfd.	.72

Standard Transistor Antenna Rod

Dimensions: ¾" x 9".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2000	450	540-1650 KC	365 mmf.	$1.95

Miniature Transistor Antenna Rods

Dimensions: ¾" x 3¾".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2001	550	540-1650 KC	365 mmf.	$1.80
2003	500	540-1650 KC	130 mmf.	1.80

Ferrite-Strip Transistor Antenna Rods

Dimensions: ¼" x ¾" x 3¾"

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2004	500	540-1650 KC	365 mmf.	$1.80
2005	450	540-1650 KC	130 mmf.	1.80

Sub-Miniature Transistor Antenna Rods

Dimensions: ½"x2½".

Cat. No.	Q @ 790 KC	Freq. Range	Tuning Cond. Max. Capacity	Net Price
2002	250	540-1650 KC	250-450 mmf.	$1.11
2007	220	540-1650 KC	100-250 mmf.	1.44

Sub-Miniature Transistor I.F. Transformers & Matching Osc.

Miller
9-C2 455
Transistor
Output

A high impedance, tapped primary winding coupled to a low impedance secondary provides optimum energy transfer.

Dimensions: ⅜" sq. x ⅝" high.

Cat. No.	Freq.	Impedance	Use	Net Price
9-C1	455 KC	25K— 600 Ohms	Input	$2.40
9-C2	455 KC	25K—1000 Ohms	Output	2.40
2021	Oscillator (Tuning Cap. 78 mmfd)			2.10

Miniature Transistor I.F. Transformers

No. 2041-455 KC
Transistor I.F.
Miller

Designed to have the proper impedance match when used with the transistors on our data sheets.

Dimensions: ½" sq. x ¾" high.

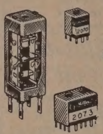
Cat. No.	Freq.	Impedance	Use	Net Price
2031	455 KC	10K— 600 Ohms	Input	$2.10
2032	455 KC	10K—1000 Ohms	Output	2.10
2041	455 KC	25K— 600 Ohms	Input	2.10
2042	455 KC	25K—1000 Ohms	Output	2.10
2043	455 KC	70K—1000 Ohms	Input	2.10
2044	455 KC	30K—4000 Ohms	Output	2.10
2045	455 KC	70K— 500 Ohms	Input	2.10
2051	455 KC	100K—1000 Ohms	Input	2.10

Unshielded Miniature Transistor Oscillators

The 2020 oscillator coil (Revised 5-lug) is designed for use in a converter oscillator circuit. The 2023 oscillator coil (6-lug) is for use where a separate transistor is used for the oscillator and another transistor for the mixer.
Dimensions: ⅜" x 1" high

Cat. No.	Cond. Max. Capacity	I.F. Freq.	Net Price
2020	365 mmf.	455 KC	$1.65
2022	78-100 mmf	455 KC	1.65
2023	365 mmf.	455 KC	1.65

F.M. Transistor I.F. Transformers



This series of high quality I.F., Discriminator, and Ratio Detector transformers makes it possible for the first time to construct a completely self-contained battery operated F.M. receiver which compares favorably with its vacuum tube counterpart.

Dimensions: ¾" sq. x 2" high.

Cat.	Freq.		Use	Net Price
1463-T1	10.7 Mc	First I.F.	Input	$2.28
1463-T2	10.7 Mc	Second I.F.	Instage	2.37
1463-T3	10.7 Mc	Third I.F.	Output	2.37
1464-TD	10.7 Mc	Discriminator		2.55
1465-TRD	10.7 Mc	Ratio Detector		4.80

Printed Circuit Style

1463-T1-PC	10.7 Mc	First I.F.	Input	$2.28
1463-T2-PC	10.7 Mc	Second I.F.	Instage	2.37
1463-T3-PC	10.7 Mc	Third I.F.	Output	2.37
1465-TRDPC	10.7 Mc	Ratio Detector		4.80

Sub-Miniature Style

I.F. Trans. Dimensions: 13/32" sq. x ½" high
Ratio Det. Dimensions: 13/32" x ¾" x ½" high

2070	10.7 Mc	First I.F.	Input	$2.25
2071	10.7 Mc	Second I.F.	Instage	2.25
2072	10.7 Mc	Third I.F.	Output	2.25
2073	10.7 Mc	Ratio Detector		2.70

Improved 10.7 Mc. Transistor I.F. Transformers

Dimensions: ¾" Sq. x 2" High

1601	10.7 Mc	First I.F. Input	$2.28
1602	10.7 Mc	Second I.F. Instage	2.37
1603	10.7 Mc	Third I.F. Output	2.37
1604	10.7 Mc	Discriminator	2.55
1605	10.7 Mc	Ratio Det. w/Diodes	4.80
1606	10.7 Mc	Ratio Detector	2.34

Micro Miniature Transistor I.F. Trans. & Matching Oscillator

Miller
2061

Construction is ultra small, rugged and mechanically stable. Tuning being effected by means of a sturdy threaded cup core which engages a threaded coil support. Dimensions: 9/32" sq. x 15/32" high

Cat. No.	Freq.	Impedance	Use	Net Price
2061	455 kc	50k - 800 ohms	Input	$2.10
2062	455 kc	30k - 500 ohms	Instage	2.10
2063	455 kc	20k - 5k ohms	Output	2.10
2060	Oscillator (Tuning cap. 78 to 100 mmfd, max.)			2.10

Mini Miniature Transistor I.F. Trans. & Matching Oscillator

Miller
2066

Similar in style to the Micro Miniature, these transformers are a little larger in size, with built-in capacitors for higher available Q.

Dimensions 13/32" sq. x ½" high

Cat. No.	Freq.	Impedance	Use	Net Price
2066	455 kc	50k - 800 ohms	Input	$2.10
2067	455 kc	30k - 500 ohms	Instage	2.10
2068	455 kc	20k - 5k ohms	Output	2.10
2065	Oscillator (Tuning cap. 78 to 110 mmfd, max.)			2.10

For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY **Los Angeles 3, Calif.**

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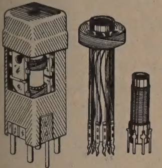
Miller

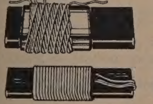
Exact Replacement Components

Replacement for Original T.V. and Home Radio Equipment



The following special parts have been manufactured as exact replacements for the set manufacturers shown, so as to assure top performance.

Cat. No.	O.E.M. Part No.	Net Price
Admiral		
1471-A	72B185-2	$1.95
1472-A	72C132-19	1.35
6332	94C17-4	2.01
7701	72B31-2	2.37
Crosley		
7101	157856-1	$1.80
Dumont		
7103-DE	20004441	$2.25
7104-DE	20004511	2.10
Emerson		
6339-E	708275	$1.50
6340-E	716102	1.65
7112-E	708276	2.25
General Electric and Hotpoint		
12-C11	RTL-143 and 163	$1.62
12-C13	RTL-172	2.10
6206-PC	RTD-026 (WT56X38)	2.97
6207-PC	RTD-025 (WT56X37)	2.49
6208-PC	RTD-020	2.97
6209-G1	RTD-024 (WT56X36)	2.85
6334-G	RLI-365	1.29
6335-G	WT36X402	1.29
Hallicrafter		
1482 IFT	51B1996	$1.35
7101	51A1859	1.80
Muntz		
7111-M	LO-0076	$2.25
Philco		
6209-P1	32-4721	$5.70
6209-P2	32-4689-1, 2	2.85
6209-P3	32-4735-1, 2	2.85
7102-P	32-4688-10	2.10
R.C.A.		
1483 IF	76437	$1.80
1484 RD	102692	2.10
1485 RD	102644	2.10
1486 RD	102253	2.10
1487 RD	100364	2.10
1488 RD	79141	2.25
1489 RD	101219	2.25
6333	103103	1.76
6336-R	107284	2.10
Westinghouse		
Westinghouse		
12-C14	235V025H-11, 2 (V157661)	$2.10
68 Osc	230V039H-01 (V15764-1)	1.65
6204-W3	V12128-1, 2, 3	4.05



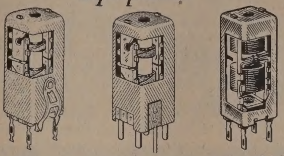
Replacement Antennas

These replacement loops can be used in a large number of the imported Broadcast Band Portable Receivers.

Dimensions: #2008 ¼x¾"x2⁵⁄₁₆"
#2009 ³⁄₁₆"x½"x2⅛"

Cat No.	Freq. Range	Tuning Cap.	Net Price
2008	540-1650 kc	200-240 mmfd	$1.65
2009	540-1650 kc	120-140 mmfd	1.65

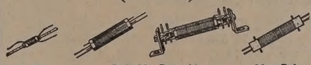
Exact Replacements for Original Auto Radio Equipment



In addition to our regular replacement line of I.F. transformers we are now offering the following special replacement items, as well as the exact replacement I.F. transformers for those parts which were supplied by the original manufacturer.

Cat No.	O.E.M. Part No.	Net Price
Bendix		
6501	2090237-1	$2.25
6502	2090237-2	2.25
6503	2090237-3	2.25
6504	2090237-4	2.25
6505	2090237-5	2.25
6506	2090239-1	2.10
6507	2090239-2	2.10
6508	2090239-3	2.10
6509	2090907-2	2.10
6510	2090908-3	2.25
6511	2090907-3	2.10
6513	2090908-4	2.25
6514	2090907-5	2.10
6515	2090908-5	2.25
Delco		
6540	1221253	$2.10
6541	1221255	2.10
Motorola		
6550	24C485553	$2.10
6551	24C485554	1.95
6552	24C485555	1.95
6553	24D563300 (Mopar)	1.95
General Replacement		
6581	455 kc I.F. Output with Diode Filter	$1.89
6582	455 kc I.F. Input	1.80
6583	455 kc I.F. Output	1.80
6584	262 kc I.F. Input	1.92
6585	262 kc I.F. Output with Diode Filter	1.98

Antenna Matching Coils (Balun)



Cat No.	O.E.M. Part No.	Net Price
7301	R.C.A. 1959 and 1960	$ .69
7302	Philco 32-4432-3	1.53
7303	Motorola 74420, Olympic, Silvertone	.60
7304	R.C.A. 1955, 1956, 1957	.69
7305	R.C.A. 1955, 1956, 1957	.69
7306	R.C.A. 1955, 1956, 1957	.69
7307	G.E. RLA-043, RLA-045, Hotpoint	1.53
7308	G.E. WT37X8, RLA-042	1.53
7309	G.E. WT37X10, RLA-044	1.56
7310	G.E. RLA-047, Hotpoint	1.53
7311	G.E. RLA-050, Hotpoint	1.29
7312	G.E. RLA-053, Hotpoint	1.59
7313	G.E. RLA-046, Westinghouse V-19024-7, -9, Truetone	.96
7314	Philco 32-4799, G.E., Standard Coil	2.16
7315	Philco 32-4725-1, -3	1.14
7316	Philco 76-11489-1, Silvertone, Sylvania, Westinghouse	1.23
6103	G.E. RLA-041	.93
6104	R.C.A. 73591, 78396, Motorola 24B720936	.69
6200	Philco 32-4725-3, -5, -6	1.35
6202	Philco 32-4432-1, -2, -3, Westinghouse V-8621-1, -2, -3, -4	1.35

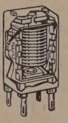
Replacement for Color T.V.

The following series of components are intended as exact replacements in the various models of color T.V. sets that R.C.A. has produced. With other manufacturers entering the field, but still depending on R.C.A. for a large number of basic components it is felt that these parts will be useful.

No.	Use	O.E.M. Part No.	Net Price
6021	Chroma BP Trans.	78887	$2.10
6022	Chroma BP Coil	78888	1.53
6023	Burst Trans.	78886	3.30
6024	3.58 Mc. Output	78889	2.64
6025	Sync. and Phase	100430	4.80
6026	Chroma Ref. Osc.	78891	3.30
6027	3.58 Mc. Trap	* 78892	1.65
6028	3.58 Mc. Ch. Sync.	* 78892	1.65
6029-R	First Chroma	105213	3.96
6030-R	Burst Amp.	105214	2.52
6031-R	Video I.F.	106385	1.17
6032-R	Video I.F.	106386	1.26
6033-R	Video I.F.	106387	1.26
6034-R	Video I.F.	105292	1.08
6035-R	Video I.F.	105293	1.08
6036-R	Video I.F. & Trap	105294	4.32
6337-R	Horiz. Waveform	102195	1.20
6338-R	Horiz. Linearity	105196	1.98
7105-R	4.5 Mc. Sound I.F.	105286	1.17
7106-R	4.5 Mc. Sound I.F.	105287	3.00
7107-R	4.5 Mc. Quadrature	105288	1.80
7108-R	4.5 Mc. Sound I.F.	106381	1.29
7109-R	4.5 Mc. Sound I.F.	106382	3.06
7110-R	4.5 Mc. Quadrature	106383	2.04

*Resistors and Capacitors are included.

F.M. Stereo Multiplex Inductors



Basically the system involves pick-up of sound by two microphones, the left (L) and right (R). Subsequently the two audio signals are combined in such a way that L plus R frequency modulates an F-M carrier in the conventional way while L minus R amplitude modulates a 38KC stereophonic subcarrier, and the resulting double side-band AM signal (23-53KC) with suppressed carrier, likewise frequency modulates the FM carrier. A 19KC pilot sub-carrier signal also frequency modulates the FM carrier and at the receiver provides a means of controlling the frequency and phase of the 38 KC carrier for re-insertion. When broadcasting Stereo Multiplex the region of 53 to 75KC is allotted to the station for SCA signals.

In the receiver the output of the F-M detector comprises the L+R audio signal, the 19KC pilot sub-carrier, and the 23-53KC A-M modulated (L-R), suppressed carrier signal. It is then required to separate the 23-53KC signal by means of a suitable filter, generate a 38KC signal under the control of the 19KC pilot sub-carrier, re-insert the sub-carrier, and detect the resulting signal. This yields L—R. This must then be combined in a suitable matrix with the L+R signal in such a manner that the L signal appears at one output terminal and the R signal at another.

Dimensions: ¾" Sq. x 1⁷⁄₃₂" High.

Cat. No.	Description	Net Price
1351	Low Pass Filter	$1.95
1352	BP Filter Series Element	1.80
1353	BP Filter Shunt Element	1.80
1354	Locked Osc. 19 kc.	1.86
1355	Output Trans.38 kc.	2.25

Printed Circuit Multiplex Inductors

The following coils are electrically the same as the regular point to point wiring type listed above. The printed circuit board PCM can be adapted for use with either the regular coils or the printed circuit type.

Dimensions: ¾" Sq. x 1⁷⁄₃₂" High.

Cat. No.	Description	Net Price
1351-PC	Low Pass Filter	$1.95
1352-PC	BP Filter Series Element	1.80
1353-PC	BP Filter Shunt Element	1.80
1354-PC	Locked Osc. 19 kc.	1.86
1355-PC	Output Trans. 38 kc.	2.25
PCM	Printed Circuit Board	5.55

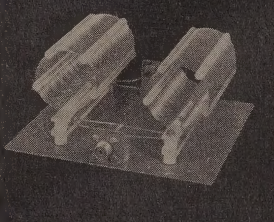
For a Complete Listing of MILLER PRODUCTS ask for a copy of our Latest General Catalog.

J. W. MILLER COMPANY Los Angeles 3, Calif.

air dux

AIR WOUND COILS

Illumitronic Engineering has developed a complete, versatile series of air core inductors designed especially for the amateur rig, or for prototypes of RF transmission equipment. These coils may be used for pi output circuits, conventional LC output circuits, interstage and oscillator circuits. The series consists of a standard coil type, a variable pitch type, and an indented type, in a range of diameters from ½ inch to 3 inches. All Air Dux® coils are constructed of tinned (silver or formvar) copper wire wound on large low loss polystyrene rods for the highest mechanical strength and lowest electrical losses.

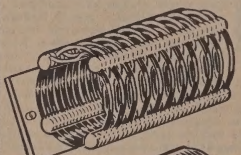


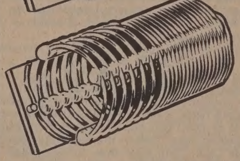
air dux® BALUN

Unbalanced coax lines used on most transmitters can be matched to balanced lines of either 75 or 300 ohms impedance by using the B2009 air dux coils. May be used with transmitters and receivers without adjustment over the frequency range of 80 through 10 meters and will handle power inputs up to 200 watts.

NO.	DESCRIPTION	NET EA.
B2009	Coil with hardware	3.36
MB2009	Mounting plate	1.95

Two coils required.
Coax connector not included.



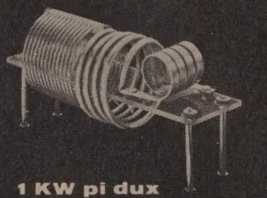


indented pi dux®

Cat.No.	Dia	TPI	Wire Size	Length of Coil	L uh.	Net
816A	1	16	18	3 3/16	18.0	1.25
1014A	1¼	14	18	2 25/32	18.3	1.50
1212A	1½	12	16	2¾	18.3	1.70
1411A	1¾	11	14	2⅝	18.0	1.90
1609A	2	9	14	3	18.1	2.10
2007A	2½	7	12	3¼	18.6	2.60
2406A	3	6	10	3 5/16	18.7	3.25

vari-pitch pi dux®

Cat.No.	Dia	TPI	Wire Size	Length of Coil	L uh.	Net
820D10	1	20 & 10	18	3¼	18.0	1.25
1212D6	1½	12 & 6	14	3 13/16	18.6	2.00
1608D6	2	8 & 6	12	4⅛	18.1	2.70
2008D5	2½	8 & 5	12	3¾	18.2	3.25
2408D4	3	8 & 4	10	3¾	18.6	3.95



1 KW pi dux

2 new pi dux assemblies

The 500 and 1000 watt pi dux assemblies are compact yet conservatively rated. The high frequency coil sections are silver plated for high tank circuit efficiency. A complete technical sheet is included with each assembly.

#195-1 500 watt pi dux Assembly net 5.95
#195-2 1 KW pi dux Assembly net 14.50

air dux®

Cat.No. T or S	Dia.	TPI	Wire Size	Length of Coil	Net Price
404	½	4	18	2	.40 (Silver .80)
406		6	18		
408		8	18		
410		10	18		
416		16	20		
432		32	24		
504	⅝	4	16	2	.45 (Silver .85)
506		6	18		
508		8	18		
510		10	18		
516		16	20		
532		32	24		
604	¾	4	16	2	.50 (Silver .90)
606		6	18		
608		8	18		
610		10	18		
616		16	20		
632		32	24		
804	1	4	16	3	.65 (Silver 1.10)
806		6	18		
808		8	18		
810		10	18		
816		16	20		
832		32	24		
1004	1¼	4	14	10	1.65
1006		6	14		
1008		8	16		
1010		10	18		
1016		16	20		
*1032		32	24		
1204	1½	4	14	10	1.80
1206		6	14		
1208		8	16		
1210		10	18		
1216		16	20		
*1232		32	24		
1404	1¾	4	14	10	1.90
1406		6	14		
1408		8	14		
1410		10	16		
1416		16	18		
*1432		32	24		
1604	2	4	12	10	1.95
1606		6	14		
1608		8	14		
1610		10	16		
1616		16	18		
2004	2½	4	12	10	2.25
2006		6	12		
2008		8	14		
2010		10	16		
2404	3	4	10	10	3.40
2406		6	12		
2408		8	14		
2410		10	14		

*New

"T" series air dux are Tinned copper wire. (Add "T" after Cat. No.)

"S" series are SILVER PLATED copper wire. (Add "S" after Cat. No.)

1000 thru 2400 series silver coils are available at double the costs shown.

Complete technical charts and graphs on air dux and pi dux are available on sheets T.H. 6 and 7.
Formvar coils available at higher costs.

Special Designs available. For information, contact us or consult your local distributor.

products by **illumitronic engineering**

CHOKES

National is a leading manufacturer of radio frequency chokes, producing both standards and unique designs such as our new Ferrite Bead Choke which disappears from your circuit electrically at low frequencies. Hundreds of values are kept in-stock at all times for immediate shipment. National engineers will also custom design to your specifications on short notice. You will find National chokes stocked locally by all leading distributors.

CAPTIVE HARDWARE

National's unique approach to stainless steel captive hardware has caused an overnight revolution. A hexagonal head forced into the thin aluminum causes the parent material to cold flow into a special cavity. The hardware is thus permanently captured so it can't push, pull or torque out even under abnormal pressures, giving a stainless steel thread which will allow insertion and removal of screws many times. A wide variety of configurations in nuts and studs is available from stock.

COIL FORMS

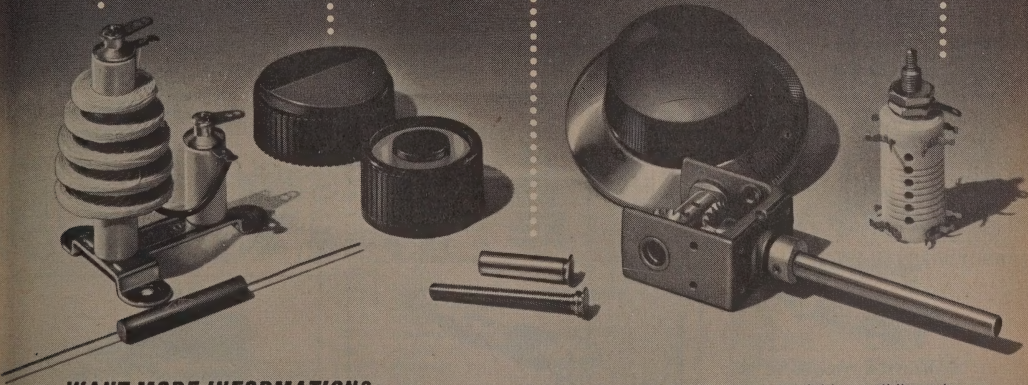
If you require complete flexibility in choice of coil forms, your logical source is National. We manufacture perhaps the widest variety available anywhere. New forms are constantly being added. National's enormous stocking facilities assure fast delivery when you need it.

KNOBS

Whether it's Mil-Spec or Commercial Knobs you want, National makes a complete line to suit your every design need. More than 200 different Commercial Knobs styles are available . . . many *in stock* for immediate shipment. Our Custom Department will give you immediate service to fill specialized needs. National Mil-Spec knobs are made to specification MS91528. All types and styles are available for immediate delivery. National will custom mark dials for Mil-Spec knobs in any size required.

DIALS & DRIVES

National is a long-established leader in the design and manufacture of mechanical devices for electronic equipment such as vernier drive mechanisms, precision gear drives and vernier dials. National can quickly adapt its vernier mechanisms to dials marked to your specifications. All mechanical component parts are made to exacting standards and undergo extensive quality control inspection to insure complete reliability in the finished product.



WANT MORE INFORMATION? National has complete specifications and drawings available on all lines. In addition to those mentioned above, National carries tremendous stock of a large variety of other components such as: ceramic tube sockets, crystal sockets, ceramic platecaps, terminals, shaft locks, couplings, ceramic insulators, and dial locks. National also makes a new kind of cable called *Elasticable* which can stretch to triple its relaxed length. Elasticable is available in a single or multiple conductor cable, covered in nylon or neoprene. For more information on an application of specific interest to you, write directly to our Component Sales Department.

National Radio Co., Inc.

A Wholly Owned Subsidiary of National Company, Inc.
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World's leading manufacturer of component parts for the electronic industry.

NORTH HILLS ELECTRONICS, INC.

GLEN COVE, LONG ISLAND, NEW YORK

ADJUSTABLE COILS and COIL FORMS

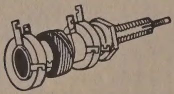
Cover Every Frequency Range from Audio to 200mc

These high quality coils enable engineers and experimenters to save valuable development time by filling a vast number of requirements with standard components from stock. All coils have the following features:

- *All metal parts plated to MIL specifications.*
- *Built-in "perma-tune" tension for smooth "stay-put" tuning.*
- *Litz wound higher inductance ranges.*
- *Two extra terminals for tie points or additional winding.*
- *Moisture and fungus resistant impregnant per MIL-V-173-A.*
- *Color coded ranges.*

COILS ON CERAMIC FORM PER JAN-I-10

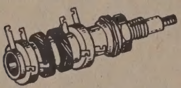
Subminiature 1100 Series



- 5/8" above mounting surface
- Mounting — 11/64" hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1100-A	0.9- 1.4	45 @ 7.9 mc
1100-B	1.4- 1.9	50 @ 7.9 mc
1100-C	1.9- 2.6	55 @ 7.9 mc
1100-D	2.6- 3.7	65 @ 7.9 mc
1100-E	3.7- 5.5	65 @ 7.9 mc
1100-F	5.5- 7.4	70 @ 7.9 mc
1100-G	7.4-12.5	64 @ 5.0 mc
1100-H	12.5-18.0	72 @ 5.0 mc
1100-I	18.0-28.0	74 @ 5.0 mc
1100-J	28.0-38.0	72 @ 5.0 mc
1100-K	38.0-55.0	75 @ 2.5 mc

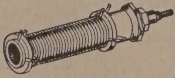
Miniature 1000 Series



- 7/8" above mounting surface
- Mounting — #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
1000-A	1.0- 1.6	70 @ 7.9 mc
1000-B	1.6- 2.7	80 @ 7.9 mc
1000-C	2.7- 4.5	85 @ 7.9 mc
1000-D	4.5- 8.5	85 @ 7.9 mc
1000-E	8.5-14.5	75 @ 2.5 mc
1000-F	14.5-22	65 @ 2.5 mc
1000-G	22-29	65 @ 2.5 mc
1000-H	29-55	85 @ 2.5 mc
1000-I	55-110	80 @ 2.5 mc
1000-J	110-185	85 @ .79 mc
1000-K	185-305	85 @ .79 mc
1000-L	305-515	85 @ .79 mc
1000-M	515-820	85 @ .79 mc
1000-N	820-1100	75 @ .79 mc

Transmitter 1300 Series

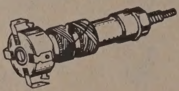


- 1¾" above mounting surface
- Mounting — ¼" hole
- For low power tansmitters and high Q receiver circuits

Part No.	Nominal Microhenries	Average Q
1300-A		For use from 90-200 mc
1300-B		For use from 40-90 mc
1300-C		For use from 20-40 mc
1300-D	0.7- 1.1	130 @ 20 mc
1300-E	1.1- 1.7	150 @ 18 mc
1300-F	1.7- 2.7	150 @ 16 mc
1300-G	2.7- 4.5	150 @ 14 mc
1300-H	4.5- 6.8	150 @ 12 mc
1300-I	6.8-10.8	150 @ 10 mc
1300-J	10.8-17.0	150 @ 7 mc
1300-K	17.0-29.0	125 @ 5 mc
1300-L	29.0-45.0	125 @ 4 mc
1300-M	45.0-75.0	125 @ 3 mc

COILS ON MICA FILLED FORMS PER MIL-P-14-D

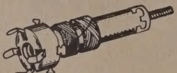
Standard 120 Series



- 1¼" above mounting surface
- Mounting #10 hole
- For R.F. and I.F. applications

Part No.	Nominal Microhenries	Average Q
120-A	2-3	75 @ 7.9 mc
120-B	3-5	85 @ 7.9 mc
120-C	5-9	90 @ 7.9 mc
120-D	9-18	75 @ 7.9 mc
120-E	18-36	75 @ 2.5 mc
120-F	36-64	75 @ 2.5 mc
120-G	64-105	90 @ 2.5 mc
120-H	105-200	90 @ 2.5 mc
120-I	200-500	90 @ .79 mc
120-J	500-1000	90 @ .79 mc
120-K	1000-2000	70 @ .79 mc

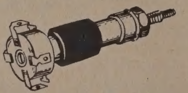
Printed Circuit P-120 Series



- Snaps into single 0.4" hole fo dip soldering
- 1¼" long

Part No.	Nominal Microhenries	Average Q
P-120-A	2-3	75 @ 7.9 mc
P-120-B	3-5	85 @ 7.9 mc
P-120-C	5-9	90 @ 7.9 mc
P-120-D	9-18	75 @ 7.9 mc
P-120-E	18-36	75 @ 2.5 mc
P-120-F	36-64	75 @ 2.5 mc
P-120-G	64-105	90 @ 2.5 mc
P-120-H	105-200	90 @ 2.5 mc
P-120-I	200-500	90 @ .79 mc
P-120-J	500-1000	90 @ .79 mc
P-120-K	1000-2000	70 @ .79 mc

Shielded, Encapsulated SE-120

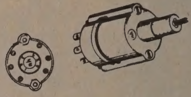


- Magnetic shielding cup
- Ruggedized construction
- 1¼" long

Part No.	Nominal Microhenries	Average Q
SE-120-A	2-3	75 @ 7.9 mc
SE-120-B	3-5	85 @ 7.9 mc
SE-120-C	5-9	90 @ 7.9 mc
SE-120-D	9-18	75 @ 7.9 mc
SE-120-E	18-36	75 @ 2.5 mc
SE-120-F	36-64	75 @ 2.5 mc
SE-120-G	64-105	90 @ 2.5 mc
SE-120-H	105-200	90 @ 2.5 mc
SE-120-I	200-500	90 @ .79 mc
SE-120-J	500-1000	90 @ .79 mc

ENCAPSULATED CUP-CORE COILS

Audio and Ultrasonic 700 Series



- 1½" above mounting surface
- Mounting Centers — Two #6 holes spaced 1¼"
- Magnetically shielded—High Q
- For standard or printed circuits

Part No.	Nominal Millihenries	Average Q
700-A	1.5-3	120 @ 200 kc
700-B	3-7	120 @ 150 kc
700-C	7-13	110 @ 100 kc
700-D	13-25	110 @ 60 kc
700-E	25-50	110 @ 40 kc
700-F	50-100	125 @ 20 kc
700-G	100-250	125 @ 20 kc
700-H	250-500	125 @ 5 kc
700-I	500-1000	125 @ 5 kc

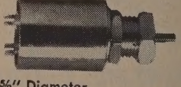
SHIELDED COILS

900 Series

- 7/16" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
900-A	0.5- 0.8	80 @ 25 mc
900-B	0.8- 1.3	70 @ 18 mc
900-C	1.3- 2.0	60 @ 15 mc
900-D	2.0- 4.0	70 @ 8 mc
900-E	4.0- 7.0	70 @ 5 mc
900-F	7.0- 12.0	70 @ 4 mc
900-G	12.0- 20.0	70 @ 3 mc
900-H	20.0- 35.0	70 @ 2.5 mc
900-I	35.0- 60.0	70 @ 2.0 mc
900-J	60.0-100.0	70 @ 1.0 mc

1500 Series



- 5/8" Diameter
- Shielded and Encapsulated

Part No.	Nominal Microhenries	Average Q
1500-A	.100- .175	80 @ 790 kc
1500-B	.175- .300	80 @ 790 kc
1500-C	.300- .500	80 @ 790 kc
1500-D	.500- .800	75 @ 790 kc
1500-E	.800-1.15	55 @ 500 kc
1500-F	1.15-1.50	55 @ 250 kc
1500-G	1.50-2.50	55 @ 250 kc
1500-H	2.50-3.50	50 @ 250 kc
1500-I	3.50-7.50	40 @ 250 kc

See SECTION 5600 for Wideband RF Transformers.

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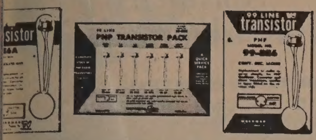
REPLACEMENT COMPONENTS

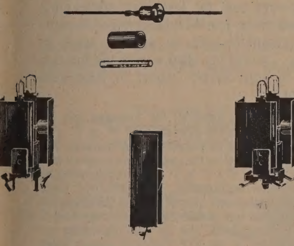
WORKMAN *Electronic* PRODUCTS, INC.
SARASOTA, FLORIDA

TRANSISTORS



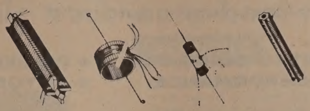
EL	DESCRIPTION	List	Dealer
6	PNP Conv. Osc.	1.65	.99
6	PNP I.F. Amplifier	1.65	.99
6	PNP Audio Driver	1.65	.99
	PNP Audio Output	1.65	.99
	PNP Conv. Osc.	3.75	2.25
	PNP I.F. Amplifier	3.40	2.04
	PNP Audio Driver	3.25	1.95
	PNP Audio Output	3.25	1.95
	PNP Conv. Osc.	4.35	2.61
	PNP I.F. Amplifier	3.75	2.25
	PNP Audio Driver	3.60	2.16
	PNP Audio Output	3.75	2.25
2.	PNP Output	1.33	.79
MG	PNP 15 V.-medium gain	1.75	1.05
LG	PNP 20V.-low gain	2.10	1.26
MG	PNP 20V-medium gain	2.60	1.56
HG	PNP 20V.-high gain	3.25	1.95
LG	PNP 30V-low gain	3.50	2.10
MG	PNP 30V.-medium gain	4.70	2.82
HG	PNP 30V.- high gain	5.35	3.21
	PNP max. freq. 3MC	5.00	3.00
	PNP max. freq. 6MC	7.95	4.77
	PNP max. freq. 12MC	12.00	7.20
	PNP max. freq. 20MC	15.80	9.48
	NPN Conv. Osc.	5.20	3.12
	NPN I.F. Amplifier	4.70	2.82
	NPN Gen'l. Purp. Audio Fr.	4.50	2.70
7	NPN Conv. Osc. Mixer	1.65	.99
7	NPN I.F. Amplifier	1.65	.99
7	NPN Gen'l. Purp. Audio Fr.	1.65	.99
	NPN Audio Output	1.65	.99
6	PNP 6 Pack	—	4.45
9	PNP and NPN 9 Pk.	—	9.95

SILICON RECTIFIERS



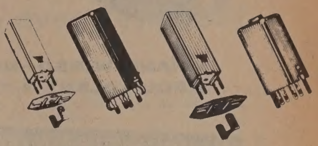
EL	DESCRIPTION	List	Dealer
B	500 MA 400 PIV/adapter	1.85	1.11
D	500 MA 400 PIV	2.00	1.20
	750 MA 450 PIV/adapter	2.75	1.65
	200-400 MA 1 pack	.45	.27
A	200-400 MA 2 pack	.90	.54
	500 MA 400 PIV	.90	.54
	Half Wave Assembly	3.25	1.95
	Silicon Voltage Doubler	4.95	2.97
	Silicon Voltage Doubler	4.95	2.97
UP B			
	Polarized Adapters 6 Pk	1.60	.96

ANTENNA COILS



MODEL	DESCRIPTION	List	Dealer
T400-2	2 pcs. Admiral, RCA	2.00	1.20
T401-2	2 pcs. Philco	3.20	1.92
T402-2	2 pcs. Bendix, Motorola, etc.	1.50	.90
T403-2	2 pcs. Motorola, Philco, etc.	2.00	1.20
T404-2	2 pcs. RCA	2.00	1.20
T405-2	2 pcs. RCA	2.00	1.20
T406-2	2 pcs. RCA	2.00	1.20
T407-1	Bendix, G.E., West'hse, etc.	1.55	.93
T408-1	G.E., Hotpoint	2.25	1.35
T409-1	G.E., Hotpoint	2.25	1.35
T410-1	G.E., Hotpoint, Admiral	2.30	1.38
T411-1	G.E., Hotpoint	2.25	1.35
T412-1	G.E., Hotpoint	2.75	1.65
T413-1	G.E., Hotpoint	2.35	1.41
T414-1	G.E., Hallicrafter, etc.	1.40	.84
T415-2	2 pcs. Philco, RCA, etc.	3.65	2.19
T416-1	Matching Trans. 72/300Ω	3.00	1.80
T417-1	Matching Trans. 52/300Ω	3.00	1.80
T418-1	Admiral, Philco, G.E.	3.20	1.92
T419-2	2 pcs. Philco	3.40	2.04
T420-2	2 pcs. Philco	2.70	1.62
T421-2	2 pcs. Philco	2.70	1.62
T422-2	2 pcs. Philco	2.70	1.62
T423-2	2 pcs. Philco	2.70	1.62
T424-1	Admiral	1.85	1.11
T425-1	Motorola	2.70	1.62
T426-1	Westinghouse	1.60	.96
T427-1	General Electric	3.70	2.22
T428-1	General Electric	2.15	1.29
T429-1	General Electric	3.85	2.31
T430-1	General Electric	3.85	2.31
T431-1	General Electric	3.25	1.95
T432-1	General Electric	2.00	1.20
T433-1	General Electric	4.00	2.40
T434-1	General Electric	2.10	1.26
T435-1	General Electric	2.20	1.32
T436-1	General Electric	2.20	1.32
T437-1	General Electric	2.20	1.32
T438-1	Admiral	2.00	1.20
T439-1	Admiral	2.20	1.32
T440-1	Admiral	2.95	1.77
T441-1	Admiral	2.05	1.77
T442-1	Zenith	2.20	1.32
T443-1	G.E., Philco	2.95	1.77
T444-1	Philco	.95	.57
T445-1	Philco	1.80	1.08
T446-1	Admiral	2.95	1.77
T447-1	Westinghouse	2.80	1.68
T448-1	Westinghouse	4.50	2.73
T450-1	Westinghouse	2.45	1.47
T451-1	Westinghouse	2.95	1.77
T453-1	RCA	3.00	1.80
T454-1	RCA	3.00	1.80
T455-1	General Electric	5.40	3.24
T457-1	Airline	1.55	.93
T460-1	General Electric	3.70	2.22
T461-1	Magnavox	3.20	1.92
T462-1	Motorola	2.10	1.26
T466-1	RCA	3.25	1.95
T467-1	Zenith	2.70	1.62
T468-1	Westinghouse	2.20	1.32
T469-1	Westinghouse	3.60	2.16
T470-1	Westinghouse	2.60	1.56
T471-2	CBS	2.00	1.20
T473-1	Dumont	3.25	1.95
T474-1	Silvertone	2.85	1.71
T476-1	Zenith	1.15	.69
T477-1	Admiral	2.00	1.20
T478-2	Philco	3.20	1.92
TB501-1	RCA	3.70	2.22

I. F. TRANSFORMERS



MODEL	DESCRIPTION	List	Dealer
TC601-1	2nd I.F.	4.95	2.97
TC622-1	1st I.F.	4.95	2.97
TC623-1	2nd I.F.	4.95	2.97
TC624-1	Output I.F.	4.95	2.97
TC625-1	Output I.F.	4.95	2.97
TC626-1	Discriminator	4.95	2.97
T604-2	262 KC Input I.F.	3.70	2.22
T606-2	262 KC Output I.F./filter	3.70	2.22
T607-2	455 KC Input I.F.	3.70	2.22
T609-2	455 KC Output I.F./filter	3.70	2.22
T611-2	455 KC Output I.F. for bat.	3.70	2.22
T646-2	455 KC Input for AC-DC	3.70	2.22
T655-2	262 KC Input I.F.	3.70	2.22
T656-2	262 KC Output I.F./filter	3.70	2.22
T657-2	455 KC Output I.F./filter	3.70	2.22
T664-2	455 KC Input I.F. for bat.	3.70	2.22

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RCA	SYLVANIA

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"the oldest name in auto radio"

With Excellent Tone, Sensitivity, and Volume!

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- **EQUIVALENT 8 TUBE PERFORMANCE**
- **FINGER-TIP TONE CONTROL**
- **AUTOMATIC VOLUME CONTROL**

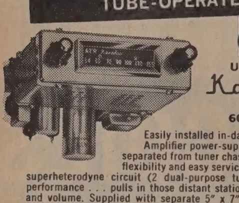
TRANSISTOR-POWERED

ATR UNIVERSAL Karadio MODEL 400 SERIES

Easily installed in-dash or under-dash. Superheterodyne circuit utilizing 4 tubes (two dual purpose tubes) together with two (2) transistors . . . pulls in those distant stations with good tone and volume. Supplied with separate 5″ x 7″ speaker which is installed in original automobile speaker compartment for high fidelity performance. Neutral gray-tan baked enamel finish. Overall size 6⅛″ deep x 6½″ wide x 2″ high. Shipping weight, 6 lbs.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt Neg. Gnd.	401	$39.95	$31.96
Universal 12-Volt Pos. Gnd.	402	39.95	31.96

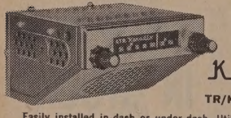
TUBE-OPERATED



ATR UNIVERSAL Karadio MODEL 600 SERIES

Easily installed in-dash or under-dash. Amplifier power-supply chassis may be separated from tuner chassis for installation flexibility and easy servicing. Utilizes 6-tube superheterodyne circuit (2 dual-purpose tubes) with 8-tube performance . . . pulls in those distant stations with good tone and volume. Supplied with separate 5″ x 7″ speaker which is installed in original automobile speaker compartment for high fidelity performance. Neutral gray-tan baked enamel finish. Overall size, 4″ deep x 6½″ wide x 2″ high, Tuner Chassis: with Amplifier Chassis, 2⅜″ deep x 6½″ wide x 3⅞″ high. Shipping weight 7 lbs. WILL OUTPERFORM MOST SETS!

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt No Polarity	612	$39.95	$31.96
Universal 6-Volt No Polarity	606	39.95	31.96

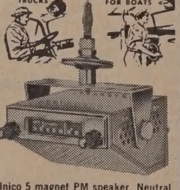


ATR UNIVERSAL Karadio MODEL TR/K-1279 SERIES

Easily installed in-dash or under-dash. Utilizes 6-tube superheterodyne circuit with 8-tube performance . . . pulls in those distant stations with good tone and volume. Has built in Alnico 5 magnet PM speaker. Neutral gray-tan baked enamel finish. Overall size 7″ deep, 4″ high, and 6½″ wide. Shipping weight, 7 lbs.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
Universal 12-Volt No Polarity	TR K-1279-12	$44.95	$33.57
Universal 6-Volt No Polarity	TR K-1279-6	44.95	33.57

ATR TRUCK Karadio


PERFECT FOR TRUCKS
JUST THE THING FOR BOATS

Easily installed in cab of truck or boat by simply drilling one (1) hole. Overhead mounting adds extra safety to driving. Utilizes 6-tube superheterodyne circuit with 8-tube performance . . . pulls in those distant stations with good tone and volume. Has built-in Alnico 5 magnet PM speaker. Neutral gray-tan baked enamel finish. Overall size radio set only, 7″ deep, 4″ high, and 6½″ wide. Comes complete with antenna as shown. Shipping weight 10½ lbs. Perfect for all trucks.

DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
All Trucks 12-Volt	TR-1279-12A	$59.95	$41.96
All Trucks 6-Volt	TR-1279-6A	59.95	41.96

ATR CUSTOMIZED Karadio

ATR CUSTOMIZED Karadios for the American cars and imports listed herein utilize Model 600 series, Model 400 series, or Model TR K-1279 series KARADIO as applicable for the battery voltage system and make of car specified. In most cases the Model 600 series KARADIO may be utilized. If there is a preference for the Model 400 series, this may be made available by so specifying, for 12 volt systems.

ATR CUSTOMIZED KARADIOS FOR AMERICAN CARS

YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1962-61	Buick Special	BKS502	$46.95	$35.25
1958-55	Buick	BK504	45.95	33.97
1960-59	Chevrolet	CT505	45.95	33.97
1958	Chevrolet	CT506	45.95	33.97
1956-55	Chevrolet	CT508	45.95	33.97
1954-53	Chevrolet	CT510	45.95	33.97
1962-60	Chev GMC Truck	GMC511	45.95	33.97
1959-55	Chev GMC 101 Only	GMC512	46.95	35.25
1962	Chevy II	CY514	47.95	35.87
1962-60	Comet	COT515	46.95	34.97
1962-60	Corvair	COR516	49.95	36.97
1959	Chrysler	CHR518	47.95	35.87
1961-60	Desoto	DES520	47.95	35.87
1959	Desoto	DES522	47.95	35.87
1962	Dodge Dodge Dart	DGE524	47.95	35.87
1961-60	Dodge Dodge Dart	DGE526	47.95	35.87
1962-60	Ford	FD530	45.95	33.97
1959-57	Ford	FD532	45.95	33.97
1954	Ford	FD533	45.95	33.97
1962-60	Falcon	FAL534	45.95	33.97
1962	Ford Fairlane "500"	FDF536	47.95	35.87
1962-61	Ford Econoline Truck	FET537	46.95	35.25
1961	Int'l Truck "100"	INT539	46.95	35.25
1962	Lancer	LR538	45.95	33.97
1962	Mercury Meteor	MY540	47.95	35.87
1961	Mercury Meteor 600-800 only	MY542	47.95	35.87
1962-61	Oldsmobile F-85	OEF543	46.95	35.25
1962-60	Plymouth	PH544	45.95	33.97
1959	Plymouth	PH546	47.95	35.87
1956	Plymouth	PH548	46.95	34.97
1955	Plymouth	PH549	46.95	34.97
1962-61	Pontiac Tempest	PCT550	46.95	35.25
1960-59	Pontiac	PC552	47.95	35.87
1962-61	Rambler American	RA554	46.95	35.25
1960-58	Rambler American	RA556	46.95	35.25
1962-60	Rambler	RR558	46.95	35.25
1959-58	Rambler	RR560	46.95	35.25
1962	Studebaker Lark	STL562	46.95	35.25
1961	Studebaker Lark	STL564	46.95	35.25
1960-59	Studebaker Lark	STL566	46.95	35.25
1962-61	Valiant	VAL568	45.95	33.97

ATR CUSTOMIZED KARADIOS FOR IMPORT CARS

YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1960-62	Austin A-55	AA569	$46.95	$34.97
1957-59	Borgward Isabella	BD570	45.95	33.97
1959	Goliath	GH571	45.95	33.97
1958	Goliath	GH572	45.95	33.97
1956-59	DKW	DW573	45.95	33.97
1960-62	English Ford, Consul, Zephyr, Zodiac	EF574	48.95	36.67
1957-59	English Ford, Consul, Zephyr, Zodiac	EF575	48.95	36.67
1958-62	Fiat	FT576	45.95	33.97
1957-58	Hillman-Minx	HM577	45.95	33.97
1958-62	Hillman-Minx	HM578	45.95	33.97
1958-62	Karmen Ghia	KG579	45.95	33.97
1960	Mercedes Benz 220S	MB580	46.95	35.25
1958-60	Mercedes Benz 190SL	MB581	46.95	35.25
1956-62	MGA	MG582	45.95	33.97
1957-62	Morris Minor	MM583	46.95	34.97
1958-59	Opel	OL584	46.95	34.97
1958-59	Peugot	PT585	45.95	33.97
1957-58	Renault Dauphine	RT586	45.95	33.97
1959-62	Renault Dauphine	RT587	45.95	33.97
1959-60	SAAB Grand Turismo 707	SAB588	46.95	35.25
1958-60	Simca Aronde	SA589	47.95	35.87
1959-60	Elysee (12 Neg.)	EE590	47.95	35.87
1962	Triumph Sedan TR4	TR591	46.95	35.25
1955-62	Triumph TR-3 (12 Pos.)	TR592	47.95	35.87
1958-60	Versailles (12 Neg.)	VS593	45.95	33.97
1953-57	Volkswagen (6 Neg.)	VN594	45.95	33.97
1958-62	Volkswagen (6 Neg.)	VN595	45.95	33.97
1953-62	Microbus (6 Neg.)	VB596	45.95	33.97
1957-59	Volvo 2-Door (6 Neg.)	VO597	45.95	33.97
1960-62	Volvo 122S (6 Neg.)	VO598	45.95	33.97
1962	Volvo Sport (6 Neg.)	VO599	45.95	33.97

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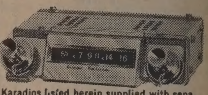
ATR FULL CUSTOM Karadio

Illustrated is FULL CUSTOM Karadio for 1960-61-62 Ford and Falcon cars.

Blends perfectly with dashboard same as original equipment. Supplied with 6″ x 9″ speaker



Illustrated is FULL CUSTOM Karadio designed specifically for 1961-62 Chevrolet Blends perfectly with dashboard same as original equipment.

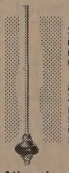
All FULL CUSTOM Karadios listed herein supplied with separate 6″ x 9″ speaker which is installed in original automobile speaker compartment for high fidelity performance, tone and volume.

YEAR	DESCRIPTION	KARADIO MODEL	LIST PRICE	DEALER PRICE
1962-61	Buick Special	BKS410	49.95	36.97
1962-61	Chevrolet	CT412	49.95	36.97
1962-60	Corvair	CR414	49.95	36.97
1962-60	Comet	COT416	49.95	36.97
1962	Dodge Dart	DED418	49.95	36.97
1962-60	Falcon	FAL420	49.95	36.97
1962-60	Ford	FD422	49.95	36.97
1962	Lancer	LR424	49.95	36.97
1962	Mercury	MY426	49.95	36.97
1962-61	Oldsmobile F-85	OEF428	49.95	36.97
1962	Plymouth	PH430	49.95	36.97
1962-61	Pontiac Tempest	PCT432	49.95	36.97
1962	Valiant	VT434	49.95	36.97

The FULL CUSTOM Karadios listed herein utilize the Model 400 Series, Transistor-Powered KARADIO. If there is a preference for the Model 600 Series, Tube-Type, this may be made available by so specifying.

ATR Karadios are built to look and fit like original equipment with sleek, modern styling and solid construction. They offer many customized features and provide highest quality fidelity—yet cost far less than comparably designed units. The ATR Customized Karadio comes complete with car speaker ready to install . . . and is the ideal way to add fun and value to your small import or American automobile!

The KARADIOS as listed for the American cars are supplied with separate external 6″ x 9″ or 5″ x 7″ speakers depending on installation requirements. The KARADIOS as listed for the imports, are supplied with separate external 5″ x 7″ to 5″ speakers depending on the installation requirements. The KARADIOS listed herein come either with neutral gray-tan baked enamel finish or natural lead coated steel finish. The choice of finish also depends on the car and installation requirements. All of the ATR KARADIO models listed herein are equipped with variable tone control, trim plate or bezel, generator condenser, distributor suppressor, hardware, and speaker as required.



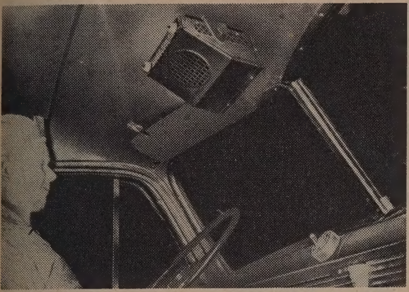
Each radio is packaged in one carton complete. Shipping weight of all of the above listed Customized KARADIOS and FULL CUSTOM KARADIOS is 8 lbs. with the exception of the KARADIO for Corvair which is 10 lbs.

Type 35 Telescopic chrome plated antenna available for any of the above KARADIOS. Extends to 35″ complete with 48″ cable. If antenna is desired, please so specify and this will be shipped as a separate item. Additional pricing for the antenna is as follows: List Price, $2.95; Dealer Price, $2.07. Shipping Weight, 1 lb.

All prices and specifications subject to change without notice.

ATR TRUCK Karadio

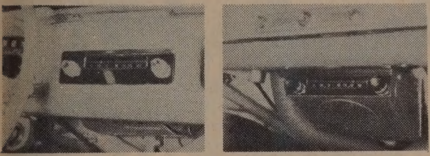
most versatile truck-auto-boat radio ever designed!



ATR TRUCK KARADIO is perfect for your truck! New self-contained, single-unit overhead airplane-style radio can be easily installed in the cab roof of any make or model truck, or if you prefer, in-dash or under-dash.

EASY TO INSTALL

1. Drill one ⅝" hole in ceiling.
2. Tighten antenna with lock-nut assembly and connect one wire.



The ATR KARADIO is ideal for small import cars or compact American cars! Unit is completely self-contained—extremely compact! Can be mounted in-dash or under-dash—wherever space permits!

FEATURES

- The in-line position of the speaker in this compact 6-pound radio permits more sound to reach the listener, so that the volume need not be turned up to the point of distortion even when driving fast.
- A fixed-length antenna (optional equipment) connected to the receiver by a 12-inch lead permits proper matching of the antenna to the receiver under all conditions, thus increasing the set's sensitivity.
- Finger-tip tone control to adjust tone as you desire.
- Automatic volume control to keep signals strong and steady.
- Its powerful 6-tube circuit (actual 8-tube performance) outperforms most larger and bulkier sets!
- The life of the radio has been increased considerably due to specially designed yoke-type flat-spring-mounting and excellent ventilation.
- The ATR Karadio is simple to service—merely take off two easily accessible thumb nuts and remove the entire set.
- The unit can be installed quickly and easily—drill ONE hole . . . connect ONE wire, and the set is ready for use.
- Overhead mounting adds extra safety to driving, because the driver never has to take his eyes off the road to tune or adjust the set.
- Yoke-type tilt bracket mount permits radio to be adjusted to curvature of any cab or as desired by driver.
- Sturdy lock-nut and washers hold radio set mount securely to cab top through ⅝" hole drilled in ceiling.
- 33" stainless steel antenna bends in any direction.
- Set is peaked to maximum efficiency with given length of aerial.
- Antenna lead only 12" in length.

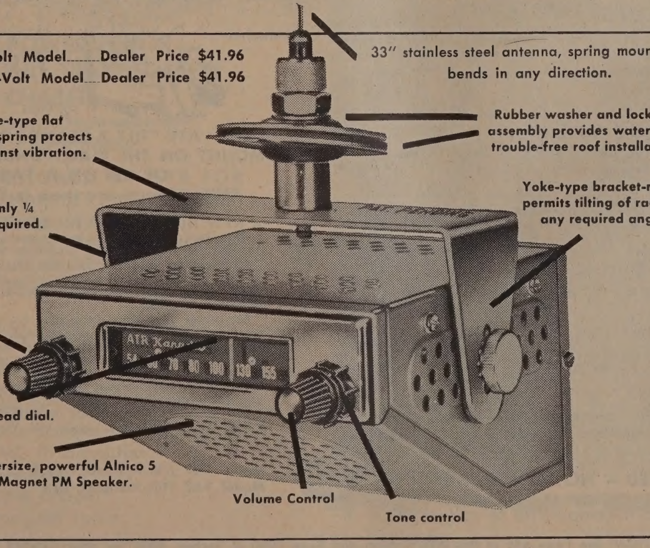
For performance, dependability, and economy—the ATR Karadio is the finest, most versatile truck-auto-boat radio ever designed!

SPECIFICATIONS

- Large, easy-to-read dial.
- Extra large Alnico 5 Magnet PM Speaker.
- 6-Tube Superheterodyne Circuit (utilizes 2 dual purpose tubes) with 8-Tube Performance . . . pulls in those distant stations.
- Uses tube-type rectifier for longer uninterrupted service.
- No battery polarity input problem.
- 3-Section Super "Magne-Wave" Tuner.
- Increased sensitivity assures more powerful reception at greater distances.
- 6 or 12 volt storage battery operation, low battery drain.

Neutral Gray-Tan, baked enamel finish. Overall size, 7" deep, 4" high, and 6½" wide. Net weight, radio set, 6 lbs., shipping weight, complete with antenna, 10½ pounds.

TR-1279-6A, 6-Volt Model........Dealer Price $41.96
TR-1279-12A, 12-Volt Model....Dealer Price $41.96



33" stainless steel antenna, spring mounted bends in any direction.

Rubber washer and lock-nut assembly provides watertight, trouble-free roof installation.

Yoke-type flat bracket-spring protects set against vibration.

Short antenna lead only ¼ the length normally required.

Yoke-type bracket-mount permits tilting of radio to any required angle.

Finger-Tip Tuning Control

Large, easy-to read dial.

Oversize, powerful Alnico 5 Magnet PM Speaker.

Volume Control

Tone control

Hand Wired
No Printed
Circuitry

AVAILABLE WITH OR WITHOUT ANTENNA, AS DESIRED.

FOR 6-VOLT OR 12-VOLT BATTERY SYSTEM.

JOBBERS ATTENTION: See Page 646 in this ATR Section and Page 1030 in Section 4000 for your Catalog Needs!

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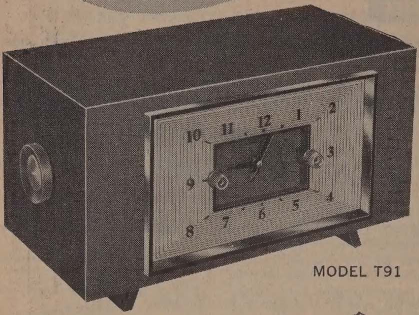
ATR *Ultra Modern* TABLE RADIOS


MODEL T91

CLOCK RADIO WITH BUILT-IN SALES APPEAL

Excitingly styled clock radio—trim, modern cabinet in ebony or ivory plastic . . . rich gold-color trim and clock numerals. Powerful 5-tubes AM radio chassis with built-in "Magna-Plate" antenna. Full-toned 4″ PM speaker. Popular features include: *Musical Alarm*—radio turns on automatically at any pre-set time; *Sleep Selector*—lulls user to sleep, turns radio off automatically during 60 minute period after retiring; *Automatic Appliance Timer*—outlet on back of radio times any electric appliance automatically (up to 1100 watts). Cabinet 10½ in. wide, 5 in. high, 5⅛ in. deep. Wt. approx. 8 lbs. A WONDERFUL TONIC FOR NEW SALES . . . BIGGER PROFITS!

Model T-91 Clock Radio, Black .... **Dealer Price $22.45**
Model T-91 Clock Radio, Ivory .... **Dealer Price $23.15**

CLOCK SPECIFICATIONS ON MODEL T91 ONLY

- Genuine Telechron Movement . . . Accurate, Quiet, and Long-Lived.
- Self-Starting . . . Never Needs Winding, Oiling, or Regulating.
- Simplified Clock Controls for Radio and Sleep Switch.
- 1100 Watt Controlled Appliance Outlet.
- Automatic Buzzer Alarm Sounds Approximately 10 Minutes After Sleep-Switch Turns On Radio.
- Gold-Plated Bezel and Numerals on Large Bone-White Dial. Dial Size 4¼″ x 7¼″
- UL Approved

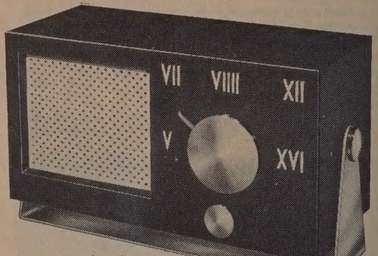
GENERAL SPECIFICATIONS PERTAINING TO ALL ATR TABLE RADIOS

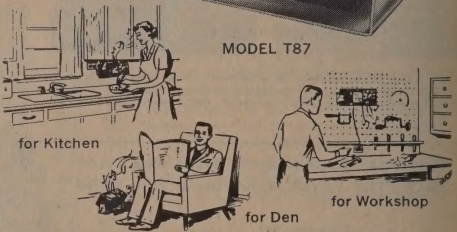
- **Advanced Super-heterodyne Circuit**—Increased selectivity and sensitivity with improved tube types . . . High audio output . . . Automatic volume control . . . two gang variable condenser.
- **Sealed Alnico 5 PM Dynamic Speaker**—Full range frequency . . . Power without distortion . . . Balanced tone quality.
- **Automatic Volume Control**—Maintains uniform volume on local and long distance reception.
- **Genuine Magna-Wand Ferrite Antenna**—Magna-Wand used in conjunction with Hi-Q Iron Core IF Coils for extreme sensitivity and selectivity . . . High signal-to-noise ratio.
- **Power Line Noise Filter**—Minimum interference from household appliances, motors, etc.
- **Wave Band:** 540 to 1600 KC
- **Tubes**—

12BA6—456 KC IF Amplifier	12BE6—Mixer
12AV6—2nd detector-1st Audio	35W4—Rectifier
50C5—Audio Power Output	

- **Power Supply:** 115 Volts, 60 Cycles AC
- **Cabinet**—Beautiful compression molded bakelite with shadow box effect dial and complementing golden knobs and trim. Resistant to heat.

HAND WIRED — NO PRINTED CIRCUITRY ATR


MODEL T87



ATR "TILT-A-STAND" RADIO MOUNT ON THE WALL—UNDER A SHELF—OR SET ON A TABLE

PERFECT for every room in YOUR home

A NEW HIGH IN RADIO USEFULNESS . . . It rotates a full 360° on a beautiful golden pedestal. Pedestal is notched for screws, giving unlimited mounting possibilities. THE HANDIEST RADIO EVER! The gleaming molded bakelite cabinet is enhanced by a contrasting recessed grill and rich golden dial pointer and controls. Distinctive dial with large Roman numerals.

Excitingly new and different . . . radio is mounted on sturdy, gleaming brass-finished stand. Radio tilts up or down easily to any desired angle. Keyhole slot in stand makes this versatile performer easy to mount on wall out of way of small hands. Perfect for den, kitchen, or bedroom. Power-packed 5-tubes chassis. Built-in loop antenna. Automatic volume control. Full 4″ Alnico 5 speaker Distinctive Roman numerals on dial. Size: 9½″ W x 4″ D x 5¾″ H. AC/DC. U.L. approved. Weight 5½ lbs.

Model T-87 (Tilt-A-Stand), Black ....**Dealer Price $17.47**
Model T-87 (Tilt-A-Stand), Red ....**Dealer Price $18.10**

JOBBERS ATTENTION: See Page 646 in this ATR Section and Page 1030 in Section 4000 for your Catalog Needs!

FOR THOSE WHO WANT THE FINEST!

ATR TV

15 FULL-DOOR and 12 OPEN FACE DE LUXE CONSOLE TELEVISION SETS . . . to choose from!

FEATURING THE ULTIMATE IN HIGH-QUALITY, AUTHENTICALLY-STYLED, FINE-FURNITURE CABINETS AND THE FULL-TRANSFORMER SUPER-POWERED ATR No. 2600 CHASSIS.

Includes push-pull high-fidelity audio system; dual extended-range, large permanent magnet speakers; spot-light tuning; giant 265 square inches 90° aluminized 21″ picture tube; and super VHF tuner for high sensitivity fringe area reception.

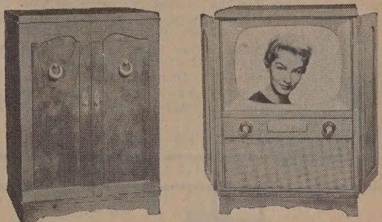
The Biltmore

by ATR

Pictured:
Model
26007 LD-4
in mahogany

Distinctively styled in genuine walnut, mahogany or blonde Korina. Hand rubbed to a gleaming, hard finish of lasting beauty. Features the superb No. 2600 ATR chassis. Dimensions: 24½″ wide, 36½″ high and 20″ deep. Concealed casters for mobility.

- UNSURPASSED IN BEAUTY
- UNEQUALLED IN PERFORMANCE
- UNMATCHED IN QUALITY CONSTRUCTION



Provincial by ATR

Model No. 26002
(Illustrated)

Cabinet has concealed casters for easy mobility. Available in 18th Century Mahogany, Early American Antique Maple and French Provincial in Cherrywood with Fruitwood finish. Dimensions: 24½″ wide, 36½″ high, and 20″ deep. Rich finishes are applied and hand rubbed to smooth lustrous beauty.

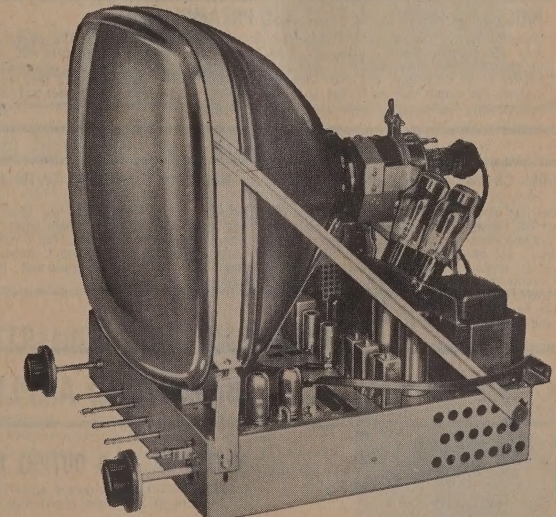
● ●

ATR TV

SUPER-POWERED ATR No. 2600 FULL-TRANSFORMER CHASSIS

For Maximum Dependability and Performance

SPECIALLY DESIGNED BY ATR FOR MOVIE-CLEAR, SHARPEST PICTURES WITH MAXIMUM PICTURE STABILITY . . . DESIGN AND CONSTRUCTION INCLUDE EXTRA VALUE FEATURES THAT MAKE FOR QUALITY PLUS . . .



- 18,000 volts of quality picture power
- Super-powered full-transformer 26 tube chassis
- Extended-range speakers of heavy duty construction
- Automatic gain control
- 4-Stage 41 MC IF amplifier
- Interference rejector
- Push-pull audio system
- Permanent-magnet focus
- Higher gain video amplifier
- Wider band width
- Precision interlace
- Highest quality components including molded capacitors
- Improved dependable long life ATR circuitry
- Front tuning of all important control functions

JOBBERS ATTENTION: See Page 646 in this ATR Section and Page 1030 in Section 4000 for your Catalog Needs!

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engineered and manufactured by

BLONDER TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartments, houses, schools, communities, etc.

SINGLE CHANNEL AMPLIFIERS

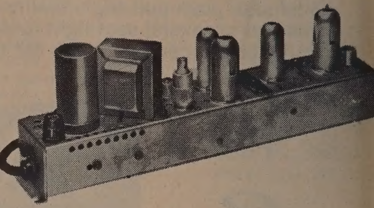
MODEL MCSc AGC CONTROLLED AMPLIFIER

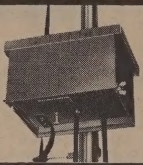
An MCSc is available for each VHF channel and the MCSc-FM covers the entire FM band. Each MCSc has a built-in, fuse-protected power supply. MCSc units also have built-in mixing networks so that the output of each MCSc in a system may be plugged into the next MCSc; at the final output all of the channels are being fed into one coaxial cable.

AGC action enables MCSc units to provide uniform outputs even though the strengths of the inputs vary. Two operating controls (Gain & AGC) increase the versatility of these amplifiers.

Gain: at least 46 db, ch. 2-6; 38 db, ch. 7-10; 35 db; 11-13. Max. output; 1.0 volts (for less than 1% cross-modulation); 2 volts (for less than 3% cross-modulation).

Net MCSc—**$89.00.** MCSc-FM—**$180.00**





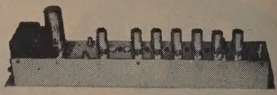
MODEL CB MAST-MOUNTED PREAMPLIFIER

Completely weatherproof. Amplifies any specified VHF channel. Low noise. 21 db minimum gain on lo band; 18 db minimum on high band (when 1 output is used). Max. output 0.5 volts for less than 1% cross-modulation. 300 ohm input; two 75 ohm mixing outputs. Net **$39.00**

MODEL PA HIGH-GAIN FAST AGC PREAMPLIFIER

Designed for the head-end of community, and apartment systems where the signal received is very low. Incorporates a low noise cascode input, together with a high gain AGC circuit. Can be used with inputs as low as 50 microvolts. Provides an output of 50,000 microvolts for input signals of 50 microvolts and over. When the PA Amplifier is used alone to feed an apartment system, the output may be turned up to give as high as 1.0 volt output. Net **$175.55**

PA-LN—Very low noise PA with 7077 ceramic triodes. Net **$356.40**



MODEL CA VHF SINGLE CHANNEL LINE AMPLIFIER

Designed for re-amplification and distribution of VHF and FM signals in community and large apartment systems. Has 60 db gain. Incorporates full AGC circuit for minimum cable losses and steady signal at all times. Minimum input for cascading is 1,000 microvolts; maximum input 30,000 microvolts. With full 6 megacycle bandwidth, up to 20 units can be cascaded without picture deterioration. Input and output impedances are 75 ohms. Net **$150.48**

MODEL UA-1 UNISTRIP TV/FM AMPLIFIER

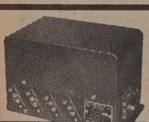
Efficient two-tube amplifier for specified channel. Has 35 db gain, 75 ohm single input, dual 75 ohm output. Built-in level control, full 6 megacycle bandwidth, maximum 1 volt output. Requires use with single-unit Minipak or triple-unit Unipak power supply. Net **$42.90**

NEW! HIGH OUTPUT AMPLIFIERS (2 models

MODEL CAP-2—Used in high level distribution sy tems. Features 3 volts maximum output, mixing ou puts, 65 db gain, built-in RF filter and AGC contr Net **$183.**

MODEL HTA-2—Used in high level distribution sy tems. Features 10 volts maximum output, mixi outputs and built-in RF filter. Net **$470.**

BROADBAND AMPLIFIERS



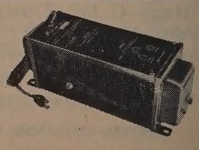
MODEL DA8-B 8 OUTPUT DISTRIBUTION AMPLIFIER

MODEL DA8-B—Provides 8 amplified, isolated TV outlets from one input. Choice of 75 ohm or 300 ohm input and output. 10 db minimum gain. Gain control. Net **$63.00**

MODEL PM-1 PACEMAKER 35 DB TV/FM AMPLIFIER

Broadband amplifier for master TV systems offers gain of up to 35 db. A well ventilated amplifier for indoor use, it has a power drain of less than 50 watts. It may be used outdoors if a weatherproof container is provided. It will operate at peak efficiency even when being used for as many as 100 TV and/or FM sets at a time. Gain: 35 db, channels 2-6; 30 db, 7-13; Noise figure: 6 db average; Max. output 2 volts per band.

Net **$69.80**



engineered and manufactured by

BLONDER TONGUE

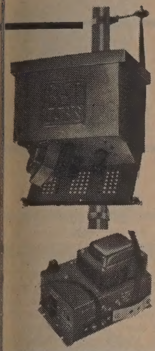
Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartments, houses, schools, communities, etc.

BROADBAND AMPLIFIERS



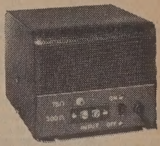
MODEL AB-3 MAST-MOUNTED TV/FM AMPLIFIER (with remote power supply)

MODEL AB-3—Low-noise amplifier virtually eliminates snow. Can be used in a fringe area home installation, or as a pre-amplifier in a master TV system.

The remote power supply sends AC power up to the mast mounted amplifier on the same down-lead that carries the antenna signal down. It provides the correct power to the amplifier for any length of connecting cable up to one mile (when open twin-lead is used). Amplifier uses low noise frame-grid tubes. Provides 25 db minimum gain on all VHF-TV and FM stations. Choice of 300 ohm or 75 ohm output. Stripless terminals for 300 ohm twinlead; solderless "quick-disconnect" terminals for 75 ohm coax. No balun is needed because the input is matched to 300 ohm antennas. Net **$66.00**

MODEL HAB

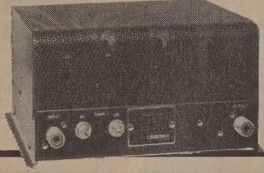
MODEL HAB—For use in master, community and home TV systems. 25 db min. gain. Both 300 ohms inputs and outputs. Separate hi and lo band gain controls. Uses frame grid tubes. Max. Output (across 75 ohms): 0.9 volts for less than 1% cross modulation (low band); 0.6 volts for less than 1% cross modulation (high band); 2.5 volts for less than 3% cross modulation (low band); 1.0 volts for less than 3% cross modulation (high band). **Net $43.65**

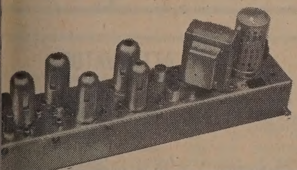


MODEL MLA-B 40 DB TV AMPLIFIER

MODEL MLA-B—Broadband VHF amplifier with all the features essential for easy installation and superior reception in large or small TV systems. More than 40 db amplification on all VHF channels. Separate high and low band tilt and gain controls.

MAX. OUTPUT (across 75 ohms) 2.0 volts per band for less than 1% cross-modulation. 3.5 volts per band for less than 3% cross modulation. Net **$93.00**



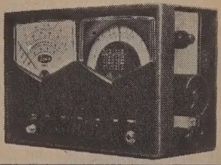


AUDIO MASTER TV SOUND ORIGINATOR

Originates TV signal for any specified VHF channel. Ideally integrated with MATV or CATV distribution system. Provides crystal-controlled unmodulated video carrier plus a sound carrier which can be modulated by tuner, microphone, recorder, etc. Audio carrier is 4.5 mc above video frequency (TV Standards). Output impedance 75 ohms. **Net $175.00**

TRANSISTOR FIELD STRENGTH AND WATTMETER

Model FSP-3—Fully Transistorized, Truly Portable—weighs 10 lbs., Battery-Powered. Ideal instrument for field or lab use. Frequency: 52-220 mc in one range; Sensitivity: 5 microvolts minimum readable signal and 60 microvolts full scale; Bandwidth: 3 db points, percentage Modulation Ranges: 0 to 5% and 0 to 50%. Measurement Range: 0 microvolts to 3 volts in 18 ranges micro-microwatts to 10 watts in 10 ranges. Input impedance 75 ohm unbalanced and 300 ohm balanced. Net **$445.50**



WEATHERPROOF HOUSING

MODEL MRH-A—Weatherproof and radiation-proof enclosure for Master TV equipment. Has perforated mounting surface and adjustable support brackets. Front-opening sealed door and sturdy hasp. Irridite-finish, cadmium-plated steel. 18¼"x14"x6". Net $43.50

MODEL MWH-2—Same as MRH-A but not radiation-proof. Net **$32.95**

AC LINE FILTER

MODEL MLF—60 db RF isolation between amplifier and power line. Two AC receptacles, one power cable input connector. Mounts in any housing. Net **$12.45**

Indoor Breezeway Housing

MODEL BH-1—Fully ventilated. Perforated mounting surface. Keyed slots for vertical or horizontal mounting. Provision for locking. 20"x27"x 10½". Net **$31.50**

Unicase Outdoor Housing

Weather-proof housing for one UPK-1 power supply and associated equipment. 17½"x 10½"x6". Net **$24.65**

engineered and manufactured by

BLONDER TONGUE

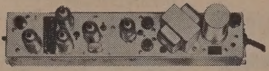
Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

MASTER & COMMUNITY ANTENNA SYSTEM COMPONENTS

for motels, hotels, apartments, houses, schools, communities, etc.

CONVERTERS



—Featuring built-in power supplies and mixing circuits for compact, inexpensive head end systems. These units provide amplification as well as conversion.

UHF TO VHF

CRYSTAL CONTROLLED

MODEL MUC — Converts specified UHF channel to specified VHF channel. Gain: 15 to 30 db (depending on conversion). Oscillator Stability: total change less than 0.01% over ambient temperature range 0°F to 110°F. Connections: 300 ohm input and two 75 ohm mixing outputs. Net **$235.00**

MODEL CO-3—UHF to VHF Converter. Converts specified UHF channel to specified VHF channel. Has built-in UHF preamplifier, regulated power supply, stability 0-100 degrees 0.0025%; frequency accuracy 0.006%. Net **$424.60**

ECONOMY

MODEL UC-2—Ideal for small systen While it is not crystal controlled, it quite stable when installed indoors. T UC-2 has a built-in power supply and t 75 ohm mixing outputs for maximum fle bility. When one output is used, it p vides a minimum of 6 to 10 db ga depending on conversion (3 db less wh both outputs are used or terminated). T input is matched to 300 ohms. Net **$1**

VHF to UHF

CRYSTAL CONTROLLED

MODEL CO-2—Lo to hi, hi to lo, lo to lo, or hi to hi channel conversions with few exceptions. Conversion chart available. Provides off-channel conversions such as: lowering Channel 2 by 1 megacycle to provide an extra guard between Channels 2 and 3. Model CO-2. Net **$263.80**

MODEL MLC—converts a specified VHF low channel (2-6) to another specified VHF low channel (2-6). Gain: 20 to 40 db depending on conversion. Oscillator stability: Total change less than .01% over temperature range 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net **$246.00**

MODEL MVC—converts a specified VHF high channel (7-13) to a specified VHF low channel (2-6). Oscillator stability: Total change less than 0.01% over temperature range of 0°F to 110°F. Connections: 75 ohm input and two 75 ohm mixing outputs. Net **$246.00**

ECONOMY

MODEL UV-1 UNIVERTER— to-HI, HI-to-LO Channel Convert Converts specified VHF channels specified UHF channels. Uses Minip or Unipak power supply. Net **$92.**

Minipak—power supply for one U verter. Net **$23.**

Model UPK-2—UNIPAK—power sup for 3 Univerters. Net **$48.**

ATTENUATORS

VARIABLE ATTENUATORS

MODEL SA-3—0 to 38 db. Laboratory accuracy. Steps of 6 db, 12 db, and 20 db. 75 ohm input and output. QD connectors. Net **$9.25**

MODEL SA-7—0 to 62 db in steps of 1 db. Laboratory accuracy. 75 ohm input and output. "UHF" SO-239 type connectors. Net **$21.00**

MAT—0 to 45 db in 3 db steps. 75 ohm input and output. UHF type connectors. Net **$14.60**

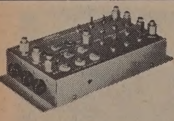
VAT—Steps of 3, 6, 9, 14, 20 and 23 db. 75 ohm input and output. Benconnectors. Net **$15.85**

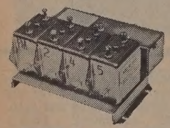
FIXED ATTENUATORS

LAT—Fixed. Specify 3 db, 6 db, 10 db, 14 or 20 db. 75 ohm input and output. Benc nectors. Net **$4**

FA—Specify 3, 6, 10 or 20 dbs. Net **$2**

MIXERS, FILTERS & TRAPS





UNIMIX FILTER NETWORK—Can combine or separate 7 VHF TV channel signals without appreciable loss or interaction. The UNIMIX will accommodate 3 low band channels and four high band channels. Factory aligned to channels 2, 4, 6*, 7, 9, 11 and 13. It can be aligned in the field to handle any VHF channel.

Also serves to equalize the seven antenna inputs by the use of plug-in attenuators. *(FM may be substituted for channel 6—order UNIMIX-FM which will pass all FM stations). Net **$54.80**

MX-SERIES FILTERED MIXER/SPLITTERS—MODELS MX-2 THRU 13—Bandpass filters pretuned to one of 13 TV channels. Used either separately or with MX mixing bases to form mixers or splitters. 75 ohms input and output. At least 6 db down 9 mc from center of channel. Net **$5.75**

BAND PASS FILTER—75 ohm band pass filter. Includes 2 traps. Traps alternate undesired frequencies by 80 db. Trap frequencies should be specified when ordering. Net **$110.90**

75 OHM TRAP, MODEL Hi-Q-75—60 db attenuation of undesired frequency. Available for each sound and picture carrier. Net **$28.75**

MWT-1—FM trap can be tuned to trap out any FM frequency. Net **$6.00**

MWT-2—Lo Band/FM trap can be tuned to attenuate any frequency from 54 thru 108 mc. Less than 0.25 db loss. Net **$34.40**

MODEL MX-FM—Same type as MX-2-13, pretuned to pass en tire FM band. At least 8 db down 12 mc from center channel. Net **$5.7**

MODEL MX-LB—Lo band mixing base mounts MX series filter Accommodates up to four lo band filters. Up to three hi ban filters can be mixed; insertion loss increases with mor than two hi band filters. Net **$11.9**

MODEL MX-HB—Hi band mixing base mounts up to four band filters only Net **$11.9**

MODEL MX-M—Used to mix or split hi band and lo band si nals. Can also be used without MX series filters. 20 db min mum isolation between branches. Net **$5.3**

OUTDOOR SINGLE-BROADBAND MIXER MODEL CM- —Mixes or splits single channel with broadband. Speci channels. Net **$6.4**

MWT-3—Hi Band trap can be tuned to attenua any frequency from 134 thru 216 mc. Less tha 0.25 db loss. Net **$34.4**

FM EQUALIZER—6 traps cover entire FM ban Net **$96.8**

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engineered and manufactured by

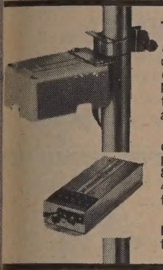
BLONDER TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

PRODUCTS TO IMPROVE HOME TV RECEPTION

MAST-MOUNTED SIGNAL BOOSTERS

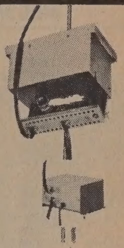


TRANSISTOR MAST-MOUNTED 4-SET TV/FM BOOSTER, Model AB-4AC—The world's most compact, powerful booster . . . a complete amplifier/distribution system that will improve TV reception on up to 4 TV or FM sets. It consists of a transistor booster which is designed for mast mounting or anywhere along the lead-in for superior signal-to-noise ratio, powered by a separate power supply which can be installed in the house.

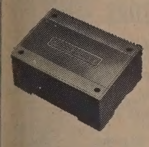
The Transistor circuit provides lowest noise, maintenance free operation—no tubes to burn out or replace—no heat dissipation problems. 17 db average gain on channel 2; 15 db on channel 6; 8.5 db average gain on high band (7-13) when used for one set. 4 set coupler incorporated in remote power supply distributes fully isolated amplified signals on up to 4 TV or FM sets Net $22.80

MODEL AB-4—Same as AB-4C except with battery power supply that uses 4 low-cost flashlight batteries. Net $19.95

TUBED VHF TV BOOSTER, Model AB-2 (with RP-2 remote power supply) All-channel VHF booster mounted at the antenna, is housed in weatherproof housing, and can be located 500 ft. from remote on-off control at TV set. Provides more than 9 db gain on all VHF channels. Single down lead carries AC power up to the amplifier and also conducts the amplified signal to the set. Uses frame-grid 6JD8 tube for highest signal-to-noise ratio. Convenient swing down case simplifies maintenance. Employs 300 ohm, stripless terminals. Net $34.95



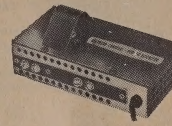
IN-THE-HOME SIGNAL BOOSTERS



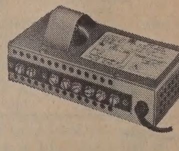
TRANSISTOR 4-SET TV/FM BOOSTER, MODEL IT-4— The IT-4 "Quadrabooster," designed around a rugged, long-life transistor, is very inexpensive to operate and requires almost no maintenance. The transistor takes so little power that it need never be turned off. Specially designed for weak signal areas, the "Quadrabooster" provides crisp, brilliant pictures for as many as four TV or FM sets from a single antenna. Used for one set it increases signal strength 3 to 8 times. Used for two, three or four sets, it has amplifying power to spare and provides necessary isolation between sets. Net $19.80

3-SET TV/FM BOOSTER, MODEL B-33 Low-cost combination booster-distribution system provides clear, sharp reception for up to 3 TV or FM sets from one antenna. The B-33 more than doubles signal voltage for a single set, with excellent isolation. Its frame-grid tube amplifier is ideal where there are both strong and weak signals because it can handle strong signals without overloading. Net $13.60

TV/FM POWER BOOSTER, MODEL BTA Low cost amplifier improves TV (black & white or color) and FM reception. Increases signal strength (7 to 9 db, channels 2-13. 4-8 db FM). 6 db average noise figure. Features: stripless 300 ohm terminals for easy installation; low-noise, frame grid tube. Net $10.95



4-SET TV/FM BOOSTER, MODEL B-24c Triples signal power to one set. Also acts as an amplified coupler to operate up to 4 TV or FM sets. Provides proper impedance match and isolation between sets and increases picture power when used with 2 or 3 sets. With 4 sets it insures that each TV or FM set receives more than 90% of the signal power picked up by the antenna. Net $16.65



EXACT-MATCH COUPLERS

2-SET COUPLER MODEL A-102—Delivers more signal to each TV or FM set, with greater inter-set isolation than other couplers. Isolation: 10-20 db. Net $1.95

4-SET COUPLER MODEL A-104— Directional coupler with flat response from 50-220 mc. Feeds 4 VHF receivers from one antenna, or mixes 4 antennas into one line. Isolation: 12-20 db. Net $2.75

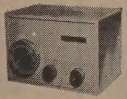
HI-LO ANTENNA COUPLER MODEL A-105 Combines high and low band VHF antennas, or provides separate high and low output from a single antenna. Isolation: 21 db. $2.75

OUTDOOR MOUNTING KIT MODEL A-100—Provides hardware, bracket and strap assembly for mast mounting of A-102, A-104, A-105, A-107. Net $.66

UHF PRODUCTS

TRAVERTER UHF CONVERTER Model BTU-2

luxe two-tube converter with low-noise frame-d IF amplifier. Tunes UHF channels 70 to 83. For UHF receiving areas, especially fringe and nslator applications. Has 5 to 8 db gain. Output channel 5 or 6. Features stripless 300 ohm minals, speed and fine tuning knobs, shielded ee sections "ultra tuner," pilot light. Net $28.00



UHF CONVERTER Model 99R

plies UHF reception for VHF receivers in primary signal areas. Tunes nplete UHF range from 470 to 890 mc. Converts to VHF channel 5 or 6. tures three section tuners; 300 ohm stripless VHF and UHF terminals, drift-compensated circuitry. Net $17.50

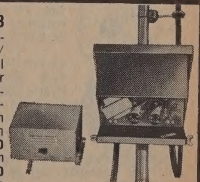
AMPLIVERTER UHF CONVERTER, Model BT-70

ilar to BTU-2 but designed especially for translator and MPATI area versions. Low noise. Vernier tuning. Net $30.95

UHF MAST-MOUNTED BOOSTER, MODEL UB Six standard models cover specific UHF channels from 14 to 83. Uses two low-noise EC88/6DL4 frame-grid tubes which increase signal voltage by at least 14 db. Remote AC power supply sends a safe 24 volts to the mast-mounted amplifier on the same down-lead that conducts the signal. Automatically shuts off when most TV receivers are turned off. 300 ohm stripless terminals. Net $62.00

UBP Similar to UB but 300 ohm input, 75 ohm output. Net $102.00

UBC Custom UB. Choice of frequency ranges and connectors.



UHF-VHF ANTENNA COUPLER MODEL A-107

Combines UHF and VHF antennas, or provides separate VHF and UHF output from a single antenna. Isolation: 15 db. Net $2.95

UHF HYBRID COUPLER MODEL UDC-1

UHF 300 ohm hybrid coupler. Channels 70-83 only. Net $3.15

engineered and manufactured by

BLONDER-TONGUE

Newark, N. J.

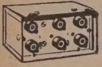
AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

SPLITTERS, TAPOFFS, FEED-THRUS, BALUNS, CONNECTORS

INDOOR TAPOFFS (12 db and 17 db isolation)

MODEL	TYPE OF MOUNTING	* TYPE OF INPUT CONNECTORS	NO. OF OUT-PUTS	* TYPE OF OUTPUT CONNECTORS	ISOLA-TION	THRU LINE LOSS PER OUTPUT	NET PRICE
TS-771B	Surface	QD	(1)	QD	17 db	0.7 db	$2.95
TS-771A	Surface	QD	(1)	QD	12 db	0.7 db	3.60
TF-771B	Flush	Stripless bridge	(1)	QD	17 db	0.7 db	2.55
TF-771BS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	2.80
T01-75	Flush	Bridge	(1)	Auto Type	17 db	0.7 db	3.75
IS01-S	Flush, stainless steel	Bridge	(1)	Auto Type	17 db	0.7 db	2.85
TF-771AS	Flush, stainless steel	Stripless bridge	(1)	QD	12 db	0.7 db	3.75
TF-772B	Flush	Stripless bridge	(2)	QD	17 db	0.35 db	3.75
TF-772A	Flush	Stripless bridge	(2)	QD	12 db	0.7 db	3.75
T02-75	Surface	QD	(2)	Auto Type	17 db	0.35 db	4.80
TS-731B	Surface	QD	(1)	Stripless Screws	17 db	0.7 db	2.95
TF-731B	Flush	Bridge	(1)	Stripless Screws	17 db	0.7 db	2.15
TSP-731A	Surface	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.85
TFP-731A	Flush	Stripless bridge	(1)	Stripless Plug	12 db	0.7 db	3.30
T02-300	Surface	Bridge	(2)	Stripless Screws	17 db	0.35 db	4.80
T0-774A	Surface	QD	(4)	QD	17 db	0.6 db	8.50
T01-75S	Flush, stainless steel		(1)	Auto Type	17 db	0.7 db	3.30
TFP-731BL	Flush	Stripless bridge	(1)	Stripless Plug	17 db	0.4 db	3.90
TF-771BL	Flush	Stripless bridge	(1)	QD	17 db	4.0 db	3.45
TSP-731BL	Surface	QD	(1)	Stripless Plug	17 db	0.4 db	4.10
TS-771BL	Surface	QD	(1)	QD	17 db	0.4 db	3.60

OUTDOOR TAPOFFS



MIT-4—Four 75 ohm outputs from 75 ohm thru line. SO-239 connectors. 17 db isolation. 0.35 db thru loss, per output. Net **$17.50**

MT-11—Spliceless. One 75 ohm tapoff from RG-11/U cable. Available with 12 db, 17 db or 23 db isolation loss. Net **$3.95**

MTO-11—Spliceless. One 75 ohm tapoff from RG-11/U cable. Available with 12 db, 17 db or 23 db isolation loss. Net **$5.20**

4T-75—Four 75 ohm outputs from 75 ohm thru line. Available with 12 db. 20 db or 30 db isolation. Net **$12.55**

ST-4—Single 75 ohm output from 75 ohm thru line. Available with 12 db, 16 db, 20 db or 30 db isolation. Net **$6.40**

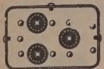
FEED-THRU OUTLETS

TF-771 — Flush-mounted, feed-thru wall plate. Input and output both 75 ohms. Net **$1.85**

TF-331 — Flush-mounted, feed-thru wall plate. Input and output both 300 ohms. Net **$1.05**

TSP-331 — Surface-mounted box. 200 ohm input and 300 ohm stripless plug output. Net **$2 35**

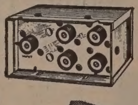
SPLITTERS



MDC-2 — Outdoor 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. Weather protected. SO-239 connectors. Net **$8.60**

TS-772 — Indoor surface mounted 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. QD connectors. Net **$3.45**

MDC-4 — Outdoor 4-way Hybrid Splitter. Splits or combines four 75 ohm cables. Weather protected. SO-239 connectors. Net **$17.50**



TS-774 — Indoor surface mounted 4-way splitter. Splits four 75 ohm cables. QD connectors. Net **$5.10**

2SP-75—Outdoor 2-way Hybrid Splitter. Splits or combines two 75 ohm cables. Weatherproof. Net **$8.50**

3SP-75—Outdoor 3-way Hybrid Splitter. Splits or combines three 75 ohm cables. Weatherproof Net **$10.45**

4SP-75—Outdoor 4-way transformer type splitter. Splits four 75 ohm cables. Weatherproof. Net **$10.35**

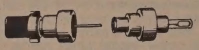
AN-275—Combines and splits VHF hi band and lo band. 75 ohm. Net **$29.95**

2SP-300—Indoor or outdoor 2-way splitter. Splits two 300 ohm lines. Weatherproof. Net **$4.95**

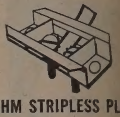
4SP-300—Indoor or outdoor 4-way splitter. Splits four 300 ohm lines. Weatherproof. Net **$6.40**

HL-300—Indoor or outdoor hi-lo splitter. Splits or combines hi band and lo band 300 ohm lines.

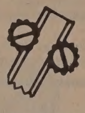
*TERMINAL CONNECTORS



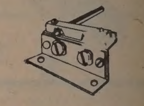
75 OHM QD (SOLDERLESS)



300 OHM STRIPLESS PLUG



300 OHM STRIPLESS SCREWS

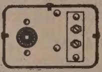


75 OHM STRIPLESS BRIDGE

CABLE CONNECTORS

P-11S	"UHF" type solderless male plug for RG-11/U cable.	Net $1.0
P-59S	"UHF" type solderless male plug for RG-59/U cable.	Net $1.0
MC	"UHF" type cable connector. Connects two male plugs or one plug and an MPT-75 terminator.	Net $1.7
CL-1111	Couples two RG-11/U cables together	Net $1.8
CL-1159	Couples RG-11/U cable to RG-59/U Cable.	Net $1.8
CL-5959	Couples two RG-59/U cables together.	Net $1.8
AC-1000	Feed-thru bushing. Use with CL-5959, CL-1111, CL-1159.	Net $2.3
MJ-300	Female plug for 300 ohm twin lead.	Net $ .7
MP-300	Male plug for 300 ohm twin lead.	Net $ .7
M-63	Male coupler mates with M-64.	Net $2.7
M-64	Female coupler mates with M-63, M-72, M-73, M-74.	Net $2.0
M-71	Male plug for RG-11/U cable. Mates with M-64.	Net $2.3
M-72	Male plug for RG-11/U double shield cable. Mates with M-64.	Net $2.3
M-73	Male plug for RG-59/U cable. Mates with M-64.	Net $ .4
M-74	Male plug for BAL-11F cable. Mates with M-64.	Net $3.2

MATCHING TRANSFORMERS

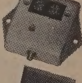


MB

Outdoor balun matches 75 ohms to 300 ohms or vice versa. Net **$6.00**

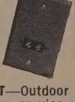
TM

Indoor, set mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.20**



TS-731

Indoor, surface mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.45**



TF-731

Indoor, flush mounted. Matches 75 ohms to 300 ohms or vice versa. Net **$2.80**

AMT—Outdoor broadband balun matches 75 ohms to 300 ohms or vice versa. Weatherproof; has 300 ohm solderless plug. Net **$6.60**

SMT—Indoor, set mounted. Matches 75 ohm to 300 ohms or vice versa. Net **$2.60**

ACMT—Single channel outdoor balun. UHF and VHF, specify channel. Matches 75 ohms to 300 ohms or vice versa. Weatherproof; has 300 ohms solderless plug. Net **$8.25**

© U.C.

engineered and manufactured by

BLONDER TONGUE

Newark, N. J.

AVAILABLE IN CANADA FROM: BENCO TELEVISION ASSOCIATES LTD. REXDALE, ONTARIO

CLOSED CIRCUIT TV CAMERAS-MONITORS-ACCESSORIES

BLONDER-TONGUE TRANSISTOR TV CAMERAS

Provide superior TV pictures. Designed to withstand the most rugged handling in industrial, institutional and educational applications. Two basic models, the new low cost, TC-1 and the deluxe TTVC-1 are available in several variations for specific applications. Both have built-in automatic light compensators.

MODEL	TC-1V	TC-1RF	TTVC-1-1	TTVC-1 (2 thru 6)	TTVC-1R-1	TTVC-1R (2 thru 6)	TTVC-1SN	TTVC 1SNR-1	TTVC 1SNR-2
Horiz. Freq.	15,750 cps	15,750 cps	*15,750 cps	*15,750 cps	*15,750 cps	*15,750 cps	①	①	①
Vert. Freq.	††60 cps	††60 cps	†60 cps	†60 cps	†60 cps	†60 cps	①	①	①
RF Output	—	adj. 2-6 100,000 uv min.	—	*50,000 uv min.	—	*50,000 uv min.	—	—	—
Video Output	1.25v(p-p)	—	1.25v(p-p)	1.25v(p-p)	1.25v(p-p)	1.25v(p-p)	1.25v(p-p)	1.25v(p-p)	1.25v(p-p)
Video resolution	600 lines	—	650 lines	650 lines	650 lines	650 lines	650 lines	650 lines	650 lines
resolution RF	—	②	—	②	—	②	—	—	—
Range of Light Compensation	1000/1	1000/1	2000/1	2000/1	2000/1	2000/1	2000/1	2000/1	—
Illumination Requirements	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle	**½ ft. candle
EIA Studio Net	No	No	No	No	No	No	Yes	Yes	Yes
Remote Controls	No	No	No	No	Yes	Yes	No	Yes	Yes
Dimensions	8⅞ x 11½ x 4¼"								
Net Price	$850.	$850.	$1950	$1995	$2500	$2560	$2100	$2740	$3000

*crystal controlled

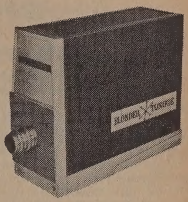
**minimum usable for most applications (reflected light)

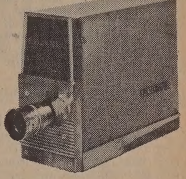
†choice of 2:1 or random interlace, 60 cycle line locked

††locked to line

① accepts EIA sync. pulses 15,750 cps & 60 cps nominal

② same as video but is usually limited by TV set to approx. 350 lines

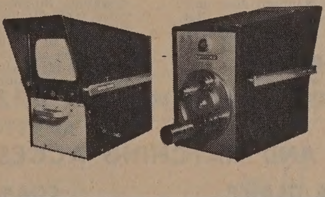




VIEWFINDER CAMERA

BSERVER-2, MODEL EV-1 CAMERA MONITOR—A ompact portable camera/viewfinder combination. an be mounted on a heavy-duty tripod and friction ead. TTVC-1 camera is built together with an 8" lectronic viewfinder. Has "take" lights in front. as HT-10 turret to accommodate up to 4 C-Mount ens. 1" F1.9 lens supplied. Provision for optional ntercom and remote control. The operator sees hat the camera is viewing. Features easy setup, andy focus control.

ODEL EV-1-SNR—Same as EV-1 but accepts studio et pulses and is remote control.



CCTV ACCESSORIES

MODEL HT-10 Lens Turret—allows quick change of camera lens. Holds up to 4 C-Mount lenses.

MODEL RT-10 Same as HT-10 except motorized and remote controlled.

MODEL RF-10 A Remote focus control for TTVC-1.

SOUND ADDER—Adds sound to output of RF camera, forming complete TV channel.

ACCESSORIES: Pan and tilt mechanisms; tripods; explosion-proof housing; zoom, telephoto, wide-angle lenses—plus video and RF distribution equipment.

BLONDER-TONGUE MONITORS

LONDER-TONGUE PROJECTION VIDEO MONITOR, ODEL PVM Projects a large, high quality TV picure onto a screen. (The unit is supplied with optics ntended for a 4½' x 6' picture. Optics for 6' x 8' r 9' x 12' pictures are available on special order.) ystem Standards: 15,750 cps horizontal scan; 60 ps vertical scan. **Resolution:** 500 television lines on an EIA test pattern when operated at correct throw distance.

DIRECT VIEW MONITORS

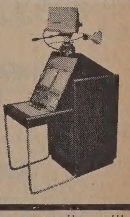
CC-28 8" Video Monitor (cabinet)
CC-29 14" Video Monitor (cabinet)
CC-30 21" Video Monitor (cabinet)
CC-31 Twin 8" Video Monitor (rack-mount)
CC-32 14" Video Monitor (19" rack-mount)
CC-33 17" Video Monitor (rack-mount)
DVM-17 17" Video Monitor (cabinet)
DVM-17SN 17" Video Monitor (cabinet) for studio net

LONDER-TONGUE PORTA-STUDIOS for originating complete TV channels

obile television consoles, easily operated by one man. Either nodel may be used to originate a complete TV channel, both ound and picture. Specify VHF channel 2 thru 13 desired. Prorams thus originated can be viewed on any standard TV reeiver connected to the Porta-Studio, directly or through a naster TV system.

HE ST-1 CONSISTS OF: 1. A transistor camera equipped with n F1.9 lens, and a light bar with two 150 w floodlights—all nounted on a heavy duty friction head. **2.** A 17" video monitor. . An audio amplifier with input for two microphones (one microhone supplied). Volume of each microphone can be controlled eparately. Provision for audio monitoring includes a speaker, an ear phone jack and a VU meter. **4.** An audio-video modulator which converts the picture picked up by the cameras and the sound picked up by the microphones into a complete TV channel (2-13). **5.** A high gain (35 to 46db) AGC controlled RF amplifier. Output of this unit is factory set at 0.5 volts video and 0.2 sound. **6.** All necessary cables, switches and controls.

THE ST-2 is similar but it provides inputs for two transistor cameras (one camera supplied with unit). To display both cameras, dual 8" monitors are used—in place of the single 17" monitor on the ST-1. The operator can switch from camera to camera and "take lights" indicate which camera is in use.



LOCK-JAX WALL PLATES AND TAPOFFS

LJ-1 Tumbler lock cover fits over any Lock-Jax unit or standard single wallplate.	Net **$5.85**
LJ-2 Blank wall plate with direct connection for thru line.	Net **$4.00**
LJ-6 Video thru unit for video camera, amplifier or monitor, with shorting switch.	Net **$9.10**
LJ-11 Single 17 db tapoff with torroidal ferrite transformer.	Net **$7.30**
LJ-12 Double 17 db tapoff similar to LJ-11.	Net **$10.15**

Cesco Amateur—Citizens' Band-

REFLECTOMETERS, MINIBRIDGE, PHONE PATCHES

CM-52, CM-75

Phase Unit

Control

CM-52-2 and CM-75-2

CM-52-2 and CM-75-2 Special

CL-52-72

"Original"

"Supreme"
"Regency"

STANDING WAVE REFLECTOMETERS

MODELS CM-52 AND CM-75

Mutual inductance and capacity coupling are employed between linear conductors for continuous measurement of standing waves on transmission lines. For continuous line insertion 25 to 1,000 watts, at frequencies from 3 to 200 mc. Operates on power input of 10 watts, 7 mc and up. Requires only five watts input, 25 mc and up. Line insertion loss, less than 1 db at 30 mc. Ideal for inserting in to coax feed lines at antenna for visual reading in SWR while making antenna adjustments: SWR observed immediately, at all times, without adjustment of Reflectometer. No balancing adjustments, no reversing. Prevents false loading from antenna tuner, match box, pi network, etc. Reduces line reflection, making possible increased radiated power. Uses 0-100 ua meter calibrated directly in standing wave ratio and relative power. Each unit hand calibrated and perfectly balanced. Includes loading control and forward to reflected power reversing toggle switch. With 83-1R (SO-239) connectors at each end. Gray hammertone aluminum case, 3" w. x 2⅛" d. x 5¼" h. Shipped with key-type mounting on back and full instructions.

Cesco Model CM-52 (52-ohm coax line) or CM-75 (75-ohm coax line)—Net Each **$29.95**

Cesco Model CM-75 Equipped with UG-58U Connector—Net Each.. **$34.95**

MODELS CM-52-2 AND CM-75-2

Dual units electrically identical to CM-52 and CM-75 but built in two units for remote control. With 10 ft. cable and plug wired to control and indicator unit. Either 52-ohm or 75-ohm phase unit may be used with control and indicator unit; permits purchasing second phase unit separately, when required. Size, Control unit, 3⅞" w. x 2⅞" x 2¾" with sloping panel; Phase Unit, 2¼" w. x 2¼" d. x 5¼" h.

Cesco Model CM-52-2 (52-ohm coax line) or CM-75-2 (75-ohm coax line)—Net Each **$34.95**

Cesco Model CM-75-2 Equipped with UG-58U Connector—Net Ea. **$39.95**

Cesco Model CM-52-2 or CM-75-2 Phase Unit — Less Control unit. Net Each **$12.95**

Cesco Model CM-52-2 or CM-75-2 Special—Same as standard dual unit but with control panel for Collins grille or built-in installation. Net Each **$34.95**

MODEL CL-52-72 MINIBRIDGE

Resistive type device for observing standing waves when adjusting antenna matching networks. For 52, 72 or 75 ohm coax lines and small amounts of RF excitation or grid dip oscillator. Requires external in
tor, such as 0-100 ua meter (as in Simpson multi-meter). Hamme
gray aluminum case, 2⅛" w. x 1½" d. x 4⅛" h. Complete with ins
tions. SWR graph and antenna tuning procedures.

Cesco Model CL-52-72—Net Each **$1**

TELEPHONE PATCHES

All Cesco Tel-O-Patch Models are useable with SSB equipment in ma
or MOX control position.

"ORIGINAL" TEL-O-PATCH

High quality sound receiving and transmitting unit for low-Z lin
amateur and experimental use. Provides undistorted voice reproduc
perfect intelligibility at 100% modulation. Eliminates feedback,
noise, etc. Designed for high gain input, can be adapted to low gain i
Works on any receiver having output impedance of 500-5,000 o
Mounts on receiver or operating desk by means of reversible mou
plate. Provides standard phone jack output; Amphenol 75-PC1M co
tor for input. Size, 2" w. x 4" d. x 4" h. Complete with instructions
grams, mounting screws.

Cesco "Original" Tel-O-Patch—Net Each **$1**

"SUPREME" TEL-O-PATCH

Combination transmit-receive control and phone patch. For custom
commercial equipment. Undistorted voice reproduction at 100% mo
tion. For any receiver with output impedance of 500-5,000 ohms;
for high gain transmitter inputs (can be adapted to low gain). Sep
On-Off control; standard phone jack output; Amphenol 75-PC1M
connector input; Amphenol 4-contact plug and socket for tran
receive control; reversible mounting plate. Size, 2" w. x 4" d. x
Complete with instructions, diagram, mounting screws.

Cesco "Supreme" Tel-O-Patch—Net Each **$2**

"REGENCY" TEL-O-PATCH

To be used with units such as 32V-KW1-75A, Globe King, B &
Ranger, Valient 500, or similar high quality equipment with push-to
operation. No modifying, ready for use. Eliminates feedback, hum, n
voice reproduction undistorted at 100% modulation. For any rec
with 500-5,000 ohms output impedance and for high gain input; ca
converted to low gain. Leveraction telephone type switch controls
transmitter and modulation; separate On-Off switch. Size, 2" w. x 4"
4" h. Complete with 3' cord and 80MC2M plug, installation instruct
diagram, and mounting screws (mounting plate is reversible).

Cesco "Regency" Tel-O-Patch—Net Each **$2**

ANTENNA MOUNTING AND MATCHING ACCESSORIES, NOISE FILTERS

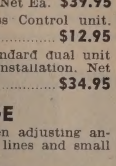
"OXEN YOKE" BEAM ANTENNA CLAMP

For element sizes ¾" to 1½" in diameter and booms 1½" to 3" in diameter. All components completely interchangeable, permitting element and boom selection to your requirements. For continuous or cut elements at center; all channel lock assembly. Specify element size and boom size when ordering.
Net Each **$2.29**

UNIVERSAL BOOM MOUNTING

For 1½" to 3" diameter boom sizes and 1¼" or 1½" masts. Complete mounting consists of two mast plates (1¼" or 1½"), two boom yokes, two "U" bolts. Specify mast and boom sizes when ordering.
Net Each **$5.95**

HEAVY DUTY UNIVERSAL BOOM MOUNTING

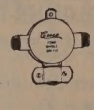


For 2" to 3" O.D. water pipe or tubing mast. All channel lock assembly. For single or stacked arrays. Has one mounting plate, four yokes and four "U" bolts. (Specify mast or pipe size when ordering.) Net..... **$8.95**

QUAD MOUNT

One-piece, durable, aluminum alloy cast spider to mount quad arms to boom. Angle shaped spiders permit use of bamboo or aluminum tubing of 1" to 1½" diameter. Clamp-type, 2" diameter hub can be adjusted after assembly. Boom drilling not required. Net Each........ **$6.95**

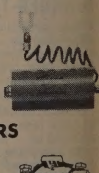
COAX DIPOLE DRI-FIT CONNECTOR



Ideal connector for; dipole antennas. Completely mois
proof, one-piece aluminum alloy construction. Ha
power to maximum legal limits. Can be installed e
in a few minutes. For use with coaxial cables R
RG-58, RG-11 or RG-59, or with 300-ohm twin lead.
eye pull up for inverted V's. Weight, 2 oz.
Net Each .... **$**

VOLTAGE REGULATOR FILTER

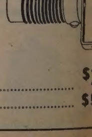
MODEL VR-30



A fixed type L/C combination for the elimination of noise created by points of generator control relay in the voltage regulator which is prevalent in communication receivers. No tuning or adjusting required. Unit is not voltage critical. Works on 6-12-24 and 32 volt systems.

Net Price **$2.95**

GENERATOR NOISE FILTERS



Turntable for 6, 12 or 24 volt generators; stops noise in mobile gear caused by generator brushes. For aircraft, amateur, C-B and industrial mobile uses. Conservatively rated at 30 amps. Phenolic coil form, brass hardware and die cast mtg. bracket. Easily installed.

Cesco Model 3-30 (Standard, 3-30 mc)
Cesco Model 30-60 HF—30 to 60 mcs **$**
Cesco Model 75-160 VHF—75 to 160 mcs—Net Each........
Cesco Model 2-3 (Marine, 2-3 mc)—Net Each........ **$**

Industrial—Communication Products

TRANSICHECK, TEL-O-RECORD, FIELDOMETERS

CB-52-T

CB-52-C

CB-52-S

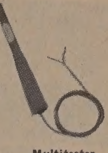
ET-1, ET-2

ST-1

Mobile
Model MC

Hand Unit
Model HCE

Lab
LCE


Multitester
Adapter MCP

CITIZENS' BAND TRANSICHECK

instrument, designed for use with Citizens' Band transmitters, checks mitter power output and antenna efficiency. Can be used for reso- g or tuning power output plate circuit and adjusting antenna loading citor to assume maximum output. Ideal for determining accuracy of m coaxial transmission line match to the antenna. Comes complete drawings and information on applications and use. Hammertone finish, inum case 4⅛" h. x 2⅛" w.

o **Model CB-52-C**—With coax connector. Net Each.................. $19.95

o **Model CB-52-S**—Auto spade connector. Net Each................. $18.95

INLINE TRANSICHECK

Inline Transicheck, a patented development by CESCO employing niature true coaxial cylindrical unit utilizing mutual inductance and city coupling between linear conductors for conducting test, measuring r output and standing wave ratio on Citizen Band transceivers oper- in the 26 and 27 MC bands. No power loss or detuning is created placed in line for continuous use. All units are supplied with detailed uction book.

o **Model CB-52-T**—Net Each $29.95

LECTROMATIC TEL-O-RECORD TELEPHONE PICK-UP AND CONTROL

matic, transistorized control has circuitry and control relays to start stop motor, make or break B+ circuit of any recording device. Re- er must have sufficient starting torque to run with switches in record tion. When off, recorder automatically returns to manual operation. be used on remote phones up to five miles away from the parent e. Permits the recorder to operate unattended. Built-in power supply ell filtered; operates from 115 v. AC, 60 cps. Size 5" h. x 4" 3" d. **Cesco Model ET-1**—For intermittent recording. Net Ea. $79.95

o **Model ET-2**—Special model for applications where recorder is used usively for phone recording. Net Each...................................... $79.95

TEL-O-RECORD PICK-UP AND TRANSFER

rds phone messages on tape, wire or disc recorders. Also used for ng systems. Records both sides of a conversation. By secondary lines, llel terminated, many sources may feed the mike input on a paging lifier; when used this way, phone must be partly dialed to remove tone before speaking. High quality transformer will not load phone free of distortion and hum. Aluminum, gray hammertone box has on mounting bracket. Complete with cords, plugs and installation ructions.

o **Model ST-1**—Net Each.. $14.95

CESCO FIELDOMETERS

Wide spectrum, sensitive field strength analyzer and field measuring device works satisfactorily at 1 kc to 1000 mc radiated frequencies, without using plug-in coils. Sensitive 0—100 ua meter withstands heavy shock without damage. Ultra-sensitive models also available. Shunt-type sensitivity control prevents off-scale readings or overload in strong fields.

MODEL MC FIELDOMETER

Ideal for tune-up of mobile, amateur, police, aircraft and industrial uses. Indicates transmitted signal at all times. Has capacity wand, sensitivity control and ua meter. U-shaped mounting bracket fits dash at windshield rim or rear-view mriror. Pivoted case 3½" h. x 2¾" w. x 1½"d.

Cesco Model MC—Net Each.. $24.95

Cesco Model MC-20—Net Each.. $39.95

MODELS HCE AND HCE-20 FIELDOMETERS

Fixed-capacity type portable hand unit with 0-100 ua meter and sensitivity control on handle end. Capacity wand and components covered by screw-on 4¼î lg. plastic cover. Handle 4¼" long. Provision made for plug-in interchange for capacity wand to electrostatic, peak resonant broad-skirted wands (available on special order for any specified frequency). Case size same as Model MC.

Cesco Model HCE—Net Each.. $29.95

Cesco Model HCE-20—Same as above, but with ultrasensitive 0-20 ua meter. Net Each.. $44.95

MODELS LCE AND LCE-20 FIELDOMETERS

Same as Model HCE, but designed for laboratory use. Indicator and sensitivity controls mount in portable, slanted meter case 3⅞" h. x 2⅞" w. x 2¾" d. Comes with corded probe four ft. long and capacity wand (convertable to electrostatic type with plug-in resonant wand available).

Cesco Model LCE— Net Each.. $29.95

Cesco Model LCE-20—Same as above, but with ultrasensitive 0-20 ua meter. Net Each.. $44.95

MODEL MCP PROBE ADAPTER

Corded probe, capacitive-type adapter for use with any multi-tester having basic movement of 0-50 or 0-100 ua. Meter must be brought to separate terminals (as found on Simpson Model 260 and similar types). **Cesco Model MCP**—Net Each.. $12.95

CITIZENS' BAND ANTENNAS AND ACCESSORIES

DUO-POLE GROUND PLANE ANTENNA

vides broad, equal, groundwave circular coverage for good communi- ons even with low power output. Aircraft aluminum construction. unded quarter-wave foldback lightning safety factor. Adjustable ele- t ring locks. Factory resonated at 27.085 or channel 11; works well all channels with low VSWR, 1.2:1 or less. Special feedline terminals oses in masting. Nominal base impedance 52 ohms. Shipping carton 68" long. Shipping Weight, 7½ lbs.

o **Duo-Pole Antenna**—Net Each... $29.97

Industrial Version, Any Specified Frequency, 25-175 mc, Also Available at Same Price.

C-B BEAM ANTENNAS

tory pre-tuned beam antenna with exclusive Acromatch for increased er output. Extruded aluminum tubing with 1¼" boom; elements e ½" dia. center sections, ⅜" dia. inserts. Elements mount either hori- tally or vertically. Resonated at 27.085 mc; low SWR. Assemblies in utes with permanently secured locking rings. Lightweight; will rotate any TV rotator. Shipping carton only 86" long.

o **3-Element Beam**—Gain 7 db; boom 10' long. ping Weight, 8 lbs. Net Each... $29.95

o **4-Element Beam**—Gain, 8 db; boom 15' long. ping Weight, 11 lbs. Net Each... $39.95

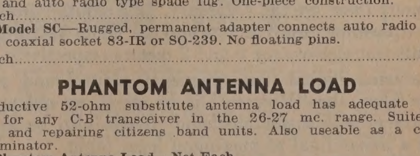
o **5-Element Beam**—Gain, 9 db; boom 20' long. ping Weight, 13¼ lbs. Net Each... $49.95

QUAD ARM KITS

ws easy fabrication of durable, cubical quad antenna. Each arm has 1¼" aluminum section with end swaged to 1" dia., plus one or two rglas telescoping sections. Stainless steel clamp holds fiberglas sec- to aluminum tube. Detailed instruction book supplied.

o **Model QB-2 Quad Arm Kit**—With eight arms of one section minum tubing and one section fiberglas, each. Makes 10- 15-meter quad antenna. Net Each $59.95

o **Model QB-3 Quad Arm Kit**—Same, but with two sections of fiber- per arm, and an epoxy resin for joining the fiberglas tubes. Makes 15-, and 20-meter quad or single 20-meter antenna. Each... $89.95



CABLE ADAPTERS

Cesco Model CS—Permanent connector comprises 83-IR, SO-239 coaxial socket and auto radio type spade lug. One-piece construction. Net Each... $1.29

Cesco Model SC—Rugged, permanent adapter connects auto radio spade plug to coaxial socket 83-IR or SO-239. No floating pins. Net Each... $1.29

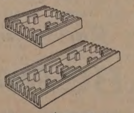
PHANTOM ANTENNA LOAD

Non-inductive 52-ohm substitute antenna load has adequate power rating for any C-B transceiver in the 26-27 mc. range. Suited for testing and repairing citizens band units. Also useable as a coaxial line terminator.

Cesco Phantom Antenna Load—Net Each... $1.49

TRANSISTOR HEAT SINKS

$1.25 ea.

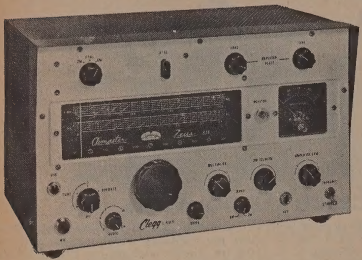


$1.95 ea.

Cesco's unique method of producing heat sinks from match plate green sand aluminum castings increases heat radiating efficiency with less heat sink area. Heat sinks are poured from a special aluminum bullion with a copper additive which produces an even heat flow over the entire surface area.

Heat sinks are fabricated standard in several types. Other patterns of fabrications are available on quantities of twenty-four (24) or more. Each Heat Sink is packaged with a transistor mechanical data sheet.

Clegg VHF AMATEUR COMMUNICATIONS EQUIPMEN

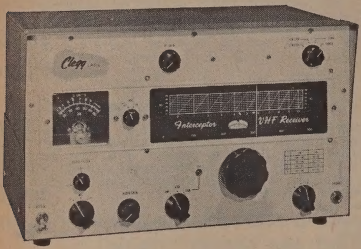


CLEGG ZEUS VHF TRANSMITTER
FOR 6 AND 2 METERS

A highly efficient, AM, high power VHF transmitter for full coverage of amateur 6 and 2 meter bands and associated Mars frequencies. Maxim TVI suppression.

Automatic modulation control with up to 18 db of speech clipping provi magnificent audio with "talk power" greater than many kilowatt rigs.

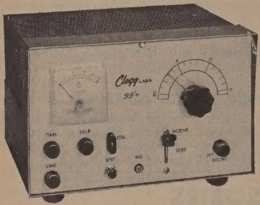
This beautiful unit with its ultra-stable VFO is the ultimate in VHF equ ment for amateur and Mars operation.



CLEGG INTERCEPTOR VHF RECEIVER
FOR 6 AND 2 METERS

Designed for the serious operator on these bands, the INTERCEPTOR, w cabinet and panel exactly matching the famous ZEUS transmitter, off performance features unmatched by presently available equipment for th frequencies.

For example, here is a receiver with virtually no cross modulation. I vistor RF stages give an extremely low noise figure and sensitivity better th .25 microvolts. Stability is ideal for exacting requirements of SSB and C



CLEGG 99'er TRANSCEIVER
FOR 6 METERS

This famous little transmitter-receiver is ideal for both fixed station mobile operation. Small in size, low in cost, and tops in performance, 99'er offers operating features unequalled in far more costly equipments. double conversion superhet receiver provides extreme selectivity, sensitiv and freedom from images and cross modulation. The transmitter sect employs an ultra-stable crystal oscillator which may also be controlled by ternal VFO. An efficient, fully modulated 8 watt final works into a flexi Pi network tank circuit. A large S meter also serves for transmitter tune procedure.

SEE THESE NEW STARS ON THE VHF HORIZON!

Continuing its leadership in the field of V.H.F. ham gear Clegg Laboratories announces the release of several sparkling new units for this most exciting area of the ham spectrum.

Among them are the "Mercury," a medium power sideband transmitter for 6 meters and the Thors VI and II . . . 50 watt transceivers for 6 and 2 meters respectively.

Featuring digital type frequency control and crystal lattice filter, the "Mercury" is by itself, an outstanding performer on 6 meter sideband. It can also be used to drive a linear final to maximum legal input.

The Thor VI transceiver includes both BFO and Crystal frequency control in the 50 watt transmitter section wh can be used either for AM or CW type emission. double conversion superhet receiver section include BFO for CW and sideband reception, and will feature treme sensitivity, selectivity, low noise level and freed from overload. The Thor II is a 2 meter counterpar Thor VI and a brilliant performer on its band.

Together with the famous trio listed above, these Clegg products are specifically tailored and designed meet the exacting demands of the vast number of h either entering or switching to VHF . . . the most rap expanding area of ham communications.

Write for complete information

Clegg LABORATORIES MT. TABOR, N.

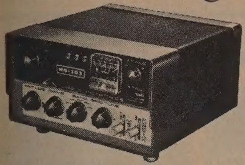
DIVISION OF TRANSISTOR DEVICES, INC., OF CEDAR GROVE, N. J.

© U.C.P.

GLOBE ELECTRONICS

COMMUNICATIONS and CITIZENS BAND EQUIPMENT

Ⓐ



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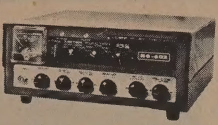

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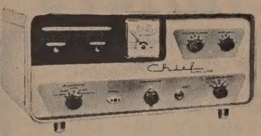

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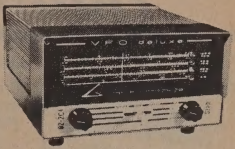


(A) AMATEUR TRANSMITTER • SIMPLE TO TUNE • 3 X'TAL POSITION • COMPACT • RUGGED • FUNCTIONAL • FIRST QUALITY —HG-303—Input Power—75 Watts (Nominal) • 6146 Transmitting Tube in final • Modular Construction • Dual Power Supplies • Provision For Matching VFO • Grid Block Keying • Wide Range Pi-Net Coupling To Antenna • Low Voltage Switching • Provision for "Plug-In" Modulator Addition • Recessed Crystal Socket On Front Panel • 8 Silicon Rectifiers in High Voltage Supply—Full Wave Bridge Configuration • Dual Scale De-Arsonal Meter Movement • Instant Change From Crystal to VFO • Provision for 2 Extra Internal Crystal Selected by Front Panel Switch.

Cat. No. 65-430 .... Amateur Net **$109.95**

(B) MODEL HG-602 VHF TRANSMITTER — CUSTOM TAILORED FOR PEAK PERFORMANCE POWER — Metered R. F. Stages • Silver plated final tank coils • Either AM or C. W. Operation • Class AB2 — Push-Pull Plate Modulation using "Novar"-RCA 7868 — as Modulators • Adjustable Speech Clipper/Filter • Rugged Military Type Construction • Iridited Chassis • Attractive Modern Styling.

Frequency Range is 50-54 mc and 144-148 mc with sufficient overlaps to cover MARS and Civil Air Patrol Frequencies.

All R. F. Stages are metered. Class AB2 Push-Pull Modulation. Adjustable Speech Clipped/Filter with frequency response (300-3000 cps ±3 bd) provides greater "Audio Power" without over-modulation. Completely shielded for TVI suppression.

Size: 4¾″ x 12⅜″ x 12″

Cat. No. 65-440 .... Amateur Net **$179.95**

(C) CHIEF DELUXE TRANSMITTER KIT. SELF-CONTAINED 90-WATT TRANSMITTER FOR CW; BANDSWITCHING 10-80 METERS —75 Watt Meter indication for novice use. New 1300 MMFD variable loading condenser • Modified grid block keying for maximum safety (cathode keying with VFO) • Provision for plate or screen modulator input by simple plug-in • No modification necessary to add Globe VFO or modulators • Built-in power supply • Standard coaxial antenna fittings • No sharp cabinet edges • Compact construction 3-color diagrams simplify kit construction.

Size: 15¼″ x 6¼″ x 11¼″

Cat. No. 65-406 .... Amateur Net **$59.95**

(D) VARIABLE FREQUENCY OSCILLATOR — Covers 6 thru 160 Meter Bands — Beautifully styled. Easily read Dial Scales. Complete with self-contained, well-filtered power supply. Voltage regulated and temperature compensated for utmost stability.

SPECIFICATIONS

Operating frequency divided into 4 Bands.

Band A — 160-80 Meter — 1.75 - 2.0 MC.
Band B — 40-10 Meter — 7.0 - 7.425 MC.
Band C — 20-15 Meter — 7.0 - 7.175 MC.
Band D — 6 Meter — 8.333 - 9.0 MC.

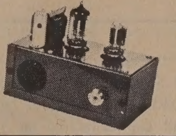
Stability: 100 cps after 20 min. warm-up. Average DC input of final stage 2.5 watts.

Band A — 140 V.P.P. Band C — 105 V.P.P.
Band B — 115 V.P.P. Band D — 145 V.P.P.

• Oscillator: Electron coupled clapp • Stages Employed: Oscillator, Cathode Follower, output • Stage with tuned plate circuit • Filament oltage: 6 VAC • Max. DC Voltage: 185 V. Keying: Cathode of Oscillator Stage.

Size: 4⅝″ H x 9⅝″ D x 9⅛″

Cat. No. 65-401 .... Amateur Net **$89.95**



(F) SCREEN MODULATOR KIT — Phone operation at economy level — Ideal for use with the Globe Chief transmitter, with instructions for use with similar CW transmitter. Permits radio-telephone operation at unheard of low cost. Self-contained. rinted circuit board with all parts and complete comprehensive instructions.

Cat. No. 65-421 .... Amateur Net **$11.95**

(E) STAR DUAL CONVERSION 5 CHANNEL CB TRANSCEIVER — The first unqualified new design in the transceiver field. Dynamic new dual conversion, superhetrodyne circuitry eliminates adjacent channel interference . . . increases operating range. This is the very finest . . . inperformance . . . in construction . . . in durability . . . plus many other features. Delivered COMPLETE, ready to operate with one set of crystals, AC line cord, DC Power Cord, Microphone, Microphone

Size: 4½″ x 9″ x 9½″

Cat. No. 65-120 12 volt model .... Amateur Net **$159.95**
Cat. No. 65-122 6 volt model .... Amateur Net **159.95**

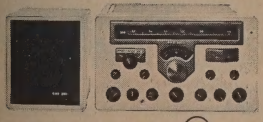
NOTE: Both models operate on std. 110 volt house current.

Send today for the free catalogs that show the most complete line of C-B and Amateur Products available anywhere.

(H) GLOBE POCKETPHONE — New portable high styled two-way radio that actually fits into your pocket. Exclusive "power-pak" rechargeable Globe's new Pocketphone can also be used with battery that lasts a year or more. 101 uses. the company's CB-100 two-way radio or CB-200 Broadcaster Deluxe two-way Citizens Band radio for longer ranges. Licensing not required for transmission between 2 pocketphones only.

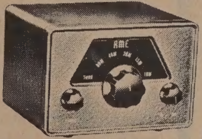
Size: 1⅝″ x 2⅜″ x 6¼″

Cat. No.		Net
65-300	Globe Pocketphone complete with rechargeable batteries—ready to use.	**$125.00**
65-507	Carrying Case	**4.95**
65-508	Earphone Attachment	**2.95**
65-514	Replacement Battery Pack.........	**19.95**
65-515	Replacement Recharger	**3.95**



Speaker

Ⓙ



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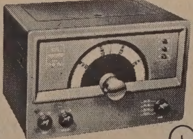

Ⓛ

GC ELECTRONICS

RME COMMUNICATIONS EQUIPMENT

(J) RME 6900 RECEIVER — Optimum performance on every circuit is assured by meticulous attention to all details. • 10 multi-purpose tubes to do the work of 15 • Advanced circuitry and engineering • Audio noise limiter • Noise pulses never reach the AGC system, adjustable to clip at any modulation depth. • Resultant oscillator stability versus line voltage shift will please the most critical user. • Silicon diode power rectifiers lower ambient operating temperature, improve regulation and provide longer, component life • Separate BFO injection control permits adjusting injection voltage • Modemaster switch provides unified control at five individual functions, simultaneously, automatically adjusting the AGC time constant to maintain optimum receiver performance.

Cat. No. 65-450 .... Amateur Net **$369.00**

(J) RME 6901 SPEAKER — Dsigned to complement the appearance of Model 6900 and other quality receivers. Neat, modern design finished in gray and charcoal. Response characteristics are tailored for optimum readability in communication. Speaker impedance, 4 ohms nominal.

Size: 10″ H x 6½″ D x 8½″ W

Cat. No. 65-451 .... Amateur Net **$19.50**

(K) RME PRESELECTOR — The best receivers, perfectly aligned and properly matched into your antenna should give optimum performance. RME DB23 low-noise r-f amplifier substantially improves the performance of any receiver! It provides minimum gain throughout all ham bands. Consists of one tuned input circuit which matches input impedance of 50- to 75-ohms unbalanced or 300-ohms balanced, followed by two stages of low-noise, neutralized broad band push-pull 6J6 amplifiers. Push-pull 6J6 impedance matching stage delivers the amplified signal to the receiver with output impedance of 150-ohms unbalanced or 300-ohms balancer. Unique combination of selective and wide-band RF amplifiers permits optimum use of mechanical, crystal, or audio filters. Input circuits match any standard antenna.

Size: 7⅝″ W x 6″ D x 5″ H

Cat. No. 65-454 .... Amateur Net **$49.50**

(L) RME VHF 126 VERY HIGH FREQUENCY CONVERTER — Specifically designed to extend the range of any communications receiver through the 6, 2, an 1¼ meter amateur bands. With its own power supply utilizing the low-frequency IF stages and audio of your present receiver. Simple to install. It converts very high frequencies to a fixed frequency of 7 mc which is then fed to the receiver, amplified, and detected in the normal manner. For the two hiyher frequency ranges, double conversion results. Image response is practically eliminated on all ranges. RME dual speed tuning control provides fast or micrometer tuning. Heavy steel cabinet and chassis give adequate shielding to all RF circuits to prevent leak-through from unwanted external signals and to minimize radiation.

Cat. No. 65-452 .... Amateur Net **$239.00**

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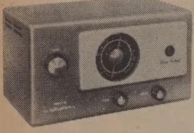
the new ideas in communications are born at . . .

hallicrafters

Precision Built Short Wave and Special Purpose Receivers

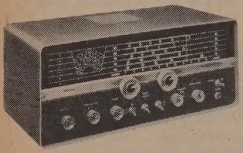
SX-62A (Less speaker)

Broadcast 550-1620 kc. three S/W bands 1.62-32 Mc, FM 27-109 Mc. Wide vision dial, one band lights at a time, temperature compensated, voltage regulated, six-position selectivity, phone jack. Fourteen tubes plus one rectifier and one voltage regulator—105/125V. 50/60 cycle AC. Satin black steel cabinet, gray and silver trim — 20″ x 10½″ x 16″. Shipping wt. 66 lbs. approx. Use R-48 speaker. (U/L approved.)..**$430.00**



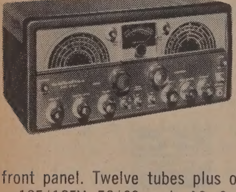
S-94 or S-95

S-94: 30-50 Mc and S-95: 152-173 Mc. Super sensitive, increased audio power output, adj. built-in relay squelch system. Low noise R.F. amplifier, separate high gain d.c. amp. for squelch system. Ideal for Civilian Defense. Phone tip jacks. Eight tubes plus one rectifier—105/125V. 50/60 cycle AC/DC. Mobile operation possible with external power converter. Gray steel cabinet, silver and red trim. 12⅞″ x 7″ x 7¼″. Shipping wt. 12½ lbs................**$69.95**



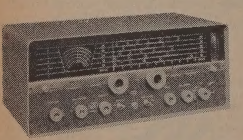
S-108

Broadcast 540-1680 kc, three S/W bands 1680 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Temp. compensated oscillator. Headphone jack. Seven tubes plus rectifier. 105/125V. 50/60 cycle. Gray steel cabinet, silver trim. 8½″ x 18½″ x 11″. Shipping wt. 35 lbs. (U/L approved.)..**$139.95**



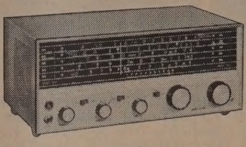
SX-100 (Less Speaker)

Broadcast 538-1580 kc, three S/W 1720 kc-34 Mc. Double conversion superheterodyne over the entire frequency range. Precision gear drives, selectable side band reception of both suppressed and full carrier, delayed AVC, CW operation with AVC on or off. Calibrated bandspread, "S" meter, phone jack on front panel. Twelve tubes plus one rectifier and one voltage regulator—105/125V. 50/60 cycle AC. Gray and black steel cabinet, silver trim, piano hinge top—Tee-Notch Filter to reduce heterodynes. Built-in 100 kc crystal calibrator. Antenna trimmer. Logging dials on tuning knobs. 18⅜″ x 8½″ x 10⅝″. Shipping wt. 43 lbs. approx. (U/L approved. Certified for FCDA matching funds. OCDM Item #R-16.)............ **$325.00**



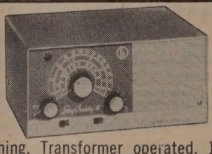
SX-110 (Less speaker)

Broadcast 540-1680 kc, three S/W bands 1680 kc-34 Mc. Slide rule bandspread dial calibrated on 10, 15, 20, 40 and 80 meter amateur bands. Antenna trimmer, "S" meter. Crystal filter. Seven tubes plus one rectifier —105/125V. 50/60 cycles AC. Gray steel cabinet, silver trim. Uses R-48 speaker, 8½″ x 18½″ x 11″. Shipping wt. 35 lbs. (U/L approved.)..............................**$169.95**



S-118

Broadcast 495-1620 kc, three
bands 1.6-31. Mc and low freq
band 185 to 420 kc. Slide rul
and electrical bandspread. F
loop on BC and low frequency
Built-in speaker, B.F.O., A.N.L.,
phone jack, phono input/tune
put socket, socket for external d.c. power. Five tubes plus two s
diodes. Size 14½″ x 5¹¹⁄₁₆″ x 8½″, 105-125 volts 50/60 AC. Shi
wt. 19 lbs..$

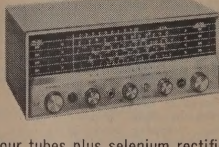


S-119

Sky Buddy II. 3 tubes, AM band
2.0-16.5 Mc short wave b
Superheterodyne circuit. Bu
speaker with provision for
phones. Planetary drive for
tuning. Transformer operated. 115V 60 cycle AC. Steel gray ca
10½″ x 5″ x 7½″. Shipping wt. 9 lbs.................................**$49.95**

S-119K (Kit)

Same as S-119 except in kit form..**$39.95**



S-120

Broadcast 550-1600 kc, three
bands 1600 kc.—30 Mc. Thre
tennas ferrite loop for broa
adjustable whip for S/W and
antenna. Front panel head
jack, disconnects built-in sp
when headphones are plugge
Four tubes plus selenium rectifier. 105/125V AC/DC. Gray steel ca
with silver trim. 13½″ x 5⅞″ x 8¾″. Shipping wt. 11¾ lbs.
approved.) ....$

CRX-1

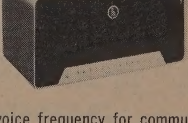
CRX-1 30-50 Mc and CRX-2 15
Mc receivers for split channel,
row band FM. Triple conve
Manual tuning and 2 crystal
tions (crystals not included).
justable squelch. Built-in sp
with provision for external spe
High speed and vernier tuning
trols. 105/125V. 50/60 cycle
Mobile operation possible with external power converter. 13½″ x
8¾″. Gray steel cabinet with silver trim. Shipping wt. 15 lbs.........$

CRX-2

151-174 Mc Version of CRX-1..$1

CRX-3

108-135 Mc high quality AM VHF receiver. 118V 50/60 cycle AC....$



R-48

Matching 5½″ x 7½″ speake
Hallicrafters or other receiver
ing a 3.2 ohm output. 3.16
magnet produces a fully satu
air gap and distortion-free r
duction. A fidelity switch pe
selection of full fidelity resp
or voice frequency for communications reception. For use with SX
SX-100 and SX-110. Gray steel cabinet. 6¾″ x 13¼″ x 8¼″. Shi
wt. 9 lbs...$1

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HAMMARLUND

COMMUNICATIONS EQUIPMENT

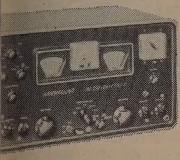
NEW HQ-100 A

A modestly priced general coverage receiver with excellent CW and SSB reception due to independently controlled continuously variable BFO and Q-multiplier. Continuous tuning from 540 KCS to 30 MCS. Outstanding sensitivity and selectivity — electrical bandspread di-
calibrated. Voltage and temperature regulated. S meter. usive Auto-Response. Automatic noise limiter. Ten tube heterodyne circuit. (Single conversion).

$189.00
Amateur Net

our clock timer optional ....**$10.00** Extra

NEW HQ-145 X



General coverage receiver for SWL and hams with built-in provision for single crystal controlled channel. Tunes from 540 KCS to 30 MCS. Electrical bandspread in all ham bands in frequency range. Dual conversion from 10.0 MCS to 30.0 MCS. 60 db slot filter and six
ion crystal filter. Eleven tube superheterodyne with auto-
c noise limiter. High sensitivity. Optional 100 KC plug-in
rator.

$269.00
Amateur Net

our clock timer optional ....**$10.00** Extra

NEW MR-50X
NEW MR-60X

Identical units except for frequency ranges covered. MR-50 X has range of 147-174 MC. MR-60 X — 25-54 MCS. Offers true split channel performance with optional multi-channel operation. Entirely selt
ined with whip antenna — provision for external antenna.
tive call option. High sensitivity. Crystal controlled to
, pre-determined channels for optimum reception. Ideal for
industrial, or commercial use.

$199.00
Net

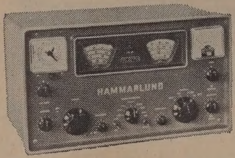
51X
61X MONITOR RECEIVERS

ar to MR-50X, MR-60X, Identical frequency ranges.
tly less selectivity as a result of employing L/C circuitry
cing crystal lattice filter. Supplied to specific frequency with
al.

E: All monitor receivers available
in up to 6 channels

$149.95
Net

NEW
HQ-110A



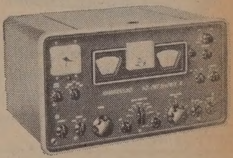
12 tube superheterodyne dual-conversion receiver covering all amateur bands from 160 to 6 meters — with optimum reception of CW and SSB signals through separate linear detector. New design includes such extras as:

- Significantly tighter mechanical and electrical stability.
- Accessory socket for pre-amp or converter application.
- Expanded dial — with 144-148 MC calibrations for use with 2 meter converters.
- Separate 6 meter coax input for rapid shift from VHF to LF operation.

$249.00
Amateur Net

24 hour clock-timer $10 optional.

NEW
HQ-170A



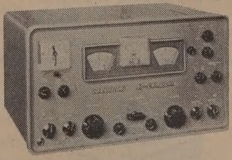
The Single Sideband Specialist. 17 tube superheterodyne design — dual and triple conversion. Tunes 6, 10, 15, 20, 40, 80 and 160 meter amateur bands plus 2 meter calibration. NEW features include:

- Significantly better electrical and mechanical stability
- Silicon rectifiers for cooler, high-efficiency operation
- 2 meter calibration for converter use
- Accessory outlet and a system socket.

$369.00
Amateur Net

24 hour clock-timer $10 optional.

HQ-180



A general coverage SSB receiver that provides professional performance at an amateur price. 18 tube superheterodyne, 540 KCS to 30 MCS coverage. Bandspread. H.F. crystal filter—slot filter. Separate product detector. Tuned IF amplifier. Selectable sideband. BFO control. Selectable decay fast attack AVC. Crystal calibrator. Automatic noise limiter. In fact, everything and more that you would expect to find in the very best general coverage SSB receiver.

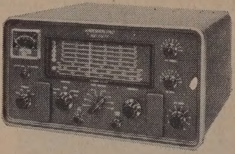
$429.00
Amateur Net

24-hour clock timer optional ....**$10.00** Extra

HAMMARLUND

COMMUNICATIONS EQUIPMENT

NEW HX-50 COMPACT, FILTER-TYPE TRANSMITTER



The "Fabulous-50" offers a new concept in transmitter design. Built to provide every feature you have ever wanted, this unit is conservatively rated at 130 watts Two-Tone P.E.P. and CW input. The HX-50 covers all amateur bands 80 to 10 meters and in addition provides a 160 meter band switch position for use with an optionally available kit. Significant overlap of internal VFO ranges is provided by crystal or external VFO operation. Slide rule dial has band-in-use indication and is calibrated every 10 KC. Readability to approximately 2 KC. Stability after warmup is less than 250 cps.

$399.50
Amateur Net

SP-600 COMMUNICATIONS RECEIVER

A commercial/military quality receiver tuning from 540 KCS to 54 MCS in six bands. Operation on any one of 6 crystal controlled fixed frequencies. Stability .001% at 54 MCS. Extremely high image rejection. Ideal for diversity or point-to-point reception. Also available in other frequency ranges for laboratory, military, or communications reception. Price range from $1140.00 up—dependent on frequency ranges and features desired.

SPC-10 SSB CONVERTER

Self contained unit for conversion of any standard communications receiver having an IF frequency of 450 to 500 KCS—but especially adapted for use with the Hammarlund SP-600. Professional quality SSB and new selectivity performance on AM-MCW. Selectable 1, 2 or 3 KC bandwidth per sideband. 0.5, 2, 4 or 6 KC double sideband.

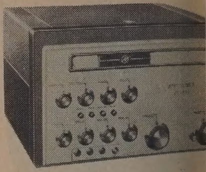
$375.00
Amateur Net

RDF-10

Three band radio directional finder, marine, broadcast, and beacon. Ten transistors, modern circuitry, for extra sensitivity. Self-contained standard flashlight size battery supply. Low-drain — long battery life. Calibrated directional antenna for pin-point "fix". Simple, sure, accurate, and always dependable.

$179.00
Complete
(less batteries)

HX-500 SSB TRANSMITTER



Advanced design 100 watt transmitter for amateur use. Covers 3.5, 7, 14, 21, 28, 29, and 30 MCS bands. Separate dial scale for each band. All crystals included. Read-out to 200 cps or better. Stability after warmup better than 100 cps. Choice of upper, lower, or both sideba
CW, FM, FSK, for RTTY, plus 40 cps identification ke
shift. 50 db or better carrier and sideband suppression. A
matic VOX/ anti VOX system. Dollar for dollar, the fi
amateur transmitter ever offered.

$695
Amateur

NEW HQ-105 TR

CITIZEN-HAM BAND TRANSCEIVER WITH GENERAL COVERAGE RECEIVER

Citizens band transceiver with built-in provision for ham band operation. Five watt input transmitter, 100% modulation — for CB or 10 Meter operation. Receiver continuously tunable f
540 KCS to 30 MCS. Direct dial calibrated electrical b
spread. Dial markings every 10 KCS on 80, 40, and 20 m
bands; every 20 KCS on 15 meter band; and every 50 KC
10 meter band. Q-multiplier. BFO. Auto-Response. Autom
noise limiter. Eleven tube transceiver design.

$219
Amateur

24-hour clock timer optional .... **$10.00 E**

HQ-105 TRS

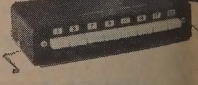
Identical to HQ-105 TR ex
that a speaker is installed in
area provided for the 24 h
clock timer.

$224

OCT-X

8 CHANNEL PUSH BUTTON CB SELECTOR

(Model CB-8)



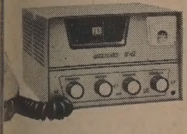
Instantly converts HQ-105 TR transmitter to 8 crystal, 8 channel selectable frequencies. Mount-in-a-minute design permits mounting to top or either side of unit. Push button design. Completely eliminates annoyance and possible discourtes
going through busy channels with a live transmitter. Si
plug-in construction permits instantaneous crystal replacem
Three set of gummed-back channel markers are supplied
ering the entire range of CB channels.

$1
Less cry

HAMMARLUND

COMMUNICATIONS EQUIPMENT

CB-23



The ONLY "Full-Time" Citizens Band Transceiver

Think of it! Every Citizens band channel (27 MCS-Class D) transmit or receive — right at your fingertips.

Exclusively Hammarlund's, the NEW CB-23 is a dual conversion super heterodyne transceiver that features the full range of CB channels. No tuning — no
ng for your channel — with the unique CB-23 you can
h directly to the desired channel with crystal-fixed accu-
There is nothing more to buy. Price includes every crystal
plug it into any convenience outlet, or attach to a mobile
lt system — and you're on the air. Deluxe communications
phone and cables for both 117v AC and 12v. DC are also
led.

$229.50
Available Oct. 1962

ED FEATURE

C fine tune adjustment for receiver section only. No effect
nsmitter frequencies.

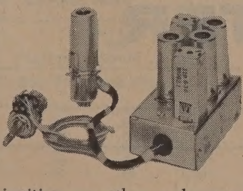
1 LINEAR AMPLIFIER

Ruggedly built to give a lifetime of service, the Hammarlund HXL-1 sets all new standards of performance in SSB, CW and AM. Conservatively rated at 1 KW P.E.P. input, the HXL-1 offers complete coverage — 80 to 10 meters — with provision for
ion of 160 meters. Features efficient grounded-grid circuit
single, high dissipation tube.

able Oct. 1962

$375.00
Amateur Net

NOISE SILENCER



tially plug-in 3 tube cir-
designed primarily for use
the Hammarlund HQ-170
HQ-180 communication re-
rs. Renders receivers inop-
e during short duration of
individual noise pulse.
e or "hole" not noticeable
se of extremely short dur-
. Excellent where severe ignition or other pulse-type
s must be contended with.

$33.50
Amateur Net

STAL CALIBRATORS

al calibrators providing markers for dial calibration every
KCS.

00 for general usage	**$15.95** Amateur Net
00 for HQ-140-X, HQ-140-XA, HQ-120 and HQ-129	**$17.95** Amateur Net
00 plug-in calibrator for HQ-145 and HQ-145-X	**$15.95** Amateur Net

CR-1 WORLD WIDE RECEIVER

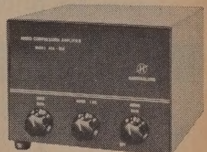
The CR-1 "World-Wide" receiver features the most recent advances in electronic packaging and design by including new compactron tubes to deliver the finest world-wide reception. Wide frequency range covers from 540 KCS to 30 MCS. Actual ranges of the four-band CR-1 are: 540 KCS to 1620 KCS, 17 MCS to 5.0 MCS, 5.0 MCS to 14.0 MCS, and 13 MCS to 30 MCS — thus including standard broadcast and all short wave bands. Superheterodyne design and modern circuitry combined with unusual flexibility permits reception of CW (code) and AM (broadcast and shortwave bands). Additionally, the CR-1 may be used as a CD "Alert" receiver by switching to CD position. In this position, the CR-1 will receive normal voice signals as long as the transmitting station is "On-Air". However, (as in the case of a CD alert) if the station leaves the air, it will emit a high pitched audio note to focus attention to an "Alert" condition. **$59.95**

Available Oct./Nov. 1962 Net

ELECTRONIC KEYER HK-1B

This compact, fully transistorized code generator combines every desirable feature of electronic sending with distinctive dot/dash control to give your messages your "Personal Touch." Provides a full range of speeds to match individual proficiency. Features automatic, semi-automatic (bug) or straight key operation. Volume adjustable sidetone signal for monitoring or code practice. Approximately 8 to 50 WPM speed range with variable dot/dash ratio. Battery operation and compact size — only 7″ wide, 4½″ deep and 2⅜″ high. **$39.95**
Amateur Net

NEW
ACA-1 COMPRESSOR



The ACA-1 is a small compact AVC type audio compression amplifier comprising a built-in power supply; 1 KC tone oscillator for transmitter alignment; 90 to 3000 cps, audio filter of the passive network type; and input/output terminals for both high and low impedance circuits.

This new Hammarlund compressor is designed to be used between the microphone and the input of a radio transmitter, PA amplifier, telephone line, or any other audio device to automatically prevent over-modulation, flat-topping and blasting caused by uncontrolled audio peaks.

Compression action permits weaker audio tones to reach higher voice levels, resulting in greatly increased "talk-power" and readability. **$49.50**

Available Oct./Nov. 1962 Tentative price

SPEAKERS

S-100 speaker for use with HQ-100A, HQ-110A, and HQ-105-TR	**$14.95** Amateur Net
S-200 speaker for use with HQ-145-X, HQ-170A, HQ-180	**$19.95** Amateur Net

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. Manufacturer's Catalog Numbers and Page Numbers.
2. The Year and Edition of This MASTER.

This will avoid confusion and expedite delivery.

Thank you!

The *Radio-Electronic* MASTER

AIR VARIABLE CAPACITORS

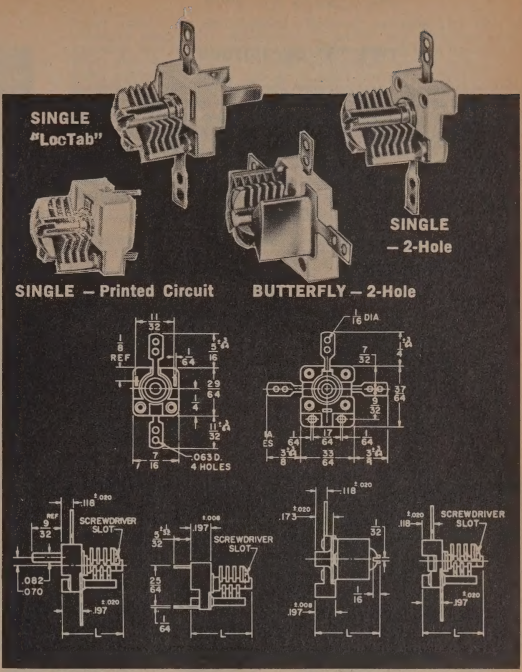
hatever the choice . . . sub-miniature capacitors for inted circuit use—or large, heavy duty types . . . time d again engineers specify Johnson Air Variables!

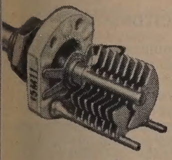
More than 11 basic capacitor types are readily available a wide selection of single section, dual section, butterfly d differential models. Units range in size from the minutive sub-miniature Type "U" capacitors, to large, gged heavy duty "C" and "D" types. Standard stock pacitors in a wide range of plate spacings, capacity per ction, breakdown ratings, and finishes will meet many litary and commercial applications . . . specials to your ecifications are also available in production quantities.

TYPE "U" AND "UB" CAPACITORS

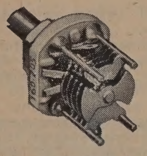
These tiny Type "U" and "UB" sub-miniature air variable capacitors require less than 0.2 and 0.3 square inch area respectively for chassis or panel mounting. Rotors and stators are precision machined from one piece of solid brass for outstanding mechanical stability and uniformity. Unit offers high "Q" (greater than 1500 at 1 mc), high torque-to-mass ratio, and low temperature coefficient – provides absolute freedom from moisture entrapment found in trimmer capacitors of enclosed or solid dielectric type. All metal parts silver plated – ceramic steatite Grade L-4 or better. Exceptionally uniform delta C and voltage characteristics. Extra heavy end rotor plate protects against accidental damage during handling. No special tools required for installation – slotted end accommodates large screwdriver for quick adjustment. Choice of wide, double pierced or printed circuit style terminals; and "LocTab," printed circuit, or two-hole mounting styles. Specials and Two hole mounting are available only in production quantities.

Note: When ordering "LocTab" add-1 to Cat. No.; Printed Circuit add-5 and 2-hole mounting add-7*

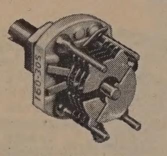




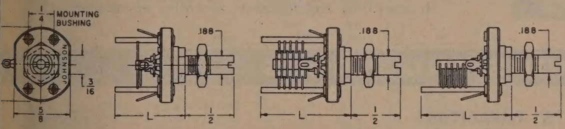
SINGLE



BUTTERFLY



DIFFERENTIAL



TYPE "M" CAPACITORS

These small Type "M" miniature air variable capacitors are excellent for use in compact equipment. Bridge type stator terminal provides an extremely low inductance path to both stator supports. Soldered plate construction, oversize bearing, and heavily anchored stator supports insure extreme rigidity. Large beryllium copper compression rotor contact provides steady torque – and rotor stays "put" where set. Rotor contact and all other metal parts are nickel plated – steatite insulator is DC-200 treated. Mounting bushing threaded with 1/4-32 flats to prevent turning – mounting nut furnished. Peak voltage 1250 volts on .017" spaced units; 850 volts on 160-130 which is spaced .013". 3/16" diameter shaft* slotted for screwdriver adjustment. Available in production quantities with the following features: locking bearings; 180° stop; various shaft extensions; high torque; ~~silver~~ or other platings.

*Instrument type tuning knob to fit 3/16" shaft available.

SPECIFICATIONS AND PRICES

TYPE "U" AND "UB" CAPACITORS

Cat. No.	Nominal Cap. per Sec. Max.	Min.	Plates per Sec.	L	Net Price "LocTab"	Ptd. Circuit	2 Hole Mtng.
SINGLE SECTION—Air Gap .010"—850 Volt Peak Breakdown							
189-1	3.5	1.2	4	29/64"	$0.50	$0.66	$0.85*
189-2	5.4	1.3	6	1/2"	.52	.68	.87*
189-3	7.3	1.4	8	35/64"	.54	.70	.90*
189-4	9.1	1.5	10	19/32"	.56	.72	.93*
189-5	11.0	1.7	12	5/8"	.58	.74	.97*
189-6	13.0	1.8	14	43/64"	.60	.76	1.00*
SINGLE SECTION—Air Gap .016"—1300 Volt Peak Breakdown							
189-26	4.1	1.3	6	1/2"	$0.75	$1.00	$1.09*
189-27	6.7	1.6	10	5/8"	.85	1.10	1.17*
189-28	8.9	1.8	14	3/4"	.95	1.20	1.24*
BUTTERFLY—Air Gap .010"—850 Volt Peak Breakdown							
189-201	4.5	2.4	9	15/32"	Not Av.	$1.75	$1.75*
189-202	5.5	2.5	15	5/8"	Not Av.	1.85	1.85*
189-203	8.5	3.0	21	11/16"	Not Av.	2.00	2.00*

*Available only in Production Quantities.

TYPE "M" CAPACITORS

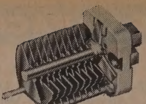
Cat. No.	Nom. Cap. per Sec. Max.	Min.	Plates per Sec.	L	Net Price
SINGLE SECTION					
160-102	5	1.5	5	45/64"	$0.90
160-104	8.7	1.8	9	13/16"	.95
160-107	14.2	2.3	15	1"	1.00
160-110	19.6	2.7	21	1 11/64"	1.10
160-130	32	3	28	1 17/64"	1.20
BUTTERFLY					
160-203	3.1	1.5	5	45/64"	$1.20
160-205	5.1	1.8	9	13/16"	1.30
160-208	8	2.2	16	1"	1.45
160-211	10.8	2.7	22	1 11/64"	1.60
DIFFERENTIAL					
160-303	5.0	1.5	5	45/64"	$1.25
160-305	8.7	1.8	9	13/16"	1.45
160-308	14.2	2.3	15	1"	1.65
160-311	19.6	2.7	21	1 11/64"	1.85

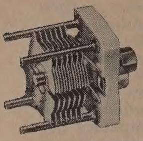
E. F. JOHNSON COMPANY

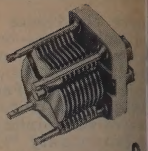
®WASECA, MINNESOTA, U. S. A.

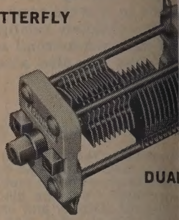
TYPE "S" CAPACITORS

Midway in physical size between the Type "M" and "K" capacitors, the Type "S" is compact in design—rugged in construction. Unit is equipped with DC-200 treated steatite insulator, and nickel-plated brass plates. The "S" capacitor has a plate spacing of .013" with a peak voltage rating of 850 volts. Other spacings; single hole mounting types; straight shaft; screwdriver shaft; or locking-type screwdriver shaft available on special order in production quantities. Available in Single Section, Butterfly, Differential and Dual Section Types.

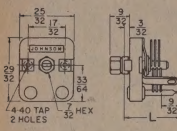

SINGLE


DIFFERENTIAL

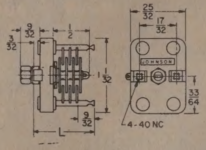

BUTTERFLY


DUAL

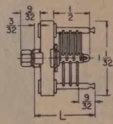
SINGLE SECTION



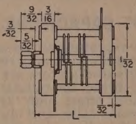
BUTTERFLY

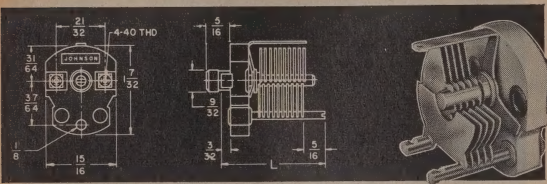


DIFFERENTIAL



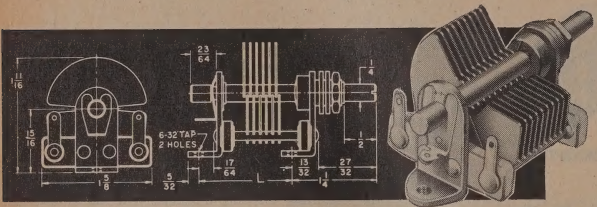
DUAL SECTION





TYPE "K" CAPACITORS

Widely used for military and many commercial applic
the Type "K" capacitor has a DC-200 impregnated steat
sulator, slotted stator contacts, and extra-rigid soldered
construction. Peak voltage rating is 1000 volts with a
spacing of .015" – plates are nickel-plated brass. The Typ
capacitor is available in production quantities to meet
92A specifications – other capacities and variations fo
cialized military and commercial applications are also av
in production quantities. Butterfly and Differential Type
soon be available.



TYPE "R" CAPACITORS

This rugged Johnson version of a popular standardized
tor, has extra-heavy steatite stator support insulator
soldered .023" thick brass plates. All metal parts are
nickel-plated for resistance to corrosion. Sturdy bras
frames offer excellent rigidity. Double bearing const
and silver-plated beryllium copper wiping contacts
smooth, reliable performance. Peak voltage rating is 120
– available with .024", .036", .050", .071", or .095" plate
ings, as well as special platings and shaft lengths in
tion quantities. Bearing threaded 3/8"-32. Also availabl
out mounting feet for panel mounting applications.

SPECIFICATIONS AND PRICES

TYPE "S" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
		SINGLE SECTION			
148-1	15	2.3	6	53/64"	$1.00
148-2	25	2.6	10	15/16"	1.05
148-3	35	2.9	14	1 1/32"	1.10
148-4	50	3.2	19	1 9/64"	1.15
148-5	75	3.9	29	1 13/32"	1.20
148-6	100	4.5	38	1 43/64"	1.30
		BUTTERFLY			
148-201	9	1.8	6	53/64"	$1.45
148-202	14	2.1	10	15/16"	1.60
148-203	20	2.4	14	1 1/32"	1.70
148-204	27	2.8	19	1 9/64"	1.95
148-205	42	3.6	29	1 13/32"	2.20
148-206	54	4.4	38	1 43/64"	2.45

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Pri
		DIFFERENTIAL			
148-301	15	2.3	6	53/64"	$1.50
148-302	25	2.6	10	15/16"	1.60
148-303	35	2.9	14	1 1/32"	1.70
148-304	50	3.2	19	1 9/64"	1.80
148-305	75	3.9	29	1 13/32"	1.90
148-306	100	4.5	38	1 43/64"	2.10
		DUAL SECTION			
148-503	25	2.9	10	1 25/64"	$2.25
148-504	35	3.2	14	1 19/32"	2.40
148-505	50	3.5	19	1 51/64"	2.55
148-507	100	4.8	38	2 27/32"	3.00

TYPE "K" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
158-1	10	2.9	3	7/8"	$1.25
158-2	25	3.7	7	1"	1.35
158-3	50	4.6	14	1 3/16"	1.55
158-4	75	5.5	20	1 3/8"	1.70
158-5	100	6.4	27	1 5/8"	1.85

TYPE "R" CAPACITORS

Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Pri
149-1	20	5	3	1 7/32"	$2.35
149-2	35	6	5	1 7/32"	2.45
149-3	50	6.5	7	1 7/32"	2.55
149-4	80	8	11	1 7/32"	2.70
149-5	102	8.5	14	1 13/32"	2.80
149-6	140	13.5	19	1 19/32"	3.00

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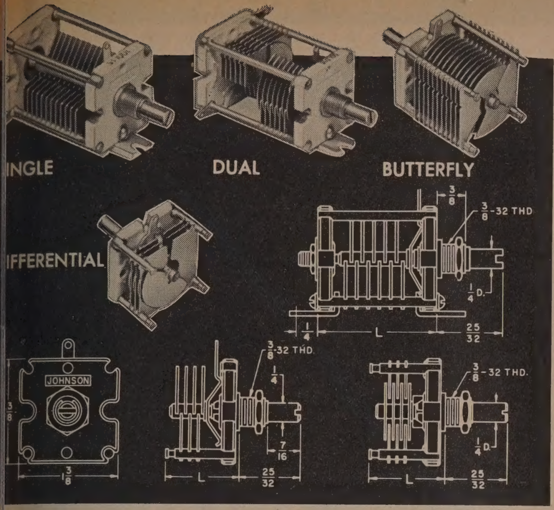


TYPE "L" CAPACITORS

Ideal choice for applications requiring extreme stability and strength practically impervious to shock and vibration. Rotor bearings and stator support rods soldered directly to heavy 3/16" thick steatite insulator. Special split-sleeve tension bearing and silver-plated beryllium copper contact provide constant torque and smooth capacity variation. Heavy brass soldered plates and large diameter tie rods provide excellent rigidity. Removable chassis mounting brackets can be used to mount auxiliary equipment. Plating is heavy nickel – plate spacing .030". Peak voltage rating is 1500 volts. Also available with .020", .060", and .080" spacing as well as special platings, shaft lengths and stator terminal locations in production quantities. Bearings threaded 3/8-32", mounting nut provided. Models with 6-32 tapped mounting posts soldered to end frame also available on special order.

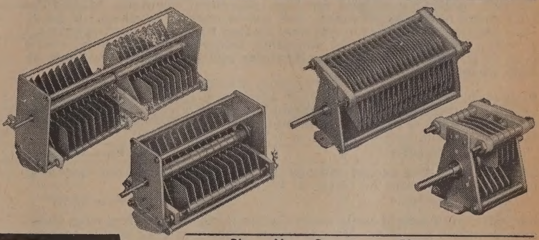
Cat. No.	Nom. Cap. per Sec. Max.	Nom. Cap. per Sec. Min.	Plates per Sec.	L	Net Price
		SINGLE SECTION — Single End Plate			
167-1	11	2.8	3	3/4"	$1.80
167-2	27	3.5	7	61/64"	1.90
167-3	51	4.6	13	1 1/4"	2.10
167-4	75	5.7	19	1 9/16"	2.30
		SINGLE SECTION — Double End Plate			
167-11	99	6.8	25	2 1/32"	3.70
167-12	202	11.6	51	3 21/64"	4.70
		BUTTERFLY			
167-21	10.5	2.8	5	55/64"	2.15
167-22	26	4.3	12	1 1/4"	2.50
167-23	51	6.8	23	1 3/4"	3.05
		DIFFERENTIAL			
167-31	11	2.8	3	3/4"	2.20
167-32	27	3.5	7	61/64"	2.40
167-33	51	4.6	13	1 1/4"	2.75
		DUAL SECTION			
167-51	27	5.0	7	1 5/8"	3.75
167-52	51	6.5	13	2 15/64"	4.15
167-53	99	9.8	25	3 7/16"	5.20

TYPE "C" AND "D" CAPACITORS

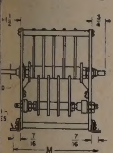
ivy .051" aluminum plates and 5/16" diameter aluminum tie rods; e, laminated rotor brushes; 1/4" cadmium-plated steel shafts; lamted phosphor bronze contact springs; and steatite insulation. Type – overall width: 5 1/2" – height: 5 13/32" – height bottom to shaft cen- 3 3/32". Type "D" – overall width: 4 1/4" – height: 4" – height bottom shaft center: 2 5/32". Dual types have center rotor connection for ter balance. End frames tapped 8-32, 3 holes, for panel mounting rackets furnished for chassis mounting.

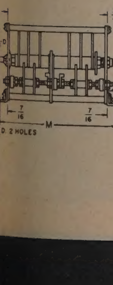
TYPE "E" AND "F" CAPACITORS

ge amount of capacity per cubic inch and extremely low capacity hassis. Heavy aluminum plates .032" thick with rounded edges and e 1/4" tie rods; stainless steel shafts; sturdy phosphor bronze con- springs; and center rotor contact on dual types. End frames tapped 2, 3 holes for panel mounting – brackets furnished for chassis unting.

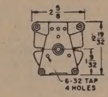


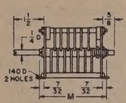
SPECIFICATIONS AND PRICES

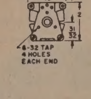


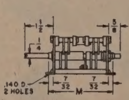


Cat. No.	Pkg. Voltage	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
			TYPE C SINGLE SECTION				
152-1	7000	252	34	.175"	24	7 11/16"	$17.95
152-2	7000	496	56	.175"	47	13 1/16"	23.95
152-6	11000	103	30	.350"	17	9 15/32"	14.95
152-8	13000	51	24	.500"	10	8 9/16"	12.95
152-9	13000	102	42	.500"	21	14 7/32"	15.95
			TYPE C DUAL SECTION				
152-501	4500	204	21	.125"	15	9 15/32"	19.95
152-502	4500	290	26	.125"	21	11 3/16"	22.95
152-503	7000	198	27	.175"	19	13 1/16"	22.75
152-504	7000	305	37	.175"	29	17 21/32"	29.95
152-505	9000	147	30	.250"	19	15 23/32"	25.45
152-507	11000	50	18	.350"	8	11 3/16"	17.25
152-509	11000	103	32	.350"	17	17 21/32"	24.50
			TYPE D SINGLE SECTION				
153-6	3500	496	36	.080"	39	7 11/16"	16.95
153-8	4500	146	23	.125"	17	5 21/32"	11.75
153-11	7000	98	23	.175"	15	5 21/32"	11.50
153-12	7000	151	31	.175"	23	7 11/16"	13.70
153-13	7000	244	45	.175"	37	11 3/16"	16.95
153-15	9000	53	20	.250"	10	5 21/32"	10.60
153-16	9000	73	25	.250"	14	6 11/16"	11.50
153-17	9000	99	30	.250"	19	8 9/16"	12.95
153-18	9000	149	43	.250"	29	11 3/16"	15.50
			TYPE D DUAL SECTION				
153-501	3500	95	13	.080"	8	5 21/32"	13.30
153-502	3500	147	15	.080"	12	6 11/16"	14.95
153-503	3500	202	19	.080"	16	8 9/16"	17.95
153-504	3500	291	24	.080"	23	10 11/32"	20.25
153-505	3500	496	38	.080"	39	14 7/32"	28.30
153-506	4500	155	24	.125"	17	10 11/32"	18.50
153-507	4500	198	27	.125"	23	13 1/16"	20.95
153-508	7000	52	15	.175"	8	6 11/16"	13.70
153-509	7000	72	17	.175"	11	8 9/16"	15.25
153-510	7000	97	22	.175"	15	10 11/32"	17.40
153-511	7000	151	31	.175"	23	14 7/32"	22.40
153-513	9000	52	19	.250"	19	10 11/32"	15.95
153-514	9000	97	30	.250"	19	15 23/32"	21.50







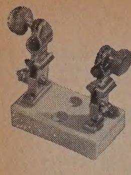


Cat. No.	Pkg. Voltage	Nom. Cap. /Sec. Max.	Nom. Cap. /Sec. Min.	Air Gap	Plates per Sec.	M	Net Price
			TYPE E SINGLE SECTION				
154-1	2000	244	12	.045"	23	3 7/32"	$ 7.40
154-2	2000	353	15	.045"	33	3 31/32"	8.35
154-3	2000	488	19	.045"	45	4 29/32"	9.80
154-7	3000	100	11	.075"	15	3"	6.60
154-8	3000	154	14	.075"	23	3 7/8"	7.55
154-9	3000	251	20	.075"	37	5 3/8"	9.20
154-10	3000	347	25	.075"	51	6 7/8"	10.95
154-11	4500	38	9	.125"	9	2 3/4"	6.10
154-12	4500	53	11	.125"	12	3 13/32"	6.55
154-13	4500	74	13	.125"	17	4 1/32"	7.00
154-14	4500	101	16	.125"	23	4 31/32"	7.70
154-15	4500	145	20	.125"	33	6 17/32"	8.85
154-16	4500	241	32	.125"	55	10"	11.50
			TYPE E DUAL SECTION				
154-502	2000	312	13	.045"	29	7 3/32"	13.80
154-503	3000	52	8	.075"	8	4 17/32"	9.20
154-504	3000	72	8	.075"	11	4 31/32"	9.75
154-505	3000	99	10	.075"	15	5 13/16"	10.70
154-506	3000	153	13	.075"	23	7 1/2"	12.95
154-507	3000	196	15	.075"	29	8 13/32"	14.40
154-508	4500	52	10	.125"	12	6 19/32"	9.45
154-509	4500	74	12	.125"	17	7 7/8"	11.60
154-510	4500	100	15	.125"	23	9 23/32"	13.25
			TYPE F SINGLE SECTION				
155-1	2000	35	7	.045"	6	1 29/32"	5.50
155-2	2000	54	8	.045"	9	2 1/16"	5.75
155-3	2000	66	8	.045"	11	2 7/32"	5.95
155-4	2000	106	10	.045"	17	2 11/16"	6.55
155-5	2000	154	12	.045"	25	3 5/16"	7.30
155-6	2000	252	17	.045"	41	4 17/32"	8.95
155-8	3000	52	9	.075"	13	2 3/4"	6.25
155-9	3000	67	11	.075"	17	3 5/32"	6.60
155-10	3000	99	14	.075"	25	4 1/32"	7.35
155-11	3000	148	18	.075"	37	5 5/16"	8.75
			TYPE F DUAL SECTION				
155-501	2000	53	7	.045"	9	3 15/16"	9.10
155-502	2000	66	7	.045"	11	4 1/4"	9.70
155-503	2000	104	9	.045"	17	5 5/32"	10.95
155-504	2000	153	11	.045"	25	6 13/32"	12.95
155-505	2000	202	14	.045"	33	7 5/8"	14.35
155-506	3000	51	8	.075"	13	5 1/4"	10.40
155-507	3000	66	10	.075"	17	6 1/8"	11.50
155-508	3000	99	13	.075"	25	7 7/8"	13.35

E. F. JOHNSON COMPANY
® WASECA, MINNESOTA, U. S. A.

TUBE SOCKETS

To simplify selection of sockets and to provide complete specifications for sta industrial and military requirements, wherever applicable, Johnson tube sockets been categorized under a socket standardization program. General specificatior listed on the following pages – detailed specifications on the complete socket li covered in Socket Standardization Booklet 536. Should you desire a copy for Eng ing Department use, please make your request on company letterhead.



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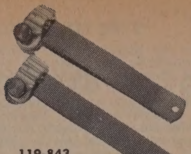
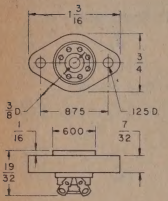
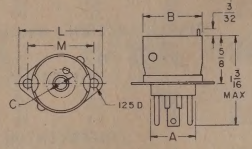


119-843

120-277

120-267





MINIATURE SOCKETS

Wafer type, steatite socket for miniature 7 pin tubes such as the 1RS, 1S5, 6CB6, etc. E.I.A. base number E7-1. Silver-plated phosphor bronze contacts.

Cat. No. 120-267..............**$0.50**

Standard shield base type 7 pin miniature socket. E.I.A. base number E7-1. Two piece steatite construction with silver-plated phosphor bronze contacts, hot tin-dipped terminal ends. Shield base is nickel-plated brass.

Cat. No.	Pins	L	M	C	A	B	Net Price
120-277	7	1 7/64"	7/8"	.375"	.625"	.770"	$0.66

SOCKET FOR 833 AND 833/

Special socket assembly with steatite and a pair of head radiating tube ca nectors. Knurled thumb nuts on s base for fast, easy tube installation. design minimizes strain on tube env and prevents breakage. Head radi plate connectors, aluminum 4 3/8" fl laminated leads. One pair included.

Cat. No. 124-212.......Net Price $9.

Heat radiating plate connectors. Ava separately.

Cat. No. 119-843..............$1.

SOCKETS FOR 4X150A, 4X150D, 4X250B, 4CX250B, 4X250F, 7034, 7035

For use with high power transmitting tubes. Available in many designs – with or without, low inductance screen grid by-pass capacitors. Basic socket molded of low dielectric loss-factor Kel-F plastic. Control grid contact "guide" machined for high alignment accuracy, tapped for 6-32 machine screw. Contacts are low-resistance silver-plated beryllium copper. Tube pin contacts heat treated to provide positive contact pressure and extended life. Annealed soldering tabs may be easily bent or formed. **Additional specifications and information available on Data Sheet 755.**

Rugged light weight basic socket with silver-plated brass mounting saddle. Cathode terminals insulated. Four elongated .140" x .234" mounting holes to accommodate mounting circle diameters from 2 27/64" to 2 39/64". Mounts below chassis in 1 21/32" diameter hole.

Cat. No. 124-107-1..............................**Net Price $5.65**

Same as 124-107-1 except cathode terminals grounded. Four mounting holes .136" diameter on circle of 2 17/32" diameter.

Cat. No. 124-108-1..............................**Net Price $5.95**

Low cost, light weight basic socket without metal mounting ring. Cathode terminals insulated. Mounts below chassis in 1 21/32" diameter hole.

Cat. No. 124-109-1..............................**Net Price $5.00**

Basic socket with mounting ring and low-inductance 2700 mmf. screen grid by-pass capacitor; cathode terminals insulated. Mounts above chassis through 2 1/2" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

Cat. No. 124-110-1..............................**Net Price $11.70**

Same as 124-110-1 except cathode terminals grounded.

Cat. No. 124-112-1..............................**Net Price $12.00**

Same as 124-108-1, less metal mounting saddle. Low inductance grounding of cathode terminals No. 2, 4, 6, and 8 through integral combination grounding and mounting lugs. Mounts below chassis in 1 21/32" diameter hole.

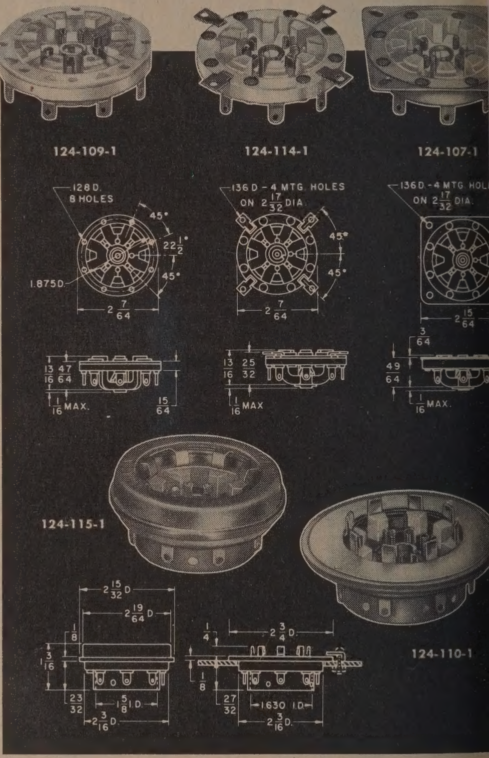
Cat. No. 124-114-1..............................**Net Price $5.65**

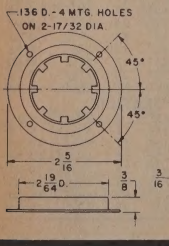
Basic socket with mounting ring and smaller low-inductance 1100 mmf. screen grid by-pass capacitor. Requires less mounting space than other screen grid by-pass type sockets. Withstands 1500 volts DC under applicable test specifications. Cathode terminals insulated. Recessed silver-plated beryllium copper screen grid contacts provide positive electrical contact and low inductance. Mounts above chassis through 2 1/2" diameter hole with 3 clips drilled for 6-32 screws. Provision for mounting socket skirt directly to 1.625" O.D. outer conductor of coaxial-type line.

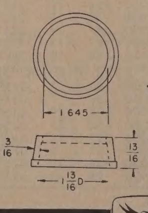
Cat. No. 124-115-1..............................**Net Price $13.00**

Same as 124-115-1, except cathode terminals grounded.

Cat. No. 124-116-1..............................**Net Price $13.50**

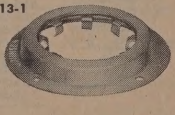






124-111-1

124-113-1



High quality heat resistant steatite chimney for use with 124- 124-108-1, 124-109-1, 124-110-1, 124-112-1, and 124-114-1 socket pered construction directs air flow through tube cooling fins. Max base diameter 2 9/32".

Cat. No. 124-111-1..............................**Net Price $0.**

1450 mmf. circular silvered-mica screen grid by-pass capacitor mo within a low-loss silicone resin sealed silver-plated drawn brass ing. Low inductance silver-plated beryllium copper screen grid c fingers are heat treated to provide positive contact pressure a as extended life. Capacitor dielectric strength tested at 1000 vol Unique design permits replacement of screen grid by-pass cap by merely removing 4 mounting screws; socket rewiring unnece Fully complies with MIL-C-10950A. For use with 124-107-1, 124- 124-109-1, 124-114-1, and similar sockets.

Cat. No. 124-113-1..............................**Net Price $5.**

© U.C.P

SOCKETS – GENERAL SPECIFICATIONS

ndard – Commercial grade for general requirements. Bayonet sockets have porcelain es, glazed top and sides with .0002 cadmium-plated phosphor bronze contacts. Wafer kets have glazed steatite bases, DC-200 treated. Contacts are plated brass with steel ngs. Shells and shields are etched aluminum.

ustrial – Higher quality than Standard types. Glazed steatite bases, DC-200 treated. tacts .0005 silver-plated – on Bayonet sockets are phosphor bronze with beryllium per springs . . . phosphor bronze or beryllium copper on Wafers. Shells and shields aluminum, iridite No. 14 treated. (Except 123-206-100.) Fungus resistant cushion hers under contacts.

tary–Top quality for military requirements. Glazed L-4 steatite bases, DC-200 treated. sphor bronze contacts and beryllium copper springs, .001 silver-plated on Wafers – onet sockets have .0005 silver-plated beryllium copper contacts. Aluminum shields shielded Wafers are iridite No. 14 treated – bayonet shells are brass, .0003 nickeled. Threaded hardware .0002 nickel-plated, unthreaded hardware .0003. Hot tinbed terminals. Fungus resistant cushion washers. (Glass base melamine on Wafers.) er sockets protected for 200 hour salt spray test.

HEAVY DUTY MEDIUM 4 PIN BAYONET

tubes such as the 866A or 811A with . Base No. A4-10. Designed with extra y side wiping contacts and extended page paths to resist high voltage kdown. Solder or threaded stud termi- – nuts furnished.

t. No.	Type	Net Price
3-209-1	Standard	$1.70
3-209-100	Industrial	3.40
3-209-200	Military	4.05

MEDIUM 4 PIN BAYONET

pact, economical socket for tubes with . Base No. A4-10. Phosphor bronze wiping contacts and extended creeppaths. Solder or threaded stud termi- – nuts furnished.

. No.	Type	Net Price
3-210-1	Standard	$1.65
3-210-100	Industrial	3.35
3-210-200	Military	4.00

JUMBO 4 PIN BAYONET

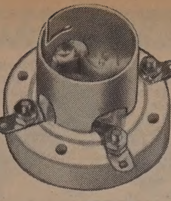
Popular "50 watt" socket for tubes such as the 872A, 211, and others with E.I.A. Base No. A4-29. Double wiping filament contacts handle heavy current. Solder or threaded stud terminals – nuts furnished.

Cat. No.	Type	Net Price
123-211-1	Standard	$2.15
123-211-100	Industrial	3.95
123-211-200	Military	4.90

SUPER JUMBO 4 PIN SOCKET

Heavy duty socket for high voltages and/or heavy current. Accommodates 8008, 5C22, FG104, GL146, and others with E.I.A. Base No. A4-18. Special high current insertion type spring contacts – three heavy retaining springs in nickel-plated brass shell hold tube securely. Two mounting holes recessed to prevent flashover. Screw terminals – screws furnished.

Cat. No.	Type	Net Price
123-206-100	Industrial	$5.15
123-206-200	Military	5.65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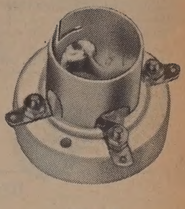
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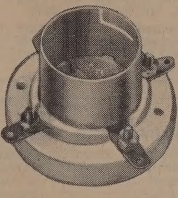
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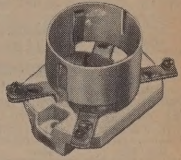
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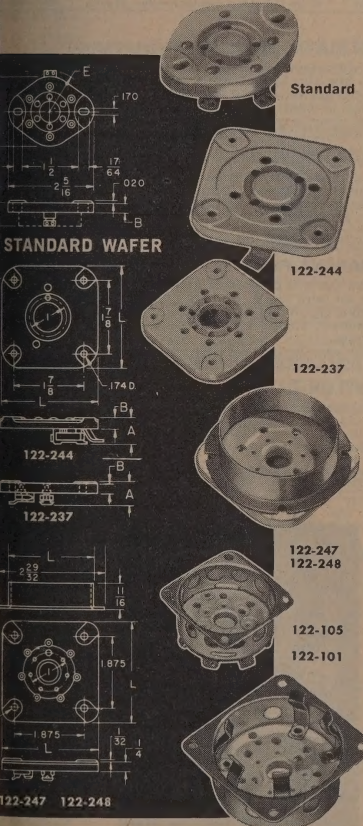


STANDARD WAFER SOCKETS

Insulated with Grade L-4 steatite, or better. Countersunk rivets and bossed mounting holes permit sub-panel mounting. Brass contacts with cadmium-plated steel springs. Locating grooves facilitate tube insertion.

Cat. No.	Type	A	B	C	E	For Tube	Net Price
122-224-1	Standard	9/16"	1/4"	1 11/16"	7/8"	4 Pin	$0.76
122-224-100	Industrial	9/16"	1/4"	1 11/16"	7/8"	4 Pin	.89
122-224-200	Military	9/16"	1/4"	1 11/16"	7/8"	4 Pin	1.05
122-225-1	Standard	9/16"	1/4"	1 11/16"	59/64"	5 Pin	.83
122-225-200	Military	9/16"	1/4"	1 11/16"	59/64"	5 Pin	1.20
122-226-1	Standard	9/16"	1/4"	1 11/16"	59/64"	6 Pin	.94
122-226-200	Military	9/16"	1/4"	1 11/16"	59/64"	6 Pin	1.30
122-227-1	Standard	9/16"	1/4"	1 13/16"	31/32"	7 Pin	1.00
122-227-200	Military	9/16"	1/4"	1 13/16"	31/32"	7 Pin	1.50
122-228-1	Standard	15/32"	3/16"	1 11/16"	57/64"	Octal	1.05
122-228-200	Military	15/32"	3/16"	1 11/16"	57/64"	Octal	1.60

SUPER JUMBO 4 PIN SOCKET

Heavy duty steatite insulated 4 pin wafer – for super jumbo base tubes such as the 8008, and many rectifier and thyratron types with E.I.A. Base Nos. A4-15, A4-16, and A4-18. Long, parallel contacts are designed to withstand high currents.

Cat. No.	Type	A	B	L	Net Price
122-244-1	Standard	11/16"	9/32"	2 5/8"	$1.75
122-244-100	Industrial	11/16"	9/32"	2 5/8"	2.00
122-244-200	Military	11/16"	9/32"	2 5/8"	2.35

GIANT 5 PIN SOCKET

Large steatite wafer socket designed for tubes such as the 4-125A, 4-250A, and RK-48 with E.I.A. Base No. A5-19. Tube seal ventilation is provided by one central and five ventilating holes located between contacts. Contacts designed to withstand heavy current.

Cat. No.	Type	Net Price
122-275-1	Standard	$2.30
122-275-100	Industrial	2.65
122-275-200	Military	3.10

GIANT 7 PIN SOCKET

A rugged wafer socket for tubes such as the 4E27, HK257, and 813 with E.I.A. Base No. A7-17. Contacts are designed with maximum surface area against tube prongs. 3/4" ventilating hole in base provides tube seal cooling.

Cat. No.	Type	A	B	L	Net Price
122-237-1	Standard	9/16"	1/4"	2 5/8"	$1.40
122-237-100	Industrial	9/16"	1/4"	2 5/8"	1.65
122-237-200	Military	9/16"	1/4"	2 5/8"	1.85

SEPTAR SOCKETS

Designed for 7 pin tubes such as the 7094, with E.I.A. Base No. E7-2. Furnished with a separate aluminum shield ring.

Cat. No.	Type	L	Net Price
122-247-1	Standard	2 5/8"	$1.75
122-247-100	Industrial	2 5/8"	1.95
122-247-200	Military	2 5/8"	2.20
122-248-1	Standard	2 3/8"	1.60
122-248-100	Industrial	2 3/8"	1.80
122-248-200	Military	2 3/8"	2.10

VHF SEPTAR SOCKETS

Takes 1/3 less space than previously available types – permits compact design with medium button septar bases such as the 5894, 6524, and 6252 with E.I.A. Base No. E7-20. Molded contact recesses in base prevents turning. Aluminum shell submounts tube for maximum input and output shielding. 3/8" holes provide adequate ventilation.

Cat. No.	Type	Net Price
122-105-100	Industrial	$1.60
122-105-200	Military	1.90

For tubes with medium molded flare septar base such as the 826, 832, 4D32, PL6549, PL-177A, Y-65 with E.I.A. Base No. E7-2. Industrial type has 5 and military type has 7 retainer springs. With ventilated shield. Provision for mounting button mica capacitors directly to socket. Special terminals permit direct mounting of grid coils – two holes provided for mounting of bus bar neutralizing leads.

Cat. No.	Type	Net Price
122-101-100	Industrial	$2.70
122-101-200	Military	3.20

E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U.S.A.

NYLON CONNECTORS

NOTE: Nylon connectors are available in 13 standard colors, White as shown in pricing, plus 12 other colors. Colors should be specified by increasing 5th and 6th digits of the Catalog Number listed for White per the chart below. (Example: To order 105-801 in Yellow rather than White, increase 5th and 6th digits by 06 ending up with 105-807. To order 105-681-16 in Violet rather than White, increase 5th and 6th digits by 11, ending up with 105-692-16.)

Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color
01	Red	05	Orange	09	Dk. Blue
02	Black	06	Yellow	10	Ivory
03	Dk. Green	07	Brown	11	Violet
04	Lt. Blue	08	Lt. Green	12	Grey

DELUXE NYLON TIP JACK

(U.S. Pat. No. 2,704,357)

Molded nylon body with recessed silver-plated machined beryllium copper contact. Hot tin-dipped solder terminal. Current rating: 10 amps. Voltage breakdown: 11,000 volts DC. Capacity to ⅛" panel: 2.0 mmf. ¼"-32 nut furnished.

Cat. No.	Color	Net Price
105-601	White (13 colors available—see above)	$0.20

STANDARD TIP JACK

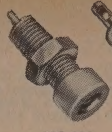
Molded nylon body with recessed, cadmium-plated formed phosphor bronze contact. Current rating: 10 amps. Voltage breakdown: 9,000 volts DC. Capacity to ⅛" panel: 2.0 mmf. ¼"-32 nut furnished.

Cat. No.	Color	Net Price
105-801	White (13 colors available—see above)	$0.13

RAPID-MOUNT NYLON TIP JACK

Low cost – fast mounting! Snap "speed clip" into hole in .061" to .069" thick panels and insert jack. Silver-plated phosphor bronze contact. Voltage breakdown: 7,000 volts DC. Capacity to ⅛" panel: 3.8 mmf. Current rating: 10 amps.

Cat. No.	Color	Net Price
105-681-16	White (13 colors available—see above)	$0.11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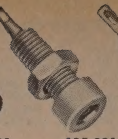
105-681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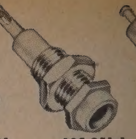
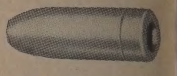

105-251-1

105-

105-101-200


105-701

METAL-CLAD NYLON TIP JACKS–STANDARD

Nylon body, nickel-plated machined brass jacket. Formed, silver- phosphor bronze contact. Current rating: 10 amps. Voltage breal 7,000 volts DC. Capacity to ⅛" panel: 3.8 mmf. ¼"-32 nut an washer furnished.

Cat. No. 105-251-1 White (13 colors available—see above) **Net Price**

METAL-CLAD NYLON TIP JACKS–MILITARY

Complies with MS-16108 of MIL STD-242A. Heavy nickel-platec jacket. Silver-plated, machined beryllium copper contact. Curre ing: 10 amps. Voltage breakdown: 8,000 volts DC. Capacity to ⅛" 3.8 mmf. ¼"-32 nut and lock washer furnished.

Cat. No. 105-201-200 White (13 colors available—see above) **Net Price**

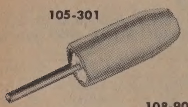
Economy grade, 105-101-200, same as above but lower price. F contact. Voltage breakdown: 5,000 volts DC.

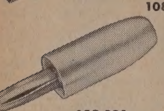
Cat. No. 105-101-200 White (13 colors available—see above) **Net Price**

NYLON JACK AND SLEEVE ASSEMBLY

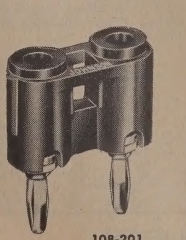
Includes Deluxe Tip Jack (105-601 to 105-613), less mountin with inside threaded molded nylon sleeve. Ideal for patch co insulated rear connection of panel mounted tip jack.

Cat. No. 105-701 White (13 colors available—see above) **Net Price**


105-301


108-901

108-301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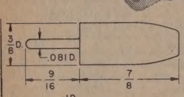
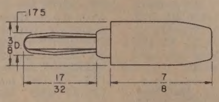
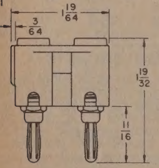
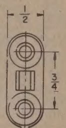
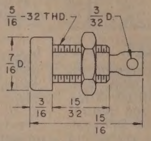










NYLON SOLDERLESS TIP PLUG (Patent Pending)

Completely insulated, molded nylon sleeve. Recessed metal head prevents expo metal surfaces when engaged in any standard tip jack. All metal parts are nickel brass. Designed for solderless connection of up to 16 gauge stranded wire. F standard tip jacks. Current rating: 10 amps.

Cat. No. 105-301 White (13 colors available—see above) **Net Price $0**

NYLON BANANA PLUGS (Patent Pending)

Compact, high voltage insulated plug for a wide variety of applications. Desigr fast, solderless connection of up to 16 gauge stranded wire. Body and pin ar structed of one-piece, nickel-plated brass with high grade nickel silver springs. is molded nylon. Current rating: 10 amps.

Cat. No. 108-301 White (13 colors available—see above) **Net Price $0**

DUAL BANANA PLUG (Patent Pending)

Extremely versatile solderless dual banana plug. Molded nylon body incorporates p indication and strain relief hole for wire leads. Springs are high quality nickel s bodies are nickel-plated. Accurately machined brass studs extend the full length for extra strength. Voltage breakdown: 10,000 volts DC. Capacity plug to plug: 1.3 Current carrying capacity: 15 amps.

Cat. No. 108-201 White (13 colors available—see above) **Net Price $0**

NYLON BANANA JACK

Completely insulated, molded nylon body with cadmium-plated insert. Accomm banana plugs of nominal .175" diameter. Voltage breakdown: 12,500 volts DC. C to 1⁄16" panel: 2.4 mmf. nominal. Mounts in 21⁄64" diameter circular, "D", or double fl (¼" across flats). Single nut furnished for mounting – no other mounting ha needed.

Cat. No. 108-901 White (13 colors available—see above) **Net Price $0**

NYLON "SIX-WAY" BINDING POST (U.S. Pat. No. 2,806,999)

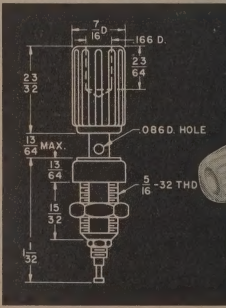
Compact, insulated, pre-assembled binding post. Molded nylon body with silver-plated shank. Thumb nut self-captivated. Connection made at solder stud, or lug may be slipped over threaded portion and secured with a nut. Single nut furnished for mounting – no other hardware needed. Single banana plug fits hole in top of binding post. Insulation resistance greater than 200 meg. after MIL-T-5422B humidity test. Voltage breakdown: 8,000 volts DC. Capacity to ⅛" panel: 3.3 mmf. Current carrying capacity: 15 amps. Mounts in 21⁄64" diameter circular hole, "D", or double flat hole (¼" across flats).

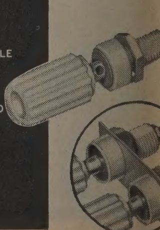
Cat. No.	Color	Net Price
111-101	White (13 colors available—see above)	$0.30

MOUNTING PLATE

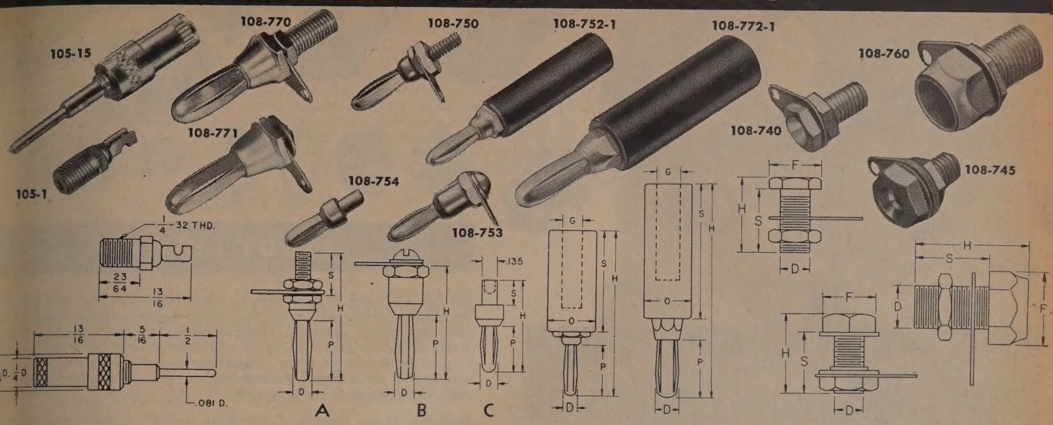
Pre-punched, etched aluminum mounting plate for accurate mounting of two nylon binding posts, or banana jacks in 21⁄64" diameter holes on exact ¾" centers.

Cat. No. 111-20..**Net Price $0.02**





MISCELLANEOUS CONNECTORS



HEADLESS TIP JACK

adless tip jack for insulated mounting surfaces. Hex shoulder for ntening. Beryllium copper, cadmium-plated contact.

No. 105-1 .... **Net Price $0.11**

SOLDERLESS PHONE TIP PLUGS

derless phone tip plugs with knurled nickel-plated brass body and eve – construction permits leads to be firmly secured without sol- ing. 3/16" pin . . . last 1/2" of tip .081" diameter. For use with all stand- tip jacks.

No. 105-15 .... **Net Price $0.18**

STANDARD BANANA PLUGS

s group of standard banana plugs has accurately machined brass ds which extend the full length of the plugs, providing extra ength. Springs are nickel-silver—highly resistant to corrosion. Bodies hardware .0001 nickel-plated. All banana plugs listed below, are ilable with beryllium copper springs and nickel, cadmium, or silver ting, when desired. A wide selection of miniature solder-type plugs lso available on special order – however quantities in special plat- s or plugs should be sufficiently large for economical production s. Solder terminal and nut or screw furnished.

No.	Dwg.	S	P	D	H	Thread	Net Price
-750	A	3/8"	17/32"	.175"	1 1/8"	6-32	$0.13
-750-2	A	3/4"	17/32"	.175"	1 1/2"	6-32	.14
-753	B	...	17/32"	.175"	15/16"	6-32	.14

s banana plug is similar to the standard types listed above, except t it is designed for riveting. Springs are beryllium copper, cadmium- ted.

-754	C	7/32"	13/32"	.155"	13/16"	....	$0.09

nbo type banana plugs with accurately machined brass studs ex- ding full length of the pins. Nickel-silver springs. Bodies and hard- e .0001 nickel-plated. With solder lug and nut or screw.

-770	A	5/8"	3/4"	.300"	1 25/32"	1/4"-28	$0.32
-771	B	...	3/4"	.300"	1 1/8"	10-32	.34

STANDARD INSULATED BANANA PLUGS

These standard size insulated banana plugs are equipped with plastic handles, brass nickel-plated bodies, and nickel-silver springs. The 108-752-1 has a black plastic handle—the 108-752-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-752-1	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	$0.30
108-752-2	1 3/8"	17/32"	.175"	2 1/8"	7/32"	7/16"	.30

JUMBO INSULATED BANANA PLUGS

These jumbo size insulated banana plugs are similar in design to the standard types listed above, but are somewhat larger in size. With brass nickel-plated bodies, and nickel-silver springs. The 108-772-1 has a black plastic handle – the 108-772-2 has a red plastic handle.

Cat. No.	S	P	D	H	G	O	Net Price
108-772-1	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	$0.53
108-772-2	1 3/4"	3/4"	.300"	2 25/32"	3/8"	5/8"	.53

STANDARD BANANA JACKS

High quality machined brass banana jack. Nickel-plated. Furnished complete with solder terminal and nut.

Cat. No.	F	D	S	H	Hole Dia.	Thread	Net Price
108-740	3/8"	1/4"	17/32"	5/8"	.166"	1/4"-28	$0.12

High quality machined brass banana jacks with plastic head molded to body. Nickel-plated. Furnished complete with solder terminal and nut. The 108-745-1 is equipped with red plastic head – the 108-745-2 is equipped with black plastic head.

108-745-1	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	$0.22
108-745-2	7/16"	1/4"	31/64"	21/32"	.166"	1/4"-28	.22

This jumbo banana jack will accommodate plugs such as the 108-770 and the 108-771 listed above. Machined brass, nickel-plated. Furnished complete with solder terminal and nut.

108-760	9/16"	3/8"	21/32"	1"	.277"	3/8"-32	$0.32

NYLON PRINTED CIRCUIT PLUGS AND JACKS

igned for use in printed circuits. Tough, low-loss nylon construction. Horizontal vertical tip jacks designed to accommodate .080" tip plug. **Choice of 13 colors for ed applications, see color ordering information on preceding page.**

HORIZONTAL JACK

que design accepts .080" dia. tip plug ither end, or from top or bottom! Silver- ed beryllium copper formed contact. terminals.

No.	Color	Net Price
751	White (13 colors, see preceding page)	$0.08

VERTICAL JACK

nts through single .052" hole, requires mum mounting area. Silver-plated, ma- ed beryllium copper-contact.

No.	Color	Net Price
851	White (13 colors, see preceding page)	$0.11

SUB-MINIATURE TIP PLUG

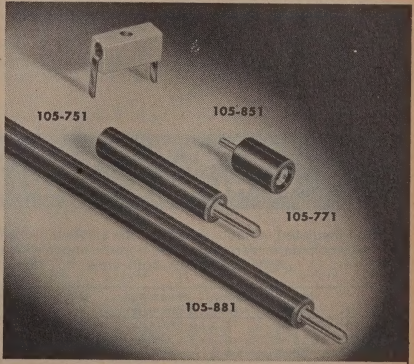
For use with miniature jack, .080" dia. tip. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-771	White (13 colors, see preceding page)	$0.14

LONG HANDLE TIP PLUG

For use with horizontal, vertical, or standard .080" diameter tip jacks. Four-inch nylon handle for ready access to "hard to reach" test points. Nickel-plated machined brass body, solder type lead connection.

Cat. No.	Color	Net Price
105-881	White (13 colors, see preceding page)	$0.25



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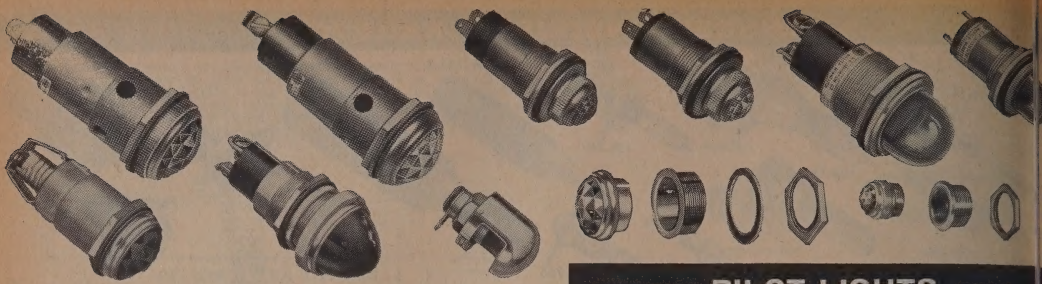
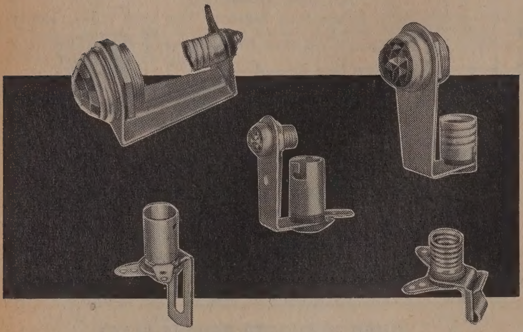




PILOT LIGHTS

Cut valuable specification time by selecting your panel indicators Johnson's "preferred" line. This group contains more than 47 rate assemblies carefully selected from Johnson's standard li many of the nation's top design and development personnel. Ava in a wide variety of types, these "preferred" units are immed available at parts distributors throughout the country, for original e ment or in-the-field replacement.

Available Types Include: Continuous Indication Neon Types; m for High and Low Voltage Incandescent bulbs; Standard or Wide Glass and Lucite Jewels in Clear, Red, Green, Amber, Blue or Specials, including those meeting military specifications are available in production quantities.

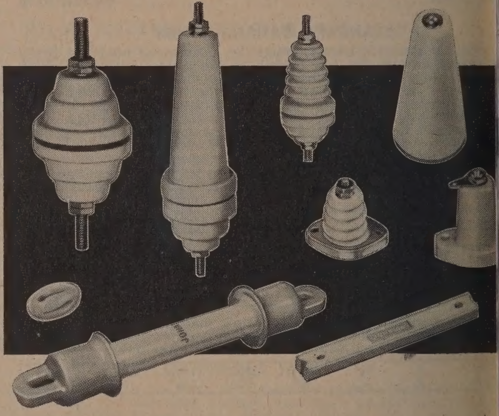
NOTE: For detailed specifications and prices on "preferred" as well as the complete line of Johnson Pilot Lights, write for copy of our newest Pilot Light Catalog. See how easy it is to s the "right" pilot light . . . fast!

STEATITE AND PORCELAIN INSULATORS

Available in a wide line of standard types, Johnson low-loss steatite and porcelain insulators are readily available for almost any electronic application. Fracture resistant, dense molded and glazed for low moisture absorption, Johnson stand-off and feed-thru types are designed with extended creepage paths for maximum voltage breakdown ratings — heavy integral mounting bases withstand high compression loads and considerable lateral stress. Insulators are equipped with heavily nickel-plated brass hardware — excellent for exposed applications . . . feed-thru types are available with jacks to accommodate Johnson or other standard banana plugs.

Complete Line Includes the Following: Insulated Thru-Panel Bushings; Thru-Panel Insulators; Antenna Strain Insulators; Feeder Insulators; Steatite Cone Insulators; Steatite and Porcelain Stand-off Insulators; Lead-In Bushings; and Feed-Thru Bowl Assemblies.

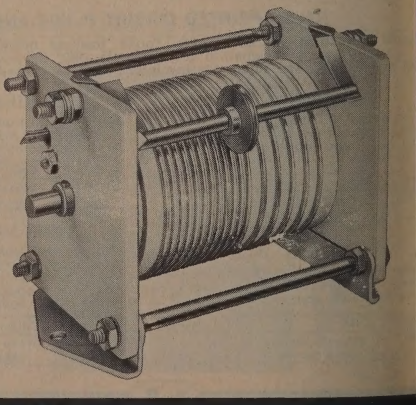
NOTE: Our current Components Catalog lists detailed specifications and prices on the complete Johnson insulator line. Write today for your free copy.



"229" WIRE-WOUND VARIABLE INDUCTORS

Steatite insulated variable inductors for amateur transmitters or low power commercial equipment. Variable pitch, tinned copper wire windings on grooved steatite forms. ¼" shafts extend ½" both ends. "L" dimension over mounting feet.

Cat. No.	Inductance	Current in Amps	Mounting Dimensions	Overall Dimensions L	W	H	Wire Size	Net Price
229-201	10 uh	3	3 15/16"	4 3/8"	2 1/2"	2 31/32"	No. 14	$10.75
229-202	18 uh	5	5 15/32"	5 29/32"	2 1/2"	2 31/32"	No. 12	11.75
229-203	28 uh	5	6 23/32"	7 5/32"	2 1/2"	2 31/32"	No. 12	12.50



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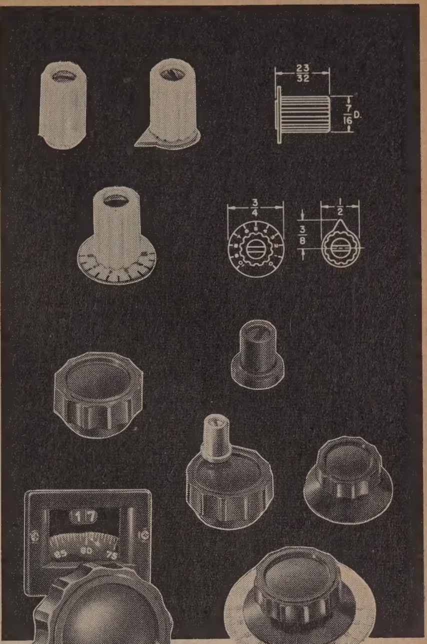
KNOBS AND DIALS



tinctive line of matching knobs and dials. Black phenolic molded parts (meet P-14) are used on all knobs except the Collet group. Available in three basic diameters, 1⅛", 1⅝", and 2⅜" – with matching black molded phenolic skirts eveled satin aluminum skirts with an anodized finish and deeply etched and contrasting markings. Accurately centered brass inserts for ¼" shafts on all s, except instrument and Collet knobs. Variations such as special shaft sizes, s or indicators available in production quantities. Complete line includes: In-nent Knobs; basic Knobs; Spinner Knobs; Skirted Knobs; a selection of Dials; ier Dials; Counter Dial; and three types of Collet Knob. Detailed specifications prices are listed in our current Electronic Components Catalog – write today our free copy.

COLLET KNOBS

e new molded knobs and dials for ⅛" shafts offer fresh, modern styling with gh, shock-proof high quality nylon body. Available in 13 bright colors – ideal boratory and test instruments, radio transmitters, etc. Collet and nickel-plated ng screw provide firm internal attachment.

E: Collet knobs are available in 13 standard colors, White as shown in pricing, 12 other colors. Colors should be specified by increasing 5th and 6th digits of catalog Number listed for White per the chart below. (Example: To order 116-401 llow rather than White, increase 5th and 6th digits by 06 ending up with 116-407.

ncrease and 6th igits by:	Color	Increase 5th and 6th Digits by:	Color	Increase 5th and 6th Digits by:	Color
01	Red	05	Orange	09	Dk. Blue
02	Black	06	Yellow	10	Ivory
03	Dk. Green	07	Brown	11	Violet
04	Lt. Blue	08	Lt. Green	12	Grey

BASIC KNOB

at. No.	Color	Illustration	Net Price
16-401	White (13 colors available—see above)	1	$0.19

POINTER KNOB

at. No.	Color	Illustration	Net Price
16-501	White (13 colors available—see above)	2	$0.24

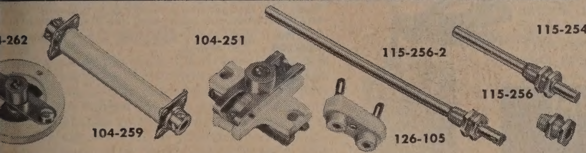
DIAL KNOB 10-0/180°

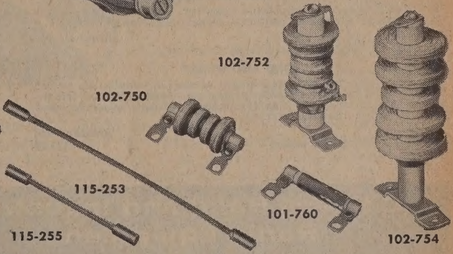
at. No.	Color	Illustration	Net Price
16-551	White (13 colors available—see above)	3	$0.42

DIAL KNOB 10-0/270°

at. No.	Color	Illustration	Net Price
16-601	White (13 colors available—see above)	3	$0.42

MISCELLANEOUS HARDWARE





T COUPLINGS– High quality, low-loss insulation – all metal parts rately machined and suitably finished. Phosphor bronze springs 50 and -251 series provides flexibility without backlash and ad-to minor shaft misalignments. Rigid types such as the -258 and series meet requirements of accurate shaft alignment and high e. The -259 is a bar type coupling recommended for high volt- or very high frequencies – the -264 is a small bakelite insulated coupling for DC or low voltage RF applications.

. No.	DC Breakdown	Type	Overall Length	Max. Diameter	Couples Shafts	Net Price
-250	4000	Flexible	1⅛"	1 11/32"	¼" to ¼"	$1.00
-250-3	4000	Flexible	1 3/16"	1 11/32"	¼" to ⅜"	1.20
-251	8000	Flexible	1 15/32"	2 7/32"	⅜" to ⅜"	1.55
-251-2	8000	Flexible	1 15/32"	2 7/32"	¼" to ¼"	1.55
-251-3	8000	Flexible	1 15/32"	2 7/32"	¼" to ⅜"	1.55
-252	7000	Rigid	1¼"	11/16"	¼" to ¼"	.81
-258	....	Rigid	¾"	9/16"	¼" to ¼"	.37
-259	8000	Semi-Flex.	3⅜"	1 1/32"	¼" to ¼"	2.15
-262	5000	Semi-Flex.	⅞"	2"	¼" to ¼"	1.30
-264	750	Semi-Flex.	¾"	1 1/32"	¼" to ¼"	.78

STAL SOCKETS – Excellent for low capacity, high voltage, and high erature operation. Use as crystal sockets, antenna relay connec- or VFO input connectors. Glazed steatite, Grade L-4 or better, 00 impregnated. For pins .051" diameter, ¼" long. Capacity be-n terminals with socket engaged is less than ⅕ mmf. Mounting also permits attachment of strain relief cord. Rated 5000 volts kdown, 10 amp. current carrying capacity. Socket accepts type /U crystal holder.

. No. 126-105	Silver-plated phosphor bronze contacts....	Net Price $0.17
. No. 126-105-2	Silver-plated beryllium copper contacts....	Net Price .19

PANEL BEARING ASSEMBLIES – Panel bearings for ¼" shafts and rigid 3" and 6" nickel-plated brass shafts assembled in panel bearings. Shafts are ¼"; bearings are furnished complete with ⅜"-24 nut and can be mounted on panels up to ⅜" thick. Special shaft length and locking type bearing assemblies available on special order.

Cat. No.		Net Price
115-255	Panel Bearing Only..........	$0.19
115-256	Bearing and Shaft..........	.37
115-256-2	Bearing and Shaft..........	.50

FLEXIBLE SHAFTS – For out-of-line or up to 90° angular control. Phosphor bronze, non-rusting flexible shafts with ¼" nickel-plated brass hubs.

Cat. No. 115-253	3" Shaft..........	Net Price $0.57
Cat. No. 115-254	6" Shaft..........	Net Price $0.83

RADIO FREQUENCY CHOKES – High reactance over entire range. Coils wound with enamelled silk-covered wire on steatite cores impregnated with high grade RF lacquer. For intermittent use, current ratings listed may be increased.

Cat. No.	Frequency	Current	Induct. (1 mc.)	Ohms DC	Length	Net Price
102-750	1.7 to 30 mc	150 ma	.83 mh	15	1½"	$1.60
102-752	1.7 to 30 mc	500 ma	1.0 mh	5.2	2⅞"	2.30
102-754	1.7 to 30 mc	750 ma	1.9 mh	4	4 5/16"	3.40
101-760	VHF	250 ma	6.8 uh	.33	1½"	.72

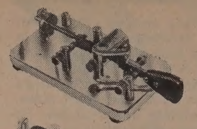
E. F. JOHNSON COMPANY
WASECA, MINNESOTA, U. S. A.

Keys and Practice Sets

DELUXE SEMI-AUTOMATIC KEYS

Adjustable from lowest to highest speeds, this handsomely finished semi-automatic key has a smooth, easy action. Vibrator, posts, circuit closing switch, and all machine parts heavily chrome plated. Five adjustments with lock nuts—molded plastic paddles adjust separately to best height. Steel base 6¼" x 3½" x ½"—complete with adjustable weight and rubber feet.

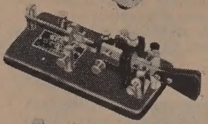
Cat. No.		Amateur Net
114-500	⅛" contacts, black wrinkle base	$18.95
114-501	¼" contacts, polished chrome base	22.95



SPECIAL SEMI-AUTOMATIC KEY

Many operating features—attractively finished, black wrinkle enamel base. All hardware and vibrator heavily chrome plated. Same vibrator as on deluxe key. Easy action, adjustable from lowest to highest speeds. ⅛" coin silver contacts — circuit closing switch — rubber mounting feet.

Cat. No.		Amateur Net
114-520	Special Model, Semi-Automatic	$15.95



HEAVY DUTY KEYS

Heavy die cast base, chrome plated key arm. Well insulated for heavy duty service. Large ¼" coin silver contacts. Improved Navy-type knob. Adjustable steel bearings and spring design give light keying touch.

Cat. No.		Amateur Net
114-320	Black wrinkle enamel base	$4.70
114-321	Polished chrome plated base	5.85

STANDARD KEYS

Heavy die cast base. Smooth adjustable bearings. Provision for plugging in semi-automatic keys. ⅛" coin silver contacts. A high quality key at a low cost.

Cat. No.		Amateur Net
114-310	Black wrinkle, no switch	$3.25
114-310-3	Black wrinkle with switch	3.95
114-311	Chrome plated, no switch	5.30
114-311-3	Chrome plated with switch	6.20

HIGH SPEED STANDARD KEYS

Fully adjustable spring tension, contact spacing and bearings. Brass base and binding posts—instrument lacquer finish. .072" platinor contacts.

Cat. No.		Amateur Net
114-100	R48 Key, satin brass, no switch	$6.45
114-100-3	M100 Key, satin brass with switch	7.35

PRACTICE KEY

An inexpensive practice key—perfect in design for the average beginner. All the metal parts are nickel plated. Furnished with an adjustable key arm, spring and smooth action bearings. Contacts are of ⅛" coin silver.

Cat. No.		Amateur Net
114-300	Molded phenolic base	$2.25

PHENOLIC BASE KEYS

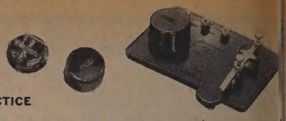
High quality key with adjustable bearings. Improved spring-pigtail connection. ⅛" coin silver contacts—nickel plated metal parts.

Cat. No.		Amateur Net
114-301	Molded phenolic base, no switch	$2.50

CORD AND WEDGE

Cord and wedge for easy attachment of semi-automatic key across circuit-closing switch of a standard hand key. Used almost universally by railroad telegraphers—ideal for amateur service where both hand key and semi-automatic are used.

Cat. No.		Amateur Net
114-380	Cord and wedge	$1.15



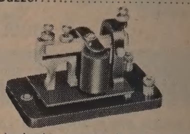
PRACTICE SET

Constant frequency buzzer and key on a 4" x 6" mol bakelite base. Buzzer tone is fully adjustable. Coin si contacts. Uses two dry cells or "C" battery. Conn singly or in pairs for code practice.

Cat. No.		Amateur
114-450	Practice Set	$4

Buzzer only as used on set above.

Cat. No.		Amateur
114-400	Buzzer	$1



TELEGRAPH SOUNDER

Designed for instant response, brass sounder provic clear, resonant tone. Steel bar frame, black enar finish. Brass bridge and adjustment screws, instrum lacquer finish. Sounder plate is black lacquered ste Mahogany finished wood base, brass binding posts a rubber mounting feet.

Cat. No.		Amateur N
114-112	Sounder (4 ohms)	$10.
114-113	Sounder (20 ohms)	11.

LEARNER SET

Telegraph practice set. Bar frame steel, brass bridge a adjustment screws. Brass lacquer finish. Brass sour ing bar—black lacquered steel sounder plate. Adjustal black nickel-plated key arm. High impact polystyre base, black matte finish, brass binding posts, rubber fe

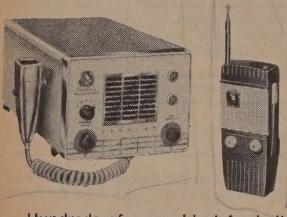
Cat. No.		Amateur N
114-110	(4 ohms)	$14.
114-111	(20 ohms)	15.

PONY RELAY

Polished, plated steel armature—all other metal par brass with lacquer finish. Heavy duty magnets. Maho any finish wood sub-base—cast iron black enamel bas

Cat. No.		Amateur N
114-105	(20 ohms)	$13.

Citizens Band and Industrial Radio Equipment



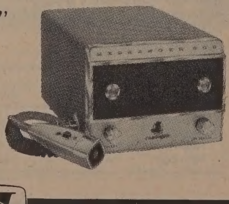
Messenger

Personal Messenger

Hundreds of uses—ideal for builders, contractors or other "on the job" applications. Used by hunters, fishermen, or sportsmen. Anyone can operate . . . no examination necessary . . . license issued by the FCC on request.

"MESSENGER 202"

Every feature you could want for solid, low-cost 25 to 50 mc. Industrial Radio. Plenty of range for most industrial applications. Basic design and circuit performance-proved under thousands of exacting, mobile, marine, and field conditions with outstanding results!



Amateur Equipment

First choice of amateurs the world over

Amateur Radio is "adventure"—and the fortunate amateur owning Viking equipment enjoys the maximum amount of operating pleasure and performance. Since the first Viking transmitter was built, amateurs everywhere have looked to the E. F. Johnson Company for leadership in transmitter design. Today, Johnson offers the industry's most complete line of amateur transmitters and station accessories . . . a line that's "first choice of amateurs the world over!"

Complete 28 page Amateur catalog with detailed specifications available.
See your distributor, or write today!

E. F. JOHNSON COMPANY
®WASECA, MINNESOTA, U. S. A.

Net

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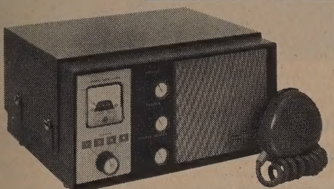
OST COMPLETE LINE
F CITIZENS BAND
QUIPMENT ANYWHERE!



TR327, A & B RADIOTELEPHONES

ch of these three "D" Phones is quality-engineered to qualify
a specific use on Citizens (11-meters) Band and may be easily
ensed for this purpose or used without license under FCC Part
(100mw power limitation). No examination or special skill is
quired on the part of the operator.
All three CB transceivers incorporate Wescon Award-winning
sign with multiple-function tubes; universal power supply;
ap-in-or-out mountings; sealed plug-in relay; exclusive front
nel, power output, peak control; crystal control and signal level
ter on both transmit and receive; automatic noise limiter;
tomatic volume control; positive squelch; large 4½″ speaker;
h audio output of 2½ watts; and two-tone gray cabinet with
igh, epoxy-base finish. Size: 10¼″ wide x 8½″ deep x 5⅜″ high.
eight: 16 lbs.
FOR INDUSTRIAL AND COMMERCIAL USE, the TR327
VDC/117VAC or 12VDC/117VAC) offers unusually dependable
vice with 4 crystal controlled channels on both transmit and
eive.
FOR BOATING OR OTHER APPLICATION WHERE STAND-
D BROADCAST IS DESIRED, the TR327A (6VDC/117VAC
12VDC/117VAC) adds to its 4 crystal controlled channels,
andard Broadcast Band for music, news and sports.
FOR THE CITIZENS BAND ENTHUSIAST, the TR327B
VDC/117VAC or 12VDC/117VAC) features tuneable coverage
all 23 CB channels, highest quality performance, outstanding
bility, and precise calibration as well as maximum convenience
d ease of operation.

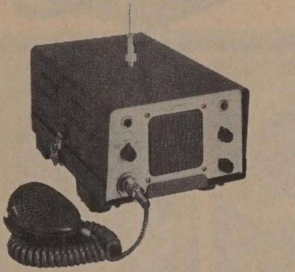
TR330 HAND PHONE

is handsome, portable CB transceiver is a
nner of both the Alcoa and Wescon Design
ards. It's skillfully engineered for peak per-
rmance, convenient one-hand operation, and
gged resistance to the hazards of industrial
d sports application. In addition to its obvi-
s advantages of domestic manufacture, this
it offers: aluminum case for higher trans-
tting frequency and less RF leakage; two-
ne, epoxy-base "lifetime" finish; fully tran-
torized circuitry; squelch; one-hand, push-
talk operation; jack for optional earphone
tening; collapsible antenna; large speaker;
ur battery options to offer from 50-300 hours
erating life; battery-saver circuit; military-
pe crystals; and a range from up to a mile
land and several miles over water. Size:
″ wide x 2½″ deep x 10″ long. Weight: less
an 2 lbs.

KAAR

Over a Quarter Century of Excellence in Radio Communications

Palo Alto, California



"IMP" INDUSTRIAL MOBILE PHONE

This is the perfect combination of economy and quality in an industrial radiotelephone. Carefully engineered with every advantage of a rugged, mobile phone, it also functions with complete efficiency as a base station or mobile PA system. Any commercial enterprise may license this unit under FCC Parts 10 (public safety), 11 (industrial), 16 (transportation), or 9 (aircraft). Its reliable, 2-way communication stops deadheading and back tracking in any service vehicle by providing continuous supervision and dispatch. The "IMP" features: minimum installation cost since it can be installed by regular plant personnel; straightforward circuitry that cuts maintenance costs; reliable components; rugged, shock-resistant construction; multiple-function tubes; frequency stability better than .005%; power input of 3 watts for industrial use; continuously adjustable squelch; 2 watts of audio output with less than 10% harmonic distortion; series impulse type noise silencer; and push-to-talk carbon mike. Standard package includes: transmitter-receiver, power supply unit; shock mounted base; all crystals; power cable for 6 and 12VDC operation; power cable for 117VAC operation; mike and antenna. Completely tuned and ready to operate on assigned frequencies, are Models TR426 on 152-174mc and TR426A on 108-152mc (amplitude modulated). Size: 12½″ x 8¼″ wide x 5¼″ high, less antenna and shock base. Shipping weight: 25⅛ lbs.

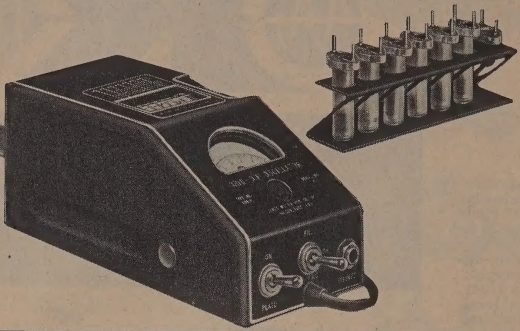
CONALERT III

This radio unit is carefully engineered to monitor CONELRAD, radio warning system for Civil Defense and weather warnings. It fulfills FCC requirements for all radio stations and serves as a round-the-clock warning system for police, hospitals, ports, harbors, airlines, school systems, institutions, industry, public services, and remote areas. It features: five preset broadcast channels including 640 kc and 1240 kc for silent or audible monitoring; automatic visual and audible alarm; fail-safe external alarm actuated in case of power or component failure; optional crystal control; OCDM approval; excellent audio quality equal to any home radio; and Wescon Award winning design. *In operation,* loss of carrier input lights red indicator lamp on front panel, energizes 6.3 VAC external alarm circuit, closes switch contacts for external alarm circuit, automatically switches speaker in for audible monitoring of Conelrad messages which follow carrier break, keeps alarm activated until manually reset by operator. *Fail-safe alarm* is activated immediately upon failure of any major tube or component...this unit guards *itself*, too! Operates on 117 volts, 50-60 cycles AC. Cabinet model (117R905) size: 13⅛″ wide x 7⅛″ high x 9″ deep. Rack model (117R906) size: 19″ wide x 8¾″ high x 9¾″ deep. Weight: 21 lbs. Shipping weight: 27 lbs.

KAAR EQUIPMENT FOR OTHER USES AND "TAILORED" COMMUNICATIONS SYSTEMS

Kaar quality engineering and dependability are also available in communications equipment for Marine, Specialized Industrial and Airport use. The Kaar reputation for excellence is behind every radio communications system it "tailors" to the specific needs of a customer. Let Kaar solve *your* communications problems, too.

"Designed for Performance"®



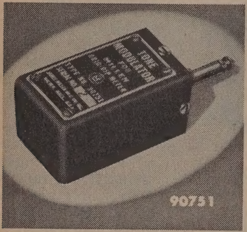
MILLEN NO. 90651 GRID DIP METER

The No. 90651 MILLEN GRID DIP METER is compact and completely self contained. The AC power supply is of the "transformer" type. The drum dial has seven calibrated uniform length scales from 1.7 MC to 300 MC with generous over laps plus an arbitrary scale for use with special application inductors. Internal terminal strip permits battery operation for antenna measurement.

No. 90651, with tube..........

Additional Inductors for Lower Frequencies

No. 46702 — 925 to 2000 KC ....
No. 46703 — 500 to 1050 KC ....
No. 46704 — 325 to 600 KC ....
No. 46705 — 220 to 350 KC ....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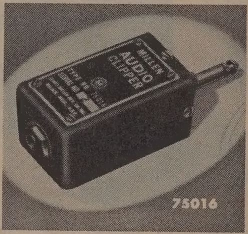
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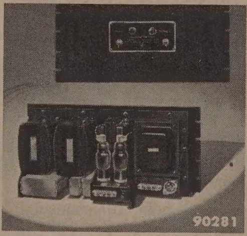
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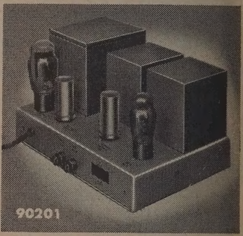
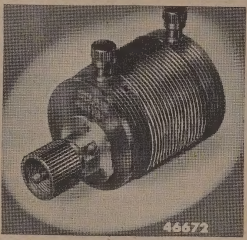

90201

90672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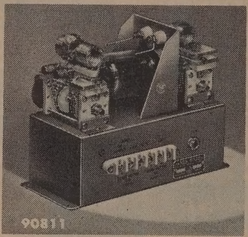
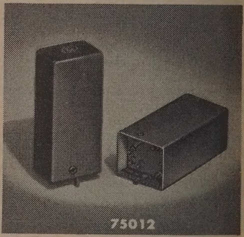

90811


75012

TONE MODULATOR — The No. 90751 Tone Modulator is a small package containing a transistor audio oscillator and its mercury battery, which plugs into the phone jack of a Grid Dip Meter to modulate the signal at approximately 800 cycles for applications requiring a modulated signal. Dimensions: only $2\frac{3}{4}$ x $1\frac{5}{16}$ x $1\frac{5}{16}$ in.

No. 90751, less battery ....

AUDIO CLIPPER — The No. 75016 Audio Clipper is a small plug-in symmetrical type clipper with self-contained mercury batteries. It may be used to clip noise for C-W reception as well as for A-M or SSB, or it may be used to clip a sine wave input to form a square wave output. Dimensions: only $2\frac{3}{4}$ x $1\frac{5}{16}$ x $1\frac{5}{16}$ in.

No. 75016, less batteries ....

ANTENNA BRIDGE — The Millen 90672 Antenna Bridge is an accurate and sensitive bridge for measuring impedances in the range of 5 to 500 ohms (or 20 to 2000 ohms with balun) at radio frequencies up to 140 mc. The variable element is an especially designed differential variable capacitor capable of high accuracy and permanency of calibration. Readily driven by No. 90651 Grid Dipper.

No. 90672 ....

BALUNS — The No. 46672 (1 for each amateur band) wound Balun is an accurate 2 to 1 turns ratio, high Q auto transformer with the residual reactances tuned out and with very tight coupling between the two halves of the total winding. The points of series and parallel resonance are selected so that each Balun provides an accurate 4 to 1 impedance ratio over the entire band of frequencies for which it was designed. Suitable for use with the No. 90672 Antenna Bridge or medium power transmitters.

No. 46672-80/40/20/15/10 ....

HIGH VOLTAGE POWER SUPPLY — The No. 90281 high voltage power supply has a d.c. output of 700 volts, with maximum current of 235 ma. In addition, a.c. filament power of 6.3 volts at 4 amperes is also available so that this power supply is an ideal unit for use with transmitters, such as the Millen No. 90801, as well as general laboratory purposes. The power supply uses two No. 816 rectifiers. The panel is standard $8\frac{3}{4}$" x 19" rack mounting.

No. 90281, less tubes ....

REGULATED POWER SUPPLY — A compact, uncased, regulated power supply, either for table use in the laboratory or for incorporation as an integral part of larger equipment. 250 v.d.c. unregulated at 115 ma. 105 v.d.c. regulated at 35 ma. Minus 105 v.d.c. regulated bias at 4 ma. 6.3 v. a.c. at 4.2 amps.

No. 90201, with tubes ....

HIGH FREQUENCY RF AMPLIFIER — A physically small unit capable of a power output of 70 to 85 watts on Phone or 87 to 110 watts on C-W on 20, 15, 10, 6 or 2 meter amateur bands. Provision is made for quick band shift by means of the No. 48000 series VHF plug-in coils. The No. 90811 unit uses either an 829-B or 3E29.

No. 90811 with 10 meter band coils, less tube ....

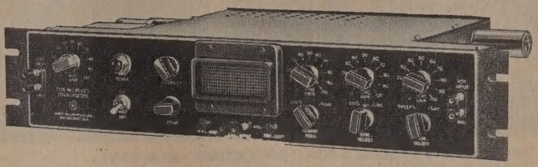
PHASE-SHIFT NETWORK — A complete and laboratory aligned pair of phase-shift networks in a single compact 2" x $1\frac{7}{16}$" x 4" case with characteristics so as to provide a phase shift between the two networks of $90^\circ \pm 1.3^\circ$ over a frequency range of 225 cycles to 2750 cycles. Well adapted for use in either single sideband transmitter or receiver. Possible to obtain a 40 db suppression of the unwanted sideband. The No. 75012 precision adjusted phase-shift network eliminates necessity of complicated lab equipment for network adjustment.

No. 75012 ....

© U.C.P.,

JAMES MILLEN
MALDEN · MASSACHUSETTS

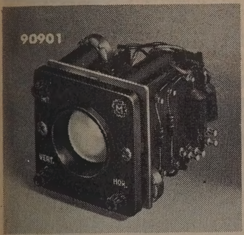
MILLEN NO. 90923 RACK MOUNTED OSCILLOSCOPE

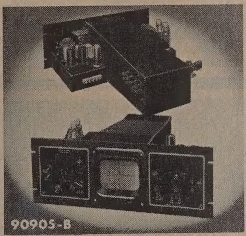


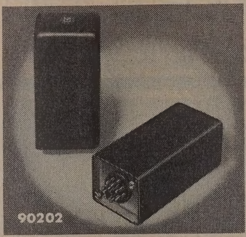
The No. 90923 oscilloscope is an extremely compact (3½ inches high) rack panel general purpose oscilloscope utilizing the type 3XP — 3 x 1½ inch rectangular face tube. The No. 90923 is complete with vertical and horizontal amplifiers for balanced deflection and a very linear sweep generator.

Miniature input terminals are on both the front panel and the rear for vertical amplifier input, horizontal amplifier input and synchronizing input. The linear sweep generator covers two cycles per second to 30 kcs. per second in seven overlapping ranges. The trace is unusually sharp and bright due to 2040 volts accelerating potential.

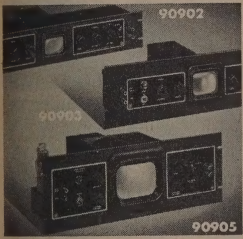
The No. 90923 is ideally suited for many applications, and in particular, for production test. Its small panel uses up very little space in a test rack and the mu-metal shield around the cathode ray tube shields it against magnetic fields so that the oscilloscope may be used accurately in locations with strong stray magnetic fields. The cathode ray tube is of the mono-accelerator type in which the electron beam is accelerated at the electron gun so that field distortions are minimized and excellent deflection linearity is achieved as well as a very uniform spot size over the entire area which the beam scans.

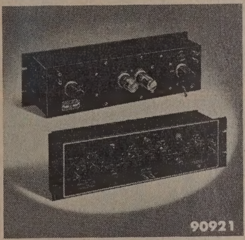


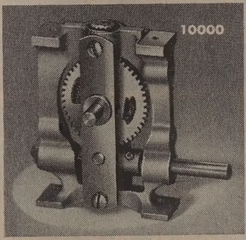


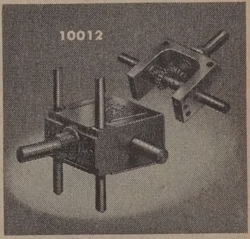


80070 Series









MILLEN ONE INCH MODULE OSCILLOSCOPES — Miniaturized, packaged panel mounting cathode ray oscilloscope designed for use in instrumentation in place of the conventional "pointer type" moving coil meters uses the 1″ tube. Panel bezel matches in size and type the standard 2″ square meters. Magnitude, phase displacement, wave shape, etc. are constantly visible on scope.

No. 90901, 1CP1, less tube .... No. 90911, 1EP1, less tube ....

FLAT FACE OSCILLOSCOPE — 90905-B 5-inch Rack Mounting Basic Oscilloscope features include: balanced deflection, front panel input terminals, rear panel input terminals, astigmatism control, blanking input terminals, flat face precision tolerance Dumont 5ADP1 tube.

BASIC OSCILLOSCOPES — The No. 90902, No. 90903 and No. 90905 Rack Panel Oscilloscopes, for two, three and five inch tubes, respectively, are inexpensive *basic units* comprising power supply, brilliancy and centering controls, safety features, magnetic shielding, switches, etc. As a transmitter monitor, no additional equipment or accessories are required. By the addition of such units as sweeps, pulse generators, amplifiers, servo sweeps, etc., all of which can be constructed on companion rack panels, the 'scope unit may be expanded to serve any conceivable industrial or laboratory application.

'SCOPE AMPLIFIER — SWEEP UNIT — Vertical and horizontal amplifiers along with hardtube, saw tooth sweep generator. Complete with power supply mounted on a standard 5¼″ rack panel.
No. 90921, with tubes ....

POWER SUPPLY FOR OSCILLOSCOPE — 750 volts d.c. at 3 ma. and 6.3 volts a.c. at 600 ma. 117 volts 50-60 cycle input. Designed especially for use with No. 90901 and No. 90911 one inch instrumentation oscilloscopes. 4⅝ in. high x 1⅞ x 2⅛. Octal plug for input and output. Entire assembly including rectifier is encapsulated.

No. 90202, Power Supply (complete) ....

BEZELS FOR CATHODE RAY TUBES — Standard types are of satin finish black plastic. 5″ size has neoprene support cushion and green lucite filter. 3″ and 2″ sizes have integral cushioning.

No. 80075 (5″) ...... 80073 (3″) ...... 80072 (2″) ...... 80071 (1″) ......

WORM DRIVE UNIT — Cast aluminum frame may be panel or base mounted. Spring loaded split gears to minimize back lash. Standard ratio 16/1. Also in 48/1 on request.

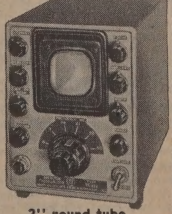
No. 10000 — (state ratio) ....

RIGHT ANGLE DRIVE — Extremely compact, with provisions for many methods of mounting. Ideal for operating potentiometers, switches, etc., that must be located, for short leads, in remote parts of chassis. No. 10012 ....

AMATEUR BAND MONITOR OSCILLOSCOPE

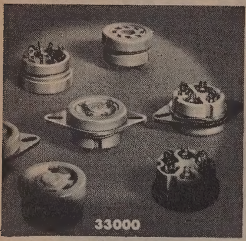
- **A-M or SSB ● 3.5 to 54 Mc.**
- **Blanks out on Standby**
- **Individual coil for each band**

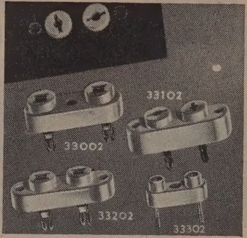
SCOPE — No. 90932 is a complete oscilloscope for monitoring the modulated r-f output of a transmitter. Built-in link-coupled tuned circuits cover all amateur bands 3.5 to 54 mc. All circuits and accessories are built-in. The monitor will display the r-f envelope and/or the trapezoidal monitoring pattern of single side band transmitters or amplitude modulated transmitters. It shows the linearity or non-linearity of Class-B r-f amplifiers, the parasitic oscillation, neutralization, and r-f output.

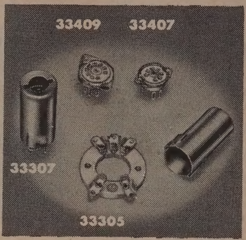


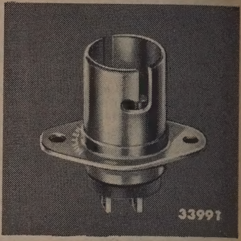
2'' round tube

JAMES MILLEN
MALDEN · MASSACHUSETTS







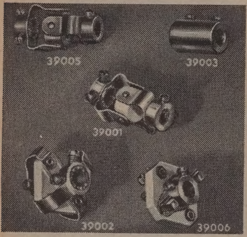


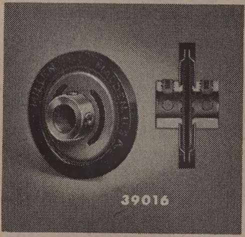
TUBE SOCKETS DESIGNED FOR APPLICATION — MODERN SOCKETS for MODERN TUBES! Long Flashover path to chassis permits use with transmitting tubes, 866 rectifiers, etc. Long leakage path between contacts. Contacts are type proven by hundreds of millions already in government, commercial and broadcast service, to be extremely dependable. Sockets may be mounted either with or without metal flange. Mounts in standard size chassis hole. All types have barrier between contacts and chassis. All but octal and crystal sockets also have barriers between individual contacts in addition.

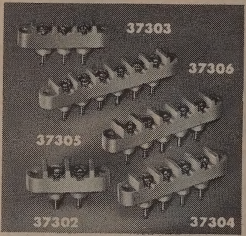
Voltage regulator dual contact bayonet socket, 33991 black phenolic insulation and 33992 with low loss mica filled phenolic insulation.

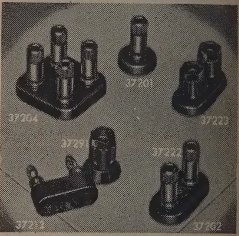
MILLEN TUBE SOCKETS

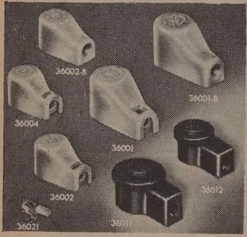
No.	Description	No.	Description
33002	Crystal Socket ¾″ x .125″	33004	4 Pin Tube Socket
33102	Crystal Socket .487″ x .095″..........	33005	5 Pin Tube Socket
33202	Crystal Socket ½″ x .125″..............	33006	6 Pin Tube Socket
33302	Crystal Socket .487″ x .050″..........	33008	8 Pin Tube Socket
33407	Miniature Socket only, ceramic........	33991	Socket for 991.....
33409	Noval Socket only, ceramic.............	33992	Socket for 991.....
33307	Miniature Socket, Shield, ceramic...	33207	829 Socket..........
33309	Noval Socket, Shield, ceramic..........	33305	Acorn Socket.......
33405	5 Pin Socket Eimac..........................		

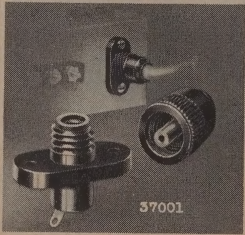


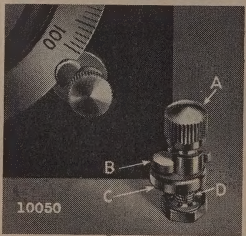












FLEXIBLE COUPLINGS — The No. 39000 series of Millen "Designed for Application" flexible coupling units include, in addition to improved versions of the conventional types, also such exclusive original designs as the No. 39001 insulated universal joint and the No. 39006 "slide-action" coupling (in both steatite and bakelite insulation). The No. 39006 "slide-action" coupling permits longitudinal shaft motion, eccentric shaft motion and out-of-line operation, as well as angular drive without backlash.

The No. 39005 and 39005-B (high torque) are similar to the No. 39001, but are not insulated. The steatite insulated No. 39001 has a special anti-backlash pivot and socket grip feature. All of the above illustrated units are for ¼″ shaft and are standard production type units. The No. 39016 incorporates features which have long been desired in a flexible coupling. No Backlash — Higher Flexibility — Higher Breakdown Voltage — Smaller Diameter — Shorter Length — Higher Alignment Accuracy — Higher Resistance to Mechanical Shock — Solid Insulating Barrier Diaphragm — Molded as a Single Unit.

CERAMIC PLATE OR GRID CAPS — Soldering lug and contact one-piece. Lug ears annealed and solder dipped to facilitate each combination "mechanical plus soldered" connection of cable.

No. 36001—⁹⁄₁₆″ .... No. 36002—⅜″ .... No. 36004—¼″ ....

SAFETY TERMINAL — Combination high voltage terminal and thru-bushing Tapered contact pin fits firmly into conical socket providing large area, low resistance connection. Pin is swivel mounted in cap to prevent twisting of lead wire.

No. 37001, Black or Red .... No. 37501, Low loss ....

STEATITE TERMINAL STRIPS — Terminal and lug are one piece. Lugs are turret type and are free floating so as not to strain L4 ceramic on wide temperature variations. Easy to mount with series of round holes. 1400 volt and 3500 volt series.

POSTS, PLATES, AND PLUGS — The No. 37200 series, including both insulated and non-insulated binding posts with associated plates and plugs, provide various combinations to meet most requirements. The posts have captive heads and keyed mounting.

The No. 37291 and No. 37223 are standard in black or red with other colors on special order. No. 37201, No. 37202, and No. 37204 and No. 37222 are available in black, red, or low loss. The No. 37202 is also available in steatite.

No.	Description	No.	Description
37201	Single plates, pr...............	37212	Dual plug............................
37291	Single plates (tapered), pr.	37222	Non-insulated binding post
37202	Dual plates, pr..................	37223	Insulated binding posts.......
37204	Double dual plates, pr......		

DIAL LOCK — Compact, easy to mount, positive in action, does not alter dial setting in operation! Rotation of knob "A" depresses finger "B" and "C" without imparting any rotary motion to Dial. Single hole mounted.

No. 10050...

TUBE CLAMP — No. 33087 is easy to use, easy to install, effective in function. Available in special sizes for all types of tubes. Single hole mounting. Spring steel, cadmium plated.

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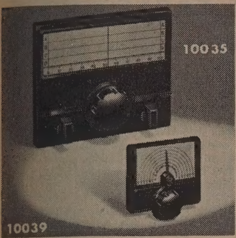
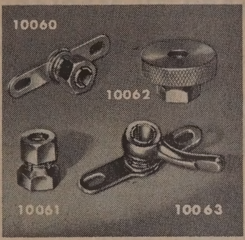
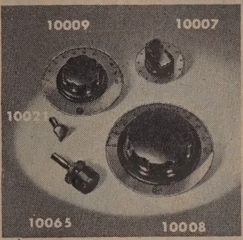
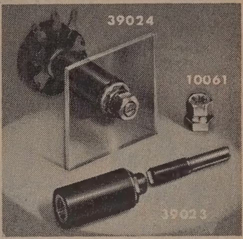
"Designed for Application"®









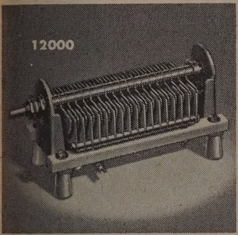
PANEL DIALS — The No. 10035 illuminated panel dial has 12 to 1 ratio; size, 8½″ x 6½″. Small No. 10039 has 8 to 1 ratio; size, 4″ x 3¼″. Both are of compact mechanical design, easy to mount and have totally self-contained mechanism, thus eliminating back of panel interference. Provision for mounting and marking auxiliary controls, such as switches, potentiometers, etc., provided on the No. 10035. Standard finish, either size, flat black art metal.

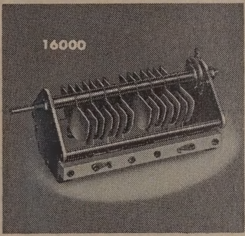
SHAFT LOCKS — In addition to the original No. 10060 and No. 10061 "DESIGNED FOR APPLICATION" shaft locks, we can also furnish such variations as the No. 10062 and No. 10063 for easy thumb operation as illustrated above. The No. 10061 instantly converts any plain "¼ shaft" volume control, condenser, etc. from "plain" to "shaft locked" type. Easy to mount.

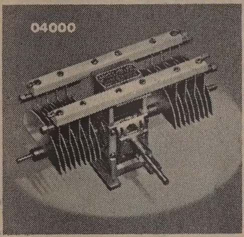
DIALS AND KNOBS — Just a few of the many stock types of small dials and knobs are illustrated herewith. 10007 is 1⅝″ diameter, 10009 is 2¾″ and 10008 is 3½″.

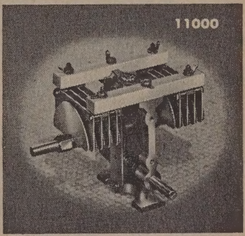
HIGH VOLTAGE INSULATED SHAFT EXTENSION — No. 10061 shaft locks and the No. 39023 insulated high voltage potentiometer extension mountings are available as a single integrated unit — the No. 39024. The proper shaft length is independent of the panel thickness. The standard shaft has provision for screw driver adjustment. Special shaft arrangements are available for industrial applications. Extension shaft and insulated coupling are molded as a single unit to provide accuracy of alignment and ease of installation.

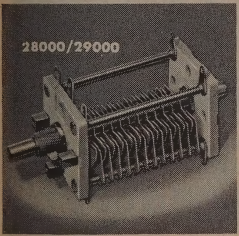
No. 39023, non locking type .... No. 39024, locking type ....

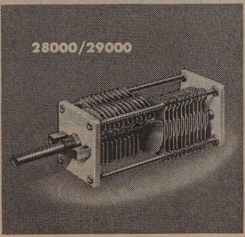


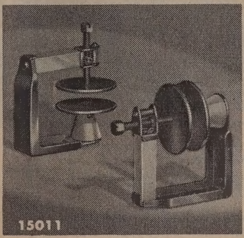


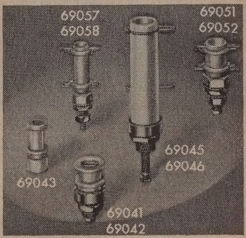












12000 and 16000 SERIES TRANSMITTING CONDENSERS — Rigid heavy channeled aluminum end plates. Isolantite insulation, polished or plain edges. One piece rotor contact spring and connection lug. Compact, easy to mount with connector lugs in convenient locations. Same plate sizes as 11000 series above.

The 16000 series has same plate sizes as 04000 series. Also has constant impedance, heavy current, multiple finger rotor contactor of new design. Both 12000 and 16000 series available in single and double sections and many capacities and plate spacing.

28000-29000 SERIES VARIABLE AIR CAPACITORS — "Designed for Application," double bearings, steatite end plates, cadmium or silver plated brass plates. Single or double section .022″ or .066″ air gap. End plate size: 19/16″ x 11/16″. Rotor plate radius: ¾″. Shaft lock, rear shaft extension, special mounting brackets, etc., to meet your requirements. The 28000 series has semi-circular rotor plate shape. The 29000 series has approximately straight frequency line rotor plate shape. Prices quoted on request. Many stock sizes.

NEUTRALIZING CAPACITOR — Designed originally for use in our own No. 90881 Power Amplifier, the No. 15011 disc neutralizing capacitor has such unique features as rigid channel frame, horizontal or vertical mounting, fine thread over-size lead screw with stop to prevent shorting and rotor lock. Heavy rounded-edged polished aluminum plates are 2″ diameter. Glazed steatite insulation.

No. 15011..

04000 and 11000 SERIES TRANSMITTING CONDENSERS — Another member of the "Designed for Application" series of transmitting variable air capacitors is the 04000 series with peak voltage ratings of 3000, 6000, and 9000 volts. Right angle drive, 1-1 ratio. Adjustable drive shaft angle for either vertical or sloping panels. Sturdy construction, thick, round-edged, polished aluminum plates with 1¾″ radius. Constant impedance, heavy current, multiple finger rotor contactor of new design. Available in all normal capacities.

The 11000 series has 16/1 ratio center drive and fixed angle drive shaft.

PERMEABILITY TUNED CERAMIC FORMS — In addition to the popular shielded plug-in permeability tuned forms, 74000 series, the 69040 series of ceramic permeability tuned unshielded forms are available as standard stock items. Winding diameters available from 3/16″ to ½″ and winding space from 11/32″ to 1½″.

No. 69041—(Copper Slug).........
No. 69042—(Iron Core)..............
No. 69043—(Copper Slug).........
No. 69044—(Iron Core)..............
No. 69045—(Copper Slug).........
No. 69046—(Iron Core)..............
No. 69047—(Copper Slug).........
No. 69048—(Iron Core)..............
No. 69051—(Copper Slug).........
No. 69052—(Iron Core)......................
No. 69054—(Iron Core)......................
No. 69055—(Copper Slug)..................
No. 69056—(Iron Core)......................
No. 69057—(Copper Slug)..................
No. 69058—(Iron Core)......................
No. 69061—(Copper Slug)..................
No. 69062—(Iron Core)......................

"Designed for Application"®

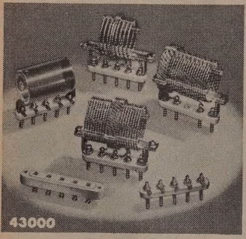
MINIATURIZED HIGH RELIABILITY VARIABLE CAPACITORS

NO. 25000 SERIES

MACHINED FROM SOLID BARS OF EXTRUDED BRASS

Modern demands for miniature precision, high Q variable air dielectric capacitors with high reliability require that all of the stator plates be machined from a solid block of brass and that all of the rotor plates be machined from a solid block of brass. Staked, soldered, or washer-spaced types of construction are adequate for larger capacitors with wider air gaps but are entirely inadequate for miniature high reliability capacitors for use at high frequencies. The stator terminal is an integral part of the stator. This results from extruding the exact shape required. The rotor shaft is an integral part of the rotor, thus alignment of shaft with rotor is perfect and there are no pins or press fits.

Special capacitors which can be manufactured using all or part of the tooling for standard capacitors are designed and manufactured to order.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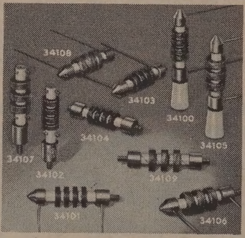
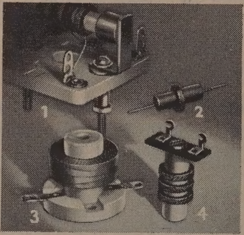
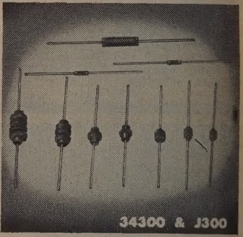
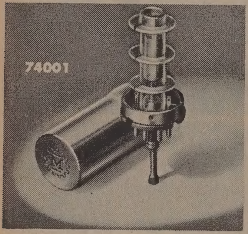





34300 & J300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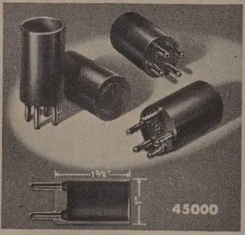
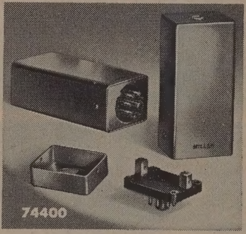


45000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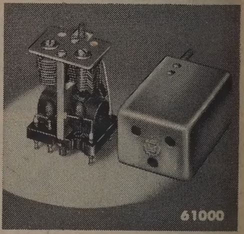
61000

TRANSMITTING TANK COILS — A full line — all popular wattages for all bands. Send for special catalog sheet.

Nos. 42000, 43000, 44000, 48000......................................

TUNABLE COIL FORM — Standard octal base of low loss mica-filled bakelite, polystyrene ½″ diameter coil form, heavy aluminum shield, iron tuning slug of high frequency type, suitable for use up to 35 mc. Adjusting screw protrudes through center hole of standard octal socket.

No. 74001, with iron core......................................
No. 74002, less iron core......................................

RF CHOKES — Many have copied, few have equalled, and none have surpassed the genuine original design Millen Designed for Application series of midget RF Chokes. The more popular styles now in constant production are illustrated herewith. Special styles and variations to meet unusual requirements quickly furnished.

No. 34100 — 2.5 mh., 250 ma......
No. 34101 — 2.5 mh., 250 ma......
No. 34102 — 2.5 mh., 250 ma......
No. 34103 — 2.5 mh., 250 ma......
No. 34104 — 2.5 mh., 250 ma......
No. 34105 — 1.0 mh., 300 ma......
No. 34106 — 1.0 mh., 300 ma......
No. 34107 — 1.0 mh., 300 ma......
No. 34108 — 1.0 mh., 300 ma......
No. 34109 — 1.0 mh., 300 ma......

MILLEN COIL FORMS — Made of low loss mica filled brown bakelite. Guide funnel makes for easy threading of leads through pins.

No. 45000......................................
No. 45004......................................
No. 45005......................................

SPECIAL RF CHOKES — Figures 1 and 4 illustrate special types of RF chokes available on order. The popular 34300 and 34200 series are shown in figures 2 and 3 respectively.

OCTAL BASE AND SHIELD — Low loss phenolic base with octal socket plug and aluminum shield can $1\frac{7}{16}$ x $1\frac{7}{8}$ x $3\frac{15}{16}$.

No. 74400......................................

MINIATURE POWDERED IRON CORE RF INDUCTANCES — The No. J300 — Miniature powdered iron core inductances, 0.107 in dia. x ⅜ in. long. Inductances from 3.3 microhenries to 2.5 millihenries ±5%. EIA standard values plus 25, 50, 150, 250, 350, 500, and 2500 microhenries. Three layer solenoids from 39 to 350 microhenries. ¼ in. wide single pi from 360 to 2500 microhenries. Special coils on order.

PHENOLIC FORM RF INDUCTANCES — The No. 34300 Inductances — Phenolic coil form with axial leads. Inductances from 0.15 microhenry to 2.5 millihenries ±5%. EIA standard values plus 25, 50, 150, 250, 350, 500, and 2500 microhenries. Solenoids from 0.15 to 16 microhenries. Single pi from 18 to 300 microhenries. Multiple pi for higher inductances. Forms $\frac{7}{32}$″ dia. x $\frac{7}{16}$ in. long, $\frac{3}{16}$″ x ⅝″, ¼″ x ¾″, and ¼″ x 1″. Special coils on order.

MINIATURE IF TRANSFORMERS — Extremely high Q — approximately 200 — Variable Coupling — (under, critical, and over) with all adjustments on top. Small size $1\frac{1}{16}$″ x $1\frac{9}{16}$″ x $1\frac{7}{8}$″ Molded terminal base. Air capacitor tuned. Coils completely enclosed in cup cores. Tapped primary and secondary. Rugged construction. High electrical stability.

No. 61455, 455 kc. Universal Trans......................................
No. 61453, 455 kc. BFO......................................
No. 61160, 1600 kc. Universal Trans......................................
No. 61163, 1600 kc. BFO......................................

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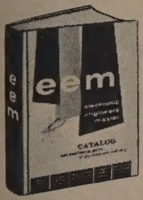
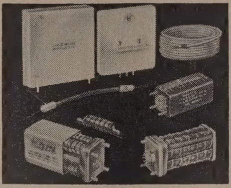
JAMES MILLEN
MALDEN · MASSACHUSETTS

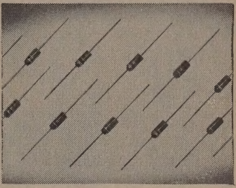
1961-1962 ELECTRONIC ENGINEERS' MASTER



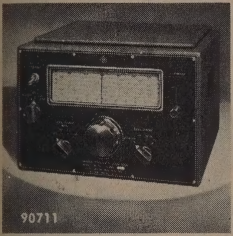
In this new edition is a listing of James Millen Manufacturing Co., Inc. products available to purchasing agents and engineers. The listing includes: OSCILLOSCOPES: Module, Basic, Industrial, Miniature Synchroscope, Compact Rack-Mounted, Modulation Monitor Scopes, and Accessories. MAGNETIC SHIELDS: Mu-Metal and Nicoloi in stock sizes or custom-made. GRID DIP METERS: Industrial and Standard, and Tone Modulator. MINIATURIZED COMPONENTS: Knobs, Drives, Dials, Shaft Locks, Shaft Bearings, Shaft Extensions, Couplings, Binding Posts and Plugs, Terminal Strips, and Inductors. DELAY LINES. The descriptions of each of these product groups show a partial listing of the components and equipment available from stock or custom-designed and manufactured according to specifications submitted to our Custom Design Engineers. The ELECTRONIC ENGINEERS' MASTER illustrates the Millen products for the industrial purchasing agent and engineer to consider when completing their requirements.



DELAY LINES AND NETWORKS — Flexible Distributed Parameter and Lumped Parameter Assemblies. Flexible cable may be supplied with molded ends. Hermetically-sealed lines in metal cases. Also available as encapsulated cast epoxy assembly. Assemblies designed to your specs.



MINIATURE INDUCTANCES — J301 encapsulated and non-encapsulated series are: extremely small — hermetically sealed — wound on axial lead Carbonyl cores — color coded. Also available are 34301 Standard Encapsulated inductances; and J302 encapsulated series for printed wiring.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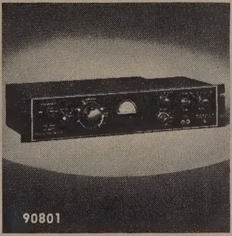
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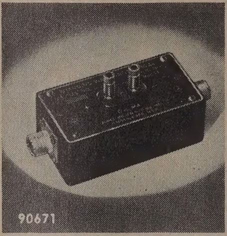
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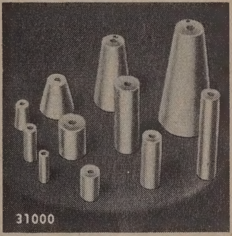
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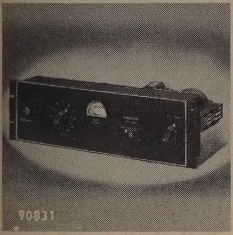
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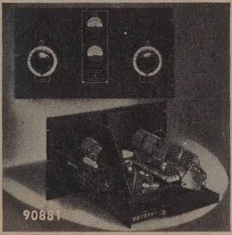
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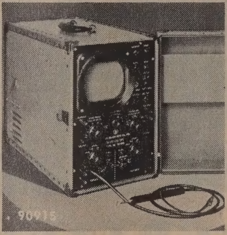
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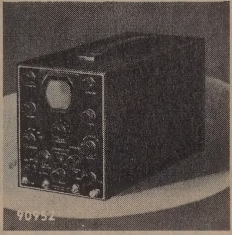

90952

VARIABLE FREQUENCY OSCILLATOR — With 6SK7 temperature-compensated, electron coupled oscillator of exceptional stability and low drift, a 6SK7 broad-band buffer or frequency doubler, a 6AG7 tuned amplifier which tracks with the oscillator tuning, and a regulated power supply. Output sufficient to drive a 6146 is available on 160, 80 and 40 meters and reduced output is available on 20 meters.
No. 90711, less tubes ....

90-WATT EXCITER-TRANSMITTER — Includes features and shielding for TVI reduction, bandswitching for 4-7-14-21-28 mc. bands, circuit metering. Conservatively rated for use as transmitter or exciter for high power PA stages. 5763 oscillator-buffer-multiplier and 6146 power amplifier.
No. 90801, less tubes ....Rack Mounted

40-WATT MODULATOR — Designed for use with 90801 transmitter. 12AX7 speech amplifier-6C4 voltage amplifier-class AB1 6146s. Suitable for modulating transmitters with power input up to 80 watts. Gain is ample for the use of low level, high impedance crystal or dynamic microphones. Frequency response is adjusted for good communication intelligibility with limited side bands. 3½″ panel height.
No. 90831, less tubes ....Rack Mounted

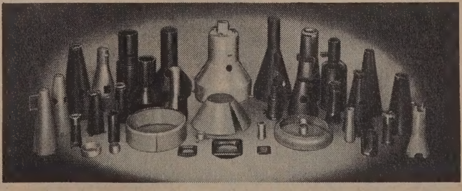
RF POWER AMPLIFIER — 500 watt amplifier may be used as the basis of a high power amateur transmitter. Amplifier is wired for use with the popular "812A" type tubes (others may be used.) Sturdy mechanical construction on 10½″ relay rack panel. Plug-in inductors furnished for operation on 10-15-20-40-80 meter bands. The standard Millen 90801 exciter unit is an ideal driver for the No. 90881.
No. 90881, with one set of coils, but less tubes........

STANDING WAVE RATIO BRIDGE — Provides easy and inexpensive measurement of S.W.R. on coaxial cable. As assembled the bridge is set up for 52 ohm line. An accurate 75 ohm resistor is mounted inside the case for substitution in the circuit when 75 ohm line is used.
No. 90671 ....

INDUSTRIAL OSCILLOSCOPE — Completely insulated front panel and case. Double shielded against magnetic fields. Excellent linearity. Sharp focus over entire 4″x4″ useful scan. The vertical and horizontal amplifiers are stable d.c. amplifiers and are identical, thus permitting accurate phase measurements.
No. 90915 uses 5AQP — 1, 2, 7 or 11 flat face, precision tolerance C.R. tube. Response of either amplifier D.C. to 100 kc. +0-10%........

MINIATURE SYNCHROSCOPE-OSCILLOSCOPE — 7½ x 5⅝ x 13″, 17 pounds. Band width 10 cy. to 1000 Kc. Sweep 6 to 300 microseconds per inch.
No. 90952 ....

STAND-OFF INSULATORS — available in a variety of sizes.



MU-METAL and/or NICOLOI SHIELDS — For cathode ray and multiplier photo tubes. Standard shields and bezels for the more popular tubes are available from stock. Our Custom Shield design and fabrication department is at the service of our customers for the development of shields for specialized application.

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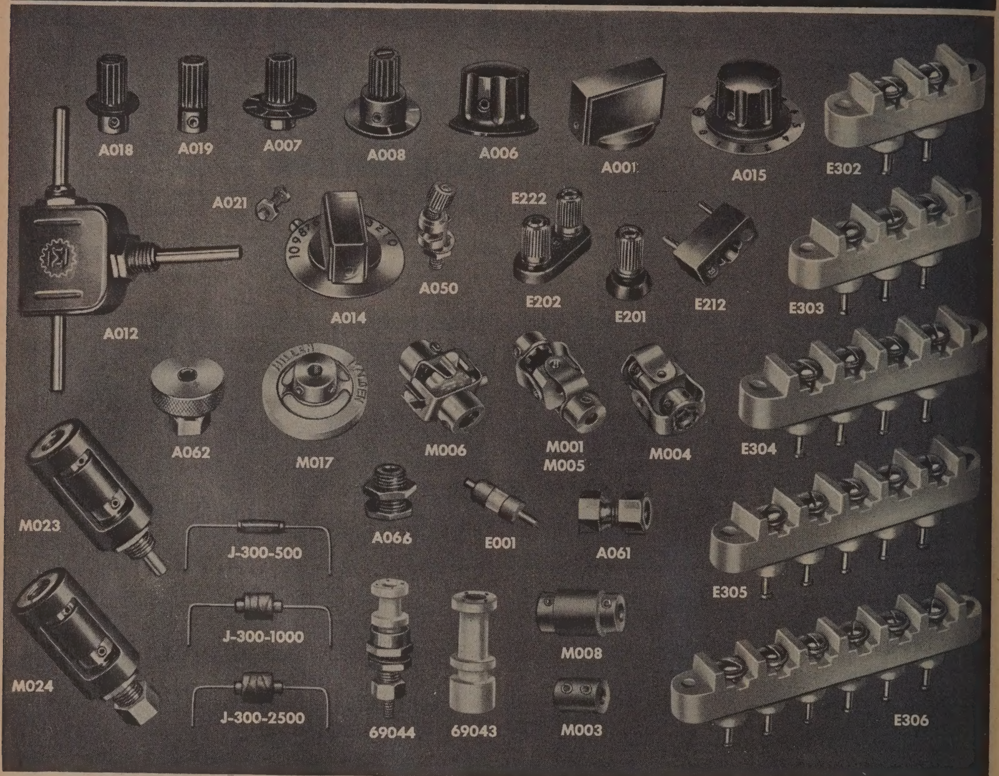
MALDEN · MASSACHUSETTS



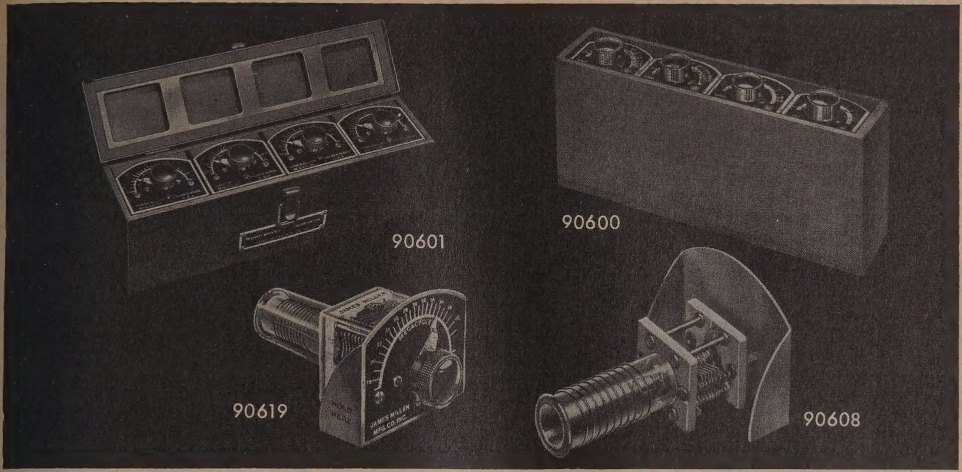
MINIATURIZED COMPONENTS

DESIGNED for APPLICATION miniaturized components developed for use in our own equipment such as the 90901 Oscilloscope, are now available for separate sale. Many of these parts are similar, in most details except size, to their equivalents in our standard component parts group. In certain devices where complete miniaturization is not paramount, a combination of standard and miniature components may possibly be used to advantage. For convenience, we have also listed on this page the extremely small sized coil forms from our standard catalog.

CODE	DESCRIPTION
A001	Bar knob for ⅛'' shaft. ½'' high by ¾'' long.
A006	Fluted black plastic knob with brass insert for ⅛'' shaft. ½'' high by ¾'' diameter.
A007	¼'' black plastic dial knob with brass insert for ⅛'' shaft. ⅝'' diameter dial. 9/16'' high.
A008	¼'' black plastic knob. Same as no. A007 except for style.
A012	Right angle drive for ⅛'' shafts. Single hole mounting.
A014	1'' bar dial for ⅛'' shaft. ½'' high. 180° or 280° dials for clockwise or counter-clockwise rotation.
A015	1'' fluted knob dial for ⅛'' shaft. ½'' high. Same dial plates as no. A014.
A017	1⅛'' diameter fluted black plastic knob for ⅛'' shaft.
A018	Knob, same as no. A007 except with ⅜'' diameter skirt.
A019	Knob, same as no. A007, but without dial.
A021	Miniature metal index for miniature dials.
A050	Miniature dial lock.
A061	Shaft lock for ⅛'' diameter shaft. ¼''-32 bushing. Nickel plated brass.
A062	Shaft lock with knurled locking nut.
A066	Shaft bearing for ⅛'' diameter shafts. Nickel plated brass. Fits 17/64'' diameter hole.

CODE	DESCRIPTION
E001	Steatite ceramic standoff or tie-point. Integral mounting eyelet. 0.205'' overall diameter.
E201	Black or red plastic binding post plates for No. E222.
E202	Black or red plastic plates for two binding posts spaced ½''.
E212	Black or red plastic plug for two binding posts spaced ½''.
E222	Metal binding post with jack top.
E302A	to E306A Steatite ceramic terminal strips. 5/16'' wide. Terminals spaced ⅜'' on centers. Screw type or solder type thru-terminals.
J300–3.3	to J300–2500 Complete line of miniature inductances 3.3 to 2500 microhenries. ⅜'' long. Diameter 0.115'' to 0.297''.
M001	Insulated universal joint style flexible coupling for ⅛'' dia. shafts.
M003	Solid coupling for ⅛'' dia. shafts. Nickel plated brass.
M004	Universal joint style flexible coupling for ⅛'' diameter shafts. Inverted hubs for short length. Not insulated.
M005	Universal joint style flexible coupling for ⅛'' diameter shafts. External hub for maximum flexibility. Not insulated.
M006	Universal joint style flexible coupling for ⅛'' diameter shafts. Spring finger. Steatite ceramic insulation.
M008	Plastic insulated coupling with nickel plated brass inserts for ⅛'' diameter shafts.
M017	Plastic insulated flexible coupling for ⅛'' diameter shafts. 17/32'' long by 15/16'' diameter. Bronze yoke.
M023	Insulated shaft extension for ¼''-32 bushing and ⅛'' shaft. For mounting sub-miniature potentiometer.
M024	Locking insulated shaft extension similar to no. M023.
69043	Steatite ceramic coil form. Adjustable core. Winding space ¼'' diameter by 13/32'' long. Mounting 4-40 hole.
69044	Steatite ceramic coil form. Adjustable core. Winding space 0.187'' diameter by 3/16'' long. No. 10-32 mounting.

© U.C.P., I



Midget Absorption Frequency Meters

Many amateurs and experimenters do not realize that one of the most useful "tools" of the commercial transmitter designer is a series of very small absorption type frequency meters. These handy instruments can be poked into small shield compartments, coil cans, corners of chassis, etc., to check harmonics; parasitics; oscillator-doubler, etc., tank tuning; and a host of other such applications. Quickly enables the design engineer to find out what is really "going on" in a circuit.

Types 90604 thru 90610 are extremely small and designed primarily for engineering laboratory use where they will be handled with reasonable care. The most useful combination being the group of four under code No. 90600 and covering the total range of from 3.0 to 140 megacycles. When purchased in sets of four under code No. 90600 a convenient carrying and storage case is included. Series 90601 are slightly larger and very much more rugged. They are further protected by a contour fitting transparent polystyrene case to protect against damage and dirt. This latter series is designed primarily for field use and are not quite as convenient for laboratory use as the 90605 thru 90608 types. All types have dials directly calibrated in frequency.

Code	*Description*	*Net Price*
90604	Range 160 to 210 mc.	
90605	Range 3.0 to 10 mc.	
90606	Range 9.0 to 23 mc.	
90607	Range 23 to 60 mc.	
90608	Range 50 to 140 mc.	
90609	Range 130 to 170 mc.	
90610	Range 105 to 150 mc.	
90611	Range 1.5 to 3.5 mc.	
90612	Range 3.5 to 8 mc.	
90613	Range 8 to 18.5 mc.	
90614	Range 18 to 41 mc.	
90619	Range 0.35 to 1.0 mc.—Neon Indicator	
90620	Range 0.15 to 0.35 mc.—Neon Indicator	
90625	Range 2 to 6 mc.—Neon Indicator	
90626	Range 5.5 to 15 mc.—Neon Indicator	
90600	Complete set of 90605 thru 90608, in case	
90601	Complete set Field type Frequency Meters in metal carrying case 1.5 to 40 mc.	

DISTRICT SALES OFFICES

METROPOLITAN NEW YORK
John DiBlasi Associates, Inc.
90 Main St.
Port Washington
Long Island, N. Y.

PHILADELPHIA
L. D. Lowery, Inc.
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Broomall, Pa.

BALTIMORE-WASHINGTON
L. D. Lowery, Inc.
4508 Annapolis Rd.
Peace Cross
Bladensburg, Md.

INDIANAPOLIS
MacNabb, Schroeder &
Loomis
820 E. 64th St.

SAN FRANCISCO
Moulthrop and Hunter
165-11 th St.

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9431 S. Bishop St.
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H. Roy Gray, Ltd.
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JAMES MILLEN MFG. CO., INC.
MAIN OFFICE AND FACTORY
150 EXCHANGE ST., MALDEN, MASSACHUSETTS, U.S.A.

Philmore *Guaranteed* ELECTRONIC EQUIPMEN

NEW DELUXE "PORTAPHONE" 9-TRANSISTOR CITIZENS' BAND WALKIE-TALKIE

COMPLETELY WIRED AND TESTED - READY TO OPERATE NOT A KIT

No license requirement. No tests, forms, call signs, or age limit. Fits in the palm of your hand!

For short range UNLICENSED* communication on the 27 Mc Citizens' Band. Crystal-controlled 2-stage transmitter, and crystal-controlled full superhet receiver provide reliable communication up to ONE MILE in normal terrain, and up to FIVE MILES under favorable conditions!

FOR SPORTS • BOATING • ON THE FARM

A perfect, low cost communications system for industrial plants, hospitals, construction sites, etc. Fun to use for sports, boating, on the farm, and from room-to-room in the house. Fits comfortably in the shirt or coat pocket, and low receiver battery drain allows unit to be left on for paging or baby sitting chores.

Simple controls are **On-Off Volume knob**, and push-to-talk transmit switch. Private listening is provided for by lightweight earphone, which cuts out the speaker when plugged into its jack.

Powered by ONE inexpensive flat 9-volt battery, which can easily be replaced without opening up the entire unit. Provisions are made for the use of a rechargeable battery, or battery-size eliminator for extended use. The telescoping antenna extends 45 inches from the case, and folds out of sight when not in use.

Each unit is aligned on channel 9 (27.065 Mc) for both transmit and receive. Plug-in type crystals are used, so that crystals for other channels of operation may be inserted. Power input is just under 100 milliwatts, and controlled to .005%, fully meeting FCC specifications for unlicensed, limited radiation devices.

THE PORTAPHONE IS HOUSED in an attractive brown wrinkle aluminum case with gold anodized aluminum trim. Total weight WITH BATTERY is only 12 ounces for comfortable use! Its 9 transistors, diode, battery, 2-inch PM speaker, antenna, transformers and numerous ultra-miniature electronic components are precision engineered on a rugged printed circuit board into a cabinet which measures only 6" high, 2½" wide and 1⅜" deep. The entire unit is about the size of two regular packs of cigarettes!

AMERICAN-MADE CRYSTALS are used exclusively. Each set pre-aligned and tested at our factory in Richmond Hill, N. Y.

Supplied complete with transmit and receive crystals for Channel 9, earphone, battery, built-in antenna, leather carrying case with convenient belt clip and shoulder strap.

MODEL TC90..**Net $39.95**

TRANSISTORIZED CODE PRACTICE OSCILLATOR KIT

MODEL TCO-209

In attractive brown finish miniature case, only 3¼" x 2⅛" x 1⅝". Made in U.S.A.

Has Built-In Loudspeaker— Operates With or Without Earphones!

Utilizes a stable feed-back principle designed for trouble-free performance and simple, foolproof operation. Some features:

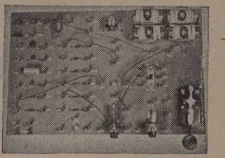
- **Battery Drain Interlock** automatically disconnects the battery when the key is unplugged.
- **Variable Tone Control** with On-Off Switch.
- **Phone Jack** for silent operation, using earphones.
- **Simple-To-Follow** step-by-step instructions. requiring no previous knowledge in kit-building.
- More than **50 Hours of Operation** on one set of batteries, eliminating the use of AC current. (Uses 3 regular penlite batteries.)

Model TCO-209..................................**Amateur Net $7.50**
(Less battery, key & earphone)

Philmore Electronics & Electricity

EXPERIMENTAL "20-IN-1" KIT

Sensational New Teaching Lab for Students of All Ages!



Designed to give experimenters of all ages an insight into the field of electronics and science. The series of twenty practical, exciting, and informative experiments, each progressively more detailed, leading toward the understanding of basic scientific principles, have been separated into six sections:

• NO SOLDERING • CONSTRUCTIVE and ENTERTAINING • COMPLETELY SAFE • PRACTICAL, USEFUL.

- **Electronics** includes the wiring of an electronic timer, burglar alarm, and electronic flasher with comprehensive theoretical explanation.
- **Radio Electronics** features the wiring of a one transistor radio, two transistor radio, code transmitter, and voice transmitter.
- **Audio Electronics** features the wiring of a combination audio oscillator and signal probe, an intercom system, and a lie detector game.
- **Experiments with Magnetism** features projects involving conductors, insulators, ionization, series resistance, and parallel resistance with theoretical calculations for each.
- **Experiments with Electricity** involves the construction of an electromagnet, a demonstration of magnetic fields.
- **Constructing Indicating Devices** features the construction of a galvanometer and experimental applications as an ammeter and voltmeter.

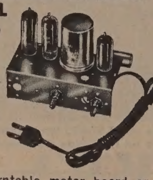
These progressive experiments that "teach while doing" utilize experiments on a high school and college level yet are understandable and may be followed by younger students. Ease of operation and construction serves to keep interest at a high level.

All tools are included and no soldering is required. Hook-up wire is merely placed between the proper spring terminals to make the project operate. It is completely safe from electrical shock and mechanical hazard. Many of the projects can be put to practical use upon completion.

MODEL EK20-1 COMPLETE..........................**Net $19.95**
(Less Batteries. F.E.T. Paid)

IMPROVED MODEL

3 TUBE AC-DC PHONO AMPLIFIER



Features NEW hum-reducing component and circuit lay-out, NEW shielded Phono-Input Jack, NEW shockproof switching and chassis isolation.

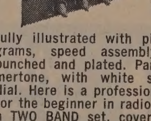
Neat, compact fully assembled, less tubes. Designed for direct mounting by control shafts to the turntable motor board or front panel.

Controls include smooth-acting volume control, with Double-pole ON-OFF switch for complete shockproofing; full-range, smooth acting tone control; and standard RCA type input jack for phono or microphone cartridge.

Tube complement necessary for operation: 1 — 12AV6 voltage amplifier; 1 — 50C5 power amplifier; 1 — 35W4 rectifier. For operation on 110 volt, AC or DC.

Model PA-59D (Less Tubes. F.E.T. Paid)......**Net $4.80**

NEW IMPROVED THREE TUBE



(Including Rectifier Tube)

TWO-BAND AC-DC RADIO KIT

Provides signal strength sufficient to drive a 3½" PM speaker.

Simplified instructions, fully illustrated with pictorial and schematic diagrams, speed assembly. Chassis is completely punched and plated. Panel is attractive gray hammertone, with white silk-screened lettering and dial. Here is a professional radio kit that is perfect for the beginner in radio. When assembled, you have a TWO BAND set, covering the standard broadcast band (550-1650 KC) and SHORT WAVE band (3-13 MC).

No. 7001-CR..**Net $15.50**
(Complete with PM speaker, less tubes. F.E.T. Paid)
Uses 1 each: 35W4, 50C5 and 12AU6 tubes.

PHILMORE COMMUNICATION RECEIVER KIT

Precision engineered, budget priced All-Wave ceiver. Designed for bench or rack-panel inst tion.

- Highly sensitive, five-tube superhetrodyne ci with individual, adjustable coils for each b
- Four band operation covering all frequencie to 30 megacycles, and amateur bands from 1 160 meters.
- Full electrical bandspread on each band.
- Includes RF Gain Control, AVC Defeat, and St by-CW Switching.
- Built-In S-meter.
- A built in B.F.O.
- Built in noise limiter.
- Built in speaker.

TUBE COMPLIMENT — (1 each) 6 x 4 Recti 6BE6 Converter and Oscillator; 6AZ8 IF Amplifier "S" Meter Drive; 6AV6 Detector and Audio Ampli 6AQ5 Audio Power Amplifier. Supplied complete v tubes and "S" meter.

MODEL CR-5AC KIT....................**Amateur Net $4**
(Complete, less cabinet. F.E.T. Paid)

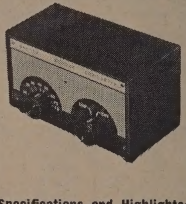
OPTIONAL CABINET

Heavy gauge steel.
Size: 15 3/16" wide, 6 9/16" high, 10" deep.

MODEL CR CABINET (F.E.T. Paid)....**Amateur Net $**

UHF-TV CONVERTER

- Extremely sharp pictures in local and fringe are
- Double tuned RF and diode mixer.



- Takes only minu to install at the tenna terminals any TV set. No ternal installat required.
- No drift, distorti free performa with direct tun control.
- Cabinet: walnut w red satin and be panel. Size: 6 wide x 4¼" hig 3½" deep. Weig 2 lbs. 8 oz.

Specifications and Highlights:

- Operates from 400 mc. to 1000 mc.
- No drift.
- 300 ohm input and output impedance.
- Double tuned RF and diode mixer.
- Image rejection ratio: —25 db. min.
- Signal to noise ratio: —30 db. min.
- Provides simple screwdriver connections for U antenna, VHF antenna and TV set.
- Output on channel 5 (55 mc. to 72 mc.).
- Output on channel 6 (76 mc. to 82 mc.).
- Simple two-position switch with pilot lamp in cator gives visual indication of UHF operation.
- Converter is automatically turned off when in V position.

Specifically engineered to bring in UHF televisi channels 14 through 83 in both local and frin areas. No internal installation is required.

MODEL UHF-2 (Completely Wired) ....**Net $29.**

MULTIPLEX ADAPTER KIT

- Self-Powered
- Operates on 105-125 VAC 60 cy.
- FM Beacon Light to Indicate FM Stereo
- Maximum Separation
- No Store-Cast Interference
- Pre-aligned components
- Compact — Multiple Tube Design
- Variable Separation Control

Adaptable to any wide band FM or FM-AM Tun Automatically switches from monaural to ster whenever a stereo signal is present, and INDICAT STEREO by Beacon Lamp!

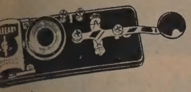
Kit includes compact plastic walnut cabinet 6⅞ W x 3⅞" H x 3½" D. Handsome 2-color Panel red satin and gold finish. Step-by-step instructio and diagrams.

Model MA-40 Complete with cabinet and Tubes
Audio Phile Net **$29.95**, Tax Pai

PHILMORE MFG. CO. INC. . . . . Richmond Hill, N. Y

We will be pleased to send our latest Catalog upon request.

philmore *Guaranteed* ELECTRONIC COMPONENTS

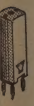


CODE PRACTICE SET

complete code practice system, comprising our 53 Telegraph Key and our #HF20 Buzzer, com- tly mounted on a solid molded phenolic base. minals for earphones are provided. Requires only ingle 1½-volt battery. Screw adjustment provides iable tone.

CP250 Less Battery................................**Net $1.60**

K-TRANS" I.F. TRANSFORMERS



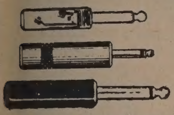
455KC. set of input and output I.F. transformers. Designed for small portable sets, and transistorized circuits. Exceptional high gain, iron core, double tuned. ¾" square can x 1⅞" high. Supplied with spring clip for mounting to chassis. Available with 4 lug, 5 lug and 6 lug terminal connections.

1909C-4 Set of Input and output —
4 Lugs................................**Net $1.45 per set**

1909C-5 Set of Input and output —
5 Lugs................................**Net 1.65 per set**

1909C-6 Set of Input and output —
6 Lugs................................**Net 1.80 per set**

LONG SLIM PHONE PLUGS



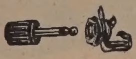
A compact plug for panel mounting space economy. Has two screw type terminals. Supplied with red black barrel, or shielded barrel. All parts nickel ted. Fits all standard type jacks.

ngth of barrel — 1⅝"   Diameter of barrel — ½"
Overall Length — 2⅞"

. **523W** Red or Black Plug (please specify color)
Net $.21 ea.

. **523WS** Shielded Plug........................**Net .35 ea.**

UBMINIATURE PLUG AND JACK

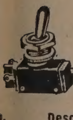


one plug for thin 2- ductor cable. Length plug is 1⅛". The gle closed circuit jack unts in ¼" hole, into panels up to ⅛" thick. pplied as a set.

. **702**..**Net, per set $.18**

TOGGLE SWITCHES

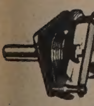
Bat Handle



Manufactured by H. & H. for Philmore. Rated at 3 Amps, 125 Volts, 1 Amp, 250 Volts. Laminated insulation. Serves many uses. Furnished nickel-plated, with two mounting nuts. UL Approved.

.	Description	Net
06	**SPST** ¹⁵⁄₃₂" **Shank**	$ .66
09	**SPDT** ¹⁵⁄₃₂" **Shank**	.87
12	**DPST** ¹⁵⁄₃₂" **Shank**	1.26
15	**DPDT** ¹⁵⁄₃₂" **Shank**	1.44

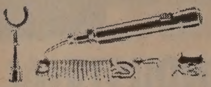
SUBMINIATURE VARIABLE CONDENSER



1 gang 365. Mmfd. Suitable for clockwise or counter-clockwise rotation. Overall 1" square. Depth ⅝". Supplied with standard ¼" knob aft, 1" long including bushing. Panel mount, inter- ved insulation prevents shorting between plates.

. **1949G**..**Net $.50**

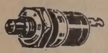
SLIM CRYSTAL MICROPHONE



Popular all-purpose microphone, can be used as a hand mike, lavalier mike, or on desk or floor stand. As lavalier mike it rests comfortably on the chest, permitting free use of hand. Lavalier cords and bracket are included. A chrome finished swivelled mike holder is supplied for desk or floor stand use, threaded ⅝"-27. Detachable 6-ft. shielded plastic cable. Built-in on-off switch. Satin chrome finish. Frequency response 100 to 9000 CPS. Output level — 52 db. High impedance. Individually packaged.

No. 100C..**Net $4.60**

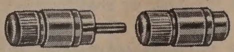
SUBMINIATURE PUSHBUTTON SWITCH



S.P.S.T. normally open momentary switch. Completely enclosed housing. Mounts in ¼" hole, in panels up to ⅛" thick. Supplied with red plastic button and mounting nut.

No. 2289..**Net $.24**

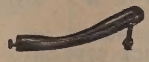
SHIELDED RCA TYPE EXTENSION PHONO CONNECTOR SET



Consists of phono plug and phono in-line jack both with removable shield handles. Both plug and jack have built-in cable connectors and are fully nickel plated.

Model No. MSII................................**Net, per set $.30**

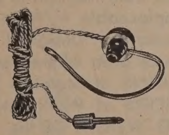
HI-FI TURNOVER CRYSTAL CARTRIDGE WITH TONE ARM



Contains the CX401 cartridge with two Sapphire needles. Includes arm rest and hardware. Spring counter balanced aluminum arm. Needles are very easily replaceable. Individually boxed.

No. C401..**Net $2.90**

LIGHTWEIGHT DYNAMIC EARPHONES

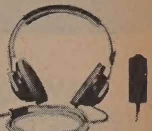


Ideal for private listening on transistor sets, hearing aids, radio sets and TV sets. These compact earphones are equipped with slim metal ear support for completely comfortable listening. Two plastic removable earplugs are supplied (one large for adults, one small for children). A minature phone plug and 3-ft. of flexible plastic cord are included. Individually packaged in vinylite bag.

No.	Impedance	Net
P7	8 ohms	**$.50**
P8	15 ohms	**.50**
P9	1000 ohms	**.60**
P10	2000 ohms	**.70**

HI-FI STEREO HEADPHONES

with JUNCTION BOX



Enjoy the thrilling realism of Hi-Fi Stereo sound in full privacy.

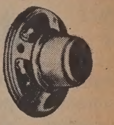
The internal construction of these phones is a radical departure from conventional headphones, since it actually consists of 2 miniature Hi-Fi dynamic speakers housed in special acoustic enclosures.

The earpieces and headband are padded with soft foam rubber cushions for comfort.

Features:
- Complete with Junction Box for overload protection and ease of attachment to Stereo Amplifier.
- 30-1500 cycle frequency response
- 8 Ohm Impedance — each phone
- Standard 3 circuit phone plug
- 5 Ft. Gray plastic covered cable

Model SP1 Audiophile........................**Net $15.95 each**

MINIATURE PM SPEAKERS

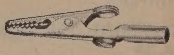


For Transistor and subminiature tube applications. Available in three sizes, all 8-ohm impedance. Exact replacement for most Transistor Radios in use. Speakers are full round without flange. Individually boxed.

	Net
TS20 2"	$1.35
TS21 2¼"	1.35
TS25 2½"	1.40

F.E.T. Paid

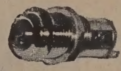
ALLIGATOR CLIP



Nickel plated, with Screw connection. Strong spring with hard bite. 2" long. No soldering necessary.

No. 10120..**Net $4.50 per C**

NEON PANEL LAMPS

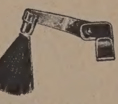


Gives direct indication on 115 and 230 volts AC-DC lines. Totally enclosed with Jewel and lamp, 1" long. Mounts in 5/16" panel hole. Complete with mounting nut and washer. Uses external resistor 100K ohms for 115 volt, and 270K ohms for 230 volt.

Available in the following colors: Red, Clear or Yellow lens. Individually boxed. Please specify color.

No. NL50..**Net $.42**

CAMEL HAIR RECORD BRUSH



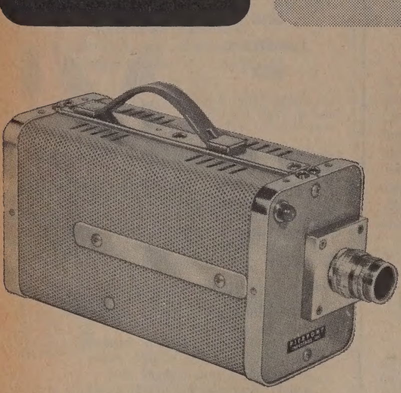
Clips to most pickup arms, automatically cleans record grooves ahead of stylus. Soft camels' hair will not scratch the most delicate record surface. Individually packaged. 12 to a Display Card.

No. CHB1 ....**Net $.16 Ea.**

PHILMORE MFG. CO. INC. . . . . Richmond Hill, N. Y.

We will be pleased to send our latest Catalog upon request.

PIERPONT CLOSED CIRCUIT TELEVISION EQUIPMENT



INDUSTRIAL TELEVISION CAMERA

A complete video camera for operation of up to 12 monitors or receiver over 1000 feet of RG-59VU cable. Remote control of focus and pictur optional.

- OUTPUT—Video 1.5 VP-P, Sync. neg. 75 ohm
  R.F.—100MV CH 2 to 6 tunable
- RESOLUTION—400 lines (center) 350 lines (edge)
- LIGHT CONTROL—Automatic electronic control
- LENS—1 inch f1.9 ("C" mount)
- POWER REQUIREMENT—117V, 60 cycle, 50W
- CONNECTOR—SO-239

DIMENSIONS 4½"W.x6"H.x11"L.
SHIPPING WEIGHT 15 lbs.

NET PRICE

MODEL CAM-2P **$599.00**

8" Industrial Television Monitor

Engineered and styled as a perfect companion for Model CAM-2P camera. Simple installation and operation. Ideal for desk or shelf mounting.

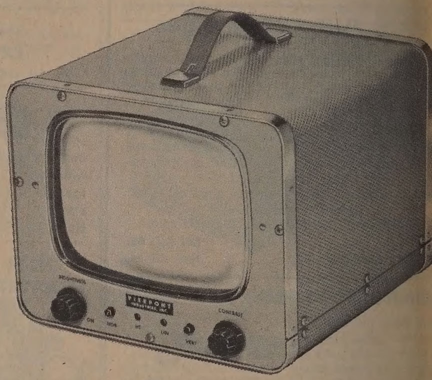
• INPUT—.5 to 3V Video sync. neg. • POWER REQUIREMENT—117V, 60 cycle, 95W. • CONNECTORS—2—SO-239 bridged • VIDEO BAND WIDTH—7 MC Flat (600 lines) • HANDWIRED CHASSIS-POWER TRANSFORMER.

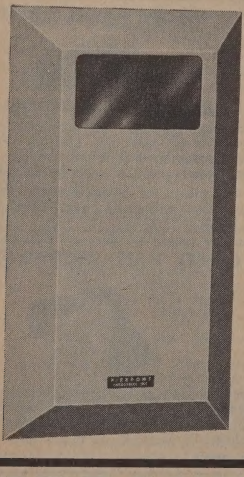
DIMENSIONS 10¼"W.x8"H.x11"L.
SHIPPING WEIGHT 22 lbs.

NET PRICE

MODEL TM-3P **$249.00**
MODEL TM-4P

17" INDUSTRIAL TV MONITOR electrically equivalent to Model TM-3P .... **NET PRICE $299.00**





SECURITY TELEVISION CAMERA

A specially designed, wall-mounted, tamper-proof version of Model CAM-2 with the same electrical specifications.

• Mounts from front. Trim panel is hinged and locked. • Safety glass windo easily replaceable • Wide angle lens with dust proof seal • Easy to adjus and maintain • Designed for use in elevators, showrooms, lobbies or an surveillance area where appearance, safety and tamper-proofing is require

DIMENSIONS of Stainless Steel Trim Panel—9"W.x13"H.x1½D.
DIMENSIONS of Wall Cut-Out (behind surface)—6"W.x13"H.x3"D.
SHIPPING WEIGHT 20 lbs.

NET PRICE

MODEL CAM-5P **$749.00**

ALSO AVAILABLE

VIDEO DISTRIBUTION AMPLIFIER • OUTPUT—3 V.P.P. (non-reversing) int 75 ohms • RESPONSE—10 MC flat-adjustable hi-peaking • Rack mounted o 3½" aluminum panel

MODEL VDA-3P .... **NET PRICE $129.00**
5" VIDEO MONITOR—Rack mounted .... **NET PRICE $249.00**
8" VIDEO MONITOR—Rack mounted .... **NET PRICE $269.00**

PIERPONT INDUSTRIES, INC. EAST ELMHURST,
69, N.Y.

CITIZENS' BAND RADIO

CITIZENS' BAND ANTENNAS

RCA PERSONAL-COM 300

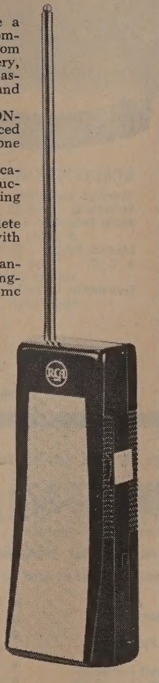
Type 17678A

ith the Personal-Com 300, RCA makes available a
uly practical 27 megacycle portable Transceiver. Com-
etely transistorized, the light-weight Personal-Com
)0 operates from a self-contained rechargeable battery,
d is housed within a sturdy high-impact resistant plas-
case attractively finished in gleaming black and
lver.
esigned for one-hand operation, the VOLUME-ON-
FF switch and PUSH-TO-TALK button are so placed
at they can both be operated with the thumb of one
nd.
he RCA Personal-Com 300 is the ideal communica-
ons facility for business or personal use on construc-
on sites, loading platforms, farms, camps, hunting
dges or aboard your boat.
he Personal-Com 300 (17678A) comes complete
ith battery, battery charger, leather carrying case with
rap and telescoping antenna.
he Personal-Com 300 is furnished to operate on chan-
l seven, but the use of plug-in crystals permits chang-
g, in the field, to any of the channels in the 27 mc
nd, from 26.975 mc to 27.225 mc.

ATURES:

- **Power input — 90 milliwatts for short range, unlicensed operation**
- **Completely self-contained transceiver for operation on any single frequency in 27 megacycle band**
- **Small, compact, lightweight—just 7⅝" high, 2⅞" wide, 1⅞" deep, weighs slightly more than one pound including battery**
- **Attractively styled, impact resistant plastic case with telescoping antenna**
- **Excellent voice reproduction — quality two-inch diameter 100 ohm speaker**
- **Provision for use of external earphone**
- **Superheterodyne receiver with tuned radio frequency amplifier**
- **Certified to comply with Part 15 of the rules and regulations of the FCC**
- **Variety of optional accessories availab'e**

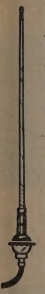
$149.95*



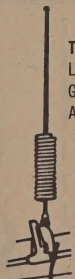
CITIZENS' BAND ANTENNAS

Type	Description	Price *
	Base Station	
17628	Vertical Beam	**$75.00***
17629	Coaxial	**33.25***
17630	Isolating Skirt for Ground Plane-555501A	**18.95***
17666	Half Wave Length End–Fed, Shunted	**47.38***
555500	Ground Plane, Deluxe	**70.35***
555501A	Ground Plane	**26.65***
	Mobile	
17624	48" Fiberglass Whip, Cowl Mount, Cable and Plug	**$16.60***
17624A	48" Fiberglass Whip only	**12.00***
17668	60" Center Loaded Whip, Cowl Mount, Cable and Plug	**16.60***
17669	60" Center Loaded Whip, Trunk Mount, Cable and Plug	**16.60***
17670	50" Base Loaded Whip, Roof-Top Mount, Cable and Plug	**26.13***
555578	102" Whip, Bumper Mount, Cable and Plug	**33.88***
555579	102" Whip, Swivel Ball mount, Cable and Plug	**31.50***
	Marine	
17667	Ground Plane, Cable and Plug	**$56.75***
555580	108" Whip, Swivel Ball Mount, Cable and Plug	**31.50***
	Portable or Temporary	
17625	Loaded Whip, Automotive Gutter Clamp, Cable and Plug	**$19.25***
17626	43" Whip, Tuneable Coil and Plug	**27.35***
17627	Base Loaded, Portable Whip and Plug	**12.95***
17637	Center Loaded (Used with Personal Com "300")	**6.75***
	PERSONAL-COM 300 ACCESSORIES	
17622	Battery Charger, Single Capacity (Used with one 17619-A Personal-Com "300")	**18.50***
17622A	Battery Charger, Dual Capacity, (Used with two 17619 A Personal-Com "300")	**25.95***
17636	Carrying Case, Leather	**6.65***
3450244	Transmitting Crystal—Channels 2 thru 22	**3.50***
3450245	Receiving Crystal—Channels 2 thru 22	**3.50***

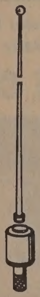
*Optional List Price



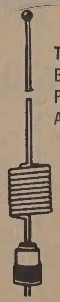
TYPE 17624
48" Fibreglas Whip, Cowl Mount Antenna



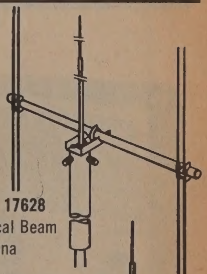
TYPE 17625
Loaded Whip, Gutter Clamp Antenna



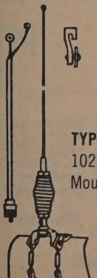
TYPE 17626
43" Whip Portable Antenna



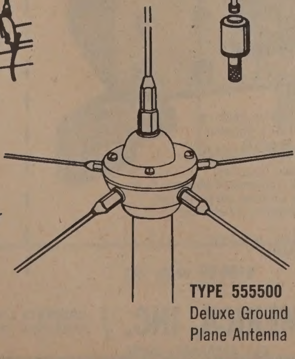
TYPE 17627
Base loaded Portable Whip Antenna



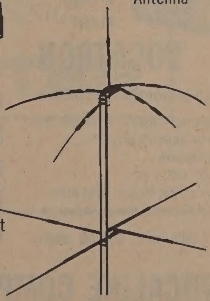
TYPE 17628
Vertical Beam Antenna



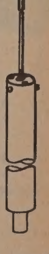
TYPE 555578
102" Whip, Bumper Mount Antenna



TYPE 555500
Deluxe Ground Plane Antenna



TYPE 55501A
Ground Plane Antenna With Type 17630 Isolating Skirt



TYPE 17629
Coaxial Antenna

the ultimate in citizens band radio . . .

$249.95 each

VOCALINE commaire ED - 276

Transistorized 6-channel mobile and base transceiver

With the introduction of the new Commaire ED-276, Vocaline achieves the most advanced Citizens Band radio available anywhere today. It represents a total departure from all other units both in reliability of performance and variety of practical operating facilities. The entire unit mounts quickly for rugged mobile use or operates as a handsome free-standing base unit. Receiver is a transistorized double conversion superheterodyne unit, with high receiver selectivity achieved through use of ceramic filters. Transmitter provides a full 3 watts output, with 100% modulation.

OTHER FEATURES

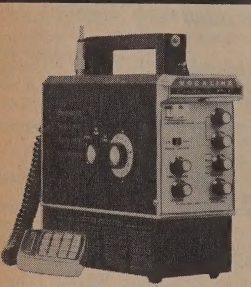
3-stage AGC, eliminates blasting and fading; harnessed assembly for easy servicing; transistorized power supply; combined "S" meter, frequency spotter and RF power indicator on front panel; 22-channel tuning; 5 fixed transmit and receive channels with 6th position on selector switch for front panel crystal; receiver fixed/tune switch; exclusive receiver fine tuning; combined squelch and sensitivity control and many more. $249.95 list

SPECIFICATIONS: 22 transistors — 8 diodes — 3 tubes

Receiver Sensitivity — better than 0.2 µv. for a 6 db signal plus noise/nois
Selectivity — 40 db down at ± 6 kc — adjacent channel rejection 55 db
Audio Output — 5 watts (0.15 µv signal, 30% modulated at 400 cps will p
3 watts)
Squelch Range — 85 db (0.1 µv — 2000 µv)
A. G. C. — Input signal voltage change of 80 db will allow 1.6 db audio
voltage change.
Transmitter — Full 5 watts input — 3 watts output
Modulation — 100% capability

POWER CONSUMPTION

	117 VAC	12 VD
No signal, filaments off	23 watts	60 m
Average volume on signal, filaments off	24 watts	100 m
No signal, filaments on	35 watts	1.05 a
Transmit, 100% modulation	40 watts	4.5 a



World's First Long-Range Portable Self-Powered, 2-Way CB Radio With AM Receiver

VOCALINE COMMAIRE PT-27

AM broadcast band . . . 4 fixed channels and tunable receiver . . . self-powered . . . portable

WEATHER! NEWS! COMMUNICATIONS! IDEAL FOR ALL SPORTSMEN!

Perfect for hunting, fishing, camping . . . can be used for business, industry, farming . . . a variety of applicatio

- 100% modulation
- 18 transistors (and 5 diodes) for matchless performance
- double conversion, superheterodyne receiver
- temperature-compensated circuits
- exceptional sensitivity — 0.1 microvolt (variable)
- outstanding selectivity — 40 db down at ± 10 KC
- equal range of 5-watt high quality CB units
- lightweight — only 11½ lbs. with batteries
- compact — 9" x 4" x 11"
- superior Silent-Aire Squelch
- Built-in charger
- 10 controls for maximum flexibility
- no installation required
- leather carrying strap

$250.00 each,

IDEAL FOR
HOME,
OFFICE,
PLANT

VOCATRON

CC-60 WIRELESS INTERCOM

- No wires needed—just plug in and talk
- Patented new squelch circuit—eliminates squawk
- Compact—3" x 8" x 6"
- Draws less current than a light bulb
- Distinctive and functional appearance

$109 pair, $54.50 each

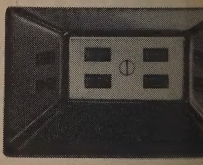
New Multi-Channel Convenience In Citizens Band Radio Communication

VOCALINE COMMAIRE

4-CHANNEL model ED-27M (27 MC.)

- Selective & Sensitive Receiver
- Patented Silent-Aire Squelch
- Single Crystal Receiver
- Transistorized Power Supply and Unmatched Audio Circuitry
- Convenience of conference-phone flexibility plus uniform performance throughout the entire 22-channel citizens band
- Ideal for business, industry, boating and sports

$189.50 each, list



4 S
OUTLETS IN O

PERM
PLU

- Ends messy wiring
- Won't pull out when you pull out plugs
- U.L. Approved
- Proven seller—attra display units provide

69c Brown 79c I

VOCALINE COMPANY OF AMERICA, INC.

COMPLETE LINE OF ACCESSORIES, ANTENNAS AVAILABLE

OLD SAYBROOK, CONN.

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whatever electronic products
you require...

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...you'll find it
faster in
this catalog...
...the world's largest catalog
of electronic
products
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The
Radio-Electronic
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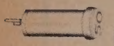
CHICAGO 31 ILLINOIS

BI-PIN CARTRIDGE LAMPS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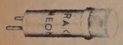

B

C

D

REPLACEABLE BI-PIN CARTRIDGE LAM

FOR COMPUTER AND READOUT USES

Save space on crowded panels. Wide c of filter shapes and colors (Red, Ye Green, Blue, White, Colorless). Neon with or without built-in resistors. Ir descent types available in wide range o voltages. Selected units have low p drain, can be driven with transistors.

Lamps fit DRAKE or any other cart base lampholders. Easily replaced from of panel. Lamps sealed into clear ano aluminum casings. Two stainless steel te nals; Nylon insulation. Low cost printi 1, 2 or 3 digits, letters or symbols on flat filters, up to 12 pt. type. Legends are indexed for fast installation and replacem with automatic line-up. These and Bi-Pin Cartridge Lamps available in s units or multiple-unit blocks. Built to stand environmental requirements of STD-202B per MIL-L-3661A.

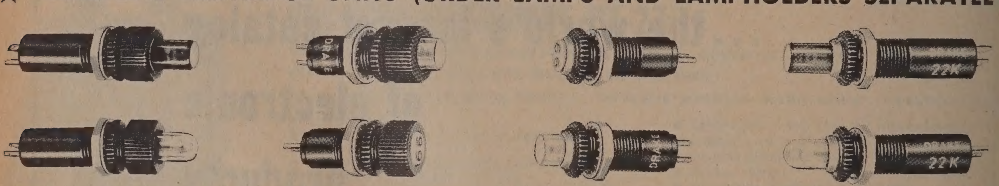
NEON LAMPS

Fig. No.	Drake Number	Starting Volts		Design Current (MA.)	Watts	C.P. at Design Current	Average Life at Des. Cur. (Hrs.)	Resist. Req. for Des. Cur. at Norm. Circ. V.	Built-in Re-sistor	List Price
		AC	DC							
A	1-503	65	90	0.3	1/25	.003	25M	220K		1.44
B	1-603	"	"	0.3	1/25	.003	25M	220K		1.44
C	1-703	"	"	0.6	1/15	.006	25M	100K		1.35
D	1-803	"	"	0.6	1/15	.006	25M	100K		1.35
C	2-703	65	90	1.1	1/8	.010	10M	56K	x	1.80
D	2-803	"	"	1.1	1/8	.010	5M	56K	x	1.80
A	4-503	95	135	0.8	1/10	.012	25M	68K		1.44
B	4-603	"	"	0.8	1/10	.012	25M	68K		1.44
C	5-703	"	"	2.6	1/3	.034	10M	22K	x	1.80
D	5-803	"	"	2.6	1/3	.034	10M	22K	x	1.80

INCANDESCENT LAMPS

Fig. No.	DRAKE NUMBER		Design Volts	Design Current (Amps.)	Average Life (Hrs.)	Candle Power (C.P.)	List Price
	Transparent Filter	Translucent Filter					
B	6-603	6-604	6	.20	500	.63	$1.74
C	6-703	6-704	6	.20	500	.63	1.74
B	11-603	11-604	28	.04	1000	.34	1.92
C	11-703	11-704	28	.04	1000	.34	1.92

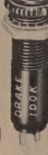
★ COMPLETE CARTRIDGE UNITS (ORDER LAMPS AND LAMPHOLDERS SEPARATELY)



CARTRIDGE LAMPHOLDERS

E

G


F

H

Exclusive advanced design for "D" hole mounting cuts costs, s assembly time, provides standardized legend alignment. Extra sav by using DRAKE Lampholder *without collars*.

Small size—mount in ⅜″ dia. hole on 21⁄32″ centers. Sturdy b anodized aluminum body, collar and facing nut—cadmium and Cr plated steel lockwasher and hex nut—molded phenolic insulation—s plated-gold flashed spring brass terminals, identified with letters A B for DC operation with seasoned lamps. Exclusive DRAKE *E-Z-* knurled facing nut (#20 wrench) for fast, secure panel installation. contacts insulated from mounting. Max. Amps.: 1—Max. Watts: Test Voltage: 1,000 AC @ 60 cps. Available with or without bui 1/10 watt current limiting resistor for use with neon cartridges.

DRAKE Cartridge Lampholders accept all Bi-Pin Cartridge Lamps on the market.

DRAKE NUMBER						Built-in Resistor (Ohms) ±10%	Max. Current (MA.)
Fig. No.	Without Collar	List Price	Fig. No.	With Collar	List Price		
E	4428-000	$1.74	G	4428-001	$1.95		1.0
F	4438-000	2.31	H	4438-001	2.43	22K	2.04
	4438-002	2.31		4438-003	2.43	47K	1.40
	4438-004	2.31		4438-005	2.43	56K	1.27
	4438-006	2.31		4438-007	2.43	100K	.95

PROJECTIONS FROM PANEL FACE — LAMP INSTALLED

Filter Shape	Without Collar		With Collar	
	Front	Rear	Front	Rea
Flush	7⁄32″	1 5⁄64″	⅜″	59⁄6
Short Cylindrical	⅜″	1⅜″	1 7⁄32″	1 7⁄3
Long Cylindrical	19⁄32″	1⅜″	¾″	1 7⁄3
Long Macrodome	3 7⁄64″	1⅜″	4 7⁄64″	1 7⁄3

ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE ★ ALWAYS SPECIFY FILTER COLO

Trade Discount Applies To List Prices Only

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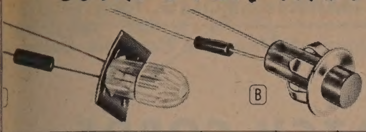
COMPUTER INDICATOR LIGHTS

DRAKE

CHICAGO 31 ILLINOIS



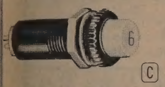
"ECONOGLO"
NEON GLOW
INDICATOR LIGHTS

Excellent for LOW COST 120V applications or as D. C. circuit components. Available with or without series resistors. Mount from front of panel. Equipped with 2" wire leads. Plain macrodome also available; substitute lens code 303 for 323 when ordering.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A	R116-323 or 303	11/32"	3/8"	15/32"	100K	5/16"	1/4"	17/32"	$ .46
B	R117-604	11/32"	1/4"	5/8"	100K	1/2"	1/16"	11/16"	.57

NS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.

r HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".



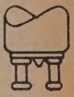
"MINEON"
NEON GLOW
INDICATOR LIGHTS

Similar to "ECONOGLO" types, except mounted in black anodized aluminum body with solder lugs or turret terminals. Drake E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

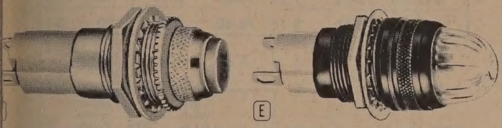
Fig. No.	DRAKE NUMBER				Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-in Resistor (Ohms)	Mounting Hole Dia.	Maximum Panel Thickness	Mounting Centers
	Pin Lugs	List Price	Turret Lugs	List Price							
C	R118-644	$1.65	R119-644	$2.26	11/32"	9/32"	13/16"	100K	3/8"	3/8"	5/8"

NS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.

r HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".



DRAKE NO. 119 TURRET LUGS

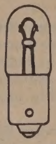


"DELUXE MOLDED"
INDICATOR LIGHTS

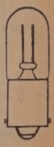
For detailed description, see DRAKE pages, Section 3900

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-in Resistor (Ohms)	List Price
D	5203-232-544		1/2"	15/32"	1 5/8"	Solder	22K	$2.28
E	5204-238-320	LH78-LC20	5/8"	27/32"	1 9/32"	Solder	27K	2.90

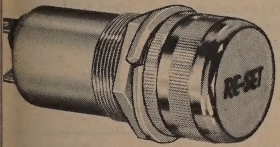
NS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.



MIN. BAY. BULB NO. T-3¼ 6.3-28V



MIN. BAY. LAMP NO. NE51H 125 V

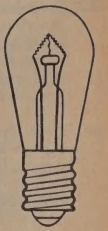


HEAVY DUTY INDICATOR LIGHTS

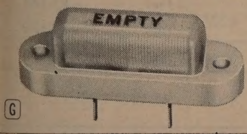
Ruggedly made for severe duty. Polished chrome plated screw-on lens holder. Pop-forward lamp easily replaced from front of panel. Mount from front or rear of panels up to 7/16" thick, in 1" dia. hole on 1⅜" centers.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamp	List Price
F	B1478L-ISE-550	1"	Cand. Screw	3/4"	2 5/32"	656 or 10C7	$2.91

NS DESCRIPTION CODE (last three Drake Number digits): See Section 3900.



Cand. Screw LAMP NO. 656 120V



"FLUSHLITE"
INDICATOR LIGHTS

A "one-of-a-kind" unit—all nylon with built-in series resistor. Exceptional appearance.

Fig. No.	Drake Number	Lens Size	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
G	110-022 (Hi-Brite)	13/32" x 1¼"	11/32" or 9/16"	17/32" or 5/16"	22K	Hi-Brite Neon	11/32" Rear Mtd.	9/16" or 1⅞"	$ .83

TURN TO SECTION 3900
for detailed information about many other
DRAKE INDICATOR LIGHTS — LENSES — LAMPHOLDERS

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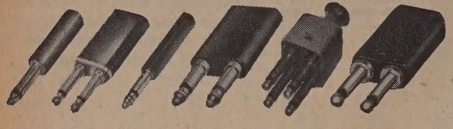
PLUGS



PJ-5 **Equivalent, PJ-055, WE-47,** fits ¼″ phone jacks. Black plastic shell. Screw terminals. Two conductor. **Net $.78**

PJ-1 **Equivalent WE-241,** heavy duty die cast frame. Black phenolic shell. Self aligning plug prongs on ⅝″ center for use with all standard jack panels. Two tip conductors, plus sleeve connection common to both sleeves. **Net $2.55**

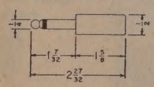
PJ-3 **Equivalent PJ-051, WE-310.** Designed for use with ¼″ tip, ring and sleeve jacks. Molded insulation, red plastic shell. Three conductor. **Net $2.40**

PJ-6 **Equivalent WE-213.** Designed for applications requiring two separate 3 conductor circuits. Popularly used with operator's intercom/monitor headsets. Black shell notched for polarity identification. Self aligning plug prongs on 11/16″ centers. **Net $9.78**

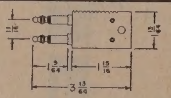
D7200 **Equivalent WE-315B.** Four prong, self aligning plug. Molded insulation. Brass shell notched for polarity is nickel plated and connected to plug stems to provide shielding for tip conductors. For use with four PJ-318 double jacks mounted on ⅝″ centers. Five conductors. **Net $14.70**

PJ-327 **Equivalent WE-327.** The PJ-327 Twin Plugs provides two electrically independent, 2 conductor plugs in a black plastic shell which is notched to indicate polarity. Self aligning plug sleeves are on ⅝″ centers. Designed and constructed in accordance with Specification MIL-P-642A. **Net $2.55**

PJ-7 Twin type plug with tip, ring and sleeve conductors on ⅝″ centers for use with all standard jack panels. Designed to mate with three conductor jacks having ¼″ diameter sleeves. Molded insulation. Black phenolic shell is notched to indicate polarity. **Net $7.20**



PJ-5



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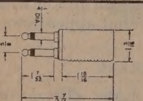
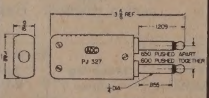
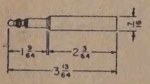


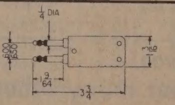
PJ-1



PJ-327

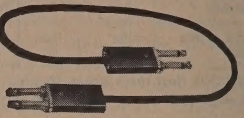


PJ-3



PJ-7

PATCH CORDS



Length	Cord With PJ-1 Plugs	Net Price	Cord With PJ-5 Plugs	Net Price	Replacement Cords Only	Net Price
6-inch	PJ-10½	$6.38	PJ-50½	$3.48	PJ-20½	$1.11
1-foot	PJ-11	6.60	PJ-51	3.63	PJ-21	1.50
2-feet	PJ-12	6.75	PJ-52	3.84	PJ-22	1.65
3-feet	PJ-13	6.90	PJ-53	4.11	PJ-23	1.74
4-feet	PJ-14	7.13	PJ-54	4.44	PJ-24	1.80
5-feet	PJ-15	7.28	PJ-55	4.77	PJ-25	1.89
6-feet	PJ-16	7.58	PJ-56	5.25	PJ-26	2.49
10-feet	PJ-10	8.10	PJ-50	5.82	PJ-20	3.15

Length	Cord With PJ-3 Plugs	Net Price	Replacement Cords Only	Net Pric
2-feet	PJ-82	$8.70	PJ-62	$2.10
4-feet	PJ-84	9.30	PJ-64	2.40
6-feet	PJ-86	9.90	PJ-66	2.82

ADC patch cords have become standards in the communications industry. Unmatched in quality, these shielded cords are made of tinned copper conductor wire with a heavy braided cover reinforced at each end. These cords, as well as cord assemblies with PJ-1 double plugs, PJ-5 or PJ-3 single plugs and standard black patch cords with shields grounded both ends, are considered standard. Unshielded cords or assemblies with shields grounded one end only available on special order. Gray, red, other color cords available on special order.

Four tinsel wire conductors plus shield (shield grounded to both sleeves of PJ-7 plugs). Conductors are rubber insulated. Heavy black braided glazed cotton cover overall.

Length	Cord with PJ-7 Plugs
1 foot	PJ-171
2 feet	PJ-172
3 feet	PJ-173
4 feet	PJ-174
5 feet	PJ-175
6 feet	PJ-176

Four tinsel wire conductors, thermoplastic insulated. Slate colored Nylon braided cover overall resists wear.

Patch Cords Length	Nylon Cord With PJ-327 Plugs
1 foot	PJ-181
2 feet	PJ-182
3 feet	PJ-183
4 feet	PJ-184
5 feet	PJ-185
6 feet	PJ-186

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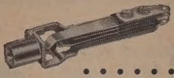
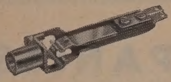
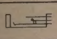
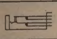
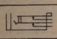
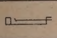
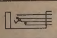
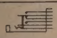
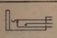
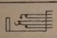
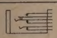
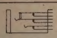
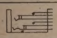
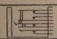
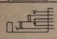
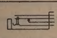
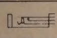
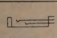
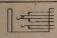
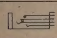
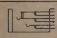
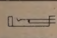
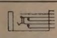
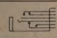
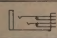
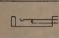
JACKS.... ......





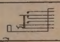
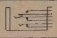
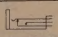
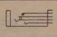
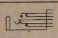
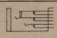
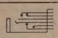
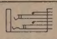
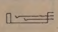
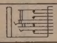
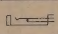
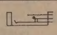
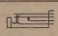
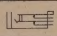
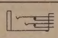
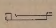
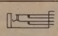
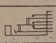
TELEPHONE TYPE

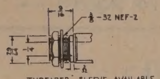
ADC is recognized as a leading supplier of long frame, telephone type jacks. As evidence of their outstanding quality, ADC jacks are used by the country's foremost manufacturers of communication equipment. The unique, ADC one piece frame is strong, dimensionally stable and readily interchangeable both mechanically and electrically with commonly used jacks. Plating withstands 50-hour salt spray tests. Coin silver contacts are welded to nickel silver springs. Lugs are hot tin dipped. Insulation is high grade phenolic.

Schematic Diagram	Jacks	W. E. Equiv.	Frame Style	Net Price
	PJ-115	215-A	A	$ .90
	PJ-116	216-A	A	.90
	PJ-117	217-A	A	.90
	PJ-123	223-A	A	.60
	PJ-125	225-A	A	1.02
	PJ-202	None	C	1.02
	PJ-203	303-A	A	.78
	PJ-204	None	A	1.02
	PJ-205	240-A	A	1.32
	PJ-206	242-A	A	1.32
	PJ-207	285-A	A	1.50
	PJ-208	284-A	A	1.50
	PJ-209	411-A	A	1.02
	PJ-226	226-A	A	1.02
	PJ-237	237-A	A	.87
	PJ-238	238-A	A	.66
	PJ-240	240-C	C	1.23
	PJ-241	241-A	A	1.02
	PJ-242	242-C	C	1.23
	PJ-318	218-A	A	.66
	PJ-336	236-C	C	1.14
	PJ-338	438-C	C	1.23
	PJ-339	239-A	A	.92
	PJ-418	218-C	C	.69

MILITARY JACKS

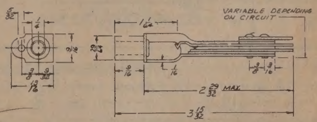
Designed to meet the rugged, exacting requirements of military applications. These ADC jacks are made in accordance with Mil-J-641B specifications. Highest quality materials and closely held tolerances on dimensions conform with military specifications.

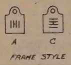
Schematic Diagram	Mil Jacks	Net Price	Schematic Diagram	Mil Jacks	Net Price
	JJ-015	1.17		JJ-073	1.50
	JJ-016	.90		JJ-074	1.17
	JJ-017	1.17		JJ-075	1.50
	JJ-019	1.41		JJ-077	1.71
	JJ-022	.75		JJ-078	1.71
	JJ-024	.75		JJ-084	1.05
	JJ-035	1.17		JJ-085	1.05
	JJ-042	1.02		JJ-086	.66
	JJ-072	1.05		JJ-087	1.17



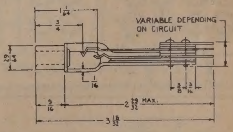
THREADED SLEEVE AVAILABLE ON SPECIAL ORDER

2 Conductor Jack

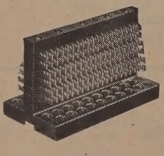




3 Conductor Jack



TERMINAL BLOCKS



Type	No. Rows	No. Terminals	Net Price
PJ-101	1	20	$3.45
PJ-102	2	40	4.65
PJ-103	3	60	5.85
PJ-104	4	80	7.05
PJ-105	5	100	8.25
PJ-106	6	120	9.45

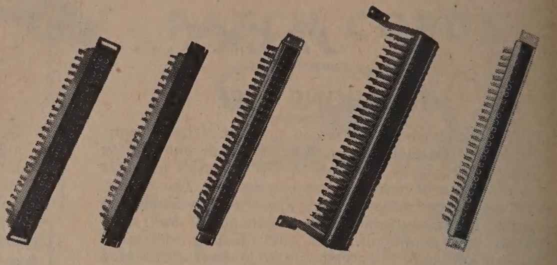
Molded of durable black phenolic plastic material. Terminals are .040" plated brass. Rows of terminals are graduated in length for ease of wiring, and are identified by numbering along the top row. Base 3" x 6-1/16".

ADC **ADC PRODUCTS** • MINNEAPOLIS, MINNESO

A Division of Magnetic Controls Comp

JACK PANELS...

ADC offers the most complete assortment of jack panels available today. ADC panels are used in television and broadcasting stations, recording studios, industrial paging systems, and communication equipment of all kinds where there is a need to efficiently switch and distribute audio signals. Molded of solid phenolic, reinforced with steel to provide maximum rigidity and strength. Jacks are spaced to permit use of any standard double plug with ⅝" spacing. Mounting brackets and designation strips furnished with each panel. All panels designed to fit standard 19" relay rack. Consult ADC for your standard and special jack panel requirements.

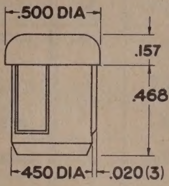


PJ-31 PJ-341 PJ-391	PJ-33 PJ-343 PJ-393	PJ-30 PJ-340 PJ-390	PJ-35 PJ-350 PJ-395	PJ-36 PJ-360 PJ-396

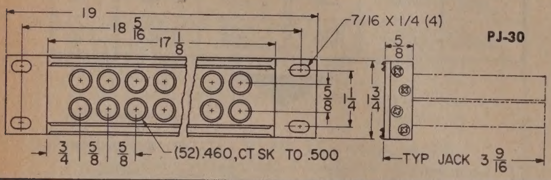
HOLE PLUG

Molded of black polyethylene plastic. Fits all ADC standard jack panels. Made to plug unused jack mounting holes in jack panels.

PJ-29 **Net $.15**


.500 DIA
.157
.468
.450 DIA
.020(3)

Panel less Jacks	Net Price	Panel with PJ-318 Jacks	Net Price	Panel with PJ-339 Jacks	Ne Pric
PJ-30	$12.90	PJ-340	$49.50	PJ-390	$64.
PJ-31	9.45	PJ-341	42.75	PJ-391	57.
PJ-33	8.52	PJ-343	25.14	PJ-393	32.
PJ-35	15.60	PJ-350	52.50	PJ-395	67.
PJ-36	8.70	PJ-360	27.90	PJ-396	35.

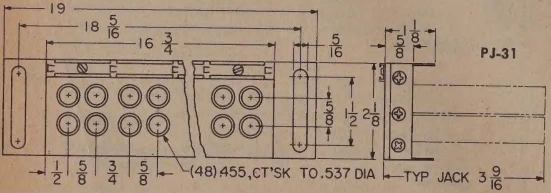

PJ-30
19
18 5/16
17 1/8
7/16 X 1/4 (4)
5/8
5/8
1 1/4
1 3/4
3/4
5/8
5/8
(52).460,CT SK TO .500
TYP JACK 3 9/16

PJ-30

Double panel. Holds 52 jacks—requires 1¾" p space. Double designation strip. Brackets for flush mounting. All jack mounting holes on ⅝" centers.

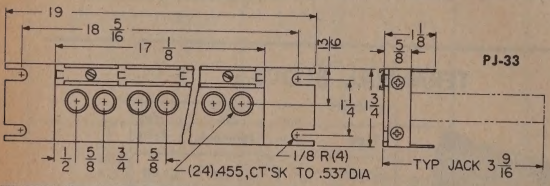
PJ-35

Double panel. Same as PJ-30 except with stand brackets to hold panel 7" in front of mounting rac


PJ-31
19
18 5/16
16 3/4
5/16
1 1/8
5/8
5/8
1 1/2
2 1/8
1/2
5/8
3/4
5/8
(48).455,CT'SK TO.537 DIA
TYP JACK 3 9/16

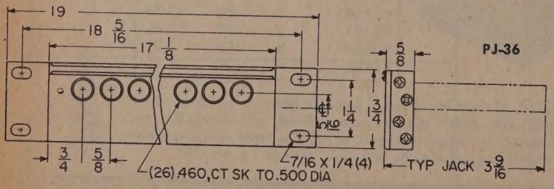
PJ-31

Double panel. Holds 48 jacks. Holes spaced to prev patching adjacent circuits. Requires 2⅛" panel sp


PJ-33
19
18 5/16
17 1/8
3/16
1 1/8
5/8
1 1/4
1 3/4
1/2
5/8
3/4
5/8
1/8 R(4)
(24).455,CT'SK TO .537 DIA
TYP JACK 3 9/16

PJ-33

Single panel. Holds 24 jacks. Holes spaced to prev patching adjacent circuits. Requires 1¾" panel sp


PJ-36
19
18 5/16
17 1/8
5/8
3/16
1 1/4
1 3/4
3/4
5/8
7/16 X 1/4 (4)
(26).460,CT SK TO.500 DIA
TYP JACK 3 9/16

PJ-36

Single panel. Holds 26 jacks—requires 1¾" panel spa Brackets for flush rack mounting. All jack mount holes on ⅝" centers.

Panels with mil jacks and other telephone type ja also available.

Net

© U.C.P., I

ANNON AUDIO PLUGS for low level circuit applications

CANNON PLUGS

Cannon Audio Plugs are designed for use on audio/video and other low level circuit applications in the :tronic/industrial fields where reliability, quiet operation and the elimination of mechanical interference necessary. Some common uses are: microphones, tape recorders, medical instruments, cameras and test :rumentation computers.

.R PLUG SERIES

XLR incorporates the most advanced audio/electronic design concepts. ll and compact, it features resilient insulators on the socket side plus ient ribs for shock protection and quiet operation.

Shells are zinc (receptacles), steel or zinc (plugs), with satin nickel h. Insulators are rigid molded plastic (pin side), resilient polychloro- e (socket side). Contacts are brass, silver plated. Coupling is by the 1-lock method.

FEATURES

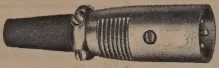
- **QUIET OPERATION**

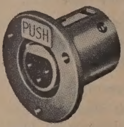
Thick zinc cross sections for shell strength, plus resilient insulators and resilient ribs on the socket side, insures elimination of mechanical interference from shock.

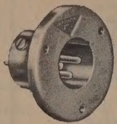
- **EASY TO WORK WITH**

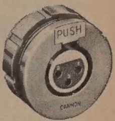
Finger grips for positive handling.
Integral cable clamp with two clamping positions for positive grip on cable sizes from 7/32 to 5/16 of an inch.
Large internal space for ease of wiring..

XLR-(*)-11C
XLR-(*)-11SC (steel shell)
SOCKET


XLR-(*)-12C
XLR-(*)-12SC (steel shell)
PIN

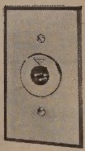

XLR-(*)-13
SOCKET

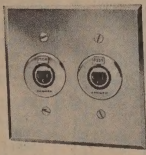

XLR-(*)-14
PIN

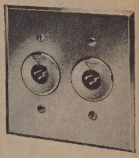

XLR-(*)-13N
SOCKET

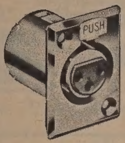
XLR-(*)-14N
PIN

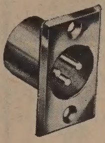
XLR-(*)-35
SOCKET

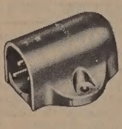

XLR-(*)-36
PIN

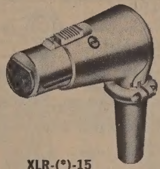

XLR-(*)-35-2G
SOCKET


XLR-(*)-36-2G
PIN

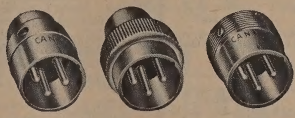

XLR-(*)-31
SOCKET


XLR-(*)-32
PIN


XLR-(*)-42
PIN


XLR-(*)-15
SOCKET

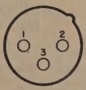
Adapter Receptacles



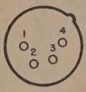
XLR(*)-50 (with plain shell)
XLRC(*)-50N (with coupling nut)
XLR(*)-50T (with threaded barrel)

INSERT ARRANGEMENTS

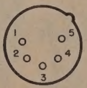
FACE VIEW OF PIN INSERTS



3
3-15 AMP
CONTACTS



4
4-10 AMP
CONTACTS



5
5-7½ AMP
CONTACTS

l insert arrangement to complete ordering number.

PLUG SERIES

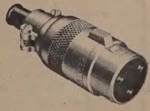
Cannon P is a versatile plug in terms of the wide range of insert ıngements offered. It is a proven plug, and has been the standard of lity in the audio field for many years. Socket contacts are full floating l precision-made from milled bar stock.

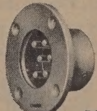
Shells are zinc (receptacles), steel or zinc (plugs), with satin chrome sh. Insulators are phenolic. Contacts are brass, silver plated. Coupling y the latch-lock method.

Other P Series plugs not shown.

P(*)-CG-12S Straight cord plug. (Pin)
P(*)-13 Flush panel receptacle. (Socket)
P(*)-CG-15 90° angle cord plug. (Socket)
P(*)-CG-16 90° angle cord plug. (Pin)
P(*)-17 Surface panel receptacle. (Socket)
P(*)-18 Surface panel receptacle. (Pin)
P(*)-23 Straight cord plug. (Socket)
P(*)-24 Straight cord plug. (Pin)
P(*)-35 Single gang wall receptacle. (Socket)
P(*)-36 Single gang wall receptacle. (Pin)
P(*)-35-2G Two gang wall receptacle. (Socket)
P(*)-36-2G Two gang wall receptacle. (Pin)
P(*)-41 Microphone mounting receptacle. (Socket)
P(*)-42 Microphone mounting receptacle. (Pin)

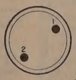
***Add insert arrangement to complete ordering number.**


P(*)-CG-11S
SOCKET

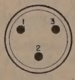

P(*)-14
PIN

INSERT ARRANGEMENTS

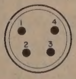
FACE VIEW OF PIN INSERTS



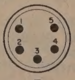
2
2-30 AMP
CONTACTS



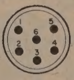
3
3-30 AMP
CONTACTS



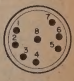
4
4-30 AMP
CONTACTS



5
5-30 AMP
CONTACTS



6
6-30 AMP
CONTACTS



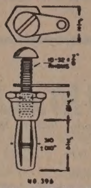
8
8-15 AMP
CONTACTS

ANNON ELECTRIC COMPANY• SEE YOUR CANNON AUTHORIZED DISTRIBUTOR

Birnbach GIANT, STANDARD, MIDGET BANANA JACKS and PHONE TIPS

VARIATIONS OF STANDARD PLUGS AVAILABLE TO ORDER. PLATED TO GOV'T. SPECS.

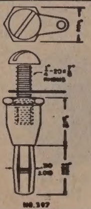
GIANT PLUG
No. 396



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Rated at 25 amps.

Cat. No.	Spring	Std. Pkg.
396	Phos. Brz.	25
396B	Beryl. Cop.	25

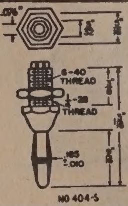
GIANT PLUG
No. 397



Body is hexed brass, nickel plated. Fits all giant banana jacks. Complete with nickel plated screw and soldering lug. Heavy duty, 25 amp. rating.

Cat. No.	Spring	Std. Pkg.
397	Phos. Brz.	25
397B	Beryl. Cop.	25

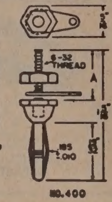
BANANA PLUG
No. 404S



Hexed brass nickel pl. Complete with hex brass n.pl. nut. Has solderless Scrulok connection. Fits all standard banana plugs. Spring is four-leaved phosphor bronze nickel plated. Rated at 5 amps.

Cat. No.	Std. Pkg.
404S Scrulok Banana Plug	100

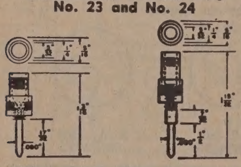
BANANA PLUG
No. 400



Hexed brass nickel plated. Fits all standard banana plugs. Complete with hex brass n.pl. nut and tinned copper lug. Spring is four-leaved nickel plated. Rated at 5 amps. Stand. pkg. 100

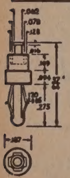
Cat. No.	Spring	Dim. "A"
400	Phos. Bronze	½"
400A	Phos. Bronze	⅜"
400B	Beryl. Copper	½"

SOLDERLESS PHONE TIPS
No. 23 and No. 24

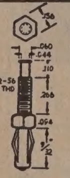


Brass, nickel plated. Wire fits thru body of tip, tightened around screw with nickel plated knurled nut. Fits all standard phone tip jacks.

Cat. No.		Std. Pkg.
23	Junior Solderless Phone Tip	100
24	Senior Solderless Phone Tip	100



590



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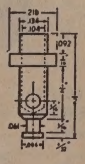

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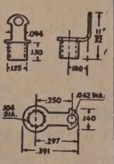


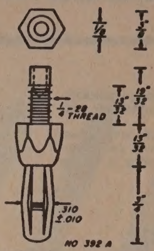
593

SUB MINIATURE BANANA PLUGS & JACKS

One piece beryllium copper springs insure positive and lasting contact. Silver plated overall.

Cat. No.	Description	Std. Pkg.
590	Rivet Type Plug	100
591	Screw Type Plug	100
592	Force Fit Jack	100
593	Rivet Type Jack	100

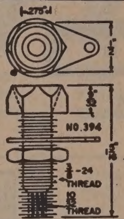
GIANT PLUG
No. 392A



Body is hexed brass nickel plated. Rated at 25 amps. Has large soldering well in threaded shank. Fits all Giant Banana Jacks.

Cat. No.	Spring	Std. Pkg.
392A	Phos. Brz.	25

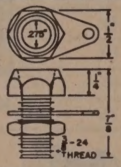
GIANT JACK
No. 394



Hexed brass nickel plated. Fits all Giant Banana Plugs. Mounts in ⅜" hole in panels up to ⅞" thick. Complete with n.pl. nut and tinned copper lug.

Cat. No.	Std. Pkg.
394 Giant Jack	25

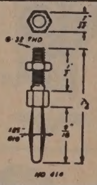
GIANT JACK
No. 395



Fits all giant banana plugs. Hexed brass head nickel plated overall. Mounts in ⅜" hole. Complete with nut and tinned copper lug.

Cat. No.	Std. Pkg.
395 Giant Jack	25

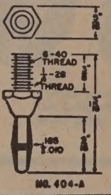
BANANA PLUG
No. 414



Hexed brass, nickel plated. One-piece construction. Four-leaved phosphor bronze spring. Complete with brass hexed nut n.pl. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
414	Phos. Brz.	100

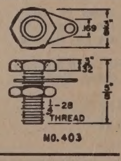
BANANA PLUG
No. 404A



Hexed brass and four-leaved phosphor bronze spring all nickel plated. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Std. Pkg.
404A Banana Plug	100

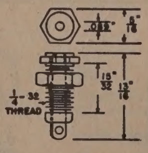
BANANA JACK
No. 403



Hexed brass n.pl., with brass n.pl. hex nut and tinned copper lug. Mounts in ¼" hole in panels up to ⅜" thick. Fits standard plugs.

Cat. No.	Std. Pkg.
403 Banana Jack	100

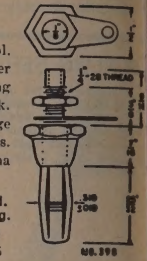
PHONE TIP JACK
No. 26



Brass nickel pl. body. Double phosphor bronze springs, hot tinned. Fits standard phone tip plugs. Mounts in ¼" hole in panels up to ⅜" thick. Complete with hex n.pl. brass nut.

Cat. No.		Std. Pkg.
26	Phone Tip Jack	100

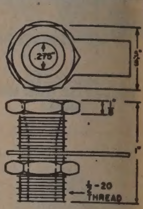
GIANT PLUG
No. 398



Body is hexed brass, n.pl. nut and tinned copper lug. Has large soldering well in threaded shank. Used in high amperage circuits rated at 25 amps. Fits all giant banana jacks.

Cat. No.	Spring	Std. Pkg.
398	Phos. Brz.	25
398B	Beryl. Cop.	25

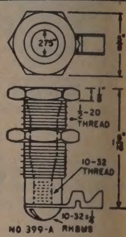
GIANT JACK
No. 399



Hexed brass nickel plated. Complete with hex brass n.pl. nut and tinned copper lug. Fits all giant banana plugs. Mounts in ½" hole in panels up to ¾" thick.

Cat. No.	Std. Pkg.
399 Gt. Jack	25

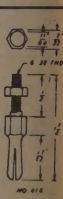
GIANT JACK
No. 399A



Hexed brass nickel plated. Mounts in ½" hole. Fits panels up to ¾" thick. Tapped at end with screw and lug connection. Complete with hex brass n.pl. nut, screw and hot tinned copper lug.

Cat. No.	Std. Pkg.
399A Gt. Jack	25

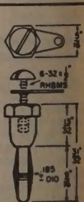
BANANA PLUG
No. 416



Hexed brass nickel plated. Cross slotted for positive contact. One-piece construction. Fits all standard banana jacks. Complete with hexed brass n.pl. nut.

Cat. No.	Std. Pkg.
416 Banana Plug	100

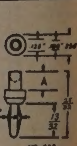
BANANA PLUG
No. 401



Hexed brass nickel plated. One-piece four-leaved spring. Complete with brass n.pl. screw and tinned copper lug. Rated at 5 amps. Fits all standard banana jacks.

Cat. No.	Spring	Std. Pkg.
401	Phos. Brz.	100
401B	Beryl. Cop.	100

MIDGET BANANA PLUG
RIVET TYPE—No. 426



Brass silver plated body. One-piece four-leaved phosphor bronze spring silver plated. Also made to Rigid Jan specs.

Cat. No.	"A"	St. Pkg.
426	7/32"	100
426A	5/32"	100

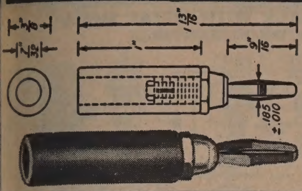
Midget Banana Plug
Rivet Type

Additional Midget Plugs & Jacks Available.
Also Sub-Miniature Plugs & Jacks.

See Pages 1620-1625 for Birnbach Prices for Above Items

© U.C.P., I

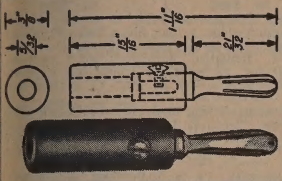
INSULATED BANANA — GIANT — PLUGS and JACKS



INSULATED BANANA PLUG

Hexed brass N. Pl. spring type. Fits standard banana jacks. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Std. Pkg.
404	Phos. Brz.	50
404-CB	Beryl. Cop.	50

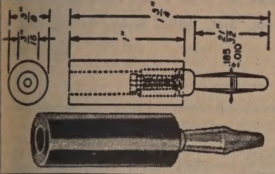


INSULATED BANANA PLUG

Split type plug brass n. pl. fits standard banana jacks. Set screw. Solderless connection. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

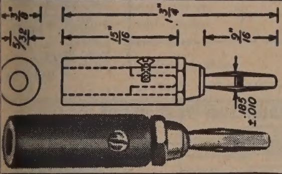
Cat. No.		Std. Pkg.
604	Banana Plug	50



INSULATED BANANA PLUG

Brass n.pl. plug. Fits standard banana jacks. Spring type. Scrulok solderless connection. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

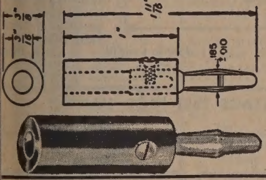
Cat. No.	Spring	Std. Pkg.
465	Phos. Brz.	50
465-B	Beryl. Cop.	50



SPRING BANANA PLUG

Hexed brass n.pl. plug. Set screw solderless connection. 404-BC Beryllium springs, highly resilient. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

Cat. No.	Spring	Std. Pkg.
404-B	Phos. Brz.	50
404-BC	Beryl. Cop.	50

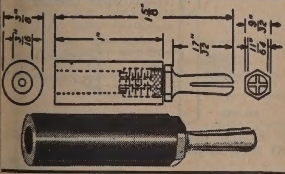


INSULATED BANANA PLUG

Plug brass n.pl. set screw solderless connection. Spring type. Fits standard banana jacks. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.	Hdl.	Spring	Std. Pkg.
466	1"	Ph. Brz.	50
466A	1½"	Ph. Brz.	50

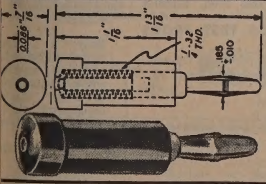


INSULATED BANANA PLUG

Split type, brass n.pl. Scrulok solderless connection. Fits standard jacks. Molded handle.

Colors: Red, Black, Yellow, Blue, Green, White.

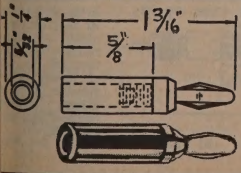
Cat. No.		Std. Pkg.
606	Banana Plug	50



TIP PLUG TO BANANA PLUG ADAPTER

Fits standard banana jacks. Adapter for phone tip to banana plug. Molded handle. **Colors:** Red, Black, Yellow, Blue, Green, White.

Cat.No.	Spring	Std. Pkg.
467	Phos. Brz.	50
467B	Beryl. Cop.	50

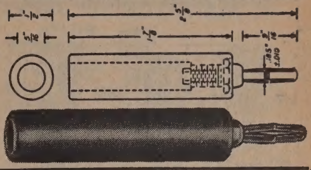


INSULATED MIDGET BANANA PLUG

Spring Type. Fits all standard Banana Jacks. Beryllium spring retains resiliency after thousands of insertions. Wire soldered directly into Plug.

Available in Red or Black only. Specify color. Std. pkg. 50.

No.	Spring	Material	Plating
455	Phosphor	Bronze	Nickel
455BC	Beryllium	Copper	Silver

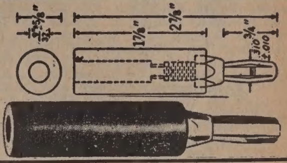


INSUL. BANANA PLUG

Plug brass n.pl. Scrulok solderless connection. Spring type. Fits standard jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring	Std. Pkg
341	Phos. Brz.	50
341B	Beryl. Cop.	50

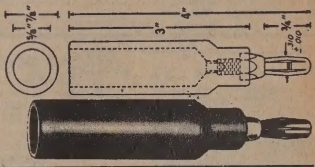


INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Plastic handle.

Colors: Red, Black.

Cat. No.	Spring	Std. Pkg.
392	Phos. Brz.	50
392B	Beryl. Cop.	50



INSUL. GIANT PLUG

Plug brass n.pl. Wire can be soldered to plug. Spring type. Fits giant banana jacks. Polished giant hard rubber handle.

Colors: Red, Black.

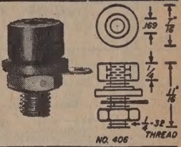
Cat. No.	Spring	Std. Pkg.
342	Phos. Brz.	50
342B	Beryl. Cop.	50

INSULATED BANANA JACK

Takes all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to 3/8" thick. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
406	Insulated Jack	50

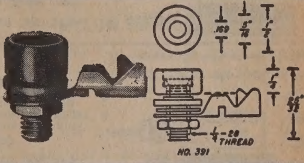


INSULATED BANANA JACK

Accommodates all standard banana plugs. Body is brass n.pl. Mounts in 5/16" hole in panels up to 3/8" thick. Complete with all hardware. Molded head.

Colors: Red, Black, Yellow, Blue, Green, White.

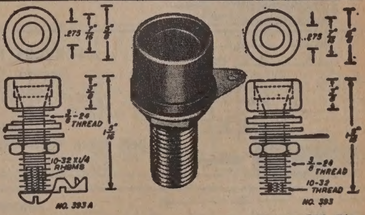
Cat. No.		Std. Pkg.
391	Insulated Jack	50



INSULATED GIANT JACK

Accommodates all giant plugs. Body is brass n.pl. Mounts in 3/8" hole in panels up to 5/8" thick. Molded plastic head.

Colors: Red, Black.



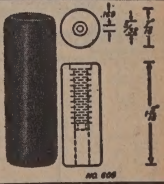
Cat. No.		Std. Pkg.
393	Insulated Giant Jack	50
393A	Insulated Giant Jack	50

INSULATED HANDLE JACK

Jack brass, n.pl. Fits all standard banana plugs. Plastic handle.

Colors: Red, Black, Yellow, Blue, Green.

Cat. No.		Std. Pkg.
605	Insulated Handle Jack	50

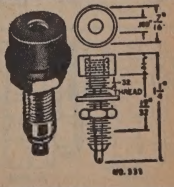


INSULATED COMBINATION JACK

Takes standard senior phone tip or banana plugs. Body is brass n.pl. Double Phosphor Bronze spring. Mounts in 5/16" hole in panels up to ½" thick. Molded head.

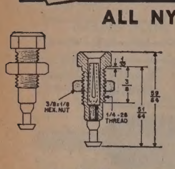
Colors: Red, Black, Yellow, Blue, Green, White.

Cat. No.		Std. Pkg.
333	Insulated Combination Jack	50

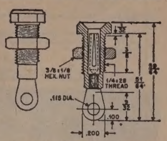


INSULATED PHONE TIPS, TIP JACKS TEST PRODS

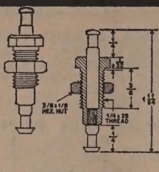
ALL NYLON TIP JACKS



No. 1180



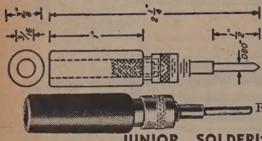
No. 1182



No. 1184

Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼″ hole in panels up to ¼″ thick. Meets following requirements:
1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volts peak at 5 amps. max. 3. Test Voltage—9000 volts DC peak. 4. Insulation Resistance—5000 megohms. 5. Operating Temperature—55 to +150 C. 6. Nominal Capacity—2.0 mmf. 7. Matrial Spcifications—A. Body: Nylon Grade FM 10001: A. Center Contact: Numbers 1180 and 1182 Heat Treated Beryllium Copper Silver plated per Spec 72-53. Number 1184 Brass, Tin Pl.; C. Hex Nut: Brass Nickel Pl. 8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1180	Wrap Around	25
1182	Spade Terminal	25
1184	Feed Through	25



SENIOR SOLDERLESS PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Wire fastens under knurled nut. Molded handle.

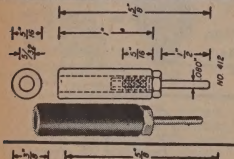
Colors:
Red, Black, Yellow, Blue, Green, White.

Cat. No. 409 Sr. . . Std. Pkg. 50

JUNIOR SOLDERLESS PHONE TIP

Same as above except 2″ overall length. Specify colors.

Cat No. 415 Jr. .... **Std. Pkg. 50**

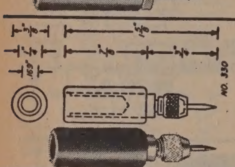


SCRULOK PHONE TIP

Brass nickel plated. Fits standard phone tip jacks. Scrulok solderless connection. Molded handle.

Colors:
Red, Black, Yellow, Blue, Green, White.

Cat. No. 412..........Std. Pkg. 50

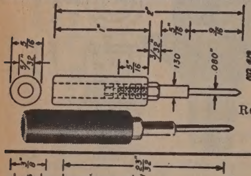


NEEDLE POINT PLUG

Brass nickel plated body. Needle point tip. Accommodates standard banana plug in molded plastic handle.

Colors: Red, Black.

Cat. No. 330..........Std. Pkg. 50

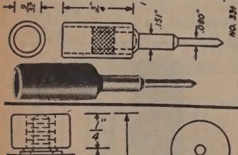


SCRULOK PHONE TIP

Fits standard phone tip jacks. Plug is brass, nickel plated. Has Scrulok solderless connection. Molded handle.

Colors:
Red, Black, Yellow, Blue, Green, White.

Cat. No. 419.......Std. Pkg. 50

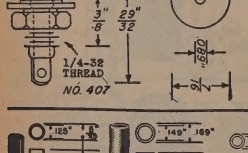


PHONE TIP

Plugs into standard phone tip jacks. Brass nickel plated plug. Accommodates standard banana plug in molded plastic handle.

Red, Black, Yellow, Blue, Green, White.

Cat. No. 331........Std. Pkg. 50



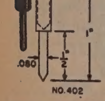
NO. 407

PHONE TIP JACK

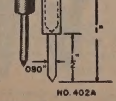
Fits all standard phone tips. Body is brass, n.pl. Double Phosphor Bronze springs. Mounts in 5/16″ hole in panels up to ⅜″ thick. Molded head.

Colors:
Red, Black, Yellow, Blue, Green, White.

Cat. No. 407..........Std. Pkg. 50



NO.402



NO. 402A

No. 402B

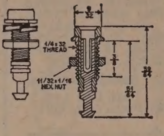
BRASS NICKEL PLATED TIPS

Fits all standard phone tip jacks.

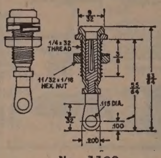
Cat. No.		Std. Pkg.
402	—Standard Phone Tip	100
402A	— Phone Tip Larger Diam	100
402B	— Heavy Duty Phone Tip	100

NYLON TIP JACK WITH METAL SHELL

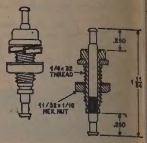
Made to Meet MS-16108 Spec.



No. 1190



No. 1192

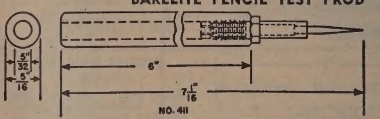


No. 1194

Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements: 1. Salt Spray Test—Withstands 100 hours. 2. Rated Voltage & Current—1000 volt peak @ 5 amps. maximum. 3. Test Voltage—2500 peak. 4. Insulation Resistance—5000 megohms. 5. Operating Conditions—A. Continuous; 23 hours on, 1 hour off; B. Elevation: Up to 15,000 feet; C. Temperature: —55 to +85 C; D. Humidity: Up to 95%.
6. Material Specifications—A. Insulator: Nylon, Grade FM 10001; B. Shell & Nut: Brass Nickel Plated Per Spec 72-53;,C. Lockwasher: Phosphor Bronze Nickel Plated Per Spec 72-53; D. Center Contact. Numbers 1190 and 1192 Heat Treated Bery. Copper Silver Plated per Spec 72-53. Number 1194 Brass, Tin Plated.
7. Non-Operating Conditions—A. Elevation: Up to 50,000 feet; B. Temperature: Continuous exposure for 72 hours @ +160 F and 240 hours @ —80 F; C. Humidity: Up to 100%.
8. **Colors—Red, Black, Orange, Green, Blue, White, Brown, Yellow, Grey & Purple. Specify Color.**

No.	Type	Std. Pkg.
1190	Wrap Around	25
1192	Spade Terminal	25
1194	Feed Through	25

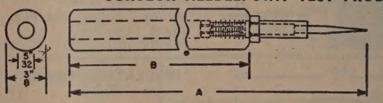
BAKELITE PENCIL TEST PROD



Body is brass nickel plated with steel n.pl. needle. Has Scrulok solderless connection. Bakelite handle. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
411	Bakelite Pencil Test Prod	12

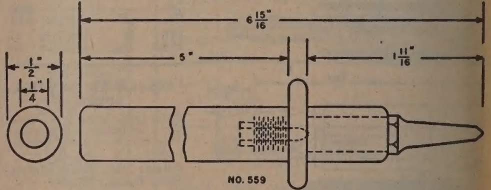
SCRULOK NEEDLEPOINT TEST PRODS



Phenolic insulated prod, has Scrulok solderless connection. Body is brass nickel plated with steel n.pl. needle. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
417	5-3/32″	4″	50
418	6-3/32″	5″	50

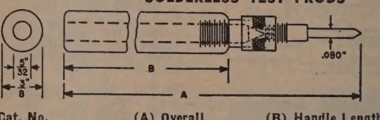
HEAVY DUTY HI-VOLTAGE TEST PROD HANDLE



Tip is heavy brass nickel plated. Bakelite finger guard. Accommodates IN-34 diode and condenser for use as RF Probe. **Colors,** Red, Black.

Cat. No.		Std. Pkg.
559	6″ H.V. Test Prod. Handles	20

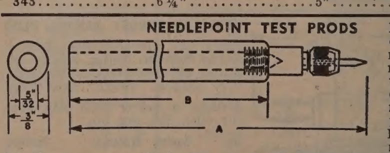
SOLDERLESS TEST PRODS



Body is brass nickel plated with solderless knurled nut connection. Heavy duty needlepoint, nickel plated. **Colors:** Red, Black.

Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
410	5⅛″	4″	50
343	6¼″	5″	50

NEEDLEPOINT TEST PRODS



Brass nickel plated body with steel nickel plated needle. Chuck threaded in end of handle is removable for replacing needles. Polished cast phenolic handle.

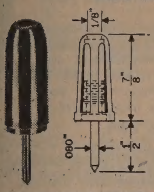
Cat. No.	(A) Overall	(B) Handle Length	Std. Pkg.
344	4-15/16″	4″	50
345	5-15/16″	5″	50

See Pages 1620-1625 for Birnbach Prices for Above Items

© U.C.P., In

Birnbach PHONE TIPS, TIP JACKS TEST PRODS

NEW NYLON INSULATED PLUG



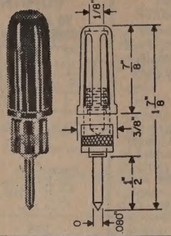
Molded of tough low-loss Nylon—provides high voltage insulation. Withstands extreme temperature changes without chipping or cracking. This series fits all standard Banana Jacks and standard Phone Tip Jacks.

Nylon Solderless Short Tip Plug. Molded nylon handle, recessed metal head provides flush contact without metal exposure in any standard tip jack brass nickel plated plug. Solderless wire fits thru handle.

Cat. No.	Std. Pkg.
1169	100

Specify color as indicated above.

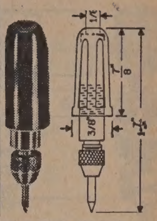
NYLON SOLDERLESS TIP PLUG



Molded Nylon handle, Brass N.Pl. Solderless plug. Wire fits thru body of tip and is wrapped around screw portion and then tightened. Fits all standard tip jacks.

Cat. No.	Std. Pkg.
1170	100

Specify color as indicated above.



PHONE NEEDLE TIP PLUG

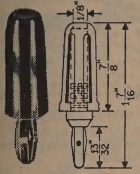
Molded Nylon Handle, Brass N.Pl. Plug. Has removable chuck for easy replacement of needles. Needle makes positive contact thru insulation or corrosion.

Cat. No.	Std. Pkg.
1171	100

Specify color as indicated above.

NYLON BANANA PLUG—MIDGET

Molded Nylon Handle Brass N.Pl. Wire can be soldered directly into stud. Fits all Standard Banana Jacks.

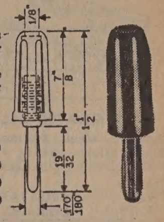


Cat. No.	Spring Material	Plating	Std. Pkg.
1172	Phospor Bronze	Nickel	100
1173	Phospor Bronze	Silver	100
1174	Berylium Copper	Nickel	100
1175	Berylium	Silver	100

Specify color as indicated in Color Code at right.

Color Code For NYLON HANDLE PLUGS Add to Catalog Numbers	
—01 White	—08 Brown
—02 Red	—09 Lt. Green
—03 Black	—10 Dk. Blue
—04 Dk. Green	—11 Ivory
—05 Lt. Blue	—12 Violet (Purple)
—06 Orange	
—07 Yellow	—13 Grey

NYLON BANANA PLUG



Molded Nylon handle, Brass N.Pl. plug. Springs Phosphor Bronze or Berylium Copper. Nickel or Silver plated. Wire can be soldered into plug or brass stud.

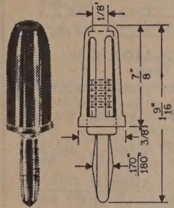
Cat. No.	Spring	Plating	Std. Pkg.
1160	Phos. Brz.	Nickel	100
1161	Phos. Brz.	Silver	100
1162	Beryl. Cop.	Nickel	100
1163	Beryl. Cop.	Silver	100

Specify color as indicated in color code above.

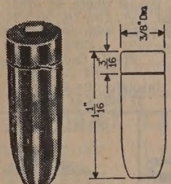
Same as above with Solderless Scrulock Connection.

1164	Phosphor Bronze	Nickel	100
1165	Phosphor Bronze	Silver	100
1166	Berylium Copper	Nickel	100
1167	Berylium Copper	Silver	100

Specify color as indicated above.



NYLON HANDLE JACK

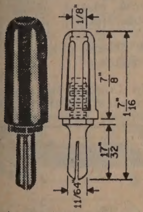


Made with our Nylon Tip Jack #1180 without mounting nut inside of threaded molded nylon insulated sleeve.

Cat. No.		Std. Pkg.
1179	Nylon Handle Jack	100

Specify color as indicated above.

NYLON BANANA PLUG

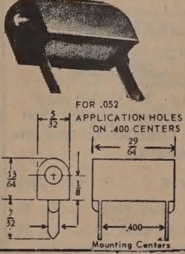


Molded Nylon handle, brass N.P. plug, split type with solderless scrulock connection.

Cat. No.	Std. Pkg.
1168	100

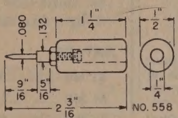
PRINTED CIRCUIT TEST JACKS

Designed for permanent, soldered assembly to printed circuit boards. Nylon bodies. Has gold over silver plated Berylium copper contacts which provide low resistance contact. Takes standard .080" diameter test probes. Colors: Red, Black, Green, Brown, Yellow, Blue, Purple, Grey, Orange, White.



Cat. No.		Std. Pkg.
1177	Printed Circuit Jack	25

HEAVY DUTY HIGH VOLTAGE TEST PROD HANDLES — No. 558

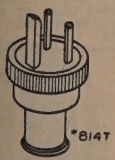


These bakelite prods are the same as used on the meter end of high voltage test leads Cat. No. 562. Tips are heavy brass with nickel plating.

Colors: Red, Black.

Cat. No.	Std. Pkge.
558—1¼" H.V. Test Prod Handles..	20

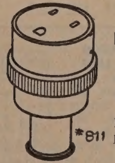
ADAPTER PLUGS



NEW TYPE 3 PRONG PLUG

NO.	LIST PRICE	STD. PKGE.
814T	.90	100

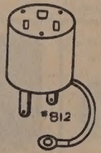
Two parallel blades plus ground pin for safe grounding of appliance.



FEMALE CONNECTOR

NO.	LIST EA.	STD. PKGE.
811	2.25	25

For new type 3 prong plug, Female mate to No. 814T.



ADAPTER FOR USING NEW TYPE 3 PRONG PLUG IN STANDARD OUTLET

NO.	LIST EA.	STD. PKGE.
812	.75	100

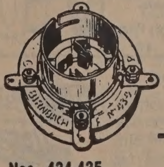
BIRNBACH TRANSMITTING SOCKETS

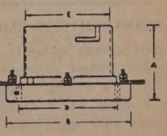
Medium 4 Pin Bayonet and Jumbo 4 Pin Bayonet

No. 434—"50 watt" socket for medium power bayonet based tubes such as 575A, 805, 810, 838, 845, 872A, 8000 and others with Retma Base No. A4-29. Has heavy phospher bronze cadmium plated double wiping filament contacts will handle heavy currents. Terminals designed for solder or screw connections. Two mounting holes. Has polished nickel plated brass shell; white glazed porcelain base.

No. 435—"10 watt" socket for economy, has heavy phospher bronze, cadmium plated side wiping contacts; white glazed porcelain base; heavy plated brass shell. Two mounting holes, for medium 4 pin bayonet based tubes such as 3B25, 3B28, 10Y, 801A, 808, 809, 811A, 812A, 834, 836, 860, 865, 866A, 1616, 8005 with Retma Base No. A4-10.

Cat. No.	Watt Socket	A	B	D	E	Mtg. Holes	Pin	Tube Base	Std. Pkg.
434	50	2-9/32"	3⅜"	2-13/16"	1.886"	2	4	Std. Jumbo	25
435	10	1⅞"	2½"	2-1/16"	1.386"	2	4	Med. Bay	25



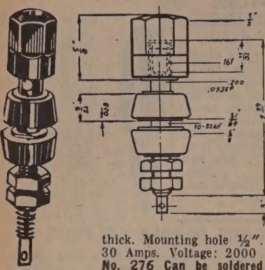


Nos. 434-435

See Pages 1620-1625 for Birnbach Prices for Above Items

BIRNBACH ALLIGATOR CLIPS — TEST CLIPS — SPADE LUGS — BINDING POSTS

BINDING POST



#276

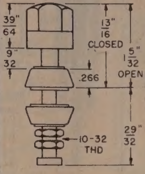
NEW! BIRNBACH "Multi-Use" Binding Posts Safe-Positive-Heavy Duty

Rugged, versatile "Multi-Use" binding post made of molded phenolic with molded-in brass inserts in head and washer for complete insulation from panel. For use on panels 1/16" to ¼" thick. Mounting hole ½". Current Capacity: 30 Amps. Voltage: 2000 V.A.C. RMS Test. **No. 276 Can be soldered directly to stud. Will permit six different methods of connection above panel and three below panel.**

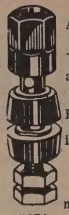
Cat. No.	Std. Pkg.
276 Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

BINDING POST

30 Amp.
2000 VDC



275



#274

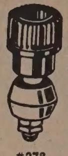
WRAP AROUND TYPE

No.	Std. Pkg.
275 Stand. Nickel Plated Red, Black, Yellow, Green, White, Blue, Brown, Grey	100

NOTES:

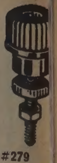
A Banana Plug Receptacle, .161 I. D.; B Head non-removable from Stud; C Molded in Brass Bushing in Head; D Molded in Brass Bushing in Washers; E For Panels 1/16" to ¼" thick; F Drill ½" hole for mounting washers; G Wire Hole is at right angle to Flat on insulated Washers; H Production Punch for keyed Slot for mounting Washers.

STANDARD DUTY 5-WAY BINDING POST



Molded-in brass bushings for complete insulation. Useful for standard duty work. Available in Red or Black. Specify color. Body is brass nickel plated.

6 AMPS

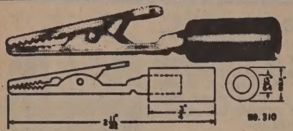


#278

#279

Cat. No.	Description	Std. Pk
278	Red or Black	100
279*	Red or Black	100

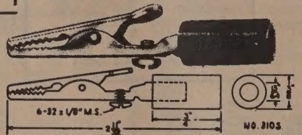
*Same as above, but normally grounded. (Witho bottom insulating section.)



INSULATED ALLIGATOR CLIP

Made of steel, cadmium plated. Insulated handle allows use of all banana plugs. Has small soldering lip. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
310	Insulated Alligator Clip	50
310B	1½" Insulated Alligator Clip	50

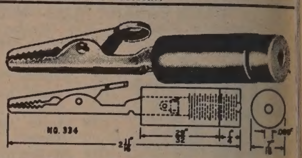


INSULATED ALLIGATOR CLIP (Screw Type)

Made of steel, cadmium plated. Accurately matching jaws for tight grip. Has screw for solderless connection. Banana plug fits into rear of clip. Insulated handle.

Cat. No. **Colors:** Red, Black.

Cat. No.		Std. Pkg.
310S	Insulated Alligator Clip	50
310C	Insulated Copper Alligator Clip	50



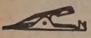
ALLIGATOR CLIP WITH PHONE TIP JAC

Handle has our No. 31 clip and our No. 4 tip jack in rear for all standard phone ti plugs. **Colors.** Red, Black.

Cat. No.	Std. Pk
334—Alligator Clip with Phone Tip Jack	5
336—Same as above except with our #31C screw type Copper Alligator Clip	5

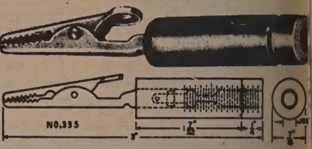
MICRO-GATOR CLIPS

The Alligator Clip With the Microscopic Tip. Use it where no other clip can go—for tight spots, printed circuits, etc. Length 1³⁄₃₂". Jaw spread, ⁷⁄₃₂". Tiny tip, ¹⁄₃₂" across. New extra strong "keyed in" type hinge. Solder connection with clinching ears to relieve strain on wire.



Specify color:
Red, black, blue, yellow, white, green

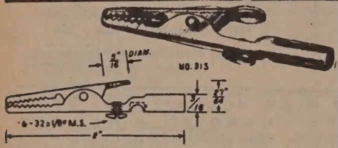
CAT. NO.	TYPE	STD. PKGE.
31 MG/S	Steel, Cad. Plated	50
31 MG/C	Solid Copper	50
31 FB	Insulator Boots to Fit 31 MG/S or 31 MG/C	50



ALLIGATOR CLIP COMBINATION JACK

Insulated alligator clip is composed of ou #31, steel, cadmium plated Alligator Cli with our #333 Combination Jack in rea allowing the adaption of both standard senio phone tip plugs and banana plugs to Alligato Clips. **Colors.** d, Black.

Cat. No.	Std. Pkg
335—Alligator Clip Combination Jack	50
337—Same as above except with our #31C screw type Copper Alligator Clip	50

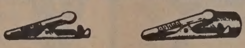


ALLIGATOR CLIP (Screw Type)

Made of cadmium plated steel. The jaws match accurately, permitting them to grip all kinds of wire securely. Has screw for solderless wire connection. Banana plug fits into rear of clip.

Cat. No.	Std. Pkg.
31—Alligator Clip (no screw)	50
31S—Alligator Clip with screw	50
31C—Alligator Clip (Copper) w/scr.	50

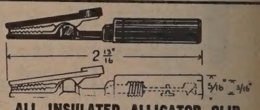
MINIATURE ALLIGATOR CLIPS



Very small and compact ● Useful where space is important. Accurately matching jaws for finger-tight grip. Length 1-3/32" Jaws open **to ³⁄₁₆". Has lip for soldering.**

CAT. NO.	TYPE	STD. PKG.
31 MS	STEEL (Cad Plate)	50
31 MC	Solid Copper	50

31 MB INSULATOR BOOT to fit **31 MS** or **31 MC.** Specify Black, Red, Blue, Yellow, White, Green.



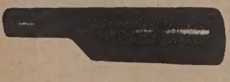
ALL INSULATED ALLIGATOR CLIP

Steel Cadmium plated alligator clip. All metal parts covered with vinyl plastic insuring against shock. Solder Type connection. Red or Black. Specify color.
Cat. No. 123 Std. pkg. 50

PHONE TIP TO CLIP ADAPTER

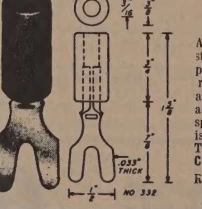
Same as above with spring in rear of handle enabling the adapting of standard phone tip plugs to alligator clips. Red or Black. Specify color.
Cat. No. 124 Std. pkg. 50

ALLIGATOR CLIP VINYL INSULATOR BOOT



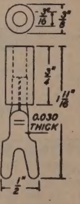
Extremely flexible. Made to fit Nos. 31, 31S, 31C. **Colors:** White, Red, Black, Yellow, Blue **Green.**

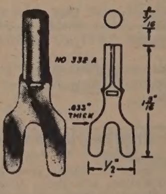
Cat. No.	Std. Pkg.
31R—Vinyl Insulator	50



INSULATED SPADE LUG

Accommodates all standard banana plugs into the rear of lug enabling same to be adapted to a splade lug. Lug is Steel Hot Tinned.
Colors:
Red or Black
Cat. No. 332
Std. Pkg. 50





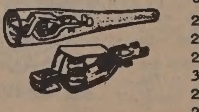
SPADE LUG

Barrel accommodates all standard banana type plugs. Lug is Steel Hot Tinned.

Cat. No.	Std. Pkg.
332A Spade Lug	50

BIRNBACH TEST CLIPS

The teeth mesh correctly permitting good contact to be made. The No. 27-C is a solid copper clip with a brass screw designed for high frequency work.



Cat. No.	Length	Jaw Spread	Capacity	Std. Pkg.
27—Pee Wee	1½"	⅜"	5 Amp.	50
28—Midget	2"	⁹⁄₁₆"	10 Amp.	50
29—Medium	2⅞"	1"	25 Amp.	50
30—Large	4"	1¼"	50 Amp.	50
27C—Pee Wee Copper	1½"	⅜"	10 Amp.	50
27R—Rubber Sleeve—Red or Black				50

See Pages 1620-1625 for Birnbach Prices for Above Items

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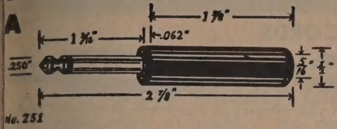
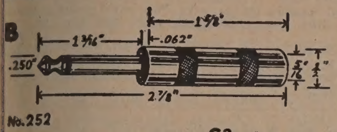
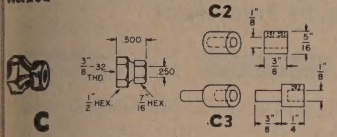
Birnbach

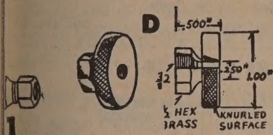
STANDARD AND MINIATURE TELEPHONE TYPE JACKS • PLUGS • SHAFT LOCKS • TEST LEADS

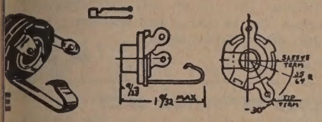
BIRNBACH

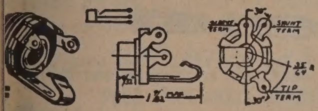


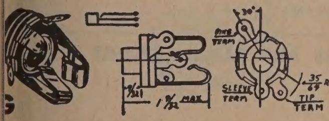


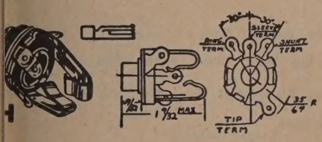


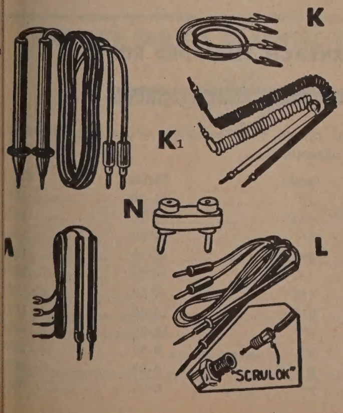












TELEPHONE TYPE PLUGS

This standard two conductor plug fits all standard jacks. All metal parts brass with nickel plating except for contact screw. Barrel is molded bakelite. Red or Black.

A — BAKELITE DOUBLE PHONE PLUG

Cat. No. 251..Std. Pkg. 25

B — SHIELDED PHONE PLUG

Cat. No. 252..Std. Pkg. 25

SHAFT LOCKS

C — WRENCH TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 7/16" hex brass.

Cat. No. Std. Pkg.
546 — For ¼" Shaft 25

D — THUMB TYPE

Brass, nickel plated. ½" length overall. Rear: ½" hex brass with ⅜-32 thread. Front: 1" diam. knurled nut.

Cat. No. Std. Pkg.
547 — For ¼" Shaft 25

MINIATURE SHAFT ACCESSORIES

Brass Nickel plated for ⅛" shafts.

C1 — MINIATURE LOCK—WRENCH TYPE

Cat. No. 546A Std. Pkg. 25

C2 — MINIATURE BRASS COUPLER

with allen head set screws
Cat. No. 531A Std. Pkg. 25

C3 — MINIATURE SHAFT EXTENDER

with allen head set screws
Cat No. 538A Std. Pkg. 25

TELEPHONE TYPE JACKS

The body is brass nickel plated. Small, rugged and they are designed for long life, with low contact resistance snap springs made specially from nickel silver alloy which is corrosion resistant. Mounts in ⅜" hole.

E — Cat. No. 257 — Open Circuit Two Conductor ....Std. Pkg. 25
F — Cat. No. 258 — Single Closed Circuit Two Conductor ......Std. Pkg. 25
G — Cat. No. 259 — Open Circuit Three Conductor ....Std. Pkg. 25
H — Cat. No. 260 — Single Closed Circuit Three Conductor....Std. Pkg. 25

TEST LEADS

J — BIRNBACH HEAVY DUTY HIGH VOLTAGE TEST LEADS

Overall length 60". Tips are heavy solid brass nickel plated. Rugged, dependable heavy duty bakelite prods. Color coded Red and Black. Uses our Hi Volt kinkless test lead wire.

Cat. No. Std. Pkg.
562 — Heavy Duty High Voltage Test Leads 10

L — DELUXE AND BAKELITE PENCIL TYPE TEST LEADS

No. 408 Bakelite pencil test leads, color coded, Red, Black, all with kinkless test lead wire. Overall length 60". #560 and #561 polished cast phenolic resin handles, solderless type tips. 50" long. Color coded Red, Black.

Cat. No. Std. Pkg.
408 — Bakelite Pencil Type Test Leads, 6" handles 10
560 — DeLuxe Solderless Prod Test Leads, 5" handles 25
561 — DeLuxe Needlepoint Prod Test Leads, 5" handles 25

N — CRYSTAL SOCKET

Glazed ceramic base. Phosphor bronze silver plated contacts spaced .486". Pin diameter .051, mtg. hole .125. Std. Pkg. 25.

Cat No. 595 Crystal Socket

K — ALLIGATOR CLIP TEST LEADS

Black and Red kinkless test lead wire with Alligator Clips at each end.

Cat. No.	Wire Length	Std. Pkg.
675	12"	25
676	24"	25
677	36"	25
678	48"	25

SPECIAL ASSEMBLIES AVAILABLE TO ORDER

K₁ — STRETCH LEADS

Kink-Proof Retracted 9" Coil

No tangling or knotting of wires. Lead coil only 9", extends to 6 feet.

Cat. No. 564 Solderless phone tip, retractile wire, solderless prod. Std. Pkg. 10.

L — PUSH BUTTON KINKLESS TEST LEADS

556 Solderless phone tip one end, push button tip other end. Std. Pkg. 12
557 Solderless phone tip one end, push button banana plug other end. Std. Pkg. 12

M — BIRNBACH NEEDLEPOINT TEST LEADS

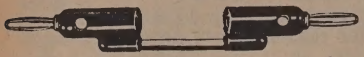
Have Red and Black 4" fibre handles. Use kinkless lead wire. Overall length 50". Good, dependable low priced leads.

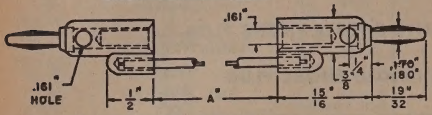
Cat. No. Std. Pkg.
420 — Needlepoint Phone Tip Test Leads 25
421 — Needlepoint Spade Lug Test Leads 25
422 — Solderlss Phone Tip Test Leads 25
423 — Solderless Spade Lug Test Leads 25

Birnbach

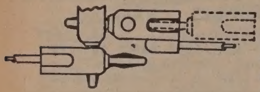
PATCH CORDS
PHONO JACK & PLUGS - PHONO SPLICE/TIP

MOLDED "STACKING TYPE" PATCH CORDS

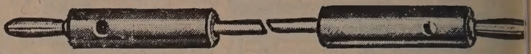




1. Never ending banana plug receptacle.
2. Interconnects unlimited amount of multiple circuits.
3. Positive and lasting contact for all standard banana plugs.
4. Four leaved heat treated beryllium copper spring.
    - a. 360 degrees spring contact
    - b. maintains resiliency after thousands of insertions.
5. Supplied in Red, Black, Yellow or Green. (Specify Color) (Special colors on request)
6. Handle molded to body and to wire.
7. 10,000 volt rubber covered flexible wire.
    - a. 65 strands #36 insulated to an O.D. of .140.



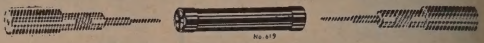
Cat. No.	("A") Wire	Std. Pkg.
655-8	8 inches	12
655-12	12 inches	12
655-24	24 inches	12
655-36	36 inches	12



Provides a never-ending banana plug receptacle to interconnect an unlimited amoun of multiple circuits. The cross hole is designed for positive contact of al standard banana plugs. Fits all standard banana jacks. Four-leaved phosphor bronz nickel plated spring. Red or Black assemblies. Specify color. Std. pkg. 10.

		Pkg
Cat. No. 653-8	8″ Wire Length	12
Cat. No. 653-12	12″ Wire Length	12
Cat. No. 653-24	24″ Wire Length	12
Cat. No. 653-36	36″ Wire Length	12

PHONE TIP PLUG SPLICE

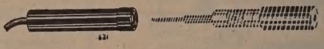


Takes all standard phone tip plugs excellent for quick connections or test, lead extensions.

Colors: Red, Black, Yellow, Green.

Cat. No. 619 — Insulated Banana Plug Splice . . . . **Std. pkg. 25**

IN-LINE PHONE TIP JACK

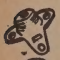


Takes all standard phone tip plugs. Can be used as lead extension.

Colors: Red, Black, Yellow, Green.

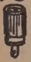
Cat. No. 621 — Insulated-In-Line Tip Jack . . . . **Std. pkg. 25**

PHONO-JACKS



Small, compact . . . where space is at a premium.

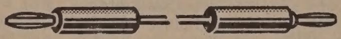
Cat. No.	Std. Pkg.
597	50



Space Saver . . . Rivets and grounds to chassis.

Cat. No.	Std. Pkg.
598	50

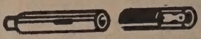
BIRNBACH PATCH CORDS



Birnbach No. 465 Banana Plugs connected to our kinkless test lead wire. Used to interconnect circuits. Fits all standard banana jacks. Specify red or black.

Cat. No.	Wire Length	Std. Pkg.
607	12″	25
608	24″	25
609	36″	25
610	48″	25

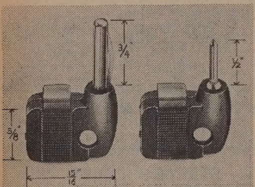
SHIELDED EXTENSION JACK



Cadmium plated brass shell with black bakelite insert. Length is 2-7/16 Insulates for solder grip contact. Mates with No. 248 Phono Plug.

Cat. No.	Std. Pk
246—Inline Extension Jack	100

PUSH BUTTON PHONE TIP PLUGS AND BANANA PLUGS



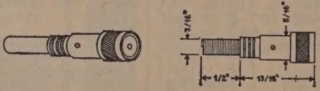
122 # 121

Description: Wire is fastened easily, speedily, and securely without soldering. Simply by pressing the push buttons the bare wire can be inserted into the opening of the plug.

Cat. No.		St Pk
121	Push Button Phone Tip Plug, Red and Black	10
122	Push Button Banana Plug, Red, Black, Yellow, Green, White	10

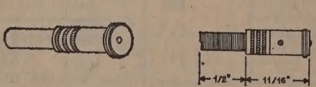
No. 121 Phone Tip Plug will fit all Standard Phone Tip Jacks. No. 122 Banan Plug will fit all Standard Banana Jacks.

MINIATURE MICROPHONE CONNECTOR



Single contact female.

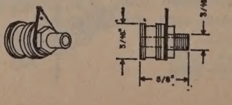
No. 134 Miniature Female Conn. Std. pkg. 50



Single Contact Male

No. 135 Miniature Male Conn. 50

MINIATURE CHASSIS CONNECTOR

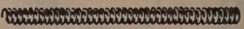


Single Contact Male

Complete with insulating washer and lug. Mounts in ¼″ hole. Mates with **No. 134.**

No. 136 Miniature Chassis Conn. Std. pkg. 50

BIRNBACH THREADED RODS



These brass nickel plated threaded rods are standard parts o of our insulator assemblies.

Cat. No.	Length	Thread	Std. Pkg
16	4″	¼-20	1000
17	5½″	¼-20	1000
18	10″	¼-20	1000
113	15″	¼-20	1000
114	1⅜″	10-32	1000
115	1⅝″	10-32	1000
116	2¼″	10-32	1000
117	8″	10-32	1000
118	8″	8-32	1000
119	8″	6-32	1000
15	2″	6-32	1000

See Pages 1620-1625 for Birnbach Prices for Above Items

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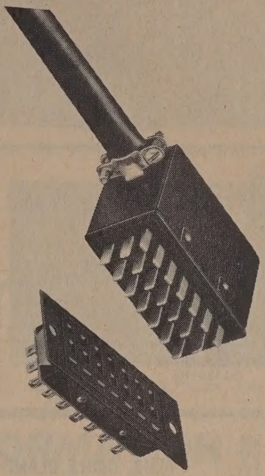
NEW Quality BIRNBACH *"BEAUPLUGS"* PLUGS and SOCKETS



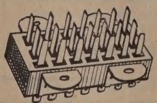
ur 1300 Series, now available in 15, 18, 21, 24, 27, 30 and 33 contact
nfigurations have cadmium plated brass knife contacts; socket has
uble spring design phosphor bronze contacts; male contact is $\frac{3}{64}$"
ick by $\frac{5}{32}$" wide brass. Bodies compression molded bakelite; back
ates, XXXP laminated phenolic to NEMA standards; and are adhered
the body by epoxy resin which eliminates vertical drive pins (they are
mensionally interchangeable with the C-J 300 Series.) For greater
onomy, protection and utility the new molded high density polyethylene
ckshell is outstanding; this "Beauplug" series is attractive in appear-
ce; highly impact resistant; non rusting, highly resistant to most acids
d alkalis and is of one-piece molded construction thereby eliminating
e use of additional insulating materials since it has excellent dielectric
operties.

nnectors are rated at 750 V RMS and 10 amperes contact resistance
.003 ohms maximum. (Note — the third and fourth digit in the Part
mber indicates the number of contacts.)

Plugs are polarized to assist in correct insertion and removal. Plug
mbering is opposite. Heavy duty locating or ground pin replaces
ntacts in position 14 on 1324, 1327, 1330; it is in position 17 on 1333.
e ground pin and its socket are machined brass, heavily plated, with
0 Amps current capacity.

NOW AVAILABLE — 2, 3, 4, 6, 8, 10, 12 Contact Plugs and Sockets — Write for Latest Catalog

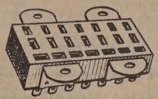
PLUG WITH ANGLE BRACKETS



Cat. No.	Contacts
P-1315-AB	15
P-1318-AB	18
P-1321-AB	21
P-1324-AB	24
P-1327-AB	27
P-1330-AB	30
P-1333-AB	33

Standard pkge. 5

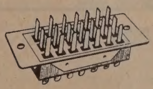
SOCKET WITH ANGLE BRACKETS



Cat. No.	Contacts
S-1315-AB	15
S-1318-AB	18
S-1321-AB	21
S-1324-AB	24
S-1327-AB	27
S-1330-AB	30
S-1333-AB	33

Standard pkge. 5

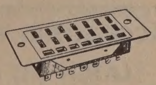
PLUG WITH SHALLOW OR SURFACE BRACKETS



Cat. No.	Contacts
P-1315-SB	15
P-1318-SB	18
P-1321-SB	21
P-1324-SB	24
P-1327-SB	27
P-1330-SB	30
P-1333-SB	33

Standard pkge. 5

SOCKETS WITH SHALLOW OR SURFACE BRACKETS

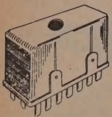


Cat. No.	Contacts
S-1315-SB	15
S-1318-SB	18
S-1321-SB	21
S-1324-SB	24
S-1327-SB	27
S-1330-SB	30
S-1333-SB	33

Standard pkge. 5

See Pages 1620-1625 for Birnbach Prices for Above Items

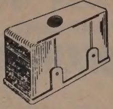
Birnbach "BEAUPLUG" 1300 SERIES • ACCESSORIES



PLUG WITH FLARED HOLE IN TOP OF CAP

Cat. No.	Contacts
P-1315-FHT	15
P-1318-FHT	18
P-1321-FHT	21
P-1324-FHT	24
P-1327-FHT	27
P-1330-FHT	30
P-1333-FHT	33

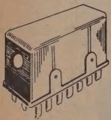
Standard pkge. 5



SOCKET, FLARED HOLE IN TOP OF CAP

Cat. No.	Contacts
S-1315-FHT	15
S-1318-FHT	18
S-1321-FHT	21
S-1324-FHT	24
S-1327-FHT	27
S-1330-FHT	30
S-1333-FHT	33

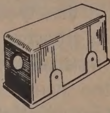
Standard pkge. 5



PLUG WITH FLARED HOLE IN END OF CAP

Cat. No.	Contacts
P-1315-FHE	15
P-1318-FHE	18
P-1321-FHE	21
P-1324-FHE	24
P-1327-FHE	27
P-1330-FHE	30
P-1333-FHE	33

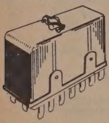
Standard pkge. 5



SOCKET, FLARED HOLE IN END OF CAP

Cat. No.	Contacts
S-1315-FHE	15
S-1318-FHE	18
S-1321-FHE	21
S-1324-FHE	24
S-1327-FHE	27
S-1330-FHE	30
S-1333-FHE	33

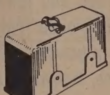
Standard pkge. 5



PLUG, CABLE CLAMP IN TOP OF CAP

Cat. No.	Contacts
P-1315-CCT	15
P-1318-CCT	18
P-1321-CCT	21
P-1324-CCT	24
P-1327-CCT	27
P-1330-CCT	30
P-1333-CCT	33

Standard pkge. 5

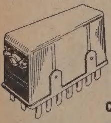


SOCKET, CABLE CLAMP IN TOP OF CAP

S-1315-CCT

Cat. No.	Contacts
S-1315-CCT	15
S-1318-CCT	18
S-1321-CCT	21
S-1324-CCT	24
S-1327-CCT	27
S-1330-CCT	30
S-1333-CCT	33

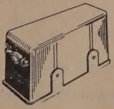
Standard pkge. 5



PLUG, CABLE CLAMP IN END OF CAP

Cat. No.	Contacts
P-1315-CCE	15
P-1318-CCE	18
P-1321-CCE	21
P-1324-CCE	24
P-1327-CCE	27
P-1330-CCE	30
P-1333-CCE	33

Standard pkge. 5

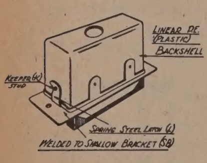


SOCKET, CABLE CLAMP IN END OF CAP

Cat. No.	Contacts
S-1315-CCE	15
S-1318-CCE	18
S-1321-CCE	21
S-1324-CCE	24
S-1327-CCE	27
S-1330-CCE	30
S-1333-CCE	33

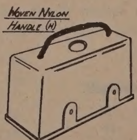
Standard pkge. 5

ACCESSORIES FOR THE BIRNBACH "BEAUPLUG" 1300 SERIES



LATCH (-L) and KEEPER (-K)

LATCHES (-L) are installed on Shallow Brackets where a constant engagement of Plug and Socket must be insured, such as in Mobile Radio equipment. Usual installations call for a latch on each end of the Shallow Bracket as shown. Example: this is an S-1321-SB-L (21 contact Socket, Surface Bracket & Latch) KEEPERS (-K) are the studs on the Backshells which engage latches. Mating part here is S-1321-FHT-K



HANDLE

HANDLE (H) is generally used with the large plugs or sockets using backshells. It is simple device, made of woven Nylon cord, an can be almost entirely retracted inside th backshell. No metal parts are used, prevent ing any chance of shorts. Example: adding th handle to the Socket above, would b S-1321-FHT-H

HANDLES FOR BACKSHELL, designated -H (Example: P-1324-CCT-H) -H Handle only
LATCHES FOR SURFACE BRACKET, -L (Example: S-1315-SB-L) -L Latches only
KEEPER STUDS FOR BACKSHELL, (Mates with Latches on Surface Brackets) Designated -K (Example: P-1315-CCT-K) -K Keeper Studs

See Pages 1620-1625 for Birnbach Prices for Above Items

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Birnbach "BEAUCAP" SERIES OCTAL PLUGS BIRNBACH

NEW OUTSTANDING BIRNBACH "BEAUCAP" SERIES OCTAL PLUG—

ded of Rugged Linear Polyethylene, this Single Piece C-1001 Series "BEAUCAP" replaces the al metal cap with rubber grommet and fishpaper insulation.

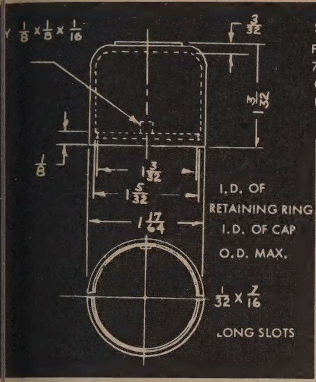
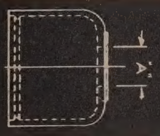

Y 1/8 x 1/8 x 1/16
3/32
3/8
1/8
1 3/32
1 5/32
1 17/64
I.D. OF RETAINING RING
I.D. OF CAP
O.D. MAX.
1/32 x 7/16
LONG SLOTS

FIG. NO. 2
SAME AS FIGURE NO. 1 EXCEPT FOR HOLE IN END. 5/16 AND 7/16 HOLES ARE STANDARD. OTHER SIZES AVAILABLE UPON REQUEST.



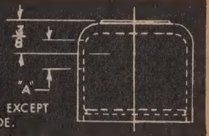

FOR HOLE SIZE SEE CHART
3/8
"A"

FIG. NO. 3
SAME AS FIG. NO. 1 EXCEPT FOR HOLE IN SIDE.

Has excellent impact and dielectric strength, time saving — eliminates shorts — saves money superior to anything else available.

Cat. No.	Figure No.	Std. Pkge.
C-1001-1	1 No Cable Opening	50
C-1001-2	2 Specify Hole, Top	50
C-1001-3	3 Specify Hole, Side	50
C-1001-4	4 Cable Clamp 7/16" Hole Only	50

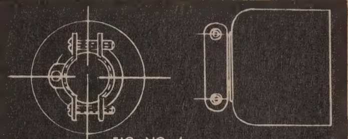
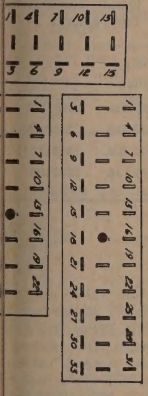


FIG. NO. 4
SAME AS FIG. NO. 1 EXCEPT FOR 7/16 DIA. HOLE AND CABLE CLAMP ON END.

Colors: B—Black, R—Red, G—Green, Bl—Blue specify hole size by adding suffix — 5 5/16" diam. hole, — 7 7/16" diam. hole.

"BEAUPLUG" DESIGN INFORMATION

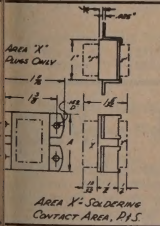

1
4
7
10
13
3
6
9
12
15
18
21
24
27
30
33
16
19
22
25
28
31

Backplate Numbering and Contact Information

The drawing illustrates the polarizing arrangement of **Sockets:** Plug numbering is opposite. Unless otherwise specified, a heavy duty locating or ground pin replaces the contacts in Position 14 on the 1324, 1327, 1330. However, it is in Position 17 on 1333. The ground pin and its socket are machined brass, heavily plated, and have a current capacity of 20 amps.

Other contacts have a Rated Voltage of 730 RMS and a current capacity of 10 Amperes. Contact resistance is .003 Ohms maximum. All contacts, which normally are .0002" cadmium plated, may be silver plated at slight extra cost.

Backplates, on which the numbers appear, are XXXP laminated phenolic NEMA Standard, and are adhered to the body by Epoxy resin, which eliminates vertical drive pins. Alignment of contacts is maintained by an ingenious locating system.

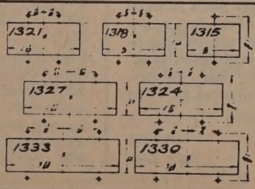

.125"
AREA "X" PLUGS ONLY
1"
1 5/8
1 3/8
A
X
AREA X: SOLDERING CONTACT AREA, P & S.

"AB" (Angle Bracket) Type Plugs and Sockets, 15 to 33 Contact

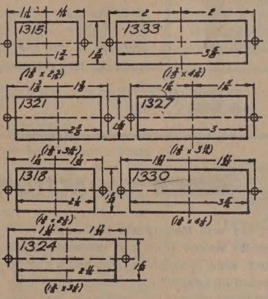
Part No.	A	L
P/S-1315-AB	1⅝"	....
P/S-1318-AB	1 15/16"	1¼"
P/S-1321-AB	2¼"	15/16"
P/S-1324-AB	2 9/16"	1¼"
P/S-1327-AB	2⅞"	1 9/16"
P/S-1330-AB	3 3/16"	1⅞"
P/S-1333-AB	3½"	2 3/16"

Mounting Dimensions 1315 to 1333-AB (Angle Bracket)

cutout dimensions clearance for Plug or t block. All Angle et holes .152" diameter for 6-32 screws.


1321
1318
1315
1327
1324
1333
1330

1315 to 1333 Backshell (or Cap) Dimensions and Details

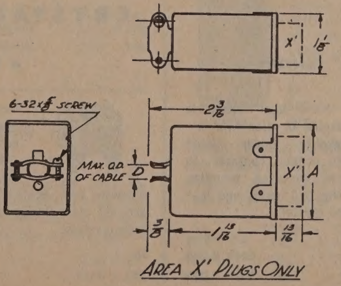

1315
1333
1321
1327
1318
1330
1324

Made of High Density Polyethylene, the new "BEAUPLUG" Backshell is highly impact resistant, non-rusting, highly resistant to most acids and alkalis, and is of one-piece molded construction. Has excellent dielectric properties. The basic dimensions remain constant, and configurations are as follows:

- -FHE (Flared Hole, End)
- -FHT (Flared Hole, Top)
- -CCE (Cable Clamp, End)
- -CCT (Cable Clamp, Top)

Note: We strongly recommend using the Braided Nylon Handle, (-H), when using 1324 to 1333 Plug and Socket combinations, because of the tight fit of the ground pins and their sockets, requiring greater force for disengagement.

1315 to 1333-SB and -SB-L Mounting Dimensions

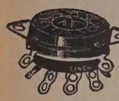

X'
1/8
6-32 x 3/8 SCREW
2 3/16
MAX. O.D. OF CABLE
D
X'
A
3/8
1 13/16
13/16
AREA X' PLUGS ONLY

Use Panel Cutout dimensions in the drawing below for both the **Shallow Bracket** (-SB) and the **Shallow Bracket** with **Latch** (-SB-L), for either Plug or Socket mounting. All mounting holes are .187" diameter, and are located at the end of the opening rather than the sides (as with the Angle Bracket -AB Series.) Note: Outside dimensions of the Shallow Brackets are shown in parenthesis below each drawing.

CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPA

CINCH OCTAL SOCKETS

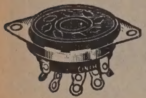
MOLDED OCTAL
$1\frac{5}{16}$" MOUNTING CENTERS


8AB

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Solder coated brass contacts and sturdy steel press-on type saddle with 4 ground lugs. Mounts in 1" chassis hole.

No.	Description	List Price
8AB	**Black**	**Each $.165**
8AM	**Mica-Filled**	**Each .21**

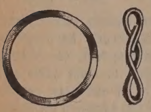
MOLDED OCTAL
1½" MOUNTING CENTERS


8EB

Same as 8A series molded octal above except has clinch-on type saddle with 4 ground lugs and mounts in 1⅛" chassis hole. Available in black, mica-filled bakelite, or ceramic.

No.	Description	List Price
8EB	**Black**	**Each $ .17**
8EM	**Mica-Filled**	**Each .215**
8EC	**Ceramic**	**Each .75**

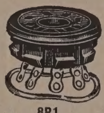
RETAINER RING



A crimped retaining ring formed of spring steel that will securely anchor sockets designed for ring mounting. Standard finish is cadmium.

No.	Description	List Price
8RO	**.020 Spring Steel**	**Each $.058**

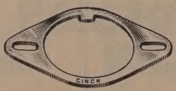
RING MOUNT OCTAL


8R1

Molded from high dielectric black bakelite. Solder coated brass contacts. Used extensively on test equipment, public address amplifiers and on other apparatus where sockets are exposed. Molded keyway in side engages key in chassis hole, preventing socket from turning. Mounts in $1\frac{11}{64}$" chassis hole. Crimped retainer ring is furnished with these sockets.

No.	Description		List Price Each
8R1	**For $\frac{1}{16}$" Chassis**	**Black**	**$ .31**
8R2	**For ⅛" Chassis**	**Black**	**.31**
8R3	**For $\frac{1}{16}$" Chassis**	**Mica-Filled**	**.368**
8R4	**For $\frac{3}{32}$" Chassis**	**Black**	**.31**
8R5	**For $\frac{3}{32}$" Chassis**	**Mica-Filled**	**.368**
8R6	**For ⅛" Chassis**	**Mica-Filled**	**.368**

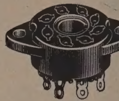
ADAPTOR PLATE



When the hole in the chassis is too large to use the 8RO retainer ring, then the 8AP adaptor plate is anchored to the chassis and the 8RO retainer ring holds the ring mounted socket to the adaptor plate.

No.	List Price
8AP	**Each $ .08**

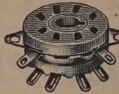
ALL MOLDED OCTAL SOCKET


8XB

This new all molded socket offers a complet piece construction, the dle and body are a s casting. The standard s is molded of general pose Bakelite. Contacts of brass, cadmium pl The 8 XM has mica filled phenolic insulation and contacts are of brass, cadmium plated. Mou hole centers are $1\frac{5}{16}$".

No.	Description	Mtg. hole diam.	
8XB	**Black**	**.144**	**$**
8XM	**Mica**	**.144**	

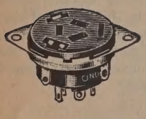
MIL-TYPE OCTAL
1½" MOUNTING CENTERS


8JC-2

Molded from mica-filled loss bakelite. Silver pl phosphor bronze con with hot tinned tails. H brass saddle nickel pl with 4 ground lugs, tinned. Conforms to 12883-A Specs.

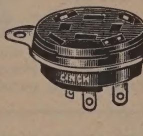
No.	Description	Mtg. Hole	Mil. Type No.	P E
8JC-2	**Ceramic**	**.156 Dia.**	**TS101C01**	**$1**
8JCN-2	**Ceramic**	**6-32 Tap**	**TS101C02**	
8JM-2	**Mica**	**.126 Dia.**	**TS101P01**	**.**
8JMN-2	**Mica**	**6-32 Tap**	**TS101P02**	**1**

CINCH CAPACITOR "PLUG-IN" SOCKETS



Designed for use with Mallory and Magnavox 1" FP type condensers. Molded from high dielectric black bakelite. Sturdy steel mounting saddle has 4 ground lugs. 1½" mounting centers. 3 recessed center contacts for extended prongs of condenser and two outer contacts flush with surface for short prongs of condenser. All contacts are solder coated for fast, easy soldering.

No.	List Price
2C5	**Each $.725**

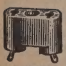


Designed for use with Mallory and Magna 1⅜" FP type condensers. Molded from high electric black bakelite. Sturdy steel saddle $1\frac{27}{32}$" mounting centers. Four recessed cer contacts for extended prongs of condenser three outer contacts flush with surface for sh prongs of condenser. All contacts are sol coated.

No.	List Pri
2C7	**Each $1**

CRYSTAL SOCKETS

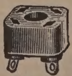
2 PRONG $\frac{31}{64}$" CENTERS


2KB

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Silver plated beryllium copper contacts on $\frac{31}{64}$" centers. .120" diameter recessed mounting hole. Socket body is $\frac{25}{32}$" long, $\frac{5}{16}$" thick, and $\frac{35}{64}$" high. For use with FT243 type crystal.

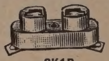
No.	Description	List Price
2KB	**Black**	**Each $.249**
2KM	**Mica-Filled**	**Each .279**

4 PRONG



Molded from mica-filled low loss bakelite. Silver plated beryllium copper contacts on $\frac{31}{64}$" centers. .140 diameter mounting hole recessed $\frac{3}{64}$" from surface in $\frac{5}{16}$" diameter hole. Socket body is $\frac{25}{32}$" long, $\frac{45}{64}$" wide, and ½" high. Designed for use with two No. FT243 type crystals.

No.	List Price
2K4	**Each $.448**


2K1B

2 PRONG
½" CENTERS

Molded from high dielectric black bakelite or mi filled low loss bakelite. Silver plated phosp bronze contacts on ½" centers. No. 4-40 tap mou ing hole. 1⅛" long, ⅜" wide and $\frac{7}{16}$" high. For CR-1 and CR-7 type crystals.

No.	Description	List Pri
2K1B	**Black**	**Each $2.**

Made of ceramic material. Silver plated beryll copper contacts with hot tinned tails, mounted .486" centers. ⅛" mounting hole, ⅞" long, wide and ⅝" high overall. Similar to above exc the tails extend straight down. For No. CR-7 BH-6 crystals.

2K2C	**Ceramic**	**Each .**

Trade Discount Applies To List Prices Only

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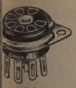
CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPANY

7 PIN MINIATURE SOCKETS AND SHIELDS


7AB1

MOLDED SADDLE SOCKETS

Top Mount

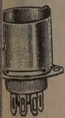
M ed from high dielectric black bakelite, mica-fil low loss bakelite. Cadmium plated steel saddle wi 7/8" mounting centers and .093 diameter m ting holes. Solder coated brass contacts. De-si ed for mounting through top of chassis in 5/8" di eter hole. Will securely hold all standard seven-p niniature tubes.

Nc	Description	List Price
7	**Black**	**Each $.156**
7	**Mica-Filled**	**Each .188**

Mi ary Versions: Same as above except materials an finishes are those required by MIL-12883-A sp fications.

N	Description	MIL Type No.	List Price
J-1	**Mica**	**TS102P02**	**Each $ .50**
J-1	**Ceramic**	**TS102C02**	**Each .653**

SHIELD BASE SOCKETS

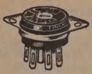

7XB1

Shield bass is attached to socket body for mounting through top of chassis. Molded from high dielectric black bakelite, mica-filled low loss bakelite or ceramic material. Solder coated brass contacts and center shield. Cadmium plated steel shield base wi 7/8" mounting centers. Use No. 7S2, 7S3, or S shields illustrated at right with these sockets.

o	Description	List Price
X	**Black**	**Each $.284**
X	**Mica-filled Bakelite**	**Each .321**
X	**Ceramic**	**Each .55**

il ry Versions: Same as above except materials n finishes are those required by MIL-12883-A e ications.

N	Description	MIL Type No.	List Price
IC	**Ceramic**	**TS102C01**	**Each $.615**
IN	**Mica**	**TS102P01**	**Each .455**


7EB

MOLDED SADDLE SOCKETS

Bottom Mount

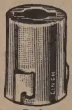
Molded from high dielectric black bakelite or mica-filled low loss bakelite. Cadmium plated steel saddle with 7/8" mounting centers. .093 diameter mounting holes. Solder-coated positive-grip brass contacts. Designed for mounting through bottom of chassis in 5/8" diameter hole. For use with all standard seven-pin miniature tubes.

No.	Description	List Price
7EB	**Black**	**Each $.156**
7EM	**Mica-Filled**	**Each .188**

Military Versions: Same as above except materials and finishes are those required by MIL-12883-A specifications.

No.	Description	MIL Type No.	List Price
7JM-3	**Mica**	**TS102P03**	**Each $.399**
7JC-3	**Ceramic**	**TS102C03**	**Each .653**

J-SLOT TUBE SHEILDS



7S2

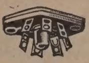
Durable steel shields complete with tube securing spring. "J" slot feature designed to fit securely with Cinch shield base type sockets, such as 7X series shown at left. Also fit 7SB type shield bases shown in end column at right.

No.	Description	List Price
7S2	**1⅜" Length**	**Each $.184**
7S3	**1¾" Length**	**Each .194**
7S4	**2¼" Length**	**Each .296**

Military Versions: Durable brass nickel plated shields complete with non-magnetic stainless steel spring. Same as above except materials and finishes are those required by MIL-12883-A specifications.

No.	Description	MIL Type No.	List Price
7SJ2-1	**1⅜" Length**	**TS102U01**	**Each $.286**
7SJ3-1	**1¾" Length**	**TS102U02**	**Each .321**
7SJ4-1	**2¾" Length**	**TS102U03**	**Each .356**

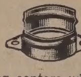
WAFER TYPE SOCKET


7W2A

Laminations consist of 1/32" top plate and 3/64" bottom plate made from high grade chocolate XP Bakelite. Solder coated brass contacts and center shield.

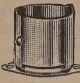
No.	Mtg. Centers	Mtg. Hole	List Price
7W2A	**7/8"**	**.093**	**$.114**
7WL2	**1"**	**.093**	**.114**
7WL4	**1 5/16"**	**.136**	**.134**

SHIELD BASES



Snap-on Type: Base is made of hardened carbon steel supplying adequate spring retentivity on shield. Base has 7/8" mounting centers with mounting holes that coincide with those for miniature 7-pin sockets as established by E. I. A. standards.

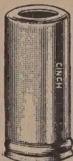
No.	Description	List Price
7SB3	**11/32"**	**Each $.058**


7SB1

For J-Slot Type: Durable steel shield bases designed for use with "J" slot type shields illustrated at left. 7/8" mounting centers.

No.	Description	List Price
7SB1	**5/8"**	**Each $ .09**
7SB2	**5/8"**	**Each .12**

TUBE SHIELD SNAP-ON TYPE



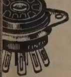
Shield fits over and outside of shield base. Indentation on shield locks into ridge on base of 7SB3 as shown above.

No.	Description	List Price Each
7S1	**1 53/64" High**	**$ .15**

9 PIN MINIATURE SOCKETS AND SHIELDS

MOLDED SADDLE SOCKETS

Top Mount


9AB

Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through top of chassis in ¾" diameter hole. 1⅛" mounting centers with 9 diameter mounting holes. Solder coated brass n ts and center shield.

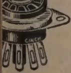
.	Description	List Price
B	**Black**	**Each $.208**
N	**Mica-Filled**	**Each .241**

li ry Versions: Same as above except materials d inishes are those required by MIL-12883-A e ications.

N	Description	MIL Type No.	List Price
M 1	**Mica**	**TS103P02**	**Each $.425**
C	**Ceramic**	**TS103C02**	**Each .69**

MOLDED SADDLE TYPE

Bottom Mount


9EB

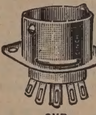
Molded from high dielectric black bakelite or mica-filled low loss bakelite. Designed for mounting through bottom of chassis in ¾" diameter hole. 1⅛" mounting centers th 093 diameter mounting holes. Solder-coated as contacts and center shield.

.	Description	List Price
B	**Black**	**Each $.208**
M	**Mica-Filled**	**Each .241**

i y Versions: Same as above except materials d nishes are those required by MIL-12883-A e cations.

o	Description	MIL Type No.	List Price
M	**Mica**	**TS103P03**	**Each $.425**
	Ceramic	**TS103C03**	**Each .69**

SHIELD BASE SOCKETS



9XB

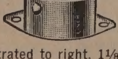
Molded from high dielectric black bakelite, mica-filled low loss bakelite, or ceramic material. One piece cadmium plated steel shield base and saddle with .093 diameter mounting holes on 1⅛" centers. Solder-coated brass contacts and center shield. Mounts through top of chassis in ¾" diameter hole. Use Cinch 9S type shields, shown at right, with these sockets.

No.	Description	List Price
9XB	**Black**	**Each $.348**
9XM	**Mica**	**Each .378**
9XC	**Ceramic**	**Each .595**

Military Versions: Phosphor bronze contacts. Same as above except materials and finishes are those required by MIL-12883-A specifications.

No.	Description	MIL Type No.	List Price
9JM-2	**Mica**	**TS103P01**	**Each $.496**
9JC-2	**Ceramic**	**TS103C01**	**Each .685**

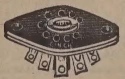
SHIELD BASE



Durable steel shield base designed for use with shields illustrated to right. 1⅛" mounting centers. May be used with any 9 pin wafer or saddle type sockets shown.

No.	List Price
9SB1	**Each $ .12**

WAFER TYPE

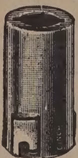


9W1

Has two laminations consisting of 1/16" top plate and 3/64" bottom plate made from 1⅛" mounting centers with .093 diameter holes. Solder coated brass contacts and center shield.

No.	Mtg. Centers	List Price
9W1	**1⅛"**	**Each $ .14**
9W2	**1 5/16"**	**Each .155**

J-SLOT TUBE SHIELDS



9S1

Made from durable steel. Complete with tube securing spring. "J" slot feature designed to fit securely with Cinch 9X series shield base sockets and 9SB-1 shield base, both illustrated at left.

No.	Description	List Price
9S1	**1½" Length**	**$.272**
9S2	**1 15/16" Length**	**.274**
9S3	**2⅜" Length**	**.499**

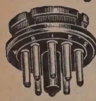
Military Versions: Durable brass nickel-plated shields with tube-securing spring. Same as above except materials and finishes are those required by MIL-12883-A specifications.

No.	Length	MIL Type No.	List Price
9SJ1-1	**1½"**	**TS103U01**	**Each $.351**
9SJ2-1	**1 15/16"**	**TS103U02**	**Each .386**
9SJ3-1	**2⅜"**	**TS103U03**	**Each .421**

Note: Listings of the strap nuts used in conjunction with 7 and 9 pin miniature sockets can be found at the foot of the next page.

MOLDED CONNECTOR PLUGS AND SOCKETS

8 CONTACT PLUG



Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on ⅟₁₆″ chassis using No. 1018 retaining ring, or can be used with No. 16F cap shown below. Will fit any standard octal socket.

No. List Price
8PB **Each $.325**

11 CONTACT PLUG

Molded from high dielectric black Bakelite. Pins are nickel-plated and have tapered ends for easy insertion. Mounts on ⅟₁₆″ chassis using No. 1018 retaining ring. Can be used with No. 16F cap shown below. Will fit No. 11RB socket shown at right.

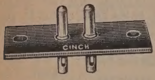
No. List Price
11PB **Each $.450**

11 CONTACT SOCKET

Molded from high dielectric l
Bakelite. Solder coated brass
tacts. Mounts on ⅟₁₆″ ch
using No. 1018 retaining ring.
be used with No. 16F Cap sl
below. Used with No. 11PB
shown at left.

No. List Pr
11RB **Each $**

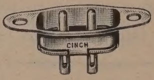
CONNECTOR PLUG



This plug consists of two prongs mounted on a piece of Bakelite. The prongs are the same as used in No. 2RP-1. Mounting plate is of ⅟₁₆″ natural XP Bakelite 1⅝″ x ¾″. The .135 mounting holes are on 1¼″ centers. An inexpensive current supply connector for TV sets.

No. 2FP **List Ea. $.144**

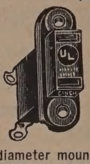
RECESSED PLUG



Recessed sub-panel mounting type plug similar to No. 2RP except that the contact is one piece. Underwriter Approved for 125 Volts 7 amperes. Same dimensions as 2RP.

No. 2RP-1 **List Ea. $.197**

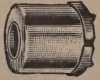
110-250 VOLT SOCKET
(Underwriters Listed)



When space is at a premium
this 110-250 volt 2 prong soc
Rated at 15 Amp., 110 V. or
Amp., 250 V. Molded from
dielectric black bakelite. So
coated brass contacts on ½″
ters designed to accept an
prong standard electric p
Mounts in ²⁵⁄₆₄″ x ²⁵⁄₃₂″ hole.
diameter mounting holes on 1⅛″ centers. Ideal
radio chassis and many other applications.

No. 2R2 **List Price Each $.**

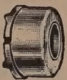
LAMINATED CONNECTOR PLUGS AND SOCKETS



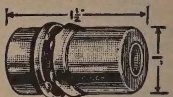
18G

6K2

5K2



18E



Assembled

These low cost plugs and sockets are ideal for a multitude of applications. A "Cinch" where space is at a premium. Complete assembly of plug, socket, male and female shell will close to a compact unit of 1½″ long. Polarized — Nickel plated brass tube pins — Solder coated brass contacts. Plugs, sockets and shells have lock feature which prevents turning in shells.

"See also battery plug listings adjacent to barrier strip listings elsewhere in this catalog."

PLUGS

Part No.	No. Prongs	Use Skt.No.	Use Shell No.	List Price
5K2	2	6K2	18E	.153
5K3	3	6K3	18E	.183
5K4	4	6K4	18E	.213
5K5	5	6K5	18E	.243
5K6	6	6K6	18F	.273

SOCKETS

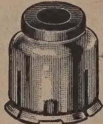
Part No.	No. Prongs	Use Skt.No.	Use Shell No.	List Price
6K2	2	5K2	18G	.299
6K3	3	5K3	18G	.309
6K4	4	5K4	18G	.336
6K5	5	5K5	18G	.388
6K6	6	5K6	18H	.423

PLUG CAPS AND SHELLS

For Battery Plugs, Connector Plugs and Sockets Shown Above

Cadmium plated brass shell with rolled edge on ⁵⁄₁₆″ diameter neck opening. Outside diameter at base .625. Four ⅛″ prongs coincide with notches on plugs. Designed for use with Cinch No. 5A1, 5B1, 5AB2, and 5AB3 type battery plugs.

No. List Price
18A-1 **Each $.041**



Made of steel, cadmium plated. Designed to snap on 8 and 11 prong sockets which are grooved for a ⅟₁₆″ chassis. There is a screwdriver slot at the bottom to facilitate easy removal. Rubber grommet has a ²⁵⁄₆₄″ dia. hole.

No. List Price
16F **Each $.925**

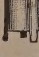
18E

Cadmium plated brass shells co
plete with fibre insulator. Availa
with ⅜″ or ½″ diameter hole w
rolled edge. Inside diameter ³¹⁄
½″ high. For use with Cinch
5C1, 5C2, 5AB6, 5AB7, 5AB8, 5K2, 5K3, 5K4, 5
and 5K6 type plugs.

No.	Description	List Pri
18E	**⅜″ Diameter Hole**	**Each $.1**
18F	**½″ Diameter Hole**	**Each .4**

Cadmium plated brass shell complete with fibre insulator. Same as Cinch No. 18B shell except has ½″ neck with ⅜″ hole riveted to base. For use with same plugs as No. 18B.

No. List Price
18J-1 **Each $.223**



Cadmium plated brass shell with ²³⁄₆₄″ diameter opening on top of shell. Outside diameter at base .625. Four ⅛″ prongs coincide with notches on plugs. ½″ high. Designed for use with Cinch No. 5A1, 5B1, 5AB2, and 5AB3 type battery plugs.

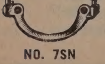
No. List Price
18B-1 **Each $.041**

18G

Cadmium plated steel shells co
plete with fibre insulator. Ava
able with ⅜″ or ½″ diame
hole with rolled edge. Inside
ameter ³¹⁄₃₂″. ²⁹⁄₃₂″ high. For u
with Cinch No. 6K2, 6K3, 6
6K5, and 6K6 type sockets.

No.	Description	List Pri
18G	**⅜″ Diameter Hole**	**Each $.1**
18H	**½″ Diameter Hole**	**Each .4**

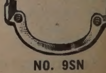
STRAP NUTS



NO. 7SN

Cadmium plated brass strap nuts are designed for use in mounting sockets with saddles or shield bases. One strap nut takes the place of two conventional type nuts. Mounting centers ⅞″. For 7 contact sockets. **List $ .28**

Same as No. 7SN except mounting centers are 1⅛″ and are for 9 contact sockets. **List $.305**

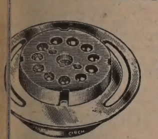


NO. 9SN

CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPANY

SOCKETS FOR SPECIAL PURPOSE TUBES

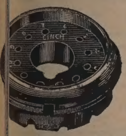
MAGNAL — 11 PRONG



Molded from mica-filled low loss bakelite. Socket is 1 23/32" wide and 1 9/64" high. Full floating silver plated beryllium copper contacts designed to insure easy insertion of tubes and yet provided excellent electrical connections. For use with 5BP1 and 2AP1 type cathode ray tubes.

	Description	List Price
3 1	Mica Socket	Each $6.00
3	Steel Mounting Ring	Each .40

DUODECAL — 12 PRONG



3B12

Slightly larger in diameter than the tube base and only slightly longer than the tube pin. A new feature incorporates wire strain relief as an integral part of the contact. Molded from high dielectric black bakelite. For use with 10BP4, 2BP1, 5TP4, etc., type tubes. Also RCA 6199 tube.

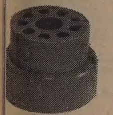
		List Price Ea.
3 2		$ .80
3 2	Same as 3B12 except Mica	2.40

PHOTO-MULTIPLIER SOCKET

20 contact socket for RCA photo-multiplier tube Nos. 6810, C7187A, C7212 and 7265. Casting material is MAI-60 Alkyd Glass Fibre. JETEC No. is 20-102.

No. 20-PM List, Ea. $6.67

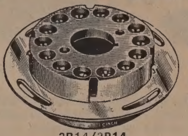
VIDICON SOCKET



7 contact socket for RCA Vidicon Tube Nos. 6198 and 7038. Casting material is mica. Contacts are silver-plated phosphor bronze. JETEC No. is E8-11.

No. 7-VT List, Ea. $2.80

DIHEPTAL — 14 PRONG



3B14/3R14

Molded from high dielectric black bakelite or mica-filled low loss bakelite. 2 7/32" wide and 1 1/8" high. Possesses same features as Cinch Magnal socket shown at left.

No.	Description	List Price
3B14	Black Socket	Each $1.40
3M14	Mica Socket	Each 1.80
3R14	Steel Mounting Ring	Each .40

SECOND ANODE CONNECTOR

For diheptal based tubes. Cadmium plated brass contact surrounded by rubber insulator 3/4" wide and 1 3/16" long. Snaps over .096 diameter prong on side of diheptal tubes.

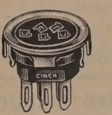
No.	List Price
3A1	Each $ .90

CETRON TUBE SOCKET

This socket is designed for use with Cetron Tubes CE701 and CE702 in such applications as electric eye doors and motion picture projectors. Contacts are of special alloy spring brass. May be mounted by press fit, gluing or by means of mounting ring 2MR.

	Casting Material	
No. 2B2	Black	List Ea. $1.20
No. 2M2	Mica	List Ea. 1.75

NUVISTOR SOCKETS



Five-contact socket. Socket body is of low-loss phenolic insulation (MFE). Cadmium-plated cold-rolled steel saddle. Contacts are of copper alloy with cadmium plating.

Crimp-Mounting Type. Fastened to chassis by two tabs. Non-polarized.

No. 5NS List, Ea. $ .23

Conventional-Mounting Type. Mounts with screws, eyelets, rivets or self-tapping screws. Any #2 screw or 3/32" dia. rivet with head dia. of up to .190" may be used. Polarized.

No. 5NS-1 List, Ea. $.355

Stand-Off Type. For printed circuit applications. Has two grounding terminals. Polarized.

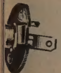
No. 5NS-2 List, Ea. $1.75

5NS-1

5NS-2

JACKS AND PLUGS FOR RADIO, TV, PHONOGRAPH APPLICATIONS

PHONO JACKS



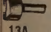
Standard Type: Precision-engineered for many uses, such as phonographs, radios, amplifiers. Single-prong positive-grip phono jack mounted on 1/16" chocolate colored bakelite disc with 11/16" mounting centers. Use Cinch No. 13A phono plug with this jack.

No. 81A List Price, Ea. $.210

Laminated Type: Same as above except that it has a ceramic bushing and three laminated bakelite insulation plates with brass mounting plate. Mounting holes are 11/64" diameter.

No. 81G List Price, Ea. $.695

PHONO PLUGS

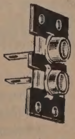


13A

.A. Type. For many audio and radio plications, Nickel plated 1/8" diameter e pin.

.	Pin Length	Jack Type	List, Ea.
A	9/16"	81A, 81B, 81G	$.130
E	11/16"	81E	.132

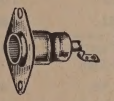
DOUBLE PHONO JACK



Two positive grip phono jacks mounted on 1/16" bakelite panel with 1 3/16" mounting centers. Jacks are spaced on 1/2" centers. Panel is 1 1/2" x 1/2". Used on recording units, receivers, etc. Use Cinch No. 13A phono plug with this jack.

No.	List Price
81B	Each $.375

ANTENNA CONNECTORS



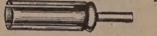
Flange Type: Motorola-type shielded jack. Sturdy steel flange with 15/16" mtg. centers with .136 dia. mtg. holes. Solder-coated shell, flange and contact. Can be mounted with screws or rivets. Used extensively on auto radios. Use Cinch No. 13B antenna plug with this jack.

No.	List, Ea.
81A	$.210

Shell Type: Same as above except without flange. This connector may be soldered into position. Accepts No. 13B plug.

No.	List, Ea.
81C	$.240

ANTENNA PLUG



Motorola type. Nickel plated 1/8" tube pin extends 17/32" from cadmium plated split brass shell whose 8 cutting edges provide positive grounded connection when inserted into a Cinch No. 81C or 81F connector.

No.	List Price
13B	Each $.288

INSULATED PIN PLUG

Nickel plated 1/8" brass tube pin 9/16" long, assembled to 13/32" long fibre insulator. May be used with Cinch No. 81A and 81B type phono jacks or with No. 49 series contact strips illustrated on page F-35.

No.	List Price
13C-1	Each $.225

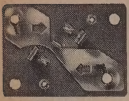
SHIELDED EXTENSION JACK

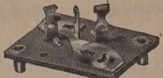
Cadmium plated brass shell 2 7/16" long with black bakelite insert providing insulation for solder coated brass positive grip contact. Use Cinch No. 13E Phono plug with this jack.

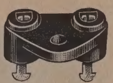
No.	List Price
81E	Each $.487

CINCH TRANSISTOR SOCKETS

POWER TRANSISTOR SOCKETS


No. 2TS-1


No. 2TS-2


No. 2TS-3

Laminated Type: Top and bottom plates are of natural XP Bakelite, vacuum wax impregnated. Contacts are of brass, cadmium plated. Formed thread for 6-20 screw. .104/.110 dia. hole in CR steel plate. Provides easy attachment to a heat sink.

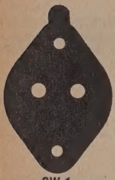
No. 2TS2 is identical with 24324 except it is equipped with integral eyelets for easy assembly to chassis.

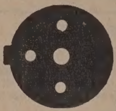
No. 2TS-1	**List Ea. $.163**
No. 2TS-2	**List Ea. .179**

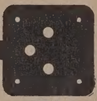
Molded Type: Casting molded of general purpose Bakelite. Contacts are of phosphor bronze, cadmium plated. This transistor socket may be used with the following EIA base designations: E 3-14, E 3-15, E 3-25, E 3-32, E 3-38, E 3-39, E 3-42, E 3-43, E 3-44, E 2-51, E 3-53, E 4-13, E 4-24, E 4-31, E 4-43, E 4-52, ET 103-D.

No. 2TS-3	**List Ea. $ .15**

POWER TRANSISTOR HEAT SINKS


2W-1

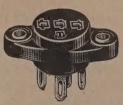

2W-2


2W-3

These hard anodized aluminum insulator wafers are for use with Power Transistors. They have high thermal conductivity, high dielectric resistance, high abrasion resistance and high corrosion resistance.

No.	Description	List Ea.
2W-1	For Motorola transistor 2N-179, 2N-176 and 2N-554.	**$ .92**
2W-2	For Delco transistor 2N-174.	**.42**
2W-3	For Texas Instrument transistor 2N-389.	**.42**

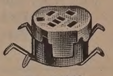
GENERAL PURPOSE TRANSISTOR SOCKET

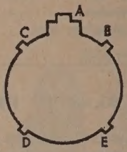


New transistor socket designed to the tri-angular layout .2" x .1" (JETEC-30) contact centers, as well a three contact in line (.048 x .192 contact centers.) socket was originally designed for an all-transistor t sion set. However, its future applications are many; i trial communications, test equipment, bread board cir etc. Casting is molded of general purpose Bakelite, con are of phosphor bronze, cadmium plated.

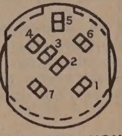
No. 2TS-4 **List Ea.**

UNIVERSAL TRANSISTOR SOCKETS

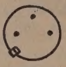

No. 7-UTS

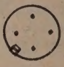


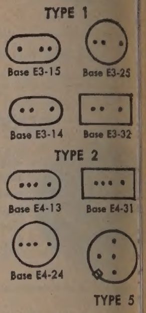
CHASSIS LAYOUT



CONTACT LAYOUT


TYPE 3


TYPE 4



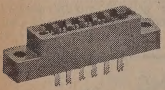
Universal transistor sockets for use with all transistor bases described b Casting is mica-filled phenolic "MFE". Contacts are beryllium copper, plated. May be used with either one or two-sided 1/16" printed circuit bo See diagrams above for contacts and tab layouts.

Code	Base Types	Tabs Used (See Diag.)	Cont. Pos. Used	Li
7UTS	**All**	**A,B,C,D,E**	**1,3,4,7**	**$**
7UTS-1	**1 & 3**	**C,D,E**	**1,3,4,7**	
7UTS-3	**3**	**C,D,E**	**1,4,7**	
7UTS-4	**4**	**A,B,C,D,E**	**1,4,5,6,7**	
7UTS-5	**5**	**B,D,E**	**1,6,7**	
7UTS-6	**1 & 3**	**C,D,E**	**1,3,4,7**	

PRINTED CIRCUIT EDGE CONNECTORS

Designed for minimum printed circuit card wear, low insertion force and positive contact with the printed circuit board. Insulation is glass-filled diallyl phthalate, type GDI 30 per MIL-M-19833. Contacts are of phosphor bronze with .00003 Min. Sel-Rex gold plated. Types 250, 251 and 252 utilize bifurcated contacts, permitting two flexing surfaces instead of one for positive contact. Bifurcated contacts are especially recommended for added contact reliability where v tion or printed circuit board irregularities would otherwise cause trouble. nectors meet requirements of MIL-C-21097A (SHIPS) where applicable.

Note: One plastic polarizing key is furnished unassembled with each conn listed below.


No. 50-6A-2

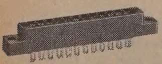
Type 250. Bifurcated contacts, single row. Conventional wiring tails.

Code	Cont. Pos.	No. of Cont.	List Ea.
50-6A-2	**6**	**6**	**$1.50**
50-10A-2	**10**	**10**	**2.00**
50-12-A-2	**12**	**12**	**2.25**
50-15A-2	**15**	**15**	**2.63**
50-18A-2	**18**	**18**	**3.00**
50-22A-2	**22**	**22**	**3.50**

No. 50-123-1

Type 252. Bifurcated contacts, double row. Contact tails designed for dip soldering, and will fit into .051 diameter holes.

Code	Cont. Pos.	No. of Cont.	Li
50-12B-1	**6**	**12**	**$**
50-20B-1	**10**	**20**	
50-24B-1	**12**	**24**	
50-30B-1	**15**	**30**	
50-36B-1	**18**	**36**	
50-44B-1	**22**	**44**	


No. 50-12A-3

Type 251. Bifurcated contacts, double row. Conventional wiring tails.

Code	Cont. Pos.	No. of Cont.	List Ea.
50-12A-3	**6**	**12**	**$1.50**
50-20A-3	**10**	**20**	**2.00**
50-24A-3	**12**	**24**	**2.25**
50-30A-3	**15**	**30**	**2.63**
50-36A-3	**18**	**36**	**3.00**
50-44A-3	**22**	**44**	**3.50**

No. 50-12B-2

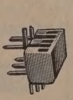
Type 253. Standard contacts, double row. Contact tails are for wire-wrapping.

Code	Cont. Pos.	No. of Cont.	Lis
50-12B-2	**6**	**12**	**$**
50-20B-2	**10**	**20**	
50-24B-2	**12**	**24**	
50-30B-2	**15**	**30**	
50-36B-2	**18**	**36**	
50-44B-2	**22**	**44**	

SUB-MINIATURE SOCKETS

No. 2H3

No. 2H5


No. 5PC

No. 5WC

No. 8SM

Use extensively for hearing aids, radios and other electronic apparatus which require miniature tubes. Molded from mica-filled low loss bakelite with silver plated bery copper contacts. Available with 3, 5, 6, 7 or 8 contacts. Four prong tubes use No. 2H5 prong socket. No. 2H5 can be used as a transistor socket. No. 5PC for printed circuits. 5WC for wired circuits.

No.	Description	List Price
***2H3**	**3 Prong**	**Each $.347**
***2H5**	**5 Prong**	**Each .373**
***2H6**	**6 Prong**	**Each .497**
***2H7**	**7 Prong**	**Each .517**
5PC	**5 Prong**	**Each .66**
5WC	**5 Prong**	**Each .626**
***8SM**	**8 Prong**	**Each .70**
8SM-P	**8 Prong**	**Each .90**

*Mtg. Ring included.

This socket is the same as No. 8SM shown above except that it is furnished with a mounting plate.

No. 8SM-P

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CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPANY

CINCH RELAY SOCKETS

14-CONTACT TOP-MOUNTED SOCKET

A 14 contact relay socket. Casting is of mica insulation. Contacts are of beryllium copper, silver plated with hot tinned tails. Mounting centers 1⅛″.

4RS **List Ea. $1.23**

20-CONTACT TOP-MOUNTED SOCKET

Contacts are of beryllium copper, silver-plated with hot tinned tales. Steel saddle. 1 3/16″ mounting centers.

20RS **List Ea. $2.86**

BOTTOM-MOUNTED SOCKETS

20 Contact Socket. Casting is of mica insulation. Contacts are of beryllium copper, silver-plated with hot-tinned tales. Mounting centers 1 3/16″.

No. 20RS-1 **List Ea. $2.86**

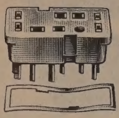
14 Contact Socket. Same as above except contacts 15 to 20 omitted.

No. 14RS-1 **List Ea. $2.20**

16 Contact Socket. Same as above except 15, 17, 18 and 20 omitted.

No. 16RS-1 **List Ea. $2.40**

8-CONTACT RELAY SOCKET



This relay socket is molded of mica filled phenolic and is attached to the chassis with a cold rolled steel clip that is cadmium plated. The contacts are of beryllium copper, silver plated P-31-3. The mounting clip No. 20731 is furnished with each socket. This socket fits the following relays: Advance MV-2C, AEMCO 95-3274, Brubaker K110A, Filtors P.26.A1.P.6A, G. E. D200A & G-203A, Potter & Brumfield SL and Ace Relay No. 50-6-A (single contact type).

No. 8RS **List Price Ea. $ .75**

CINCH NOVAR SOCKETS

9NS-B

Sockets developed by Cinch In conjunction with the Novar Tube. Since physical dimensions are the same as octal sockets, layouts and cutouts for octal sockets will accommodate Novar Sockets. Conta specifications provide maximum fatigue strength an nating force with tube pins. Performance meets or rpasses EIA standards.

BOTTOM-MOUNT SOCKETS

Molded from high dielectric black bakelite or mica-filled low-loss bakelite. Cadmium-plated brass contacts. 1½″ mounting centers.

Code	Material	List Pr., Ea.
9NS-B	**Black**	**$.152**
9NS-M	**Mica**	**.184**

TOP-MOUNT SOCKETS

9NS-B1

Molded from high dielectric black bakelite or mica-filled low-loss bakelite. Cadmium-plated brass contacts. 1½″ mounting centers.

Code	Material	List Pr., Ea.
9NS-B1	**Black**	**$.152**
9NS-M1	**Mica**	**.184**

STAND-OFF TYPE PRINTED CIRCUIT SOCKETS

The stand-off sockets rest on the shoulder of the contact tail, providing an air gap for cooling and eliminating the possibility of a moisture trap. Designed for 1/16″ p ted circuit boards having bottom circuitry.

SEVEN-PIN MINIATURE SOCKET

7PC-B1

Bss contacts with hot tin finish. Casting is gene purpose black phenolic. Special tabs prevent t shields from contacting the printed wire cssis. Center shields provide mechanical retention o he socket in the chassis.

7-B1 **List Pr., Ea. $.105**

S e as above without special tabs.

7 B **List Pr., Ea. $.118**

NOVAL SOCKET

9PC-B1

9 pin socket having brass contacts with hot tin finish. Casting is general purpose black phenolic. Special tabs prevent tube shields from contacting the printed wire chassis.

9PC-B1 **List Pr., Ea. $.143**

Same as above without special tabs.

9PCB **List Pr., Ea. $.158**

OCTAL SOCKET

Brass contacts with hot tinned finish. Casting is general purpose black.

8PC-B **List Pr., Ea. $ .13**

PRINTED CIRCUIT SOCKETS WITH SHIELD BASES

SEVEN-PIN MINIATURE SOCKET

7PC-M2

List Pr., Ea. $1.58

These stand-off sockets have an attached bayonet-type shield base with ground tab. For use with 1/16″ printed circuit boards. Castings are low-loss mica-filled phenolic (MFE). Contacts are phosphor bronze with a hot-tinned finish. Center shield and ground tab are brass, hot-tinned, and base is brass, nickel-plated.

NOVAL SOCKET

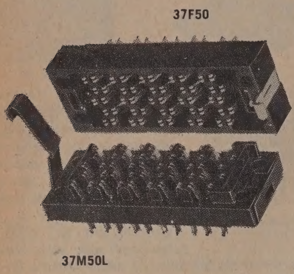
Nine-pin base.

Similar to 7PC-M2 shown at right.

9PC-M2

List Pr., Ea. $1.95

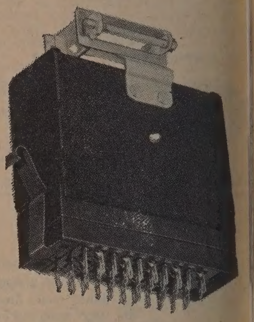
CINCH HINGE CONNECTORS



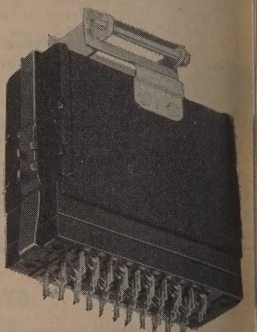
Plug and socket bodies showing contact arrangement.

Cinch Hinge Connectors eliminate contact damage caused by the high insertion and extraction forces encountered with ordinary multi-contact (20-100) connectors. Ideal for use in space-limited areas.

These plugs and sockets offer a maximum number of contacts in a minimum amount of space. Easy engagement and disengagement an outstanding feature. The plug and socket units are easily engaged with normal pressure, and the lock holds them securely together. Releasing the lock the units separate by the spring action of the contacts. A simple locking device insures positive contact. Wiping contact action keeps contacts clean at all times. Either the plug or socket body fit into the cap.



50 contact plug and socket with ca
and standard lock.



50 contact plug and socket with ca
and alternate lock.

Plug with Lock

Code No.	Cont.	Center Dim. Mtg.	Overall Dim.	List Pr., Ea.
37M20L	20	1.375	1.750	$3.00
37M30L	30	1.812	2.187	3.55
37M40L	40	2.250	2.625	4.10
37M50L	50	2.687	3.026	4.65
37M60L	60	3.125	3.500	5.20
37M70L	70	3.562	3.937	5.75
37M80L	80	4.000	4.375	6.30
37M90L	90	4.438	4.812	6.85
37M100L	100	4.875	5.250	7.40

Socket with Lock

Code No.	Cont.	Center Dim. Mtg.	Overall Dim.	List Pr., Ea.
37F20L	20	1.375	1.750	$3.00
37F30L	30	1.812	2.187	3.55
37F40L	40	2.250	2.625	4.10
37F50L	50	2.687	3.062	4.65
37F60L	60	3.125	3.500	5.20
37F70L	70	3.562	3.937	5.75
37F80L	80	4.000	4.375	6.30
37F90L	90	4.438	4.812	6.85
37F100L	100	4.875	5.250	7.40

The castings of the above plugs and sockets are of black Bakelite, type CFG. The contacts are of phosphor bronze, cadmium plated. (.0001)

If the alternate lock, shown at the right, is required it should be ordered as a separate item.

Electrical Rating

	Volts ACRMS	DC
Adjacent Terminals	930	1300
To Ground	1400	2000

Current Rating ....4.5 Amperes
Contact Resistance Current Rated At.....................................020 Ohms
Insulation Resistance ....1000 Megohms
Capacitance adjacent contacts ....75 MMF

Plug without Lock

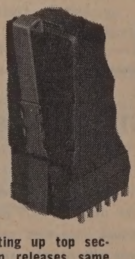
Code No.	Cont.	Center Dim. Mtg.	Overall Dim.	List Pr., Ea.
37M20	20	1.375	1.750	$2.70
37M30	30	1.182	2.187	3.25
37M40	40	2.250	2.625	3.80
37M50	50	2.687	3.062	4.35
37M60	60	3.125	3.500	4.90
37M70	70	3.562	3.937	5.45
37M80	80	4.000	4.375	6.00
37M90	90	4.438	4.812	6.55
37M100	100	4.875	5.250	7.10

Socket without Lock

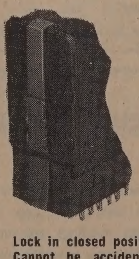
Code No.	Cont.	Center Dim. Mtg.	Overall Dim.	List Pr., Ea.
37F20	20	1.375	1.750	$2.70
37F30	30	1.812	2.187	3.25
37F40	40	2.250	2.625	3.80
37F50	50	2.687	3.062	4.35
37F60	60	3.125	3.500	4.90
37F70	70	3.562	3.937	5.45
37F80	80	4.000	4.375	6.00
37F90	90	4.438	4.812	6.55
37F100	100	4.875	5.250	7.10

ALTERNATE LOCK
No. 37AL

For more secure locking, the lock shown below can be supplied. This lock has a hook at the top that fits into a cut-out in the cap and when inserted and pushed down, prevents accidental unlocking of the cap. It is easily lifted up for unlocking.



Lifting up top section releases same prior to unlocking. Pulling out on spring unlocks assembly.



Lock in closed position. Cannot be accidentally opened. A positive locking arrangement.

PLUG CAPS

These caps are furnished with liners, cable cl and designed to take the alternate lock required.

Caps are finished in black wrinkle and the clamps are of steel cadmium plated. Liners ar formed fibre. The cable entrance hole is in the of the cap.

Code No.	No. of Contacts On Connector	Hole Size	List Pr.
37C20	20	¾″	$4.2
37C30	30	13⁄16 x 1″	4.2
37C40	40	13⁄16 x 1″	4.3
37C50	50	13⁄16 x 1″	4.3
37C60	60	13⁄16 x 1½″	4.4
37C70	70	13⁄16 x 1½″	4.4
37C80	80	13⁄16 x 1½″	4.5
37C90	90	13⁄16 x 1½″	4.5
37C100	100	13⁄16 x 1½″	4.6

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"300" SERIES PLUGS AND SOCKETS

The "300" series is from the famous line of "Jones" plugs and sockets which have been a standard of the electrical/electronic industry for over a generation. Designed for medium duty applications, ratings are 730 Volts RMS, 10 amperes, with a contact resistance of .003 ohms maximum. Insulating material is made of molded bakelite. Plug-socket polarization is designed to prohibit engaging any mate other than one of an equal number of contacts.

s and sockets are arranged for either cap or panel mounting. sphor bronze contacts are used, plug prongs being ⁵⁄₃₂" wide by thick. Metal caps and fibre linings are formed. Caps are finished lack crystal.

ll in size with good separation between contacts. Made in sizes to 33 contacts. All Plugs and Sockets are polarized so that s of one size cannot fit into Sockets of another size. Body of ded Bakelite. Phosphor bronze "knife-switch" type Socket con- s engage both sides of flat Plug contacts—double contact area. prongs are ⁵⁄₃₂" wide by ³⁄₆₄" thick. Formed metal caps are hed in Black Crystal. Fibre linings for caps are also formed. s and Sockets arranged for either cap or panel mounting. Two act Plugs and Sockets are round as shown at the right, all rs are rectangular. Illustrated are the P-302-CCT and S-302-AB. dard 24 to 33 contact Plugs have a special long polarizing pin pproximate center position to assist in correct insertion and oval.

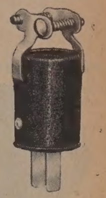
2 to 12 contacts now utilize MONOBLOCK construction! Illustrated at right are the two-contact P-302-CCT plug and S-302-AB socket. Plugs and sockets having from 3-12 contacts are as illustrated below. All plugs and sockets from 2-12 contacts now utilize one-piece "MONOBLOCK" construction but are interchangeable with the old two-piece type.

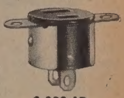
MONOBLOCK construction eliminates internal moisture traps. Furthermore, MONOBLOCK'S new patented* snap-in socket contacts permit external prewiring, removal and replacement of individual contacts if necessary. Contacts are "locked-in" to withstand wiring stress.

24 to 33 contacts. Plugs have special polarizing pin to facilitate correct positioning of mating plug and socket. See illustrations on adjacent page.

*U. S. patent nos. 2688123 and 2980881.

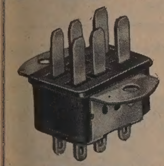
P-302-CCT





S-302-AB

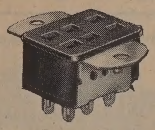
ug with Angle Brackets



P-306-AB

	Contacts	List Price Each
2-AB	2	$ .33
3-AB	3	.41
4-AB	4	.45
6-AB	6	.56
8-AB	8	.66
0-AB	10	.75
2-AB	12	.83

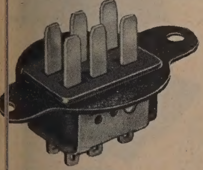
Socket with Angle Brackets



S-306-AB

No.	Contacts	List Price Each
S-302-AB	2	$ .36
S-303-AB	3	.43
S-304-AB	4	.48
S-306-AB	6	.60
S-308-AB	8	.75
S-310-AB	10	.89
S-312-AB	12	1.03

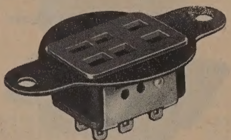
Plug with Flush Plate



P-306-FP

	Contacts	List Price Each
2-FP	2	$ .58
3-FP	3	.63
4-FP	4	.68
6-FP	6	.77
8-FP	8	.88
0-FP	10	.97
2-FP	12	1.05

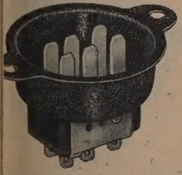
Socket with Flush Plate



S-306-FP

No.	Contacts	List Price Each
S-302-FP	2	$ .59
S-303-FP	3	.66
S-304-FP	4	.71
S-306-FP	6	.81
S-308-FP	8	.97
S-310-FP	10	1.11
S-312-FP	12	1.25

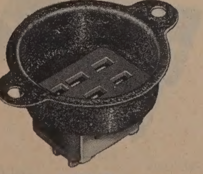
ug with Recessed Plate



P-306-RP

	Contacts	List Price Each
-RP	2	$ .67
-RP	3	.72
-RP	4	.79
-RP	6	.90
-RP	8	1.04
-RP	10	1.20
-RP	12	1.32

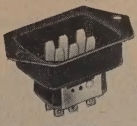
Socket with Recessed Plate



S-306-RP

No.	Contacts	List Price Each
S-302-RP	2	$ .69
S-303-RP	3	.76
S-304-RP	4	.81
S-306-RP	6	.98
S-308-RP	8	1.14
S-310-RP	10	1.32
S-312-RP	12	1.50

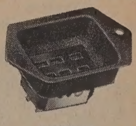
Plug with Deep Bracket



P-306-DB

No.	Contacts	List Price Each
P-302-DB	2	$ .83
P-303-DB	3	.90
P-304-DB	4	.97
P-306-DB	6	1.05
P-308-DB	8	1.14
P-312-DB	12	1.33

Socket with Deep Bracket

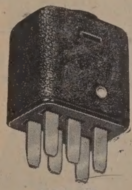


S-306-DB

No.	Contacts	List Price Each
S-302-DB	2	$ .87
S-303-DB	3	.93
S-304-DB	4	.99
S-306-DB	6	1.11
S-308-DB	8	1.25
S-312-DB	12	1.54

The ten contract is not available in this series

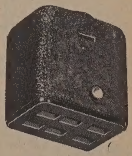
Plug, Flared Hole in Cap



P-306-FHT

No.	Contacts	List Price Each
P-302-FHT	2	$ .56
P-303-FHT	3	.61
P-304-FHT	4	.68
P-306-FHT	6	.77
P-308-FHT	8	.88
P-310-FHT	10	.99
P-312-FHT	12	1.12

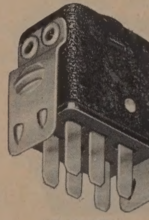
Socket, Flared Hole in Cap



S-306-FHT

No.	Contacts	List Price Each
S-302-FHT	2	$ .58
S-303-FHT	3	.63
S-304-FHT	4	.69
S-306-FHT	6	.81
S-308-FHT	8	.98
S-310-FHT	10	1.13
S-312-FHT	12	1.29

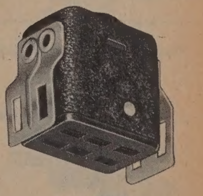
Plug, Flared Hole in Cap and with Latches



P-306-FHT-L

No.	Contacts	List Price Each
P-302-FHT-L	2	$ .76
P-303-FHT-L	3	.81
P-304-FHT-L	4	.89
P-306-FHT-L	6	.98
P-308-FHT-L	8	1.08
P-310-FHT-L	10	1.21
P-312-FHT-L	12	1.32

Socket, Flared Hole in Cap and with Keepers



S-306-FHT-K

No.	Contacts	List Price Each
S-302-FHT-K	2	$ .77
S-303-FHT-K	3	.83
S-304-FHT-K	4	.90
S-306-FHT-K	6	1.03
S-308-FHT-K	8	1.20
S-310-FHT-K	10	1.34
S-312-FHT-K	12	1.50

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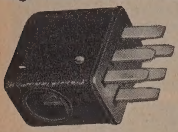
"300" SERIES PLUGS AND SOCKETS

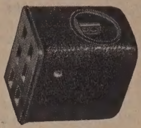
Plug, Flared Hole in End



P-306-FHE

No.	Contacts	List Price Each
P-306-FHE	6	$ .77
P-308-FHE	8	.88
P-310-FHE	10	.99
P-312-FHE	12	1.12

Socket, Flared Hole in End

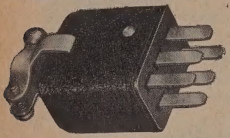


S-306-FHE

No.	Contacts	List Price Each
S-306-FHE	6	$ .81
S-308-FHE	8	.98
S-310-FHE	10	1.13
S-312-FHE	12	1.29

Small size of caps of 302, 303 and 304 will not permit FHE type.

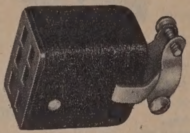
Plug, Cable Clamp in Cap



P-306-CCT

No.	Contacts	List Price Each
P-302-CCT	2	$ .76
P-303-CCT	3	.81
P-304-CCT	4	.89
P-306-CCT	6	.98
P-308-CCT	8	1.08
P-310-CCT	10	1.21
P-312-CCT	12	1.32

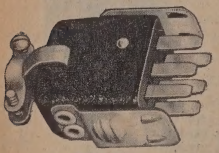
Socket, Cable Clamp in Cap



S-306-CCT

No.	Contacts	List Price Each
S-302-CCT	2	$ .77
S-303-CCT	3	.83
S-304-CCT	4	.90
S-306-CCT	6	1.03
S-308-CCT	8	1.20
S-310-CCT	10	1.34
S-312-CCT	12	1.54

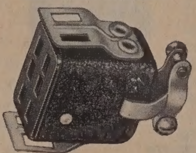
Plug, Cable Clamp in Cap and with Latches



P-306-CCT-L

No.	Contacts	List Price Each
P-302-CCT-L	2	$ .97
P-303-CCT-L	3	1.02
P-304-CCT-L	4	1.10
P-306-CCT-L	6	1.20
P-308-CCT-L	8	1.28
P-310-CCT-L	10	1.40
P-312-CCT-L	12	1.55

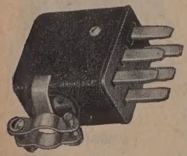
Socket, Cable Clamp in Cap and with Keepers



S-306-CCT-K

No.	Contacts	List Price Each
S-302-CCT-K	2	$ .98
S-303-CCT-K	3	1.04
S-304-CCT-K	4	1.11
S-306-CCT-K	6	1.24
S-308-CCT-K	8	1.39
S-310-CCT-K	10	1.56
S-212-CCT-K	12	1.71

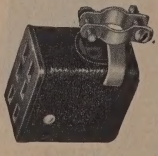
Plug, Cable Clamp in End



P-306-CCE

No.	Contacts	List Price Each
P-306-CCE	6	$ .98
P-308-CCE	8	1.08
P-310-CCE	10	1.21
P-312-CCE	12	1.32

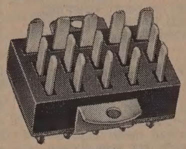
Socket, Cable Clamp in End



S-306-CCE

No.	Contacts	List Price Each
S-306-CCE	6	$1.03
S-308-CCE	8	1.20
S-310-CCE	10	1.34
S-312-CCE	12	1.54

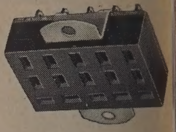
Plug with Angle Brackets



P-315-AB

No.	Contacts	List Price Each
P-315-AB	15	$1.10
P-318-AB	18	1.37
P-321-AB	21	1.72
P-324-AB	24	2.08
P-327-AB	27	2.45
P-330-AB	30	2.81
P-333-AB	33	3.16

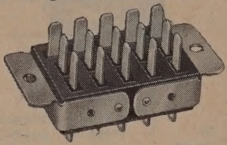
Socket with Angle Brack



S-315-AB

No.	Contacts	List P
S-315-AB	15	$
S-318-AB	18	
S-321-AB	21	
S-324-AB	24	
S-327-AB	27	
S-330-AB	30	
S-333-AB	33	

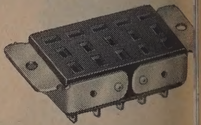
Plug with End Brackets



P-315-EB

No.	Contacts	List Price Each
P-315-EB	15	$1.10
P-318-EB	18	1.37
P-321-EB	21	1.72
P-324-EB	24	2.08
P-327-EB	27	2.45
P-330-EB	30	2.81
P-333-EB	33	3.16

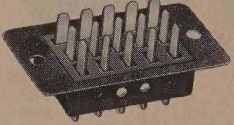
Sockets with End Bracke



S-315-EB

No.	Contacts	List P
S-315-EB	15	$
S-318-EB	18	
S-321-EB	21	
S-324-EB	24	
S-327-EB	27	
S-330-EB	30	
S-333-EB	33	

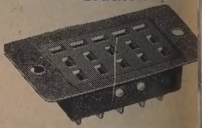
Plug with Shallow Brackets



P-315-SB

No.	Contacts	List Price Each
P-315-SB	15	$1.63
P-318-SB	18	2.01
P-321-SB	21	2.37
P-324-SB	24	2.81
P-327-SB	27	3.16
P-330-SB	30	3.62
P-333-SB	33	3.99

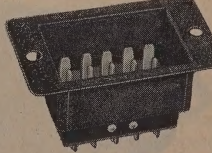
Sockets with Shallow Brackets



S-315-SB

No.	Contacts	List P
S-315-SB	15	$
S-318-SB	18	
S-321-SB	21	
S-324-SB	24	
S-327-SB	27	
S-330-SB	30	
S-333-SB	33	

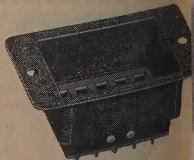
Plug with Deep Bracket



P-315-DB

No.	Contacts	List Price Each
P-315-DB	15	$1.63
P-318-DB	18	2.01
P-321-DB	21	2.37
P-324-DB	24	2.81
P-327-DB	27	3.16
P-330-DB	30	3.63
P-333-DB	33	3.99

Socket with Deep Bracke

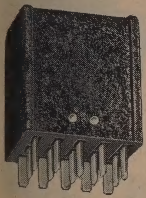


S-315-DB

No.	Contacts	List P
S-315-DB	15	$
S-318-DB	18	
S-321-DB	21	
S-324-DB	24	
S-327-DB	27	
S-330-DB	30	
S-333-DB	33	

"300" SERIES PLUGS AND SOCKETS

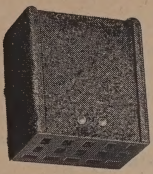
ug with Flared Hole in Top of Cap



P-315-FHT

.	Contacts	List Price Each
-FHT	15	$1.45
-FHT	18	1.82
-FHT	21	2.17
-FHT	24	2.63
-FHT	27	3.01
-FHT	30	3.46
-FHT	33	3.82

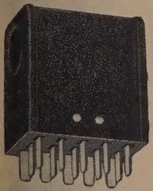
Socket with Flared Hole in Top of Cap



S-315-FHT

No.	Contacts	List Price Each
S-315-FHT	15	$1.63
S-318-FHT	18	2.01
S-321-FHT	21	2.37
S-324-FHT	24	2.83
S-327-FHT	27	3.18
S-330-FHT	30	3.64
S-333-FHT	33	4.00

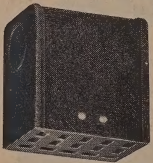
ug with Flared Hole in End of Cap



P-315-FHE

.	Contacts	List Price Each
-FHE	15	$1.45
-FHE	18	1.82
-FHE	21	2.17
-FHE	24	2.63
-FHE	27	3.01
-FHE	30	3.46
-FHE	33	3.82

Socket with Flared Hole in End of Cap



S-315-FHE

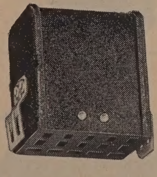
No.	Contacts	List Price Each
S-315-FHE	15	$1.63
S-318-FHE	18	2.01
S-321-FHE	21	2.37
S-324-FHE	24	2.83
S-327-FHE	27	3.18
S-330-FHE	30	3.64
S-333-FHE	33	4.00

ug with Flared Hole in p of Cap with Latches

P-315-FHT-L

).	Contacts	List Price Each
5-FHT-L	15	$1.63
8-FHT-L	18	2.01
1-FHT-L	21	2.37
4-FHT-L	24	2.83
7-FHT-L	27	3.18
0-FHT-L	30	3.64
3-FHT-L	33	4.00

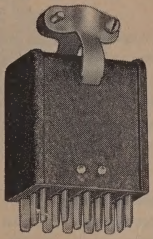
Socket with Flared Hole in Top of Cap and with Keepers



S-315-FHT-K

No.	Contacts	List Price Each
S-315-FHT-K	15	$1.83
S-318-FHT-K	18	2.18
S-321-FHT-K	21	2.55
S-324-FHT-K	24	3.02
S-327-FHT-K	27	3.38
S-330-FHT-K	30	3.83
S-333-FHT-K	33	4.20

Plug with Cable Clamp in Top of Cap



P-315-CCT

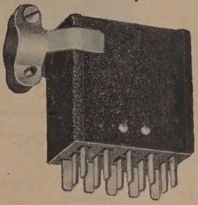
No.	Contacts	List Price Each
P-315-CCT	15	$1.72
P-318-CCT	18	2.08
P-321-CCT	21	2.45
P-324-CCT	24	2.89
P-327-CCT	27	3.28
P-330-CCT	30	3.82
P-333-CCT	33	4.09

Socket with Cable Clamp in Top of Cap

S-315-CCT

No.	Contacts	List Price Each
S-315-CCT	15	$1.51
S-318-CCT	18	2.27
S-321-CCT	21	2.63
S-324-CCT	24	3.10
S-327-CCT	27	3.46
S-330-CCT	30	4.00
S-333-CCT	33	4.28

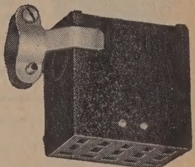
Plug with Cable Clamp in End of Cap



P-315-CCE

No.	Contacts	List Price 5ach
P-315-CCE	15	$1.72
P-318-CCE	18	2.08
P-321-CCE	21	2.45
P-324-CCE	24	2.89
P-327-CCE	27	3.28
P-330-CCE	30	3.82
P-333-CCE	33	4.09

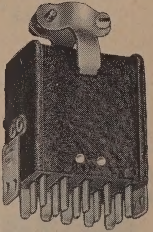
Socket with Cable Clamp in End of Cap



S-315-CCE

No.	Contacts	List Price Each
S-315-CCE	15	$1.51
S-318-CCE	18	2.27
S-321-CCE	21	2.63
S-324-CCE	24	3.10
S-327-CCE	27	3.46
S-330-CCE	30	4.00
S-333-CCE	33	4.28

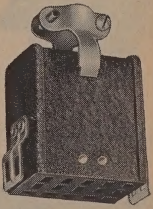
Plug with Cable Clamp in Top of Cap and with Latches



P-315-CCT-L

No.	Contacts	List Price Each
P-315-CCT-L	15	$1.91
P-318-CCT-L	18	2.27
P-321-CCT-L	21	2.63
P-324-CCT-L	24	3.10
P-327-CCT-L	27	3.46
P-330-CCT-L	30	4.00
P-333-CCT-L	33	4.28

Socket with Cable Clamp in Top of Cap and with Keepers



S-315-CCT-K

No.	Contacts	List Price Each
S-315-CCT-K	15	$2.10
S-318-CCT-K	18	2.46
S-321-CCT-K	21	2.83
S-324-CCT-K	24	3.29
S-327-CCT-K	27	3.64
S-330-CCT-K	30	3.83
S-333-CCT-K	33	4.45

"400" SERIES PLUGS AND SOCKETS

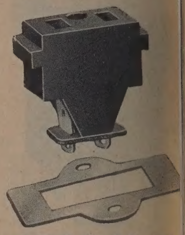
(Formerly "Heavy Duty")

GENERAL SPECIFICATIONS

Made in 2, 4, 6, 8, 10 and 12 contacts. All Plugs and Sockets are polarized. Body of molded Bakelite. Phosphor bronze "knife-switch" type Socket contacts engage both sides of flat Plug Contacts—double contact area. Plug prongs are ¼" wide by 1/16" thick. Caps are finished in Black Crystal and equipped with fibre lining. Plugs and Sockets arranged for cap or panel mounting.

Note: Standard angle brackets cannot be attached to S-402-AB due to narrow block and insufficient material for screw threads. A special bracket is supplied (Type 46) See illustration. The Socket fits into this bracket which is attached to panel.

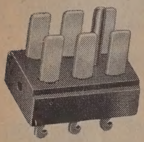
Check the No. 2400 Series Plugs and Sockets listed on pages F-42 and F-43 which are similar to the 400 Series except their design increases the creepage distances and therefore can take higher voltages.



S-402-AB (No. 46 Bracket)

PLUG — Less Angle Brackets

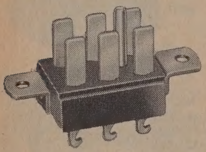
Drilled and Tapped Unless Otherwise Specified



P-406-LAB

Code	Contacts	List Price Each
P-402-LAB	2	$ .46
P-404-LAB	4	.64
P-406-LAB	6	.83
P-408-LAB	8	1.01
P-410-LAB	10	1.22
P-412-LAB	12	1.40

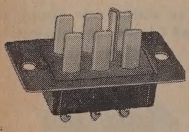
PLUG — With Angle Brackets



P-406-AB

Code	Contacts	List Price Each
P-402-AB	2	$ .83
P-404-AB	4	1.01
P-406-AB	6	1.22
P-408-AB	8	1.40
P-410-AB	10	1.59
P-412-AB	12	1.75

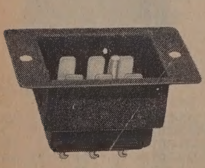
PLUG — With Shallow Bracket for Flush Mounting



P-406-SB

Code	Contacts	List Price Each
P-402-SB	2	$1.01
P-404-SB	4	1.59
P-406-SB	6	2.14
P-408-SB	8	1.86
P-410-SB	10	2.14
P-412-SB	12	2.42

PLUG — With Deep Brackets for Recessed Mounting

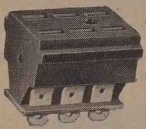


P-406-DB

Code	Contacts	List Price Each
P-402-DB	2	$1.01
P-404-DB	4	1.30
P-406-DB	6	1.59
P-408-DB	8	1.86
P-410-DB	10	2.14
P-412-DB	12	2.42

SOCKET — Less Angle Brackets

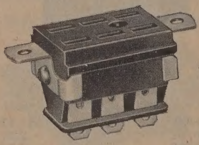
Drilled and Tapped Unless Otherwise Speci



S-406-LAB

Code	Contacts	List
S-402-LAB	2	
S-404-LAB	4	
S-406-LAB	6	
S-408-LAB	8	
S-410-LAB	10	
S-412-LAB	12	

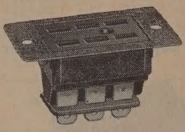
SOCKET — With Angle Brackets



S-406-AB

Code	Contacts	List
S-402-AB	2	
S-404-AB	4	
S-406-AB	6	
S-408-AB	8	
S-410-AB	10	
S-412-AB	12	

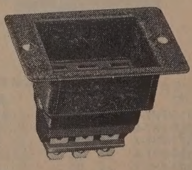
Socket — With Shallow Bracket for Flush Mounting



S-406-SB

Code	Contacts	List
S-402-SB	2	
S-404-SB	4	
S-406-SB	6	
S-408-SB	8	
S-410-SB	10	
S-412-SB	12	

SOCKET — With Deep Bracket for Recessed Mounting



S-406-DB

Code	Contacts	List
S-402-DB	2	
S-404-DB	4	
S-406-DB	6	
S-408-DB	8	
S-410-DB	10	
S-412-DB	12	

Trade Discount Applies To List Prices Only

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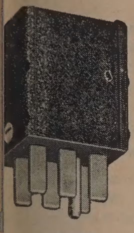
"400" SERIES PLUGS AND SOCKETS

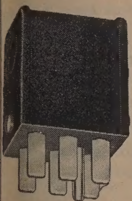
(Formerly "Heavy Duty")



P-406-FHT

PLUG — With Flared Hole in Top

Code No.	Contacts	List Price Each
P-402-FHT	2	$ .94
P-404-FHT	4	1.22
P-406-FHT	6	1.48
P-408-FHT	8	1.75
P-410-FHT	10	2.04
P-412-FHT	12	2.30



P-406-FHE

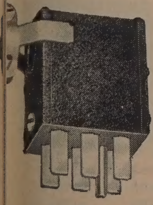
PLUG — With Flared Hole in End

Code No.	Contacts	List Price Each
P-402-FHE	2	$ .94
P-404-FHE	4	1.22
P-406-FHE	6	1.48
P-408-FHE	8	1.75
P-410-FHE	10	2.04
P-412-FHE	12	2.30

P-406-CCT

PLUG — With Cable Clamp in Top

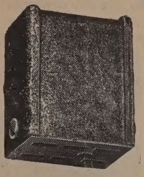
Code No.	Contacts	List Price Each
P-402-CCT	2	$1.30
P-404-CCT	4	1.59
P-406-CCT	6	1.86
P-408-CCT	8	2.12
P-410-CCT	10	2.39
P-412-CCT	12	2.67



P-406-CCE

PLUG — With Cable Clamp in End

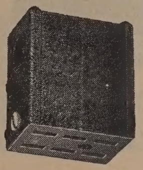
Code No.	Contacts	List Price Each
P-402-CCE	2	$1.30
P-404-CCE	4	1.59
P-406-CCE	6	1.86
P-408-CCE	8	2.12
P-410-CCE	10	2.39
P-412-CCE	12	2.67



S-406-FHT

SOCKET — With Flared Hole in Top

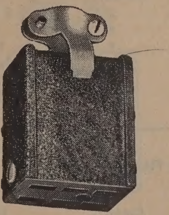
Code No.	Contacts	List Price Each
S-402-FHT	2	$1.03
S-404-FHT	4	1.41
S-406-FHT	6	1.76
S-408-FHT	8	2.14
S-410-FHT	10	2.51
S-412-FHT	12	2.89



S-406-FHE

SOCKET — With Flared Hole in End

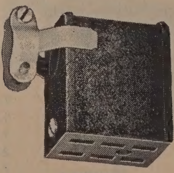
Code No.	Contacts	List Price Each
S-402-FHE	2	$1.03
S-404-FHE	4	1.41
S-406-FHE	6	1.76
S-408-FHE	8	2.14
S-410-FHE	10	2.51
S-412-FHE	12	2.89



S-406-CCT

SOCKET — With Cable Clamp in Top

Code No.	Contacts	List Price Each
S-402-CCT	2	$1.41
S-404-CCT	4	1.76
S-406-CCT	6	2.14
S-408-CCT	8	2.51
S-410-CCT	10	2.89
S-412-CCT	12	3.25



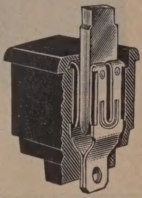
S-406-CCE

SOCKET — With Cable Clamp in End

Code No.	Contacts	List Price Each
S-402-CCE	2	$1.41
S-404-CCE	4	1.76
S-406-CCE	6	2.14
S-408-CCE	8	2.51
S-410-CCE	10	2.89
S-412-CCE	12	3.25

"2400" SERIES PLUGS AND SOCKETS

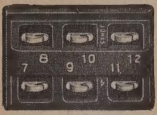
The 2400 Series Plugs and Sockets are designed for highest electrical and mechanical efficiency, and although they carry the same rating as the 400 Series, they will actually handle considerably higher currents due to their improved construction.



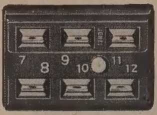
An entirely new type of socket contact has been designed. Four individual flexing surfaces make positive contact over practically their entire length. Note in the illustration how they exert maximum pressure at every point. Also note unique method of anchoring terminals in the block—they cannot be moved up or down.

This design provides greater contact surface, increased pressure, with smoother action.

Socket contacts are of phosphor bronze, cadmium plated. Male contacts are of heavy brass 1/4" x 1/16", cadmium plated.



Solder connecting side of Plug Body showing Recessed Pockets with Barriers around contacts. Plug contacts are also in Recessed Pockets on opposite side.



Solder connecting side of Socket Body showing Recessed Pockets with Barriers around contacts. Socket contacts are also in Recessed Pockets on opposite side.

The contact to contact, and contact to ground distance has been consid increased by mounting the contacts into recessed pockets with a Ba barrier surrounding and extending above. This method is used on both th and bottom sides of both plugs and sockets, greatly increasing the le path.

The outside dimensions of corresponding plug and socket bodies are the and can, therefore, be changed from brackets to caps, or vice versa.

Two styles of brackets are furnished "SB" (shallow bracket) for flush mo and "DB" (deep bracket) for recessed mounting. Caps are furnished flared hole in top or end, or with cable clamps in top or end. Unless oth specified, the following size cable entrance holes will be supplied:

2402—3/8"
2404—7/16"
2406—7/16"
2408—9/16"
2410—9/16"
2412—5/8"

As noted above, the 2400 Series is furnished in 2, 4, 6, 8, 10, and 12 con All plugs and sockets are polarized.

Plug and socket bodies are of molded bakelite. The fibre linings in the ca the same for both plugs and sockets.

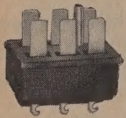
A shoulder extends around the face side of plug and socket present finished appearance when mounted in bracket or cap.

On account of this shoulder extending around the entire face of the body b angle brackets cannot be used with the 2400 Series Plugs or Sockets.

The entire 2400 Series is interchangeable with the 400 Series as 2400 Plu corresponding 400 Sockets, and 400 Plugs fit corresponding 2400 Sockets.

PLUG—Less Mounting Bracket

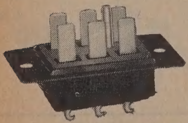
Drilled and Tapped Unless Otherwise Specified



P-2406

Code	Contacts	List Price Each
P-2402	2	$ .63
P-2404	4	.83
P-2406	6	1.04
P-2408	8	1.25
P-2410	10	1.45
P-2412	12	1.68

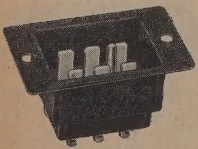
PLUG—With Shallow Bracket for Flush Mounting



P-2406-SB

Code	Contacts	List Price Each
P-2402-SB	2	$1.12
P-2404-SB	4	1.32
P-2406-SB	6	1.54
P-2408-SB	8	1.74
P-2410-SB	10	1.99
P-2412-SB	12	2.18

PLUG—With Deep Bracket for Recessed Mounting

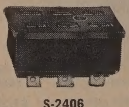


P-2406-DB

Code	Contacts	List Price Each
P-2402-DB	2	$1.23
P-2404-DB	4	1.42
P-2406-DB	6	1.62
P-2408-DB	8	1.84
P-2410-DB	10	2.06
P-2412-DB	12	2.29

SOCKET—Less Mounting Bracket

Drilled and Tapped Unless Otherwise Specified



S-2406

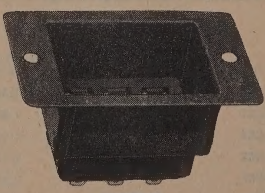
Code	Contacts	List
S-2402	2	
S-2404	4	
S-2406	6	
S-2408	8	
S-2410	10	
S-2412	12	

SOCKET—With Shallow Bracket for Flush Mounting

S-2406-SB

Code	Contacts	List
S-2402-SB	2	
S-2404-SB	4	
S-2406-SB	6	
S-2408-SB	8	
S-2410-SB	10	
S-2412-SB	12	

SOCKET—With Deep Bracket for Recessed Mounting



S-2406-DB

Code	Contacts	List
S-2402-DB	2	
S-2404-DB	4	
S-2406-DB	6	
S-2408-DB	8	
S-2410-DB	10	
S-2412-DB	12	

"2400" SERIES PLUGS AND SOCKETS

P-2406-FHT

PLUG—With Flared Hole in Top

Code No.	Contacts	List Price Each
P-2402-FHT	2	$1.23
P-2404-FHT	4	1.42
P-2406-FHT	6	1.62
P-2408-FHT	8	1.84
P-2410-FHT	10	2.06
P-2412-FHT	12	2.31

P-2406-FHE

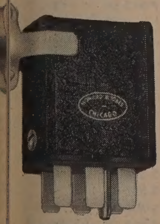
PLUG—With Flared Hole in End

Code No.	Contacts	List Price Each
P-2402-FHE	2	$1.23
P-2404-FHE	4	1.42
P-2406-FHE	6	1.62
P-2408-FHE	8	1.84
P-2410-FHE	10	2.06
P-2412-FHE	12	2.31

P-2406-CCT

PLUG—With Cable Clamp in Top

Code No.	Contacts	List Price Each
P-2402-CCT	2	$1.58
P-2404-CCT	4	1.79
P-2406-CCT	6	2.00
P-2408-CCT	8	2.19
P-2410-CCT	10	2.42
P-2412-CCT	12	2.67



P-2406-CCE

PLUG—With Cable Clamp in End

Code No.	Contacts	List Price Each
P-2402-CCE	2	$1.58
P-2404-CCE	4	1.79
P-2406-CCE	6	2.00
P-2408-CCE	8	2.19
P-2410-CCE	10	2.42
P-2412-CCE	12	2.67

S-2406-FHT

SOCKET—With Flared Hole in Top

Code No.	Contacts	List Price Each
S-2402-FHT	2	$1.31
S-2404-FHT	4	1.55
S-2406-FHT	6	1.74
S-2408-FHT	8	2.00
S-2410-FHT	10	2.24
S-2412-FHT	12	2.46

S-2406-FHE

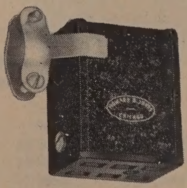
SOCKET—With Flared Hole End

Code No.	Contacts	List Price Each
S-2402-FHE	2	$1.31
S-2404-FHE	4	1.55
S-2406-FHE	6	1.74
S-2408-FHE	8	2.00
S-2410-FHE	10	2.24
S-2412-FHE	12	2.46

S-2406-CCT

SOCKET—With Cable Clamp in Top

Code No.	Contacts	List Price Each
S-2402-CCT	2	$1.70
S-2404-CCT	4	1.90
S-2406-CCT	6	2.11
S-2408-CCT	8	2.35
S-2410-CCT	10	2.59
S-2412-CCT	12	2.83



S-2406-CCE

SOCKET—With Cable Clamp in End

Code No.	Contacts	List Price Each
S-2402-CCE	2	$1.70
S-2404-CCE	4	1.90
S-2406-CCE	6	2.11
S-2408-CCE	8	2.35
S-2410-CCE	10	2.59
S-2412-CCE	12	2.83

"500" SERIES PLUGS AND SOCKETS

Designed for 3,000 volts and 25 amperes per contact. Circuit characteristics, however, may alter this rating one way or the other.

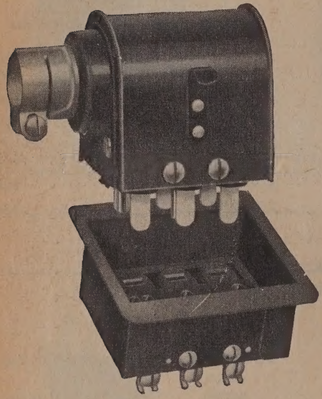
Long leakage path from terminal to terminal, and terminal to ground. Contacts are brass and phosphor bronze, silver plated. Metal parts of caps and brackets steel, parkerized (rust-proofed). Plug and socket blocks are interchangeable in caps and brackets.

All sizes are polarized in a manner to prevent a smaller plug being inserted in a larger socket. Thus different sizes may be used on one installation without dange making wrong connections.

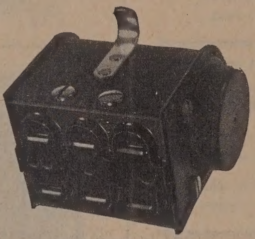
Extreme care has been taken to make terminal connections under cap very accessible both for original wiring and subsequent inspection. The cap is insulated canvas bakelite. Plug prong cross section 5⁄16″ x 3⁄32″.

IMPORTANT: For safety with high voltages DEEP BRACKETS should always be used on one plug or socket, when the other plug or socket has a CAP. SHALL BRACKETS are for use only in connecting two units, each unit having plug or socket with SHALLOW BRACKET.

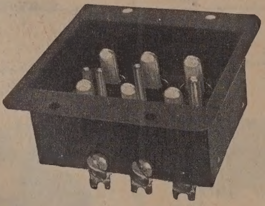
P-506-CE
(Plug with Cap)
(BX Clamp shown but not furnished)



S-506-DB
(Socket with Deep Bracket)

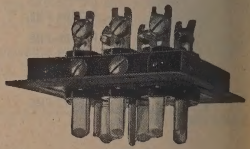


S-506-CE
(Socket with Cap)

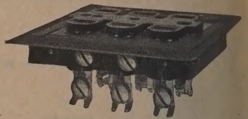


P-506-DB
(Plug with Deep Bracket)

Cable Entrance: Because of the great variatio type and size of cables, we have considered it not to supply cable clamps of any kind. The end is made to accommodate standard BX cla which may be obtained at any electrical job house. The cap end will be furnished with r hole from ½″ diameter and 1¼″ diameter in s of ⅛″, if the size required is given on orde no size is given, plain cap end with center p locating center will be shipped.

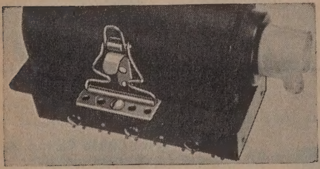


P-506-SB
(Plug with Shallow Bracket)



S-506-SB
(Socket with Shallow Bracket)

LOCKS FOR 500 SERIES PLUGS AND SOCKETS



No. 500-L Locks

Locks shown above are used in connection with any DEEP BRACKET and cap combination.

The locks securely hold the units together, but they can be released instantly.

The mounting plates are made to fit all DEEP BRACKETS, and are fastened by the same screws or rivets that hold the deep brackets to the panel. Can not be used on shallow brackets. Sold in pairs only.

PLUG
With Cap

Code	Contacts	List Price Each
P-502-CE	2	$ 4.21
P-504-CE	4	6.06
P-506-CE	6	7.91
P-508-CE	8	9.77
P-510-CE	10	11.62
P-512-CE	12	13.46

SOCKET
With Cap

Code	Contacts	List Price Each
S-502-CE	2	$ 4.21
S-504-CE	4	6.06
S-506-CE	6	7.91
S-508-CE	8	9.77
S-510-CE	10	11.62
S-512-CE	12	13.46

PLUG
With Deep Bracket

Code	Contacts	List Price Each
P-502-DB	2	$ 3.71
P-504-DB	4	5.31
P-506-DB	6	6.90
P-508-DB	8	8.51
P-510-DB	10	10.11
P-512-DB	12	11.72

SOCKET
With Deep Bracket

Code	Contacts	List Price Each
S-502-DB	2	$ 3.71
S-504-DB	4	5.31
S-506-DB	6	6.90
S-508-DB	8	8.51
S-510-DB	10	10.11
S-512-DB	12	11.72

PLUG
With Shallow Brack

Code	Contacts	List I Ea
P-502-SB	2	$ 3.
P-504-SB	4	5.
P-506-SB	6	6.
P-508-SB	8	8.
P-510-SB	10	10.
P-512-SB	12	11.

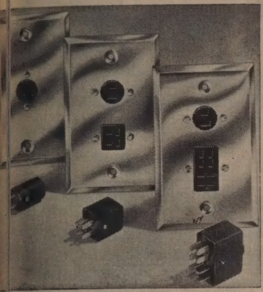
SOCKET
With Shallow Brack

Code	Contacts	List I Ea
S-502-SB	2	$ 3.
S-504-SB	4	5.
S-506-SB	6	6.
S-508-SB	8	8.
S-510-SB	10	10.
S-512-SB	12	11.

Trade Discount Applies To List Prices Only

© U.C.P.,

TELEVISION WALL PLATES



302 SERIES

The 302 series wall plates are made of steel with a heavy chrome plate and provide a convenient junction between antenna lead in and television set. They all fit a standard outlet box. Mounting screws furnished. S-302-WPC provides connection for antenna lead in. S-302-4WPC provides connections for antenna lead in and up to 8 contact rotor.

Jones P-302-FHT plug can be used for the antenna socket and a P-304-FHT or P-308-FHT for the rotor socket.

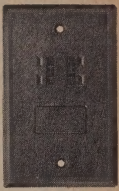
List Price Each

S-302-8WPC	S-302-4WPC	S-302-WPC
$2.99	$2.78	$2.30

LOW LOSS POLYSTYRENE® PLATE

This plate covers every requirement for an up-to-date TV connector. Molded of Polystyrene, it assures perfect reception in fringe areas where low loss is of vital importance. One plate provides connections for UHF and VHF and has a knock out provision for the mounting of a standard S-308-AB socket in case a rotor is used. Fits a standard outlet box or can be attached to the wall. Mounting screws for both the plate and socket are furnished. Supplied in brown or Ivory.

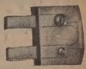
Code	Color	List Price
WPI	**Ivory**	**$1.63**
WPB	**Brown**	**1.63**



No. WPB

POLYSTYRENE® PLUG

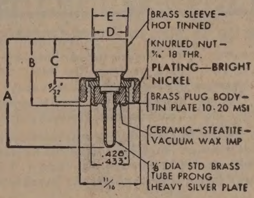
The plug is molded of clear polystyrene® and matches the 300 Ohm transmission line assuring maximum performance.



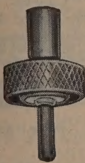
No. TVP-2
List Price Plug
$ .37

SERIES 101 PLUGS

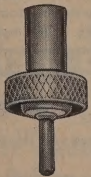
entire No. 101 Series of Plugs dentical with the exception of able ferrule which is furnished ur sizes as listed below. All parts are of brass. These fit all of the No. 101 Series ts. A low loss Plug and Socket for high frequency connections.


E
D
B
C
A
9/32″
.426″
.433″
11/16
BRASS SLEEVE—HOT TINNED
KNURLED NUT—9/16″ 18 THR.
PLATING—BRIGHT NICKEL
BRASS PLUG BODY—TIN PLATE 10-20 MSI
CERAMIC—STEATITE—VACUUM WAX IMP
1/8″ DIA STD BRASS TUBE PRONG HEAVY SILVER PLATE

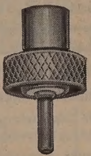
	A	B	C	D	E	List Price Ea.
-¼″	1¼″	¾″	15/32″	¼″	9/32″	$ .87
-.290	1¼″	¾″	15/32″	.290	.319	1.06
-5/16″	1 11/32″	27/32″	9/16″	5/16″	11/32″	1.06
-⅜″	1 3/16″	11/16″	7/16″	⅜″	13/32″	1.06
-½″	1⅞″	1⅜″	1 1/16″	½″	9/16″	1.18



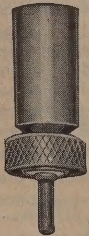
P-101-¼″



P-101-5/16″



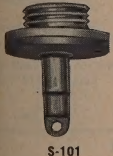
P-101-⅜″



P-101-½″

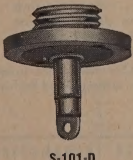
SERIES 101 SOCKETS

No. 101 Series Sockets are furnished in three types as shown below. Base f Brass with Bright Nickel Plated finish. Brass contact is Silver Plated. lation of low loss natural color XXX Bakelite. Meets Navy Specifications. S-101-D is similar to the S-101 except that the Bakelite is recessed in the . S-101-D Mod. is the same as S-101-D except that two sides of the base milled as shown. Mounting Holes No. 101—No. 41 drill on 11/16″ centers. nting holes No. 101-D and 101-D Mod. No. 30 drill on 13/16″ centers.



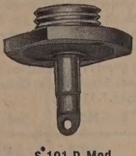
S-101

List Price Each
$ .77



S-101-D

List Price Each
$1.18

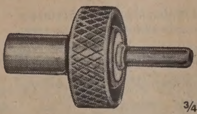


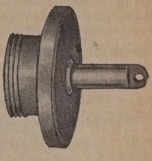
S-101-D Mod

List Price Each
$1.18

(Above Illustrations are Actual Size)

SERIES 201





¾″—27 thread.

PLUGS

The No. 201 Series Plugs are of the same design as the No. 101 but are of heavier stock and larger. Made in one size only with ⅜″ ferrule. All metal parts are of Brass, same finish as No. 101 Series and Wax Impregnated Ceramic Insulation. Over-all length 1 9/16″. Prong diameter 5/32″. Fits only the 201 Socket.

Code	List Price Ea.
P-201-⅜	**$1.36**

SOCKETS

The 201 Socket is similar to the S-101-D except larger. Brass base is Bright Nickel Plated. Brass contact is Silver Plated. Insulation is of low loss natural color XXX Bakelite.

Mountings holes—No. 30 drill on 1″ centers.

Code	List Price Ea.
S-201	**$1.46**

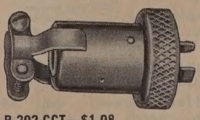
SERIES 202

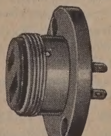
PLUGS SOCKETS

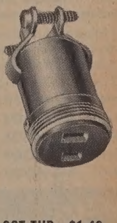
The 202 Series Plugs and Sockets are made in two contacts only. Metal parts are of Brass with Bright Nickel Plate. Insulation is of Molded Bakelite. Phosphor Bronze "Knife Switch" type Socket Contacts engage both sides of flat Plug Contacts—double contact area. Formed Fibre linings in caps. Polarized. Knurled nut has ¾″-27 thread.

Socket Mounting Holes. No. 30 drill on 1″ centers.

The S-202-CCT-THR has been added to this series and when used with the P-202-CCT will make an ideal microphone connector.







List Prices

P-202-CCT—$1.08
(as shown above)

S-202-CCT—$1.10
(Socket instead of Plug)

P-202-FHT—$ .87
(Same as above less Cable Clamps)

S-202-FHT—$ .89
(Same except Socket)

S-202-B—$1.28
(Socket for Base Mtg.)

P-202-B—$1.23
(Same as above except with Plug)

S-202-CCT-THR—$1.46
(as shown above)

Used with **P-202-CCT** as an extension connection

HOW To REDUCE Unnecessary Costs - - SAVE the difference...with Fast.... Reliable.... E-Z-HOOK TEST CONNECTORS

— At New Lower Money-Saving Prices —

SAVE TIME
E-Z-HOOKs
YOUR TIME

U.S. PATENT NO. 270289

Value Engineered for Maximum Efficiency, Performance, and Savings.

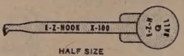
Here is your solution for the costly delays and aggravation caused by in-efficient clips that, slip and short out or jump off. These efficient "Positive Grip—No Slip" E-Z-HOOKs eliminate the distraction . . . converts the time now unnecessarily wasted in re-connecting or repairing any resulting damage into . . . **pleasant, profitable, productive effort.**

One, of many, reasons why E-Z-HOOKs is the finest investment you can make in faster, safer, easier, more trouble-free Testing.

.....Satisfactory Service Guaranteed.....

MINIATURE CLIP & TEST LEADS

- **Make Impossible Connections . . . Easy**



HALF SIZE

FULL SIZE

Now enjoy famous E-Z-HOOK reliability and performance on your small, sub-miniature jobs, too. Easily make test connections never before possible.

Tiny E-Z-HOOK with the new "Hypo Action" gives you the small size and positive control needed to make such tedious work easier, more efficient, pleasant and profitable.

Use "Q" Balls two ways—1, as a versatile low voltage test connector, 2. as a tiny mechanical hand to handle small parts. Will save you hours of unnecessary delays and aggravation hooking small springs, stringing dial cords, holding remote wires and similar applications.

Durably constructed of the finest materials—Red Nylon insulation, Stainless Steel spring, & Beryllium Copper conductor to assure reliable performance.

Also available on 32" —Ready-to-Plug-In—Test Leads of flexible Red and Black striped, 24 AWG (19-36) thermoplastic wire—Standard or Banana Tip.

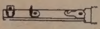
Over all length 2 1-4". Maximum width at hook only .079". Wt. 1-6th oz.

No.	X-100	E-Z-HOOK 'Q' Ball Mini-HOOK (No lead)	ea.	.49
No.	AX-1	E-Z-HOOK 'Q' Ball Test Lead (32"—Std. Tip)	ea.	.89
No.	BX-1	E-Z-HOOK 'Q' Ball Test Lead (32"—Ban. Tip)	ea.	.94

SCOPE - METER PROBES

- **Now—Special Probes assembled in minutes**

Custom PROBE



BUILT-IN TERMINAL
For easy assembly

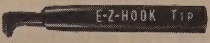
Never before such efficiency and convenience in a replacement probe . . . SPECIAL TERMINALS speeds assembly, makes it easier . . . E-Z-HOOK for easy time-saving care-free connections . . . SCREW-ON COVER for ready access and repair . . . STRAIN-RELIEF prolongs life of single or shielded leads.

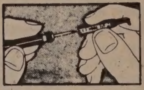
For Professional or Production use. Finest streamlined feather-weight construction of rust proof Stainless, durable Zytel Nylon (slide), tough Tenite (body) in Red, Black, Blue, Green, Orange, & Silver. Lgth. 4 3-4", O.D. 15-32", Wt. 1-3 oz.

No.	54-1	E-Z-HOOK Custom PROBE		ea.	.89
No.	54-2	E-Z-HOOK Custom PROBE	(Gold Plated)	ea.	1.09

TEST PROD TIP ADAPTERS

- **For testing as you like it**
- **Sharp point to an E-Z-HOOK in seconds**





SLIPS EASILY ON - OFF

Trouble Eliminator
4 springs insure firm grip

Handiest, most trouble-free adapter you can get. Convenient E-Z-HOOK Tip slips easily on, or off, — in seconds! Doubles regular test prod utility, 1. as a sharp point for probing, 2. as an extra hand when needed.

Safer, too! . . . remote connections made easily while your hand stays out in the clear — safe from shock.

A smart investment in trouble-free design. Exclusive spring chuck eliminates loose, wobbly fit on Prod . . . insures pleasant, irritation-free performance.

Made of rust-proof Stainless Steel, Brass, and tough Zytel Nylon in Red, Black, Blue, Green, Orange, and Yellow. Lgth. 2 1-16", O.D. 19-64", Wt. 1-8 oz.

No.	51-1	E-Z-HOOK	Tip	(Tec—10-32 female thread)	ea.	.69
No.	55-0	E-Z-HOOK	Tip	(Needle—'060")	ea.	.69
No.	56-1	E-Z-HOOK	Tip	(Standard—.080")	ea.	.69
No.	59-4	E-Z-HOOK	Tip	(Banana—Standard.)	ea.	.69

E-Z-HOOK TEST PRODUCTS

E-Z-HOOK TEST PRODUCTS
SAFE • FAST • SURE
Pat No. 2702892

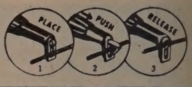
Covington, Ky.

In Canada:- Len Finkler, Ltd. Toronto 19, Ont.

Time Saving — Carefree Connections

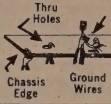
Easy As 1, 2, THREE! . . .

1. Place end against test point
2. Press forward lightly
3. Release



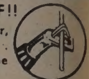
CONNECTS ANYWHERE!!

No connection problems with E-Z-HOOKs. Use any handy wire, hole, or edge . . . and, best of all, they stay connected.



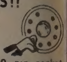
CAN'T PULL OFF!!

E-Z-HOOKs clamp over, around — not on . . . the harder you pull, the tighter they hold.



ELIMINATES SHORTS!!

Enjoy worry-free checks. Small hook wire & tough nylon . . . gives two-fold, full time protection.

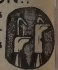


POSITIVE TWO-FINGER CONTROL!!

Pressure action stabilizes end . . . gives you positive control in tight spots, even deep in the chassis.

TROUBLE-FREE DESIGN!!

Practical performance. Fits large, small, round or irregular . . . with no sharp edges or teeth to cut or mar.

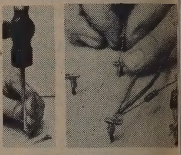


HARNESS - BREAD - BOARD CLIPS

Save Up to 30% in Board Construction Time!

No need to waste valuable time drilling holes, placing screws, nuts, & washers. The "Nail" Clip drives into wood like a nail! Pulls out as easy. Make Eng. Changes in seconds. Use them to speed Processing—Save Construction & Production time.

Easy finger-tip operation speeds wire placing — makes it easier. Patented E-Z-HOOK holds firmly —won't cut nick or damage wire ends. L. 1 3-16". Made of tough Stainless Steel and Durable Nylon.



E-Z-HOOK "Nail" Clips

New "Perfo" Clips For Perforated Boards

Snap the "Perfo" Clips into place & enjoy the ease and efficiency in your bread-board experiments only E-Z-HOOKs provide: — Quick, easy finger-tip operation — No tools required to place or remove — No sharp edges to nick or cut.

Same sturdy construction as "Nail" Clips, but designed for use in .093" holes.

No.	81-1	E-Z-HOOK "Nail" Clip (Use T-20 Tool)	24¢ ea.	10 for 1.98
No.	K8150T-1	"Nail" Clip Kit (50 Clips, Tool & Instr.) Wt. 2 oz.	ea.	8.95
No.	T-20	E-Z-HOOK "Nail" Clip Driving Tool Wt. 1-3 oz.	ea.	.35
No.	85-1	E-Z-HOOK "Perfo" Clip (.093" holes)	24¢ ea.	10 for 1.98

JUMPER - GROUND - METER CLIPS

- **Convert needless delays . . . to pleasant productive checks**

E-Z-HOOK Clip

Let carefree E-Z-HOOK Clips help speed your checks . . . make it easier. They quickly pay for themselves in savings.

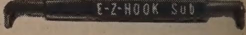
Easy slip-on design saves in assembly and maintenance . . . safe solder connection and strain relief assures longer trouble-free lead life.

Made of tough Stainless, durable Nylon in colors for easy lead identification: Red, Black, Blue, Green, Orange, Yellow. Lgth. 2 1-8", OD 5-8", Wt. 1-13 oz.

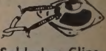
No.	61-1	E-Z-HOOK	Clip	(Standard)	ea.	.39
No.	61-2	E-Z-HOOK	Clip	(Gold Plated)	ea.	.59

PARTS SUBSTITUTION CLIPS

- **Eliminate Guessing**



You can be sure! —when you substitute, and this E-Z-H Sub is just the thing to use . . . quick, easy, temporary connections in seconds . . . no lead twisting or solder tacking to damage parts or wiring. Speeds trouble-shooting, makes it easier . . . saves hours and dollars in valuable production time and material.



Solderless Clips
Eliminate Broken Lugs

Long-lasting Zytel Nylon and tough Stainless Steel. In colors for easy lead identification: Red, Black, Blue, Green, Orange, and Yellow. Length 2 1-2", O.D. 19-64", Weight. 1-12th oz.

No.	71-1	E-Z-HOOK Sub	ea.	.49

HOW TO ORDER INFORMATION

To Order:- Order E-Z-HOOKs direct from Factory or get them from your convenient Parts Distributor.
Factory Delivery:- Usually shipped -via Parcel Post- within 10 days.
Terms:- Rated Firms -- 2% 10th E.O.M. - Net 30 Days. F.O.B. Covington, Ky.
Prices:- All Prices Net U.S.A., and Subject to Change Without Notice. All Patent Rights Reserved.
(In Canada order from Len Finkler Ltd., 2 Tycos Dr., Toronto 19)

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FOR PRICES

ELCO VARICONS* are considered by users to be the most reliable, versatile and production-oriented connector system ever introduced. They offer a unique, patented fork-like design with 4 coined mating surfaces; they provide various tail end terminations for any conventional or solderless wiring technique; they are available in the widest range of sizes and models.

VARICONS* also offer safe and positive cable retention and simplicity of installation via cable clamps. Other standard accessories such as covers, screw-actuation, etc., are also available.

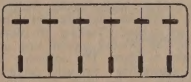
VARICONS* contacts are identical in male and female design; are always under pressure in use; cannot be over-stressed or over-strained. Excellent retention is maintained even after thousands of insertions and withdrawals; are free floating inside their housings; offer countless contact arrangements. In a word, their applications is as limitless as the ingenuity of the user.

GENERAL SPECIFICATIONS

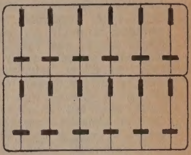
CONTACTS—Silver plated and cadmium plated. Cadmium plated hardware chromated for use in marine atmosphere.

COVERS—wrinkle finish, painted blue. Also available in other colors on special quantity orders. CURRENT RATING —20 amps, 115 volts, 30° temperature rise. VOLTAGE RATING—1500 volts at sea level; 750 volts 3.4 in/Hg; 1300 sea level. CONTACT RESISTANCE—.002 ohm.

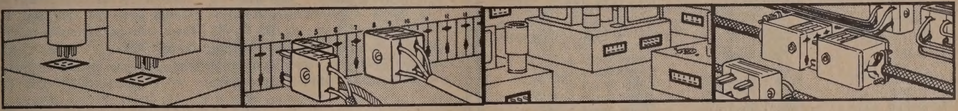
INSULATION RESISTANCE — 25,000 megs. minimum, dry. PREFIX "M"—indicates male; PREFIX "F"—indicates Female; PREFIX "R"—indicates Ruggedized Ends, 12 contacts or over.



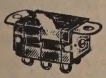
EXAMPLE OF SINGLE TIER



EXAMPLE OF DOUBLE TIER



VARICON* CONNECTORS



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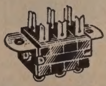

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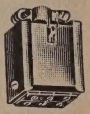

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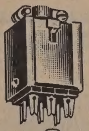

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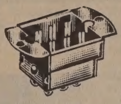

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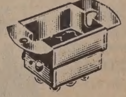

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SINGLE TIER WITH STANDARD BRACKETS (FIGS. A, B)

Available in double tier for 20, 24, 28, 32 and 36 contacts. Male type (Fig. B) mates with female type (Fig. A) and Clamp Type (Fig. C); (also see other listings). Female unit also mates with Clamp Type (Fig. D).

Elco No.	Contacts
M10220-1	2
F10220-1	2
M10420-1	4
F10420-1	4
M10620-1	6
F10620-1	6
M10820-1	8
F10820-1	8
M11020-1	10
F11020-1	10
RM11220-1	12
RF11220-1	12
RM11420-1	14
RF11420-1	14
RM11620-1	16
RF11620-1	16
RM11820-1	18
RF11820-1	18

SINGLE TIER WITH COVERS AND CLAMPS (FIGS. C, D)

Male unit (Fig. D) mates with female unit (Fig. C), plus standard bracket type (Fig. A) and recessed housing type (Fig. F). Female unit also mates with standard bracket type (Fig. B) and recessed housing type (Fig. E).

Elco No.	Contacts
M10425	4
F10425	4
M10624	6
F10624	6
M10824	8
F10824	8
M11024	10
F11024	10
RM11224	12
RF11224	12
RM11424	14
RF11424	14
RM11624	16
RF11624	16
RM11824	18
RF11824	18

SINGLE TIER WITH RECESSED HOUSING (FIGS. E, F)

Units available in double tier for 20, 24, 28, 32 and 36 contacts. Male unit (Fig. E) does not mate with female unit (Fig. F); mates with cover and Clamp Type (Fig. C) only. Female unit mates with cover and Clamp Type (Fig. D) only.

Elco No.	Contacts
F10226	2
F10226	2
M10426	4
F10426	4
M10626	6
F10626	6
M10826	8
F10826	8
M11026	10
F11026	10
RM11226	12
RF11226	12
RM11426	14
RF11426	14
RM11626	16
RF11626	16
RM11826	18
RF11826	18

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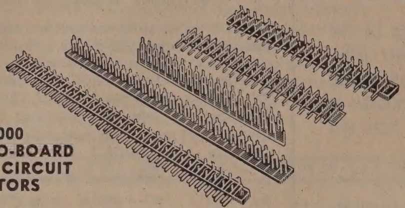
PRINTED CIRCUIT CONNECTORS



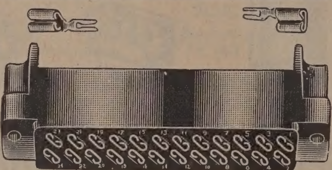
SERIES 5000 BOARD-TO-BOARD PRINTED CIRCUIT CONNECTORS

Employ same "Varicon Reliability Principle" as conventional Varicons fork-like contact, four coined mating surfaces. Supplied in disposable plastic strips at .200″ spacing. One to 60 contacts to a strip. Staking of the contacts to the printed circuit board is made in accordance with modern mass-production techniques with special staking tools. Tools are available from ELCO either unmounted, for application to customer die set, or completely mounted in ELCO die set, as desired. Staking of contacts to the printed circuit board, and thereby to the printed circuit line assures a solid, low resistance contact, rigidly held in place. Dip soldering the board automatically makes an additional connection between contact and board thus creating an unsurpassed reliability for the joint. Over 65 pounds are required to tear a contact from the board if staked and soldered, 50 pounds if staked only, and 25 pounds if only soldered. For small-size modules brackets can be supplied separately. It is recommended that larger modules be guided by integral parts of the equipment. Contacts: Phosphor bronze. Finish: Gold flash over nickel plate. Contact Resistance: .002 ohm max. Insertion and withdrawal. Force: 8 oz. per contact, average. Contact Life: Unchanged after 5000 insertions and withdrawals.

Elco No.	Component No.	Description
CS-X*-A-.200	5101.0613	45° for 1/16″ board
CS-X*-B-.200	5101.0623	45° for 3/32″ board
CS-X*-C-.200-5201	5201.0213	Standoff for 1/16″
CS-X*-D-.200-5201	5201-0223	Stand-off for 3/32″
CS-X*-G-200	7001.0413	Lower board 1/16″
CS-X*-H-.200	7001.1513	Lower board 1/16″**
CS-X*-I-.200	7001.0423	Lower board 3/32″
CS-X*-J-.200	7001.1523	Lower board 3/32″**
CS-X*-K-.200	7001.0513	Upper board 1/16″
CS-X*-L-.200	7001.0523	Upper board 3/32″
CS-X*-Q-.200	5001.1913	1/16″ board
CS-X*-R-.200	5001.1923	3/32″ board

*Place number of contacts required in place of X, e.g., strip of 30 contacts of 5101.0613 contact, CS-30-A-.200. **W/o wire hole.

SERIES 7009 VARITWIN-PIN* PRINTED CIRCUIT CONNECTORS

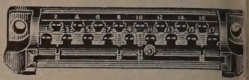


Female Connector Body: Constructed of one-piece molding. Insulator material is Diallyl Phthalate per MIL-M-18794-SDG. Guides integrally molded with the connector body insure perfect mating of the printed circuit module card with the connector. Mounting of connector accomplished by two .128″ diameter mounting holes, one at either end of the connector. Width of connector is .580″; permits mounting of adjacent connectors on .600″ centers. Contact configuration: Two rows of contacts on .200″ spacing, with .125″ between rows; one row offset .100″ from the other, allowing .100″ spacing of contacts on the module card. Varitwin-Pin Contacts have bifurcated terminations and each will accept two Series 53 taper pins. Terminal end of the contact with its dual positions, lies on a 53° angle with respect to the connector axis, and is recessed 95% into the connector body. Module card is 1/16″ thick. Polarization accomplished simply by insertion of a polyethylene polarization tab; no loss of contact position is incurred. Male Connector: Printed Circuit module card is punched or drilled and ELCO contacts staked and soldered in, forming the male part of the connector. Hole pattern for the ELCO printed circuit contact lies on a .100″ grid, and should be held to plus or minus .003″ tolerance, non-accumulative, for hole location. Hole diameter is .052″, .000″, –.004″. Current Rating: 10 amps. Contact Resistance (at rated current): 0.003 ohm, max. Contact Material and Plating: Phosphor bronze (per QQ-P-330 Grade "A"), nickel plate (0.0002″), gold flash (0.000010″ to 0.000015″). Military Specification: MIL-E-19600A (WEP).

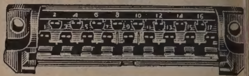
FEMALE (VARI-TWIN PIN)		MALE-ON STRIPS (WIRE HOLE)	
Elco No. 7009	Contacts	Elco No. 7009	Contacts
7009-24-5-1-22	24	7009-CS-24-GK	24
7009-34-5-1-22	34	7009-CS-34-GK	34
7009-40-5-1-22	40	7009-CS-40-GK	40

5006.3414 Polarizing Tab

SERIES 7001 AND 7008 CONNECTORS



7001



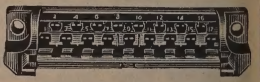
7008

Subminiature Printed Circuit Varicon Connector with contacts arranged in two tiers. Lower tier has one contact more than upper tier. Contacts are located on .100″ centers. Male member of connector consists of contacts supplied on plastic strips. Contacts are then placed into pre-punched o drilled holes in module board and stake directly into P-C card. Plastic is then removed with ELCO Heat Platen. Female portion of connector is a Diallyl-Phthalate insulator housing the contacts with which the module board is mated. Connector is designed for 1/16″ thick P-C board with molded guides for properly mating the contacts. Sizes available for 17, 23, 29, 35, 41 and 47 contact units. 7001 and 7008 Series connectors differ in two basic respects: (1) The module card of the 7008 is .100″ wider (.050″ on each side); and .050″ longer (added to the connector end of the card). (2) Polarization: On the 7001 Series, a tabular metal pin is used for polarization at odd contact numbers, i.e., 3, 5, 7, etc. Use of the first and last positions for polarization is not recommended. Pins are factory assembled. On the 7008 series, a polyethylene insert is inserted into the card slot at even contact numbers, i.e., 2, 4, 6, etc. These can be factory assembled, or furnished loose for your own inserting. Current Rating: 7 amps. Contact Resistance: .005 ohm, max. Contact Material: Phosphor bronze, nickel plated and gold flashed. Military Specification: MIL-E-19600A (WEP) para 3.5.5.

Type 7001	Contacts	Type 7001	Contacts
7001-17-5-1-1*	17(a)	7001-35-5-1-1*	35(a)
7001-17-5-1-11*	17(b)	7001-35-5-1-11*	35(b)
7001-A-17-1	17(c)	7001-A-35-1	35(c)
7001-23-5-1-1*	23(a)	7001-41-5-1-1*	41(a)
7001-23-5-1-11*	23(b)	7001-41-5-1-11*	41(b)
7001-A-23-1	23(c)	7001-A-41-1	41(c)
7001-29-5-1-1*	29(a)	7001-47-5-1-1*	47(a)
7001-29-5-1-11*	29(b)	7001-47-5-1-11*	47(b)
7001-A-29-1	29(c)	7001-A-47-1	47(c)

*To obtain 7008 Series Connector, substitute 7008 in place of 7001, e.g., 7008-17-5-1-11. Contact type termination: (a) .078″ base taper tab. (b) .098″ base taper tab w/wire hole. (c) Module board contacts.

SERIES 7015 FEMALE CONNECTOR



Similar to ELCO Series 7008, except contacts are new Varilok crimp-type, self-locking design, No. 8017.0313. Available in 17, 23, 29, 35, 41 contact models for 1/16″ module boards, with board guides. Polarizing tab may be located on same center line as contacts having even numbers, 2, 4, 6, etc.

Mfr's Type	Contacts
7015-17-5-1-27	17
7015-23-5-1-27	23
7015-29-5-1-27	29
7015-35-5-1-27	35
7015-41-5-1-27	41

5006.3414 Polarizing Tab
8017.0313 Varilok

Varilok contacts must be ordered separately.
See 8017 Rack and Panel Connectors for Tools.

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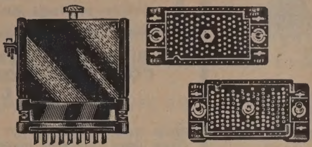
CONNECTORS, COMPONENTS AND ENCLOSURES

017 RACK AND ANEL OR CABLE CONNECTORS WITH VARILOK* CRIMP TYPE CONTACTS

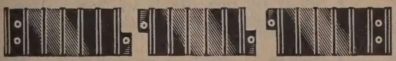


eries 8017, featuring the industry's most versatile and reliable contact—he Varicon, is applied in a connector providing the highest contact density 75, 100 & 130 contacts available). This connector is available with the ew ELCO Varilok, a crimp type self-locking contact. Can accommodate all izes of wire from 18 gauge to 30 gauge. Varilok contacts must be ordered eparately. Varilok hand crimping tool (T1728-1) and extraction tool (T1810) lso available. Above connector has actuating screw device for positive lock gainst vibration plus easiest engagement and disengagement. Actuating haft insulated with rubber sleeve. Contacts and contact rows are at .150″ pacing. Contacts are phosphor bronze, nickel plated, gold flashed. Contacts n use are always under pressure and cannot be overstressed or overstrained. xcellent retention maintained, even after several thousand insertions and ithdrawals. Insulators are glass-filled, diallyl phthalate. Covers are steel, aked black wrinkle finish with side cable clamp entrance. Unit has 36 ariations. Contacts are identical by letters (four columns) and numbers (four olarization positions with a theoretical possibility of over 100 polarizing ows) at front and in recessed figures at rear of connector. MS-Male with ctuating screw. F-Female. CS-Cover with side cable clamp outlet. Current ating: 5 amps. Contact Resistance: .005 ohm, max.

Elco Type	No. of Contacts	Contact Type Termination	Elco Type	No. of Contacts	Contact Type Termination
MS8017-75-6-CS	75	Wire Hole	F8017-100-6	100	Wire Hole
MS8017-75-1-CS	75	Varilok	F8017-100-1	100	Varilok
F8017-75-6	75	Wire Hole	MS8017-130-6-CS	130	Wire Hole
F8017-75-1	75	Varilok	MS8017-130-1-CS	130	Varilok
MS8017-100-6-CS	100	Wire Hole	F8017-130-6	130	Wire Hole
MS8017-100-1-CS	100	Varilok	F8017-130-1	130	Varilok

*Patent Pending. Varilok contact must be ordered separately.
ELCO No. 8017.0313NPGF Varilok Contact Loose
ELCO No. T1810 Extraction Tool
ELCO No. T1728-1 Hand Crimping Tool
ELCO No. T1742 Insertion Tool

SERIES 9011, 9012 GUIDE STRIPS

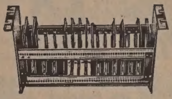


Guide strips are ideal time and 'abor savers designed for use in printed circuit packaging. Reduce engineering and production costs. Printed circuit modules are guided smoothly and accurately when insertion is made into the unit. Guide strips are for 1/16″ boards, at .750″ spacing, and are made of glass filled Diallyl Phthalate. Series 9011 guide strips are assembled as "building blocks." Sectional arrangement allow the designer to include as many strips as the equipment may require, in increments of seven guide locations. Series 9012 guide strips are wider and longer than series 9011, and can be utilized in a similar fashion.

Elco No.	Description
*9011.3011	Right Guide—2″ high
9011.3021	Center Guide—2″ high
*9011.3031	Left Guide—2″ high
9012.3029	Right Guide—3⅞″ high
9012.3019	Left Guide—3⅞″ high

*Right hand and left hand guide may be substituted for each other.

VARIPAK* II PC CARD ENCLOSURE



Universal-type printed circuit card enclosure. Aluminum rack holds boards and connectors in alignment for compact, efficient staking of circuitry. Enclosure fits any standard relay rack or cabinet. Ideal for development work where quick, easy modifications of circuitry is required. New circuit boards can be filed away for future use. Enclosure provides handy building block for fast assembly of special circuits, decreasing wiring time to a minimum. Unit offers wide applications in both laboratory and plant. Varipak is perfect unit for testing prototypes of original circuitry. Use 4.50″ wide printed circuit card with units listed below. Height of unit is 5.218″ and adjustable 1″ either way. Polycarbonate guides are available to accept different thicknesses of printed circuit cards. (See polycarbonate guide listings and guide plates.) Unit measures 19″ long with standard mounting slots pre-cut.

ELCO No.	Style	Dimensions*, Inches 1	2
9016-2-P	A	4.00	5.50
9016-6-P	B	5.50	8.50
9016-10-P	C	7.00	8.50
9016-14-P	D	8.00	11.00

*1 Depth of guide plate; 2 Depth of Mounting Hanger.
Above units have "blank" connector panels; if ¾″ blank mounting straps are required, change "P" to "S", e.g., 9016-6-S.

POLYCARBONATE GUIDES FOR VARIPAK II

Printed circuit cards slide into slots on guide, are firmly held in rack. Guides are polycarbonate and designed to snap in place in any of the 82 positions, provided in the guide slots. Choice of three thicknesses to accommodate boards of different sizes. All guides are supplied with snap rivets.

	Style Type*				
	A	B	C	D	
Size, In.*	9016-	9016-	9016-	9016-	Size, In.
1/16	1201	1204	1207	1210	1/16
3/32	1202	1205	1208	1211	3/32
1/8	1203	1206	1209	1212	1/8

*Order guides in accordance with the style of your Varipak.

COMPONENTS FOR VARIPAK II

FRONT PANEL— Provides finished appearance to the Varipak and offers instrument panel to which gauges and instruments may be mounted.
ELCO No. 9016-2201

MARKER STRIP— Make of flexible white-poly-vinyl chloride, 16¾″ long. Marker strip is inserted in the top of guide plate and used for indicating location of guides and/or printed circuit cards.
ELCO No. 9016-2402

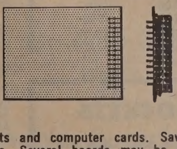
HAND STAKER

Offers laboratory and prototype staking of ELCO printed circuit Varicon contacts. Accommodates staking of most types of contacts presently available on model shop or laboratory basis. Punches for microcon and miniature printed circuit contacts. Rating: ¼ ton. Ram Dimensions: ½″ x ½″ x 2½″. Ram Stroke: 13/16″. Height of Opening: 1⅛″. Throat Depth from Center of Ram: 1″. Working Surface: 2″ x 2⅞″.
ELCO No. HS-1

HEATING PLATEN

Designed for removal of plastic strips from Varicon Printed Circuit Contacts. ELCO Varicon printed circuit contacts are supplied on plastic strips to facilitate handling and staking to printed circuit cards. Heating Platen T-1751 is designed for easy removal of the plastic strips after contact staking and soldering operations are completed. Platen is 10″ long.
ELCO No. T-1751

ELCO-VECTOR PLUGBORD AND RECEPTACLES



G

deal for printed circuit prototypes, plug-in test circuits and computer cards. Saves time and noney. Permits circuit changes with simple hand tools. Several boards may be used in conunction with each other by wiring connections between receptacles. BOARD MATERIAL: Epoxy aper 1/16″ thick; suffix WE (example: 837WE) indicates Epoxy glass board. Pattern "G", .062 holes on alternate 0.1″ grid.
CONTACTS—ELCO Varicon Contacts, phosphor bronze, .0002 nickel plated and gold flashed on oth board and receptacle.
ECEPTACLE—One piece glass filled Diallyl Phthalate insulator with .078 base taper tab termination. Models R612-1 and R616-1 supplied without P. C. Board Guides, Model R635 with Guides.
USE: Graph paper 10 squares per inch, may be used for initial circuit layout. Push-in terminals re then positioned on board as designed in layout. Contacts are soldered to staked eyelets on ottom edge for terminations. Bare wire may be used for inter-component connections.

PLUGBORD FIG. G

ELCO/ Vector No.	Contacts	Size, In. Width x Lgth.
812	16	4½ x 6½
812WE	16	4½ x 6½
837	12	3 x 4½
837WE	12	3 x 4½
848WE	35	4½ x 6½

RECEPTACLES

ELCO/ Vector No.	Contacts	ELCO No.
R612-1	12	5009-12-5-2-1
R616-1	16	5009-16-5-2-1
R635	35	7008-35-5-1-1

ACCESSORY HARDWARE

ELCO No.	Description
T28	Terminals
15.22	Eyelets
P.91	Pusher Tool

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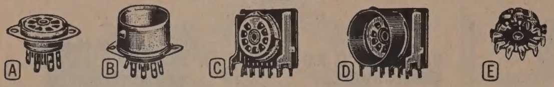
SOCKETS



14-PIN MILITARY RELAY SOCKET TS1405P01

Flat saddle type, top mounting .125″ mounting hole. Phosphor bronze silver plated tin-dipped. ELCO No. 423PHSPTD—Net Each, Lots of 1-499, .33; 500-1499, .21; 1500-4999, .18.

MIL SOCKETS (FIGS. A & B)

All 7-pin, 9-pin, and octal sockets available per MIL-S-12883-A Specifications. All base shield sockets fit "J" slot shields. Contacts are phosphor bronze, silver plated, tin dipped. BOT—Bottom mounted saddle. TOP—Top mounted saddles.

MILITARY SOCKETS PER MIL-S-12883-A

PHSPTD=Phosphor Bronze, Silver Plated, Tin Dipped CER=Ceramic BR=Brass, Cad. Plated

7-PIN BASE SHIELD TYPE

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS102C01	238PHSPTD	PHSPTD	Cer	Yes	227.20	143.45	126.25
TS102P01	235PHSPTD	PHSPTD	Mica	Yes	157.41	99.40	87.45

7-PIN SADDLE—TOP MOUNTED

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS102C02	982PHSPTD	PHSPTD	Cer	Yes	214.45	135.40	119.15
TS102P02	983PHSTPD	PHSPTD	Mica	Yes	138.10	87.20	76.75

7-PIN SADDLE—BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS102C03	986PHSPTD	PHRPTD	Cer	Yes	214.45	135.40	119.15
TS102P03	987PHSPTD	PHSPTD	Mica	Yes	138.10	87.20	76.75

9-PIN BASE SHIELD TYPE

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS103C01	176PHSPTD	PHSPTD	Cer	Yes	253.35	159.95	140.75
TS103P01	169PHSPTD	PHSPTD	Mica	Yes	177.21	111.88	98.45

9-PIN SADDLE TOP MOUNTED

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS103C02	984PHSPTD	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P02	985PHSPTD	PHSPTD	Mica	Yes	150.10	94.75	83.40

9-PIN SADDLE—BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS103C03	988PHSPTD	PHSPTD	Cer	Yes	245.35	154.90	136.30
TS103P03	989PHSPTD	PHSPTD	Mica	Yes	150.10	94.75	83.40

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS101C01	338PHSPTD	PHSPTD	Cer	No	389.75	246.05	216.55
TS101P01	335PHSPTD	PHSPTD	Mica	No	274.25	173.15	152.35

OCTAL SOCKETS BOTTOM MOUNTED W/GROUND LUGS AND TAPPED BUSHINGS

Military No.	Model No.	Contact Material	Insulator Material	Center Shield	Per 1000		
					1-499	500-1499	1500-4999
TS101C02	337PHSPTD	PHSPTD	Cer	No	454.40	286.90	252.45
TS101P02	336PHSPTD	PHSPTD	Mica	No	347.70	219.50	193.15

AN ELCO EXCLUSIVE! E-Z MATE SOCKETS

ELCO'S E-Z Mate Socket design saves time, tubes, tempers via an ingenious positioning key at top of socket which permits tube to "find" insertion point almost automatically. Hence, tubes may be inserted in "blind" or formerly inaccessible locations. All 7- and 9-pin base-shield and saddle type sockets (except ceramic) will be delivered in E-Z mate design AT NO EXTRA COST when available. If E-Z Mate specifically desired, add notation when ordering. Conforms to MIL 12883-A.

NEW LOWERED SOCKET PRICES

ELCO Sockets are now available at prices considerably less than before—with absolutely no lowering of our famous quality standards. These lowered prices are made possible by our new, larger manufacturing plants and the resultant production economies. We are happy to pass these dollar savings on to you.

RIGHT-ANGLE PRINTED CIRCUIT CONTINUOUS-CONTACT SOCKETS (FIG. C & D)

Units listed are for 1/16″ glass filled epoxy boards. Types listed have mica insulation. Beryllium copper contacts standard.

ELCO No.	Description	Net Ea., Lots of		
		1-99	100-499	500-999
4006-3-EG-1/16	7-Pin Mica, w/o shield base	1.96	1.22	1.04
4007-3-EG-1/16	7-Pin Mica, w/shield base	2.52	1.57	1.34
4008-3-EG-1/16	9-pin Mica, w/o shield base	2.00	1.25	1.07
4009-3-EG-1/16	9-Pin Mica, w/shield base	1.83	1.69	1.45

JAN SHIELD

Jan shield for 7- and 9-pin sockets per JAN-S-28A. All shields have "J" slot design to fit over eight military base shield type sockets. Brass, nickel plated. Shipping weight, 1 oz.

ELCO No.	MIL No.	Ht., In.	Per 1000		
			1-499	500-1499	1500-4999
121*	TS102U01	1⅜	116.80	76.70	61.95
120*	TS102U02	1¾	122.75	80.60	65.10
149*	TS102U03	2¼	142.25	93.60	75.60
193**	TS103U01	1½	134.65	88.40	71.40
191**	TS103U02	1 15/16	140.60	92.30	74.55
195**	TS103U03	2⅜	168.30	110.50	89.25

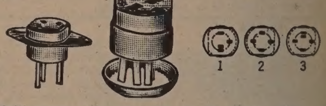
*7-Pin, **9-Pin

STAND-OFF E-Z MATE P-C SOCKETS (FIG. E)

Stand-off E-Z Mate type mica sockets for surface mounting on P-C cards. The 7- and 9-pin miniature sockets are available with knob-like appendages. Phosphor bronze lead plated contact.

ELCO No.	Pin	Per 1000		
		1-499	500-1499	1500-4999
3708-2-2	7	187.70	118.50	104.28
3908-2-2	9	203.64	128.56	113.14

SERIES 3300 SUBMINIATURE TRANSISTOR SOCKETS



Multi-purpose for use with 3- or 4-pin inline, 3-pin circular, or 4-pin circular transistors. Low-loss mica-filled phenolic body; contacts gold flashed over silver-plated beryllium copper.

ELCO No.	Pin Diag.	Mtg. Type	Per 1000		
			1-499	500-1499	1500-4999
3301	1	Saddle	176.90	111.70	98.30
3304	1	P. C.	143.55	90.65	79.75
3303	1	Ring	144.54	91.25	80.30
3305	1	P. C.	144.13	91.00	80.10
3307	2	Ring	172.44	108.90	95.80
3308	2	P. C.	170.05	107.40	94.50
3313	3	Ring	201.90	127.45	112.15

STRAP NUTS

ELCO No.	Description	Per 1000		
		1-499	500-1499	1500-4999
288	7 pin brass	58.50	36.92	32.49
289	7 pin steel	51.72	28.90	28.73
290	9 pin brass	61.22	38.65	34.01
291	9 pin steel	52.95	33.43	29.41

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MINIATURE SOCKETS

and 9-pin Sockets with saddles or shield-base. 7-pin have ⅞″ mounting centers; 9-pin have ″ mounting centers. All sockets have Brass Cadmium Plate contacts unless otherwise suffixed follows: PH=Phosphor Bronze; SP=Silver Plate; TD=Tin Dipped; BC=Beryllium Copper; =Tin Lead. Sockets have either .093″ or .125″ rivet hole in saddle or base shield per last 3 mbers of model. Insulator Materials: GP=General Purpose Phenolic; M=Mica.

7-PIN RMA SADDLE TYPE BOTTOM MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
100.125	GP	Yes	81.77	51.63	45.43
109.125	GP	No	71.08	44.88	39.49

7-PIN JAN SADDLE TYPE TOP MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
241PH.093	Mica	Yes	107.91	68.13	59.95
243.093	Mica	No	68.31	43.13	37.95

7-PIN PRINTED CIRCUIT W/SHIELD BASE FOR 1/16" BOARD

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
622PHSP	Mica	No	585.00	400.00	350.00

9-PIN RMA SADDLE TYPE TOP MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
274.125	Mica	No	109.40	69.05	60.80
280PH.125	Mica	No	96.60	61.00	53.70

9-PIN ELCO SHIELD BASE TYPE TOP MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
282.125	GP	Yes	132.35	83.55	73.55
285.125	GP	No	118.65	74.90	65.90

9-PIN UHF PRINTED CIRCUIT STAND-OFF

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
3901PHSPTD	Mica	No	135.65	85.65	75.35

7-PIN RMA SADDLE TYPE W/GROUND LUGS BOTTOM MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
300.125	GP	Yes	84.55	53.38	46.97
305.125	Mica	Yes	84.15	53.15	46.75
309.125	GP	No	71.87	45.38	39.93
316.125	Mica	No	74.75	47.20	41.55
316PH.125	Mica	No	82.70	52.20	45.95
316BC.125	Mica	No	124.05	78.30	68.90

7-PIN ELCO SHIELD BASE TYPE TOP MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
151PH.125	Mica	Yes	128.40	81.05	71.35
154PH.125	Mica	No	122.30	77.20	67.95

7-PIN UHF PRINTED CIRCUIT STAND-OFF

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
3701PHSPTD	Mica	No	109.90	69.40	61.05

7-PIN SOCKET UHF MINIATURE BOTTOM MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
510S-PHSPTD.125	Mica	No	151.50	95.65	84.15
510PHSPTD.125	Mica	No	156.75	98.95	87.05

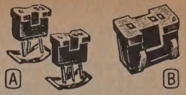
9-PIN SOCKET UHF MINIATURE BOTTOM MOUNTING

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
512-PHSPTD.125	Mica	No	204.93	129.38	113.85
512-S-PH.125	Mica	No	191.07	120.63	106.15

9-PIN PRINTED CIRCUIT W/SHIELD BASE FOR 1/16" BOARD

Model	Insulator Material	Center Shield	Per 1000		
			1-499	500-1499	1500-4999
623BC	Mica	No	675.00	450.00	400.00

SUBMINIATURE SOCKETS

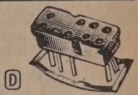


Low loss, mica filled insulating material. Contacts are silver plated beryllium copper with gold flash.

ELCO No.	Pins or Description	Fig.	Per 1000		
			1-499	500-1499	1500-4999
799BC	3, P-C§	A	103.95	68.25	63.00
803BC	4*	A	109.90	72.15	66.60
777	770 retainer	. .	20.00	10.40	9.60
786BC	3, P-C§	B	113.85	74.75	69.00
805BC	4*	B	119.80	78.65	72.60

*Linotetrar transistor. §Subminiature point contacts.

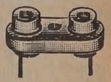
SUBMINIATURE RELAY SOCKET



Mates with Elgin MV2C, G.E. 352791, Ace 201, Brubaker K11 series plug-in relays. Units also mate with Potter and Brumfield, Kurman and many others. Rated 1 amp, 1200 v. rms. Beryllium copper contacts gold flashed over silver plate.

ELCO No.	Description	Fig.	Per 1000		
			1-499	500-1499	1500-4999
887BC	Relay Socket	D	267.30	168.75	148.50
886	Retainer	D	22.00	12.50	11.00

JAN CRYSTAL SOCKET



ELCO No.	Per 1000		
	1-499	500-1499	1500-4999
430PHSPTD*	104.94	66.25	58.30
430BC	119.10	75.19	66.17

*TS0205C01

SHIELD BASES

Brass tin lead 7- and 9-pin base shield. Mounting holes, .125″ dia.

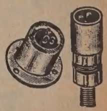
ELCO No.	Pins or Description	Per 1000		
		1-499	500-1499	1500-4999
BR129TL	7 pin	58.70	37.06	32.62
BR179TL	9 pin	76.45	48.25	42.46

CORRUGATED MIL SHIELD INSERTS

Reduce tube temperature by blackened (Elcodized) surface from tube envelope to shield. Cadmium plated beryllium copper.

ELCO No.	Pin	Use with Jan Shield	Per 1000		
			1-499	500-1499	1500-4999
929	7	TS102U01	112.35	90.80	83.75
930	7	TS102U02	127.60	103.15	95.15
931	7	TS102U03	158.20	127.85	117.95
932	9	TS103U01	136.50	110.35	101.80
933	9	TS103U02	164.25	132.75	122.45
934	9	TS103U03	188.80	152.35	140.80

"EL" SERIES AUDIO CONNECTORS



Rugged, high-quality, low-priced connectors for audio and general purpose applications. Satin-finished, nickel-plated, zinc shells feature positive key and groove polarization, and push-action latchlock. Silver-plated contacts rated for 300 v. AC; 3-contact type for #14 wire, rated 16 amps; 4-contact types for #16 wire, rated 10 amps. Cable types accommodate up to 5/16″ dia. wire.

ELCO No.	No. of Contacts	Description	Net Each, Lots of			
			1-9	10-24	25-29	100-249
EL2214-3	3	Cable, female	0.93	0.84	0.78	0.62
EL2214-4	4	Cable, female	1.29	1.16	1.08	.86
EL2216-3	3	Cable, male	.90	.81	.75	.60
EL2216-4	4	Cable, male	1.20	1.08	1.00	.80
EL2215-3	3	Panel, female	.93	.84	.78	.62
EL2215-4	4	Panel, female	1.29	1.16	1.08	.86
EL2213-3	3	Panel, male	.72	.65	.60	.48
EL2213-4	4	Panel, male	1.02	.92	.85	.68

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Grayhill INC.

LA GRANGE, ILLINOIS

GRAYHILL BINDING POSTS

All metal parts are nickel plated brass. Insulating washers are non-turn "D" style phenolic to MIL-M-14. Integral solder stud plus two hex nuts for solder lug connections. All posts may be used on panels up to 3/16" thick and are shipped completely assembled.

29-3 SCREW TYPE

For ½" dia. mounting hole. ⅝" dia. insulating washers for use in existing equipment or where wider spacing is desirable. Available in red, black, white, yellow, blue, gray, green and brown.

29-3 (Red or Black)	**$0.40 ea.**
29-3 (Choice of 6 colors)	**$0.45 ea.**

29-1 SCREW TYPE

For ⅜" dia. mounting hole. ½" dia. insulating washers. Allows closer spacing of posts. Available in red, white, yellow, blue, gray, green and brown.

29-1 (Red or Black)	**$0.40 ea.**
29-1 (Choice of 6 colors)	**$0.45 ea.**

29-33 SPRING LOADED

For ½" mounting hole. ⅝" dia. insulating washers. Spring loaded head gives 24 oz. of contact force. Designed for rapid connections. Available in red, black.

29-33 (Red or Black) **$0.40 ea.**

29B11 For use with 29-1 posts. Makes an assembled unit with two posts on ¾" centers. Molded phenolic to MIL-M-14.

29B11-1 (Black)-2911-2 (Red) **$0.10 ea.**

29-41

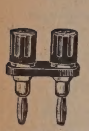
Binding Plug (screw type) conforms to same standard as the binding posts. Mounted on a standard banana plug.

2941R (Red) 2941 B (Black) **$0.50 ea.**

29-43

Binding Plug (spring loaded). Head gives 24 oz. contact force. Designed for rapid connections.

29-43R (Red) 29-43 (Black) **$0.50 ea.**



29-42

Twin Binding Plug. Two binding plugs mounted on a molded phenolic base. Banana plugs are on standard ¾" centers. Sold as a completely assembled unit with two screw type heads.

$1.25 ea.

29-44 Same as 29-42 except with spring loaded heads. **$1.25 ea.**

TEST CLIPS

The basic clip is available in 4 types of mounting. Designed for panel mounting on test equipment to allow rapid connections without manual opening and closing of jaws. Hex nut allows for tension adjustment of each clip. Clips are nickel plated brass. Length of test clip (excluding mounting base) is 1⅛".

2-0 Threaded stud.
$0.20 ea.

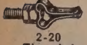
2-1 Banana plug.
$0.35 ea.

2-4 Threaded stud with insulating washers.
$0.35 ea.

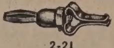
2-6 Pin plug.
$0.35 ea.

MINIATURE TEST CLIPS

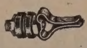
A miniature version of the standard test clip, with the same construction and design, but extends only ¾" above the mounting surface.



2-20 Threaded Stud
$0.25 ea.



2-21 Banana Plug
$0.40 ea.



2-24 Threaded Stud with Molded Phenolic Insulating Washers
$0.40 ea.

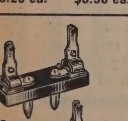
ULTRA-MINIATURE TEST CLIPS

2-41 Single Clip
$0.25 ea.

2-42 Double Clip
$0.30 ea.

No. 2-41. For simplified, rapid testing of "pig-tail" components. Hex nut allows for tension adjustment. Nickel plated brass with nickel plated, heat treated beryllium copper spring. Panel area required, exclusive of nut; single unit, 3⁄16" x ⅛"—double unit, ¼" x ⅛". Extends 7⁄16" above mounting surface. Threaded stud, 2-56NC2 thread; stud ⅜" long.

TEST CLIP ADAPTERS



2-2 For testing resistors, capacitors and other pigtail type components. Banana plugs are on standard ¾" centers. All metal parts are nickel plated brass. Mounting board is molded phenolic to MIL-M-14. Hex nut under clip allows for tension adjustment of individual clips. Test clip extends 1⅛" above board. **$1.40 ea.**

2-7 Similar to the 2-2 except that banana plugs are adjustable from ¾" to 1¼" centers. **$1.50 ea.**

INSULATED TEST CLIPS

COMPLETELY INSULATED (including hinge pin) eliminati the danger of shorting. Molded parts are phenolic MIL-M-14. .008" thick silver overlay at point of contac Terminal is silver plated brass. Contact resistance .00 ohms. All units tested at 500 volts to insure comple insulation.

16-B (Black) 16-R (Red) **$0.85 e**

TRANSISTOR SOCKET 22-11

Designed for JETEC 30 packaging. Leads fit on 100 grid for printed circuit. Socket fits through ⅜" drillec punched hole and may be fastened with rivets or #2 scr Terminal numbers are molded into bottom of socket and face has key rib for alignment with transistor tab. Cont are wrap around type, silver plated beryllium copper gold flash. Base is molded mica-filled phenolic per MIL-M

Type MFE No. 22-11 **$0.35**

TRANSISTOR SOCKETS

No. 22-16 socket is designed for soldering directly printed circuits, or to fit in a punched "D" hole and fastened by a Waldes-Kohinoor Truarc ring No. 5115-31 tainable from Waldes-Kohinoor or their distributors). A able with either 3 or 4 terminals (specify).
Available in color and other materials on special order.

No. 22-16 (3 terminals)	**$0.30**
No. 22-16 (4 terminals)	**$0.35**

PUSH POST

29-100 Threaded Stud

29-101 Banana Plug

29-104 Molded phenolic washers

No. 29-100. Designed to provide fast posit connections, this post is operated by depress the plunger, inserting lead, and releas plunger. Spring pressure assures firm posit contact. Only ¾" overall height above mount surface. Nickel plated brass parts. Red or bl molded button cap.
No. 29-125 same as 29-100, except without b ton cap and with stainless steel spring for h temps to 600° F.

29-100 (Red or Black)	**$0.35**
29-101 (Red or Black)	**$0.50**
29-104 (Red or Black)	**$0.50**
29-125 (No button cap)	**$0.35**

SERIES 31 TEST JACKS

Designed for use on printed circuit boards as test poin Accommodates standard phone tip plugs from .081" .0825" dia. Rivets to board like an eyelet. Rivet dia. .114". Jack is silver plated brass with gold flash. Retaini ring is cadmium plated spring steel. Extends ¼" abc circuit board.

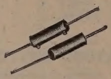
31-1 (for 1/16" board)	**$0.25**
31-2 (for 3/32" board)	**$0.25**
31-3 (for 1/8" board)	**$0.25**

PLASTIC SLEEVES FOR SERIES 31 TEST JACKS

Sleeves snap on and permanently lock in place over te jacks. Molded of thermo-setting plastic. Overall dimensio .24" dia. x .29" high. Available in black, red, green, gr brown, blue, yellow and white.

31B—(Specify Color) **$0.10 e**

COIL FORMS

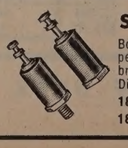


(Pat. No. 2,653,992)

MOLDED OF MICA FILLED PHENOLIC per MIL-M-1 Type MFE with leads of tinned solid copper wi
$0.20 e

PART NO.		LENGTH	DIAMETER	LEAD WIRE DIA.
	—1	.500"	.125"	.025"
(28YY1003	—2	.625"	.187"	.032"
(With Posts)	—3	.750"	.187"	.032"
	—4	.500"	.250"	.040"
28YY1006	—5	.750"	.250"	.040"
(Without Posts)	—6	1.000"	.250"	.040"
	—7	.500"	.156"	.032"
	—10	.375"	.107"	.025"

STAND OFF INSULATORS



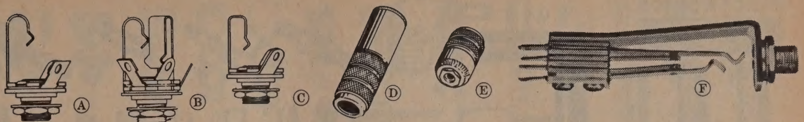
Body of insulator is molded of mica filled phenol per MIL-M-14, Type MFE. Terminals are silver plat brass. Overall length excluding mounting stud is 15/16 Diameter is 5/16".

18-1 (Female)	**$0.35 e**
18-2 (Male)	**$0.40 e**

GC ELECTRONICS

ELECTROCRAFT COMPONENTS

PHONE JACKS • PHONO PIN PLUGS AND JACKS • CONNECTORS



GC Electrocraft Jacks require a minimum panel space and depth behind panel. Parts are keyed and mechanically interlocked. Springs are made of nickel silver, with phenolic spaces and brass, nickel plated mounting bushings. Panel mounting jacks furnished with nickel plated steel washers and nickel plated brass mounting nut.

PHONE JACKS

(A) PANEL MOUNTING, TWO-CONDUCTOR PHONE JACKS—Open circuit, 2-conductor.
Cat. No. 33-690 Net $ .23
Cat. No. 33-690-BU Net 20.48/C

Closed circuit, 2-conductor.
Cat. No. 33-692 Net $ .27
Cat. No. 33-692-BU Net 24.98/C

Open circuit, 2-conductor, MIL type, JJ-034.
Cat. No. 33-694 Net $ .37
Cat. No. 33-694-BU Net 34.17/C

Open circuit, 2-conductor .210" ID Sleeve fits plugs 33-630/2.
Cat. No. 33-700 Net $ .27
Cat. No. 33-700-BU Net 24.98/C

Closed circuit, 2-conductor .210" ID Sleeve—fits plugs 33-630/2.
Cat. No. 33-702 Net $ .30
Cat. No. 33-702-BU Net 26.67/C

(B) PANEL MOUNTING 3-CONDUCTOR PHONE JACKS—Open circuit, 3-conductor.
Cat. No. 33-708 Net $ .33
Cat. No. 33-708-BU Net 31.32/C

Single closed circuit, 3-conductor.
Cat. No. 33-710 Net $ .45
Cat. No. 33-710-BU Net 43.31/C

Open circuit, 3-conductor, MIL type JJ-033.
Cat. No. 33-712 Net $ .42
Cat. No. 33-712-BU Net 39.98/C

(C) MINIATURE PANEL MOUNTING JACKS—These jacks mate with plugs 33-660 through 33-670. Open circuit, 2-conductor.
Cat. No. 33-720 Net $ .23
Cat. No. 33-720-BU Net 20.48/C

Closed circuit, 2-conductor.
Cat. No. 33-722 Net $ .27
Cat. No. 33-722-BU Net 24.98/C

(D & E) CORD MOUNTED JACKS—Often referred to as "extension jacks" or "In-line jacks."

2-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-730 Net $ .83
Cat. No. 33-730-BU Net 77.51/C

2-conductor, open circuit style, with solder lug terminals and black plastic handle.
Cat. No. 33-732 Blk Net $ .60
Cat. No. 33-732-BU Net 55.83/C

2-conductor, open circuit, screw type terminal, with metal (shielded) handle.
Cat. No. 33-734 Net $ .93
Cat. No. 33-734-BU Net 90.00/C

2-conductor, open circuit, screw type terminals, with black plastic handle.
Cat. No. 33-736 Blk Net $ .68
Cat. No. 33-736-BU Net 66.60/C

3-conductor, open circuit style, with solder lug terminals and metal (shielded) handle.
Cat. No. 33-740 Net $1.08
Cat. No. 33-740-BU Net 99.90/C

3-conductor, open circuit style, with screw type terminal and metal (shielded) handle.
Cat. No. 33-742 Net $1.17
Cat. No. 33-742-BU Net 110.01/C

Miniature type, mates with plugs #33-660 through #33-670, with solder lugs and metal (shielded) handle.
Cat. No. 33-746 Net $ .72
Cat. No. 33-746-BU Net 70.01/C

(F) LONG FRAME JACKS—2-conductor, open circuit.
Cat. No. 33-750 Net $ .45
Cat. No. 33-750-BU Net 44.16/C

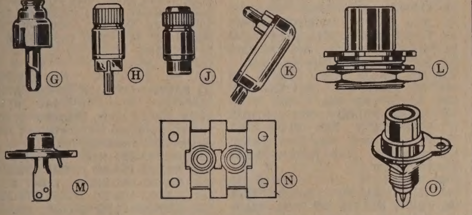
3-conductor, single closed circuit.
Cat. No. 33-752 Net $ .63
Cat. No. 33-752-BU Net 61.65/C

3-conductor, single closed circuit ring grounded.
Cat. No. 33-754 Net $ .63
Cat. No. 33-754-BU Net 61.65/C

2-conductor, open circuit w/insulated break.
Cat. No. 33-756 Net $ .63
Cat. No. 33-756-BU Net 61.65/C

3-conductor, 2 closed circuit.
Cat. No. 33-758 Net $ .72
Cat. No. 33-758-BU Net 70.80/C

2-conductor, closed circuit w/insulated make.
Cat. No. 33-760 Net $ .72
Cat. No. 33-760-BU Net 70.80/C



PHONO PIN PLUGS AND JACKS

These plugs and jacks are universally used for audio connections, phonographs, pre-amplifiers and amplifiers in connection with single conductor shielded cable.

(G) PHONE PLUGS—Solder type.
Cat. No. 33-770 Net $ .07
Cat. No. 33-770-BU Net 4.80/C

(H) PHONO PLUGS — Combination clamp, solder type, with removable metal (shielded) handle.
Cat. No. 33-772 Net $ .30
Cat. No. 33-772-BU Net 28.50/C

(J) PHONO JACK, CORD MOUNTED—Combination clamp and solder, terminal; removable metal (shielded) handle.
Cat. No. 33-774 Net $ .37
Cat. No. 33-774-BU Net 34.17/C

(K) SOLDERLESS PHONO PLUGS—Positive, noise-free pressure connection. Right angle style, designed for regular shielded cable with approximately 3/16" OD.
Grey plastic shell.
Cat. No. 33-776 Net $ .27
Cat. No. 33-776-BU Net 23.40/C

Black plastic shell.
Cat. No. 33-778 Net $ .27
Cat. No. 33-778-BU Net 23.40/C
Red plastic shell.

Cat. No. 33-780 Net $ .27
Cat. No. 33-780-BU Net 23.40/C

Yellow plastic shell.
Cat. No. 33-782 Net $ .27
Cat. No. 33-782-BU Net 23.40/C

Blue plastic shell.
Cat. No. 33-784 Net $ .27
Cat. No. 33-784-BU Net 23.40/C

(L) PHONO JACK, SINGLE HOLE MOUNTING—Supplied with washer and mounting nut.
Cat. No. 33-790 Net $ .22
Cat. No. 33-790-BU Net 19.17/C

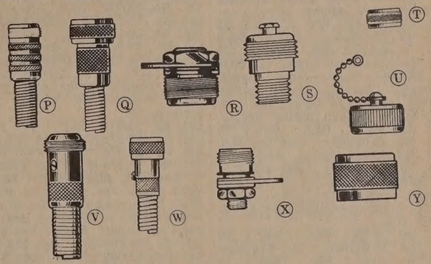
(M) PHONO JACK—Fastens to chassis with 2 rivets or 2 screws.
W/oval, space saving metal mounting plate.
Cat. No. 33-792 Net $ .07
Cat. No. 33-792-BU Net 5.40/C

With regular round mounting plate.
Cat. No. 33-796 Net $ .08
Cat. No. 33-796-BU Net 7.50/C

(N) DOUBLE PHONO PIN JACK
Cat. No. 33-800 Net $ .13
Cat. No. 33-800-BU Net 12.00/C

TRIPLE PHONO PIN JACK
Cat. No. 33-802 Net $ .15
Cat. No. 33-802-BU Net 14.10/C

(O) SINGLE HOLE PANEL PHONO JACK—Mounts in 9/32" hole, requires only one hole drilled. With washer, nut and solder lug for ground.
Cat. No. 33-804 Net $ .18
Cat. No. 33-804-BU Net 16.20/C



STANDARD MICROPHONE CONNECTORS

Designed for use with single conductor, shielded microphone cable. Bodies, lock nuts and mounting nuts: brass, nickel plated; contact terminals, brass, hot-tinned; insulation is high-grade phenolic.

(P) CORD MOUNTED MICROPHONE CONNECTORS—Flexible spring protects cable; center conductor solders to contact; braid is clamped securely by set screw.
Male connector.
Cat. No. 33-810 Net $ .27
Cat. No. 33-810-BU Net 23.33/C

(Q) FEMALE CONNECTOR.
Cat. No. 33-812 Net $ .37
Cat. No. 33-812-BU Net 26.33/C

(R) PANEL MOUNTED MICROPHONE CONNECTORS—May be insulated with suitable fibre washers; mates with No. 33-812 connector.
Single contact connector.
Cat. No. 33-814 Net $ .22
Cat. No. 33-814-BU Net 18.37/C

(S) MICROPHONE AND CHASSIS CONNECTOR—Closed circuit type which grounds center contact when cable connector removed.
Cat. No. 33-816 Net $ .27
Cat. No. 33-816-BU Net 25.68/C

(T) COUPLING NUT—Converts #33-810 male connector to 812 female type.
Cat.No. 33-818 Net $ .09
Cat. No. 33-818-BU Net 8.33/C

(U) CAP FOR PANEL CONNECTORS—Protects unused connectors from mechanical damage and dust.
Cat. No. 33-820 Net $ .45
Cat. No. 33-820-BU Net 42.48/C

(V) MINIATURE MICROPHONE CONNECTORS—Made to the same specifications and of same materials as standard size connectors. Cord mounted male connector.
Cat. No. 33-826 Net $ .27
Cat. No. 33-826-BU Net 23.33/C

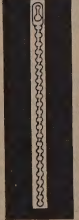
(W) Cord mounted female connector.
Cat. No. 33-828 Net $ .37
Cat. No. 33-828-BU Net 26.67/C

(X) Panel mounted connector.
Cat. No. 33-830 Net $ .22
Cat. No. 33-830-BU Net 17.67/C

(Y) COUPLING NUT—Converts male connector #33-826 to female connector #33-828.
Cat. No. 33-832 Net $ .07
Cat. No. 33-832-BU Net 5.48/C

ELECTROCRAFT CABLE TIES

These ties provide an efficient, time-saving method of cabling and lacing. Made entirely of plastic. May be used in hard-to-reach places. Their use requires no experience.



Made of Polypropylene. Tough and flexible for commercial use and where temperatures do not exceed 175°F. 4¼" long. Sold in vials of 40 ties.

Cat. No. 34-432 Red Net $ .98

Cat. No. 34-436 Yellow Net $ .98

Cat. No. 34-440 Blue Net $ .98

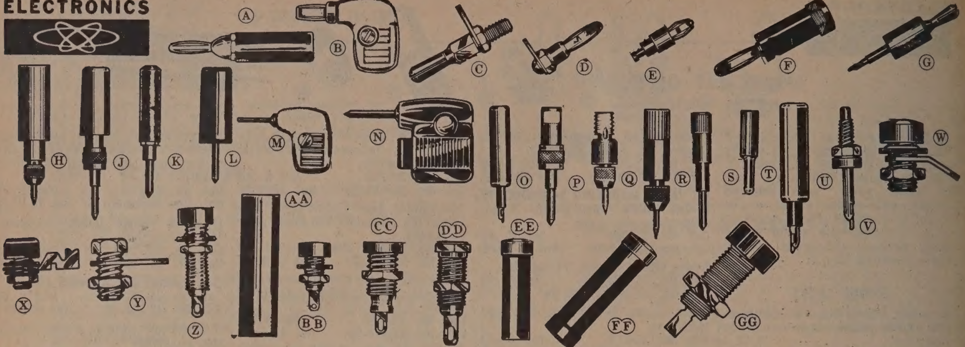
Also available in polypropylene and nylon in 10-inch lengths

NOTE: ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS — WRITE GC FOR COMPLETE DETAILS.

GC ELECTRONICS

ELECTROCRAFT COMPONENTS

BANANA PLUGS • TIP PLUGS MATCHING JACKS



BANANA PLUGS

Electrocraft plugs are carefully designed, accurately molded and machined of best available material and rigidly inspected. Except as otherwise noted, all Banana Plugs are made to standard industry dimensions and mate with jacks with an 0.161" bore. Design provides for sufficient spring tension to assure good holding power and minimum contact reistance.

(A) BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; hex brass body, separate internal brass stud.

Cat. No. 33-000 Red Net $ .23

Cat. No. 33-000-BU Net **$21.00/C**

Cat. No. 33-002 Blk Net $ .23

Cat. No. 33-002-BU Net **$21.00/C**

BANANA PLUG — Four leaved, phosphor bronze, nickel plated spring; lead wire connection with set screw through plastic handle.

Cat. No. 33-006 Red Net $ .20

Cat. No. 33-006-BU Net **$18.00/C**

Cat. No. 33-008 Blk Net $ .20

Cat. No. 33-008-BU Net **$18.00/C**

BANANA PLUG — Unbreakable plastic handle, cross slotted, nickel plated brass body; separate internal brass stud.

Cat. No. 33-012 Red Net $ .20

Cat. No. 33-012-BU Net **$18.00/C**

Cat. No. 33-014 Blk Net $ .20

Cat. No. 33-014-BU Net **$18.00/C**

BANANA PLUG—cross slotted, nickel plated brass body; lead wire connection with set screw through plastic handle.

Cat. No. 33-018 Red Net $ .20

Cat. No. 33-018-BU Net **$18.00/C**

Cat. No. 33-020 Blk Net $ .20

Cat. No. 33-020-BU Net **$18.00/C**

BANANA PLUG — Midget Type, unbreakable plastic handle, four leaved, nickel plated, phosphor bronze spring, lead wire connection solders to drilled body.

Cat. No. 33-024 Red Net $ .27

Cat. No. 33-024-BU Net **$24.00/C**

Cat. No. 33-026 Blk Net $ .27

Cat. No. 33-026-BU Net **$24.00/C**

(B) BANANA PLUG — Right angle "Gun" tip (meter plug), molded plastic handle (2 half-shells), four leaved, phosphor bronze, nickel plated springs; lead wire solders to body.

Cat. No. 33-046 Red Net $ .38

Cat. No. 33-046-BU Net **$36.00/C**

Cat. No. 33-048 Blk Net $ .38

Cat. No. 33-048-BU Net **$36.00/C**

(C) BANANA PLUG—Threaded shank type; slotted nickel plated brass body; supplied with terminal lug and hex nut.

Cat. No. 33-060 Net $ .15

Cat. No. 33-060-BU Net **$13.20/C**

(D) BANANA PLUG—Panel mounting type; four leaved, phosphor bronze, nickel plated spring; #6-32 tapped body.

Cat. No. 33-062 Net $ .17

Cat. No. 33-062-BU Net **$15.00/C**

BANANA PLUG—Threaded shank type; four leaved, phosphor bronze, nickel plated spring.

Cat. No. 33-064 Net $ .17

Cat. No. 33-064-BU Net **$15.00/C**

BANANA PLUG—Panel mounting type; cross slotted, nickel plated brass body, tapped #6-32; supplied with screw and terminal lug.

Cat. No. 33-066 Net $ .17

Cat. No. 33-066-BU Net **$15.00/C**

(E) BANANA PLUG — Sub-miniature type, four leaved, beryllium copper, silver plated spring; body rivets to terminal board and wire solders to turret terminal. Fits jacks with .104" ID.

Cat. No. 33-068 Net $ .20

Cat. No. 33-068-BU Net **$18.00/C**

(F) BANANA PLUG ADAPTOR—Adapts tip plug to banana plug; insulated handle, standard tip jack one end; other end four leaved banana plug.

Cat. No. 33-072 Red Net $ .33

Cat. No. 33-072-BU Net **$30.00/C**

Cat. No. 33-074 Blk Net $ .33

Cat. No. 33-074-BU Net **$30.00/C**

(G) BANANA PLUG-KLIPZON ADAPTOR—One end cross slotted; brass, nickel plated banana plug; other end "Klipzon' self holding wire piercing tip.

Cat. No. 33-076 Red Net $ .48

Cat. No. 33-076-BU Net **$45.00/C**

Cat. No. 33-078 Blk Net $ .48

Cat. No. 33-078-BU Net **$45.00/C**

ADAPTER, KLIPZON TIP TO BANANA PLUG—For connection of test leads terminated with Klipzon prods to equipment with banana jacks.

Cat. No. 33-080 Red Net $ .38

Cat. No. 33-080-BU Net **$36.00/C**

Cat. No. 33-082 Blk Net $ .38

Cat. No. 33-082-BU Net **$36.00/C**

TIP PLUGS

The following Tip Plugs are, unless otherwise noted, made to the standard industry specifications of .080" pin diameter. Careful machining, close tolerances and the use of brass alloy assures good contact and service ability.

(H) PHONO NEEDLE TIP PLUG—Insulated handle; nickel plated brass body; chuck design to hold .058 phono needle which is easily replaceable. Wire solders to body.

Cat. No. 33-100 Red Net $ .17

Cat. No. 33-100-BU Net **$15.00/C**

Cat. No. 33-102 Blk Net $ .17

Cat. No. 33-102-BU Net **$15.00/C**

(J) INSULATED TIP PLUG—Solderless type, wire tightens securely under knurled collar. Handle is unbreakable plastic and body is machined brass, nickel plated.

Cat. No. 33-106 Red Net $ .17

Cat. No. 33-106-BU Net **$15.00/C**

Cat. No. 33-108 Blk Net $ .17

Cat. No. 33-108-BU Net **$15.00/C**

(K) SUB-MINIATURE PHONE TIP PLUG—Standard tip, extra-small diameter, machined bone fibre insulated handle. Wire solders to nickel plated, brass body.

Cat. No. 33-112 Red Net $ .20

Cat. No. 33-112-BU Net **$18.00/C**

Cat. No. 33-114 Blk Net $ .20

Cat. No. 33-114-BU Net **$18.00/C**

(L) INSULATED SHORT TIP PLUG—Unbreakable plastic handle; wire solders to brass nickel plated body.

Cat. No. 33-118 Red Net $ .13

Cat. No. 33-118-BU Net **$12.00/C**

Cat. No. 33-120 Blk Net $ .13

Cat. No. 33-120-BU Net **$12.00/C**

(M) RIGHT ANGLE TIP PLUG—Two insulated plastic handle half shells assemble with one screw and nut. Maximum wire insulation 5⁄64"; wire solders to body.

Cat. No. 33-128 Red Net $ .30

Cat. No. 33-128-BU Net **$27.00/C**

Cat. No. 33-130 Blk Net $ .30

Cat. No. 33-130-BU Net **$27.00/C**

(N) "TRIGGER-QUIK" TIP PLUG — right angle plug, similar to 33-128 and 33-130. Spring loaded solderless wire connection, "trigger" design. 1 Red and 1 Black plug per pair.

Cat. No. 33-132 Red Net $ .42

Cat. No. 33-132-BU Net **$39.00/C**

Cat. No. 33-134 Blk Net $ .42

Cat. No. 33-134-BU Net **$39.00/C**

Cat. No. *33-136 Pkg. per pr. Net $ .72

*20 pair per package display.

(O) KLIPZON MINI-PROD—Insulated tip plug can be snapped securely on wires. Incorporates sharp point to pierce insulation; fits standard tip jacks; wire solders to body.

Cat. No. 33-138 Red Net $ .38

Cat. No. 33-138-BU Net **$36.00/C**

Cat. No. 33-140 Blk Net $ .38

Cat. No. 33-140-BU Net **$36.00/C**

(P) SOLDERLESS TIP PLUG — All metal. Precision machined brass, nickel plated; wire fastens under knurled collar.

Cat. No. 33-146 Net $ .12

Cat. No. 33-146-BU Net **$10.20/C**

(Q) PHONO NEEDLE TIP PLUG—Nickel plated brass body with ¼-20 thread; chuck design to hold phono needle.

Cat. No. 33-148 Net $ .15

Cat. No. 33-148-BU Net **$13.20/C**

(R) PUSH-ON NEEDLE CHUCK—Nickel plated brass. Knurled body for press fit into Test Prod handles drilled with ¼" hole.

Cat. No. 33-150 Net $ .15

Cat. No. 33-150-BU Net **$13.20/C**

(S) HEAVY DUTY PHONE TIP PLUG—Nickel plated brass; knurled shank for press fit into Test Prod handles, drilled with ¼" hole.

Cat. No. 33-152 Net $ .12

Cat. No. 33-152-BU Net **$10.20/C**

(T) STANDARD HOLLOW PHONE TIP—Drawn brass, bright nickel plated.

Cat. No. 33-154 Net $ .12

Cat. No. 33-154-BU Net **$3.50/C**

STANDARD SOLID PHONE TIP—Brass, bright nickel plated.

Cat. No. 33-156 Net $ .15

Cat. No. 33-156-BU Net **$4.20/C**

(U) KLIPZON MINI-PROD ADAPTOR—Converts standard Tip Plug and Test Prod to self holding Klipzon wire piercing prod.

Cat. No. 33-160 Red Net $ .38

Cat. No. 33-160-BU Net **$36.00/C**

Cat. No. 33-162 Blk Net $ .38

Cat. No. 33-162-BU Net **$36.00/C**

(V) KLIPZON PANEL MOUNTS—Wire holding patented Klipzon Test Prod with threaded shank (6-32 x ⅜") for panel mount. Designed for test setups.

Cat. No. 33-164 Net $ .48

Cat. No. 33-164-BU Net **$45.00/C**

BANANA AND TIP PLUG JACKS

Jacks are made to standard industry specifications. On Banana Jacks, the bore is .163" which fits all standard Banana Plugs. Tip Plug Jacks have built in spring contacts and are designed for all standard tip plugs with .080" diameter.

(W) BANANA JACK—Molded phenolic plied with tinned solder lug, fibre head; nickel plated brass body sup- washer and mounting nut. Mounts in 5⁄16" hole.

Cat. No. 33-180 Red Net $ .15

Cat. No. 33-180-BU Net **$13.20/C**

Cat. No. 33-182 Blk Net $ .15

Cat. No. 33-182-BU Net **$13.20/C**

(X) BANANA JACK, HEAVY DUTY—Molded phenolic head; nickel plated brass body; extruded fibre washer, lock washer, heavy duty solder lug and mounting nut.

Cat. No. 33-186 Red Net $ .17

Cat. No. 33-186-BU Net **$15.00/C**

Cat. No. 33-188 Blk Net $ .17

Cat. No. 33-188-BU Net **$15.00/C**

(Y) BANANA JACK—ALL METAL brass nickel plated body; supplied with solder lug and hex mounting nut. Mounts in ¼" hole; fits panels up to ⅜" thick.

Cat. No. 33-192 Net $ .12

Cat. No. 33-192-BU Net **$10.20/C**

(Z) BANANA-TIP JACK COMBINATION—Molded phenolic head; brass nickel plated body. Phosphor bronze spring. Supplied with extruded fibre washer and mounting nut.

Cat. No. 33-194 Red Net $ .18

Cat. No. 33-194-BU Net **$16.20/C**

Cat. No. 33-196 Blk Net $ .18

Cat. No. 33-196-BU Net **$16.20/C**

(AA) BANANA PLUG SPLICE—Insulated plastic handle, brass insert for coupling 2 standard Banana Plugs.

Cat. No. 33-200 Red Net $ .27

Cat. No. 33-200-BU Net **$24.00/C**

Cat. No. 33-202 Blk Net $ .27

Cat. No. 33-202-BU Net **$24.00/C**

(BB) STANDARD TIP JACK—Molded phenolic plastic head; nickel plated brass body with phosphor bronze spring; supplied with extruded fibre washer.

Cat. No. 33-210 Red Net $ .15

Cat. No. 33-210-BU Net **$13.20/C**

Cat. No. 33-212 Blk Net $ .15

Cat. No. 33-212-BU Net **$13.20/C**

(CC) TIP JACK, ALL-INSULATED—Head and body molded of nylon, in one piece; phosphor bronze spring; supplied with mounting nut; mounts in ⅜" hole.

Cat. No. 33-216 Red Net $ .20

Cat. No. 33-216-BU Net **$18.00/C**

Cat. No. 33-218 Blk Net $ .20

Cat. No. 33-218-BU Net **$18.00/C**

(DD) TIP JACK, ALL METAL—Brass nickel plated body; phosphor bronze spring.

Cat. No. 33-226 Net $ .12

Cat. No. 33-226-BU Net **$10.20/C**

(EE) TIP JACK, IN-LINE STYLE—Insulated handle, brass nickel plated body; phosphor bronze spring.

Cat. No. 33-228 Red Net $ .23

Cat. No. 33-228-BU Net **$21.00/C**

Cat. No. 33-230 Blk Net $ .23

Cat. No. 33-230-BU Net **$21.00/C**

(FF) TIP PLUG SPLICE—Insulated; brass nickel plated body; phosphor bronze springs.

Cat. No. 33-232 Red Net $ .30

Cat. No. 33-232-BU Net **$27.00/C**

Cat. No. 33-234 Blk Net $ .30

Cat. No. 33-234-BU Net **$27.00/C**

(GG) NYLON TIP JACK—Nylon insulated body wtih machined beryllium copper contact, silver plated contact recessed in head, hot tin dipped solder terminal.

Cat. No. 33-240 Blk Net $ .30

Cat. No. 33-240-BU Net **$21.00/C**

Cat. No. 33-242 Red Net $ .30

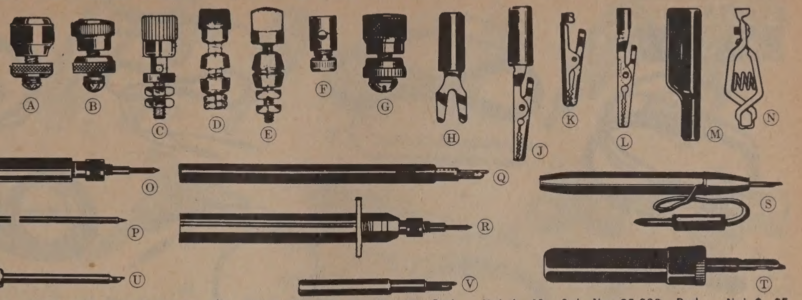
Cat. No. 33-242-BU Net **$27.00/C**

NOTE: ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS — WRITE GC FOR COMPLETE DETAILS.

GC ELECTRONICS

ELECTROCRAFT COMPONENTS

BINDING POSTS·SPADE LUGS·CLIPS TEST PRODS, LEADS, ADAPTORS



(A) BINDING POST — Brass nickel plated body; supplied with 8-32 mounting screw and lock washer.
Cat. No. 33-250 Red Net $ .17
Cat. No. 33-250-BU Net **$13.80/C**
Cat. No. 33-252 Blk Net $ .17
Cat. No. 33-252-BU Net **$13.80/C**

(B) BINDING POST — Brass nickel plated body supplied with #8-32 mounting screw and lock washer.
Cat. No. 33 254 Net $ .17
Cat. No. 33-254-BU Net **$13.80/C**

(C) BINDING POST-COMBINATION TYPE—Accepts banana plug, tip plug, bare wire or spade lug. Threaded #8-32 mounting stud ½″ long; supplied with 2 hex nuts.
Cat. No. 33-256 Red Net $ .20
Cat. No. 33-256-BU Net **$18.00/C**
Cat. No. 33-258 Blk Net $ .20
Cat. No. 33-258-BU Net **$18.00/C**

BINDING POST-COMBINATION TYPE—Similar in construction to 33-256/8 except with molded shoulder-type plastic washers to insulate post from chassis.
Cat. No. 33-260 Red Net $ .27
Cat. No. 33-260-BU Net **$24.00/C**
Cat. No. 33-262 Blk Net $ .27
Cat. No. 33-262-BU Net **$24.00/C**

(D) BINDING POST-INSULATED UNIVERSAL TYPE—Non-removable, molded brass; brass nickel plated body with threaded #8-32 mounting stud.
Cat. No. 33-264 Red Net $ .28
Cat. No. 33-264-BU Net **$27.00/C**
Cat. No. 33-266 Blk Net $ .28
Cat. No. 33-266-BU Net **$27.00/C**

(E) HEAVY DUTY BINDING POST—Machined brass nickel plated body; supplied with a thick molded insulating spacer; shoulder keys into chassis mounting hole and positively prevents post from turning.
Cat. No. 33-268 Red Net $ .45
Cat. No. 33-268-BU Net **$42.00/C**
Cat. No. 33-270 Blk Net $ .45
Cat. No. 33-270-BU Net **$42.00/C**

HEAVY DUTY BINDING POST—Identical in design to binding post No. 33-268/270, except end of stud milled flat and drilled for solder connection.
Cat. No. 33-272 Red Net $ .45
Cat. No. 33-272-BU Net **$42.00/C**
Cat. No. 33-274 Blk Net $ .45
Cat. No. 33-274-BU Net **$42.00/C**

(F) BINDING POST, ALL METAL—Brass nickel plated body and knurled cap; accepts banana plug, phone tip or wire.
Cat. No. 33-282 Net $ .13
Cat. No. 33-282-BU Net **$12.00/C**

(G) BINDING POST-ALL METAL — Heavy brass nickel plated body and knurled cap; #8-32 x ½″ mounting screw and lock washer supplied.
Cat. No. 33-284 Net $ .17
Cat. No. 33-284-BU Net **$15.00/C**

(H) SPADE LUG PLUG, INSULATED—Molded plastic handle; tapered "fork" fits binding posts and terminal screws up to #10 size.
Cat. No. 33-300 Red Net $ .13
Cat. No. 33-300-BU Net **$10.80/C**
Cat. No. 33-302 Blk Net $ .13
Cat. No. 33-302-BU Net **$10.80/C**

(J) ALLIGATOR CLIP-INSULATED HANDLE—⅜″ jaw opening; made of cadmium plated steel with unbreakable plastic handle.
Cat. No. 33-310 Red Net $ .10
Cat. No. 33-310-BU Net **$7.20/C**
Cat. No. 33-312 Blk Net $ .10
Cat. No. 33-312-BU Net **$7.20/C**

ALLIGATOR CLIP, SCREW CONNECTION—Molded plastic handle, cadmium plated steel jaws with maximum ⅜″ opening.
Cat. No. 33-314 Red Net $ .12
Cat. No. 33-314-BU Net **$8.40/C**
Cat. No. 33-316 Blk Net $ .12
Cat.No. 33-316-BU Net **$8.40/C**

ALLIGATOR CLIP, SOLID COPPER—Identical to #33-314/16, except solid copper for higher current carrying capacity.
Cat. No. 33-318 Red Net $ .13
Cat. No. 33-318-BU Net **$10.20/C**
Cat. No. 33-320 Blk Net $ .13
Cat. No. 33-320-BU Net **$10.20/C**

ALLIGATOR CLIP—With extra long insulated handle; cadmium plated steel jaws which open to maximum ⅜″.
Cat. No. 33-322 Red Net $ .23
Cat. No. 33-322-BU Net **$21.00/C**
Cat. No. 33-324 Blk Net $ .23
Cat. No. 33-324-BU Net **$21.00/C**

INSULATED ALLIGATOR CLIP ADAPTORS—Completely insulated with black molded plastic.
Cat. No. 33-326 Net $ .48
Cat. No. 33-326-BU Net **$45.00/C**
Cat. No. 33-328 Net $ .60
Cat. No. 33-328-BU Net **$54.00/C**

ALLIGATOR CLIP ADAPTOR—Accommodates standard tip plug or banana plug.
Cat. No. 33-330 Red Net $ .42
Cat. No. 33-330-BU Net **$39.00/C**
Cat. No. 33-332 Blk Net $ .42
Cat. No. 33-332-BU Net **$39.00/C**

ALLIGATOR CLIP ADAPTOR—Adapts standard tip plug to alligator clip.
Cat. No. 33-334 Red Net $ .33
Cat. No. 33-334-BU Net **$30.00/C**
Cat. No. 33-336 Blk Net $ .33
Cat. No. 33-336-BU Net **$30.00/C**

ALLIGATOR-KLIPZON PROD ADAPTOR—Adapts Klipzon Mini-Prod connectors and standard tip plugs to Alligator clip.
Cat. No. 33-338 Red Net $ .38
Cat. No. 33-338-BU Net **$36.00/C**
Cat. No. 33-340 Blk Net $ .38
Cat. No. 33-340-BU Net **$36.00/C**

(K) MINI-GATOR CLIP (MUELLER)—Very small alligator clip for applications where space is a factor.
Cat. No. 33-342 Net $ .08
Cat. No. 33-342-BU Net **$7.20/C**
Cat. No. 33-344 Net $ .08
Cat. No. 33-344-BU Net **$7.20/C**

(L) ALLIGATOR CLIP-ALL METAL — Cadmium plated jaws with ⅜″ opening.
Cat. No. 33-346 Net $ .07
Cat. No. 33-346-BU Net **$5.40/C**

ALLIGATOR CLIP-ALL METAL—For solderless connection of wire by means of a #6-32 binding head screw.
Cat. No. 33-348 Net $ .07
Cat. No. 33-348-BU Net **$6.00/C**
Cat. No. 33-350 Net $ .10
Cat. No. 33-350-BU Net **$9.00/C**

(M) ALLIGATOR CLIP INSULATOR—Flexible molded vinyl insulator fits over most standard alligator clips.
Cat. No. 33-360 Red Net $ .07
Cat. No. 33-360-BU Net **$4.80/C**
Cat. No. 33-362 Blk Net $ .07
Cat. No. 33-362-BU Net **$4.80/C**

(N) BATTERY CONNECTING & TESTING CLIP—5 amp rating; steel cadmium plated jaws with ½″ spread.
Cat. No. 33-370 Net $ .07
Cat. No. 33-370-BU Net **$6.00/C**

BATTERY CONNECTING & TESTING CLIP—10 amp rating; steel cadmium plated jaws with 9⁄16″ spread.
Cat. No. 33-372 Net $ .07
Cat. No. 33-372-BU Net **$6.00/C**

(O) DELUXE TEST PROD 5¼″—Solderless design; wire fits through handle and is fastened to tip with knurled collar.
Cat. No. 33-380 Red Net $ .35
Cat. No. 33-382 Blk Net $ .35

LONG TEST PROD, NEEDLE POINT TYPE—Extra safe design due to long unbreakable plastic handle; replaceable phono needle tip.
Cat. No. 33-384 Red Net $ .33
Cat. No. 33-386 Blk Net $ .33

THIN HANDLE TEST PROD—With solderless wire connection; extruded plastic handle, press fitted on nickel plated brass test tip.
Cat. No. 33-392 Red Net $ .23
Cat. No. 33-394 Blk Net $ .23

(P) LONG REACH TEST PROD—Has 4″ very thin insulated extension beyond handle. Needle point assembly; brass nickel plated.
Cat. No. 33-396 Red Net $ .27
Cat. No. 33-398 Blk Net $ .27

(Q) KLIPZON TEST PROD—Klipzon tip clips on wire or chassis; sharp point, easily penetrates insulation or corrosion; thin plastic handle.
Cat. No. 33-400 Red Net $ .67
Cat. No. 33-402 Blk Net $ .67

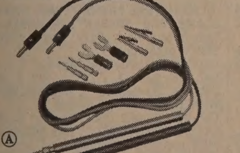
(R) HIGH VOLTAGE TEST PROD—Heavy-duty type; has guard ring to prevent accidental touching of tip; handle accepts wires up to ⅜″ diameter.
Cat. No. 33-408 Red Net $ .75
Cat. No. 33-408-BU Net **$72.00/C**
Cat. No. 33-410 Blk Net $ .75
Cat. No. 33-410-BU Net **$72.00/C**

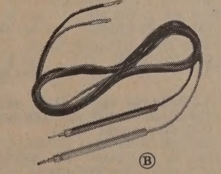
(S) KLIPZON CRYSTAL PROD KIT—Self-holding prod, complete with Germanium Diode and other parts to assemble low capacity crystal probe.
Cat. No. 33-412 Red Net **$1.83**
Cat. No. 33-414 Blk. Net **$1.83**

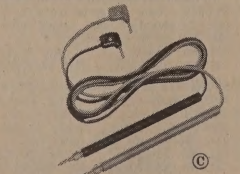
(T) KLIPZON JUMBO PROD HANDLE—Tip pierces insulation. Self-holding point clips on wires (up to .220″ diameter); chassis, screws, terminals, etc.
Cat. No. 33-416 Red Net $ .68
Cat. No. 33-418 Blk Net $ .68

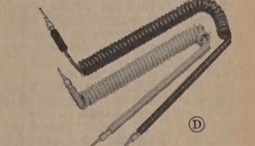
(U) KLIPZON LONGIE ADAPTOR—Long, slender self-holding point with needle to pierce insulation.
Cat. No. 33-420 Red Net $ .48
Cat. No. 33-422 Blk Net $ .48

(V) KLIPZON JUMBO ADAPTOR — Adapts regular tip plug or test prod to self holding Klipzon type.
Cat. No. 33-424 Red Net $ .67
Cat. No. 33-426 Blk Net $ .67









TEST LEADS

(A) UNIVERSAL TEST LEADS—50″ flexible cable; one end 6″ break-resistant plastic handle, with solderless tip plug; other end terminated in banana plug; supplied with alligator clip, spade lugs and phono tip plugs, fit the banana plug end.
Cat. No. 33-450-S Net **$1.80**

UNIVERSAL "NEEDLEPOINT" TEST LEADS—One end 6″ break-resistant Test Prod, with phono needle type test prod; other end terminated with banana plug; furnished with spade lugs, alligator clips and phono tip plug, fit on banana plug.
Cat. No. 33-452-S Net **$1.80**

(B) "THRIFTY" TEST LEADS — 50″ flexible kink-proof cable; one end 4″ insulated test prods with solderless wire connections; other ends terminated in standard phone tips.
Cat. No. 33-454-S Net $ .75

(C) HEAVY DUTY TEST LEADS—50″ flexible kink-proof cable; 7½″ long, heavy-duty unbreakable test prods, solderless wire connections.
Cat. No. 33-456-S Net **$1.12**
Cat. No. 33-458-S Net **$1.27**

HEAVY DUTY NEEDLE POINT TEST LEADS—50″ flexible, kink-proof cable; 7″ long, heavy duty needle point prods, unbreakable plastic handle.
Cat. No. 33-460-S Net **$1.17**
Cat. No. 33-462-S Net **$1.35**

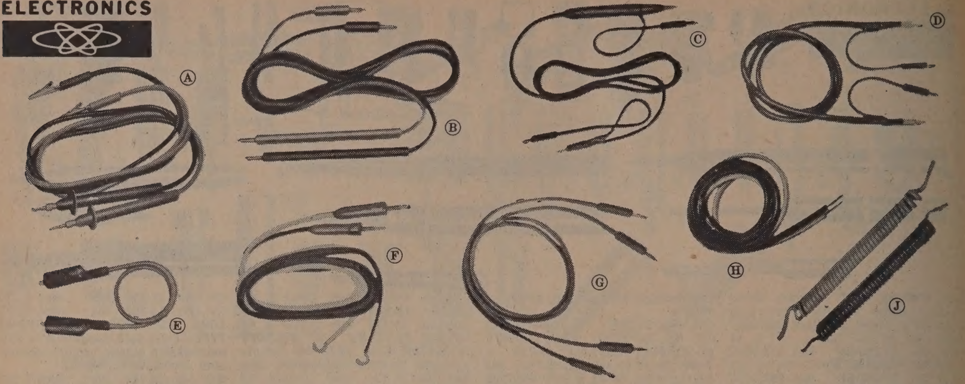
LONG REACH TEST LEADS—50″ flexible, kink-proof cable; one end "long reach" with 5″ insulated test prod, very thin extension; other end terminated in right angle, meter-type insulated tip plug.
Cat. No. 33-464-S Net **$1.27**

(D) STRETCH TYPE TEST LEADS—Kink-proof, spiral-type 9″ cable; extended length 6 feet; one end 6⅜″ heavy duty test prods with solderless wire connection; other end insulated, solderless tip plug.
Cat. No. 33-470-S Net **$2.97**

WRITE for free GC Catalog.

NOTE: ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS — WRITE GC FOR COMPLETE DETAILS.

GC ELECTRONICS ELECTROCRAFT COMPONENTS TEST LEADS · PHONE PLUGS



TEST LEADS

(A) HIGH VOLTAGE TEST LEADS—48" heavy insulated high tension wire (22,000/V).

Pair of 1 red, 1 black, with tip plugs.
Cat. No. 33-472-S Net **$2.40**

Pair of 1 red, 1 black, with insulated spade lugs.
Cat. No. 33-474-S Net **$2.40**

Pair of 1 red, 1 black, with alligator clips.
Cat. No. 33-476-S Net **$2.48**

(B) KLIPZON TEST LEADS—48" flexible, kink-proof cable; one end slim handle, self-holding and insulation piercing, other end Klipzon Tip Plugs. Klipzon prods and tips fit standard tip jacks, have sharp needle point to penetrate wire insulation, corrosion. Pair of 1 red and 1 black.
Cat. No. 33-480-S Net **$2.03**

KLIPZON TEST LEADS—Same as above, but with standard Phone Tip Plugs.
Cat. No. 33-482-S Net **$1.65**

KLIPZON TEST LEADS—Same as above, but other end insulated banana plug.
Cat. No. 33-484-S Net **$1.95**

(C) KLIPZON CRYSTAL PROBE—Germanium diode probe with self-holding points, for measuring high frequency voltages; flexible lead wires are terminated on meter end with Klipon tip plug.
Cat. No. 33-486-S Net **$4.35**

KLIPZON CRYSTAL PROBE — Crystal probe on one end, plus ground lead terminated on each end with tip plug.
Cat. No. 33-488-S Net **$4.35**

(D) KLIPZON SHIELDED LOW CAPACITY—36" low capacity, coaxial type lead, with self-holding insulation piercing, tip prods.
Cat. No. 33-490-S Net **$2.97**

(E) ALLIGATOR CLIP JUMPER LEADS—Flexible, kink-proof, lead wires, terminate at each end with fully insulated steel nickel plated alligator clips.
Pair of 1 red and 1 black, 12" long.
Cat. No. 33-500-S Net **$ .92**
Pair of 1 red and 1 black, 24" long.
Cat. No. 33-502-S Net **$ .95**
Pair of 1 red and 1 black, 36" long.
Cat. No. 33-504-S Net **$1.05**
Pair of 1 red and 1 black, 48" long.
Cat. No.33-506-S Net **$1.10**

(F) HEAVY DUTY KLIPZON TEST LEADS—48" 16-gauge, heavy insulated lead wires, terminated on one end with Klipzon Jumbo prod handles.
Cat. No. 33-492-S Net **$2.55**

(G) KLIPZON JUMPER LEADS—Flexible, kink-proof cable, with patented tips, which clip on wires and terminals, have sharp insulation and corrosion piercing points.
Cat. No. 33-510, 12" Net **$ .77**
Cat. No. 33-512, 12" Net **$ .77**
Cat. No. 33-514, 24" Net **$1.12**
Cat. No. 33-516, 24" Net **$1.12**

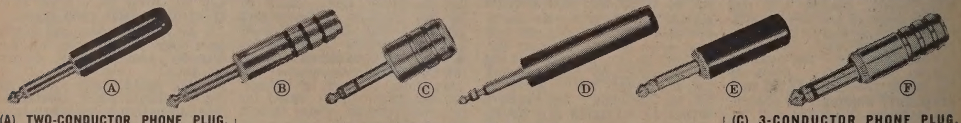
(H) TEST LEAD WIRE—Flexible, rubber-coated and kink-resistant replacement wire for test leads.
Package of two, 50" length, red & black, 6000/V insulation.
Cat. No. 33-518-S Net **$ .60**

Package of two, 48" length, red & black, 22,000/V test leads.
Cat. No. 33-520-S Net **$ .87**

(J) STRETCH LEAD WIRE — Coiled wire, for all applications. Package contains 1 red and 1 black lead. 9" long—stretches to 6 Ft.
Cat. No. 33-522-S Net **$1.95**

TEST LEAD PLUG INTERCHANGE KIT

— Contains pairs of alligator clips, banana plugs, spade lugs and phone tips, (1 each in red and black) to adapt standard test leads to many different types.
Cat. No. 33-530
Net **$2.25**



PHONE PLUGS

(A) TWO-CONDUCTOR PHONE PLUG, SCREW TERMINALS — Standard size plug. With black plastic handle.
Cat. No. 33-600 Blk Net **$ .45**
Cat. No. 33-600-BU Net **$42.48/C**
With red plastic handle.
Cat. No. 33-602 Red Net **$ .45**
Cat. No. 33-602-BU Net **42.48/C**
Metal (shielded) handle.
Cat. No. 33-604 Net **$ .63**
Cat. No. 33-604-BU Net **$60.00/C**

(B) TWO-CONDUCTOR PHONE PLUG, COMB. CLAMP & SOLDER LUG TERMINALS—Large "grounding" terminal clamps around cable insulation or shield, and acts as strain relief.
With black plastic handle.
Cat. No. 33-606 Blk Net **$ .42**
Cat. No. 33-606-BU Net **$39.90/C**
With red plastic handle
Cat. No. 33-608 Red Net **$ .42**
Cat. No. 33-608-BU Net **$39.90/C**
Metal (shielded) handle.
Cat. No. 33-610 Net **$ .60**
Cat. No. 33-610-BU Net **$51.60/C**

TWO-CONDUCTOR PHONE PLUG, PLAIN SOLDER PLUGS—Standard size plug. With black plastic handle.
Cat. No. 33-612 Blk Net **$ .33**
Cat. No. 33-612-BU Net **$30.60/C**

"STUBBY" SHIELDED TWO-CONDUCTOR PHONE PLUG—Standard phone plug with special, short metal handle.
Cat. No. 33-614 Net **$ .53**
Cat. No. 33-614-BU Net **$51.30/C**

STANDARD SHIELDED TWO-CONDUCTOR PHONE PLUG—Regular plug with metal (shielded) handle.
Cat. No. 33-616 Net **$ .60**
Cat. No. 33-616-BU Net **$57.00/C**

TWO-CONDUCTOR PHONE PLUG, TYPE PJ-055B—Made in accordance with military specifications; solder terminal and screw connection.
Cat. No. 33-618 Net **$ .83**
Cat. No. 33-618-BU Net **$77.40/C**

SHORT FINGER, TWO-CONDUCTOR PHONE PLUG—Special short finger (barrel) type plug to connect microphone or telephone pickup to Revere/Wollensack tape recorders.
Cat. No. 33-620 Net **$ .72**
Cat. No. 33-620-BU Net **$63.30/C**

LARGE HANDLE TWO-CONDUCTOR PHONE PLUG — With black plastic handle, 1½" long.
Cat. No. 33-622 Blk Net **$ .45**
Cat. No. 33-622-BU Net **$42.30/C**
With red plastic handle, 1½" long.
Cat. No. 33-624 Red Net **$ .45**
Cat. No. 33-624-BU Net **$42.30/C**
Metal (shielded) handle, 1" long.
Cat. No. 33-626 Net **$ .67**
Cat. No. 33-626-BU Net **$63.00/C**
Metal (shielded) handle, 2¹⁄₁₆" long.
Cat. No. 33-628 Net **$ .72**
Cat. No. 33-628-BU Net **$69.00/C**

"THIN FINGER" TWO-CONDUCTOR PHONE PLUGS—"Undersize" finger (barrel) diameter of .206" for applications where polarized input is desired to distinguish between different connections.

With black plastic handle.
Cat. No. 33-630 Blk Net **$ .45**
Cat. No. 33-630-BU Net **$41.40/C**

With metal (shielded) handle.
Cat. No. 33-632 Net **$ .60**
Cat. No. 33-632-BU Net **$51.00/C**

3-CONDUCTOR PHONE PLUG: COMB. CLAMP AND SOLDER LUG TERMINALS:
With black plastic handle.
Cat. No. 33-640 Blk Net **$ .63**
Cat. No. 33-640-BU Net **$58.35/C**
With metal (shielded) handle.
Cat. No. 33-642 Net **$ .78**
Cat. No. 33-642-BU Net **$73.35/C**

3-CONDUCTOR PHONE PLUG, SCREW TERMINALS—
With black plastic handle.
Cat. No. 33-644 Blk Net **$ .72**
Cat. No. 33-644-BU Net **$67.50/C**
With red plastic handle.
Cat. No. 33-646 Red Net **$ .72**
Cat. No. 33-646-BU Net **$67.50/C**
With metal (shielded) handle.
Cat. No. 33-648 Net **$ .83**
Cat. No. 33-648-BU Net **$77.40/C**

(C) 3-CONDUCTOR PHONE PLUG, LARGE HANDLE—Accommodate large diameter cables, with room in handle for wired-in resistors or capacitors.
Cat. No. 33-650 Net **$ .78**
Cat. No. 33-650-BU Net **$72.00/C**

(D) 3-CONDUCTOR PHONE PLUG, TYPE PJ-068—With solder terminals and screw connection.
Cat. No. 33-654 Net **$2.17**
Cat. No. 33-654-BU Net **$209.99/C**

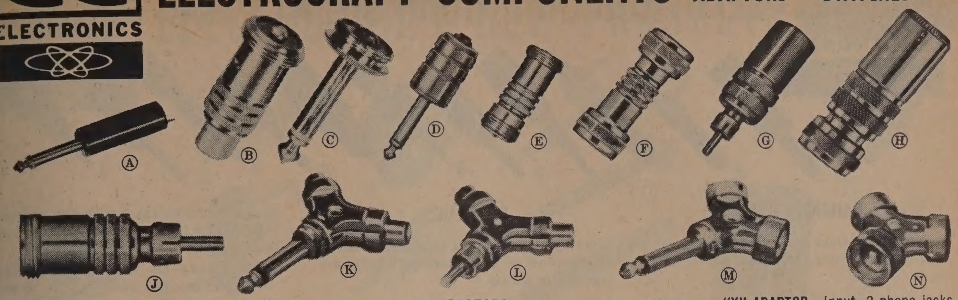
(E) MINIATURE PHONE PLUGS: COMB. CLAMP AND SOLDER TERMINALS—Two-conductor style, tested for 500/V breakdown.
With metal (shielded) handle.
Cat. No. 33-660 Net **$ .60**
Cat. No. 33-660-BU Net **$51.66/C**
With black plastic handle.
Cat. No. 33-662 Blk Net **$ .42**
Cat. No. 33-662-BU Net **$40.02/C**
With red plastic handle.
Cat. No. 33-664 Red Net **$ .42**
Cat. No. 33-664-BU Net **$40.02/C**

(F) MINIATURE PHONE PLUGS: COMB. CLAMP AND SCREW TERMINALS—Same plugs as listed above except for different style terminals.
With metal (shielded) handle.
Cat. No. 33-666 Net **$ .63**
Cat. No. 33-666-BU Net **$59.85/C**
With black plastic handle.
Cat. No. 33-668 Blk Net **$ .45**
Cat. No. 33-668-BU Net **$42.51/C**
With red plastic handle.
Cat. No. 33-670 Red Net **$ .45**
Cat. No. 33-670-BU Net **$42.51/C**

NOTE: ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS — WRITE GC FOR COMPLETE DETAILS.

GC ELECTROCRAFT COMPONENTS ADAPTORS · SWITCHES

GC ELECTRONICS



ADAPTORS

GC Electronics Adaptors are designed for quickly interchanging various cable connectors; these handy devices are small, yet sturdy and of attractive modern design.

(A) PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-850 Net $ .75
Cat. No. 33-850-BU Net $67.50/C

PHONO JACK INPUT, STANDARD PHONE PLUG OUTPUT, HEAVY DUTY METAL SHIELDED TYPE.
Cat. No. 33-852 Net $ .87
Cat. No. 33-852-BU Net $78.30/C

(B) PHONO JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-854 Net $ .67
Cat. No. 33-854-BU Net $59.40/C

PHONO JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-856 Net $ .75
Cat. No. 33-856-BU Net $67.50/C

(C) FEMALE MICROPHONE CONNECTOR INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-858 Net $ .30
Cat. No. 33-858-BU Net $27.00/C

(D) MINIATURE PHONE JACK INPUT, STANDARD PHONE PLUG OUTPUT:
Cat. No. 33-860 Net $ .87
Cat. No. 33-860-BU Net $78.30/C

(E) COUPLER, CONNECTS 2 FEMALE MICROPHONE CONNECTORS.
Cat. No. 33-862 Net $ .42
Cat. No. 33-862-BU Net $37.80/C

(F) COUPLER, CONNECTS 2 MALE MICROPHONE CONNECTORS.
Cat. No. 33-864 Net $ .48
Cat. No. 33-864-BU Net $43.20/C

(G) STANDARD PHONE JACK INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-866 Net $ .87
Cat. No. 33-866-BU Net $78.30/C

(H) STANDARD PHONE JACK INPUT, FEMALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-868 Net $1.05
Cat. No. 33-868-BU Net $94.50/C

STANDARD PHONE JACK INPUT, MALE MICROPHONE CONNECTOR OUTPUT:
Cat. No. 33-870 Net $ .98
Cat. No. 33-870-BU Net $89.10/C

(J) MALE MICROPHONE CONNECTOR INPUT, PHONO PLUG OUTPUT:
Cat. No. 33-872 Net $ .75
Cat. No. 33-872-BU Net $67.50/C

(K) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: phone plug.
Cat. No. 33-880 Net $1.05
Cat. No. 33-880-BU Net $94.50/C

"Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: single phono jack.
Cat. No. 33-882 Net $1.05
Cat. No. 33-882-BU Net $94.50/C

(L) "Y" ADAPTOR—Input: 2 phono jacks (in parallel); output: standard phone plug.
Cat. No. 33-884 Net $1.13
Cat. No. 33-884-BU Net $102.60/C

(M) "Y" ADAPTOR—Input: 2 male mike connectors (in parallel); output: standard phone plug.
Cat. No. 33-886 Net $1.13
Cat. No. 33-886-BU Net $102.60/C

(N) "Y" ADAPTOR—Input: 2 male microphone connectors (in parallel); output: female microphone connector.
Cat. No. 33-888 Net $ .98
Cat. No. 33-888-B Net $89.63/C

PUSH-BUTTON SWITCHES

All styles are momentary (non-locking) design, and are made with long-wearing nickel silver springs, carefully adjusted. Insulation is high grade phenolic.

STANDARD SMALL PUSH BUTTON SWITCHES—Can also be supplied with silver contacts for 3 amp, 115/V. AC rating (on special orders in production quantities).

Single "make"; black button.
Cat. No. 34-000 Net $ .53
Cat. No. 34-000-BU Net $51.66/C

Single "make"; red button.
Cat. No. 34-002 Net $ .53
Cat. No. 34-002-BU Net $51.66/C

Single "break"; black button.
Cat. No. 34-004 Net $ .53
Cat. No. 34-004-BU Net $51.66/C

Single "break"; red button.
Cat. No. 34-006 Net $ .53
Cat. No. 34-006-BU Net $51.66/C

Single "break-make"; black button.
Cat. No. 34-008 Net $ .60
Cat. No. 34-008-BU Net $57.51/C

Single "break-make"; red button.
Cat. No. 34-010 Net $ .60
Cat. No. 34-010-BU Net $57.51/C

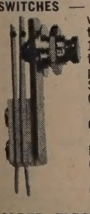
MINIATURE PUSH BUTTON SWITCHES—Made of the same materials and to the same specifications as standard small switches listed above.

Single "make"; black button.
Cat. No. 34-020 Net $ .53
Cat. No. 34-020-BU Net $51.66/C

Single "make"; red button.
Cat. No. 34-022 Net $ .53
Cat. No. 34-022-BU Net $51.66/C

Single "break" black button.
Cat. No. 34-024 Net $ .53
Cat. No. 34-024-BU Net $51.66/C

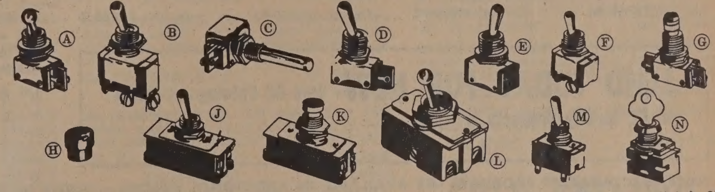
Single "break-make"; black button.
Cat. No. 34-026 Net $ .60
Cat. No. 34-026-BU Net $57.51/C



STRAIGHT FRAME PUSH BUTTON SWITCHES — Fine silver contacts with minimum resistance rated at 3 amp, 115/V, AC, non-inductive load. Standard push button is black.

Single "make-break".
Cat. No. 34-032 Net $ .72
Cat. No. 34-032-BU Net $69.00/C

Double "make".
Cat. No. 34-034 Net $ .78
Cat. No. 34-034-BU Net $75.00/C



Double "break".
Cat. No. 34-036 Net $ .78
Cat. No. 34-036-BU Net $75.00/C

Double "break-make".
Cat. No. 34-038 Net $ .93
Cat. No. 34-038-BU Net $90.00/C

ARROW-HART SWITCHES

These switches, made by A. H. & H. for GC Electrocraft, are UL approved. The threaded sleeves are slotted to positively prevent turning of switch if used in keyed hole.

(A) BALL HANDLE TOGGLE SWITCH—Light duty; SPST types rated 3 amps, 250/V; all others 1 amp, 250/V, 3 amps, 125/V, AC-DC.
SPST — ½″ Shank.
Cat. No. 34-050 Net $ .72
SPST — 1″ Shank.
Cat. No. 34-052 Net $ .87
SPDT — ½″ Shank.
Cat. No. 34-054 Net $ .90
SPDT — 1″ Shank.
Cat. No. 34-056 Net $1.12
DPST — ½″ Shank.
Cat. No. 34-058 Net $1.28
DPST — 1″ Shank.
Cat. No. 34-060 Net $1.47
DPDT — ½″ Shank.
Cat. No. 34-062 Net $1.47
DPDT — 1″ Shank.
Cat. No. 34-064 Net $1.62

(B) MEDIUM DUTY, NEUTRAL CENTER TOGGLE SWITCH—Rating 10 amps 250/V; 15 amps 125/V; ¾ horsepower.
SPDT — 15/32″ Shank.
Cat. No. 34-066 Net $ .98
DPDT — 15/32″ Shank.
Cat. No. 34-068 Net $1.53

(C) ROTARY SWITCH—Laminated insulation; rating — SPST models, 3 amps, 25/V; all others 1 amp, 250/V-3 amps, 125/V, AC-DC.
SPST — ⅜″ Shank.
Cat. No. 34-070 Net $ .90
SPST — 1″ Shank.
Cat. No. 34-072 Net $1.12
SPDT — ⅜″ Shank.
Cat. No. 34-074 Net $1.08
SPDT — 1″ Shank.
Cat. No. 34-076 Net $1.17
DPST — 1″ Shank.
Cat. No. 34-078 Net $1.58
DPDT — ⅜″ Shank.
Cat. No. 34-080 Net $1.65
DPDT — 1″ Shank.
Cat. No. 34-082 Net $1.65

ON-OFF PLATE—Fits all switches except slide and small canopy type.
Cat. No. 30-084 Net $ .08

(D) BAT HANDLE TOGGLE SWITCH—Light duty, laminated phenolic insulation. Rating SPST types, 3 amps, 250/V; all others 1 amp, 250/V — 3 amps, 125/V; AC-DC.
SPST — 15/32″ Shank.
Cat. No. 34-086 Net $ .72
SPDT — 15/32″ Shank.
Cat. No. 34-088 Net $ .90
DPST — 15/32″ Shank.
Cat. No. 34-090 Net $1.28
DPDT — 15/32″ Shank.
Cat. No. 34-092 Net $1.47

(E) WIRE LEAD TOGGLE SWITCH—Same switch as series listed above but with 6″ wire leads.
SPST — ½″ Shank.
Cat. No. 34-094 Net $ .93
SPST — ⅜″ Shank.
Cat. No. 34-096 Net $ .93

(F) PUSH "ON" — PUSH "OFF" SWITCH—Laminated phenolic insulation; rating 3 amps, 250/V; 6 amps, 125/V, AC-DC. SPST.
Cat. No. 34-098 Net $1.28

(G) PUSH BUTTON, MOMENTARY SWITCH—2-circuit type; one circuit is normally "on" — the other is "off". Laminated phenolic insulation, rated at 1 amp, 125/V. Solder terminals.
Cat. No. 34-100 Net $ .98

(H) Red plastic push button for above switch.
Black plastic push button for above switch.
Cat. No. 34-102 Net $ .25
Cat. No. 34-104 Net $ .25

(J) MEDIUM DUTY TOGGLE SWITCH—Quick, make and break design, rating 6 amp, 250/V; 12 amp, 125/V; 12 amps, 125/V; 1 HP. DPST.
Cat. No. 34-106 Net $1.35

(K) HEAVY DUTY PUSH BUTTON SWITCH: MOMENTARY ACTION — Molded plastic housing; rating 8 amps, 25/V; 16 amps, 125-250V; 1 HP. Push button switch.
Cat. No. 34-108 Net $2.02

(L) HEAVY DUTY TOGGLE SWITCH—240/V AC; transmitters, etc. Rating SPDT model 10 amps, 250/V; 15 amps, 125/V; other two types 5 amps, 250/V; 10 amps, 125/V.
DPDT.
Cat. No. 34-110 Net $ 4.92
3 PDT.
Cat. No. 34-112 Net $ 7.57
4 PDT.
Cat. No. 34-114 Net $10.08

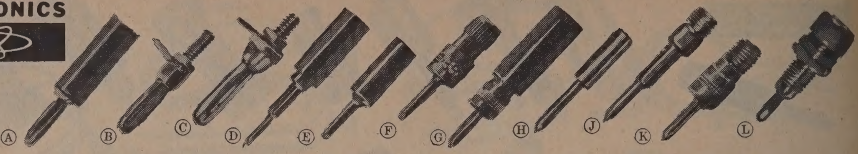
(M) DELUXE TOGGLE SWITCH—1000/V rms — 60 cycle is desired. Rating SPDT model, 1 amp, 250/V; 6 amps, 125/V. All others 3 amp, 250/V; 6 amp, 125/V.
SPST — 15/32″ Shank.
Cat. No. 34-120 Net $1.27
SPDT — 15/32″ Shank.
Cat. No. 34-122 Net $1.43
DPST — 15/32″ Shank.
Cat. No. 34-124 Net $1.80
DPDT — 15/32″ Shank.
Cat. No. 34-126 Net $1.95

(N) LOCK SWITCH—Removable key; sleeve length 27/32″; rating 3 amps, 250/V; 6 amps, 125/V.
With key removable in open position only.
Cat. No. 34-150 Net $2.13
With key removable in open or closed position.
Cat. No. 34-152 Net $2.13
Key only.
Cat. No. 34-154 Net $ .20

NOTE: ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS — WRITE GC FOR COMPLETE DETAILS.

GC
ELECTRONICS

ELECTROCRAFT COMPONENTS PLUGS · CABLE CLAMPS



BANANA PLUGS

These Banana Plugs meet standard Industry specifications, mate with jacks with 0.163″ bore.

(A) BANANA PLUG — Unbreakable plastic handle; four leaved, nickel plated phosphor bronze spring.

Cat. No.	33-032-1BU	Red	Dlr. Net	$18.00/C
	33-032-2BU	Blk		18.00/C
	33-032-3BU	Yel		18.00/C
	33-032-4BU	Grn		18.00/C
	33-032-5BU	Blu		18.00/C

(B) BANANA PLUG — Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. Lug & hex nut.

Cat. No. 33-034-BU Dlr. Net $15.00/C

(C) BANANA PLUG — Threaded shank; four leaved, nickel plated phosphor bronze spring. Term. lug & hex nut.

Cat. No. 33-058-BU Dlr. Net $15.00/C

TIP PLUGS

These Tip Plugs are made to standard industry specifications of .080″ diameter. Handles are unbreakable plastic.

(D)HEAVY DUTY PHONE TIP PLUG — Standard tip, large diameter for soldering heavy duty wire into nickel plated brass body.

Cat. No.	33-110-1BU	Red	Dlr. Net	$15.00/C
	33-110-2BU	Blk		15.00/C
	33-110-3BU	Yel		15.00/C
	33-110-4BU	Grn		15.00/C
	33-110-5BU	Blu		15.00/C

(E) INSULATED HOLLOW TIP PLUG — Drawn brass, nickel plated, solder type.

Cat. No.	33-116-1BU	Red	Dlr. Net	$10.20/C
	33-116-2BU	Blk		10.20/C

(F) "JR." SOLDERLESS PHONE TIP—Press fit; nickel plated brass body; wire fastens under knurled collar.

Cat. No. 33-142-BU Dlr. Net $ 9.60/C

(G) "JR." SOLDERLESS PHONE TIP—Threaded nickel plated brass body; wire fastens under knurled collar.

Cat. No.	33-144-1BU	Red	Dlr. Net	$15.00/C
	33-144-2BU	Blk		15.00/C
	33-144-3BU	Yel		15.00/C
	33-144-4BU	Grn		15.00/C
	33-144-5BU	Blu		15.00/C

(H) HEAVY DUTY PHONE TIP PLUG — Brass; bright nickel plated, solder type.

Cat. No. 33-158-BU Dlr. Net $26.40/C

(J) HEAVY DUTY PHONE TIP PLUG—Soldering well in nickel plated brass body large enough for standard banana plugs; threaded to fit into plastic handle.

Cat. No. 33-170-BU Dlr. Net $10.20/C

(K) "JR." SOLDERLESS PHONE TIP — Nickel plated brass body; wire fastens under knurled collar; threaded to fit into plastic handle.

Cat. No. 33-172-BU Dlr. Net $11.40/C

(L) INSULATED TIP JACK—Molded Plastic head and washer; brass, nickel plated body with hex nut. Requires ⁵⁄₁₆″ hole; fits panels up to ¼″ thick.

Cat. No.	33-208-1BU	Red	Dlr. Net	$18.00/C
	33-208-2BU	Blk		18.00/C
	33-208-3BU	Yel		18.00/C
	33-208-4BU	Grn		18.00/C
	33-208-5BU	Blu		18.00/C

SEND TODAY FOR NEW free GC Catalog . . . shows all GC quality products.

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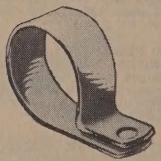
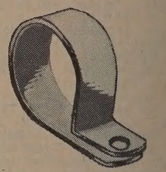
ELECTROCRAFT PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are used for fastening cables, harnesses, tubing, etc. Lightweight, durable, with excellent electrical and mechanical properties. Two materials: (1) Ethyl Cellulose, for normal industrial and commercial uses—where temperatures range from —40° F. to 185° F. (2) Nyon (Zytel), for extreme durability and high resistance to temperature (—60° F. to 300° F.) and most chemicals.



ETHYL CELLULOSE CABLE CLAMPS
Transparent (light yellowish) plastic. Meets specifications AN742. Plastic thickness is .063″.

NYLON (ZYTEL) CABLE CLAMPS
Natural color (translucent white) Nylon. Thickness is .050″ on ½″ dia. and smaller clamps, .060″ on ⁹⁄₁₆″ and larger.

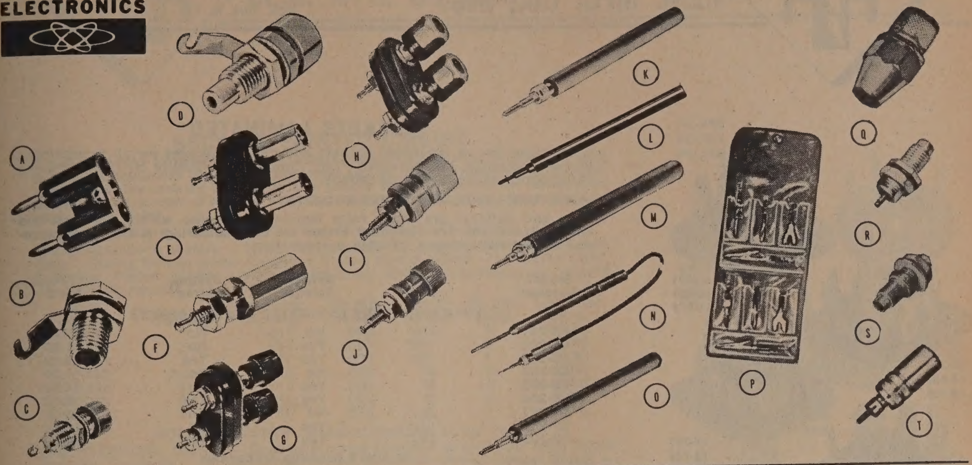
ETHYL CELLULOSE CLAMPS

For Cable O.D.	Cat. No.	Dlr. Net Per C	Cat. No.	Dlr. Net Per M
⅛″	34-300C	$2.33	34-300-M	$19.80
³⁄₁₆″	34-304C	2.40	34-304-M	19.92
¼″	34-308C	2.58	34-308-M	21.97
⁵⁄₁₆″	34-312C	2.85	34-312-M	24.23
⅜″	34-316C	3.00	34-316-M	25.50
⁷⁄₁₆″	34-320C	3.30	34-320-M	27.83
½″	34-324C	3.60	34-324-M	29.63
⁹⁄₁₆″	34-328C	4.20	34-328-M	34.68
¹⁹⁄₃₂″	34-332C	4.50	34-332-M	36.00
⅝″	34-336C	4.80	34-336-M	39.83
¹¹⁄₁₆″	34-340C	5.10	34-340-M	42.71
¾″	34-344C	5.40	34-344-M	44.76
⅞″	34-348C	5.70	34-348-M	48.36
1″	34-352C	6.00	34-352-M	51.60
1⅛″	34-356C	6.30	34-356-M	55.08
1¼″	34-358C	6.60	34-358-M	58.20

NYLON (ZYTEL) CLAMPS

For Cable O.D.	Cat. No.	Dlr. Net Per C	Cat. No.	Dlr. Net Per M
⅛″	34-370C	$3.60	34-370-M	$30.00
³⁄₁₆″	34-374C	3.93	34-374-M	31.77
¼″	34-378C	4.17	34-378-M	34.73
⁵⁄₁₆″	34-382C	4.68	34-382-M	38.37
⅜″	34-386C	4.83	34-386-M	40.32
⁷⁄₁₆″	34-390C	5.13	34-390-M	42.63
½″	34-394C	5.47	34-394-M	45.38
⁹⁄₁₆″	34-398C	6.72	34-398-M	62.26
⅝″	34-402C	7.50	34-402-M	65.63
¹¹⁄₁₆″	34-406C	7.80	34-406-M	77.33
¾″	34-410C	8.40	34-410-M	75.00
⅞″	34-414C	9.00	34-414-M	81.00
1″	34-418C	10.50	34-418-M	96.00

GC ELECTRONICS ELECTROCRAFT NEW PRODUCTS



(A) DUAL BANANA PLUG—Four leaved, phosphor bronze, nickel plated spring and steel, cadmium plate screw.

Cat. No. 33-010-BU	Blk	Net $ .72.00/C

(B) BANANA JACK—A hex brass nickel plated body recessed head and supplied with nut and lug.

Cat. No. 33-184-BU	Blk	Net $10.20/C

(C) TIP JACK—Featuring positive hold hex lock between molded head and jack body.

Cat. No. 33-190	Red	Net $ .17
33-190-1BU	Red	Net $15.00/C
33-190-2BU	Blk	Net $15.00/C
33-190-3BU	Yel	Net $15.00/C
33-190-4BU	Grn	Net $15.00/C
33-190-5BU	Blu	Net $15.00/C
33-190	Blk	Net $ .17

(D) MINIATURE BANANA JACK — Molded nylon head and insulating washer provide excellent isolation from panel. Fits 5/16″ mounting hole; for panels up to 1/4″ thick.

Cat. No. 33-220-1BU	Red	Net $18.00/C
33-220-2BU	Blk	Net $18.00/C
33-220-3BU	Yel	Net $18.00/C
33-220-4BU	Grn	Net $18.00/C
33-220-5BU	Blu	Net $18.00/C

(E) DUAL BINDING POST—Assembly with metal posts, can accept standard dual banana plug and wire.

Cat. No. 33-276-BU	Net $60.00/C

(F) BINDING POST — 5-way metal, has wrap-around solder stud, 8-32 thread.

Cat. No. 33-286-BU	Net $21.60/C

(G) DUAL BINDING POST—Insulated, 5-way, assembly with black insulated fluted heads. Supplied with 4 hex nuts, two flat washers.

Cat. No. 33-288-BU	Net $54.00/C

(H) DUAL BINDING POST — Insulated head, washer of molded black styrene, drilled to accept standard phone tips, forward or sideways. Brass, nickel plated body, molded nylon, hex head with brass nickel plated insert.

Cat. No. 33-290-BU	Blk	Net $66.00/C
33-292-BU	one head red one head blk	Net $66.00/C

(I) NYLON BINDING POST—Grounding type, with molded nylon, non-removable head takes direct solder connection to stud.

Cat. No. 33-294-1BU	Red	Net $26.40/C
33-294-2BU	Blk	Net $26.40/C

(J) NYLON BINDING POST—All metal parts are brass insulated. Molded Nylon head (non-removable). Takes direct solder connection to stud.

Cat. No. 33-296-1BU	Red	Net $26.40/C
33-296-2BU	Blk	Net $26.40/C

(K) SOLDERLESS FIBRE TEST PROD—Bone fibre handle, machined to nickel plated brass tip. Features .245″ inside diameter for heavy duty wire.

Cat. No. 33-376-1BU	Red	Net $30.00/C
33-376-2BU	Blk	Net $30.00/C

(L) HEAVY DUTY TEST PROD—Threaded type, extra sturdy brass, nickel-plated tip with red or black molded plastic handle.

Cat. No. 33-378-1BU	Red	Net $33.00/C
33-378-2BU	Blk	Net $33.00/C

(M) SOLDERLESS TEST PROD — Threaded prod with 5″ long plastic handle, nickel plated phone tip, wire fits through handle, wraps around screw portion.

Cat. No. 33-404-1BU	Red	Net $30.00/C
33-404-2BU	Blk	Net $30.00/C

(N) RETRACTABLE TEST PROD—Retractable tip, this exclusive feature allows complete testing of printed circuitry without shorting or shock to the user.

Cat. No. 33-465-1	Red	Net $1.65
33-465-2	Blk	Net $1.65

(O) SUBMINIATURE TEST PROD — Handle bone fibre, brass nickel plated tip, easily assembled due to threading.

Cat. No. 33-388-1BU	Net $24.00/C
33-388-2BU	Net $24.00/C

(P) UNIVERSAL TEST LEAD KIT—Two 55″ leads and 12 interchangeable testing tips and connectors. Convert test leads to many different types. Has 4 phone tips, 2 alligator clips, 2 needle tips, 2 banana plugs, 2 spade lugs.

Cat. No. 33-528	Net $2.40

(Q) MALE COAXIAL CONNECTORS—Low-cost solderless connector. Mates with No. 33-836 receptacle or 33-838 female coupler.

Cat. No. 33-834-BU	Net $48.00/C

(R) FEMALE CHASSIS FITTING — Silver-plated, low-loss insulated coaxial cable connector.

Cat. No. 33-836-BU	Net $48.00/C

(S) FEMALE COUPLER—Highly conductive, silver-plated cable connector. Mates at either end with No. 33-834 connector.

Cat. No. 33-838-BU	Net $60.00/C

(T) MINIATURE PHONE JACK INPUT, STANDARD PHONO PLUG OUPUT.

Cat. No. 33-865	Net $ .87

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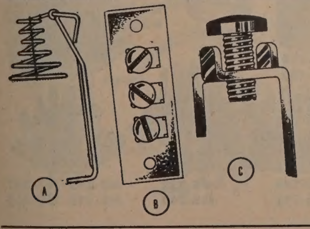

(A) MINIATURE SPRINGS — Guards miniature tubes and provides 2 way support. Direct axial pressure downward plus a sideways support to keep the tube upright and perpendicular to the chassis. Resilient spring maintains life and action indefinitely.

Cat. No.	Tube Size	Net
33-900-BU	for 7 pin, 2 inch long tube	$10.20/C
33-901-BU	for 1 pin, 1½ inch tube	10.20/C
33-902-BU	for 7 pin, 1⅛ inch tube	10.20/C
33-903-BU	for 9 pin, 1½ inch tube	10.80/C

(B) HEAVY DUTY TERMINAL BOARDS — Brass, Cadmium plated lugs, .042 thick on ½″ centers. Numbered terminals. X. P. Bakelite Strip ⅞″ wide, 3/32″ Thick. Nickel plated 8-32 x 5/16 brass screw.

Cat. No. 33-930-BU	2 Terminal	Net $20.40/C
33-931-BU	3 Terminal	28.20/C
33-932-BU	4 Terminal	34.20/C
33-934-BU	5 Terminal	40.20/C
33-935-BU	6 Terminal	46.20/C
33-936-BU	7 Terminal	52.20/C
33-937-BU	8 Terminal	58.80/C

(C) TERMINAL LUGS AND SCREWS — Designed for heavy duty terminal strips. Brass hot tinned lugs with screw inserted.

Cat. No. 33-940-BU	Net $5.40/C

ELECTROCRAFT PRODUCTS ARE AVAILABLE IN ADDITIONAL COLORS—WRITE GC FOR COMPLETE DETAILS.

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I.E.H. MFG. CO., INC.

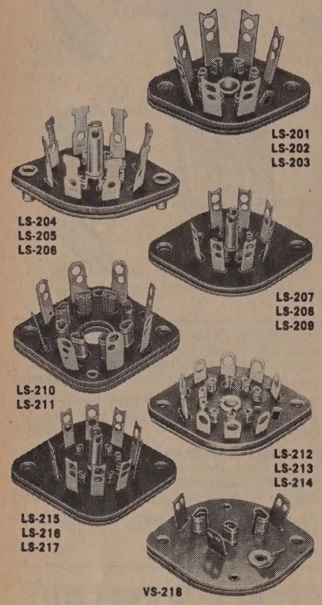
Subsidiary of Industrial Electronic Hardware Corp.
New York N. Y.

SOCKETS LAMINATED

A complete line of laminated sockets and molded sockets for all replacement or OEM purposes. The stringent "I.H." Standard of Quality is your guarantee of top performance in all applications.

MINIATURE LAMINATED WAFER SOCKETS

Tops and bottoms are made from laminated Bakelite wafers. Contacts are Spring Brass, and are Cadmium Plated for easy soldering. A sturdy, inexpensive socket with rugged, reliable performance.

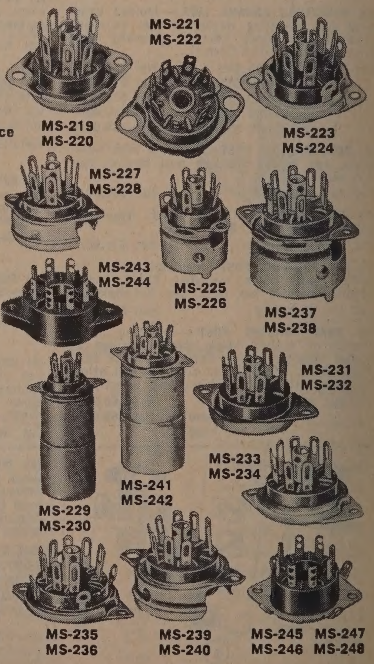


Model Number	Mtg. Ctrs.	Center Shield	Ground Strap	List Price per C
7-PIN MINIATURE LAMINATED WAFER SOCKETS				
LS-201	⅞"	No	No	$11.00
LS-202	⅞"	Yes	No	11.50
LS-203	⅞"	Yes	Yes	12.00
LS-204	1"	No	No	11.00
LS-205	1"	Yes	No	11.50
LS-206	1"	Yes	Yes	12.00
LS-207	1⁵⁄₁₆"	No	No	13 00
LS-208	1⁵⁄₁₆"	Yes	No	13.50
LS-209	1⁵⁄₁₆"	Yes	Yes	14.00
Standard packing: 50 per box				
OCTAL MINIATURE LAMINATED WAFER SOCKETS				
LS-210	1⁵⁄₁₆"	No	No	10.00
LS-211	1½"	No	No	10.00
Standard packing: 50 per box				
NOVAL MINIATURE LAMINATED WAFER SOCKETS				
LS-212	1⅛"	No	No	13.00
LS-213	1⅛"	Yes	No	13.50
LS-214	1⅛"	Yes	Yes	14.00
LS-215	1⁵⁄₁₆"	No	No	14.00
LS-216	1⁵⁄₁₆"	Yes	No	14.50
LS-217	1⁵⁄₁₆"	Yes	Yes	15.00
Standard packing: 50 per box				
VIBRATOR SOCKETS				
VS-218	Three-prong Vibrator socket for use in most auto radios			14.00
Standard packing: 25 per box				

SOCKETS MOLDED

STANDARD MINIATURE MOLDED SOCKETS

Molded from high di-electric general purpose black Bakelite, or low-loss Mica-filled Bakelite. Contacts are Spring Brass, Cadmium-Plated for easy soldering. Other grades of material or plating are available, quotations on request.



Model Number	Material	Mount	Mtg. Ctrs.	Mtg. Holes Diameter	Tube Shield Base	List Price per C
7-PIN MINIATURE MOLDED SOCKETS Standard Packing: 25 per box.						
MS-219	Bakelite	Top	⅞"	.098	No	$14.00
MS-220	Mica-Filled Bakelite	Top	⅞"	.098	No	17 00
MS-221	Bakelite	Bottom	⅞"	.098	No	14.00
MS-222	Mica-Filled Bakelite	Bottom	⅞"	.098	No	17.00
MS-223	Bakelite (with grd. lugs)	Bottom	⅞"	.098	No	15.00
MS-224	Mica-Filled Bakelite (with grd. lugs)	Bottom	⅞"	.098	No	18.00
MS-225	Bakelite	Top	⅞"	.125	J-slot	28.00
MS-226	Mica-Filled Bakelite	Top	⅞"	.125	J-slot	35.00
MS-227	Bakelite	Top	⅞"	.125	Snap-on	16.00
MS-228	Mica-Filled Bakelite	Top	⅞"	.125	Snap-on	20.00
MS-229	Bakelite	Top	1"	.095	Collapsible	37.50
MS-230	Mica-Filled Bakelite	Top	1"	.095	Collapsible	40.50
9-PIN MINIATURE MOLDED SOCKETS Standard Packing: 25 per box.						
MS-231	Bakelite	Top	1⅛"	.095	No	$20.00
MS-232	Mica-Filled Bakelite	Top	1⅛"	.095	No	23.00
MS-233	Bakelite	Bottom	1⅛"	.095	No	20.00
MS-234	Mica-Filled Bakelite	Bottom	1⅛"	.095	No	23.00
MS-235	Bakelite (with grd. lugs)	Bottom	1⅛"	.095	No	22.00
MS-236	Mica-Filled Bakelite (with grd. lugs)	Bottom	1⅛"	.095	No	25.00
MS-237	Bakelite	Top	1⅛"	.125	J-slot	30.00
MS-238	Mica-Filled Bakelite	Top	1⅛"	.125	J-slot	33.00
MS-239	Bakelite	Top	1⅛"	.125	Snap-on	24.00
MS-240	Mica-Filled Bakelite	Top	1⅛"	.125	Snap-on	27.00
MS-241	Bakelite	Top	1⅛"	.095	Collapsible	40.50
MS-242	Mica-Filled Bakelite	Top	1⅛"	.095	Collapsible	43.50
OCTAL MINIATURE MOLDED SOCKETS Standard Packing: 25 per box.						
MS-243	Bakelite	Top	1⁵⁄₁₆"	.140	All Molded	$14.00
MS-244	Mica-Filled Bakelite	Top	1⁵⁄₁₆"	.140	All Molded	18.00
MS-245	Bakelite	Top	1⁵⁄₁₆"	.137	Saddle	14.00
MS-246	Mica-Filled Bakelite	Top	1⁵⁄₁₆"	.137	Saddle	18.00
MS-247	Bakelite (with grd. lugs)	Top	1⁵⁄₁₆"	.137	Saddle	14.00
MS-248	Mica-Filled Bakelite (with grd. lugs)	Top	1⁵⁄₁₆"	.137	Saddle	18.00

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Subsidiary of Industrial Electronic Hardware Corp.
New York N. Y.

SOCKETS PRINTED CIRCUIT

A complete line of printed circuit sockets manufactured with meticulous care to provide maximum insulation resistance and minimum frequency loss. Automatic assembly assures uniformity and quality control required for automation processes. Variations of models listed as well as other designs can be made to your special order.

LAMINATED SOCKETS Standard Packing: 25 per box

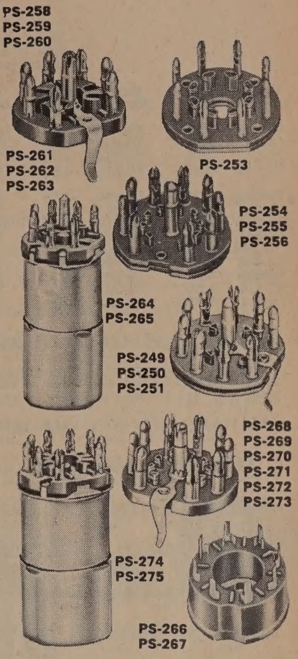
SPECIFICATIONS: **Wafers** — NEMA Spec. Grade XP Laminated Phenolic. **Contacts** — Spring Temper Brass, Cadmium Plated. **Center Shield** — Tempered Steel, Cadmium Plated. (Other grades of Material, Wax Impregnation, or Plating available on request.)

Model Number	Contacts	Pin Circle Diameter	Pin Mtg. Holes	Center Shield	Ground Strap	List Price per C
PS-249	7	.687	.093	N	N	**$13.00**
PS-250	7	.687	.093	Y	N	**13.50**
PS-251	7	.687	.093	Y	Y	**17.50**
PS-253	Octal	1.125	.093	N	N	**30.00**
PS-254	9	.781	.093	N	N	**16.00**
PS-255	9	.781	.093	Y	N	**16.50**
PS-256	9	.781	.093	Y	Y	**20.50**

MOLDED SOCKETS Standard Packing: 25 per box

SPECIFICATIONS: **Casting** — General Purpose Phenolic or Low-Loss Mica Filled Phenolic. **Contacts** — Spring Temper Brass, Cadmium Plated. **Center Shield** — Brass, Cadmium Plated. **Ground Strap** — Tempered Steel, Cadmium Plated. (Other grades of Material, Wax Impregnation, or Plating available on request.)

Model Number	Contacts	Material	Pin Circle Diameter	Mtg. Holes	Center Shield	Ground Strap	List Price per C
PS-258	7	Bakelite	.687	.093	N	N	**$14.50**
PS-259	7	Mica-filled Bakelite	.687	.093	N	N	**17.50**
PS-260	7	Bakelite	.687	.093	Y	N	**16.00**
PS-261	7	Mica-filled Bakelite	.687	.093	Y	N	**18.50**
PS-262	7	Bakelite	.687	.093	Y	Y	**19.00**
PS-263	7	Mica-filled Bakelite	.687	.093	Y	Y	**22.50**
PS-264	7	Bakelite	.687	.093	w/Collapsible		**42.50**
PS-265	7	Mica-filled Bakelite	.687	.093	Tube Shield.		**45.00**
PS-266	Octal	Bakelite			N	N	**20.00**
PS-267	Octal	Mica-filled Bakelite			N	N	**23.50**
PS-268	9	Bakelite	.781	.093	N	N	**19.50**
PS-269	9	Mica-filled Bakelite	.781	.093	N	N	**21.00**
PS-270	9	Bakelite	.781	.093	Y	N	**20.00**
PS-271	9	Mica-filled Bakelite	.781	.093	Y	N	**23.50**
PS-272	9	Bakelite	.781	.093	Y	Y	**24.00**
PS-273	9	Mica-filled Bakelite	.781	.093	Y	Y	**26.50**
PS-274	9	Bakelite	.781	.093	w/Collapsible		**48.00**
PS-275	9	Mica-filled Bakelite	.781	.093	Tube Shield.		**51.00**



SOCKETS TRANSISTOR

SPECIFICATIONS: **Casting** — Low Loss Mica Filled Phenolic. **Contacts** — Beryllium Copper, Tin Coated. Printed Circuit Types can be heat-sealed. Triangular openings for easy insertion of Transistors. Supplied with Spring-type retaining rings of Tempered Steel, Cadmium Plated.

Note: TS-279 (Power Transistor Socket) made of NEMA Spec. Grade XP Laminated Phenolic Wafers. Other grades of material or plating available on request.

Model Number	Description	List Price per C
TS-276	General Purpose Universal Transistor Socket	**$25.00**
TS-277	Printed Circuit Transistor Socket	**28.50**
TS-278	Printed Circuit Transistor Socket with spring tail terminations	**28.50**
TS-279	Power Transistor Socket	**12.00**
TS-294	3-pin Printed Circuit Socket	**30.00**

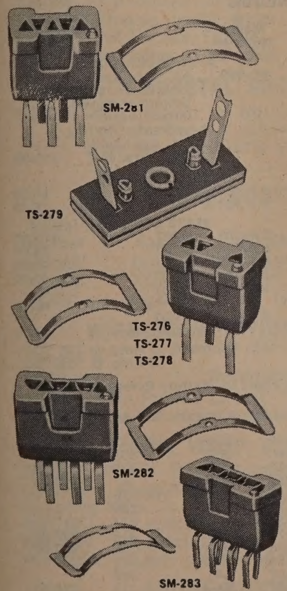
Standard Packing: 25 per box

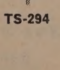
SOCKETS SUB-MINIATURE

SPECIFICATIONS: **Casting** — Low Loss Mica Filled Phenolic. **Contacts** — Beryllium Copper, Tin Coated. Triangular openings for easy insertion of Tubes. Supplied with Spring-type retaining rings of Tempered Steel, Cadmium Plated. Other grades of Material or Plating available on request.

Model Number	Description	List Price per C
SM-281	5-Contact Sub-Miniature Tube Socket	**$27.50**
SM-282	6-Contact Sub-Miniature Tube Socket	**30.00**
SM-283	7-Contact Sub-Miniature Tube Socket	**32.00**

Standard Packing: 25 per box





TERMINAL STRIPS

I.E.H. MFG. CO., INC.

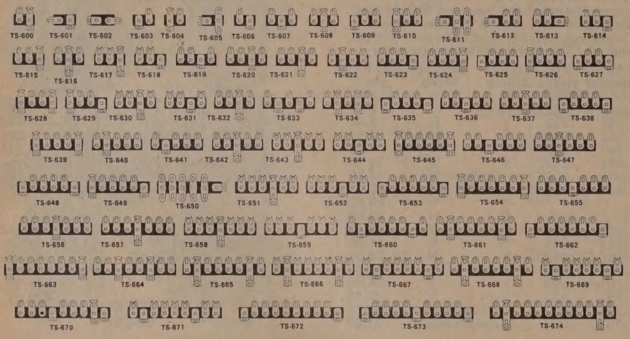
Subsidiary of Industrial Electronic Hardware Corp.
New York N. Y.

We are equipped to meet every Terminal Strip requirement. Some of the most popular combinations are shown here. Special combinations on request. Lugs are Cadmium-plated steel, mounted on NEMA Spec. Grade XP Laminated Phenolic strips, 3/8" wide by 1/16" thick, with 3/8" spacing. Brackets have .140 diameter mounting holes, for No. 6 screw.

Model Number	Price Per C	Model Number	Price Per C	Model Number	Price Per C	Model Number	Price Per C	Model Number	Price Per C	Model Number	Price Per C	Model Number	Price Per C
TS-600	3.25	TS-612	4.00	TS-624	5.00	TS-636	6.00	TS-648	8.25	TS-660	9.00	TS-672	12.00
TS-601	3.50	TS-613	4.00	TS-625	5.00	TS-637	6.00	TS-649	8.25	TS-661	9.75	TS-673	12.00
TS-602	4.00	TS-614	4.00	TS-626	5.00	TS-638	8.00	TS-650	17.00	TS-662	9.75	TS-674	12.50
TS-603	3.25	TS-615	4.50	TS-627	6.00	TS-639	8.00	TS-651	8.25	TS-663	9.75	TS-675	12.50
TS-604	3.25	TS-616	4.50	TS-628	6.00	TS-640	6.00	TS-652	8.25	TS-664	9.75		
TS-605	4.00	TS-617	4.50	TS-629	6.00	TS-641	6.00	TS-653	8.25	TS-665	9.75		
TS-606	3.00	TS-618	4.50	TS-630	6.00	TS-642	6.50	TS-654	8.25	TS-666	10.00		
TS-607	4.00	TS-619	5.00	TS-631	6.00	TS-643	6.50	TS-655	8.25	TS-667	10.00		
TS-608	4.00	TS-620	5.00	TS-632	6.00	TS-644	6.50	TS-656	8.25	TS-668	10.00		
TS-609	4.00	TS-621	5.00	TS-633	7.00	TS-645	7.50	TS-657	9.00	TS-669	11.00		
TS-610	4.00	TS-622	5.00	TS-634	7.00	TS-646	7.50	TS-658	9.00	TS-670	11.00		
TS-611	5.75	TS-623	5.00	TS-635	8.50	TS-647	8.25	TS-659	9.00	TS-671	11.00		

Standard Packing

100 per box


TS-600
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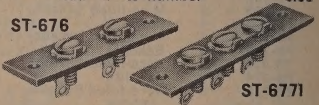
TS-674

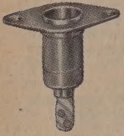
SCREW TYPE TERMINAL STRIPS

Lugs — Cadmium-Plated Steel, spaced 7/16"
Strips — XP Laminated Bakelite, 1/16" thick by 5/8" wide

Model No.	Terminals	Mtg. Ctr.	List Price per C
ST-676	2	1 5/16"	$10.00
ST-677	3	1¾"	15.00
ST-678	4	2 3/16"	19.00
ST-679	5	2⅝"	22.00
ST-680	6	3 1/16"	28.00
ST-681	7	3½"	35.00
ST-682	8	3 15/16"	39.00
ST-683	9	4⅜"	44.00
ST-684	10	4 13/16"	48.00
SHORTING LINK — Add "L" to number			3.00

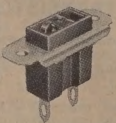

ST-676
ST-6771

MISCELLANEOUS


AA-697

AA-697-A

AA-697-B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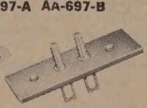
LC-698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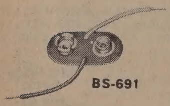
PP701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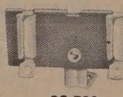
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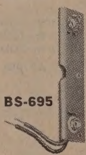
BS-693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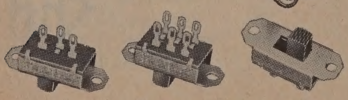
SW-685 — SW-690

Model Number		List Price per C
AUTO ANTENNA CONNECTORS		
AA-697	With Saddle-type flange.	$22.00
AA-697-A	With flange.	13.00
AA-697-B	Shell type.	13.00
INTERLOCK CONNECTORS		
LC-698	Recessed type male used with standard T.V. power cord female connector.	$13.00
LC-698-A	Mate for female T.V. power cord. Made of Laminated Phenolic.	9.00
UNIVERSAL SPEAKER CONNECTOR		
SC-700	2-prong, with mounting bracket.	$13.00

Model Number		List Price per C
A. C. RECEPTACLE		
AC-699	A.C. receptacles, mounts on top or bottom of panels. Middle barrier prevents shorting. U.L. approved. Mtg. Ctrs. 1⅛".	$19.00
PHONO PLUGS		
P P 701	9/16"	$6.00
P P 701-A	11/16"	6.00
SLIDE SWITCHES		
SW-685	SPST	$19.00
SW-686	SPDT	20.00
SW-687	DPST	25.00
SW-688	DPDT	40.00
SW-689	SPDT (spring return)	40.00
SW-690	DPDT (spring return)	48.00

U.L. Approved, .5 Amp @ 125 VDC
.3 Amp @ 125 VAC

BATTERY STRAPS (Use this chart for Battery Reference)

Model No.	Mtg. Centers	Description	Eveready	Burgess	R.C.A.	List Price per C
BS-691	½"	9, 67½ V	216	2U6	VS-312	
			246	2N6	305	
			416	UX-5	318	$25.00
BS-692	¾"	9 V	266	M-6		$30.00
BS-693	1 5/16"	67½, 75, 90 V	495	N60X	VS-316	
			479	P60	216	
			437	XX-50	217	
			477	P45	218	$30.00
BS-694	1⅜"	9 V	276	D6	VS-306	$30.00
BS-695	1½"	45, 67½ V	455	XX-30	VS-055	
			457	K45	082	
			467	XX-45	016	$30.00
BS-696	2½"	90 V	490	N-60	VS-090	$30.00

Standard packing 50 per carton (except Slide Switches and Battery Straps — 25 per carton)

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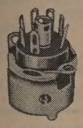
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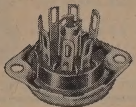
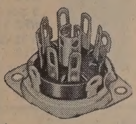

TS-102PO2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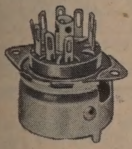
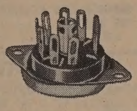

TS-103PO1


TS-103PO2

TS-103PO3

MIL SOCKETS:

Model Number	Description	List Price Per C
TS-102PO1	7-pin Mica, Shield Base Type..........	$45.00
TS-102PO2	7-pin Mica, Saddle Type....................	36.00
TS-102PO3	7-pin Mica, Saddle Type....................	36.00
TS-103PO1	9-pin Mica, Shield Base Type..........	64.00
TS-103PO2	9-pin Mica, Saddle Type....................	38.00
TS-103PO3	9-pin Mica, Saddle Type....................	38.00

TUBE RETAINER SOCKETS:

Model Number	Description	List Price Per C
TR-702	7-pin Sockets..	$30.00
TR-703	9-pin Sockets..	33.50

NUVISTOR SOCKET:

NV-287	For 5-pin Nuvistor base............................	27.50
NV-294	For 7-pin Nuvistor base...........................	220.00

COMPACTRON SOCKET:

CM-288	For Printed Circuit.................................	33.50
CM-288-W	Chassis mount, Wafer............................	33.50
CM-292	All Molded, Saddle mtg. ctrs. 1.312": mtg. holes .144"......	33.50

CRYSTAL SOCKET:

CS-284	.486" centers, for No. CR-7 and BH 6 crystals. Ceramic, silver-plated beryllium copper contacts with hot tinned tails	25.00

NOVAR SOCKETS:

Model Number	Saddle	Mtg. Ctrs.	Mtg. Holes	List Price Per C
NV-289	Molded	1.312"	.144"	$25.00
NV-290	Steel	1.5"	.136"	32.50
NV-291	Printed Circuit Type			32.50

WIRE TERMINATION SOCKETS:

Model Number	Description	List Price Per C
WS-295	7-pin Printed Circuit	$30.00
WS-296	9-pin Printed Circuit	35.00

WIRE WRAP TERMINALS:

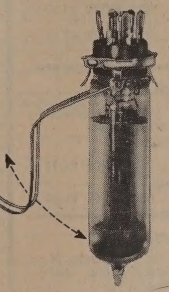
Cadmium-Plated Steel Terminals, mounted on XP Laminated Phenolic Strips, 3/8" high, 1/16" thick, .136 mounting holes.

WW-702-1	1/2" spacing, 2 lugs	12.75
WW-703-2	3/8" spacing, 2 lugs	12.50

Available with any number of lugs to suit your needs.

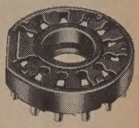
ANODE CONNECTOR:

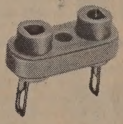
AC-297	Clip type connector, Suction Cup Insulation	47.50

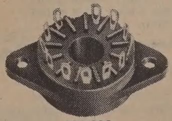

TR-702

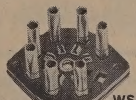
TR-703

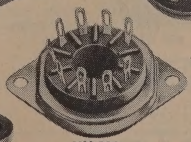
NV-287

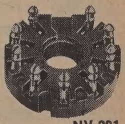

CM-228

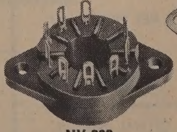

CS-284

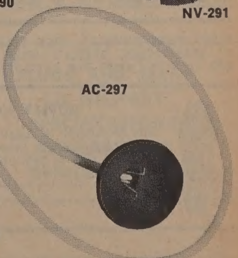

CM-292


WS-295

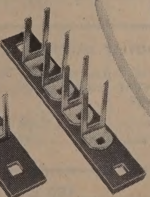

NV-290


NV-291


NV-289


AC-297

WW-102-1

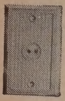

WW-103-1

®JAVEX ELECTRONICS

REDLANDS, CALIF.
BROOKLYN, N. Y.
MONTREAL, CANADA

ALL **JAVEX** products are of highest quality and are guaranteed to SELL. Should any **JAVEX** item fail to give satisfaction in operation or quality, it may be returned for replacement, credit, or full refund.

TV, RADIO, HI-FI, STEREO, AUDIO, ELECTRICAL, ELECTRONIC COMPONENTS UL WHERE NECESSARY, **NEMA STANDARD UNILINE OR SIERRA DESIGN ON ALL WALL PLATES. IVORY OR BROWN.**

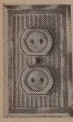


SINGLE OUTLET TV WALL PLATE

For extreme simplicity, convenience and efficiency in any TV or FM installation using 300 ohm transmission line Uniline or Sierra design wall plates to match any existing decor. Use with XP-2 or MPX plugs. All plates are complete wih mounting screws. Solderless. Hi-Side for surface mounting, Regular for wall box installation.

WP-1 .... **NET PRICE $ .89**

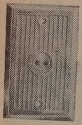
Also furnished for double outlet—WP-2, for rotators with 2 & 4 wire —WP-2-4, and in 6, 8 & 10 wire—WP-6, WP-8, WP-10, with separate plate & receptacle in double TV outlet and rotator combinations as below, and in regular ⅜″ hole phone P.P.



DUPLEX TV RECEPTACLE WITH WALL PLATE

For two 2-wire sockets or one 2-wire and one 4-wire socket. Use with XP-2 and XP-4 or MPX plugs.

DUX-2-2 .... **NET PRICE $1.18**
DUX-2-4 .... **NET PRICE $1.29**

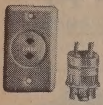


MULTI-SET TV ISOLATOR

MI-50 isolator on a wall plate acting as a single or double TV outlet, with mounting screws and plugs. Solderless.

MI-TV-1 .... **NET PRICE $1.97**
(1 outlet)
MI-TV-2 .... **NET PRICE $2.37**
(2 outlets)

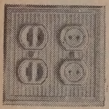
MULTI-SET TV ISOLATOR



Ideal for hotels, motels, and Multi-Set installations. One isolator required at each TV set. Size 1¼″ x 2″ x ⁷⁄₁₆″ high. Solderless.

MI-50 .... **NET PRICE $1.77**
MPX Magi-Plug Available Separately
NET PRICE $1.29

COMPLETE AC-TV WALL PLATES



One TV receptacle plus one AC receptacle of standard UL rating and a 2-gang duplex wall plate.

AC-TV-2-2 .... **NET PRICE $1.42**
(two 2-wire TV outlets plus AC outlet)
AC-TV-2-4 .... **NET PRICE $1.61**
(one 2-wire TV outlet and one 4-wire Rotor outlet plus AC outlet).

VOLUME ('L' PAD) CONTROL

For Hi-Fi and other remote multiple installations where individual loud speaker volume control is necessary 'L' pad type. 8 & 16 ohm.

CONTROL ONLY
LC-8 or LC-16 .... **NET PRICE $1.77**

WITH PLATE
LCP-8 or LCP-16 .... **NET PRICE $2.07**
LCP-dual. 2-L pads, 8 or 16 ohms .... **NET PRICE $3.40**

ALSO — TENNA-SHINGLES, HIGH VOLTAGE PROBES, CRYSTAL HOLDERS, AC RECEPTACLES, BAKELITE WALL BOXES AND JAVEX MINI-PLATES AND SOCKETS. WRITE FOR CATALOG.

DUPLEX OUTLET RECEPTACLE

This receptacle is supplied in two styles for TV-FM, rotors, etc. Complete with mounting screws. Solderless. Use with XP-2 and XP-4 or MPX plugs.

DU-2-2 .... **NET PRICE $ .77**
DU-2-4 .... **NET PRICE $ .95**

COMBINATION SWITCHING & VOLUME ('L' PAD) OUTLET PLATES

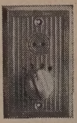
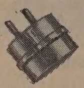


Plate with 5 pos., 2 pole switch.
WPS .... **NET PRICE $2.14**
5 pos., 2 pole switch and 2 wire outlet.
WPS-1 .... **NET PRICE $2.37**
WPS-dual. 2-5 pos. 2 pole switches .... **NET PRICE $3.40**
WLS .... **NET PRICE $3.83**
5 pos., 2 pole switch, plus 8 or 16 ohm L pad.
WPL-1 .... **NET PRICE $2.37**
8 or 16 ohm 'L' pad plus front outlet jack.

®TENNA-TUBE THRU-WALL

Connect any VHF-UHF lead-in, regular or special twin, RG, ladder, co-axial, oval, and round leads.

TT WITHOUT PLATE .... **NET PRICE $ .89**
TT-2 WITH PLATE & PLUG .... **NET PRICE $1.67**
TT-4 WITH PLATE & PLUG FOR 4 WIRE .... **NET PRICE $1.86**



PLUGS

Sparkling molded acrylic resin of the most handsome quality. ¾″ x ⅝″ high, with easy grip sides. Solderless.

XP-2 2 Wire .... **NET PRICE $ .18**
XP-4 4 Wire .... **NET PRICE $ .35**
XP-9 9 Wire .... **NET PRICE $1.04**

2 AND 4 WIRE LINE SPLICERS

S-2 .... **NET $ .12** **S-4** .... **NET $ .23**

4 & 7 WIRE LINE CONNECTORS

LP-4 .... **NET PRICE $1.01**
LP-7 .... **NET PRICE $1.01**

SUPER AC CONNECTOR

BAKELITE FOR 2 WIRE AC SERVICE.
RATED 10 AMPS @ 250 VOLT
SMK-2 .... **NET PRICE $ .41**

OCTAL PLUG & SOCKET

Fits Octal Sockets. Screw cap. Finest Precision Bakelite Molding.

SP-8 Plug .... **NET PRICE $ .56**
SC-8 Socket .... **NET PRICE $ .56**

MINIATURE PHONE PLUG & JACK

Tiniest and finest set for open or closed circuits. Screw on caps, less ⅜″ dia., 1″ long overall.

SMJ .... **NET PRICE $.56**

TEST LEADS

Red & Black Vinyl in 3 Combinations

SL-1 Pin tips and prods .... **NET PRICE $1.01**
SL-3 Pin tip and alligator clips .... **NET PRICE $1.01**
SL-5 Alligator clips both ends .... **NET PRICE $1.01**

4 PLUG PHONO JACK STRIP

With molded flexible covers for strain relief.

PJ-4 4 jack strip .... **NET PRICE $ .89**
PJ-C Phono Plug covers .... **NET PRICE $ .23**

PIN TIPS & JACKS — PT RED & BLACK

NET PRICE $ .89 set

2 POLE — 5 POSITION MICRO SWITCH

TMS .... **NET PRICE $1.18**

CONNECTOR CABLES — PHONO STYLE

PQ Plug to stripped ends 48″ .... **NET PRICE $1.01**
PJ Plug to Jax 48″ .... **NET PRICE $1.18**
PY Plug to dual 'Y' Jax 6″ .... **NET PRICE $1.18**

MULTI-SELECTOR CONTROL

One input — 5 output, or vice versa
MC .... **NET PRICE $2.55**

"OPEN HOLE" WALL PLATE BRACKETS

WB .... **NET PRICE $ .41 per set**

YOU CAN ALWAYS DEPEND ON A JAVEX PRODUCT

© U.C.P., Inc

P. R. MALLORY & CO. Inc. MALLORY Knobs, Dials, Jacks

KNOBS

A

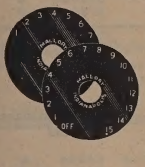
B

C

ROUND AND BAR KNOBS

Mall. No.	Fig.	Description	Net
364	.....	11/16" dia. round, black	9c
365-1	B	2¼" bar knob, black	21c
366-1	A	1¼" bar knob, black	15c
366-R-1	A	1¼" bar knob, red	15c
367-1	C	1½" dia. round, black	21c
368-1	C	1⅜" dia. round, black	18c

DIAL PLATES



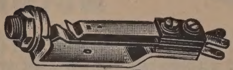
Aluminum dial plates with figures etched on solid black background. 1 13/16" dia., 7/16" hole, figures 7/64" high, .020" thick.

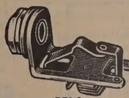
Mallory No. -20° Spacing	Mallory No. -30° Spacing	Marking	Net Each
....	372	1 to 2	12c
453	373	1 to 3	12c
454	374	1 to 4	12c
455	375	1 to 5	12c
456	376	1 to 6	12c
457	377	1 to 7	12c
458	378	1 to 8	12c
459	379	1 to 9	12c
460	380	1 to 10	12c
461	381	1 to 11	12c
462	382	1 to 12	12c
463	....	1 to 13	12c
464	....	1 to 14	12c
465	....	1 to 15	12c
466	....	1 to 16	12c
467	....	1 to 17	12c
468	....	1 to 18	12c
472	....	Off 1 to 2	12c
473	383	Off 1 to 3	12c
474	384	Off 1 to 4	12c
475	385	Off 1 to 5	12c
476	386	Off 1 to 6	12c
477	387	Off 1 to 7	12c
478	388	Off 1 to 8	12c
479	389	Off 1 to 9	12c
480	390	Off 1 to 10	12c
481	....	Off 1 to 11	12c
482	....	Off 1 to 12	12c
483	....	Off 1 to 13	12c
484	....	Off 1 to 14	12c
485	....	Off 1 to 15	12c
486	....	Off 1 to 16	12c
....	394* Special	1 to 24	12c
....	487† Special	1 to 5	12c
....	488‡ Special	1 to 4	12c

Spacing between numerals: *15°,†60°,‡90°.

JACKS AND PLUGS

PHONE JACKS


Long Frame

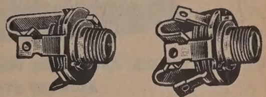

Midget

Junior

Long frame jacks are mounted horizontally to frame. Junior jack is made with frame and spring stack at right angles, with short springs, requiring only 1 5/16" behind panel. Both above models mount in a single hole in up to ¼" thick panel. Midget jack is very compact and infant jack is smallest made, but is for 2-way phone plug only. Midget and infant jacks mount in 7/16" hole in panel up to ¼" thick. All jacks made with cadmium plated frames, bushings and special alloy springs are nickel-plated, silver contacts. Complete with mounting nuts and washers.

Long Fr.		Junior		Infant and Midget		
Mal. No.	Net Ea.	Mal. No.	Net Ea.	Mal. No.	Net Ea.	Schem.
1	45c	701	45c	A-1	39c	
2	57c	702	51c	A-2	48c	
2A	57c	702A	57c	A-2A	57c	
2B	57c	702B	57c			
3	60c	703	60c			
		703A	60c	A-3A	66c	
3B	60c	703B	60c			
		703C	60c			
		704	69c			
		704A	69c			
4B	75c	704B	69c			
5	90c	705	75c			
6	1.05					

SC PHONE JACKS



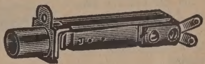
Mallory No. SC-1A Phone Jack—Equivalent of Military No. JJ-034. Same spring arrangement as No. 1 long frame jack. Designed to receive following plugs: Mallory No. 75: Western Electric Nos. 47A and 47B: Signal Corps Nos. PL-47, PL-48, PL-55, PL-148, PL-155. PL-125; JAN plugs PJ-055, PJ-155, PJ-634, PJ-636 and PJ-047. Net Each..... **36c**

Mallory No. JJ-034—JAN-J-641 version of SC-1A. Net Each................ **39c**

Mallory No. SCA-2B—Microphone Jack. Equivalent of Military Jack No. JJ-033. Same spring arrangements as No. 2B long frame jack. Designed to receive the following plugs: Western Electric No. 109 and Signal Corps Nos. PL-68 and PL-168. JAN Plugs PJ-068, PJ-168, and PJ-309. Net Each **42c**

Mallory No. JJ-033—JAN-J-641 version of above. Net Each................. **48c**

XP JACKS



For telephone switchboard and industrial applications requiring a compact jack for close strip panel mounting. Special frame angle provides greater support. Plain, unthreaded bushing; jack mounts by use of screw through panel mounting plate at bushing base. Bushing fits all standard two and three conductor Mallory plugs. Springs assembled horizontally to frame. Bushings and springs nickel-plated; cadmium-plated steel frame; fine silver contacts.

Mallory No. XP1—Open circuit type. Net Each...................... **63c**

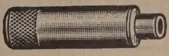
Mallory No. XP2B—Three circuit microphone type. Net Each....... **75c**

Mallory No. XP3B—Single circuit, make before break type. Net Each.. **90c**

PHONE PLUGS

Mal. No.	Circuit	Shell	Net Each
55	....	Adapts mike con. to stand. jack	$0.30
75	2-way	Phenolic tie-cord anchor, shielded	.45
75A	2-way	Nickel, 2-piece, tie-cord anchor, built-in cble. clp.	1.05
75N	2-way	Nickel, tie-cord anchor, shielded	.66
76	3-way	Phenolic	.66
76A	3-way	Nickel, 2-piece, built-in cble. clp.	1.17
85	2-way	Miniature phone plug, shielded	.36

EXTENSION JACKS



Mallory No.	Circuit	Shell	Net Each
100	2-way	Fiber	$0.84
100N	2-way	1-piece nickel	1.08
100A	2-way	2-piece nickel, built-in clamp	1.50

PLUGS AND JACKS
TO MILITARY
SPECIFICATIONS
AVAILABLE ON
SPECIAL ORDER

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LAB-TRONICS, INC.

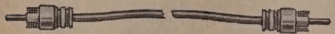
CHICAGO 13, ILLINOIS U.S.A.

CONNECTING CABLES with *Lenite* MOLDED PLUGS and JACKS

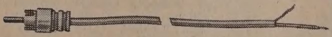
FOR HI-FI, TUNERS, AMPLIFIERS, PRE-AMPLIFIERS, RECORDERS, SPEAKERS, SPEAKER EXTENSIONS, RECORD CHANGERS, PUBLIC ADDRESS SYSTEMS, AUDIO EQUIPMENT, RADIO AND STEREOPHONIC SYSTEMS

SHIELDED

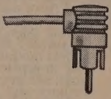
SHIELDED CONNECTING CABLES WITH MOLDED PHONO PIN PLUGS AND MOLDED PHONO PIN JACKS



			NET
Shielded cable. Molded Phono Pin Plug each end.	C101	18"	.54
	C102	36"	.63
	C103	72"	.81
	C104	120"	1.11

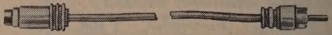


			NET
Shielded cable. Molded Phono Pin Plug; Stripped & Tinned.	C105	18"	.39
	C106	36"	.48
	C107	72"	.66
	C108	120"	.96

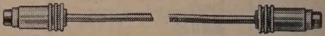


(Where a 90° right angle molded phono pin plug is desired, add "R" to stock number.)

The silver-gray cable is of high-quality, low-capacitance type for minimum loss. Used for interconnecting tuners, pre-amps, amplifiers, record changers, recorders and accessories, wherever Phono Pin Jack or Plug is used.



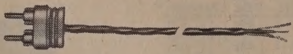
			NET
Shielded cable. Molded Phono Pin Plug; Phono Pin Jack.	C201	18"	.63
	C202	36"	.72
	C203	72"	.90
	C204	120'	1.20



			NET
Shielded cable. Molded Phono Pin Jack each end.	C401	18'	.84
	C402	36'	.93
	C403	72'	1.11
	C404	120'	1.41

MOLDED DUAL PHONO PIN PLUG FOR ALL STEREO AMPLIFIERS

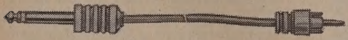
Plugs into standard ⁷⁄₁₆" Centers dual phono jacks on all stereo amplifiers. Used for interconnecting stereo record changers, amplifiers and accessories.



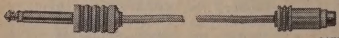
			NET
Two conductor shielded stereo cable. Molded dual phono pin plug; stripped and tinned.	SP8003	3'	1.68
	SP8006	6'	1.95
	SP8010	10'	2.31
Two conductor shielded stereo cable. Molded dual phono pin plugs each end.	SP8403	3'	2.19
	SP8406	6'	2.46
	SP8410	10'	2.82

MOLDED PHONE PLUGS

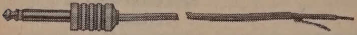
A fully SHIELDED MOLDED standard phone plug, available either straight or right angle, with gray, low-capacitance 100% shielded cable. The newly designed gray molded handle is grooved for ease in gripping, and permits easy insertion into a recessed jack.



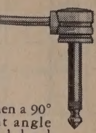
			NET
Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Plug.	C4406	6'	1.11
	C4410	10'	1.35
	C4415	15'	1.65



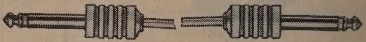
			NET
Shielded cable. Molded SHIELDED Phone Plug; Phono Pin Jack.	C4506	6'	1.17
	C4510	10'	1.41
	C4515	15'	1.71



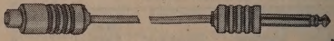
			NET
Shielded cable. Molded SHIELDED Phone Plug; Stripped and Tinned.	C4006	6'	.96
	C4010	10'	1.20
	C4015	15'	1.50



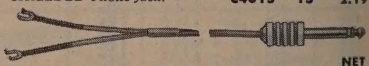
(When a 90° right angle molded phone plug is desired, add "R" to stock number.)



			NET
Shielded cable. Molded SHIELDED Phone Plug each end.	C4306	6'	1.32
	C4310	10'	1.56
	C4315	15'	1.86
	C4325	25'	2.46



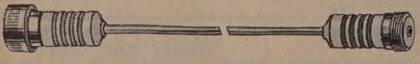
			NET
Shielded cable. Molded SHIELDED Phone Plug; Molded SHIELDED Phone Jack.	C4606	6'	1.71
	C4610	10'	1.89
	C4615	15'	2.19



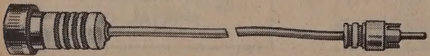
			NET
Shielded cable. Molded SHIELDED Phone Plug; Lugs.	C4106	6'	1.02
	C4110	10'	1.26
	C4115	15'	1.56

MICROPHONE CONNECTORS

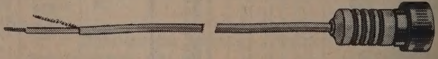
L-T has developed a new molded connector which is interchangeable with the present type now on the market. Molded grip with the cable molded directly onto the polished nickel plated brass connector. BOTH the conductor AND shield are soldered to the connector prior to molding, insuring noise-free operation. Heavy duty co-axial shielded cable, low loss, with a nominal capacitance of approximately 25 mmf/ft. For use with microphones, pre-amps, test equipment, VTVM, oscilloscopes, recorders, custom Hi-Fi installations or wherever a standard microphone connector is used. The coupling ring may be screwed back to convert connector from female to male type. Molded in gray to match the silver-gray cable.



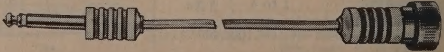
			NET
Shielded cable. Molded Male and Female Microphone Connector.	E906	6'	1.29
	E912	12'	1.71
	E925	25'	2.64



			NET
Shielded cable. Molded Microphone Connector; Molded Phono Pin Plug.	E801	1'	.74
	E803	3'	.90
	E806	6'	1.11



			NET
Shielded cable. Molded Microphone Connector; Stripped and Tinned.	E1106	6'	.99
	E1110	10'	1.29
	E1125	25'	2.40



			NET
Shielded cable. Molded Microphone Connector; Molded Phone Plug.	E1306	6'	1.29
	E1310	10'	1.59
	E1325	25'	2.76

ALL PRICES QUOTED ARE U.S.A. PRICES

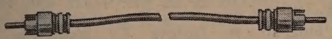
LAB-TRONICS, INC.
CHICAGO 13, ILLINOIS U.S.A.

MOLDED PLUGS and JACKS for SPEAKER EXTENSIONS with *Lenite*

FOR SPEAKER EXTENSIONS, AUDIO RECORDING, LOW IMPEDANCE PATCHING, VOICE COIL, RECORDING, SPEAKER LINES, VOLTAGE LINES, ETC.

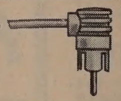
PARALLEL CABLE (Not Shielded)

Flexible cable (not shielded) with molded phono pin plug for voice coil recording, speaker extensions, audio output, low impedance lines, etc. When the right angle type is desired, add "R" to the stock number.

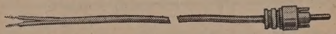


Flexible cable. Molded Phono Pin Plug each end.

		NET
P6406	6'	.66
P6410	10'	.78
P6420	20'	1.08

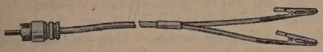


(Where a 90° right angle phono pin plug is desired, add "R" to the stock number.)



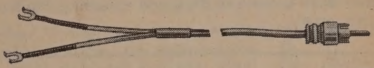
Flexible cable. Molded Phono Pin Plug; Stripped and Tinned.

		NET
P6006	6'	.45
P6010	10'	.57
P6020	20'	.87



Flexible cable. Molded Phono Pin Plug; Clips.

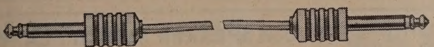
		NET
P6206	6'	.75
P6210	10'	.87
P6220	20'	1.17



Flexible cable. Molded Phono Pin Plug; Lugs.

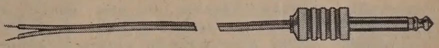
		NET
P6106	6'	.51
P6110	10'	.63
P6120	20'	.93

Molded Phone Plug, either right angle or straight, with flexible cable (unshielded) for use with radio voice coil recording, speakers, headphones, audio output, or other low impedance circuits. Silver-gray cable and plugs.



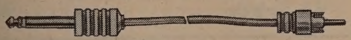
Flexible cable. Molded Phone Plug each end.

		NET
P7306	6'	1.26
P7310	10'	1.38
P7320	20'	1.68



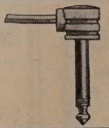
Flexible cable. Molded Phone Plug; Stripped and Tinned.

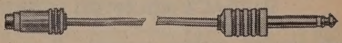
		NET
P7006	6'	.75
P7010	10'	.87
P7020	20'	1.17



Flexible cable. Molded Phone Plug; Molded Phono Pin Plug.

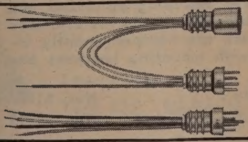
		NET
P7406	6'	.96
P7410	10'	1.08
P7420	20'	1.38





Flexible cable. Molded Phone Plug; Phono Pin Jack.

		NET
P7506	6'	1.02
P7510	10'	1.14
P7820	20'	1.44

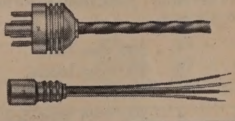


EXACT DUPLICATE CABLES for ORIGINAL EQUIPMENT REPLACEMENT

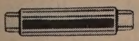
Molded Male Plugs; with Molded Female Receptacles, Molded Octal Plugs, etc. (as widely used on Record Changers and Audio and TV equipment).

Write for Exact Duplicate Replacement Catalog.

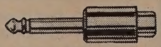
Cable Assemblies manufactured to specifications for O. E. M.



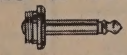
ADAPTERS & CONNECTORS



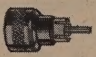
C400 Phono Pin Jack; Phono Pin Jack.
C400.........**NET .60**



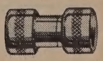
P55A Phono Pin Jack; Phone Plug.
P55A.........**NET .75**



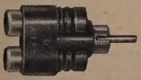
M75P Male Mic; Phone Plug.
M75P.........**NET .30**



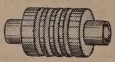
MP Mic; Phono Pin Plug.
MP...........**NET .60**



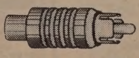
C800 Mic; Mic.
C800.........**NET .60**



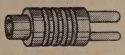
A754 Two Phono Pin Jacks; Phono Pin Plug.
A754........**NET 1.20**



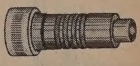
A753 PhoneJack; Phono Pin Jack.
A753........**NET 1.05**



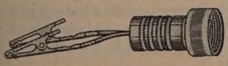
A750 PhoneJack; Phono Pin Plug.
A750........**NET 1.05**



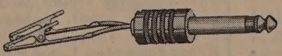
A780 Phono Pin Jack; 2 Prong Polarized Plug ¼" centers.
A780.........**NET .75**



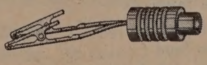
A751 Mic Connector; Phono Pin Jack.
A751.........**NET .75**



A779 Mic Connector; Clips. **NET .75**

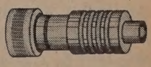


A782 Phone Plug; Clips. **NET .75**



A778 Phono Pin Jack; Clips. **NET .75**

A781 Phone Jack; Clips. **NET 1.05**



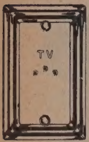
A752 Mic Connector; Phone Jack.
A752.........**NET 1.05**

ALL PRICES QUOTED ARE U.S.A. PRICES

© U.C.P., Inc.

Mosley TV Installation Accessories

FLUSH MOUNTED TV SOCKETS



Easy-to-install, attractive wall plate TV sockets for every installation requirement. Ivory or brown plates are styled to harmonize with existing electrical plates. Available in types for single, dual or triple lead-in lines and for single and dual lines plus 4-wire rotor cable. Packaged with mating plug(s), F-9 mounting brackets and full instructions.

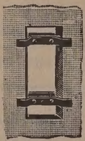
		Net
F-1PK	1 – 300 ohm lead	$1.23
F-11PK	2 – 300 ohm leads	1.69
F-111PK	3 – 300 ohm leads	1.77
F-14PK	1 – 300 ohm lead & 4-wire rotor	2.21
F-114PK	2 – 300 ohm leads & 4-wire rotor	2.21

"ANTI-STUB" TV/FM WALL PLATE OUTLETS

Similar to F-1PK, above, but with switch to disconnect system beyond outlet being used. Prevents "stub-effect". Silver plated positive action contacts. Brown or ivory polystyrene. With polarized plug and mounting hardware.

Type FD-1PK . . . . .Net, $1.32

MOUNTING HARDWARE



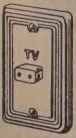
Type F-9, Mounting Brackets of heavy gauge steel for installing F-Series Sockets in walls of existing buildings. Requires rectangular opening 1¾" wide by 4" long.

Type F-9 . . . . Net, $ .23

Type F-8 Plaster Ring for installing F-Series Sockets in new construction. Mounts easily and quickly to wood studding. Adjustable for plaster thicknesses up to 1½". Heavy plated steel.

Type F-8 . . . . Net, $ .26

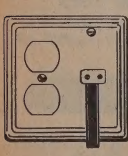
SURFACE MOUNTED SOCKETS



Surface mounted sockets resemble flush wall plate types but may be used for either concealed wiring or where TV line is brought along surface of wall. No wall opening required. In brown or ivory polystyrene. Supplied with mating plug(s) and wood screws.

		Net
SM-1PK	1 – 300 ohm lead	$1.04
SM-11PK	2 – 300 ohm leads	$1.42
SM-111PK	3 – 300 ohm leads	$1.58
SM-14PK	1 – 300 ohm lead & 4-wire rotor	$2.32
SM-114PK	2 – 300 ohm leads & 4-wire rotor	$2.32

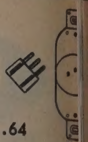
AC/TV WALL PLATE SOCKETS



Combination TV lead-in outlet and plate for double convenience outlet. Ideal for installation during new construction or remodeling. Metal barrier plate, supplied separates AC and TV services to comply with electrical codes. Install in ganged electrical boxes. Brown or ivory. With mating plug(s) and mounting screws.

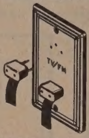
		Net
AC-1PK	Single 300 ohm lead	$1.24
AC-11PK	Dual 300 ohm lead	1.65
AC-111PK	Triple 300 ohm lead	2.19
AC-14PK	One 300 ohm lead & 4-wire rotor	2.19
AC-114PK	Two 300 ohm leads & 4-wire rotor	2.63

TV/FM WALL PLATE OUTLETS



Permits all electrical and TV/FM outlets to be matched. Designed to fit standard, single or double convenience outlet plates, either plastic or metal. Brown or ivory polystyrene.

FY-1	Single 300 ohm TV/FM outlet	Net, $ .64
FY-1PK	Single 300 ohm TV/FM outlet with mating plug and hardware	Net, $1.01
FY-14	Single 300 ohm TV/FM outlet and 4-wire rotor socket	Net, $ .83
FY-14PK	Single 300 ohm TV/FM outlet and 4-wire rotor socket w/mating plugs and hdwe.	Net, $1.62



STEREO TV/FM WALL PLATE OUTLE

For use in areas where FM can be recei with TV antenna. Resistor-type 2 set coup built-in to isolate TV from FM permitt simultaneous reception without interaction.

Type WPS-11PK . . . . Net, $1

AUDIO PAD PLATE w/KNOB

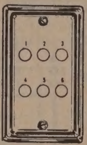
Attractive brown or ivory polystyrene plate with satin finished anodized aluminum dial face and modern indicator knob. Use to assemble L-pad, T-pad, Fader, etc., for audio and Hi-Fi systems. Less control.

Type FAV-1 . . . . Net, $1.04

ATTENUATOR PLATE with SPEAKER JACK

Same as Type FAV-1. Plug and jack have been supplie for additional external speaker unit. Less control.

Type FAV-2 . . . . Net, $1.5



FLUSH SPEAKER SWITCH PLATE

High quality 6 position switch plate selects a speaker or combination of speakers in remote cations. Heavy duty push button switches brown or ivory plate. Complete with plated m chine screws and instructions.

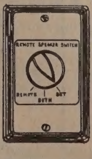
Type FAS-6 . . . . Net, $5.

SPEAKER WALL PLATE OUTLETS

Brown or ivory polystyrene flush mounting outlets. Speaker socket and plug polarized and solderless. Ideal for custom Hi-Fi installations where remote speakers are not permanently installed. Complete with mounting brackets and instructions.

Type FAS-1PK Single . . . . Net, $1.77

Type FAS-11PK Double . . . . Net, $1.93



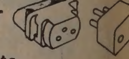
3-POSITION SPEAKER SWITCH

Three position speaker switch for Hi-Fi Stereo Speaker Systems. Will operate sing speaker system, remote system or both. Typ FSS-2 is supplied with external plug and jac for additional speaker.

Type FSS-1 . . . . Net, $2.

Type FSS-2 . . . . Net, $2.

TV/FM INTERCHANGEABLE OUTLET



Permits all electrical and TV/FM outlets to be matched. Designed to fit interchangeable type ele trical plates styles 91041 Brown, 92041 Ivory and 970 Stainless Steel. Molded of low loss polystyrene in brow or ivory. Supplied with Mosley 303 Polarized 300 oh Transmission Line Plug.

FG-1PK 300 ohm TV/FM Outlet/Plug Net $.

© U.C.P., Inc

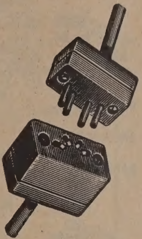
Mosley TV Installation Accessories

300 OHM CONNECTORS

Precision molded low loss 300 ohm connectors for UHF and VHF transmission lines. Constant impedance. Solderless.

Type 301.	Line Plug	Net, $ .20
Type 311.	Line Socket	$ .20
Type 321.	Polarized, pair	$ .40
Type 304.	Input Adapter	$ .20
Type 27-S.	Flat-line Splicer	$ .12
Type 29-S.	Round to flat Splicer . .	$ .14

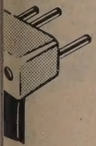
ULTI-WIRE CONNECTORS



otor cable connections and many
low voltage uses. No set screws
e plugs and line sockets. Brown
ry.

354.	4-wire Base Socket	Net, $ .91
364.	4-wire Line Socket	Net, $ .64
374.	4-wire Line Plug	Net, $ .50

300 OHM TV PLUG



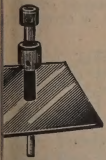
300 ohm plug, one piece construction and utilizing set screws to hold line. Supplied with 3 pins to mate with AC-TV series plates but middle pin is removable to use with Mosley 2-pin sockets. Brown or ivory.

Type 303 . . . . Net, $ .20

UNIVERSAL TV SOCKET

act, neat plug-in socket for FM or TV lead-
e. Use as line tap or terminal socket. Low
polystyrene, constant impedance design for
hm line. In brown or ivory. Complete with
g plug.
343PK . . . . Net, $ .67

ROOF-THRU



8" x 9" copper flashing with polystyrene feed through bushing permits direct weather-proof roof entrance of flat TV line and rotor cable. Easy to install.

Type 624 . . . . Net, $3.88

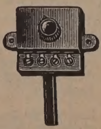
Type 623. Similar to Type 624 but for round or oval 300 ohm line only.

Type 623 . . . . Net, $3.88

WALL-THRU

, low loss wall entrance for all popular oval, round or
ransmission lines. Fits walls up to 13" thick. Type
TV Socket mounts on inside plate. Brown or ivory.
625 . . . . Net, $1.29
625PK. Above, with TV Socket and Plug. Net, $1.99

TV ANTENNA SWITCHES



quality rotary TV Antenna Switches for
and VHF. Silver-to-silver contacts and
tant impedance design assures low in-
on loss. Solderless. Brown or ivory.

F-40.	2-way Switch	Net, $1.36
F-20.	3-way Switch	Net, $2.48

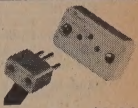
WALL FEED

MOSLEY WALL FEED

Install at gable end or under roof overhang to provide weatherproof TV lead-in entrance into attic. Ideal for house trailer installations. Ivory or brown polystyrene plate with weatherhood and 2" tube. In trailer installation cut tube flush with inside wall and install Type 343 TV Socket directly over opening. Type 626 . . . . Net, $ .84

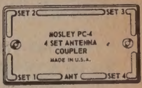
Type 626PK. Above with TV Socket & Plug . . Net, $1.53

MULTI-SET COUPLERS

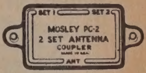


"Tiny-Mite" Multi-set Coupler and plug-in socket with plug. Resistor type tap-off unit will operate two TV sets from one antenna. Neat, compact. In brown or ivory. Type 912 . . . . Net, $1.16

Dual Match 2-Set Coupler. Efficient resistor type coupler outperforms many coil type units and provides exceptionally good isolation between sets. Solderless. Brown or ivory case. Intended for primary signal areas. Type 902 . . . . Net, $1.96

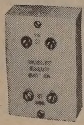


4-Set Coupler. Resistor type, printed circuit coupler designed for metropolitan areas, the major multi-set markets. Ideal for motels, small apartments, etc.
Type PC-4 Ivory . . . . Net $ 3.04



2-Set Coupler. Unique, compact, two set printed circuit coupler. Designed to minimize set interaction and radiation.
Type PC-2 Ivory . . . . Net $ 1.42

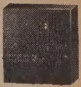
72-300 OHM TRANSFORMER



Balun type transformer matches 72 to 300 ohm or 300 to 72 ohm. Can be installed at set or directly on antenna. Solderless. Weather sealed polystyrene case.

Type 90 . . . . Net, $2.38

TUNABLE WAVE TRAPS

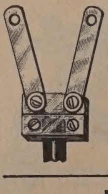


High Q series resonant wave traps for eliminating interference patterns and cross-talk on TV and FM. Use on any receiver input, 50 to 600 ohms, balanced or unbalanced. Solderless. Install on set terminal strip. Choose type with range including frequency of interfering station.

. . . . Net, $3.04

WT-7	6.8 – 8.5 mcs.	WT-41	27 – 55 mcs.
WT-14	13.8 – 16 mcs.	WT-78	47 – 110 mcs.
WT-21	16 – 28 mcs.	WT-165	100 – 230 mcs.

MOSLEY "Y-TY"



Solderless strain relief connector prevents transmission line from breaking at the antenna. Easy to install, fits all types line. Use Type 263-L for antennas with terminals more than 4" apart.

Type 263-S.	"Y-TY"	Net, $ .43
Type 263-L.	"Y-TY"	Net, $ .43

POLYETHYLENE TV CONDUIT

Black polyethylene tubing makes ideal conduit for running TV and FM transmission lines within walls. Simplifies replacement of hidden wires. ¾" inside diameter. Flexible, easy to install. Many other applications such as intercom and other low voltage cables.

No. 80-25.	25 feet	Net, $5.25
No. 80-50.	50 feet	Net, $10.50
No. 80-100.	100 feet	Net, $21.00

See MOSLEY Antennas and other Amateur Components listed in section 1200 of this book.

mueller clips

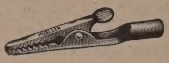
a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND 14, OHIO

"60 SERIES" ALLIGATOR CLIPS

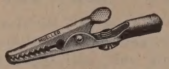
No. 60—CONVENTIONAL TYPE



Accurately made, slim jaws, fine meshing teeth. Convenient, round thumb grip, barrel connection for banana plug. Equipped with small soldering lip. Strong spring with a hard bite. Cadmium plated. 2″ long.

EACH NET..........................$0.07   LOTS OF 10..........................$0.046

No. 60-S—SCREW CONNECTION



Eliminates necessity for soldering. Otherwise same as No. 60.

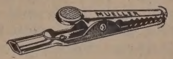
EACH NET......$0.08   LOTS OF 10....$0.052

No. 60-CS—COPPER ALLIGATOR CLIP

Solid copper version of No. 60-S. Screw connection. 2″ long. 10 per box.

EACH NET..........................$0.12   LOTS OF 10..........................$0.08

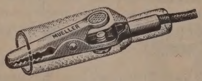
No. 60PR-2—SPECIAL BARREL FOR TEST PROD OR PHONE TIP



Barrel crimped to provide friction fit on standard test prod or phone tip. Holds prod on test, frees hand for other work.

EACH NET..........................$0.10   LOTS OF 10..........................$0.066

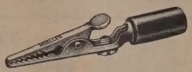
No. 62 FLEXIBLE VINYL INSULATOR



Red and black insulators for Alligator Clips 60, 60-S, 60-CS, 60PR-2.

EACH NET..........................$0.05   LOTS OF 10..........................$0.035

No. 60-HS—STEEL ALLIGATOR CLIP WITH INSULATED HANDLE



Same as No. 60-S except equipped with red and black insulating sleeves on end. Very convenient for distinguishing leads. Has screw connection also. Cadmium plated. 2 11/32″ long. Shipped half red, half black.

EACH NET..........................$0.11   LOTS OF 10..........................$0.075

No. 60-CHS—COPPER ALLIGATOR CLIP, INSULATED HANDLE

Solid copper version of No. 60-HS. Screw connection. Shipped with half red, half black insulating sleeves. 10 per box.

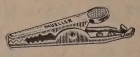
EACH NET..........................$0.15   LOTS OF 10..........................$0.10

"70 SERIES" ALLIGATOR CLIPS

U.S. Patent No. 2,762,028

A modern, streamlined version of our standard size Alligator Clips. Features simplified design, fast connection of wire with cord strain relief ears, patented hinge construction and lower cost. Mueller's traditionally snappy spring, full jaw spread, fine meshing teeth, round thumb grip and trim shape give most wanted features for test work in close quarters.

No. 70—FOR SOLDERED CONNECTION



Steel, cadmium plated. 1 11/16″ long.

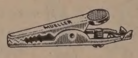
EACH NET........$0.07   LOTS OF 10......$0.042

No. 70-S—SCREW CONNECTION

Otherwise same as No. 70.

EACH NET........$0.08   LOTS OF 10......$0.048

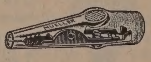
No. 70-CS—COPPER SCREW CONNECTION



Solid copper version of No. 70-S.

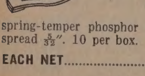
EACH NET........$0.11   LOTS OF 10......$0.075

No. 72— SKIN-TIGHT INSULATOR FOR 70 SERIES ALLIGATOR CLIPS!



For the first time complete, skin-tight, one-piece insulation for a standard size Alligator Clip! Covers entire clip right down to nose. Special tip slot permits full jaw opening without exposing teeth.

EACH NET..........................$0.05   LOTS OF 10..........................$0.035



WEE-PEE-WEE No. 88

Entirely Non-ferrous.

An extremely small clip for fine testing in radio and electrical work. Light-Weight; thin-nosed; spring-temper phosphor bronze. Ideal for close-wound coils. 1 11/16″ long; jaw spread 5/32″. 10 per box.

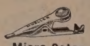
EACH NET..........................$0.22   LOTS OF 10..........................$0.15

Use No. 93 Insulator.

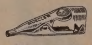
NEW! MICRO-GATOR CLIP

(Smallest Insulated Clip Ever Made)

U.S. Patent No. 2,762,028   Trademark Reg.



Micro-Gator



Micro-Gator with Insulator

The alligator clip with the microscopic tip! This is the alligator clip you now can use where no other clip will do . . . on printed circuits, in tight spots and on tiny terminals too crowded for anything but its microscopic tip. It offers the speed, free-handed ease and convenience associated with other Mueller alligator clips. The Micro-gator is truly small (takes 30 to weigh an ounce!) Including separate skin-tight insulator the tip is no bigger than the head of a pin! Yet the Micro-gator has ample thumb grip, and plenty of bite to stand up straight on the smallest terminals. Ample 7/32″ jaw spread. Solder connection. Skin-tight flexible vinyl insulator (sold separately) has "lip-action" tip slot so that jaws stay covered whether open or closed.

No. 34 (Steel, cadmium plated)

EACH NET..........................$0.06   LOTS OF 10..........................$0.04

No. 34 C (Solid Copper)

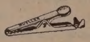
EACH NET..........................$0.07   LOTS OF 10..........................$0.05

No. 36 (Insulator for Nos. 34 and 34-C)

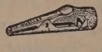
EACH NET..........................$0.05   LOTS OF 10..........................$0.03

MINI-GATOR CLIP

U.S. Patent No. 2,762,028   Trademark Reg.



Mini-gator



Mini-gator with Insulator

Indispensable for testing or incorporation into miniaturized equipment. Skin-tight flexible Vinyl insulator (sold separately) covers completely — has slotted "lip action" tip. Clip weighs 1/20th oz., has tiny 11/64″ O.D. nose, but ample 3/16″ jaw spread. Crimping ears. Solder connection. Surprisingly strong bite penetrates corrosion and coatings.

No. 30 (Steel, cadmium plated)

EACH NET..........................$0.06   LOTS OF 10..........................$0.04

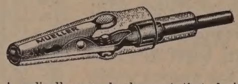
No. 30-C (Solid Copper)

EACH NET..........................$0.07   LOTS OF 10..........................$0.05

No. 32 (Insulator for Nos. 30 and 30-C)

EACH NET..........................$0.05   LOTS OF 10..........................$0.03

COMPLETELY INSULATED ALLIGATOR CLIPS



Patent Pending

No. 63 or 63-C Clip

Sold only as a unit, with factory-applied insulators.

A radically new development that doubles the usefulness of Alligator Clips! Completely insulated right down to the nose. Flexible 2-piece skin-type vinyl insulator of high dielectric strength, with "lip action" slotted nose that permits opening of clip without exposing metal. Insulator nose is only 15/64″ O.D. The tight fitting sheath preserves all the slimness of the Alligator Clip, still giving complete protection against shorts in even the tightest spots. These clips could be bunched together—touching all around—without danger of shorting. Screw connection easily made by slipping insulator forward.

No. 63—INSULATED ALLIGATOR CLIP (STEEL)

Composed of Mueller No. 60-S Alligator Clip steel, cadmium plated, screw connection, complete with 2-piece vinyl insulator. Shipped half with red insulators, half black. 10 per box.

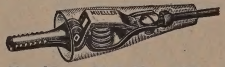
EACH NET..........................$0.19   LOTS OF 10..........................$0.13

No. 63-C—INSULATED ALLIGATOR CLIP (COPPER)

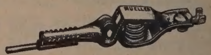
Composed of Mueller No. 60-CS Alligator Clip, solid copper, screw connection. Shipped half with red insulators, half black. 10 per box.

EACH NET..........................$0.22   LOTS OF 10..........................$0.15

CROCODILE CLIPS



No. 85 or 85-C Clip with No. 87 Insulator



No. 85-T Clip

No. 85—A very small clip with slender, elongated jaws for getting into tight places in radio or electrical test work. Screw connection. 2⅛″ long.

EACH NET..........................$0.09   LOTS OF 10..........................$0.06

No. 85-C—Same as No. 85, except solid copper. A radio frequency, entirely non-ferrous test clip. 10 per box.

EACH NET..........................$0.18   LOTS OF 10..........................$0.12

No. 85-T—Crocodile "Tip-Clip"—equipped with standard phone tip on one jaw, otherwise same as No. 85. Ideal for use as a prod, for ordinary clip connections and for connections to insulated binding posts having non-removable heads. 2⅝″ long. 10 per box.

EACH NET..........................$0.22   LOTS OF 10..........................$0.15

Use No. 87 Insulators for clips 85, 85-C and 85-T. Red and Black. Cover entire clip except nose. Protect against short and shock. Help to distinguish leads.

© U.C.P., Inc

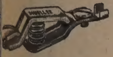
mueller clips

a complete line of

ALLIGATOR TEST & BATTERY CLIPS

Mueller Electric Co. CLEVELAND 14, OHIO

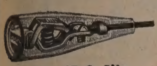
TEST CLIPS



No. 45 PEE WEE

A very small test clip for radio, ignition, meter and similar work. 1½″ long. Jaw spread 5/16″. Steel, cadmium plated.

ACH NET..........................$0.07 LOTS OF 10..........................$0.05



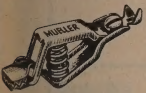
No. 45-C Clip
No. 47 Insulator

No. 45-C
Solid Copper R.F. Test Clip

Solid copper radio frequency test clip. Phosphor bronze spring, brass screw. Will not heat up in high frequency test work, entirely non-ferrous. 1½″ long. 10 per box.

ACH NET..........................$0.14 LOTS OF 10........................$0.095

Use No. 47 Insulator for clips 45 and 45-C.



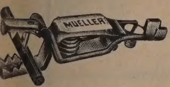
No. 48-B

A small test and battery clip for radio use and general testing purposes. 2″ long. Jaw spread 7/16″. Steel, cadmium plated. 10 per box.

EACH NET........$0.11 LOTS OF 10....$0.074

No. 48C—Solid Copper. Same size as 48-B.

ACH NET..........................$0.15 LOTS OF 10..........................$0.11



No. 50-C Needle Clip

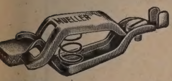
Solid bronze. Needle pierces insulation of wire for quick test contact. 2¼″ long. 10 per box.

EACH NET....$0.28 LOTS OF 10....$0.20

No. 51-C—Large crocodile clip. Same as 50-C but without needle. 10 per box.

EACH NET....$0.19 LOTS OF 10....$0.13

Use No. 49 insulator for Clips 48-B, 48-C, 50-C and 51-C.



No. 27

A high grade test clip with meshing teeth on three sides of jaws. For laboratory and shop test work 2 7/8″ long. Jaw spread 5/8″. Steel, cadmium plated. 10 per box.

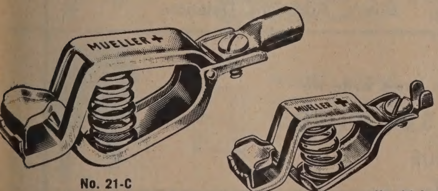
ACH NET..........................$0.13 LOTS OF 10..........................$0.09

No. 27-C—Solid copper. Same size as No. 27. 10 per box.

ACH NET..........................$0.23 LOTS OF 10..........................$0.16

Use No. 29 Insulator for clips 27 and 27-C.

LARGER SIZES OF CLIPS



No. 21-C

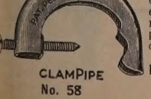
No. 24-A

All packed 10 per box.

	Each Net	Lots of 10
o. 24-A—25 Amp. Steel, lead plated, 2⅞″ long	$0.23	$0.16
o. 24-C—50 Amp. Solid Copper, 2⅞″ long	.38	.27
o. 21-A—50 Amp. Steel, lead plated, 4″ long	.40	.28
o. 21-C*—100 Amp. Solid Copper, 4½″ long	.97	.68
o. 11-A*—100 Amp. Steel, lead plated, 6″ long	1.06	.75
o. 11-C*—200 Amp. Solid Copper, 6″ long	1.81	1.27
o. 33-C*—300 Amp. Solid Copper, 7¾″ long	3.35	2.35

(*Furnished with detachable lug connection for easy securing to large cables.)

GROUND CLAMP

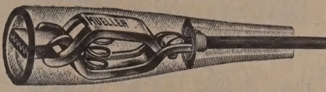


CLAMPIPE
No. 58

The ClamPipe will not spread, bend or lop over when applied. Point of large case hardened screw bites through corrosion into clean metal to insure good contact. Applicable to pipe ⅜″ to 1⅜″ O.D. The best ground clamp on the market!

EACH NET....$0.20 LOTS OF 10....$0.14

FLEXIBLE INSULATORS FOR CLIPS



A convenient protection against short circuit and electric shock. Colors help to distinguish leads. Packed half red and half black to indicate polarity. Long tail prevents breakage of wire. Constructed so that clip is held in firmly. NOW AVAILABLE also in blue, white, yellow and green at 10% above regular price are insulators marked * below.

Insulator No.	For Use with Clip No.	Each Net	Lots of 10
13*	11-A, 11-C	$0.80	$0.56
23*	21-A, 21-C	.40	.28
26*	24-A, 24-C	.21	.15
29*	27, 27-C	.13	.09
32*	30, 30-C	.05	.03
35	33-C	2.93	2.05
36*	34, 34-C	.05	.03
47*	45, 45-C	.06	.04
49*	48-B, 48-C, 50-C, 51-C	.09	.065
62*	60, 60-S, 60-CS, 60PR-2 (also 70 Series)	.05	.035
72*	70, 70-S, 70-CS	.05	.035
87*	85, 85-C, 85-T	.06	.04
93	88	.12	.08

*Also available in blue, white, yellow and green.

MUELLER *QUALITY* BATTERY BOOSTER CABLES

Highest quality cables, equipped with famous Hippo-Clips, for boosting "dead" 6 or 12-volt vehicle batteries with an external battery. Cables are pure copper, finely stranded for high flexibility and covered with rubber insulation which stays flexible in the coldest weather and resists oil, grease and acid. 413 strands of No. 30 wire in the 4-gauge cable and 259 strands of No. 30 wire in the 6-gauge cable. The many fine features of the Hippo-Clips alone are listed elsewhere on this page. The clips are both soldered to the cable and clinched around the cable insulation by means of clinching ears.

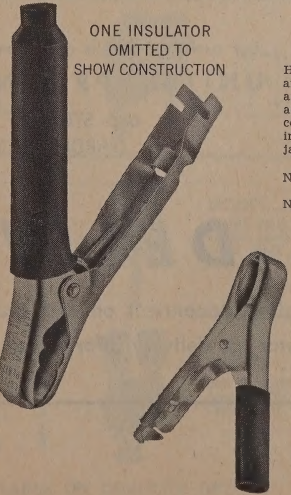
Packaged: pair of cables with clips in a bright, attractive display carton. Standard shipping container 10 cartons.

Mueller
Quality
BATTERY
BOOSTER CABLES
with famous Mueller Hippo Clips
12C4
DISPLAY CARTON

No. 8A6—8 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
LIST PRICE PER PAIR $7.50

No. 12A6—12 ft., 6-gauge, with No. 41A Hippo-Clips (Steel, bright copper plated)
LIST PRICE PER PAIR $10.00

No. 12C4—12 ft., 4-gauge, with No. 41C Hippo-Clips (Solid Copper)
LIST PRICE PER PAIR $19.00



ONE INSULATOR
OMITTED TO
SHOW CONSTRUCTION

HIPPO-CLIP

HIPPO-CLIP—For battery booster cables and fast chargers. Proved higher quality and superior design. Built-in solder strap and clinching ears for fast, sure cable connection. Supplied with vinyl handle insulators in red or black. Full 1-9/16″ jaw spread. 6″ long.

	List price ea.
No. 41-A Steel, bright copper plated, 100 amp.	$ .75
No. 41-C Solid Copper, 200 amp.	1.50

NEW!
PIGMY HIPPO-CLIP

PIGMY HIPPO-CLIP—A new small plier clip for battery operated equipment and automotive test. Flat, wide handle allows positive grip. Won't "squirt away". Built-in solder strap and wire clinching ears. Supplied with vinyl handle insulators in red or black. Ample 1⅛″ jaw spread. 3″ long.

	List price ea.
No. 46-A Steel bright copper plated, 50 amp	$ .25
No. 46-C Solid Copper, 75 amp.	.40

PRICES

All prices listed in The MASTER are subject to change without notice — they should not be considered final.

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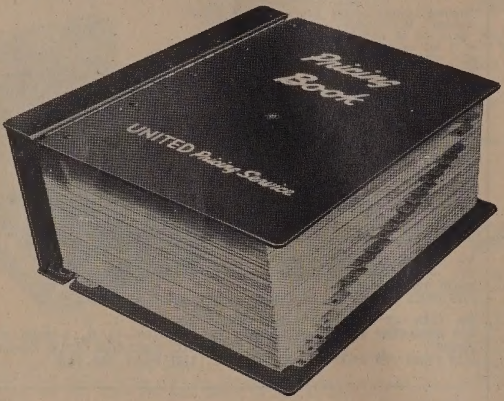

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645 STEWART AVENUE
GARDEN CITY, N. Y.

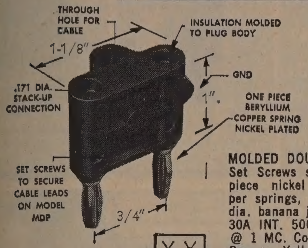
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

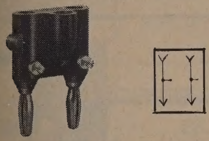
¾″ MOLDED DOUBLE PLUG STACK-UP ACCESSORIES


THROUGH HOLE FOR CABLE
INSULATION MOLDED TO PLUG BODY
1-1/8″
GND
.171 DIA. STACK-UP CONNECTION
1″
ONE PIECE BERYLLIUM COPPER SPRING NICKEL PLATED
SET SCREWS TO SECURE CABLE LEADS ON MODEL MDP
3/4″

MODEL MDP

MOLDED DOUBLE PLUG, ¾″ SPACED
Set Screws secure cable leads. One piece nickel plated beryllium copper springs, for use with st'd. .166 dia. banana jacks. Rated: 15A CONT. 30A INT. 5000 WVDC, Cap. 0.8 μμf @ 1 MC. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

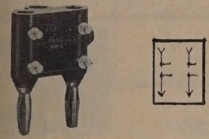
NET .75



MODEL MDP-ST

Similar to Model MDP, except has solder turret terminals.
Color—Black

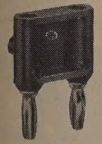
NET .85

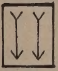


MODEL MDP-X

4 TERMINAL ISOLATION PLUG
Suitable for design of attenuators, filters, pads, networks, etc.
Color—Red

NET 3.25



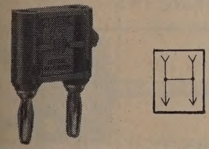


MODEL 1330

COMPONENT MOUNTING PLUG
Ideal for lab standards, R & D, etc. Features recess for small components, internal set screws firmly secure lead wires. Colors: Black, Red.

NET .75

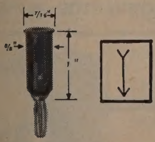
MODEL 1330-ST Same as above except with solder turret terminals. **NET .85**



MODEL MDP-S

Molded shorting bar ¾″ spaced, noise free, solder bonded internally. Color: Cream, Black, Red.

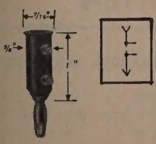
NET .95



MODEL 1325

SINGLE BANANA PLUG
Solderless type, with stack-up feature. Simplifies assembly of test cords by use of internal set screws. Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Grey, White.

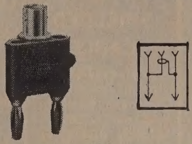
NET .50



MODEL 1390

COMPONENT MOUNTING PLUG
Top stack-up jack isolated from lower plug. Permits mounting of resistors, diodes, etc., on solder turret terminals. Useful in computer, general lab circuit design and testing, etc. Colors: Black, Red.

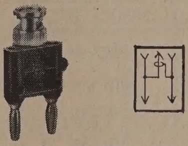
NET .95



MODEL 1269

BNC RECEPTACLE ADAPTOR
Adapts ¾″ spaced jacks to BNC plug.
Color—Black

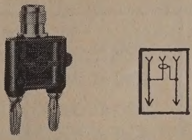
NET 2.85



MODEL 1270

BNC PLUG ADAPTOR
Adapts ¾″ spaced jacks to BNC receptacle.
Color—Black

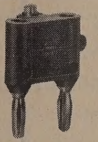
NET 3.85



MODEL 1340

TNC RECEPTACLE ADAPTER
Adapts ¾″ spaced jacks to TNC plug.
Color: Black.

NET 5.85



MODEL 1275 50 OHM TYPE
MODEL 1277 70 OHM TYPE
MODEL 1279 93 OHM TYPE

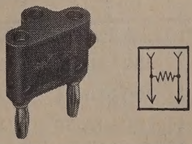
MICRODOT RECEPTACLE ADAPTORS, SCREW-ON TYPE
Adapts ¾″ spaced jacks to Microdot miniature coaxial plugs, screw-on type. Color: Green, 50 Ohm; Violet, 70 Ohm; White, 93 Ohm.

NET 5.85

MODEL 1276

MICRODOT RECEPTACLE ADAPTOR, SLIDE-ON TYPE
Adapts ¾″ spaced jacks to Microdot coaxial miniature plugs, slide-on type, universally adapts to 50, 70 or 93 Ohm type plug. Color: Black.

NET 5.85



MODEL MDP-R

MOLDED PRECISION RESISTORS 1% tolerance, deposited carbon, values—600, 0.1, 0.2, 0.25, 0.5, 1, 2, 5, 10 Megohms. Each value color identified. ¾″ spaced.

NET 2.75

(SPECIAL VALUES UPON REQUEST)

MODEL 1285

PHONE PLUG ADAPTOR
Adapts phone jack to ¾″ spaced binding posts.
Color: Black

NET 4.85

MODEL 1296

BNC BINDING POST ADAPTOR
Adapts a BNC receptacle to ¾″ spaced binding posts.
Color: Black

NET 4.85

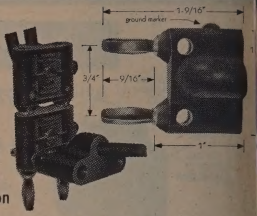
OTHER COLORS AVAILABLE ON QUANTITY ORDERS

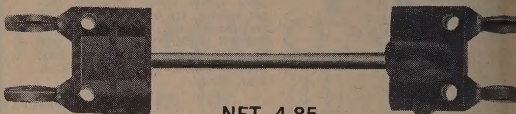
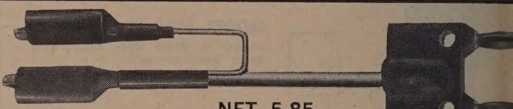
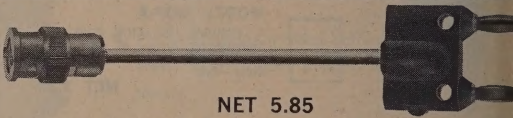
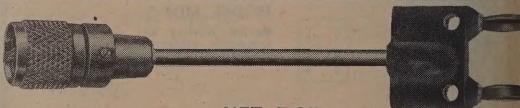
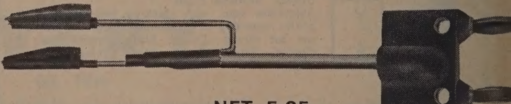
pēco POMONA *Electronics* CO., INC., POMONA, CALIFORNI

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

3/4″ MOLDED DOUBLE PLUG PATCH CORD & TEST LEADS

- Molded polyethylene plug body fully insulated
- Permits parallel multiple stacking
- Ground connection clearly marked
- One piece beryllium copper spring
- Solder bonded noise-free connection
- Fits standard banana jacks



TWO COND. TWISTED PAIR 18 gauge wire 65/36 stranding. Vinyl insulation. Vinyl jacket. Nom. Capacity 30 mmf/ft.	SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft.	COAXIAL SHIELDED CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 28.5 mmf/ft. RG58C/U.	CABLE LGTHS. IN INCHES *	
MODEL NO.	MODEL NO.	MODEL NO.		
2BA-18	2BB-18	2BC-18	18″	 NET 4.85 MODEL WITH DOUBLE PLUGS BOTH ENDS
2BA-24	2BB-24	2BC-24	24″	
2BA-30	2BB-30	2BC-30	30″	
2BA-36	2BB-36	2BC-36	36″	
2BA-AL-18	2BB-AL-18	2BC-AL-18	18″	 NET 5.85 MODEL WITH ALLIGATOR CLIPS
2BA-AL-24	2BB-AL-24	2BC-AL-24	24″	
2BA-AL-30	2BB-AL-30	2BC-AL-30	30″	
2BA-AL-36	2BB-AL-36	2BC-AL-36	36″	
	2BB-BNC-18	2BC-BNC-18	18″	 NET 5.85 MODEL WITH UG 88C/U MALE BNC CONNECTOR
	2BB-BNC-24	2BC-BNC-24	24″	
	2BB-BNC-30	2BC-BNC-30	30″	
	2BB-BNC-36	2BC-BNC-36	36″	
2BA-PP-18	2BB-PP-18	2BC-PP-18	18″	NET 7.50 MODEL WITH PHONE TIPS
2BA-PP-24	2BB-PP-24	2BC-PP-24	24″	
2BA-PP-30	2BB-PP-30	2BC-PP-30	30″	
2BA-PP-36	2BB-PP-36	2BC-PP-36	36″	
	2BB-UHF-18	2BC-UHF-18	18″	 NET 5.85 MODEL WITH MALE PLUG UHF CONNECTOR PL259
	2BB-UHF-24	2BC-UHF-24	24″	
	2BB-UHF-30	2BC-UHF-30	30″	
	2BB-UHF-36	2BC-UHF-36	36″	
2BA-MG-18	2BB-MG-18	2BC-MG-18	18″	 NET 5.85 MODEL WITH MINIGATOR CLIPS
2BA-MG-24	2BB-MG-24	2BC-MG-24	24″	
2BA-MG-30	2BB-MG-30	2BC-MG-30	30″	
2BA-MG-36	2BB-MG-36	2BC-MG-36	36″	

NOTE: 2BA and 2BB Series. Standard color, gray cable and molded double plug. 36″ length available also as a standard item with colored cable and molded double plug to match: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray and White.

Other lengths also available in color, to order.

Minimum 25 pieces per color, per model, per length at no extra cost.

NOTE: 2BC Series, color black only, cable and molded double plug.

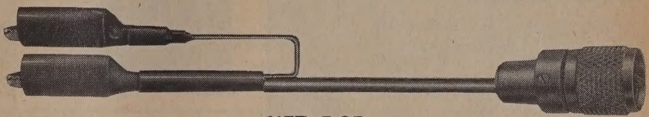
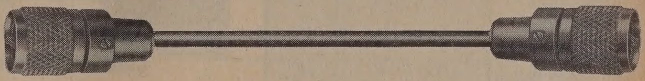
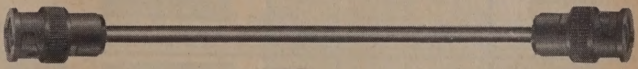
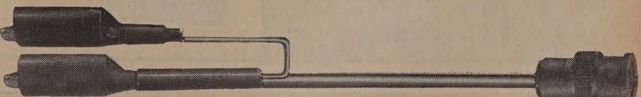
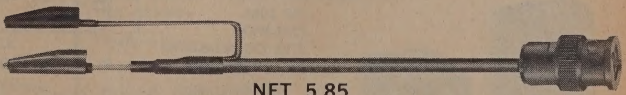
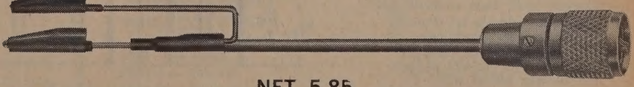
* Other lengths and cable types than those specified available upon request.

POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

PECO CONNECTING LEADS

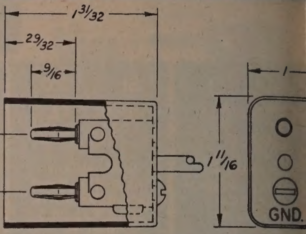
*NOTE: Lengths other than those specified available upon request. These models also available on special order in the following cable types: RG55A/U, RG59B/U, RG62A/U, and RG62B/U, etc.

SHIELDED ICROPHONE CABLE nsulation. Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft.	SHIELDED COAXIAL CABLE Polyethylene insulation. Vinyl jacket. RG58C/U. Nom. Cap. 28.5 mmf/ft.	CABLE LGTHS. IN INCHES *	
MODEL NO.	MODEL NO.		
AL-B-UHF-18	AL-C-UHF-18	18″	 NET 5.85 ALLIGATOR CLIPS TO PL259 UHF CONNECTOR
AL-B-UHF-24	AL-C-UHF-24	24″	
AL-B-UHF-30	AL-C-UHF-30	30″	
AL-B-UHF-36	AL-C-UHF-36	36″	
UHF-B-18	UHF-C-18	18″	 NET 5.85 PL259 UHF MALE CONNECTOR BOTH ENDS
UHF-B-24	UHF-C-24	24″	
UHF-B-30	UHF-C-30	30″	
UHF-B-36	UHF-C-36	36″	
BNC-B-18	BNC-C-18	18″	 NET 5.85 UG88C/U MALE BNC CONNECTOR BOTH ENDS
BNC-B-24	BNC-C-24	24″	
BNC-B-30	BNC-C-30	30″	
BNC-B-36	BNC-C-36	36″	
AL-B-BNC-18	AL-C-BNC-18	18″	 NET 5.85 ALLIGATOR CLIPS TO UG88C/U MALE BNC CONNECTOR
AL-B-BNC-24	AL-C-BNC-24	24″	
AL-B-BNC-30	AL-C-BNC-30	30″	
AL-B-BNC-36	AL-C-BNC-36	36″	
MG-B-BNC-18	MG-C-BNC-18	18″	 NET 5.85 MINIGATOR CLIPS TO UG88C/U MALE BNC CONNECTOR
MG-B-BNC-24	MG-C-BNC-24	24″	
MG-B-BNC-30	MG-C-BNC-30	30″	
MG-B-BNC-36	MG-C-BNC-36	36″	
MG-B-UHF-18	MG-C-UHF-18	18″	 NET 5.85 MINIGATOR CLIPS TO MALE PLUG UHF PL259 CONNECTOR
MG-B-UHF-24	MG-C-UHF-24	24″	
MG-B-UHF-30	MG-C-UHF-30	30″	
MG-B-UHF-36	MG-C-UHF-36	36″	

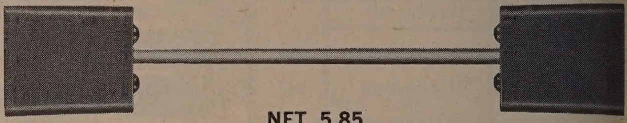
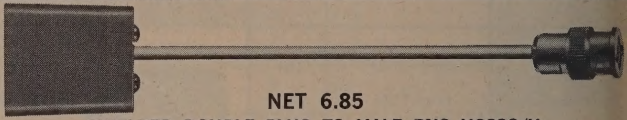
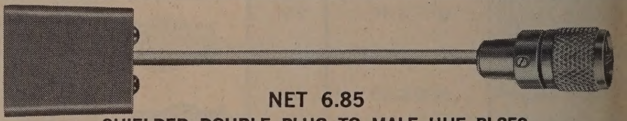
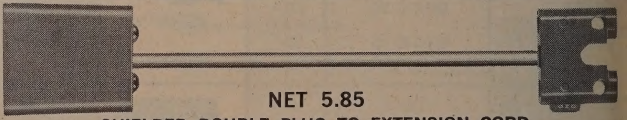
POMONA Electronics CO., INC., POMONA, CALIFORNI

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

¾″ SHIELDED DOUBLE PLUG PATCH CORD & TEST LEADS



- Molded polyethylene plug body fully insulated
- GND. clearly molded in shell
- One piece, heat treated beryllium copper spring
- Solder bonded noise free connection
- Fits standard .166 diameter banana jacks
- Aluminum shell, black anodized

SHIELDED MICROPHONE CABLE Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft. (Color: gray) MODEL NO.	SHIELDED COAXIAL CABLE Polyethylene insulation. Vinyl jacket.RG58C/U. Nom. Cap.28.5 mmf/ft. (Color: black) MODEL NO.	CABLE LGTHS. IN INCHES *	
1550-B-18	1550-C-18	18″	 NET 5.85 SHIELDED DOUBLE PLUG BOTH ENDS
1550-B-24	1550-C-24	24″	
1550-B-30	1550-C-30	30″	
1550-B-36	1550-C-36	36″	
1555-B-18	1555-C-18	18″	 NET 6.85 SHIELDED DOUBLE PLUG TO MALE BNC UG88C/U
1555-B-24	1555-C-24	24″	
1555-B-30	1555-C-30	30″	
1555-B-36	1555-C-36	36″	
1556-B-18	1556-C-18	18″	 NET 6.85 SHIELDED DOUBLE PLUG TO MALE UHF PL259
1556-B-24	1556-C-24	24″	
1556-B-30	1556-C-30	30″	
1556-B-36	1556-C-36	36″	
1551-B-18	1551-C-18	18″	 NET 5.85 SHIELDED DOUBLE PLUG TO EXTENSION CORD
1551-B-24	1551-C-24	24″	
1551-B-30	1551-C-30	30″	
1551-B-36	1551-C-36	36″	

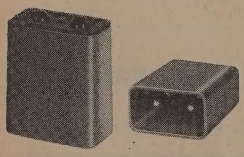
*Lengths and cable types other than those shown available upon request.

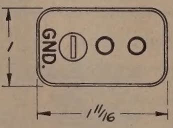
SHIELDED DOUBLE PLUG

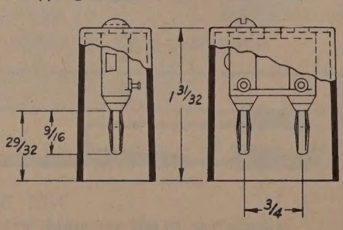
MODEL 1433

NET 2.25

RATED:
15A CONT.
1200 WVDC
3400 VDC BREAKDOWN
2.5 $\mu\mu F$ @ 1 MC.



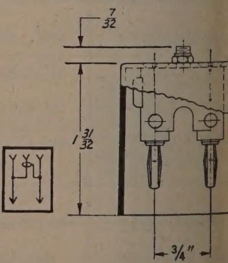




- Shielded double plug, ¾″ spaced
- Aluminum shell, black anodized
- Gold flashed solder turret terminals for reliable cable connections
- One piece nickel plated beryllium copper spring for use with standard .166 diameter banana jacks
- GND. cearly molded in shell
- Cable hole 7/32″ diameter

MICRODOT ADAPTER

WITH SHIELDED DOUBLE PLUG



MODEL 1575

NET 6.85

Shielded double plug; Microdot adapter. Adapts ¾ spaced jacks to Microdot coaxial miniature screw-type plug, 50 Ohm. Color: Black.

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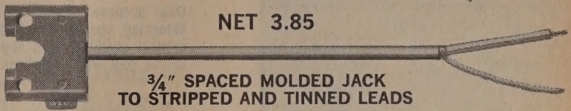
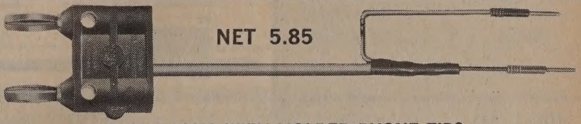
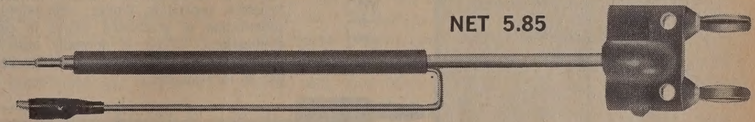
POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

CONNECTING LEADS AND TEST ACCESSORIES

- **MODEL 1592** used as extension cord with ¾″ spaced jacks molded to cable.
- **MODEL 1547** patch cord, molded ¾″ double banana plug with .080 diam. x ½″ molded phone tips other end.
- **MODEL 1569** patch cord, molded ¾″ double banana plug with test prod and ground clip.

NOTE: Lengths and cable types other than those shown available upon request.

WO COND. TWISTED PAIR 8 gauge wire 5/36 stranding. inyl insulation. Vinyl jacket. lom. Capacity 30 mmf/ft. (Color: gray)	**SHIELDED MICROPHONE CABLE** Polyethylene insulation. Vinyl jacket. Nom. Capacity 25 mmf/ft. (Color: gray)	**SHIELDED COAXIAL CABLE** Polyethylene insulation. Vinyl jacket. RG58C/U. Nom. Cap. 28.5 mmf/ft. (Color: black)	
ODEL NO.	**MODEL NO.**	**MODEL NO.**	
1592-A-48 BLE LENGTH 48″	**1592-B-48** CABLE LENGTH 48″	**1592-C-48** CABLE LENGTH 48″	 **NET 3.85** ¾″ SPACED MOLDED JACK TO STRIPPED AND TINNED LEADS
1547-A-24 BLE LENGTH 24″ **1547-A-36** BLE LENGTH 36″	**1547-B-24** CABLE LENGTH 24″ **1547-B-36** CABLE LENGTH 36″	**1547-C-24** CABLE LENGTH 24″ **1547-C-36** CABLE LENGTH 36″	 **NET 5.85** DOUBLE PLUG WITH MOLDED PHONE TIPS
1569-A-48 BLE LENGTH 48″	**1569-B-48** CABLE LENGTH 48″		 **NET 5.85** DOUBLE PLUG WITH TEST PROD AND MINIGATOR CLIP

INSULATED ALLIGATOR CLIPS BOTH ENDS

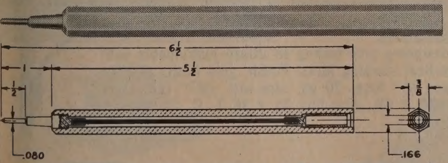
18 ga., 65 x 36, extra flexible PVC insulated wire. .140″ O.D. Clip, steel, cad plated. Colors: Red or Black; other colors and lengths available to order. **NET .95**

MODEL NO.	LENGTH
AL-B-4	4″
AL-B-12	12″
AL-B-24	24″
AL-B-36	36″

INSULATED MINIGATOR CLIPS BOTH ENDS

18 ga., 65 x 36, extra flexible PVC insulated wire. .140″ O.D. Clip, steel, cad plated. Colors: Red or Black; other colors and lengths available to order. **NET .95**

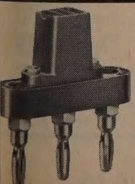
MODEL NO.	LENGTH
MG-B-4	4″
MG-B-12	12″
MG-B-24	24″
MG-B-36	36″



TEST PROBE WITH BANANA JACK RECEPTACLE

1589 Black • 1589-2 Red **NET 1.50**

.080 diam. tip. Nickel plated. Heavy duty insulated handle. Banana jack in handle connected to tip. Permits use of standard banana plugs for circuit testing as a test prod. Colors: Red or Black.



TRANSISTOR TEST ADAPTER

For Use with .017 Dia. Leads

MODEL 1472

NET 5.85

Banana Plugs on ¾″ spacing. Heavy duty molded phenolic construction. Socket contacts and Banana Springs of beryllium copper.

INSULATED BANANA JACK ASSEMBLY

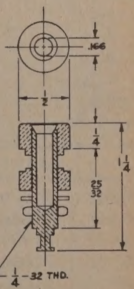
MODEL 1581

NET .25

Body, brass, silver plated. Heavy duty, shouldered ceramic insulator. Lockwasher and hex nut included.

Features:

- Insulator head molded to body
- Closed entry receptacle
- Mounts in ⅜″ diam. hole, panels up to ⅜″ thick.
- For use with standard banana plugs
- Solder turret terminal
- Rated, 2500 WVDC



1581 — Black
1581-1 — Brown
1581-2 — Red
1581-3 — Orange
1581-4 — Yellow
1581-5 — Green
1581-6 — Blue
1581-7 — Violet
1581-8 — Gray
1581-9 — White

pēco POMONA *Electronics* CO., INC., POMONA CALIFORNI

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

PATCH-CORDS & STACK-UP CONNECTING LEADS

PECO BANANA TYPE PATCH-CORDS ARE QUALITY TOOLS FOR QUALITY TECHNICIANS

WIRE DESCRIPTION: MODELS HB, 1391 & B STACK-UP PATCH CORDS.

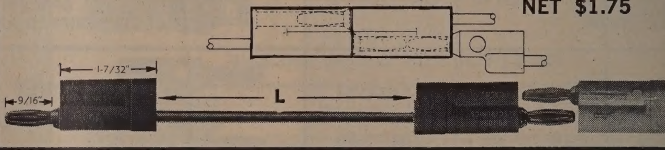
Polyvinyl extra flexible insulation on all wires. The insulating jacket molds the plug, solder connection and wire insulation into a long lasting single piece. Banana plugs are one piece heat treated beryllium copper spring. Contact resistance less than 0.001 ohm per plug in standard .166″ dia. banana jacks. Current carrying capacity, 15 amps. cont. and 30 amps. int. 18 ga. wire, stranding 65 x 36 T. C., with .140″ insulation O. D., 7500 WVDC, breakdown 15 KV. Reliable solder bonded connections withstand pull test in excess of 50 lbs.

MODEL NO.	LENGTH (L)
HB-4	4 inches
HB-8	8 inches
HB-12	12 inches
HB-18	18 inches
HB-24	24 inches
HB-36	36 inches
(specify color)*	

MODEL HB EXTENSION-STACKING PATCH-CORD

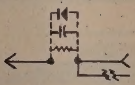
Dual purpose. Shields all hot leads when used as an extension cord. Endless extension couplings possible with any banana plug patch-cord. Also provides vertical stacking from any jack. Finest quality, materials and assembly. A two-in-one tool with countless applications. Available in 10 colors*

NET $1.75



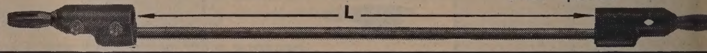
MODEL NO.	LENGTH (L)
1391-24	24 inches
1391-36	36 inches
(specify color)	

MODEL 1391 ISOLATION PATCH-CORD

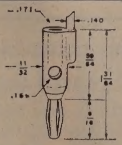


Valuable, simple tool for test and design uses. Solder turret terminals on one lead end for mounting selected components such as resistors, capacitors, diodes, attenuators, gates or filters. Ideal for substitution of graduated values in circuit designing. Many test applications. Circuit is normally open at the terminals. Vertical stacking jacks in each lead end. Stocked in red and black and in 24, 36 inch lengths.

NET $2.50



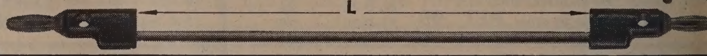
MODEL NO.	LENGTH (L)
B-4	4 inches
B-8	8 inches
B-12	12 inches
B-18	18 inches
B-24	24 inches
B-36	36 inches
(specify color)*	



MODEL B VERTICAL AND HORIZONTAL STACKING BANANA PLUG PATCH-CORD

Vertical and horizontal stacking connections greatly simplify circuit connections and changes. Preserves compactness while accommodating the most complex stacking. Helps to keep circuitry neater, thus more diagramatic. Stocked in 10 colors.*

NET $1.50

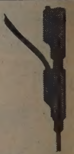


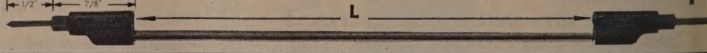
MODEL NO.	LENGTH (L)
P-4	4 inches
P-8	8 inches
P-12	12 inches
P-18	18 inches
P-24	24 inches
P-36	36 inches
(specify color)*	

MODEL P .080 PHONE TIP VERTICAL STACKING PATCH-CORD

A must item in most circuit designing and testing to utilize instruments with .080 jacks. Beryllium copper vertical stacking jacks. Finish, gold flash, .00002/.00003. Tip is .080 diameter and ½″ long. 20 ga. wire with .087″ O.D. extra flexible Polyvinyl insulation, WVDC 3 KV, stranding 41 x 36 T. C. 10 colors.*

NET $1.75





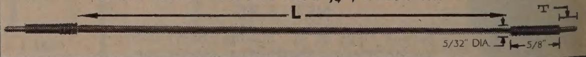
MODEL NO.			LENGTH (L)
PT063-4	PT080-4	PM080-4	4 inches
PT063-8	PT080-8	PM080-8	8 inches
PT063-12	PT080-12	PM080-12	12 inches
PT063-18	PT080-18	PM080-18	18 inches
PT063-24	PT080-24	PM080-24	24 inches
PT063-36	PT080-36	PM080-36	36 inches
(specify color)*			

PT AND PM MODELS, PIN TYPE PATCH-CORD

Three models: .063 dia. pin with 7/16″ length and .080 pin in either ½″ or ¼″ Tip(T). 22 ga. wire, stranding 19 x 34 T. C., .064 O.D. Polyvinyl insulation. Finish gold flash over silver plating. 10 colors.*

Model PT063 — Pin .063 dia. x 7/16″, WVDC 1 KV.
Model PT080 — Pin .080 dia. x ½″, WVDC 1 KV.
Model PM080 — Pin .080 dia. x ¼″, WVDC 1 KV.

NET $.85



*Colors: Stocked in 10 colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.
Production of other lengths contingent upon quantities desired. Order by model, length (inches), and color, e.g., B-72, Red.

Net © U.C.P.,

POMONA *Electronics* CO., INC., POMONA, CALIFORNIA

MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

SOCKET SAVERS®

REDUCED HEIGHT FOR PORTABLE EQUIPMENT • MAXIMUM HEIGHT ABOVE EQUIPMENT 13/16 INCHES

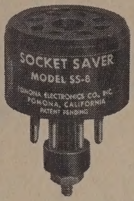
The Socket Saver® is designed to be installed on tube checkers and other electronic equipment to prevent wear and tear of sockets on original equipment. They are easy to install and remove. This eliminates the necessity of replacing and rewiring sockets on original equipment. Built of quality materials. BERYLLIUM COPPER LONG LIFE CONTACTS to give maximum service.

SOCKET SAVER
MODEL SS-7

MODEL SS-7
SEVEN PIN
MINIATURE
NET 1.75
U.S. PAT. NO. 2952003

SOCKET SAVER
MODEL SS-9

MODEL SS-9
NINE PIN
MINIATURE
NET 1.75
U.S. PAT. NO. 2952003



MODEL SS-8
8 PIN OCTAL
NET 1.75

MODEL SS-789 KIT, Set of Three NET 5.25

MODEL SS-11, 11 PIN OCTAL STYLE. NET 1.95

TEST SOCKET TUBE ADAPTERS

Peco Test Socket Tube Adapters are ideal for making measurements of voltage, resistance, audio and video without tracing complicated circuits from the bottom of the chassis. They feature: Extended test tabs for easy use with either alligator clips or test prods; Low loss MICA-FILLED molded phenolic construction per MIL-M-14, MFE. Power factor less than 0.010 at 10 Mc; High insulation resistance, the I. R. exceeds 500,000 megohms at 40% R.H., at 24°C; Distributed capacity, inter-element approximately 1 micro-micro farad; High voltage operation, voltage breakdown elements exceeds 1700 volts AC or DC.

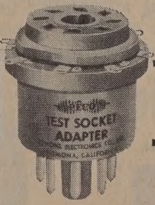
MODEL TVS—789 KIT, Set of Three. NET 5.25
SPECIAL ADAPTERS DESIGNED TO YOUR SPECIFICATIONS.

PECO
TEST SOCKET
ADAPTER

MODEL TVS-7
SEVEN PIN MINIATURE
NET 1.65 ea.

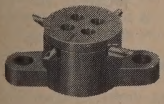
PECO
TEST SOCKET
ADAPTER

MODEL TVS-9
NINE PIN MINIATURE
NET 1.85



MODEL TVS-8
EIGHT PIN OCTAL
NET 1.75

TRANSISTOR SOCKET



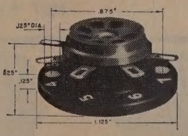
MODEL XS-T4

Peco XS-T4, surface mounted socket, designed for JETEC 30 type transistor. Features include: closed-entry, silver plated, beryllium copper contacts; contact numbers and location tab molded into top of socket. Easily mounted with two #2 screws. All connections are made on top of chassis, making socket readily adaptable to enclosed-unit circuits. Socket is molded of low-loss mica-filled phenolic per MIL-M-14, type MFE.

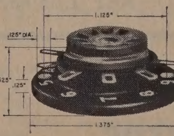
NET .45 ea.

SURFACE MOUNTED BREADBOARD SOCKETS

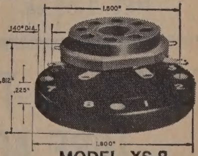
ideal for electronic and experimental use



MODEL XS-7
SEVEN PIN MINIATURE
NET .49 ea.



MODEL XS-9
NINE PIN MINIATURE
NET .57 ea.



MODEL XS-8
EIGHT PIN OCTAL
NET .57 ea.

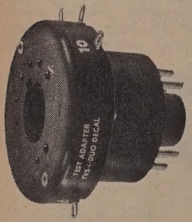
Surface Mounted Breadboard Sockets are used for experimental circuit design, portable and enclosed units, plug-in and packaged assemblies. They feature: An insulated base to prevent connections from shorting to chassis; Eliminates double chassis design; Circuits may be wired in an enclosed unit; The base connections are numbered for easy identification; Grade-A phosphor bronze spring contacts; Standard center to center mounting holes; For ease of installation the 7 and 9 Pin Miniatures may be mounted either in the center or on the sides, the 8 Pin Octal is mounted on the sides; Small mounting holes permit the re-use of experimental chassis.

PECO POMONA *Electronics* CO., INC., POMONA, CALIFORN

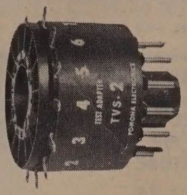
MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES

TEST SOCKET CATHODE RAY TUBE ADAPTERS

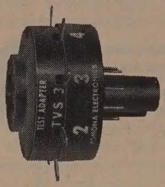
The PECO Test Socket Adapters are ideal for making measurements of voltage, resistance, and video from the base of the picture tube. The test socket adapter is inserted between the CR Tube base and its socket. This completes the circuit and makes all connections readily accessible. Measurements can be made without tracing circuit wiring to test points below the chassis, thereby saving valuable time and increasing efficiency in trouble shooting.



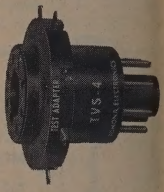
MODEL TVS-1
DUO DECAL
For Television picture tubes
NET 1.95 ea.



MODEL TVS-2
NEO-DIHEPTAL
For color Television picture tubes
NET 7.45 ea.



MODEL TVS-3
EIGHTAR (.040 PINS)
For 110° Television picture tubes
NET 2.55 ea.



MODEL TVS-4
7 PIN (.093 PINS)
For 110° Television picture tubes
NET 1.95 ea.

TUBE SOCKET CONVERSION ADAPTERS

110° CRT SOCKET ADAPTER TO DUO DECAL BASE.
FOR TESTING NEW NARROW-NECK 110° TUBES.

Modernize your present test equipment with this simple adapter, no rewiring necessary. Just plug in adapter to convert to 110° socket. Used for testing, ageing, and lifetesting. Model 110-S has .820 pin-circle diameter (7 pins. .093 diameter) similar to 17BVP4, etc. Model 110-R has .600 pin-circle diameter (.040 pins) similar to 17BZP4, etc.

Model 110-P is similar to Model 110-R except that it is wired to test 110° Semi-Flat S-F series 17DAP4/SF17, 21EAP4/SF21, etc.

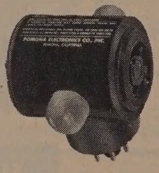
MODEL 110-S
NET 1.55 ea.

MODEL 110-P
MODEL 110-R
NET 1.55 ea.

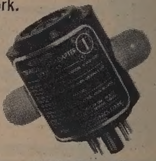
VIBRATOR TEST ADAPTERS

FOR CHECKING ANY STANDARD 3 OR 4 PRONG VIBRATOR, 6 OR 12 VOLT

The Vibrator Test Adapter simplifies servicing of auto radios by eliminating the vibrator as a possible source of trouble. Features compact rugged phenolic construction. Instantly shows when contacts are sticking or open. Will indicate starting voltage. Eliminates all guesswork.



MODEL DA-34
3 OR 4 PRONG
6-12 VOLT
NET 4.95 ea.



MODEL 4A
4 PRONG 6-12 VOLT
NET 3.25 ea.

MODEL 3D
3 PRONG 12 VOLT
NET 3.25 ea.

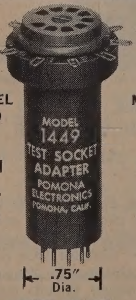
TUNER TV TEST SOCKET TUBE ADAPTERS

IT'S TALL • IT'S SLIM • IT FITS

extra height—exact fit—clears shields—
ready access to socket connections
exposed operation saves time

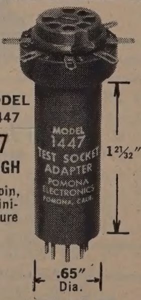
A MUST for every modern TV Service Shop.

MODEL 1449
9 HIGH
9 pin, Miniature



NET $1.95

MODEL 1447
7 HIGH
7 pin, Miniature

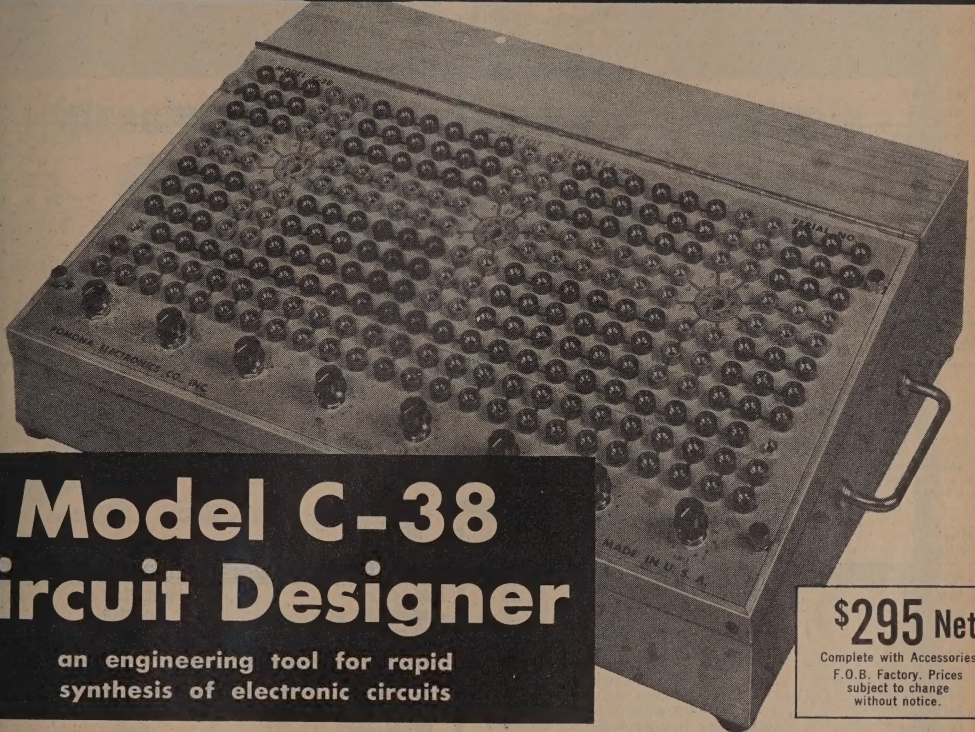


NET $1.85

FOR USE WITH TUNERS HAVING CAPTIVE OR TELESCOPING TUBE SHIELDS

The 7 or 9-HIGH adapter rises above the shields and places testing in the open. Shields or tuner covers do not have to be removed. All construction is the highest quality. Interelement distributed capacity is approximately 1.5 micro-micro farad. Voltage breakdown elements exceed 1800 V. AC or DC. The insulation resistance exceeds 5x10^5 megohms at 40% R.H. at 24°C.

PECO POMONA *Electronics* CO., INC., POMONA, CALIFORNIA
MANUFACTURERS OF ELECTRONIC TEST ACCESSORIES



Model C-38 Circuit Designer

an engineering tool for rapid synthesis of electronic circuits

$295 Net
Complete with Accessories
F.O.B. Factory. Prices subject to change without notice.

e simplicity and flexibility of the PECO Circuit Designer permits iable "quick and clean" solderless assembly. Saves fabrication ne, check-out time lost due to circuit errors and the cost of scrapped chassis. Every component of the Circuit Designer is reusable again and again.

Complete with Accessories. **$295.00 NET**

ACCESSORIES SUPPLIED WITH MODEL C-38

PECO STACK-UPS (Banana Jumper)	Quantity
Asstd. Lengths, color coded	50 ea.
COMPONENT CLIPS	30 ea.
ALLIGATOR CLIPS	10 ea.
SOCKET ADAPTERS: (Specify Model desired)	3 total
Model: A-7 (7 Pin Miniature)	
Model: A-9 (9 Pin Miniature)	
Model: A-8 (8 Pin Miniature)	
Model: A-T (Transistor 3 pin in-Line)	

ADDITIONAL ACCESSORIES AVAILABLE
(May Be Purchased Separately)

SOCKET ADAPTERS:		Price
Model: A-7	(7 Pin Miniature)	$2.50
Model: A-9	(9 Pin Miniature)	3.75
Model: A-8	(8 Pin Sub Miniature, Radial)	3.75
Model: A-T	(Transistor 3 pin in-Line)	3.50
Model: AT-44	(Transistor, dual 4 pin in-Line)	4.50
Model: AT-7	(Transistor, 7 pin in-Line)	3.75
PECO STACK-UPS	**(Banana Jumper)**	**Price**
Model B-4	(4 inches long)	$1.50
Model B-8	(8 inches long)	1.50
B-12	(12 inches long)	1.50
B-18	(18 inches long)	1.50
B-24	(24 inches long)	1.50
B-36	(36 inches long)	1.50

Colors available: Black, Brown, Red, Orange, Yellow, Green, Blue, Violet, Gray, White.

Quantity Prices upon Request.

COMPONENT MOUNTING CLIP .... .35 ea.

ACCESSORIES INCLUDE:

50 Assorted Length Patch Cords
30 Component Mounting Clips
3 Socket Adapters
10 Insulated Alligator Clips

PANEL:
Size: 10½" x 19" x ⅛" (Std. Rack Mtg. Holes)
Material: Aluminum, 24ST
Finish: Anodized, Alumilite

PANEL COMPONENTS:		Quantity
Panel Ground Jacks		2
Insulated Banana Jacks, color coded		250
Tube Sockets, low loss octal		3
Potentiometers, Heavy Duty, Linear Taper		
2 Watts each:	1K	2
	10K	2
	100K	2
	1 Meg	2

CASE:
Solid oak construction. Finished in modern limed oak. Circuit panel hinges providing storage for accessories. Convenient handles for portability.

CONNECTORS

UHF • BNC

These units are satisfactory at frequencies ranging from 200 to 500 megacycles but are not constant impedance connectors. They may be used at peak voltages up to 500 volts and some special units at 5000 volts. These are not weatherproof connectors except in the case of the MX-913/U cap and chain.

Adapters are available for use with other coaxial series such as the "N" and "BNC." We have available several high voltage applications which apply on the SO-239 receptacle and on the PL-259, PL-259A plugs. These units eliminate and replace the large cable connectors which formerly were needed for voltages up to 5000 volts. At the same time there are also many plate variations and modifications of the SO-239 receptacle. The PL-259 and PL-259A adapters are also available with different cable openings which eliminate reducing adapters and other accessories.

MILITARY NUMBER	DESCRIPTION	FOR RG/U CABLES
PL 259 HI VOL.**	PLUG (HI VOLTAGE)	8, 9, 10, 11, 12, 13, 63, 65
PL 259A*	PLUG	8, 9, 10, 11, 12, 13, 63, 65
PL 259A**	PLUG (TEFLON)	8, 9, 10, 11, 12
PL 274‡	ADAPTER, BULKHEAD	
SO 239*	RECEPTACLE	
SO 239A**	RECEPTACLE	
49190*	PLUG	8, 9, 10, 11, 12, 13, 63, 65
49191‡	ADAPTER, STRAIGHT	
49193	HOOD	8, 9, 10, 11, 12, 13, 63, 65
49194*	RECEPTACLE	
49195*	PLUG	8, 9, 10, 11, 12, 13, 63, 65
49484*	PLUG	55, 59, 62, 71
491049‡	ADAPTER, BULKHEAD	

MILITARY NUMBER	DESCRIPTION	FOR RG/U CABLES
UG 106/U	HOOD	8, 9, 10, 11, 12, 13, 63, 65
UG 175/U	ADAPTER, REDUCING	58
UG 176/U	ADAPTER, REDUCING	59, 62, 71
UG 177/U	HOOD	29, 55, 58
UG 203/U*	PLUG	55, 59, 62, 71
UG 363/U‡	ADAPTER, BULKHEAD	
M 360	HOOD	8, 9, 10, 11, 12, 13, 63, 65
PL 258‡	ADAPTER, STRAIGHT	
PL 259*	PLUG	8, 9, 10, 11, 12, 13, 63, 65
PL 259 TEFLON**	PLUG (TEFLON)	8, 9, 10, 11, 12, 13, 63, 65

These fittings are small, lightweight, weatherproof, quick connect and disconnect connectors. They are designed for use with small R.F. cables, such as RG-55/U, RG-58/U, RG-58A/U, RG-59/U, RG-62/U and RG-71/U, and may be used for application where the peak voltage does not exceed 500 volts.

The BNC connectors are constant impedance, 50 ohm connectors, yielding an excellent electrical performance up to 10,000 mcs. There has been great usage of these units for aircraft test equipment. Adapters are also available between the BNC and other coaxial connector series. We can offer many modifications of these standard types in accordance with a specified requirement. These connectors are manufactured in strict conformance with Military Specification MIL-C-3608.

MILITARY NUMBER	DESCRIPTION	FOR RG/U CABLES
UG 88/U ‡‡	PLUG	55, 58
UG 88B/U ‡‡	PLUG	55, 58
UG 88C/U ‡‡	PLUG	55, 58
UG 88D/U ‡‡	PLUG	55, 58
UG 89/U ‡‡	JACK	55, 58
UG 89A/U ‡‡	JACK	55, 58
UG 89B/U ‡‡	JACK	55, 58
UG 89C/U ‡‡	JACK	55, 58
UG 185/U ‡‡	RECEPTACLE (TURRET LUG)	
UG 254A/U†	RECEPTACLE BULKHEAD PRESSURIZED	
UG 260/U†	PLUG	59, 62, 71
UG 260A/U†	PLUG	59, 62, 71
UG 260B/U**	PLUG	59, 62, 71
UG 260C/U**	PLUG	59, 62, 71
UG 261/U†	JACK	59, 62, 71
UG 261A/U†	JACK	59, 62, 71
UG 261B/U**	JACK	59, 62, 71
UG 261C/U**	JACK	59, 62, 71
UG 262/U†	PANEL JACK	59, 62, 71
UG 262A/U†	PANEL JACK	59, 62, 71
UG 262B/U**	PANEL JACK	59, 62, 71
UG 262C/U**	PANEL JACK	59, 62, 71
UG 274A/U**	ADAPTER TEE	
UG 274B/U**	ADAPTER TEE (BERYLLIUM CONTACT SLEEVE)	
UG 290/U†	RECEPTACLE	
UG 290A/U**	RECEPTACLE	
UG 291/U**	PANEL JACK	55, 58
UG 291A/U**	PANEL JACK	55, 58
UG 291B/U**	PANEL JACK	55, 58
UG 291C/U**	PANEL JACK	55, 58
UG 306/U**	ADAPTER RIGHT ANGLE	
UG 306A/U**	ADAPTER RIGHT ANGLE	
UG 414/U**	ADAPTER STRAIGHT — FLANGE MOUNT FEED THRU	

MILITARY NUMBER	DESCRIPTION	FOR RG/U CABLES
UG 414A/U**	ADAPTER STRAIGHT — FLANGE MOUNT FEED THRU	
UG 447/U†	RECEPTACLE	
UG 491A/U**	ADAPTER	
UG 491B/U**	ADAPTER	
UG 492A/U**	ADAPTER BULKHEAD PRESSURIZED	
UG 492B/U**	ADAPTER BULKHEAD PRESSURIZED	
UG 535/U	JACK RECEPTACLE RIGHT ANGLE FLANGE MOUNT	
UG 535A/U	PLUG RECEPTACLE RIGHT ANGLE SINGLE HOLE MOUNT	
UG 589/U ‡‡	PLUG	
UG 624/U**	JACK BULKHEAD	59, 62, 71
UG 625/U ‡‡	JACK RECEPTACLE SINGLE HOLE MOUNT	
UG 625A/U	JACK RECEPTACLE SINGLE HOLE MOUNT	
UG 625B/U	JACK RECEPTACLE SINGLE HOLE MOUNT	
UG 657/U‡‡	RECEPTACLE BULKHEAD PRESSURIZED RUBBER SEAL	
UG 909/U**	JACK BULKHEAD	55, 58
UG 909A/U**	JACK BULKHEAD	55, 58
UG 910/U**	JACK BULKHEAD	59, 62, 71
UG 910A/U**	JACK BULKHEAD	59, 62, 71
UG 911/U	JACK RECEPTACLE PRESSURIZED	
UG 911A/U	JACK RECEPTACLE PRESSURIZED IMPROVED	
UG 912/U	JACK RECEPTACLE PRESSURIZED IMPROVED	
UG 913/U**	PLUG RIGHT ANGLE	55, 58
UG 913A/U**	PLUG RIGHT ANGLE	55, 58
UG 914/U**	ADAPTER STRAIGHT	
UG 1094/U**	RECEPTACLE BULKHEAD	
UG 1098/U**	RECEPTACLE RIGHT ANGLE	
UG 1174/U**	PLUG RECEPTACLE RIGHT ANGLE	
CW 123/U	CAP AND CHAIN	
CW 123A/U	CAP AND CHAIN	
CW 155/U	CAP	
CW 155A/U	CAP	
CW 159/U	SHORTING PLUG	
CW 282/U	CAP AND CHAIN	

Dielectrics are as follows: * Mica Filled Bakelite. ‡Styrene. ** Teflon. ‡‡ Rexolite.

saxton
components division

NEW YORK, N. Y.

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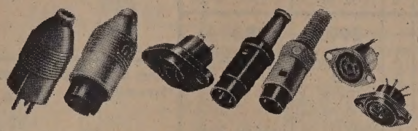
rye SOUND

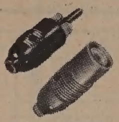
CORPORATION, MAMARONECK, N. Y.

hirschmann · plugs · sockets · terminals

6-36 POLE MULTIPLE CONNECTORS

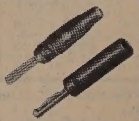


SMALL, MULTI-POLE CONNECTORS

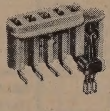


PICK-UP PLUGS AND SOCKETS

THIRD-HAND PROBE CONNECTORS



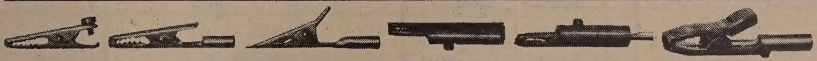
FULL CONTACT PLUGS



SOCKET WITH SWITCH

BUNCH-PIN PLUGS FLEX-HANDLES

BINDING POSTS & TERMINALS

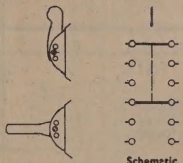


ALLIGATOR CLIPS

sound/transducers

HEADSETS: stereo or mono monitoring for maximum intelligibility. Lightweight units available in a variety of styles with choice of earpads, earloops, eartips, lucite earcups, cords and plugs. Impedance range 15 to 8000 ohms.

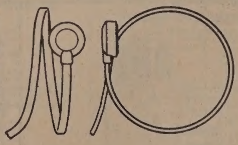
MINIATURE SWITCHES: for low voltage applications. These switches are subjected to the most stringent mechanical and metallurgical inspections and can be employed with full confidence on the widest range of electrical equipment.



Schematic

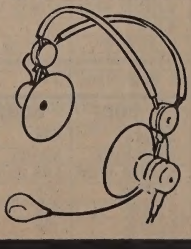
EARPHONES: quality magnetic transducers in flesh or grey; power, frequency or sensitivity to fit the application. Standard U.S. polarized-type cord connection. Impedances from 3.2 to 8000 ohms.

CONTACT THROAT MICROPHONES/HEART BEAT MICROPHONES: effective for use in surroundings with high background sound levels because only the operator's voice is registered. Microphone diaphragm is held in place by a light steel band covered by soft plastic. Impedances: 50, 120, 200 and 500 ohms. In grey only.



language lab headsets

To meet the growing demands of this active field, Rye Sound has prepared a complete line of aircrew headsets, microphone insets, boom-arm microphones, noise-cancellation mikes in divers combinations. These headsets are of the finest quality, offer maximum intelligibility, wearing ease, operating freedom and flexibility.



Sealectro

CON HEX ®

SUB-MINIATURE R. F. CONNECTORS

PLATING: 0.0001 Gold ove
0.0001 Copper.

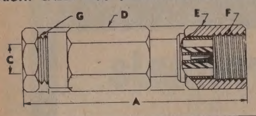
MATING CONNECTORS: All Screw
On (Snap-On) plugs will mat
with all Screw-On (Snap-On
jacks & receptacles of the sam
resistance rating.

U. S. Pat. No. 2,937,360

*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U.

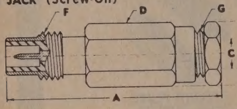
50 OHM 75 OHM

STRAIGHT CABLE PLUG (Screw-On) (Screw-On)



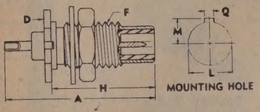
	3000*	3030†
A	78 approx.	13/16 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
G	10-32, NF-2A	9/32-40, NS-2A

CABLE JACK (Screw-On)



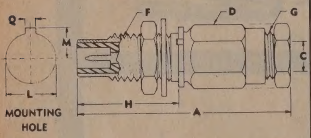
	3001*	3031†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	9/32-40, NS-2A

BULKHEAD RECEPTACLE WITH LOCKING NUT OUTSIDE THE PANEL (Screw-On)



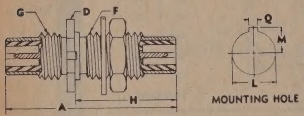
	3002	3032
A	19/32	19/32
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

BULKHEAD JACK (Screw-On)



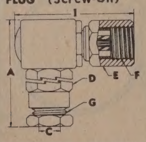
	3003*	3033†
A	7/8 approx.	7/8 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.402	.402
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

CABLE FEED-THRU (Screw-On)



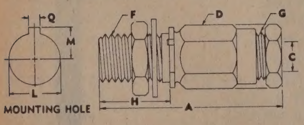
	3004	3034
A	.671	.671
D	1/4 HEX	3/8 HEX
F	10.32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

RIGHT ANGLE PLUG (Screw-On)



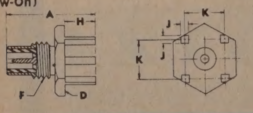
	3005*	3035†
A	3/4 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
G	10-32, NF-2A	9/32-40, NS-2A
I	5/8	.725

CABLE TERMINATION (Screw-On)



	3006*	3036†
A	3/4 approx.	23/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	10-32, NF-2A	5/16-32, NEF-2A
H	.277	.277
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

STRAIGHT PRINTED WIRING BOARD RECEPTACLE (Screw-On)

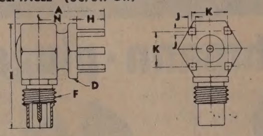


	3007	3037
A	.448	.448
D	5/16 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.155	.155
J	.040	.040
K	.200	.200

†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables.

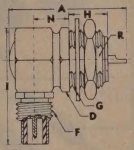
50 OHM 75 OHM

RIGHT ANGLE PRINTED WIRING BOARD RECEPTACLE (Screw-On)



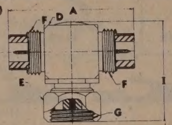
	3008	3038
A	1/2	21/32
D	5/16 HEX	1/2 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.155	.155
I	.587	.706
J	.040	.040
K	.200	.250
N	.215	.300

RIGHT ANGLE BULKHEAD RECEPTACLE (Screw-On)



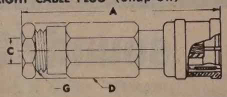
	3009	3039
A	41/64 approx.	25/32 approx.
D	11/32 HEX	1/2 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
G	5/16-32,NEF-2A	3/8-32, NEF-2A
H	.198	.230
I	.619	.706
N	.187	.250
R	.025/.030FLAT	.025/.030 FLAT

TEE ADAPTOR, PLUG INLET, 2 JACK OUTLETS (Screw-On)



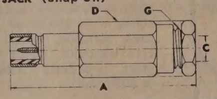
	3014	3044
A	.844	.907
D	5/16 CUBE	3/8 CUBE
E	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2
G	10-32, NF-2B	5/16-32, NEF-2
I	21/32	45/64

STRAIGHT CABLE PLUG (Snap-On)



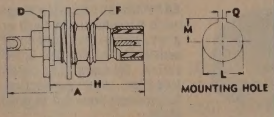
	3100*	3130†
A	27/32 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2A

CABLE JACK (Snap-On)



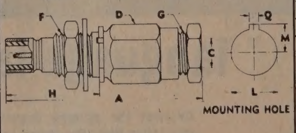
	3101*	3131†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2

BULKHEAD RECEPTACLE WITH LOCKING NUT OUTSIDE THE PANEL (Snap-On)



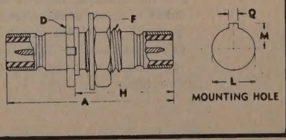
	3102	3132
A	19/32	19/32
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

BULKHEAD JACK (Snap-On)



	3103*	3133†
A	7/8 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-
G	10-32, NF-2A	5/16-32, NEF-
H	.402	.402
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

CABLE FEED-THRU (Snap-On)



	3104	3134
A	.671	.671
D	1/4 HEX	3/8 HEX
F	10-32, NF-2A	5/16-32, NEF-
H	.397	.397
L	13/64 dia.	21/64 dia.
M	1/8 min.	13/64
Q	3/64	3/64

SEALECTRO CORPORATION

MAMARONECK, N. Y.

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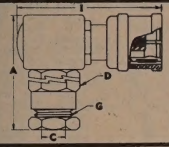
Sealectro CONHEX®

SUB-MINIATURE R. F. CONNECTORS

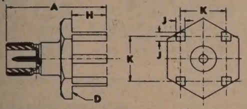
*Designed for use with 50 ohm sub-miniature cables such as the RG-188/U or RG-174/U. **50 OHM 75 OHM**

RIGHT ANGLE PLUG (Snap-On)



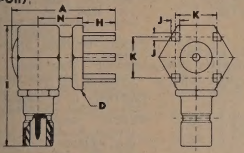
	3105*	3135†
A	3/4 approx.	27/32 approx.
C	.116 dia.	.161 dia.
D	7/32 HEX	5/16 HEX
G	10-32, NF-2A	9/32-40, NS-2A
I	43/64	3/4

STRAIGHT PRINTED WIRING BOARD RECEPTACLE (Snap-On)



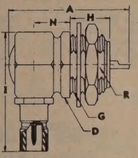
	3107	3137
A	.448	.448
D	5/16 HEX	3/8 HEX
H	.155	.155
J	.040	.040
K	.200	.200

RIGHT ANGLE PRINTED WIRING BOARD RECEPTACLE (Snap-On)



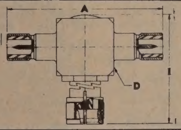
	3108	3138
A	1/2	21/32
D	5/16 HEX	3/8 HEX
H	.155	.155
I	.587	.706
J	.040	.040
K	.200	.250
N	.215	.300

RIGHT ANGLE BULKHEAD RECEPTACLE (Snap-On)



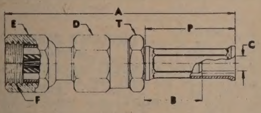
	3109	3139
A	41/64 approx.	25/32 approx.
D	11/32 HEX	1/2 HEX
G	5/16-32,NEF-2A	3/8-32, NEF-2A
H	.198	.230
I	.619	.706
N	.187	.250
R	.025/.030FLAT	.025/.030 FLAT

TEE ADAPTOR, PLUG INLET, 2 JACK OUTLETS (Snap-On)



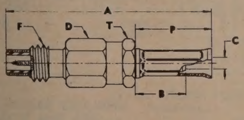
	3114	3144
A	.844	.907
D	5/16 CUBE	3/8 CUBE
I	5/8	43/64

STRAIGHT CABLE PLUG (Crimp Type, Screw-On)



	6000*	6031†
A	1-1/64	1-7/64
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
P	.375	.400
T	7/32 HEX	5/16 HEX

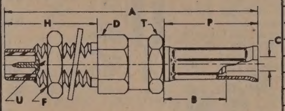
CABLE JACK (Crimp Type, Screw-On)



	6001*	6031†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
P	.375	.400
T	7/32 HEX	5/16 HEX

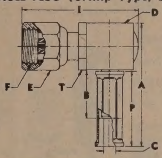
†Designed for use with many of the 75 ohm sub-miniature cables and 95 ohm sub-miniature cables. **50 OHM 75 OHM**

BULKHEAD JACK (Crimp Type, Screw-On)



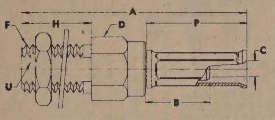
	6003*	6033†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.390	.390
P	.375	.400
T	7/32 HEX	5/16 HEX
U	.020 FLAT	.030 FLAT

RIGHT ANGLE PLUG (Crimp Type, Screw-On)



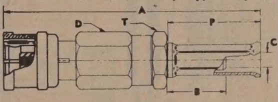
	6005*	6035†
A	5/8	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	1/4 CUBE	5/16 CUBE
E	7/32 HEX	11/32 HEX
F	10-32, NF-2B	5/16-32, NEF-2B
I	5/8	23/32
P	.375	.400
T	7/32 HEX	11/32 HEX

CABLE TERMINATION (Crimp Type, Screw-On)



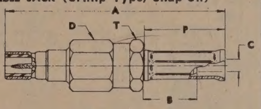
	6006*	6036†
A	11/16	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.177	.177
P	.375	.400
U	.020 FLAT	.030 FLAT

STRAIGHT CABLE PLUG (Crimp Type, Snap-On)



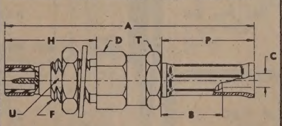
	6100*	6130†
A	1″	1-1/16
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16 HEX
P	.375	.400
T	7/32 HEX	5/16 HEX

CABLE JACK (Crimp Type, Snap-On)



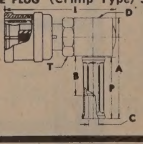
	6101*	6131†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	5/16
P	.375	.400
T	7/32 HEX	5/16 HEX

BULKHEAD JACK (Crimp Type, Snap-On)



	6103*	6133†
A	1-1/16	1-1/8
B	.260	.260
C	.067 dia.	.109 dia.
D	7/32 HEX	11/32 HEX
F	10-32, NF-2A	5/16-32, NEF-2A
H	.390	.390
P	.375	.400
T	7/32 HEX	5/16 HEX
U	.020 FLAT	.030 FLAT

RIGHT ANGLE PLUG (Crimp Type, Snap-On)



	6105*	6135†
A	5/8	23/32
B	.260	.260
C	.067 dia.	.109 dia.
D	1/4 CUBE	5/16 CUBE
I	39/64	11/16
P	.375	.400
T	7/32 HEX	5/16 HEX

CRIMP-ON ASSEMBLY TOOL— Part No. CT-6

TYPICAL SPEC CABLES FOR USE WITH "CONHEX" CONNECTORS

RG-161/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-174/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-179A/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5
RG-180/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35
RG-187/U	3000SB, -1SB, -3SB, -5SB, -6SB 3100SB, -1SB, -3SB, -5SB, -6SB
RG-188/U	3000, -1, -3, -5, -6 — 3100, -1, -3, -5 6000, -1, -3, -5, -6 — 6100, -1, -3, -5
RG-195/U	3030, -31, -33, -35, -36 — 3130, -31, -33, -35 6030, -31, -33, -35, -36 — 6130, -31, -33, -35

SEALECTRO CORPORATION **MAMARONECK, N. Y.**

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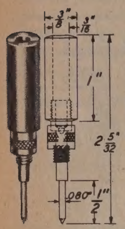
HERMAN H. SMITH, INC.

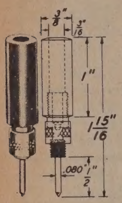
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.
Std. Pkg. 100

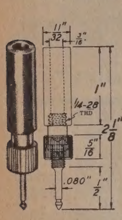
No.	Type	NET Per C
200	Senior	$15.00



INSULATED TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Threaded type. Fits standard phone tip jacks.
Std. Pkg. 100

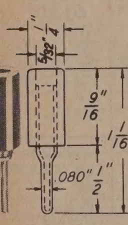
No.	Type	NET Per C
201	Junior	$15.00



INSULATED TIP PLUG
Signal Corps Approved

HANDLE: ETHYL CELLULOSE, Type EM-1, per MIL-P-3412. Red, Black.
SPECIFY COLOR
PLUG: Steel, case hardened to Signal Corps specs.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Recess at end of prod tip holds plugs more firmly in jack spring. Prevents tip from falling out when in an inverted position.
Std. Pkg. 50

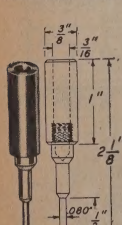
No.	Handle	NET Per C
250	1"	$54.00
358	3"	84.00



INSULATED TIP PLUG
Solder Type

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated our No. 158.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Drawn hollow tip for easy soldering. Fits standard phone tip jack.
Std. Pkg. 100

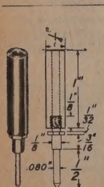
No.	NET Per C
237	$10.20



INSULATED TIP PLUG
Heavy Duty Type

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large diameter well enables soldering of heavy duty wire directly into plug. Fits standard phone tip jacks.
Std. Pkg. 100

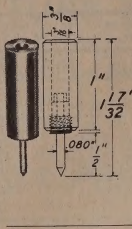
No.	NET Per C
229	$15.00



SUB-MINIATURE TIP PLUG

HANDLE: FIBRE, per MIL-F-148A, Grade CH. Red, Black.
SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Ideally suited for checking sub-miniature equipment. Fits standard phone tip jacks.
Std. Pkg. 100

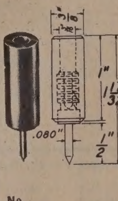
No.	NET Per C
270	$18.00



INSULATED SHORT TIP PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulate handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.
Std. Pkg. 100

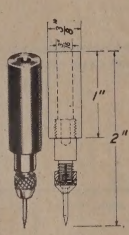
No.	NET Per C
203	$12.00



INSULATED SHORT TIP PLUG
Solderless

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to insulated handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks.
Std. Pkg. 50

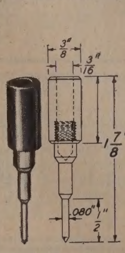
No.	NET Per C
283	$13.20



INSULATED TIP PLUG
Phono Needle

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needle. Needle pierces corrosion or plating for positive reading.
Std. Pkg. 50

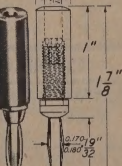
No.	NET Per C
216	$15.00



ADAPTER
Banana Plug to Tip Plug

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard banana plugs, adapts to standard tip plug.
Std. Pkg. 100

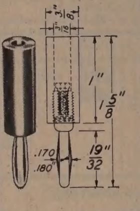
No.	NET Per C
215	$15.00



INSULATED BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Hex brass, nickel or silver plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.
Std. Pkg. 100

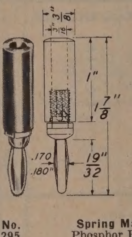
No.	Spring Material	Plating	NET Per C
212	Phosphor Bronze	Nickel	$21.00
232	Phosphor Bronze	Silver	24.00
242	Beryllium Copper	Nickel	30.00
262	Beryllium Copper	Silver	33.00



INSULATED BANANA PLUG

HANDLE: MOLDED THERMO
SETTING plastic, Red & Blac
per MIL-P-14 CFG. Yellow
Green, Blue, White per LC-726-1
SPECIFY COLO
PLUG: Brass, nickel or silve
plated.
SPRING: Four-leaved phospho
bronze or beryllium copper
nickel or silver plated.
RATING: 15 Amps AC for 10
Temp. rise, continuous duty.
DESCR.: Wire can be soldered t
brass stud or directly into plu
itself. Stud also locks wire t
plug for solderless connection
Fits standard banana jacks.
Std. Pkg. 10

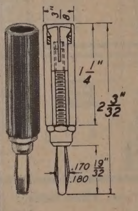
No.	Spring Material	Plating	NET Per
211	Phosphor Bronze	Nickel	$18.0
261	Phosphor Bronze	Silver	21.0
271	Beryllium Copper	Nickel	24.0
281	Beryllium Copper	Silver	27.0



INSULATED BANANA PLUG
Solderless

HANDLE: MOLDED THERMO
SETTING plastic, Red & Bla
per MIL-P-14 CFG. Yello
Green, Blue, White per LC-726-
SPECIFY COLO
PLUG: Hex brass, nickel or silv
plated.
SPRING: Four-leaved phosph
bronze or beryllium copper, nick
or silver plated.
RATING: 15 AC Amps for 10°
Temp. rise, continuous duty.
DESCR.: Solderless: Wire f
through handle and body of t
then wrapped around screw po
tion. Fits standard banana jack
Std. Pkg.

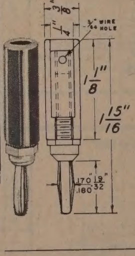
No.	Spring Material	Plating	NE PER
295	Phosphor Bronze	Nickel	$18.
296	Phosphor Bronze	Silver	21.
297	Beryllium Copper	Nickel	24.
298	Beryllium Copper	Silver	27.



INSULATED BANANA PLUG
With Internal Spring Collett

HANDLE: MACHINED BUTY
ATE, per MIL-P-10408A, Ty
I, Class II. SPECIFY COL
BODY: Hex brass, nickel plate
SPRING: Four-leaved phosph
bronze, nickel plated.
RATING: 15 Amps AC for 10
Temp. rise, continuous duty.
DESCR.: Solderless: Spring coll
provides quick connect and d
connect of wire or stand
phone tip. Tin wire for sec
contact. Fits standard ban
jack.
Std. Pkg.

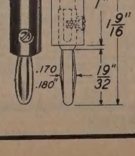
No.	NET Pe
239	$39



INSULATED BANANA PLUG
Solderless

HANDLE: MACHINED BUTY
ATE, per MIL-P-10408A, T
I, Class II. SPECIFY COL
BODY: Hex brass, nickel pla
with mating brass spacer.
SPRING: Four-leaved phosp
bronze, nickel plated.
RATING: 15 Amps AC for 1
Temp. rise, continuous duty.
DESCR.: Cross drilled hole
spacer enables quick solder
connection of wire to plug.
standard banana jacks.
Std. Pkg.

No.	NET P
236	$3



INSULATED BANANA PLUG
With Side Screw

HANDLE: MOLDED THER
SETTING plastic, Red & B
per MIL-P-14 CFG. Ye
Green, Blue, White per LC-7
SPECIFY CO
PLUG: Brass, nickel plated.
SPRING: Four-leaved phos
bronze or beryllium co
nickel plated.
RATING: 15 Amps AC for
Temp. rise, continuous duty.
DESCR.: Set screw secures
without soldering. Fits stan
banana jacks.
Std. Pkg.

No.	Spring	NET
204	Phosphor Bronze	$
254	Beryllium Copper	

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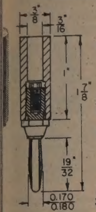
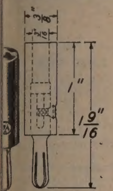


HIGH TEMPERATURE BANANA PLUG

HANDLE: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Hex brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Withstands temperature to 1200 degrees F. Full resiliency—non-oxidizing. Excellent for thermocouple connection on plastic extruding die heads. **Std. Pkg. 10**

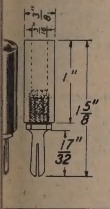
No.	NET Per C
388	$72.00



INSULATED BANANA PLUG
Split Type With Side Screw

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Set screw secures wire, without soldering. Fits standard banana jacks. **Std. Pkg. 100**

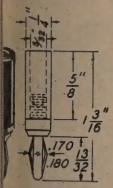
No.	NET Per C
213	$18.00



INSULATED BANANA PLUG
Split Type With Internal Stud

HANDLE: MOLDED THERMOSETTING plastic, Red & Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1.
SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks.
Std. Pkg. 100

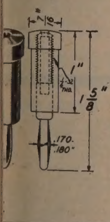
No.	NET Per C
253	$18.00



INSULATED BANANA PLUG
Midget Type

HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. SPECIFY COLOR
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks. **Std. Pkg. 50**

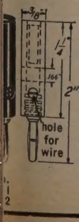
Spring Material	Plating	NET Per C
Phosphor Bronze	Nickel	$18.00
Phosphor Bronze	Silver	21.00
Beryllium Copper	Nickel	24.00
Beryllium Copper	Silver	27.00



ADAPTER
Tip Plug to Banana Plug

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class 3, Class MS. Red or Black.
SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14CPG.
PLUG: Brass, nickel plated.
CONTACT: Phosphor Bronze.
SPRING: Four-leaved phosphor bronze, nickel plated.
JACK: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tip plugs and adapts to standard banana plugs.
Std. Pkg. 50

NET Per C
$30.00



STACK BANANA PLUG
Solderless

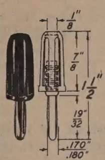
HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow or Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless connection. Accepts standard banana plugs in top and side. Interconnects unlimited amount of multiple circuits.
Std. Pkg. 50

Spring Material	NET Per C
Phosphor Bronze	$27.00
Beryllium Copper	30.00

NYLON HANDLE PLUGS

COLOR CODE SUFFIX — Add to Catalog Number as Required

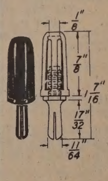
- – 101 WHITE
- – 102 RED
- – 103 BLACK
- – 104 DARK GREEN (Forest)
- – 105 LIGHT BLUE
- – 106 ORANGE
- – 107 YELLOW
- – 108 BROWN (Ecur)
- – 109 LIGHT GREEN (Jungle)
- – 110 DARK BLUE (Royal)
- – 111 IVORY
- – 112 VIOLET ((Purple)
- – 113 GREY



NYLON BANANA PLUG

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Sed. Pkg. 100**

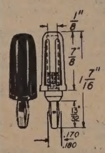
No.	Spring Material	Plating	NET Per C
476	Phosphor Bronze	Nickel	$21.00
477	Phosphor Bronze	Silver	24.00
478	Beryllium Copper	Nickel	27.00
479	Beryllium Copper	Silver	30.00



NYLON BANANA PLUG
Split Type

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to plug for solderless connection. Fits standard banana jacks. **Std. Pkg. 100**

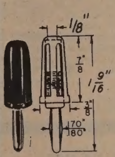
No.	NET Per C
494	$18.00



NYLON BANANA PLUG
Midget

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper, nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Wire soldered directly into stud. Fits standard banana jacks.
Std. Pkg. 100

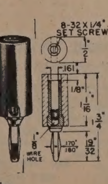
No.	Spring Material	Plating	NET Per C
426	Phosphor Bronze	Nickel	$18.00
427	Phosphor Bronze	Silver	21.00
428	Beryllium Copper	Nickel	24.00
429	Beryllium Copper	Silver	27.00



NYLON BANANA PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel or silver plated.
SPRING: Phosphor bronze or beryllium copper nickel or silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard banana jacks. **Std. Pkg. 100**

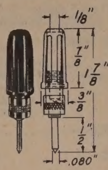
No.	Spring Material	Plating	NET Per C
455	Phosphor Bronze	Nickel	$21.00
456	Phosphor Bronze	Silver	24.00
457	Beryllium Copper	Nickel	27.00
458	Beryllium Copper	Silver	30.00



STACK BANANA PLUG

BODY: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics. Red or Black.
SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Internal set screw for wire or phone tip connection. Can be stacked for multiple connections.
Std. Pkg. 25

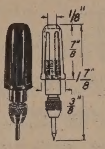
No.	NET Ea.
324	$48.00



NYLON TIP PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless: wire fits through body of tip then wrapped around screw portions and tightened with knurled collar. Threaded type. Fits standard phone tip jacks. **Std. Pkg. 100**

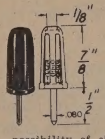
No.	NET Per C
490	$16.80



NYLON TIP PLUG
Phono Needle

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement of broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 50**

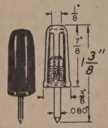
No.	NET Per C
193	$16.80



NYLON SHORT TIP PLUG
Solderless

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: **Solderless:** Wire fits through handle and body of tip then wrapped around screw portion. Inserts flush to handle, no metal exposed, eliminates possibility of shock or grounding. Fits standard phone tip jacks.
Std. Pkg. 100

No.	NET Per C
492	$15.00

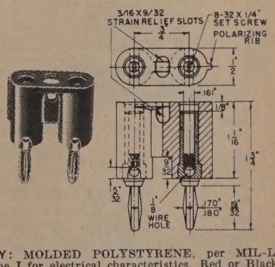


NYLON SHORT TIP PLUG

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Inserts flush to insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks.
Std. Pkg. 100

No.	NET Per C
491	$13.80

DUAL BANANA PLUG



BODY: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics. Red or Black.
SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
SCREW: Steel, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5K Volts 60 cycle AC continuous working voltage. CAPACITANCE 1.0 mmfd. between conductors.
DESCR.: Mates with standard dual binding post ¾" centers. Polarity indicated on top and side. Wire held with internal set screw. Can be stacked for multiple connections. **Std. Pkg. 25**

No.	NET Per C
210	$72.00

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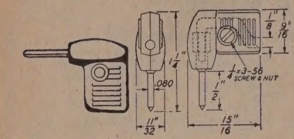
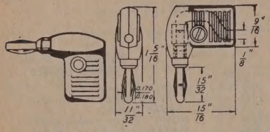
METER TIP PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard phone tip jacks. **Std. Pkg. 50**

No.		NET Per C
235		$27.00
235D	Display of 24 Pairs	NET $12.96

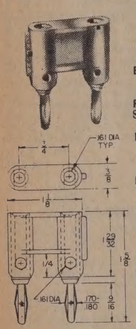
METER BANANA PLUG



HANDLE: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Molded in two halves for easy assembly with screw and nut. Fits standard banana jacks. **Std. Pkg. 50**

No.		NET Per C
255		$36.00
255D	Display of 24 Pairs	NET $17.28

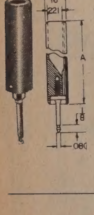
DUAL SHORTING PLUG



BODY: Molded Red or Black Polystyrene, per MIL-L-P416, Type I. SPECIFY COLOR
PLUG: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Internally shorted plug mates with standard dual binding posts on ¾″ centers. Used for grounding or shorting input and output connections. Can be stacked for additional current rating. Rear banana jack holes allow connection to shorted posts. **Std. Pkg. 25**

No.	NET Per C
1516	$72.00

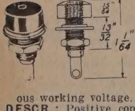
SUB-MINIATURE TIP PLUG AND TEST PROD



HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR
TIP: Brass, Silver plated.
DESCR.: Solderless assembly. Ideal for use with sub-miniature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head or prod makes positive contact when laid across wires. Fits all standard .080″ tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
348	1 inch	1 5/16″	$15.00
349	4 inches	4 5/16″	30.00

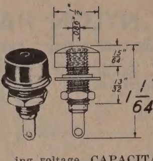
INSULATED PHONE TIP JACK



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Positive contact with standard phone tip plugs. Supplied complete with hex nut and fibre washer. Mounts in 5/16″ hole in panels up to ⅜″ thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
202	$13.20

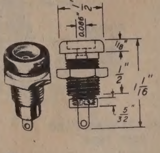
INSULATED PHONE TIP JACK



HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red, Black, Yellow, Green. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Complete with hex nut and fibre washer. Mounts in 5/16″ hole in panels up to ⅜″ thick. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
223	$21.00

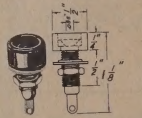
MOLDED NYLON TIP JACK



BODY: MOLDED NYLON, per MIL-P-20693A. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
CONTACT: Phosphor bronze.
CAP: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Mounts in ⅜″ hole in panels up to 5/16″ thick. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
240	$18.00

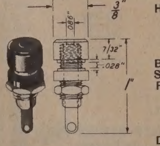
INSULATED TIP JACK
Meter Type



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied complete with hex nut and fibre washer. Mounts in 5/16″ hole in panels up to ⅜″ thick. Recessed jack body prevents possibility of shock or grounding. Accepts standard phone tip plugs. **Std. Pkg. 50**

No.	NET Per C
282	$15.00

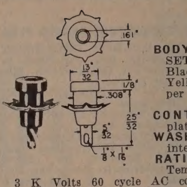
INSULATED PHONE TIP JACK



HEAD: MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Extruded portion of head and washer provides excellent insulation from panel. Supplied with hex nut. Mounts in 5/16″ hole in panels up to ¼″ thick. Accepts standard tip plugs. **Std. Pkg. 100**

No.	NET Per C
241	$18.00

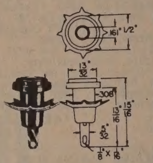
"SPEEDI-MOUNT" BANANA JACKS
Small Head



BODY: MOLDED THERM SETTING plastic, Red Black per MIL-P-14 CF Yellow, Green, Blue, Wh per LC-726-1. SPECIFY COL
CONTACT: Brass, cadmi plated.
WASHER: Steel cadmium plat internal and external tooth.
RATING: 12 Amps AC for 10 Temp. rise, continuous du 3 K Volts 60 cycle AC continuous working volta CAPACITANCE 4.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast assemb Teeth embed into jack and panels, prevent pulling and turning. Mounts in 5/16″ hole in panels up to thick. Accepts standard banana plug. **Std. Pkg.**

No.	Head	NET Pe
398	13/32″	$6

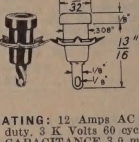
Large Head



BODY: MOLDED THERM SETTING plastic, Red Black per MIL-P-14 CI Yellow, Green, Blue, Wh per LC-726-1. SPECIFY COL
CONTACT: Brass, cadmi plated.
WASHER: Steel cadmium pla internal and external tooth.
RATING: 12 Amps AC for 1 Temp. rise, continuous d 3 K Volts 60 cycle AC conti ous working voltage. CAPA TANCE 4.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast assem Teeth embed into jack and panels, prevent pulling and turning. Mounts in 5/16″ hole in panels up to thick. Accepts standard banana plug. **Std. Pkg.**

No.	Head	NET P
399	½″	$

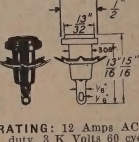
"SPEEDI-MOUNT" TIP JA
Small Head



BODY: MOLDED THER SETTING plastic, Red Black per MIL-P-14 C Yellow, Green, Blue, W per LC-726-1. SPECIFY CO
SPRING: Phosphor bronze
WASHER: Steel cadm plated, internal and exte tooth.
RATING: 12 Amps AC for 10°C Temp. rise, contin duty. 3 K Volts 60 cycle AC continuous working volt CAPACITANCE 3.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast assen Teeth embed into jack and panels, prevents pulling and turning. Mounts in 5/16″ hole in panels up to thick. Accepts standard phone tip plugs. **Std. Pkg**

No.	Head	NET F
279	13/32″	$

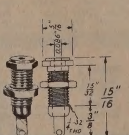
Large Head



BODY: MOLDED THER SETTING plastic, Red Black per MIL-P-14 Yellow, Green, Blue, V per LC-726-1. SPECIFY CO
SPRING: Phosphor bronz
WASHER: Steel cad plated, internal and ext tooth.
RATING: 12 Amps AC for 10°C Temp. rise, conti duty. 3 K Volts 60 cycle AC continuous working vo CAPACITANCE 3.0 mmfd.
DESCR.: Unusual dished lockwasher permits fast asse Teeth embed into jack and panels, prevents pullin and turning. Mounts in 5/16″ hole in panels up to thick. Accepts standard phone tip plugs. **Std. Pk**

No.	Head	NET
299	½″	

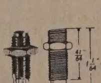
PHONE TIP JACK



BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Positive contact with standard phone tip plugs. Supplied with hex nut. Mounts in ¼″ hole in panels up to ⅜″ thick. **Std. Pkg. 100**

No.	NET Per C
107	$10.20

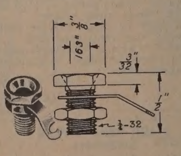
HEADLESS PHONE TIP JACK



BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut. Used with plastic molded instrument cases, where jack body is screwed into case. Accepts standard phone tip plugs. **Std. Pkg. 100**

No.	NET Per C
147	$6.00

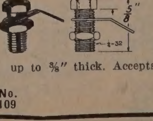
BANANA JACK



BODY: Hex brass plated with re head.
RATING: 15 Amps A 10°C Temp. rise, tinuous duty.
DESCR.: Supplied hex nut and brass lug. Mounts in ¼″ fits panels up to thick. Accepts sta banana plugs.
Std. Pk

No.	NET
101	

BANANA JACK



BODY: Hex brass, plated.
RATING: 15 Amps A 10°C Temp. rise, cont duty.
DESCR.: Supplied wit nut and brass tinne Mounts in ¼″ hole in up to ⅜″ thick. Accepts standard banana plugs.
Std. Pk

No.	NET
109	

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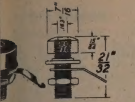
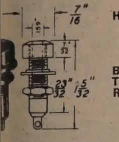
INSULATED BANANA JACK



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous
ty. 750 Volts 60 cycle AC continuous working voltage,
APACITANCE 4.0 mmfd.
CR.: Supplied with hex nut, fibre washer, and brass
nned lug. Mounts in 5/16" hole in panels up to 3/8" thick.
ccepts standard banana plugs. **Std. Pkg. 100**

NET Per C
$13.20

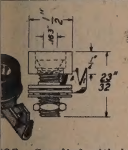
INSULATED BANANA JACK
With Solder Tab



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
TAB: Brass, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
CR.: Supplied with hex nut and fibre washer. Mounts
5/16" hole in panels up to 5/8" thick. Solder direct to
b. Accepts standard banana plugs. **Std. Pkg. 100**

NET Per C
$15.00

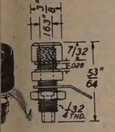
INSULATED BANANA JACK



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
CR.: Supplied with hex nut, fibre washer, lockwasher
d brass tinned lug. Mounts in 5/16" hole in panels up
3/8"thick. Jack body recessed for snug contact. Accepts
andard banana plugs. **Std. Pkg. 100**

NET Per C
$15.00

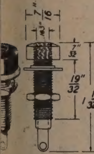
INSULATED
MIDGET BANANA JACK



HEAD: MOLDED NYLON, per MIL-P-20693A. With molded nylon washer. Red, Black, Yellow, Green, Blue. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
CR.: Extruded portion of head and washer provides
cellent insulation from panel. Supplied with hex nut,
ass tinned lug. Mounts in 5/16" hole in panels up to
" thick. Accepts standard banana plugs. **Std. Pkg. 100**

NET Per C
$18.00

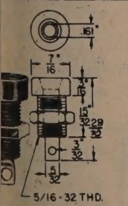
INSULATED JACK
Combination Type



HEAD: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, Blue, White per LC-726-1. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
CR.: Supplied with hex nut and fbre washer. Accepts
andard phone tip plugs or standard banana plugs.

Std. Pkg. 100
NET Per C
$16.20

NYLON BANANA JACKS
Full Round Body



BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
CONTACT: Brass, cadmium plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 5.0 mmfd.
DESCR.: Mounts in 5/16" hole in panels up to 5/16" thick. Accepts standard banana plugs. Wide temperature and humidity range. **Std. Pkg. 50**

No.	NET Per C
1508	$12.00

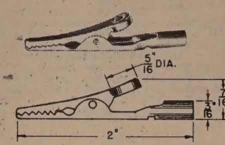
ne as above, except "Double 'D' " body mounts in
nd or punched hole to fit.

9	NET Per C $12.00

COLOR CODE SUFFIX
Add to Catalog Number as required

- 101 WHITE
- 102 RED
- 103 BLACK
- 104 GREEN
- 105 BLUE
- 106 ORANGE
- 107 YELLOW
- 108 BROWN
- 112 PURPLE
- 113 GREY

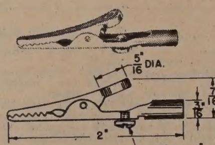
ALLIGATOR CLIPS
Solder Connection



RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: 3/8" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	NET Per C 10	NET Per C 100
300	Steel, Cad. Pl.	$5.00	$4.40
380	Solid Copper	7.50	6.50
332	Brass N.P.	10.40	8.40

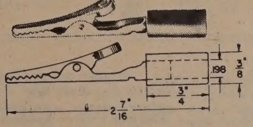
Screw Connection



RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: 3/8" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	NET Per C 10	NET Per C 100
350	Steel, Cad. Pl.	$5.80	$4.80
360	Solid Copper	8.40	7.20
339	Brass N.P.	13.00	9.90

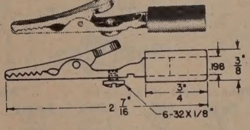
INSULATED ALLIGATOR CLIPS
Solder Connection



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: 3/8" jaw opening. Jaws match accurately and grip securely, accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	NET Per C 10	NET Per C 100
301	Steel, Cad. Pl.	$8.50	$7.50
381	Solid Copper	10.50	9.00
354	Brass N.P.	15.00	11.40

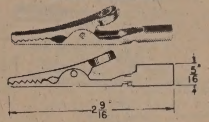
Screw Connection



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: 3/8" jaw opening. Supplied with screw for solderless connection when required. Jaws match accurately and grip securely. Accepts standard banana plugs in rear. **Std. Pkg. 100**

No.	Type	NET Per C 10	NET Per C 100
351	Steel, Cad. Pl.	$9.50	$8.00
361	Solid Copper	11.00	9.60
362	Brass N.P.	19.00	12.40

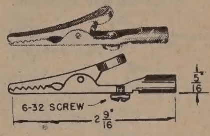
JUMBO ALLIGATOR CLIPS
Solder Connection



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #392.
15 Amps AC for 10°C Temp. rise, continuous duty, #396.
DESCR.: 5/8" jaw opening. Jaws match accurately. For heavy terminal use. **Std. Pkg. 100**

No.	Type	NET Per C
392	Steel. Cad. Pl.	$15.00
396	Solid Copper	18.00

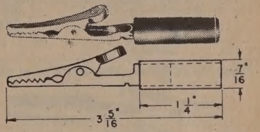
Screw Connection



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #368.
15 Amps AC for 10°C Temp. rise, continuous duty, #356.
DESCR.: 5/8" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use. **Std. Pkg. 100**

No.	Type	NET Per C
368	Steel, Cad. Pl.	$18.00
356	Solid Copper	21.00

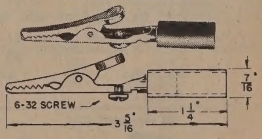
INSULATED JUMBO ALLIGATOR CLIPS
Solder Connection



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red or Black. SPECIFY COLOR
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #393.
15 Amps AC for 10°C Temp. rise, continuous duty, #397.
DESCR.: 5/8" jaw opening. Jaws match accurately. For heavy terminal use. **Std. Pkg. 100**

No.	Type	NET Per C
393	Steel, Cad. Pl.	$21.00
397	Solid Copper	24.00

Screw Connection



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II, Red or Black. SPECIFY COLOR
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty, #369.
15 Amps AC for 10°C Temp. rise, continuous duty, #357.
DESCR.: 5/8" jaw opening. Jaws match accurately. Supplied with screw for solderless connection. For heavy terminal use. **Std. Pkg. 100**

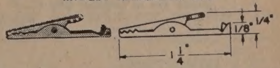
No.	Type	NET Per C
369	Steel, Cad. Pl.	$24.00
356	Solid Copper	27.00

ALLIGATOR CLIP BOOTS

MATERIAL: MOLDED VINYL PLASTIC, Red, Black, Yellow, Green, Blue or White. SPECIFY COLOR
RATING: 1 K Volts 60 cycle AC continuous working voltage.
DESCR.: Fully insulated clip while allowing maximum jaw opening. No. 331 for use on standard size alligator clips such as our No. 300. No. 389 for use on miniature alligator clips, such as our No. 338.

No.	Description	NET Per C 10	NET Per C 100
331	Standard	$4.80	$4.00
389	Miniature	0.00	0.00

MIDGET ALLIGATOR CLIP



DESCR.: 3/16" jaw opening, jaws match accurately and grip securely. Unique SMITH spring construction. Solder connection and ears for crimping. **Std. Pkg. 100**

No.	Type	NET Ea. Ea.	NET Ea. 10
338	Steel, Cad. Pl.	$.07	$.044
367	Copper	.00	.00

HERMAN H. SMITH, INC.

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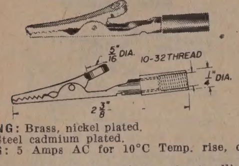
ALIGATOR CLIP ADAPTER

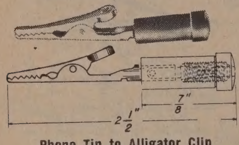


BUSHING: Brass, nickel plated.
CLIP: Steel cadmium plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Adapts standard solderless tips to alligator clip. This novel quick-adapter is a must for all types of bench work.

Std. Pkg. 50

No.	NET Per C
310	$13.20

ALLIGATOR CLIP ADAPTERS



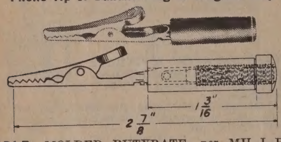
Phone Tip to Alligator Clip

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG.
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	Description	NET Per C
304	Steel Clip	$33.00
334	Copper Clip	36.00

Phone Tip or Banana Plug to Alligator Clip

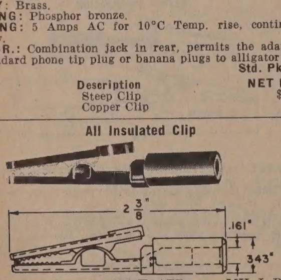


HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CLIP: Steel, cadmium plated or solid copper.
BODY: Brass.
SPRING: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Combination jack in rear, permits the adapting standard phone tip plug or banana plugs to alligator clip.

Std. Pkg. 25

No.	Description	NET Per C
305	Steep Clip	$39.00
335	Copper Clip	42.00

All Insulated Clip

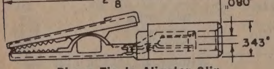


INSULA.: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY CLOR
CLIP: Steel cadmium plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Solder type connection.

Std. Pkg. 25

No.	NET Per C
337	$24.00

ALL INSULATED ADAPTERS



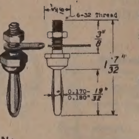
Phone Tip to Aligator Clip

INSULA.: MOLDED BUTYRATE, per MIL-L-349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CLIP: Steel, cadmium plated.
BODY: Brass.
CONTACT: Phosphor bronze.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: All metal parts fully insulated with molded plastic. Insures against shock or grounding. Jack in rear permits adapting standard phone tip plugs to alligator clips.

Std. Pkg. 25

No.	NET Per C
336	$36.00

BANANA PLUG

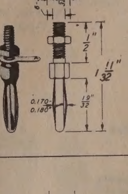


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No	NET Per C
102	$15.00

BANANA PLUG

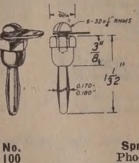


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and phosphor bronze lug. Threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	NET Per C
103	$15.00

BANANA PLUG

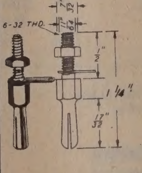


BODY: HEX BRASS, nickel plated.
SPRING: Four-leaved phosphor bronze or beryllium copper, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and phosphor bronze tinned lug. Internal female permits use on all size panels. Fits standard banana jacks.

Std. Pkg. 100

No.	Spring Material	NET Per C
100	Phosphor Eronze	$15.00
190	Beryllium Copper	24.00

BANANA PLUG
Split Type

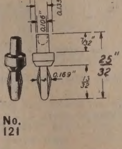


BODY: HEX BRASS, nickel plated, cross-slotted.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fits all standard banana jacks. Supplied with hex nut and phosphor bronze lug, threaded stud for panel mounting. Fits standard banana jacks.

Std. Pkg. 100

No.	NET Per C
104	$13.20

MIDGET BANANA PLUG
Rivet Type



BODY: BRASS, silver plated.
SPRING: Four-leaved phosphor bronze, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Can be furnished in varying types to meet Jan specs. Fits all standard banana jacks.

Std. Pkg. 100

No.	NET Per C
121	$16.20

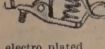
MIL-SPEC. TYPE

Same as above, made to meet Signal Corps Drawings SC-C2231.

Std. Pkg. 100

No.	NET Per C
122	$18.00

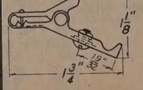
BATTERY TEST CLIP



MATERIAL: Steel, electro plated. **Std. Pkg. 100**

No.	Spread	Lgth.	Rating	Spring	100	10
365	½"	1½"	5 amp	7 lbs	4.20	.05
366	9/16"	2"	10 amp	10 lbs	6.00	.07

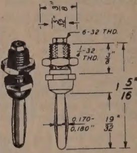
TL137 TEST CLIP
Signal Corps Approved



RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Steel, nickel plated, made in accordance with government specs, ¾" jaw opening.

Std. Pkg. 25

No.	NET Per C
315	$42.00

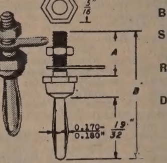


BANANA PLUG

BODY: HEX BRASS, nic plated.
SPRING: Phosphor bronze beryllium copper, nickel pla
RATING: 15 Amps AC for 1 Temp. rise, continuous duty
DESCR.: Supplied with hex Wire can be soldered to b stud or directly into plug self. Stud also locks wire plug for solderless connect

Std. Pkg

No.	Spring Material	NET Pe
145	Phosphor Bronze	$1
135	Beryllium Copper	2



BANANA PLUG

BODY: HEX BRASS, ni or silver plated.
SPRING: Phosphor bronze beryllium copper, ni or silver plated.
RATING: 15 Amps AC 10°C Temp. rise, contin duty.
DESCR.: Supplied with nut and tinned phos bronze lug threaded stud panel mounting. Fits st ard banana jacks.

Std. Pkg

PHOS. BR. SPRING
Nickel Plated Overall

BERYL. COP. SPR
Nickel Plated Ove

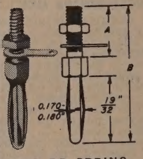
No.	NET Per C	A	B	No.	N P
431	$15.00	6-32x⅜"	1 7/32"	443	$1
432	15.00	6-32x½"	1 11/32"	444	
433	15.00	6-32x¾"	1 19/32"	445	
434	15.00	8-32x⅜"	1 7/32"	446	
435	15.00	8-32x½"	1 11/32"	447	
436	15.00	8-32x¾"	1 19/32"	448	

PHOS. BR. SPRING
Silver Plated Overall

BERYL. COP. SPR
Silver Plated Over

No.	NET Per C	A	B	No.	N F
437	$18.00	6-32x⅜"	1 7/32"	449	$
438	18.00	6-32x½"	1 11/32"	450	
439	18.00	6-32x¾"	1 19/32"	451	
440	18.00	8-32x⅜"	1 7/32"	452	
441	18.00	8-32x½"	1 11/32"	454	
442	18.00	8-32x¾"	1 19/32"	453	

BANANA PLUG



BODY: HEX BRASS, n or silver plated.
SPRING: Phosphor bron beryllium copper, or silver plated.
RATING: 15 Amps AC 10°C Temp. rise, conti duty.
DESCR.: Supplied with nut and tinned pho bronze lug threaded st panel mounting. Fits s ard banana jacks.

Std. P

PHOS. BR. SPRING
Nickel Plated Overall

BERYL. COP. SP
Nickel Plated Ov

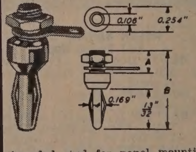
No.	NET Per C	A	B	No.
401	$15.00	6-32x⅜"	1 7/32"	414
403	15.00	6-32x½"	1 11/32"	415
404	15.00	6-32x¾"	1 19/32"	416
405	15.00	8-32x⅜"	1 7/32"	417
406	15.00	8-32x½"	1 11/32"	418
407	15.00	8-32x¾"	1 19/32"	419

PHOS. BR. SPRING
Silver Plated Overall

BERYL. COP. SP
Silver Plated Ov

No.	NET Per C	A	B	No.
408	$18.00	6-32x⅜"	1 7/32"	420
409	18.00	6-32x½"	1 11/32"	421
410	18.00	6-32x¾"	1 19/32"	422
411	18.00	8-32x⅜"	1 7/32"	423
412	18.00	8-32x½"	1 11/32"	424
413	18.00	8-32x¾"	1 19/32"	425

MIDGET
BANANA PLU



BODY: BRASS, or silver plated
SPRING: Pho bronze or ber copper. Nickel ver plated.
RATING: 10 Am for 10°C Temp continuous duty
DESCR.: Supplie hex nut and phosphor bronz threaded stud for panel mounting. Fits standard jacks.

Std. F

PHOS. BR. SPRING
Nickel Plated Overall

BERYL. COP. SF
Nickel Plated O

No.	NET Per C	A	B	No.
460	$15.00	4-40x⅜"	15/16"	468
461	15.00	4-40x½"	1 1/16"	469
462	15.00	6-32x⅜"	15/16"	470
463	15.00	6-32x½"	1 1/16"	471

PHOS. BR. SPRING
Silver Plated Overall

BERYL. COP. SF
Silver Plated O

No.	NET Per C	A	B	No.
464	$18.00	4-40x⅜"	15/16"	472
465	18.00	4-40x½"	1 1/16"	473
466	18.00	6-32x⅜"	15/16"	474
467	18.00	6-32x½"	1 1/16"	475

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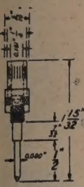
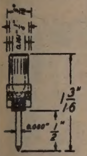


SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks. **Std. Pkg. 100**

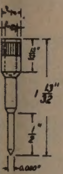
No.	Type	NET Per C
105	Senior	$10.20



SOLDERLESS TIP PLUG

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip then wrapped around screw portion and tightened with knurled collar. Force fit type. Fits standard phone tip jacks. **Std. Pkg. 100**

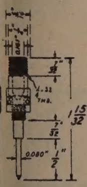
No.	Type	NET Per C
106	Junior	$9.60



HEAVY DUTY TIP PLUG
Force-Fit

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits all standard phone tip jacks. **Std. Pkg. 25**

No.	Type	NET Per C
156	Force Fit	$10.20

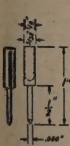


SOLDERLESS TIP PLUG
Threaded Sr.

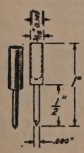
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with knurled collar. Threaded for easy assembly in plastic handle. Fits standard phone tip jacks. **Std. Pkg. 100**

No.	Type	NET Per C
124	Senior	$12.00

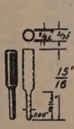
SOLDER TYPE PHONE TIPS



108



123



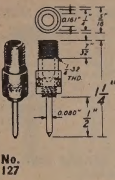
158

Brass, Nickel Plated

ING: 12 Amps AC for 10°C Temp. rise, continuous ty.

Std. Pkg. 100

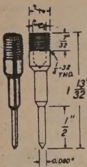
Type	NET Per C
Standard	$21.00
Large I.D.	26.40
Drawn	15.00



SOLDERLESS TIP PLUG
Threaded Jr.

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Solderless; wire fits through body of tip, then wrapped around screw portion and tightened with assembly in plastic handle. Fits knurled collar. Threaded for easy standard phone tip jacks. **Std. Pkg. 50**

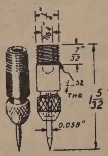
No.	Type	NET Per C
127	Junior	$11.40



HEAVY DUTY TIP PLUG
Threaded

BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Extra large well for soldering. Rear of plug accepts standard banana plugs. Fits standard phone tip jacks. Threaded for easy assembly in plastic handle. **Std. Pkg. 50**

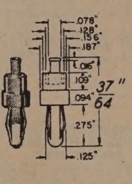
No.	Type	NET Per C
125	Threaded	$10.20



NEEDLE TIP AND CHUCK

BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Removable chuck for easy replacement. Needle pierces plating or corrosion for positive reading. **Std. Pkg. 50**

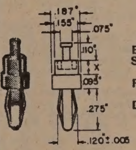
No.	NET Per C
128	$13.20



SUB MINIATURE BANANA PLUG
Rivet Type

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

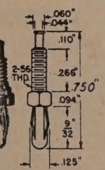
No.	NET Per C
191	$15.00



Swager Type
SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 100**

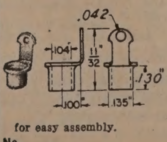
No.	"X" Dim.	Panel	NET Per C
2073	.105	1/16"	$15.00
2074	.135	3/32"	15.00
2075	.165	1/8"	15.00



SUB MINIATURE BANANA PLUG

BODY: BRASS, silver plated.
SPRING: Four leaved beryllium copper, silver plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: One piece beryllium copper spring insures positive and lasting contact. **Std. Pkg. 50**

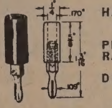
No.	NET Per C
192	$15.00



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly. **Std. Pkg. 100**

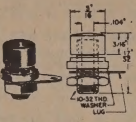
No.	NET Per C
194	$.90



INSULATED BANANA PLUG
Sub Miniature

HANDLE: MACHINED BUTYRATE, per MIL-L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
PLUG: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted for spring tension. Wire solders directly into plug. Fits standard midget banana jacks. **Std. Pkg. 100**

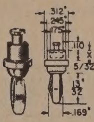
No.	NET Per C
197	$15.00



INSULATED BANANA JACK
Sub Miniature

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, Class MH. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer and tinned lug. Mounts in ¼" hole in panels up to ⅛" thick. Accepts standard midget banana plugs. **Std. Pkg. 100**

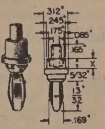
No.	NET Per C
196	$15.00



RIVET TYPE BANANA PLUG
Wrap Around Type

BODY: BRASS, nickel plated.
SPRING: Four leaved, beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire wraps around stud and is then soldered. **Std. Pkg. 100**

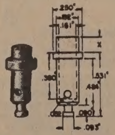
No.	"X" Dim.	Panel	NET Per C
2082	.105	1/16"	$18.00
2083	.135	3/32"	18.00
2084	.165	1/8"	18.00



RIVET TYPE BANANA PLUG
Solder Well Type

BODY: BRASS, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Rivets to panel or bakelite board. Wire solders to well in rear of plug. **Std. Pkg. 100**

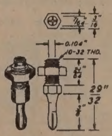
No.	"X" Dim.	Panel	NET Per C
2067	.105	1/16"	$18.00
2068	.135	3/32"	18.00
2069	.165	1/8"	18.00



PANEL MOUNT BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts all standard banana plugs. These jacks are riveted directly to chassis or bakelite board. **Std. Pkg. 100**

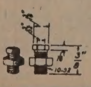
No.	"X" Dim.	Panel	NET Per C
2079	.105	1/16"	$10.80
2080	.135	3/32"	10.80
2081	.165	1/8"	10.80



MIDGET BANANA PLUG

BODY: BRASS, nickel plated, cross-slotted.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Cross-slotted, supplied with hex nut. Fits our No. 112 midget jack. **Std. Pkg. 50**

No.	NET Per C
111	$10.20



MIDGET BANANA JACK

BODY: BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty
DESCR.: Supplied with hex nut. Accepts our No. 111 midget plug. **Std. Pkg. 50**

No.	NET Per C
112	$7.80

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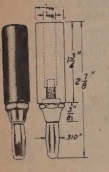
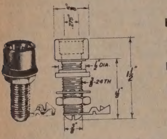


INS. GIANT BANANA PLUG

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type I. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
SPRING: Six-leaved, phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Large deep internal well for soldering heavy duty wire. Recessed so that no metal portions are exposed when plugged into mating jack, in order to prevent shocks or grounding.

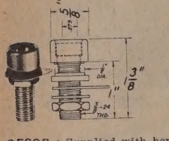
Std. Pkg. 50
NET Per C
No. 285 **$46.20**



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red or Black. SPECIFY COLOR
BODY: Hex brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lockwasher, screw and tinned copper lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾" thick.

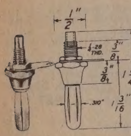
Std. Pkg. 50
NET Per C
No. 286 **$42.00**



INS. GIANT BANANA JACK

HEAD: MACHINED BUTYRATE, per MIL-L-P344, Type I, class MH. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with hex nut, fibre washer, lockwasher, and brass tinned lug. Jack body recessed for snug contact. Mounts in ½" hole in panel up to ¾"thick.

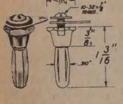
Std. Pkg. 50
287 **$42.00**



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuou. duty.
DESCR.: Plug portion of #285 plug. Supplied with hex nut and brass tinned lug. Large deep internal well for soldering heavy duty wire.

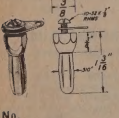
Std. Pkg. 25
NET Per C
No. 185 **$30.00**



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Internal female permits use on all size panels.

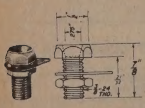
Std. Pkg. 25
NET Per C
No. 186 **$30.0**



GIANT BANANA PLUG

BODY: HEX BRASS, nickel plated.
SPRING: Six-leaved phosphor bronze, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with screw and brass tinned lug. Female permits use on all size panels. Internal screw.

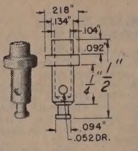
Std. Pkg. 25
NET Per C
No. 188 **$30.00**



GIANT BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and brass tinned lug, mounts in ⅜" hole in panels up to ½" thick. **Std. Pkg. 25**

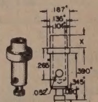
NET Per C
No. 187 **$30.00**



SUB MINIATURE BANANA JACK

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: This jack is riveted directly to chassis or to printed circuit board for easy assembly.

Std. Pkg. 50
NET Per C
No. 193 **$9.00**

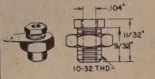


SUB MINIATURE BANANA JACK
Panel Mount

BODY: BRASS, silver plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: These jacks are riveted directly to chassis or bakelite board.

Std. Pkg. 100

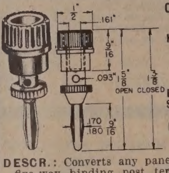
No.	"X" Dim.	Panel	NET Per C
2076	.105	1/16"	$9.00
2077	.135	3/32"	9.00
2078	.165	1/8"	9.00



SUB MINIATURE BANANA JACK

BODY: HEX BRASS, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied with hex nut and tinned lug Mounts in .196 (#10) hole in panels up to ⅛" thick. Accepts standard midget banana plugs.

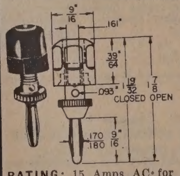
Std. Pkg. 100
NET Per C
No. 195 **$7.80**



COMBINATION BINDING POST AND BANANA PLUG

HEAD: CAPTIVE. Molded Butyrate, per MIL-L-P-349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 AMPS AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a five-way binding post termination. Accepts phone tip, spade lug, banana plug, alligator clip, or solid or stranded wire.

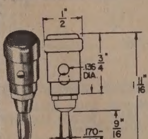
Std. Pkg. 25
NET Per C
No. 233 **$27.00**



COMBINATION NYLON BINDING POST AND BANANA PLUG

HEAD: CAPTIVE, Molded Nylon, per MIL-P-20693A. Available in Red, Black, Yellow, Green, Blue, White. Molded-in brass nickel plated insert. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a nylon five-way binding post termination. Accepts phone tips, spade lugs, banana plug, alligator clips, or solid or stranded wires.

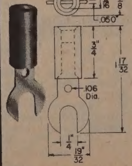
Std. Pkg. 25
NET Per C
No. 234 **$27.00**



COMBINATION PUSH POST AND BANANA PLUG

HEAD: Captive, brass nickel plated.
CAP: Molded Styrene, per MIL-L-P416, Type I, Black.
BODY: Brass, nickel plated.
SPRING: Four-leaved phosphor bronze, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Converts any panel-mounted banana jack into a spring loaded push-post. Accepts standard phone tip. solid or stranded wire, and locks them in place on release of pressure on cap.

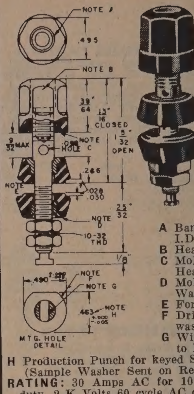
Std. Pkg. 25
NET Per C
No. 2714 **$42.00**



INSULATED SPADE LUG

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: ¼" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.

Std. Pkg. 100
NET Per C
No. 400 **$12.00**

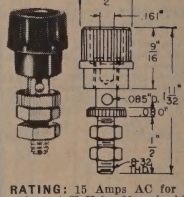


BINDING POST
Multi-Purpose
NOTES:

- A Banana Plug Receptacle, I.D.
- B Head non-removable from
- C Molded-in Brass Bushing Head.
- D Molded-in Brass Bushing Washers.
- E For Panels 1/16" to ¼" th
- F Drill ½" hole for moun washers.
- G Wire Hole is at right a to Flat on insulated Wash
- H Production Punch for keyed Slot for mounting Wash (Sample Washer Sent on Request.)

RATING: 30 Amps AC for 10°C Temp. rise, contin duty. 2 K Volts 60 cycle AC continuous working volt CAPACITANCE 5.0 mmfd.
CURRENT: 30 amps safe current carrying capacity.
ACCEPTS: Phone tip plug, spade lug, banana plug, al tor clip or wire strand.
DESCR.: MOLDED NYLON, per MIL-P-20693A, and washer completely insulates post from panel. Mo in ½" or keyed hole as indicated. Wrap around ty direct solder connection to stud. Metal parts brass.
COLORS: Red, Black, Yellow, Green. Blue, White. Sp color.

Std. Pkg
NET P
No. 257 **$**

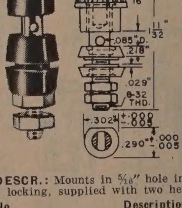


BINDING POST
Five-Way Grounding

HEAD: CAPTI MOLDED BUTYR per MIL-L-P349A, 3, Class MS. Re Black. SPECIFY CO
BODY: Brass, n plated.
ACCEPTS: Phone tip spade lug, banana alligator clip or strand.
RATING: 15 Amps AC for 10°C Temp. rise, conti duty. 1 K Volts 60 cycle AC continuous working vo when insulated from panel as recommended. CAF TANCE 5.0 mmfd.
DESCR.: Can be completely insulated from panel by our 2155 and 2163 fibre washers supplied with 2 hex

Std. Pk

No.	Description	NET
220	8-32 x ½ Stud	
230	6-32 x ⅜ Stud	
391	Rivet Type	
	With brass nickel plated insert in head	
280	8-32 Stud	
264	6-32 Stud	
394	Rivet Type	



All Insulated T

HEAD: CAPT MOLDED BUTY per MIL-L-P349A 3, Class MS. Black. SPECIFY
BODY: Brass, plated.
WASHERS: MO BUTYRATE, pe L-P349A, Type 3 MS. With brass
ACCEPTS: Phone t spade lug, banan alligator clip o strand.
RATING: 15 Amps 10°C Temp. ris tinuous duty. 1 60 cycle AC con working voltage PACITANCE 3.0
DESCR.: Mounts in 5/16" hole in panel with milled locking, supplied with two hex nuts.

Std. F

No.	Description	NE
260	8-32 Stud	
259	6-32 Stud	
	With brass nickel plated insert in head	
290	8-32 Stud	
231	6-32 Stud	

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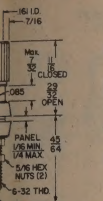
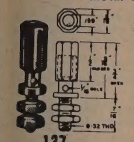


NYLON BINDING POST
Insulated

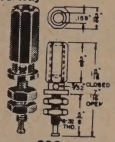
HEAD: CAPTIVE, MOLDED NYLON, per MIL-P-20693A, with brass Gold-Plated Insert.
BODY: Brass, Gold Plated
WASHERS: MOLDED NYLON, per MIL-P-20693A, with brass Gold-plated inserts.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
CR.: Molded washers completely insulate post from el. Miniature washers and narrow fluted head require imum panel space. Mounts in 5/16" round or "D" e in panel as indicated. Wrap-around solder terminal stud for direct connection.
RS: Red, Black, Yellow, Green, Blue, White.

SPECIFY COLOR
Std. Pkg. 100
NET Per C
$33.00

BINDING POST
Metal Five-Way



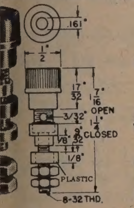
137



208

D: CAPTIVE: Hex brass, nickel plated.
Y: Brass, nickel plated.
EPTS: Phone tip, spade lug, banana plug, alligator or wire strand.
ING: 15 Amps AC for 10°C Temp. rise, continuous y. 1 K Volts 60 cycle AC continuous working voltage, en insulated from panel as recommended. CAPACINCE 5.0 mmfd.
CR.: Can be completely insulated from panel by using 2155 and 2163 fibre washers. Supplied with two hex s.

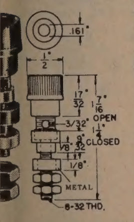
Description	NET Per C
Standard	$21.00



BINDING POST
Five-Way With Molded Mounting Washers All Insulated Type

HEAD: CAPTIVE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous ty. 1 K Volts 60 cycle AC continuous working voltage. PACITANCE 5.0 mmfd.
CR.: Mounts in 1/4" hole in panel. Supplied with one x nut.

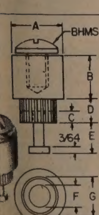
Std. Pkg. 100
NET Per C
$24.00



Grounding Type

HEAD: CAPTIVE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
BODY: Brass, nickel plated.
WASHERS: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Mounting Washer — Molded plastic. Back-up Washer — Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Mounts in 1/4" hole in panel. Grounded to panel by back-up washer. Supplied with one hex nut.

Std. Pkg. 100
NET Per C
$24.00

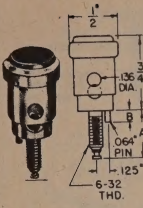


COMBINATION TERMINALS

MATERIAL: BRASS, nickel plated.
DESCR.: Combination Screw and Turret Terminal. Knurled shank prevents turning. Supplied complete with BHMS and Internal Tooth Lockwasher, unassembled.

Std. Pkg. 100

A	B	C	D	E	F	G	Bhms	Panel Thk.	Net Per C
5/16	1/4	1/16	9/64	11/64	1/8	.220	6-32	3/32	7.80
11/32	5/16	5/64	11/64	13/64	9/64	.250	8-32	1/8	7.80
3/8	3/8	3/32	15/64	13/64	5/32	.257	10-32	3/16	7.80



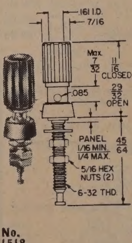
SPRING LOADED BINDING POSTS

HEAD: CAPTIVE, Brass nickel plated.
CAP: STYRENE, per MIL-L-P416, Type I, Black.
BODY: Brass, nickel plated.
PIN: Nickel Silver.
ACCEPTS: Standard phone tip or wire in side hole and locks them in place on release of pressure on cap.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Side dowel pin locates and prevents post from turning when mounted in panel.

		With Dowel Pin		Less Dowel Pin	
A	B	No.	NET Per C	No.	NET Per C
1/4"	1/8"	2701	$36.00	2801	$30.00
3/8"	1/8"	2702	39.00	2802	33.00
1/2"	1/4"	2703	42.00	2803	36.00
3/4"	1/4"	2704	45.00	2804	39.00
1"	3/8"	2705	48.00	2805	42.00
1 1/4"	3/8"	2706	51.00	2806	45.00
1 1/2"	1/2"	2707	54.00	2807	48.00
2"	3/4"	2708	57.00	2808	51.00

Same as above less threaded stud. Supplied with 6-32 internal mounting thread.

No.	Description	NET Per C
2709	With 1/8" lg. Wowel Pin	$33.00
2809	Without Dowel Pin	27.00

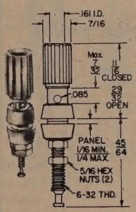


METAL BINDING POST
Grounded

HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Fluted-head metal post to match our No. 1517. For use where direct ground connection is made to panel or chassis. Supplied with brass, gold-plated flat metal washer for grounding.

Std. Pkg. 100

No.	NET Per C
1518	$27.00

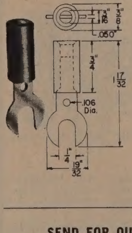


METAL BINDING POST
Insulated

HEAD: CAPTIVE, Fluted Brass, Gold-plated.
BODY: Brass, Gold-plated.
WASHER: MOLDED BLACK NYLON, per MIL-P-20693A, with brass Gold-plated insert.
ACCEPTS: Phone tip plug, spade lug, banana plug, alligator clip, or wire strand.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts, 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
DESCR.: Fluted-head metal post to match our No. 1517. Molded washers insulate post from panel for use where internal ground circuit is isolated from chassis or panel.

Std. Pkg. 100

No.	NET Per C
1519	$27.00



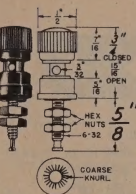
INSULATED SPADE LUG

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
LUG: Brass, .050 thick, nickel plated.
RATING: 30 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: 1/4" I.D. fits all standard Multi-purpose binding posts. Accepts up to #10 insulated wire, which solders in front hole.

Std. Pkg. 100

No.	NET Per C
400	$12.00

SEND FOR OUR COMPLETE CATALOG #63 CONTAINING DETAILED DESCRIPTIONS, DIAGRAMS and ENGINEERING DATA ON SMITH ELECTRONIC COMPONENTS.

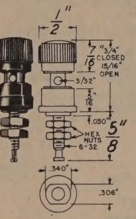


NYLON BINDING POSTS
Grounding Type

HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.
SPECIFY COLOR
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 6.0 mmfd.
DESCR.: Supplied with 2 hex nuts. Grounds to panel but supplied with nylon washer for uniformity of height with No. 378 when used on same panel. Can be insulated from panel by using our No. 2150 shoulder washer.

Std. Pkg. 100

No.	NET Per C
377	$26.40

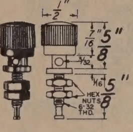


ALL INSULATED

HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert.
SPECIFY COLOR
WASHER: Molded nylon with brass nickel plated insert.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 4.0 mmfd.
DESCR.: Supplied with two hex nuts. Boss washer insulates post from chassis when used with bakelite washer supplied.

Std. Pkg. 100

No.	NET Per C
378	$26.40

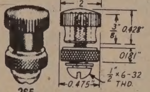


GROUNDING TYPE

HEAD: CAPTIVE: MOLDED NYLON, per MIL-P-20693A. Red or Black with brass nickel plated insert. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage, when insulated from panel as recommended. CAPACITANCE 7.0 mmfd.
DESCR.: Supplied with two hex nuts. Can be insulated from panel by using our No. 2150 shoulder washer and 2162 flat washer.

Std. Pkg. 100

No.	NET Per C
379	$21.00



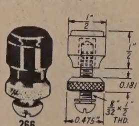
265

BINDING POST

HEAD: MOLDED THERMOSETTING plastic, per MIL-P-14CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.

Std. Pkg. 100

No.	NET Per C
265	$15.00



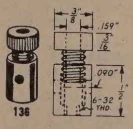
266

BINDING POST

HEAD: MOLDED THERMOSETTING plastic, per MIL-P-14CFG, with molded-in brass threaded insert, Red or Black. SPECIFY COLOR
WASHER: Brass, nickel plated
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.

Std. Pkg. 100

No.	NET Per C
266	$18.00



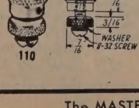
136

METAL BINDING POST

HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Accepts standard phone tips or banana plugs.

Std. Pkg. 50

No.	NET Per C
136	$12.00



110

METAL BINDING POST

HEAD: BRASS, nickel plated.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Supplied complete with screw and lockwasher.

Std. Pkg. 25

No.	NET Per C
110	$15.00

HERMAN H. SMITH, INC.

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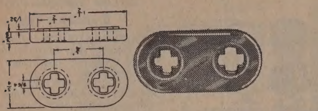


BLACK STYRENE INSULATOR

WASHER: STYRENE, per MIL-L-P416, Type I.

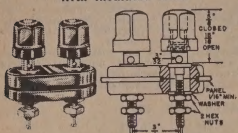
RATING: 2 K Volts 60 cycle AC continuous working voltage.

DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼ thick.

Std. Pkg. 100

No.	NET Per C
207	$6.00

DUAL ASSEMBLY
With Insulated Head

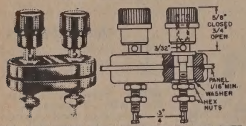


WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

Std. Pkg. 10

No.	Description	NET Per C
269BB	Two Black Heads	$66.00
269RR	Two Red Heads	66.00
269RB	One Red, One Black Head	66.00

DUAL ASSEMBLY
With Insulated Head



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward or sideways.
BODY: Brass, nickel plated.
HEAD: Captive. MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black.
SPECIFY COLOR
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.
DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers.

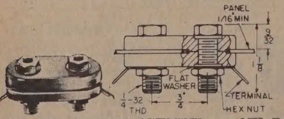
Std. Pkg. 10

Description	NET Per C	NET Each
224BB	Two Black Heads	$54.00
224RR	Two Red Heads	54.00
224RB	One Red, One Black Head	54.00

Same as above with brass nickel plated insert in head

263BB	Two Black Heads	66.00
263RR	Two Red Heads	66.00
263RB	One Red, One Black Head	66.00

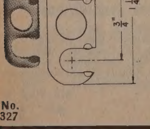
DUAL TIP JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per MIL-P-416, Type I.
BODY: Recessed, brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.
DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Accommodates standard phone tip plugs. Supplied with two hex nuts. **Std. Pkg. 10**

No.	NET Per C
438	$54.00

SHORTING LINK

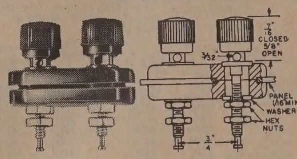


MATERIAL: Spring brass, nickel plated, .033″ thick.
RATING: 50 Amps AC continuous duty, for 10°C Temp. rise.
DESCR.: Snaps over contact barrels of dual binding posts with standard ¾″ mounting centers for positive shorting. Snap-in feature allows use in any position without falling o″. Rotates on either post for open-circuit use, retaining snap-in feature. Center hole allows easy insertion or removal.

Std. Pkg. 50

No.	NET Per C
327	$6.00

DUAL ASSEMBLY
With Nylon Heads



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward, back or sideways.

BODY: Brass, nickel plated.

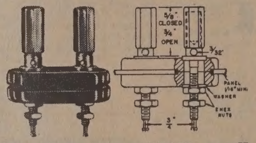
HEAD: Captive: MOLDED NYLON, per MIL-P-20693A, with molded in brass insert.

RATING: 15 Amps AC for 10°C Temp. rise, continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No.	Description	NET Per C
284BB	Two Black Heads	$60.00
284RR	Two Red Heads	60.00
284RB	One Red, One Black Head	60.00

DUAL METAL BINDING POST



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I, cross slotted (+) to accept standard phone tips in post either forward, or sideways.

BODY: Brass, nickel plated.

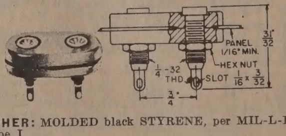
HEAD: Captive: Hex brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 3.0 mmfd. to panel.

DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Accommodates single or dual banana plugs. Supplied with 4 hex nuts, 2 flat washers. **Std. Pkg. 10**

No.	NET Per C
209	$60.00

DUAL BANANA JACK ASSEMBLY



WASHER: MOLDED black STYRENE, per MIL-L-P416, Type I.

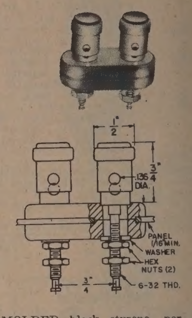
BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 2.0 mmfd. between conductors, 4.0 mmfd. to panel.

DESCR.: Mounts in two ½″ holes on ¾″ mounting centers in panels up to ¼″ thick. Accommodates standard and dual banana plugs. Supplied with two hex nuts and brass tinned lugs. **Std. Pkg. 10**

No.	NET Per C
489	$48.00

DUAL SPRING-LOADED BINDING POSTS



WASHER: MOLDED black styrene, per MIL-L-P4
Type 1, cross slotted (+) to accept standard phone
or wire in post either forward or sideways. Supplied
colors on special order.

HEAD: Captive, brass, nickel plated.

CAP: Molded black styrene, per MIL-L-P416.

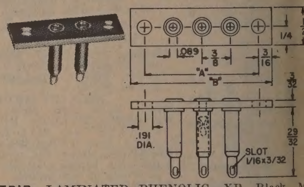
BODY: Brass, nickel plated.

RATING: 15 Amps AC for 10°C Temp. rise, continu
duty. 5 KV 60 cycle AC continuous working voltage.

DESCR.: Accepts standard phone tips or wires in
holes, and locks them in place when pressure on ca
released. **Std. Pkg**

No.	NET P
2713	$7

PIN JACK STRIPS



STRIP: LAMINATED PHENOLIC, XP, Black. M
Federal Spec. L-L-31, Type I.

BODY: Brass, nickel plated.

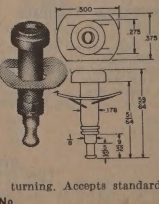
SPRING: Phosphor bronze.

RATING: 15 Amps AC for 10°C Temp. rise, contir
duty. 1 KV, 60 cycle AC continuous working voltag

DESCR.: From 2 to 10 pin jacks assembled on ¾″ ce
on a heavy-duty board. Provides positive contact
standard phone tip plugs. Mounting holes accept s
up to #8. **Std. Pkg**

No.	Jacks	Mtg. Ctrs. ("A")	Length ("B")	
1982	2	1⅛″	1½″	$
1983	3	1½″	1⅞″	
1984	4	1⅞″	2¼″	
1985	5	2¼″	2⅝″	
1986	6	2⅝″	3″	
1987	7	3″	3⅜″	
1988	8	3⅜″	3¾″	
1989	9	3¾″	4⅛″	
1990	10	4⅛″	1½″	

NYLON TEST JACK



BODY: Nylon, Grade
10001. SPECIFY C

CONTACT: Phosphor b
silver plated. End ho
ned for easy soldering.

RATING: 15 Amps A
10°C Temp. rise, conti
duty. 3 KV 60 cycle A
tinuous working volta

DESCR.: Mounts in ³⁄₁₆″
with Tinnerman Spee
for fast permanent ass
Teeth embed into jack
preventing pulling ou
turning. Accepts standard phone tip plugs. **Std. P**

No.	NET
1598	

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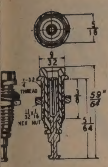
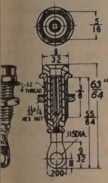
NYLON TIP JACKS
COLOR CODE SUFFIX

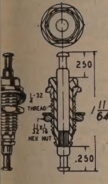


Add to Catalog Number as required.

- 101 WHITE
- 102 RED
- 103 BLACK
- 104 GREEN
- 105 BLUE
- 106 ORANGE
- 107 YELLOW
- 108 BROWN
- 112 PURPLE
- 113 GREY

With Metal Shell
Made to Meet MS-16108 Spec.



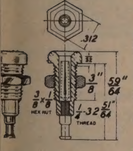


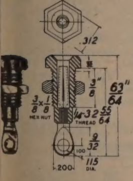
Molded Nylon Tip Jack. Metal shell eliminates possibility of stripping threads during assembly. Meets following requirements:

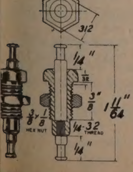
1. Salt Spray Test — Withstands 100 hours.
2. Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 10.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Conditions —
   - A. Continuous: 23 hours on, 1 hour off.
   - B. Elevation: Up to 5,000 ft.
   - C. Temperature: —55 to +85°C.
   - D. Humidity: Up to 95%.
5. Material Specifications —
   - A. Insulator: Molded Nylon, per MIL-P-20693A. Specify color as coded above.
   - B. Shell and Nut: Brass Nickel Plated per Spec. 72-53.
   - C. Lockwasher: Phosphor Bronze Nickel Plated per Spec. 72-53.
   - D. Center Contact Numbers 1501 and 1502 Heat Treated Bery. Copper Silver plated per Spec. 72-53. Number 1503 Brass, Tin plated.
6. Non-Operating Conditions —
   - A. Elevation: Up to 50,000 ft.
   - B. Temperature: Continuous exposure for 72 hours at +160°F and 240 hours at —80°F.
   - C. Humidity: Up to 100%.

No.	Type	Std. Pkg.	NET Per C
1501	Wrap Around	25	$28.80
1502	Spade Terminal	25	42.00
1503	Feed Through	25	39.00

All Nylon



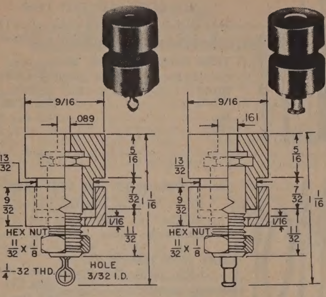




Completely Molded Nylon Jack. Fits all standard phone tip plugs. Contact recessed in head for safe contact. Hexagon head for grip in tightening. Mounts in ¼" hole in panels up to ¼" thick. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Rating: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 3.0 mmfd.
3. Insulation Resistance — 5,000 megohms.
4. Operating Temperature— —55 to +150°C.
5. Nominal Capacity — 2.0 mmf.
6. Material Specifications —
   - A. Body: Molded Nylon, per MIL-P-20693A. Specify Color as coded above.
   - B. Center Contact: Numbers 1505 and 1506 Heat Treated Beryllium Copper Silver plated per Spec. 72-53. Number 1507 Brass, Tin Pl.
   - C. Hex Nut: Brass Nickel Plated.

No.	Type	Std. Pkg.	NET Per C
1505	Wrap Around	25	$21.00
1506	Spade Terminal	25	30.00
1507	Feed Through	25	28.20



HIGH VOLTAGE NYLON JACKS
Color Code Suffix

Add to Catalog Number as Required

— 101 WHITE	— 105 BLUE
— 102 RED	— 106 ORANGE
— 103 BLACK	— 107 YELLOW
— 104 GREEN	— 108 BROWN

Made to meet MS-16107 Spec.

Heavy molded nylon body and cup washer prevent high-voltage flashover to panel. Meets following requirements:

1. Salt Spray Test — Withstands 100 hours.
2. Electrical Rating — 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage. Millivolt drop per MIL-J-6751.
3. Material Specifications—
   - A. Insulator and Washer: Nylon Grade FM 10001, in accordance with MIL-P-17091 spec.
   - B. Insert Shell and Nut: Brass, Nickel plated per spec. QQ-N-290, type V (FC). Insert gold washed overall.
   - C. Contact: Phosphor bronze or beryllium copper, gold washed.
   - D. Terminal style: Optional formed cylinder or slotted flat terminals as shown.

HIGH VOLTAGE NYLON TIP JACKS

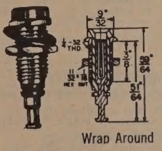
Accepts standard phone tips. **Std. Pkg. 25**

No.	NET Per C
1521	$75.00

HIGH VOLTAGE NYLON BANANA JACK

Accepts standard phone tips. **Std. Pkg. 25**

No.	NET Per C
1522	$00.00



Wrap Around

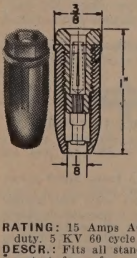
NYLON TIP JACK
With Metal Shell

BODY: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
SHELL: Brass, nickel plated.
WASHER: Phosphor bronze, nickel plated.
CONTACT: Phosphor bronze, silver plated.
HEX NUT: Brass, nickel plated.
RATING: 20 Amps AC for 10°C Temp. rise, continuous duty. 2 K Volts 60 cycle AC continuous working voltage. CAPACITANCE 10.0 mmfd.
DESCR.: Same as 1501 shown above, except does not comply with BU SHIPS MS Specs. For commercial use.

Std. Pkg. 50

No.	NET Per C
1599	$25.80

NYLON IN-LINE TIP JACK
Color Code Suffix



Add to Catalog Number as Required

- 101 WHITE
- 102 RED
- 103 BLACK
- 104 GREEN
- 105 BLUE
- 106 ORANGE
- 107 YELLOW
- 108 BROWN
- 112 PURPLE
- 113 GREY

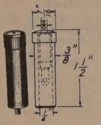
All Nylon

HANDLE: MOLDED NYLON, per MIL-P-20693A. Specify color as coded above.
BODY: Molded Nylon, per MIL-P-20693A.
CONTACT: Heat treated beryllium copper, gold washed.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty. 5 KV 60 cycle AC continuous working voltage.
DESCR.: Fits all standard phone-tip plugs, with recessed contact for safe connection. Ideally suited for use in patch and extension cords. Can also be used for panel mounting where wrap-around terminal connection must be insulated at rear.

Std. Pkg. 50

No.	NET Per C
1513	$30.00

IN-LINE PHONE TIP JACK

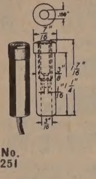


HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Suitable for test lead extension where long leads are required. Accepts standard phone tip plug.

Std. Pkg. 50

No.	NET Per C
248	$21.00

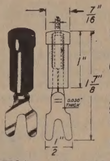
IN-LINE BANANA JACK



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Suitable for test lead extension where long leads are required. Accepts standard banana plugs. **Std. Pkg. 50**

No.	NET Per C
251	$21.00

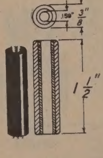
ADAPTER
Phone Tip to Spade Lug



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14 CFG.
JACK: Brass.
SPRING: Phosphor Bronze.
SPADE LUG: Steel hot tinned .030 thick.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Tip jack accepts standard phone tip plugs and adapts to spade lug. **Std. Pkg. 50**

No.	Description	NET Per C
249	Adapter	$33.00

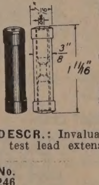
BANANA PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
INSERT: Brass.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections. Accepts standard banana plugs. **Std. Pkg. 50**

No.	NET Per C
245	$24.00

PHONE TIP PLUG SPLICE



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red, Black, Yellow, Green. SPECIFY COLOR
CAP: MOLDED THERMOSETTING plastic, Red and Black per MIL-P-14CFG. Yellow, Green, per LC-726-1.
BODY: Brass, nickel plated.
SPRING: Phosphor bronze.
RATING: 15 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Invaluable for quick splicing connections or for test lead extensions. Accepts standard qhone tip plugs.

Std. Pkg. 50

No.	NET Per C
246	$27.00.

LABORATORY INTERCHANGE KIT

DESCR.: All parts interchangeable, converts any:
Phone tips No. 215
Spade lugs No. 218
Tip plug adapter No. 214
Alligator clip jack No. 305
DESCR.: All parts interchangeable, converts any standard test lead to an all purpose unit. Packaged in an electronically sealed vinyl kit. **Std. Pkg. 1**

No.	NET Ea.
640	$2.25

HERMAN H. SMITH, INC.

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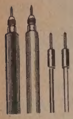
SOLDERLESS TIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	Meter End	NET Per Pr.
600	Phone Tips (No. 158)	$.87
601	Spade Lugs (No. 129)	.87
602	Alligator Clips (No. 300)	.93



PHONO NEEDLE TEST LEAD

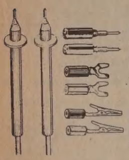
HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 317).
BODY: Brass, nickel plated.
NEEDLE: Steel, nickel plated. Std. Pkg. 6

No.	Meter End	NET Per. Pr.
613	Phone Tips (No. 158)	$.87
614	Spade Lugs (No. 129)	.87
615	Alligator Clips (No. 300)	.93

ALL SOLDERLESS TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
TIP: Solderless: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
603	$1.26



HIGH TENSION TEST LEAD

HANDLE: PROD: FIBRE 5" long x ½" O.D. Red and Black (No. 630).
PLUG: Fibre 1" long x ½" O.D. Red and Black.
TIP: Brass, nickel plated.
Std. Pkg. 1

No.	Meter End	NET Per Pr.
620	Ins. Phone Tips	$1.98
621	Ins. Spade Lugs	1.98
622	Ins. Alligator Clips	2.40

SHORT TIP TEST LEAD

HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 363).
PLUG: Molded Bakelite 1" long x ⅜" O.D. Red and Black (No. 203).
TIP: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
624	$1.05

SLIM HANDLE TEST LEAD

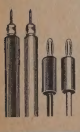
HANDLE: MACHINED TENITE 5" long x $\frac{5}{16}$" O.D. Red and Black.
TIPS: Prod: Brass, nickel plated.
METER END: Drawn brass, nickel plated (No. 158). Std. Pkg. 6

No.	NET Per Pr.
670	$.66

SUB MINIATURE TEST LEAD

HANDLES: PROD: BONE FIBRE 4" long x ¼" O.D. Red and Black (No. 322).
PLUG: Bone fibre 1" long x ¼" O.D. Red and Black. (No. 270).
TIPS: Brass, nickel plated. Std. Pkg. 6

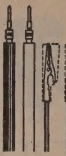
No.	NET Per Pr.
678	$1.26



BANANA PLUG TEST LEAD

HANDLES: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black. (No. 302).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black. (No. 211).
TIP: Solderless: Brass, nickel plated.
BODY: Brass, nickel plated.
SPRING: Four leaved phosphor bronze, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
623	$1.50



ALLIGATOR CLIP TEST LEAD

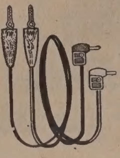
HANDLE: PROD: MOLDED TENITE 4" long x ⅜" O.D. Red and Black (No. 302).
TIPS: Solderless: Brass, nickel plated.
CLIPS: Steel, cadmium plated (No. 300).
BOOT: Vinyl Plastic. Red and Black (No. 331). Std. Pkg. 6

No.	NET Per Pr.
672	$1.26

CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadmium plated.
BOOT: Vinyl plastic. Red and Black.
HANDLE: Spade Lug: Molded tenite ¾" long x ⅜" O.D. Red and Black (No. 218).
LUG: Steel, Hot tinned (No. 129).
Std. Pkg. 6

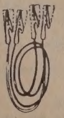
No.	NET Per Pr.
671	$1.20



CROCODILE CLIP TEST LEAD

CLIP: STEEL, cadminum plated.
BOOT: Vinyl plastic. Red and Black.
ELBOW: Molded bakelite. Red and Black (No. 235).
TIP: Brass, nickel plated.
Std. Pkg. 6

No.	NET Per Pr.
675	$1.14



ALLIGATOR CLIP TEST LEAD

CLIPS: STEEL, cadmium plated.
Std. Pkg. 6

No.	Wire	NET Per Pr.
604	12 inches	$.57
605	24 inches	.63
606	36 inches	.72
607	48 inches	.81

INSULATED ALLIGATOR CLIP TEST LEADS

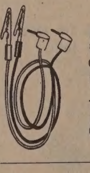
CLIPS: STEEL, cadmium plated.
BOOTS: Vinyl plastic, Red and Black (No. 331). Std. Pkg. 6

No.	Wire	NET Per Pr.
629	12 inches	$.81
657	24 inches	.87
658	36 inches	.96
659	48 inches	1.02

ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
PLUG: Molded bakelite 1" long x ⅜" O.D. Red and Black (No. 200).
CLIPS: Steel, cadmium plated (No. 301).
TIPS: Solderless: Brass, nickel plated.
Std. Pkg. 6

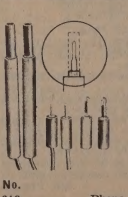
No.	NET Per Pr.
627	$.99



ALLIGATOR CLIP TEST LEAD

HANDLE: MOLDED TENITE ¾" long x ⅜" O.D. Red and Black (No. 301).
CLIPS: Steel, cadmium plated (No. 301).
ELBOWS: Molded bakelite, Red and Black (No. 235).
TIPS: Brass, nickel plated. Std. Pkg. 6

No.	NET Per Pr.
628	$1.20



SHIELDED TEST LEADS

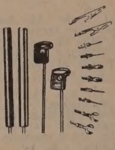
HANDLE: MACHINED TENITE $\frac{7}{16}$" O.D. x 4½" lg. Red and Black.
TIP: Prod tip brass, nickel plated. Meter end, see type.
DESCR.: Plugs insert flush to insulated handle. Prods have retractable cover leaving no metal exposed. Eliminates possibility of shock or grounding. Supplied with either phone tip or banana plug meter ends. Other variations on special order.
Std. Pkg. 6

No.	Type	NET Per Pr.
616	Phone Tip End (No. 203)	$1.80
617	Banana Plug End (No. 211)	1.86

"UNIVERSAL TEST LEAD"
Completely Interchangeable

Fifty Leads In One! One lead can make any required te
lead combination. All parts adapt into prod handle or t
handle. Complete as shown. With plastic kit. Std. Pkg.

No.	NET E
699	$2.



"UNIVERSAL TEST LEAD"
Miniature Accessories
Completely Interchangeable

Fifty Leads In One. One lead c
make any required test lead combir
tion. All parts adapt into prod han
or meter tip. Supplied with miniat
tips, clips, banana plugs and spa
tips. Complete as shown. With plas
kit. Std. Pkg

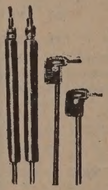
No.	NET
679	$2

TEST LEAD KIT

DESCR.: Each kit is supplied with one p
of test leads. One end test prods, ot
end ins. banana plugs.

FITTINGS: Two each: Phone tips, allig
clips, spade lugs. Std. Pk

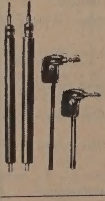
No.	Type	NET
610	Solderless Prods	$
611	Needle Tip Prods	



METER TEST LEADS
Solderless Prod

HANDLE: MOLDED TENITE 4"
x ⅜" O.D. Red and Black (No. 3
TIP: Solderless: Brass, nickel pla
ELBOW: Molded, bakelite, Red
Black (#235, Phone Tip; #
Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor bro
nickel plated. Std. Pl

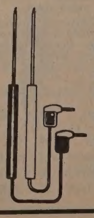
No.	Type	NET Per
625	Phone Tip Meter Tip	$
685	Banana Meter Tip	



Needle Prod

HANDLE: MOLDED TENITE 4"
x ⅜" O.D. Red and Black (No. 3
NEEDLE: Steel, nickel plated.
ELBOW: Molded, bakelite, Red
Black (#235, Phone Tip; #
Banana Tip).
BODY: Brass, nickel plated.
SPRING: Four leaved, phosphor br
nickel plated. Std. P

No.	Type	NET Pe
626	Phone Tip Meter Tip	
686	Banana Meter Tip	



SLIM JIM TEST LEAD

HANDLE: MOLDED TENITE 4" lo
⅜" O.D. Red and Black.
PROBE: Steel, cadmium plated.
INSULATOR: Vinyl spaghetti tu
Red and Black.
ELBOWS: Molded bakelite, Red
Black (No. 235).
TIPS: Brass, nickel plated. Std. P

No.	NET Pe
698	

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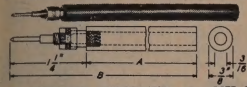
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SOLDERLESS TEST PROD—Threaded Type



DLE: MOLDED BUTYRATE, per MIL-L-P349A, e 3, Class MS. Red or Black. SPECIFY COLOR

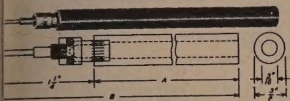
Y: Brass, nickel plated.

NG: 12 Amps AC for 10°C Temp. rise, continuous y.

R.: Solderless: Wire fits through handle and body of g then wrapped around screw portion and tightened h knurled collar. **Std. Pkg. 25**

Handle (A)	Overall (B)	NET Per C
4"	5¼"	$30.00
5½"	6¾"	33.00

SOLDERLESS TEST PROD—Force Fit Type



DLE: MOLDED BUTYRATE, per MIL-L-P349A, e 3, Class MS. Red or Black. SPECIFY COLOR

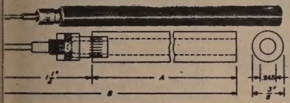
Y: Brass, nickel plated.

ING: 12 Amps AC for 10°C Temp. rise, continuous y.

R.: Solderless: Wire fits through handle and body o g then wrapped around screw portion and tightened h knurled collar. **Std. Pkg. 25**

Handle (A)	Overall (B)	NET Per C
4"	5¼"	$24.00
5½"	6¾"	27.00

SOLDERLESS TEST PROD—Force Fit Type
Extra Large Inside Diameter



DLE: MOLDED BUTYRATE, per MIL-L-P349A, pe 3, Class MS. Red or Black. SPECIFY COLOR

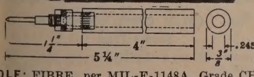
Y: Brass, nickel plated.

ING: 12 Amps AC for 10°C Temp. rise, continuous y.

CR.: Solderless: Wire fits through handle and body of g then wrapped around screw portion and tightened h knurled collar. Extra large I.D. for heavy duty re. **Std. Pkg. 25**

Handle (A)	Overall (B)	NET Per C
4"	5¼"	$24.00
5½"	6¾"	27.00

SOLDERLESS FIBRE TEST PROD
Extra Large Inside Diameter



IDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or ack. SPECIFY CLOR

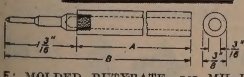
Y: Brass, nickel plated.

ING: 12 Amps AC for 10°C Temp. rise, continuous ty.

CR.: Solderless: Wire fits through handle and body o g then wrapped around screw portion and tightened th knurled collar. Large I.D. permits use of heavy duty re. **Std. Pkg. 25**

NET Per C
$30.00

HEAVY DUTY TEST PROD—Threaded Type



NDLE: MOLDED BUTYRATE, per MIL-L-P349A, pe 3, Class MS. Red or Black. SPECIFY COLOR

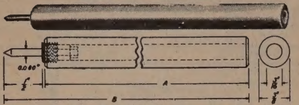
Y: Brass, nickel plated.

TING: 12 Amps AC for 10°C Temp. rise, continuous ty.

CR.: Large diameter well enables soldering of heavy ty wire directly into plug. Fits standard phone tip cks. **Std. Pkg. 25**

Handle (A)	Overall (B)	NET Per C
4"	5³⁄₁₆"	$30.00
5½"	6¹¹⁄₁₆"	33.00

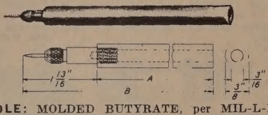
SHORT TIP TEST PROD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous Duty.
DESCR.: Inserts flush with insulated handle, no metal exposed; eliminates possibility of shock or grounding. Fits standard phone tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
363	4"	4½"	$21.00
364	5½"	6"	24.00

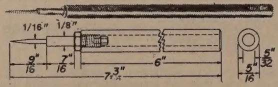
PHONO NEEDLE TEST PROD



HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.
DESCR.: Removable chuck for easy replacement or broken needles. Needle pierces corrosion or plating for positive reading. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
317	4"	4¹³⁄₁₆"	$30.00
318	5½"	6⁵⁄₁₆"	33.00

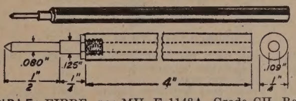
SOLDERLESS PHONO NEEDLE TEST PROD



HANDLE: XX BAKELITE, lacquered, per MIL-P-79, Form TR. Red or Black. SPECIFY COLOR
BODY: Brass, nickel plated.
NEEDLE: Phono needle, steel.
RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.
DESCR.: Wire can be soldered to brass stud or directly into plug itself. Stud also locks wire to pellet for solderless connections. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
314	4"	5³⁄₃₂"	$75.00
313	6"	7³⁄₃₂"	75.00

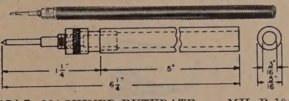
SUB-MINIATURE TEST PROD



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY CLOR
TIP: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, cont. duty.
DESCR.: Threaded for easy assembly. Ideally suited for checking all types sub-miniature equipment. **Std. Pkg. 25**

No.	NET Per C
322	$24.00

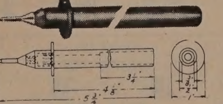
PENCIL TYPE SOLDERLESS TEST PROD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408 Type I, Class 2. Red or Black. SPECIFY COLO
PLUG: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuo duty.
DESCR.: Solderless: Wire fits through handle and body plug, then wraps around screw portion and is tightene with knurled collar. **Std. Pkg. 2**

No.		NET Per
384	**Force Fit Type**	$21.0

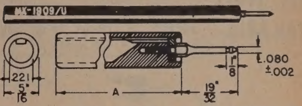
TEST PROBE HIGH VOLTAGE TYPE



HANDLE: FIBRE, per MIL-F-1148A, Grade CH. Red or Black. SPECIFY COLOR
PROBE: Brass, nickel plated.
RATING: 12 Amps AC for 10°C Temp. rise, continuous duty. 15 KV 60 cycle AC continuous working voltage.
DESCR.: Heavy insulated fibre probe with flash-over shield for high-voltage applications. Large internal I.D. accommodates shielded cable or R.F. networks. Heavy duty removal tip. **Std. Pkg. 10**

No.		NET Ea.
630		$ .72
630D	Display of 12	8.64

NYLON HANDLE PRODS AND TIPS



HANDLE: MOLDED NYLON, per MIL-P20693A. Specify color as coded above.

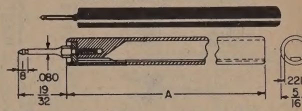
TIP: Brass, silver plated.

RATING: 10 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Solderless. Made to meet Signal Corps Drawing SC-C-82761. **Std. Pkg. 25**

No.	Sig. Corps. Drawing and Part No.	Size ("A")	Color	NET Per C
176	MX-1906/U	1"	Red	$54.00
177	MX-1907/U	1"	Black	54.00
178	MX-1909/U	4"	Red	60.00
179	MX-1910/U	4"	Black	60.00

SUB-MINIATURE TEST PROD



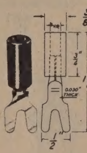
HANDLE: Molded Nylon, per MIL-P-20693A. Available in Red or Black. SPECIFY COLOR

TIP: Brass, Silver plated.

DESCR.: Solderless assembly. Ideal for use with subminiature printed-circuit tip jacks. Sharp tip breaks flux or oxide coating on printed-circuit pattern for positive contact when used as prod. Grooved head of prod makes positive contact when laid across wires. Fits all standard .080" tip jacks. **Std. Pkg. 25**

No.	Handle (A)	Overall (B)	NET Per C
348	1"	1⁹⁄₁₆"	$15.00
349	4"	4⁹⁄₁₆"	30.00

INSULATED SPADE LUG



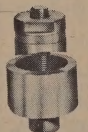
HANDLE: MOLDED BUTYRATE, per MIL-L-P349A, Type 3, Class MS. Red or Black. SPECIFY COLOR
LUG: Steel, hot tinned, .030 thick.

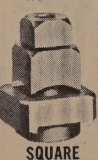
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.

DESCR.: Banana plug can be inserted into spade lug thru rear of handle. **Std. Pkg. 100**

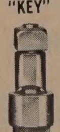
No.	Description	NET Per C
218	Insulated Spade Lug	$10.80
129	Lug Only	1.20

RADIO CHASSIS PUNCHES


ROUND


SQUARE

"KEY"


"D"

An assortment of round, square, "D", and Keyed holes can be punched by inserting in drilled pilot hole, and turning with wrench. Finished hole is smooth, accurately sized without burrs. Round punches are provided with center-line markings for enlarging holes larger than pilot hole. Individually packed in re-usable plastic box for keeping punch sharp and rust-free.

ROUND HOLE PUNCHES

No.	Hole Size	NET Ea.	No.	Hole Size	NET Ea.
3801	½"	$2.60	3814	1¼"	$3.00
3802	⁹⁄₁₆"	2.60	3815	1⁵⁄₁₆"	3.60
3803	⅝"	2.60	3816	1⅜"	3.60
3804	¹¹⁄₁₆"	2.60	3817	1½"	4.10
3805	¾"	2.60	3818	1⅝"	4.85
3806	¹³⁄₁₆"	2.60	3819	1¾"	5.50
3807	⅞"	2.60	3820	1⅞"	6.85
3808	¹⁵⁄₁₆"	2.85	3821	2"	7.40
3809	1"	2.85	3822	2⅛"	11.00
3810	1¹⁄₁₆"	3.00	3823	2¼"	7.95
3811	1⅛"	3.00	3824	2½"	13.00
3812	1⁵⁄₃₂"	3.00	3825	2¾"	18.00
3813	1³⁄₁₆"	3.00	3826	3"	25.00

SQUARE PUNCHES

No.	Size	NET Ea.	No.	Size	NET Ea.
3827	½"	4.85	3830	⅞"	6.55
3828	⅝"	5.00	3831	1"	6.80
3829	¾"	5.70			

"KEY" PUNCHES

No.	Size	NET Ea.	No.	Size	NET Ea.
3832	¹⁵⁄₃₂"	5.00	3834	1¹¹⁄₆₄"	5.80
3833	¹⁵⁄₁₆"	5.00	3835	1¹⁷⁄₆₄"	6.55

METER HOLE PUNCH

No.	Size	NET Ea.
3836	2²⁵⁄₃₂"	12.50

"D" PUNCHES

No.	Size	NET Ea.	No.	Size	NET Ea.
3837	½x¹⁵⁄₃₂"	4.50	3838	⅝x¹⁹⁄₃₂"	4.75

BALL BEARING DRIVE SCREWS

Reduces friction and effort when punching round holes ¹¹⁄₁₆" and larger. For use only with Round punches listed above.

No.	Use with Nos.	NET Ea.
3839	3804 to 3808	$1.00
3840	3809 to 3817	1.10
3841	3818 to 3819	2.60
3842	3820 to 3824 and 3836	2.75
3843	3825 to 3826	5.15

CHASSIS PUNCH SET

A set of 7 of the most often used chassis punch sizes for electronic construction. Packed in a plastic platform box to keep punches sharp and rust-free. Contains the following sizes: ½", ⅝", ¾", ⅞", 1", 1⅛", 1¼".

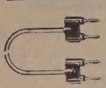
No.	NET Ea.
3844	$21.00

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

CABLE TYPES AVAILABLE

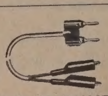
	WIRE "A"	WIRE "B"	WIRE "C"
DESCRIPTION	2-cond. tw. 18 ga. 65/36 str.	Shielded audio cable	Coaxial Cable
INSULATION	Vinyl	Polyethylene	Polyethylene
JACKET	Vinyl, Color Grey	Vinyl, Color Grey	Vinyl, Color Black
NOM. CAP.	30 mmf./ft.	25 mmf./ft.	28.5 mmf./ft. RG58C/U.



DOUBLE PLUG TO DOUBLE PLUG

HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. Interconnects unlimited number of multiple circuits top and side. Each end terminates with molded double banana plug. **Std. Pkg. 10**

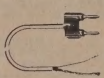
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1530-24	1540-24	1580-24	24"	$2.28
1530-36	1540-36	1580-36	36"	2.40
1530-48	1540-48	1580-48	48"	2.52



DOUBLE PLUG TO ALLIGATOR CLIPS

HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
INSUL.: Molded vinyl plastic (No. 331).
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1531-24	1541-24	1581-24	24"	$1.68
1531-36	1541-36	1581-36	36"	1.80
1531-48	1541-48	1581-48	48"	1.92



DOUBLE PLUG TO STRIPPED & TINNED LEADS

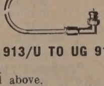
HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end stripped and tinned. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1532-24	1542-24	1582-24	24"	$1.32
1532-36	1542-36	1582-36	36"	1.44
1532-48	1542-48	1582-48	48"	1.56

PL 259A TO ALLIGATOR CLIPS

CONN.: PL 259A.
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns, etc. One end terminates with PL 259A other end with insulated alligator clips one red, one black. **Std. Pkg. 10**

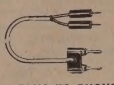
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
	1536-24	1586-24	24"	$3.96
	1536-36	1586-36	36"	4.08
	1536-48	1586-48	48"	4.20



UC 913/U TO UG 913/U

CONN.: UC 913/U.
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG 913/U.

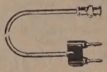
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
	1538-24	1588-24	24"	$6.00
	1538-36	1588-36	36"	6.12
	1533-48	1588-48	48"	6.24



DOUBLE PLUG TO PHONE TIPS

HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
PLUG: Our No. 203.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with insulated tip plug, one red and one black. **Std. Pkg. 10**

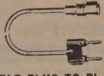
No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
1533-24	1543-24	1583-24	24"	$1.68
1533-36	1543-36	1583-36	36"	1.80
1533-48	1543-48	1583-48	48"	1.92



DOUBLE PLUG TO UG 88C/U

HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: UG 88C/U.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with UG 88C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
	1544-24	1584-24	24"	$2.88
	1544-36	1584-36	36"	3.00
	1544-48	1584-48	48"	3.12



DOUBLE PLUG TO PL 259A

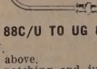
HANDLE: MOLDED POLYSTYRENE, per MIL-L-P416, Type I for electrical characteristics.
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: As specified above.
CONN.: PL-259A.
DESCR.: Mates with standard dual binding post having ¾" center. Polarity indicated by the word GROUND molded on side. One end terminates with double banana plug, other end with PL-259A. **Std. Pkg. 10**

1545-24	1585-24	24"	$3.00
1545-36	1585-36	36"	3.12
1545-48	1585-48	48"	3.24

UG 88C/U ALLIGATOR CLIPS

CONN.: UG88C/U.
CLIPS: Steel Cad. Plated (#300).
INSUL.: Molded Vinyl (#331).
WIRE: As specified above.
DESCR.: For testing of wave patterns etc. One end terminates with UG 88C/ other end with insulated alligator clips, one red, one black. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
	1537-24	1587-24	24"	$4.08
	1537-36	1587-36	36"	4.08
	1537-48	1587-48	48"	4.20

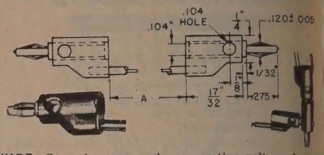


UG 88C/U TO UG 88C/U

CONN.: UG 88C/U.
WIRE: As specified above.
DESCR.: Used for patching and jumping. Each end terminates with UG 88C/U. **Std. Pkg. 10**

No. Wire "A"	No. Wire "B"	No. Wire "C"	Lgth.	NET Ea.
	1539-24	1589-24	24"	$4.20
	1539-36	1589-36	36"	4.32
	1539-48	1589-48	48"	4.34

SUB-MINIATURE "CROSS PATCH" PATCH CORDS



WIRE: General purpose, where operating voltage does n exceed 300 volts R.M.S. Temperature range: −40°C. t +105°C. 22 AWG 150/44; 19.0 ohms Max. D.C. Resist ance per 1000 ft. at 68°F.
HANDLE: MOLDED BUTYRATE, per MIL-L-P349A Type 3, Class MS. (See color code).
BODY: Brass, silver plated.
SPRING: Four-leaved beryllium copper, silver plated.
DESCR.: Interconnects unlimited number of multiple ci cuits. Positive, lasting contact for banana plugs on to and side. Special lengths on request. **Std. Pkg.**

Color Code Suffix

— 101 WHITE	— 106 ORANGE
— 102 RED	— 107 YELLOW
— 103 BLACK	— 108 BROWN
— 104 GREEN	— 112 PURPLE
— 105 BLUE	— 113 GREY

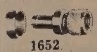
No.	Wire ("A")	NET Per
1590-6	6 inches	$60.
1590-12	12 inches	69.
1590-18	18 inches	75.
1590-24	24 inches	84.

SOLDERLESS COAXIAL CABLE CONNECTORS

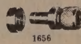
For RG-8/U, RG-11/U, RG-13/U and RG-59/U Cable

Designed to use the inner conductor of the coaxial ca for the male pin. Can be wrench-tightened for positive co tact. Brass, silver plated. **Std. Pkg.**

Crimp Type



1652



1656

MALE CONNECTORS

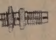
Both types mate with female chas fitting #1660 and Female Coupli #1680. Designed for quick and e assembly using #1752 Crimping To Withstands 350-lb pull when assembl Packaged individually, with instruct sheet. **Std. Pkg.**

No.	For Cables	NET
1652	RG-59/U	$
1652D	Display of 24	11
1656	RG-6/U	
1656D	Display of 24	.15
1752	Crimping Tool	3

FEMALE CHASSIS FITTING

Mates with #1652 connector. Mounts 5/16" hole. Threaded stem is ⅜".

No.		NET
1660	Individually Packaged	$
1660D	Display of 24	1



FEMALE COUPLING

Accepts two #1680, 1652 or 1656 nectors.

No.		NET
1680	Individually Packaged	$
1680D	Display of 24	1

UHF COAXIAL CABLE CONNECTORS

Solder Type

R.F. Connectors for use with RG-8, 9, 10, 11, 12, 63, 6 coaxial cables. **Std. Pk**

1713
1714
1715
1716

STRAIGHT COAXIAL CONNECTO

Brass, Silver-plated shell.

No.	Type	NET P
1713	PL-259	$
1714	PL-259A	

CHASSIS TYPE COAXIAL RECEPTACLE

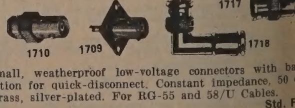
1715	SO-239	$

COAXIAL JUNCTION

For joining separate cable lengths.

1716	PL-258	$1

RF COAXIAL CABLE CONNECTORS



Small, weatherproof low-voltage connectors with ba action for quick-disconnect. Constant impedance, 50 Brass, silver-plated. For RG-55 and 58/U Cables. **Std. F**

No.	Type	Description
1717	UG-88C/U	Plug
1718	UG-913/U	90° Plug
1709	UG-290AA/U	Receptacle
1710	UG-89B/U	Jack

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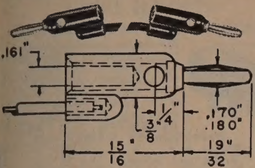
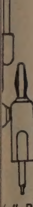
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"





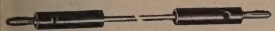
MOLDED "CROSS PATCH" PATCH CORDS

HANDLE: MOLDED BUTYRATE, per MIL-L-P349A. Type 3, Class MS. Red, Black, Yellow, Green Assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved beryllium copper, nickel plated.
WIRE: 10,000-volt rubber covered flexible wire, 65 strands #36 insulated to an O.D. of .140.
DESCR.: Interconnects unlimited number of multiple circuits. Positive, lasting contact for all banana plugs on top and side. **Std. Pkg. 10**

⁄16″ Plug Spring **13/32″ Plug Spring**

	Wire ("A")	NET Per C	No.	Wire ("A")	NET Per C
8	8″	$90.00	1515-8	8″	$90.00
12	12″	90.00	1515-12	12″	90.00
24	24″	96.00	1515-24	24″	96.00
36	36″	102.00	1515-36	36″	102.00

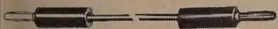
"CROSS PATCH" PATCH CORD



HANDLE: MACHINED BUTYRATE, per MIL-P-10408A, Type I, Class II. Red or Black assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRING: Four-leaved, beryllium copper, brass, nickel plated.
WIRE: 10,000 volt rubber covered flexible wire 65 strands #36 insulated to an O.D. of .140.
CR.: Provides a never ending banana plug receptacle, 1 can be used to interconnect an unlimited amount of ltiple circuits. Accepts standard banana plug inside. **Std. Pkg. 10**

Wire Length	NET Per C
8 inches	$87.00
12 inches	93.00
24 inches	99.00
36 inches	105.00

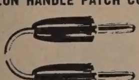
PATCH CORD



DLE: MOLDED THERMOSETTING plastic. Red 1 Black per MIL-P-14 CFG. Yellow, Green per LC-3-1. SPECIFY COLOR
Y: Brass, nickel plated.
ING: Four-leaved beryllium copper, nickel plated.
E: 10,000 volt rubber covered flexible wire 65 strands 36 insulated to an O.D. of .140.
CR.: Uses our standard No. 271 banana plug to interconnect circuits. Fits standard banana jack. **Std. Pkg. 10**

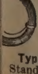
Wire Length	NET Per C
8 inches	$48.00
12 inches	54.00
24 inches	60.00
36 inches	66.00

NYLON HANDLE PATCH CORD



IDLE: MOLDED NYLON, per MIL-P-20693A. Red, ack, Yellowor Green. SPECIFY COLOR
Y: Brass, nickel plated.
ING: Four-leaved beryllium copper, nickel plated.
E: 10,000 volt rubber covered flexible wire 65 strands 36 insulated to an O.D. of .140.
CR.: Uses our standard No. 478 banana plug to interconnect circuits. Fits standard banana jacks. **Std. Pkg. 10**

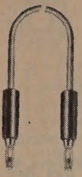
	Wire Length	NET Per C
-8	8 inches	$54.00
-12	12 inches	60.00
-24	24 inches	66.00
-36	36 inches	72.00



TEST LEAD WIRE

Supplied in 100-ft. coils, Red and Black. SPECIFY COLOR

Type	Cond.	Strands	Wall	Voltage	O.D.	Ea.
Standard	20	26/34	.040″	5,000	.125″	$1.95
Hv. Duty	18	65/36	.047″	12,000	.150″	3.00



HIGH-CURENT PATCH CORD

HANDLE: MACHINED PHENOLIC plastic, per MIL-P-77B, Type I, Red or Black assemblies. SPECIFY COLOR
BODY: Brass, nickel plated.
SPRINGS: Six-leaved, phosphor bronze, nickel plated.
WIRE: #10, PVC insulated stranded wire, 105 strands #30 tinned copper wire, insulated to an O.D. of .215″.
RATING: 25 Amps AC for 10°C Temp. rise, continuous duty.
DESCR.: Heavy duty patch cords for use in high-current applications where minimum voltage-drop in patched connections is required. Tapered recessed plug so that no metal portions are exposed when plugged into mating jacks. **Std. Pkg. 10**

No.	Wire ("A")	NET Per C
1591-8	8 inches	$135.00
1591-12	12 inches	135.00
1591-24	24 inches	140.00
1591-36	36 inches	145.00

NYLON LACING CORD

MIL-T-713A, Type S. Composition P, Classes 3, 2 and 1. Supplied in 1-lb. tubes.

Natural Color

No.	Class	Test	Yardage	NET Ea.
734	1	70 lb.	600	$9.00
735	2	48 lb.	800	9.30
736	3	32 lb.	1140	9.60

Black Color

No.	Class	Test	Yardage	NET Ea.
791	1	70 lb.	600	$10.80
792	2	48 lb.	800	11.10
793	3	32 lb.	1140	11.40

NYLON LACING TAPE

Flat nylon tape fungus treated as provided in MIL-T-713A. Has all the application advantages of braided tape but at a much lower cost. Supplied in one pound tubes in natural color.

No.	Width	Yardage	NET Ea.
743	⅛″	620	$5.10

LINEN LACING CORD

Mildew proofed. Spec. MIL-T-713-A. Type N.

Natural Color

No.	Tube	Ply	Class	Ydg.	NET Ea.
725	4 oz.	4	—	210	$1.65
726	8 oz.	4	—	425	3.00
727	1 lb.	4	—	850	5.40
728	4 oz.	6	3	150	1.65
729	8 oz.	6	3	300	3.00
730	1 lb.	6	3	600	5.40
737	4 oz.	8	2	115	1.65
738	8 oz.	8	2	235	3.00
739	1 lb.	8	2	470	5.40
731	4 oz.	9	—	100	1.65
732	8 oz.	9	—	200	3.00
733	1 lb.	9	—	400	5.40
740	4 oz.	12	1	75	1.65
741	8 oz.	12	1	150	3.00
742	1 lb.	12	1	300	5.40

Black Color

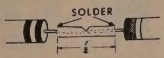
No.	Tube	Ply	Class	Ydg.	NET Ea.
794	1 lb.	4	—	850	$6.00
795	1 lb.	6	3	600	6.00
796	1 lb.	8	2	470	6.00
797	1 lb.	9	—	400	6.00
798	1 lb.	12	1	300	6.00

DACRON LACING CORD

Conforms to the physical requirements of MIL-T-713A. Greater tensile strength with minimal stretch than nylon. Fungus, acid and abrasion resistance. Supplied in 1 lb. tubes in natural color.

No.	Class	Test	Yardage	NET Ea.
722	1	78 lbs.	750	$9.60
723	2	57 lbs.	1000	9.90
724	3	37 lbs.	1500	10.20

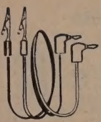
"CLEAPS"



(Connectors for Joining Severed Wires)

MATERIAL: Brass, cadmium plated.
WIRE SIZE: For wires, .010″ to .050″ (B&S Gauge 16 to 30).
DESCR.: Used to splice cut leads of condensers, resistors, etc., in process of trouble-shooting. Insert wire in each tapered end and solder thru center opening. Packaged 10 per envelope. **Std. Pkg. 100**

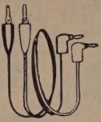
No.	NET Per C
1270	$3.00



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP: Molded Tenite ¾″ long x ⅜″ O.D. Red and Black (No. 301).
CLIPS: Steel, cadmium plated.
ELBOWS: Molded Bakelite, Red and Black. (No. 255). **Std. Pkg. 6**

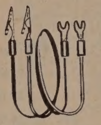
No.	NET Per Pr.
647	$1.20



CROCODILE CLIP TEST LEAD

CLIPS: Steel, Cadmium plated.
BOOTS: Vinyl plastic, Red and Black.
ELBOWS: Molded Bakelite, Red and Black (No. 255). **Std. Pkg. 6**

No.	NET..Per Pr.
648	$1.14



ALLIGATOR CLIP TEST LEAD

HANDLES: CLIP and LUG: Molded Tenite ¾″ long x ⅜″ O.D. Red and Black.
CLIPS: Steel, cadmium plated (No. 301).
LUGS: Steel, hot tinned (No. 129).

No.	NET Per C
649	$1.20

AUTOMATIC WIRE STRIPPERS

For Industrial Production. Electrical and Electronic Servicing, Laboratories. Single Squeeze operation — Easy Grip — Precision Action — Adjustable Blades. FOR WIRE SIZES, #8 to #30 STRANDED OR SOLID.

OPEN-SHUT TYPE

For Stripping Solid Wires

No.	Wire Size	NET Ea.
1320	10 to 22	$5.30
1321	14 to 30	5.30
1322	16 to 22	5.30
1323	10 to 18	5.30
1324	8 to 10	5.30
1325	POSJ-18	5.30
1326	300 ohm	5.30

TRIGGER TYPE

Strips Solid or Stranded Wire

No.	Wire Size	NET Ea.
1330	10 to 22	$6.60
1331	14 to 30	6.60
1332	16 to 22	6.60
1333	10 to 18	6.60
1334	8 to 10	6.60
1335	POSJ-18	6.60
1336	300 ohm	6.60

FULLY AUTOMATIC TYPE

Strips Solid or Stranded Wire

No.	Wire Size	NET Ea.
1340	8 to 22	$6.60
1341	14 to 30	6.60
1342	16 to 22	6.60
1343	10 to 18	6.60
1344	8 to 10	6.60
1345	PSJ-18	6.60
1346	300 ohm	6.60

ADJUSTABLE STOP INCLUDED WITH EACH STRIPPER

- **Speeds Production Stripping**
- **Eliminates Wire Waste**

Easy to put on and take off. Ideal for production work where many wires must be stripped to exactly the same length. Max. length of stripping with stop, ⅞″.
Supplied free with every stripper

REPLACEMENT BLADES are available for all wire strippers. Add suffix "B" to catalog number of stripper for required replacement blade. 1320 series and 1330 series blades are interchangeable.

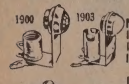
All Blades ....$1.17 Each

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

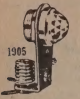
PANEL INDICATORS

Indicators supplied with facetted jewels in Red, Green, Amber, Blue, Opal and White. SPECIFY COLOR. **Std. Pkg. 10**



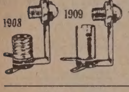
½" JEWEL—
Mounts in 7/16" Hole

No.	Type	NET Per C
1900	Miniature Screw	$27.00
1901	Candelabra	33.00
1902	Candelabra w/Univ. Bkt.	34.80
1903	Bayonet	27.00
1904	Bayonet w/Univ. Bkt	30.00
1912	½" Jewel Only	21.00



¾" JEWEL—
Mounts in 11/16" Hole

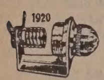
No.	Type	NET Per C
1905	Miniature Screw	$57.00
1906	Bayonet	60.00
1907	Candelabra	60.00
1914	¾" Jewel Only	42.00



⅜" JEWEL—
Mounts in 5/16" Hole

No.	Type	NET Per C
1908	Miniature Screw	$27.00
1909	Bayonet	28.80
1941	⅜" Jewel Only	21.00

OPEN TYPE

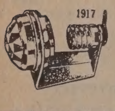


Jewel Removable From Front

½" JEWEL—Mounts in 11/16" Hole

Std. Pkg. 10

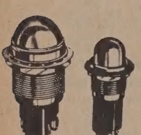
No.	Type	NET Per C
1920	Miniature Screw Open Type	$39.00
1921	Bayonet, Open Type	39.00
1942	Bayonet, "U" Bkt.	54.00
1943	½" Jewel Only	25.20



1" JEWEL—Mounts in 1" Hole

No.	Type	NET Per C
1917	Miniature Screw	$96.00
1918	Bayonet	96.00
1919	Candelabra	102.00
1916	1" Jewel Only	75.00

NEON INDICATORS



UL Approved. Supplies 180 degree light spread. Available in Red, Amber, White, Yellow and Clear caps. Neon removable from front.

Candelabra screw base; 105-125 volts 1" mtg. clearance hole. **Std. Pkg. 10**

No.	Type	NET Per C
1953		$171.00
1954	Lens Cap Only	70.20

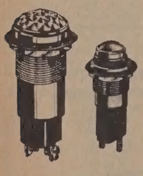
Built-in 56K ohm, ⅓ watt resistor

11/16" mtg. celarance hole.

No.	Type	NET Per C
1955		$135.00
1956	Lens Cap Only	22.20

INDICATOR ASSEMBLIES

Enclosed Type



UL Approved. Available in Red, Green, Amber, Blue, Yellow, Clear and White. **Std. Pkg. 10**

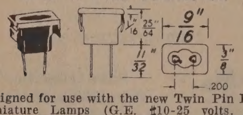
Candelabra screw base; 1" mtg. clearance hole; 1" indicator. Uses No. 1916 Jewel. **NET Per C**

No. 1957 **$172.20**

Bayonet base; 11/16" mtg. clearance hole; ½" indicator. Uses No. 1943 jewel.

No. 1958 **NET Per C $128.40**

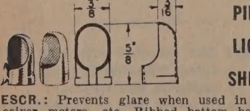
SNAP-IN BULB CONNECTOR



Designed for use with the new Twin Pin Baseless Miniature Lamps (G.E. #10-25 volts, #12-6.3 volts, or #15-7.0 volts). Easily assembled to any unit for indicating purposes. Withstands excessive temperatures. Snaps into a .500x.296 rectangular hole in panels .032 to .062 thick. Bezel — brass, cad. plated; contacts — brass, silver plated. **Std. Pkg. 25**

No. 1504 **NET Per C $10.20**

PILOT LIGHT SHIELD

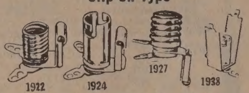


DESCR.: Prevents glare when used in radio receiver meters, etc. Ribbed bottom holds shield securely in place on bulb. **Std. Pkg. 100**

No.	Type	NET Per C
1963	Brass Cad. Plate	$3.60
1968	Plain Brass	3.30
1969	Flared Brass Cad. Plate	4.20

PILOT LIGHT SOCKETS

Clip-On Type

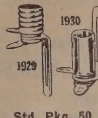


Can be used by clipping on to variable condenser or chassis. All brackets are cadmium plated. **Std. Pkg. 50**

No.	Type	NET Per C
1922	Miniature Screw Up Clip	$9.30
1923	Miniature Screw Down Clip	9.30
1924	Miniature Bayonet Up Clip	9.30
1925	Miniature Bayonet Down Clip	9.30
1926	Candelabra Up Clip	10.20
1927	Candelabra Down Clip	10.20
1938	Clip-in Socket	9.30

PILOT LIGHT SOCKETS

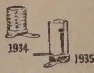
Bracket Type



Std. Pkg. 50

No.	Type	NET Per C
1928	Miniature Screw Up Bracket	$9.30
1929	Miniature Screw Down Bracket	9.30
1930	Miniature Bayonet Up Bracket	9.30
1931	Miniature Bayonet Down Bracket	9.30
1932	Candelabra Up Bracket	10.20
1933	Candelabra Down Bracket	10.20

UNMOUNTED TYPE SOCKETS



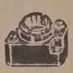
Std. Pkg. 50

No.	Type	NET Per C
1934	Miniature Screw Base	$9.30
1935	Miniature Bayonet Base	9.30
1936	Candelabra Base	10.20

NAVY TYPE LAMP SOCKETS

75W-125V

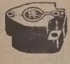
Bayonet Base



Vibration-proof socket for surface mounting. Made to rigid specifications of black phenolic. Has bayonet sleeve of brass and double contacts of heavy spring phosphor bronze. **Std. Pkg. 10**

No. 1950 **NET Per C $84.00**

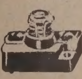
SCREW BASE



Made of black phenolic to strict requirements. Instead of usual screw shell has phosphor bronze wire coiled spring for perfect contact and elimination of vibration. Designed for soldering wire leads. **Std. Pkg. 10**

No. 1951 **NET Per C $84.00**

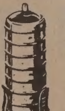
SCREW BASE



Easily wired and mounted. A very practical unit made of black phenolic to rigid specifications. Has phosphor bronze spring contact to assure positive contact and elimination of vibration. **Std. Pkg. 10**

No. 1952 **NET Per C $84.00**

MINI-SHIELDS FOR MINI-TUBES

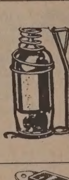


These Mini-Shields fit snugly on all Mini-Tubes. Serrations in base clip prevent shielded tube from jiggling or working loose. Available in two sizes for 1½ & 2" long tubes

Std. Pkg. 50

			NET Per C
550	for 2" tube	1¾"	$7.80
551	for 1½" tube	1¼"	6.60
553	3 prong base clip		3.30
554	single clips		1.98

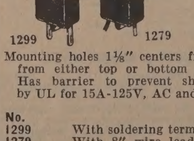
MINI-SPRING FOR MINI-TUBES



Maintains a direct axial pressure downwards plus a sideways support that keeps the tube upright and perpendicular to the chassis. The spring action is constant and resilient permanently. **Std. Pkg. 50**

No.	Type	NET Per C
560	Short	$10.20
561	Medium	10.20
562	Long	10.20
563	9 Prong	10.80

SPACE SAVER APPLIANCE RECEPTACLES

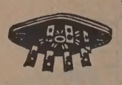


Mounting holes 1⅛" centers from #6 screw. Mounts from either top or bottom of mounting bracket. Has barrier to prevent shorts. Fully approved by UL for 15A-125V, AC and DC.

Std. Pkg. 50

No.		NET Per C
1299	With soldering terminals	$12.00
1279	With 8" wire leads	22.80

MINIATURE WAFER SOCKETS

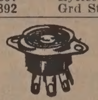


Miniature bakelite sockets wit brass cadmium plated contacts XP bakelite top plate 1/16 thick, bottom plate 3/64" thick high grade spring brass cad mium plated contact; .095 dia mounting holes. Std. Pkg. 5

No.	Description	MTG. Cen.	NET Per
	SEVEN PIN		
880	Eyelet only	⅞"	$6.6
881	Eyelet and Shield	⅞"	6.9
882	Grd Strap and Shield	⅞"	7.2
887	Eyelet only	1"	6.6
888	Eyelet and Shield	1"	6.9
889	Grd Strap and Shield	1"	7.2
	NINE PIN		
890	Eyelet only	1⅛"	$ 8.6
891	Eyelet and Shield	1⅛"	8.9
892	Grd Strap and Shield	1⅛"	9.3

MOLDED MINIATURE SOCKETS

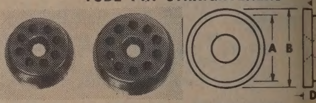
Saddle Type



Molded from either high dielectr black general purpose bakelite low loss mica-filled bakelite Both types supplied with center pin. .098 dia mtg. holes. Std. Pkg. 50

No.	Type	Pin	Mtg. Ctrs.	Mtg. Hole	NET Per
	GENERAL PURPOSE BLACK BAKELITE				
895	Bottom Mount	7	⅞"	⅝"	$9.
896	Top Mount	7	⅞"	⅝"	9.
897	Bottom Mount	9	1⅛"	¾"	10.
898	Top Mount	9	1⅛"	¾"	10.
	LOW LOSS MICA-FILLED BAKELITE				
883	Bottom Mount	7	⅞"	⅝"	11.
884	Top Mount	7	⅞"	⅝"	11.
885	Bottom Mount	9	1⅛"	¾"	13.
886	Top Mount	9	1½"	¾"	13.

TUBE PIN STRAIGHTENERS



MATERIAL: MOLDED BLACK STYRENE.

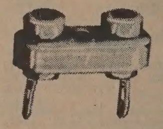
DESCR.: Can be mounted from top with # wood screw or screw and nut, or from rear thr hole in plate with supporting bracket.

Std. Pkg. 5

No.	Type	A	B	C	D	NET Per
893	7-Pin	39/64"	11/16"	⅛"	¼"	$5.4
894	9-Pin	47/64"	51/64"	⅛"	¼"	5.4
899	Set					10.2

CRYSTAL SOCKET

Suitable for Citizen's Band

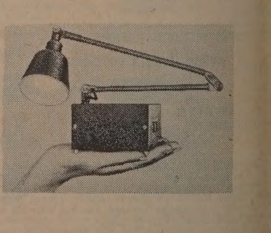


Glazed ceramic ba Phosphor bronze sil plated contacts spac .486". Pin diameter .0 mtg. hole .125

Std. Pkg. 25 **NET Per**

No. 1945 **$15.**

PRECISION WORK LAMP



PRECISION WORK LAMP

Provides glare-free, concentrated lighting for critic assembly and inspection. Articulated arm has thr joints on base. The light shade, made of cork a aluminum, is only 2½" in diameter, and can used with or without a magnifier. Bayonet base bu is standard GE No. 1133. Designed for 115V, cycle AC.

No.	NET Ea
1275	$17.50

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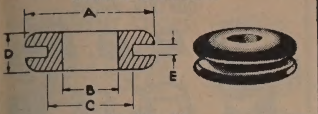
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

RUBBER GROMMETS



Std. Pkg. 100

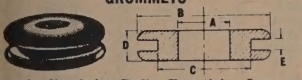
o.	A	B	C	D	E	NET Per C
85	5/16"	1/8"	3/16"	3/16"	1/16"	$2.31
72	7/16"	3/16"	5/16"	3/16"	1/16"	1.98
70	5/8"	1/4"	3/8"	1/4"	1/16"	2 31
74	5/8"	5/16"	7/16"	1/4"	1/16"	2.16
75	11/16"	3/8"	1/2"	1/4"	1/16"	2.31
77	3/4"	7/16"	9/16"	1/4"	1/16"	2.16
86	1 1/16"	1/2"	3/4"	5/16"	1/16"	4.20
87	1 1/8"	5/8"	7/8"	5/16"	1/16"	4.20
88	1 1/16"	9/16"	3/16"	5/16"	1/16"	4.20
89	1 "	3/4"	7/8"	5/32"	1/32"	5.10

VINYL GROMMETS

ESCR.: Exceptional aging qualities. High dielectric properties. Oil resistant. Durameter hardness 45 to 85.

o.	A	B	C	D	E	NET Per C
145	11/32	1/8	1/4	3/16	1/16	$.90
146	7/16	3/16	5/16	7/32	1/16	.96
147	9/16	1/4	3/8	1/4	1/16	1 32
148	5/8	3/8	1/2	1/4	1/16	1.50
149	13/16	1/2	5/8	9/32	1/16	2.28

GROMMETS



ormerly listed by Radio Essentials, Inc., and merican Radio Hardware Inc., (Their catalog umbers as below, minus first digit.)

o.	A	B	C	D	E	NET Per C
1100	3/8"	13/16"	1/2"	13/32"	9/64"	$7.50
1101	7/8"	1 9/16"	1 1/4"	5/8"	3/16"	13.20
1102	9/32"	5/8"	13/32"	3/8"	5/32"	3.15
1103	3/16"	9/16"	15/32"	3/8"	1/8"	3.00
1104	1/4"	7/8"	5/8"	15/32"	3/16"	5.40
1105	5/8"	1 1/4"	31/32"	19/32"	7/32"	14.40
1106	5/16"	5/8"	1/2"	1/2"	3/16"	6.60
1107	3/8"	5/8"	7/16"	5/16"	3/32"	3.30
1108	1/4"	5/8"	7/16"	17/32"	5/32"	4.20
1109	3/8"	1 1/16"	7/8"	3/8"	1/4"	13.50
1110	13/64	3/8 1/2"	9/32"	7/32"	3/32"	4.20
1111	3/8"	7/8 1"	11/16"	13/32"	9/64"	6.60
1112	49/64	1 5/8"	1 3/32"	5/16"	1/16"	7.05
1113	21/64"	5/8"	13/32"	1/4"	1/16"	2.85
1114	1/8"	11/32"	1/4"	3/16"	1/16"	2.34
1115	1/4"	9/16"	3/8"	1/2"	7/32"	4.05
1116	5/16"	3/4"	1/2"	3/8"	1/8"	4.35
1117	3/8"	9/16"	15/32"	5/16"	1/8"	3.15
1118	3/16"	7/16"	5/16"	7/32"	1/16"	2.40
1119	17/64"	9/16"	13/32"	1/4"	1/16"	2.55
1120	19/64	5/8"	7/16"	1/4"	1/16"	3.00
1121	3/8"	11/16"	1/2"	1/4"	1/16"	2.85
1122	1/4"	1/2"	11/32"	5/32"	1/32"	2.85
1123	9/32"	11/16"	1/2"	7/16"	1/4"	3.60
1124	7/16"	3/4"	9/16"	1/4"	1/16"	3.45

RECESS RUBBER BUMPERS

Std. Pkg. 100

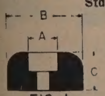


FIG. 1

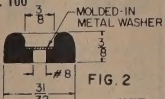


FIG. 2

o.	Fig.	A	B	C	NET Per C
192	1	7/32"	17/32"	1/4"	$1.50
193	1	1/4"	5/8"	5/16"	1.95
194	1	9/32"	3/4"	3/8"	3.00
184	1	1/4"	5/8"	9/32"	3.00
	With molded-in metal washer				
135	2	3/8"	31/32"	3/8"	4.80

With Screw

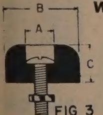


FIG 3

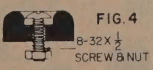


FIG. 4

upplied complete with 1/2" mounting screw and ex nut For panels up to 1/4" thick. Specify longer crew for thicker panels

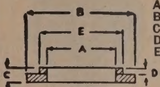
Std. Pkg. 100

o.	Fig.	A	B	C	Screw	NET Per C
196	3	7/32"	17/32"	1/4"	6-32	$6.60
197	3	1/4"	5/8"	5/16"	6-32	6.90
198	3	9/32"	3/4"	3/8"	6-32	7.50
199	3	1/4"	5/8"	9/32"	6-32	7.50
	With molded-in metal washer					
195	4	3/8"	31/32"	3/8"	8-32	9.30

FIBRE SHOULDER WASHERS

All material based on N.E.M.A. Standard and A.S.P.M. Spec. D-710.

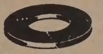
Std. Pkg. 1000



A. Inside Diameter
B. Outside Diameter
C. Thickness Overall
D. Height of Shoulder
E. Diameter of Shoulder

No.	A	(Hole Size)	B	C	D	E	NET Per M
2150	.140	No. 6	.375	.093	.031	.237	$6.90
2151	.110	No. 4	.250	.062	.031	.187	5.70
2152	.136	No. 6	.250	.093	.031	.187	6.00
2153	.136	No. 6	.312	.093	.031	.187	6.60
2154	.250	1/4"	.500	.068	.028	.312	7.20
2155	.172	No. 8	.375	.093	.031	.246	6.60
2156	.196	No. 10	.375	.093	.031	.308	6.60
2159	.265	17/64"	.500	.097	.031	.365	7.20
2157	.375	3/8"	.750	.093	.031	.500	8.70
2158	.385	3/8"	.625	.093	.031	.500	8.40

FLAT FIBRE WASHERS



All material based on N.E.M.A. Standard and A.S.P.M. Spec. D 710

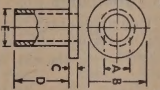
Std. Pkg. 1000

No.	[(Hole Size)	I.D.]	O.D.	Thickness	NET Per M
2160	No. 6	.136	.250	1/16	$5.70
2161	No. 4	.110	.250	1/16	5.70
2162	No. 6	.140	.375	1/16	5.10
2163	No. 8	.172	.375	1/16	5.10
2164	No. 10	.196	.375	1/16	5.10
2165	1/4"	.250	.500	1/16	5.40
2166	1/4"	.250	.500	3/32	5.70
2167	5/16"	.312	.500	1/16	5.40
2168	3/8"	.385	.625	1/16	6.60
2169	3/8"	.375	.750	1/16	8.40

NYLON FLAT WASHERS

NATURAL COLOR

No.	I.D. (A)	O.D.(B)	Thick (C)	NET Per M
2514	#4(.115)	.281	.047	$18.00
2515	#6(.140)	.312	.047	18.60
2516	#8(.170)	.375	.062	21.00
2517	#10(.200)	.437	.062	22.20
2518	1/4"(.260)	.562	.062	24.00

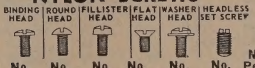


NYLON SPACER BUSHINGS

NATURAL COLOR

No.	I.D. (A)	B	C	D	E	NET Per M
2534	#4(.115)	.235	3/64	1/4	.147	$21.00
2535	#6(.140)	.290	3/64	1/4	.170	21.00
2536	#8(.170)	.344	1/16	3/8	.205	22.00
2537	#10(.200)	.399	1/16	3/8	.260	24.00
2538	1/4"(.260)	.513	1/16	3/8	.312	27.00

NYLON SCREWS



Size	BINDING HEAD No.	ROUND HEAD No.	FILLISTER HEAD No.	FLAT HEAD No.	WASHER HEAD No.	HEADLESS SET SCREW No.	NET Per M
4-40x1/4	2500	2520	2540	2580	2560	2480	$30.00
4-40x3/8	2501	2521	2541	2581	2561	2481	33.00
4-40x1/2	2502	2522	2542	2582	2562	2482	31.20
6-32x1/4	2503	2523	2543	2583	2563	2483	30.60
6-32x3/8	2504	2524	2544	2584	2564	2484	30.60
6-32x1/2	2505	2525	2545	2585	2565	2485	31.20
6-32x5/8	2506	2526	2546	2586	2566	2486	31.20
6-32x3/4	2507	2527	2547	2587	2567	2487	31.80
8-32x1/4	2509	2529	2549	2589	2569	2489	30.60
8-32x3/8	2510	2530	2550	2590	2570	2490	31.20
8-32x1/2	2511	2531	2551	2591	2571	2491	31.20
8-32x5/8	2512	2532	2552	2592	2572	2492	31.80

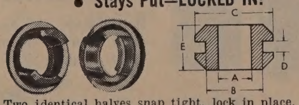
NYLON HEX NUTS

Std. Pkg. 100

No.	Size	NET Per C
2554	4-40	$6.00
2555	6-32	6.30
2556	8-32	6.60
2557	10.32	6.90

SNAP-LOCK PLASTIC GROMMETS

- Snaps in Place—FAST!
- Stays Put—LOCKED IN!



Two identical halves snap tight, lock in place. Provides a rigid bearing surface, greater dielectric, extreme chemical and wear resistance. Identical halves form complete grommet. Color, black.

Std. Pkg. 100

No.	A	B	C	D	E	NET Per C
2178	3/16"	5/16"	7/16"	1/16"	1/4"	$2.76
2179	1/4"	3/8"	1/2"	1/16"	1/4"	2.88
2180	3/8"	1/2"	5/8"	1/16"	1/4"	3.00

SPACERS

Brass Cadmium Plated

These brass bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc. Hole in bushing to accommodate a #4, #6, or #8 screw.

Std. Pkg. 100

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4" O.D.				
1/4"	2340	2100	2105	$3.30
3/8"	2341	2101	2106	4.35
1/2"	2342	2102	2107	5.28
3/4"	2343	2103	2108	6.30
1"	2344	2104	2109	7.20
3/8" O.D.				
1/4"	2345	2110	2115	$5.28
3/8"	2346	2111	2116	6.30
1/2"	2347	2112	2117	7.20
3/4"	2348	2113	2118	8.25
1"	2349	2114	2119	9.30

THREADED SPACERS

Brass Cadmium Plated

1/4" O.D. Threaded
4-40, 6-32 and 8-32.

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
1/4"	2370	2120	2125	$3.90
3/8"	2371	2121	2126	4.95
1/2"	2372	2122	2127	6.00
3/4"	2373	2123	2128	7.20
1"	2374	2124	2129	8.25

HEX SPACERS

Brass Cadmium Plated

Std. Pkg. 100

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4" HEX				
1/4"	2380	2300	2305	$3.60
3/8"	2381	2301	2306	4.65
1/2"	2382	2302	2307	5.58
3/4"	2383	2303	2308	6.75
1"	2384	2304	2309	7.80
3/8" HEX				
1/4"	2385	2310	2315	6.18
3/8"	2386	2311	2316	7.20
1/2"	2387	2312	2317	8.25
3/4"	2388	2313	2318	9.90
1"	2389	2314	2319	10.50

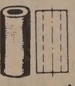
THREADED HEX SPACERS

Brass Cadmium Plated

1/4" HEX

Length	THD 4-40 No.	THD 6-32 No.	THD 8-32 No.	NET Per C
1/4"	2330	2320	2325	$4.20
3/8"	2331	2321	2326	5.25
1/2"	2332	2322	2327	6.30
3/4"	2333	2323	2328	7.65
1"	2334	2324	2329	8.85

FIBRE SPACERS

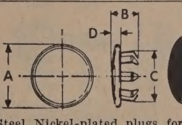


These fibre bushings are ideal for use in raising sub panels, chassis, condensers, transformers, etc.

Std. Pkg. 100

1/4" O.D.

Length	for #4 Screw No.	for #6 Screw No.	for #8 Screw No.	NET Per C
1/4"	2335	2130	2140	$3.90
3/8"	2336	2131	2141	4.95
1/2"	2337	2132	2142	6.00
3/4"	2338	2133	2143	7.20
1"	2339	2134	2144	8.25



SNAP BUTTON HOLE PLUGS

Steel Nickel-plated plugs for covering punched or drilled holes in metal, plastic or wood.

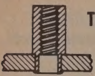
Std. Pkg. 100

No.	Hole	A	B	C	D	Prongs	NET Per C
650	1/4"	13/32	1/4	17/64	5/64	6	$2.00
651	5/16"	7/16	1/4	21/64	1/16	6	2.00
652	3/8"	17/16	3/8	25/64	5/64	6	2.00
653	1/2"	21/32	17/64	17/32	5/64	8	2.80
654	5/8"	51/64	9/32	41/64	5/64	8	2.80
655	3/4"	15/16	19/64	49/64	3/32	12	2.80
608	7/8"	1 11/16	19/64	57/64	1/16	12	3.30
612	1"	1 5/32	19/64	1 1/64	5/64	12	4.50
*656	1"	1 5/32	19/64	1 1/32	5/64	12	13.80

* Vent

HERMAN H. SMITH, INC

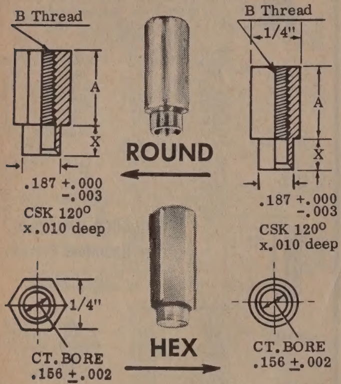
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"



THREADED SWAGE STANDOFFS

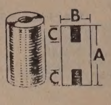
Brass Nickel Plated

Std. Pkg. 100



ROUND No.	NET Per C	A	B	X	HEX No.	NET Per C
4100	$4.50	¼	4/40	.105	4200	$5.10
4101	4.50	¼	4/40	.135	4201	5.10
4102	4.50	¼	4/40	.165	4202	5.10
4103	5.10	⅜	4/40	.105	4203	5.70
4104	5.10	⅜	4/40	.135	4204	5.70
4105	5.10	⅜	4/40	.165	4205	5.70
4106	5.70	½	4/40	.105	4206	6.45
4107	5.70	½	4/40	.135	4207	6.45
4108	5.70	½	4/40	.165	4208	6.45
4109	6.90	⅝	4/40	.105	4209	7.35
4110	6.90	⅝	4/40	.135	4210	7.35
4111	6.90	⅝	4/40	.165	4211	7.35
4112	8.10	¾	4/40	.105	4212	8.40
4113	8.10	¾	4/40	.135	4213	8.40
4114	8.10	¾	4/40	.165	4214	8.40
4115	10.50	1	4/40	.105	4215	11.10
4116	10.50	1	4/40	.135	4216	11.10
4117	10.50	1	4/40	.165	4217	11.10
4118	4.50	¼	6/32	.105	4218	5.10
4119	4.50	¼	6/32	.135	4219	5.10
4120	4.50	¼	6/32	.165	4220	5.10
4121	5.10	⅜	6/32	.105	4221	5.70
4122	5.10	⅜	6/32	.135	4222	5.70
4123	5.10	⅜	6/32	.165	4223	5.70
4124	5.70	½	6/32	.105	4224	6.45
4125	5.70	½	6/32	.135	4225	6.45
4126	5.70	½	6/32	.165	4226	6.45
4127	6.90	⅝	6/32	.105	4227	7.35
4128	6.90	⅝	6/32	.135	4228	7.35
4129	6.90	⅝	6/32	.165	4229	7.35
4130	8.10	¾	6/32	.105	4230	8.40
4131	8.10	¾	6/32	.135	4231	8.40
4132	8.10	¾	6/32	.165	4232	8.40
4133	10.50	1	6/32	.105	4233	11.10
4134	10.50	1	6/32	.135	4234	11.10
4135	10.50	1	6/32	.165	4235	11.10
4136	4.50	¼	8/32	.105	4236	5.10
4137	4.50	¼	8/32	.135	4237	5.10
4138	4.50	¼	8/32	.165	4238	5.10
4139	5.10	⅜	8/32	.105	4239	5.70
4140	5.10	⅜	8/32	.135	4240	5.70
4141	5.10	⅜	8/32	.165	4241	5.70
4142	5.70	½	8/32	.105	4242	6.45
4143	5.70	½	8/32	.135	4243	6.45
4144	5.70	½	8/32	.165	4244	6.45
4145	6.90	⅝	8/32	.105	4245	7.35
4146	6.90	⅝	8/32	.135	4246	7.35
4147	6.90	⅝	8/32	.165	4247	7.35
4148	8.10	¾	8/32	.105	4248	8.40
4149	8.10	¾	8/32	.135	4249	8.40
4150	8.10	¾	8/32	.165	4250	8.40
4151	10.50	1	8/32	.105	4251	11.10
4152	10.50	1	8/32	.135	4252	11.10
4153	10.50	1	8/32	.165	4253	11.10

CERAMIC STANDOFFS

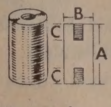


MADE TO JAN. SPECS.

Grade L-5 Ceramic made to JAN 1-8 and JAN 1-10 Specs. Outside of ceramic is glazed. **Std. Pkg. 50**

No.	Type	A	B	C	Thd.	NET Per C
2600	NS5W0104	½"	⅜"	5/32"	6-32	$13.20
2601	NS5W0105	⅝"	⅜"	¼"	6-32	15.00
2602	NS5W0106	¾"	⅜"	¼"	6-32	18.00
2603	NS5W0108	1"	⅜"	⅜"	6-32	21.00
2604	NS5W0110	1¼"	⅜"	⅜"	6-32	24.00
2605	NS5W0112	1½"	⅜"	⅜"	6-32	25.20
2606	NS5W0116	2"	⅜"	⅜"	6-32	28.20
2607	NS5W0205	⅝"	½"	3/16"	8-32	15.00
2608	NS5W0206	¾"	½"	¼"	8-32	18.00
2609	NS5W2008	1"	½"	⅜"	8-32	21.00
2610	NS5W0210	1¼"	½"	⅜"	8-32	24.00
2611	NS5W0212	1½"	½"	⅜"	8-32	25.20
2612	NS5W0216	2"	½"	⅜"	8-32	28.20
2613	NS5W0220	2½"	½"	⅜"	8-32	30.00
2614	NS5W0224	3"	½"	⅜"	8-32	33.00
2615	NS5W0308	1"	¾"	⅜"	10-32	18.00
2616	NS5W0310	1¼"	¾"	⅜"	10-32	21.00
2617	NS5W0312	1½"	¾"	⅜"	10-32	24.00
2618	NS5W0316	2"	¾"	⅜"	10-32	28.20
2619	NS5W0320	2½"	¾"	⅜"	10-32	33.00
2620	NS5W0324	3"	¾"	⅜"	10-32	39.00
2621	NS5W0332	4"	¾"	⅜"	10-32	43.20
2622	NS5W0410	1¼"	1"	7/16"	¼-20	33.00
2623	NS5W0412	1½"	1"	½"	¼-20	39.00
2624	NS5W0416	2"	1"	⅝"	¼-20	43.20
2625	NS5W0420	2½"	1"	⅝"	¼-20	48.00
2626	NS5W0424	3"	1"	⅝"	¼-20	54.00
2627	NS5W0432	4"	1"	⅝"	¼-20	66.00
2628	NS5W0440	5"	1"	⅝"	¼-20	78.00
2629	NS5W0448	6"	1"	⅝"	¼-20	90.00

CERAMIC STANDOFFS

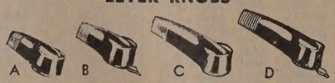


COMMERCIAL

Grade L5 Ceramic with outside glazed. **Std. Pkg. 50**

No.	A	B	C	Thd.	NET Per C
2640	¼"	¼"	ALL	6-32	$10.20
2641	½"	¼"	5/32"	6-32	15.00
2642	⅜"	⅜"	5/32"	6-32	10.20
2643	½"	⅜"	3/16"	6-32	10.80
2644	½"	½"	9/64"	6-32	12.00
2645	¾"	½"	¼"	6-32	12.00
2646	1"	½"	⅜"	6-32	12.00
2647	1½"	½"	9/16"	6-32	13.80
2648	2½"	½"	½"	6-32	13.80
2649	2½"	¾"	¾"	¼-20	13.80
2650	4"	¾"	¾"	¼-20	30.00

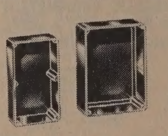
LEVER KNOBS



Molded bakelite lever knobs with ¼" brass insert, complete with set screw. **Std. Pkg. 25**

No.	Style	Length	Height	Color	NET Per C
2232	A	1⅝"	19/32"	Black	$22.20
2233	A	1⅝"	19/32"	Walnut	22.80
2234	B	1 15/16"	19/32"	Black	38.40
2235	B	1 15/16"	19/32"	Walnut	38.40
2236	C	2½"	⅝"	Black	24.00
2237	C	2½"	⅝"	Walnut	24.00
2238	D	2 13/16"	⅝"	Black	43.20
2239	D	2 13/16"	⅝"	Walnut	43.80

METER CASES

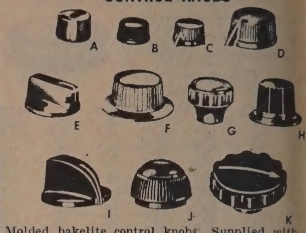


Molded Black, with four corner brass inserts for corner mounting

Std. Pkg. 5

No.	Case Size	Insert	NET Each
2255	3¾" x 6¼" x 2"	6-32	$1.03
2257	5-9/32" x 6-13/16" x 2-5/16"	4-36	1.28
2289	7" x 8" x 2¾"	6-32	2.40
2256	Cover for 2255		.59
2260	Cover for 2257		1.02

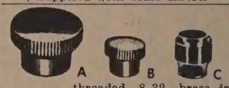
CONTROL KNOBS



Molded bakelite control knobs. Supplied with molded hole; complete with set screw. *Reces for locknut. **Std. Pkg.**

No.	Style	O.D.	Height	Color	NET Pe
2240	A	¾"	19/32"	Black	$1
2241	A	¾"	19/32"	Walnut	1
2242	B	11/16"	13/32"	Black	9
2243	B	11/16"	13/32"	Walnut	9
2244*	B	1"	½"	Black	1
2245*	B	1"	½"	Walnut	1
2275†	B	11/16"	13/32"	Black	2
2276†	B	11/16"	13/32"	Red	2
2246	C	11/16"	13/32"	Black	9
2247	C	11/16"	13/32"	Walnut	9
2273†	C	11/16"	13/32"	Black	2
2274†	C	11/16"	13/32"	Red	2
2248*	D	1"	½"	Black	1
2249*	D	1"	½"	Walnut	1
2250*	E	1⅛"	9/16"	Black	1
2251*	E	1⅛"	9/16"	Walnut	1
2252*	F	1½"	11/16"	Black	1
2253*	F	1½"	11/16"	Walnut	1
2254*	F	1½"	11/16"	Ivory	1
2258	G	⅞"	¾"	Black	1
2259	G	⅞"	¾"	Walnut	1
2265	H	29/32"	19/32"	Black	1
2266	H	29/32"	19/32"	Red	1
2267	J	1 3/16"	⅝"	Black	1
2268	J	1 3/16"	⅝"	Red	1
2269	K	⅞"	⅝"	Black	1
2270	K	⅞"	⅝"	Red	1
2283	L	⅞"	½"	Black	1
2284	L	⅞"	½"	Red	1

† Supplied with brass insert.

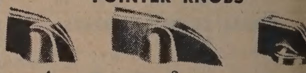


BINDIN POST KNOBS

threaded 8-32 brass inserts

No.	Style	O.D.	Height	Color	N Pe
2271	A	¾"	½"	Black	$
2272	A	¾"	½"	Red	9
2285	B	½"	7/16"	Red	9
2286	B	½"	7/16"	Black	9
2287	C	½"	½"	Red	9
2288	C	½"	½"	Black	9

POINTER KNOBS



A
Length 1¼"
Hgt. ⅝"

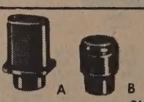
B
Length 2"
Hgt. ⅝"

C
Length 1
Hgt.

Molded bakelite pointer knobs, supplied with plain hole or brass inset. Complete with set scr

Std. Pkg

No.	Style	Type Hole	Color	NET Pe
2220	A	¼" Plain	Black	$1
2221	A	¼" Plain	Walnut	1
2222	A	¼" Plain	Ivory	1
2223	A	¼" Brass Insert	Black	1
2224	A	¼" Brass Insert	Walnut	1
2225	A	¼" Brass Insert	Red	1
2226	B	¼" Plain	Black	2
2227	B	¼" Plain	Walnut	2
2228	B	¼" Brass Insert	Black	2
2229	B	¼" Brass Insert	Walnut	2
2230	C	¼" Plain	Black	1
2231	C	¼" Plain	Walnut	1



PUSH BUTTON KNOBS

Std. Pkg. 25

No.	Style	O.D.	Height	Color	N Pe
2277	A	½"	13/64"	Black	$7
2278	A	½"	13/64"	Red	8
2279	B	31/64"	9/16"	Black	4
2280	B	31/64"	9/16"	Red	6

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"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

INSTRUMENT KNOBS

Plain — With Pointer — With Skirt

Molded black bakelite instrument knobs with molded in brass insert for ¼" shafts. **Style B** pointer knobs have white vinyl pointer. **Style C** skirt type have white indicator line. **Style D** same as style A except with protruding brass insert for mounting special dials and pointers. **Std. Pkg. 10**

No.	Style	O.D.	Pointer Size	Height	NET Per C
2200	A	1⅛"		⅝"	$28.20
2201	A	1⅜"		11/16"	29.40
2202	A	1⅝"		¾"	33.60
2203	A	2⅜"		⅞"	48.00
2204	B	1⅛"	¾" pointer	11/16"	44.40
2205	B	1⅜"	1 1/16" pointer	¾"	45.00
2206	B	1⅝"	1 3/16" pointer	13/16"	48.00
2207	B	2⅜"	1 9/16" pointer	15/16"	64.20
2208	C	1⅛"	1½" Skirt	13/16"	53,40
2209	C	1⅜"	1¾" Skirt	⅞"	55.20
2210	C	1⅝"	2 1/16" Skirt	29/32"	65.40
2211	C	2⅜"	3" Skirt	1 1/32"	85.80
2212	D	1⅛"		23/32"	34.80
2213	D	1⅜"		25/32"	35.40
2214	D	1⅝"		27/32"	40.20
2215	D	2⅜"		31/32"	55.20
			SKIRT ONLY		
2216		1½"	Skirt only		10.80
2217		1¾"	Skirt only		12.60
2218		2 1/16"	Skirt only		14.40
2219		3"	Skirt only		21.00

INSTRUMENT KNOBS

Matte Finish — Made to Meet MS-91531

Molded Black, Matte finish bakelite instrument knobs, with molded-in brass insert for ¼" shafts. All knobs supplied with two (2) Allen-head set-screws. Style B pointer knobs have white vinyl pointer. Style C skirt knobs have white indicator line on skirt. **Std. Pkg. 10**

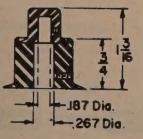
No.	Style	O.D.	Pointer size	Height	NET Per C
2460	A	1⅛"		⅝"	$81.00
2461	A	1⅝"		¾"	99.00
2462	A	2⅜"		⅞"	122.00
2463	B	1⅛"	¾" pointer	11/16"	92.00
2464	B	1⅝"	1 3/16" pointer	13/16"	106.00
2465	B	2⅜"	1 9/16" pointer	15/16"	132.00
2466	C	1⅛"	1½" skirt	13/16"	123.00
2467	C	1⅝"	2 1/16" skirt	29/32"	152.00
2468	C	2⅜"	3" skirt	1 1/32"	191.00

FLUTED INSTRUMENT KNOBS

Molded black bakelite fluted instrument knobs, supplied with white-filled line on crown and skirt, opposite set-screw. Supplied with ¼" plain hole with set-screw. **Std. Pkg. 10**

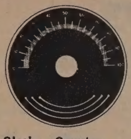
No.	Skirt Dia.	Height	NET Per C
2391	¾"	½"	$18.00
2392	1⅛"	⅝"	18.60
2393	1¼"	¾"	18.60
2394	1½"	⅞"	19.20
2395	2"	15/16"	44.00
	With ⅛" plain hole with set-screw		
2396	¾"	½"	18.00

CONCENTRIC FLUTED INSTRUMENT KNOBS



Molded black and Red bakelite dual-concentric fluted instrument knobs. Outside knob is black with white filled line on skirt. Inner knob is red with white-filled line on skirt and crown. Both knobs supplied with set-screws. **Std. Pkg. 10**

No.	NET Per C
2397	$32.40



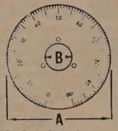
CONTROL PLATES

MATERIAL: Brass Black Satin Finish. Etched silver numerals.

DIMENSION: 13/32" I.D. x O.D. as specified.

Std. Pkg. 5

Clock-wise Calib. 0.100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Per C
2900	2906	180	2"	$45.00
2901	2907	270	2"	45.00
2902	2908	325	2"	45.00
2903	2909	180	3½"	90.00
2904	2910	270	3½"	90.00
2905	2911	325	3½"	90.00



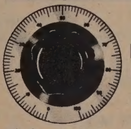
DIAL PLATES

MATERIAL: Brass Chrome Silver Finish.

DESCR.: Mounting Holes 9/64".

Std. Pkg. 5

Clock-wise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	A	B	NET Per C
2912	2928	180	1⅛"	⅜"	$45.00
2913	2929	270	1⅛"	⅜"	45.00
2914	2930	325	1⅛"	⅜"	45.00
2915	2931	360	1⅛"	⅜"	45.00
2916	2932	180	1¾"	31/64"	60.00
2917	2933	270	1¾"	31/64"	60.00
2918	2934	325	1¾"	31/64"	60.00
2919	2935	360	1¾"	31/64"	60.00
2920	2936	180	2¾"	¾"	75.00
2921	2937	270	2¾"	¾"	75.00
2922	2938	325	2¾"	¾"	75.00
2923	2939	360	2¾"	¾"	75.00
2924	2940	180	4"	15/16"	120.00
2925	2941	270	4"	15/16"	120.00
2926	2942	325	4"	15/16"	120.00
2927	2943	360	4"	15/16"	120.00



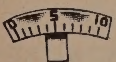
DIAL AND KNOB ASSEMBLY

DIAL: Brass Chrome Silver Finish.

KNOB: Molded Bakelite with ¼" Brass insert.

Std. Pkg. 5

Clock-wise Calib. 0-100 No.	Counter-Clockwise Calib. 100-0 No.	Degrees	O.D.	NET Each
2960	2976	180	1⅛"	$1.35
2961	2977	270	1⅛"	1.35
2962	2978	325	1⅛"	1.35
2963	2979	360	1⅛"	1.35
2964	2980	180	1¾"	1.41
2965	2981	270	1¾"	1.41
2966	2982	325	1¾"	1.41
2967	2983	360	1¾"	1.41
2968	2984	180	2¾"	3.00
2969	2985	270	2¾"	3.00
2970	2986	325	2¾"	3.00
2971	2987	360	2¾"	3.00
2972	2988	180	4"	3.45
2973	2989	270	4"	3.45
2974	2990	325	4"	3.45
2975	2991	360	4"	3.45



VERNIER DIAL MARKERS

MATERIAL: Brass Chrome Silver Finish. Supplied with hardware. **Std. Pkg. 5**

No.	For °Dials	Dial O.D.	NET Per C
2944	180	1⅛"	$30.00
2945	270	1⅛"	30.00
2946	325	1⅛"	30.00
2947	360	1⅛"	30.00
2948	180	1¾"	30.00
2949	270	1¾"	30.00
2950	325	1¾"	30.00
2951	360	1¾"	30.00
2952	180	2¾"	30.00
2953	270	2¾"	30.00
2954	325	2¾"	30.00
2955	360	2¾"	30.00
2956	180	4"	30.00
2957	270	4"	30.00
2958	325	4"	30.00
2959	360	4"	30.00

DIAL PLATES

2261 — 2262 — 2290

DIAL: BRASS, chrome silver, 1⅝" O.D.
KNOB: Molded bakelite black (our 2250).
DESCR.: For matching dials on instruments, receivers, amplifiers. Dial has clear black etched numbers. Knob fits 1'4" shaft. **Std. Pkg. 10**

No.	Type	NET Each
2261	10 to 0 180 Degrees	$.75
2262	10 to 0 270 Degrees	.75
	DIAL PLATES ONLY ½" I.D.	
2263	10 to 0 180 Degrees	.45
2264	10 to 0 270 Degrees	.45

KNOB DIAL PLATE

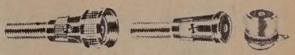
DIAL: Nickel silver, 1⅝" O.D.

KNOB: Molded bakelite.

DESCR.: Engraved numerals, varnish coated. 10 to 0, in 360 degrees. Knob fits ¼" shaft. **Std. Pkg. 10**

No. 2290 — NET Each $.75

MICROPHONE CONNECTORS



BODY: BRASS, nickel plated.
SPRING: Steel, cadmium plated.
INSUL.: XXXP Bakelite.
EYELET: Brass, hot tinned for easy soldering.

Standard Type ⅝—27 Thread

DESCR.: Designed for use with single conductor cable. Microphone connectors provided with flexible protector spring. Cable clamped firmly to connector by hollow point set screw. **Std. Pkg. 50**

No.	Type	Length	NET Per C
115	Single Contact Male	1¾"	$21.00
116	Single Contact Female	2 "	31.80

CHASSIS CONNECTORS

Mount in .385 hole grounded: .500 hole insulated with shoulder washer.

No.	Type	Length	NET Per C
117	Single Contact Male	⅝"	21.00
114	Closed Circuit Male	¾"	30.00

MINIATURE MICROPHONE CONNECTORS

⅜-32 THREAD

DESCR.: Ideal for lapel microphone, musical instruments, etc., wherever small cable is used. Accepts cable up to 3/16" diameter. **Std. Pkg. 50**

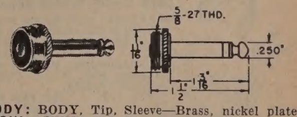
No.	Type	Length	NET Per C
484	Single Contact Female	1¼"	$36.00
485	Single Contact Male	1⅛"	70.00

CHASSIS CONNECTOR

Mounts in 3/16" hole grounded; ¼" hole insulated with shoulder washer.

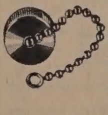
No.	Type	Length	NET Per C
486	Single Contact Male	⅝"	21.00

PHONE PLUG ADAPTER



BODY: BODY, Tip, Sleeve—Brass, nickel plated.
INSUL.: XXXP Bakelite.
DESCR.: Mates with No. 116 microphone connector. Fits standard phone jacks. **Std. Pkg. 25**

No. 113 — NET Per C $30.00



CAP AND CHAIN

DESCR.: BRASS, nickel plated. Seals chassis connectors against dust. Eliminates noisy connections. Used with any threaded one or two conductor chassis unit. **Std. Pkg. 10**

No.		NET Per C
118	⅝-27 Thread	$36.00

HERMAN H. SMITH, INC.

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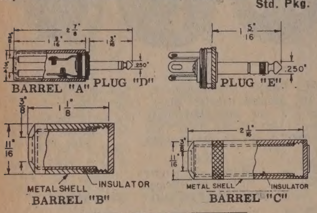
STANDARD PHONE PLUGS

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC working voltage.
DESCR.: Fits standard phone jacks. Molded styrene separator insures maximum insulation between elements.
LUGS: 2 circuit plugs are screw terminals with ribbed clips and cord anchor. 3 circuit plugs are solder lugs.
Std. Pkg. 25



Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR

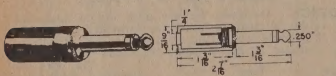
No.	Circuit	Terminals	Plug	Barrel	NET Per C
222	2	Screw	D	A	$39.00
227	3	Solder	E	A	84.00

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	NET Per C
252	2	Screw	D	B	$54.00
272	2	Screw	D	C	66.00
228	3	Solder	E	B	90.00
238	3	Solder	E	C	111.00

STANDARD PHONE PLUG
Baby Bakelite Barrel



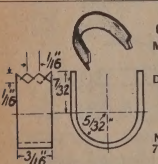
BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 750 Volts 60 cycle AC continuous working voltage.
DESCR.: Molded styrene separator insures maximum insulation between conductors. Fits standard phone jacks.
Std. Pkg. 25

No.	Circuit	Terminals	NET Per C
243	Two	Solder	$24.00

PJ055 AND PJ068 PLUGS

BARREL: MOLDED plastic.
BODY: Body, tip, sleeve—Machined brass.
TERM.: Brass, hot tinned.
INSUL.: Ethyl cellulose type EM-1 MIL-P-3412.
DESCR.: Designed especially for high quality communications equipment and to meet the exacting requirements of the armed services. Parts are assembled together in a mold, providing a finished plug with complete continuity of thermo plastic insulation between the tip rod and plug sleeve.
Std. Pkg. 25

No.	Type	Each
217	PJ055B	$1.35
247	PJ068B	3.65

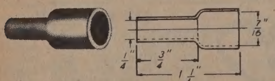


CORD CLAMP STRAIN RELIEF

MATERIAL: Cold Rolled Steel, per QQ-S-636. Finish zinc per Spec. 7253, Table II, Type I.
DESCR.: Used on Government cord assemblies. Made in accordance with Signal Corps. Spec. SC-A-7674.
Std. Pkg. 100

No.	NET Per C
747	$1.80

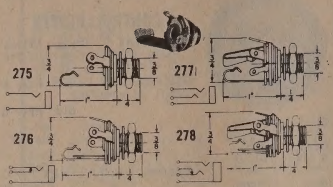
TELEPHONE CORD SLEEVE



MATERIAL: Neoprene in accordance with Grade SC415AFF per MIL-R-3065.
DESCR.: Used on Government cord assemblies, for Strain Relief, Dust and Moisture Seal.
Std. Pkg. 100

No.	NET Per C
748	$6.60

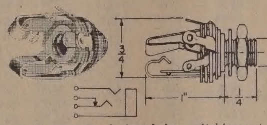
TELEPHONE JACKS



BUSHING: BRASS, nickel plated.
INSUL.: Bakelite, type PBE-P per MIL-P-3115B.
SPRING: Nickel-Silver alloy, spring temper. New tapered design provides for ease of insertion while eliminating possibility of shorts.
SLEEVE TERM.: Brass, hot tinned.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1.2 K Volts 60 cycle AC continuous working voltage.
DESCR.: Notched insulating washers accurately locate all parts, and eliminate possibility of shorts and arc-over. Springs designed for firm, low-resistance electrical contact. Bushings ¼" long, threaded ⅜"-32. Mounts in ⅜" hole in panels up to 5/32" thick. Overall diameter ⅞", require 1" clearance behind panel. Supplied with ½" hex brass nut and ⅝" steel panel washer, all nickel plated.
Std. Pkg. 50

No.	Circuit	NET Per C
275	Two Conductor Open	$27.00
276	Two Conductor Closed	30.00
277	Three Conductor Open	36.00
278	Three Conductor Closed	45.00

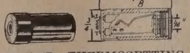
STEREO TELEPHONE JACK



A new jack specially designed for switching-out speakers when connecting stereo headphones, and for switching three-wire stereo input circuits. Dual, normally-closed switch contacts open both stereo circuits independently when three circuit plug is inserted.

No.	Circuit	NET Per C
268	Three Conductor Dual Closed	$54.00

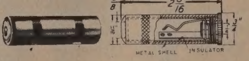
IN-LINE EXTENSION JACK
Bakelite Barrel



BARREL: MOLDED THERMOSETTING plastic, per MIL-P-14 CFG. Red and Black. SPECIFY COLOR
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 50

No.	Type	NET Per C
274	Solder Connection	$54.00
288	Screw Connection	66.00

Shielded Barrel

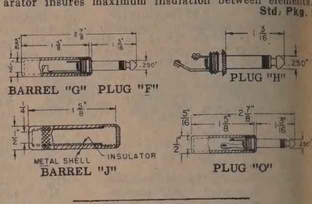


BARREL: Brass, nickel plated, with tubular insulator.
BODY: Brass, nickel plated.
RATING: 10 Amps AC for 10°C Temp. rise, continuous duty. 1 K Volts 60 cycle AC continuous working voltage.
SPRING: Nickel, silver, special alloy, spring temper.
INSUL.: XXP Bakelite.
DESCR.: For microphone and Hi-Fi extension cords. Mates with standard phone plugs.
Std. Pkg. 25

No.	Type	NET Per C
273	Solder Connection	$75.00
289	Screw Connection	84.00

SLIM PHONE PLUGS
Cable Clamp Style

BODY: Body, tip, and sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuo duty. 750 Volts 60 cycle AC continuous working voltag
DESCR.: Fits standard phone jacks. Molded styrene se arator insures maximum insulation between elements.
Std. Pkg.

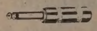


Bakelite Barrel

BARREL: MOLDED THERMOSETTING plastic, MIL-P-14 CFG. Red and Black. SPECIFY COL

No.	Circuit	Terminals	Plug	Barrel	N Pe
225	2	Solder	F	G	$3
307	2	Screw	H	G	4

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	P
226	2	Solder	F	J	$6
316	2	Screw	H	J	6

ECONOMY TYPE

BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, contin duty. 750 Volts 60 cycle AC continuous working volt
DESCR.: An inexpensive modified version of our pop #225 and 225 plugs shown above. Features two s solder lugs.
Std. Pk

Bakelite Barrel

BARREL: MOLDED BAKELITE, Red or Black. SPECIFY CO

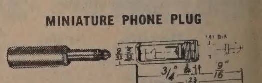
No.	Circuit	Terminals	Plug	Barrel	F
320	2	Solder	O	G	$

Shielded Barrel

BARREL: BRASS, nickel plated with tubular insert.

No.	Circuit	Terminals	Plug	Barrel	F
330	2	Solder	O	J	$

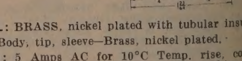
MINIATURE PHONE PLUG



HANDLE: MOLDED plastic. Black.
BODY: Body, tip, sleeve—Brass, nickel plated.
TERM.: Brass, hot tin dipped.
RATING: 5 Amps AC for 10°C Temp. rise, conti duty. 350 Volts 60 cycle AC continuous working vo
DESCR.: Designed for use with hearing aids, small m etc. Solder terminals.
Std. Pk

No.	NET
480	$

Shielded Barrel



BARREL: BRASS, nickel plated with tubular insula
BODY: Body, tip, sleeve—Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, conti duty. 350 Volts 60 cycle AC continuous working vo
DESCR.: Designed for use with hearing aids, small n etc. Solder terminals.
Std. P

No.	Circuit	NET
481	Two Conductor	

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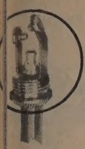
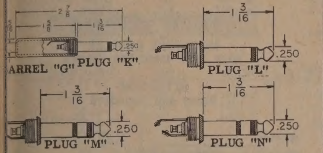


IMPROVED "TURRET-CENTER" STYLE

BODY: Body, Tip, Ring, and sleeve —Brass, nickel plated.
RATING: 5 Amps AC for 10°C Temp. rise, continuous duty. 1.5 KV 60 cycle AC continuous working voltage.
CR.: New, improved construction has co-axial "turret-ninal" tip lug and widely separated contacts for ximum voltage ratings. Styrene separator, Mylar eves, and Nylon bushings used for increased perform-e. Fits standard phone jacks.

Std. Pkg. 25



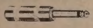
Bakelite Barrel

REL: Molded Bakelite, Red or Black.

SPECIFY COLOR

Circuit	Terminals	Plug	Barrel	NET Pc~ C
2	Solder	K	G	$3
2	Screw	L	G	45.
3	Solder	M	G	63
3	Screw	N	G	72.

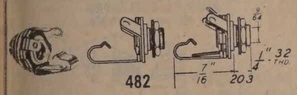
Shielded Barrel



REL: BRASS, nickel plated with tubular insert.

Circuit	Terminals	Plug	Barrel	NE Per C
2	Solder	K	J	$60.0C
2	Screw	L	J	63.(
3	Solder	M	J	78.0
3	Screw	N	J	84.(

MINIATURE TELEPHONE JACKS

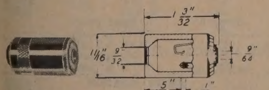


HING: BRASS, nickel plated.
UL.: XXXP bakelite, type PBE-P per MIL-P-3115A.
ING: Nickel silver alloy, spring temper.
M.: Brass, hot tinned.
ING: 5 Amps AC for 10°C Temp. rise, continuous ty. 500 Volts 60 cycle AC continuous working voltage.
CR.: Notched insulation washers interlock springs and gs, eliminate possibility of shifting which result in ectrical shorts. Springs firmly hold mating plug. Supied with hex brass nut and steel mounting washer all ckel plated.

Std. Pkg. 50

Circuit	NET Per C
Two Conductor, Open	$24.00
Two Conductor, Closed	27.00

MINIATURE EXTENSION JACK
Shielded



RREL: Brass, nickel plated.
DY: Brass, nickel plated.
ING: Nickel silver alloy, spring temper.
UL.: Bakelite.
TING: 5 Amps AC for 10°C Temp. rise, continuous ity. 500 Volts 60 cycle AC continuous working voltage.
SCR.: Mates with Miniature Phone Plugs.

Std. Pkg. 25

NET Per C
$72.00

EQUIPMENT HANDLES

MATERIALS AND FINISH SPECIFICATIONS

The following specifications are met by all panel handles, ferrules, and hardware where applicable:

Materials:

Brass: In accordance with Federal Spec. QQ-B-626, Composition 22, ½ Hard.
Aluminum: In accordance with Federal Spec. QQ-A-365, Composition A, Type 3.
Steel: Cold-Rolled, in accordance with QQ-S-633b, Grade FS-1010.

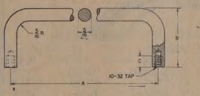
Finishes:

Nickel Plate: Polished Nickel Plate, in accordance with Federal Spec. QQ-N-290, Class I, Type VI.
Black Oxide: In accordance with MIL-F-495A.
Satin Etch: Commercial finish.
Black Anodize: In accordance with MIL-A-8625A.
Optical Black: Color in accordance with Fed. Std. 595, Type 37038. Paint complies with Fed. Spec. TT-E-527.

Note:

Aluminum Handles, either round or oval, and matching ferrules, can be supplied anodized in colors per MIL-A-8625A on special order.

PANEL HANDLES

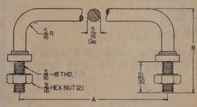


Brass Panel Handles, finished as shown, with internal 10-32 thread. Individually packaged.

Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Finish	NET Ea.
2058	2 57/64"	1"	¼"	Nickel Plate	$.60
1600	2 57/64"	1"	¼"	Black Oxide	.60
2050	3"	1 5/16"	7/16"	Nickel Plate	.63
1601	3"	1 5/16"	7/16"	Black Oxide	.63
2057	3"	1½"	9/16"	Nickel Plate	.63
1602	3"	1½"	9/16"	Black Oxide	.63
2059	3 7/64"	1"	¼"	Nickel Plate	.60
1603	3 7/64"	1"	¼"	Black Oxide	.60
2056	4¼"	1½"	9/16"	Nickel Plate	.72
1604	4¼"	1½"	9/16"	Black Oxide	.72
2051	4 9/16"	1½"	9/16"	Nickel Plate	.75
1605	4 9/16"	1½"	9/16"	Black Oxide	.75
2052	6 7/16"	1¾"	9/16"	Nickel Plate	.78
1606	6 7/16"	1¾"	9/16"	Black Oxide	.78

PANEL HANDLES

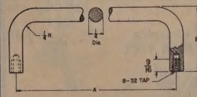


Brass Panel Handles, finished as shown with male threaded stud. Supplied complete with matching ferrules, and brass, nickel plated hex nuts. Mount in 5/16" panel holes. Individually packaged.

Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Finish	NET Ea.
1607	2"	2⅛"	Nickel Plate	$.81
1608	2"	2⅛"	Black Oxide	.81
1609	3"	2⅛"	Nickel Plate	.84
1610	3"	2⅛"	Black Oxide	.84
1611	4"	2⅛"	Nickel Plate	.87
1612	4"	2⅛"	Black Oxide	.87
2053	4¼"	2⅛"	Nickel Plate	.90
1613	4¼"	2⅛"	Black Oxide	.90
1614	6"	2 11/16"	Nickel Plate	.98
1615	6"	2 11/16"	Black Oxide	.98

PANEL HANDLES

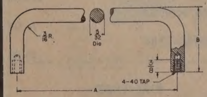


¼" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 8-32 thread. Individually packaged.

Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1616	2"	1½"	Brass	Nickel Plate	$.60
1617	2"	1½"	Brass	Black Oxide	.60
618	2"	1½"	Aluminum	Satin	.60
619	2"	1½"	Aluminum	Blk. Anodize	.60
1620	3"	1½"	Brass	Nickel Plate	.63
1621	3"	1½"	Brass	Black Oxide	.63
622	3"	1½"	Aluminum	Satin	.63
1623	3"	1½"	Aluminum	Blk. Anodize	.63
1624	4"	1½"	Brass	Nickel Plate	.69
1625	4"	1½"	Brass	Black Oxide	.69
1626	4"	1½"	Aluminum	Satin	.69
1627	4"	1½"	Aluminum	Blk. Anodize	.69
1628	6"	1½"	Brass	Nickel Plate	.75
1629	6"	1½"	Brass	Black Oxide	.75
1630	6"	1½"	Aluminum	Satin	.75
1631	6"	1½"	Aluminum	Blk. Anodize	.75

PANEL HANDLES

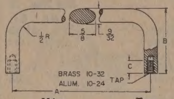


5/32" Diameter panel handles, Brass and Aluminum, finished as shown, with internal 4-40 thread. Individually packaged.

Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Material	Finish	NET Ea.
1632	1¼"	1"	Brass	Nickel Plate	$.82
1633	1¼"	1"	Brass	Black Oxide	.82
1634	1¼"	1"	Aluminum	Satin	.82
1635	1¼"	1"	Aluminum	Blk. Anodize	.82
1636	2"	1"	Brass	Nickel Plate	.86
1637	2"	1"	Brass	Black Oxide	.86
1638	2"	1"	Aluminum	Satin	.86
1639	2"	1"	Aluminum	Blk. Anodize	.86
1640	3"	1"	Brass	Nickel Plate	.90
1641	3"	1"	Brass	Black Oxide	.90
1642	3"	1"	Aluminum	Satin	.90
1643	3"	1"	Aluminum	Blk. Anodize	.90

OVAL PANEL HANDLES

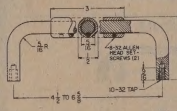


Flat, oval panel handles in Brass and Aluminum, finished as shown. Brass handles have internal 10-32 thread, Aluminum handles have internal 10-24 thread. Individually packaged.

Std. Pkg. 10

No.	Mtg. Ctrs. (A)	Height (B)	Tap Depth (C)	Material	Finish	NET Ea.
1644	3"	1 9/32"	9/32"	Brass	Nickel Plate	$1.35
1645	3"	1 9/32"	9/32"	Brass	Black Oxide	1.35
1646	3"	1 9/32"	9/32"	Aluminum	Blk. Anodize	1.03
1647	4 9/16"	1½"	½"	Brass	Nickel Plate	1.52
1648	4 9/16"	1½"	½"	Brass	Black Oxide	1.52
1649	4 9/16"	1½"	9/32"	Aluminum	Blk. Anodize	1.10
1651	6 7/16"	1¾"	½"	Brass	Nickel Plate	1.73
1653	6 7/16"	1¾"	½"	Brass	Black Oxide	1.73
1654	6 7/16"	1¾"	9/32"	Aluminum	Blk. Anodize	1.20
1655	9"	1¾"	½"	Brass	Nickel Plate	1.91
1657	9"	1¾"	½"	Brass	Black Oxide	1.91
1658	9"	1¾"	9/32"	Aluminum	Blk. Anodize	1.31

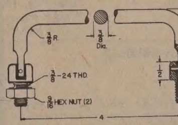
ADJUSTABLE HANDLES



Adjustable Brass Panel handles, with mounting center range from 4½" to 6⅝". Finished as shown. Internal 10-32 thread, supplied with Allen-Head locking screws. Individually packaged. **Std. Pkg. 10**

No.	Finish	NET Ea.
1659	Nickel Plate	$2.60
1661	Black Oxide	2.60

FOLDING HANDLES

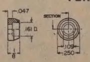


Folding Brass panel handles, with spring-loaded detents which snap into upright or left-or-right folded position. Finished as shown. Supplied with brass, nickel plated hex nuts. Mounts in 3/8" panel holes. Individually packaged.

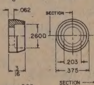
Std. Pkg. 10

No.	Finish	NET Ea.
1662	Nickel Plate	$2.28
1663	Black Oxide	2.28

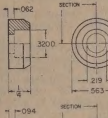
FERRULES



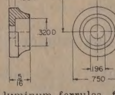
No. 1664



No. 1668



No. 2054



No. 2055

Brass and Aluminum ferrules, finished as shown, to match handles listed above.

Std. Pkg. 50

No.	Material	Finish	NET Per C
FOR 5/32" DIA. HANDLES			
1664	Brass	Nickel Plate	$15.00
1665	Brass	Black Oxide	15.00
1666	Aluminum	Satin	15.00
1667	Aluminum	Black Anodize	15.00
FOR 1/4" DIA. HANDLES			
1668	Brass	Nickel Plate	$15.00
1669	Brass	Black Oxide	15.00
1670	Aluminum	Satin	15.00
1671	Aluminum	Black Anodize	15.00
FOR 5/16" DIA. HANDLES			
2054	Brass	Nickel Plate	$9.60
1672	Brass	Black Oxide	9.60
2055	Brass	Black Oxide	15.00
1673	Brass	Nickel Plate	15.00

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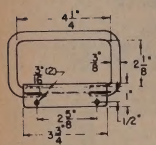
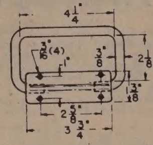
MIL. SPEC. HANDLES



2063



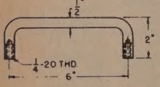
2064

MATERIAL: Aluminum.
FINISH: Alodine per MIL-C-5541 Spec. Sprayed to MIL-E-15090. Gloss gray color #1640 per MIL SPEC. PTC-595.

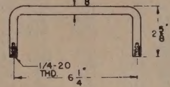
Std Pkg. 10

No.	Type	NET Ea.
2063	Half Bracket	$1.35
2064	Full Bracket	1.35
	With Transflux Plastic Protector	
2048	Half Bracket	$1.08
2049	Full Bracket	1.08

HANDLES



2061



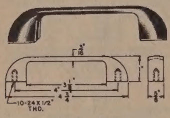
2062

Steel handles painted with Optical Black finish.

Std. Pkg. 10

No.	Diameter	NET Ea.
2061	½"	$1.08
2062	⅝"	1.20

OVAL HANDLE

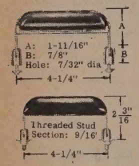


Die Cast Zamac Handle. Brush chrome plated.

Std. Pkg. 10

No.	NET Per C
2065	$90.00

MOLDED GRIP HANDLES



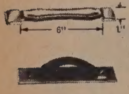
HANDLE: Molded high impact Styrene, Fungus Resistant.
HDWRE.: Steel. Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with machine screws.

No.	Color	Each
2085	Black	$1.75
2086	Grey	1.75

HANDLE: Molded high impact Styrene. Fungus Resistant.
HDWRE.: Steel, Nickel plated.
DESCR.: Rounded palm fitting design. Attaches to case with washers and nuts supplied. Will support 100 lbs.

No.	Color	Stud Lgth.	NET Ea.
2087	Black	9/16"	$1.05
2088	Grey	9/16"	1.05

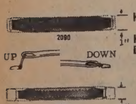
SPRING GLIDE HANDLE



HANDLE: Genuine leather, contoured BLACK, matching stitching, 6" long.
CAPS: Steel, chrome plated.
DESCR.: Strong, silent spring glide, frequency of decibel extremes will not induce handle rattle. Handle moves up for comfortable carrying down when not in use. **Std. Pkg. 10**

No.	Color	NET Ea.
2089	Black	$2.40

RETRACTO-LINK HANDLES



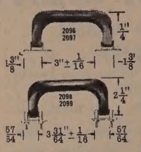
HANDLE: Genuine leather, matching stitching, BLACK.
HDWRE.: Steel, nickel plated.
DESCR.: Assemblies are shaped with all hardware installed except for decorative cover caps which are packed separately. Supplied in two styles—different lengths.

Std. Pkg. 10

ATTACHES WITH PRONGS THAT BEND INSIDE CASE

No.	Length	Ea.
2090	4½"	$2.10
2091	5½"	2.10
2092	6¾"	2.10
	ATTACHES WITH RIVETS OR SCREWS	
2093	4½"	$2.10
2094	5½"	2.10
2095	6¾"	2.10

MOLDED GRIP HANDLES

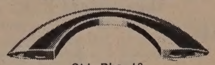


HANDLE: Molded High Impact styrene.
HDWRE.: Steel, nickel plated.
DESCR.: Designed for economy and rugged use. **Std. Pkg. 10**

ATTACHES WITH RIVETS OR SCREWS

No.	Color	NET Per C
2096	Black	$45.00
2097	Grey	45.00
	ATTACHES WITH THREADED STUD	
2098	Black	84.00
2099	Grey	84.00

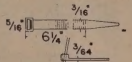
BAKELITE HANDLE



Std. Pkg. 10

No.	Thread	O.D.	Mtg. Center	Color	NET Per C
2281	8-32	4¼"	2⅞"	Black	$14.40
2282	8-32	4¼"	Center	Red	15.60

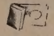
NYLON LOCKING CLAMP



Wedge and ratchet design makes for positive holding and locking. Accommodates cables from ⅛" to 1¾". No knot tying, just slip clamp around cable, insert tongue and pull tight. **Std. Pkg. 100**

No.	NET Per C
800	$9.00

NYLON MOUNTING TABS



For use with No. 800 locking clamp when premounted assembly points are desired. Furnished with .203 mounting hole. **Std. Pkg. 100**

No.	NET Per C
801	$3.00

NYLON PERFORATED STRAPPING

For bundling of wire, cable and tubing. Time saver for harnessing. Use No. 803 ratchet buckle for fast assembly. Supplied on 50′ rolls.

No.	NET Per Roll
802	$15.00

NYLON RATCHET BUCKLE

For No. 802 strapping. Quick and easier assembly with this ingenious item. **Std. Pkg. 100**

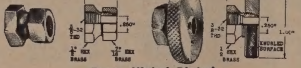
No.		NET Per C
803	For ½" Strapping	$10.20

TIGHTENING TOOL

Used with strapping for fast assembly.

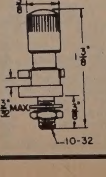
No.	NET Ea.
804	$18.00

SHAFT LOCKS



Brass Nickel Plated
Wrench Type

No.	Shaft	Std. Pkg.	NET Per C
181	¼"	100	$24.00
	Miniature Wrench Type		
183	⅛"	25	24.00
	Thumb Type		
182	¼"	25	33.00



DIAL LOCK

HEAD: Captive: Brass, nickel plated.

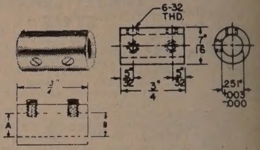
BODY: Brass nickel plated.

DESCR.: Prevents detuning of the dial when locked by means of the captive knurled nut.
Supplied with hex nut & lockwasher.

Std. Pkg. 25

No.	NET Per C
199	$66.00

COUPLERS
Brass and Insulated

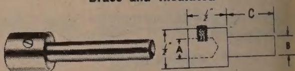


Std. Pkg. 25

With Two Set Screws

No.	A B	O.D.	Material	NET Pe
120	¼"-¼"	7/16"	Brass N.P.	$18
140	¼"-¼"	7/16"	Fibre	15
131	⅜"-¼"	½"	Brass N.P.	18
141	⅜"-¼"	½"	Fibre	15
133	⅜"-⅜"	½"	Brass N.P.	18
142	⅜"-⅜"	½"	Fibre	15
	With Four Set Screws			
138	¼"-¼"	7/16"	Brass N.P.	39
	MINIATURE COUPLER With Allen Head Set Screws			
180	⅛"-⅛"	9/32"	Brass N.P.	$24

EXTENDERS
Brass and Insulated



Std. Pkg. 25

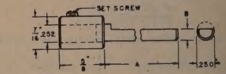
Long Shaft Type

No.	A B	C	Material	NET Pe
150	¼"-¼"	1¼"	Brass N.P.	$1
130	¼"-¼"	1¼"	Fibre	2
132	⅜"-¼"	1¼"	Brass N.P.	1
134	⅜"-¼"	1¼"	Fibre	2

Short Shaft Type

No.	A B	C	Material	NET P
160	¼"-¼"	⅝"	Brass N.P.	$1
161	¼"-¼"	⅝"	Fibre	1
162	⅜"-¼"	⅝"	Brass N.P.	1
163	⅜"-¼"	⅝"	Fibre	1
	MINIATURE EXTENDER With Allen Head Set Screws			
189	⅛"-⅛"	⅜"	Brass N.P.	$1

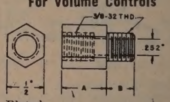
SHAFT EXTENDERS
For Volume Controls



Brass, Nickel Plated.

No.	A	B	Std. Pkg NET P
2356	2"	.250"	$2
2357	3"	.250"	2
2358	4"	.250"	2
2359	2"	.219"	2
2360	3"	.219"	2
2361	4"	.219"	2
2362	2"	.156"	2
2363	3"	.156"	2
2364	4"	.156"	2

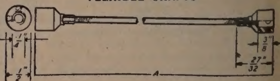
BUSHING EXTENDERS
For Volume Controls



Brass, Nickel Plated.

No.	A	B	Std. Pk NET P
2350	⅝"	5/16"	$
2351	⅝"	¼"	
2352	⅝"	⅜"	
2353	11/16"	⅜"	
2354	11/16"	½"	
2355	¾"	¼"	

FLEXIBLE SHAFTS

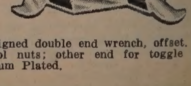


High quality phosphor bronze non-magnetic, non-ru flexible shafts. Remote control when necessary to r condensers and potentiometers away from panel at un angles. Turns at any angle up to 90°; free from back

Std. Pk
NET F

No.	Size "A"	Description	
151	3"	With ¼" hub	$
152	6"	With ¼" hub	$
153	3⅝"	With ¼" coupler	
154	6⅝"	With ¼" coupler	

SHAFT WRENCH



Specially designed double end wrench, offset. One en volume control nuts; other end for toggle switch Steel, Cadmium Plated.

Std. Pl
NET

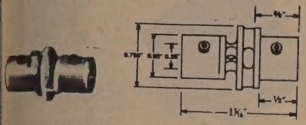
No.
999

© U.C.P

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

NYLON FLEXIBLE SHAFT COUPLING



0.750"
0.50"
0.25"
5/8"
½"
1 3/16"

CR.: Molded nylon with molded-in brass bushings. -temp nylon not influenced by moisture. Designed for g reach shaft coupling. Supplied with 2 Allen head screws.

Std. Pkg. 25

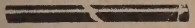
NET Ea. $1.05

BRASS THREADED RODS

Std. Pkg. 10

. Length NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
-1 $.24	6-32	1400-2	$.48
-1 .24	8-32	1401-2	.48
-1 .36	10-32	1402-2	.72
-1 .54	¼-20	1403-2	1.08

NYLON THREADED RODS



Std. Pkg. 10

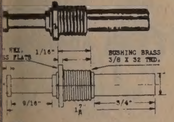
. Length NET Ea.	Threaded	2-Ft. Length No.	NET Ea.
-1 $ .90	6-32	1420-2	$1.08
-1 1.02	8-32	1421-2	2.04
-1 1.08	10-32	1422-2	2.16
-1 1.20	¼-20	1423-2	2.40

PLAIN RODS

Brass Fibre and Nylon

Std. Pkg. 10

Type	Length	Dia.	NET Ea.
Brass N.P.	6"	¼"	$.20
Brass N.P.	12"	¼"	.40
Fibre	6"	¼"	.15
Fibre	12"	¼"	.30
Nylon	6"	¼"	.30
Nylon	12"	¼"	.45



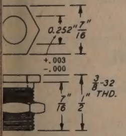
HEX. FLATS
1/16"
BUSHING BRASS 3/8 X 32 THD.
9/16"
1 7/8
3/4"

DIAL DRIVE ASSEMBLY

Brass, Nickel Plated

Std. Pkg. 25

126 NET Per C $24.00



0.252"
7/16"
+.003
-.000
3/8-32 THD.
7/16"
1/2"

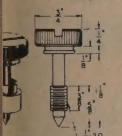
PANEL BEARINGS

Brass, Nickel Plated

Type	Std. Pkg.	NET Per C
Standard	100	$15.00
Miniature	25	15.00

CAPTIVE SCREW & BUSHING

Large Head



3/4"
1/4"
1/8"
1/8"
3/8"
5/8"
1/4-20 THD.

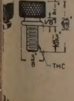
BODY: BRASS, nickel plated.
DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel.

Std. Pkg. 50

No.	Panel Bushing Length (L)	NET Per C
2365-A	5/32"	$75.00
2365-B	7/32"	75.00
2365-C	9/32"	75.00

CAPTIVE SCREW & BUSHING

Small Head



7/16"
1/4"
1/8
25/32"
13/32"
3/8
THC

BODY: BRASS, nickel plated.
DESCR.: Supplied with panel bushing as shown. Used extensively for quick removal of panels from chassis. Non-removable from panel.

Std. Pkg. 50

.	Panel Bushing Length (L)	NET Per C
5-A	5/32"	$60.00
5-B	7/32"	60.00
5-C	9/32"	60.00

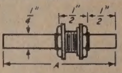
THUMB SCREW

BODY: BRASS, nickel plated.
DESCR.: Used extensively for quick removal of panels from chassis.

Std. Pkg. 25

No.	Thread	NET Per C
2366	6-32	$24.00
2367	8-32	24.00
2368	10-32	24.00

PANEL BEARING ASSEMBLY



Uses our standard #119 Panel Bearing. Nickel plated overall.

Std. Pkg. 25

No.	A	NET Per C
148	3"	$33.00
149	6"	39.00

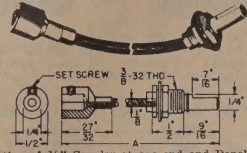
MINIATURE PANEL BEARING ASSEMBLY

Miniature ⅛" shaft assembly, using our standard #184 Panel Bearing. Brass, nickel plated overall.

Std. Pkg. 25

No.	Length "A"	NET Per C
1448	2"	$33.00
1449	4"	39.00

BI-DIRECTIONAL FLEXIBLE SHAFT AND PANEL BEARING



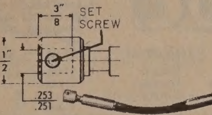
SET SCREW
3/8-32 THD.
7/16"
1/4"
1/8"
1/4"
1/2"
27/32"
1/2"
9/16"
A

Combination of ¼" Coupler at one end and Panel Bearing Assembly at other. High quality phosphor bronze non-magnetic, non-rusting flexible shaft, turns at any angle up to 90°. Free from backlash.

Std. Pkg. 25

No.	Length "A"	NET Ea.
165	4 1/16"	$1.35
166	7 1/16"	1.50

FLEXIBLE SHAFT ASSEMBLY



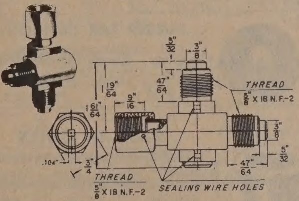
3/8"
SET SCREW
1/2"
.253
.251

With Casing

Bi-directional high quality flexible shaft. Cable casing acts as a support and reduces amount of deflection in cable. Metal parts steel cadmium plated.

No.	Length	NET Ea.
169	8"	$6.00
170	12"	6.30

DUAL DRIVE ADAPTER

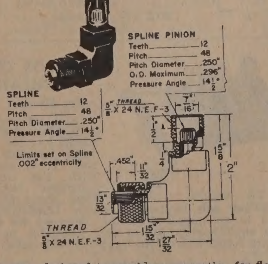


5/32"
3/8"
47/64"
1 19/64"
9/16"
1 61/64"
THREAD
5/8" X 18 N.F.-2
3/8"
5/32"
47/64"
.104"
3/4"
THREAD
5/8" X 18 N.F.-2
SEALING WIRE HOLES

Designed primarily to be utilized to drive more than one unit from the same power source and/or to provide two gear ratios from the same source. Right hand rotation. Gear Ratio 1:1.

No.	NET Ea.
167	$15.00

RIGHT ANGLE ADAPTER

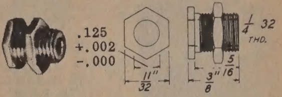


SPLINE PINION
Teeth 12
Pitch 48
Pitch Diameter .250"
O.D. Maximum .296"
Pressure Angle 14½°
SPLINE
Teeth 12
Pitch 48
Pitch Diameter .250"
Pressure Angle 14½°
5/8" THREAD X 24 N.E.F-3
7/16"
1/2"
1/4"
1 5/8"
2"
Limits set on Spline .002" eccentricity
.452"
11/32"
13/32"
THREAD
5/8" X 24 N.E.F.-3
1 15/32"
1 27/32"

Non-magnetic, designed to provide a connection for flexible shaft control where space limitations do not permit a conjunction without bending the shaft into too small a radius. Gear ratio 1:1.

No.	NET Ea.
168	$30.00

MINIATURE PANEL BEARING

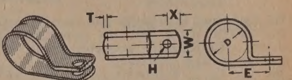


.125
+.002
-.000
11/32"
1/4-32 THD.
5/16
3/8"

Mounts in ¼" hole.

No. 184 Std. Pkg. 25 NET Per C $15.00

PLASTIC CABLE CLIPS
ETHYL CELLULOSE



These clips are well known for ability to withstand age, moisture, corrosion, shock and vibration. This tough, light weight, durable clip withstands temperatures from −60 to +175 degrees F. Made to MIL Std. 242A (Ships).

T .060 — W ½"
X 7/32" — H .204

No.	Hole (D)	E	NET Per C	NET Per M
831	⅛	.360	$2.34	$19.20
832	3/16	.423	2.40	19.80
833	¼	.457	2.58	21.60
834	5/16	.498	2.85	24.00
835	⅜	.529	3.00	25.20
836	7/16	.560	3.30	27.60
837	½	.592	3.60	30.00
838	9/16	.623	4.20	34.20
839	⅝	.654	4.50	39.60
840	11/16	.752	4.80	42.60
841	¾	.783	5.10	44.40
842	⅞	.845	5.40	48.00
843	1	.908	5.70	51.60
844	1⅛	.970	6.00	54.60
845	1¼	1.062	6.30	58.20

Standard Package 100

NYLON

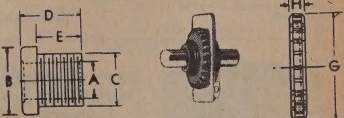
These strong and tough molded nylon clamps hold their shape under severest stress. Do not support combustion. Withstands temperatures from −60 to +250 degrees F. Made to MIL P17091A amend. 2.

	⅛" to ½" (D)	9/16" to 1¼" (D)
T	.040	.060
W	⅜"	½"
X	5/32"	13/64"
H	.167	.204

No.	Hole (D)	E	NET Per C	NET Per M
771	⅛	.310	$3.60	$30.00
772	3/16	.373	3.90	31.80
773	¼	.407	4.20	34.80
774	5/16	.448	4.65	38.40
775	⅜	.479	4.80	40.20
776	7/16	.510	5.10	42.60
777	½	.542	5.40	45.00
778	9/16	.623	6.60	55.80
779	⅝	.654	7.20	65.40
780	11/16	.752	7.50	69.00
781	¾	.783	8.10	75.00
782	⅞	.845	8.70	81.00
783	1	.908	10.20	96.00
784	1⅛	1.002	12.00	108.00
785	1¼	1.062	13.80	120.00

Standard Package 100

INSULATED RUBBER GROMMETS

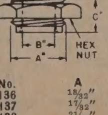


Std. Pkg. 25

Black Phenolic—Matte Finish

	BUSHING				COLLAR			NET
No.	A	B	C	D	E	G	H	Per C
931	⅛"	⅜"	¼"—32	.3750"	¼"	½"	⅛"	$17.40
932	3/16"	7/16"	5/16"—32	.4250"	5/16"	⅝"	⅛"	17.40
933	¼"	½"	⅜"—27	.4375"	5/16"	11/16"	⅛"	18.00
934	5/16"	9/16"	15/32"—32	.4500"	5/16"	⅞"	⅛"	19.80
935	⅜"	¾"	⅝"—27	.4500"	5/16"	1"	⅛"	21.60

BAKELITE INSULATING BUSHINGS



BODY: MOLDED, bakelite, black. U.L. approved recommended for temperatures up to 300 degrees Fahrenheit.
NUT: Steel, cadmium plated.

Std. Pkg. 50

No.	A	B	C	NET Per C
2136	13/32"	17/64"	¼"	$8.40
2137	17/32"	5/16"	5/16"	9.00
2138	21/32"	29/64"	5/16"	9.60
2139	27/32"	9/16"	11/32"	10.20

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

SMITH
INTERNATIONAL MORSE
CODE COURSE

INTERNATIONAL MORSE CODE COURSES

5 RECORDS IN ALBUM— 78 R.P.M.
Ten Lessons Up to 15 Words Per Minute

The complete ablum includes 5 records and 20-page SMITH Instruction Book

The very latest in scientific code-teaching techniques! The SMITH system uses the proven EAR & EYE method, with carefully graduated lessons based on military teaching procedures.

No.	Description	NET Each
2400	Complete Album with Instruction Book	$6.00
2415	20-Page Instruction Book Only	.48

SMITH INTERNATIONAL MORSE
CODE
COURSE

SINGLE RECORD 33-1/3 R.P.M.

TEN LESSONS UP TO 15 WORDS PER MINUTE
Complete on Two Sides

This twelve inch long play record contains all ten of the Code Course Lessons listed above, five on each side. 20-Page SMITH Instruction Book is included, and the record is housed in attractive, sturdy jacket with International Morse Code table on reverse side.

No. 2420 **NET Each $4.80**

SMITH INTERNATIONAL MORSE
ADVANCED
CODE
COURSE

ADVANCED CODE COURSE

Single Record— 33⅓ R.P.M.

TWELVE LESSONS 16 to 25 Words Per Minute

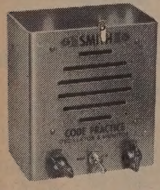
Specially prepared to increase skills in copying code at high speeds. 12 step-by-step lessons are provided plus specific directions with each. 20 page Advanced Code Instruction Book included. Record comes in sturdy jacket with International Morse Code table on reverse side.

No. 2435 Advanced Code Course complete with 20 page instruction Book ——— **NET $4.80**

BEGINNERS AND ADVANCED CODE COURSES IN COMBINATION PACKAGE

Advanced Code Course #2435 PLUS Beginners' Code Course #2420 (see above) both complete with 20-page instruction books, attractively packaged in combination carton.

No. 2436 **NET $9.00**



CODE PRACTICE OSCILLATOR & MONITOR

Ideal for the beginner as well as the experienced operator, this versatile instrument can be used as a code practice oscillator, as a keying monitor to check ICW signals, or as a monitor for phone signals.

Two tubes are used, in an up to date circuit that provides continuously variable tone and volume. Self-contained PM speaker affords ample volume for group use, with phone jack available for individual headphone listening.

The handsome Hammertone finish cabinet has additional provision for wall mounting, an exclusive SMITH feature that eliminates need for valuable desk space. The unit is designed for use on 110 Volts AC or DC, and is supplied complete with two tubes.

No.	Description	NET Each
2425	Kit	$13.50
2426	Wired	18.00

* These Items Subject to Special Jobber Discount

CODE PRACTIC KEY AND BUZZER SET

COMPACT — INGENIOUS — HANDSOME!

Perfect for the beginner! High frequency buzzer has variable pitch adjustment. Sturdy fully adjustable key and terminal binding posts, all plated. Uses one standard flashlight cell. All elements mounted on heavy molded bakelite base 6¾″ x 2¾″. Supplied less battery.

No. 2443 **NET Each $3.30**

BUZZER ONLY

Complete with black bakelite cover.

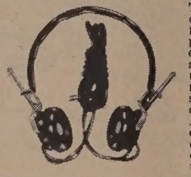
No. 2444 **NET Each $1.20**

TELEGRAPH KEY

A well-built, smooth operating key, low priced, ideal for the beginner. Molded bakelite base and knob. Simple adjustments. All metal parts plated, ⅛″ silver contacts. Base size 3¼ x 1¹³⁄₁₆″

No. 2442 **NET Each $.99**

HIGH SENSITIVITY HEADPHONES



The latest in deluxe design, with many features of more expensive types. Featherweight construction assures fatigue-free use. Alnico V magnets, dual coil construction provide excellent tonal fidelity. Adjustable vinyl covered headband, molded plastic cases. Cord equipped with phone tips.

No.	Description	Ohms	NET Each
2441	Single	1000	$1.65
2440	Double	2000	1.35
2446	Single	2—4	3.30
2447	Double	4—8	1.20
2448	Single	2000	1.80
2449	Double	4000	3.00

FOR STEREO USE

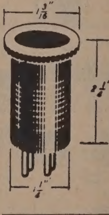
Same as above, except each Phone has leads brought out separately.

2477	Double	2000	3.00
2478	Double	4—8	3.00
2479	Double	4000	3.30

RUBBER EAR CUSHIONS

Finest quality soft rubber ear cushions, fit all standard earphones. For comfortable listening over long periods of time.

No. 2410 **Per Pair $.90**

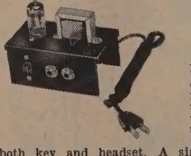


PLUG-IN COILS

For Short Wave and Broadcast

Molded bakelite, black. Precision wound low loss forms. Four prongs. Equipped with special rim making it easy to insert and pull out. Grooved for color coding.

No.	Description	NET Each
2408	No Winding	$.36
2413	Set of 4— 9½ to 217 Meters	3.00
2414	Set of 2— 190 to 500 Meters	2.40
2412	No Winding - Ribbed, 6-Prong	.60



JUNIOR CODE OSCILLATOR

For Headset Only

A neat, compact little unit that provides a clean audio tone, ideal for code practice. It is equipped with two standard telephone jacks, to take phone plugs of both key and headset. A single 12AX7 tube is used in an improved circuit, designed for operation on 110 volts AC or DC. Available in wired or kit form, either type supplied with tube.

No.	Description	NET Each
2430	Kit	$6.60
2431	Wired	8.70

COMPLETE MULTI-VIBRATOR COURSE

"AutoTutor" Modern Teaching Technique, using new "re-inforced learning" principles. Designed as a refresher course for the practicing technician or engineer; as a detailed exploration of Multi-vibrators, for student electronic technician. Complete course consists of 4 hi-fi unbreakable 33⅓ RPM recordings, a 56-page instruction book, illustrations and checksheets, in attractive album package.

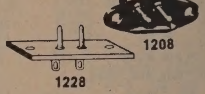
No. 2450 ——— **NET $12.60**

Semi-Automatic

TELEGRAPH KEY

A well-constructed easy-operatin automatic key at a very low price Provides numerous adjustments t suit any operator. Well balanced has large control lever, tension ad justments on both dot and dash sides, scale type weight on pendu lum arm. Molded bakelite weighte base is equipped with suction cu feet. A really substantial, goo looking Key that the Hams wil Love at First Sight! Complete wit Cord and Wedge. Dustproof cove

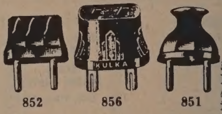
No. 2445 **NET $12.00**



INTERLOCK PLUGS

Std. Pkg. 100

No.	Type	NET Per C
1208	Recessed	$7.80
1228	Flush	5.40

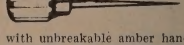


AMERICAN FOREIGN PLUG ADAPTERS

Streamlined bake lite plug adapters Adapts from Amer ican to Foreig type.

No.	Female End	Male End	NET Per
852	American	Continental	$24.0
856	American	British	24.0
851	Continental Plug		18.0

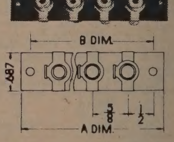
SCRATCH AWL



Scratch awl with unbreakable amber handle. Overall length 5″. A "must" in a serviceman's tool kit.

No. 814 **NET Per C $36.00**

MULTIPLE PHONO JACKS



Individual phono jacks (no interconnected grounds kmounted on narrow width bakelite strip.

Std. Pkg. 5

No.	No. of Jacks	Dimensions "A"	Dimensions "B"	NET Per
1261	1	1⅜″	1.000	$4.8
1262	2	2″	1.625	8.7
1263	3	2⅝″	2.250	14.1
1264	4	3¼″	2.875	17.1
1265	5	3⅞″	3.500	21.6
1266	6	4½″	4.125	25.2
1267	7	5⅛″	4.750	29.4
1268	8	5¾″	5.375	33.6

© U.C.P.,

HERMAN H. SMITH, INC.

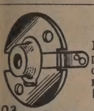
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

PHONO PLUGS

RCA Type Phone Plug. For use with record players, recording and reproducing equipment, etc. Extra large hole in cap (.175″) for coaxial cable. Std. Pkg. 100

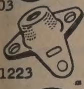
No.	Type	NET Per C
1201	Long Pin (1″ overall)	$3.60
1202	Short Pin (13/16″ overall)	3.60

PHONO JACKS


203

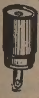
Female for No. 1201 plug. Single prong positive grip jack mounted on 1/16″ bakelite with 11/16″ mounting centers. Std. Pkg. 100

No.		NET Per C
1203		$4.20
1203-1	Insulating Washer	1.80


1223

Small, compact . . . where space is at a premium. 7/16″ Mtg. Ctrs.
Std. Pkg. 100

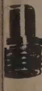
No.	NET Per C
1223	$7.20



Space Saver . . . Rivets and grounds to chassis. Mounts in 19/64″ hole.
Std. Pkg. 50

No.	NET Per C
1233	$6.60

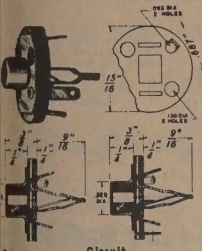
PANEL MOUNT PHONO JACK



Mounts in 29/64″ hole (.453) with nut and washer. Easy installation for the home Hi-Fi enthusiast. Std. Pkg. 50

No.	NET Per C
1247	$21.00

STEREO PHONO JACKS



Used for stereo input, phonograph input and amplifier connections. Switches out single track audio for double track stereo when phono plug is inserted.

Std. Pkg. 50

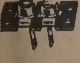
o.	Circuit	NET Per C
215	2-Cond. Closed	$21.00
216	3-Cond. Closed	27.00

HANDY GRIP PHONO PLUG

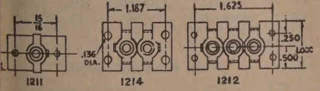
Quick connect: strip wire, solder inner conductor to pin and either solder braid to lug or crimp to lug. Fits all standard phono jacks. Std. Pkg. 100

No.	NET Per C
1246	$9.00

PHONO JACKS

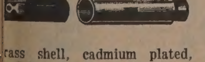


Used on recording units, phono plays, etc. Std. pkg. 50



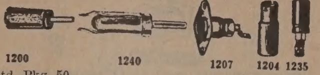
No.		NET Per C
211	Single Jack	$ 7.20
214	Double Jack	9.60
212	Triple Jack	15.00
214-1	Insulating Washer for No. 1214	2.40

SHIELDED EXTENSION JACK



rass shell, cadmium plated, $1\frac{7}{16}$″ long, with ack bakelite insert. Provides insulation for solder-ated positive grip contact. Uses No. 1201 phono ug. Std. Pkg. 50

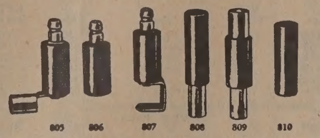
	NET Per C
o. 1237	$27.00



Std. Pkg. 50

No.	Type	NET Per C
1200	Motorola Type Plug	$10.20
1240	Motorola Type Plug	$10.20
1207	Antenna Connector, Takes 1200 Plug	18.00
1204	Lead-in Adapter, converts Motorola pin plug to Delco	9.00
1235	Female for #1200 plug, without flange	7.20

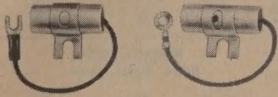
Auto Radio IGNITION SUPPRESSORS



Std. Pkg. 50

Cat. No.	Type	NET Per C
805	Snap-On Type Suppressor	$27.00
806	Univ. Type with Double Thrd.	27.00
807	Angle Type Suppressor	33.00
808	Distributor Screw Type	45.00
809	Distributor Plug-in Type	36.00
810	Double Screw Type	27.00

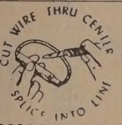
AUTO RADIO CONDENSERS



Eliminates radio interference caused by auto electrical system. Fits all cars — Proven quality — Guaranteed long life.

No.	Cap.	Type	NET Per C
811	.5 MFD	General, Univ.	$60.00
812	.25 MFD	Universal	54.00

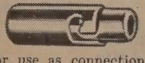
WIRED FUSE RETAINER



Simply cut wire, strip and put in line. Will accommodate either 3 A.G. 20 amp. or SFE 14 amp. fuse.

No.		NET Each
1304	Std. Pkg. 25	$ .30
1304-D—Display of 24		7.20

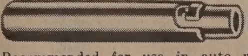
ANTENNA CONNECTOR



For use as connection of auto radio antenna lead-in to auto radio receiver. Std. Pkg. 50

No. 1300 .... **$17.00 Per C**

FUSE RETAINER



Recommended for use in auto radio power supply cables. Std. Pkg. 50

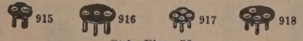
No. 1301 .... **NET Per C $10.20**

PARTS FOR CONNECTOR & RETAINER

Std. Pkg. 100

No.	Type	NET Per C
1305	Male Cap for #1300 & #1301	$1.98
1306	Female Shell for #1300	2.31
1307	Contact for #1300 & #1301	3.30
1308	Spring for #1300 & #1301	.66
1309	Washer for #1300 & #1301	.33
1310	Insulating Tube for #1301	.60
1311	Female Shell for #1301	3.30

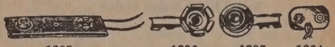
BATTERY PLUGS



Std. Pkg. 50

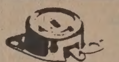
		For Batteries			
No.	Voltage	Eveready No.	RCA No.	Philco No.	NET Per C
915	1½ "A"	741, 742 743, 1052P	VS004, VS005 VS007, VS008	P94, P96 P8F1	$6.00
916	7½ "A"	687	VS003	—	6.60
917	6 "A", 90 "B"	—	VS044	P60A8F4	6.00
918	6 "A", 90 "B"	—	VS046	P41AFL	6.60

BATTERY CONNECTORS



No.	Volts	Eveready No.	Std. Pkg.	NET Per C
1205	67½	467, 455, 457	25	$18.00
1206	90	490	25	24.00
1210	67½	477, 437, 479, 495	25	18.00
1217	7½	707	25	18.00
1218	9	276	25	18.00
1219	4½	243	25	24.00
1234	45	216, 246, 415, 416	25	24.00
1296		Female	100	4.50
1297		Male	100	4.50

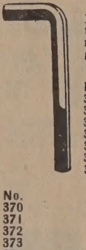
MINIATURE HUM BALANCING CONTROLS



Rheostat rated at 2 watts, grounded rotor, tolerance ± 20%. Screwdriver slot adjustment from front or rear. Useful for hum balancing, centering, hold and locking, linearity, AGC sensitivity, etc.
Std. Pkg. 25

No.	Total Res. Ohms	NET Per C
2291	50	$39.00
2292	100	39.00
2293	300	39.00
2294	500	39.00
2295	700	39.00
2296	1000	39.00
2297	2000	39.00
2298	3000	39.00
2299	4000	39.00

HEX AND SPLINE KEYS



Made of special alloy steel, tempered to avoid brittleness and impose maximum resistance to torsional strain. Ends ground for easy insertion.

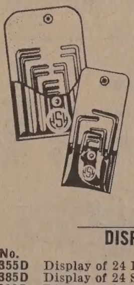
HEX KEYS Std. Pkg. 50

No.	Screw	Hex	NET Per C
340	No. 2	.034	$7.80
341	No. 3, 4	.050	7.80
342	No. 5, 6	.062	7.80
343	No. 8	.078	7.80
344	No. 10	.093	9.00
345	No. ¼″	.125	9.00
346	No. 5/16″	.156	9.00

SPLINE KEYS

No.	Screw	O. D.	NET Per C
370	No. 4	.058	$7.80
371	No. 5	.068	7.80
372	No. 6	.075	7.80
373	No. 8	.093	7.80
374	No. 10	.109	9.00
375	No. ¼″	.143	9.00
376	No. 5/16″	.182	9.00

HEX AND SPLINE KEY KITS



Attractive tearproof vinyl plastic kit with individual pockets for each of six keys in kit.
Std. Pkg. 25.

Kit of 6 hex keys for screws from No. 3 to 5/16″.
No. 355 $100.00 **NET Per C**

Kit of 6 spline keys for screws from No. 5 to 5/16″.
No. 385 $100.00 **NET Per C**

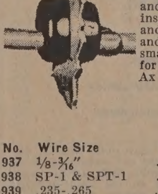
Combination Kit of 3 hex and 3 spline keys for No. 6-8-10 screws.
No. 390 $100.00 **NET Per C**

Kit of 7 hex keys for screws from No. 2 to 5/16″ and 4 spline keys Nos. 4, 6, 8, and 10.
No. 395 $200.00 **NET Per C**

DISPLAY CARDS

No.		NET Each
355D	Display of 24 Hex Kits No. 355	$24.00
385D	Display of 24 Spline Kits No. 385	24.00
390D	Display of 24 Comb. Kits No. 390	24.00
395D	Display of 20 Comb. Kits No. 395	40.00

NYLON STRAIN RELIEF BUSHINGS



One piece construction. Eliminates grommets, wire knots and costly labor. Completely insulates wire from chassis and prevents cord pull push and twist. No. 937 ideal for small mike cables; No. 938 for line cords; No. 939 for Co-Ax Wire.

Std. Pkg. 50

A: Chassis Hole
B: Diameter of head
C: Length
D: Chassis Thickness

No.	Wire Size	A	B	C	D	NET Per C
937	1/8-3/16″	.375	.440	.415	to 1/16″	$3.60
938	SP-1 & SPT-1	.437	.468	.406	to 1/16″	3.60
939	.235-.265	.500	.560	.438	to 3/32″	4.20

No.		NET Each
No. 940	Setting Pliers	$10.20

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

BRASS MACHINE SCREWS

Round Head Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1044M	$6.31	4-36 x ¼″	1044C	$.80
1045M	7.14	4-36 x ⅜″	1045C	.88
1046M	8.05	4-36 x ½″	1046C	.98
1047M	6.31	4-40 x ¼″	1047C	.80
1048M	6.72	4-40 x ⅜″	1048C	.61
1049M	8.05	4-40 x ½″	1049C	.98
1050M	8.55	6-32 x ¼″	1050C	1.03
1051M	9.05	6-32 x ⅜″	1051C	1.08
1052M	10.29	6-32 x ½:	1052C	1.20
1056M	12.62	8-32 x ¼″	1056C	1.43
1057M	13.28	8-32 x ⅜″	1057C	1.50
1058M	15.11	8-32 x ½″	1058C	1.68

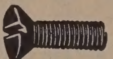
BINDING HEAD SCREWS

Steel Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1425M	$6.25	6-32 x ¼″	1425C	$1.05
1426M	6.75	6-32 x ⅜″	1426C	1.15
1427M	7.25	6-32 x ½″	1427C	1.20
1428M	8.00	8-32 x ¼″	1428C	1.35
1429M	8.65	8-32 x ⅜	1429C	1.50
1430M	9.30	8-32 x ½″	1430C	1.55

RACK SCREWS

Oval Head, Steel, Nickel Plated

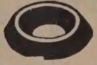


Specially recommended for mounting panels in racks and cabinets. Available in gross packages or packed 1000 to the box.

No.	NET Per M	Size	No.	NET Per C
1111M	$7.22	10-32 x ½″	1111C	$.90
1112M	8.63	10-32 x ¾″	1112C	1.03

COUNTERSUNK WASHERS

Brass, Nickel Plated



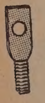
Recommended for use with Rack Screws designated above.

No.	NET Per M	Size	No.	NET Per C
1115M	$3.07	6	1115C	$.48
1116M	3.24	6	1116C	.50
1117M	5.40	10	1117C	1.03

FLAT WASHERS

Brass Nickel Plated

No.	NET Per M	Size	Material	No.	NET Per C
1149M	$6.60	4x⅜x.037″	Brass	1149C	$.83
1150M	4.80	6x⅜x.012″	Phos. Br.	1150C	.65
1151M	4.80	8x⅜x.012″	Phos. Br.	1151C	.65
1152M	6.60	10x⅜x.037″	Brass	1152C	.83



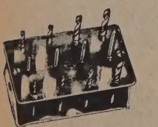
STEEL SPADE BOLTS

Steel, cadmium plated finish, threaded 6-32, thread length 5/16″, length overall ¾″.

Std. Pkg. 500

No.	NET Per M
1500	$10.20

DRILL & TAP KIT



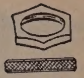
for

- **Hams**
- **Laboratories**
- **Servicemen**

Specially designed for electronic bench duty, this kit contains the most popular sizes of taps and corresponding tap and body drills for precise and speedy work. Drill and tap size identifications are engraved on the steel cadmium plated drill stand, to facilitate correct replacement as needed. **Contains: 4-40, 6-32, 8-32, 10-32 Taps with eight corresponding tap and body drills.**

No.		NET Ea.
750	Kit	$9.00
749	Stand Only	.66

Replacement Drills Available



VOLUME CONTROL AND TOGGLE SWITCH NUTS

Nickel Plated

Std. Pkg. 500

No.	Type	Dimensions	Per M
1195	Vol. Cont. Brass	⅜-32x½x3/32	$25.00
1199	Vol. Cont. Steel	⅜-32x½x3/32	20.00
1196	Toggle Sw. Hex	15-32x9/16x5/64	30.00
1197	Toggle Sw. Ring	15-32x⅝x1/16	50.00

LOCK WASHERS

Steel, Cadmium Plated

Internal Teeth

No.	NET Per M	Type	No.	NET Per C
1127M	$3.50	No. 4	1127C	$.51
1128M	3.50	No. 6	1128C	.51
1129M	3.83	No. 8	1129C	.55
1130M	3.83	No. 10	1130C	.55
1132M	5.00	¼″	1132C	.67
1131M	8.50	⅜″	1131C	1.02
Narrow Rim Control Shaft Lockwasher Internal Teeth				
1145M	$8.50	⅜″	1145C	$1.02
Narrow Rim Toggle Switch Lockwasher Internal Teeth				
1146M	$8.50	15/32″	1146C	$1.02

External Teeth

No.	NET Per M	Type	No.	NET Per C
1139M	$3.50	No. 4	1139C	$.51
1140M	3.50	No. 6	1140C	.51
1141M	3.83	No. 8	1141C	.55
1142M	5.00	No 10	1142C	.55
1144M	5.83	¼″	1144C	.67
1143M	850	⅜″	1143C	1.02

HEXAGON NUTS

Brass, Nickel Plated

No.	NET Per M	Size	No.	NET Per C
1188M	$9.33	4-36 x ¼″	1188C	$1.10
1168M	9.25	4-40 x ¼″	1168C	1.10
1189M	9.17	6-32 x ¼″	1189C	1.08
1190M	11.08	6-32 x 5/16″	1190C	1.28
1192M	11.08	8-32 x 5/16″	1192C	1.28
1193M	12.08	10-32 x 5/16″	1193C	1.38
1187M	18.00	¼-32	1187C	1.97

Steel, Cadmium Plated

No.	NET Per M	Size	No.	NET Per C
1179M	$5.25	6-32 x ¼″	1179C	$.70
1180M	5.55	6-32 x 5/16″	1180C	.72
1181M	5.70	8-32 x 5/16″	1181C	.73

Steel, Nickel Plated

1186M	13.20	¼-32	1186C	$1.50

SELF TAPPING SCREWS

CADMIUM PLATED

Round Head—Type A—Sharp Point

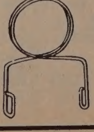
No.	NET Per M	Size	No.	NET Per C
1801M	$6.00	4 x ½″	1801C	$.77
1802M	6.67	6 x ¼″	1802C	.83
1803M	7.00	6 x ⅜″	1803C	.87
1804M	8.10	6 x ½″	1804C	.98
1805M	7.50	8 x ⅜″	1805C	.92
1806M	9.45	8 x ½″	1806C	1.12

Round Head—Type Z—Blunt Point

No.	NET Per M	Size	No.	NET Per C
1807M	$7.00	4 x ½″	1807C	$.87
1808M	7.00	6 x ¼″	1808C	.87
1809M	7.00	6 x ⅜″	1809C	.87
1810M	8.10	6 x ½″	1810C	.98
1811M	7.50	8 x ⅜″	1811C	.92
1812M	9.45	8 x ½″	1812C	1.12

Slotted Hex Head—Type B—Blunt Point

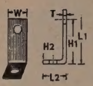
No.	NET Per M	Size	No.	NET Per C
1830M	$9.45	6 x ¼″	1830C	$1.12
1831M	9.45	6 x ⅜″	1831C	1.12
1832M	9.45	6 x ½″	1832C	1.12
1833M	7.50	8 x ⅜″	1833C	.92
1834M	9.45	8 x ½″	1834C	1.12



SPRING GRID CLIP

Small and large type grid clip used to replace clips that have lost their tension due to heat causing poor contact. Available in bulk or 24. $.45. List envelopes on attractive display card. **Std. Pkg. 100**

No.	Type Type	Per C	Display	NET Per C
1288	1X2-6BQ6	$8.00	1288D	$6.48
1289	1B3-6BG6	8.00	1289D	6.48



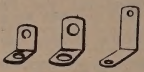
ANGLES

Steel, Cadmium Plated

L1—Lgth. of Leg
L2—Lgth of Leg
T —Thickness
H1—Hole Location
H2—Hole Location
W —Width

Std. Pkg. 100

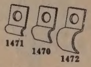
No.	"L1"	"L2"	"T"	"H1"	"H2"	"W"	"H1" Hole	"H2" Hole	N Pe
1444	7/16″	7/16″	.032″	17/64″	¼″	⅜″	#8	7/64″	$.
1445	½″	½″	.050″	11/32″	23/64″	½″	#4	7/64″	.
1446	49/64″	27/64″	.030″	39/64″	15/64″	5/16″	#6	9/64″	.
1447	19/64″	½″	.050″	61/64″	23/64″	5/16″	#4	7/64″	1.



BRASS AND STEEL ANGLES

Std. Pkg. 100

No.	Material	Size	NET Pe
1474	Brass N.P.	½″ x ½″	$1
1475	Brass N.P.	⅝″ x ⅝″	3
1476	Steel H.T.	¾″ x ¾″	1
1477	Steel H.T.	⅝″ x 1⅛″	1

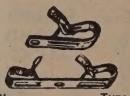


CABLE CLAMPS

Steel Cadmium Pla
with No. 8 Mtg. H
Std. Pkg.

No.	Length	Width	Cable	N Pe
1471	⅝″	⅜″	⅛″	$
1470	¾″	⅜″	¼″	
1472	1″	⅜″	½″	

FAHNESTOCK SPRING BATTERY CLIPS

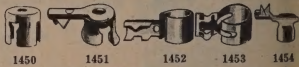


Clips are made of brass, ni plated and are available in single and double clip types.

Std. Pkg. 100

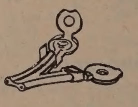
No.	Type	Length	NET P
539	Single	⅝″	$
533	Single	¾″	
534	Single	1″	
535	Double	1½″	
536	Double	21/16″	

GRID CAPS



Std. Pkg. 100

No.	Tube Type	NET P
1450	⅜″ Glass Tubes	$
1451	⅜″ Glass Tubes	
1452	⅜″ Glass Tubes	
1453	⅜″ Glass Tubes	
1454	¼″ Mini Tubes	



TV ANTENNA LUG

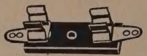
Solderless Type

A secure, swift, positive and manent method of connecting wire to antenna: Simply strip coil around groove and fold Insure positive contact.

Std. Pkg

No.	Type	Length	Hole	NET F
1460	Double Cup	13/16″	No. 10	$
1461	Double Cup	15/16″	¼″	

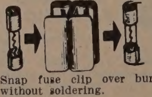
FUSE MOUNTING BASES



Black bakelite, panel m type. Will accommodat 3 A G Auto type cart fuse.

Std. Pk

No.	Type	NET F
530	Single	$
531	Double	
532	Clip Only	



TV SNAP-ON FUSE HOLDER

Snap fuse clip over burned out fuse. Insert new without soldering.

Std. Pk

No.		NET
529		
529D	Display of 24 No. 529	

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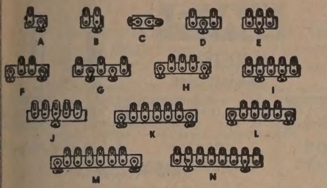
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TIE DOWN TERMINAL STRIPS



Standard Type

G: BRASS, cadmium plated, spaced ⅜" centers.
RIP: XP Bakelite, 5/16" wide x .016 thick.
UNT.: .140 I.D. for No. 6 screw.

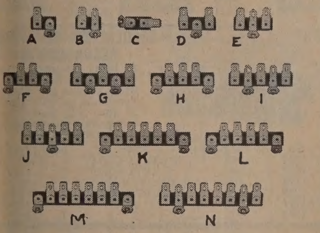
Miniature Type

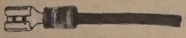
G: BRASS, cadmium plated, spaced ¼" centers.
RIP: XP Bakelite, 5/16" wide x .016 thick.
UNT.: .096 I.D. for No. 3 screw or 3/32 rivet.

andard Type NET Per C	Illustration	Miniature Type No.	NET Per C
$2.10	A	1061	$2.40
2.10	B	1062	2.70
2.40	C	—	—
2.40	D	1063	3.30
2.40	E	1064	3.60
3.60	F	1067	3.90
4.20	G	1065	5.25
4.80	H	1073	5.25
4.20	I	1068	5.70
3.60	J	1066	5.40
4.95	K	1060	6.60
5.10	L	1069	6.00
5.85	M	1078	7.80
5.85	N	1070	8.10

Standard Package 100

"QUICK-CONNECT" TERMINAL STRIPS

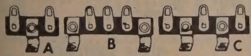




	Ill.	NET Per C	No.	Ill.	NET Per C	No.	Ill.	NET Per C
5	A	$2.82	1090	F	$4.80	1095	K	$9.60
6	B	3.00	1091	G	4.80	1097	L	8.10
7	C	2.82	1092	H	4.80	1098	M	10.80
8	D	4.20	1093	I	6.30	1099	N	11.40
9	E	4.50	1094	J	6.60			

		NET Per C
6	Terminal Strip Connectors	$3.30

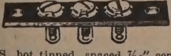
BRACKET TYPE TERMINAL STRIPS



GS: BRASS, cadmium plated, spaced ⅜" centers.
ACKETS: Brass, cadmium plated.
RIPS: X.P. Bakelite ⅜" wide x .062 thick.
UNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

).	Fig.	Lugs	NET Per C
7	A	2	$6.36
9	C	3	6.60
0	B	3	6.60
1	B	4	7.20
2	B	5	7.80
3	B	6	8.40

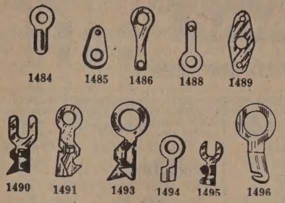
SCREW TYPE TERMINAL BOARD



GS: BRASS, hot tinned, spaced 7/16" centers.
REW: Steel, cadmium plated 6-32x⅜.
RIP: X.P. Bakelite ⅝" wide x .062 thick.

Terminals	Mounting Center	Std. Pkg.	NET Per C
2	1 7/16"	50	$6.00
3	1¾"	50	9.00
4	2 3/16"	25	11.20
5	2⅝"	25	13.20
6	3 1/16"	25	16.80
7	3½"	25	21.00
Shorting Link			1.80

SOLDER TYPE LUGS—Hot Tinned



Std. Pkg. 1000

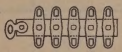
No.	Material	L.	Thick.	Hole	NET Per M
1484	Ph. Br.	⅝"	.020"	No. 6	$5.70
1485-4	Ph. Br.	9/16"	.012"	No. 4	5.40
1485-6	Ph. Br.	9/16"	.012"	No. 6	5.40
1485-8	Ph. Br.	9/16"	.012"	No. 8	5.40
1485-10	Ph. Br.	9/16"	.012"	No. 10	5.40
1486-4	Ph. Br.	13/16"	.012"	No. 4	5.40
1486-6	Ph. Br.	13/16"	.012"	No. 6	5.40
1486-8	Ph. Br.	13/16"	.012"	No. 8	5.40
1486-10	Ph. Br.	13/16"	.012"	No. 10	5.40
1488-4	Ph. Br.	9/16"	.012"	No. 4	4.35
1488-6	Ph. Br.	9/16"	.012"	No. 6	4.35
1488-8	Ph. Br.	9/16"	.012"	No. 8	4.35
1489	Brass	⅞"	.015"	No. 8	6.00
1490	Brass	¾"	.020"	No. 10	6.60
1491	Copper	15/16"	.020"	No. 10	10.50
1493	Brass	1⅛"	.027"	¼"	16.80
1494-6	Brass	⅝"	.020"	No. 6	5.40
1494-8	Brass	⅝"	.020"	No. 8	5.40
1495	Brass	⅝"	.020"	No. 8	6.60
1496	Brass	¾"	.020"	¼"	10.20
1497	Brass	⅞"	.017"	⅜"	24.00

SOLDER LUG ASSORTMENT

A complete assortment of the most widely used Solder Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx Quantity of Terminals	NET
1546	1400	$9.00

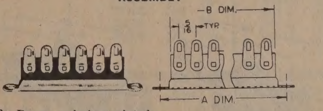
"T" TYPE TERMINAL STRIPS



LUGS: BRASS, cadmium plated, spaced ⅜" centers.
STRIP: XP Bakelite ⅜" wide x .062 thick
MOUNT.: .140 I.D. for No. 6 screw. Std. Pkg. 100

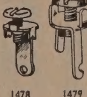
No.	Lugs	NET Per C
815	1	$3.90
816	2	5.10
817	3	6.30
818	4	7.50
819	5	8.70

TERMINAL STRIP ASSEMBLY



LUG: Brass, cadmium plated.
BASE: Brass, cadmium plated. Mounting holes for No. 6 screw.
STRIP: X.P. Bakelite. Std. Pkg. 100

No.	Terminals	Dimensions "A"	Dimensions "B"	NET Per C
3002	2	1.000	⅝"	$6.00
3003	3	1.312	15/16"	6.90
3004	4	1.625	1¼"	7.80
3005	5	1.937	1 9/16"	8.70
3006	6	2.250	1⅞"	9.60
3007	7	2.562	2 3/16"	10.50
3008	8	2.875	2½"	11.40
3009	9	3.187	2 13/16"	12.30
3010	10	3.500	3⅛"	13.20
3011	11	3.812	3 7/16"	14.10
3012	12	4.125	3¾"	15.00

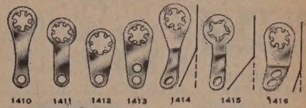


TERMINAL LUGS & SCREWS

Recommended for heavy duty terminal strips. Lugs are tapped with screw inserted. Brass hot tinned. Std. Pkg. 100

No.	NET Per C
1478	$3.96
1479	5.40

LOCKING TYPE TERMINAL LUGS

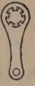


BRASS HOT TINNED Std. Pkg. 1000

No.	L	Thick	Hole	NET Per M
1410-4	⅞"	.018"	No. 4	$9.00
1410-6	⅞"	.018"	No. 6	9.00
1410-8	⅞"	.018"	No. 8	9.00
1410-10	57/64"	.018"	No. 10	9.00
1411-4	47/64"	.020"	No. 4	10.20
1411-6	47/64"	.020"	No. 6	9.00
1411-8	47/64"	.020"	No. 8	9.00
1412-4	⅝"	.018"	No. 4	9.00
1412-6	⅝"	.018"	No. 6	8.40
1412-8	⅝"	.018"	No. 8	8.40
1413-4	23/32"	.018"	No. 4	8.40
1413-6	23/32"	.018"	No. 6	9.00
1413-8	23/32"	.018"	No. 8	9.00
1414-4	13/16"	.018"	No. 4	9.00
1414-6	13/16"	.018"	No. 6	9.00
1414-8	13/16"	.018"	No. 8	9.00
1414-10	53/64"	.018"	No. 10	9.00
1415-4	41/64"	.018"	No. 4	9.00
1415-6	41/64"	.018"	No. 6	9.00
1415-8	41/64"	.018"	No. 8	9.00
1416-4	11/16"	.020"	No. 4	9.00
1416-6	11/16"	.020"	No. 6	9.00
1416-8	11/16"	.020"	No. 8	9.00

LOCKING TYPE TERMINAL LUGS

Brass Electro Plated



No.	Hole Size	Thick	Length	NET Per M
1465	No. 4	.020"	47/64"	$10.20
1466	No. 6	.020"	47/64"	10.20
1467	No. 8	.020"	⅞"	10.20
1468	¼"	.020"	13/16"	12.00

LOCKING TERMINAL LUG ASSORTMENT

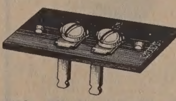
A complete assortment of the most widely used Locking Terminal Lug styles, with hole sizes from #4 thru #10. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	NET
1547	900	$9.00

CONTACT STRIPS

CONTACTS: STEEL, cadmium plated, spring tension spaced ⅜" centers.
STRIP: X.P. Bakelite ⅝" wide x .062 thick.
BRACKET: Steel cadmium plated .140 I.D. for No. 6 screw.
DESCR.: Quick connect and disconnect. Spring tension contacts for .125 dia. contact pins. Single hole mounting. Even number contacts have mtg. bracket in center; odd number contacts have extra contact on right. Special contacts on request.

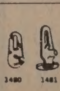
No.	Contacts	Std. Pkg.	NET Per C
822	2	100	$6.60
823	3	50	8.40
824	4	25	10.20
825	5	25	12.00
826	6	25	15.00
827	Pin Only	100	1.20



HEAVY DUTY TERMINAL BOARDS

LUG: BRASS, cadmium plated .042 thick spaced ½" centers. Terminals numbered.
STRIP: X.P. Bakelite ⅞" wide x 5/32" thick, numbered.
SCREW: Brass, nickel plated 8-32 x 5/16.

No.	Terminals	Mtg. Center	NET Per C
902	2	1½"	$20.40
903	3	2"	28.20
904	4	2½"	34.20
905	5	3"	40.80
906	6	3½"	46.20
907	7	4"	52.20
908	8	4½"	58.80
909	9	5"	64.80
910	10	5½"	70.80
911	11	6"	76.80
912	12	6½"	82.80



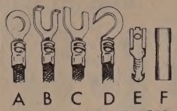
EYELET TYPE SOLDER LUGS

Std. Pkg. 1000

No.	Length	Hole	NET Per M
1480	⅝"	5/64 Slot	$3.30
1481	⅝"	#8	7.20

SOLDERLESS TERMINALS

AMP Pre-Insulated Diamond Grip



Color-coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22	1550	320882	4	3/16	21/32	5/32	$9.00
	1551	31881	6	7/32	21/32	5/32	9.00
to	1552	31886	8	9/32	25/32	1/4	9.00
	1553	31887	10	9/32	25/32	1/4	9.00
16	1554	31894	1/4	15/32	1 1/16	27/64	9.60
14	1555	32441	4	1/4	11/16	11/64	9.00
	1556	32442	6	1/4	11/16	11/64	9.00
to	1557	31902	8	11/32	27/32	9/32	9.00
	1558	322238	10	5/16		1/4	9.00
16	1559	31906	1/4	15/32	1/16	7/16	9.60

FLANGED SPADE (B)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22-16	1560	32562	6	19/64	23/32	13/64	$9.00
	1561	32498	8	27/64	13/16	1/4	9.60
	1562	320861	6	19/64	23/32	13/64	9.00
14-16	1563	320862	8	19/64	23/32	13/64	9.00
	1564	320863	10	19/64	23/32	13/64	9.00

SPADE TONGUE (C)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
	1565	34541	6	1/4	53/64	19/64	$9.00
22-16	1566	32053	8	3/8	57/64	19/64	9.00
	1567	32054	10	3/8	57/64	19/64	9.00
	1568	35559	6	19/64	47/64	13/64	9.00
14-16	1569	321233	8	19/64	47/64	13/64	9.00
	1570	32060	10	3/8	57/64	5/16	9.00

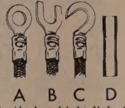
HOOK TONGUE (D)

Wire Size	No.	AMP No.	Stud Size	Tongue Width	Overall Length	Stud Clear.	NET Per C
22-16	1571	34313	6	9/32	47/64	13/64	$9.00
	1572	32456	8	11/32	55/64	9/32	9.00
	1573	320381	6	11/32	27/32	9/32	$9.00
14-16	1574	320306	8	11/32	27/32	9/32	10.20
	1575	35481	10	11/32	27/32	9/32	10.20
18-14	1576	47100	.250	Faston Receptacle (E) w/insulation support			$ 3.30

BUTT CONNECTOR (F)

Wire Size	No.	AMP No.			NET Per C
22-16	1548	320559	.125	I.D.	36.00
16-14	1549	320562	.150	I.D.	36.00

AMP "PLASTI-GRIP" (P.G.)



Insulated, strong, special plastic has high dielectric strength. Applied with single operation of press dies or hand tools. High tensile strength. High conductivity copper, electro-tinned. Color coded for wire size. **Std. Pkg. 100**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2750	34141	4	7/32	21/32	5/32	$6.60
22	2751	34142	6	7/32	21/32	5/32	6.60
	2752	34145	8	9/32	25/32	1/4	6.60
to	2753	34146	10	9/32	25/32	1/4	6.60
	2754	34150	1/4	15/32	1 1/16	27/64	7.80
16	2755	34151	5/16	15/32	1 1/16	27/64	7.80
	2756	34152	3/8	17/32	1 13/64	17/32	7.80
	2757	34157	4	1/4	11/16	5/32	$6.60
16	2758	34158	6	1/4	11/16	5/32	6.60
	2759	34160	8	11/32	27/32	17/64	6.60
to	2760	34161	10	11/32	27/32	17/64	6.60
	2761	34162	1/4	15/32	1 1/16	27/64	7.80
14	2762	34163	5/16	15/32	1 1/16	27/64	7.80
	2763	34164	3/8	17/32	1 13/64	33/64	7.80

SPADE TONGUE (B)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
22	2764	34153	6	11/32	49/64	13/64	$6.60
to	2765	34155	8	3/8	57/64	19/64	6.60
16	2766	34156	10	3/8	57/64	19/64	6.60
16	2767	34165	6	3/8	57/64	19/64	$5.70
to	2768	34166	8	3/8	57/64	19/64	6.60
14	2769	34167	10	3/8	57/64	19/64	6.60

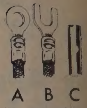
HOOK TONGUE (C)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
20-16	2770	34501	6	9/32	47/64	3/16	$6.60
	2771	321699	8	11/32	55/64	9/32	6.60
16-14	2772	320263	8	11/32	55/64	17/64	$9.60

BUTT CONNECTOR (D)

No.	AMP No.	Wire Size	I.D.	O'all L.	NET Per C
2773	34070	22-16	.140 I.D.	1	$8.10
2774	34071	16-14	.70 I.D.	1 1/64	8.10

AMP "SOLISTRAND" Non-Insulated



The only terminal designed for use with solid, stranded or irregularly shaped wires, or combinations of wires. Corrosion resistant, high strength, electro-tinned; versatile — widely adaptable. **Std. Pkg. 10**

RING TONGUE (A)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
	2850	32989	4	7/32	17/32	5/32	$4.20
22	2851	34194	6	7/32	17/32	5/32	4.20
	2852	32990	8	9/32	11/16	15/64	4.80
to	2853	33214	10	5/16	11/16	9/32	4.80
	2854	33215	1/4	15/32	15/16	27/64	6.60
16	2855	33452	5/16	15/32	15/16	27/64	6.60
	2856	33453	3/8	17/32	1 1/16	17/32	6.60
	2857	32991	4	1/4	9/16	11/64	$4.80
16	2858	34197	6	1/4	9/16	11/64	4.80
	2859	32992	8	5/16	11/32	1/4	4.80
to	2860	320093	10	5/16	11/32	1/4	4.80
	2861	33218	1/4	15/32	15/16	7/16	6.60
14	2862	33454	5/16	15/32	15/16	7/16	6.60
	2863	33455	3/8	17/32	1 1/8	17/32	6.60

SPADE TONGUE (B)

Wire Size	No.	AMP No.	Stud Size	Tong. W.	O'all L.	Stud Clear.	NET Per C
22	2864	32897	6	11/32	5/8	13/64	$4.2
to	2865	32898	8	11/32	5/8	13/64	4.2
16	2866	32899	10	11/32	5/8	13/64	4.2
16	2867	32903	6	11/32	5/8	13/64	$4.2
to	2868	32904	8	11/32	5/8	13/64	4.2
14	2869	32905	10	11/32	5/8	13/64	4.2

BUTT CONNECTOR (C)

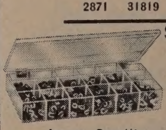
No.	AMP No.	Wire Size	I.D.	O'all L.	NET Per C
2870	31818	22-16	.140 I.D.	37/64	$5.1
2871	31819	16-14	.170 I.D.	37/64	5.1

HAND CRIMPING TOOL

Makes strong, solderless connections; cuts and strips wire, and has threaded bolt cutter.

No. 1579 7.20 NET Each

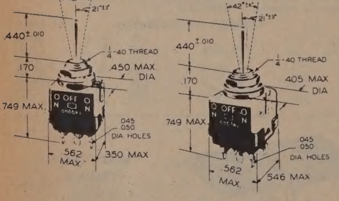
SOLDERLESS TERMINAL ASSORTMENTS



A basic assortment of the most commonly used Ring Tongue and Spade Terminals for wire sizes 22 thru 14. Packed in a re-usable clear plastic compartmented box.

No.	Approx. Quantity of Terminals	Style	NET
1526	200	"PLASTI-GRIP"	$16.20
1527	300	"PLASTI-GRIP"	22.80
1528	200	"SOLISTRAND"	12.00
1529	300	"SOLISTRAND"	18.00
1577	200	"P.I.D.G."	21.00
1578	300	"P.I.D.G."	30.00

C-H MINIATURE MILITARY SWITCHES



Extremely compact, highly reliable power or dry circuit switches. Usable as a pre-set switch in aircraft recognition systems; for walkie-talkies; for electronic instruments and communication systems.

RATINGS: 2 Amps. @ 28 V.D.C. 1 Amp @ 50 V.D.C. 2 Amps @ 115 V.A.C.

MINIMUM RATING: 30 Microamps. @ 50 Millivolts.

SINGLE POLE

WEIGHT: 5.0 Grams.

CUBIC CONTENT: .147 cubic inches "behind panel" volume. **Std. Pkg. 10**

HHS	C-H		Circuit	NET Each
1841	8866K1	SPDT	On-Off-On	$6.00
1842	8866K2	SPDT	Mom. On-Off-Mom. On	6.09
1843	8866K3	SPDT	On-Off-Mom. On	6.09
1844	8866K4	SPDT	On-None-On	6.00
1845	8866K5	SPST	On-Off-None	6.00
1846	8866K6	SPST	None-Off-Mom. On	6.09
1847	8866K7	SPST	On-None-Off	6.00

DOUBLE POLE

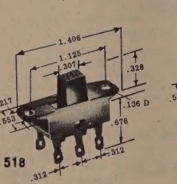
WEIGHT: 6.5 grams.

CUBIC CONTENT: .230 cubic inches "behind panel" volume. **Std. Pkg. 10**

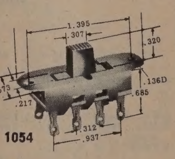
HHS	C-H		Circuit	NET Each
1851	8867K1	DPDT	On-Off-On	$7.53
1852	8867K2	DPDT	Mom. On-Off-Mom. On	8.76
1853	8867K3	DPDT	On-Off-Mom. On	8.76
1854	8867K4	DPDT	On-None-On	7.53
1855	8867K5	DPST	On-Off-None	7.53
1856	8867K6	DPST	None-Off-Mom. On	8.76
1857	8867K7	DPST	On-None-Off	7.53

CONTINENTAL-WIRT

SLIDE SWITCHES



518



1054

With Detent

UL APPROVED

General purpose switches, used on hi-fi equipment, test instruments, etc. Steel cadmium plated housings. Black phenolic buttons. **Std. Pkg. 25**

No.	Circuit	Rating @ 125 Volts AC Amps	Rating @ 125 Volts DC Amps	NET Per C
515	SPST	.75	.75	$11.40
516	SPDT	.75	.75	12.00
517	DPST	.5	.5	15.00
518	DPDT	.5	.5	18.00
1105	SPST	6.0	1.0	14.40
1106	SPDT	6.0	1.0	15.00
1107	DPST	6.0	1.0	24.00
1108	DPDT	6.00	1.0	27.00

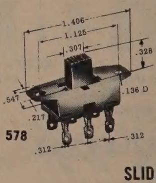
With Spring Return

No.	Circuit	Rating 125V ACDC	NET Per C
568	SPST	.5 Amp	$24.00
569	SPDT	.5 Amp	28.80

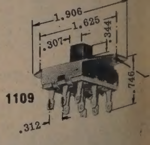
TRIPLE THROW With Detent

No.	Circuit	Rating 125V ACDC	NET Per C
1053	SP3T	.5 Amp	$28.80
1054	DP3T	.5 Amp	30.00

SLIDE SWITCHES



578



1109

SLIDE SWITCHES With Detent

CENTER OFF

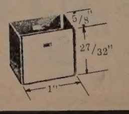
No.	Circuit	Rating 125V ACDC	N Pe
577	SP 3-Position	.5 Amp	$28
578	DP 3-Position	.5 Amp	30

MULTI-POLE SWITCHES With Detent

Unique construction, all poles are in the same pl more compact, easier wiring. **Std. Pkg.**

No.	Circuit	Rating @ 125 Volts AC Amps	Rating @ 125 Volts DC Amps	N P
1109	3PDT	3.0	1.0	$4
1110	3PDT	.5	.5	2
	Same as above but 1.005" wide			
	Same as above but 1.005" wide			
1104	4PDT	.5	.5	6

SLIDE SWITCH SHIELD



For terminal protec or electrostatic shield Shield is made of st cadmium plated, with f insulation.

No. 519 **Std. Pkg** **Each**

© U.C.P.,

HERMAN H. SMITH, INC.

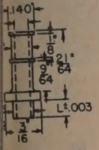
"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TURRET TERMINALS

Terminals shown below are "stock" items, available for speedy delivery. All brass, silver-plated, precision made. See next page for Suggested Resale Prices. For quantities over 15,000 request special prices. Inquiries are invited, for special types and sizes to particular requirements. **L** indicates **Shank Length** of Lug. **T** indicates **Thickness** of mounting boards Minimum package 100

00

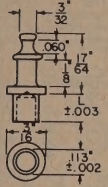
LLOW LUG


.140
1/8
21/64
9/64
L±.003
3/16

o.	L	T
00A	.075	1/32
00B	.105	1/16
00C	.135	3/32
00D	.165	1/8
00E	.195	5/32
00F	.230	3/16

2001

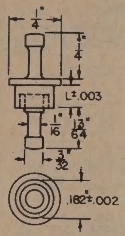
SHORT TERMINAL LUG


3/32
.060"
17/64
1/8
L ±.003
3/16
.113" ±.002

No.	L	T
2001A	.075	1/32
2001B	.105	1/16
2001C	.135	3/32
2001D	.165	1/8

2002

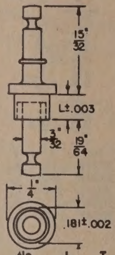
DOUBLE END TERMINAL LUG


1/4"
1/4"
L±.003
1/16"
13/64"
3/32"
.182±.002

No.	L	T
2002A	.105	1/16
2002B	.135	3/32
2002C	.165	1/8
2002D	.195	5/32
2002E	.230	3/16

2003

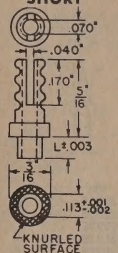
DOUBLE END LUG, LONG


15/32"
L±.003
3/32"
19/64"
1/4"
.181±.002

No.	L	T
2003A	.105	1/16
2003B	.135	3/32
2003C	.165	1/8
2003D	.195	5/32
2003E	.230	3/16

2004

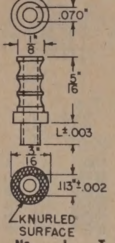
SLOTTED TERMINAL LUG SHORT


.070"
.040"
.170"
5/16"
L±.003
3/16"
.113 +.001 -.002
KNURLED SURFACE

No.	L	T
2004A	.075	1/32
2004B	.105	1/16
2004C	.135	3/32
2004D	.165	1/8

2005

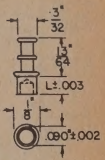
HOLLOW KNURLED LUG


.070"
1/8"
5/16"
L±.003
3/16"
.113"±.002
KNURLED SURFACE

No.	L	T
2005A	.105	1/16
2005B	.135	3/32
2005C	.165	1/8

2006

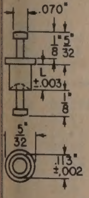
SHORT TERMINAL LUG


3/32"
13/64"
L±.003
1/8"
.090"±.002

No.	L	T
2006A	.075	1/32
2006B	.105	1/16
2006C	.135	3/32
2006D	.165	1/8

07

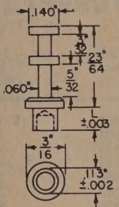
RT DOUBLE END LUG


.070"
1/8"
5/32
L ±.003
1/8"
5/32"
.113" ±.002

o.	L	T
07A	.075	1/32
07B	.105	1/16
07C	.135	3/32
07D	.165	1/8

2008

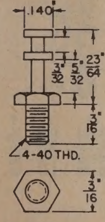
TERMINAL LUG


.140"
3/32
23/64"
5/32"
.060"
L ±.003
3/16"
.113" ±.002

No.	L	T
2008A	.075	1/32
2008B	.105	1/16
2008C	.135	3/32
2008D	.165	1/8
2008E	.195	5/32
2008F	.230	3/16
2008G	.293	1/4

2009

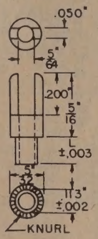
TERMINAL LUG


.140"
3/32"
5/32"
23/64"
3/16"
4-40 THD.
3/16"

No. 2009

2010

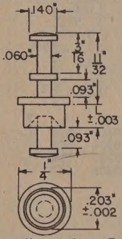
SPLIT TERMINAL LUG


.050"
5/64"
.200
5/16"
L ±.003
5/32
.113" ±.002
KNURL

No.	L	T
2010A	.075	1/32
2010B	.105	1/16
2010C	.135	3/32
2010D	.165	1/8

2011

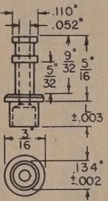
DOUBLE END TERMINAL LUG


.140"
.060"
3/16"
11/32"
.093"
L ±.003
.093"
1/4"
.203" ±.002

No.	L	T
2011A	.105	1/16
2011B	.135	3/32
2011C	.165	1/8
2011D	.195	5/32
2011E	.230	3/16

2012

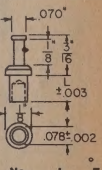
TERMINAL LUG


.110"
.052"
9/32"
5/16"
5/32"
L ±.003
3/16
.134" ±.002

No.	L	T
2012A	.105	1/16
2012B	.135	3/32
2012C	.165	1/8

2013

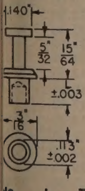
TERMINAL LUG


.070"
1/8"
3/16"
L ±.003
1/8"
.078±.002

No.	L	T
2013A	.075	1/32
2013B	.105	1/16
2013C	.135	3/32
2013D	.165	1/8

14

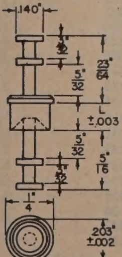
MINAL LUG


.140"
5/32"
15/64"
L ±.003
3/16"
.113" ±.002

o.	L	T
14A	.105	1/16
14B	.135	3/32
14C	.165	1/8
14D	.195	5/32
14E	.230	3/16

2015

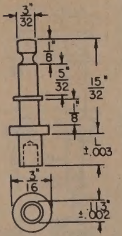
TERMINAL LUG


.140"
3/32"
23/64"
5/32"
L ±.003
5/32"
5/16"
3/32"
1/4"
.203" ±.002

No.	L	T
2015A	.135	3/32
2015B	.165	1/8
2015C	.195	5/32
2015D	.230	3/16

2016

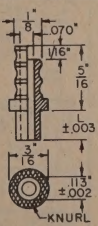
TERMINAL LUG


3/32"
1/8"
5/32"
15/32"
1/8"
L ±.003
3/16"
.113" ±.002

No.	L	T
2016A	.105	1/16
2016B	.135	3/32
2016C	.155	1/8

2017

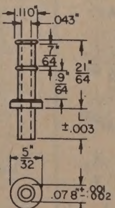
HOLLOW KNURLED LUG


1/8"
.070"
1/16"
5/16"
L ±.003
3/16"
.113" ±.002
KNURL

No.	L	T
2017A	.105	1/16
2017B	.135	3/32
2017C	.165	1/8
2017D	.195	5/32

2018

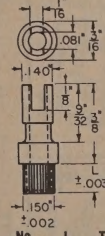
HOLLOW TERMINAL LUG


.110"
.043"
7/64"
21/64"
9/64"
L ±.003
5/32"
.078" +.001 -.002

No.	L	T
2018A	.075	1/32
2018B	.105	1/16
2018C	.135	3/32
2018D	.165	1/8
2018E	.195	5/32
2018F	.230	3/16

2019

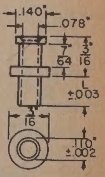
SPLIT TERMINAL LUG


1/16"
.081"
3/16"
.140"
1/8"
9/32"
3/8"
L ±.003
.150" ±.002

No.	L	T
2019A	.075	1/32
2019B	.105	1/16
2019C	.135	3/32
2019D	.165	1/8
2019E	.195	5/32
2019F	.230	3/16

2020

TERMINAL LUG


.140"
.078"
7/64"
3/16"
L ±.003
3/16"
.110" ±.002

No.	L	T
2020A	.075	1/32
2020B	.105	1/16
2020C	.135	3/32
2020D	.165	1/8

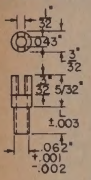
HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

TURRET TERMINALS

2021

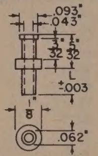
MINIATURE SPADE LUG


±.003
.062"
+.001
-.002

No.	L	T
2021A	.037	1/64
2021B	.053	1/32
2021C	.084	1/16
2021D	.115	3/32
2021E	.147	1/8

2022

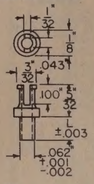
MINIATURE HOLLOW LUG


.093"
.043"
±.003
.062"

No.	L	T
2022A	.037	1/64
2022B	.053	1/32
2022C	.084	1/16
2022D	.115	3/32
2022E	.147	1/8

2023

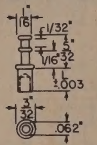
MINIATURE HOLLOW SPLIT LUG


.043"
.100"
±.003
.062"
+.001
-.002

No.	L	T
2023A	.037	1/64
2023B	.053	1/32
2023C	.084	1/16
2023D	.115	3/32
2023E	.147	1/8

2024

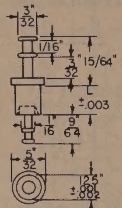
MINIATURE DOUBLE TIE LUG



No.	L	T
2024A	.037	1/64
2024B	.053	1/32
2024C	.084	1/16
2024D	.115	3/32
2024E	.147	1/8

2025

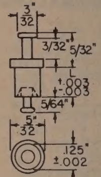
MINIATURE THROUGH LUG


1/16"
15/64"
±.003
.125"
±.002

No.	L	T
2025A	.075	1/32
2025B	.105	1/16
2025C	.135	3/32
2025D	.165	1/8

2026

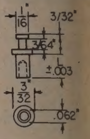
MINIATURE THROUGH LUG


3/32"
5/32"
+.003
-.003
5/64"
.125"
±.002

No.	L	T
2026A	.075	1/32
2026B	.105	1/16
2026C	.135	3/32
2026D	.165	1/8

2027

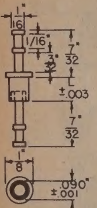
MINIATURE LU


3/32"
3/64"
±.003
.062"

No.	L	T
2027A	.037	1/64
2027B	.054	1/32
2027C	.084	1/16
2027D	.115	3/32
2027E	.147	1/8

2028

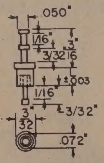
FEED-THRU TERMINAL LUG


1/16"
±.003
.090"
±.001

No.	L	T
2028A	.054	1/32
2028B	.084	1/16
2028C	.115	3/32
2028D	.147	1/8

2029

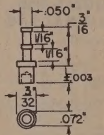
TERMINAL LUG


.050"
1/16"
±.003
3/32"
.072"

No.	L	T
2029A	.054	1/32
2029B	.084	1/16
2029C	.115	3/32
2029D	.147	1/8

2030

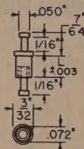
TERMINAL LUG


.050"
1/16"
±.003
.072"

No.	L	T
2030A	.054	1/32
2030B	.084	1/16
2030C	.115	3/32
2030D	.147	1/8

2031

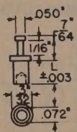
FEED TERMINAL LUG


.050"
1/16"
±.003
.072"

No.	L	T
2031A	.054	1/32
2031B	.084	1/16
2031C	.115	3/32
2031D	.147	1/8

2032

TERMINAL LUG


.050"
1/16"
±.003
.072"

No.	L	T
2032A	.054	1/32
2032B	.084	1/16
2032C	.115	3/32
2032D	.147	1/8

SUGGESTED RESALE PRICES OF TURRET TERMINALS

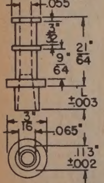
Cat. No. Series	100-999 Per C	1,000-4,999 Per M	5,00 15,0 Per
2000	$ 1.50	$12.50	$10.0
2001	1.50	12.50	10.0
2002	3.30	27.50	22.0
2003	4.20	35.00	28.0
2004	2.52	21.00	16.8
2005	2.06	18.00	14.4
2006	1.02	8.50	6.8
2007	1.38	11.50	9.2
2008	1.62	13.50	10.8
2009	2.52	21.00	16.8
2010	2.40	20.00	16.0
2011	3.60	30.00	24.0
2012	2.10	17.50	14.0
2013	1.08	9.00	7.2
2014	1.38	11.50	9.2
2015	4.20	35.00	28.0
2016	1.62	13.50	10.8
2017	2.40	20.00	16.0
2018	3.00	25.00	20.0
2019	2.70	22.50	18.0
2020	1.50	12.50	10.0
2021	1.50	12.50	10.0
2022	1.50	12.50	10.0
2023	2.70	22.50	18.0
2024	1.80	15.00	12.0
2025	2.70	22.50	18.0
2026	2.70	22.50	18.0
2027	1.20	10.00	8.0
2028	3.30	26.50	22.0
2029	2.10	17.50	14.0
2030	1.62	13.50	10.8
2031	1.62	13.50	10.8
2032	3.30	27.50	22.0
2033	3.60	30.00	24.0
2034	4.20	35.00	28.0
2035	4.50	37.50	30.0
2036	3.90	32.50	26.0
2037	9.00	75.00	60.0
2038	10.20	85.00	68.0

ADDITIONAL NUMBERS

We invite your inquiries on other typ of turret terminals not shown here.

2033

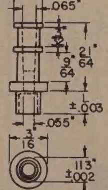
RECEPTACLE LUG


.140
.055"
21/64"
9/64
±.003
.065"
.113"
±.002

No.	L	T
2033A	.075	1/32
2033B	.105	1/16
2033C	.135	3/32
2033D	.165	1/8
2033E	.195	5/32
2033F	.230	3/16

2034

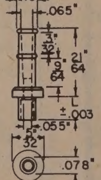
RECEPTACLE LUG


.140
.065"
21/64
9/64
±.003
.055"
3/16
.113"
±.002

No.	L	T
2034A	.075	1/32
2034B	.105	1/16
2034C	.135	3/32
2034D	.165	1/8
2034E	.195	5/32
2034F	.230	3/16

2035

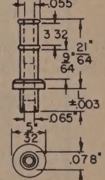
RECEPTACLE LUG


.110
.065"
21/64
9/64
±.003
.055"
.078"

No.	L	T
2035A	.075	1/32
2035B	.105	1/16
2035C	.135	3/32
2035D	.165	1/8
2035E	.195	5/32
2035F	.230	3/16

2036

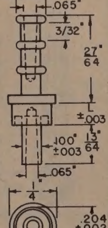
RECEPTACLE LUG


.110
.055"
21/64"
9/64
±.003
.065"
5/32
.078"

No.	L	T
2036A	.075	1/32
2036B	.105	1/16
2036C	.135	3/32
2036D	.165	1/8
2036E	.195	5/32
2036F	.230	3/16

2037

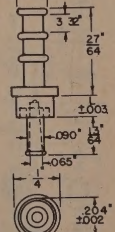
TAPERED TERMINAL


.160
.065"
3/32"
27/64
±.003
.100"
±.003
13/64
.065"
1/4
.204"
±.002

No.	L	T
2037A	.105	1/16
2037B	.135	3/32
2037C	.165	1/8

2038

TAPERED TERMINAL


.160
27/64
±.003
.090"
13/64
.065"
1/4
.204"
±.002

No.	L	T
2038A	.105	1/16
2038B	.135	3/32
2038C	.165	1/8

© U.C.P., In

TEFLON TERMINALS

SMITH TEFLON Terminals are designed for use as precision components in critical electronic applications such as Computers • Microwave • UHF-VHF • Missiles • Satellites

Y: Pure virgin Teflon, meeting all requirements of MIL-P-19468 and AMS Specification 3651B.

MINALS: Precision machined of brass, meeting specification QQ-B-626, Composition 22, and gold-plated for maximum solderability and resistance to corrosion and tarnish.

CRIPTION: Terminals are easily inserted into punched or drilled holes, and are self-locking.

— Miniature and sub-miniature sizes allow for maximum space utilization.

— Excellent resistance to thermal and mechanical shock, vibration, corrosive atmospheres, moisture absorption.

— Exceptionally high dielectric strength for use well up into Kilovolt region, depending on size and design.

COLOR CODE SUFFIX (add to catalog number as required).

— 101 WHITE*	— 104 GREEN	— 107 YELLOW	— 112 PURPLE
— 102 RED	— 105 BLUE	— 108 BROWN	— 113 GREY
— 103 BLACK	— 106 ORANGE		

*White is natural Teflon, and will be supplied if no color is specified. Coloring does not affect electrical, mechanical, thermal or physical characteristics of Teflon.

REVERSED STYLES. Most popular types are listed below. We can supply most standard REVERSED on request. Send us your requirements for ANY style not shown and we will advise at once on availability

Std. Cat. No.	Fig.	Reverse Cat. No.	Fig.	DIMENSIONS A	B	C	D	L	E	F	G	H	J	K	NET Per C
7800	1			.093	.100	.210	.040	0.350	.125	.040					$10.00
7801	1			.148	.062	.210	.078	0.350	.172	.040					11.00
7802	1			.148	.075	.210	.050	0.335	.172	.040					9.00
		8703	1R	.148	.100	.125	.040	0.265	.172	.040					11.00
7804	1	8704	1R	.148	.100	.210	.040	0.350	.172	.040					9.00
7805	1			.148	.110	.210	.050	0.375	.172	.040					9.00
		8706	1R	.148	.250	.210	.040	0.500	.172	.040					13.00
7807	1			.172	.100	.210	.040	0.350	.195	.040					11.00
7808	1			.179	.100	.210	.040	0.350	.200	.040					11.00
7820	2	8720	2R	.148	.100	.210	.040	0.350	.172	.040	.080	.100	.050	.020	10.00
7821	2			.148	.125	.210	.040	0.375	.172	.040	.080	.100	.050	.020	10.00
7822	2			.148	.125	.210	.093	0.428	.172	.040	.080	.100	.050	.020	12.00
7823	2			.148	.140	.154	.040	0.334	.172	.046	.093	.046	.048	.020	11.00
7824	2			.148	.140	.154	.040	0.334	.172	.046	.093	.046	.048	.020	14.00
7825	2			.148	.165	.250	.040	0.455	.172	.040	.093	.093	.097	.020	12.00
7826	2			.148	.250	.210	.040	0.500	.172	.040	.080	.100	.050	.020	11.00
7827	2			.148	.250	.250	.040	0.540	.172	.040	.093	.093	.097	.020	12.00
		8728	2R	.171	.155	.210	.040	0.405	.188	.040	.080	.100	.050	.020	10.00
7829	2			.179	.100	.210	.040	0.350	.200	.040	.080	.100	.050	.020	12.00
7830	2			.185	.100	.210	.040	0.350	.218	.040	.080	.100	.050	.020	12.00
7831	2			.185	.125	.210	.040	0.375	.218	.040	.080	.100	.050	.020	12.00
		8735	3R	.148	.187	.227	.040	0.455	.172	.040	.080	.187		.020	12.00
7836	3			.172	.125	.120	.075	0.320	.200	.048	.090	.080		.020	11.00
7840	4			.148	.110	.250	.125	0.482	.172	.040	.093	.093	.097	.020	12.00
7841	4			.165	.150	.156	.125	0.431	.187	.046	.093	.046	.050	.020	12.00
7842	4			.165	.150	.156	.187	0.493	.187	.046	.093	.046	.050	.020	13.00
7843	4			.165	.150	.156	.250	0.556	.187	.046	.093	.046	.050	.020	14.00
7844	4			.165	.150	.250	.125	0.522	.187	.040	.093	.093	.097	.020	12.00
7845	4			.165	.150	.250	.187	0.584	.187	.040	.093	.093	.097	.020	13.00
7846	4			.165	.150	.281	.187	0.616	.187	.046	.125	.093	.095	.031	13.00
7847	4			.165	.150	.281	.400	0.831	.187	.046	.125	.093	.095	.031	18.00
7848	4			.171	.150	.156	.125	0.431	.187	.046	.093	.046	.050	.020	12.00
7849	4			.215	.187	.281	.500	0.968	.250	.046	.125	.093	.095	.031	22.00
7850	4			.215	.187	.281	.800	1.268	.250	.046	.125	.093	.095	.031	30.00
7855	5			.171	.150	.203	.125	0.478	.187	.078	.148	.046		.156	12.00
7856	5			.171	.150	.203	.187	0.540	.187	.078	.148	.046		.156	13.00
7857	5			.171	.150	.203	.250	0.603	.187	.078	.148	.046		.156	14.00
7858	5			.171	.150	.203	.400	0.753	.187	.078	.148	.046		.156	18.00
7859	5			.217	.187	.203	.500	0.890	.250	.078	.148	.046		.156	22.00
7860	5			.217	.187	.203	.800	1.190	.250	.078	.148	.046		.156	30.00
7900	6			.093	.100	.210	.040	0.515	.125	.040					11.00
7901	6			.125	.060	.125	.040	0.335	.150	.040					11.00
7902	6			.148	.050	.210	.050	0.515	.172	.040					10.00
7903	6			.148	.100	.210	.040	0.443	.172	.040					11.00
7904	6			.148	.100	.210	.040	0.515	.172	.040					10.00
7905	6			.148	.100	.210	.040	0.725	.172	.040					11.00
7906	6			.148	.110	.210	.050	0.535	.172	.040					10.00
7907	6			.148	.160	.210	.040	0.535	.172	.040					12.00
7908	6			.169	.100	.460	.040	2.500	.219	.040					14.00
7909	6			.172	.100	.210	.040	0.515	.195	.040					11.00
7910	6			.218	.100	.210	.040	0.515	.250	.040					13.00

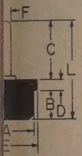


FIG. I

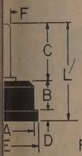


FIG. IR

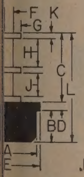


FIG. 2

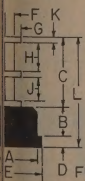


FIG. 2R

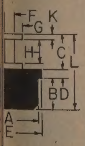


FIG. 3

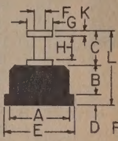


FIG. 3R

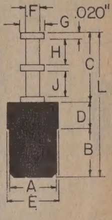


FIG. 4

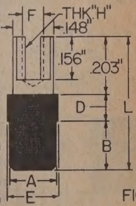


FIG. 5

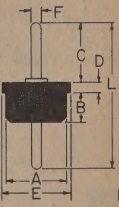


FIG. 6

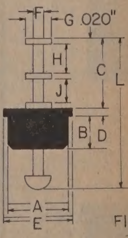


FIG. 7

TEFLON TERMINALS

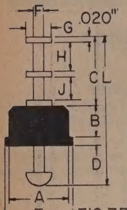


FIG.7R

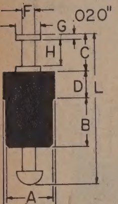


FIG. 8

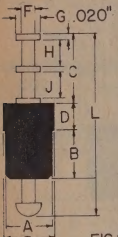


FIG.9

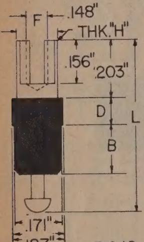


FIG.10

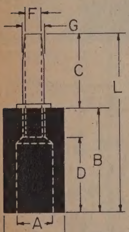


FIG. II

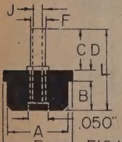


FIG.12

Std. Cat. No.	Fig.	Reverse Cat. No.	Fig.	A	B	C	D	L	E	F	G	H	J	K	NET Per C
7915	7			.093	.100	.210	.040	0.500	.125	.040	.080	.100	.050	0.20	$11.00
7916	7	9716	7R	.148	.100	.210	.040	0.500	.172	.040	.080	.100	.050	.020	11.00
7917	7			.148	.100	.210	.040	0.531	.172	.040	.080	.100	.050	.020	11.00
7918	7			.148	.125	.210	.040	0.531	.172	.040	.080	.100	.050	.020	12.00
7919	7			.148	.125	.210	.093	0.609	.172	.040	.080	.100	.050	.020	14.00
7920	7			.148	.125	.210	.093	0.609	.172	.040	.080	.100	.050	.020	13.00
7921	7			.148	.165	.210	.040	0.500	.172	.040	.080	.100	.050	.020	12.00
7922	7			.179	.100	.210	.040	0.500	.200	.040	.080	.100	.050	.020	13.00
7923	7			.185	.125	.210	.040	0.531	.218	.040	.080	.100	.050	.020	13.00
7925	8			.148	.100	.093	.040	0.443	.172	.040	.080	.062		.020	12.00
7926	8			.148	.100	.125	.040	0.350	.172	.040	.080	.062		.020	13.00
7927	8			.171	.150	.125	.250	0.740	.187	.050	.093	.062		.031	18.00
7928	8			.171	.171	.133	.063	0.540	.187	.050	.093	.062		.031	14.00
7929	8			.171	.212	.125	.187	0.740	.187	.050	.093	.062		.031	18.00
7930	8			.171	.275	.125	.250	0.865	.187	.050	.093	.062		.031	20.00
7931	8			.171	.400	.125	.375	1.115	.187	.050	.093	.062		.031	24.00
7932	8			.171	.825	.125	.800	1.965	.250	.050	.125	.062		.031	44.00
7933	8			.185	.210	.133	.093	0.640	.215	.046	.093	.093		.020	18.00
7935	9			.148	.165	.250	.187	0.836	.172	.040	.093	.095	.095	.020	18.00
7936	9			.148	.230	.250	.125	0.836	.172	.040	.093	.095	.095	.020	18.00
7937	9			.171	.150	.250	.250	0.836	.187	.040	.093	.095	.095	.020	18.00
7938	9			.171	.212	.250	.187	0.836	.187	.040	.093	.095	.095	.020	18.00
7939	9			.264	.100	.210	.040	0.531	.312	.040	.080	.100	.050	.020	14.00
7941	10			.171	.212	.203	.187	0.821	.187	.078	.148	.046		.156	22.00
7942	10			.171	.275	.203	.250	0.947	.187	.078	.148	.046		.156	24.00
7948	11			.128	.375	.270	.270	0.645	.218	.062	.080				16.00
7950	12			.148	.179	.120	.046	0.345	.172	.040	.040				20.00
7951	12			.185	.281	.120	.046	0.437	.218	.054	.080	.053		.037	19.00
7952	12			.185	.400	.187	.050	0.637	.218	.054	.080	.104		.037	19.00
7955	13			.185	.287	.250	.046	0.906	.218	.030	.050				15.00
7956	13			.185	.287	.250	.046	2.083	.218	.030	.050				13.00
7960	14			.093	.060	.125	.040	0.225	.125	.040				.030	11.00
7961	14			.148	.053	.207	.050	0.310	.172	.040				.030	11.00
7962	14			.148	.160	.207	.040	0.407	.172	.040				.030	15.00
7963	14			.171	.110	.207	.050	0.367	.218	.085				.063	13.00
7965	15			.218	.100	.147	.040	0.287	.250	.060			.030		14.00
7967	16			.125	.080	.133	.060	0.273	.150	.060	.090	.093	.030	.020	13.00
7969	17			.148	.100	.133	.040	0.303	.172	.060	.090	.093	.030	.020	13.00
7971	18			.171	.155	.133	.093	0.381	.188	.082	.125	.093	.062	.020	15.00
7973	19			.218	.375	.281	.250	1.187	.250	.062	.125	.093	.093	.031	25.00

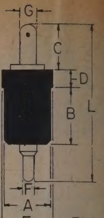


FIG.13

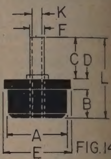


FIG.14

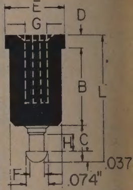


FIG. 15

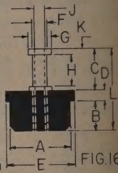


FIG.16

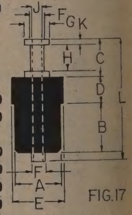


FIG.17

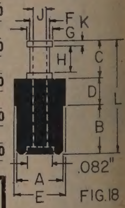


FIG.18

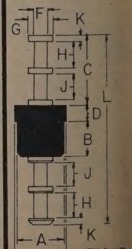
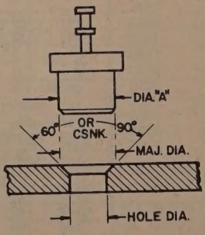


FIG.19

INSTALLATION PROCEDURE

1. For chassis or panels ⅛" (.125") or less in thickness, punch or drill hole .013" ±.002" LESS than the diameter of the bushing (dimension "A" in the tables). Minimum protrusion of assembled terminal should be .040" (dimension "B" less chassis thickness) for greater holding power. Recommendations for panels greater than .125" thick are available on request.
2. Countersink the insertion side of the chassis. For chassis thicker than .040" use 60° countersink. For chassis less than .040" thick use 90° countersink. Countersink depth should be such that "Maj. Dia." shown in drawing is equal to bushing diameter (Dimension "A") of the terminal.
3. Insert terminal in countersunk side of chassis, and press until shoulder of terminal seats against chassis.



HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

CUTLER-HAMMER SWITCHES

TOGGLE SWITCHES
STANDARD DUTY

15 Amps. 125 Volts — 10 Amps. 250 Volts
, UL Approved 15/32" shank; slow-make and ak; bakelite case. AC rated only for longer and greater capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
966	7501K13	SPST	$ .69
967	7505K4	SPDT	.81
968	7561K4	DPST	1.08
969	7565K5	DPDT	1.26
970	7611K2	TPST	2.19
971	7615K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
972	7500K14	SPST	$ .81
973	7504K4	SPDT	.96
974	7560K5	DPST	1.26
975	7564K6	DPDT	1.56
976	7610K2	TPST	2.55
977	7614K2	TPDT	3.24

CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

No.	C-H No.	Type	NET Each
978	7503K13	SPDT	$ .81
979	7563K4	DPDT	1.26
980	7613K2	TPDT	2.70

BACK CONNECTED SCREW TERMINALS

No.	C-H No.	Type	NET Each
981	7502K13	SPDT	$ .96
982	7562K4	DPDT	1.56
983	7612K2	TPDT	3.24

TOGGLE SWITCHES
LIGHT DUTY

AC-DC, UL Approved; 15/32" shank; quick make — quick break; bakelite case. Unusually small size for electrical capacity. **Std. Pkg. 10**

BACK CONNECTED LUG TERMINALS

SMALL BAT HANDLE 15/32" LONG

C-H No.	Current Rating Type	125 V.	250 V	NET Each
8280K16	SPST		3 Amps.	$ .69
8381K8	SPST	6 Amps.	3 Amps.	.81
8282K14	SPDT	3 Amps.	1 Amp.	.87
8284K14	2 circ.	3 Amps.	1 Amp.	.93
8360K7	DPST		3 Amps.	1.26
8370K7	DPST	6 Amps.	3 Amps.	1.38
8363K7	DPDT		3 Amps.	1.44
8373K7	DPDT	6 Amps.	3 Amps.	1.56

STANDARD BAT HANDLE 11/16" LONG

					NET Each
0	8908K446	SPST		3 Amps.	$ .69
1	8908K447	SPST	6 Amps.	3 Amps.	.81
2	8908K448	SPDT	3 Amps.	1 Amp.	.87
3	8908K449	2 Circ.	3 Amps.	1 Amp.	.93
4	8908K450	DPST		3 Amps.	1.26
5	8908K451	DPST	6 Amps.	3 Amps.	1.38
6	8908K452	DPDT		3 Amps.	1.44
7	8908K453	DPDT	6 Amps.	3 Amps.	1.56

SIDE CONNECTED SCREW TERMINALS

C-H No.	Current Rating Type	125 V.	250 V.	NET Each
8285K8	SPST		3 Amps.	$ .84
8396K8	SPST	6 Amps.	3 Amps.	.96
8297K8	SPDT	3 Amps.	1 Amp.	1.11
8372K7	DPST	6 Amps.	3 Amps.	1.65
8365K7	DPDT		3 Amps.	1.89
8375K7	DPDT	6 Amps.	3 Amps.	2.01

WIRE LEADS— SIX INCHES LONG

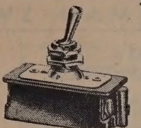
No.	C-H No.	Current Rating Type	125 V.
964	8290K16	SPST	
965	8391K8	SPST	6 Amps.

No.	C-H No.	250 V.	NET Each
250 V.	Each	3 Amps.	$ .84
Type	125 V.	3 Amps.	.96

PUSH BUTTON MOMENTARY SWITCHES

AC-DC, UL Approved, 15/32" shank; rated at ¾ Amp, 125 volts — ¼ Amp,250 volts.

No.	C-H No.	Type	Term.	NET Each
992	8411K4	SP Norm. Op	Lug	$ .48
993	8411K3	SP Norm. Op	Screw	.54
994	8411K8	SP Norm. Cl	Lug	.36
995	8411K7	SP Norm. Cl	Screw	.39



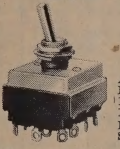
TOGGLE SWITCHES
HEAVY DUTY

AC - DC, UL Approved; 15/32" shank; quick make-quick break; bakelite case. Screw Terminals.

Std. Pkg. 10

No.	C-H No.	Current Rating Type	125 V	250-V	NET Each
984*	7321K3	SPST	12 A	6 A	$1.32
985*	7320K3	DPST	12 A	6 A	1.32
986+	7361K5	SPST	15 A*	10 A	2.31
987+	7360K8	DPST	15 A	10 A	2.31
988±	7402K4	DPST		20 A	3.24

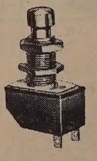
*1 Hp — 125/250V. +1½ Hp — 125/250V. ±1½ Hp — 125V, 2 Hp — 250V.



FOUR POLE SWITCHES

AC-DC GOVERNMENT APPROVED PER MIL-S-6745. 15/32" shank. Rated 10 amps, 115 volt AC—20 amps, 28 volts DC (Nominal rating per pole) SEALED LEVER **Std. Pkg. 10**

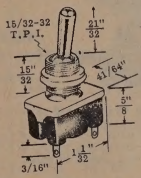
No.	C-H No.	Type	Terminals	NET Each
944	7661K6	4 PST	Solder Lugs	$4.56
945	7665K4	4 PDT	Solder Lugs	5.61
946	7660K8	4 PST	Screw Term.	4.95
947	7664K3	4 PDT	Screw Term.	6.15
		CENTER OFF		
948	7663K5	4 PDT	Solder Lugs	$5.61
949	7662K5	4 PDT	Screw Term.	6.15



PUSH BUTTON SWITCHES
Push to make—Push to break

AC-DC, UL Approved; 11/16" shank; bakelite case. Pushing the button once closes the contacts. Pushing it again opens the contacts. Rated at 6 Amps. 125 Volts; 3 Amps. 250 Volts. **Std. Pkg. 10**

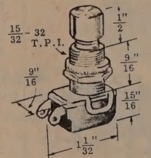
No.	C-H No.	Type	Term.	NET Each
989	7206K4	SPST	Lug	$ .96
990	7208K4	SPST	Screw	1.08
991	7207K4	SPST	Wire	1.08



MIDGET TOGGLE SWITCH

Bat lever. Molded phenolic base. 15/32-32 x 15/32" long. Slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. Rated 1 amp.-250 volts; 3 amps.-125 volts. **Std. Pkg. 10**

No.	Circuit	NET Each
920	SPST	$ .93
921	SPDT	1.11
922	2 Circ.	1.14
923	DPST	1.35
924	DPDT	1.56



MIDGET MOMENTARY SWITCH
SLOW MAKE AND BREAK

Molded Phenolic Base 15/32-32 x 9/16" slotted sleeve, Nickel Finish. Supplied with hex nut and knurled nut. Side connected silver plated solder contacts. Rated at 3 amps.-120 volts A.C. Supplied less button; order button separately. **Std. Pkg. 10**

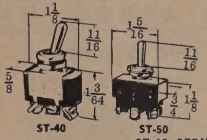
Normally Closed (ON)

No.	Circuit	NET Each
925	SPST	$ .75
926	2 Circ.	.81

Normally Open (OFF)

No.	Circuit	NET Each
927	SPST	$ .75

"ST" SWITCHES



Nominal Rating Per. Pole:
10 Amps. 115 V. AC
20 Amps. 28V. DC
Std. Pkg. 10

ST-40 SERIES — Single Pole With Screw Terminals

HHS	C-H	JAN	Type	Circuit	NET Each
1720	8801K13	ST40A	SPST	On-None-Off	$1.68
1721	8813K12	ST40B	SPST	On-None-Mom-Off	1.86
1722	8811K12	ST40C	SPST	On-None-Mom-On	1.86
1723	8810K12	ST40D	SPDT	On-None-On	2.04
1724	8800K13	ST40E	SPDT	On-Off-On	2.04
1725	8804K12	ST40F	SPDT	On-None-Mom-On	2.19
1726	8812K13	ST40G	SPDT	Mom-On-Off-Mom-On	2.19
1727	8809K13	ST40H	SPDT	Off-On-Mom-On	2.19

All ST-40 Switches have Sealed Lever.

ST-42 SERIES — Single Pole With Solder Lugs

HHS	C-H	JAN	Type	Circuit	Each
1730	8803K6	ST42A	SPST	On-None-Off	$1.26
1731	8819K5	ST42B	SPST	On-None-Mom-Off	1.38
1732	8817K5	ST42C	SPST	On-None-Mom-On	1.38
1733	8816K5	ST42D	SPDT	On-None-On	1.47
1734	8802K6	ST42E	SPDT	On-Off-On	1.47
1735	8805K5	ST42F	SPDT	On-None-Mom-On	1.82
1736	8818K5	ST42G	SPDT	Mom-On-Off-Mom-On	1.62
1737	8815K6	ST42H	SPDT	Off-On-Mom-On	1.62

ST-50 SERIES — Double Pole With Screw Terminals

HHS	C-H	JAN	Type	Circuit	Each
1740	8822K8	ST50K	DPST*	On-None-Off	$2.25
1741	8828K5	ST50L	DPST	On-None-Mom-Off	2.70
1742	8826K5	ST50M	DPST	Off-None-Mom-On	2.70
1743	8824K8	ST50N	DPDT*	On-None-On	2.70
1744	8820K10	ST50P	DPDT*	On-Off-On	2.70
1745	8830K5	ST50R	DPDT	On-None-Mom-On	2.94
1746	8834K4	ST50S	DPDT*	Mom-On-Off-Mom-On	2.94
1747	8832K4	ST50T	DPDT*	On-Off-Mom-On	2.94

* These switches are equipped with Sealed Lever.

ST-52 SERIES — Double Pole With Solder Lugs

HHS	C-H	JAN	Type	Circuit	Each
1760	8823K5	ST52K	DPST	On-None-Off	$1.50
1761	8829K5	ST52L	DPST	On-None-Mom-Off	1.68
1762	8827K5	ST52M	DPST	Off-None-Mom-On	1.68
1763	8825K5	ST52N	DPDT	On-None-On	1.68
1764	8821K5	ST52P	DPDT	On-Off-On	1.68
1765	8831K5	ST52R	DPDT	On-None-Mom-On	1.95
1766	8835K3	ST52S	DPDT	Mom-On-Off-Mom-On	1.95
1767	8833K3	ST52T	DPDT	On-Off-Mom-On	1.95

MAGIC MARKERS

Speedry
magic marker
GIANT SIZE

HEAVY OPAQUE for the Electronics Industry. Completely NEW, with Speedry type "DO" heavy opaque ink, answers industry's need for a marking device that marks clearly and easily on porous or non-porous surfaces that are abrasive, grimy, dirty or oily. Unbreakable squeeze bottle.

Box of 12 all one color, SPECIFY COLOR by adding suffix to Catalog Number as coded on chart below. White, Black, Yellow only.

No.	Standard Package	NET Per Box
3896*	Box of 12	$21.48

Box of 12 Assorted Colors. Contains 4 Black, 4 White 4 Yellow.

No.	Standard Package	NET Per Box
3896A	Box of 12	$21.48

magic marker

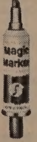
JUMBO 2½ times capacity. Over 7 miles of writing. Lowest cost per mile of writing, of all other ready-to-write devices. Instant dry, waterproof, all-purpose.

Box of 12 all one color. SPECIFY COLOR by adding suffix to Catalog Number as coded on chart below.

No.	Standard Package	NET Per Box
3895*	Box of 12	$16.20

Box of 12 Assorted Colors. Contains 3 Black, 3 Red, 1 each Yellow, Orange. Purple, Brown, Blue, Green.

No.	Standard Package	NET Per Box
3895A	Box of 12	$16.20



ALL-PURPOSE Write, letter, label, draw, color on any surface or material. Dries instantly, waterproof, permanent. No loose ink. Built-in cap holder in base.

Box of 12, all one color. SPECIFY COLOR by adding suffix to catalog Number as coded below.

No.	Standard Package	NET Per Box
3897*	Box of 12	$5.88

Box of 12 Assorted Colors. Contains 3 black, 3 Red, 1 each Yellow, Orange, Purple, Brown, Blue, Green.

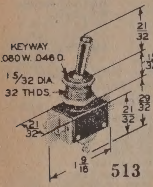
No.	Standard Package	NET Per Box
3897A	Box of 12	$5.88

Display of 24 Assorted Colors. Contains 12 Black, 3 Red, 3 Blue, 2 Green, 1 each Yellow, Orange, Purple, Brown.

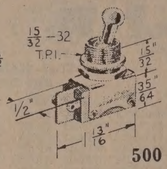
No.	Standard Package	NET Each
3897D	Display of 24	$11.76

ARROW HART & HEGEMAN SWITCHES

SMALL CANOPY TYPE SWITCHES



513



500

Laminated type 15/32-32 slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Solder terminals. SPST rated at 3 amps-250 volts AC-DC; all other rated at 1 amp-250 volts, 3 amps-125 volts AC-DC. Std. pkg. 10

BAT LEVER POSITIVE ACTION

15/32" long shaft No.	NET Each	CIRCUIT	13/32" long shaft No.	NET Each
510	$ .69	SPST	584	$ .69
511	.87	SPDT	585	.87
542	.93	2-Circ.	586	.93
512	1.26	DPST	587	1.26
513	1.44	DPDT	588	1.44

BAT LEVER MOMENTARY ACTION

15/32" long shaft

Normally Closed (ON)		CIRCUIT	Normally Open (OFF)	
	NET Each			NET Each
1020	$1.11	SPST	1024	$1.11
1021	1.29	SPDT	—	—
1022	1.68	DPST	1025	1.68
1023	1.86	DPDT	—	—

BALL LEVER POSITIVE ACTION

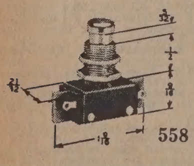
15/"32 long shaft	NET Each	CIRCUIT	3/4" long shaft	NET Each
500	$ .69	SPST	501	$ .84
502	.87	SPDT	503	1.08
540	.87	2 Circ.	541	1.08
504	.26	DPST	505	1.44
506	1.44	DPDT	507	1.59

6" WIRE LEADS POSITIVE ACTION

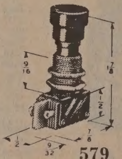
15/32" long shaft

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
1010	$ .84	SPST	1015	$ .84
1011	1.17	SPDT	1016	1.17
1012	1.29	2 Circ.	1017	1.29
1013	1.65	DPST	1018	1.65
1014	2.01	DPDT	1019	2.01

MOMENTARY PUSH SWITCHES



558



579

Laminated type 15/32-32 x 9/16" slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. All switches accept snap on button. SPST rated at 3 amps-250 volts AC-DC. All others rated at 1 amp-250 volts. 3 amps-125 volts AC-DC.

SUPPLIED LESS BUTTON: ORDER BUTTON SEPARATELY.

QUICK MAKE AND BREAK

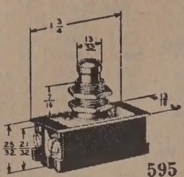
Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
552	$1.35	SPST	555	$1.35
556	1.56	SPDT	—	—
557	1.53	2 Circ.	—	—
564	1.86	DPST	558	1.86
559	2.07	DPDT	—	—

SLOW MAKE AND BREAK

Rated at 1 amp.-125 volts AC

Normally Closed (ON)	NET Each	CIRCUIT	Normally Open (OFF)	NET Each
582	$ .75	SPST	579	$ .75
580	.96	2 Circ.	—	—

STANDARD DUTY MOMENTARY PUSH SWITCHES



595

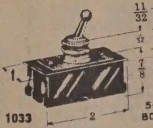
Molded phenolic base. 15/32-32 x 7/16" long slotted sleeve, nickel finish. Screw terminals. Supplied with hex nuts.

Two circ. rated at 3 amps.-250 volts, 6 amps-125 volts. AC-DC. All others rated at 6 amps-250 volts, 12 amps-125 volts AC-DC. DPST also rated at 1 HP at 250 volts AC-DC.

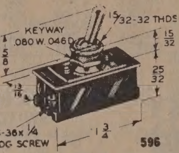
Normally Closed (ON) No.	NET Each	CIRCUIT	Normally Open (OFF) No.	NET Each
1026	$1.98	SPST	544	$1.98
1027	1.98	SPDT	—	—
1028	1.98	2 Circ.	—	—
1029	1.98	DPST	595	1.98

STANDARD DUTY TOGGLE SWITCHES

QUICK MAKE AND BREAK



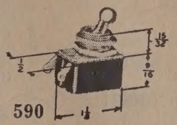
1033



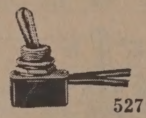
596

BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
1030	$1.32	SPST	597	$1.32
1031	1.32	SPDT	598	1.32
1032	1.32	2 Circ.	599	1.32
1033	1.32	DPST	596	1.32

MIDGET SIZE TOGGLE SWITCHES



590



527

Molded phenolic base, 15/32-32 x 15/32" long slotted sleeve, nickel finish. Side connected silver plated solder contacts. Supplied with hex nut and knurled nut. SPST rated at 3 amps-250 volts; 6 amps.-125 volts; all others rated at 1 amp-250 volts, 6 amps.-125 volts.

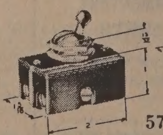
BALL LEVER No.	NET Each	CIRCUIT	BAT LEVER No.	NET Each
590	$ .78	SPST	591	$ .78
589	.99	SPDT	592	.99
594	1.02	2 Circ.	593	1.02

6" WIRE LEADS

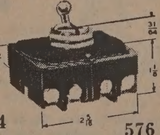
BALL LEVER	NET Each	CIRCUIT	BAT LEVER	NET Each
526	$ .96	SPST	527	$ .96
538	1.26	SPDT	528	1.26
543	1.41	2 Circ.	514	1.41

EXTRA HEAVY DUTY POWER SWITCHES

3 POSITION—POSITIVE CENTER OFF



574

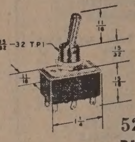


576

Slotted sleeve 3/4-32, nickel finish. Screw terminals. Supplied with 2 hex nuts. Rated at 5 amps-250 volts. 10 amps-125 volts plus HP rating shown below. Std. pkg. 5

No.	Circuit	Description	NET Each
574	DPDT	3/4 HP 250 volts AC-DS	$ 4.89
575	TPDT	1/2 HP 115/230 volts AC, 3 phase	7.53
576	4PDT	1/2 HP 115/230 volts AC, 2 phase	10.05

INTERMEDIATE SIZE TOGGLE SWITCHES



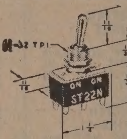
523

Molded phenolic base. 15/32-32 x 15/32" long slotted sleeve, nickel finish. Supplied with hex nut and knurled nut. Back connected silver plated solder contacts. SPDT rated at 1 amp-250 volts, 6 amps-125 volts AC-DC; all others rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

BAT LEVER

POSITIVE ACTION			MOMENTARY ACTION		
No.	NET Each	CIRCUIT	No.		NET Each
520	$ .93	SPST	524	OFF	$1.32
521	1.11	SPDT	549	—	1.50
583	1.14	2 Circ.	—	—	—
522	1.35	DPST	537	OFF	1.89
523	1.56	DPDT	525	—	2.07

ST TYPE TOGGLE SWITCHES



548

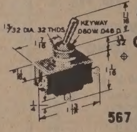
MEETS AN SPEC. JAN-23

Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	AWS No.	CIRCUIT	Position	NET Each
545	ST 12A	SPST	OFF-ON	$1.23
546	ST 12D	SPDT	ON-ON	1.41
1040	ST 12V	2-Circ.	ON-OFF	1.44
547	ST 22K	DPST	OFF-ON	1.77
548	ST 22N	DPDT	ON-ON	1.92

MOMENTARY NORMALLY OPEN (OFF)

No.	AWS No.	CIRCUIT	Position	NET Each
1041	ST 12C	SPST	OFF-ON	$1.62
1042	ST 22M	DPST	OFF-ON	2.13



567

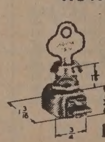
3 POSITION

CENTER OFF

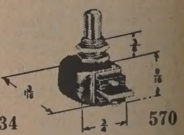
Rated at 3 amps-250 volts, 6 amps-125 volts AC-DC.

No.	CIRCUIT	NET Each
566	SPDT	$1.68
565	2 Circ.	1.89
567	DPDT	2.07

CANOPY TYPE ROTARY SWITCHES



1034



570

Laminated type. 11/32-32 x 15/32" sleeve, nickel finish. Solder lugs. Supplied with hex nut and dress nut. SPST rated at 3 amps-250 volts AC-DC, all others rated at 1 amp-250 volts, 3 amps-125 volts. AC-DC. Key removable in OFF position only on SPST and DPST—key removable in both positions on all others. 1⅛" shaft.

KEY TYPE	NET Each	CIRCUIT	ROTARY TYPE	NET Each
1034	$1.32	SPST	570	$.87
1035	1.50	SPDT	571	1.05
1036	1.53	2 Circ.	—	—
1037	1.89	DPST	572	1.44
1038	2.07	DPDT	573	1.62

SWITCH ACCESSORIES

508 509 581 1146 1170 1171 1172 1196 1197 1198

No.	Description	NET Per C
508	ON-OFF name plate	$ 5.40
509	HI-LO name plate	5.40
581	Snap-On Button (Red or Black)	14.40
1146	Narrow Rim Lockwasher	.78
1170	Key—Remove off position	21.00
1171	Key—Remove both positions	21.00
1172	Locking Ring	2.40
1196	Hex Nut—Brass N.P.	1.80
1197	Ring Nut—Brass N.P.	3.00
1198	Dress Nut—Brass N.P.	18.00

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ARROW, HART & HEGEMAN

"SNAP ACTING" MOMENTARY CONTACT SWITCHES

PRECISION SNAP-ACTING SWITCH A precision snap-acting switch is a mechanically operated electric switch having predetermined and accurately controlled characteristics, and having contacts other than the blade and jaw, or mercury type, where the maximum separation between any butting contacts is 1/8 inch.

MOMENTARY CONTACT SWITCH — A momentary contact switch is a switch which returns from the operated condition to its normal circuit condition when the actuating force is removed.

ACTUATOR An actuator is the mechanism of the switch or enclosure which, when moved as intended, will operate the contacts.

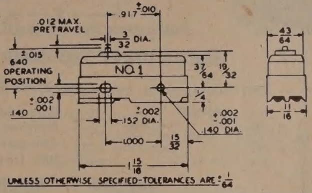
OPERATING FORCE Operating force is that straight line force in the designated direction applied to the actuator to cause the switch contacts to snap to the operated contact position.

PRETRAVEL Pretravel is the distance or angle through which the actuator moves from the actuator free position to the actuator operating position

OVERTRAVEL Overtravel is the movement of the actuator beyond the operating position.

MOVEMENT DIFFERENTIAL — Movement differential is the distance or angle from the operating position to the releasing position.

HIGH SENSITIVITY PIN TYPE


.012 MAX. PRETRAVEL
.917 ±.010
3/32 DIA.
±.015
.640 OPERATING POSITION
NO. 1
3 7/64
19/32
43/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64

OPERATING CHARACTERISTICS

Operating Force..... 7 to 12 oz.
Pretravel........... .012" max.
Overtravel.......... .005" min.
Diff. Travel.... 0002 to .0008 in.

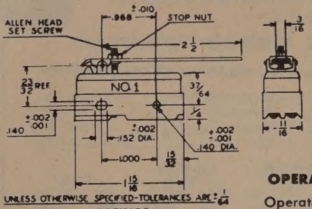
RATINGS

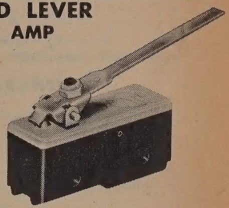
MIT LOAD to 1 10 Amp, 125 V., A.C.
or 10 Watts, 125 V., A.C.
or 5 Watts, 25 V., D.C.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4701	$5.82	4705	$5.82	4709	$6.06
Screws, Cup Washers	4702	5.94	4706	5.94	4710	6.15
Screws, Lock Washers	4703	5.94	4707	5.94	4711	6.15
Quick Connect	4704	5.82	4708	5.82	4712	6.06

ADJUSTABLE RIGID LEVER

HEAVY DUTY 20 AMP


ALLEN HEAD SET SCREW
.968 ±.010
STOP NUT
2 1/2
3/16
23/32 REF.
NO. 1
3 7/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64



RATINGS

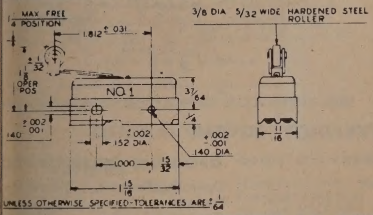
20 A., 480 V., A.C. — 1/4 A., 250 V., D.C
10 A, 125V, AC "L" Load — 1 H.P., 120 V., A.C.
1/2 A., 125 V., D.C. — 2 H.P., 240 V., A.C.

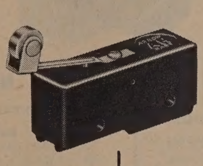
OPERATING CHARACTERISTICS

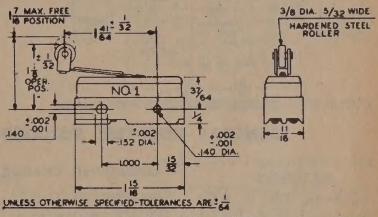
Operating Force.... 2½ oz. max.
Pretravel............. 5/8" max.
Overtravel........... .078" min.
Diff. Travel.......... .109" max.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4721	$2.64	4725	$2.64	4729	$2.88
Screws, Cup Washers	4722	2.76	4726	2.76	4730	3.00
Screws, Lock Washers	4723	2.76	4727	2.76	4731	3.00
Quick Connect	4724	2.64	4728	2.64	4732	2.88

ROLLER LEAF ACTUATOR


1 1/4 MAX. FREE POSITION
3/8 DIA 5/32 WIDE HARDENED STEEL ROLLER
1.812 ±.031
± 1/32
1 1/8 OPER. POS.
NO. 1
3 7/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64




1 7/16 MAX. FREE POSITION
1 41/64 ± 1/32
3/8 DIA. 5/32 WIDE HARDENED STEEL ROLLER
± 1/32
1 1/8 OPER. POS.
NO. 1
3 7/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force...... 5 oz. max.
Pretravel............ 5/32" max.
Overtravel....... not over 1/16 in.
Diff. Travel......... .050" max.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4501	$2.19	4533	$2.19	4565	$2.49
Screws, Cup Washers	4502	2.25	4534	2.25	4566	2.52
Screws, Lock Washers	4503	2.25	4535	2.25	4567	2.52
Quick Connect	4504	2.19	4536	2.19	4568	2.49

HEAVY DUTY 20 AMP

RATINGS

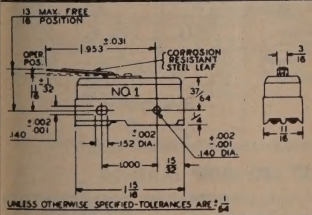
20 A., 480 V., A.C. — 1/4 A., 250 V., D.C.
10 A, 125 V, AC "L" Load — 1 H.P., 120 V., A.C.
1/2 A., 125 V., D.C. — 2 H.P., 240 V., A.C.

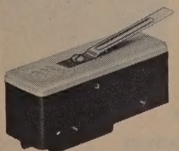
OPERATING CHARACTERISTICS

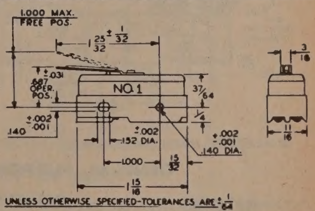
Operating Force...... 9 oz. max.
Pretravel............ 11/32" max.
Overtravel....... not over 1/16 in.
Diff. Travel.......... .065" max.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4601	$2.25	4633	$2.25	4665	$2.58
Screws, Cup Washers	4602	2.31	4634	2.31	4666	2.64
Screws, Lock Washers	4603	2.31	4635	2.31	4667	2.64
Quick Connect	4604	2.25	4636	2.25	4668	2.58

FLEXIBLE LEAF ACTUATOR


13/16 MAX. FREE POSITION
1.953 ±.031
CORROSION RESISTANT STEEL LEAF
OPER. POS.
3/16
1 1/8
NO. 1
3 7/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64




1.000 MAX. FREE POS.
1 25/32 ± 1/32
3/16
±.031
.687 OPER. POS.
NO. 1
3 7/64
±.002 -.001
.140
±.002
.152 DIA.
+.002 -.001
.140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ± 1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force...... 5 oz. max.
Pretravel............ 5/32" max.
Overtravel....... not over 1/16 in.
Diff. Travel......... .050" max.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4505	$1.62	4537	$1.62	4569	$1.95
Screws, Cup Washers	4506	1.68	4538	1.68	4570	2.07
Screws, Lock Washers	4507	1.68	4539	1.68	4571	2.07
Quick Connect	4508	1.62	4540	1.62	4572	1.95

HEAVY DUTY 20 AMP

RATINGS

20 A., 480 V., A.C. — 1/4 A., 250 V., D.C.
10 A, 125 V, AC "L" Load — 1 H.P., 120 V., A.C.
1/2 A., 125 V., D.C. — 2 H.P., 240 V., A.C.

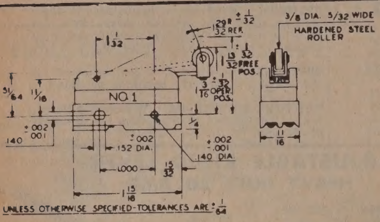
OPERATING CHARACTERISTICS

Operating Force...... 9 oz. max.
Pretravel............ 11/32" max.
Overtravel....... not over 1/16 in.
Diff. Travel.......... .065" max.

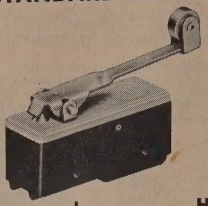
WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4605	$1.68	4637	$1.68	4669	$2.07
Screws, Cup Washers	4606	1.74	4638	1.74	4670	2.13
Screws, Lock Washers	4607	1.74	4639	1.74	4671	2.13
Quick Connect	4608	1.68	4640	1.68	4672	2.07

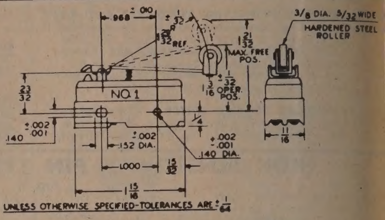
ARROW, HART & HEGEMAN "SNAP ACTING" MOMENTARY CONTACT SWITCHES

STANDARD ROLLER



1 1/32
29 ±1/32 REF.
3/8 DIA. 5/32 WIDE HARDENED STEEL ROLLER
1 13/32 FREE POS.
1 3/16 OPER. POS.
NO. 1
51/64
11/16
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64





.968 ±.010
±1/32
32 REF.
1 21/32 MAX. FREE POS.
1 9/16 ±1/32 OPER. POS.
3/8 DIA. 5/32 WIDE HARDENED STEEL ROLLER
23/32
NO. 1
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force..... 3½ oz. max.
Pretravel.............. 9/32" max.
Overtravel............ .156" min.
Diff. Travel.........004 to .040 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4521	$2.52	4553	$2.52	4585	$2.88
Screws, Cup Washers	4522	2.64	4554	2.64	4586	3.00
Screws, Lock Washers	4523	2.64	4555	2.64	4587	3.00
Quick Connect	4524	2.52	4556	2.52	4588	2.88

HEAVY DUTY 20 AMP

RATINGS

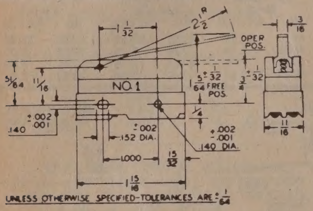
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V, AC "L" Load — 1 H.P., 120 V., A.C.
½ A., 125 V., D.C. — 2 H.P., 240 V., A.C.

OPERATING CHARACTERISTICS

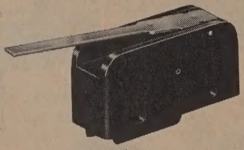
Operating Force...... 2½ oz. max.
Pretravel............... 15/32" max.
Overtravel............... 1/16" min.
Diff. Travel........... .085" max.

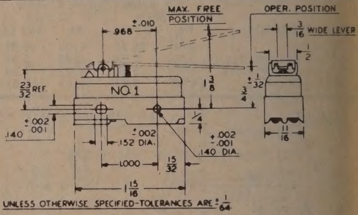
WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4621	$2.64	4653	$2.64	4685	$3.00
Screws, Cup Washers	4622	2.70	4654	2.70	4686	3.06
Screws, Lock Washers	4623	2.70	4655	2.70	4687	3.06
Quick Connect	4624	2.64	4656	2.64	4688	3.00

RIGID HINGE



1 1/32
2 1/2 R
OPER POS.
3/16
51/64
11/16
NO. 1
1 5/64 ±1/32 FREE POS.
3/4 ±1/32
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64





MAX. FREE POSITION
OPER. POSITION
.968 ±.010
3/16 WIDE LEVER
1/2
23/32 REF.
NO. 1
1 3/8
3/4 ±1/32
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force........... 2½ oz
Pretravel................ 3/8" max
Overtravel............. .219" min
Diff. Travel.........007 to .050 in

WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4525	$1.95	4557	$1.95	4589	$2.31
Screws, Cup Washers	4526	2.01	4558	2.01	4590	2.37
Screws, Lock Washers	4527	2.01	4559	2.01	4591	2.37
Quick Connect	4528	1.95	4560	1.95	4592	2.31

HEAVY DUTY 20 AMP

RATINGS

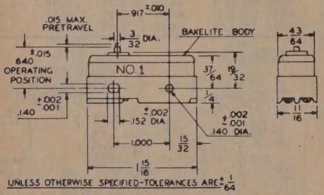
20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V, A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A., 125 V., D.C. — 2 H.P., 250 V., A.C.

OPERATING CHARACTERISTICS

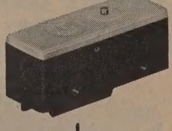
Operating Force.... 2½ oz. max
Pretravel............... 5/8" max
Overtravel........... .078" min
Diff. Travel.......... .109" max

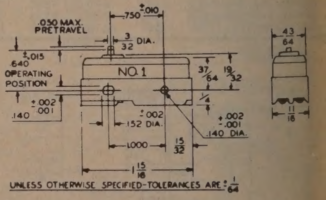
WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4625	$2.07	4657	$2.07	4689	$2.37
Screws, Cup Washers	4626	2.13	4658	2.13	4690	2.43
Screws, Lock Washers	4627	2.13	4659	2.13	4691	2.43
Quick Connect	4628	2.07	4660	2.07	4692	2.37

PIN TYPE



.015 MAX. PRETRAVEL
.917 ±.010
3/32 DIA.
BAKELITE BODY
43/64
.640 ±.015 OPERATING POSITION
NO. 1
37/64
19/32
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64





.050 MAX. PRETRAVEL
.750 ±.010
3/32 DIA.
43/64
.640 ±.015 OPERATING POSITION
NO. 1
37/64
19/32
.140 +.002 -.001
±.002 .152 DIA.
+.002 -.001 .140 DIA.
1/4
1.000
15/32
1 15/16
11/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 A., 480 V., A.C.
½ A., 125 V., D.C.
¼ A., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force....... 9 to 13 oz.
Pretravel............. .015" max.
Overtravel............ .005" min.
Diff. Travel.......0004 to .002 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4529	$1.50	4561	$1.50	4593	$1.77
Screws, Cup Washers	4530	1.56	4562	1.56	4594	1.89
Screws, Lock Washers	4531	1.56	4563	1.56	4595	1.89
Quick Connect	4532	1.50	4564	1.50	4596	1.77

HEAVY DUTY 20 AMP

RATINGS

20 A., 480 V., A.C. — ¼ A., 250 V., D.C.
10 A, 125 V, A.C. "L" Load — 1 H.P., 120 V., A.C.
½ A., 125 V., D.C. — 2 H.P., 250 V., A.C.

OPERATING CHARACTERISTICS

Operating Force..... 14 to 22 oz.
Pretravel............ .050" max.
Overtravel........... .010" min.
Diff. Travel.......002 to .0075 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	S.P. NORM. OPEN NET Ea.	S.P. NORM. CLOSED No.	S.P. NORM. CLOSED NET Ea.	S.P.D.T No.	S.P.D.T NET Ea.
Solder Lugs	4629	$1.56	4661	$1.56	4693	$1.86
Screws, Cup Washers	4630	1.62	4662	1.62	4694	1.95
Screws, Lock Washers	4631	1.62	4663	1.62	4695	1.95
Quick Connect	4632	1.56	4664	1.56	4696	1.86

It's Sound Planning to **"SPECIFY SMITH"**

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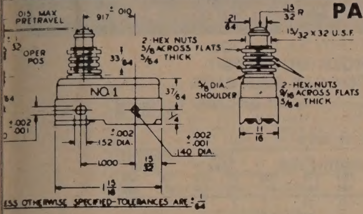
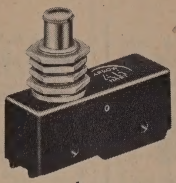
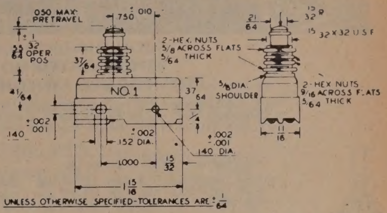
ARROW, HART & HEGEMAN "SNAP ACTING" MOMENTARY CONTACT SWITCHES

PANEL MOUNTED TYPE


.015 MAX PRETRAVEL
.917 ±.010
2-HEX NUTS 5/8 ACROSS FLATS 5/64 THICK
15/32 x 32 U.S.F.
2-HEX NUTS 9/16 ACROSS FLATS 5/64 THICK
3/8 DIA. SHOULDER
OPER POS
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64




.050 MAX PRETRAVEL
.750 ±.010
2-HEX NUTS 5/8 ACROSS FLATS 5/64 THICK
15/32 x 32 U.S.F.
2-HEX NUTS 9/16 ACROSS FLATS 5/64 THICK
3/8 DIA. SHOULDER
OPER POS
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force. . . . . . 9 to 13 oz.
Pretravel. . . . . 1/64" max.
Overtravel. . . . . 7/32" min.
Diff. Travel. . . . . . . .0004 to .002 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4509	$3.54	4541	$3.54	4573	$3.96
Screws, Cup Washers	4510	3.57	4542	3.57	4574	4.02
Screws, Lock Washers	4511	3.57	4543	3.57	4575	4.02
Quick Connect	4512	3.54	4544	3.54	4576	3.96

HEAVY DUTY 20 AMP

RATINGS

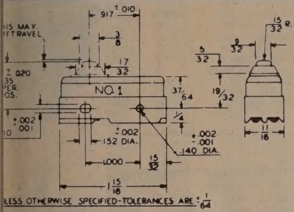
20 A., 480 V., A.C.	¼ A., 250 V., D.C.
10 A, 125 V, AC "L" Load	1 H.P., 120 V., A.C.
½ A., 125 V., D.C.	2 H.P., 240 V., A.C.

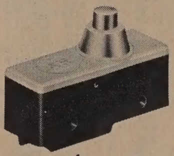
OPERATING CHARACTERISTICS

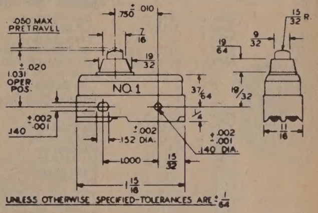
Operating Force. . . . . 14 to 22 oz.
Pretravel. . . . . .050" max.
Overtravel. . . . . .219" min.
Diff. Travel. . . . . . .002 to .0075 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4609	$3.63	4641	$3.63	4673	$4.08
Screws, Cup Washers	4610	3.69	4642	3.69	4674	4.14
Screws, Lock Washers	4611	3.69	4643	3.69	4675	4.14
Quick Connect	4612	3.63	4644	3.63	4676	4.08

SHORT OVERTRAVEL BUTTON


.917 ±.010
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64




.050 MAX PRETRAVEL
.750 ±.010
1.031 OPER. POS.
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force. . . . . 9 to 13 oz.
Pretravel. . . . . 1/64" max.
Overtravel. . . . . 1/16" min.
Diff. Travel. . . . . .0004 to .002 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4513	$1.86	4545	$1.86	4577	$2.19
Screws, Cup Washers	4514	1.89	4546	1.89	4578	2.25
Screws, Lock Washers	4515	1.89	4547	1.89	4579	2.25
Quick Connect	4516	1.86	4548	1.86	4580	2.19

HEAVY DUTY 20 AMP

RATINGS

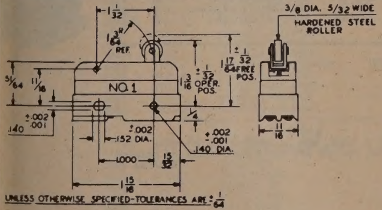
20 A., 480 V., A.C.	¼ A., 250 V., D.C.
10 A, 125 V, AC "L" Load	1 H.P., 120 V., A.C.
½ A., 125 V., D.C.	2 H.P., 240 V., A.C.

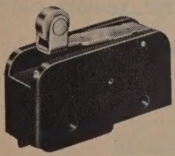
OPERATING CHARACTERISTICS

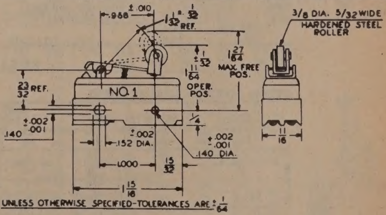
Operating Force. . . . 14 to 22 oz.
Pretravel. . . . . .050" max.
Overtravel. . . . . .093" min.
Diff. Travel. . . . . .002 to .0075 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4613	$1.89	4645	$1.89	4677	$2.25
Screws, Cup Washers	4614	1.95	4646	1.95	4678	2.31
Screws, Lock Washers	4615	1.95	4647	1.95	4679	2.31
Quick Connect	4616	1.89	4648	1.89	4680	2.25

SHORT ROLLER


3/8 DIA. 5/32 WIDE HARDENED STEEL ROLLER
REF.
OPER. POS.
FREE POS.
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64




.968 ±.010
REF.
3/8 DIA. 5/32 WIDE HARDENED STEEL ROLLER
MAX FREE POS.
OPER. POS.
23/32 REF.
NO.1
.152 DIA.
.140 DIA.
1.000
1 15/16
UNLESS OTHERWISE SPECIFIED-TOLERANCES ARE ±1/64

GENERAL PURPOSE 15 AMP

RATINGS

15 Amp., 480 V., A.C.
½ Amp., 125 V., D.C.
¼ Amp., 250 V., D.C.

OPERATING CHARACTERISTICS

Operating Force. . . . . 6 oz. max.
Pretravel. . . . . 9/64" max.
Overtravel. . . . . 3/32" min.
Diff. Travel. . . . . .003 to .020 in.

WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4517	$2.52	4549	$2.52	4581	$2.88
Screws, Cup Washers	4518	2.64	4550	2.64	4582	3.00
Screws, Lock Washers	4519	2.64	4551	2.64	4583	3.00
Quick Connect	4520	2.52	4552	2.52	4584	2.88

HEAVY DUTY 20 AMP

RATINGS

20 A., 480 V., A.C.	¼ A., 250 V., D.C
10 A, 125V, AC "L" Load	1 H.P., 120 V., A.C.
½ A., 125 V., D.C.	2 H.P., 240 V., A.C.

OPERATING CHARACTERISTICS

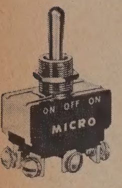
Operating Force. . . . . . 6 oz. max.
Pretravel. . . . . ¼" max.
Overtravel. . . . . 1/32" min.
Diff. Travel. . . . . 3/64" max.

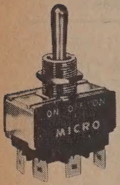
WITH TERMINALS:	S.P. NORM. OPEN No.	NET Ea.	S.P. NORM. CLOSED No.	NET Ea.	S.P.D.T No.	NET Ea.
Solder Lugs	4617	$2.64	4649	$2.64	4681	$3.00
Screws, Cup Washers	4618	2.70	4650	2.70	4682	3.06
Screws, Lock Washers	4619	2.70	4651	2.70	4683	3.06
Quick Connect	4620	2.64	4652	2.64	4684	3.00

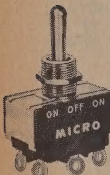
HERMAN H. SMITH, INC. *Brooklyn 10, N. Y.*

HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"







"UL" LISTED "TS" TOGGLE SWITCHES

"UL" listed "Commercial" type are identical to military type except for bat handle finish. Bright chrome plated to enhance panel appearance. Also certified by the Canadian Standards Association (CSA).
Std. Pkg. 10

RATING "A"	RATING "B"	RATING "C"
15 Amps., 125-250 VAC ½ HP, 125 VAC 1 HP, 250 VAC	10 Amps., 125-250 VAC ¼ HP, 125 VAC ½ HP 250 VAC	15 Amps., 125-250 VAC ⅓ HP, 125 VAC ¾ HP, 250 VAC

1 POLE

SCREW TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3331	11TS15-1	ON-OFF-ON	A	$2.18
3332	11TS15-2	ON-NONE-OFF	A	1.82
3333	11TS15-3	ON-NONE-ON	A	2.18
3334	11TS15-6	OFF-NONE-ON(MOM)	B	2.02
3335	11TS15-61	NONE-OFF-ON(MOM)	B	2.02
3336	11TS15-7	ON(MOM)-OFF-ON(MOM)	B	2.37

QUICK CONNECT TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3337	11TS95-1	ON-OFF-ON	A	$2.11
3338	11TS95-2	ON-NONE-OFF	A	1.76
3339	11TS95-21	ON-OFF-NONE	A	1.76
3340	11TS95-3	ON-NONE-ON	A	2.11
3341	11TS95-4	ON-NONE-OFF(MOM)	B	1.95
3342	11TS95-5	ON-OFF-ON(MOM)	B	2.31
3343	11TS95-6	OFF-NONE-ON(MOM)	B	1.95
3344	11TS95-61	NONE-OFF-ON(MOM)	B	1.95
3345	11TS95-7	ON(MOM)-OFF-ON(MOM)	B	2.31
3346	11TS95-8	ON-NONE-ON(MOM)	B	2.31

SOLDER TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3347	11TS115-1	ON-OFF-ON	A	$2.05
3348	11TS115-2	ON-NONE-OFF	A	1.72
3349	11TS115-3	ON-NONE-ON	A	2.05
3350	11TS115-4	ON-NONE-OFF(MOM)	B	1.92
3351	11TS115-7	ON(MOM)-OFF-ON(MOM)	B	2.24

2 POLE

SCREW TERMINALS

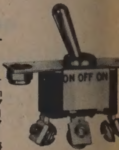
HHS	MICRO	CIRCUIT	Rating	NET Each
3352	12TS15-1	ON-OFF-ON	A	$2.93
3353	12TS15-2	ON-NONE-OFF	A	2.44
3354	12TS15-21	ON-OFF-NONE	A	2.44
3355	12TS15-3	ON-NONE-ON	A	2.93
3356	12TS15-4	ON-NONE-OFF(MOM)	C	2.93
3357	12TS15-5	ON-OFF-ON(MOM)	C	3.15
3358	12TS15-6	OFF-NONE-ON(MOM)	C	2.93
3359	12TS15-61	NONE-OFF-ON(MOM)	C	2.93
3360	12TS15-7	ON(MOM)-OFF-ON(MOM)	C	3.15
3361	12TS15-8	ON-NONE-ON(MOM)	C	3.15

QUICK CONNECT TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3362	12TS95-1	ON-OFF-ON	A	$2.76
3363	12TS95-2	ON-NONE-OFF	A	2.31
3364	12TS95-21	ON-OFF-NONE	A	2.31
3365	12TS95-3	ON-NONE-ON	A	2.76
3366	12TS95-4	ON-NONE-OFF(MOM)	C	2.83
3367	12TS95-5	ON-OFF-ON(MOM)	C	3.02
3368	12TS95-6	OFF-NONE-ON(MOM)	C	2.83
3369	12TS95-61	NONE-OFF-ON(MOM)	C	2.83
3370	12TS95-7	ON(MOM)-OFF-ON(MOM)	C	3.02
3371	12TS95-8	ON-NONE-ON(MOM)	C	3.02

SOLDER TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3372	12TS115-1	ON-OFF-ON	A	$2.63
3373	12TS115-2	ON-NONE-OFF	A	2.24
3374	12TS115-21	ON-OFF-NONE	A	2.24
3375	12TS115-3	ON-NONE-ON	A	2.63
3376	12TS115-4	ON-NONE-OFF(MOM)	C	2.73
3377	12TS115-5	ON-OFF-ON(MOM)	C	2.89
3378	12TS115-6	OFF-NONE-ON(MOM)	C	2.73
3379	12TS115-61	NONE-OFF-ON(MOM)	C	2.73
3380	12TS115-7	ON(MOM)-OFF-ON(MOM)	C	2.89
3381	12TS115-8	ON-NONE-ON(MOM)	C	2.89



3-HOLE MOUNTED "TS" TOGGLE SWITCHES

"AN" Type tested and approved under MIL specs. "JAN" Type conform to JAN-S-23. Sealed Lever.
Std. Pkg. 10

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 125 vdc	RESISTIVE LOAD 250 vdc	RESISTIVE LOAD 115 vac	RESISTIVE LOAD 230 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	55	40	.75	.5	20	7.5	7	7	20	15
B	55	30	.75	.5	20	7.5	5	4	18	11
C	55	40	.75	.5	25	8	10	7	20	15
D	55	30	.75	.5	20	7	7	4	18	11

1 POLE (MIL-S-6745)

HHS	MICRO	"AN" No.	"JAN" No.	CIRCUIT	Rating	NET Each
3301	31TS1-1	3022-1	ST45E	ON-OFF-ON	A	$2.57
3302	31TS1-2	3022-2	ST45A	ON-NONE-OFF	A	2.11
3303	31TS1-3	3022-3	ST45D	ON-NONE-ON	A	2.57
3304	31TS1-21	———	———	ON-OFF-NONE	A	2.11
3305	31TS1-4	3022-9	ST45B	ON-NONE-OFF(MOM)	B	2.34
3306	31TS1-5*	———	ST45H	ON-OFF-ON(MOM)	B	2.76
3307	31TS1-6	3022-8	ST45C	OFF-NONE-ON(MOM)	B	2.34
3308	31TS1-7	3022-7	ST45G	ON(MOM-OFF-ON(MOM)	B	2.76
3309	31TS1-8	3022-11	ST45F	ON-NONE-ON(MOM)	B	2.76
3310	31TS2-5	3022-6	———	ON-OFF-ON(MOM)	B	2.96
3311	31TS1-61	———	———	NONE-OFF-ON(MOM)	B	2.34

*Has a jumper across the stationary contact terminals.

2 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3312	532TS1-1	MS25103-21	ON-OFF-ON	C	$5.33
3313	532TS1-3	MS25103-23	ON-NONE-ON	C	5.33
3314	532TS1-21	MS25103-24	ON-OFF-NONE	C	4.45
3315	532TS1-5	MS25103-31	ON-OFF-ON(MOM)	D	5.79
3316	532TS1-7	MS25103-27	ON(MOM-OFF-ON(MOM)	D	5.79
3317	532TS1-8	MS25103-26	ON-NONE-ON(MOM)	D	5.79
3318	532TS1-41	MS25103-25	ON-OFF(MOM)-NONE	D	4.88
3319	532TS1-61	MS25103-28	NONE-OFF-ON(MOM)	D	5.23

RATING: CURRRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 115 vac	30 vdc	LAMP LOAD 115 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 115 vdc
E	30	25	22	5	3	15	15
F	20	20	20	5	4	12	15
G	20	18	11	4	2	10	8

3 POLE (MIL-S-3950A)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3320	533TS1-1	MS25105-21	ON-OFF-ON	E	$4.97
3321	533TS1-3	MS25105-23	ON-NONE-ON	E	4.97
3322	533TS1-21	MS25105-24	ON-OFF-NONE	E	4.16

4 POLE (MIL-S-6745)

HHS	MICRO	"AN No.	CIRCUIT	Rating	Each
3323	34TS1-1	3227-1	ON-OFF-ON	F	$6.66
3324	34TS1-2	3227-2	ON-NONE-OFF	F	5.33
3325	34TS1-3	3227-3	ON-NONE-ON	F	6.66
3326	34TS1-21	3227-9	ON-OFF-NONE	F	7.83
3327	34TS1-5	3227-5	ON-OFF-ON(MOM)	G	8.03
3328	34TS1-6	3227-8	OFF-NONE-ON(MOM)	G	7.22
3329	34TS1-7	3227-7	ON(MOM)-OFF-ON(MOM)	G	8.03
3330	34TS1-61	3227-10	NONE-OFF-ON(MOM)	G	7.22

SEALED "TS" TOGGLE SWITCHES

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	RESISTIVE LOAD 125 vdc	RESISTIVE LOAD 250 vdc	RESISTIVE LOAD 125 vac	RESISTIVE LOAD 250 vac	LAMP LOAD 30 vdc	LAMP LOAD 125 vac	INDUCTIVE LOAD 30 vdc	INDUCTIVE LOAD 125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

These switches have a panel seal in addition to all other "TS" features. When mounted, the seal provides a dust, liquid and moisture seal at the panel.
Std. Pkg. 10

ON OFF ON
MICRO

1 POLE

SCREW TYPE TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3201	211TS1-1	ON-OFF-ON	A	$3.45
3202	211TS1-2	ON-NONE-OFF	A	3.06
3203	211TS1-3	ON-NONE-ON	A	3.45
3204	211TS1-21	ON-OFF-NONE	A	3.06
3206	211TS1-5	ON-OFF-ON(MOM)	B	3.61
3207	211TS1-6	OFF-NONE-ON(MOM)	B	3.25
3208	211TS1-7	ON(MOM)-OFF-ON(MOM)	D	3.61
3209	211TS1-8	ON-NONE-ON(MOM)	B	3.61

SOLDER TYPE TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3211	211TS11-1	ON-OFF-ON	A	$3.28
3212	211TS11-2	ON-NONE-OFF	A	2.96
3213	211TS11-3	ON-NONE-ON	A	3.28
3215	211TS11-4	ON-NONE-OFF(MOM)	B	3.15
3216	211TS11-5	ON-OFF-ON(MOM)	B	3.48
3217	211TS11-6	OFF-NONE-ON(MOM)	B	3.15
3218	211TS11-7	ON(MOM)-OFF-ON(MOM)	B	3.48
3219	211TS11-8	ON-NONE-ON(MOM)	B	3.48

2 POLE

SCREW TYPE TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3221	212TS1-1	ON-OFF-ON	C	$4.13
3222	212TS1-2	ON-NONE-OFF	C	3.64
3223	212TS1-3	ON-NONE-ON	C	4.13
3224	212TS1-21	ON-OFF-NONE	C	3.64
3225	212TS1-4	ON-NONE-OFF(MOM)	D	4.13
3226	212TS1-5	ON-OFF-ON(MOM)	D	4.39
3227	212TS1-6	OFF-NONE-ON(MOM)	D	4.13
3228	212TS1-7	ON(MOM)-OFF-ON(MOM)	D	4.39
3229	212TS1-8	ON-NONE-ON(MOM)	D	4.39

SOLDER TYPE TERMINALS

HHS	MICRO	CIRCUIT	Rating	NET Each
3231	212TS11-1	ON-OFF-ON	C	$3.84
3232	212TS11-2	ON-NONE-OFF	C	3.45
3233	212TS11-3	ON-NONE-ON	C	3.84
3235	212TS11-4	ON-NONE-OFF(MOM)	D	3.93
3236	212TS11-5	ON-OFF-ON(MOM)	D	4.06
3237	212TS11-6	OFF-NONE-ON(MOM)	D	3.93
3238	212TS11-7	ON(MOM)-OFF-ON(MOM)	D	4.06
3239	212TS11-8	ON-NONE-ON(MOM)	D	4.06

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HERMAN H. SMITH, INC.

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONENTS"

ROCKER-ACTUATED TOGGLE SWITCHES

Combines advantages of Toggle Switch circuitry and current capacity with pushbutton control. Snag-proof keys prevent false actuation. Translucent plastic keys feature edge light indication. Lower half of key emits soft glow from light source in panel. Enables easy identification of actuator position. Transparent plastic keys mounted above flush. An insert with signs, symbols, or letters can be placed under the key.

Temperature range −65°F to +160°F. Sealed between bushing and rocker actuator, and between cover and case. **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8
E	40	20	.75	.5	15	6	5	4	12	15
F	40	18	.75	.5	11	6	4	2	10	8

ON OFF ON
MICRO

1 POLE

TRANSLUCENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3401	1TP1-1	ON-OFF-ON	A	$ 8.58
3402	1TP1-2	ON-NONE-OFF	A	8.58
3403	1TP1-3	ON-NONE-ON	A	8.58
3404	1TP1-21	ON-OFF-NONE	A	8.87
3405	1TP1-31	ON-ON-NONE	A	8.87
3406	1TP1-4	ON-NONE-OFF(MOM)	B	8.58
3407	1TP1-5	ON-OFF-ON(MOM)	B	8.58
3408	1TP1-6	OFF-NONE-ON(MOM)	B	8.58
3409	1TP1-7	ON(MOM-OFF-ON(MOM)	B	8.58
3410	1TP1-8	ON-NONE-ON(MOM)	B	8.58
3411	1TP1-41	ON-OFF(MOM)-NONE	B	8.87
3412	1TP1-51	ON(MOM)-ON-NONE	B	8.87
3413	1TP1-61	NONE-OFF-ON(MOM)	B	8.87

TRANSPARENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3414	1TP4-1	ON-OFF-ON	A	$10.30
3415	1TP4-2	ON-NONE-OFF	A	10.30
3416	1TP4-3	ON-NONE-ON	A	10.30
3417	1TP4-21	ON-OFF-NONE	A	10.60
3418	1TP4-31	ON-ON-NONE	A	10.60
3419	1TP4-4	ON-NONE-OFF(MOM)	B	10.30
3420	1TP4-5	ON-OFF-ON(MOM)	B	10.30
3421	1TP4-6	OFF-NONE-ON(MOM)	B	10.30
3422	1TP4-7	ON(MOM)-OFF-ON(MOM)	B	10.30
3423	1TP4-8	ON-NONE-ON(MOM)	B	10.30
3424	1TP4-41	ON-OFF(MOM)-NONE	B	10.60
3425	1TP4-51	ON(MOM)-ON-NONE	B	10.60
3426	1TP4-61	NONE-OFF-ON(MOM)	B	10.60

ON OFF ON
MICRO

2 POLE

TRANSLUCENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3427	2TP1-1	ON-OFF-ON	C	$ 9.98
3428	2TP1-2	ON-NONE-OFF	C	9.98
3429	2TP1-3	ON-NONE-ON	C	9.98
3430	2TP1-21	ON-OFF-NONE	C	10.21
3431	2TP1-31	ON-ON-NONE	C	10.21
3432	2TP1-4	ON-NONE-OFF(MOM)	D	9.98
3433	2TP1-5	ON-OFF-ON(MOM)	D	9.98
3434	2TP1-6	OFF-NONE-ON(MOM)	D	9.98
3435	2TP1-7	ON(MOM)-OFF-ON(MOM)	D	9.98
3436	2TP1-8	ON-NONE-ON(MOM)	D	9.98
3437	2TP1-41	ON-OFF(MOM)-NONE	D	10.21
3438	2TP1-51	ON(MOM)-ON-NONE	D	10.34
3439	2TP1-61	NONE-OFF-ON(MOM)	D	10.21

TRANSPARENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3440	2TP4-1	ON-OFF-ON	C	$11.70
3441	2TP4-2	ON-NONE-OFF	C	11.70
3442	2TP4-3	ON-NONE-ON	C	11.70
3443	2TP4-21	ON-OFF-NONE	C	11.93
3444	2TP4-31	ON-ON-NONE	C	11.93
3445	2TP4-4	ON-NONE-OFF(MOM)	D	11.70
3446	2TP4-5	ON-OFF-ON(MOM)	D	11.70
3447	2TP4-6	OFF-NONE-ON(MOM)	D	11.70
3448	2TP4-7	ON(MOM)-OFF-ON(MOM)	D	11.70
3449	2TP4-8	ON-NONE-ON(MOM)	D	11.70
3450	2TP4-41	ON-OFF(MOM)-NONE	D	11.93
3451	2TP4-51	ON(MOM)-ON-NONE	D	12.06
3452	2TP4-61	NONE-OFF-ON(MOM)	D	11.93

ON OFF
MICRO

4 POLE

TRANSLUCENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3453	4TP1-1	ON-OFF-ON	E	$12.29
3454	4TP1-2	ON-NONE-OFF	E	12.29
3455	4TP1-3	ON-NONE-ON	E	12.29
3456	4TP1-21	ON-OFF-NONE	E	12.48
3457	4TP1-31	ON-ON-NONE	E	13.26
3458	4TP1-4	ON-NONE-OFF(MOM)	F	12.29
3459	4TP1-5	ON-OFF-ON(MOM)	F	12.29
3460	4TP1-6	OFF-NONE-ON(MOM)	F	12.29
3461	4TP1-7	ON(MOM)-OFF-ON(MOM)	F	12.29
3462	4TP1-8	ON-NONE-ON(MOM)	F	12.29
3463	4TP1-41	ON-OFF(MOM)-NONE	F	12.48
3464	4TP1-51	ON(MOM)-ON-NONE	F	13.49
3465	4TP1-61	NONE-OFF-ON(MOM)	F	12.48

TRANSPARENT KEY

HHS	MICRO	CIRCUIT	Rating	NET Each
3466	4TP4-1	ON-OFF-ON	E	$14.01
3467	4TP4-2	ON-NONE-OFF	E	14.01
3468	4TP4-3	ON-NONE-ON	E	14.01
3469	4TP4-21	ON-OFF-NONE	E	14.20
3470	4TP4-31	ON-ON-NONE	E	14.98
3471	4TP4-4	ON-NONE-OFF(MOM)	F	14.01
3472	4TP4-5	ON-OFF-ON(MOM)	F	14.01
3473	4TP4-6	OFF-NONE-ON(MOM)	F	14.01
3474	4TP4-7	ON(MOM)-OFF-ON(MOM)	F	14.01
3475	4TP4-8	ON-NONE-ON(MOM)	F	14.01
3476	4TP4-41	ON-OFF(MOM)-NONE	F	14.20
3477	4TP4-51	ON(MOM)-ON-NONE	F	15.24
3478	4TP4-61	NONE-OFF-ON(MOM)	F	14.20

BUSHING-MOUNTED TOGGLE SWITCHES

Tested and approved under MIL-S-3950A. Silicone sealed between cover and case, and between bushing and toggle lever. Integral terminals provide stronger wiring connections. Wide temperature range of −85°F to +250°F. **Std. Pkg. 10**

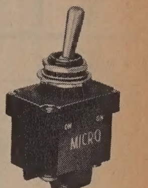
RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	115 vdc	250 vdc	115 vac	230 vac	LAMP LOAD 30 vdc	115 vac	INDUCTIVE LOAD 30 vdc	115 vac
A	45	20	.75	.5	15	6	5	3	15	10
B	45	15	.75	.5	15	6	4	2	10	7
C	40	20	.75	.5	15	6	7	4	15	15
D	40	18	.75	.5	11	6	5	2	10	8

ON OFF ON
MICRO

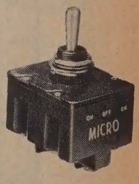
1 POLE (MS 24523)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3101	1TL1-1	MS24523-21	ON-OFF-ON	A	$4.16
3102	1TL1-2	MS24523-22	ON-NONE-OFF	A	4.16
3103	1TL1-3	MS24523-23	ON-NONE-ON	A	4.16
3104	1TL1-21	MS24523-24	ON-OFF-NONE	A	4.42
3105	1TL1-31	MS24523-33	ON-ON-NONE	A	4.42
3106	1TL1-4	MS24523-29	ON-NONE-OFF(MOM)	B	4.16
3107	1TL1-5	MS24523-31	ON-OFF-ON(MOM)	B	4.16
3108	1TL1-6	MS24523-30	OFF-NONE-ON(MOM)	B	4.16
3109	1TL1-7	MS24523-27	ON(MOM)-OFF-ON(MOM)	B	4.16
3110	1TL1-8	MS24523-26	ON-NONE-ON(MOM)	B	4.16
3111	1TL1-41	MS24523-25	ON-OFF(MOM)-NONE	B	4.42
3112	1TL1-51	MS24523-32	ON(MOM)-ON-NONE	B	4.42
3113	1TL1-61	MS24523-28	NONE-OFF-ON(MOM)	B	4.42



2 POLE (MS 24524)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3114	2TL1-1	MS24524-21	ON-OFF-ON	C	$5.53
3115	2TL1-2	MS24524-22	ON-NONE-OFF	C	5.53
3116	2TL1-3	MS24524-23	ON-NONE-ON	C	5.53
3117	2TL1-21	MS24524-24	ON-OFF-NONE	C	5.75
3118	2TL1-31	MS24524-33	ON-ON-NONE	C	5.75
3119	2TL1-4	MS24524-29	ON-NONE-OFF(MOM)	D	5.53
3120	2TL1-5	MS24524-31	ON-OFF-ON(MOM)	D	5.53
3121	2TL1-6	MS24524-30	OFF-NONE-ON(MOM)	D	5.53
3122	2TL1-7	MS24524-27	ON(MOM)-OFF-ON(MOM)	D	5.53
3123	2TL1-8	MS24524-26	ON-NONE-ON(MOM)	D	5.53
3124	2TL1-41	MS24524-25	ON-OFF(MOM)-NONE	D	5.75
3125	2TL1-51	MS24524-32	ON(MOM)-ON-NONE	D	5.88
3126	2TL1-61	MS24524-28	NONE-OFF-ON(MOM)	D	5.75



4 POLE (MS 24525)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3127	4TL1-1	MS24525-21	ON-OFF-ON	C	$7.77
3128	4TL1-2	MS24525-22	ON-NONE-OFF	C	7.77
3129	4TL1-3	MS24525-23	ON-NONE-ON	C	7.83
3130	4TL1-21	MS24525-24	ON-OFF-NONE	C	8.03
3131	4TL1-31	MS24524-33	ON-ON-NONE	C	8.81
3132	4TL1-4	MS24525-29	ON-NONE-OFF(MOM)	D	7.77
3133	4TL1-5	MS24525-31	ON-OFF-ON(MOM)	D	7.83
3134	4TL1-6	MS24525-30	OFF-NONE-ON(MOM)	D	7.77
3135	4TL1-7	MS24525-27	ON(MOM-OFF-ON(MOM)	D	7.83
3136	4TL1-8	MS24525-26	ON-NONE-ON(MOM)	D	7.83
3137	4TL1-41	MS24525-25	ON-OFF(MOM)-NONE	D	8.03
3138	4TL1-51	MS24525-32	ON(MOM-ON-NONE	D	9.07
3139	4TL1-61	MS24525-28	NONE-OFF-ON(MOM)	D	8.03

BUSHING-MOUNTED "TS" TOGGLE SWITCHES

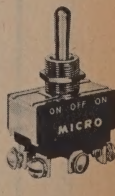
Tested and approved under MIL-S-3950A. Terminals plated to enable conversion for solder use by removing screws. Sealed toggle lever **Std. Pkg. 10**

RATING: CURRENT CAPACITY (AMPS)

	CON-TINU-OUS	RESISTIVE LOAD 30 vdc	125 vdc	250 vdc	125 vac	250 vac	LAMP LOAD 30 vdc	125 vac	INDUCTIVE LOAD 30 vdc	125 vac
A	40	20	.75	.5	15	6	5	3	15	10
B	40	15	.75	.5	15	6	4	2	10	7
C	30	30	.75	.5	25	9	7	4	15	15
D	30	20	.75	.5	15	6	5	2	10	8

1 POLE (MS 35058)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3141	511TS1-1	MS35058-21	ON-OFF-ON	A	$2.18
3142	511TS1-2	MS35058-22	ON-NONE-OFF	A	2.18
3143	511TS1-3	MS35058-23	ON-NONE-ON	A	2.18
3144	511TS1-21	MS35058-24	ON-OFF-NONE	A	1.82
3145	511TS1-4	MS35058-29	ON-NONE-OFF(MOM)	B	2.02
3146	511TS1-5	MS35058-31	ON-OFF-ON(MOM)	B	2.37
3147	511TS1-6	MS35058-30	OFF-NONE-ON(MOM)	B	2.02
3148	511TS1-7	MS35058-27	ON(MOM)-OFF-ON(MOM)	B	2.37
3149	511TS1-8	MS35058-26	ON-NONE-ON(MOM)	B	2.37
3150	511TS1-61	MS35058-28	NONE-OFF-ON(MOM)	B	2.02
3151	511TS1-41	MS35058-25	ON-OFF(MOM)-NONE	B	2.02



2 POLE (MS 35059)

HHS	MICRO	"MS" No.	CIRCUIT	Rating	NET Each
3152	512TS1-1	MS35059-21	ON-OFF-ON	C	$2.93
3153	512TS1-2	MS35059-22	ON-NONE-OFF	C	2.44
3154	512TS1-3	MS35059-23	ON-NONE-ON	C	2.93
3155	512TS1-21	MS35059-24	ON-OFF-NONE	C	2.44
3156	512TS1-4	MS35059-29	ON-NONE-OFF(MOM)	D	2.93
3157	512TS1-5	MS35059-31	ON-OFF-ON(MOM)	D	3.15
3158	512TS1-6	MS35059-30	OFF-NONE-ON(MOM)	D	2.93
3159	512TS1-7	MS35059-27	ON(MOM-OFF-ON(MOM)	D	3.15
3160	512TS1-8	MS35059-26	ON-NONE-ON(MOM)	D	3.15
3161	512TS1-61	MS35059-28	NONE-OFF-ON(MOM)	D	2.93
3162	512TS1-41	MS35059-25	ON-OFF(MOM)-NONE	D	2.93

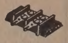
HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

With Screw Terminals

600-2

With One-Sided Solder Terminals



600-¾ST-2

With Two-Sided Solder Terminals

600-ST-2

With Bottom Solder Terminals

600-Y-2

With Side And Bottom Terminals

600-XY-2

With Botto
Terminals

600-Z-2

Height 13/32″, Width 7/8″, Thickness ¼″, Terminals 3/8″ Centers, 5/16″ Mtg., 5-40 x ¼ Screws.

To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"	To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'	MAI-60 "D" GDI-30 "H"	To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' MDG 'B'
600- SERIES	600-					Suffix	600-¾ST-		600-ST-	600-Y-		Suffix	600-YSY-			600-Z-
- 1	$ .15	$ .16	$ .30	$. 42	$ .50	- 1	$ .19	$ .20	$ .38	$ .45	$ .53	- 1	$ .23	$ .24	$ .46	$ .53
- 2	.24	.25	.48	.68	.82	- 2	.32	.33	.64	.76	.89	- 2	.40	.41	.80	.92
- 3	.33	.36	.66	.91	1.09	- 3	.44	.47	.88	1.00	1.18	- 3	.60	.63	1.20	1.32
- 4	.42	.46	.84	1.15	1.38	- 4	.57	.61	1.14	1.30	1.53	- 4	.73	.81	1.46	1.62
- 5	.51	.56	1.02	1.40	1.68	- 5	.69	.74	1.38	1.58	1.86	- 5	.93	.98	1.86	2.06
- 6	.59	.65	1.18	1.62	1.94	- 6	.83	.89	1.66	1.86	2.18	- 6	1.07	1.17	2.14	2.34
- 7	.68	.75	1.36	1.89	2.27	- 7	.95	1.02	1.90	2.14	2.51	- 7	1.23	1.34	2.46	2.70
- 8	.77	.85	1.54	2.11	2.53	- 8	1.08	1.16	2.16	2.42	2.84	- 8	1.40	1.52	2.80	3.16
- 9	.86	.95	1.72	2.36	2.83	- 9	1.21	1.30	2.42	2.72	3.24	- 9	1.57	1.70	3.14	3.44
- 10	.95	1.05	1.90	2.61	3.13	- 10	1.33	1.43	2.66	2.99	3.55	- 10	1.73	1.87	3.46	3.76
- 11	1.03	1.13	2.06	2.83	3.40	- 11	1.45	1.55	2.90	3.25	3.86	- 11	1.89	2.03	3.78	4.13
- 12	1.12	1.23	2.24	3.08	3.70	- 12	1.58	1.69	3.16	3.54	4.20	- 12	2.06	2.21	4.12	4.50
- 13	1.21	1.33	2.42	3.32	3.98	- 13	1.71	1.83	3.42	3.82	4.54	- 13	2.23	2.39	4.46	4.86
- 14	1.31	1.44	2.62	3.60	4.32	- 14	1.84	1.97	3.68	4.13	4.90	- 14	2.40	2.57	4.80	5.05
- 15	1.40	1.54	2.80	3.85	4.62	- 15	1.96	2.10	3.92	4.41	5.18	- 15	2.56	2.74	5.12	5.61
- 16	1.49	1.64	2.98	4.10	4.92	- 16	2.09	2.24	4.18	4.70	5.52	- 16	2.73	2.92	5.46	5.88
- 17	1.57	1.70	3.14	4.31	5.17	- 17	2.21	2.37	4.42	4.96	5.82	- 17	2.89	3.09	5.78	6.32
- 18	1.66	1.83	3.32	4.56	5.47	- 18	2.34	2.51	4.68	5.25	6.16	- 18	3.06	3.27	6.12	6.69
- 19	1.75	1.93	3.50	4.81	5.77	- 19	2.46	2.64	4.92	5.52	6.48	- 19	3.22	3.44	6.44	7.04
- 20	1.84	2.03	3.68	5.06	6.07	- 20	2.60	2.78	5.20	5.82	6.83	- 20	3.40	3.70	6.80	7.42
- 21	1.93	2.13	3.86	5.30	6.36	- 21	2.72	2.90	5.44	6.10	7.16	- 21	3.56	3.90	7.12	7.78
- 22	2.02	2.23	4.04	5.55	6.66	- 22	2.86	3.07	6.14	6.40	7.51	- 22	3.74	3.98	7.48	8.04

Height 13/32″; Width 7/8″, Thickness ¼″, Terminals 3/8″ Centers, 5/16″ Mtg., 6-32 x ¼ Screws.

600A- SERIES	600A-					Suffix	600A-¾ST-		600A-ST-	600A-Y-		Suffix	600-YSY-			600-A-Z-
- 1	$ .16	$ .18	$ .32	$ .47	$ .56	- 1	$ .20	$ .22	$ .40	$ .50	$ .59	- 1	$ .24	$ .26	$ .48	$ .54
- 2	.25	.28	.50	.70	.91	- 2	.33	.37	.66	.83	.97	- 2	.41	.45	.82	.91
- 3	.36	.40	.72	1.00	1.20	- 3	.47	.51	.94	1.10	1.30	- 3	.63	.63	1.26	1.39
- 4	.46	.51	.92	1.26	1.51	- 4	.61	.66	1.22	1.43	1.68	- 4	.81	.82	1.62	1.80
- 5	.56	.62	1.12	1.54	1.85	- 5	.74	.80	1.48	1.74	2.04	- 5	.98	1.00	1.96	2.16
- 6	.65	.72	1.30	1.79	2.15	- 6	.89	.96	1.78	2.05	2.40	- 6	1.17	1.20	2.34	2.57
- 7	.75	.83	1.50	2.06	2.47	- 7	1.02	1.10	2.04	2.36	2.77	- 7	1.34	1.38	2.68	2.94
- 8	.85	.94	1.70	2.33	2.80	- 8	1.16	1.25	2.32	2.67	3.13	- 8	1.52	1.57	3.04	3.34
- 9	.95	1.05	1.80	2.60	3.12	- 9	1.30	1.40	2.60	3.00	3.52	- 9	1.70	1.76	3.40	3.67
- 10	1.05	1.16	2.10	2.88	3.46	- 10	1.43	1.54	2.86	3.30	3.87	- 10	1.87	1.94	3.74	4.11
- 11	1.13	1.25	2.26	3.12	3.74	- 11	1.55	1.67	3.10	3.58	4.20	- 11	2.03	2.11	4.06	4.46
- 12	1.23	1.36	2.46	3.38	4.06	- 12	1.69	1.82	3.38	3.90	4.57	- 12	2.21	2.30	4.42	4.86
- 13	1.33	1.47	2.66	3.65	4.38	- 13	1.83	1.97	3.66	4.21	4.94	- 13	2.39	2.49	4.78	5.25
- 14	1.44	1.60	2.88	3.96	4.75	- 14	1.97	2.13	3.94	4.54	5.33	- 14	2.57	2.69	5.14	5.65
- 15	1.54	1.71	3.08	4.23	5.08	- 15	2.10	2.27	4.20	4.85	5.69	- 15	2.74	2.87	5.48	6.02
- 16	1.64	1.82	3.28	4.51	5.41	- 16	2.24	2.42	4.48	5.17	6.07	- 16	2.92	3.08	5.84	6.42
- 17	1.73	1.91	3.46	4.74	5.69	- 17	2.37	2.55	4.74	5.46	6.40	- 17	3.09	3.23	6.18	6.79
- 18	1.83	2.02	3.66	5.02	6.02	- 18	2.51	2.70	5.02	5.78	6.78	- 18	3.27	3.42	6.54	7.15
- 19	1.93	2.13	3.86	5.29	6.35	- 19	2.64	2.84	5.28	6.18	7.23	- 19	3.44	3.60	6.88	7.56
- 20	2.03	2.24	4.06	5.57	6.68	- 20	2.78	3.00	5.56	6.40	7.51	- 20	3.62	3.80	7.24	7.96
- 21	2.13	2.35	4.26	5.83	7.00	- 21	2.90	3.14	5.80	6.71	7.88	- 21	3.78	3.98	7.56	8.31
- 22	2.23	2.46	4.46	6.10	7.32	- 22	3.07	3.29	6.14	7.24	8.46	- 22	3.99	4.17	7.98	8.77

Height ½″, Width 1⅛″, Thickness 5/16″, Terminals 7/16″ Centers, 27/64″ Mtg., 6-32 x ¼ Screws.

601- SERIES	601-					Suffix	601-¾ST-		601-ST-	601-Y-		Suffix	600-YSY-			601-Z-
- 1	$ .20	$ .22	$ .40	$ .55	$ .66	- 1	$ .24	$ .26	$ .48	$ .59	$ .70	- 1	$ .28	$ .30	$ .56	$ .63
- 2	.31	.34	.62	.85	1.02	- 2	.41	.44	.82	.95	1.12	- 2	.49	.52	.98	1.03
- 3	.42	.46	.84	1.15	1.38	- 3	.57	.61	1.14	1.30	1.53	- 3	.69	.73	1.38	1.51
- 4	.54	.59	1.08	1.48	1.78	- 4	.74	.79	1.48	1.68	1.97	- 4	.90	.95	1.80	1.98
- 5	.64	.72	1.28	1.76	2.11	- 5	.90	.98	1.80	2.02	2.37	- 5	1.10	1.18	2.20	2.42
- 6	.75	.83	1.50	2.06	2.47	- 6	1.07	1.15	2.14	2.38	2.79	- 6	1.31	1.39	2.62	2.84
- 7	.88	.97	1.76	2.42	2.90	- 7	1.23	1.32	2.46	2.77	3.25	- 7	1.51	1.60	3.02	3.32
- 8	.99	1.09	1.98	2.72	3.26	- 8	1.40	1.50	2.80	3.13	3.67	- 8	1.72	1.82	3.44	3.74
- 9	1.10	1.21	2.20	3.02	3.62	- 9	1.56	1.67	3.12	3.48	4.08	- 9	1.92	2.03	3.84	4.22
- 10	1.22	1.34	2.44	3.35	4.02	- 10	1.73	1.85	3.46	3.86	4.52	- 10	2.13	2.25	4.26	4.66
- 11	1.33	1.46	2.66	3.65	4.38	- 11	1.89	2.02	3.78	4.21	4.94	- 11	2.33	2.46	4.66	5.06
- 12	1.44	1.58	2.88	3.96	4.75	- 12	2.06	2.20	4.12	4.58	5.37	- 12	2.54	2.68	5.08	5.50
- 13	1.56	1.72	3.12	4.29	5.15	- 13	2.22	2.38	4.44	4.95	5.80	- 13	2.74	2.90	5.48	6.00
- 14	1.67	1.84	3.34	4.59	5.51	- 14	2.39	2.56	4.78	5.31	6.22	- 14	2.95	3.12	5.90	6.40
- 15	1.78	1.96	3.56	4.90	5.88	- 15	2.55	2.73	5.10	5.72	6.70	- 15	3.15	3.33	6.30	6.70
- 16	1.90	2.09	3.80	5.22	6.26	- 16	2.72	2.91	5.42	6.09	7.13	- 16	3.36	3.55	6.72	7.39
- 17	2.01	2.21	4.02	5.52	6.62	- 17	2.88	3.08	5.76	6.45	7.55	- 17	3.56	3.76	7.12	7.84
- 18	2.12	2.33	4.24	5.83	7.00	- 18	3.05	3.26	6.10	6.80	7.96	- 18	3.77	3.98	7.54	8.25
- 19	2.24	2.46	4.48	6.16	7.39	- 19	3.21	3.43	6.42	7.19	8.41	- 19	3.97	4.19	7.94	8.73
- 20	2.35	2.59	4.70	6.46	7.75	- 20	3.38	3.62	6.76	7.54	8.82	- 20	4.18	4.42	8.36	9.19
- 21	2.47	2.72	4.94	6.79	8.15	- 21	3.55	3.80	7.10	7.92	9.28	- 21	4.38	4.64	8.76	9.63
- 22	2.59	2.85	5.18	7.12	8.54	- 22	3.72	3.98	7.44	8.30	9.72	- 22	4.58	4.86	9.16	10.07
- 23	2.71	2.98	5.42	7.45	8.94	- 23	3.89	4.16	7.78	8.68	10.17	- 23	4.78	5.08	9.56	10.51

Height 5/8″, Width 1 5/16″, Thickness 3/8″, Terminals 9/16″ Centers, ½″ Mtg., 8-32 x 5/16 Screws.

602- SERIES	602-					Suffix	602-¾ST-		602-ST-	602-Y-		Suffix	600-YSY-			602-Z-
- 1	$ .23	$ .25	$ .46	$ .63	$ .76	- 1	$ .30	$ .32	$ .60	$ .70	$ .82	-1	$ .34	$ .36	$ .60	$ .74
- 2	.36	.40	.72	.99	1.19	- 2	.50	.54	1.00	1.13	1.33	-2	.58	.62	1.00	1.21
- 3	.51	.56	1.02	1.40	1.68	- 3	.70	.75	1.40	1.59	1.87	-3	.82	.87	1.40	1.71
- 4	.65	.72	1.30	1.78	2.14	- 4	.90	.97	1.80	2.03	2.38	-4	1.06	1.13	1.80	2.19
- 5	.78	.86	1.56	2.15	2.58	- 5	1.11	1.19	2.22	2.48	2.91	-5	1.31	1.39	2.22	2.68
- 6	.92	1.01	1.84	2.53	3.04	- 6	1.31	1.40	2.62	2.92	3.42	-6	1.55	1.64	2.62	3.14
- 7	1.07	1.18	2.14	2.94	3.53	- 7	1.52	1.63	3.14	3.39	3.97	-7	1.80	1.91	3.14	3.67
- 8	1.20	1.32	2.40	3.30	3.96	- 8	1.72	1.84	3.44	3.82	4.48	-8	2.04	2.16	3.44	4.14
- 9	1.34	1.47	2.68	3.68	4.42	- 9	1.93	2.06	3.86	4.27	5.00	-9	2.29	2.42	3.86	4.63
- 10	1.49	1.64	2.98	4.10	4.92	- 10	2.12	2.27	4.24	4.63	5.45	-10	2.52	2.67	4.24	5.03
- 11	1.62	1.78	3.24	4.45	5.34	- 11	2.33	2.49	4.66	5.16	6.05	-11	2.77	2.93	4.66	5.60
- 12	1.76	1.94	3.52	4.84	5.81	- 12	2.53	2.71	5.06	5.61	6.57	-12	3.01	3.19	5.06	6.09
- 13	1.90	2.09	3.80	5.22	6.26	- 13	2.74	2.93	5.48	6.06	7.10	-13	3.26	3.45	5.48	6.52
- 14	2.04	2.24	4.08	5.61	6.73	- 14	2.94	3.14	5.88	6.31	7.43	-14	3.50	3.70	5.88	6.87
- 15	2.18	2.40	4.36	6.00	7.20	- 15	3.15	3.47	6.30	6.97	8.17	-15	3.75	4.07	6.30	7.57
- 16	2.32	2.55	4.64	6.38	7.66	- 16	3.34	3.67	6.68	7.40	8.67	-16	3.98	4.31	6.68	8.04
- 17	2.45	2.70	4.90	6.73	8.08	- 17	3.54	3.79	7.08	7.82	9.16	-17	4.32	4.47	7.08	8.50
- 18	2.58	2.85	5.16	7.10	8.52	- 18	3.74	4.01	7.48	8.26	9.68	-18	4.46	4.73	7.48	8.98
- 19	2.76	3.00	5.52	7.59	9.11	- 19	3.99	4.23	7.98	8.82	10.33	-19	4.75	4.99	7.98	9.58
- 20	2.90	3.15	5.80	7.97	9.56	- 20	4.20	4.45	8.40	9.27	10.86	-20	5.00	5.25	8.40	10.07
- 21	3.04	3.30	6.08	8.36	10.03	- 21	4.41	4.67	8.82	9.73	11.40	-21	5.25	5.51	8.82	10.57
- 22	3.19	3.45	6.38	8.77	10.52	- 22	4.62	4.88	9.24	10.20	11.95	-22	5.50	5.76	9.24	11.08
- 23	3.33	3.60	6.66	9.15	10.98	- 23	4.83	5.10	9.66	10.65	12.48	-23	5.75	6.02	9.86	11.57
- 24	3.48	3.75	6.96	9.57	11.48	- 24	5.04	5.31	10.08	11.13	13.04	-24	6.00	6.27	10.08	12.09
- 25	3.62	3.90	7.24	9.95	11.94	- 25	5.25	5.53	10.50	11.58	13.57	-25	6.25	6.54	10.50	12.60
- 26	3.76	4.05	7.52	10.34	12.41	- 26	5.46	5.75	10.92	12.04	14.10	-26	6.50	6.77	10.92	13.10

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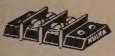
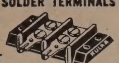
WITH SCREW TERMINALS

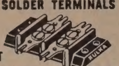


WITH ONE-SIDED SOLDER TERMINALS



¾ST

WITH TWO-SIDED SOLDER TERMINALS



ST

ight ¾", Width 1 13/16", Thickness 7/16", Terminals 11/16" Centers, ⅝" Mtg., 10-32 x ⅜" Screws.

To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"
603- SERIES	603-					603-¾ST-			603-ST-	
-1	$ .55	$ .61	$1.10	$1.51	$1.81	$ .66	$ .72	$1.32	$1.62	$1.92
-2	.94	1.03	1.88	2.58	3.10	1.13	1.22	2.26	2.77	3.28
-3	1.32	1.45	2.64	3.63	4.36	1.60	1.73	3.20	3.91	4.63
-4	1.71	1.88	3.42	4.70	5.64	2.07	2.24	4.14	5.06	6.00
-5	2.09	2.30	4.18	5.75	6.90	2.53	2.73	5.06	6.18	7.23
-6	2.48	2.73	4.96	6.82	8.18	3.00	3.25	6.00	7.34	8.70
-7	2.86	3.15	5.72	7.86	9.43	3.46	3.75	6.92	8.46	10.02
-8	3.25	3.58	6.50	8.93	10.72	3.92	4.25	7.48	9.60	11.38
-9	3.63	3.99	7.26	9.99	11.99	4.40	4.77	8.80	10.75	12.74
-10	4.02	4.45	8.04	11.05	13.26	4.80	5.23	9.60	11.83	14.03

eight 15/16", Width 2", Thickness ½", Terminals ⅞" Centers, ¾" Mtg., 12-32 x ⅜" Screws.

To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"
604- ERIES	604-					604-¾-ST-			604-ST-	
-1	$ .90	$ .99	$1.80	$2.47	$2.96	$1.10	$1.19	$2.20	$2.67	$3.15
-2	1.65	1.82	3.30	4.53	5.44	2.00	2.17	4.00	4.92	5.82
-3	2.40	2.64	4.80	6.60	7.92	2.90	3.14	5.80	7.10	8.42
-4	3.15	3.46	6.30	8.66	10.39	3.80	4.11	7.60	9.31	11.03
-5	3.90	4.29	7.80	10.72	12.86	4.70	5.09	9.40	11.52	13.66
-6	4.65	5.11	9.30	12.78	15.34	5.60	6.06	11.20	13.73	16.27
-7	5.40	5.94	10.80	14.85	17.82	6.50	7.04	13.00	15.95	18.91
-8	6.15	6.76	12.30	16.91	20.29	7.40	8.01	14.80	18.16	21.54

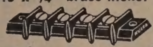
ght 1⅛", Width 2½", Thickness ⅝", Terminals 1⅛" Centers, ⅞" Mtg. ¼-28 x ½" Screws

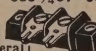
To Series Number Add Suffix	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	MAI-60 "D" / GDI-30 "H"
605- SERIES	605-					605-¾-ST-			605-ST-	
-1	$1.25	$1.38	$2.50	$3.43	$4.12	$1.45	$1.58	$2.90	$3.63	$4.31
-2	2.40	2.64	4.80	6.60	7.92	2.80	3.04	5.60	7.00	8.32
-3	3.50	3.85	7.00	9.62	11.54	4.20	4.55	8.40	10.32	12.24
-4	4.70	5.17	9.40	12.92	15.50	5.60	6.07	11.20	13.82	16.40
-5	5.80	6.38	11.60	15.95	19.14	7.00	7.50	14.00	17.15	20.33
-6	7.00	7.70	14.00	19.25	23.10	8.30	9.00	16.60	20.55	24.39

599 SERIES NARROW WIDTH TERMINAL BLOCK

ngle Screw Terminal. Height 13/32", Width 9/16", Thickness ¼", Terminals ⅜" Centers, .156 mtg. holes: 5-40 x ¼" brass nickel plated screws.

599-¾ST—599-ST—599-Z



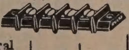


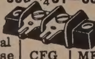
To Series Number Add Suffix	599- General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'
-1	$ .15	$ .16	$ .30	$ .42	$ .50	$ .19	$ .20	$ .38	$ .45	$ .53
-2	.24	.25	.50	.69	.82	.32	.33	.64	.76	.89
-3	.33	.36	.66	.91	1.09	.44	.47	.88	1.00	1.18
-4	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.53
-5	.51	.56	1.02	1.40	1.68	.69	.74	1.38	1.58	1.85
-6	.59	.65	1.18	1.62	1.94	.83	.89	1.66	1.86	2.18
-7	.68	.75	1.36	1.89	2.27	.95	1.02	1.90	2.14	2.51
-8	.77	.85	1.54	2.11	2.53	1.08	1.16	2.16	2.42	2.84
-9	.86	.95	1.72	2.36	2.83	1.21	1.30	2.42	2.72	3.19
-10	.95	1.05	1.90	2.61	3.13	1.33	1.43	2.66	2.99	3.51
-11	1.03	1.13	2.06	2.83	3.40	1.45	1.55	2.90	3.25	3.81
-12	1.12	1.23	2.24	3.08	3.70	1.58	1.69	3.16	3.54	4.15
-13	1.21	1.33	2.42	3.32	3.98	1.71	1.83	3.42	3.82	4.48
-14	1.31	1.44	2.62	3.60	4.32	1.84	1.97	3.68	4.13	4.85
-15	1.40	1.54	2.80	3.85	4.62	1.96	2.10	3.92	4.41	5.18
-16	1.49	1.64	2.98	4.10	4.92	2.09	2.24	4.18	4.70	5.52
-17	1.57	1.73	3.14	4.31	5.17	2.21	2.37	4.42	4.96	5.82
-18	1.66	1.83	3.32	4.56	5.47	2.34	2.51	4.68	5.25	6.16
-19	1.75	1.93	3.50	4.81	5.77	2.46	2.64	4.92	5.52	6.48
-20	1.84	2.03	3.68	5.06	6.07	2.60	2.78	5.20	5.82	6.83
-21	1.93	2.13	3.86	5.30	6.36	2.72	2.90	5.44	6.10	7.16
-22	2.02	2.23	4.04	5.55	6.66	2.86	3.07	6.14	6.40	7.51

699 SERIES NARROW WIDTH TERMINAL BLOCK

ngle Screw Terminal. Height ½", Width ⅝", Thickness 5/16", Terminals 7/16" Centers. .175 ia. Mtg. Holes 6-32 x ¼" Brass Nickel Plated Screws.

699-¾ST—699-ST—699-Z

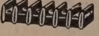


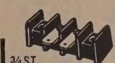


To Series Number Add Suffix	699- General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'	General Purpose Bakelite	CFG 'C'	MFE 'M'	MME 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'
-1	$ .20	$ .22	$ .40	$ .55	$ .66	$ .24	$ .26	$ .48	$ .59	$ .69
-2	.31	.34	.62	.85	1.02	.41	.44	.82	.95	1.11
-3	.42	.46	.84	1.15	1.38	.57	.61	1.14	1.30	1.52
-4	.54	.59	1.08	1.48	1.78	.74	.79	1.48	1.68	1.96
-5	.64	.72	1.28	1.76	2.11	.90	.98	1.80	2.02	2.36
-6	.75	.83	1.50	2.06	2.47	1.07	1.15	2.14	2.38	2.78
-7	.88	.97	1.76	2.42	2.90	1.23	1.32	2.46	2.77	3.25
-8	.99	1.09	1.98	2.72	3.26	1.40	1.50	2.80	3.13	3.67
-9	1.10	1.21	2.20	3.02	3.62	1.56	1.67	3.12	3.48	4.08
-10	1.22	1.34	2.44	3.35	4.02	1.73	1.85	3.46	3.86	4.53
-11	1.33	1.46	2.66	3.65	4.38	1.89	2.02	3.78	4.21	4.93
-12	1.44	1.58	2.88	3.96	4.75	2.06	2.20	4.12	4.58	5.36
-13	1.56	1.72	3.12	4.29	5.15	2.22	2.38	4.44	4.95	5.79
-14	1.67	1.84	3.34	4.59	5.51	2.39	2.56	4.78	5.31	6.22
-15	1.78	1.96	3.56	4.90	5.88	2.55	2.73	5.10	5.72	6.70
-16	1.90	2.09	3.80	5.22	6.26	2.72	2.91	5.42	6.09	7.13
-17	2.01	2.21	4.02	5.52	6.62	2.88	3.08	5.76	6.45	7.55
-18	2.12	2.33	4.24	5.83	7.00	3.05	3.26	6.10	6.80	7.96
-19	2.24	2.46	4.48	6.16	7.39	3.21	3.43	6.42	7.19	8.41
-20	2.35	2.59	4.70	6.46	7.75	3.38	3.62	6.76	7.54	8.82
-21	2.47	2.72	4.94	6.79	8.15	3.55	3.80	7.10	7.92	9.27
-22	2.59	2.85	5.18	7.12	8.54	3.72	3.98	7.44	8.30	9.72
-23	2.71	2.98	5.42	7.45	8.94	3.89	4.16	7.78	8.68	10.16

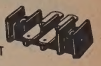
409 SERIES SUBMINIATURE TERMINAL BLOCK

Single Screw Terminal. Height .260, Width .312, Thickness 7/16" Terminals .187 Centers, .093 dia. mtg. holes; 0.80 x ⅛" brass silver plated or gold flash screws.





¾ST

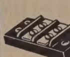


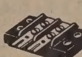
ST

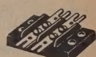
To Series Number Add Suffix	General Purpose Bakelite / CFG 'C'	MME 'M' / MFE 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'	General Purpose Bakelite / CFG 'C'	MFE 'M' / MME 'GMF' / MDG 'B'	GDI-30 "H" / MAI-60 'D'
	409-			409-¾ST-	409-ST-	
-1	$ .40	$ .80	$ .90	$ .47	$ .87	$ .97
-2	.60	1.10	1.20	.74	1.24	1.34
-3	.80	1.40	1.50	.99	1.59	1.69
-4	1.00	1.70	1.80	1.25	1.95	2.05
-5	1.20	2.00	2.10	1.53	2.33	2.43
-6	1.40	2.30	2.40	1.79	2.69	2.79
-7	1.60	2.60	2.70	2.05	3.05	3.15
-8	1.80	2.90	3.00	2.32	3.42	3.52
-9	2.00	3.20	3.30	2.59	3.79	3.89
-10	2.20	3.50	3.70	2.83	4.13	4.33
-11	2.40	3.80	4.00	3.11	4.51	4.71
-12	2.60	4.10	4.30	3.33	4.88	5.08
-13	2.80	4.40	4.60	3.64	5.24	5.44
-14	3.00	4.70	4.90	3.90	5.60	5.80
-15	3.20	5.00	5.20	4.17	5.97	6.17
-16	3.40	5.30	5.50	4.42	6.32	6.52
-17	3.60	5.60	5.80	4.69	6.69	6.89
-18	3.80	5.90	6.10	4.96	7.06	7.26
-19	4.00	6.20	6.40	5.23	7.53	7.73
-20	4.20	6.50	6.70	6.50	7.80	8.00
-21	4.40	6.80	7.00	5.77	8.17	8.37

410 SERIES MINIATURE TERMINAL BLOCK

Double Screw Terminals. Height 5/16", Width ⅝", Thickness 7/32", Terminals ¼" Centers, .125 dia. mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.



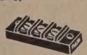




To Series Number Add Suffix	410-			410-YST—410-ST—410-Y		
-1	$ .40	$ .80	$ .96	$ .44	$ .84	$1.00
-2	.56	1.08	1.30	.63	1.15	1.37
-3	.72	1.34	1.61	.83	1.45	1.72
-4	.88	1.60	1.92	1.03	1.75	2.07
-5	1.04	1.86	2.23	1.22	2.04	2.41
-6	1.20	2.12	2.54	1.44	2.36	2.78
-7	1.36	2.38	2.86	1.63	2.65	3.43
-8	1.52	2.64	3.17	1.83	2.95	3.48
-9	1.68	2.90	3.48	2.03	3.25	3.83
-10	1.84	3.16	3.79	2.22	3.54	4.17
-11	2.00	3.42	4.10	2.42	3.84	4.52
-12	2.16	3.68	4.42	2.62	4.14	4.88
-13	2.32	3.94	4.73	2.82	4.44	5.23
-14	2.48	4.20	5.04	3.01	4.73	5.57
-15	2.64	4.46	5.35	3.20	5.02	5.91
-16	2.80	4.72	5.66	3.40	5.32	6.26
-17	2.96	4.98	5.98	3.60	5.62	6.62
-18	3.12	5.24	6.29	3.80	5.92	6.97
-19	3.28	5.50	6.60	4.00	6.22	7.32
-20	3.44	5.76	6.91	4.20	6.52	7.67
-21	3.60	6.02	7.22	4.40	6.82	8.02
-22	3.76	6.28	7.54	4.60	7.12	8.38

411 SERIES MINIATURE TERMINAL BLOCK

Single Screw Terminal. Height 5/16", Width 13/32", Thickness 7/32", Terminals. .250 Centers, .125 mtg. holes; 2-56 x 3/16" binding head brass nickel plated screws.



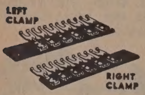
To Series Number Add Suffix	411			411-¾ST—411-ST—411-Z		
-1	$ .23	$ .46	$ .89	$ .44	$ .84	$1.00
-2	.32	.69	.96	.63	1.15	1.37
-3	.41	.93	1.23	.83	1.45	1.72
-4	.50	1.17	1.50	1.03	1.75	2.07
-5	.59	1.31	1.77	1.22	2.04	2.41
-6	.68	1.65	2.04	1.44	2.36	2.78
-7	.77	1.85	2.30	1.63	2.65	3.43
-8	.87	2.10	2.52	1.83	2.95	3.48
-9	.97	2.25	2.70	2.03	3.25	3.83
-10	1.07	2.40	2.88	2.22	3.54	4.17
-11	1.17	2.55	3.06	2.42	3.84	4.52
-12	1.27	2.60	3.12	2.62	4.14	4.88
-13	1.37	2.75	3.30	2.82	4.44	5.23
-14	1.47	2.90	3.48	3.01	4.73	5.57
-15	1.57	3.05	3.66	3.20	5.02	5.91
-16	1.67	3.20	3.84	3.40	5.32	6.26
-17	1.77	3.35	4.02	3.60	5.62	6.62
-18	1.87	3.50	4.20	3.80	5.92	6.97
-19	1.97	3.65	4.38	4.00	6.22	7.32
-20	2.07	3.80	4.56	4.20	6.52	7.67
-21	2.17	3.95	4.74	4.40	6.82	8.02
-22	2.27	4.10	4.92	4.60	7.12	8.38

©I.C.P., Inc.

HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

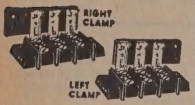
FLAT STYLE



For faster, better wiring of multiple connections to terminal blocks. Lugs are double eyeletted to prevent shift. Upturned ends of lugs acts as extra lock. Made of laminated black XP Phenolic (also supplied in XXXP natural Phenolic and GMG Glass Cloth Melamine resin per MIL-P-15037B).

Supplied in two styles, flat or angle—each style either right hand or left hand mounting.

ANGLE STYLE



650 SERIES

Connecting strip for 600 series terminal block. Strips are 3/32" thick, ½" wide, ⅜" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
650-L-2	650-R-2	2	$.13
650-L-3	650-R-3	3	.20
650-L-4	650-R-4	4	.25
650-L-5	650-R-5	5	.32
650-L-6	650-R-6	6	.39
650-L-7	650-R-7	7	.45
650-L-8	650-R-8	8	.51
650-L-9	650-R-9	9	.57
650-L-10	650-R-10	10	.64
650-L-11	650-R-11	11	.70
650-L-12	650-R-12	12	.76
650-L-13	650-R-13	13	.83
650-L-14	650-R-14	14	.89
650-L-15	650-R-15	15	.96
650-L-16	650-R-16	16	1.01
650-L-17	650-R-17	17	1.08
650-L-18	650-R-18	18	1.16
650-L-19	650-R-19	19	1.21
650-L-20	650-R-20	20	—1.28
650-L-21	650-R-21	21	1.33
650-L-22	650-R-22	22	1.38
650-AL-2	650-AR-2	2	.19
650-AL-3	650-AR-3	3	.29
650-AL-4	650-AR-4	4	.37
650-AL-5	650-AR-5	5	.47
650-AL-6	650-AR-6	6	.57
650-AL-7	650-AR-7	7	.66
650-AL-8	650-AR-8	8	.75
650-AL-9	650-AR-9	9	.84
650-AL-10	650-AR-10	10	.94
650-AL-11	650-AR-11	11	1.03
650-AL-12	650-AR-12	12	1.12
650-AL-13	650-AR-13	13	1.22
650-AL-14	650-AR-14	14	1.31
650-AL-15	650-AR-15	15	1.41
650-AL-16	650-AR-16	16	1.49
650-AL-17	650-AR-17	17	1.59
650-AL-18	650-AR-18	18	1.70
650-AL-19	650-AR-19	19	1.78
650-AL-20	650-AR-20	22	—1.88
650-AL-21	650-AR-21	21	1.96
650-AL-22	650-AR-22	22	2.08

651 SERIES

Connecting strip for 601 series terminal black. Strips are 3/32" thick, ⅝" wide, 7/16" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
651-L-2	651-R-2	2	$.14
651-L-3	651-R-3	3	.21
651-L-4	651-R-4	4	.26
651-L-5	651-R-5	5	.33
651-L-6	651-R-6	6	.40
651-L-7	651-R-7	7	.46
651-L-8	651-R-8	8	.52
651-L-9	651-R-9	9	.58
651-L-10	651-R-10	10	.65
651-L-11	651-R-11	11	.72
651-L-12	651-R-12	12	77
651-L-13	651-R-13	13	.84
651-L-14	651-R-14	14	.91
651-L-15	651-R-15	15	.97
651-L-16	651-R-16	16	1.03
651-L-17	651-R-17	17	1.09
651-L-18	651-R-18	18	1.17
651-L-19	651-R-19	19	1.22
651-L-20	651-R-20	20	1.29
651-L-21	651-R-21	21	1.36
651-L-22	651-R-22	22	1.43
651-L-23	651-R-23	23	1.50
651-AL-2	651-AR-2	2	.20
651-AL-3	651-AR-3	3	.30
651-AL-4	651-AR-4	4	.38
651-AL-5	651-AR-5	5	.48
651-AL-6	651-AR-6	6	.58
651-AL-7	651-AR-7	7	.67
651-AL-8	651-AR-8	8	.76
651-AL-9	651-AR-9	9	.85
651-AL-10	651-AR-10	10	.95
651-AL-11	651-AR-11	11	1.05
651-AL-12	651-AR-12	12	1.13
651-AL-13	651-AR-13	13	1.23
651-AL-14	651-AR-14	14	1.33
651-AL-15	651-AR-15	15	1.42
651-AL-16	651-AR-16	16	1.51
651-AL-17	651-AR-17	17	1.60
651-AL-18	651-AR-18	18	1.71
651-AL-19	651-AR-19	19	1.79
651-AL-20	651-AR-20	20	1.89
651-AL-21	651-AR-21	21	1.99
651-AL-22	651-AR-22	22	2.09
651-AL-23	651-AR-23	23	2.19

652 SERIES

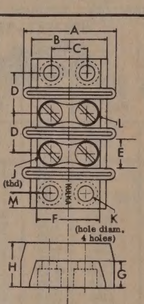
Connecting strip for 602 series terminal block. Strips are 3/32" thick, ⅝" wide, 9/16" centers.

Left Clamp Catalog No.	Right Clamp Catalog No.	Number of Terminals	Price Each
652-L-2	652-R-2	2	$.17
652-L-3	652-R-3	3	.2
652-L-4	652-R-4	4	.2
652-L-5	652-R-5	5	.3
652-L-6	652-R-6	6	.4
652-L-7	652-R-7	7	.4
652-L-8	652-R-8	8	.5
652-L-9	652-R-9	9	.6
652-L-10	652-R-10	10	.6
652-L-11	652-R-11	11	.7
652-L-12	652-R-12	12	.8
652-L-13	652-R-13	13	.8
652-L-14	652-R-14	14	.9
652-L-15	652-R-15	15	.9
652-L-16	652-R-16	16	1.0
652-L-17	652-R-17	17	1.1
652-L-18	652-R-18	18	1.1
652-L-19	652-R-19	19	1.2
652-L-20	652-R-20	20	1.2
652-L-21	652-R-21	21	1.3
652-L-22	652-R-22	22	1.3
652-L-23	652-R-23	23	1.4
652-L-24	652-R-24	24	1.4
652-L-25	652-R-25	25	1.5
652-L-26	652-R-26	26	1.5
652-AL-2	652-AR-2	2	.2
652-AL-3	652-AR-3	3	.3
652-AL-4	652-AR-4	4	.4
652-AL-5	652-AR-5	5	.5
652-AL-6	652-AR-6	6	.6
652-AL-7	652-AR-7	7	.6
652-AL-8	652-AR-8	8	.7
652-AL-9	652-AR-9	9	.8
652-AL-10	652-AR-10	10	.9
652-AL-11	652-AR-11	11	1.0
652-AL-12	652-AR-12	12	1.1
652-AL-13	652-AR-13	13	1.2
652-AL-14	652-AR-14	14	1.3
652-AL-15	652-AR-15	15	1.4
652-AL-16	652-AR-16	16	1.5
652-AL-17	652-AR-17	17	1.6
652-AL-18	652-AR-18	18	1.7
652-AL-19	652-AR-19	19	1.8
652-AL-20	652-AR-20	20	1.9
652-AL-21	652-AR-21	21	2.0
652-AL-22	652-AR-22	22	2.1
652-AL-23	652-AR-23	23	2.2
652-AL-24	652-AR-24	24	2.3
652-AL-25	652-AR-25	25	2.4
652-AL-26	652-AR-26	26	2.5

ELECTRICAL RATING CHART

Rated Voltage Taken at ⅓ Voltage Breakdown

Type Number	Rated Voltage Without Marker Strip	Rated Voltage With Marker Strip	Current Rating	Maximum Wire Sizes With Solder or Solderless Lugs
409	750V. RMS	1500V. RMS	2 Amp.	Lug for #26 to 22 Ga.
410	1000V. RMS	2000V. RMS	5 Amp.	Lug for #20 to 18 Ga.
411	1000V. RMS	2000V. RMS	5 Amp.	Lug for #20 to 18 Ga.
599	1100V. RMS	2500V. RMS	15 Amp.	Lug for #22 to 16 Ga.
600	1100V. RMS	2500V. RMS	15 Amp.	Lug for #22 to 16 Ga.
601	1100V. RMS	3000V. RMS	20 Amp.	Lug for #16 to 14 Ga.
602	1600V. RMS	3300V. RMS	30 Amp.	Lug for #14 to 12 Ga.
603	1700V. RMS	3000V. RMS	50 Amp.	Lug for #6 Ga.
604	1800V. RMS	3400V. RMS	70 Amp.	Lug for #4 Ga.
605	2100V. RMS	3800V. RMS	90 Amp.	Lug for #2 Ga.
609	1000V. RMS	2000V. RMS	10 Amp.	Lug for #20 to 18 Ga.
699	1100V. RMS	3000V. RMS	20 Amp.	Lug for #16 to 14 Ga.



DIMENSIONAL DRAWING OF TERMINAL BLOCKS

Series No.	A	B	C	D	E	F	G	H	J	K	L	M	Max. Tms.
409	5/16	1/4	—	3/16	9/64	3/16	5/32	17/64	0-80	.093	1/8	1/4	21
410	5/8	5/8	1/4	1/4	3/16	5/8	7/32	5/16	2-56	.125	3/16	1/8	22
411	13/32	13/32	—	1/4	3/16	13/32	7/32	5/16	2-56	.125	3/16	1/8	22
599	9/16	3/8	—	3/8	19/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22
600	7/8	11/16	5/16	3/8	19/64	9/32	1/4	13/32	5-40	.156	1/4	9/64	22
601	1 1/8	7/8	27/64	7/16	21/64	3/4	5/16	1/2	6-32	.175	1/4	5/32	23
602	1 5/16	1 1/16	1/2	9/16	27/64	7/8	3/8	5/8	8-32	.209	5/16	13/64	26
603	1 13/16	1 5/16	5/8	11/16	15/32	1 1/16	7/16	3/4	10-32	.165	3/8	7/32	10
604	2	1 1/2	3/4	7/8	9/16	1 1/4	1/2	15/16	12-32	.195	3/8	17/64	8
605	2 1/2	1 13/16	7/8	3/8	1/4	3/8	9/32	1/2	4-40	.156	5/16	11/64	13
609	3/8	3/8	—	1 1/8	21/32	1 1/2	5/8	1 1/8	1/4-29	.209	1/2	5/16	6
699	11/16	1/2	—	7/16	21/64	13/32	5/16	1/2	6-32	.156	1/4	5/32	23

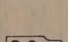
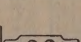
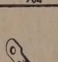
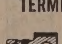
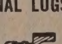
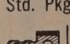
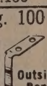
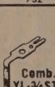
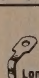
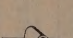
NAVY TERMINAL BOARDS

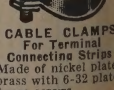
Made According to BUREAU of SHIPS Drawings No. 900—S6505F-73214 Rev. 5 an Spec. MIL-T-16784 (Ships)

Part No.	Type Desig.	NET Each	Part No.	Type Desig.	NET Each
73601	3TB10	$10.00	73627	10TB12	4.75
73602	4TB8	4.10	73628	10TB18	5.25
73603	4TB20	7.50	73629	10TB28	6.66
73604	5TB8	7.50	73630	11TB4	3.86
73605	5TB10	8.50	73631	11TB6	4.20
73606	5TB12	9.00	73632	11TB9	5.20
73607	6TB6	3.40	73633	11TB14	6.60
73608	6TB10	3.75	73634	15TB10	4.00
73609	6TB24	7.05	73635	15TB24	6.50
73610	7TB8	5.00	73636	16TB4	3.60
73611	7TB12	6.25	73637	16TB10	8.50
73612	8TB2	1.20	73638	17TB4 [3, 4]	5.00
73613	8TB2C	.80	73639	17TB10 [3, 4]	9.00
73614	8TB2M	1.00	73640	25TB2	1.60
73615	8TB6	2.30	73641	25TB5	2.10
73616	8TB6C	1.80	73642	25TB6	2.30
73617	8TB6M	2.00	73643	25TB7	2.50
73618	8TB8	2.86	73644	25TB9	2.90
73619	8TB8C	2.30	73645	25TB10	3.10
73620	8TB8M	2.60	73646	25TB12	3.50
73621	8TB10	3.50	73647	26TB2 [3]	2.00
73622	8TB10C	2.80	73648	26TB6 [3]	3.25
73623	8TB10M	3.20	73649	26TB8 [3]	3.80
73624	9TB2	2.00	73650	26TB10 [3]	4.40
73625	9TB4	2.25	73651	26TB12 [3]	5.00
73626	10TB8	4.25	73652	27TB12	7.00

Send for our Engineering Data Brochure on the complete line of Kulka Navy Terminal Boards and Hardware.

TERMINAL LUGS Std. Pkg. 100

Series	 One-Sided -¾STL	 Two-Sided -STL	 Bent -YL	 Flag -SLF	 Spade -SLS	 Hole -SLH	 Outside Bent -ZL	 Comb. YL-¾STL -XYL	 Long Bent -YSYL	 Jumper -J	Straddle Plate -SP
409	—	44.00 M	—	—	—	—	—	—	—	—	—
410	44.00 M	44.00 M	—	30.00 M	30.00 M	30.00 M	—	—	—	35.00 M	35.00 M
599	44.00 M	—	—	30.00 M	30.00 M	30.00 M	44.00 M	—	—	35.00 M	—
600	44.00 M	44.00 M	44.00 M	30.00 M	30.00 M	30.00 M	44.00 M	44.00 M	44.00 M	35.00 M	35.00 M
601	59.00 M	59.00 M	59.00 M	35.00 M	35.00 M	35.00 M	60.00 M	—	60.00 M	40.00 M	40.00 M
602	72.00 M	72.00 M	72.00 M	40.00 M	40.00 M	40.00 M	72.00 M	72.00 M	72.00 M	45.00 M	45.00 M
603	100.00 M	100.00 M	—	50.00 M	50.00 M	50.00 M	—	—	—	55.00 M	75.00 M
604	180.00 M	180.00 M	—	—	—	—	—	—	—	75.00 M	150.00 M
605	260.00 M	260.00 M	—	—	—	—	—	—	—	100.00 M	200.00 M
699	59.00 M	—	—	35.00 M	35.00 M	35.00 M	—	—	—	—	—



CABLE CLAMPS
For Terminal Connecting Strips

Made of nickel plate brass with 6-32 plate brass screws.

No.	Size	Per
1435	⅜"	$16.0
1436	½"	16.0
1437	⅝"	16.0
1438	¾"	16.0
1439	⅞"	16.0

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HERMAN H. SMITH, INC.

Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

FIBRE AND XP BAKELITE MARKER STRIPS

ker strips are supplied to fit each size terminal block — either plain or imprinted — in vulcanized e or Bakelite (1/32" thick).

410— 411— 600— 600A

at. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
600-1	$ 2.90	$ 7.90	$ 3.40	$ 8.40
600-2	3.80	8.80	4.60	9.60
600-3	4.70	9.70	5.70	10.70
600-4	5.70	10.70	6.80	11.80
600-5	6.60	11.60	8.00	13.00
600-6	7.60	12.60	9.10	14.10
600-7	8.50	13.50	10.20	15.20
600-8	9.50	14.50	11.40	16.40
600-9	10.40	15.40	12.50	17.50
600-10	11.40	21.40	13.70	23.70
600-11	12.30	22.30	14.80	24.80
600-12	13.30	23.30	15.90	25.90
600-13	14.20	24.20	17.10	27.10
600-14	15.20	25.20	18.20	28.20
600-15	16.10	31.10	19.40	34.40
600-16	17.10	32.10	20.50	35.50
600-17	18.00	33.00	21.60	36.60
600-18	19.00	34.00	22.80	37.80
600-19	19.90	34.90	23.90	38.90
600-20	20.90	40.90	25.00	45.00
600-21	21.80	41.80	26.20	46.20
600-22	22.70	42.70	27.40	47.40

0-Y—600-Y—600-XY—600A-Y—600A-XY

at. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
600-Y-1	$ 6.60	$11.60	$ 7.20	$12.20
600-Y-2	7.60	12.60	8.30	13.30
600-Y-3	8.50	13.50	9.50	14.50
600-Y-4	9.50	14.50	10.60	15.60
600-Y-5	10.40	15.40	11.80	16.80
600-Y-6	11.40	16.40	12.90	17.90
600-Y-7	12.30	17.30	14.00	19.00
600-Y-8	13.30	18.30	15.20	20.20
600-Y-9	14.20	19.20	16.30	21.30
600-Y-10	15.20	25.20	17.50	27.50
600-Y-11	16.10	26.10	18.60	28.60
600-Y-12	17.10	27.10	19.70	29.70
600-Y-13	18.00	28.00	20.90	30.90
600-Y-14	19.00	29.00	22.00	32.00
600-Y-15	19.90	34.90	23.10	38.10
600-Y-16	20.90	35.90	24.30	39.30
600-Y-17	21.80	36.80	25.40	40.40
600-Y-18	22.80	37.80	26.60	41.60
600-Y-19	23.70	38.70	27.70	42.70
600-Y-20	24.70	44.70	28.80	48.80
600-Y-21	25.60	45.60	30.00	50.00
600-Y-22	26.50	46.50	31.20	51.20

601—699

at. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
601-1	$ 3.20	$ 8.20	$ 3.80	$ 8.80
601-2	4.40	9.40	5.30	10.30
601-3	5.70	10.70	6.80	11.80
601-4	7.00	12.00	8.30	13.30
601-5	8.20	13.20	9.90	14.90
601-6	9.50	14.50	11.40	16.40
601-7	10.80	15.80	12.90	17.90
601-8	12.00	17.00	14.40	19.40
601-9	13.30	18.30	15.90	20.90
601-10	14.50	24.50	17.50	27.50
601-11	15.80	25.80	19.00	29.00
601-12	17.10	27.10	20.50	30.50
601-13	18.30	28.30	22.00	32.00
601-14	19.60	29.60	23.50	33.50
601-15	20.90	35.90	25.00	40.00
601-16	22.10	37.10	26.60	41.60
601-17	23.40	38.40	28.10	43.10
601-18	24.70	39.70	29.60	44.60
601-19	25.90	40.90	31.10	46.10
601-20	27.20	47.20	32.60	52.60
601-21	28.50	48.50	34.10	54.10
601-22	29.80	49.80	35.50	55.50
601-23	31.10	51.10	37.00	57.00

603

at. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
603-1	$ 7.60	$12.60	$ 9.10	$14.10
603-2	9.40	14.40	11.20	16.20
603-3	11.10	16.10	13.40	18.40
603-4	12.90	17.90	15.50	20.50
603-5	14.70	19.70	17.60	22.60
603-6	16.40	21.40	19.70	24.70
603-7	18.20	23.20	21.90	26.90
603-8	20.00	25.00	24.00	29.00
603-9	21.80	26.80	26.10	31.10
603-10	23.50	33.50	28.20	38.20

604

at. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp XP Bake. Per C
604-1	$ 7.70	$12.70	$ 9.20	$14.20
604-2	11.70	16.70	14.10	19.10
604-3	15.50	20.50	18.60	23.60
604-4	19.30	24.30	23.20	28.20
604-5	23.10	28.10	27.70	32.70
604-6	26.90	31.90	32.30	37.30
604-7	30.70	35.70	36.80	41.80
604-8	34.50	39.50	41.40	46.40

TE: XXXP Bakelite Markers are 25% more than XP Bakelite Markers.

601-Y—601-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS601-Y-1	$ 7.00	$12.00	$ 7.60	$12.60
MS601-Y-2	8.20	13.20	9.10	14.10
MS601-Y-3	9.50	14.50	10.60	15.60
MS601-Y-4	10.80	15.80	12.10	17.10
MS601-Y-5	12.00	17.00	13.70	18.70
MS601-Y-6	13.30	18.30	15.20	20.20
MS601-Y-7	14.50	19.50	16.70	21.70
MS601-Y-8	15.80	20.80	18.20	23.20
MS601-Y-9	17.10	22.10	19.70	24.70
MS601-Y-10	18.30	28.30	21.30	31.30
MS601-Y-11	19.60	29.60	22.80	32.80
MS601-Y-12	20.90	30.90	24.30	34.30
MS601-Y-13	22.10	32.10	25.80	35.80
MS601-Y-14	23.40	33.40	27.30	37.30
MS601-Y-15	24.70	39.70	28.80	43.80
MS601-Y-16	25.90	40.90	30.40	45.40
MS601-Y-17	27.20	42.20	31.90	46.90
MS601-Y-18	28.50	43.50	33.40	48.40
MS601-Y-19	29.70	44.70	34.90	49.90
MS601-Y-20	31.00	51.00	36.40	56.40
MS601-Y-21	32.30	52.30	37.90	57.90
MS601-Y-22	33.60	53.60	39.40	59.40
MS601-Y-23	34.90	54.90	40.90	60.90

602

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS602-1	$ 3.50	$ 8.50	$ 4.20	$ 9.20
MS602-2	5.10	10.10	6.10	11.10
MS602-3	6.60	11.60	8.00	13.00
MS602-4	8.20	13.20	9.90	14.90
MS602-5	9.80	14.80	11.80	16.80
MS602-6	11.40	16.40	13.70	18.70
MS602-7	13.00	18.00	15.60	20.60
MS602-8	14.50	19.50	17.50	22.50
MS602-9	16.10	21.10	19.40	24.40
MS602-10	17.70	27.70	21.30	31.30
MS602-11	19.30	29.30	23.10	33.10
MS602-12	20.90	30.90	25.00	35.00
MS602-13	22.50	32.50	26.90	36.90
MS602-14	24.00	34.00	28.80	38.80
MS602-15	25.60	40.60	30.70	45.70
MS602-16	27.20	42.20	32.60	47.60
MS602-17	28.80	43.80	34.50	49.50
MS602-18	30.40	45.40	36.50	51.50
MS602-19	32.00	47.00	38.50	53.50
MS602-20	33.60	53.60	40.40	60.40
MS602-21	35.20	55.20	42.30	62.30
MS602-22	36.80	56.80	44.30	64.30
MS602-23	38.40	58.40	46.30	66.30
MS602-24	40.00	60.00	48.20	68.20
MS602-25	41.60	66.60	50.20	75.20
MS602-26	43.20	68.20	52.20	77.20

602-Y—602-XY

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS602-Y-1	$ 7.30	$12.30	$ 8.00	$13.00
MS602-Y-2	8.90	13.90	9.90	14.90
MS602-Y-3	10.40	15.40	11.80	16.80
MS602-Y-4	12.00	17.00	13.70	18.70
MS602-Y-5	13.60	18.60	15.60	20.60
MS602-Y-6	15.20	20.20	17.50	22.50
MS602-Y-7	16.80	21.80	19.40	24.50
MS602-Y-8	18.30	23.30	21.30	26.30
MS602-Y-9	19.90	24.90	23.10	28.10
MS602-Y-10	21.50	31.50	25.00	35.00
MS602-Y-11	23.10	33.10	26.90	36.90
MS602-Y-12	24.70	34.70	28.80	38.80
MS602-Y-13	26.30	36.30	30.70	40.70
MS602-Y-14	27.80	37.80	32.60	42.60
MS602-Y-15	29.40	44.40	34.50	49.50
MS602-Y-16	31.00	46.00	36.40	51.40
MS602-Y-17	32.60	47.60	38.30	53.30
MS602-Y-18	34.20	49.20	40.20	55.20
MS602-Y-19	35.80	50.80	42.10	57.10
MS602-Y-20	37.40	57.40	44.00	64.00
MS602-Y-21	39.00	59.00	45.90	65.90
MS602-Y-22	40.60	60.60	47.80	67.80
MS602-Y-23	42.20	62.20	49.70	69.70
MS602-Y-24	43.80	63.80	51.60	71.60
MS602-Y-25	45.40	70.40	53.50	78.50
MS602-Y-26	47.00	72.00	55.40	80.40

605

Cat. No.	Fibre Per C	Imp. Fibre Per C	XP Bake. Per C	Imp. XP Bake. Per C
MS605-1	$ 8.20	$13.20	$ 9.90	$14.90
MS605-2	14.50	19.50	17.50	22.50
MS605-3	20.90	25.90	25.00	30.00
MS605-4	27.20	32.20	32.60	37.60
MS605-5	33.50	38.50	40.20	45.20
MS605-6	39.80	44.80	47.80	52.80

EXTRA SERVICES

	600-1-2	603	604	605
Phillips Screws	.01	.02	.05	.05
Sems Screws	.02	.03	.04	.05
Phillips Sems Screws	.03	.03	.06	.06
K Monel Sems Screws	.04	.06	.08	.09
Fungus Varnish	.05	.05	.05	.05
Staked Screws	.05	.05	.05	.05
Stamped End	.10	.10	.10	.10

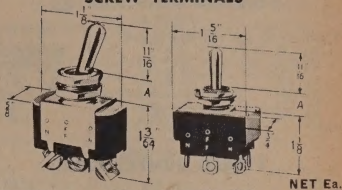
List Prices shown are per screw or per end.
All other series prices in first column.

"ST" SERIES Made to Spec. JAN-S-23

NOMINAL RATING: 20 amps., 125 V.A.C.
10 amps., 250 V.A.C.

Std. Pkg. 10

SCREW TERMINALS

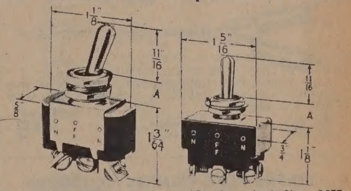


			NET Ea.
73501	ST40A	SPST ON-NONE-OFF	$1.05
73502	ST40B	SPST ON-NONE-MOM OFF	1.17
73503	ST40C	SPST ON-NONE-MOM ON	1.17
73504	ST40D	SPDT ON-NONE-ON	1.29
73505	ST40E	SPDT ON-OFF-ON	1.29
73506	ST40F	SPDT ON-NONE-MOM ON	1.41
73507	ST40G	SPDT MOM ON-OFF-MOM ON	1.41
73508	ST40H	SPDT ON-OFF-MOM ON	1.41
73517	ST50K	DPST ON-NONE-OFF	1.35
73518	ST50L	DPST ON-NONE-MOM OFF	1.56
73519	ST50M	DPST OFF-NONE-MOM ON	1.56
73520	ST50N	DPDT ON-NONE-ON	1.56
73521	ST50P	DPDT ON-OFF-ON	1.56
73522	ST50R	DPDT ON-NONE-MOM ON	1.77
73523	ST50S	DPDT MOM ON-OFF-MOM ON	1.77
73524	ST50T	DPDT ON-OFF-MOM OFF	1.77

SOLDER LUGS

73509	ST42A	SPST ON-NONE-OFF	.99
73510	ST42B	SPST ON-NONE-MOM OFF	1.08
73511	ST42C	SPST ON-NONE-MOM ON	1.08
73512	ST42D	SPDT ON-NONE-ON	1.17
73513	ST42E	SPDT ON-OFF-ON	1.17
73514	ST42F	SPDT ON-NONE-MOM ON	1.29
73515	ST42G	SPDT MOM ON-OFF-MOM ON	1.29
73516	ST42H	SPDT OFF-ON-MOM ON	1.29
73525	ST52K	DPST ON-NONE-OFF	1.20
73526	ST52L	DPST ON-NONE-MOM OFF	1.35
73527	ST52M	DPST OFF-NONE-MOM ON	1.35
73528	ST52N	DPDT ON-NONE-ON	1.35
73529	ST52P	DPDT ON-OFF-ON	1.35
73530	ST52R	DPDT ON-NONE-MOM ON	1.56
73531	ST52S	DPDT MOM ON-OFF-MOM ON	1.56
73532	ST52T	DPDT ON-OFF-MOM ON	1.56

"MS" SERIES Made to Spec. MIL-S-3950A



Superseding all previous specification, including MIL-S-3950, MIL-S-6745, MIL-S-21195 and JAN-S-23. Provided with SEALED LEVER for sand, dust and 15-ft. water submersion tests. Screw terminals only.

HHS	TYPE	CIRCUIT	NET Ea.
73533	MS35058-21	SPST ON-OFF-ON	$1.62
73534	MS35058-22	SPST ON-NONE-OFF	1.41
73535	MS35058-23	SPST ON-NONE-ON	1.62
73536	MS35058-24	SPDT ON-OFF-NONE	1.41
73537	MS35058-25	SPDT ON-MOM OFF-NONE	1.48
73538	MS35058-26	SPDT ON-NONE-MOM ON	1.75
73539	MS35058-27	SPDT MOM ON-OFF MOM ON	1.75
73540	MS35058-28	SPDT NONE-OFF-MOM ON	1.48
73541	MS35058-29	SPDT ON-NONE-MOM OFF	1.48
73542	MS35058-30	SPDT OFF-NONE-MOM ON	1.48
73543	MS35058-31	SPDT ON-OFF-MOM ON	1.75
73551	MS35059-21	DPDT ON-OFF-ON	2.16
73552	MS35059-22	DPST ON-NONE-OFF	1.80
73553	MS35059-23	DPDT ON-NONE-ON	2.16
73554	MS35059-24	DPDT ON-OFF-NONE	1.80
73555	MS35059-25	DPDT ON-MOM OFF-NONE	2.16
73556	MS35059-26	DPDT MOM ON-OFF-MOM ON	2.34
73557	MS35059-27	DPDT ON-NONE-MOM ON	2.34
73558	MS35059-28	DPDT NONE-OFF MOM ON	2.16
73559	MS35059-29	DPDT ON-NONE MOM OFF	2.16
73560	MS35059-30	DPDT OFF-NONE-MOM ON	2.16
73561	MS35059-31	DPDT ON-OFF-MOM ON	2.34

"AN" SERIES Made to Spec. MIL-S-6745

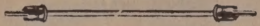
Screw terminals only. Toggle seal meets sand and dust requirements.

HHS	TYPE	CIRCUIT	NET Ea.
73544	AN3021-1	SPDT ON-OFF-ON	$1.62
73545	AN3021-3	SPDT ON-NONE-ON	1.62
73546	AN3021-10	SPDT ON-OFF-NONE	1.34
73547	AN3021-12	SPDT ON-MOM OFF-NONE	1.48
73548	AN3021-7	SPDT MOM ON-OFF-MOM ON	1.75
73549	AN3021-11	SPDT NONE-OFF-MOM ON	1.48
73550	AN3021-5	SPDT ON-OFF-MOM ON	1.75
73562	AN3027-1	DPDT ON-OFF-ON	2.16
73563	AN3027-3	DPDT ON-NONE-ON	2.16
73564	AN3026-9	DPST ON-OFF-NONE	1.80
73565	AN3027-10	DPST ON-MOM OFF-NONE	2.16
73566	AN3027-6	DPDT ON-NONE-MOM ON	2.34
73567	AN3027-7	DPDT MOM ON-OFF-MOM ON	2.34
73568	AN3027-11	DPST NONE-OFF-MOM ON	2.16
73569	AN3027-8	DPDT ON-OFF-MOM ON	2.34

HERMAN H. SMITH, IN

"It's Sound Planning to Specify SMITH for ELECTRONIC COMPONEN

JUMPER CORDS



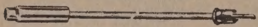
Male Phono Plug (our No. 1201) with finger-grip handle on each end. Std. pkg. 6

		NET Each
No. 631	18 inches	$.75
No. 632	24 inches	.78
No. 633	36 inches	.84
No. 634	48 inches	.96
No. 635	72 inches	1.05
No. 636	120 inches	1.50

STEREO JUMPER CORD

745 15 feet $1.20

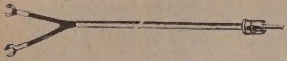
EXTENSION CORDS



Male Phono Plug (our No. 1201) with finger-grip handle on end. Female in-Line Jack (our No. 1237) other end. Std. pkg. 6

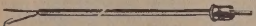
		NET Each
No. 641	18 inches	$.99
No. 642	24 inches	1.02
No. 643	36 inches	1.08
No. 644	48 inches	1.20
No. 645	72 inches	1.29
No. 646	120 inches	1.62

PHONO PLUG CONNECTOR CORDS



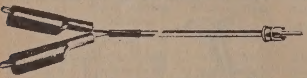
Male Phono Plug (our No. 1201) with finger-grip handle, one end. Spade lugs other end. Std. pkg. 6

No. 668 72 inches NET Eeach .72.



Male Phono Plug (our No. 1201) with finger-grip handle, one end. Other end stripped and tinned. Std. pkg. 6

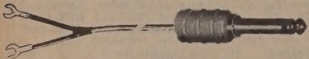
		NET Each
No. 637	36 inches	$.66
No. 638	72 inches	.84



Male Phono Plug (our No. 1201) with finger-grip handle, one end. Insulated alligator clips other end. Std. pkg. 6

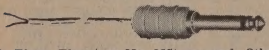
		NET Each
No. 673	36 inches	$.72
No. 674	72 inches	.90

PHONE PLUG CONNECTOR CORDS



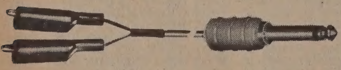
Male Phone Plug (our No. 225) one end. Spade Lugs other end. Std. pkg. 6

No. 665 72 inches $1.08 Ea.



Male Phone Plug (our No. 225) one end. Other end stripped and tinned. Std. pkg. 6

No. 667 72 inches $1.20 Ea.

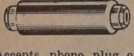


Male Phone Plug (our No. 225) one end. Insulated alligator clips other end. Std. pkg. 6

No. 664 72 inches $1.29 Ea.

Male Phone Plugs (our No. 225) on each end. Std. Pkg. 6

No. 677 72 inches $1.35 Ea.



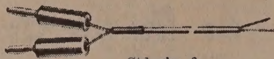
FEED THRU

Accepts phono plug on Each End Std. Pkg. 10

No. 661 $.72 Ea.

CONNECTOR CORDS

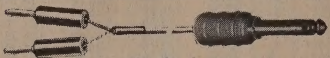
For Imported Hi-Fi Equipment



Std. pkg. 6

Two banana plugs one end, stripped and tinned other end.

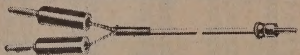
No. 709 72 Inches $1.02 Ea.



Std. pkg. 6

Two banana plugs one end, phone plug other end.

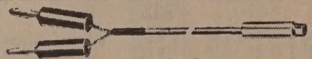
No. 710 72 Inches $1.44 Ea.



Std. pkg. 6

Two banana plugs one end, phono plug other end.

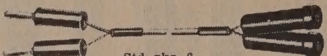
No. 711 72 Inches $1.20 Ea.



Std. pkg. 6

Two banana plugs one end, phono jack other end.

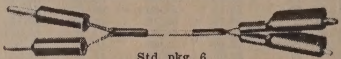
No. 712 72 Inches $1.38 Ea.



Std. pkg. 6

Two banana plugs one end, in-line banana jacks other end.

No. 713 72 Inches $1.62 Ea.

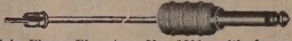


Std. pkg. 6

Two banana plugs one end, ins. alligator clips other end.

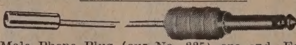
No. 714 72 Inches $1.38 Ea.

INPUT-OUTPUT CORDS



Male Phono Plug (our No. 1201) with finger-grip handle, one end. Male Phone Plug (our No. 225) other end. Std. pkg. 6

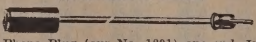
No. 662 72 inches $1.38 Ea.



Male Phone Plug (our No. 225) one end. Female In-Line Jack (our No. 1237) other end. Std. pkg. 6

No. 663 72 inches $1.80 Ea.

EXTENSION CORD



Male Phono Plug (our No. 1201) one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 639 72 inches $1.44 Ea.

Male Phone Plug (our No. 225) one end. In-Line Jack (our No. 274) other end. Std. pkg. 6

No. 669 72 inches $1.98 Ea.

PHONO PLUG TO PHONE PLUG ADAPTER

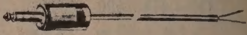
Adapts standard phono plug to phone plug with built in resistor to adapt either crystal or magnetic pickups. Std. pkg. 10.

No. 707	With Resistor	$1.59 Ea.
No. 708	Without Resistor	$.90 Ea.

HI-FI CORDS FOR REVERE EQUIPMENT

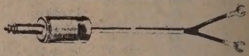
These cords are designed for use exclusively with Revere Tape Recorders and Hi-Fi equipment all using the special type phone plug 3/16" O.D. necessary for use with this type equipment.

CONNECTOR CORDS



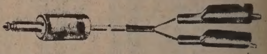
3/16" O.D. phone plug one end, other end stripped and tinned. Std. pkg. 6

No. 700 120 inches $2.10 Ea.



3/16" O.D. phone plug one end, other end spade lugs. Std. pkg. 6

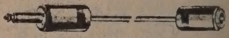
No. 701 120 inches $2.22 Ea.



3/16" O.D. phone plug one end, insulated alligator clips other end. Std. pkg. 6

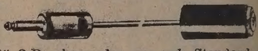
No. 702 120 inches $2.48 Ea.

EXTENSION CORDS



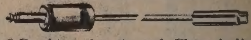
3/16" phone plug one end, Revere type in-line jack othed end. Std. pkg. 6

No. 703 120 inches $4.98 Ea.



3/16" O.D. phone plug one end, Standard in-line jack other end. Std. pkg. 6

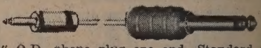
No. 704 120 inches $2.88 Ea.



3/16" O.D. phone plug one end, Phono in-line jack other end. Std. pkg. 6

No. 705 120 inches $2.64 Ea

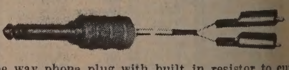
INPUT-OUTPUT



3/16" O.D. phone plug one end, Standard phono plug other end. Std. pkg. 6

No. 706 120 inches $2.64 Ea

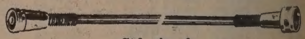
CONNECTOR CORD FOR WEBCOR TAPE RECORDER



Three way phone plug with built in resistor to cut down on audio one end, insulated alligator clips other end. Std. pkg. 6

No. 676 120 inches $2.34 Ea

COAXIAL EXTENSION CABLE

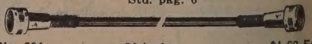


Std. pkg. 6

No. 687	36 inches	$1.44 Ea
No. 688	72 inches	$1.80 Ea
No. 689	144 inches	$2.58 Ea

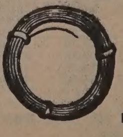
COAXIAL JUMPER CABLE

Std. pkg. 6



No. 694	36 inches	$1.62 Ea
No. 696	72 inches	$1.98 Ea
No. 697	144 inches	$2.52 Ea

HI-FI WIRE



Cond.	Strand.	Wall
22	7/30	.062
Cap.	**Shield**	**O.D.**
37 Mmf.	Spiral	.140

No. 765 100-ft. $2.10 Ea.

HERMAN H. SMITH, INC.

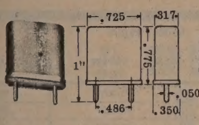
Exclusive Distributors of KULKA BARRIER TERMINAL BLOCKS To Radio Parts Jobbers Only

CITIZENS BAND CRYSTALS

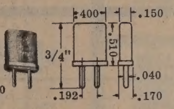
iely accurate crystals, designed to meet FCC tolerance of ±.005%. Recom-d for use with 3rd overtone type oscillator having approximately 32 mmfd. capacities. (For use with other oscillators a trimming capacitor may be ary). These crystals match most Class D equipment in use today.

stals are stamped with channel number, frequency, and use (transmitting or ng). **Std. Pkg. 5**

IINIATURE HOLDER TYPE HC-6/U



SUBMINIATURE HOLDER TYPE HC-18/U



NSMITTING CRYSTALS

	Holder Type	
Frequency Megacycles	HC-6/U No.	HC-18/U No.
26.965	3601	3624
26.975	3602	3625
26.985	3603	3626
27.005	3604	3627
27.015	3605	3628
27.025	3606	3629
27.035	3607	3630
27.055	3608	3631
27.065	3609	3632
27.075	3610	3633
27.085	3611	3634
27.105	3612	3635
27.115	3613	3636
27.125	3614	3637
27.135	3615	3638
27.155	3616	3639
27.165	3617	3640
27.175	3618	3641
27.185	3619	3642
27.205	3620	3643
27.215	3621	3644
27.225	3622	3645
27.255	3623	3646

Each............NET $2.75

RECEIVING CRYSTAL

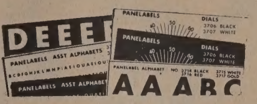
(455 Kc Below Transmitting Frequency)

		Holder Type	
Channel Number	Frequency Megacycles	HC-6/U No.	HC-18/U No.
1	26.510	3647	3670
2	26.520	3648	3671
3	26.530	3649	3672
4	26.550	3650	3673
5	26.560	3651	3674
6	26.570	3652	3675
7	26.580	3653	3676
8	26.600	3654	3677
9	26.610	3655	3678
10	26.620	3656	3679
11	26.630	3657	3680
12	26.650	3658	3681
13	26.660	3659	3682
14	26.670	3660	3683
15	26.680	3661	3684
16	26.700	3662	3685
17	26.710	3663	3686
18	26.720	3664	3687
19	26.730	3665	3688
20	26.750	3666	3689
21	26.760	3667	3690
22	26.770	3668	3691
23*	26.800	3669	3692

Each............NET $2.75

iel 23 is used on a shared basis with Class C Radio Control devices, which are l higher power levels than class D Citizens' Band Radio.

"PANELABELS" Modern Panel Title Decals



New size type face on all word titles to match modern instrument panels and sound equipment.

Packaged individually in clear plastic boxes — sheets fully visible for instant selection — box itself can be used as water tray for applying the decals.

Standard Packages of 6.

Please order by catalog number.

NET, EACH PACKAGE $1.50

TRANSMITTER

For industrial prototype use, Hams, Citizens' Banders. Also for Microwave and Broadcast stations.

No. 3700	**BLACK**
No. 3701	**WHITE**

RECEIVER

Hams, Citizens' Banders, industrial prototypes, Hi-Fi and Experimenter applications.

No. 3702	**BLACK**
No. 3703	**WHITE**
No. 3704	**RED**
No. 3705	**GOLD**

DIALS

For all uses in transmitters, Ham and Citizens' Band industrial prototypes, Hi-Fi, electricians, experimenters.

No. 3706	**BLACK**
No. 3707	**WHITE**
No. 3708	**RED**
No. 3709	**GOLD**

ALPHABETS

Most popular item in the line! For all general uses above.

3710	2-inch	**BLACK**
3711	2-inch	**WHITE**
3712	2-inch	**RED**
3713	2-inch	**GOLD**
3714	⅝-inch	**BLACK**
3715	⅝-inch	**WHITE**
3716	⅝-inch	**RED**
3717	⅝-inch	**GOLD**
3718	Assorted	**BLACK**
3719	Assorted	**WHITE**
3720	Assorted	**RED**
3721	Assorted	**GOLD**

INSTRUMENTS

Primarily for Technicians, Hams and industrial use.

No. 3722	**BLACK**
No. 3723	**WHITE**

HI-FI AND STEREO

For experimenters, commercial sound distributors, industrial prototypes.

No. 3724	**BLACK**
No. 3725	**WHITE**
No. 3726	**RED**
No. 3727	**GOLD**

SOUND SYSTEMS

For industrial use by commercial sound distributors, custom installers, electricians and experimenters.

No. 3728	**BLACK**
No. 3729	**WHITE**
No. 3730	**RED**
No. 3731	**GOLD**

TRANSISTORS AND DIODES

Used by Hams, experimenters, technicians, and industrial prototype use. Includes complete list of transistor and diode numbers plus symbols of PNP, NPN, 4 and 5 element transistors, diode symbols.

No. 3732	**BLACK**
No. 3733	**WHITE**

ELECTRICAL DISTRIBUTION

Used primarily by electricians and custom installers on the job and in distribution panel design.

No. 3734	**BLACK**
No. 3735	**WHITE**

t of complete title lists of all Panelabels available on request.

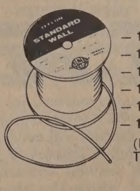
TEFLON* SPAGHETTI TUBING

tubing is ideal for slip-on insulation in electricial and electronics applications. Its exceptional insulating ties provide greater reliability and resistance to high temperatures. Due to its resistance to soldering ratures, shrink-back during soldering is virtually eliminated.

Teflon tubing is available in most AWG sizes from #30 to #0, in three basic wall thicknesses; Standard to .020"), Thin Wall (.009 to .015"), and Lightweight (.006 to .012"). Specific wall thickness for various izes is detailed in the table. All sizes are available in Natural Teflon, and any of 10 colors as indicated in olor Code chart.

Teflon Spaghetti Tubing meets or exceeds the requirements of MIL-I-22129B, and colors conform to TD-104. Standard and Thin-Wall tubing in sizes AWG #30 to #8, and Lightweight tubing in sizes AWG #28) are supplied in 100-foot dustproof, re-useable reels, polyethylene covered and closed with a special hylene plug. Sizes to AWG #0 are carefully packaged in 50 foot coils to prevent distortion of the tubing.

SPECIFY COLOR



COLOR CODE CHART

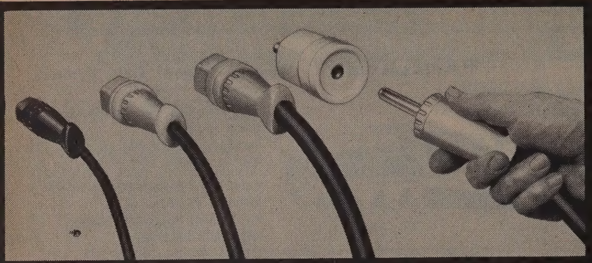
— 101 WHITE
— 102 RED
— 103 BLACK
— 104 GREEN
— 105 BLUE
— 106 ORANGE
— 107 YELLOW
— 108 BROWN
— 112 PURPLE
— 113 GREY
— 115 NATURAL

(If no color is specified, Natural Teflon (—115) will be supplied.)

stered Trademark, E.I. DuPont DeNemours & Co.

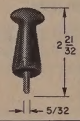
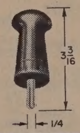
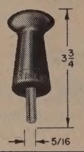
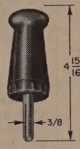
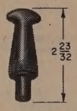
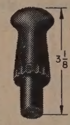
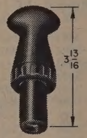
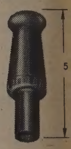
LIGHTWEIGHT					THINWALL						STANDARD WALL					
Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.	Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.	Awg Wire Size	Nom. I.D.	Cat. No.	Nom. Wall Thk.	Std. Pkg. Ft.	NET Ea.
.012	————	——	——	——	30	.012	7702-30	.009	100	$10.53	30	.012	————	——	——	——
.015	7703-28	.006	100	$7.63	28	.015	7702-28	.009	100	9.20	28	.015	————	——	——	——
.018	7703-26	.006	100	7.75	26	.018	7702-26	.009	100	8.88	26	.018	————	——	——	——
.022	7703-24	.006	100	8.13	24	.022	7702-24	.010	100	9.63	24	.022	7701-24	..012	100	$11.68
.027	7703-22	.006	100	9.38	22	.027	7702-22	.010	100	10.75	22	.027	7701-22	.012	100	12.95
.034	7703-20	.006	100	11.13	20	.034	7702-20	.012	100	13.63	20	.034	7701-20	.016	100	17.75
.038	7703-19	.006	100	12.38	19	.038	7702-19	.012	100	14.68	19	.038	7701-19	.016	100	19.38
.042	7703-18	.006	100	13.38	18	.042	7702-18	.012	100	15.75	18	.042	7701-18	.016	100	20.88
.047	7703-17	.006	100	14.88	17	.047	7702-17	.012	100	17.38	17	.047	7701-17	.016	100	22.93
.053	7703-16	.006	100	16.13	16	.053	7702-16	.012	100	19.00	16	.053	7701-16	.016	100	24.63
.059	7703-15	.006	100	16.75	15	.059	7702-15	.012	100	19.63	15	.059	7701-15	.016	100	25.30
.066	7703-14	.008	100	19.50	14	.066	7702-14	.012	100	21.00	14	.066	7701-14	.016	100	27.25
.076	7703-13	.008	100	22.25	13	.076	7702-13	.012	100	23.75	13	.076	7701-13	.016	100	30.30
.085	7703-12	.008	100	24.38	12	.085	7702-12	.012	100	25.50	12	.085	7701-12	.016	100	32.75
.095	7703-11	.008	100	27.38	11	.095	7702-11	.012	100	28.38	11	.095	7701-11	.016	100	36.38
.106	7703-10	.008	100	29.50	10	.106	7702-10	.012	100	30.50	10	.106	7701-10	.016	100	40.00
.118	7703-09	.008	50	16.63	9	.118	7702-09	.015	100	44.00	9	.118	7701-09	.020	100	57.10
.125	7703-81	.008	50	17.88	⅛"	.125	7702-81	.015	100	45.00	⅛"	.125	7701-81	.020	100	61.00
.133	7703-08	.008	50	18.44	8	.133	770?-08	.015	50	24.32	8	.133	7701-08	.020	50	31.25
.148	7703-07	.008	50	20.00	7	.148	7702-07	.015	50	26.63	7	.148	7701-07	.020	50	33.69
.166	7703-06	.010	50	25.88	6	.166	7702-06	.015	50	29.75	6	.166	7701-06	.020	50	36.44
.186	7703-05	.010	50	28.38	5	.186	7702-05	.015	50	33.50	5	.186	7701-05	.020	50	40.10
.208	7703-04	.010	50	31.38	4	.208	7702.04	.015	50	36.75	4	.208	7701-04	.020	50	43.56
.234	7703-03	.010	50	34.50	3	.234	7702-03	.015	50	40.75	3	.234	7701-03	.020	50	49.88
.250	7703-41	.010	50	36.69	¼"	.250	7702-41	.015	50	43.75	¼"	.250	7701-41	.020	50	52.88
.263	7703-02	.010	50	37.57	2	.263	7702-02	.015	50	45.50	2	.263	7701-02	.020	50	54.82
.294	7703-01	.010	50	41.19	1	.294	7702-01	.015	50	50.69	1	.294	7701-01	.020	50	60.94
.312	7703-51	.012	50	48.69	5/16"	.312	7702-51	.015	50	55.12	5/16"	.312	7701-51	.020	50	67.50
.330	7703-00	.012	50	49.63	0	.330	7702-00	.015	50	56.12	0	.330	7701-00	.020	50	68.57

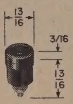
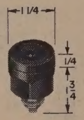
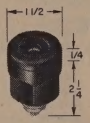
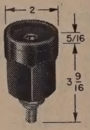
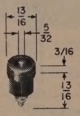
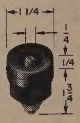
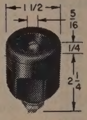
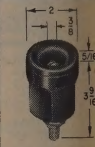
SUPERCON® *Electrical Connectors*



- **CURRENT CARRYING PARTS GOLD-PLATED**
- **SIMPLIFIED, QUICK ASSEMBLY**

Socket and pin types single-conductor plugs and rece tacles available. Plugs have a functionally designed gr for handling ease and convenience. Wiring connection the same plug can be either soldered or solderless. Cab fastening screws permit a range of cable sizes to be a commodated by the plug. Plug grips are of a simple, tw piece threaded construction for quick assembly. plastic parts of a receptacle are molded of the same co nylon to permit more rapid and accurate circuit identi cation front and back of panel when installed. Six colo are available.

	PIN PLUGS				SOCKET PLUGS			
COLOR	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES	25 AMPERE TYPES	50 AMPERE TYPES	100 AMPERE TYPES	250 AMPERE TYPES
BLACK	PP25GB	PP50GB	PP100GB	PP250GB	PS25GB	PS50GB	PS100GB	PS250GB
YELLOW	PP25GY	PP50GY	PP100GY	PP250GY	PS25GY	PS50GY	PS100GY	PS250GY
RED	PP25GR	PP50GR	PP100GR	PP250GR	PS25GR	PS50GR	PS100GR	PS250GR
BLUE	PP25GBL	PP50GBL	PP100GBL	PP250GBL	PS25GBL	PS50GBL	PS100GBL	PS250GBL
GREEN	PP25GGN	PP50GGN	PP100GGN	PP250GGN	PS25GGN	PS50GGN	PS100GGN	PS250GGN
WHITE	PP25GWT	PP50GWT	PP100GWT	PP250GWT	PS25GWT	PS50GWT	PS100GWT	PS250GWT
								

	SOCKET RECEPTACLES				PIN RECEPTACLES			
								
PANEL:	3/16. MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX.	3/16 MAX.	1/4 MAX.	1/4 MAX.	1/4 MAX
HOLE:	11/16	1	1 3/16	1 9/16	11/16	1	1 3/16	1 9/16
BLACK	RS25GB	RS50GB	RS100GB	RS250GB	RP25GB	RP50GB	RP100GB	RP250GB
YELLOW	RS25GY	RS50GY	RS100GY	RS250GY	RP25GY	RP50GY	RP100GY	RP250GY
RED	RS25GR	RS50GR	RS100GR	RS250GR	RP25GR	RP50GR	RP100GR	RP250GR
BLUE	RS25GBL	RS50GBL	RS100GBL	RS250GBL	RP25GBL	RP50GBL	RP100GBL	RP250GBL
GREEN	RS25GGN	RS50GGN	RS100GGN	RS250GGN	RP25GGN	RP50GGN	RP100GGN	RP250GGN
WHITE	RS25GWT	RS50GWT	RS100GWT	RS250GWT	RP25GWT	RP50GWT	RP100GWT	RP250GWT

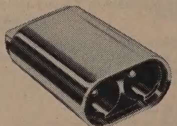
DUB-L-PLUG *Dual Electrical Connectors*

DUB-L-PLUG Dual Electrical Connectors are designed for making safe, rapid connections to binding posts mounted on ¾″ centers. All conducting metal parts are gold-plated. Completely recessed integral banana plugs prevent accidental shorting; captive black and white thumbnuts facilitate circuit and polarity identification.

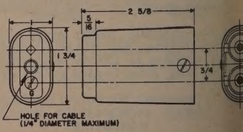
NYLON BODY COLOR	INSULATED TYPE	SHIELDED/ INSULATED TYPE
BLACK	IPG2BC	SPGK2BC
RED	IPG2RC	—
WHITE	IPG2WTC	—
BLUE	IPG2BLC	—
YELLOW	IPG2YC	—
GREEN	IPG2GNC	—

SHIELDED/INSULATED

Has sturdy, die-cast chrome-plated case, removable grounding banana plug, black nylon body.

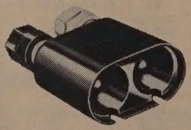


TYPE SPGK2BC

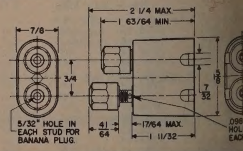


INSULATED TYPES

Have wire slots to permit stacking if desired. Available with bodies in choice of six colors.



TYPE IPG2BC



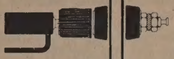
THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 3500 AND 4000

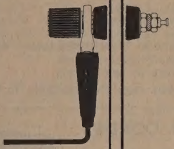
© U.C.P.,

SUPERIOR 5-WAY® *Binding Posts*

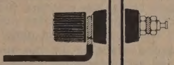
5 WAYS TO CONNECT ● **GOLD-PLATED BRASS PARTS** ● **RANGE OF COLORS**



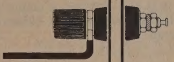
in for standard
1a plug.



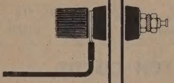
ead to shaft.



looped around
and clamped.

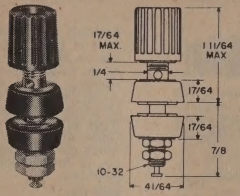


up to No. 12) per-
ently clamped
gh center hole.



bed spade lug con-
on.

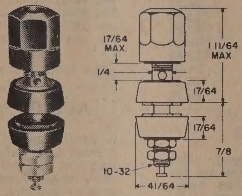
FLUTED NUT TYPES



Plastic parts of standard (not miniature) size types molded of Lexan polycarbonate resin; brass parts are gold-plated. Rated for 30 amperes, 1000 volts working. Nickel-plated brass types available on special order.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
FLUTED TYPE	DF31RC	DF31BLC	DF31GNC	DF31WTC	DF31BC	DF31YC

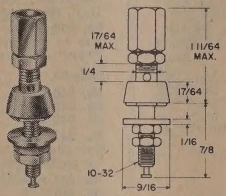
HEX NUT TYPES



Rated for 30 amperes, 1000 volts working. Brass parts are gold-plated; plastic parts are of nylon compounded to meet military specifications MIL-P-20693, Type IV. Nickel-plated brass types available on order.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
HEX TYPE	DF30RC	DF30BLC	DF30GNC	DF30WTC	DF30BC	DF30YC

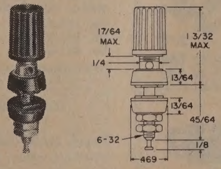
GROUNDING TYPE



For making rapid connections to ground. Made of finely machined brass nickel-plated and polished. Panel grounding collar frozen to shaft has "D" type shoulder for locking in keyed panel hole.

TYPE	GP30NC
FINISH	NICKEL-PLATED

MINIATURE TYPES

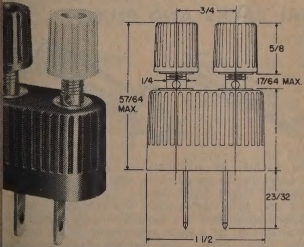


Fluted nut design only. Rated for 15 amperes, 1000 volts working. Gold-plated brass parts; nylon plastic parts compounded to meet military specification MIL-P-20693, Type IV. Types with nickel-plated brass available also.

COLOR	RED	BLUE	GREEN	WHITE	BLACK	YELLOW
TYPE	DF21RC	DF21BLC	DF21GNC	DF21WTC	DF21BC	DF21YC

DUAL ADAPTER TYPE

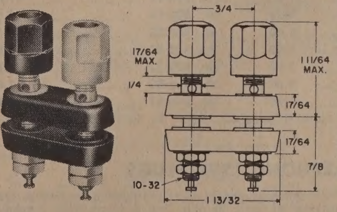
Facilitates line voltage connections from output receptacles to binding posts. Has integral parallel-blade plug. Rating is 15 amperes, 125 volts. Brass parts are gold-plated.



TYPE	DAP15BWC
NUTS	WHITE & BLACK
BODY	BLACK

DOUBLE ASSEMBLY TYPES

For instrument and equipment panels requiring binding posts mounted on ¾″ centers. Rated for a current capacity of 30 amperes and a working voltage of 1000 volts. Brass parts are gold-plated. Panel insulators in black only.

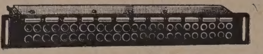


TYPE	NUTS
DF30-2-BWTC	WHITE & BLACK
DF30-2-BBC	BLACK
DF30-2-BRC	RED & BLACK

FOR MORE DETAILED INFORMATION
about specifications and technical data
on SUPERCON Electrical Connectors,
SUPERIOR 5-WAY Binding Posts
and DUB-L-PLUG Dual Electrical Connectors
write for Electrical Connector bulletin.

—TRIMM—

AUDIO JACK PANELS



Extensively used in the broadcast field, on instrumentation systems, communication networks, etc. Listed below are the most common of a large variety of standard types. Jacks as ordinarily supplied (mounted on panels) have offset ground lugs, which considerably reduces wiring cost of installation. Straight ground lugs (duplicating W.E. jacks) available. Types 96-71 and 96-72 used with tip, ring, and sleeve plugs (No. 516 and No. 517); others usually used with twin plugs (No. 506) but will fit standard two-circuit plugs.

Code No.	Mtg. Strip Type	Uses Qty. Jacks	Jack Type	List
96-01	96-21	24	90L-02	$47.50
96-02	96-22	48	90L-02	77.25
96-03	96-23	48	90L-02	84.50
96-06	96-26	26	90L-02	50.75
96-07	96-27	52	90L-02	82.75
96-71	96-21	24	90L-26	58.80
96-77	96-27	52	90L-26	102.45
96-72	96-22	48	90L-26	99.00
96-73	96-23	48	90L-26	106.25
96-76	96-26	26	90L-26	60.70

JACK MOUNTING STRIPS — LESS JACKS

Used where non-standard jacks, lamp sockets, turn keys, push keys, video jacks, etc., are desired to be mounted onto a jack strip. Listed below are the most common types normally used on standard jack panel assemblies. Strips have steel reinforcing rib on both sides, end mounting brackets, and one designation strip (type JP-30 except where noted) including cards and windows. All fit standard 19″ racks. Numerous other types available.

Code No.	Rows	Jack Holes	Width	List
96-21	1	24	1¾″	$21.00
96-22	2	48	2⅛″	24.00
96-23	2	48	3½″	31.25
***96-26**	1	26	1¾″	22.00
***96-27**	2	52	1¾″	25.00

* No. 96-26 normally has 1 (JP-34) designation strip.
* No. 96-27 has 2 (JP-34) designation strips; types JP-31 and JP-32 can also be used on these.

DESIGNATION STRIPS

Listed below are the most common designation strips. Others differing in length and accepting up to 5 rows of typing can be produced.

Code No.	Size	List
JP-30—Individual windows for each of 12 pairs of jacks	15/32″ wide x 16¾″ lg.	$1.60
JP-34—One long window	¼″ wide x 17″ lg.	2.75
JP-35—One long window	15/32″ wide x 16¾″ lg.	1.60
JP-39—One long window (Lucite)	¼″ wide x 17″ lg.	2.75

"90" SERIES JACKS

Commonly known as the telephone jack. Extensively used on jack panels. Bushing fits 29/64″ dia. hole. Available in two modifications, generally referred to as the "A" and "C" frame. These differ only in the orientation of the springs with respect to the plane of the jack mounting. Frame of steel, cadmium plated with dichromate treatment. Bushing of brass, natural finish standard (nickel plated to order). Springs of nickel silver, terminals hot tinned. Standard contacts are silver with diffused gold coating. Numerous special contacts available. Straight ground lug illustrated, offset lug available by changing of "S" in code number to "L". Dash numbers up to "—24" fit two-circuit plugs; "—25" to "—49" three-circuit 0.250″ dia. plugs; and "—50" to "—74" three-circuit 0.206″ dia. plugs.

Code No.	List	Code No.	List
No. 90S-01	$1.05	**No. 90S-12**	$1.60
No. 90S-02	1.20	**No. 90S-14**	2.50
No. 90S-06	1.40	**No. 90S-25**	1.20
No. 90S-08	1.40	**No. 90S-26**	1.60
No. 90S-09	1.50	**No. 90S-27**	1.80
No. 90S-09A	1.50	**No. 90S-50**	1.40
No. 90S-10	1.80	**No. 90S-51**	1.80

See Bulletin R-35/5 for more information. Refer to facing page for circuit identification.

TELEPHONE TYPE PLUGS

High temperature (over 500°) and high impact injection molded Insulation used on all these plugs, interlocking all parts of plug into a single unit. Precision machined to minimize jack bushing wear. All are 0.250″ dia. except plug No. 508, which is 0.206″ dia.

Code No.	W.E. Equivalent	Description	List
No. 500	347A	Single, two-circuit	$2.00
No. 502		Single, two-circuit	1.85
No. 504	327	Twin, four-circuit	4.50
No. 505	289B	Twin, four-circuit	4.50
No. 506	241A	Twin, three-circuit	4.50
No. 508	309	Single, three-circuit	2.50
No. 516	310	Single, three-circuit	2.50
No. 517	291	Single, three-circuit	2.70
No. 523	353A	Twin, six-circuit	8.90

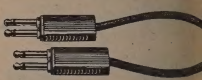
VIDEO JACK PANELS

A variety of standard as well as special panels are regularly produced. The ja
used in these mount in the same hole size as standard telephone types a
can be assembled on any of our regular mounting strips described elsewhe
Listed below are several standard types of panels as usually used in broadc
stations. All use the No. 89-02 jack except panel No. 99-80 which uses
89-32 type jacks. The "99" series use an aluminum, sandwich-like panel c
struction. The "96" series use standard ⅝″ thick bakelite panels. Of the
those with "—80" numbers are intended for direct attachment of the cab
Those with "—90" numbers have, behind the main panel, a sub-panel
which are mounted Amphenol No. 83-1R connectors from which wiring may
run to the coaxial jacks. Wiring not installed by TRIMM unless specified
purchaser.

Code No.	Jacks	Jack Mounting Strip	Li
No. 99-80	12 Jacks, 1 row	99-20	$185
No. 96-82	48 Jacks, 2 rows	96-22	554
No. 96-85	24 Jacks, 2 rows	96-25	303
No. 96-89	12 Groups of 3 jacks (36 total)	96-29	421
No. 96-92-2	48 Jacks, 2 rows, plus 24 connectors in sub-chassis	96-22	660

Other types with sub-chassis regularly available to fit individual requireme

AUDIO PATCH CORDS



A superior line of patch cords featuring a braided nylon outer covering insuring long cord life and neat appearance. Cords normally shielded with shield connected to plug at one end only. Also available less shielding or with shield conne
at both ends of cord. Black cords are standard but blue, green, grey (sla
red, brown, and white can be supplied at extra cost. Lengths of 4, 5, 6,
10 ft. also supplied. Plugs used are described under "Telephone Plug" sect

No. 840 Series—The accepted standard in the broadcast field. Used also in instrumentation and communication systems. TRIMM No. 506 "Twin" plugs used.

Code No.	L
No. 840-1-PP	$1
No. 840-2-PP	1
No. 840-3-PP	1

No. 841 Series—Uses TRIMM No. 517 plugs which have a special contour allowing the ring spring to make contact before the normally closed tip contact spring is opened.

No. 841-1-PP	
No. 841-2-PP	
No. 841-3-PP	

No. 851 Series—Uses standard telephone switchboard type plugs, TRIMM No. 516 (W.E. 310). Tip spring of jack seats in grooved ball-shaped tip of plug.

No. 851-1-PP	
No. 851-2-PP	
No. 851-3-PP	

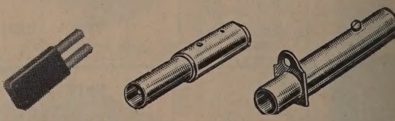
Replacement cords for above available. See TRIMM Bulletin R-36/7 for lis

VIDEO PATCH CORDS

Single cords (849 series) use No. 530-2 plugs and RG-59A/U cable. Note use of 531 series plug in place of patch cords. Length in feet between plugs shown by 1.5 (18″ cord); 2; etc. Other RG cable types available.

Code No.	
No. 849-1.5X-PPG	$1
No. 849-2X-PPG	1
No. 849-3X-PPG	1

COAXIAL JACKS AND PLUGS



Used for video, pulse, and special RF applications, serving the analo
function as telephone jacks serve for audio patching systems. Quick discon
and patching with only extremely slight discontinuity. Circuits carried thr
concentrically arranged inner and outer conductors. All contacts and con
ing surfaces gold plated. Where applicable are simultaneously compatible
both W.E. and RCA types. Available to fit a wide assortment of RG cable t
only the most common being listed below. See Bulletin R-40 for detai
construction.

Code No.	RG Cable	Notes	
No. 89-01	58	Jack	$
No. 89-02	59	Jack; fits W.E. & RCA	
No. 89-04	62	Jack	
No. 89-05	11	Jack	
No. 89-06	8	Jack	
No. 89-32		Jack; BNC UG-88/U on rear end.	
No. 530-1	58	Plug	
No. 530-2	59	Plug	
No. 530-4	62	Plug	
No. 530-5	11	Plug	
No. 531-2		Plug; bridging, 70 ohm.	

—TRIMM—

PLUGS • JACKS • TERMINAL BLOCKS

STANDARD PHONE PLUGS

tandard radio phone plug, widely used on P.A. equipment, tape recorders, s, etc. Designed to fit all standard jacks and available in two-circuit and -circuit types. The two-circuit "511" series is supplied with binding head 's for termination and has a molded bakelite shell or metal shell when led plugs are required. The "513" series are three-circuit types. The ' adapter couples Amphenol type mike plug to standard phone jack.

	List
11 —Black plastic shell	$.69
11-1—Red plastic shell	.69
11-2—Shielded, single piece shell	1.17
11-3—Shielded, two piece shell	1.77
11-4—Shielded, stubby shell	.97
11-5—Two-circuit, shielded, stubby shell. Has long tip to sleeve nsulator which leaves "ring" spring open when inserted in three-ircuit jack	1.09
13 —Three-circuit, black plastic shell	1.09
13-1—Three-circuit, red plastic shell	1.09
13-2—Three-circuit, shielded, single piece shell	1.59
13-3—Three-circuit, shielded, two piece shell	2.19
13-4—Three-circuit, shielded, stubby shell	1.40
15 —Adapter	.47

TELEPHONE TYPE PLUGS

For detailed description, see facing page, under Audio Section.

"514" MIN-A-PLUG

Developed especially for shielded microphone cable. Wing type terminal clamps directly onto cord shield. r conductor solders to lug. Also widely used for ordinary cords.

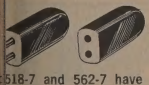
	List
14 —Black plastic shell	$.67
14-1—Red plastic shell	.67
14-2—Shielded, single piece shell	1.07
14-4—Shielded, stubby shell	.97
14-6—Black plastic shell, screw terminals	.69
14-7—Red plastic shell, screw terminals	.69
14-8—Shielded, single piece shell, screw terminals	1.09

"512" FLAT TYPE PLUG

Compact, non-protruding design. Ideal for group hearing aid systems, centralized radio systems, etc. Body molded of phenolic plastic. All exposed edges rounded. Provision for stay cord anchorage. Fits standard jacks.

	List		List
12 —Black	$.87	No. 512-1—Red	$.87

"518" PLUG — "562" JACK



Two-circuit miniature disconnect plug and jack series. Ideal for small size cordage. Plugs have two grooved, parallel pins which engage with multi-leafed contract springs in jack. No. 518 and 562 have acetate half shells cemented together. 518-7 and 562-7 have molded bakelite shells held together with screws.

	List
518 —Plug	$ 60
518-7—Plug	.80
562 —Jack	1.00
562-7—Jack	1.10

"525" CONNECTORS

'525" series provides means of attaching headset cords, or any two wires, ngle contact mike plugs (Amphenol 75-MC series of plugs). Main body of ector is similar to handle of "511" series plug. Connector held to recep- by threaded retaining ring.

525—Connector ....List $.87

"501" PLUG

Widely used for high quality communication equipment. Commonly known as PJ-055. Features a one- tip-rod construction preventing loosening or separating of parts while rvice. Nylon insulation interlocks all parts of plug.

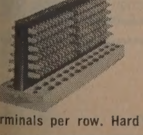
	List
501 —Black plastic shell	$1.40
501-1 —Red plastic shell	1.40
501-2 —Shielded shell	1.90
501-10—Black plastic shell embossed with PJ-055B	1.40

"509" PLUG

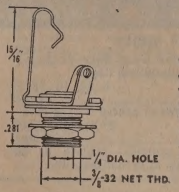
use on microphone circuits and usually identified as PJ-068. Tip, ring, and ve circuits are insulated and interlocked by injected nylon. Sleeve diameter 206".

	List
509 —Black plastic shell	$2.95
509-10—Black plastic shell embossed with PJ-068	3.00

TERMINAL BLOCKS



Referred to as telephone "Christmas Tree" type. Terminals are notched top and bottom, electro-tin plated and individually removable. New "wire-wrap" type terminals available. All types available from one to ten rows high. Special terminal arrangements upon request. No. 421 series has twenty terminals per row; No. 425 series, twenty-four terminals per row; No. 427 series, twenty- erminals per row. Hard maple base. Numerous variations available.



"95" SERIES JACKS

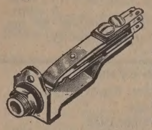
Widely used on P.A. amplifiers, tape recorders, short wave radios, servicemen test instruments, etc. Used where space behind panel is limited. Jack is mounted by a threaded bushing which fits a 3/8" dia. hole. Springs are nickel silver and are held in place by interlocking insulators. Circuit types can be identified by referring to "Jack Circuits" as shown below.

	List
No. 95-01—Open circuit, two conductor	$.45
No. 95-02—Closed circuit, two conductor	.54
No. 95-25—Open circuit, three conductor (for 0.250" dia. plugs)	.60
No. 95-50—Open circuit, three conductor (for 0.206" dia. plugs)	.65

"90" SERIES JACKS

See facing page, under Audio section, for detailed description.

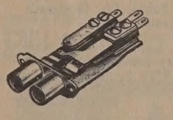
"91" SERIES JACKS



A long frame jack having a threaded bushing which can be used for mounting as well as by a mounting screw. Can be mounted in panels up to 1/4" thick. The most common circuits are shown below, but most other circuits can be supplied.

	List
No. 91-01	$.75
No. 91-02	.95
No. 91-25	.95
No. 91-26	1.20

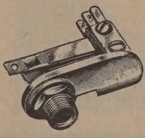
"92" SERIES JACKS



Twin jacks, used in microwave systems and certain carrier frequency applications requiring activation of crossover contact springs by insertion of single plug in either jack bushing. Uses 100% palladium cross-bar contacts. Two-circuit plugs used on types 92-1009 and 92-1029 (equivalent to W.E. 410A and 410D respectively). Three-circuit plugs (0.250" dia.) used on 92-1030 (equivalent to W.E. 482A).

	List
No. 92-1009	$3.50
No. 92-1029 Gold plated contacts	4.35
No. 92-1030	4.80

"93" SERIES JACKS

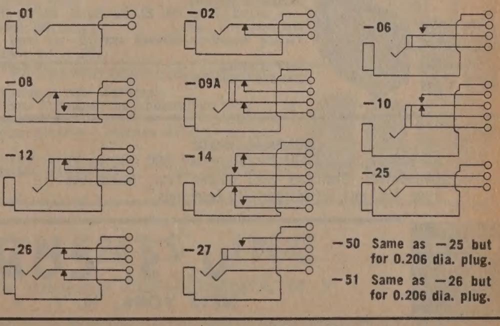


A short frame jack with springs mounted parallel to panel. Used particularly where depth behind panel is limited, on such applications as intercom systems, P.A. amplifiers, etc. Mounting is by means of threaded bushing 3/8" diameter, rigidly attached to a steel frame. May be mounted on panels up to 3/16" thick. Contact springs of nickel silver, terminals hot tinned. See diagrams below for circuits.

	List		List
No. 93-01	$.70	No. 93-25	$.85
No. 93-02	.85	No. 93-26	1.10

JACK CIRCUITS

All TRIMM jacks have a standardized coding consisting of the Jack series number plus a dash number indicating spring arrangement, a few of which are shown below.



—50 Same as —25 but for 0.206 dia. plug.

—51 Same as —26 but for 0.206 dia. plug.

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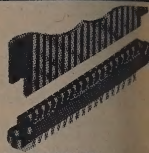
MISSILES ● PORTABLE EQUIPMENT ● PRINTED CIRCUITS ● TEST APPARATUS

UPCR SERIES
Single Row Printed Card Receptacle

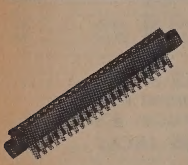
Number of contacts—(Beryllium Copper)
6, 10, 15, 18, 22
Solder wire hole size ....1/16"x3/32"
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,853,689.

UPCR-D. Double Row Printed Card Receptacle. Solder Type Terminals

Card range thickness accommodation
UPCR-D .... .052—.072 (nom. 1/16")
UPCR-93D .... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Solder wire hole size ....3/64"x3/32"
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.



Pat. #2,909,755

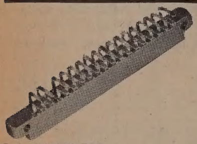


UPCR-DT. Double Row Printed Card Receptacle. Taper Tab Terminals

UPCR-DT ________ uses #78 taper tab
Card range thickness accommodation
UPCR-DT .... .052—.072 (nom. 1/16")
UPCR-93 DT .... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,909,755

UPCR-DW. Double Row Printed Card Receptacle. "Wire-Wrap"* Terminals

Card range thickness accommodation
UPCR-DW .052—.072 (nom. 1/16")
UPCR-93 DW .... .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.
Polarizing pins and contacts—snap-in or out design permitting easy interchangeability.
Pat. #2,909,755
*** T.M. of Gardner-Denver Co.**



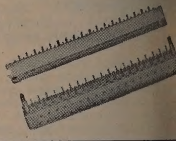
Pat. #2,909,755

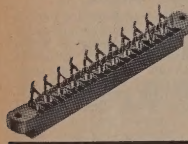
UPCR-RD. Double Row Printed Card Receptacle. Dip Solder. Right Angle Terminals

Card range thickness accommodation
UPCR-RD .... .052—.072 (nom. 1/16")
UPCR-93 RD .. .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.

MPC SERIES—Micro Miniature Printed Circuit Connectors

Number of contacts 15, 23, 33, 37, 49
Maximum wire size ....26 AWG Wire
Voltage breakdown between contacts—sea level
3100 V. A.C., RMS.
Current rating ....3 amps.



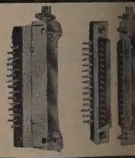


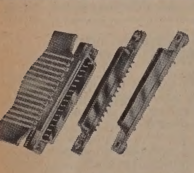
UPCR-SD. Double Row Printed Card Receptacle. Scatter Solder Dip Terminals

Card range thickness accommodation
UPCR-SD .... .052—.072 (nom. 1/16")
UPCR-93 SD .080—.104 (nom. 3/32")
Number of contacts (Beryllium Copper)
6, 10, 15, 18, 22 per row, (2) rows
Voltage breakdown between contacts—sea level
2500 V A.C. RMS.
Current rating ________________5 amps.
Pat. #2,909,755

UPCC-SLH SERIES. Hooded Screw Lock

UPCC-M2SL........................**Male Chassis Screw Lock**
UPCC-F2HSL....................**Female Hooded Mating Unit**
Available........................7, 11, 15, 19, 23, 32 contacts
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Male — available solder dip, wire solder turret, taper tab terminals
Female — available wire solder, turret tab terminals
Pat. #2,953,767



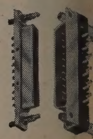


UPCC SERIES. Printed Circuit Connector

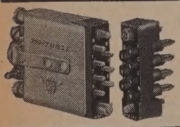
Card range thickness accommodation—
Male Dip Solder
UPCC-M ( ) A ________________1/16"
UPCC-M ( ) B ________________1/8"
UPCC-M ( ) C ________________1/4"
UPCC-F ( ) female ______ #20 AWG wire
UPCC-FDN ( ) ________Solder dip terminals
Maximum wire size—female ....#20 AWG wire
Number of contacts ________7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Current rating ....7.5 amps.

UPCC-SL SERIES. Printed Circuit Screw Lock

Card range thickness accommodation—
Male Dip Solder
UPCC MSL ( ) A ....1/16"
UPCC MSL ( ) B ....1/8"
UPCC MSL ( ) C ....1/4"
UPCC-FSL ( ) female ....#20 AWG wire
UPCC-FD-SL (...............Solder dip terminals
Number of contacts ________7, 11, 15, 19, 23, 32
Voltage Breakdown between contacts—sea level
2500 V. A.C. RMS.
Current rating ....7.5 amps.



Pat. #2,953,7

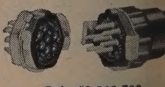


990-SL SERIES. Power Screw Lock

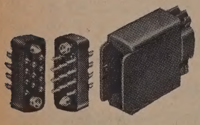
Number of contacts 7, 10, 15, 18
Maximum wire size ....#16 AWG, wire
Voltage breakdown between contacts—sea level
5300 V. A.C. RMS.
Current rating ________________ 13 amps.
990-SL-SDL (solderless ______uses #53 taper pin
Patent #2,761,108. Double lead threads. "Twice the speed with double lead."

MH SERIES. Miniature Hex

Number of contacts ________________4, 5, 7, 9
Maximum wire size ....#20 AWG wire
Voltage breakdown between contacts—sea level
1215 V A.C. RMS.
Current rating .... 7.5 amps.
MH-SDL (solderless) uses #37 taper receptacle
Also available HMH Hermetic Seal. Plug Series.



Pat. #2,848,702

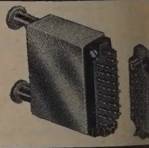


SMI SERIES. Subminiature

Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size................................#20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating...7.5 amps.
SMI-SDL (solderless)
uses #37 taper receptacle
Other configurations upon request.

SMI-SL SERIES. Subminiature Screw Lock

Number of contacts
5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size................................#20 AWG wire
Voltage Breakdown between contacts—sea level
1950 V. A.C. RMS.
Current rating...7.5 amps.
SMI-SL-SDL (solderless) uses #37 taper receptacle
Other configurations upon request.
Pat. #2,761,108



GENERAL NOTE

All Sub-miniature (SMI), Miniature (MI), 980, 990 series Connectors, available with Solder Type, Solderless Type (SDL) and Turret Type (TU) Terminals

Connectors are available with molded bodies made of asbestos-filled me'ami glass-filled alkyd, asbestos or glass-filled diallyl phthalate, or mica-filled ba lite. All connectors meet or surpass all applicable sections of MIL-Q-98 MIL-C-8384B, MS, MIL-C-21097A, MIL-C-25955 and NAS specifications. Ri quality control is applied on a 100% basis for inspection and testing. All sol cups can be provided with 60-40 solder or projecting terminals can be sol dipped.

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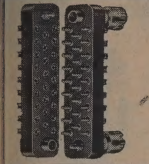
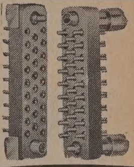


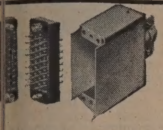
SMI-K SERIES

Subminiature Hoodless Knob Type Screw Lock
Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size..........#20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating..........7.5 amps.
SMI-K-SDL (solderless) uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.

SMI-KC SERIES

Subminiature Hoodless Knob Type Screw Lock
Reentrancy female contact Anti-Rotation Brackets
Number of contacts 5, 7, 11, 14, 20, 26, 29, 34, 42, 50, 75
Maximum wire size..........#20 AWG wire
Voltage Breakdown between contacts—sea level 1950 V. A.C. RMS.
Current rating..........7.5 amps.
SMI-K-SDL (solderless) uses #37 taper receptacle
Pat. 2,761,108. Other configurations on request.



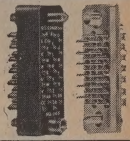


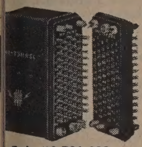
MI-SERIES. Miniature

Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2800 V A.C. RMS.
Current rating..........7.5 amps.
MII-SDL (solderless) uses #37 taper receptacle
MIP Series #18 wire — MIW Series #16 wire

HMI SERIES. Hermetic Seal Miniature

Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2200 V A.C. RMS.
Current rating..........7.5 amps.
Mates with corresponding MI-F (female) series connectors.





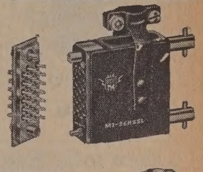
Pat. #2,761,108

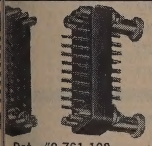
MI-SL SERIES. Miniature Screw Lock

Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2800 V A.C. RMS.
Current rating..........7.5 amps.
MI-SL-SDL (solderless) uses #37 taper receptacle
Pat. #2,761,108
ALSO AVAILABLE FOR #18 AWG WIRE
6-32—Double or single lead threads can be furnished.

HMI-SL SERIES

Hermetic Seal Miniature Screw Lock
Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2200 V A.C. RMS.
Current rating..........7.5 amps.
Mates with corresponding MI-FSL (female screw lock) series connectors.
6-32—Double or single lead threads can be furnished.





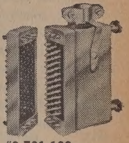
Pat. #2,761,108

MI-KSL SERIES

Miniature Hoodless Knob Type Screw Lock
Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2800 V A.C. RMS.
Current rating..........7.5 amps.
MI-K-SDL (solderless) uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE

MI-BSL "FBI" SERIES

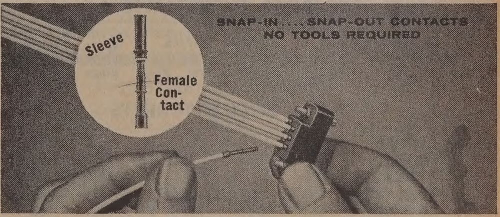
Miniature Bracket Screw Lock
Number of contacts..........34, 41, 50, 75
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 2800 V A.C. RMS.
Current rating..........7.5 amps.
Hoods..........aluminum anodized
Brackets..........die-cast aluminum
MI-BSL-SDL (solderless) uses #37 taper receptacle



Pat. #2,761,108; #2,845,603; #2,845,604

MI-MBSL SERIES

Miniature Bracket Modular Screw Lock
Number of contacts..........123, 150, 225
Maximum wire size..........#20 AWG wire
Voltage Breakdown between contacts—sea level 2800 V. A.C. RMS.
Current rating..........7.5 amps.
Hoods..........aluminum anodized
Brackets..........die-cast aluminum
MI-BMSL-SLD (solderless) uses #37 taper receptacle
ALSO AVAILABLE FOR #18 AWG WIRE
Pat. #2,761,108; #2,845,603; #2,933,713; #2,845,604; Additional Patents Pending.
Other configurations upon request.



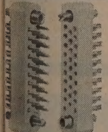
REMI SERIES—Standard and Screwlock

Number of contacts 7, 12 (8-4), 14, 18, 20, 21, 26, 34, 41, 50, 75
Type of contact..........crimp style, removable with "snap-in, snap-out" feature
Wire sizes accommodated..........#20, #22 A.W.G. (#18 if required)
Pats. applied for
REMI counterparts of our MI, MI-SL, MI-KSL, MI-BSL and MI-BMSL SERIES can be provided.

ALSO AVAILABLE FOR #18 AWG WIRE

MRO-MRA. Miniature Round

Number of contacts..........7, 9
Maximum wire size..........#20 AWG wire
Voltage breakdown between contacts—sea level 1215 V A.C. RMS.
Current rating..........7.5 amps.
MRO-SDL—MRA-SDL (solderless) uses #37 taper receptacle

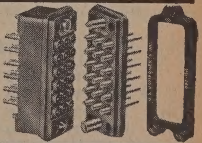


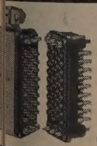
UMI SERIES—Ultra Miniature Series

Number of Contacts 5, 7, 9, 11, 14, 20, 26, 29, 34, 44, 50
Max. Wire Size..........#22 AWG Wire
Voltage breakdown between contacts—sea level 1330 V. A.C., RMS.
Current rating..........3 amps.
ALSO AVAILABLE IN UMI-SL SCREWLOCK SERIES

980 SERIES. Power-Guide Pin Spring Release

Number of contacts..........12, 18, 24, 34
Maximum wire size..........#16 AWG wire
Voltage breakdown between contacts—sea level 4000 V A.C. RMS.
Current rating..........13 amps.
980-SL-SDL (solderless)..........uses #53 taper pin
Patent #2,658,182



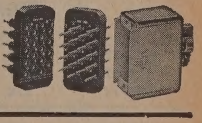


980-SL SERIES. Power Screw Lock

Number of contacts..........12, 18, 24, 34
Maximum wire size..........#16 AWG wire
Voltage breakdown between contacts—sea level 4000 V A.C. RMS.
Current rating..........13 amps.
980-SDL (solderless)..........uses #53 taper pin
Patents #2,658,182; #2,761,108

990 and 990S (Short Contacts) SERIES. Power

Number of contacts..........7, 10, 15, 18
Maximum wire size..........#16 AWG wire
Voltage breakdown between contacts—sea level 5300 V A.C. RMS.
Current rating..........13 amps.
990-SDL (solderless)..........uses #53 taper pin



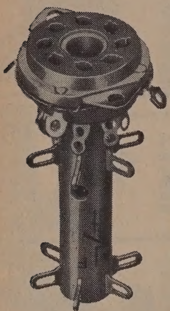
U. S. COMPONENTS, INC.

NEW YORK, N. Y. • Cable Address: COMPONENTS, N. Y.

Vector Electronic Company

GLENDALE, CALIFORNIA

POST SOCKET TURRETS

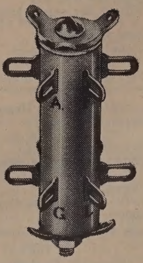


10-0-12T

OCTAL

6-M-6T

7-PIN



6-12

TERMINAL

VECTOR SOCKET TURRETS AND TERMINAL TURRETS simplify electronic construction. Faster wiring, greater component density and higher reliability are assured by their use. Military types (premium grade- have MIL sockets with beryllium copper silver plated socket contacts, brass nickel plated hot tin dipped saddles and glass silicone turret post with fused tin brass terminals. Commercial types have mica filled sockets, hot tin dipped steel saddle, XXXP Phenolic turret post with brass fused tin terminals.

ORDERING INFORMATION

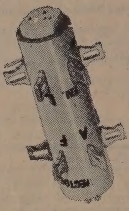
CATALOG NUMBERS Commercial Types	Military Types	TURRET DETAILS Height	No. of Term	No. of Rings	Space Between Rings	NET PRICE Comm. Type 1-19
OCTAL SOCKET-TURRETS						
6-0- 6T	680	1½″	6	1	—	.54
➧ 8-0- 9T	681	2″	9	2	1″	.60
8-0-12T	682	2″	12	2	1″	.63
➧ 10-0- 9T	683	2½″	9	2	1⅜″	.63
10-0-12T	684	2½″	12	2	1⅜″	.66
7-PIN SOCKET TURRETS						
➧ 6-M - 6T	687	1½″	6	1	—	.63
➧ 8-M - 9T	688	2″	9	2	1″	.69
8-M -12T	689	2″	12	2	1″	.72
10-MB-12T	690	2½″	12	2	1⅜″	.81
9-PIN SOCKET TURRETS						
6-N - 6T	693	1½″	6	1	—	.63
➧ 8-N - 9T	694	2″	9	2	1″	.69
8-N -12T	695	2″	12	2	1″	.72
10-NB-12T	696	2½″	12	2	1⅜″	.81
TERMINAL-TURRETS						
6-12	676	1 11/32″	12	2	⅝″	.45
➧ 8-12	677	1 27/32″	12	2	1″	.48
➧ 10-12	678	2 11/32″	12	2	1⅜″	.51

NOTE: Tolerance on dimensions ±1/16″

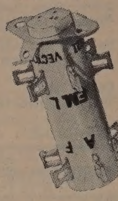
➧ Indicates preferred types

Longer or shorter types and other terminal configurations can be readily made to order.

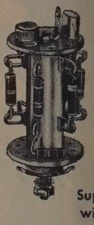
TRANSISTOR TURRETS



7-A-12T-440



8-A-12T



#654

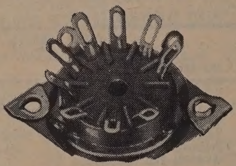
Supplied without wiring

TRANSISTOR SOCKET TURRETS enable user to mount one transistor and other necessary circuit components on a post structure. Sockets furnished accommodate 3-in-line or "top-hat" type transistors. Units furnished with saddle or recessed 4-40 Knurl nut in end opposite socket.

TRANSISTOR WAFER TURRET: Holds four transistors on wafer punched to take JEDEC or in-line leads. 5-40 screw projects 5/16″ Min. beyond bottom ground lug for chassis mounting.

Catalog No.	Height	Space Between Rings	Space Between Wafers	Saddle	Knurl Nut	Net Price 1-19
6-A-12T	1½″	⅞″	—	YES	NO	1.06
7-A-12T-440	1¾″	⅞″	—	NO	YES	1.04
8-A-12T	2″	1⅜″	—	YES	NO	1.08
652	2″	1″	1 11/16″	NO	NO	.81
654	2½″	1⅜″	2 3/16″	NO	NO	.87

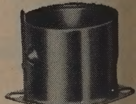
SOCKET SADDLE NUTS



U nut designed especially to slip over and clamp on socket saddle provide convenient means for quickly screwing sockets to chassis Two types are available, No. 4-40 U which fits No. 4-40 screws an No. 4Z U which fits a No. 4 sheet metal screw. The latter is stronge since it is of thicker metal than the former. Screws should be hard ened steel for both nuts to avoid stripping and are also listed below Material is cad. plated steel. Bags of 50 each

Cat. No.	Thread	Screw Length	Net Price 1-19 Bag
➧ 4-40 U Nut	4-40	—	1.00
4-Z U Nut	4 Z	—	1.25
4-40 x ¼″ Screw	4-40	¼″	.60
4Z x ¼″ Screw	4 Z	¼″	.40

TUBE BASE SHIELDS



TUBE BASE SHIELDS are intended to be mounted above the socket as a base for conventional bayonet type tube shields.

CATALOG NO. Commercial	Military	DESCRIPTION	NET PRICE 1-19
➧ S7	—	7 Pin Steel Cad. Plated	.05
S7.17	—	7 Pin Steel Cad. Iridited	.06
—	S7.22	7 Pin Brass Nickel Plated	.17
➧ S9	—	9 Pin Steel Cad. Plated	.05
S9.17	—	9 Pin Steel Cad. Iridited	.06
—	S9.22	9 Pin Brass Nickel Plated	.17

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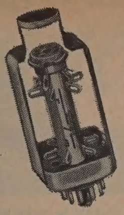
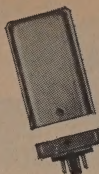
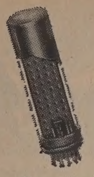
SMALL ROUND OR SQUARE PLUG INS

2-10-T-1


B-10-M


C-10

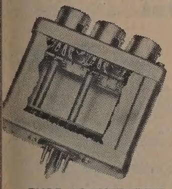

G2.1-8-4

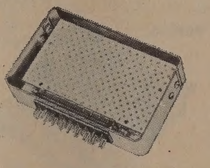
L ROUND & SQUARE PLUG-INS for amplifiers, counters, oscillators, flip and other circuits can be easily assembled and packaged from the wide y of readily available Vector Plug-in Units and Cases. Cases are deep- aluminum with caustic etch finish. Plugs are tube base type; Octal 8 or B, C, and G2 types, 9 pin Noval for G2.1 size, and 7 pin miniature 2.2. Sockets are mica filled phenolic, with brass cad. plated contacts. y types (premium grade) have MIL sockets with beryllium copper silver contacts. (Add J to catalog number for this).

g er	Type of Plug	Type of Socket	Internal Structure	Dimensions Height	Dimensions Size	Net Price 1-19
	Octal 8	None	None	2″	1 7/16″ Sq.	.99
	Octal 8	None	None	2½″	1 7/16″ Sq.	1.03
	Octal 8	7 P. Min.	Turret	2½″	1 7/16″ Sq.	1.91
	Octal 8	9 P. Nov.	Turret	2½″	1 7/16″ Sq.	1.95
	Octal 8	None	Turret	2½″	1 7/16″ Sq.	1.65
	Octal 8	None	Strip "A"	2½″	1 7/16″ Sq.	1.82
	Octal 8	None	None	2½″	2″ Sq.	1.16
	Octal 8	None	None	3″	2″ Sq.	1.20
	Octal 8	7 P. Min.	Turret	3″	2″ Sq.	2.24
	Octal 8	9 P. Nov.	Turret	3″	2″ Sq.	2.27
	Octal 8	None	Turret	3″	2″ Sq.	1.88
	Octal 8	None	Strip "A"	3″	2″ Sq.	2.85
N	Octal 8	9 p. Nov. (2)	Turret	2½″	2″ Sq.	3.01
N	Octal 8	9 p. Nov. (2)	Turret	3″	2″ Sq.	3.04
	Octal 8	None	None	2½″	1¼″ Dia.	.97
M	Octal 8	7 P. Min.	Post	2½″	1¼″ Dia.	1.66
N	Octal 8	9 P. Nov.	Post	2½″	1¼″ Dia.	1.69
4	Octal 8	None	Strip "D"	2½″	1¼″ Dia.	1.85
T-1	Octal 8	None	Wafer	2½″	1¼″ Sq.	1.68
F	9 P. Nov.	None	None	2″	¾″ Dia.	1.35
-N	9 P. Nov.	9 P. Nov.	Post	2″	¾″ Dia.	2.04
-4	9 P. Nov.	None	Strip "G"	2″	¾″ Dia.	1.90
F	7 P. Min.	None	None	2″	⅝″ Dia.	1.21
-M	7 P. Min.	7 P. Min.	Post	2″	⅝″ Dia.	1.93
-4	7 P. Min.	None	Strip "G"	2″	⅝″ Dia.	1.88

Strip "A" has .093″ holes sp. 0.265″. Strip "D" has .093″ holes spaced 0.25″. Strip "G" has 1/16″ holes spaced 0.141″ to fit JETEC transistor "Wafer" is 1″ diameter as used on transistor turret #654.

MULTI-USE PLUG-IN-KIT:


TUBE SOCKET TYPE


TRANSISTOR TYPE

I USE PLUG-IN KITS enable the user to readily wire and package a wide y of circuits. Kits consist of an aluminum case with plug and accessories ounting (a) Tube Sockets, or (b) Transistor type assemblies. For the tube s the Lip-Loc Case units (see left fig.) are used. These include the follow- arts: Mounted noval sockets, shield bases, 2 Zip wiring decks, and 11-pin plug plus extra components as follows: equal number of 7-pin minia- ockets, shield bases and adapter mounting rings; plug buttons to close d socket holes; one extra unpunched base with spacers and screws for ting larger plugs such as the Amphenol Blue Line (not supplied in kit); xtra zip wiring deck. The extra components may be readily installed as ed in place of the furnished items.

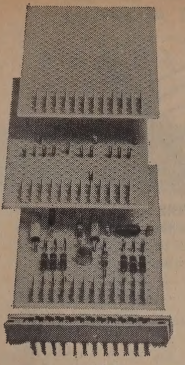
ansistor and printed circuit assemblies the Frame-Loc type case shown at ght above is used with Elco Varicon 16 pin plug and optional perforated -paper center wall with 1/16″ holes on alternate centers of a 0.1″ grid. ush-In Terminals supplied (not installed).

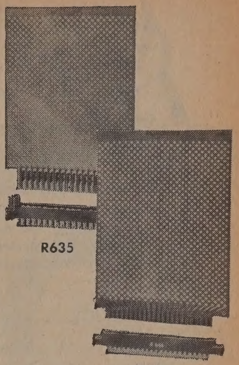
rial specifications are as follows: case, caustic etch on aluminum; sockets, filled phenolic, commercial grade; terminal strips and spacers are lic for tube units and epoxy-paper for transistor units. Overall height units is 3″.

. No.	Sockets	Base Dimen.	Deck Spacing (2 Decks)	Number Terminals per Deck	Base Price 1-19
K3	3N & 3M	1⅝″ x 3⅞″	1 7/16	22	5.97
2K3	4N & 4M	1.68″ x 4.82″	1 7/16	30	6.57
1K3	5N & 5M	1⅝″ x 5⅞″	1 7/16	38	7.17
K3	None	1″ x 4″	1 Wall	—	5.60
K3	None	1″ x 5″	1 Wall	—	5.74
K3	None	1″ x 6″	1 Wall	—	6.19

other case sizes and structures are obtainable at the factory.

PLUGBOARDS


R612-1

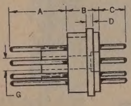


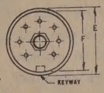
R644

Use Plugboards for test circuits, P.C. prototypes, short runs or modular Plug-ins. Lay out circuitry as desired using Push-in terminals, solder, and plug-in. Components and wiring can be arranged and changed as required. Plugboards can be punched, sawed, and drilled. Materials used are 1/16″ thick epoxy paper per MIL-P-22323 Type PEE, G-10 epoxy glass per MIL-P-18177, copper clad epoxy glass per MIL-P-13949-B Type FLGE-91 and copper clad epoxy paper per MIL-P-13949 Type PX. All boards have punched 1/16″ diameter holes on alternate 0.1″ centers. Use Vector T-28 MINI-KLIPS, T15.23 eyelets, or turned terminals. Elco Varicon or P.C. Plug contacts supplied on board. Copper clad boards, without contacts, shown below can be etched by user. For easy circuit layout, order pads of 8½″ x 11″ R173-G grid paper with printed hole layout pattern. Receptacles listed are molded glass-filled diallyl phthalate.

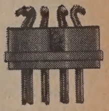
Catalog Number	Description	Net Price 1-19
812	4½″ x 6½″ Epoxy Paper, 16 Varicon Contacts	$2.73
812WE	4½″ x 6½″ Epoxy Glass, 16 Varicon Contacts	3.23
R616-1	Molded Receptacle for above, 16 Contacts	2.38
837	3″ x 4½″ Epoxy Paper, 12 Varicon Contacts	2.13
837WE	3″ x 4½″ Epoxy Glass, 12 Varicon Contacts	2.36
R612-1	Molded Receptacle for above	1.64
838	4½″ x 6½″ Epoxy Paper, 43 Etched Contacts, 2 sides	3.34
838A	4½″ x 6½″ Epoxy Paper, 22 Etched Contacts, 1 side	2.57
838AWE	4½″ x 6½″ Epoxy Glass, 22 Etched Contacts, 1 side	3.19
838PWE	4½″ x 6½″ Epoxy Glass, 22 Etched Contacts and Etched pad layout, 1 side	3.56
R644	Molded Receptacle for 838, 838A, 838AWE, 838PWE, 44 Contacts, 2 rows double readout type	2.62
838C	Copper Clad 1 side, Epoxy Paper sim. to 838A, no etching	1.50
838D	Copper Clad 2 sides, Epoxy Paper sim. to 838, no etching	1.75
848WE	4½″ x 6½″ Epoxy Glass, 35 Varicon Contacts	5.58
R635	Molded Receptacle for above, 35 Contacts	6.93

TUBE BASE PLUGS





P7


K1.434

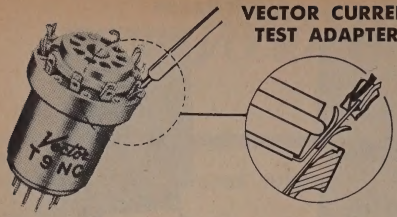
Vector tube base plugs have Mica-filled phenolic castings and phosphor bronze cadmium plated pins. The wide variety of pin configurations on the top side of the plugs allow design features not possible with other types of plugs. Plugs may be mounted as follows:

1. With a 4-40 or 5-40 screw through the center.
2. With a split retainer ring around plug, in a plate or chassis. Retainer rings are indicated by adding "R" after "K" or "P" in the catalog number.
3. With a stamped metal saddle B36-4 for 7-pin, B37-4 for 9-pin, B38-2 for 14-pin.
4. Round shells may be attached by screws and threaded 1/72 inserts in plug periphery, except plugs with a keyway. Add "F" after "K" or "P" in the catalog number. (See Plug-in Can Section for complete units).

Cat. No.	Type	DIMENSIONS A	B	C	D	E	F	G	Net Price 1-19
P7	7-pin min.	17/32″	.300″	.265″	1/16″	.621	.568	.125	.47
P9	9-pin noval	17/32″	.300″	.265″	1/16″	.748	.700	.125	.52
P7A	7-pin min.	3/16″	.300″	.265″	1/16″	.621	.568	.125	.47
P9A	9-pin noval	3/16″	.300″	.265″	1/16″	.748	.700	.125	.52
K1.302	(Same as P7 exc. no centerpost)								.47
K1.402	(Same as P9 exc. no centerpost)								.52
K1.334	Min. hooked Pin	.150	.300″	.265″	1/16″	.621	.568	.125	.59
K1.434	Noval hooked pin	.162	.300″	.265″	1/16″	.748	.700	.125	.64
P8L	Loctal	13/16″	7/16″	13/32″	100	1.17	1.00	.110	.95
K1.14	14 pin	17/32″	.300″	.265″	1/16″	.750	.700	None	.63

Add R after "P" or "K" for retainer ring. .45

VECTOR CURRENT TEST ADAPTERS

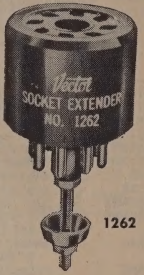


Versatile VECTOR CURRENT TEST ADAPTERS make possible tube circuit current or votage measurements without cutting leads or making computations. All measurements may be made from the tube side of the electronic equipment without disturbing the chassis.

Cat. No.	Type	Net Price 1-19
T-7-M-C	7 Pin Min.	2.20
T-8-0-C	8 Pin Octal	2.45
T-9-N-C	9 Pin Noval	2.45
P-2	Dual Sided Plug-in Probe, Required for above	.75
T-789-C	Set of Above 3 Adapters with P-2 Probe in Case	8.40

SOCKET EXTENDERS

Socket extenders provide a replaceable unit for use in tube testers and expensive meters. Wear is shifted from the socket in the tester to the one in the extender so that when it is worn out a new one can be easily inserted. Sockets have beryllium copper silver plated contacts for long life. An all molded outside shell is used with socket leads soldered to plug pins. All units provided with 1¾″ long screw to hold unit firmly in place if desired.

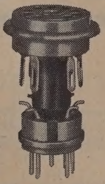


1262

Cat. No.	Socket Type	Net Price 1-19
#1262	Octal 8	1.75
#1263	9 P. Noval	1.75
#1264	7 P. Miniature	1.75

SOCKET CHANGE ADAPTERS

SOCKET CHANGE ADAPTERS facilitate use of unlike tube bases in existing sockets where a change of tube types is required. To be wired by user. Add "S" to number for an outer shell which may be cemented in place.

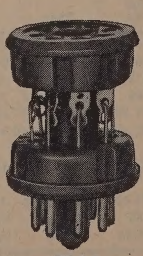


T97

Cat. No.	Socket	Plug	Net Price 1-19
T 780	7 P. Min.	Octal 8	1.05
T 79	7 P. Min.	9 P. Nov.	1.02
T 807	Octal 8	7 P. Min.	1.23
T 809	Octal 8	9 P. Nov.	1.23
T 97	9 P. Nov.	7 P. Min.	1.02
T 980	9 P. Nov.	Octal 8	1.05

EXPERIMENTER'S TEST ADAPTERS

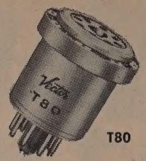
EXPERIMENTER'S TEST ADAPTERS. These are similar to the Socket Test Adapter but are less the shells and tabs so that connections can be cross-connected in any desired way. User must solder connections (Outer shells available at factory — add "S" to number to obtain).



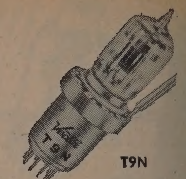
TX-8-0

Cat. No.	Socket Type	Net Price 1-19
TX-8-0	Octal	1.30
TX-7-M	Miniature	.80
TX-9-N	Noval	.85
TX-789	Set of above three in kit	3.25

TUBE SOCKET TEST ADAPTERS



T80



T9N

Insert Tube Socket Test Adapters in sockets to make tube side voltage, resistance and wave form checks. Special hole in recessed test tab grips P-1 probe and reduces danger of shock while freeing operator's hand. Alligator clips hold readily on tab and socket. Molded tan phenolic shell and Mica-filled sockets with beryllium copper, silver plated contacts for long life.

Catalog Number	Socket Type	Net Price 1-19
T-8-0	Octal	1.60
T-7-M	7-pin Miniature	1.65
T-9-N	9-pin Noval	1.85
T-789	Set of above three in kit	5.90
P-1	Probe for above	.39

CABLE CONNECTOR PLUGS

P9D

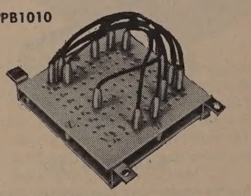
CABLE CONNECTOR PLUGS permit connecting cables to miniature and noval tube sockets. Aluminum shells are fitted to 7-pin and 9-pin plugs. In type "C" a rubber grommet (with ¼″ hole) is mounted in the side wall and a center screw holds the assembly together. In type "D" a Heyco strain relief grommet is mounted in the end of the shell and the base screws hold the shell on the plug. Approx. length (exc. pins) 2.125″.

End Outlet Cat. No.	Side Outlet Cat. No.	No. of pins	Outside Diam.	Net Price 1-19 End Outlet	Net Price 1-19 Side Outlet
P7D	P7C	7	⅝″	1.50	1.08
P9D	P9C	9	¾″	1.59	1.20

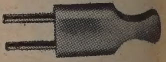
(Similar connectors for other tube type supplied to order).

PATCH BOARDS

PB1010



PATCH CORD
K2.06



JUMPER PLUG
K2.02-1

VECTOR PATCH-BOARDS provide simple, but reliable low-cost units for multiple connection, single conductor patching on computers and test equipment. Standard units are made up in blocks of 100 contacts spaced on .265″ centers. Horizontal rows are lettered alphabetically. Vertical columns are numbered. Boards furnished with "Z" type brackets and drilled mounting holes in back panel for flush mounting. Special size patchboards available to order.

Specifications:

PB1010: Panels epoxy paper, ivory color, .093″ thick with printed black numbers and letters. Receptacle contact beryllium copper, silver plated with gold flash, 2 holes for soldering on leads.

PB1010-1: Panels epoxy paper, black, with printed white numbers and letters.

Patchcords: Plug .087-.091 diameter by .468″ long, nickel plating, W/stranded number 20 gauge wire, vinyl cloth braid insulation. 6″ black, 9″ yellow, 15″ blue.

Dimensions: PB1010, PB1010-1, 3¼″ x 3¼″ x ⅞″.

Cat. No.	Description	Net Price 1-19
PB1010	Patchboard, 100 Contacts Ivory Color	$10.75
PB1010-1	Patchboard, 100 Contacts Black Color	10 95
K2.02-1	Jumper Plug, (25 per bundle)	2.50
K2.06	Patchcord Single Conductor 6″ (25 per bundle)	2.00
K2.09	Patchcord Single Conductor 9″ (25 per bundle)	2.25
K2.15	Patchboard Single Conductor 15″ (25 per bundle)	2.50

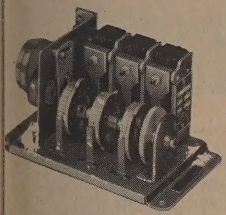
© U.C.P

Timers

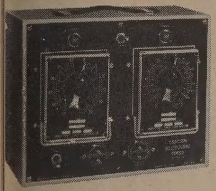
INDUSTRIAL TIMER CORPORATION

PARSIPPANY, N. J.

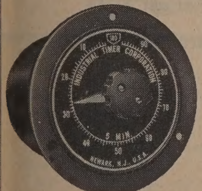
RECYCLING



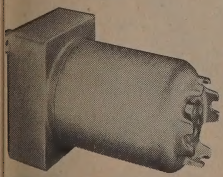
ecycling Cam Timers, 1 to 0 load switches, 2/3 sec. to 2 hours in 600 steps. Details Bulletin #200, 201, 202, & 03.



andem Recycling Timer, in-rchangeable elements, time ycles from 1/60 sec. to 3 ours. Details in Bulletin #500.

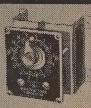

INDUSTRIAL TIMER CORPORATION
5 MIN
NEWARK, N.J. U.S.A.

ercentage Timer, dial ad-stable for ON-OFF percent-ge of given time cycle. Details Bulletin #500.



xplosion Proof Cam Timers, to 20 load switches, 2/3 sec. 72 hours. Details in Bulletin 800.

TIME DELAY

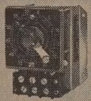


Series SF, 1/10 sec. to 5 minutes, Auto-Reset, 10 amp. contact rating, Back mounted. Details in Bulletin #300.

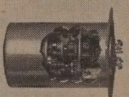
Series H, 1/10 sec. to 5 min., Auto-Reset, 10 amp. contact rating, flush mounted. Bulletin #300.

Series TD, 1/10 sec. to 5 min., Auto-Reset, 10 amp. contact rating, mounts through a hole. Bulletin #300.

Series TDAF, 1/60 sec. to 3 hours, instant reset, 10 amp. contact rating, flush mounting. Bulletin #300.



Series TDAB, 1/60 sec. to 3 hours, instant reset, 10 amp. contact rating, back mounted or available in case. Bulletin #300.



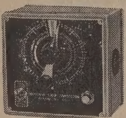
Series R, Hermetically Sealed, Ruggedized, time cycles from 1 sec. to 60 hours, 5 amp. contact rating. Details in Bulletin #600.

Series TH, Thermal Time Delay Switch, 10 amp. contact rating, time cycles from 15 sec. to 2 minutes, snap action switch. Details in Bulletin #301.

INTERVAL

Series PAB, 1/60 sec. to 3 hours, auto-reset, 15 amp. contact rating, available in housing, or back mount, extremely accurate. Bulletin #400.

Series P, 1/10 sec. to 5 min., self powered, auto-reset, 10 amp. contact rating. Bulletin #400.



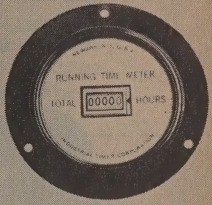
Series M, 1 minute only, 10 amp. contact rating, auto-reset. Bulletin #400.

Series RS, 15 minutes to 60 hours, 20 amp. contact rating, manual set. Request Bulletin #400.

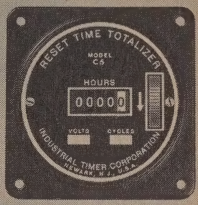
Series PAF, 1/60 sec. to 3 hours, instant reset, 15 amp. contact rating, panel mounting, extremely accurate. Bulletin #401.

Series SAR, Auto-reset Signalling Timer, time cycles from 15 min. to 3 hours. Bulletin #402.

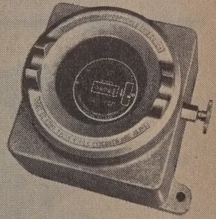
RUNNING TIME METERS


RUNNING TIME METER
TOTAL
00000
HOURS
INDUSTRIAL TIMER CORPORATION

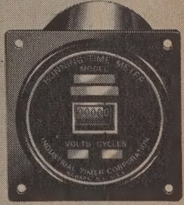
Series C-2, 1/10 sec. count to 1 hour count. Bulletin #700.


RESET TIME TOTALIZER
MODEL C5
HOURS
00000
VOLTS
CYCLES
INDUSTRIAL TIMER CORPORATION
NEWARK, N.J. U.S.A.

Series C-5, Time totalizer, reset to zero type, counts available from 1 sec to 1 hour. Bulletin #700.



Series TTXP, Explosion Proof, external reset. Bulletin #800.


RUNNING TIME METER
MODEL
00000
VOLTS CYCLES
INDUSTRIAL TIMER CORPORATION

Series T3, Hermetically sealed and ruggedized, same counts as Series C-2. Complete details in Bulletin #600.

Send for our Complete Timing Controls Catalog, free upon request . . . .

BRISTOL MOTORS / DIVISION OF VOCALINE

SYNCHRONOUS MOTORS AND TIMERS

Versatility is the characteristic which design engineers need — and find — in Bristol Synchronous Motors and Timing Devices. Bristol's unusually broad experience and range of design and manufacturing skills are particularly valuable where special requirements must be met.

The devices shown are among the most widely used. All can be mounted in any position, and take a minimum of space. Materials are selected on the basis of their suitability to provide long service, and perform well under a variety of conditions.

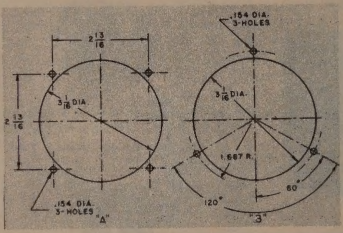
Bristol engineering service is available for applications that require custom design and manufacture.

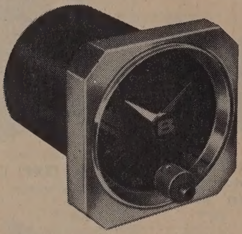
Series 6100 Time Delay Relay. Universal Time Delay Relay provides self-holding solenoid starting with adjustable timed contact operation. Type 6110 provides three types of load contacts which give seven types of load circuit operation in a single unit. This model may be wired up to one of four basic types of operation: momentary start, automatic reset; momentary start, manual reset; sustained switching; and tandem or cascaded operation. Size: 3" in diameter by 5⅙ long. Timer case bezel ¹⁹⁄₃₂ thick x 3⅝ inches square. Universal mounting allows standard 3-stud or 4-stud panel mounting. 115 VAC — Price $44.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 COMBINATIONS! (See 6200 Series)

Full Scale Available from 6 Sec. to 24 Hours
Interchangable Mounting

The 6100 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B.





6200 Time Delay Relay. Companion to the 6100 series timers. This model is operated by a manual push button start on the face of the timer and provides unusual circuit versatility. This unit times out to the zero position and remains timed out until started by the manual push button. This timer does not reset on power failure. Size, 3 inches in diameter x 3¼ long. Intended for lower cost variable delay timer operations. 115 VAC — Price $27.00 each.

TWO TYPES OF FRAMES WITH INTERCHANGEABLE DIAL FACES PROVIDE 4 COMBINATIONS!

STYLE A

STYLE B

STYLE C

STYLE D

New "Bristol-Vision" Dial Design

Features square-dial plate, provides background contrast for better viewing. Pointer-position knob is **easily adjusted without covering hands.**

Rugged Dial Frame

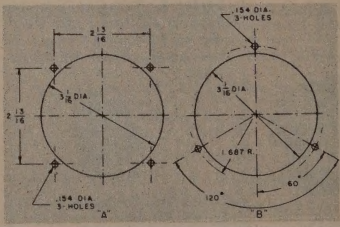
Die-cast in gleaming, rust-and-corrosion-resistant Zemak. Light weight; modern, clean lines.

Bevelled Glass Dial Face

Non-scratch surface won't buckle or deform over wide range of environmental conditions. Fully sealed for permanent protection against dust.

Full Scale Available from 6 Sec. to 24 Hours
Interchangeable Mounting

The 6200 series timers are provided with removable threaded studs. Timers are normally mounted with four studs, Figure A. Threaded holes are provided for alternate three-hole mounting, Figure B.

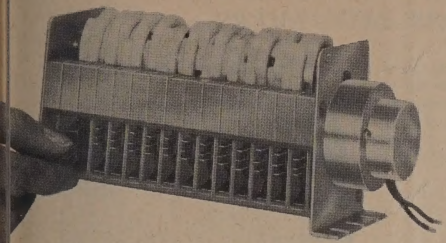


VOCALINE COMPANY OF AMERICA, INC.

Timers and Motors to meet special applications are available from distributors.
See Vocaline Bristol Motors Catalog for complete line of motors and timers.

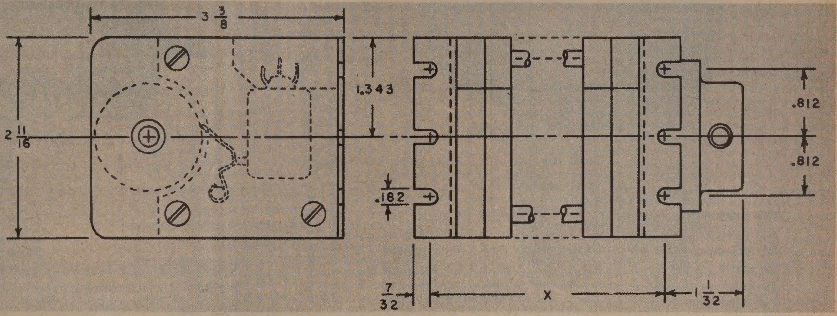
IMMEDIATE DELIVERY FROM FRANCHISED VOCALINE\BRISTOL MOTORS DISTRIBUTORS

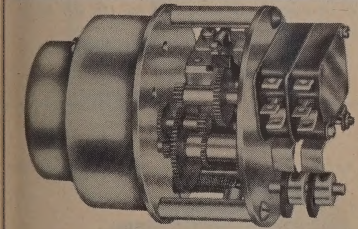
BRISTOL MOTORS / DIVISION OF VOCALINE



Model 4700 replaceable switch repeat cycle timer is a multi-contact program timer which permits easy switch replacement without the necessity of disassembling. In addition one turn of the calibrated adjusting screw provides a 2% variation of cam time sequence. Switches are rated at 5 amps-115 volts. Standard switch timer available in speeds of 1 rev. per minute, 1 rev. per 5 minutes, 1 rev. 30 minutes, 1 rev. per hour. Price — 4 Switch — $22.00
8 Switch — $30.00

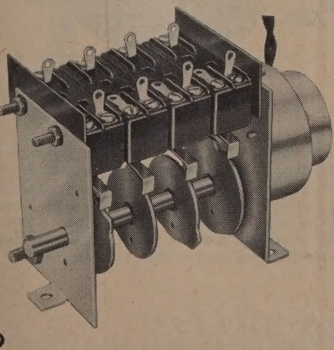
G. DIM.		MTG. DIM.	
. SW.	X	NO. SW.	X
1	1 13/16	11	5 9/16
2	2 3/16	12	5 13/16
3	2 9/16	13	6 5/16
4	2 15/16	14	6 11/16
5	3 5/16	15	7 1/16
6	3 11/16	16	7 5/16
7	4 1/16	17	7 13/16
8	4 7/16	18	8 3/16
9	4 13/16	19	8 9/16
10	5 3/16	20	8 15/16

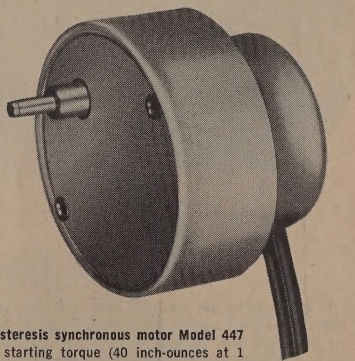




Bristol time delay relay series TDR-100 features instantaneous reset action (under 1/5 second) for such applications as photographic timers, electronic circuit safety, alarms, signals, etc. Repeat accuracy better than 1% full scale. Standard unit has two switches rated at 10 amps-non inductive, 5 amps inductive load. Timing sequence may be changed by positioning of set screw cams. Standard time setting full-scale is one hour but may be adjusted to as low as 2 minutes. 115 VAC — Price $31.45.

Repeat cycle or program timer RCT-100 is a multi-contact timer with high repeat accuracy. Switches are double pole-single throw and rated 20 amps 115-230 volts. Cams are 180 Degrees dual/adjustable for easy setting. Standard 4 switch unit available with motor speeds of 1 rev. per minute, 1 rev. per 5 min. 1 rev. per 30 minutes, and 1 rev per hour. 115 VAC.
Price $27.20



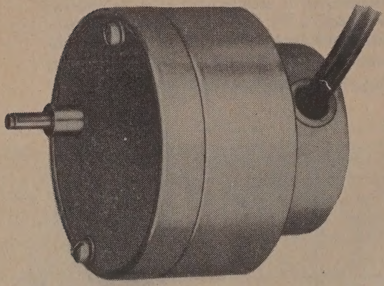


The Bristol hysteresis synchronous motor Model 447 features high starting torque (40 inch-ounces at 1 RPM) and considerably higher running torque. The Model 447 is 2 inches in diameter by 1²³⁄₆₄" deep and is available off the shelf for 115 Volts A.C. operation in the following speeds: 1 RPM, 2 RPM, 4 RPM, 5 RPM, 10 RPM, 15 RPM, 30 RPM, 60 RPM. Be sure to specify clockwise or counter-clockwise rotation (Rotation is determined facing motor output shaft) Price $5.00 each.

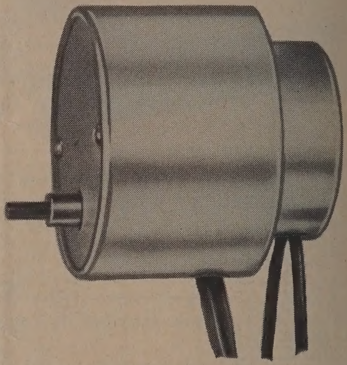
VOCALINE COMPANY OF AMERICA, INC.

BRISTOL MOTORS / DIVISION OF VOCALINE

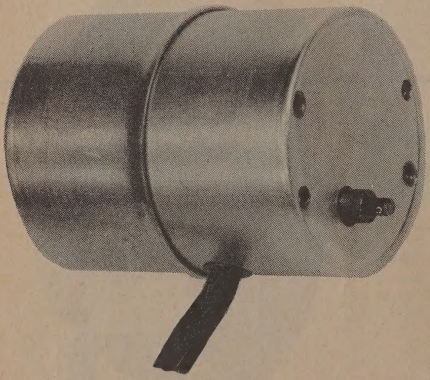
SYNCHRONOUS MOTORS AND TIMERS



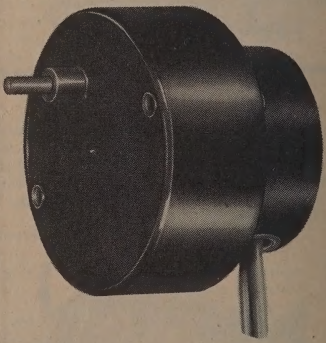
The Bristol Model 420 is a low speed version of Model 447 and develops high torque. The motor's gear train is rated at 20 inch-ounces for continuous operation and 5 inch pounds for static loading or intermittent duty. Size is 2″ in diameter by $1\frac{21}{32}$″ deep. The following speeds are available for 115 volt operation in both clockwise and counter-clockwise rotation — 1 rev. 30 minutes, 1 rev. per hour, 1 rev. per 6 hours, 1 rev. per 12 hours, 1 rev. per 24 hours, 1 rev. per 30 days. Price $7.50 each.



Bristol Model 830 hysteresis synchronous reversible motor develops 100 inch-ounce starting torque at 1 RPM. This motor employs a resistor and condenser as a phase shift network and these components are included in the price. Available off the shelf in same speeds as Model 447 for 115 volt A.C. operation — $12.50 each.



The Bristol Series 900 reversible instrument drive motor provides the highest starting and running torque of any motor in the Bristol line. Starting torque is 225 inch ounces at 1 RPM. This motor utilizes a phase shift network of a resistor and capacitor. These components are provided with each motor. Available speeds for 115 VAC operation 5 RPM, 10 RPM, 15 RPM, 30 RPM, 60 RPM. Price $25.00.



Bristol shift motor Model 450. This motor features a solenoid action clutch which disengages the rotor from gear train when motor is not energized allowing easy manual positioning or resetting of the output shaft. Develops 9 inch ounce starting torque. Available at 1 RPM, 2 RPM, 4 RPM, and 10 RPM for 115 volt operation. Be sure to specify clockwise or counter-clockwise rotation. Price $7.50 each.

AVAILABLE "OFF THE SHELF"

VOCALINE COMPANY OF AMERICA, INC.

Net

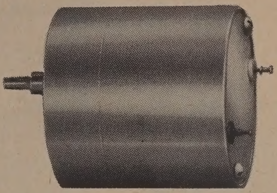
© U.C.P

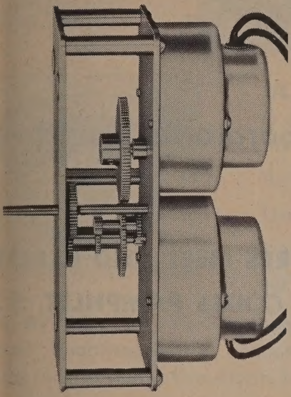
BRISTOL MOTORS / DIVISION OF VOCALINE

MOTORS AND TIMERS

Bristol Model 318 D.C. motor for 12 VDC or 24 VDC operation. The self-contained transistorized inverter system is moulded into the housing. Originally developed for airborne equipment where its freedom from radio interference was an essential requirement. Output speed accuracy plus or minus 10%. Starting torque 16 inch ounces at 1 RPM. Operating ambient range plus 50 Degrees C to minus 30 Degrees C. Model 318 has 2″ diameter and is 2⅜″ deep and weighs less than 9 ounces. Nominal speeds 1 RPM, 10 RPM, 30 RPM, and 60 RPM.

Price — 12 Volt — $30.00
24 Volt — $35.00

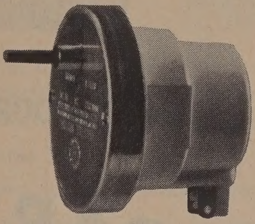




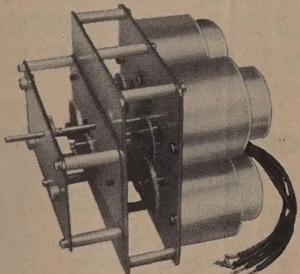
Bristol
dual speed unit
DSU-100

Two Model 830 reversible motors are connected through a common external gear train. The speed of the output shaft of the dual speed unit equals the sum or the difference of the input motor speeds depending upon their relative rotation. Standard speeds 1, 2, 3, 4 RPM. Price $25.00.

BATTERY MOTOR

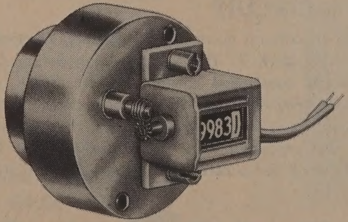


Bristol Model 311 battery motor is a conventional brush-type battery motor which will operate from two standard 1.5 volt flashlight batteries ("D" cells). This motor provides extended battery life due to low current drain and is self starting. Speed is proportional to input voltage. Available in speeds of 1, 4, 6, 10, 20, 30, and 60 RPM. Priced $5.00.



Bristol multiple speed drive — MSU-40. Four reversible motors, coupled to a common output shaft through three differentials, provide, through electrical switching, any speed between 1 RPM and 40 RPM in increments of 1 RPM. 115 VAC — Price $115.00 each.

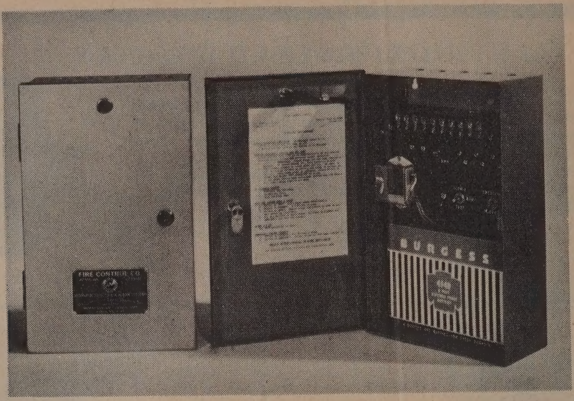
Bristol elapsed time indicators Model ET-1B. A Bristol motor coupled to a small, non-reset counter records operating hours registered in hours and tenths of hours up to 9999.9. Two inches in diameter by 2½″ in depth. 115 VAC — Price $16.00 each.



IMMEDIATE DELIVERY FROM FRANCHISED DISTRIBUTORS

VOCALINE COMPANY OF AMERICA, INC.

AUTOMATIC FIRE DETECTION AND ALARM SYSTEMS



Control Unit #SC-600R Underwriters' Laboratories Approve

COMPARE!

SPECIAL FEATURES MEET AND EXCEED NATIONAL FIRE CODES PAMPHLET #7

MAIN POWER SUPPLY

Input 110-125 Volts AC, 60 Cycles. Maximum current 0.25 ampere. Transformed and rectified to 6 Volts DC, maximum load 2.0 amperes. The Supply is **electrically supervised** so that a failure will sound immediate trouble alarm and automatically transfer to Emergency Power, thus assuring continuity of fire protection. When power is restored, the System automatically returns to Main Power Supply.

EMERGENCY POWER SUPPLY

6 Volt dry battery, Burgess #4F4H or equivalent. Maximum load under alarm condition 2.0 amperes. Order locally.

DETECTOR CIRCUIT

6 Volts DC, maximum current 0.15 ampere. Maximum wire run 5000 ft. #18/2. This Double-Loop Safety Circuit is **electrically supervised** so that a wire break will sound immediate trouble alarm. Emergency circuits compensate for such fault (see N/E Switch), thus assuring continuity of fire protection. Use UL Approved Fire Detector Cable #18/2 for substantial savings in installation.

ALARM CIRCUITS

6 Volts DC, maximum load 1.5 amperes. If only bell is used, it is **electrically supervised** so that a failure sound immediate trouble alarm. If two or more bells used, and/or Annunciator #A-604 is added to the Syst they are alternately-connected to the two alarm circ provided. Use #14/2 wire.

NORMAL/EMERGENCY SWITCH

Provides emergency circuit adjustment.

A) Compensates for wire break in Detector Loop, mitting full response from every Detector until rep are made.
B) Silences Trouble Buzzer but maintains Red Light show emergency condition.

TEST/RESET/SILENCE SWITCH

Provides simple operating procedure.

A) Test the System.
B) Silence all Firebells and transfer to Red Light.
C) Reset to normal supervised operation.

CABINET

14" x 9" x 4". Gray Hammertone. Surface Mo Cylinder lock, 2 keys.

FIRE CONTROL CO. WILMINGTON 1, DEL

© U.C.P.

PRICE BREAK-THROUGH !!!

NOW YOU CAN OFFER A PREMIUM-QUALITY, ALL-UL-APPROVED FIRE ALARM SYSTEM AT LOWEST COST, EVEN IN THE HOME MARKET!!

ORDER THE BASIC SYSTEM—COVERS AVERAGE 3 BEDROOM RANCH HOUSE

$120.00 NET

- **1 Control Unit #SC-600R**
- **1 Underdome Inside Bell #A-6"**
- **6 FyrGuard Detectors #3S**
- **4 FyrGuard Detectors #3H**

Same System, but substituting #501 & #502 Detectors **$132.50**

UL APPROVED! The finest quality underdome bells made today. Clear pitch, firm tone. Low current draw. Flush easy-mount on all standard outlet boxes. Use #14/2 wire.

INSIDE BELLS #A			WEATHERPROOF BELLS #AP	
"	**$18.00**		6"	**$19.50**
"	**21.00**	**NET EACH**	8"	**22.50**
0"	**24.00**		10"	**25.50**

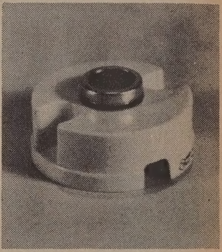
UL APPROVED! The famous Spot Fire Locators. Combination Rate-of-Rise & Fixed-Temperature Automatic Detectors. The standard in the industry and specified in commercial, industrial, and military installations.

Rated to cover 2500 sq. ft. (Room Area 50′ x 50′).

Use #501 in offices, showrooms, living rooms, bedrooms, etc.

Use #502 in high temperature areas: furnace room, kitchen, attic.

NET EACH ...... **$3.25** Case Lot of 50, **NET EACH** **$3.00**



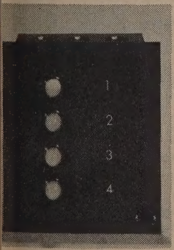
UL APPROVED! FyrGuard Automatic Detectors, Fixed-Temperature. A mall, unobtrusive and economical fire detector. It is the most widely-used unit in home fire alarm installations.

Rated to cover 400 sq. ft. (Room Area 20′ x 20′).

Use #3S in living rooms, bedrooms, closets, halls, etc.

Use #3H in high temperature areas: furnace room, kitchen, attic.

NET EACH ...... **$2.00** Case Lot of 50, **NET EACH** **$1.75**



UL APPROVED! 4 Zone Annunciator with all Detector Circuits **electrically supervised.** Simple tie-in connections to Control Unit #SC-600R. Optional, for use where large installations require quick identification of the fire area.

Gray Hammertone Cabinet, Flush Mount: 7″ x 6″ x 3″.

Annunciator #A-604, **NET** **$45.00**

PULL DOWN
LOCAL
FIRE
ALARM
UL

UL APPROVED! #5C Manual Pull Station, non-code. Add where required. Wire into Detector Circuit exactly as an Automatic Detector. Flush mount n all handy boxes.

#5C, **NET EACH** .... **$7.50.** Back Box for surface mount **$2.00**

UL APPROVED! #18/2 Fire Detector Cable. Ivory plastic parallel cord specified for Detector Circuits. **250′ Coil, NET** **$4.00**

FIRE CONTROL CO.

WILMINGTON 1, DEL.

PR Crystals

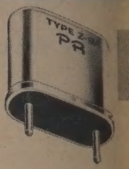
Since 1934

USE PR AND KNOW WHERE YOU ARE

PRICE LIST

Effective June 1, 1962
Subject to Change Without Notice

FOR AMATEUR SERVICE



Z-2 Crystals are supplied **only** in the following bands and calibrated **integral kilocycles** only, **no fractions.**

Type	Frequency Range	For	Price
Z-2 Fundamental	3500 to 4000 Kc. 7000 to 7425 Kc. 8000 to 8222 Kc. 8334 to 9000 Kc. ±500 Cycles	80M. 40M. 2M. 6M.	**$2.95**

(All Z-2 Crystals calibrated with a load of 32 mmfd.)

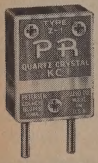
Type	Frequency Range	Price
Z-9A 3d Overtone	24000 to 24666 Kc. 25000 to 27000 Kc. ±3 Kc.	**$3.9**
Z-9A 5th Overtone	50000 to 54000 Kc. ±15 Kc.	**$4.9**

SPECIAL CRYSTALS

Type Z-6A, Frequency Standard

.486″ pin spacing; .050″ pins

100 Kc. $6.95



Type Z-1, MARS and CAP

Calibrated to .005%

Official assigned transmitter frequencies in the range.

1600 to 10000 Kc. $3.45

Type Z-1, TV Marker Crystals

Channels 2 through 13	$6.45
4.5 Mc. Intercarrier, .01%	$2.95
5.0 Mc. Signal Generator, .01%	$2.95
10.7 Mc. FM, IF, .01%	$2.95

Type 2XP

Suitable for converters, experimental, etc. Same holder dimensions as Type Z-2.

1600 to 12000 Kc. ±5Kc. (Fund.)	$3.45
12001 to 25000 Kc. ±10 Kc. (3d Overtone)	$4.45

COMMERCIAL TYPES

Available from 100 Kc. to 70 Mc. Prices on request.

CITIZENS BAND CLASS "D"

Type Z-9R, Transmitter

FCC Assigned Frequencies in Megacycles.

26.965 27.025 27.085 27.155 27.215
26.975 27.035 27.105 27.165 27.225
26.985 27.055 27.115 27.175 27.255
27.005 27.065 27.125 27.185
27.015 27.075 27.135 27.205

Be sure to specify manufacturer and model number of equipment. Calibrated .005%. Each $2.9

Citizens Band Class "D" Type Z-9R, Recei

In ordering Receiver Crystals, specify I. F. Frequency, whether receiver oscillator is above or below Transmitter quency. Be sure to specify manufacturer and model numb equipment. Calibrated .005%. Each .... $

Type Z-9R, RADIO CONTROL

FCC Assigned Frequencies in Megacycles.

26.995 27.095 27.195
27.045 27.145 27.255

Be sure to specify manufacturer and model number of equipment. Calibrated .005%. Each........... $2

VHF Type Z-9R, AIRCRAFT

For LEAR, NARCO and similar equipment operating in the 121 Mc. region, requiring crystals in 30 Mc. range. Each $4.95

ACCESSORIES

Single Sockets for Z-9, Z-9A, Z-9R ....
Single Sockets for Z-1, Z-2, and 2XP..............................
Dual Sockets for Z-1, Z-2 and 2XP..............................
Adapters, to adapt Z-1, Z-2 and 2XP to ¾″ Socket............

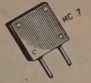
ALL PR CRYSTALS ARE UNCONDITIONALLY GUARANT

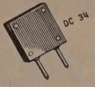
PETERSEN RADIO Company, Inc., Council Bluffs, Iowa

Trade Discount Applies to List Prices Only

© U.C.P

TEXAS CRYSTALS...*FOR EVERY PURPOSE*





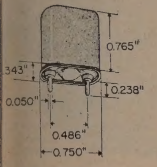
CRYSTALS MADE TO ORDER

M 1,001 to 1,600 KC	.005%	TOL.	$4.50
1,601 to 2,600 KC	.005%	TOL.	$2.75
2,600 to 9,000 KC	.005%	TOL.	$2.50
9,000 to 10,000 KC	.005%	TOL.	$3.00

Made to order crystals in pressure type holders can be supplied in five types as shown. All TEXAS CRYSTALS are cut, lapped, and etched to exact frequencies. They are supplied for oscillator circuits having 32 MMFD capacity, unless otherwise ordered, as the crystal frequency will vary with capacity of the circuit.

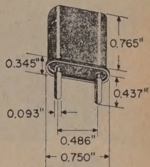
Low frequency crystals from 1001 KC to 2100 KC are space mounted—all others are pressure mounted. The advantage of the pressure mount crystal is its ability to handle more current (up to 50 Milliwatts) without fracture. Order by frequency, type holder, tolerance, and circuit capacity (if known) or type of equipment in which it is to be used.

HERMETICALLY SEALED CRYSTALS MADE TO ORDER



HC 6/U .050 PINS

In recent years, manufacturers have engineered new equipment utilizing the hermetically sealed plated crystal (HC6/U). This crystal is either gold or silver plated, the plating acting as electrodes. These crystals should be used in circuits designed for them as the maximum current capacity is 10 milliwatts (5 milliwatts for overtone type). High stability of frequency is a characteristic of this crystal. All TEXAS CRYSTALS are made to conform with military specifications. When ordering for G. E., Motorola, Link, etc., for split channel operation, a sample of both transmitting and receiving crystals known to be correct, be sent us with order specifying exact crystal frequency desired. We will correlate crystals and return your samples. Type HC6/U has .050 pins and fits CE-1 socket. Type HC17/U is the same physical size except the pins are .093 diameter. Specify type circuit, if known. Order by fundamental frequency, type circuit, type holder. All plated crystals are .005% tolerance.



HC 17/U .093 PINS

1,000 KC to 1,400 KC	(Fundamental Frequency)	Prices on Request
1,401 KC to 2,000 KC	(Fundamental Frequency)	$5.00 ea.
2,001 KC to 2,500 KC	(Fundamental Frequency)	4.00 ea.
2,501 KC to 5,000 KC	(Fundamental Frequency)	3.50 ea.
5,001 KC to 10,000 KC	(Fundamental Frequency)	3.25 ea.
10,001 KC to 15,000 KC	(Fundamental Frequency)	3.75 ea.
15 MC to 20 MC	(Fundamental Frequency)	5.00 ea.

OVERTONE CRYSTALS

15 MC to 30 MC Third Overtone	$3.85 ea.
30 MC to 40 MC Third Overtone	4.10 ea.
45 MC to 65 MC Third or Fifth Overtone	4.50 ea.
65 MC to 100 MC Fifth Overtone	6.00 ea.

HC-6/U

$2.95 EACH

CLASS "D" CITIZEN BAND CRYSTALS

23 Frequencies—3rd Overtone—.005% TOL.

All "Citizen Band" crystals supplied in HC-6/U holders. Pin spacing .493—Pin dia. .050—Frequencies listed in megacycles. Use circuit recommended in our catalog. Order by frequency.

	CHANNEL		CHANNEL		CHANNEL		CHANNEL		CHANNEL
26.965	1	27.005	4	27.065	9	27.105	12	27.175	18
26.975	2	27.015	5	27.075	10	27.115	13	27.185	19
26.985	3	27.025	6	27.085	11	27.125	14	27.205	20
		27.035	7			27.135	15	27.215	21
		27.055	8			27.155	16	27.225	22
						27.165	17	27.255	23

CE-1 .... 20c
Ceramic Low Loss Socket for HC-6/U Holder — ½" Pin Spacing .050" Holes.

Can be supplied with .093 pins—15c extra. Available in counter display unit

We supply crystals for every popular make of Citizen Band Transceivers

SUB MINATURE CRYSTALS TYPE HC18/U

Miniature type

b Miniature Crystals will operate in the same circuits as HC6/U d HC17/U Crystals. They were signed for use where space is a ctor. Supplied in either Pin Type Wire Leads (½" length for ldering directly into circuit). sure to specify Pin Type or ire Leads.

Fund Freq. Overtones	
MC to 12MC	$3.95
MC to 17MC	4.50
MC to 30MC	3.95
MC to 40MC	4.25
MC to 65MC	4.65

CR24/U (BARREL TYPE) CRYSTALS

CR24/U

Designed for the Armed Services the CR24/U is a Pressure Type "AT" Crystal which will accomodate more current than the plated crystal. From 15 to 25MC the crystal is a third overtone — From 25.001 to 60MC the crystal is a fifth overtone.

All Frequencies from 15MC to 50 MC.................$5.95

TEXAS AMATEUR CRYSTALS

All Texas amateur crystals are lapped and etched to frequency and supplied in FT 243 holders. They can be supplied in MC7, FT171 or DC34 holders for 25¢ extra per crystal..............$1.50 each

AIRCRAFT CRYSTALS

All crystals are supplied at ¼ operating frequency unless otherwise specified. Tolerance .005%. Order by final frequency and type equipment. Be sure to designate 'HC6/U' holder, or 'miniature' type.

Frequencies in stock from 118 MC to 130 MC

Type HC6/U—all frequencies	$3.85 each
Miniature type—all frequencies	4.75 each

Note: Above crystals can be supplied with wire leads for soldering directly to equipment at 25c per crystal extra.

AIRPORT OWNERS AND SERVICE DEPARTMENTS WRITE FOR QUANTITY PRICES

MARINE CRYSTALS

Supplied in 4 types of holders—FT243, MC7, CR1/AR, HC6/U. .005% tolerance. Order by frequency for transmitter for transmitter types and actual crystal frequency for receiver (including 455 KC IF).

ANY MARINE FREQUENCY FROM 2000 KC to 3200 KC IN FT243, FT171, MC7 or CR1AR	$2.50
HERMETICALLY SEALED CRYSTALS FOR MARINE IN ANY FREQUENCY (Specify either .050 or .093 pins)	3.50

TEXAS LOW FREQUENCY CRYSTALS

Our own manufacture at military tolerances in HC6/U and HC13/U holders.

80 to 99KC	$6.50	371 to 540KC	$3.95
100 to 199KC	4.50	541 to 729KC	4.50
200 to 370KC	4.25	730 to 1000KC	3.55

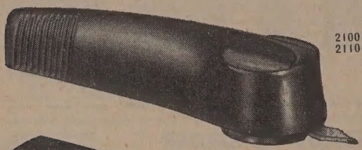
EXAS CRYSTALS

FORT MYERS, FLORIDA

Harry Davies Molding Co.

Molders of Plastics

POINTER AND BAR KNOBS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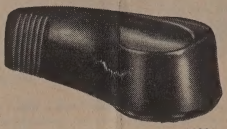
2110-P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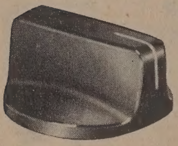
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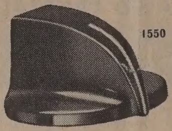
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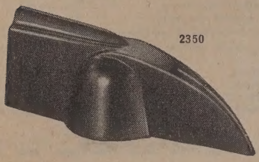
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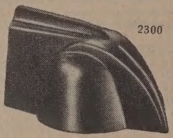
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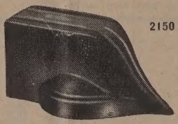

2150

No. 1500. Dia. 1⅛", hgt. 9/16", ¼" molded hole, set screw or knurled hole mounting, locknut recess, indicator line filled or unfilled.

No. 1550. Dia. 1-⅛", hgt. ⅝", ¼" molded hole or metal insert, set screw, spring or knurled hole mounting, locknut recess.

No. 2100. Length 2½", hgt. ⅝", width ¾", ¼" molded hole or metal insert, set screw mounting, locknut recess.

No. 2110. Length, 1⅝", hgt. 19/32", width ¾", ¼" molded hole or metal insert, set screw or knurled hole mounting, locknut recess.

No. 2100-P. Length 2½", hgt. ⅝", width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.

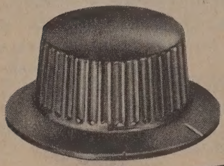
No. 2110-P. Length 1⅝", hgt. 19/32", width ¾", ¼" metal insert and 5/16" pointer, set screw mounting.

No. 2150. Length 1¼", hgt. 9/16", ¼" molded hole, set screw mounting, locknut recess.

No. 2300. Length 1¼", hgt. ⅝", ¼" molded hole, also ¼" metal insert, set screw or knurled hole mounting, locknut recess.

No. 2350. Length 2", hgt. ⅝", ¼" molded hole or metal insert, set screw mounting, locknut recess.

CONTROL KNOBS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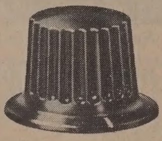
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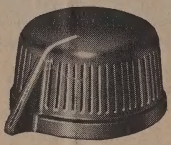
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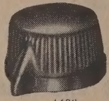
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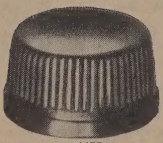
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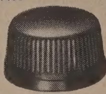
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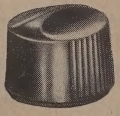
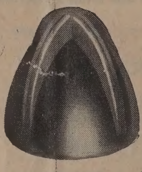

1700


2500 - 2600

No. 1406. Dia. 11/16", hgt. 13/32", ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1450. Dia. 11/16", hgt. 13/32", ⅛" or ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1470. Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, indicator line filled or unfilled, locknut recess.

No. 1475. Dia. 1", hgt. ½", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting, locknut recess.

No. 1600. Dia. 1½", hgt. 11/16", ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

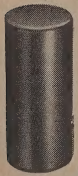
No. 1610. Dia. 15/16", hgt. ⅝", ⅛" or ¼" molded hole or metal insert, set screw mounting, locknut recess, indicator line filled or unfilled.

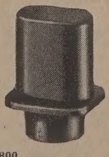
No. 1700. Dia. ¾", hgt. 19/32", ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

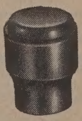
No. 2500. Dia. ¾", hgt. ¾", ¼" molded hole, set screw, spring or knurled hole mounting.

No. 2600. Dia. ⅞", hgt. ⅞", ¼" molded hole, set screw, spring or knurled hole mounting.

PUSH BUTTONS


1800


5149-A


1750
1770

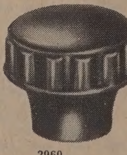
No. 1800. Dia. 7/16", hgt. 1" to 1⅜", touch tuning, plain or recessed top, push on, to fit flatted shaft .050" x .187 patented friction fit. Also with studs of various lengths.

No. 5149-A. Hgt. 51/64", oval touch tuning. Push-on to fit flatted shaft. .050" x .187".

No. 1750. Dia. 31/64", hgt. 9/16" to 15/16", touch tuning, push on, to fit flatted shaft .050" x .187".

No. 1770. Dia. 31/64", hgt. ½" to ⅞", 6-32 or 8-32 female metal insert. 8-32 male stud.

TERMINAL NUTS

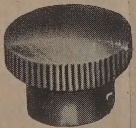

2960

No. 2960

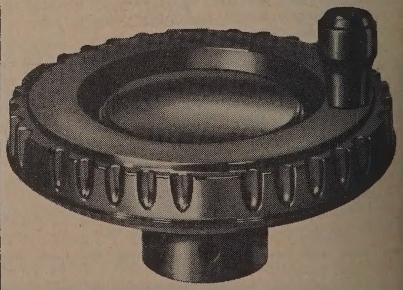
Dia. ⅞", hgt. ¾", 8-32 or 10-32 female metal insert, 10-24 or 10-32 male stud.

No. 2710

Dia. ¾", hgt. ½", 8-32, 10-32, 10-24 metal insert.


2710

SPINNER KNOBS



No. 99. Dia. 3⅜", hgt. 1½", ⅜" or ½" molded hole or metal insert. Set screw mounting, with or without spinner.

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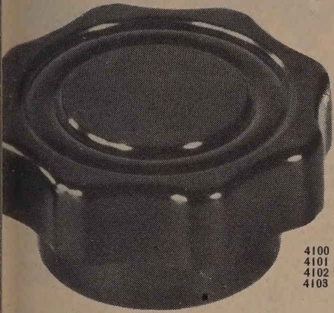
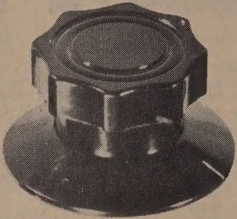
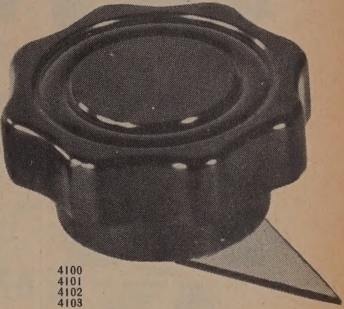
Molders of Plastics

INSTRUMENT KNOBS


4100
4101
4102
4103


4104
4107
4108
4109


4100
4101
4102
4103

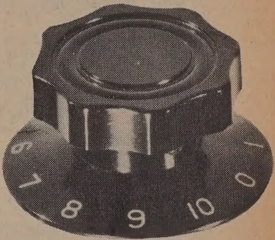
This series can be furnished in compliance with MS 91531.

Part No.	Knob Dia.	Knob Hgt.
4100	1⅛"	⅝"
4101	1⅜"	11/16"
4102	1⅝"	¾"
4103	2⅜"	⅞"

Entire series available with ¼" molded hole or metal insert, set screw mounting. White vinylite pointer available. Pointer lengths, ⅝", ¾", ⅞", 1 1/16", 3/16". 1¼", 1 9/16".

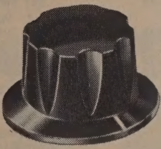
Part No.	Knob Dia.	Skirt Dia.
4104	1⅛"	1½"
4107	1⅜"	1¾"
4108	1⅝"	2 1/16"
4109	2⅜"	3"

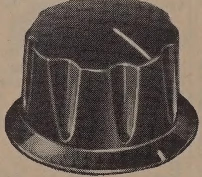
Skirt available with or without indicator line filled. Branding stamps constructed to your specifications.

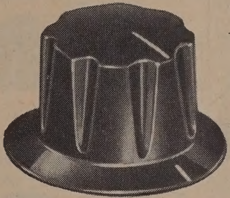


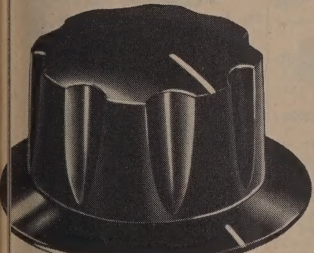
NEW FLUTED INSTRUMENT KNOBS

1910


1913


1920


1930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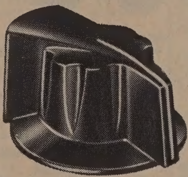
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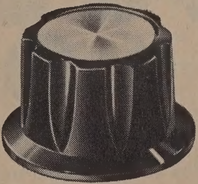
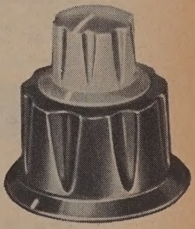

1925


1915

Please specify if paint filled indicator line is desired on top of knob and/or on skirt of knob.

N 1910. Dia. ¾", hgt. ½". ⅛" or
¼ molded hole or brass insert, set
sc v, spring or knurled hole mount-
ir

N 1913. Dia. 1⅛", hgt. ⅝". ¼"
m ed hole or brass insert. Set screw
m ting.

No. 1915. Dia. 1¼", hgt. 1 3/16". Dual concentric control. ¼" molded hole or brass insert.

No. 1919. Length 1¼", hgt. ⅝". ¼" molded hole or brass insert. Set screw screw mounting.

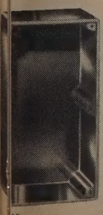
No. 1920. Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1925. Dia. 1¼", hgt. ¾". ¼" molded hole or brass insert. Set screw mounting with or without decorative inlay.

No. 1930. Dia. 1½", hgt. ⅞". ¼" molded hole or brass insert, set screw, spring or knurled hole mounting.

No. 1940. Dia. 2", hgt. 15/16". ¼" molded hole or brass insert. Set screw mounting.

METER CASE AND COVERS


40

241

No. 240. 2" hgt. x 3¾" wide x 6¼" long. (Outside Dimensions)—⅛" (Wall Thickness).

No. 241. Mating cover with interlocking lip for No. 240 series cases.

No. 260. 2 5/16" height x 5 9/32" wide x 6 13/16" long. (Outside Dimensions) — 5/32" (Wall Thickness).

No. 261. Mating cover with interlocking lip for No. 260 case.

Knobs shown are only part of our stock on hand. Our stock molds are interchangeable and meet most requirements with only minor tooling variations. Let us quote on your specifications.

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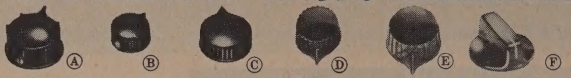
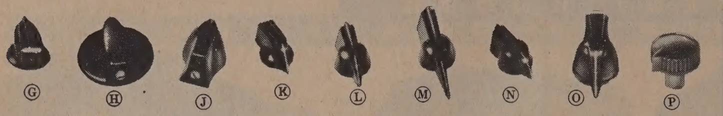
REPLACEMENT KNOBS





POINTER KNOBS

(A) TENITE POINTER KNOB—1″ Diameter, ½″ Height, Fits ¼″ shafts.

Knurl

Cat. No.	24-464	Walnut	Net $ .08
	24-466	Ivory	.08

Set Screw

Cat. No.	24-468	Walnut	Net $ .17
	24-470	Ivory	.17

(B) TENITE POINTER KNOB — 23/32″ Diameter, ⅜″ Height, Fits ¼″ shafts.

Knurl

Cat. No.	24-472	Walnut	Net $ .07
	24-474	Ivory	.07

Set Screw

Cat. No.	24-476	Walnut	Net $ .13
	24-478	Ivory	.13

(C) TENITE POINTER KNOB — 15/16″ Diameter, 7/16″ Height, Fits ¼″ shafts.

Knurl

Cat. No.	24-480	Walnut	Net $ .07
	24-482	Ivory	.07

(D) BAKELITE POINTER KNOB — 1″ Diameter, ½″ Height, Fits ¼″ shafts.

No Insert—Set Screw

Cat. No.	24-484	Walnut	Net $ .13
	24-486	Black	.13

With Insert—Set Screw

Cat. No.	24-488	Walnut	Net $ .30
	24-490	Black	.30

(E) BAKELITE POINTER KNOB—1¼″ Diameter, ⅝″ Height, Fits ¼″ shafts.

No Insert—Set Screw

Cat. No.	24-492	Walnut	Net $ .22
	24-494	Black	.22
	24-496	Ivory	.22

Brass Insert—Set Screw

Cat. No.	24-498	Walnut	Net $ .33
	24-500	Black	.33
	24-502	Ivory	.33

(F) BAKELITE POINTER KNOB—Line filled, 1⅛″ Diameter, 9/16″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-504	Walnut	Net $ .22
	24-506	Black	.22
	24-508	Red	.22
	24-510	Ivory	.22

(G) BAKELITE POINTER KNOB—13/16″ Length, ¾″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-512	Walnut	Net $ .15
	24-514	Black	.15

(H) TENITE POINTER KNOB — 1¼″ Diameter, 9/16″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-516	Walnut	Net $ .23
	24-518	Black	.23
	24-520	Red	.23
	24-522	White	.23

(J) BAKELITE POINTER KNOB—1¼″ Length, 11/16″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-524	Black	Net $ .22
	24-526	Red	.22
	24-528	Ivory	.22

(K) BAKELITE POINTER KNOB—1¼″ Length, 9/16″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-530	Black	Net $ .18
	24-532	Walnut	.18
	24-534	Red	.18
	24-536	Ivory	.18

(L) BAKELITE POINTER KNOB—1¼″ Length, ⅝″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-538	Black	Net $ .17
	24-540	Walnut	.17
	24-542	Red	.17
	24-544	Ivory	.17

(M), BAKELITE BRASS INSERT — 2″ Length, ⅝″ Height, Fits ¼″ shafts.

No Insert—Set Screw

Cat. No.	24-546	Black	Net $ .30
	24-548	Walnut	.30
	24-550	Red	.30
	24-552	Ivory	.30

Brass Insert—Set Screw

Cat. No.	24-554	Black	Net $ .38
	24-556	Walnut	.38
	24-558	Red	.38
	24-560	Ivory	.38

(N) BAKELITE BRASS INSERT—1¼″ Length, ⅝″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-562	Black	Net $ .23
	24-564	Walnut	.23
	24-566	Red	.23

(O) BAKELITE POINTER KNOB—1¼″ Length, ⅝″ Height, Fits ¼″ shafts.

No Insert—Set Screw

Cat. No.	24-570	Walnut	Net $ .13
	24-572	Black	.13
	24-574	Red	.13
	24-576	Ivory	.13

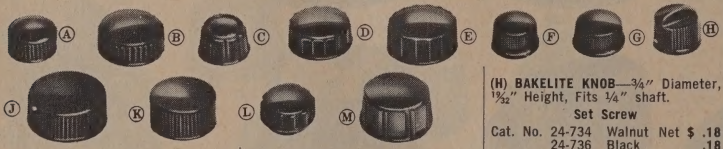
Brass Insert—Set Screw

Cat. No.	24-578	Walnut	Net $ .22
	24-580	Black	.22
	24-582	Red	.22
	24-584	Ivory	.22

(P) PLASTIC POINTER KNOB — 15/16″ Diameter, ½″ shank extension for ¼″ knurled shaft.

Knurl

Cat. No.	24-586	Walnut	Net $ .08
	24-588	Ivory	.08



(A) TENITE KNOB—23/32″ Diameter, 13/32″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-666	Walnut	Net $ .08
	24-668	Ivory	.08

Set Screw

Cat. No.	24-670	Walnut	Net $ .15
	24-672	Ivory	.15

(B) TENITE KNOB—15/16″ Diameter, 7/16″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-674	Walnut	Net $ .08
	24-676	Ivory	.08

Spring Type

Cat. No.	24-678	Walnut	Net $ .08
	24-680	Ivory	.08

(C) TENITE KNOB—¾″ Diameter, ½″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-682	Walnut	Net $ .08
	24-684	Ivory	.08

Set Screw

Cat. No.	24-686	Walnut	Net $ .12
	24-688	Ivory	.12

(D) TENITE KNOB—15/16″ Diameter, 7/16″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-690	Walnut	Net $ .08
	24-692	Ivory	.08

Spring Type

Cat. No.	24-694	Walnut	Net $ .08

(E) TENITE KNOB—1⅛″ Diameter, 9/16″ Height, Fits ¼″ shafts.

Knurl

Cat. No.	24-700	Walnut	List $ .08
	24-702	Ivory	.08

Spring Type

Cat. No.	24-704	Walnut	Net $ .08
	24-706	Ivory	.08

Set Screw

Cat. No.	24-708	Walnut	Net $ .15
	24-710	Ivory	.15

(F) BAKELITE KNOB—11/16″ Diameter, 13/32″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-712	Walnut	Net $ .13
	24-714	Black	.13
	24-716	Red	.13
	24-718	Ivory	.13

Set Screw with Arrow

Cat. No.	24-720	Walnut	Net $ .20
	24-722	Black	.20
	24-724	Red	.20
	24-726	Ivory	.20

(G) BAKELITE KNOB—1″ Diameter, ½″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-728	Black	Net $ .22
	24-730	Red	.22
	24-732	Ivory	.22

(H) BAKELITE KNOB—¾″ Diameter, 19/32″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-734	Walnut	Net $ .18
	24-736	Black	.18
	24-738	Ivory	.18

(J) TENITE KNOB—1 3/16″ Diameter, ½″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-740	Walnut	Net $ .10
	24-742	Ivory	.10

(K) TENITE KNOB—1 1/16″ Diameter, ½″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-744	Walnut	Net $ .08
	24-746	Ivory	.08

Set Screw with Arrow

Cat. No.	24-748	Walnut	Net $ .08
	24-750	Ivory	.08

(L) BAKELITE KNOB—⅞″ Diameter, ½″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-752	Walnut	Net $ .20
	24-754	Black	.20
	24-756	Ivory	.22

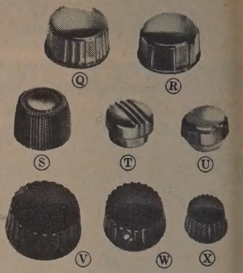
Set Screw with Arrow

Cat. No.	24-758	Walnut	Net $ .27
	24-760	Black	.27
	24-762	Ivory	.27

(M) BAKELITE KNOB—1″ Diameter, 9/16″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-764	Walnut	Net $ .17
	24-766	Ivory	.17



(Q) BAKELITE KNOB—1 1/16″ Diameter, 9/16″ Height, Fits ¼″ shafts.

Set Screw

Cat. No.	24-772	Walnut	Net $ .22
	24-774	Ivory	.22

(R) BAKELITE KNOB—1″ Diameter, 9/16″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-776	Walnut	Net $ .20
	24-778	Ivory	.20

(S) TENITE KNOB — 1″ Diameter, 11/16″ Height, Fits ¼″ shaft.

Knurl

Cat. No.	24-780	Walnut	Net $ .10
	24-782	Ivory	.10

Spring Type

Cat. No.	24-784	Walnut	Net $ .10
	24-786	Ivory	.10

(T) BAKELITE KNOB—⅞″ Diameter, ⅝″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-788	Walnut	Net $ .27
	24-790	Ivory	.27

(U) BAKELITE KNOB—⅞″ Diameter, ⅝″ Height, Fits ¼″ shaft.

Set Screw

Cat. No.	24-792	Walnut	Net $ .12

(V) BAKELITE KNOB—1¼″ Diameter, ⅝″ Height, Fits ¼″ shaft.

Set Screw—No Insert

Cat. No.	24-796	Walnut	Net $ .23
	24-798	Black	.23

Brass Insert—Set Screw

Cat. No.	24-800	Walnut	Net $ .27
	24-802	Black	.27

(W) BAKELITE KNOB—1″ Diameter, ½″ Height, Fits ¼″ shaft.

Set Screw—No Insert

Cat. No.	24-804	Black	Net $ .20
	24-806	Red	.20

Brass Insert—Set Screw

Cat. No.	24-808	Black	Net $ .22
	24-810	Red	.22

(X) BAKELITE KNOB—⅝″ Diameter, 13/32″ Height, Fits ¼″ shaft. .

Set Screw—No Insert

Cat. No.	24-812	Walnut	Net $ .12
	24-814	Black	.12
	24-816	Red	.13
	24-818	Ivory	.13

Set Screw—Brass Insert

Cat. No.	24-820	Walnut	Net $ .18
	24-822	Black	.18
	24-824	Red	.18
	24-826	Ivory	.18

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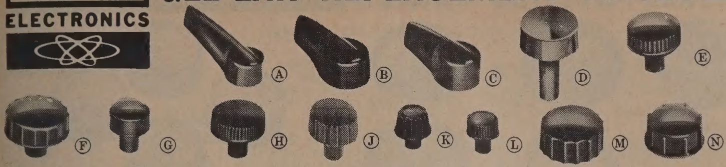
GEE-LAR REPLACEMENT KNOBS



(A) BAKELITE KNOB—2½" Length, ⅝" Height, Fits ¼" shafts.

NO INSERT—SET SCREW
Cat. No. 24-590 Black Net $ .27
24-592 Walnut .27

BRASS INSERT—SET SCREW
Cat. No. 24-594 Black Net $ .33
24-596 Walnut .33

(B) BAKELITE KNOB—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW
Cat. No. 24-598 Black Net $ .22
24-600 Walnut .22

(C) BAKELITE BRASS INSERT—1⅝" Length, 19/32" Height, Fits ¼" shafts.

SET SCREW
Cat. No. 24-602 Black Net $ .33
24-604 Walnut .33

(D) TENITE KNOB—1 3/16" Shank, 1⅛" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL
Cat. No. 24-606 Walnut Net $ .12
24-608 Ivory .12

(E) TENITE KNOB—15/16" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-610 Walnut Net $ .08
24-612 Ivory .08

(F) TENITE KNOB—1¼" Diameter, 9/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-614 Walnut Net $ .12
24-616 Ivory .12

(G) TENITE KNOB—¾" Diameter, 7/16" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-618 Walnut Net $ .08
24-620 Ivory .08

(H) TENITE KNOB—15/16" Diameter, ⅝" Height, ½" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-622 Walnut Net $ .10
24-624 Ivory .10

(J) PLASTIC KNOB—15/16" Diameter, ½" Shank Extension for ¼" Knurled Shaft.

KNURL
Cat. No. 24-626 Walnut Net $ .08
24-628 Ivory .08

(K) PLASTIC KNOB MIDGET TYPE—¾" Diameter, ⅜" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-634 Walnut Net $ .08
24-636 Ivory .08

(L) PLASTIC KNOB MIDGET TYPE—23/32" Diameter, ½" Shank Extension, Fits ¼" shafts.

KNURL
Cat. No. 24-638 Walnut Net $ .08
24-640 Ivory .08

(M) TENITE KNOB—1⅛" Diameter, ½" Height, Fits ¼" shafts.

KNURL
Cat. No. 24-642 Walnut Net $ .08
24-644 Ivory .08

SPRING TYPE
Cat No. 24-646 Walnut Net $ .15
24-648 Ivory .15

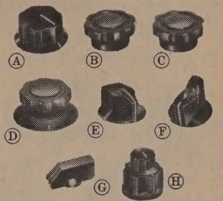
SET SCREW
Cat. No. 24-650 Walnut Net $ .15
24-652 Ivory .15

(N) TENITE KNOB—1" Diameter, 7/16" Height, Fits ¼" shafts.

KNURL
Cat. No. 24-654 Walnut Net $ .08
24-656 Ivory .08

SPRING TYPE
Cat. No. 24-658 Walnut Net $ .12
24-660 Ivory .12

SET SCREW
Cat. No. 24-662 Walnut Net $ .15
24-664 Ivory .15



GEE-LAR KURZ-KASCH KNOBS

(A) POINTER KNOBS—Indicator line.
¾" Diameter, 7/16" Height.
Cat. No. 25-034 Net $ .45
1" Diameter, 19/32" Height.
Cat. No. 25-036 Net $ .52
1¼" Diameter, 21/32" Height.
Cat. No. 25-038 Net $ .52
1½" Diameter, ¾" Height.
Cat. No. 25-040 Net $ .52
2" Diameter, ⅞" Height.
Cat. No. 25-042 Net $ .97
No Indicator Line.
1½" Diameter, ¾" Height.
Cat. No. 25-044 Net $ .48
2" Diameter, ⅞" Height.
Cat. No. 25-046 Net $ .93

(B) POINTER KNOBS—1" Diameter ⅝" Height, ¾" Pointer.
Cat. No. 25-048 Net $ .67
1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-050 Net $ .67
1⅜" Diameter, 11/16" Height, 1 1/16" Pointer.
Cat. No. 25-052 Net $ .90
1⅝" Diameter, ¾" Height, 1 3/16" Pointer.
Cat. No. 25-054 Net $ .90
2⅜" Diameter, ⅞" Height, 1 9/16" Pointer.
Cat. No. 25-056 Net $1.22

(C) NO POINTER—1" Diameter, ⅝" Height.
Cat. No. 25-058 Net $ .57
1⅛" Diameter, ⅝" Height.
Cat. No. 25-060 Net $ .68
1⅜" Diameter, 11/16" Height.
Cat. No. 25-062 Net $ .90
1⅝" Diameter, ¾" Height.
Cat. No. 25-064 Net $ .75
2⅜" Diameter, ⅞" Height.
Cat. No. 25-066 Net $1.08

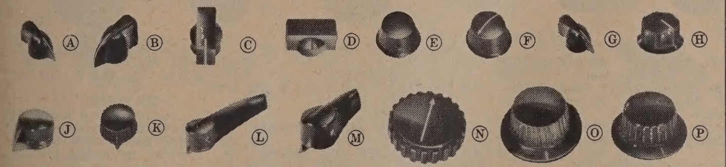
(D) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-068 Net $1.33
1⅜" Diameter, 27/32" Height, 1¾" Skirt.
Cat. No. 25-070 Net $1.28
1⅝" Diameter, ⅞" Height, 2 1/16" Skirt.
Cat. No. 25-072 Net $1.45
2⅜" Diameter, 15/16" Height, 3" Skirt.
Cat. No. 25-074 Net $2.25

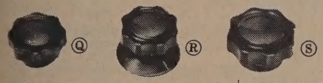
(E) POINTER KNOB BRASS INSERT—1⅛" Diameter, ⅝" Height.
Cat. No. 25-076 Net $ .60

(F) POINTER KNOB NO BRASS INSERT—1⅛" Diameter, 11/16" Height, 1 Set Screw.
Cat. No. 25-078 Net $ .15

(G) BAR KNOB NO BRASS INSERT—1½" Length, ⅝" Height, 1 Set Screw.
Cat. No. 25-080 Net $ .30

(H) DUAL CONTROL—1" Diameter, 1 3/64" Height.
Cat. No. 25-086 Net $ .98





GEE-LAR KURZ-KASCH

(A) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height, MIL Spec. AN3219-1.
Cat. No. 25-088 Black Net $ .28

(B) POINTER KNOB BRASS INSERT—1½" Length, ⅞" Height.
Cat. No. 25-092 Black Net $ .37

(C) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-098 Black Net $ .80

(D) BAR KNOB BRASS INSERT—1¼" Length, 21/32" Height, Black only.
Cat. No. 25-100 Black Net $ .75

(E) BRASS INSERT NO ARROW—¾" Diameter, 9/16" Height, Black only.
Cat. No. 25-102 Black Net $ .42

(F) BRASS INSERT WITH ARROW—1⅛" Diameter, 9/16" Height.
Cat. No. 25-104 Net $ .38
1½" Diameter, ¾" Height, Black only.
Cat. No. 25-106 Black Net $ .43

(G) POINTER KNOB BRASS INSERT—1¼" Length, ⅝" Height.
Cat. No. 25-108 Black Net $ .38

(H) POINTER KNOB ⅛" BRASS INSERT—¾" Diameter, 7/16" Height.
Cat. No. 25-116 Black Net $ .47

(J) BAKELITE POINTER KNOB—11/16" Diameter, 13/32" Height, Fine serrations, Fits ¼" shaft.

SET SCREW
Cat. No. 24-430 Walnut Net $ .13
24-432 Black .13
24-434 Red .15
24-436 Ivory .15

(K) BAKELITE POINTER KNOB—11/16" Diameter, 13/32" Height, Fits ¼" shaft.

NO INSERT—SET SCREW
Cat. No. 24-440 Walnut Net $ .12
24-442 Black .12
24-444 Red .12
24-446 Ivory .12

WITH BRASS INSERT
Cat. No. 24-448 Walnut Net $ .18
24-450 Black .18
24-452 Red .18
24-454 Ivory .25

(L) POINTER BAR KNOB BRASS BUSHING—2¾" Length, Fits ¼" shaft, Metal pointer can be removed.

SET SCREW
Cat. No. 24-456 Black Net $ .50
24-458 Walnut .55

(M) POINTER BAR KNOB BRASS BUSHING 1⅝" Length, Fits ¼" shaft, Metal pointer can be removed.

SET SCREW
Cat. No. 24-460 Black Net $ .50
24-462 Walnut .50

(N) BAKELITE POINTER KNOB—1¾" Diameter, ⅞" Height, with molded white arrow, brass bushing, Black only.
Cat. No. 25-000 Set Screw Type Net $ .43

(O) BAKELITE WITH BRASS INSERT—1½" Diameter, ¾" Height, Indicator line, Black only.
Cat. No. 25-002 Set Screw Type Net $ .30

(P) BAKELITE SKIRT KNOBS—1½" Skirt Diameter, 11/16" Height.
Cat. No. 25-004 Set Screw Type Net $ .23

(Q) POINTER KNOBS—1⅛" Diameter, ⅝" Height, ¾" Pointer.
Cat. No. 25-006 Net $ .60
1⅜" Diameter, 11/16" Height, 1 1/16" Pointer.
Cat. No. 25-008 Net $ .62
1⅝" Diameter, ¾"Height, 1 3/16" Pointer.
Cat. No. 25-010 Net $ .68
2⅜" Diameter, ⅞" Height, 1 9/16" Pointer.
Cat. No. 25-012 Net $ .78

(R) SKIRT KNOBS—1⅛" Diameter, 13/16" Height, 1½" Skirt.
Cat. No. 25-014 Net $ .75
1⅛" Diameter, 13/16" Height, 1¾" Skirt.
Cat. No. 25-016 Net $ .75
1⅜" Diameter, ⅞" Height, 1½" Skirt.
Cat. No. 25-018 Net $ .77
1⅜" Diameter, ⅞" Height, 1¾" Skirt.
Cat. No. 25-020 Net $ .77
1⅝" Diameter, 29/32" Height, 2 1/16" Skirt.
Cat. No. 25-022 Net $ .90
2⅜" Diameter, 1 1/32" Height, 3" Skirt.
Cat. No. 25-024 Net $1.25

(S) BAKELITE KNOB—1⅛" Diameter, ⅝" Height.
Cat. No. 25-026 Net $ .37
1⅜" Diameter, 11/16" Height.
Cat. No. 25-028 Net $ .42
1⅝" Diameter, ¾" Height.
Cat. No. 25-030 Net $ .48
2⅜" Diameter, ⅞" Height.
Cat. No. 25-032 Net $ .67

GEE-LAR KURZ-KASCH PUSH BUTTON KNOBS

PUSH BUTTON KNOB—½" Diameter, 15/32" Height, ⅜" Hole Depth, Black only. Tapered sides.
Cat. No. 25-118 Black Net $ .12

PUSH BUTTON RECESSED TOP—½" Diameter, 15/32" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-120 Black Net $ .12

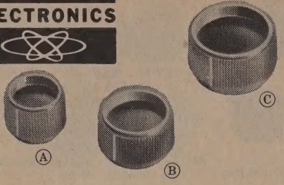
PUSH BUTTON KNOB—7/16" Diameter 15/32" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-122 Black Net $ .12

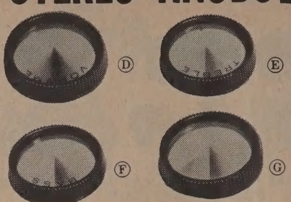
PUSH BUTTON KNOB—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Black only.
Cat. No. 25-124 Black Net $ .13

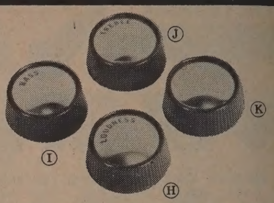
PUSH BUTTON RECESSED TOP—7/16" Diameter, ⅝" Height, ⅜" Hole Depth, Top recessed for selector tab, Black only.
Cat. No. 25-126 Black Net $ .13

GC ELECTRONICS

HI-FI AND STEREO KNOBS







HI-FI STEREO KNOB SERIES—For Hi-Fi Stereo Cabinets and Custom Installations.
Precision made of TENITE with sparkling brass top ring inserts and indicator lines. Set screw type.

Cat. No. 24-012 Set of 3, Black Net $ .97
24-014 Set of 3, Ivory Net $ .97

INDIVIDUAL KNOBS

"A" Small
1″ Diameter 13/16″ Height, Fits ¼″ shaft.
Cat. No. 24-000 Black Net $ .30
24-002 Ivory .30

"B" Medium
1 5/16″ Diameter, 13/16″ Height, Fits ¼″ shaft.
Cat. No. 24-004 Black Net $ .33
24-006 Ivory .33

"C" Large
1½″ Diameter, ⅞″ Height, Fits ¼″ shaft.
Cat. No. 24-008 Black Net $ .40
24-010 Ivory .40

AUDIO-PHILE KNOB SERIES—For Hi-Fi Custom Installations. TENITE with brass inserts. Indicated for Volume, Treble, Bass or Plain.
Cat. No. 24-024 Set of 4, Maroon Net $1.42

"D" Volume
1½″ Diameter, 5/16″ Height, Fits Knurl shaft.
Cat. No. 24-016 Maroon Net $ .40

"E" Treble
1½″ Diameter, 5/16″ Height, Fits Knurl shaft.
Cat. No. 24-018 Maroon Net $ .40

"F" Bass
1½″ Diameter, 5/16″ Height, Fits Knurl shaft.
Cat. No. 24-020 Maroon Net $ .40

"G" Plain
1½″ Diameter, 5/16″ Height, Fits Knurl shaft.
Cat. No. 24-022 Maroon Net $ .30

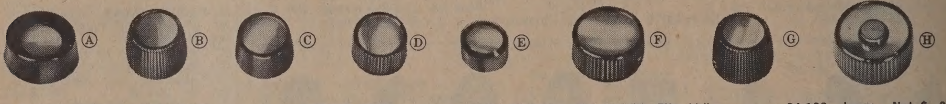
HIGH-FIDELITY KNOB SERIES TENITE—with handsome, individually marked brass inserts for Volume, Bass, Treble and Plain.
Cat. No. 24-034 Set of 4, Maroon Net $1.35

"H" Loudness
1⅛″ Diameter, ½″ Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-026 Maroon Net $ .35

"I" Bass
1⅛″ Diameter, ½″ Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-028 Maroon Net $ .35

"J" Treble
1⅛″ Diameter, ½″ Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-030 Maroon Net $ .35

"K" Plain
1⅛″ Diameter, ½″ Height, For .250 Diameter and .156 Flat Spring Type Shaft.
Cat. No. 24-032 Maroon Net $ .33



(A) TENITE PLATED GOLD INLAY—1¼″ Diameter, ½″ Height, Fits ¼″ shaft.

SPRING TYPE
Cat. No. 24-070 Walnut Net $ .30
24-072 Ivory .30

(B) TENITE PLATED GOLD INLAY—1″ Diameter, ⅝″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-074 Walnut Net $ .22
24-076 Ivory .22

(C) TENITE PLATED GOLD INLAY—1″ Diameter, ½″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-078 Walnut Net $ .20
24-080 Ivory .20

(D) TENITE PLATED GOLD INLAY—1″ Diameter, ⅜″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-082 Walnut Net $ .22
24-084 Ivory .22

SPRING TYPE
Cat. No. 24-086 Walnut Net $ .23
24-088 Ivory .23

SET SCREW
Cat. No. 24-090 Walnut Net $ .30
24-092 Ivory .30

(E) TENITE PLATED GOLD INLAY—¾″ Diameter, ⅜″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-094 Walnut Net $ .18
24-096 Ivory .18

SPRING TYPE
Cat. No. 24-098 Walnut Net $ .23
24-100 Ivory .23

(F) TENITE PLATED GOLD INLAY—1 3/16″ Diameter, ½″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-102 Walnut Net $ .23
24-104 Ivory .23

SET SCREW
Cat. No. 24-106 Walnut Net $ .37
24-108 Ivory Net $ .37

(G) TENITE PLATED GOLD INLAY—1″ Diameter, 11/16″ Height, Fits ¼″ shaft.

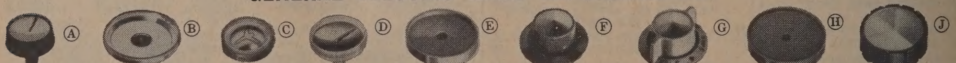
SET SCREW
Cat. No. 24-110 Walnut Net $ .33
24-112 Ivory .33

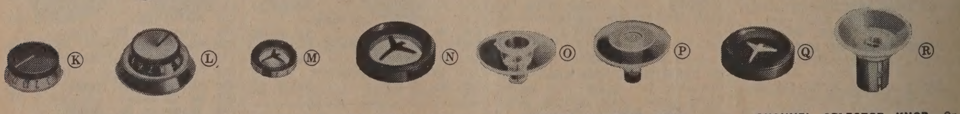
(H) TENITE PLATED GOLD INLAY—1 3/16″ Diameter, ½″ Height, Fits ¼″ shaft.

KNURL TYPE
Cat. No. 24-114 Walnut Net $ .25
24-116 Ivory .25

SET SCREW
Cat. No. 24-118 Walnut Net $ .32
24-120 Ivory .32

GENERAL ELECTRIC KNOB REPLACEMENTS





(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. G 1001, Color Black & Gold.
Cat. No. 27-064 Channel Knob Net $ .92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. G 1002, Color Black & Silver.
Cat. No. 27-066 Channel Knob Net $ .92

(B) FINE TUNING KNOB—Original Mfg.'s Part No. G 1003, Color Silver.
Cat. No. 27-068 Fine Tuning Net $ .92

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. GWT43x246, Color Green & Gold.
Cat. No. 27-070 Channel Knob Net $1.25

(D) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. GWT43x269, Color Clear & Gold.
Cat. No. 27-072 Channel Knob Net $2.10

(E) FINE TUNING KNOB—Original Mfg.'s Part No. WT43x40 (RDK222), Color Fawn.
Cat. No. 27-074 Fine Tuning Net $ .57

(F) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x41 (RDK223), Color Fawn.
Cat. No. 27-076 Off-On Volume Net $ .75

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x42 (RDK224), Color Fawn.
Cat. No. 27-078 Channel Knob Net $ .87

(H) PICTURE VOLUME KNOB—Original Mfg.'s Part No. WT43x43 (RDK225), Color Fawn.
Cat. No. 27-080 Picture Volume Net $ .57

(J) OFF-ON VOLUME KNOB—Original Mfg.'s Part No. WT43x53 (RDK263), Color Brown & Fawn.
Cat. No. 27-082 Off-On Volume Net $1.00

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x54 (RDK264), Color Brown & Fawn.
Cat. No. 27-084 Channel Knob Net $1.50

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x76 (RDK331), Color Brown & Gold.
Cat. No. 27-086 Channel Knob Net $1.92

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x152 (RDK455), Color Brown.
Cat. No. 27-090 Channel Knob Net $2.85

(L) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x139 (RDK434), Color Brown & Gold.
Cat. No. 27-092 Channel Knob Net $2.10

CHANNEL SELECTOR KNOB
Original Mfg.'s Part No. WT43x141 (RDK438), Color Fawn & Gold.
Cat. No. 27-094 Channel Knob Net $2.28

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x159 (RDK469), Color Brown.
Cat. No. 27-096 Channel Knob Net $1.77

(N) ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT43x158 (RDK467), Color Mahogany & Gold.
Cat. No. 27-462 On-Off Volume Net $1.27

ON-OFF VOLUME OR BRIGHTNESS—Original Mfg.'s Part No. WT-43x163 (RDK473), Color Brown.
Cat. No. 27-464 On-Off Volume Net $1.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x164 (RDK474), Color Mahogany.
Cat. No. 27-466 Channel Knob Net $1.50

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. WT43x165 (RDK475), Color Mahogany & Gold.
Cat. No. 27-468 On-Off Volume Net $1.27

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x169 (RDK479), Color Mahogany & Gold.
Cat. No. 27-470 UHF Channel Net $1.77

(O) PICTURE TUNING KNOB—Original Mfg.'s Part No. WT43x171 (RDK490), Color Clear.
Cat. No. 27-472 Picture Knob Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x176 (RDK521), Color Mahogany & Gold.
Cat. No. 27-474 UHF Channel Net $1.77

Continued next page

GC ELECTRONICS

REPLACEMENT KNOBS

GENERAL ELECTRIC KNOB REPLACEMENTS . . . See previous page for illustrations

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x179 (RDK524), Color Mahogany. Cat. No. 27-476 Channel Knob Net $1.50

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x182 (RDK527), Color Gold. Cat. No. 27-478 UHF Channel Net $1.77

(P) CONTRAST TUNING KNOB—Original Mfg.'s Part No. WT43x184 (RDK530), Color Clear. Cat. No. 27-480 Contrast Tuning Net $ .90

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x187 (RDK540), Color Navy Blue. Cat. No. 27-482 UHF Channel Net $1.17

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x192 (RDK550), Color Bronze & Gold. Cat. No. 27-484 UHF Channel Net $1.77

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x194 (RDK552), Color Peacock Blue & Gold. Cat. No. 27-486 UHF Channel Net $1.77

(Q) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x209 (RDK569), Color Navy Blue. Cat. No. 27-488 Brightness Knob Net $1.00

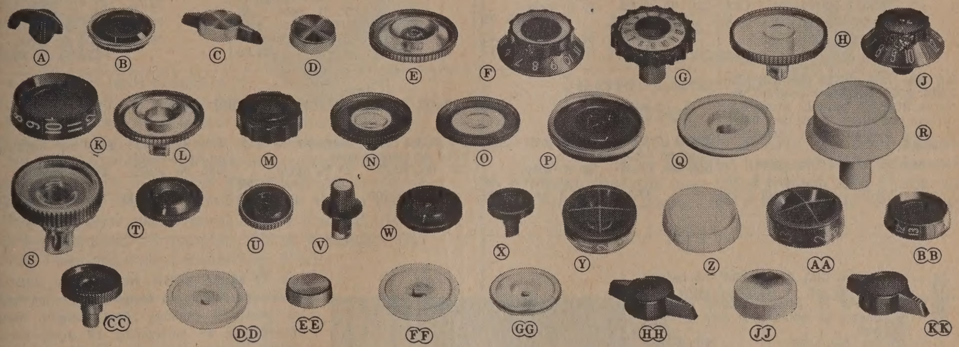
UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x207 (RDK568), Color Cream & Gold. Cat. No. 27-490 UHF Channel Net $1.77

VHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x217 (RDK587), Color Cream & Gold. Cat. No. 27-492 VHF Channel Net $1.77

UHF CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. WT43x219 (RDK599), Color Green & Gold. Cat. No. 27-494 UHF Channel Net $1.77

(R) BRIGHTNESS KNOB — Original Mfg.'s Part No. WT43x226 (RDK609), Color Clear. Cat. No. 27-496 Brightness Knob Net $ .42

RCA EXACT TV REPLACEMENT KNOBS



(A) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 76770, Color Dark Maroon & Gold. Cat. No. 27-200 Channel Knob Net $ .76

(B) FINE TUNING KNOB — Original Mfg.'s Part No. 77707, Color Brown with Polished Brass Shell. Cat. No. 27-202 Fine Tuning Net $1.57

(C) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708, Color Red with Polished Brass Shell. Cat. No. 27-204 Channel Knob Net $1.50

(D) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710, Color Black with Polished Brass Shell. Cat. No. 27-206 On-Off Volume Net $1.57

(E) FINE TUNING KNOB — Original Mfg.'s Part No. 79464, Color Gold & Maroon. Cat. No. 27-208 Fine Tuning Net $1.26

(F) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79466, Colors Amber, Gray, Maroon & Gold. Cat. No. 27-210 Channel Knob Net $1.77

(G) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100627, Color Maroon & Polished Brass. Cat. No. 27-212 Channel Knob Net $2.70

(H) FINE TUNING KNOB — Original Mfg.'s Part No. 100629, Color Clear with Gold Edge. Cat. No. 27-214 Fine Tuning Net $1.27

(J) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100637, Color Brown. Cat. No. 27-216 Channel Knob Net $1.77

(K) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 100944, Color Dark Wine. Cat. No. 27-218 Channel Knob Net $1.35

(L) FINE TUNING KNOB — Original Mfg.'s Part No. 101015, Color Gold & Maroon. Cat. No. 27-220 Fine Tuning Net $1.26

(M) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 101150, Color Dark Wine. Cat. No. 27-222 Channel Knob Net $ .90

(N) FINE TUNING KNOB — Original Mfg.'s Part No. 101154, Color Gold & Maroon. Cat. No. 27-224 Fine Tuning Net $1.00

(O) FINE TUNING KNOB — Original Mfg.'s Part No. 101276, Color Gold & Maroon. Cat. No. 27-226 Fine Tuning Net $1.26

(P) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77709, Color Brown & Gold. Cat. No. 27-700 Brightness Net $1.35

(Q) FINE TUNING KNOB — Original Mfg.'s Part No. 77717, Color Beige & Gold. Cat. No. 27-702 Fine Tuning Net $1.35

BRIGHTNESS KNOB — Original Mfg's. Part No. 77718, Color Beige & Gold. Cat. No. 27-704 Brightness Net $1.35

(R) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 100621, Color Gray. Cat. No. 27-706 On-Off Volume Net $ .67

ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 101138, Color Brown. Cat. No. 27-708 On-Off Volume Net $ .67

(S) BRIGHTNESS KNOB — Original Mfg.'s Part No. 101124, Color Clear & Gold. Cat. No. 27-710 Brightness Net $1.17

(T) FINE TUNING KNOB — Original Mfg.'s Part No. 100639, Color Brown. Cat. No. 27-712 Fine Tuning Net $1.26

(U) CONTRAST-BRIGHTNESS—Original Mfg.'s Part No. 79470, Color Mahogany. Cat. No. 27-714 Contrast-Bright- Net $1.50

(V) HORIZONTAL CONTROL KNOB—Original Mfg.'s Part No. 101010, Color Maroon. Cat. No. 27-716 Horizontal Net $ .82

(W) FINE TUNING KNOB — Original Mfg.'s Part No. 79864, Color Brown. Cat. No. 27-718 Fine Tuning Net $1.26

(X) CONTRAST KNOB—Original Mfg.'s Part No. 100622, Color Mahogany. Cat. No. 27-720 Contrast Net $ .82

CONTRAST KNOB — Original Mfg.'s Part No. 100623, Color Gray. Cat. No. 27-722 Contrast Net $ .82

(Y) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104304, Color Mahogany. Cat. No. 27-724 Channel Knob Net $1.35

(Z) UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104305, Color Mahogany. Cat. No. 27-726 Channel Knob Net $1.35

UHF CHANNEL SELECTOR — Original Mfg.'s Part No. 104306, Color Gray. Cat. No. 27-728 Channel Knob Net $1.35

(AA) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102503, Color Gray. Cat. No. 27-730 Channel Knob Net $3.00

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 102502, Color Mahogany. Cat. No. 27-732 Channel Knob Net $3.00

(BB) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 104303, Color Gray. Cat. No. 27-734 Channel Knob Net $1.35

(CC) CONTRAST KNOB — Original Mfg.'s Part No. 104386, Color Maroon. Cat. No. 27-736 Contrast Knob Net $ .82

(DD) BRIGHTNESS KNOB — Original Mfg.'s Part No. 79080, Color Beige. Cat. No. 27-738 Brightness Knob Net $1.35

(EE) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710M, Color Mahogany & Gold. Cat. No. 27-740 On-Off Volume Net $1.35

VOLUME KNOB—Original Mfg.'s Part No. 79445, Color Beige & Gold. Cat. No. 27-742 Volume Knob Net $1.35

VOLUME KNOB — Original Mfg.'s Part No. 79471, Color Mahogany & Gold. Cat. No. 27-744 Volume Knob Net $1.35

(FF) FINE TUNING KNOB — Original Mfg.'s Part No. 79077, Color Beige. Cat. No. 27-746 Fine Tuning Net $1.35

(GG) BRIGHTNESS KNOB — Original Mfg.'s Part No. 77718M, Color Mahogany & Gold. Cat. No. 27-748 Brightness Knob Net $1.35

FINE TUNING KNOB — Original Mfg.'s Part No. 77717M, Color Mahogany & Gold. Cat. No. 27-750 Fine Tuning Net $1.35

(HH) CHANNEL SELECTOR KNOB — Original Mfg.'s Part No. 79222BL, Color Black. Cat. No. 27-752 Channel Knob Net $1.17

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 79222, Color Mahogany. Cat. No. 27-754 Channel Knob Net $1.17

(JJ) ON-OFF VOLUME KNOB—Original Mfg.'s Part No. 77710B, Color Beige & Gold. Cat. No. 27-756 On-Off Volume Net $1.35

(KK) CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708B, Color Beige & Gold. Cat. No. 27-758 Channel Knob Net $1.35

CHANNEL SELECTOR KNOB—Original Mfg.'s Part No. 77708M, Color Brown & Gold. Cat. No. 27-760 Channel Knob Net $1.35

ALSO AVAILABLE

Replacement Knobs for

- Admiral
- Crosley
- Emerson
- Hotpoint
- Motorola
- Muntz
- Olympic
- Philco
- Westinghouse
- Zenith

GC ELECTRONICS ELECTRONIC COMPONENTS

GC TV-RADIO DIAL CABLES

Nylon cord with a fibreglass core. All especially treated to prevent stretching and slipping. G-C Cords No. 75, 75-A and 74 will handle 90% of replacements. 25-Ft., 50-Ft., 100-Ft. Spools are supplied in permanent, clear plastic containers.

G-C No. 75 STANDARD THIN NYLON CORD .028" Diameter — Used on 95% of the latest sets manufactured. Made of finest braided Nylon over a Fiberglas Core. It is pre-stretched and chemically treated.

Cat. No.		Net
75-25	25 ft. spool	$ .75
75-50	50 ft. spool	1.43
75-100	100 ft. spool	2.37
75-1000	1000 ft. spool	15.57

G-C No. 75-A EXTRA THIN NYLON CORD .025" Diameter—Used on Motorola, RCA, GE, Sentinel, Stromberg Carlson and others. Extra thin, made of finest braided Nylon, chemically treated.

RADIO DIAL CABLE
NYLON
FIBER GLASS

Cat. No.		Net
75A-25	25 ft. spool	$ .75
75A-50	50 ft. spool	1.43
75A-100	100 ft. spool	2.37
75A-1000	100 ft. spool	14.25

G-C No. 74 MEDIUM NYLON CORD .040" Diameter—Used on models of RCA, Philco, Majestic, Wells Gardner, etc. Made of finest braided Nylon over a Spun Fiberglas Core.

Cat. No.		Net
74-25	25 ft. spool	$ .75
74-50	50 ft. spool	1.43
74-100	100 ft. spool	2.37
74-1000	1000 ft. spool	19.77

G-C No. 70 BRAIDED BRONZE CABLE .035" Diameter—Braided phosphor bronze cable made over a Fiberglas core for greater strength and flexibility. Will not unravel.

Cat. No.		Net
70-25	25 ft. spool	$ .97
70-50	50 ft. spool	1.43
70-100	100 ft. spool	2.70
70-1000	1000 ft. spool	22.20

G-C No. 71 42-STRAND BRONZE CABLE .040" Diameter — 42-strand twisted phosphor bronze cable used on Majestic, Bosch, Philco, etc. 42 fine strands braided over a cotton core.

Cat. No.		Net
71-25	25 ft. spool	$1.23
71-50	50 ft. spool	1.88
71-100	100 ft. spool	3.52
71-1000	1000 ft. spool	25.80

G-C No. 73 HEAVY NYLON CORD .062" Diameter—This is a heavier cord such as used on models of Philco, Silver Marshall, Majestic, Brunswick, etc.

Cat. No.		Net
73-25	25 ft. spool	$1.02
73-50	50 ft. spool	1.73
73-100	100 ft. spool	2.97
73-1000	1000 ft. spool	24.90

G-C No. 76 SPECIAL THIN BRONZE CABLE .023" Diameter—Extra thin braided bronze cable such as is used on GE and RCA sets. Also used for speaker cones, pigtails, etc.

Cat. No.		Net
76-25	25 ft. spool	$ .97
76-50	50 ft. spool	1.43
76-100	100 ft. spool	2.70
76-1000	1000 ft. spool	20.47

G-C COLOR TV NO-STRETCH DIAL CORD

EXTRA FINE .025" Diameter—Supplied on metal spools.

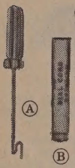
Cat. No.		Net
87-25	25 ft. spool	$ .90
87-100	100 ft. spool	2.70

STANDARD .028" Diameter — Supplied on metal spools.

Cat. No.		Net
88-25	25 ft. spool	$ .90
88-100	100 ft. spool	2.70

MEDIUM .040" Diameter—Supplied on metal spools.

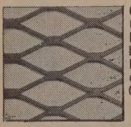
Cat. No.		Net
89-25	25 ft. spool	$ .90
89-100	100 ft. spool	2.70



(A) G-C DIAL CABLE TOOL—A handy tool to aid in replacing worn out cables or cables slipped off of drums, to replace dial cord springs also.
Cat. No. 5096 Net $ .53

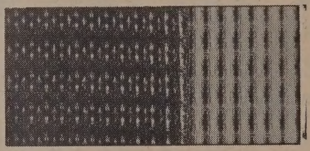
(B) G-C DIAL CORD NON-SLIP DRESSING STICK—Simply rub the stick on cord and job is done. Prevents and stops slipping.
Cat. No. 1212 Net $ .25

G-C SWED. STEEL SPEAKER SHIMS—Four sizes are furnished in a handy gold-lettered partitioned snap case. .004, .006, .008 and .010 in. Instructions included with kit.
Cat. No. 701 Net $ .53



G-C ORNAMENTAL METAL GRILLE SCREEN — Made of heavy metal, finished in beautiful "Brushed Brass-Rich Gold Color" and lacquered for durability.

Cat. No.		Net
9252	12"x18"	$2.10
9253	18"x24"	3.67
9254	24"x36"	6.27
9255	24"x48"	8.67
9256	36"x48"	11.70



G-C PLASTIC SARAN WOVEN GRILLE CLOTH—A beautiful "lumite" plastic woven cloth in attractive patterns. Easily cleaned with a damp cloth. Won't stain, rot or mildew.

Cat. No.			Net
8736	12"x18"	Bronze & Gold	$ .98
8739	36"x36"	Bronze & Gold	$5.55
8737	12"x18"	Ecru & Ivory	$ .98
8740	36"x36"	Ecru & Ivory	$5.55

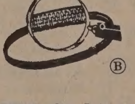
G-C GRILLE CLOTH ASSORTMENT—All patterns are modern and the assortment will provide for nearly all of the smaller and moderate size speaker grille openings.
Cat. No. 9114 Net $1.08

G-C TV GRILLE CLOTH—New, modern patterns specially selected to blend in with the best of television cabinets. Gold metallic braid makes this an outstanding TV grille cloth. Colors: Walnut, Mahogany and Blonde. (Specify color when ordering).

Cat. No.			Net
8656-E	Envelope	18"x24"	$1.92
8657-E	Envelope	24"x36"	3.50
8658-E	Envelope	36"x36"	5.13
8659	36"Wide, per yard, bulk		4.97

G-C RADIO CABINET SPEAKER GRILLE CLOTH—The cloth is supplied in light and dark shades in patterns for both small and large cabinets. It is also available in the light and ivory shades for light wood and plastic cabinets. Colors: Walnut, Mahogany, Ivory, (Specify Color Wanted).

Cat. No.		Net
949-1	1-Yard Packages	$3.78
949-1R	40" Wide Cont. Length, Yd.	3.60
949-2R	50" Wide Cont. Length, Yd.	3.90
940	18"x20"	.90
941	9"x18"	.45
942	12"x12"	.48
943	14"x18"	.60
944	24"x13"	.82
945	18"x13"	.53
955	18"x25"	1.35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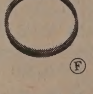
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(B) G-C RADIO DIAL BELTS—G-C Belt are approved replacements for all sets. They are made of the very best quality belting material and will not stretch. Especially treated to prevent slipping.
Cat. No. 101 thru 195 Net $ .30

G-C SERVICEMEN'S KIT—Kits contain more popular belts, belt scale and complete listing of over 1100 models. Cat. No. G-25 Net $8.37

(D) G-C WIRE MARKERS—Handy wire markers needed for tracing circuits, marking wires in replacing parts, etc. Nos. 1 to 33—3 full strips included to kit. Cat. No. 9229 Net $1.00

(E) G-C MOTOROLA TV DIAL BELT—Replacement belt as used on Motorola TV Tuners. Original replacement part. Cat. No. 196 Net $ .30

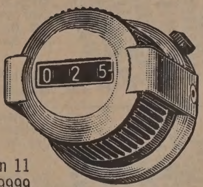
(F) G-C RCA TUNER BELT—Belt used on RCA Tuners such as 8T, 8TC, 8TK, 9TC, etc.
Cat. No. 195 Net $ .30

(G) G-C RCA-TV CHANNEL INDICATOR DRIVE BELT—Exact replacement for 1956 model RCA TV sets. Cat. No. 197 Net $1.10

© U.C.P.

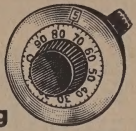
SPECTROL MULTIDIAL®

Turns Counting Dials



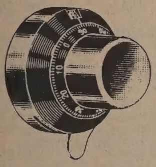
MODEL 25
Digital Dial

• 3-digit dial reads to 1099 in 11 turns • 4-digit dial reads to 9999 in 100 turns • Fine calibrations allow setting to 1/10 of a digit accuracy • 2 to 1 gear ratio between setting knob and device shaft allows extremely fine settings • Available for ¼", 3/16", and ⅛" diameter shafts • Mounts directly to panel with no auxiliary hardware needed • Satin chrome finish with black plastic turning knob • Standard 10-turn, 3-digit dial price, 1-9 quantities, $14.25 • Standard 100-turn, 4-digit dial price, 1-9 quantities, $19.75



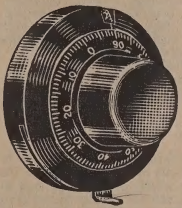
MODEL 11
Precision Turns-Counting Dial

• **Diameter** 1" • **Number of turns** 10 • **Shaft diameters** ¼", 3/16", ⅛" • **Protrusion from panel** ⅞" • **Brake mechanism** One-finger lever action • **Finish** Satin chrome with black plastic turning knob • **Base price** in 1-9 quantities: $7.75



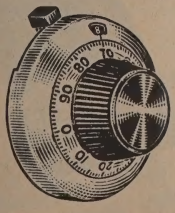
MODEL 10
Precision Turns-Counting Dial

• **Diameter** 1" • **Number of turns** 10 • **Shaft diameters** ¼", 3/16", ⅛" • **Protrusion from panel** 1" • **Brake mechanism** One-finger lever action • **Finish** Black anodized aluminum • **Base price** in 1-9 quantities: $8.75



MODEL 20
Precision Turns-Counting Dial

• **Diameter** 1 13/16" • **Number of turns** 10 • **Shaft diameters** ¼", 3/16", ⅛" • **Protrusion from panel** 1" • **Brake mechanism:** One-finger lever action • **Finish** Black anodized aluminum • **Base price** in 1-9 quantities: $7.50



MODEL 30
Precision Turns-Counting Dial

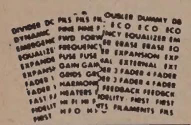
• **Diameter** 1 13/16" • **Number of turns** 10 • **Shaft diameters** ¼", 3/16", ⅛" • **Protrusion from panel** 1" • **Brake mechanism** One-finger lever action • **Finish** Satin chrome with black plastic turning knob • **Base price** in 1-9 quantities: $5.75

SPECTROL ELECTRONICS CORPORATION
SAN GABRIEL, CALIFORNIA
PLAINVIEW, L.I., NEW YORK
BRAMPTON (TORONTO), ONTARIO, CANADA

Walsco ELECTRONICS DECALS TEKNI-LABELS • TEK-TITLES

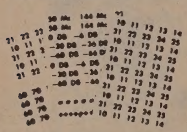
WALSCO TEKNI-LABELS provide thousands of handy titles and designs for fast-easy labeling of electronic equipment. Each package contains hundreds of electronic terms, symbols, designs, abbreviations and letters for almost every conceivable use. Tekni-Labels are used by engineers, designers, manufacturers, technicians, hi-fi enthusiasts, amateurs, custom builders and particularly the "do-it-yourself" group

DECALS
TEKNI-LABELS



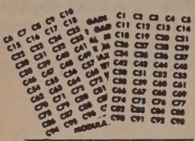
RECEIVER LABELS

For the engineer, designer or builder of receiver type equipment. Over 1300 titles, miscellaneous letters, alphabets and marks.
Cat. No. 2102 White Net $1.50
Cat. No. 2112 Black Net $1.50



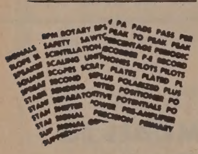
TRANSMITTER LABELS

For transmitting equipment. Set contains over 1200 titles, including large, 1/8″ high labels for titling stages or separate major components of transmitter equipment.
Cat. No. 2100 White Net $1.50
Cat. No. 2108 Black Net $1.50



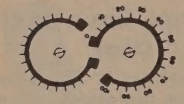
TELEVISION LABELS

For the Television experimenter, engineer or designer of Television equipment and custom installer. Includes special color experimental Television titles of great usefulness in Television work.
Cat. No. 2103 White Net $1.50
Cat. No. 2113 Black Net $1.50



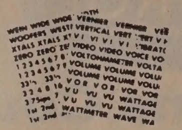
INSTRUMENTS

Set includes all labels necessary for an Oscilloscope, Variable Frequency Oscillator, Grid Dip Meter, Standing Wave Meter, Null Detector, AC-DC Voltmeter, Audio Signal Generator, Modulation Monitor, Distortion Meter and Tube Tester and others.
Cat. No. 2101 White Net $1.50
Cat. No. 2109 Black Net $1.50



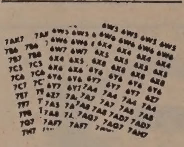
DIAL LABELS

For general use to match titles in other decal sets of our manufacture. Dials impart a wholly professional look to front panels and add greatly to the usefulness and ease of operation of any equipment.
Cat. No. 2104 White Net $1.50
Cat. No. 2110 Black Net $1.50



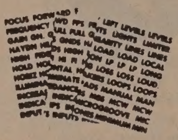
AUDIO LABELS

For use in the Audio and Sound field by engineers, designers, Custom Builders and installers of sound system. Set contains all necessary titles as well as recent new Hi-Fi titles.
Cat. No. 2105 White Net $1.50
Cat. No. 2107 Black Net $1.50



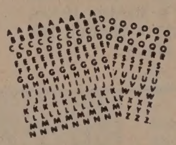
RECEIVING TUBES

For identification of all tube sockets. More than 320 different tubes listed including most commonly used types. Tubes not listed can be made up by combining portions of titles.
Cat. No. 2106 White Net $1.50



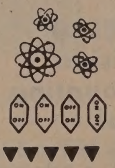
PANEL TITLES

For Custom Builders and service men in titling front panels of finished wood cabinets, especially broadcast receivers. Television sets, Hi-Fi amplifiers, tape recorders and similar equipment.
Cat. No. 2111 Gold Net $1.50



ALPHABETS

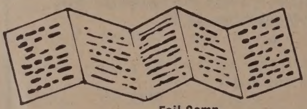
Seven complete alphabets in each package ranging from ¾″ high letters down to 1/10″ high. Set includes large block letters as well as Greek and Old English. This assortment is ideal to make individualized titles and designs on all equipment. Arresting results are easily obtainable by combining these letters with markings in the "Trademarks" set, especially if two or more colors are combined.
Cat. No. 2115 White Net $1.50
Cat. No. 2125 Black Net $1.50
Cat. No. 2135 Gold Net $1.50
Cat. No. 2145 Red Net $1.50



TRADEMARKS

Hundreds of electrical and electronic markings are included in this assortment, among them are circles, ovals, triangles, squares, arrows, dots, music notes, light ing flash, multi-orbit "Atomic" designs, name plates, corner designs, borders and many others which are extremely useful in decorating all electronic equipment.
Cat. No. 2116 White Net $1.50
Cat. No. 2126 Black Net $1.50
Cat. No. 2136 Gold Net $1.50
Cat. No. 2146 Red Net $1.50

WALSCO TEK-TITLES are handsome gold and silver foil labels designed to identify controls, knobs, switches and other electronic components. No water or adhesive is required; you merely snip out the exact title desired from the sheet of hundreds of labels, peel off the backing and press label into position.



Cat. No.		Foil Comp.
42-220	Stereo & High Fidelity Systems	(Gold on White)
42-222	Stereo & High Fidelity Systems	(Silver on Black)
42-224	Transistor Titles	(Silver on Black)
42-226	Intercom Systems	(Gold on White)
42-228	Intercom Systems	(Silver on Black)
42-230	Lubrication Titles	(Silver on Black)
42-232	Maintenance & Calibration	(Gold on White)
42-234	Repairman's Titles	(Gold on White)
42-236	Sound Systems	(Gold on White)
42-238	Amateur Equipment	(Silver on Black)
42-240	Alphabets, Large	(Gold on White)
42-242	Alphabets, Large	(Silver on Black)
42-244	Alphabets & Numerals, Medium	(Gold on White)
42-246	Alphabets & Numerals, Medium	(Silver on Black)
42-248	Numerals, Large	(Gold on White)
42-250	Numerals, Large	(Silver on Black)
42-252	Alphabets & Numerals, Small	(Gold on White)
42-254	Alphabets & Numerals, Small	(Silver on Black)
42-256	Electrical Distribution	(Gold on White)
42-258	School Electrical Systems	(Silver on Black)
42-260	U.S. Government Property	(Silver on Black)
42-262	U.S. Army Property	(Silver on Black)
42-264	U.S. Navy Property	(Silver on Black)
42-266	U.S. Air Force Property	(Silver on Black)

Dealer Net, each **$1.35**

A B C D
Walsco
NET $1.35
PRESSURE SENSITIVE
TEK-TITLES
PRESS ON! NO WATER! NO SOLVENTS!

SEND FOR COMPLETE WALSCO CATALOG . . . or ask your jobber.

© U.C.P

Walsco ELECTRONICS DIAL CORDS • CABLES • BELTS

Same quality as used on original equipment, in variety of sizes and types and conveniently packaged.

"SPECIAL THIN"

Diameter .025", Breaking Strength 15 lbs.

Cat. No. 656-02	25 feet	Net $ .75
Cat. No. 656-10	100 feet	Net 2.37
Cat. No. 656-50	500 feet	Net 8.58

MEDIUM

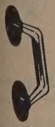
Diameter .040", Breaking Strength 35 lbs.

Cat. No. 652-02	25 feet	Net $ .75
Cat. No. 652-10	100 feet	Net 2.37
Cat. No. 652-50	500 feet	Net 10.57

PHOSPHOR BRONZE CABLE

42-strand, .032" diameter, 40 lb. breaking strength. Numerous strands give cable extraordinary flexibility.

Cat. No. 662-02	25 feet	Net $ 1.23
Cat. No. 662-10	100 feet	Net 3.52
Cat. No. 662-50	500 feet	Net 16.20



WALSCO SAFETY GLASS REMOVER

Chrome plated, steel handle is combined with two powerful, long lasting suction cups to insure trouble free removal of safety glass on TV sets.

Cat. No. 2575 Net $ .90

PRINTED CIRCUIT ACCESSORIES

STANDARD PRINTED CIRCUIT REPAIR KIT

standard
PRINTED CIRCUIT
repair kit
8.25

Contains one box each of foil, solder washers, solder wire, 1 solder-ease tool, fiber glass brush, printed circuit insulating varnish and solvent, tweezers and complete instructions.

Cat. No. 13-K Net $4.95

MASTER PRINTED CIRCUIT REPAIR KIT

Walsco
no. 12K
master
PRINTED CIRCUIT
REPAIR KIT
13.25

Contains all items above plus 1 Ungar soldering iron with 1 special tip and a 6 oz. spray can of printed circuit insulating varnish. Also includes practice wiring board.

Cat. No. 12-K Net $9.50

BRAIDED BRONZE CABLE

16-strand, .039" O.D., 50 lb. breaking strength. Good flexibility, excellent abrasion resistance.

Cat. No. 660-02	25 feet	Net $ .97
Cat. No. 660-50	500 feet	Net 2.70
Cat. No. 654-02	25 feet	Net 12.00

STANDARD

Diameter .032", Breaking Strength 20 lbs.

Cat. No. 654-02	100 feet	Net $ .75
Cat. No. 654-10	100 feet	Net 2.37
Cat. No. 654-50	50 feet	Net 8.58

HEAVY

(Used on many Philco and Majestic sets.) **Diameter .060".**

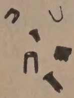
Cat. No. 650-02	25 feet	Net $1.02
Cat. No. 650-10	100 feet	Net 2.97

THIN BRONZE CABLE

An extra-thin cable with diameter of only .022". Surprisingly strong and flexible. Non-raveling.

Cat. No. 664-02	25 feet	Net $ .97
Cat. No. 664-10	100 feet	Net 2.70
Cat. No. 664-50	500 feet	Net 12.00

DIAL CORD CLIPS



This assortment of 24 Walsco Dial Cord Clips contains the proper sizes for all standard thicknesses of cords.

Cat. No. 7745-F Net $ .36

FLAT NYLON LACING CORD

The new, waxed and fungus resistant flat cord for tying harnesses, wrapping coils, etc. Will not cut wire insulation. Breaking strength 50 lbs., approx. width, .085", approx. thickness, .0125".

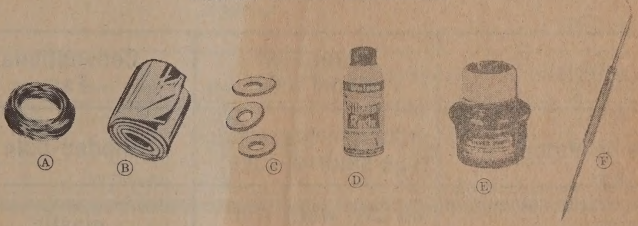
Cat. No. 666-15	150 ft. spool	Net $2.97
Cat. No. 666-75	750 ft. spool	Net 9.00

STANDARD LACING CORD

Meets specifications JAN T-713—type N —Class 3. In natural gray color. Approximately .040". Min. tensile strength 32 lbs., low stretch.

Cat. No. 665-10	100 ft. spool	Net $1.05
Cat. No. 665-45	450 ft. spool	Net 2.00
Cat. No. 665-80	1800 ft. spool	Net 6.60

PRINTED CIRCUIT ACCESSORIES



(A) PRINTED CIRCUIT REPAIR SOLDER — Especially compounded 11' solder wire with flux core to give a perfect solder joint and flow quickly and easily at lower temperatures required for printed circuit work.

Cat. No. 649 Net $ .52

(B) PRINTED CIRCUIT REPAIR FOIL — Copper foil with thermo-plastic backing 24 sq. in. For use in repair of damaged or burned out sections of a printed circuit. Bonds permanently to panel with heat of soldering iron.

Cat. No. 647 Net $ .48

(C) PRINTED CIRCUIT SOLDER WASHERS — Supplies the exact amount solder and flux when replacing components on printed circuit board. Center hole permits passage of most standard wire leads. Box of 60 washers.

Cat. No. 648 Net $ .60

(D) PRINTED CIRCUIT INSULATING VARNISH — A special formula insulating varnish designed for the protection of printed circuits after they have been worked upon in repair or replacement of parts.

Cat. No. 120-02W 2 oz. bottle with brush Net $1.30

Cat. No. 120-06 6 oz. spray can $2.42 each

INSULATING VARNISH SOLVENT — Excellent for dissolving and removing insulating varnish from printed circuits, etc. Also thinner for the Walsco Printed Circuit Insulating Varnish.

Cat. No. 205-02 2 oz. Net $ .37 each

(E) WALSCO SILVER AND COPPER PRINT — "No more wires" when you use Silver or Copper Print. The same "Pure Silver" or Copper compound as used in Printed Circuit design.

Cat. No. 36 ½ Troy oz. Silver Print Net $2.47
Cat. No. 36-1 1 Troy oz. Silver Print Net $4.75
Cat. No. 37-02 2 oz. bottle Copper Print Net $1.43

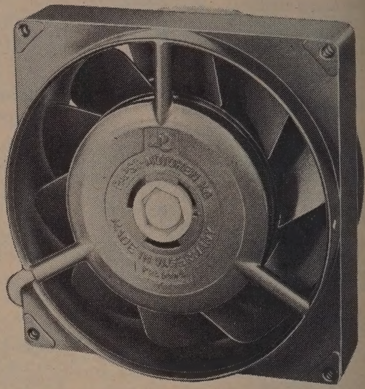
(F) PRINTED CIRCUIT SOLDER-AID TOOL — Has probe on one end for tightening contacts, etc., and a fork on opposite end for handling wires or wire leads while soldering and unsoldering. 8" long plastic handle.

Cat. No 2530 Net $1.00

SEND FOR COMPLETE [illegible] . . .

shows hundreds of Walsco El[illegible]ucts.

PAMOTOR FANS



New! MINIATURE AXIAL FANS ...up to 4 times greater cooling efficiency!

Characteristic	PAMOTOR Model 1000	Conventional Fan
Type of Motor	induction (capacitor-type squirrel cage)	shaded-pole
Housing	die cast warp-free Zymec	plastic
Output @ 60 cps (0 back pressure) (.25″ back pressure) (.3″ back pressure)	 125 cfm 75 cfm 50 cfm	 100 cfm 20 cfm 0
Output @ 50 cps (0 back pressure) (.25″ back pressure)	 100 cfm 62.5 cfm	 75 cfm 5 cfm
Operating Temp. Range	−55°C to +85°C	−18°C to +44°C

**The PAMOTO
Model 1000 Minia
ture Fan is com
pletely interchange
able with conven
tional units now i
use (4⅛" center-t
center mountin
holes). But the simi
larity ends there.**

check this comparison chart!

The Model 1000 Fan meets MIL-T-4522E Environmental specifications. Inside-outside rotating motor design gives flywheel effect, resulting in constant, quiet fan speed. Large surface sleeve bearings mean minimum maintenance, maximum reliability.

For complete specifications and name of nearest stocking distributor, write to:

PAMOTOR, Inc.
San Francisco, Calif.

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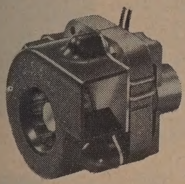
Superior . . . **RIPLEY** *through Research*

RIPLEY COMPANY, INC. ESTABLISHED 1936 **MIDDLETOWN, CONN.**

ACE-SAVING *Precision Bearing* MOTOR-BLOWERS

v line of compact Motor-Blowers are now available with air deliveries ng from 5 to 19 cfm free air output. Designed to fill the require- where space is a problem and a minimum of 5-year maintenance- performance is imperative. The precision bearing "power-pac" motor permanent sealed-in lubrication requires no oiling and operates at an extremely low noise level. The unit can be mounted in any position. The low input wattage required is a cost saving factor of particular advantage in multiple installations. The metal wheels are carefully balanced and individually matched to assure maximum efficiency and quietness of operation. Blower housings are high-impact phenolic.



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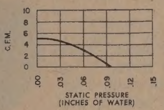

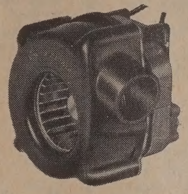

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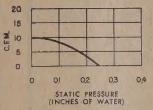

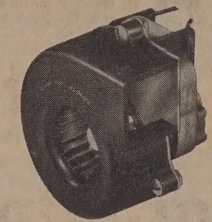

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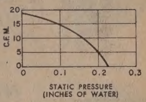
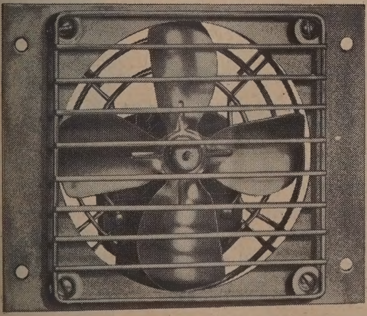


MODEL NUMBER	TYPE	INPUT VOLTAGE	WATTS	DUTY CYCLE	RPM	OUTPUT FREE AIR CFM	DIMENSIONS H x W x D	LIST PRICE
JK-1500	1½	115 V. AC-60 Cycle	7.5	Continuous	3400	5	2¹⁵⁄₁₆" x 3⅝" x 3¹⁄₁₆"	**$9.69**
JK-2000	2	115 V. AC-60 Cycle	7.5	Continuous	3300	10	3¾" x 3½" x 3¼"	**$9.78**
JK-2500	2½	115 V. AC-60 Cycle	8	Continuous	3250	19	4⅜" x 3⅞" x 3¼"	**$9.90**

r applications demanding maintenance-free reliability in excess of 5-years!



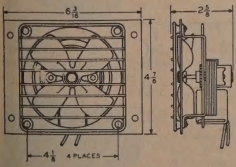
AXIAL FAN

MODEL 4.25

THE BIG VALUE IN RUGGEDNESS, COMPACTNESS & HIGH EFFICIENCY

Specifically designed for electronic and instrumentation cooling with tight space requirements — this quiet, dependable 100 CFM "Power-Pac" Axial Fan is recommended for applications where compactness, high-level performance, mounting flexibility and economical price are imperative. "Power-Pack" motor with sealed-in lubrication requires no oiling or maintenance.

Typical applications include: Computors, Electronic Transmitters, Receivers, Radar, TV Cameras, Hi-Fi Equipment, Tape Recorders, Light Projectors, Amplifiers, Test Equipment, Telephone Booths.

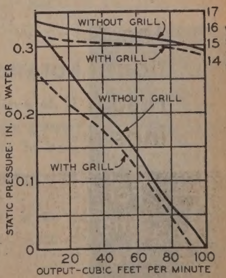


SPACE SAVING DESIGN

rall mounting plate size is 4⅞" x 6³⁄₁₆" and depth is ". Total weight of complete assembly is 1½ pounds. metal fire-proof construction.

100 CFM CAPACITY

High output of 100 CFM free air delivery. For larger air volumes, two or more units may be mounted in parallel. Note chart for high performance over wide range of static pressures. Unit designed for operaton on 50/60 cycles.



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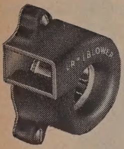
Superior . . . RIPLEY COMPANY, INC. RIPLEY ESTABLISHED 1936 *through Research* MIDDLETOWN, CONN.

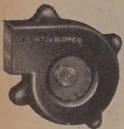
L-R BLOWERS—*"Mighty-Mites"*



No. 1

High impact Phenolic Housing. Weight 1 ounce. Wheel is 1″ in dia. Standard shaft bores, ⅛″ or 3/16″. Overall height 2 5/16″. Overall width 2⅛″. Depth 63/64″. Blower outlet 63/64″ wide by 11/16″ high.

List Price **$3.64 ea.**



No. 1½

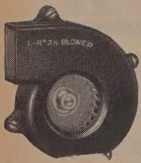
High impact Phenolic Housing. Weight 2½ ounces. Wheel is 1½″ dia. Standard shaft bores, 3/16″ or ¼″. Overall height 3″. Overall width 2⅞″. Depth 1″. Blower outlet 1″ wide by 1 3/16″ high.

List Price **$4.44 ea.**

No. 2

High impact Phenolic Housing. Weight 5 ounces. Wheel is 2″ dia. Standard shaft bores, 3/16″ or ¼″. Overall height 3¾″. Overall width 3½″. Depth 1⅜″. Blower outlet 1⅛″ diameter.

List Price **$4.53 ea.**



No. 2½

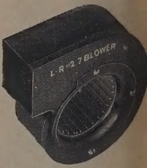
High impact Phenolic Housing. Weight 5½ ounces. Wheel is 2″ in dia. Standard shaft bores, 3/16″ or ¼″. Overall height 4⅜″. Overall width 3⅞″. Depth 1 7/16″. Blower outlet 1 7/16″ wide by 1 19/32″ high.

List Price **$4.65 ea.**

No. 2.7

Rigid Steel Housing. Weight 8½ ounces. Wheel is 2½″ in dia. Standard shaft bores, ¼″ or 5/16″. Overall height 4⅝″. Overall width 4 13/32″. Depth 1 33/64″. Blower outlet 1 33/64″ wide by 1¾″ high.

List Price **$4.90 ea.**



No. 2¾

Rigid Steel Housing. Weight 10 ounces. Wheel is 2½″ in dia. Standard shaft bores, ¼″ or 5/16″. Overall height 4⅝″. Overall width 4 13/32″. Depth 2 5/64″. Blower outlet 2 5/64″ wide by 1¾″ high.

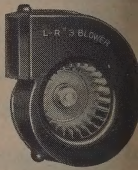
List Price **$4.90 ea.**

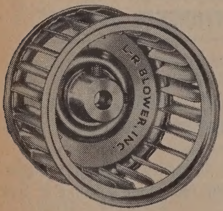
L-R #2¾ BLOWER

No. 3

High impact Phenolic Housing. Weight 12½″ ounces. Wheel is 3″ in dia. Standard shaft bores, ¼″ or 5/16″. Overall height 6 7/16″. Overall width 5½″. Depth 2⅜″. Blower outlet 2⅜″ wide by 2½″ high.

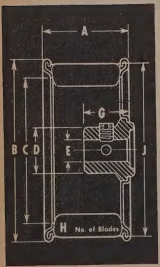
List Price **$5.36 ea.**





L-R *Whirlwind* BLOWER WHEELS

A key factor in the superior efficiency of any blower is the wheel utilized in the housing. Ripley Company provides the utmost in equipment and engineering "know-how" to proc small blower wheels of the highest standard and quality. Manufactured from the finest mat available, precision engineered and rigidly inspected to meet your most exacting requireme Standard wheels are cadmium plated steel. Other material and finishes available. Available CW or CCW Rotation.



ROTATION

is determined viewing closed end of wheel

DIMENSIONS AND SPECIFICATIONS

Wheel Size Dia.		Wheel Size Width	Used in Blower No.	A Width (±1/32)	B Dia. (±1/32)	C Dia. (±1/64)	D Dia. (±.005)	E* (+.001 −.000)	F Set Screw	G (±.010)	H Number of Blades
1	x	20/32	1	⅝	1	11/16	.3125	.125, .1875	5-40	.3125	10
1 16/32	x	20/32	1½	⅝	1½	1 3/16	.5625	.1875, .250	8-32	.5156	16
2	x	31/32	2, 2½	31/32	2	1 39/64	.5625	.1875, .250	8-32	.5156	24
2 16/32	x	31/32	2.7	31/32	2½	2⅛	.750	.250, .3125	8-32	.6562	31
2 16/32	x	1 15/32	2¾	1 15/32							28
3	x	1 28/32	3	1⅞	3	2 29/64	.750	.250, .3125	10-32	.6562	24
3 26/32	x	1 28/32		1⅞	3 13/16	3⅜	.9375	.250, .3125	¼-28	.750	30

*Standard Bore — Other Sizes Available.

Trade Discount Applies To List Prices Only

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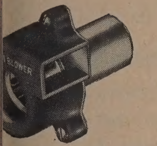
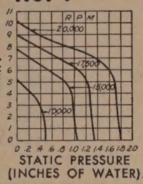
Superior . . . **RIPLEY** *through Research*

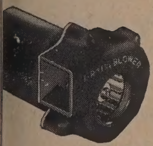
RIPLEY COMPANY, INC. ESTABLISHED 1936 **MIDDLETOWN, CONN.**

L-R MOTOR & BLOWER ASSEMBLIES



NO. 1





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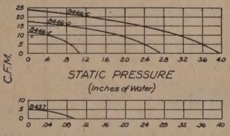
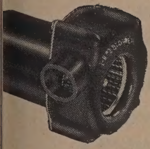
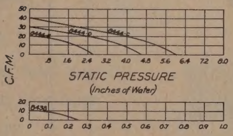
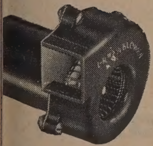




NO. 2





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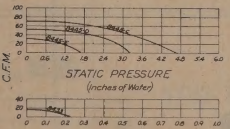

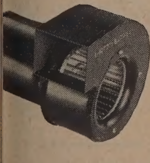

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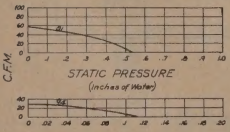
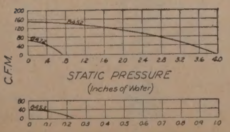
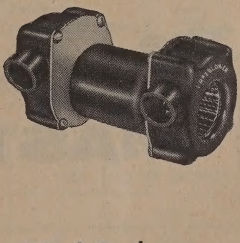


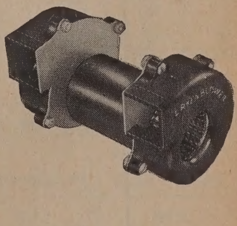
NO. 3



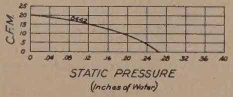
Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8474	1	27.5V. DC	8	Continuous	18,000	9	2 21/64	7/8	**$49.00**
8437	1½	115V. AC-60 Cycle	15	Continuous	3,150	4	4 9/16	2¼	**13.29**
8446-E	1½	115V. AC/DC	25	Intermittent	8,000	12	4½	2 7/32	**17.96**
8446-D	1½	115V. AC/DC	45	Intermittent	11,000	17	4½	2 7/32	**17.96**
8446-C	1½	115V. AC/DC	70	Intermittent	15,000	23	4½	2 7/32	**17.96**
8438	2	115V. AC-60 Cycle	16	Continuous	3,100	10	4½	2¼	**13.48**
8444-E	2	115V. AC/DC	27	Intermittent	6,500	20	4 15/16	2 7/32	**18.14**
8444-D	2	115V. AC/DC	53	Intermittent	10,000	30	4 15/16	2 7/32	**18.14**
8444-C	2	115V. AC/DC	90	Intermittent	13,000	40	4 15/16	2 7/32	**18.14**
8433	2½	115V. AC-60 Cycle	17	Continuous	2,800	17	4½	2¼	**13.60**
8445-E	2½	115V. AC/DC	30	Intermittent	6,000	35	4 27/32	2 7/32	**18.26**
8445-D	2½	115V. AC/DC	55	Intermittent	9,000	53	4 27/32	2 7/32	**18.26**
8445-C	2½	115V. AC/DC	105	Intermittent	12,000	70	4 27/32	2 7/32	**18.26**
94	2¾	115V. AC-60 Cycle	26	Continuous	1,600	28	5 11/64	3¼	**16.50**
81	2¾	115V. AC-60 Cycle	40	Continuous	3,100	58	5 51/64	2 13/16	**16.50**
8453	3	115V. AC-60 Cycle	35	Continuous	1,600	40	5 15/32	3¼	**16.95**
8472	3	115V. AC-60 Cycle	40	Continuous	3,100	77	6 5/64	2 13/16	**16.05**
8452	3	115V. AC/DC	120	Intermittent	6,000	150	6¾	2¾	**22.40**

L-R BLOWERS DUAL ASSEMBLY

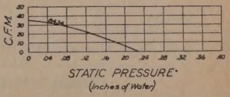




NO. 2 Dual



NO. 2½ Dual



Model No.	Type	Input Voltage	Watts	Duty Cycle	R.P.M.	Output Free Air C.F.M.	Dimensions Length O.A.	Dimensions Motor Dia.	List Price
8442	2 Dual	115V. AC-60 Cycle	18	Continuous	3,000	10-10.	5 11/16	2¼	**$19.52**
8434	2½ Dual	115V. AC-60 Cycle	20	Continuous	2.800	17-17	5 11/16	2¼	**20.59**

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The
Radio-Electronic
MASTER

ANGLER INDUSTRIES INC.

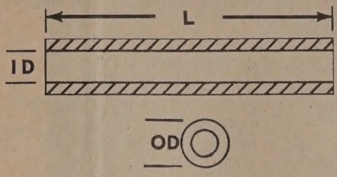
SPACERS

DESCRIPTION:

- Precision Machined Ends
- Controlled Lengths
- Four Materials
- Four Finishes
- Delivery From Stock

APPLICATIONS:

- Electronic Assemblies
- Gear Trains—Mechanisms
- Switches



For material and Finish Add Dash Letter to Part No.

	MATERIAL	FINISH
A	BRASS	NICKEL PLATE
* B	ALUMINUM	IRIDITE
C	CORROSION RESISTANT STEEL	PASSIVATE
D	COLD ROLLED STEEL	CADMIUM PLATE AND IRIDITE

***Fully Stocked By Distributors**

Angler Type	Screw Clearance	L ±.005 Length	OD±.005 Outside Diameter	ID ±.008 Inside Diameter
S-105	#4	.250	.250	.124
S-115	#4	.500	.250	.124
S-145	#6	.250	.250	.156
S-155	#6	.500	.250	.156
S-165	#6	.750	.250	.156
S-175	#6	1.000	.250	.156
S-185	#6	1.500	.250	.156
S-190	#6	2.000	.250	.156
S-192	#8	.250	.250	.180
S-200	#8	.500	.250	.180
S-210	#8	.750	.250	.180
S-220	#8	1.000	.250	.180
S-230	#8	1.500	.250	.180
S-235	#8	2.000	.250	.180
S-237	#8	2.500	.250	.180
S-239	#8	3.000	.250	.180
S-242	#10	.250	.313	.218
S-240	#10	.500	.313	.218
S-245	#10	.750	.313	.218
S-250	#10	1.000	.313	.218
S-260	#10	1.500	.313	.218
S-270	#10	2.000	.313	.218
S-280	#10	2.500	.313	.218
S-290	#10	3.000	.313	.218
S-300	#10	3.500	.313	.218
S-310	#10	4.000	.313	.218
S-330	#10	5.000	.313	.218
S-350	#10	6.000	.313	.218

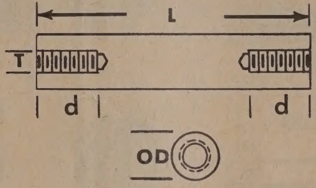
POSTS

DESCRIPTION:

- Class 2 Threads
- Fully Chamfered & Deburred
- Four Materials
- Four Finishes

APPLICATIONS:

- Component Board Supports
- Mechanical Assemblies
- Mechanisms
- Gear Trains



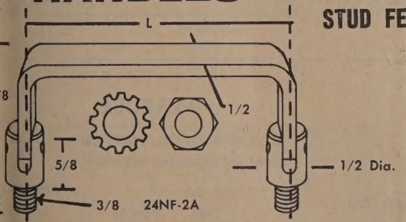
For material and Finish Add Dash Letter to Part No.

	MATERIAL	FINISH
A	BRASS	NICKEL PLATE
* B	ALUMINUM	IRIDITE
C	CORROSION RESISTANT STEEL	PASSIVATE
D	COLD ROLLED STEEL	CADMIUM PLATE AND IRIDITE

***Fully Stocked By Distributors**

Angler Type	T—Tapped Both Ends NC-2B	L ±.005 Length	OD ±.005 Outside Diameter	d—Minimum Full Depth
P-134	4-40	.500	.250	THRU
P-150	4-40	1.000	.250	.250
P-160	4-40	1.500	.250	.250
P-170	4-40	2.000	.250	.250
P-175	4-40	2.500	.250	.250
P-180	4-40	3.000	.250	.250
P-184	6-32	.500	.250	THRU
P-190	6-32	.750	.250	THRU
P-200	6-32	1.000	.250	.375
P-210	6-32	1.500	.250	.375
P-220	6-32	2.000	.250	.375
P-225	6-32	2.500	.250	.375
P-230	6-32	3.000	.250	.375
P-240	6-32	4.000	.250	.375
P-241	8-32	.500	.313	THRU
P-250	8-32	.750	.313	THRU
P-260	8-32	1.000	.313	THRU
P-270	8-32	1.500	.313	.313
P-280	8-32	2.000	.313	.313
P-285	8-32	2.500	.313	.313
P-290	8-32	3.000	.313	.313
P-292	8-32	3.500	.313	.313
P-294	8-32	4.000	.313	.313
P-295	10-24	.500	.375	THRU
P-300	10-24	.750	.375	THRU
P-310	10-24	1.000	.375	THRU
P-320	10-24	1.500	.375	.375
P-330	10-24	2.000	.375	.375
P-340	10-24	2.500	.375	.375
P-350	10-24	3.000	.375	.375
P-355	10-24	3.500	.375	.375
P-360	10-24	4.000	.375	.375

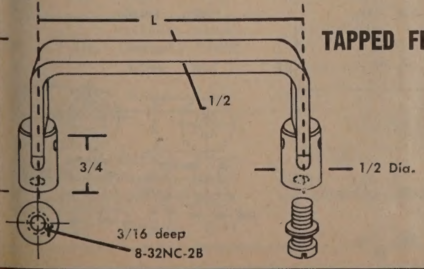
HANDLES



STUD FERRULE

LENGTH L ± 1/64	ANGLER PART NUMBER		
	CLEAR ANODIZED	BLACK ANODIZED	BRIGHT POLISHED CLEAR ANODIZED
4	HAF-1	HAF-2	HAF-3
6	HAF-4	HAF-5	HAF-6
8	HAF-7	HAF-8	HAF-9
10	HAF-10	HAF-11	HAF-12

Maximum Recommended Load: 50 pounds per handle.



TAPPED FERRULE

LENGTH L ± 1/64	ANGLER PART NUMBER		
	CLEAR ANODIZED	BLACK ANODIZED	BRIGHT POLISHED CLEAR ANODIZED
4	HAF-13	HAF-14	HAF-15
6	HAF-16	HAF-17	HAF-18
8	HAF-19	HAF-20	HAF-21
10	HAF-22	HAF-23	HAF-24

Maximum Recommended Load: 50 pounds per handle.

Birnbach WIRE MEASURING MACHINE, BINDING POSTS, PHONO-JACKS - HANDLES

"NEW" COMPLETE WIRE MEASURING OUTFIT

ACCURATE • COMPACT • NOISELESS

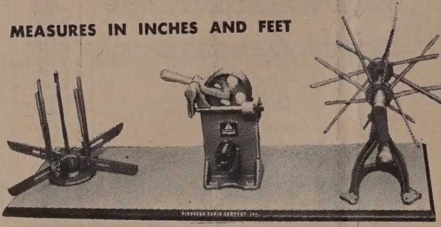
MEASURING MACHINE

Sturdy and compact construction. Has a precision quality built counter with large numbers for easy reading and will register wire up to .9,999 feet for direct accurate reading. Can be easily reset to zero position.

Wire passes through two rollers, the upper roller being self-adjusting and the tension of the upper roller can be set by a thumb screw to provide the proper grip for very fine as well as for heavy wire.

Two hardened lead bushings with an opening of ⅝″ diameter will guide the wire properly through the rollers. Bushings are removable to allow cables up to 1″ dia. to pass through. Will measure accurately all electric wires, cables, coaxial cables, rope, tape, etc.

MEASURES IN INCHES AND FEET



Sold without baseboard.

WIRE WINDER

Has adjustable arms to be set to the desired coil size and the arms will open to a flat position for easy removal of the coil. Simply open thumb screw which holds the front collar tight on the shaft, push the collar in any direction to the desired position and tighten the thumb screw again.

HOLDING REEL

Compact, adjustable to size of coil and folding. Will hold spools or coils o wire.

CERTIFICATE OF APPROVAL
NO. 498-61
DEPARTMENT OF AGRICULTURE
STATE OF CALIFORNIA

PRICES

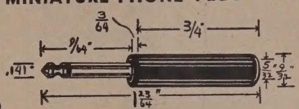
	MODEL	LIST	NET
COMPLETE WIRE MEASURING OUTFIT	7389A	$252.50	$126.25
Separately:			
HOLDING REEL	7398-1M	35.00	17.50
MEASURING MACHINE	7398-2MA	175.00	87.50
WIRE WINDER	7398-3M	59.00	29.50

MINIATURE PLUGS & JACKS

MINIATURE PHONE PLUG

Insulated type, Solder terminals, two conductor mini. phone plug. Ideal for hearing aids, portable receivers, small instruments, etc. Rated 500 volts.

No.	Std. pkg.
130 Red or Black	50

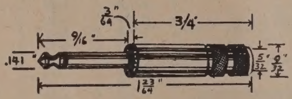


No. 130

SHIELDED MINIATURE PHONE PLUG

Same as No. 130 except with brass, bright nickel plated barrel with insulating tube inside.

No.	Std. pkg.
131	50

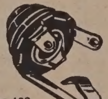


No. 131

MINIATURE TELEPHONE TYPE JACK

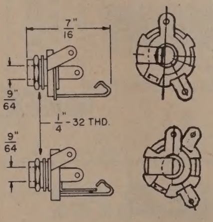
Rugged construction, smaller than standard type Jacks. Mount in ¼″ dia. hole in panels up to ⅛″ thick.

	Std. pkg.
No. 132 Open circuit type	50
No. 133 Single closed circuit type	50

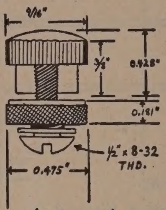


No. 132

No. 133



No. 184



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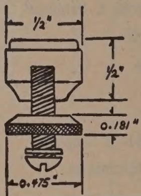


INSULATED BINDING POST

Milded bakelite head wit brass insert molded-in. Sup plied complete with 8/32 ½″ screw, lock washer. Ha brass insert molded-in. Sup plied with washer. Availabl in black.

Cat. No.	Std. pkg
184..Binding Post	50

Molded bakelite head wit brass insert molded-in. Sup plied complete with 8/32 ½″ screw and lock washe Has brass nickel-plated re taining washer.

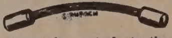
Colors: Red, Black.

Cat. No.	Std. pk
185..Binding Post	50

Brass, heavily nickel-plat overall. Complete with scre and lock washer. Designed high amperage, low resista.. connections.

Cat. No.	Std. pk
186. Metal Binding Post	50

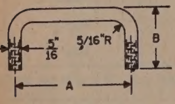
BIRNBACH FLEXIBLE SHAFTS



Modern construction calls for more compact rangement of parts. At times there is difficu getting the controls to the proper position on the panel. With couplings these flexible shafts, locations can be made with ease on an offset and ang up to 90 degrees. The flexible shafts are made of phosphor bronze and fit into ¼″ dia. hubs.

Cat. No.	Std. P
553—Flexible Shaft 3″ long	25
554—Flexible Shaft 6″ long	25

HANDLES



MATERIAL: BRASS
FINISH: NICKEL PLATED

Has 10-32 thread individually packaged for a perfect finish.

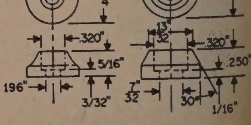
Cat. No.	A	B	Std. Pkg.
1065-3	3″	1⅚″	10
1065-4	4⁹⁄₁₆″	1½″	10
1065-6	6⁷⁄₁₆″	1¾″	10
1065-9	9″	1¾″	10

FERRULE

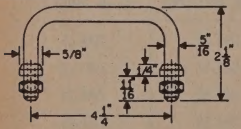
BRASS—NICKEL PLATED

Used for mounting handles.

Cat. No.		Std. Pkg.
1068	Ferrule	100
1069	Ferrule	100



CABINET HANDLE



MATERIAL: BRASS
FINISH: NICKEL PLATED

Mounts in 5/16″ Hole.

Supplied with Hex Nut and Washer. Individually packaged for perfect finish.

Cat. No.		Std. Pkg.
1066	Handle	10

See Pages 1620-1625 for Birnbach Prices for Above Items

© U.C.P.,

Birnbach SUB-MINIATURE TEFLON TERMINALS

BIRNBACH

NEW SUB-MINIATURE TELFLON* terminals provide instant mounting without any extra hardware of any kind because of the exceptional properties of Virgin Teflon*.

Low dielectric constant, low power factor (60 cps to 30,000 mc), low capacitance, high volume, high surface resistivity, high dielectric strength (1500-2000 v/mil, s.t.), continuous service—450°F to plus 500°F, unaffected by soldering, chemically inert, damage resistant, water repellant, voltage rating, sea level 750v r.m.s., flash-over, sea level 3000v r.m.s., flash-over, 50,000 ft. 1300 v r.m.s.

Installed permanently in seconds, in metallic or non-metallic chassis in one, simple, corking motion into punched or drilled holes. Mounting Hole Data: 1. Punch or drill the hole to a diameter that is .012″ less than the diameter of the Teflon insulator which passes thru the chassis. 2. Where the thickness of the chassis permits, the entrance edge of the mounting hole should be countersunk 30° to the diameter of the insulator. Where chassis thickness will not permit (.040″ or smaller), countersink 45° to the diameter of the insulator.

Speeds up assembly—cut production costs, no nuts, washers, staking or soldering necessary especially adapted in crowded assemblies.

As for HF, VHF, UHF, microwave, radar, telemetering, guided missile instrumentation and circuitry.

VARIATIONS OF SPECIFICATIONS LISTED BELOW ARE AVAILABLE. YOUR INQUIRIES INVITED.

* *DuPont TM*

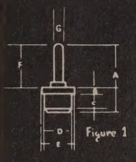


Figure 1

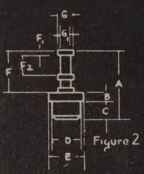


Figure 2

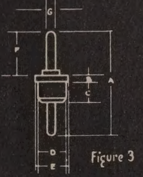


Figure 3

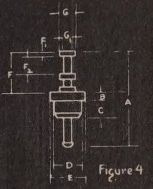


Figure 4

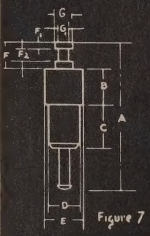


Figure 7

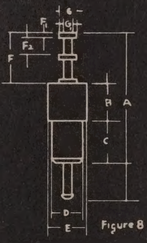


Figure 8

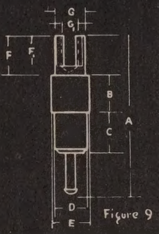


Figure 9

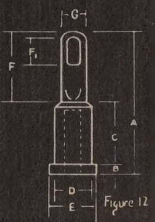


Figure 12

SUB-MINIATURE STAND-OFFS

Std. Pkg. 100, 1000

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
506	1	0.5	.350	.040	.100	.148	.172	.210			.040	
507	1	0.5	.406	.040	.156	.148	.172	.210			.040	
508	1	0.5	.500	.040	.250	.148	.172	.210			.040	

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
510	2	0.55	.350	.040	.100	.148	.172	.210	.020	.100	.040	.080
511	2	0.55	.375	.040	.125	.148	.172	.210	.020	.100	.040	.080
512	2	0.40	.350	.040	.100	.179	.200	.210	.020	.100	.040	.080

SUB-MINIATURE FEED-THRUS

Std. Pkg. 100, 1000

Cat. No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	G DIA.
514	3	0.60	.515	.040	.100	.148	.172	.210	.040
515	3	0.55	.443	.040	.100	.148	.172	.210	.040
516	3	0.75	.725	.040	.100	.148	.172	.210	.040

Cat No.	FIG.	CAPACITANCE mmf +	A	B	C	+.002 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
518	4	0.65	.500	.040	.100	.148	.172	.210	.020	.100	.040	.080
519	4	0.65	.500	.040	.165	.148	.172	.210	.020	.100	.040	.080

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	Flashover 50,000 Ft.	A	B	C	+.022 —.000 D DIA.	E DIA.	F	F_1	F_2	G DIA.	G_1 DIA.
520	7	2000	1.00	6000	1400	.540	.063	.171	.171	.187	.133	.020	.093	.046	.093
521	8	2000	1.00	6000	2500	.836	.187	.165	.148	.172	.125	.020	.093	.040	.093

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	Flashover 50,000 Ft.	A	B	C	+.022 —.000 D DIA	E DIA.	F	F_1	G DIA.	G_1 DIA.
522	9	2000	1.10	6000	1400	.821	.187	.212	.171	.187	.203	.156	.148	.078

CONNECTORS & TEST JACKS

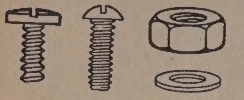
Std. Pkg. 100, 1000

CAT. NO.	FIG.	VOLTAGE, Nominal Rating	CAPACITANCE mmf +	RMS, 60 CPS Flashover Sea Level	Flashover 50,000 Ft.	A	B	C	D DIA.	E DIA.	F	F_1	F_2	G DIA	G_1 DIA.
523	12	1250	0.40	4500	1500	.687	.046	.287	.185	.218	.354	.140	.070	.115	.060

Birnbach

SCREWS & NUTS • WASHERS • STANDOFFS ALL-NYLON FASTENINGS

Non-Corrosive, Non-Conducting



Used in variety of applications, such as; appliances, computers and business machines, chemical and food processing equipment, electronic equipment and instruments, airborn equipment, etc.

*Reg. T.M. of DuPont

ALL-NYLON FASTENINGS

Zytel 101 per Mil P 20693 Spec, Mil S 7742 Spec

Birnbach All-Nylon Fastenings are made of Zytel 101*, a Polymide plastic of the Nylon 6.6 Type. They offer outstanding insulating properties plus resistance to heat, shock, vibration and chemical solvents plus lightness elasticity and superior torque strength. In most cases, because of their high dielectric strength, they eliminate the need of bushings, washers or other insulation. They are corrosion resistant, non-magnetic and good torque strength thru a wide temperature range. Continuous service temperature to 300°F (150°C). Stock color: Natural. Additional colors available to order. Zytel 101 per MIL-P-17019B.

ALL NYLON MACHINE SCREWS

STANDARD PKG.: 100, 1000

Cat. No.	Size	Type
6640	2-56 x ¼″	Round Head
6640A	2-56 x ¼″	Fillister Head
6640B	2-56 x ¼″	Binding·Head
6641	2-56 x ⅜″	Round Head
6641A	2-56 x ⅜″	Fillister Head
6641B	2-56 x ⅜″	Binding Head
6550	2-56 x ½″	Round Head
6551	2-56 x ½″	Fillister Head
6551A	2-56 x ½″	Binding Head
6643	4-40 x ¼″	Round Head
6643A	4-40 x ¼″	Fillister Head
6643B	4-40 x ¼″	Binding Head
6644	4-40 x ⅜″	Round Head
6644A	4-40 x ⅜″	Fillister Head
6644B	4-40 x ⅜″	Binding Head
6552	4-40 x ½″	Round Head
6552A	4-40 x ½″	Fillister Head
6552B	4-40 x ½″	Binding Head
6646	6-32 x ¼″	Round Head
6646A	6-32 x ¼″	Fillister Head
6646B	6-32 x ¼″	Binding Head
6553	6-32 x ⅜″	Round Head
6554	6-32 x ⅜″	Binding Head
6555	6-32 x ⅜″	Fillister Head
6556	6-32 x ⅜″	Flat Head
6557	6-32 x ½″	Round Head
6558	6-32 x ½″	Binding Head
6559	6-32 x ½″	Fillister Head
6560	6-32 x ½″	Flat Head
6648	6-32 x ¾″	Round Head
6648A	6-32 x ¾″	Fillister Head
6648B	6-32 x ¾″	Binding Head
6561	6-32 x 1″	Round Head
6561C	6-32 x 1″	Flat Head
6650	8-32 x ¼″	Round Head
6650A	8-32 x ¼″	Fillister Head
6650B	8-32 x ¼″	Binding Head
6562	8-32 x ⅜″	Round Head
6563	8-32 x ⅜″	Binding Head
6564	8-32 x ⅜″	Flat Head
6565	8-32 x ⅜″	Fillister Head
6566	8-32 x ½″	Round Head
6567	8-32 x ½″	Binding Head
6568	8-32 x ½″	Flat Head
6569	8-32 x ½″	Fillister Head
6570	8-32 x ⅝″	Round Head
6571	8-32 x ⅝″	Fillister Head
6572	8-32 x ¾″	Round Head
6572A	8-32 x ¾″	Fillister Head
6572B	8-32 x ¾″	Binding Head
6573	8-32 x 1″	Flat Head
6573A	8-32 x 1″	Fillister Head
6574	10-32 x ⅜″	Round Head
6575	10-32 x ½″	Round Head
6576	10-32 x ½″	Flat Head
6577	10-32 x ⅝″	Round Head
6578	10-32 x 1″	Round Head
6579	10-32 x 1″	Flat Head

THREADED NYLON ROD in 6-32, 8-32, 10-32 and ¼-20 thread sizes available.

ROUND HEAD MACHINE SCREWS

Standard Package 1000

STEEL NICKEL PLATED

Cat. No.		Size
6300	..	2-56 x 3/16
6301	..	2-56 x ⅜
6302	..	2-56 x ½
6303	..	3-48 x ¾
6304	..	4-36 x ¼
6305	..	4-36 x ½
6306	..	4-36 x ¾
6307	..	4-40 x ¼
6308	..	4-40 x ½
6309	..	4-40 x ¾
6420	..	6-32 x ¼
6421	..	6-32 x ⅜
6422	..	6-32 x ½
6423	..	6-32 x ⅝
6424	..	6-32 x ¾
6425	..	6-32 x 1
6426	..	8-32 x ¼
6427	..	8-32 x ⅜
6428	..	8-32 x ½
6429	..	8-32 x ⅝
6430	..	8-32 x ¾
6431	..	8-32 x 1
6432	..	8-32 x 1½
6433	..	10-32 x ¼
6434	..	10-32 x ⅜
6435	..	10-32 x ½
6436	..	10-32 x ⅝
6437	..	10-32 x ¾
6438	..	10-32 x 1
6439	..	¼-20 x ½
6310	..	¼-20 x 1¼
6311	..	¼-20 x 2½
6400	..	4-36 x ¼
6401	..	4-36 x ⅜

BRASS NICKEL PLATED

Cat. No.		Size
6402	..	4-36 x ½
6403	..	4-36 x ¾
6404	..	4-36 x 1
6312	..	4-40 x ¼
6313	..	4-40 x ⅜
6314	..	4-40 x ½
6315	..	4-40 x ¾
6405	..	8-32 x ¼
6406	..	6-32 x ⅜
6407	..	6-32 x ½
6408	..	6-32 x ⅝
6409	..	6-32 x ¾
6410	..	6-32 x 1
6410A	..	6-32 x 1⅛
6411	..	6-32 x 1¼
6412	..	6-32 x 1½
6413	..	8-32 x ¼
6414	..	8-32 x ⅜
6415	..	8-32 x ½
6416	..	8-32 x ⅝
6417	..	8-32 x ¾
6418	..	8-32 x 1
6316	..	10-32 x ¼
6317	..	10-32 x ⅜
6318	..	10-32 x ½
6318A	..	10-32 x ⅝
6319	..	10-32 x ¾
6319A	..	12-24 x 1
6320	..	10-32 x 1
6320A	..	¼-20 x ⅞
6320B	..	¼-20 x 1¼
6320C	..	¼-20 x 1½

BINDING HEAD MACHINE SCREWS

Steel Nickel Plated

Cat. No.	Size	Std. Pkg.
6321	6-32 x ¼″	1000
6322	6-32 x ⅜″	1000
6323	6-32 x ½″	1000
6324	8-32 x ¼″	1000
6325	8-32 x ⅜″	1000
6326	8-32 x ½″	1000

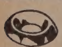
OVAL HEAD RACK SCREWS

Steel Nickel Plated

Widely used for mounting panels on racks and cabinets. Screws are nickel-plated brass.

Cat. No.	Size	Std. Pkg.
6600	6-32 x ¼″	1000
6601	6-32 x ½″	1000
6602	6-32 x ¾″	1000
6603	6-32 x 1″	1000
6604	8-32 x ¼″	1000
6605	8-32 x ½″	1000
6606	8-32 x ¾″	1000
6607	8-32 x 1″	1000
6608	10-32 x ¼″	1000
6609	10-32 x ½″	1000
6610	10-32 x ⅝″	1000
6611	10-32 x ¾″	1000
6611-A	10-32 x 1″	1000

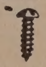
FINISHING RACK WASHERS



Brass Nickel Plated

Cat. No.	Size	Std. Pkg.
6612	6-32 Cup Washer	1000
6613	8-32 Cup Washer	1000
6614	10-32 Cup Washer	1000

SHEET METAL SELF TAPPING SCREWS

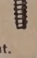


Steel Cadmium Plated

TYPE A — SHARP POINT

Cat. No.	Size	Std. Pkg.
6500	#4 x ½	144
6501	#6 x ¼	144
6502	#6 x ⅜	144
6503	#6 x ½	144
6504	#6 x ¾	144
6540	#8 x ⅜	144
6541	#8 x ½	144
6505	#8 x 1	144
6542	#10 x ⅜	144
6543	#10 x ½	144
6506	#10 x ¾	144
6507	#10 x 1	144

HEX HEAD SELF TAPPING SCREWS

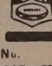


TYPE B — BLUNT POINT SLOTTED

Steel Cadmium Plated

Cat. No.	Size	Std. Pkg.	Cat. No.	Size	Std. Pkg.
6510	#6 x ⅜	144	6515	#8 x ½	144
6511	#6 x ½	144	6516	#8 x ¾	144
6512	#6 x ¾	144	6517	#8 x 1	144
6513	#8 x ¼	144	6518	#10 x ½	144
6514	#8 x ⅜	144	6519	#10 x 1	144

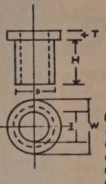
VOLUME CONTROL AND TOGGLE NUTS



STEEL - BRASS - NICKEL PLATED

No.	Type	Size	Std. Pkg
6337	Vol. Control Brass	⅜-32x½x3/32	1000
6337A	Vol. Control Steel	⅜-32x½x3/32	1000
6338	Toggle Switch Brass	15-32x9/16x5/64	1000
6339	Toggle Ring Nut	15-32x⅝x1/16	1000

BIRNBACH NYLON BUSHINGS AND SPACERS



Designed with wide flanges to completely isolate screw from mounting surface, useful where hi tensile and torque requirements require high strength non-insulating screws. Natural color.

Cat. No.	UsedU with Screw Size I	Dimensions W	T	H	D
6549	#4(.115″)	.235″	3/64″	¼″	.146″
6549A	#6(.140″)	.290″	3/64″	¼″	.170″
6549B	#8(.173″)	.344″	1/16″	⅜″	.205″
6549C	#10(.200″)	.399″	1/16″	⅜″	.260″
6549D	¼″(.260″)	.513″	1/16″	⅜″	.312″

All parts are manufactured to American Thread Standards to a class 2A or 2B fit. B 18.2 (hex nuts), B 18.6 (machine screws), B 1.1 (thread specs.)

BIRNBACH ALL NYLON HEX NUTS

STANDARD PKG.: 100, 1000

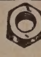
Cat. No.	Size	Cat. No.	Size
6585	2-56	6588	8-32
6586	4-40	6589	10-32
6587	6-32	6590	¼-20

BIRNBACH ALL-NYLON WASHERS

STANDARD PKG.: 100, 1000

Cat. No.	Fits Screw No.	O.D.	I.D.	Thickness
6592	2	¼″	3/32″	.016″
6593	4	¼″	⅛″	.016″
6594	6	5/16″	5/32″	.031″
6595	8	⅜″	.170″	.031″
6596	10	⅜″	.195″	.031″
6597	¼″	⅝″	9/32″	.063″

BIRNBACH HEXAGON STEEL MACHINE SOREW NUTS



Nickel Plated

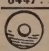
Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg
6330	2-56	3/16″	1/16″	1000
6331	3-48	3/16″	1/16″	1000
6332	4-36	1/4″	3/32″	1000
6333	4-40	1/4″	3/32″	1000
6448	6-32	1/4″	3/32″	1000
6449	6-32	5/16″	7/64″	1000
6334	8-32	1/4″	3/32″	1000
6450	8-32	5/16″	7/64″	1000
6335	10-32	3/8″	1/8″	1000
6336	¼-20	7/16″	3/16″	1000

BIRNBACH HEXAGON MACHINE SCREW NUTS

BRASS—NICKEL PLATED

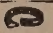
Cat. No.	Thread Size	Width across Flats	Thickness	Std. Pkg.
6440	4-36	1/4″	3/32″	1000
6442	4-40	1/4″	3/32″	1000
6441	6-32	1/4″	5/64″	1000
6443	6-32	5/16″	7/64″	1000
6444	8-32	11/32″	1/8″	1000
6445	10-32	5/16″	7/64″	1000
6446	10-32	3/8″	1/8″	1000
6447	¼-20	7/16″	1/8″	1000

BIRNBACH BRASS NICKEL PLATED FLAT WASHERS



Cat. No.	Fits Screw No.	Hole Size	O.D.	Thickness	Std. Pkg.
6479	4	.118″	9/32″	.025″	1000
6480A	6	.145″	5/16″	.025″	1000
6480	6	.145″	3/8″	.025″	1000
6481	8	.172″	3/8″	.032″	1000
6482	10	.203″	7/16″	.036″	1000
6483	¼-20	.265″	9/16″	.040″	1000

BIRNBACH STEEL KANKLINK LOCKWASHERS



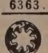
Cat. No.	Screw Size	O.D.	Thickness	Std. Pkg
6484	4	3/16″	1/32″	1000
6485	6	15/64″	1/32″	1000
6486	8	15/64″	.025″	1000
6487	10	5/16″	.050″	1000
6488	¼	7/16″	5/64″	1000

BIRNBACH SHAKEPROOF LOCKWASHERS

EXTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg
6358	4	1000
6359	6	1000
6360	8	1000
6361	10	1000
6362	¼	1000
6363	⅜	1000

BIRNBACH SHAKEPROOF LOCKWASHERS



INTERNAL TEETH

Cat. No.	Screw Size	Std. Pkg.
6355	2	1000
6356	3	1000
6357	4	1000
6490	6	1000
6491	8	1000
6492	10	1000
6493	¼	1000
6494	⅜	1000

6494/1 Narrow Rim Control Shaft Lockwasher 3/8″ 1000

6494/2 Narrow Rim Toggle Switch Lockwasher 15/32″ 1000

See Pages 1620-1625 for Birnbach Prices for Above Items

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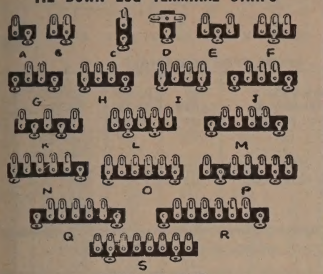
Birnbach

TERMINAL STRIPS • LUGS • BUSHINGS SHAFT COUPLINGS • PANEL BEARINGS SPACERS • TUBE CLAMPS

TIE DOWN LUG TERMINAL STRIPS



STANDARD TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x ⅜" wide with cadmium plated brass lugs. Lugs are ⅜" centers with .140 diam. mounting holes. Strips illustrated are standard; special combinations on request.

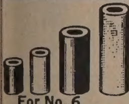
Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1382	A	100	1385B	L	100
1382A	B	100	1386	M	100
1382B	C	100	1386A	N	100
1382C	D	100	1386B	O	100
1383	E	100	1387	P	100
1383A	F	100	1388	Q	100
1384	G	100		5 Ter., 2 grds.	
1384A	H	100	1389	R	100
1384B	I	100		6 Ter., 2 grds.	
1385	J	100	1390	S	100
1385A	K	100			

MINIATURE TYPE

These lugs made of 1/16" (.062" thick) XP bakelite x 5/16" wide. Brass, cadmium plated lugs are ¼" centers; .096 diam. mounting hole. Clearance for 3/32" rivet or No. 3 screw. Strips illustrated are standard; special combinations on request.

Cat. No.	Illustration	Std. Pkg.	Cat. No.	Illustration	Std. Pkg.
1352	A	100	1355A	K	100
1352A	B	100	1355B	L	100
1352B	C	100	1356	M	100
1352C	D	100	1356A	N	100
1353	E	100	1356B	O	100
1353A	F	100	1357	P	100
1354	G	100	1358	Q	100
1354A	H	100	1359	R	100
1354B	I	100	1360	S	100
1355	J	100			

BIRNBACH BRASS BUSHINGS & SPACERS



An ideal brass bushing for raising sub panels, chassis, condensers, transformers, etc. Hole will accommodate a No. 6 or No. 8 screw.

For No. 6 Cat. No.	Std. Pkg.	Length	For No. 8 Cat. No.	Std. Pkg.
		¼" O.D.		
1125	100	¼"	1130	100
1126	100	⅜"	1131	100
1127	100	½"	1132	100
1128	100	¾"	1133	100
1129	100	1"	1134	100
		⅜" O.D.		
1135	100	¼"	1140	100
1136	100	⅜"	1141	100
1137	100	½"	1142	100
1138	100	¾"	1143	100
1139	100	1"	1144	100

THREADED BRASS SPACERS

¼" O.D.

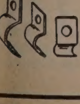
For No. 6-32 Cat. No.	Std. Pkg.	Length	For No. 8-32 Cat. No.	Std. Pkg.
1125T	100	¼"	1130T	100
1126T	100	⅜"	1131T	100
1127T	100	½"	1132T	100
1128T	100	¾"	1133T	100
1129T	100	1"	1134T	100

BIRNBACH INSULATED BUSHINGS AND SPACERS

¼" O.D.

For No. 6 Cat. No.	Std. Pkg.	Length	For No. 8 Cat. No.	Std. Pkg.
1145	100	¼"	1149	100
1146	100	⅜"	1150	100
1147	100	½"	1151	100
1148	100	¾"	1152	100

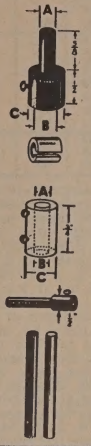
BIRNBACH CABLE CLAMPS



Cat. No.	To Fit Cable Up to	Lth.	Wth.	Mtg. Hole	Std. Pkg.
1153	3/32"	7/16"	¼"	4	100
1154	5/32"	⅝"	⅜"	6	100
1155	¼"	11/16"	⅜"	6	100
1156	½"	15/16"	⅜"	8	100
1157	¾"	1¼"	⅜"	10	100

SHAFT COUPLING REDUCERS AND EXTENDERS

By the use of these units all ¼" and ⅜" dia. shafts and knobs can be assembled together. The insulated units are for use where electrical isolation is desired. Furnished complete with set screws shown. Be sure to specify whether Brass or Insulated is desired.



SHAFT COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
534	634	¼"	¼"	½"	50
535	635	¼"	⅜"	9/16"	50
536	636	⅜"	¼"	½"	50
537	Reducer for ⅜" Dia. Hole to ¼" Dia. Hole			⅜"	50

COUPLINGS

Cat. No. Br.	Cat. No. Insul.	Shaft A	Hole B	O.D. C	Std. Pkg.
531	631	¼"	¼"	½"	50
532	632	¼"	⅜"	9/16"	50
533	633	⅜"	⅜"	9/16"	50

EXTENDERS

Cat. No.	Over-all Lgth.	Shaft Lgth.	Hole I.D.	Shaft O.D.	Std. Pkg.
538 Brass	1¾"	1¼"	¼"	¼"	50
539 Insulated	1¾"	1¼"	¼"	¼"	50

BRASS SHAFTING

Cat. No.			Std. Pkg.
540	¼" Dia.	6" Long	12
541	¼" Dia.	12" Long	12
542	⅜" Dia.	8" Long	12

FIBRE SHAFTING

Cat. No.			Std. Pkg.
543	¼" Dia.	6" Long	12
544	¼" Dia.	12" Long	12
545	⅜" Dia.	8" Long	12

BAKELITE TERMINAL STRIPS

Terminals are made of brass and cadmium plated. Terminals are mounted on 1/16" bakelite. 7, 8, 9 and 10 terminals are mounted on 3/32" bakelite. All terminals are space 7/16" center to center.

PLAIN

Cat. No.	Terminals	Mtg. Center
1372	2	1-5/16"
1373	3	1-¾"
1374	4	2-3/16"
1375	5	2-⅝"
1376	6	3-1/16"
1377	7	3-½"
1378	8	3-15/16"
1379	9	4-⅜"
1380	10	4-13/16"

MARKED

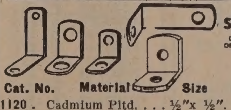
Cat. No.	Terminals Marked
1260	2; A-G
1261	2; Output
1262	2; Input
1263	3; 1-2-3
1264	4; 1-2-3-4
1265	5; 1-2-3-4-5
1266	6; 1-2-3-4-5-6

SPRING WIRE CLIPS

They will hold a wire up to No. 10 B&S Gauge in a secure contact. All clips are brass nickel plated.

Cat. No.	Length	Width	Mtg. Hole	Std. Pkg.
32A—Spring Clip	¾"	5/16"	6	100
32 —Spring Clip	1"	⅜"	10	100
33 —Twin Clip	1¾"	⅜"	10	100

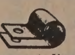
BRASS AND STEEL ANGLES



CAT. NO. 1120 HAS ONE PLAIN .165 HOLE AND ONE 8/32 TAPPED HOLE

Cat. No.	Material	Size	Mtg. Holes	Std. Pkg.
1120	Cadmium Pltd.	½"x ½"	165	100
1121	Brass N.P.	½"x ½"	169	100
1122	Brass N.P.	⅝"x ⅝"	169	100
1123	Steel H.T.	¾"x ¾"	144	100
1124	Steel H.T.	⅝"x1⅛"	169	100

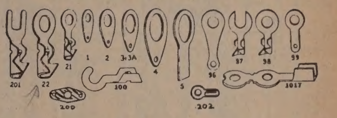
BIRNBACH TUBE CLAMPS



These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The ⅛" thru ⅝" clamps have a clearance for No. 10 Screw. The ¾" to the 1¼" clamps have a clearance for ¼" bolts.

Cat. No.	To Fit Tube	Wdth.	Lgth.	Thickness	Std. Pkg.
51A	⅛"	½"	13/16"	.050"	100
51	¼"	½"	⅞"	.050"	100
52	5/16"	½"	15/16"	.050"	100
53	⅜"	½"	1"	.050"	100
54	½"	½"	1⅛"	.050"	100
54A	⅝"	½"	1¼"	.050"	50
55	¾"	¾"	1 9/16"	.090"	50
57	⅞"	¾"	1⅝"	.090"	50
56	1"	¾"	1¾"	.090"	50
56A	1⅛"	¾"	1⅞"	.090"	50
56B	1¼"	¾"	2"	.090"	50

BIRNBACH TINNED TERMINAL LUGS

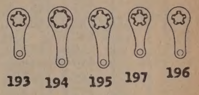


Cat. No.	Hole for Screw	Material	Thickness	Lgth.
1	6	Tinned Copper	.015"	17/32"
2	10	Tinned Copper	.016"	⅝"
3	.252	Tinned Copper	.015"	17/32"
3A	1/4	Tinned Copper	.015"	13/16"
4	3/8	Tinned Copper	.016"	⅞"
5	1/2	Hot Tin. Cop.	.024"	1 3/16"
21	10	Hot Tin. Cop.	.020"	3/16"
22	1/4	Hot Tin. Cop.	.025"	1 1/16"
200	8	Brass Hot Tin.	.015"	⅞"
201	10	Brass Hot Tin.	.020"	25/32"
202	6	Brass Hot Tin.	.020"	⅝"
96	4-6-8-10	Brass Hot Tin.	.020"	7/16"
97	8	Tinned Copper	.016"	⅝"
98	4-6-8-10	Brass Hot Tin.	.020"	11/16"
99	4-6-8-10	Brass Hot Tin.	.020"	11/16"
100	10	Brass Hot Tin.	.020"	⅞"
1017	10	N. Pl. Cop.	.023"	13/16"

Standard Package — 1000

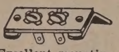
BIRNBACH LOCKING TYPE TERMINAL LUGS

Brass
Electro Plated



Cat. No.	Hole for Screw	Thickness	Length In.	Std. Pkg.
193	4	.020"	¾"	1000
194	6	.020"	¾"	1000
195	8	.020"	⅞"	1000
197	10	.020"	⅞"	1000
196	¼"	.020"	13/16"	1000

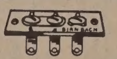
TERMINAL STRIPS 2 POST



Excellent mounting for twin lead transmission lines Brass hot tinned lugs spaced 7/16" center to center. 1/16" bakelite. 1 15/16" mounting center.

Cat. No. T16....................St. Pkge. 50

BIRNBACH 3 POST



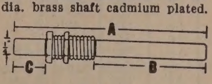
A synchronizing lock strip for RCA type television receivers.

Brass hot tinned lugs. Spaced 7/16" center to center. Mounting center 1¾". 1/16" bakelite.

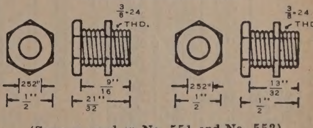
Ca. No. T16A....................Std. Pkg. 50

BIRNBACH FRONT PANEL BEARINGS

Cadmium plated brass for panels up to ⅜" in thickness and for ¼" dia. shafts. The No. 551 and No. 552 are complete assemblies of the No. 550 and ¼" dia. brass shaft cadmium plated.



Cat. No.	A	B	C	Std. Pkg.
551	3"	1¾"	½"	50
552	6"	4¾"	½"	25



(Same as used on No. 551 and No. 552)

Cat. No.		Std. Pkg.
550	—Front Panel Bearing, threaded length 9/16"	50
550A	—Front Panel Bearing, threaded length 13/32"	50
550-B	—Front Panel Bearing, ⅜-32 threaded length 9/16"-11/16" O.L.	
550-C	—Front Panel Bearing— Miniature ¼-32 thd length 5/16, 3/8" O.L. .125 opening 11/32 hex.	

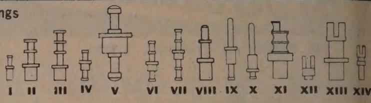
See Pages 1620-1625 for Birnbach Prices for Above Items

CAMBRIDGE THERMIONIC CORPORATION
CAMBION®
The guaranteed electronic components

TERMINALS

SOLDER TERMINALS

Material: Brass. **Finish:** Silver plate unless otherwise noted. Other platings available on special order.



TURRET TYPE TERMINALS

Cambion No.	Fig.	Shank x Turret x Shoulder (All In Dia., In.)	Hole Dia. Hollow Type	Height, Above Board x Below Board	Board Thickness	Net Pkg. of 100 *
1011	VIII	.090 x 3/32 x 1/8	....	19/64" x —	Chart I	$1.83
1013	VIII	.090 x 7/64 x 5/32	....	11/32" x —	Chart I	2.20
1014	VIII	.090 x 7/64 x 5/32	....	15/32" x —	Chart I	2.50
1030	IX	.072 x 3/64 x 3/32	....	1/4" x 1/8"	Chart I	3.30
1031	X	.072 x 3/64 x 3/32	....	5/64" x 1/4"	Chart I	2.44
1032	X	.062 x 3/64 x 5/64	....	5/64" x 9/64"	Chart I; a	1.50
1081	VII	.201 x .144 x 1/4	....	11/32" x 5/16"	b	4.20
1143	V	.181 x 3/32 x 1/4	....	1/4" x 7/32"	Chart II	3.10
1245	I	.112 x .145 x 3/16	....	15/64" x —	Chart II; c	1.56
1457	I	.078 x .075 x 1/8	....	3/16" x —	Chart II; d	1.00
1463	V	.116 x .070 x 5/32	....	5/32" x 1/8"	Chart II; e	1.45
1548	II	.112 x .149 x 3/16	5/64"	5/16" x —	Chart II	1.34
1558	II	.090 x 3/32 x 1/8	....	7/32" x —	Chart II	.97
1579	VII	.202 x 9/64 x 1/4	....	11/32" x 7/64"	Chart II; f	3.10
1604	I	.062 x 1/16 x 3/32	....	3/32" x —	Chart II; g	1.25
1724	II	.112 x .145 x 3/16	....	23/64" x —	Chart II; c	1.55
1797	I	.110 x 9/64 x 3/16	.067"	3/16" x —	Chart II h	1.60
1798	II	.135 x .110 x 3/16	.043"	5/16" x —	i	2.30
1979	XI	.112 x .130 x 3/16	.060"	5/16" x —	Chart II	2.40
2000	VI	.090 x 1/16 x 1/8	....	7/32" x 7/64"	Chart II; h	1.59
2004	VII	.090 x 1/16 x 1/8	....	7/32" x 3/16"	Chart h	1.59
2027	I	.071 x .096 x 1/8	.043"	3/16" x —	Chart II; h	1.46
2034	II	.090 x 7/64 x 5/32	....	9/32" x —	Chart II	1.74
2040	VII	.072 x .050 x 3/32	....	3/16" x 11/64"	Chart II	1.79
2041	I	.072 x .050 x 3/32	....	7/64" x —	Chart II	1.04
2042	IV	.072 x .050 x 3/32	....	7/64" x 5/64"	Chart II	1.13
2043	II	.072 x .050 x 3/32	....	3/16" x —	Chart II	1.08
2044	VI	.072 x .050 x 3/32	....	3/16" x 5/64"	Chart II	1.22
2080	III	.090 x 3/32 x 1/8	....	19/64" x —	Chart II; f	1.48
2084	III	.112 x .145 x 3/16	....	31/64" x —	Chart II;c	3.00
2085	I	.047 x .040 x 1/16	....	3/32" x —	Chart II; g	.93
2100	I	.062 x 1/16 x 3/32	.023"	3/32" x —	Chart II; j	1.40
2114	II	.145 x .149 x 3/16	.062"	5/16" x —	Chart II; k	4.00
2115	IV	.145 x .118 x 3/16	max.	1/4" x 1/4"	Chart II; l	5.00
2132	II	.145 x .149 x 3/16	.054"	33/64" x —	Chart II; l	6.00
2186	I	.112 x .118 x 5/32	min.	15/64" x —	Chart II; m	4.00

Tooling: Special tooling is required for all **Cambion** terminals. This tooling, necessary for proper swaging of terminals, is available at **$8.00** per set, including a punch and anvil.

SPADE TYPE TERMINALS

Cambion No.	Fig.	Shank Dia. x Spade W. x Slot W., In.	Hole Dia. Hollow Type	Height Above Board	Board Thickness	N Pl (1
1010	XIII	.112 x .146 x .040	.078"	5/16"	Chart I; n	$5
1025	XIV	.112 x .145 x 1/16	....	25/64"	Chart I; c	5.
1089	XIV	.047 x .072 x .025	.026"	5/32"	0	1.
1578	XIV	.150 x .142 x 1/16	.081"	3/8"	Chart II; p	2.
1782	XIV	.185 x 1/4 x .090	.120	11/16"	Chart II; q	6.
1783	XIV	.135 x 7/32 x 1/16	.102"	1/2"	Chart II; t	4.
1784	XIV	.112 x 5/32 x 1/32	.070	11/32"	Chart II; r	2.
1785	XII	.062 x 3/32 x 1/32	.043"	5/32"	Chart II; s	1.
1969	XII	.112 x 3/16 x .053	.079"	21/64"	Chart II; t	1.
2086	XV	.122 x 1/8 x 1/32	.047"	5/32"	Chart II; u	2.

Notes: **a.** Except -5, -6. **b.** -AA, 1/16; -B, 3/32; -C, 3/16; -D, 1/4. **c.** Chamfer on upper edge of shoulder. **d.** Except -E, -F. Chamfer on upper edge of turret and shoulder. **e.** Except -E, -F. Like V except no turret bases. **f.** Except -F. **g.** Except -E, -F, plus -AA, 1/64. **h.** Except -E, -F. **i.** -A, 1/16; -B, 3/32; -C, 1/8; -D, 3/16. **j.** Except -D, -E, -F, plus -AA, 1/64. **k.** For use with .061/in taper pins. Takes pin from top of board. Finish copper plate and electro-tin. **l.** For use with .061/in taper pins. Takes pin from top or bottom of board, or both. Finish copper plate and electro-tin. **m.** For use with .061/in taper pins. Takes pin from top of board; taper not a through hole. Finish copper plate and electro-tin. **n.** Two slots at right angles. **o.** -1, 1/64; -2, 1/32; -3, 1/16; -4, 3/32; -5, 1/8; -6, 3/16; -7, 1/4. **p.** Except -A, -F. Straight knurl on shank. **q.** Except -A, -B. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **r.** Except -A, -E, -F. Straight knurl on shank. Chamfer on lower edge of spade and upper edge of shoulder. **s.** Plus -AA, 1/64. **t.** Radial knurl on lower edge of shoulder. **u.** Except -F. Diameter turret below board 3/32.

CHART

Dash No.	B Th
-1	
-2	
-3	
-4	
-5	
-6	

CHART

Dash No.	B Th
-A	
-B	
-C	
-D	
-E	
-F	

INSULATED TERMINALS AND FEED-THRUS

Cambion Number and Material §	Fig.	Height Above Board	Turret Dia. or Spade Width	No. of Turrets or Slot Width	Base Dia. In.	Rivet Dia. or Thread Size	Stud L., Rivet L., or Tap Depth	Voltage Breakdown at 60 cy. AC	Net Ea. 1-9 *
1580-156†	I-b	9/16"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	.21
1581-1*	I-a	9/16"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	.19
1581-3*	I-a	9/16"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	.19
1719-1*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	.27
1719-3*	I-a	1 1/16"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	.27
1795-A*	III	3/8"	.052"	2 ea. end	3/8 hex	1/4-28	1/4", a	2,800 rms	.33
1795-B*	III	5/16"	.052"	2 ea. end	3/8 hex	1/4-28	1/4", b	2,800 rms	.33
1942-F4†	I-c	19/32"	3/32"	2	5/16 hex	4-40	1/8"	4,000 rms	.21
1942-F6†	I-c	19/32"	3/32"	2	5/16 hex	6-32	1/8"	4,000 rms	.21
1942-X†	I-a	17/32"	3/32"	2	5/16 hex	6-32	1/4"	4,000 rms	.21
1942-X3†	I-a	17/32"	3/32"	2	5/16 hex	6-32	3/8"	4,000 rms	.21
1942-Y156†	I-b	17/32"	3/32"	2	5/16 hex	.187	Chart I	4,000 rms	.21
1945‡	I-a	37/64"	3/32"	2	5/16 hex	6-32	Chart IV; c	....	.30
1946‡	I-b	37/64"	3/32"	2	5/16 hex	.187	Chart V; c	....	.30
1980-XA†	I-a	3/8"	3/32"	1	3/16 hex	3-48	Chart II	2,500 rms	.21
1980-XB†	I-a	7/16"	3/32"	1	3/16 hex	3-48	Chart II	4,000 rms	.21
1980-XC†	I-a	1/2"	3/32"	1	3/16 hex	3-48	Chart II	5,000 rms	.21
1980-YA156†	I-b	3/8"	3/32"	1	3/16 hex	.141	Chart I	2,500 rms	.21
1980-YB156†	I-b	7/16"	3/32"	1	3/16 hex	.141	Chart I	4,000 rms	.21
1980-YC156†	I-b	1/2"	3/32"	1	3/16 hex	.141	Chart I	5,000 rms	.21
1990†	III	3/8"	1/16"	2 ea. end	3/8 hex	1/4-28	1/4"; d	2,500 rms	.45
1995-A†	I-a	35/64"	.145"	1	5/16 hex	6-32	1/4"; e	4,000 rms	.21
1995-B†	I-a	35/64"	.145"	1	5/16 hex	6-32	3/8"	4,000 rms	.21
1995-C†	I-a	43/64"	.145"	2	5/16 hex	6-32	1/4"	4,000 rms	.21
1995-D†	I-a	43/64"	.145"	2	5/16 hex	6-32	3/8"	4,000 rms	.21
2045-F4†	I-c	39/64"	3/32"	2	1/4 hex	4-40	1/8"	2,500 rms	.21
2045-F6†	I-c	39/64"	3/32"	2	1/4 hex	6-32	1/8"	2,500 rms	.21
2045-X†	I-a	17/32"	3/32"	2	1/4 hex	4-40	1/4"	2,500 rms	.21
2045-X3†	I-a	17/32"	3/32"	2	1/4 hex	4-40	3/8"	2,500 rms	.21
2045-Y156†	I-b	17/32"	3/32"	2	1/4 hex	.141	Chart I	2,500 rms	.21
3482-1†	II-c	35/64"	3/32"	1	3/16 hex	3-48	1/8"; f	3,300 rms	.21
3480-1†	II-a	29/64"	3/32"	1	3/16 hex	3-48	1/4"; f	3,300 rms	.21
3481†	II-b	29/64"	3/32"	1	.211	.141	Chart V; g	3,300 rms	.21
3485-1†	II-c	1 1/32"	3/32"	2	5/16 hex	4-40	1/8"	11,000 rms	.27
3485-2†	II-c	1 1/32"	3/32"	2	5/16 hex	6-32	1/8"	11,000 rms	.27
3483-1†	II-a	31/32"	3/32"	2	5/16 hex	6-32	1/4"	11,000 rms	.27
3483-2†	II-a	31/32"	3/32"	2	5/16 hex	6-32	3/8"	11,000 rms	.27
3484†	II-b	31/32"	3/32"	2	.355	.187	Chart V	11,000 rms	.27
2255†	II-a	13/32"	5/64"	1	1/8 hex	2-56	Chart III; g	2,000 rms	.21
4115-1-0519‡	IV	19/64"	3/32"	2	1/4	.205	7/32"; c	....	.17
4114-2-0519‡	IV	19/64"	.096"	2	1/4	.205	7/32"; h	....	.17
4113-1-0519‡	IV	13/64"	.096"	1	1/4	.205	7/32"; h	....	.17
4263-1-0519‡	IV	19/64"	3/32"	2 ea. end	1/4	.205	7/32"; i	....	.21
4025-1-0519‡	IV	1/4"	5/64"	2	11/64	.136	7/64" c	....	.12
4026-1-0519‡	IV	19/64"	5/64"	2	11/64	.136	7/64" c	....	.13
4025-2-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/8" c	....	.12
4026-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8" c	....	.13
4025-3-0519‡	IV	1/4"	5/64"	2	11/64	.136	11/64" c	....	.12
4026-3-0519‡	IV	19/64"	5/64"	2	11/64	.136	11/64" c	....	.13
4025-4-0519‡	IV	1/4"	5/64"	2	11/64	.136	1/4" c	....	.12
4026-4-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/4" c	....	.13
4027-2-0519‡	IV	19/64"	5/64"	2	11/64	.136	1/8" c	....	.13
4028-2-0519‡	IV	11/32"	5/64"	2	11/64	.136	1/8" c	....	.13

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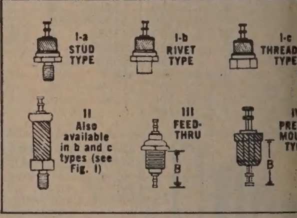

§**Material:** Mounting stud, brass with cad plate unless otherwise noted. Terminal, brass silver plate unless otherwise noted. Insulator Number column): *Phenolic; †Ceramic; ‡Teflon.

Notes: **a.** Mounting hardware supplied. B height, Stud nickel-plated. **b.** Mounting hardware plied. B height, 9/16". Stud nickel-plated. **c.** T nal tin-lead solder plate. **d.** Mounting hard supplied. B height, 3/4". Stud nickel-plated. **e.** nickel-plated. **f.** Terminal silver plate and flash; Stud nickel-plate. **g.** Terminal silver and gold flash. Stud nickel-plate. **h.** Terminal lead solder plate; .043" through-hole. **i.** Termina lead solder plate; .070" turret dia. belo height, 13/32".

CHART I	CHART III		CHAR
Rivet Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.
.062	-1	.125"	-1
.094	-2	.188"	-2
.105	-3	.250"	-3
.125	....	....	-4
.156	....	....	-5

CHART II	CHART IV		CHART
Stud Length and Part No. Suffix	Dash No.	Stud Lgth.	Dash No.
.094	-1	1/4"	-1
.125	-2	3/8"	-2
.156	....	....	....
.250	....	....	....

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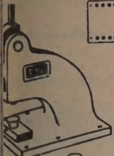
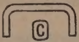
HARDWARE


A

B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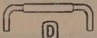
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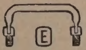
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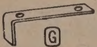
F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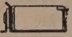
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M

#3801 ARBOR SWAGERS (FIG. A)

ecially designed by Cambion for mounting Cambion terminals on terminal ards. These Arbor Swagers are sturdy, precision-built, hand operated, cam tion rolling tools; designed for quick, solid uniform swaging of solder terminals. Adjustable to a wide range of terminal board thicknesses by setting the vil at the proper height. Terminals may be swaged, in place, as far as 1⅞″ m the board edge. Pressure is adjustable and uniform, assuring good, even ening. When ordering, specify terminal to be staked. PSA (anvil) d PSP (punch) toolings are used with the Arbor Swager, Net Each.... **$40.00**
A and PSP tooling, each $4.00.

ALL-PURPOSE HANDLES

BRASS TYPE

ailable in polished nickel plate or black oxide finish.

ambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Each, 1-9* Nickel Plate -1*	Net Each, 1-9* Black Oxide -2*
1075	C	1½″	4 9/16″	9/16″ x 10-32	5/16″	$1.16	$0.97
1220	C	1″	1¼″	⅜″ x 4-40	5/32″	1.09	.96
1221	C	1″	2″	⅜″ x 4-40	5/32″	1.16	1.02
1222	C	1″	3″	⅜″ x 4-40	5/32″	1.21	1.07
1250	C	1 5/16″	2″	7/16″ x 8-32	5/16″	.99	.85
1252	C	1 5/16″	3″	7/16″ x 8-32	5/16″	1.02	.91
1260	F	1 5/16″	2″	29/64″ x 12-28	5/16″	1.16	1.02
1261	F	1 5/16″	3″	29/64″ x 12-28	5/16″	1.24	1.10
1262	F	1½″	4″	29/64″ x 12-28	5/16″	1.37	1.21
1263	F	1¾″	6″	29/64″ x 12-28	5/16″	1.51	1.38
1280	C	1½″	2″	9/16″ x 8-32	¼″	1.07	.93
1281	C	1½″	3″	9/16″ x 8-32	¼″	1.12	.99
1282	C	1½″	4″	9/16″ x 8-32	¼″	1.21	1.07
1283	C	1½″	6″	9/16″ x 8-32	¼″	1.31	1.16
1965	C	1¾″	6 7/16″	9/16″ x 10-32	5/16″	1.19	1.12
1900-1†☐	E	1 27/32″	4″	⅝″ x ⅜-24	⅜″	2.80	2.60
2066	D	1 19/32″	§	9/16″ x 10-32	5/16″	3.10	2.60
2062-1‡☐	E	1 13/16″	4″	⅝″ x ⅜-24	⅜″	2.70	2.50
2111-2☐	C	1½″	4 9/16″	½″ x 10-32	#	1.82	1.70
2111-3☐	C	1¾″	6 7/16″	½″ x 10-32	#	2.10	1.92
2111-4☐	C	1¾″	9″	½″ x 10-32	#	2.30	2.20
2111-1☐	C	1 9/32″	3″	9/32″ x 10-32	#	1.62	1.50
2721-1☐ ‡	E	1¾″	4″	⅝″ x ⅜-24	#	3.10	2.90
2722-1☐ †	E	1¾″	4″	⅝″ x ⅜-24	#	3.70	3.00

Add suffix to Cambion number when ordering (example, 1075-1). †90° folding; ″ dia. base. ‡180° folding; ⅝″ dia. base. §Adjustable 4½″ to 6⅝″. #Oval: ″ x ⅝″. ☐Add suffix -02 for nickel plate; -12 for black oxide.

ALUMINUM TYPE

ecify black or semi-frost finish when ordering.

ambion Number	Fig.	Mtd. Ht.	Mtg. Ctrs.	Tap or Stud Lgth. x Size	Dia.	Net Ea., 1-9*
1230	C	1″	1¼″	⅜″ x 4-40	5/32″	$0.69
1231	C	1″	2″	⅜″ x 4-40	5/32″	.77
1232	C	1″	3″	⅜″ x 4-40	5/32″	.82
1290	C	1½″	2″	9/16″ x 8-32	¼″	.71
1291	C	1½″	3″	9/16″ x 8-32	¼″	.77
1292	C	1½″	4″	9/16″ x 8-32	¼″	.88
1293	C	1½″	6″	9/16″ x 8-32	¼″	1.01
1270-1	C	1⅞″	4″	9/16″ x 10-32	⅜″	1.19
1271-1	C	1⅞″	4″	9/16″ x 12-24	⅜″	1.19
2385-1	C	1 9/32″	3″	9/32″ x 10-24	#	1.23
2385-2	C	1½″	4 9/16″	9/32″ x 10-24	#	1.31
2385-3	C	1¾″	6 7/16″	9/32″ x 10-24	#	1.43
2385-4	C	1¾″	9″	9/32″ x 10-24	#	1.56

Oval, 9/32″ x ⅝″

MERCURY BATTERY HOLDERS

hosphor-bronze body with nylon insulator. Rivets (No. 2099) available for ssembly of holders. **Specify Finish:** Add suffix to number to indicate finish esired (example 2233-1); **-1**, no longer available; **-2**, nickel plate; **-3**, gold ash over nickel plate.

ambion Number	Fig.	Max. Size, Inches H. x W. x L.	Battery Size, Inches Dia. x Lgth.	Net Each, 1-9* Suffix -2	Net Each, 1-9* Suffix -3
2233	K	49/64 x ½ x 1 3/32	⅝ x 21/32	$0.35	$0.43
2234	L	49/64 x ¾ x 1¾	21/32 x 1 5/16	.44	.52
2324	M	57/64 x 25/32 x 4 5/32	21/32 x 3¼	.92	1.05
2475	M	57/64 x 25/32 x 2 27/32	21/32 x 2	.74	.85
2477	M	57/64 x 25/32 x 3½	21/32 x 2⅝	.83	.93
2570	*	1½ x 1 x 3¼	1 5/16 x 2⅜	1.01	1.26

Mercury "D" cell, not illustrated.

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ALL-SET TERMINAL BOARDS (FIG. B)

Board is scored into 2⅝″ sections to facilitate wiring divisions; 5-section length, 13⅛″. Terminal spacing, ⅜″ Standard boards, below, have 5 sections per board. For use with 1724 terminal unless otherwise noted.

PHENOLIC TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Cotton Fabric Cambion No.	Cotton Fabric Net Ea. 1-9*	Nylon Fabric Cambion No.	Nylon Fabric Net Ea. 1-9*
½″	§	....	1401*	$ .89	1401*	$1.02
2″	1½″	1998-B	1402*	2.00	1402*	2.50
2½″	2″	1998-C	1403*	2.10	1403*	2.70
3″	2½″	1998-D	1404*	2.20	1404	2.90
1 1/16″	¾″	1998-E	1405‡	1.84	1405‡	2.00
1½″	1 3/16″	1998-F	1406*	1.97	1406*	2.30

*Specify Board thickness by dash no. In cotton -15 = 3/32″; -45 = ⅛″; in Nylon -35 = 3/32″; -65 = ⅛″. ‡In Cotton -15 = 1/16″ bd., -45 = 3/32″ bd. In Nylon -35 = 3/32″ bd. -65 = ⅛″ bd. Used with 1558 Terminal. §Single Row of Terminals.

GLASS EPOXY TYPE

Board Width	Terminal Rows Spaced	Recommended Bracket	Thin Board* Cambion No.	Thin Board* Net Ea. 1-9*	Heavy Board† Cambion No.	Heavy Board† Net Ea. 1-9*
½″	§	....	1401	$1.51	1401	$1.72
2″	1½″	1998-B	1402	3.40	1402	4.20
2½″	2″	1998-C	1403	3.70	1403	4.40
3″	2½″	1998-D	1404	4.20	1404	5.20
1 1/16″	¾″	1998-E	1405	2.50	1405	3.00
1½″	1 3/16″	1998-F	1406	3.20	1406	3.60

‡Used with 1558 terminal. §Single row of terminals. *-25 3/32″ thick. †-55 ⅛″ thick. 1405-25 = 1/16″, 1405-55 = 3/32″.

MOUNTING BRACKETS (FIG. G)

Cadmium plated cold rolled steel construction.

Cambion Number	Width In.	Long Leg Size, In. Lgth.	Long Leg Size, In. Hole Dis.*	Long Leg Size, In. Hole Ctrs.	Long Leg Size, In. Hole Dia.	Short Leg, In. Lgth.	Short Leg, In. Hole Dia.	Net Each 1-9*
1301#	5/16	7/16	9/32	......	.144	7/16	.144	.12
1302†	5/16	23/32	9/16	......	.144	½	.144	.11
1303‡	5/16	27/32	11/16	......	.144	½	.155	.11
1963#	⅜	15/32	9/32	......	5/32	7/32	5/32	.12
1981	7/16	2½	9/16	1¾	5/32	½	5/32§	.11
1998-1	⅜	2⅛	⅜	1½	5/32	½	5/32§	.11
1998-2	⅜	2⅝	⅜	2	5/32	½	5/32§	.11
1998-3	⅜	3⅛	⅜	2½	5/32	½	5/32§	.11
1998-4	⅜	1 3/16	9/32	¾	5/32	½	5/32§	.11
1998-5	⅜	1⅝	9/32	1 3/16	5/32	½	5/32§	.11

*Distance from surface to center of hole. †1/16″ sq. tab on center of longer leg, 25/64″ from end . ‡1/16″ sq. tab on center of longer leg, 33/64″ from end. §Slot. #Curved end on short leg.

STANDOFFS

Cadmium plated brass construction.

Cambion Number	Fig.	O.D., In.	I.D.	Shank Dia. or Stud	Above Panel Ht., In.	Use With Tool‡	Net Each 1-9*
1246	H	¼	6-32	.187″	*	PSA-10 PSP-12	.12
1300	H	¼	4-40	.138″	*	PSA-10 PSP-7	.12
2188	H	⅝	2-56	.125″	*	PSA-39 PSP-38	.12
1801-1	I	3/16	4-40	....	¼	....	.13
1801-2 thru-6	I	¼	6-32	....	†	....	.13
1801-7 thru-10	I	⅜	8-32	....	†	....	.13
1915	I	¼	.129″	....	†	....	.06
1916	I	5/16	.154″	....	†	....	.08
1917	I	⅜	.180″	....	†	....	.09
1299-1	J	¼	6-32	6-32§	⅜″	....	.10
1299-2	J	¼	6-32	6-32§	½″	....	.10

§¼″ stud length.

*CHART I

Specify above-panel height desired and board thickness by adding suffix to number (example: 1246-1, 1300-11, etc.).

Suffix for Panel Thickness of 1/32″	1/16″	3/32″	⅛″	3/16″	¼″	Above-Panel Height
-1	-9	-17	-25	-33	-41	⅛″
-2	-10	-18	-26	-34	-42	3/16″
-3	-11	-19	-27	-35	-43	¼″
-4	-12	-20	-28	-36	-44	⅜″
-5	-13	-21	-29	-37	-45	½″
-6	-14	-22	-30	-38	-46	⅝″
-7	-15	-23	-31	-39	-47	¾″
-8	-16	-24	-32	-40	-48	1″

†CHART II

Specify above-panel height desired by adding suffix to number.

Suffix for Standoff Nos. 1801	Suffix for Standoff Nos. 1915-1917	Above-Panel Height
-1, -2	-1	¼″
-3, -7	-2	⅜″
-4, -8	-3	½″
-5, -9	-4	⅝″
-6, -10	-5	¾″

‡CHART III

Specify tooling by proper suffix onto tool type listed for specific stand-off (examples: PSA-10-1 and PSP-10-1 for ⅛″ or 3/16″ h 1246 standoff).

Suffix	Above-Panel Height
-1	⅛″, 3/16″
-2	¼″, ⅜″
-3	½″, ⅝″
-4	¾″, 1″

★WRITE FOR DISCOUNTS ON LARGER QUANTITIES.

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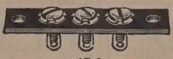
SCREW TYPE TERMINAL STRIPS

17-1


17-3

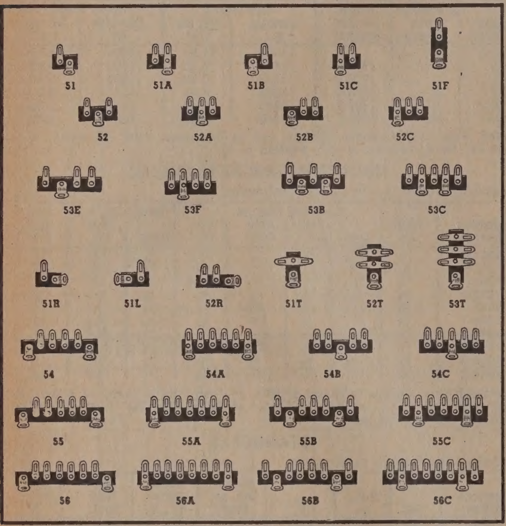
Ideal for chassis or breadboard layouts. Solder coated brass terminals. .136 diameter mounting holes. Strips with 1 to 6 lugs are of ⅙" bakelite; 7 to 10 terminals mounted on ³⁄₃₂" bakelite. Ends of screws are captivated to prevent removal. Terminals are spaced on ⁷⁄₁₆" centers. Code indicates number of terminal lugs.

Code	Mounting Centers	List Price Each	Code	Mounting Centers	List Price Each	Code	Mounting Centers	List Price Each
17-1	⅞"	$.065	17-4	2³⁄₁₆"	.208	17-8	3¹⁵⁄₁₆"	.425
17-2	1¹⁵⁄₁₆"	.113	17-5	2⅝"	.255	17-9	4⅜"	.475
17-3	1¾"	.16	17-6	3¹⁄₁₆"	.303	17-10	4¹³⁄₁₆"	.525
			17-7	3½"	.375			

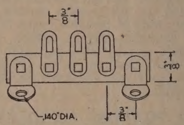
SCREEN TYPE PLUG BUTTO

For portable radios, transmitters, amplifiers, etc. Provides ventilation wherever required in radio, television and electronic equipment. Bright zinc plated steel button snaps In diam. hole. Half size illustration.

No.	Description	List F Ea. $
41V	for 1" Hole	

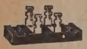


LUG TYPE TERMINAL STRIPS



These bakelite strips are handy for neatly supporting resistors, condensers, in circuit wiring. Solder coated steel lugs are spaced on ⅜" centers with diameter mounting holes. Chocolate colored bakelite strips are ⅙" thick ⅜" wide.

No.	Mtg. Centers	List Price Each	No.	Mtg. Centers	
51		$.153	53E		$
51A		.158	53F		
51B		.153	53T		
51C		.158	54	1⅞"	
51F		.153	54A	1⅞"	
51L		.153	54B		
51R		.153	54C		
51T		.175	55	2¼"	
52		.188	55A	2¼"	
52A		.193	55B	1½"	
52B		.188	55C	1½"	
52C		.193	56	2⅝"	
52R		.188	56A	2⅝"	
52T		.250	56B	1⅞"	
53B	¾"	.285	56C	1⅞"	
53C	¾"	.295			



No. 170 TERMINAL STRIPS

Terminal .032" Brass, Tin Plated

No. 2-170

A heavy-duty solder terminal strip.

Insulation: Black molded Bakelite, ⁵⁄₁₆" wide, ¼" thick. Terminals mounted on ⅜" centers. Mounting holes are ⅜" from center of end Terminals.

Code	List Price Each	Code	List Price Each
No. 1-170	$ .26	No. 6-170	$ .59
No. 2-170	.33	No. 7-170	.64
No. 3-170	.38	No. 8-170	.70
No. 4-170	.45	No. 9-170	.78
No. 5-170	.53	No. 10-170	.83

No. 2005
Mounting
hole—⁹⁄₆₄"

No. 2000 TERMINAL STRIPS

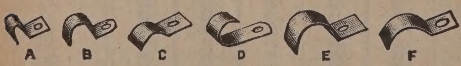
Terminal .019" Brass, Tin Plated

Compact and sturdy junction terminal strip. Usef assembling radio chassis, wiring, etc.

Insulation: bakelite Brackets: steel, cadmium pl Terminals spaced on ⁵⁄₁₆" centers.

Code	Mounting Hole Centers	List Price Each	Code	Mounting Hole Centers
No. 2002	1"	$ .11	No. 2008	2⅞"
No. 2003	1⁵⁄₁₆"	.12	No. 2009	3³⁄₁₆"
No. 2004	1⅝"	.14	No. 2010	3½"
No. 2005	1¹⁵⁄₁₆"	.15	No. 2011	3¹³⁄₁₆"
No. 2006	2¼"	.17	No. 2012	4⅛"
No. 2007	2⁹⁄₁₆"	.18	No. 2013	4⁷⁄₁₆"

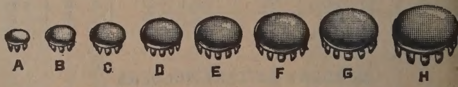
No. 2000 CABLE CLAMPS



Cadmium plated sturdy steel cable clamps designed for securing cables ranging from ⅙" diameter to ⅝" diameter. Illustrations are half size.

No.	Dia. of arc	Hole Dia.	Over-all Width	Over-all Length	Hole cent. to arc cent.	List Price Ea.
85A	⅛"	.149	¹¹⁄₃₂"	¹⁵⁄₃₂"	¼"	$.031
85B	⁵⁄₁₆"	.140	⁵⁄₁₆"	²³⁄₃₂"	⅜"	.023
85C	⁵⁄₁₆"	.144	⅜"	²¹⁄₃₂"	⅜"	.025
85D	⁵⁄₁₆"	.136	⁵⁄₁₆"	²⁷⁄₃₂"	½"	.018
85E	½"	.147	½"	¹⁵⁄₁₆"	⁷⁄₁₆"	.02
85F	⅝"	.171	⅜"	1"	½"	.02

PLUG BUTTONS



Used to cover punched or drilled holes in metal, wood, fibre, tubes, pl cardboard, etc. Nickel plated steel plug buttons for eight popular size h Other sizes available, let us know your requirements. Spring tension prongs plug bottom firmly in position. Illustrations are ⅓ actual size. (See screen above.)

No.	Fig.	For hole Diameter	Cap Diameter	List Pric
41A	A	¼"	¹³⁄₃₂"	$.
41B	B	⅜"	½"	.
41C	C	½"	²¹⁄₃₂"	.
41D	D	⅝"	⁵¹⁄₆₄"	.
41E	E	¾"	¹⁵⁄₁₆"	.
41F	F	⅞"	1¹⁄₁₆"	.
41G	G	1"	1⁵⁄₃₂"	.
41H	H	1¼"	1⁷⁄₁₆"	.

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BARRIER TERMINAL BLOCKS

e Jones Barrier Terminal Block is another product of Cinch designed offer increased insurance against failure of electrical/electronic cuitry. By interposing barriers between each adjacent terminal posi- n, not only are much higher voltage ratings obtained, but also additional protection from frayed wire faults is gained. The block is made of molded bakelite. The eyelets and binder screws are of brass, nickel-plated. The ¾W or Y terminals are of brass, hot tin finish. **Widths indicated are measured on the barrier between terminals.**

No. 140 TERMINAL BLOCKS

40 x 3/16 Binder Head Screws — Metal-to-Metal Spacing over ¼″ Bakelite. Width: ⅞″.

No. 2-140

No. 140

de	List Price Each
-140	$ .15
-140	.24
-140	.33
-140	.42
-140	.51
-140	.59
-140	.68
-140	.77
-140	.86
-140	.95
-140	1.03
-140	1.12
-140	1.21
-140	1.31
-140	1.40
-140	1.49
-140	1.57
-140	1.66
-140	1.75
-140	1.84
-140	1.93

No. 2-140-¾ W

No. 140-¾ W

Code	List Price Each
1-140-¾ W	$ .19
2-140-¾ W	.32
3-140-¾ W	.44
4-140-¾ W	.57
5-140-¾ W	.69
6-140-¾ W	.83
7-140-¾ W	.95
8-140-¾ W	1.08
9-140-¾ W	1.21
10-140-¾ W	1.33
11-140-¾ W	1.45
12-140-¾ W	1.58
13-140-¾ W	1.71
14-140-¾ W	1.84
15-140-¾ W	1.96
16-140-¾ W	2.09
17-140-¾ W	2.21
18-140-¾ W	2.34
19-140-¾ W	2.46
20-140-¾ W	2.60
21-140-¾ W	2.72

No. 2-140-Y

No. 140-Y

Code	List Price Each
1-140-Y	$ .19
2-140-Y	.32
3-140-Y	.44
4-140-Y	.57
5-140-Y	.69
6-140-Y	.83
7-140-Y	.95
8-140-Y	1.08
9-140-Y	1.21
10-140-Y	1.33
11-140-Y	1.45
12-140-Y	1.58
13-140-Y	1.71
14-140-Y	1.84
15-140-Y	1.96
16-140-Y	2.09
17-140-Y	2.21
18-140-Y	2.34
19-140-Y	2.46
20-140-Y	2.60
21-140-Y	2.72

No. 164 TERMINAL BLOCKS

6-32 x ¼ Binder Head Screws — Metal-to-Metal Spacing over ¼″ Bakelite. Width: ⅞″.

No. 2-164

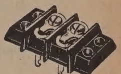
No. 164

Code	List Price Each
1-164	$ .16
2-164	.26
3-164	.36
4-164	.46
5-164	.56
6-164	.65
7-164	.75
8-164	.85
9-164	.95
10-164	1.05
11-164	1.14
12-164	1.24
13-164	1.34
14-164	1.45
15-164	1.55
16-164	1.65
17-164	1.74
18-164	1.84
19-164	1.94
20-164	2.04
21-164	2.14

No. 2-164-¾ W

No. 164-¾ W

Code	List Price Each
1-164-¾ W	$ .20
2-164-¾ W	.34
3-164-¾ W	.47
4-164-¾ W	.61
5-164-¾ W	.74
6-164-¾ W	.89
7-164-¾ W	1.02
8-164-¾ W	1.16
9-164-¾ W	1.30
10-164-¾ W	1.43
11-164-¾ W	1.56
12-164-¾ W	1.70
13-164-¾ W	1.84
14-164-¾ W	1.98
15-164-¾ W	2.11
16-164-¾ W	2.25
17-164-¾ W	2.38
18-164-¾ W	2.52
19-164-¾ W	2.65
20-164-¾ W	2.80
21-164-¾ W	2.93



No. 2-164-Y

No. 164-Y

Code	List Price Each
1-164-Y	$ .20
2-164-Y	.34
3-164-Y	.47
4-164-Y	.61
5-164-Y	.74
6-164-Y	.89
7-164-Y	1.02
8-164-Y	1.16
9-164-Y	1.30
10-164-Y	1.43
11-164-Y	1.56
12-164-Y	1.70
13-164-Y	1.84
14-164-Y	1.98
15-164-Y	2.11
16-164-Y	2.25
17-164-Y	2.38
18-164-Y	2.52
19-164-Y	2.65
20-164-Y	2.80
21-164-Y	2.93

No. 141 TERMINAL BLOCKS

32 x ¼ Binder Head Screws — Metal-to-Metal Spacing over ⅜″ Bakelite. Width: 1⅛″.

No. 2-141

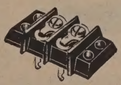
No.141

de	List Price Each
-141	$ .20
-141	.31
-141	.42
-141	.54
-141	.65
-141	.75
-141	.88
-141	.99
-141	1.10
-141	1.22
-141	1.33
-141	1.44
-141	1.56
-141	1.67
-141	1.78
-141	1.90
-141	2.01
-141	2.12
-141	2.24
-141	2.35

No. 2-141-¾ W

No. 141-¾ W

Code	List Price Each
1-141-¾ W	$ .24
2-141-¾ W	.41
3-141-¾ W	.57
4-141-¾ W	.74
5-141-¾ W	.90
6-141-¾ W	1.07
7-141-¾ W	1.23
8-141-¾ W	1.40
9-141-¾ W	1.56
10-141-¾ W	1.73
11-141-¾ W	1.89
12-141-¾ W	2.06
13-141-¾ W	2.22
14-141-¾ W	2.39
15-141-¾ W	2.55
16-141-¾ W	2.72
17-141-¾ W	2.88
18-141-¾ W	3.05
19-141-¾ W	3.21
20-141-¾ W	3.38



No. 2-141-Y

No. 141-Y

Code	List Price Each
1-141-Y	$ .24
2-141-Y	.41
3-141-Y	.57
4-141-Y	.74
5-141-Y	.90
6-141-Y	1.07
7-141-Y	1.23
8-141-Y	1.40
9-141-Y	1.56
10-141-Y	1.73
11-141-Y	1.89
12-141-Y	2.06
13-141-Y	2.22
14-141-Y	2.39
15-141-Y	2.55
16-141-Y	2.72
17-141-Y	2.88
18-141-Y	3.05
19-141-Y	3.21
20-141-Y	3.38

No. 142 TERMINAL BLOCKS

8-32 x 5/16″ Binder Head Screws — Metal-to-Metal Spacing over 9/16″ Bakelite. Width: 1 5/16″.

No. 2-142

No. 142

Code	List Price Each
1-142	.23
2-142	.36
3-142	.51
4-142	.65
5-142	.78
6-142	.92
7-142	1.07
8-142	1.20
9-142	1.34
10-142	1.49
11-142	1.62
12-142	1.76
13-142	1.90
14-142	2.04
15-142	2.18
16-142	2.32
17-142	2.45

No. 2-142-¾ W

No. 142-¾ W

Code	List Price Each
1-142-¾ W	$ .30
2-142-¾ W	.50
3-142-¾ W	.70
4-142-¾ W	.90
5-142-¾ W	1.11
6-142-¾ W	1.31
7-142-¾ W	1.52
8-142-¾ W	1.72
9-142-¾ W	1.93
10-142-¾ W	2.12
11-142-¾ W	2.33
12-142-¾ W	2.53
13-142-¾ W	2.74
14-142-¾ W	2.94
15-142-¾ W	3.15
16-142-¾ W	3.34
17-142-¾ W	3.54

No. 2-142-Y

No. 142-Y

Code	List Price Each
1-142-Y	$ .30
2-142-Y	.50
3-142-Y	.70
4-142-Y	.90
5-142-Y	1.11
6-142-Y	1.31
7-142-Y	1.52
8-142-Y	1.72
9-142-Y	1.93
10-142-Y	2.12
11-142-Y	2.33
12-142-Y	2.53
13-142-Y	2.74
14-142-Y	2.94
15-142-Y	3.15
16-142-Y	3.34
17-142-Y	3.54

CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPA

BARRIER TYPE TERMINAL BLOCKS

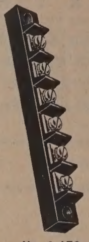
No. 171 TERMINAL BLOCKS

No. 6-171

A Miniature Barrier Terminal Block with Single Screw Terminals. 13⁄32″ wide by 5⁄16″ overall height. Terminals are mounted on 1⁄4″ centers. 2-56 x 1⁄4″ Binder Head Screws. 1⁄8″ Dia. Mounting Holes.

Code	Contacts	List Price Each	Code	Contacts	List Price Each
2-171	2	$ .24	5-171	5	$ .51
3-171	3	.33	6-171	6	.60
4-171	4	.42	7-171	7	.69
			8-171	8	.78

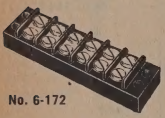
No. 173 and 174 TERMINAL BLOCKS


No. 6-173

Single Screw Terminals, 3⁄8″ wide by 1⁄2″ overall hei
Terminals mounted on 3⁄8″ centers. 4-40 x 5⁄16″ Sems T
Binder Head Screws. 5⁄32″ Dia. Mounting Holes.
No. 174 series is identical with No. 173 series except t
are equipped with plain 4-40 x 5⁄16″ binder head screws.

Code	List Price Each	Code	
2-173	$ .30	2-174	$
3-173	.42	3-174	
4-173	.54	4-174	
5-173	.66	5-174	
6-173	.78	6-174	
7-173	.90	7-174	
8-173	1.02	8-174	
9-173	1.14	9-174	
10-173	1.26	10-174	

No. 172 TERMINAL BLOCKS

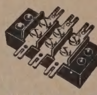

No. 6-172

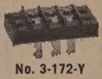
CONVENTIONAL TERMINALS

5⁄8″ wide by 5⁄16″ high. Double-screw terminals are mounted on 1⁄4″ centers with 2-56 x 1⁄4″ binder head screws. Mounting holes are 1⁄8″ dia.

Code	No. Contacts	List Price Each	Code	No. Contacts	List Price Each
2-172	2	$ .57	9-172	9	$1.68
3-172	3	.73	10-172	10	1.84
4-172	4	.89	11-172	11	2.01
5-172	5	1.05	12-172	12	2.17
6-172	6	1.20	13-172	13	2.32
7-172	7	1.36	14-172	14	2.48
8-172	8	1.52			

"Y" "W" and "3⁄4W" TERMINALS


No. 3-172-3⁄4 W


No. 3-172-Y

See description of these terminals on preceding page.

"Y" Code	"W" Code	"3⁄4 W" Code	List Pr.
2-172-Y	2-172-W	2-172-3⁄4 W	$ .6
3-172-Y	3-172-W	3-172-3⁄4 W	.8
4-172-Y	4-172-W	4-172-3⁄4 W	1.0
5-172-Y	5-172-W	5-172-3⁄4 W	1.2
6-172-Y	6-172-W	6-172-3⁄4 W	1.4
7-172-Y	7-172-W	7-172-3⁄4 W	1.6
8-172-Y	8-172-W	8-172-3⁄4 W	1.8
9-172-Y	9-172-W	9-172-3⁄4 W	2.0
10-172-Y	10-172-W	10-172-3⁄4 W	2.2
11-172-Y	11-172-W	11-172-3⁄4 W	2.4
12-172-Y	12-172-W	12-172-3⁄4 W	2.6
13-172-Y	13-172-W	13-172-3⁄4 W	2.8
14-172-Y	14-172-W	14-172-3⁄4 W	3.0

MORE BARRIER BLOCK LISTINGS ON TWO PRECEDING PAGES

CINCH BATTERY PLUGS

5AB1

6K4

5AB4

5AB5

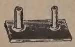
5AB6

5AB7

5AB8

5A1

5A2-1


5A3

5A4

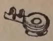
5A5

5B1A

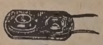
5B2

5D1

5D2


5M

5F


5D

5MFA

Part Number	Voltage	For Burgess No.	For Eveready No.	For R.C.A. No.	For Philco No.	For Ray-O-Vac No.	Net Price
5A1	1½ "A"	4F, 4FL, 6F, 8F, 8FL, TE	741, 742 743, 1052P	VS004, VS005, VS007, VS008	P94, P96, P8F1	P94A, P94L, PX, P96A, P98A, P98L	Ea. $.097
5A2-1	3 "A"	20F2	X125	VS025	P8024	P9403	Ea. .153
5A3	4½ "A"	G-3	746	VS002	P100	P-83A	Ea. .137
5A4	6 "A"	2F4, 2F4L, F4PI, T5	A509, 718, 744, 747	VS009, VS010 VS011	P4F4R	P694A, P696L, P698A, P698L	Ea. .094
5A5	7½ "A"	G-5	687	VS003		P85A	Ea. .216
5B1A	45 "B" Small	M30, Z30 A30, B30	482, 738, 762	VS012, VS013 VS014, VS015	PR10 P305	430P, P7830 P5303	Ea. .089
5B2-1	45 "B" Large	M30, Z30 A30, B30	482, 738, 762	VS012, VS013 VS014, VS015	P210, P305	430P, P7830, P5303	Ea. .183
5M	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .08
5F	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .08
5MFA	67½ "B"	XX30, XX45	455, 467	VS016, VS056		P4367	Ea. .45
5D	45 "B"	U30	415	VS086			Ea. .75
5D1	67½ "B"	P45	477	VS218	P149	946	Ea. .45
5D2	90 "B"	N60	490	VS090	P132	4390	Ea. .45
5AB1-1	1½ "A"-90 "B"	17GD60, 5DA60, 6TA60	758	VS022, VS043	P60011L	AB82, 10793	Ea. .213
6K4	9 "A"-90 "B"	G6B60	752	VS047			Ea. .336
5AB2	1½ "A"-63-90 "B"	6FA60, 4GA41, 4GA42		VS037	P60A-4L P41A4G	AB419	Ea. .115
5AB5	6 "A"-90 "B"	D4A60, 2FB60, F4A41		VS046	P41AFL	10896, AB648	Ea. .341
5AB6	7½"A"-90 "B"	G5A42, F5A60		VS038	P87, P841	AB794	Ea. .166
5AB7	9 "A"-90 "B"	F6A60, G6M60	753, 754	VS018, VS019	P841A	AB878, AG994	Ea. .172
5AB8	9 "A"-90 "B"	4FA60					Ea. .166

Trade Discount Applies To List Prices Only

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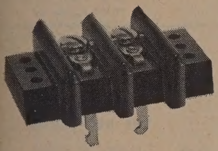
CINCH-JONES DISTRIBUTOR SALES DIVISION • CINCH MANUFACTURING COMPANY

BARRIER TYPE TERMINAL BLOCKS

HEAVY DUTY TYPE

No. 2-150



No. 2-150-Y

No. 150 TERMINAL BLOCKS

Conventional Type. 1¹³⁄₁₆″ wide by ²⁵⁄₃₂″ high. Terminals are mounted on ¹¹⁄₁₆″ centers. Screws are 10-32 x ⁵⁄₁₆″ brass, burnished nickel plate. Fits standard 50 Amp. solder lug for 6 Ga. stranded wire. Metal-to-metal spacing over ⅝″ bakelite.

Code	List Pr. Ea.	Code	List Pr. Ea.
1-150	$ .55	6-150	$2.48
2-150	.94	7-150	2.86
3-150	1.32	8-150	3.25
4-150	1.71	9-150	3.63
5-150	2.09	10-150	4.02

Y-Terminal Type. Same as above except "Y" Terminals as illustrated.

Code	List Pr. Ea.	Code	List Pr. Ea.
1-150-Y	$ .65	6-150-Y	$3.08
2-150-Y	1.14	7-150-Y	3.56
3-150-Y	1.62	8-150-Y	4.05
4-150-Y	2.11	9-150-Y	4.53
5-150-Y	2.59	10-150-Y	5.02

No. 151 TERMINAL BLOCKS

No. 2-151

2″ wide by ¹⁵⁄₁₆″ high. Terminals are mounted on ⅞″ centers. Screws: 12-32 x ⅜″ brass, burnished nickel plate. Fits standard 70 Amp. solder lug for 4 Ga. stranded wire. Metal-to-metal spacing over ¾″ bakelite.

Code	List Price Each	Code	List Price Each
1-151	$ .94	5-151	$4.02
2-151	1.71	6-151	4.79
3-151	2.48	7-151	5.56
4-151	3.25	8-151	6.33

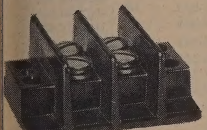
No. 152 TERMINAL BLOCKS

No. 2-152

2½″ wide by 1⅛″ high. Terminals are mounted on 1⅛″ centers. Screws: ¼″-28 x ½″ brass, burnished nickel plate. Fits standard 90 Amp. solder lug for 2 Ga. stranded wire. Metal-to-metal spacing over 1″ bakelite.

Code	List Price Each	Code	List Price Each
1-152	$1.27	4-152	$4.73
2-152	2.42	5-152	5.89
3-152	3.58	6-152	7.04

NEW "500" SERIES BARRIER BLOCKS



No. 2-540

new 500 series barrier blocks are gned for applications where electri- nd mechanical performance require- ts are especially critical. Bottoms closed so that insulating strips are required. Knockouts are molded into base so that Y terminals can be ac- modated if desired. The heavy con- ction adds strength to the strip mizing warpage and shrikage. A top- nted marker strip can be furnished, escribed elsewhere in this catalog.

No. 540 TERMINAL BLOCKS

1⅛″ wide by ³⁹⁄₆₄″ high. Terminals are mounted on ⅜″ centers with 5-40 x ³⁄₁₆″ binder head screws. Creepage distance is ½″. Ratings: 2300 VRMS, 15 amps. Code indicates number of terminals.

Code	List, Ea.	Code	List, Ea.
1-540	$ .17	17-540	$1.73
2-540	.26	18-540	1.83
3-540	.36	19-540	1.93
4-540	.46	20-540	2.02
5-540	.56	21-540	2.12
6-540	.65	22-540	2.22
7-540	.75	23-540	2.32
8-540	.85	24-540	2.41
9-540	.95	25-540	2.51
10-540	1.05	26-540	2.61
11-540	1.13	27-540	2.71
12-540	1.23	28-540	2.80
13-540	1.33	29-540	2.90
14-540	1.44	30-540	3.00
15-540	1.54	31-540	3.10
16-540	1.64		

No. 541 TERMINAL BLOCKS

1⅜″ wide by ¹¹⁄₁₆″ high. Terminals are mounted on ⁷⁄₁₆″ centers with 6-32 x ¼″ binder head screws. Creepage distance is ⅝″. Ratings: 2800 VRMS, 20 amps. Code indicates no. of terminals.

Code	List, Ea.	Code	List, Ea.
1-541	$ .22	16-541	$2.09
2-541	.34	17-541	2.21
3-541	. 46	18-541	2.33
4-541	.59	19-541	2.46
5-541	.72	20-541	2.59
6-541	.83	21-541	2.71
7-541	.97	22-541	2.83
8-541	1.09	23-541	2.95
9-541	1.22	24-541	3.08
10-541	1.34	25-541	3.20
11-541	1.46	26-541	3.32
12-541	1.58	27-541	3.44
13-541	1.72	28-541	3.56
14-541	1.84	29-541	3.69
15-541	1.96	30-541	3.00

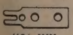
No. 542 TERMINAL BLOCKS

1⅝″ wide by ⅞″ high. Terminals are mounted on ⁹⁄₁₆″ centers with 8-32 x ⁵⁄₁₆″ binder head screws. Creepage distance is ¾″. Ratings: 4000 VRMS, 30 amps. Code indicates no. of terminals.

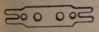
Code	List, Ea.	Code	List, Ea.
1-542	$ .25	16-542	2.55
2-542	.40	17-542	2.70
3-542	.56	18-542	2.86
4-542	.72	19-542	3.01
5-542	.86	20-542	3.16
6-542	1.01	21-542	3.32
7-542	1.18	22-542	3.47
8-542	1.32	23-542	3.62
9-542	1.47	24-542	3.78
10-542	1.64	25-542	3.93
11-542	1.78	26-542	4.08
12-542	1.94	15-542	2.40
13-542	2.09		
14-542	2.24		

OPTIONAL TERMINALS AND JUMPERS FOR ABOVE BARRIER BLOCKS

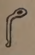
OPTIONAL TERMINALS



"¾ W"



"W"



"Y"

QC-2

Solder Terminals. "Y," "W" and "¾W" are optional types for use with barrier blocks as indicated by code. For * substitute terminal type desired (e.g. Y-140, ¾W-142 etc.) Also available are W-140-¾W, W-141-¾W, and W-142-¾W at prices below, respectively.

Code	List, Ea.	Code	List, Ea.
*-140	$.044	*-150	$ .10
*-141	.059	*-151	.18
*-142	.072	*-152	.26

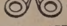
Quick-Clamp* Terminals. Simplifies engaging of wires to barrier blocks. Wire is stripped, inserted into flared opening on Quick-Clamp and the screw tightened. Since wire is not bent around the screw, significant time savings result. Two built-in stops prevent conductors from extending beyond the rear of the terminal. Screws are brass, binder-head type.

Code	Barrier Strip Series	Wire Gauge Accommodated	Screw Size	List, Ea.†
QC-1	141,541	14 thru 22	6-32 x ⁵⁄₁₆″	$.098
QC-2	142,542	8 thru 16	8-32 x ⅜″	.106

*Patent pending

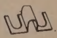
†Includes two mating clamps and screws.

JUMPERS

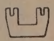


141J or 95B

142J-1



140J-1



142J-2

141J-1

540J, 541J
5425

Jumpers pictured at left are used for making permanent connections between adjacent barrier block terminals, except for 142J-1 which connects two alternate terminals, bridging the intermediate terminal.

Code	Barrier Strip Series	List, Ea.
141-J	140, 141	$ .04
95B	142	.14
140J-1	140	.03
141J-1	141	.06
142J-1*	142, 542	.06
142J-2	142, 542	.05
540J	540	.29
541J	541	.31
542J	542	.33

*See notation above.

MARKER STRIPS FOR BARRIER TERMINAL BLOCKS

No. MS-4-140

For labelling terminal positions on barrier terminal blocks and insulating exposed portions of terminals from metallic mounting surface. Marker strip mounting holes correspond with those on appropriate barrier terminal block. Made of 1/32" black fibre and numbered sequentially from 1 with legible white numerals. Code indicates number of terminal positions accommodated.

Marker Strips for 140, 140W, 140-¾ W, 164, 164 W, 164-¾W

Code	List Ea.	Code	List Ea.
MS- 2-140	$.088	MS-12-140	$.223
MS- 3-140	.097	MS-13-140	.242
MS- 4-140	.107	MS-14-140	.252
MS- 5-140	.116	MS-15-140	.261
MS- 6-140	.126	MS-16-140	.321
MS- 7-140	.135	MS-17-140	.330
MS- 8-140	.145	MS-18-140	.340
MS-10-140	.214	MS-19-140	.349
MS-11-140	.223	MS-20-140	.409
		MS-21-140	.418

Marker Strips for 141, 141 W and 141-¾ W

Code	List Ea.	Code	List Ea.
MS- 2-141	$.094	MS-12-141	$.271
MS- 3-141	.107	MS-13-141	.283
MS- 4-141	.120	MS-14-141	.296
MS- 5-141	.132	MS-15-141	.359
MS- 6-141	.145	MS-16-141	.371
MS- 7-141	.158	MS-17-141	.384
MS- 8-141	.170	MS-18-141	.397
MS- 9-141	.183	MS-19-141	.459
MS-10-141	.245	MS-20-141	.472
MS-11-141	.258		

Marker Strips for 142, 142 W, a 142-¾ W

Code	List Ea.	Code	Lis
MS- 2-142	$.101	MS-10-142	
MS- 3-142	.116	MS-11-142	
MS- 4-142	.132	MS-12-142	
MS- 5-142	.148	MS-13-142	
MS- 6-142	.164	MS-14-142	
MS- 7-142	.180	MS-15-142	
MS- 8-142	.195	MS-16-142	
MS- 9-142	.211	MS-17-142	

NEW "500" SERIES MARKER BLOCKS

No. MSK-540
(Installed)

For labelling terminal positions on 500 series barrier terminal blocks. Made of 1/16" XP Bakelite, ¼" wide. Numbered sequentially from 1 with ⅛" legible white numerals. Mounted on top of terminal block as illustrated, with mounting screws furnished. Code indicates number of terminal positions accommodated.

THE 540 SERIES

Code	List Ea.	Code	List Ea.
MSX- 2-540	$ .15	MSX-17-540	$ .33
MSX- 3-540	.16	MSX-18-540	.35
MSX- 4-540	.16	MSX-19-540	.35
MSX- 5-540	.16	MSX-20-540	.40
MSX- 6-540	.17	MSX-21-540	.40
MSX- 7-540	.17	MSX-22-540	.42
MSX- 8-540	.17	MSX-23-540	.42
MSX- 9-540	.17	MSX-24-540	.42
MSX-10-540	.22	MSX-25-540	.47
MSX-11-540	.23	MSX-26-540	.47
MSX-12-540	.23	MSX-27-540	.47
MSX-13-540	.23	MSX-28-540	.47
MSX-14-540	.25	MSX-29-540	.47
MSX-15-540	.30	MSX-30-540	.56
MSX-16-540	.30	MSX-31-540	.56

THE 541 SERIES

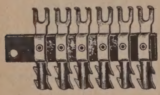
Code	List Ea.	Code	List Ea.
MSX- 2-541	$ .16	MSX-16-541	$ .35
MSX- 3-541	.16	MSX-17-541	.35
MSX- 4-541	.17	MSX-18-541	.35
MSX- 5-541	.17	MSX-19-541	.37
MSX- 6-541	.17	MSX-20-541	.42
MSX- 7-541	.17	MSX-21-541	.42
MSX- 8-541	.18	MSX-22-541	.42
MSX- 9-541	.18	MSX-23-541	.42
MSX-10-541	.23	MSX-24-541	.42
MSX-11-541	.23	MSX-25-541	.47
MSX-12-541	.25	MSX-26-541	.51
MSX-13-541	.25	MSX-27-541	.51
MSX-14-541	.25	MSX-28-541	.51
MSX-15-541	.35	MSX-29-541	.51
		MSX-30-541	.56

THE 542 SERIES

Code	List Ea.	Code	Lis
MSX- 2-542	$ .16	MSX-14-542	$
MSX- 3-542	.17	MSX-15-542	
MSX- 4-592	.17	MSX-16-542	
MSX- 5-542	.17	MSX-17-542	
MSX- 6-592	.17	MSX-18-542	
MSX- 7-542	.18	MSX-19-542	
MSX- 8-542	.18	MSX-20-542	
MSX- 9-542	.20	MSX-21-542	
MSX-10-542	.25	MSX-22-542	
MSX-11-542	.25	MSX-23-542	
MSX-12-542	.30	MSX-24-542	
MSX-13-542	.30	MSX-25-542	
		MSX-26-542	

FANNING STRIPS TO FACILITATE CONNECTING TO BARRIER BLOCKS

Jones Fanning Strip Terminals are of .032" Brass, Cadmium Plated. The Bakelite strips are furnished with a hole in either the right or left end for fastening the c with a cable clamp or lacing twine. Simplifies cable or harness wiring, assuring positive connectors. Makes replacement of units an easy matter and assures co connections after servicing.



6-160-L

THE 160 SERIES

The following Fanning Strips fit the 140 Series Barrier Blocks. Terminals are mounted on 3/32" Bakelite, ½" wide and on ⅜" centers.
The B type fits the 140 and 164 series. If desired add suffix B to Code Number.

		List Price Each
2-160-L	2-160-R	$ .14
3-160-L	3-160-R	.22
4-160-L	4-160-R	.28
5-160-L	5-160-R	.35
6-160-L	6-160-R	.43
7-160-L	7-160-R	.50
8-160-L	8-160-R	.56
9-160-L	9-160-R	.63
10-160-L	10-160-R	.70
11-160-L	11-160-R	.77
12-160-L	12-160-R	.84
13-160-L	13-160-R	.91
14-160-L	14-160-R	.98
15-160-L	15-160-R	1.06
16-160-L	16-160-R	1.11
17-160-L	17-160-R	1.19
18-160-L	18-160-R	1.28
19-160-L	19-160-R	1.33
20-160-L	20-160-R	1.41
21-160-L	21-160-R	1.46

6-161-L (Cable Clamp on Left)

THE 161 SERIES

The following Fanning Strips fit the 141 Series Barrier Blocks. Terminals are mounted on 3/32" Bakelite, ⅝" wide and on 7/16" centers.

		List Price Each
2-161-L	2-161-R	$ .15
3-161-L	3-161-R	.22
4-161-L	4-161-R	.29
5-161-L	5-161-R	.36
6-161-L	6-161-R	.44
7-161-L	7-161-R	.51
8-161-L	8-161-R	.57
9-161-L	9-161-R	.64
10-161-L	10-161-R	.72
11-161-L	11-161-R	.79
12-161-L	12-161-R	.85
13-161-L	13-161-R	.92
14-161-L	14-161-R	1.00
15-161-L	15-161-R	1.07
16-161-L	16-161-R	1.13
17-161-L	17-161-R	1.20
18-161-L	18-161-R	1.29
19-161-L	19-161-R	1.34
20-161-L	20-161-R	1.42

6-162-R (Cable Clamp on Right)

THE 162 SERIES

The following Fanning Strips fit the 142 Series Barrier Blocks. Terminals are mounted on 3/32" Bakelite, ⅝" wide and on 9/16" centers.

		List Price Each
2-162-L	2-161-R	$ .19
3-162-L	3-162-R	.25
4-162-L	4-162-R	.32
5-162-L	5-162-R	.39
6-162-L	6-162-R	.47
7-162-L	7-162-R	.53
8-162-L	8-162-R	.61
9-162-L	9-162-R	.67
10-162-L	10-162-R	.75
11-162-L	11-162-R	.81
12-162-L	12-162-R	.88
13-162-L	13-162-R	.95
14-162-L	14-162-R	1.03
15-162-L	15-162-R	1.09
16-162-L	16-162-R	1.17
17-162-L	17-162-R	1.22

CABLE CLAMPS

Cable Clamps are available for Fanning Strips listed at the left are furnished in 6 different size listed below. Cable Clamp is of Nickel Plated, with 6-32 round Nickel Plated Brass Screws. For venience the Cable Clamps furnished unassembled.

CABLE CLAMP SIZES AVAILABLE

No.	I.D.
CC-161- 4	¼"
CC-161- 6	⅜"
CC-161- 8	½"
CC-161-10	⅝"
CC-161-12	¾"
CC-161-14	⅞"

Be sure to give code number ordering.

GC ELECTRONICS

RADIO AND TV HARDWARE

HINGED COVER
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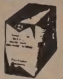
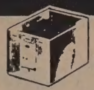
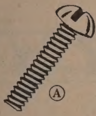
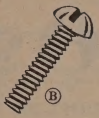


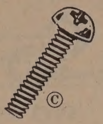
BOXES OF 100
Standard Carton
10 Boxes of 100

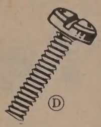


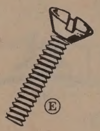
BULK
HARDWARE
Box of 1000

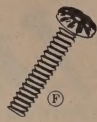


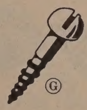


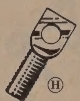












(A) G-C ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted Screws	H1000-F	35				
Assorted Screws & Nuts	H1001-F	40				
Assorted No. 2 & 4 Screws & Nuts	H1002-F	35				
Assorted 4-36 Screws	H1010-F	40				
Assorted 6-32 Screws	H1012-F	40				
Assorted 8-32 Screws	H1016-F	40				
Assorted 10-32 Screws	H1018-F	25				
2-56 x ¼"	H1022-F	40	7130-C$	.45	7130-M	$3.53
2-56 x ½"	H1024-F	40	7131-C	.48	7131-M	3.85
2-56 x ¾"	H1026-F	40	7132-C	.55	7132-M	4.43
3-48 x ¾"	H1028-F	40	7124-C	.58	7124-M	4.65
4-36 x ¼"	H1032-F	40	6005-IC	.48	6005-M	3.87
4-36 x ⅜"	H1033-F	35	7138-C	.50	7138-M	3.97
4-36 x ½"	H1034-F	35	6006-C	.52	6006-M	4.18
4-36 x ⅝"			5651-C	.57	5651-M	4.53
4-36 x ¾"	H1036-F	35	6007-C	.60	6007-M	4.87
4-40 x ¼"	H1042-F	40	6005-AC	.48	6005-AM	3.87
4-40 x ½"	H1044-F	35	6005-BC	.53	6005-BM	4.22
4-40 x ⅝"			5652-C	.57	5652-M	4.53
4-40 x ¾"	H1046-F	35	6005-CC	.60	6005-CM	4.87
6-32 x ¼"	H1062-F	40	6008-C	.53	6008-M	4.25
6-32 x ½"	H1064-F	30	6009-C	.62	6009-M	4.93
6-32 x ⅝"			5653-C	.68	5653-M	5.40
6-32 x ¾"	H1066-F	30	6010-C	.73	6010-M	5.80
6-32 x 1"	H1068-F	30	6011-C	.83	6011-M	6.67
6-32 x 1¼"	H1070-F	30	7141-C	1.00	7141-M	8.00
6-32 x 2"	H1076-F	20	7148-C	1.50	7148-M	12.07
8-32 x ¼"	H1082-F	30	6013-C	.70	6013-M	5.55
8-32 x ⅜"	H1083-F	25	6014-C	.75	6014-M	5.98
8-32 x ½"	H1084-F	25	6015-C	.82	6015-M	6.48
8-32 x ⅝"			5654-C	.87	5654-M	6.95
8-32 x ¾"	H1086-F	25	6016-C	.93	6016-M	7.42
8-32 x 1"	H1088-F	20	6017-C	1.07	6017-M	8.50
8-32 x 1¼"	H1090-F	20	7142-C	1.23	7142-M	9.87
10-32 x ½"	H1104-F	20	6020-C	.95	6020-M	7.63
10-32 x ⅝"			5655-C	1.03	5655-M	8.32
10-32 x ¾"	H1106-F	20	6021-C	1.12	6021-M	8.93
10-32 x 1"	H1108-F	17	6022-C	1.25	6022-M	10.05
10-32 x 1½"	H1112-F	15	7143-C	1.65	7143-M	13.22

(B) G-C ROUND HEAD MACHINE SCREWS BRASS — NOT PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1210-F	30				
2-56 x ¼"			5657-C	.67	5657-M	$ 5.32
2-56 x ½"			5658-C	.80	5658-M	6.42
2-56 x ⅝"			5659-C	.87	5659-M	6.97
2-56 x ¾"			5660-C	.93	5660-M	7.50
3-48 x ¾"			5661-C	1.05	5661-M	8.33
4-36 x ¼"			5662-C	.80	5662-M	6.45
4-36 x ½"			5663-C	1.02	5663-M	8.10
4-36 x ⅝"			5664-C	1.10	5664-M	8.82
4-36 x ¾"			5665-C	1.20	5665-M	9.53
4-40 x ¼"			5666-C	.80	5666-M	6.45
4-40 x ½"			5667-C	1.02	5667-M	8.10
4-40 x ⅝"			5668-C	1.10	5668-M	8.82
4-40 x ¾"			5669-C	1.20	5669-M	9.53
6-32 x ¼"			8501-C	1.08	8501-M	8.63
6-32 x ⅜"			5670-C	1.15	5670-M	9.22
6-32 x ½"			8502-C	1.30	8502-M	10.38
6-32 x ⅝"			5671-C	1.43	5671-M	11.47
6-32 x ¾"			8503-C	1.58	8503-M	12.67
6-32 x 1"			8504-C	1.88	8504-M	15.00
6-32 x 1¼"			5672-C	2.18	5672-M	17.82
6-32 x 2"			5673-C	3.68	5673-M	29.40
8-32 x ¼"			8505-C	1.60	8505-M	12.78
8-32 x ⅜"			5674-C	1.68	5674-M	13.43
8-32 x ½"			8506-C	1.92	8506-M	15.37
8-32 x ⅝"			5675-C	2.12	5675-M	16.92
8-32 x ¾"			8507-C	2.35	8507-M	18.75
8-32 x 1"			8508-C	2.80	8508-M	22.35
8-32 x 1¼"			5676-C	3.28	5676-M	26.25
10-32 x ½"			5677-C	2.43	5677-M	19.50
10-32 x ⅝"			5678-C	2.70	5678-M	21.67
10-32 x ¾"			5679-C	2.95	5679-M	23.55
10-32 x 1"			5680-C	3.52	5680-M	28.08
10-32 x 1½"			5681-C	4.80	5681-M	38.40

(C) G-C PHILLIPS TYPE ROUND HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1180-F	25				
6-32 x ¼"			8511-C	1.18	8511-M	$ 9.47
6-32 x ½"			8512-C	1.07	8512-M	8.53
6-32 x ⅝"			5689-C	1.15	5689-M	9.18
6-32 x ¾"			8513-C	1.22	8513-M	9.75
6-32 x 1"			8514-C	1.37	8514-M	10.87
8-32 x 5⁄16"			8515-C	1.03	8515-M	8.32
8-32 x ½"			8516-C	1.15	8516-M	9.18
8-32 x ⅝"			5690-C	1.23	5690-M	9.90
8-32 x ¾"			8517-C	1.33	8517-M	10.65
8-32 x 1"			8518-C	1.53	8518-M	12.23

(D) G-C BINDING HEAD MACHINE SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1168-F	35				
5-36 x ¼"	H1170-F	35	7154-C	.53	7154-M	$4.20
6-32 x 3⁄16"			7151-C	.53	7151-M	4.20
6-32 x ¼"	H1172-F	35	7152-C	.53	7152-M	4.23
6-32 x ⅜"			7153-C	.57	7153-M	4.50
7-32 x ⅜"	H1174-F	30	7155-C	1.57	7155-M	12.48
8-32 x 5⁄16"			7158-C	.72	7158-M	5.73

(E) G-C OVAL HEAD RACK AND CABINET SCREWS STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted Screws and Washers	H1005-F	15				
6-32 x ½"			6540-C	.62	6540-M	$4.93
6-32 x ⅝"			5691-C	.68	5691-M	5.40
6-32 x ¾"			6541-C	.73	6541-M	5.80
8-32 x ⅝"			5692-C	.87	5692-M	6.95
8-32 x ¾"			6542-C	.93	6542-M	7.42
10-32 x ½"			8848-C	.95	8848-M	7.60
10-32 x ⅝"			5693-C	1.03	5693-M	8.32
10-32 x ¾"			6543-C	1.12	6543-M	8.93

(F) G-C ORNAMENTAL HEAD SCREWS STEEL — BRONZE PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1250-F	20				
6-32 x ¾"	H1252-F	25	1097-C	1.28	1097-M	$10.27
6-32 x 1"	H1253-F	20	1098-C	1.40	1098-M	11.28
8-32 x 1¼"	H1255-F	12	1099-C	1.92	1099-M	15.30

(G) G-C WOOD SCREWS ROUND HEAD — STEEL — NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted	H1502-F	25				
No. 4 x ½"			6114-C	.78	6114-M	$ 6.23
No. 4 x ⅝"			5694-C	.85	5694-M	6.75
No. 4 x ¾"			6115-C	.90	6115-M	7.20
No. 6 x ¾"			6116-C	.97	6116-M	7.73
No. 6 x 1"			6117-C	1.20	6117-M	9.57
No. 8 x ¾"			6118-C	1.15	6118-M	9.15
No. 8 x 1¼"			8071-C	1.58	8071-M	12.68
No. 10 x 1½"			8073-C	2.12	8073-M	16.95
No. 12 x 1½"			8075-C	2.70	8075-M	21.60
No. 14 x 1¾"			8076-C	3.80	8076-M	30.45

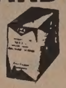
(H) G-C SPADE BOLTS OR MOUNTING SCREWS STEEL — NICKEL PLATED

A	B No.	C	D	E	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted					H1570-F	15				
6-32	6	9⁄32"	11⁄16"	9⁄16"			6081-C	1.15	6081-M	$ 9.15
6-32	6	13⁄32"	⅞"	11⁄16"			6082-C	1.55	6082-M	12.45
8-32	8	7⁄16"	1 5⁄32"	15⁄16"			6084-C	2.93	6084-M	23.40

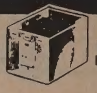
GC ELECTRONICS

RADIO AND TV HARDWARE

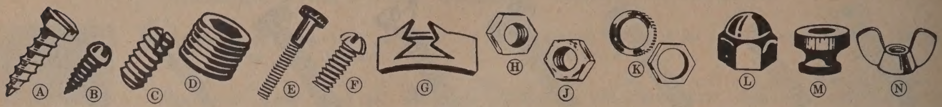
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net Price 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



BULK
HARDWARE
Box of 1000



(A) G-C SHEET METAL SCREWS
HEX HEAD — SLOTTED — SELF-TAPPING — NICKEL PLATED POINTED TYPE "A"

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd	H1300-F	25				
Asstd. No. 4 & 6						
Asstd. No. 8 & 10						
No. 4 x ½"	H1350-F	35	6090-C	$ .75	6090-M	$ 6.00
No. 6 x ¼"	H1362-F	30	6091-C	.85	6091-M	6.83
No. 6 x ⅜"	H1363-F	25	6092-C	.87	6092-M	6.97
No. 6 x ½"	H1364-F	25	6093-C	.92	6093-M	7.32
No. 6 x ⅝"			5695-C	.95	5695-M	7.57
No. 6 x ¾"	H1366-F	20	6094-C	1.00	6094-M	7.95
No. 8 x ¼"	H1382-F	20	8102-C	1.00	8102-M	8.03
No. 8 x ⅜"	H1383-F	20	6095-C	1.05	6095-M	8.33
No. 8 x ½"	H1384-F	20	6096-C	1.08	6096-M	8.63
No. 8 x ⅝"			5696-C	1.10	5696-M	8.78
No. 8 x 1"	H1388-F	15	6097-C	1.38	6097-M	11.03
No. 10 x ⅜"	H1403-F	15	6098-C	1.18	6098-M	9.52
No. 10 x ½"	H1404-F	15	6099-C	1.27	6099-M	10.13
No. 10 x ¾"	H1406-F	12	6100-C	1.40	6100-M	11.17

(B) G-C ESCUTCHEON PLATE SCREWS
ROUND HEAD — SLOTTED — BRONZE PLATED

Asstd.	H1500-F	25				
No. 2 x ¼"			1091-C	$ .72	1091-M	$5.70
No. 2 x ⅜"			1093-C	.72	1093-M	5.70

(C) G-C RADIO KNOB SET SCREWS
SLOTTED — HEADLESS — CUP POINT Standard

Asst. 6-32, 8-32, 10-32	H1605-F	15				
6-32 x 3/16"	H1623-F	15	6072-C	$1.80	6072-M	$14.40
8-32 x 3/16"	H1633-F	15	6075-C	1.80	6075-M	14.40
8-32 x ¼"	H1634-F	15	6076-C	1.80	6076-M	14.40
10-32 x ¼"			6079-C	1.80	6079-M	14.40

(D) G-C ALLEN HEX SET SCREWS
STEEL — HEADLESS

Asstd. Lengths, 4-36	H1674-F	5				
Asstd. Lengths, 6-32	H1676-F	5				
Asstd. Lengths, 8-32	H1678-F	5				
8-32 x ⅛"			7201-C	$4.93	7201-M	$39.45
8-32 x 3/16"			7202-C	4.93	7202-M	39.45

(E) G-C PHONOGRAPH NEEDLE AND STYLUS SET SCREWS
STEEL — BRONZE PLATED

No. 1052 Ass't., 15 in Box. .... Dlr. Net $ .36		
Assorted	H1550-F	12
No. 1053 Asst., 100 in Box .... Dlr. Net .36	H1551-F	12
2-56 x 5/16"	H1553-F	12
1-72 x 29/32"	H1555-F	5

(F) PHONO CARTRIDGE MOUNTING SCREWS
STEEL — NICKEL PLATED

Assorted	H1560-F	60				
4-36 x ¼"	H1562-F	40	6005-1C	.48	6005-M	$3.87
4-40 x ¼"	H1564-F	40	6005-AC	.48	6005-AM	3.87

(G) G-C TINNERMAN SPEED NUTS

Assorted	H1960-F	30				
No. 4			6051-C	$ .93	6051-M	$ 5.70
No. 6			6052-C	.78	6052-M	6.23
No. 8			6053-C	.78	6053-M	6.23

(H) G-C HEXAGON NUTS
STEEL — NICKEL PLATED

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted			H1800-F	30				
Thread	**Width**	**Thickness**						
2-56	3/16"	1/16"	H1802-F	30	7225-C	$ .68	7225-M	$ 5.52
3-48	3/16"	1/16"	H1803-F	30	7226-C	.68	7226-M	5.52
4-36	¼"	3/32"	H1805-F	30	6041-C	.67	6041-M	5.28
4-40	¼"	3/32"	H1804-F	30	6041-AC	.67	6041-AM	5.28
5-40	5/16"	7/64"			6045-BC	.73	6045-BM	5.82
6-32	¼"	3/32"	H1806-F	30	6042-C	.68	6042-M	5.52
6-32	5/16"	7/64"	H1807-F	30	7230-C	.73	7230-M	5.82
8-32	¼"	3/32"	H1808-F	30	6043-C	.73	6043-M	5.85
8-32	11/32"	⅛"	H1809-F	30	7233-C	.73	7233-M	5.85
10-32	⅜"	5/64"	H1810-F	30	6044-C	.97	6044-M	7.68
10-32	⅜"	⅛"			6049-C	.87	6049-M	6.98
¼-20	7/16"	3/16"	H1820-F	25	7235-C	1.33	7235-M	10.62
11/32-32	7/16"	1/16"			7236-C	1.95	7236-M	15.60
⅜-32	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27	9/16"	⅛"	H1924-F	10	7238-C	3.30	7238-M	26.40
15/32-32	9/16"	5/64"			6050-BC	1.80	6050-BM	14.40

(J) G-C BRASS HEXAGON NUTS
NOT PLATED

Thread	Width	Thickness						
2-56	3/16"	1/16"			7241-C	$ .98	7241-M	$ 7.83
3-48	3/16"	1/16"			7242-C	.90	7242-M	7.13
4-36	¼"	3/32"	H1842-F	35	7243-C	1.18	7243-M	9.42
4-40	¼"	3/32"	H1844-F	25	7244-C	1.17	7244-M	9.33
6-32	¼"	3/32"	H1846-F	25	7245-C	1.17	7245-M	9.30
6-32	5/16"	7/64"			5697-C	1.40	5697-M	11.18
8-32	¼"	3/32"			5698-C	1.17	5698-M	9.30
8-32	5/16"	7/64"	H1848-F	15	7248-C	1.40	7248-M	11.18
10-32	⅜"	⅛"	H1850-F	15	7249-C	1.53	7249-M	12.27
¼-20	7/16"	3/16"			5699-C	3.13	5699-M	25.02

(K) G-C MOUNTING NUTS
STEEL — NICKEL PLATED

Assorted			H1920-F	12				
Thread	**Width**	**Thickness**						
11/32-32 (Rotary Switch Size)	7/16"	1/16"			7236-C	$1.95	7236-M	$15.60
⅜-32 (Volume Control Size)	9/16"	3/32"	H1923-F	15	6050-AC	1.47	6050-AM	11.70
7/16-27 (Pilot Light Size)	9/16"	⅛"			7238-C	3.30	7238-M	26.40
15/32-32 (Toggle Switch Size)	9/16"	5/64"	H1924-F	10	6050-BC	1.80	6050-BM	14.40
15/32-32 (Toggle Switch Size)	Round Ring Nut	1/16"	H1926-F	8	6050-CC	3.47	6050-CM	27.78

(L) G-C ACORN NUTS
SOLID BRASS — NICKEL PLATED

Assorted	H1950-F	10				
6-32			6031-C	$2.82	6031-M	$22.50
8-32			6032-C	3.00	6032-M	24.00
10-32			6033-C	3.63	6033-M	29.10

(M) G-C KNURLED THUMB NUTS
BRASS — NICKEL PLATED

Assorted	H1941-F	10				
6-32	H1943-F	8	6655-C	$2.27	6655-M	$18.15
8-32	H1944-F	8	6656-C	2.27	6656-M	18.15
10-32	H1945-F	5	6657-C	4.98	6657-M	39.90

(N) G-C WING NUTS
NICKEL PLATED

Assorted	H1931-F	10				
6-32	H1933-F	10	6658-C	$3.32	6658-M	$26.52
8-32	H1934-F	10	6659-C	2.45	6659-M	19.65
10-32	H1935-F	8	6660-C	2.73	6660-M	21.90

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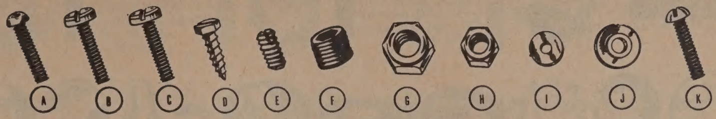
GC ELECTRONICS

ELECTRONIC HARDWARE



(A) GC-PHILLIPS TYPE

ROUND HEAD MACHINE SCREWS
STEEL — NICKEL PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Machine Screws, Phillips 6-32x5/16″	8510-C	$1.18	8510-M	$ 9.47

(B) GC-BINDING HEAD MACHINE SCREWS

STEEL — NICKEL PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Machine Screws, 2-56x¼″	7160-C	$ .53	7160-M	$ 4.20
Machine Screws, 2-56x½″	7161-C	.53	7161-M	4.20
Machine Screws, 2-56x¾″	7162-C	.53	7162-M	4.20
Machine Screws, 4-36x¼″	7163-C	.53	7163-M	4.20
Machine Screws, 4-36x½″	7164-C	.53	7164-M	4.20
Machine Screws, 4-36x¾″	7165-C	.53	7165-M	4.20
Machine Screws, 4-40x¼″	7170-C	.52	7170-M	4.18
Machine Screws, 4-40x½″	7171-C	.54	7171-M	4.22
Machine Screws, 4-40x¾″	7172-C	.64	7172-M	5.35
Machine Screws, 6-32x¾″	7173-C	.72	7173-M	5.62
Machine Screws, 8-32x¼″	7174-C	.72	7174-M	5.62
Machine Ccrews, 8-32x¾″	7175-C	.95	7175-M	7.57
Machine Screws, 10-32x½″	7176-C	.99	7176-M	7.70
Machine Screws, 10-32x¾″	7177-C	1.15	7177-M	9.20

(C) GC-BINDING HEAD MACHINE SCREWS

BRASS — NICKEL PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Machine Screws, 2-56x¼″	7160-1-C	$ .81	7160-1-M	$ 6.98
Machine Screws, 2-56x½″	7161-1-C	.96	7161-1-M	8.28
Machine Screws, 2-56x¾″	7162-1-C	1.11	7162-1-M	9.55
Machine Screws, 4-36x¼″	7163-1-C	.97	7163-1-M	8.32
Machine Screws, 4-36x½″	7164-1-C	1.19	7164-1-M	10.18
Machine Screws, 4-36x¾″	7165-1-C	1.40	7165-1-M	12.05
Machine Screws, 4-40x¼″	7170-1-C	.97	7170-1-M	8.32
Machine Screws, 4-40x½″	7171-1-C	1.19	7171-1-M	10.18
Machine Screws, 4-40x¾″	7172-1-C	1.40	7172-1-M	12.05
Machine Screws, 5-36x¼″	7154-1-C	1.07	7154-1-M	9.17
Machine Screws, 6-32x3/16″	7151-1-C	1.34	7151-1-M	11.47
Machine Screws, 6-32x¼″	7152-1-C	1.27	7152-1-M	10.90
Machine Screws, 6-32x⅜″	7153-1-C	1.35	7153-1-M	11.54
Machine Screws, 6-32x½″	7118-1-C	1.51	7118-1-M	12.90
Machine Screws, 6-32x¾″	7173-1-C	1.83	7173-1-M	15.65
Machine Screws, 8-32x¼″	7174-1-C	1.85	7174-1-M	15.70
Machine Screws, 8-32x⅜″	7119-1-C	1.94	7119-1-M	16.65
Machine Screws, 8-32x½″	7120-1-C	2.20	7120-1-M	18.80
Machine Screws, 8-32x5/16″	7158-1-C	1.88	7158-1-M	16.20
Machine Screws, 8-32x¾″	7175-1-C	2.70	7175-1-M	23.15
Machine Screws,10-32x½″	7176-1-C	2.54	7176-1-M	21.80
Machine Screws, 10-32x¾″	7177-1-C	3.43	7177-1-M	29.50

(D) GC-SHEET METAL SCREWS

HEX HEAD—SLOTTED—SELF-TAPPING—NICKEL PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Sheet Metal Screws, No. 4x⅜″	6089-C	$ .77	6089-M	$ 6.32

(E) GC-RADIO KNOB SET SCREWS

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Set Screws, 6-32x⅛″	6071-C	$1.30	6071-M	$14.40
Set Screws, 6-32x¼″	6073-C	1.80	6073-M	14.40
Set Screws, 8-32x⅛″	6074-C	1.80	6074-M	14.40
Set Screws, 8-32x½″	6077-C	1.80	6077-M	14.40
Set Screws, 10-32x3/16″	6078-C	1.80	6078-M	14.40

(F) GC-ALLEN HEX SET SCREWS

STEEL — HARDENED — HEADLESS

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Hex Set Screws, 6-32x⅛″	7196-C	$4.93	7196-M	$39.45
Hex Set Screws, 6-32x3/16″	7197-C	4.93	7197-M	39.45

(G) GC-HEXAGON NUTS

STEEL — NICKEL PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Hex Nuts, Thread 8-32, Width 5/16″, Thickness ⅛″	7232-C	$ .73	7232-M	$ 5.85

(H) GC-BRASS HEXAGON NUTS

NOT PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Hex Nuts, Thread 4-40, Width 5/16″, Thickness 7/64″	7246-C	$1.17	7246-M	$ 9.33

(I) GC-FLAT FIBRE WASHERS

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Screw Size No. 4: I.D. .020″, O.D. ¼″, Thickness 1/32″	6512-C	$ .42	6512-M	$ 2.27
Screw Size No. 7/16″, I.D. .440″, O.D. ¾″,Thickness 1/32″	6519-C	.77	6519-M	6.12

(J) GC-EXTRUDED FIBRE WASHERS

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Screw Size No. 4: A-9/32″, B-203, C-⅛″, D-.031	6524-C	$ .87	6524-M	$ 6.90

(K) GC-ROUND HEAD MACHINE SCREWS

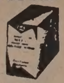
BRASS — NOT PLATED

DESCRIPTION	100 PACK Part No.	Net/100	1000 PACK Part No.	Net/1000
Machine Screws, 4-36x⅜″	8509-C	$ .91	8509-M	$ 7.34

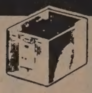
GC ELECTRONICS

RADIO AND TV HARDWARE

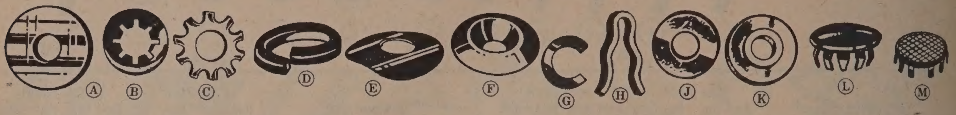
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



BULK
HARDWARE
Box of 1000



(A) G-C METAL WASHERS NICKEL PLATED

Desc. and Spec. Screw Size No.	Hole Size	O.D.	Thickness	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H870-F	80				
4	1/8"	9/32"	1/32"	H874-F	80	6154-C	$ .30	6154-M	$ 2.25
6	5/32"	3/8"	1/32"	H876-F	80	6155-C	.28	6155-M	2.25
8	3/16"	7/16"	1/32"	H878-F	80	6156-C	.30	6156-M	2.37
10	13/64"	3/8"	1/32"	H880-F	70	7306-C	.32	7306-M	2.55
10	13/64"	7/16"	1/32"			7307-C	.30	7307-M	2.37
10	13/64"	1/2"	.049			6157-C	.40	6157-M	3.18
12	.228	7/16"	.021			7308-C	.35	7308-M	2.78
1/4"	9/32"	5/8"	1/16"	H882-F	50	6158-C	.47	6158-M	3.68
1/4"	17/64"	1/2"	1/16"			7311-C	.63	7311-M	5.07
5/16"	5/16"	11/16"	1/16"			7312-C	.58	7312-M	4.68

(B) G-C LOCK WASHERS INTERNAL LOCK WASHERS CADMIUM PLATED

Desc. and Spec.	O.D.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. All Types		H918-F	45				
Asstd. Internal Screw		H920-F	50				
Screw Size	**O.D.**						
2		H922-F	35	7322-C	$ .72	7322-M	$ 5.78
3				7323-C	.63	7323-M	5.03
4		H924-F	50	7324-C	.45	7324-M	3.63
6	9/32"	H926-F	50	7326-C	.45	7326-M	3.63
8	21/64"	H928-F	50	7328-C	.50	7328-M	3.98
10	3/8"	H930-F	45	7330-C	.50	7330-M	3.98
1/4"	9/16"			7332-C	.65	7332-M	5.25
5/16"	19/32"			7333-C	.82	7333-M	6.53
3/8"	11/16"			7334-C	1.10	7334-M	8.78
3/8"	9/16"	H938-F	25	7335-C	1.25	7335-M	9.98
15/32"	19/32"			7338-C	1.58	7338-M	12.63

(C) EXTERNAL LOCK WASHERS CAD PLATED

Desc. and Spec.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H950-F	60				
No. 4			7354-C	$ .45	7354-M	$ 3.63
No. 6			7356-C	.45	7356-M	3.63
No. 8			7358-C	.50	7358-M	3.98
No. 10			7360-C	.48	7360-M	3.87
No. 1/4" 1/2"			7361-C	.65	7361-M	5.22
No. 3/8" 11/16"			7363-C	.97	7363-M	7.68

(D) SPLIT TYPE LOCK WASHERS CAD PLATED

Screw Size	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H960-F	60				
No. 4	3/16"	1/32"			6503-C	$ .57	6503-M	$ 4.50
No. 6	15/64"	1/32"			6504-C	.48	6504-M	3.90
No. 8	11/32"	.025			6505-C	.47	6505-M	3.70
No. 10	5/16"	.050			6506-C	.53	6506-M	4.32
No. 1/4"	7/16"	5/64"			6507-C	.80	6507-M	6.38

(E) G-C SPRING FRICTION WASHERS

A	B	C	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H750-F	12				
9/64"	5/16"	1/32"	.012			7385-C	$1.95	7385-M	$15.60
3/16"	3/8"	1/32"	.008			7386-C	1.65	7386-M	13.27
3/16"	7/16"	1/16"	.008			7387-C	1.62	7387-M	12.93
1/4"	9/16"	1/16"	.012			7389-C	1.87	7389-M	14.77

(F) G-C CUP FINISHING WASHERS NICKEL PLATED

Desc. and Spec.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Screws & Washers	H1005-F	15				
Asstd. Washers	H805-F	40				
No. 6	H806-F	45	6161-C	$ .40	6161-M	$ 3.18
No. 8	H808-F	45	6162-C	.42	6162-M	3.38
No. 10	H810-F	35	6163-C	.55	6163-M	4.47

(G) G-C C-WASHERS AND RETAINING RINGS STEEL-CAD PLATED

Desc. and Spec. Shaft Diam.	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst'd. C-Washers					H770-F	25				
3/16"	.171	.125	.062	.031	H772-F	15	6182-C	$ .95	6182-M	$ 7.53
1/4"	.234	.156	.046	.031	H774-F	15	6183-C	1.07	6183-M	8.58
1/4"	.260	.187	.062	.031			6184-C	1.10	6184-M	8.73
1/4" 9/32" O.D. Wire Ring .029					H778-F	50	6185-C	.42	6185-M	3.30

(H) G-C HAIR PIN COTTERS

A	B	C	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.			H380-F	50				
9/32"	1/16"	.026			7375-C	$ .48	7375-M	$ 3.90
3/8"	1/16"	.026			7376-C	.42	7376-M	3.30
13/32"	3/32"	.026			7377-C	.47	7377-M	3.78
1/2"	5/32"	.026			7378-C	.42	7378-M	3.30
21/32"	3/16"	.032			7379-C	.50	7379-M	3.93

(J) G-C FLAT FIBRE WASHERS

Screw Size	I.D.	O.D.	Thick.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H820-F	35				
6	.140	1/4"	1/32"	H824-F	30	6513-C	$ .42	6513-M	$ 3.30
8	11/64"	3/8"	1/32"	H825-F	30	6514-C	.42	6514-M	3.30
10	.196	3/8"	1/32"	H826-F	30	6515-C	.42	6515-M	3.30
1/4"	1/4"	1/2"	3/64"	H827-F	24	6516-C	.47	6516-M	3.68
3/8"	.390	25/64"	3/64"	H828-F	20	6517-C	.77	6517-M	6.12
15/32"	15/32"	1/4"	1/32"			6518-C	.77	6518-M	6.12

(K) G-C EXTRUDED FIBRE WASHERS

Screw Size	A	B	C	D	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Extruded & Flat					H854-F	30				
Asstd. Extruded					H855-F	30				
6	5/16"	.187	.140	.039			6525-C	$ .87	6525-M	$ 6.90
8	3/8"	.250	.169	.031			6526-C	.87	6526-M	6.90
10	7/16"	.255	.196	.032			6527-C	.95	6527-M	7.53
1/4"	1/2"	.375	.250	.032			6528-C	.95	6528-M	7.53
3/8"	5/8"	.437	.380	.031	H864-F	20	6529-C	.98	6529-M	7.92

(L) G-C SNAP BUTTON HOLE PLUGS NICKEL PLATED

Asstd. H300-F 8

No. 1710 Asst. 50 Plugs in Box Dlr. Net $3.05

					50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1/4"	13/32"	1/4"	17/64"	5/64"	H306-F	8	1711-AC	$ 2.25	1711-AM	18.00
5/16"	7/16"	1/4"	21/64"	1/16"			1711-BC	2.40	1711-BM	19.20
3/8"	17/32"	3/8"	25/64"	5/64"	H308-F	8	1711-C	3.08	1711-M	24.60
1/2"	21/32"	17/64"	17/32"	5/64"	H310-F	6	1712-C	3.08	1712-M	24.60
5/8"	51/64"	9/32"	41/64"	5/64"	H312-F	6	1713-C	3.30	1713-M	26.40
3/4"	15/16"	19/64"	49/64"	3/32"	H314-F	5	1714-C	3.60	1714-M	28.80
7/8"	Fits Switch Box Knockout Hole						1714-AC	4.62	1714-AM	36.90
1 "	15/32"	19/64"	1 1/32"	5/64"	H316-F	5	1715-AC	4.95	1715-AM	39.60
1 1/8"	1 5/16"	11/32"	1 9/64"	3/32"			1715-BC	5.93	1715-BM	59.40
1 1/4"	1 7/16"	5/16"	1 17/64"	3/32"			1715-C	6.45	1715-M	51.60
1 3/8"	1 9/16"	13/32"	1 13/32"	3/32"			5700-C	7.13	5700-M	57.00
1 7/16"	1 39/64"	27/64"	1 15/32"	7/64"			5701-C	7.28	5701-M	58.20
1 1/2"	1 41/64"	13/32"	1 17/32"	3/32"			5702-C	9.38	5702-M	75.00

(M) G-C SNAP-IN VENTILATING PLUGS NICKEL PLATED

Desc. and Spec.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
1" Punched Holes	H334-F	4	1709-C	$ 8.10	1709-M	$65.16
1" Screen Vent			1708-C	21.38	1708-M	170.99

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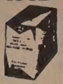
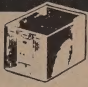
GC RADIO AND TV HARDWARE

ELECTRONICS

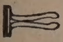
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



BULK
HARDWARE
Box of 1000



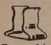
G-C SNAP-IN TRIMOUNTS

No. 1720 Asst.
100 Trimounts
Net Price .... $ .82

Description & Specs.			50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Assorted			H370-F	20				
To Fit Hole	**A**	**B**						
⅛"	9/32"	3/16"			1721-C	$1.13	1721-M	$ 9.60
⅛"	9/32"	13/64"	H373-F	25	1722-C	1.20	1722-M	9.90
.136	11/32"	17/64"			1723-C	1.38	1723-M	11.10
.136	23/64"	9/32"	H375-F	20	1724-C	1.45	1724-M	11.63
5/32"	3/16x11/32"	25/64"	H378-F	17	1726-C	1.77	1726-M	14.10
5/32"	3/16x11/32"	21/32"	H379-F	15	1727-C	1.77	1727-M	14.10

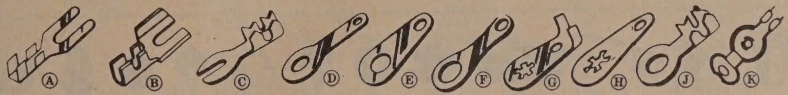
G-C DIAL CORD CLIPS NICKEL PLATED

Description & Specs.				50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Used on Cord No.	**A**	**B**	**C**	H745-F	30				
75-75A	⅛"	7/64"	3/32"	H746-F	40	6221-C	$ .68	6221-M	$ 5.43
74-74L	¼"	5/32"	5/32"			6222-C	.77	6222-M	6.08
73-73X	3/16"	9/64"	3/16"			6223-C	.78	6223-M	6.30



G-C FUSE CLIPS

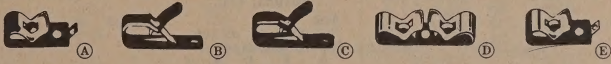
For ¼" Fuses, No. 6 Mounting Hole TV Fuse Clip, No. 8618 ($ .25) Net)	H600-F	12	6311-C	$1.85	6311-M $14.82



G-C SOLDERING LUGS TINNED

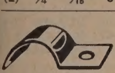
No. 1020, 100 Asst.
Dlr. Net .... $ .67

Assorted						
No. 6, ⅝" Length (A)	H100-F	30	8466-C	$1.58	8466-M	$12.63
No. 6, 23/32" Length (B)			8467-C	2.82	8467-M	22.50
No. 8, 23/32" Length (B)			8468-C	2.65	8468-M	21.15
No. 6, 23/32" Length (C)	H104-F	25	1021-BC	1.05	1021-BM	8.40
No. 8, 23/32" Length (C)	H106-F	25	7445-C	1.20	7445-M	9.57
No. 10, 23/32" Length (C)			8473-C	1.17	8473-M	9.30
No. 6, ½" Length (D)			5708-C	1.68	5708-M	13.50
No. 8, 13/16" Length (D)			5704-C	1.68	5704-M	13.50
No. 10, 13/16" Length (D)			5705-C	1.68	5705-M	13.50
No. 6, 11/16" Length (D)	H108-F	30	1021-CC	.93	1021-CM	8.08
No. 6, 9/16" Length (E)	H112-F	30	1021-FC	.92	1021-FM	7.38
No. 8, 9/16" Length (E)	H113-F	30	7451-C	.87	7451-M	6.98
No. 6, 1" Length (F)	H114-F	25	7454-C	$ .67	7454-M	$ 5.33
No. 8, 1" Length (F)	H117-F	25	7455-C	1.85	7455-M	14.85
No. 10, 1" Length (F)	H118-F	25	7456-C	1.85	7456-M	14.85
No. 4, 13/16" Length (G)			7458-C	1.85	7458-M	14.85
No. 8, 13/16" Length (G)			7460-C	1.87	7460-M	14.88
No. 10, 13/16" Length (G)			7461-C	1.87	7461-M	14.88
No. 6, ⅝" Length (H)	H122-F	20	7462-C	1.07	7462-M	8.52
No. 8, ⅝" Length (H)			7463-C	1.07	7463-M	8.52
No. 4, ⅞" Length (E)			5706-C	1.68	5706-M	13.50
No. 8, ⅞" Length (E)			5707-C	1.68	5707-M	13.50
No. 6, ⅞" Length (E)			5708-C	1.68	5708-M	13.50
No. 6, 11/16" Length (J)	H124-F	25	7441-C	1.18	7441-M	9.45
No. 8, 11/16" Length (J)	H134-F	25	7442-C	1.13	7442-M	9.12
No. 10, 11/16" Length (J)	H102-F	25	1021-AC	1.13	1021-AM	9.12
Solderless TV Line Lug (K)	H225-F	10	8633-C	1.65	8633-M	13.13



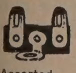
G-C FAHNESTOCK CLIPS NICKEL PLATED

Assorted				H590-F	12				
	L	**W**	**Hole**	**Wire**					
(A)	½"	7/32"	4	16	H592-F 15	6381-C	1.50	6301-M	$13.05
(B)	¾"	5/16"	6	14	H594-F 14	6302-C	1.73	6302-M	13.98
(C)	1 1/16"	⅜"	8	10		6303-C	2.97	6303-M	23.85
(D)	1½"	5/16"	6	10		6304-C	11.02	6304-M	77.33
(E)	¾"	5/16"	6	14		6306-C	4.03	6306-M	32.28



G-C CABLE HOLDER CLAMPS NICKEL PLATED

Assorted		H500-F	20				
To Fit Cable	**Mounting Hole**						
⅛" to 3/16"	No. 6	H502-F	25	6251-C	$ .98	6251-M	$ 7.83
3/16" to ¼"	No. 6	H503-F	20	6252-C	1.12	6252-M	8.88
¼" to 5/16"	No. 6			7503-C	1.73	7503-M	13.80
5/16" to ½"	No. 6	H506-F	15	6253-C	1.27	6253-M	10.13
Baseboard Clips Blk.		H509-F	20	8345-C	2.07	8345-M	16.17

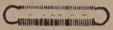


G-C TERMINAL STRIP ASSORTMENT 1/16" INSULATION — 3/8" SPACING

Assorted	H250-F	4		
1 Lug			1781-C	$ 2.70
2 Lugs			1782-C	2.70
3 Lugs			1783-C	2.82
4 Lugs			1784-C	3.90
5 Lugs			1785-C	4.50
6 Lugs			1786-C	4.80
7 Lugs			1787-C	8.70
8 Lugs			1788-C	9.60

G-C COMPRESSION SPRINGS

Asst. Small	H440-F	20
Asst. Large	H441-F	15



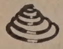
G-C DIAL DRIVE TENSION PHONO SPRINGS STEEL CAD. PLATED

Asst. Reg. Dial Drive

Asst. Small Dial Drive

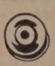
No. 1055 Kit of 25 Asst. Net $1.23	H401-F	8
No. 1056 Kit of 100 Asst. Net $3.57	H400-F	10
Asst. Lge. Tension Spgs.	H421-F	10
Asst. Sm. Tension Spgs.	H420-F	10

A	B	C	Wire Size	Old No	Part No.	Quan In Bx	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
⅛"	½"	¼"	.019	T1	H403-F	10	6450-C	$ 5.03	6450-M	$40.33
⅛"	1"	¾"	.019	T2	H406-F	8	6451-C	3.78	6451-M	30.30
3/16"	1"	⅝"	.020	T3	H408-F	8	6452-C	4.23	6452-M	33.82
3/16"	1⅜"	1"	.020	T4	H410-F	8	6453-C	4.33	6453-M	34.72
¼"	1½"	1"	.026	T5	H412-F	6	6454-C	5.60	6454-M	44.85
¼"	2"	1½"	.026	T6			6455-C	6.92	6455-M	55.35



G-C PHONO TURNTABLE MOUNTING SPRINGS

O.D.	Lgth.	Wire Size	No. of Coils				
1"x1 1/16"	13/16"	.079	4	7497-C	$ 3.17	7497-M	$25.35



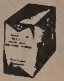
G-C DIAL PULLEYS BRASS

A	B	C	(Groove D Wd.)				
Assorted				H1966-F			
⅜"	.120	⅛"	3/32"	6057-AC	4.62	6057-AM	36.97
7/16"	.067	13/64"	⅛"	6057-BC	6.85	6057-BM	54.88
½"	⅛"	3/16"	3/32"	6057-GC	8.48	6057-GM	67.93
.620	.128	.165	1/16"	6057-CC	9.35	6057-CM	74.76
.860	.128	5/32"	.050	6057-FC	16.05	6057-FM	128.34

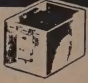
GC ELECTRONICS

RADIO AND TV HARDWARE

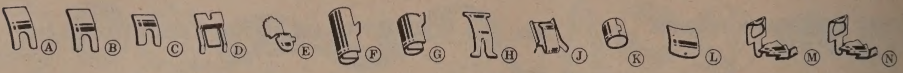
HINGED COVER
PLASTIC BOXES
— 50 LINE —
Dlr. Net 36c
Per Box



BOXES OF 100
Standard Carton
10 Boxes of 100



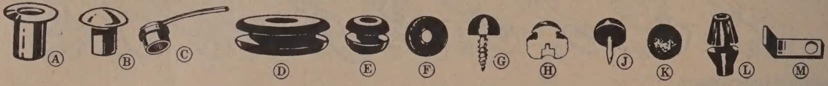
BULK
HARDWARE
Box of 1000



G-C RADIO KNOB SPRINGS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.	H480-F	18				
TV Spring Asst.	H460-F	12				
No. 1050 Kit of 35 Springs						
No. 1051 Kit of 100 Springs						
Width — Length — For Knob Shaft Dia.						
(A) 9/32″ Light 7/16″ ¼″	H482-F	20	6460-C	1.05	6460-M	$ 8.38
(B) 9/32″ Heavy 7/16″ ¼″	H484-F	20	6461-C	1.10	6461-M	8.78
(C) 9/32″ 5/16″ ¼″	H487-F	20	6462-C	.88	6462-M	7.10

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
(D) ⅜″ 5/32″ ¼″	H489-F	10	6463-C	$1.18	6463-M	$ 9.40
(E) 7/32″ 13/32″ ¼″			6464-C	1.85	6464-M	14.78
(F) 9/32″ ⅜″ ¼″	H492-F	8	6465-C	2.35	6465-M	18.83
(G) 9/32″ ¼″ ¼″			6466-C	2.80	6466-M	22.43
(H) 9/32″ ½″ ¼″			6467-C	1.27	6467-M	10.10
(J) 9/32″ ⅜″ ¼″	H494-F	10	6468-C	1.50	6468-M	11.93
(K) 11/32″ ¼″ ¼″			6469-C	2.35	6469-M	18.83
(L) ⅜″ ⅜″ ¼″	H497-F	10	6470-C	1.50	6470-M	12.02
(M) ⅜″ 7/16″ ¼″	H498-F	10	6471-C	2.55	6471-M	20.40
(N) ⅜″ 7/16″ 3/16″	H499-F	10	6472-C	2.33	6472-M	18.68
TV Knob Spring .202″ Shaft	H462-F	10	8541-C	1.27	8451-M	10.10
TV Knob Spring ⅜″ Flat Shaft	H464-F	10	8542-C	1.52	8542-M	12.08



(A) G-C BRASS EYELETS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets	H526-F	55				
Asst. Eyelets and Clamps	H744-F	60				
Eyelet Asst.	H510-F	50				
Shank Dia. — Length Under Head — Head Dia.						
.087 ⅛″ .145			7251-C	$ .28	7251-M	$ 2.27
.087 5/32″ .145			7252-C	.35	7252-M	2.85
.087 7/32″ .145			7253-C	.47	7253-M	3.20
.087 11/32″ .180			7254-C	1.08	7254-M	8.70
.123 5/32″ .197	H515-F	50	7257-C	.50	7257-M	3.98
.123 7/32″ .195			7259-C	.40	7259-M	3.20
.123 ¼″ .195			7260-C	.52	7260-M	4.18
.123 9/32″ .195			7261-C	.53	7261-M	4.25
.125 5/16″ .289			7264-C	.92	7264-M	7.30
.127 15/32″ .222			7265-C	1.12	7265-M	8.93
.182 3/16″ .315			7269-C	.32	7269-M	2.53

(B) G-C RIVETS NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst. Rivets and Eyelets	H526-F	55				
Rivet Assortment	H525-F	50				
TV Interlock Receptacle Rivets	H527-F	Asst.				
Shank Dia. — Length Under Head						
.059 5/32″			7276-C	$ .88	7276-M	$6.98
.059 3/16″			7277-C	.88	7277-M	6.98
.060 ¼″			7278-C	.58	7278-M	4.72
.088 3/16″			7280-C	.95	7280-M	7.53
.098 3/16″			7283-C	.98	7283-M	7.92
.121 ⅛″			7286-C	.77	7286-M	6.20
.121 3/16″			7288-C	.60	7288-M	4.75
.121 ¼″			7290-C	.62	7290-M	4.95
.121 ½″			7293-C	.65	7293-M	5.15
.146 5/16″			7296-C	.73	7296-M	5.82

(C) G-C GRID CAPS NICKEL PLATED

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.	H609-F	8				
Glass			6291-C	$1.33	6291-M	$10.73
Metal			6292-C	1.35	6292-M	10.77
TV Spring Type, Asstd.	H610-F					
¼″ High-Voltage			8838-IRC	3.80	8838-IRM	30.35
⅜″ High-Voltage			8838-2RC	3.97	8838-2RM	31.75
¼″ Insulated High-Voltage	H612-F	1	8834-C	25.13	8834-M	228.96
⅜″ Insulated High-Voltage	H614-F	1	8835-C	25.13	8835-M	228.96

(D) G-C RUBBER GROMMETS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Soft Grommets	H025-F	15				
No. 1040 Kit of 50 Asstd. Grommets Net $.75						
A — B — C — D — E						
11/32″ ⅛″ 3/16″ 1/16″ ¼″	H030-F	16	1041-2C	$1.12	1041-2M	$8.93
7/16″ 3/16″ 7/32″ 1/16″ 5/16″	H032-F	14	1041-C	1.27	1041-M	10.08
9/16″ ¼″ ¼″ 1/16″ ⅜″	H034-F	12	1042-C	1.68	1042-M	13.50
⅝″ ⅜″ ¼″ 1/16″ ½″	H036-F	10	1043-C	1.90	1043-M	15.15
½″ 3/16″ ¼″ 1/16″ 5/16″			5710-C	$3.80	5710-M	$30.42
½″ ¼″ 5/16″ ⅛″ ⅜″			7566-C	2.45	7566-M	19.53
⅞″ 9/16″ 15/64″ 1/16″ ¾″			5711-C	3.53	5711-M	28.27
¾″ 7/16″ ¼″ 1/16″ 9/16″			5712-C	5.15	5712-M	41.22
13/16″ ½″ 9/32″ 1/16″ ⅝″	H038-F	8	1043-IC	2.88	1043-IM	26.40
1 1/16″ ⅜″ 5/16″ 1/16″ 13/16″			7569-C	5.75	7569-M	45.93
¾″ 5/16″ 11/32″ 3/32″ 15/32″			5715-C	6.80	5715-M	54.36
1⅛″ ⅝″ 5/16″ 1/16″ ⅞″			5716-C	5.73	5716-M	45.90
1 5/16″ 11/16″ ⅜″ 1/16″ 1″			5717-C	11.55	5717-M	92.33

(E) G-C PURE GUM GROMMETS
SOFT RUBBER GROMMETS FOR SHOCK DAMPENING. FOR MOUNTING TUNING CONDENSERS, SOCKETS, PHONO MOTORS, ETC.

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asst.	H040-F	12				
No. 7581 Kit of 100 Asst. Grommets. $1.62						
A — B — C — D — E						
7/16″ 3/16″ 7/32″ 1/16″ 5/16″	H042-F	12	7582-C	1.62	7582-M	12.90
9/16″ ¼″ ¼″ 1/16″ ⅜″	H043-F	10	7584-C	2.30	7584-M	18.38

(F) G-C RADIO KNOB FELTS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
¾″ O.D. x ¼″ Hole, Brown	H760-F	40	1065-C	.38	1065-M	3.22

(G) G-C RUBBER FEET — Screw Type

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
	H050-F	8				
O.D. — High						
⅜″ 3/16″	H052-F	8	1075-BC	.92	1075-BM	7.30
½″ ¼″	H054-F	8	1075-CC	1.47	1075-CM	11.70
⅝″ 5/16″	H056-F	8	1075-FC	2.22	1075-FM	17.75

(H) G-C RUBBER BUTTON BUMPERS

A O.D.	B Height	C Hole	E Height	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
⅜″	⅜″	3/16″	3/16″			7596-C	1.43	7596-M	11.50
½″	7/16″	¼″	¼″	H058-F	8	7597-C	2.10	7597-M	16.85
⅝″	9/16″	⅜″	5/16″			7598-C	3.38	7598-M	27.10

(J) G-C RUBBER TACK BUMPERS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
⅜″ O.D.	H071-F	10	1075-C	1.85	1075-M	14.78

(K) G-C FELT PADS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd. Felt Pads	H074-F	40				
½″ O.D. x ¼″ Thick Felt Pads			1071-C	.30	1071-M	2.38

(L) G-C CORD STRAIN RELIEFS

Description & Specs.	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Will Fit P.O.S.J. Cord	H048-F	5	6675-C	5.27	6675-M	42.11

(M) G-C ANGLES AND BRACKETS

A	B	C	Hole Size	50-Line Part No.	Quan. In Box	Part No.	Dlr. Net Per 100	Part No.	Dlr. Net Per M
Asstd.				H570-F	12				
¼″	3/16″	9/32″	6			6261-C	1.12	6261-M	8.97
⅜″	¼″	9/32″	6			6262-C	1.40	6262-M	11.12
½″	7/16″	⅜″	6			6263-C	1.58	6263-M	12.68

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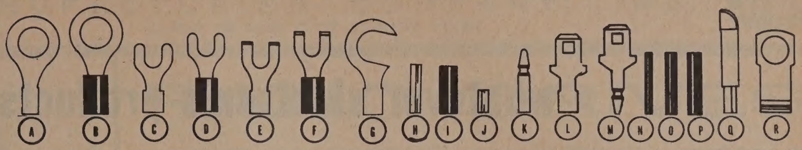
GC ELECTRONICS SOLDERLESS TERMINALS and CONNECTORS



WIRE SIZE	STUD SIZE	LENGTH	FIG.	100 PACK		1000 PACK	
				PART. NO.	NET/100	PART. NO.	NET/100
RING TONGUE — NON INSULATED							
22-16	4-6	17/32	A	13-000-C	$2.21	13-000-M	$18.90
22-16	4-6	23/32	A	13-002-C	2.21	13-002-M	18.90
22-16	8	41/64	A	13-004-C	2.21	13-004-M	18.90
22-16	8	23/32	A	13-006-C	2.48	13-006-M	21.00
22-16	8-10	23/32	A	13-008-C	2.21	13-008-M	18.90
22-16	10	57/64	A	13-010-C	1.94	13-010-M	16.60
16-14	4-6	19/32	A	13-012-C	2.23	13-012-M	19.10
16-14	4-6	45/64	A	13-014-C	2.23	13-014-M	19.10
16-14	8	45/64	A	13-016-C	2.23	13-016 M	19.10
16-14	10	45/64	A	13-018-C	2.23	13-018-M	19.10
16-14	1/4	57/64	A	13-020-C	3.11	13-020-M	26.65
12-10	4-6	3/4	A	13-022-C	3.11	13-022-M	26.65
12-10	8-10	3/4	A	13-024-C	3.11	13-024-M	26.65
12-10	1/4	1-1/32	A	13-026-C	3.87	13-026-M	33.15
16-14	5-6	3/4	A	13-028-C	6.55	13-028-M	56.10
16-14	10	55/64	A	13-030-C	6.55	13-030-M	56.10
RING TONGUE — INSULATED							
22-16	4-6	45/64	B	13-050-C	$5.04	13-050-M	$43.20
22-16	4-6	29/32	B	13-052-C	5.04	13-052-M	43.20
22-16	8-10	29/32	B	13-054-C	5.04	13-054-M	43.20
16-14	4-6	25/32	B	13-056-C	5.04	13-056-M	43.20
16-14	4-6	57/64	B	13-058-C	5.04	13-058-M	43.20
16-14	10	57/64	B	13-060-C	5.04	13-060 M	43.20
16-14	1/4	1-5/64	B	13-062-C	5.88	13-062-M	50.40
12-10	8-10	1-3/64	B	13-064-C	5.88	13-064-M	50.40
12-10	1/4	1-21/64	B	13-066-C	6.74	13-066 M	57.60
22-16	4/6	45/64	B	13-068-C	9.76	13-068-M	83.50
22-16	8-10	29/32	B	13-070-C	9.76	13-070-M	83.50
16-14	5-6	25/32	B	13-072-C	9.76	13-074-M	83.50
16-14	5-6	57/64	B	13-074-C	9.76	13-074-M	83.50
SPADE TERMINAL — NON INSULATED							
22-16	4-6	3/4	C	13-100-C	$2.21	13-100-M	$18.90
22-16	8	3/4	C	13-102-C	1.94	13-102-M	16.60
16-14	4-6	3/4	C	13-104-C	2.21	13-104-M	18.90
16-14	10	3/4	C	13-106-C	2.21	13-106-M	18.90
SPADE TERMINAL — INSULATED							
22-16	4-6	1-3/16	D	13-108-C	$5.04	13-108-M	$43.20
16-14	4-6	1-3/16	D	13-110-C	5.04	13-110-M	43.20
16-14	10	1-3/16	D	13-112-C	5.04	13-112-M	43.20
FLANGE SPADE TERMINAL — NON INSULATED							
22-16	4-6	5/8	E	13-114-C	$2.21	13-114-M	$18.90
16-14	10	3/4	E	13-116-C	3.05	13-116-M	26.20
16-14	4-6	3/4	E	13-118-C	4.54	13-118-M	38.80
16-14	8	3/4	E	13-120-C	4.54	13-120-M	38.80
22-16	8-10	3/4	E	13-122-C	4.54	13-122-M	38.80
FLANGE SPADE TERMINAL — INSULATED							
22-16	4-6	13/16	F	13-124-C	$7.42	13-124-M	$61.70
22-16	8-10	13/16	F	13-126-C	9.17	13-126-M	76.20
16-14	4-6	13/16	F	13-128-C	9.93	13-128-M	67.80
16-14	8	13/16	F	13-130-C	9.76	13-130-M	83.50
16-14	10	13/16	F	13-132-C	9.76	13-132-M	83.50
HOOK TERMINAL							
22-16	4-6	23/32	G	13-200-C	$1.94	13-200-M	$16.60
22-16	8-10	23/32	G	13-202-C	2.25	13-202-M	19.30
BUTT CONNECTOR — NON INSULATED							
22-16	—	9/16	H	13-220-C	$2.36	13-220-M	$20.20
16-14	—	9/16	H	13-222-C	1.94	13-222-M	16.16
12-10	—	9/16	H	13-224-C	2.25	13-224-M	19.30
BUTT CONNECTOR — INSULATED							
22-16	—	1	I	13-226-C	$5.88	13-226-M	$50.40
16-14	—	1	I	13-228-C	5.17	13-228-M	44.30
12-10	—	1-1/16	I	13-230-C	6.30	13-230-M	54.00
22-16	—	1	I	13-232-C	10.58	13-232-M	90.80
16-14	—	1	I	13-234-C	9.87	13-234-M	84.40
PARALLEL CONNECTOR — NON INSULATED							
22-16	—	5/16	J	13-240-C	$2.38	13-240-M	$20.40
16-14	—	5/16	J	13-242-C	3.84	13-242-M	33.00
SNAP TERMINAL							
16-14	—	5/8	K	13-250-C	1.96	13-250-M	$16.78
TAB TERMINALS — NON INSULATED							
18-14	—	—	L	13-260-C	$2.31	13-260-M	$19.80
18-14	—	—	L	13-262-C	2.31	13-262-M	19.80
18-14	—	—	L	13-264-C	2.52	13-264-M	21.60
18-14	—	—	L	13-266-C	2.36	13-266-M	20.20
ADAPTER							
—	—	7/8	M	13-270-C	$4.00	13-270-M	$34.20
—	—	5/16	M	13-272-C	4.04	13-272-M	34.60
—	—	7/8	M	13-274-C	4.00	13-274-M	34.20
—	—	49/64	M	13-276-C	4.00	13-276-M	34.20
INSULATING TUBING							
22-16	—	5/8	N	13-280-C	$2.46	13-280-M	$21.10
CONNECTOR INSULATOR							
16-14	—	1-7/8	O	13-282-C	$2.46	13-282-M	$21.10
TERMINAL INSULATOR							
16-14	—	1-5/8	P	13-284-C	$2.46	13-284-M	$21.10
KNIFE DISCONNECT							
22-16	—	—	Q	13-290-C	$7.35	13-290-M	$63.00
FLAG TERMINAL							
22-16	8-10	11/16	R	13-294-C	$2.36	13-294-M	$20.20
16-14	8-10	5/8	R	13-296-C	2.21	13-296-M	18.90

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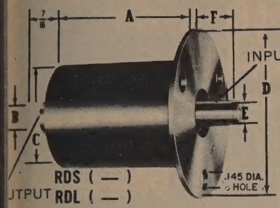
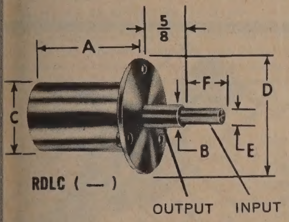
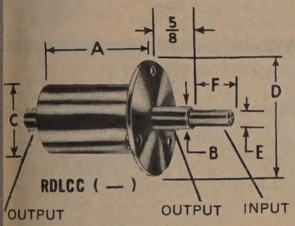
JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK







RATIO DRIVES

for FINE INSTRUMENT AND MACHINE CONTROLS

Ball Bearing Type **Compact, durable, exceptionally smooth action**

These unique ratio drives employ precision ball bearings. Used for rotary control of components in instruments, they provide unexcelled smooth motion. Ruggedly built, permanently sealed and lubricated, JAN Ratio Drives accommodate applications where miniaturization is essential.

Input and output shafts of these units operate in the SAME DIRECTION. Types "RDL" and "RDS" provide "in-line" input-output shafts. Type "RDLC" is supplied with **concentric** shafts whereby the output envelopes the input shaft. An added feature of type RDLCC is the output shaft in the rear. The front concentric can be used as a coarse tuning (1:1 ratio to the output in the rear) and the small diameter shaft in the front can be used for fine tuning.

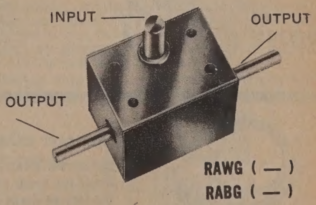
CAT. No.	RATIO	A	B		C	D	Input Shaft E	F	Bolt-Mtg. Dia.
			O.D.	I.D.					
RDS-1	2.70-1	3/4	—		5/8	1 5/16	1/8	—	31/32
RDS-2	7.28-1	31/32	—		5/8	1 5/16	1/8	—	31/32
RDS-3	19.65-1	1 7/32	—		5/8	1 5/16	1/8	—	31/32
RDL-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDL-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	3/4	1 15/32
RDLC-1	2.66-1	1	3/8	1/4	1 1/8	1 13/16	1/4	1 1/2	1 15/32
RDLC-2	7.08-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLC-3	18.80-1	1 13/16	3/8	1/4	1 1/8	1 13/16	1/4	23/32	1 15/32
RDLCC-1	2.66-1	1 13/32	3/8	1/4	1 1/8	1 13/16	1/4	1 5/64	1 15/32
RDLCC-3	17.00-1	2 43/64	3/8	1/4	1 3/16	1 55/64	1/4	11/16	1 15/32

RIGHT ANGLE RATIO DRIVES

Versatile, miniaturized, right angle rotary controls.

Featuring dual output stainless steel shafts at right angles to input, these engineered drives provide an ideal type of instrument control. Available with matched bevel or worm gears covering a wide range of ratios.

JAN'S RIGHT ANGLE DRIVES are especially useful for handling spring or gravity-loaded components since the output shaft automatically locks in any desired position yet remains free for smooth adjustment by the input shaft. Assembled in dust-proof housings, the gears are permanently pinned in place on stainless-steel shafts mounted in oilite bearings and held under constant pressure.

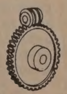


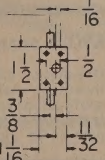
BEVEL GEAR RIGHT ANGLE DRIVES

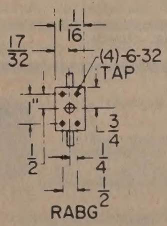
CAT. No.	RATIO	"A"
RABG-1	1:1	7/8
RABG-2	2:1	7/8
RABG-3	3:1	7/8

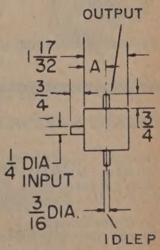
WORM GEAR RIGHT ANGLE DRIVES

CAT. No.	RATIO	"A"
RAWG-1	5:1	3/4
RAWG-2	10:1	3/4
RAWG-22	12:1	3/4
RAWG-3	20:1	3/4









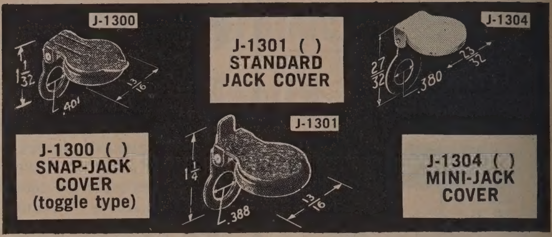
JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

JACK COVERS (TRIMMER COVERS)

These sturdy Jack Covers fit jack or panel bushings and are used to keep out dust and moisture as well as to prevent inadvertent disturbance of control settings. Outer surfaces are finished in standard colors of baked enamel.

NOTE: No. J-1300 (SNAP-JACK) is made with toggle action. It snaps to open or shut position and will remain open until snapped shut. No. J-1304 is a miniaturized Jack Cover similar to a No. J-1301 but without thumb lift.

To Order Colors: Specify:
(-1) Black Wrinkle; (-2) Smooth Gray; (-3) Smooth Olive; (-4) Smooth Black. Other colors on request.
Example: Jack cover, color black wrinkle, order as J-1300(-1).



J-1301 ( )
STANDARD
JACK COVER

J-1300 ( )
SNAP-JACK
COVER
(toggle type)

J-1304 ( )
MINI-JACK
COVER

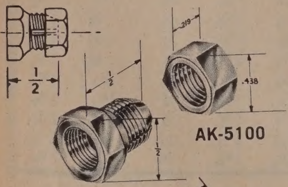
SHAFT LOCKS

Cat. No. AK-5100 thru No. AK-5107
Split-bushing, collet type locks.

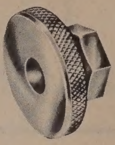
Used to securely hold the shaft of volume controls, capacitors, switches, etc. in position. Body and lock nut are brass—nickel plated. Supplied with nickel plated internal tooth lock washers, upon request.

SPLIT BUSHING TYPE For ¼" shafts

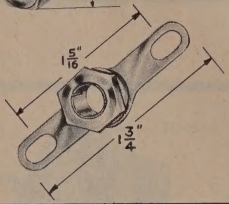
AK-5100	Standard Lock Nut
AK-5101	Panel Mount Type
AK-5106	Knurled Shaft Lock (1" O.D. Knurl)
AK-5107	Lock Nut (Round Head)



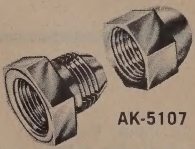
AK-5100



AK5106



AK5101

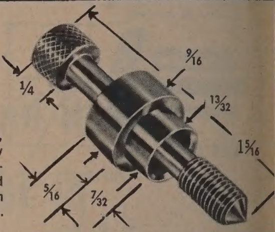


AK-5107

CAPTIVE SCREW & NUT ASSEMBLY

Cat. No. Ap-711

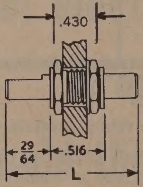
Consists of a slotted, knurled thumb screw made of corrosion resistant steel bar, and a nickle-plated (on brass) panel insert.



PANEL BEARING & SHAFT ASSEMBLIES

Cat. No. AP-15350 series

Used for rotary control of components. Passivated stainless steel shaft is ¼" dia. with one end flattened for attaching to knob control by set screws. Supplied completely assembled with two retaining rings, jam nut with lock washer and nickel plated, brass panel bearing. Fits panels up to 3/16" thick; mounts in 13/32" dia. hole.

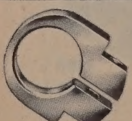


STAINLESS STEEL

AP 15350- ( )

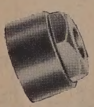
AP 15350

Cat. No.	Item	"L" Shaft Length
AP 15350	Panel Bearing	
AP 15350-1	Panel Bearing & Shaft Assembly	1 5/16"
AP 15350-2		3"
AP 15350-3		6"



"NO-MAR" CLAMPS

Set screw does not touch shaft.
Ideal for knob and gear applications.
Variety of sizes available.



NYLON SHAFT LOCK

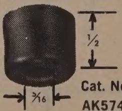
Cat. No. AK-1050

One-piece, black nylon; fits standard ⅜"-32 thread of shaft bushing. Friction grip holds ¼" shaft to prevent accidental or vibrational disturbance of control settings. Adjustment for semi-permanent locking, provided.

CHASSIS & CABINET BUMPER

Cat. No. AK574 ( )

Durable, low-friction polyethylene. Guards against scuffing. Supplied in either black or russet brown, with recessed hole for screw or bolt usage.



Cat. No.
AK574

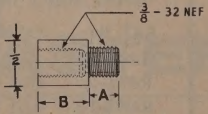
To Order Colors:
Black, specify (4); Brown, specify (7). Other colors on request.

BUSHING EXTENDERS

Cat. No. AK-5075-1 thru No. AK-5075-11

Permit staggered mounting of components having ¼" shafts, behind a panel. Useful in meeting problems of space economy. Supplied in nickel plated brass.

Note: Extender No. AK-5075-9 is a locking (collet) type and is supplied by JAN with lock nut.



AK 5075- ( )

Cat. No.	"B"	"A"	Cat. No.	"B"	"A"
AK5075-1	⅝"	⅜"	AK5075-6	1⅝"	¼"
AK5075-2	⅝"	¼"	AK5075-7	1 7/16"	3/16"
AK5075-3	⅝"	3/16"	AK5075-8	1 1/16"	¼"
AK5075-4	¾"	¼"	AK5075-9	11/16"	½"
AK5075-5	2¼"	¼"	AK5075-10	1 21/64"	7/16"
			AK5075-11	55/64"	7/16"

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JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

U.S. PATENT NO. 2,681,378

HI-VOLTAGE INSULATED COUPLINGS

MEETS MIL SPECS: TEMPERATURE - HUMIDITY SHOCK - VIBRATION - FUNGUS

HI-VOLTAGE INSULATED COUPLINGS

15 KV Breakdown 10 inch pounds torque

Series No. AK-5079 & No. AK-5164

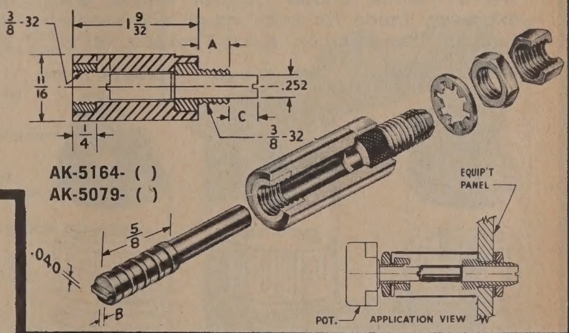
Engineered with stainless steel shaft and precision, screwdriver tip molded integrally with Mineral-Filled-Melamine in accordance with Military Specifications. Completely shock, vibration and fungus proof, they operate with ease over an ambient temperature range of —75 to +175° C. Supplied complete with nickel plated mounting hardware.

Stainless steel screw driver tip fits all standard slotted shafts (potentiometer, etc.) without need for further machining. Ideally suited to adjust high voltage controls thus protecting operating personnel against danger. They are also used to reduce ground capacitance on other types of sensitive instrument controls.

Cat. No. 5144 **10 KV Breakdown 15 inch pounds torque**

This coupling is the same dimensionally as AK-5079, AK-5164 except that the body and insulated portion of shaft is molded in reinforced fiberglass (CYMEL) per MIL Spec. MIL-M-14E to withstand a minimum of 15 inch pounds torque. Can be used for switches, where greater torque is needed.

	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-5144-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5144-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5144-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5144-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-1	3/8"	3/16"	Slotted	5/16"
	AK-5164-B-1	3/8"	1/16"	Slotted	5/16"
	AK-5164-X-2	3/8"	3/16"	Slotted	15/32"
	AK-5164-B-2	3/8"	1/16"	Slotted	15/32"
	AK-5164-X-3	3/8"	3/16"	No Slot	15/16"
	AK-5164-B-3	3/8"	1/16"	No Slot	15/16"
	AK-5164-X-4	3/8"	3/16"	No Slot	1 7/16"
	AK-5164-B-4	3/8"	1/16"	No Slot	1 7/16"
	AK-5169-X-5	3/8"	3/16"	Slotted	Minus 1/16"
	AK-5164-B-5	3/8"	1/16"	Slotted	Minus 1/16"
WITH LOCKING TYPE BUSHING	AK-5079-X-1	9/16"	3/16"	Slotted	1/8"
	AK-5079-B-1	9/16"	1/16"	Slotted	1/8"
	AK-5079-X-2	9/16"	3/16"	Slotted	9/32"
	AK-5079-B-2	9/16"	1/16"	Slotted	9/32"

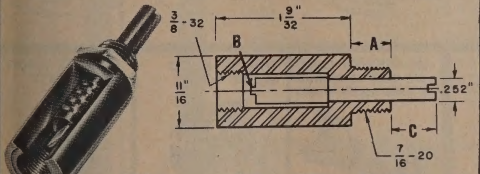


AK-5164- ( )
AK-5079- ( )

COMMERCIAL INSULATED COUPLINGS

30 KV Breakdown **Series No. AK-4160**
10 inch pounds torque **For TV and Industrial Applications**

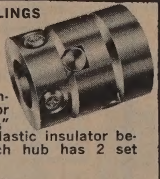
These handy couplings, capable of withstanding 30 KV, are made of high grade Bakelite throughout except for the stainless steel screwdriver tip molded within the drive shaft. Mounting hardware suppiled.



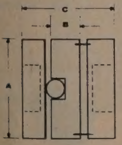
	CAT No.	"A"	"B"	SHAFT	"C"
STANDARD TYPE	AK-4160-X-1	3/8"	3/16"	Slotted	5/16"
	AK-4160-B-1	3/8"	1/16"	Slotted	5/16"
	AK-4160-X-2	3/8"	3/16"	Slotted	7/16"
	AK-4160-B-2	3/8"	1/16"	Slotted	7/16"

AUTOLINEAR (INSULATED) SHAFT COUPLINGS

2.5 - 5KV BREAKDOWN
Universal, miniature, self-aligning
Cat. No. AP-1530 & AP-1538



A unique series of shaft couplers that accommodate either similar or disimilar 1/8", 3/16" or 1/4" shafts. Permits offset misalignment to 1/16" and 5° angle. Operates free of backlash. Plastic insulator between precision cast aluminum hubs. Each hub has 2 set screws for firm attachment. Alodine finish.



PART NO.		DIA. HOLE	"A"	"B"	"C"
AP-1530	-2	1/8"	1/2"	15/64"	27/32"
	-3	3/16"			
	-4	1/4"			
AP-1538	-2	1/8"	1/2"	27/64"	1 1/64"
	-3	3/16"			
	-4	1/4"			

TYPICAL PART NUMBERS:
AP-1530-34
AP-1538-22

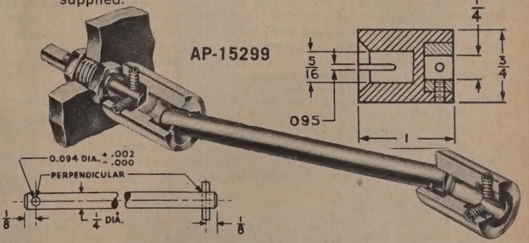
VOLTAGE RATING:
AP-1530 — 2500 VOLTS
AP-1538 — 5000 VOLTS

OFFSET-SHAFT (INSULATED) COUPLINGS

10 KV Breakdown—±30°Offset
Cat. No. AP-15299

Highly versatile, durable insulated couplings made with single-unit, molded Nylon-to-metal insert construction. Application requires two couplings—permits smooth control for two parallel shafts offset from each other up to 30 degrees at separations greater than 3 inches. Secured to component and control shafts by 2 set screws.

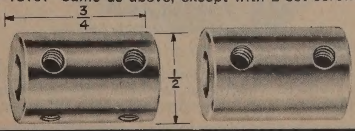
Note: Coupling is accomplished with a 1/4" shaft of any length (not furnished). Coupling shaft keyed to coupler by steel drive pins supplied.



SHAFT COUPLING Cat. No. AP-15150

A rugged, nickel plated brass coupling for joining two 1/4" shafts. Supplied with 4 set screws for firm attachment to shafts.

Cat. No. AP-15151 Same as above, except with 2 set screws.



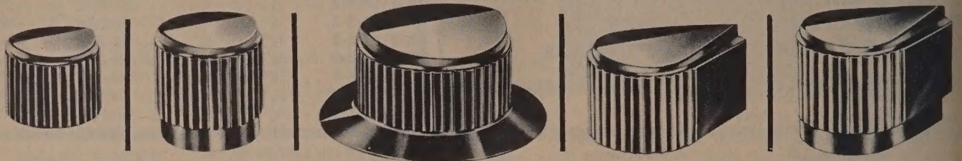
AP-15150 AP-15151

JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

DELUXE INSTRUMENT KNOBS

MEETS PERFORMANCE OF MIL-STD-242D (SHIPS) AND PROPOSED MS 91528C

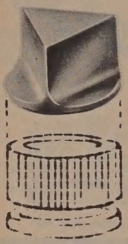
JAN's Standard Instrument Control Knobs for use with electronic equipment. Molded of JAN's KR23 plastic, these knobs will withstand the extreme environmental conditions of MIL-E-16400. Either knob-cap or entire knob is available in a variety of colors, in MATTE (M) or GLOSSY (G) finish. Complete range of sizes . . . send for catalog.



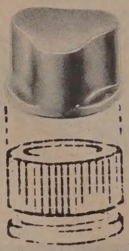
TACTILE SHAPE CONTROL KNOBS

JAN's Tactile Shape Control Knobs are expressly made for both visual and tactile function identification. Each Tactile knob is produced in the standard recognizable color identified with its configuration. Available in other colors on special order.

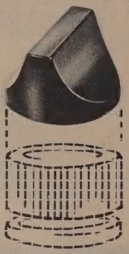
INTENSITY—(Blue)



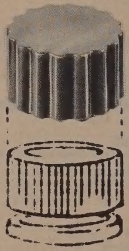
TUNE—(Orange)



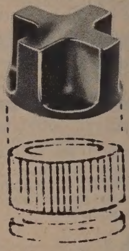
DIMMER—(White)



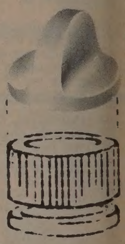
GAIN—(Red)



FOCUS—(Violet)



RANGE—(Yellow



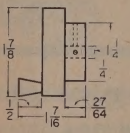
SLIP-CLUTCH, SAFETY KNOBS
With Fixed or Retractable Spinners

Cat. Nos. K-1375 & K-1376 (For ¼" shafts)

Designed for driving devices such as variable capacitors, inductors, potentiometers, etc., these knobs are based upon the principle of the "slip-clutch", automatically disengaging and slipping when a pre-determined torque has been exceeded. JAN'S SLIP-CLUTCH SAFETY KNOBS are fluted to aid in sensitive adjustments and are equipped with either a fixed or retractable spinner for fast turning. Insert-molded-to-Bakelite construction provide durable, backlash-free units to safeguard delicate and costly instruments against careless or inadvertent cranking beyond their normal stops.

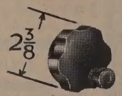
Model No. K-1376 is identical with No. K-1375 but has the additional feature of a retractable spinner. Spring loading provides positive, toggle-type action to lock spinner in either open or closed position. Model No. K-1376 is designed for use where economy of space is essential.

Model No. K-1475 Slip-Clutch knobs are designed similar to No. K-1375 except for larger dimensions and utilize cast aluminum in place of Bakelite.



K1376

K1375



1475

SPINNER KNOBS
With Fixed or Retractable Spinners

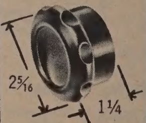
Cat. Nos. K-1275 & K-1276 (For ¼" shafts)

In appearance, these knobs are identical with No. K-1375 and No. K-1376 but without JAN'S Slip-Clutch mechanism. Made with single-unit, molded Bakelite-to-metal-insert construction, with two set screws for firm attachment to shafts.

MS — SIGNAL CORPS DIE CAST ALUMINUM & ZINC ALLOY KNOBS

Manufactured in accordance with applicable military specifications.

TUNING KNOB
Cat. No. K-243



Die cast aluminum. Made to Fed. Spec QQ-A-591 and MIL-F-14072. Mounted with no-mar clamp.

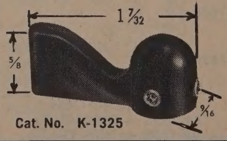
POINTER KNOB
Cat. No. K-706

Molded thermosetting phenolic. Typ CFG per MIL-P-14 Designed for squar shaft, providing positive action.

BAR-KNOB

Cat. No. AK-1325

Precision cast aluminum for ¼" shafts. Furnished with twin set screws for shaft attachment. Provides a 1.0" integrally cast lever arm for heavy-load switching. Finished to specifications.

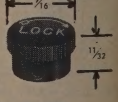


Cat. No. K-1325

KNOB LOCK

Cat. No. AK-1326

Black anodized aluminum with serrated edges for easy turning. Has twin set screws for firm attachment to ¼" shafts. Height 5/16" x 9/16" diameter.



Cat. No. K-1326

SPECIAL! ENGRAVED KNOBS TO ORDER.

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JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

JOLTA SHOCK TEST MACHINES

For reproducible impact-shock test pulses

Four models engineered to reproduce the entire spectrum of all significant impact shock waves.

Designed for laboratory and production testing of light to medium weight components as well as complete instrumentation. Produced to meet practically all requirements of common Mil. Spec. qualification tests. Each JOLTA is electronically calibrated to certify compliance with test specifications.

JOLTA — Bench Model No. 1001 — Produced to meet JAN-S-44 & Mil-Std. 202 (202A). Standard model range-30-120G. Accessory plate springs available for test pulses to 500 G.

JOLTA — Bench Model No. M-500 — Produced to meet Mil-T-12679A (Sig. C) and Mil. T-19500A. Standard model range —200 to 1000 G at 1.0 millisecs. Alternate anvil and pad kits available to order.

JOLTA—Floor Model Nos. F-3003-C1, C2, C-3—Designed for high impact shock testing for small and moderate-sized components. Precision-machined magnesium casting utilized for higher shock amplitudes. Typical tests with these units 50 to 5000 G at .2 to 11.0 millisecs. For high impact testing, accessory springs and twin anvil combinations yield impulses of 0.2 millisecs to 5000 G.

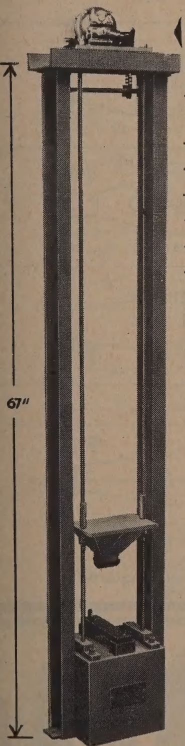
Note: New design allows for quick changeovers of accessories.

FEATURES

- **Economical**
- **Simple to operate**
- **Rugged**
- **Uniformly accurate**

JOLTA UNIVERSAL SHOCK TESTERS
No. S-200-V

A functionally engineered test machine for large components and complete instrumentation. Accepts specimens up to 200 lbs. and volume of 2 cubic feet. Standard model provides pulses of from 20 to 250 G at 3.0 to over 30.0 millisecs.

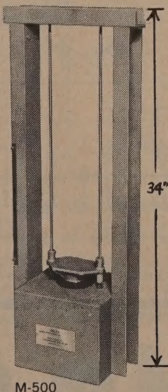


F-3003-C

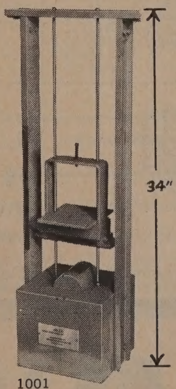
**For Production Testing,
JAN's Jolta Shock Test Machines
can be automated for continuous operation.**

SPECIFICATIONS — JOLTA SHOCK TESTERS

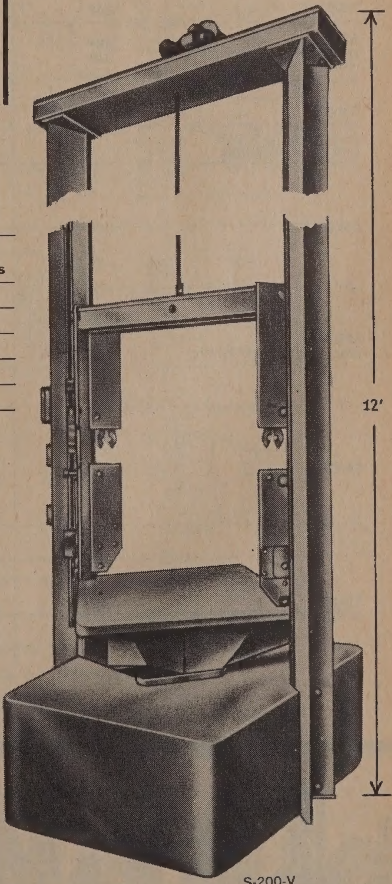
Model No.	Carriage Volume	Test Weight	"G" Ranges
1001	5" x 5" x 7"	0-12 lbs.	25-500
M-500	3" cube	0-2.0 lbs.	100-1000
F-3003-C-1	5" cube	0-12 lbs.	50-1500
F-3003-C-2	5" cube	0-4.0 lbs.	350-5000
S-200-V	2 Foot cube	0-200 lbs.	20-250



M-500



1001

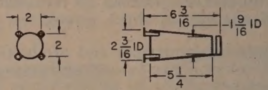
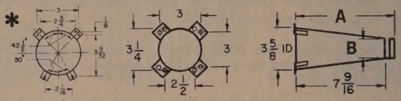
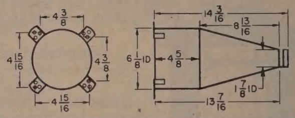
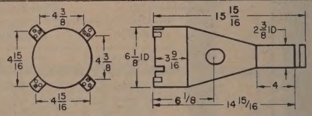
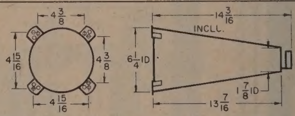
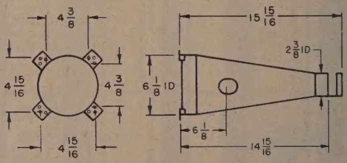


S-200-V

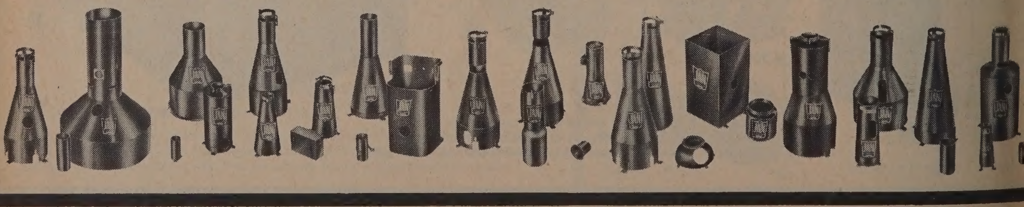
Free engineering services available to customers where adaptation or conversion of standard machines are needed to meet Mil. Spec. changes or other special needs.

JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

JAN'S MAGNETIC SHIELDS are made of Mu-Metal and are hydrogen annealed by a special process to assure optimum orientation of the molecular structure of the alloy for best magnetic shielding. JAN'S MAGNETIC SHIELDS prevent distortion and intensity modulation of the electron beam due to stray magnetic fields. In addition, the use of these shields protect personnel against the dangers of accidental tube breakage. Mounting holes are tapped for No. 6-32 screws as shown. These shields are designed to fit JAN'S standard bezels as listed below. See following pages for specifications on JAN'S BEZEL ASSEMBLIES.

SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S2001 S2001-1	902 2AP 2BP	CP1110P2 CP1120P2	 2 2 6 3/16 1 9/16 ID 2 3/16 ID 5 1/4
S3001 adaptable for edge-lighting graticule using S3010 with Bezel CP1428✱	3RP 3RPA	CP1328-P-1 C1427-1 CP1429-1 CP1328-P2 CP1427-2 CP1429-2 CP3430-1 CP3430-2	 ✱ 3 3 1/4 3 2 1/2 A B 3 5/8 ID 7 9/16 A=8¼ B=1⅝
S3002	3MP	Same as S3003	Same type as S-3001, except A=7 3/16 B=1⅝
S3003 S3003-1	3KP 908A 3AP	CP1328-P1 CP1427-1 CP1429-1	Same type as S-3001, except A=10⅛ B=2
S3004 adaptable for edge-lighting graticule using S3012 with Bezel CP1428✱	3BP 3JP 3ACP	Same as S3003 Same as S3005	Same type as S-3001, except A=8⅝ B=2⅜
S3005 adaptable for edge-lighting graticule using S3008 with Bezel CP1428✱	3WP	CP1328-P2 CP1427-2 CP1429-2	Same type as S-3001, except A=10⅝ B=1⅞
S5001	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1 CP446-11 CP446-22	 4 3/8 4 15/16 4 3/8 4 15/16 14 3/16 8 13/16 6 1/8 ID 4 5/8 1 7/8 ID 13 7/16
S5002 adaptable for edge-lighting	5BP 5CP 5ABP 5ADP	Same as S5001 Same as S5006	 4 3/8 4 15/16 4 3/8 4 15/16 15 15/16 2 3/8 ID 6 1/8 ID 3 9/16 4 6 1/8 14 15/16
S5003	5UP	CP1465 CP13584-1 CP13549-1 CP13595-1 CP19495-1	 4 3/8 4 15/16 4 3/8 4 15/16 14 3/16 INCLU. 6 1/4 ID 1 7/8 ID 13 7/16
S5005 adaptable for edge-lighting	5AQP 5ABP 5ADP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2 CP446-11 CP446-22	 4 3/8 4 15/16 4 3/8 4 15/16 15 15/16 2 3/8 ID 6 1/8 ID 6 1/8 14 15/16

When ordering, be sure to specify CRT type number. Anode openings provided, where required.



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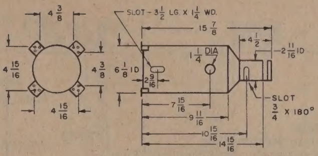
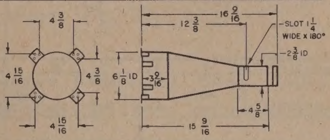
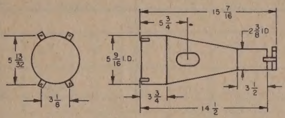
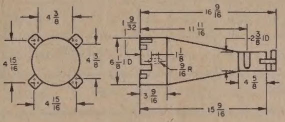
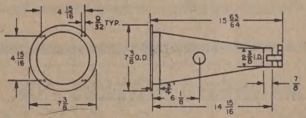
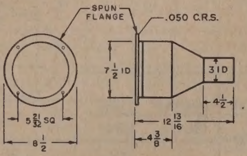
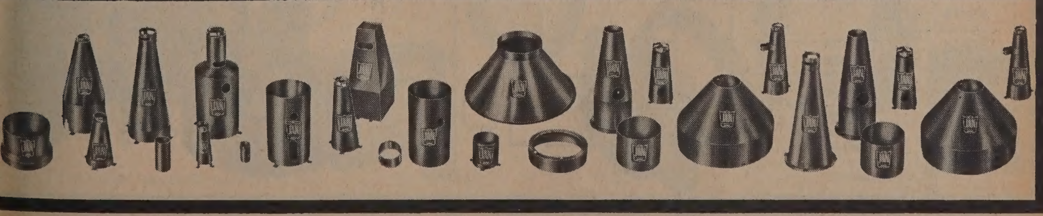
JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

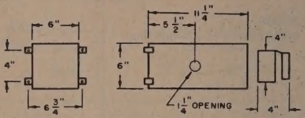
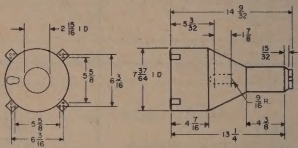
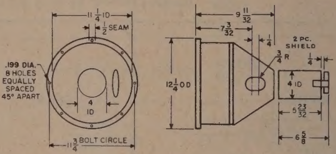
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S5006 adaptable for edge-lighting	5RPA 5 AWP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 SLOT - 3 1/2 LG. X 1 1/4 WD. 4 3/8 15 7/8 4 1/2 2 11/16 ID 1 1/4 DIA 4 15/16 4 3/8 6 1/8 ID 2 9/16 SLOT 3/4 X 180° 7 15/16 9 11/16 10 15/16 14 15/16 4 15/16
S5008 adaptable for edge-lighting	5AMP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 4 3/8 16 9/16 12 3/8 SLOT 1 1/4 WIDE X 180° 2 3/8 ID 4 15/16 4 3/8 6 1/8 ID 3 9/16 4 5/8 4 15/16 15 9/16
S5017 adaptable for edge-lighting	5ABP 5ADP	CP1465-2 CP19636-2	 15 7/16 5 3/4 2 3/8 ID 5 13/32 5 9/16 I.D. 3 1/8 3 3/4 3 1/2 14 1/2
S5019	5BGP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 4 3/8 16 9/16 1 9/32 11 11/16 2 3/8 ID 4 15/16 4 3/8 6 1/8 ID 1 1/8 9/16 R 4 5/8 3 9/16 15 9/16 4 15/16
S5021	5AQP 5ABP 5ADP	CP1465-2 CP13549-2 CP13584-2 CP13595-2 CP19495-2	 4 15/16 9/32 TYP. 15 63/64 4 15/16 7 3/8 O.D 2 3/8 I.D. 7/8 1/4 6 1/8 14 15/16 7 3/8
S7001	7GP 7JP 7VP	CP7330 CP7375 CP7331 CP7550 CP7420	 SPUN FLANGE .050 C.R.S. 7 1/2 ID 3 ID 4 1/2 5 21/32 SQ 12 13/16 8 1/2 4 3/8
S7002	7CP 7BP	Same as S7001	Same as S 7001, except anode opening provided

All 5" Shields have mounting provisions for edge lighting, except #5021

The service of JAN's design engineers is available to assist you with your Shield & Bezel requirements. We will design and manufacture special Shields & Bezels to customers' specifications. Complete facilities for prototype work.

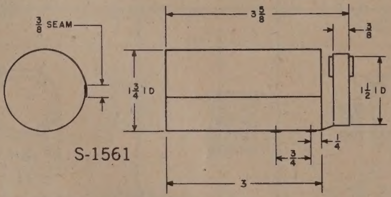


JAN HARDWARE
MANUFACTURING COMPANY, INC.
LONG ISLAND CITY 1, NEW YORK

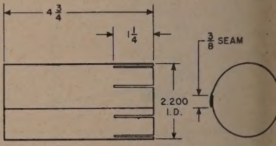
SHIELD CAT. NO.	FOR USE WITH C.R.T. NO.	MATCHING JAN BEZEL	
S7003 (Shield supplied as two separate sections)	7YP3	CP-7550	 6" 4" 6 3/4" 11 1/4" 5 1/2" 6" 1 1/4" OPENING 4" 4"
S7006	7AEP	CP7330 CP7375 CP7331 CP7550 CP7420	 2 15/16 I D 5 5/8 6 3/16 5 5/8 6 3/16 14 9/32 5 3/32 1 7/8 15/32 7 37/64 I D 9/16 R 4 7/16 4 3/8 13 1/4
S10001	10WP	CP10860	 11 1/4 I.D. 1/2 SEAM .199 DIA. 8 HOLES EQUALLY SPACED 45° APART 4 I.D 11 3/4 BOLT CIRCLE 9 11/32 7 3/32 1/4 2 PC. SHIELD 3/4 R 1/4 12 1/4 O.D 4 I.D 5 23/32 6 5/8

When ordering, be sure to specify CRT type number. Anode openings provided, where required.

MAGNETIC SHIELDS FOR PHOTO-MULTIPLIER & SPECIAL PURPOSE TUBES


3/8 SEAM
3 5/8
3/8
1 3/4 I D
1 1/2 I D
3/4
1/4
3

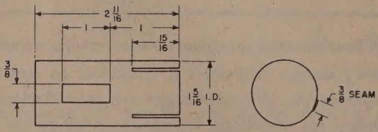
S-1561


4 3/4
1 1/4
3/8 SEAM
2.200 I.D.

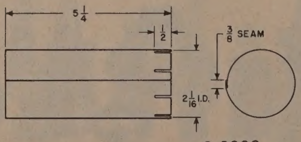
S-2004

SHIELD	TUBE
S-2003	6903
S-2004	5819 6217 6292 6342 6571 6655
S-2005	6372
S-3015	1197 6363
S-5013	1112
S-5018	1198 6364
S-7009	1238 1287

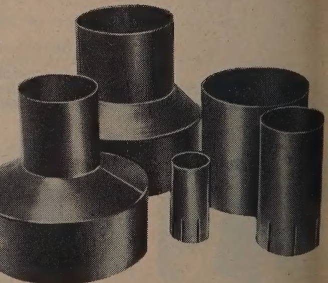
SHIELD	TUBE
S-1091	ICP1
S-1181	929 930 5581 5653 IP39 IP40
S-1500	6291
S-1561	6199 7102
S-1562	931 6323 6328 IP21 IP22 IP28
S-1563	1EP1
S-2002	6810 7264


2 11/16
1
1
15/16
3/8
1 5/16 I.D.
3/8 SEAM

S-1562


5 1/4
1/2
3/8 SEAM
2 1/16 I.D.

S-2002



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JAN HARDWARE

MANUFACTURING COMPANY, INC.

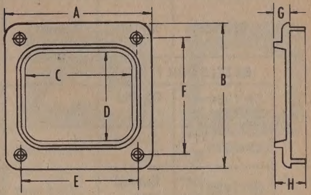
LONG ISLAND CITY 1, NEW YORK

JAN's Bezels enhance the appearance of the instruments on which they are used. These units are functionally designed to provide OPTIMUM UTILIZATION OF THE CRT SCREEN, as well as safety against tube breakage and danger to operating personnel.

JAN Bezel Assemblies are supplied with a bezel, calibrated graticule, (where applicable) **light filter and CRT cushion.** Bezels are finished in a smooth dull black non-reflecting surface. These units fit JAN Mu-Metal Shields.

Edge-lit Bezels (E.L.B.A.)** These Bezels are designed to provide edge lighting of the engraved scale-calibrated graticule by means of pilot lights.

Camera Mount Bezel These units provide an integral cast mounting flange that fits all standard 3", 5" and 7" CRT cameras.

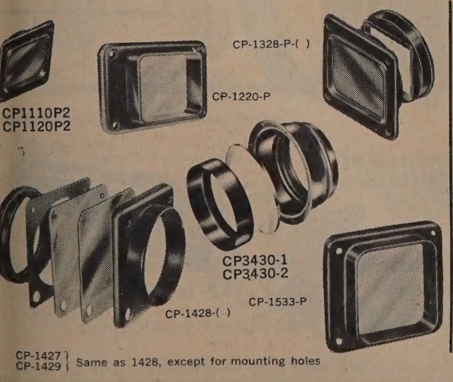


Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 2" C.R.T.														
CP-1110-P-2	Flat	Plastic*	Standard	2 3/16"	2 5/8"	2 5/8"	1 3/4"	1 3/4"	2"	2"	5/16"	7/16"	1 3/4"	1 3/4"
BEZELS FOR 3" C.R.T.														
CP-1220-P‡	Curved or Flat	Plastic*	Camera Mount	—	4 7/8"	3 1/4"	2 3/4"	2 1/4"	4"	2 1/2"	5/16"	1 1/16"	—	
CP-1328-P-1 CP-1328-P-2	Curved Flat	Plastic*	Standard	3 33/64"	3 3/4"	3 3/4"	2 5/8"	2 3/16"	3"	3"	3/8"	45/64"	2 1/2"	2 1/16"
CP-1427-1 CP-1427-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-1428-1** CP-1428-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-1429-1 CP-1429-2	Curved Flat	Aluminum	Camera Mount	3 17/64"	4"	4"	2 3/4" Dia.		3"	3"	5/16"	27/32"	2 25/32" Dia.	
CP-3430-1 CP-3430-2	Curved Flat	Steel	Standard	—	4 1/16" Dia.		3 3/8" Dia.		3 3/4"	3 3/4"	1 41/64"	1 41/64"	2 25/32" Dia.	
BEZELS FOR 4" C.R.T.														
CP-1533-P‡		Plastic*	Camera Mount	3 1/32"	4 3/8"	3 63/64"	3"	3"	4"		1 3/32"	1 3/32"	No Cushion	
BEZELS FOR 5" C.R.T.														
CP-13549-1 CP-13549-2	Curved Flat	Aluminum	Standard	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	1 3/32"	4 1/4"	3 3/16"
CP-13584-1 CP-13584-2	Curved Flat	Aluminum	Camera Mount	6.0"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	1 5/32"	1 23/32"	4 1/4"	3 3/16"
CP-13595-1** CP-13595-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	4 7/8"	3 3/4"	4 15/16"	4 15/16"	17/32"	—	4 3/4" Dia.	
CP-1465 CP-1465-2	Curved or Flat Flat	Steel	Camera Mount	5 9/16" 5 17/32"	6 3/8" Dia.		5 35/64" Dia.		6"	6"	7/8"	7/8"	No Cushion 4 1/2" Dia.	
CP-19495-1** CP-19495-2**	Curved Flat	Aluminum	Camera Mount E.L.B.A.**	5 7/16"	6 1/4"	6 1/4"	5 1/4" Dia.		4 15/16"	4 15/16"	1 5/32"	—	4 3/4" Dia.	
CP-19636-2**	Flat	Aluminum	Camera Mount E.L.B.A.**	5 5/16"	5 7/8"	5 7/8"	4 1/2" Dia.	3"	4 7/8"	4 7/8"	1 1/4"	—	4 1/2" Dia.	
CP-446-11 CP-446-22	Curved Flat	Steel	Camera Mount	—	6 9/16" Dia.		5 9/16" Dia.		6 5/32" 6 1/8"	6 5/32" 6 1/8"	1"	1 19/64" 1 3/16"	—	

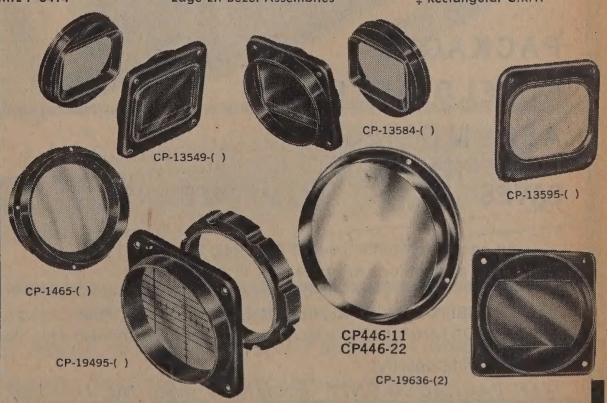
* All Plastic Bezels are furnished in shock resistant plastic, per MIL P-3414

** Edge Lit Bezel Assemblies

‡ Rectangular C.R.T.



CP-1427 }
CP-1429 { Same as 1428, except for mounting holes



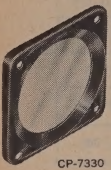
JAN HARDWARE

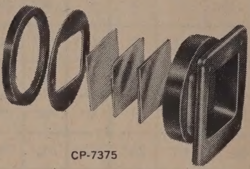
MANUFACTURING COMPANY, INC.

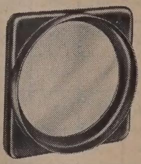
LONG ISLAND CITY 1, NEW YORK

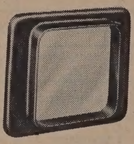
Catalog No.	CRT Face	Material	Type	Panel Opening	A Overall Width	B Overall Height	C Visible Area (Bezel) Width	D Visible Area (Bezel) Height	E Mounting Holes Width	F Mounting Holes Height	G- Thickness (Face Only)	H- Thickness (Incl. Flange)	Visible Area (Cushion) Height	Visible Area (Cushion) Width
BEZELS FOR 7″ C.R.T.														
CP-7330-1 CP-7331-2**	Curved Flat	Aluminum	Standard E.L.B.A.**	7 13/32″	7 13/16″	7 13/16″	6 5/16″ Dia.		6 3/16″	6 3/16″	3/4″	3/4″	6 3/8″ Dia.	
CP-7375-1** -2**	Curved Flat	Aluminum	E.L.B.A.**	7 13/32″	8″	8″	4 1/2″	4 1/2″	6 3/16″	6 3/16″	1 17/32″	2 29/32″	4 1/2″	4 1/2″
CP-7420-1** -2**	Curved Flat	Aluminum	Camera Mount	7 13/32″	7 13/16″	7 13/16″	6 15/16″ Dia.		6 3/16″	6 3/16″	3/4″	1 3/8″	6 3/8″ Dia.	
CP-7550	Curved or Flat	Aluminum	Camera Mount	4 25/32″	7 3/8″	6 1/4″	4 3/4″	4 3/4″	6 1/4″	5 1/8″	1 3/16″	1 3/16″	No Cushion	
BEZEL FOR 10″ C.R.T.														
CP-10860	Curved or Flat	Aluminum	Standard	11 1/32″	10 3/4″ Dia.		8 1/16″	6 1/4″	11 1/2″	11 1/2″	13/16″	1 3/16″	No Cushion	

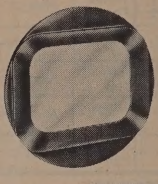
** Edge Lit Bezel Assemblies


CP-7330


CP-7375


CP-7420

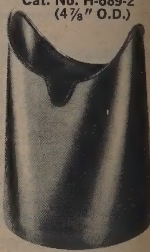

CP-7550


CP-10860

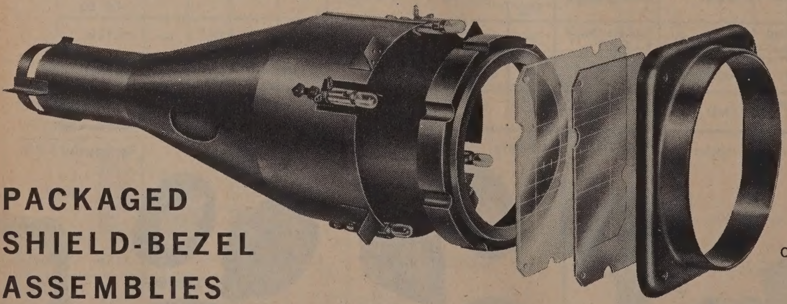
DISTINCTIVE FEATURES

- Engineered for 2″, 3″, 4″, 5″, 7″, 8″ and 10″ CRT
- Maximum display area
- Precision engraved, scale-calibrated graticules; standard or to customer's specifications
- Materials and finish to "Mil Spec"
- Heavy buna-S shock cushion
- Models for edge-lighting
- Phosphor-matched light filters
- Non-reflecting matte surfaces
- Rugged camera mounts
- Models for curved and flat-faced CRT

VIEWING HOOD
Cat. No. H-689-1
(5 5/8″ O.D.)
Cat. No. H-689-2
(4 7/8″ O.D.)



Made of black neoprene rubber, contour-molded to fit shape of face. Keeps out ambient light when viewing scope.

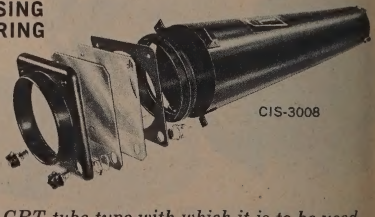

CIS-5002

PACKAGED SHIELD-BEZEL ASSEMBLIES

SAVES {TIME, MONEY} **ELIMINATES** {MULTIPLE PURCHASING, COMPLEX ENGINEERING}

All necessary items for CRT Magnetic Shield and Bezel applications are packaged in one unit.

EACH ASSEMBLY CONTAINS: Shield, JAN Bezel, CRT Rubber Cushion, Graticule, Filter, Light Sockets, Pilot Lamps (for edge-lit bezel-shield assemblies) plus Hardware.


CIS-3008

When ordering specify:

"JAN PACKAGED UNIT" giving JAN shield No., JAN bezel No. and CRT tube type with which it is to be used.

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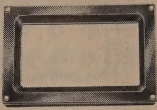
ESCUTCHEON PLATES For Elegant Framing of Panel Openings

ET-120

ET-150


ET-160

EM-310

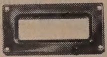
EM-320

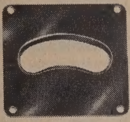
EM-325

ET-125

ET-165

ET-140

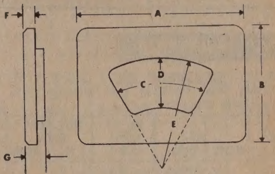

ET-155


EM-315

ET-135

ET-130

ET-145



SPECIFICATIONS — JAN ESCUTCHEONS

Escutcheon Cat. No.	A Overall Width	B Overall Height	C Window Width	D Window Height	E Effective Outer Dial Radius	Thickness F=Face Only	Thickness G=Incl. Flange	Panel Opening Width	Panel Opening Height	Mounting Holes Width	Mounting Holes Height	Type of Dial	Material
ET-120	2 27/32	1 7/8	1 3/4	1"	1 27/32	3/16	3/16	2 11/32	1 3/8	2 9/16 top 2 1/16 bottom	1 9/16	Circular	Injection Molded Tenite II, Black Matte Finish
ET-125	3 7/8	2 15/16	2 7/8	1"	3 1/4	3/16	5/16	3 1/2	1 1/2	3 1/2	1 15/16		
ET-135	2 3/4	1 7/8	1 1/2	7/8	1 7/8	3/16	1/4	1 31/32	1 7/32	2 1/4	1 3/8		
ET-150	3 7/8	2 5/16	2 7/8	3/4	3 1/8	3/16	5/16	3 9/32	1 7/32	3 1/2	1 15/16		
ET-165	2 5/8	1 5/8	1 43/64	5/8	2 3/32	1/8		3 3/32	1 13/32	2 1/16	1 1/16		
ET-130	4	1 13/16	2 1/4	13/16	—	3/16	1/4	2 13/32	1 11/32	3 1/2	1 5/16	Flexible Tape, Digital Counter, Cylinder or Drum	Injection Molded Tenite II, Black Matte Finish
ET-140	2 1/2	1 1/2	1 1/4	5/8	—	1/8	5/16	1 17/32	1 1/32	2	1		
ET-145	3 1/4	2 1/16	1 15/16	3/4	—	5/32	5/32	2 13/32	1 5/32	2 3/4	1 9/16		
ET-155	2 1/2	1 3/16	1 11/16	1/2	—	5/32		2 1/32	2 9/32	2 1/4	15/16		
ET-160	3 7/8	2 1/2	2 15/16	1 5/8	—	1/8	1/8	2 21/64	2 1/32	3 5/8	2 1/4		
EM-310	3	3	2 1/16	1 15/16	2 9/16	1/32	1/4	3 11/32	2 1/2	2 1/2	2 1/2	Helical	Soft Aluminum with Black Matte Enamel Finish
EM-315	3 1/4	3	2 1/4	5/8	2 1/16	1/32	1/8	2 15/32	1 5/64	2 3/4	2 5/8	Circular	
EM-320	3 1/4	2 3/4	2 1/4	5/8	2 1/16	1/32	1/8	2 29/64	1 3/64	2 3/4	2 1/4	Circular	
EM-325	3	3	2 1/16	1 1/2	2 5/16	1/32	1/4	2 11/32	1 61/64	2 1/2	2 1/2	Helical	

* (ET-120 through ET-160) **To Order** specify: (1) frame only; (2) frame with clear window; (3) frame with clear window scribed with a center line.

JAN'S molded, black, shock-resistant plastic escutcheons are available in an exceptionally wide variety of different types and sizes. They provide a pleasing window to frame dial plates mounted behind the panel.

Plastic escutcheons are available in the following ways: frame only; frame with clear windows; frame with clear window scribed with a center line.

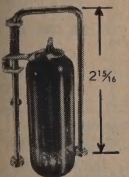
For especially large working areas, stamped aluminum escutcheons, finished in dull black are available to meet the needs for space economy. Withstands temperature shock −65° to +85° C. NON INFLAMMABLE

TUBE BAIL ASSEMBLIES

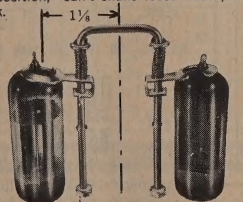
Positive protection against vibration and shock.

Spring-loaded tube holders give positive protection that is free of strain on tube. Available as single and twin tube hold-downs.

Holds securely in any position,—can't shake loose. Also provides excellent heat sink.



AK381



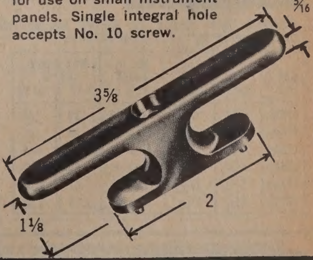
AK382

WHERE
INTEGRITY
COSTS
NO MORE

HANDLE

Cat. No. H-692

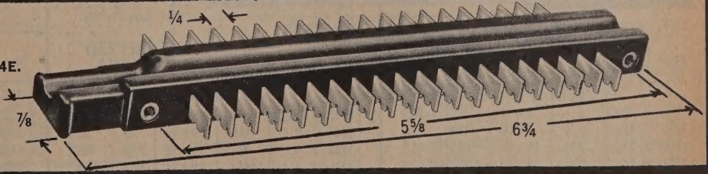
This durable, die-cast aluminum handle is designed for use on small instrument panels. Single integral hole accepts No. 10 screw.



"FEED THROUGH" TERMINAL BOARDS

Cat. No. T-746
Molded of wood-filled melamine per MIL-M-14E.

Avoid expensive tooling. Design around this integrally-molded 20 feed-through terminal board. Equally-spaced terminals can be used for wrap around and/or solder connections. Voltage Breakdown 4000 Volts.



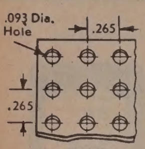
The service of JAN's design engineers is available to assist you with your Component requirements. JAN will design and manufacture special Components to customers' specifications. Complete facilities for prototype work.

PRE-PUNCHED TERMINAL BOARDS

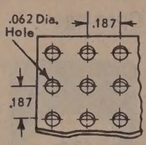
KEYSTONE
ELECTRONICS CORP
NEW YORK 12 N Y

STANDARDIZED PERFORATED BAKELITE BOARDS

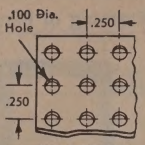
- Time Saving
- Economical
- Permits Flexibility of Circuit Design
- Six Popular Patterns for Most Applications



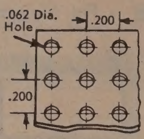
"A" PATTERN



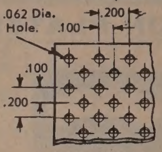
"B" PATTERN



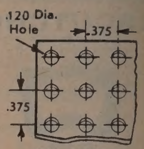
"E" PATTERN



"F" PATTERN



"G" PATTERN



"H" PATTERN

MATERIAL: Grade xxxp Natural Color Bakelite (MIL Spec 3115B) 1/16" and 3/32" Thick. Paper Base Epoxy available for some patterns.

"A" PATTERN

.093 Dia. holes spaced .265 x .265 C to C. Available from stock in xxxp Bakelite (MIL Spec 3115B) and Epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16" Thick xxxp Bakelite					
1731	13/16	8½	3 x 32	.30	.27
1737	1⅞	8½	7 x 32	.46	.41
1738	2 7/16	8½	9 x 32	.48	.46
1739	4⅞	17	18 x 64	1.25	1.13
1732	8½	8½	32 x 32	1.30	1.17
1733	8½	17	32 x 64	2.13	1.92
3/32" Thick xxxp Bakelite					
1749	1⅜	8½	4 x 32	.48	.43
1740	1⅞	8½	7 x 32	.54	.49
1741	2 7/16	8½	9 x 32	.61	.55
1756	4 13/16	8½	18 x 32	.84	.76
1742	4⅞	17	18 x 64	1.60	1.44
1757	8½	17	32 x 64	2.70	2.43
3/32" Thick P. B. Epoxy					
1758EP	1⅜	1 29/32	4 x 7	.18	.16
1760EP	1⅜	4	4 x 15	.30	.27
1759EP	1 29/32	1 15/16	7 x 7	.33	.30
1740EP	1 29/32	8½	7 x 32	.75	.68
1756EP	4⅞	8½	18 x 32	1.40	1.26
1742EP	4⅞	17	18 x 64	2.73	2.46
1757EP	8½	17	32 x 64	4.90	4.50

"B" PATTERN

.062 Dia. Holes spaced .187 x .187. Available from stock in 1/16" thick xxxp Bakelite.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1761	1⅜	8½	6 x 45	.39	.35
1734	1⅞	8½	8 x 45	.46	.41
1735	2 27/32	8½	15 x 45	.53	.48
1762	5 11/16	8½	30 x 45	.84	.76
1736	5 11/16	17	30 x 90	1.62	1.46
1763	8½	17	45 x 90	2.13	1.92

"E" PATTERN

.100 Dia. holes spaced .250 x .250 C to C.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16" Thick xxxp Bakelite					
1750	2⅛	4	8 x 16	.25	.22
1765	2⅛	8½	8 x 34	.46	.41
1766	3⅝	8½	14 x 34	.62	.56
1767	8½	8½	34 x 34	1.30	1.17
1768	8½	17	34 x 69	2.13	1.92
3/32" Thick xxxp					
1770	2⅛	8½	8 x 34	.57	.51
1771	8½	8½	34 x 34	1.75	1.57
1772	8½	17	34 x 69	2.70	2.43

"F" PATTERN

.062 Dia. holes spaced .200 x .200. Available from stock in 1/16" thick xxxp natural Bakelite, 1/16" thick paper base epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16" Thick xxxp Bakelite					
1730	1¼	8½	8 x 16	.33	.30
1773	3⅝	8½	18 x 42	.62	.56
1775	3⅝	17	18 x 85	.72	.65
1774	4⅞	8½	24 x 42	1.05	.94
1776	4⅞	17	24 x 85	1.25	1.13
1777	8½	8½	42 x 42	1.15	1.03
1778	8½	17	42 x 85	2.18	1.96
1/16" Thick PB Epoxy					
1776EP	4⅞	17	24 x 85	2.06	1.85
1778EP	8½	17	42 x 85	3.54	3.20

"G" PATTERN

.062 Dia. holes staggered at alternate spacings of a standard .100 grid. Mounting of "top hat" type transistors to this board is possible because transistor leads are in alignment with these holes. Available from stock in 1/16" thick xxxp natural bakelite (MIL Spec 3115B) or 1/16" thick paper base Epoxy.

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16" Thick xxxp Bakelite					
1752	1¾	4	8 x 16	.25	.22
1753	3½	4	8 x 16	.46	.41
1754	2¼	8½	8 x 16	.55	.51
1779	4⅞	17	23 x 85	1.25	1.13
1780	8½	8½	42 x 42	1.25	1.13
1781	8½	17	42 x 85	2.13	1.92
1/16" Thick PB Epoxy					
1752EP	1¾	4	8 x 16	.46	.41
1753EP	3½	4	8 x 16	.65	.58
1754EP	2¼	8½	8 x 16	.72	.65
1779EP	4⅞	17	23 x 85	2.06	1.85
1781EP	8½	17	42 x 85	3.54	3.20

"H" PATTERN

.120 Dia. holes spaced ⅜" x ⅜" C. to C. Either 1/16" or 3/32" thick xxxp natural bakelite (MIL Spec 3115B).

Cat. No.	Width	Lgth	No. of Holes W & L	NET COST EACH 1-19	NET COST EACH 20-99
1/16" Thick xxxp Bakelite					
1743	1⅞	8¼	5 x 22	.43	.39
1744	2¼	8¼	6 x 22	.47	.42
1782	4⅛	8¼	11 x 22	.68	.62
1745	4⅛	16½	11 x 44	1.20	1.08
3/32" Thick xxxp					
1746	1⅞	8¼	5 x 22	.55	.50
1747	2¼	8¼	6 x 22	.59	.53
1783	4⅛	8¼	11 x 22	.82	.74
1748	4⅛	16½	11 x 44	1.50	1.35

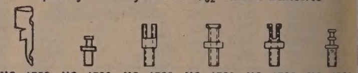
EYELETS AND TERMINALS

Suitable For These Boards
TERMINALS ILLUSTRATED FULL SIZE
For Boards With .062 Dia. Holes

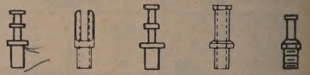
Terminals are made of Brass (MIL Spec QQ626) and Silver Plated. When ordering terminals SPECIFY whether for use with 1/16" or 3/32" thick Bakelite.

Eyelets are hot tin dip finish for easy soldering.

Specify #23 Eyelet for 1/16" thick Bakelite
Specify #24 Eyelet for 3/32" thick Bakelite

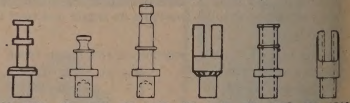


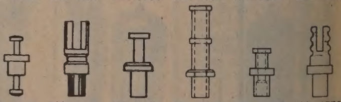
For Boards with .093 Dia. Holes



Specify #33 Eyelet for 1/16" thick Bakelite
Specify #34 Eyelet for 3/32" thick Bakelite

For Boards with .120 Dia. Holes





Specify #43 Eyelet for 1/16" thick Bakelite
Specify #44 Eyelet for 3/32" thick Bakelite

Bulletin on request

TERMINALS
NET COST EACH

Cat. No.	100 Pcs	1000 Pcs	Cat. No.	100 Pcs	1000 Pcs	Cat. No.	100 Pcs	1000 Pcs
1500	1.75	15.70	1511	2.20	19.80	1553	1.75	16.25
1502	.90	8.25	1514	1.61	13.72	1562	1.23	10.00
1503	1.30	10.65	1522	1.28	11.43	1578	2.27	19.70
1504	1.30	11.70	1525	2.41	20.55	1592	1.34	12.06
1505	1.70	15.30	1526	1.34	11.43	1593	1.36	12.24
1507	1.80	14.00	1532	1.40	12.32	1595	1.80	16.20
1509	1.20	10.65	1540	2.00	18.00			
1510	1.80	15.20	1541	2.47	21.18			

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

Net

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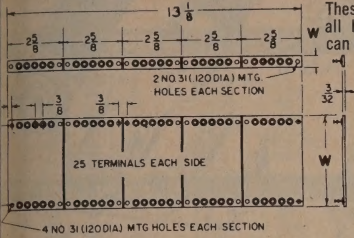
STANDARDIZED TERMINAL BOARDS

KEYSTONE ELECTRONICS CORP. NEW YORK 12 N Y

STANDARDIZED TURRET TERMINAL BOARDS

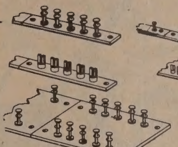
t your production cost by eliminating the tooling and setup charge ually applied to nonstandardized boards. Terminals are securely riveted d hot tinned for easy soldering. Material 3/32" thick natural bakelite to v't Spec. MIL-P-3115B—TYPE PBE. Five 2⅝" sections scored for easy paration.

CHOICE OF TERMINALS


13 1/8
2 5/8
2 5/8
2 5/8
2 5/8
2 5/8
W
2 NO.31(.120 DIA) MTG. HOLES EACH SECTION
3/8
3/8
3/32
25 TERMINALS EACH SIDE
W
4 NO 31 (120 DIA) MTG HOLES EACH SECTION

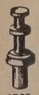
NOTE:

These boards **can be modified** with terminals staked in all holes. Scoring marks can be eliminated. Marking can be added.



hese boards are assembled with turret terminal **No. 1503 (NAS 707T3)** eight above board 23/64".

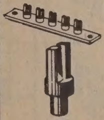
Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15031	½	single	25	.80	.75
15032	1½	1	50	1.68	1.50
15033	2	1½	50	1.85	1.70
15034	2½	2	50	1.90	1.77
15035	3	2½	50	2.00	1.83
15036	1½	1 3/16	50	1.82	1.74



1503 ACTUAL SIZE

ssembled with Fork Type terminal **No. 1507** with hole thru center. eight above board 11/32".

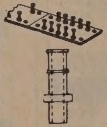
Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15071	½	single	25	1.20	1.10
15072	1½	1	50	2.20	2.10
15073	2	1½	50	2.35	2.20
15074	2½	2	50	2.40	2.25
15075	3	2½	50	2.60	2.40
15076	1½	1 3/16	50	2.35	2.15



1507 ACTUAL SIZE

ssembled with turret type terminal **No. 1509**. Hole thru center (NAS 08T3). Height above board 23/64".

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15091	½	single	25	1.20	1.05
15092	1½	1	50	2.25	2.00
15093	2	1½	50	2.30	2.10
15094	2½	2	50	2.40	2.25
15095	3	2½	50	2.47	2.20
15096	1½	1 3/16	50	2.25	2.00

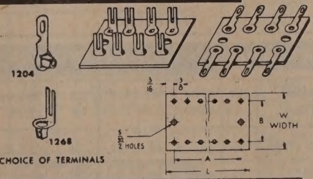


1509 ACTUAL SIZE

READI-MADE TERMINAL BOARDS

READI-MADE TERMINAL BOARDS

An inexpensive line of terminal boards for general use. Terminals are hot tinned for easy soldering, and provide a rigid mounting for resistors, condensers, etc. Material 1/16" thick Bakelite.
Mounting Holes Provided on all Boards.

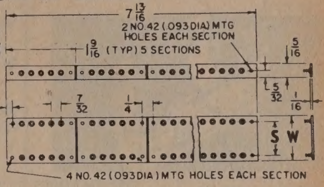


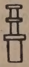
Cat. No.	Cat. No.	W Width	L Length	A Mtg. Ctr.	B Dim.	Terminal Each Side	Net Cost Each 5-19	Net Cost Each 20-99
1204-10	1268-10	1	1⅞	1½	11/16	5	.27	.22
1204-12	1268-12	1	2¼	1⅞	11/16	6	.30	.24
1204-28	1268-28	1	5¼	4⅞	11/16	14	.65	.55
1204-20	1268-20	1¾	3¾	3⅜	1 7/16	10	.50	.40
1204-22	1268-22	1¾	4⅛	3¾	1 7/16	11	.55	.44
1204-38	1268-38	1¾	7⅛	6¾	1 7/16	19	.90	.74

MINIATURE TURRET TERMINAL BOARDS

Material: 1/16" thick bakelite to Gov't Spec. MIL-3115B TYPE PBE. Five 1 9/16" sections scored for easy separation. Assembled with **1502** turret terminal. Height above board 7/32" **(NAS 705T2).**

CHOICE OF TERMINALS

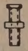

7 13/16
2 NO.42 (.093 DIA) MTG HOLES EACH SECTION
1 9/16 (TYP) 5 SECTIONS
5/16
5/32
1/16
1/8
7/32
1/4
S
W
4 NO. 42 (.093 DIA) MTG HOLES EACH SECTION



1502 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15021	5/16	Ctr.	25	1.00	.84
15028	¾	½	50	1.85	1.68
15022	1	¾	50	1.85	1.68

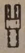
Same as above assembled with **1562** turret terminal (Hole thru center) Height above board 5/32".



1562 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15023	5/16	Ctr.	25	1.00	.84
15029	¾	½	50	1.85	1.68
15024	1	¾	50	2.00	1.75

Same as above assembled with **1526** Fork Type terminal (Hole thru center) Height above board 5/32".

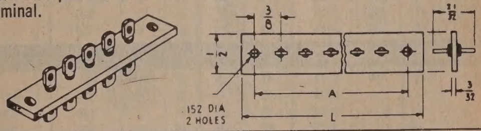


1526 ACTUAL SIZE

Cat. No.	W width	S ins. dim.	Total No. terminals	Net Cost Each 5-19	Net Cost Each 20-99
15025	5/16	Ctr.	25	1.00	.84
15026	¾	½	50	1.85	1.68
15030	1	¾	50	1.85	1.68

FEED THRU TERMINAL BOARDS

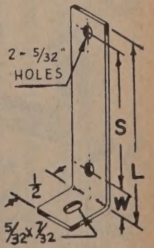
Terminals made of copper, hot tinned and force fitted into 3/32" thick Bakelite. Holes pierced in terminal at each end to provide a sturdy feed thru terminal.



Cat. No.	No. Lugs	A Mtg. Ctr.	L Length	Net Each 5-19	Net Each 20-99
1220- 1	1	¾	1⅛	.09	7.50
1220- 2	2	1⅛	1½	.11	.09
1220- 3	3	1½	1⅞	.13	.11
1220- 4	4	1⅞	2¼	.14	.12
1220- 5	5	2¼	2⅝	.15	.14
1220- 6	6	2⅝	3	.16	.15
1220- 7	7	3	3⅜	.18	.16
1220 -8	8	3⅜	3¾	.19	.18
1220- 9	9	3¾	4⅛	.22	.20
1220-10	10	4⅛	4½	.24	.22

BRACKETS FOR STANDARDIZED BOARDS

Cat. No.	W	L	S	For Boards Cat. No.
1556	⅜	1⅝	1	15032, 15072 15092
1567	⅜	2⅛	1½	15033, 15073 15093
1568	⅜	2⅝	2	15034, 15074 15094
1569	⅜	3⅛	2½	15035, 15075 15095
1570	9/32	1 3/16	¾	15022, 15024 15030
1571	9/32	1⅝	1 3/16	15036, 15076 15096



FOR ANY BRACKET LISTED HERE
YOUR NET COST
$7.00 per 100
$48.00 per 1000

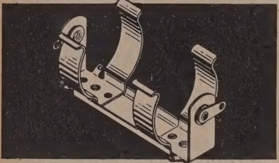
KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

KEYSTONE ALL STEEL BATTERY HOLDERS

KEYSTONE ELECTRONICS CORP. NEW YORK 12, N Y

STANDARDIZED ALL STEEL BATTERY HOLDERS

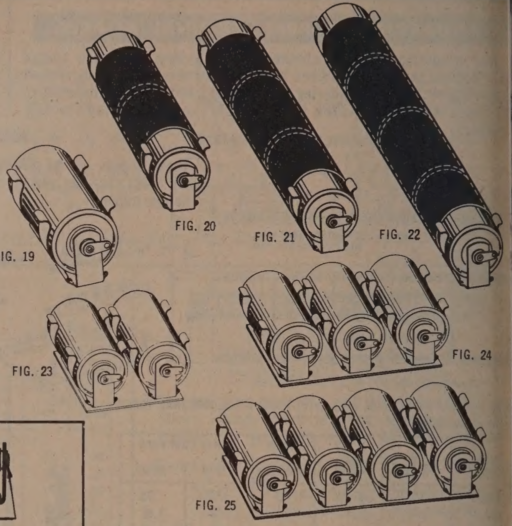
An important advance in design that has gained wide acceptance for military and commercial usage. Battery when installed is held under spring tension at a constant pressure assuring low resistance contact will hold up to 4 cells in series in sturdy insulating tube. Retainer clips available to lock battery securely. This prevents shifting or loosening of battery in holder. Recommended for use where shock or severe vibration is encountered.

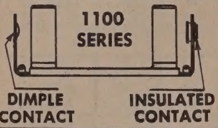


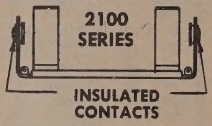
- CORROSION RESISTANT NICKEL PLATED
- STAINLESS STEEL CONTACTS
- MOISTURE PROOF INSULATING WASHERS
- IDEAL FOR NI-CAD AND ALKALINE CELLS

SPECIFICATIONS

Made of SAE 1065 Carbon Steel to MIL Spec. 17919, heat treated to spring temper and nickel plated .0002 thick. Contact assembly consists of a stainless steel eyelet, moisture proof vulcoid washers and a coated copper solder lug. Ribbed carbon steel base for added support is nickel plated and has 2 mounting holes for ease in mounting.



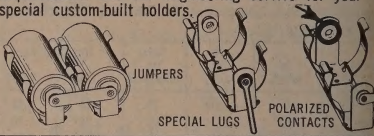




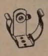
One Insulated Contact	Net Each 5-19	Net Each 20-99	All Contacts Insulated	Net Each 5-19	Net Each 20-99	Fig. No.	Holds No. of Cells	All Batteries in the Group are of Similar Size and Fit Holders Listed: Burgess	Eveready	RCA
PENCELL HOLDERS										
Cat. No.			Cat. No.							
1139	.23	.21	2139	.26	.24	19	1	Z, HG9	E9, E12	VS034A
	—	—	2140*	.38	.34	23	2	CD6, 9R	E91, E133	VS144
	—	—	2171*	.64	.54	24	3	HG12R	E502, N46	VS149
	—	—	2182*	.70	.65	25	4	H133	515, 915	VS313A
1189	.38	.31	2189	.41	.36	20	2	HG502R	1015	VS334
1191	.41	.36	2191	.45	.41	21	3	920		
1194	.48	.44	2194	.51	.47	22	4	930		
"C" CELL HOLDERS										
1173	.30	.26	2173	.41	.36	19	1	1		VS035A
	—	—	2174*	.49	.44	23	2	P6	E233	VS300
	—	—	2187*	.70	.65	24	3	120	635	VS335
	—	—	2188*	.93	.81	25	4	130	935	VS400
1185	.45	.41	2185	.48	.44	20	2	H233		
1195	.48	.44	2195	.51	.47	21	3	302599		
1198	.51	.47	2198	.57	.52	22	4			
"D" CELL HOLDERS										
1175	.30	.26	2175	.33	.29	19	1	2	E42	VS036
	—	—	2176*	.49	.44	23	2	2R	N56	VS036A
	—	—	2190*	.70	.65	24	3	CD7	E95	VS336
	—	—	2192*	.95	.85	25	4	210	D99	
1186	.48	.44	2186	.51	.47	20	2	230	A100	
1199	.51	.47	2199	.57	.53	21	3		950	
1162	.54	.49	2162	.57	.53	22	4		1050	
1179	.30	.26	2179	.34	.31	19	1		E94	

MODIFICATIONS AVAILABLE

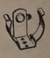
Variety of stock parts permits fast delivery on special requirements. Use our engineering service for your special custom-built holders.



SPACE SAVER BATTERY CLIPS



DIMPLE AND INSULATED CONTACTS

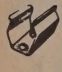


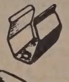
Std. Pkg. 10 Pieces

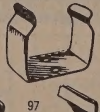
These holders are available insulated contact or with a dimple contact. Provides positive contact in either case. They are compact and economical. The "AA", "C", "D", Mercury and Ni-Cad batteries are accommodated. Made of SAE 1065 steel heat treated to spring temper and nickel plated. Insulated type has steel nickel plated eyelet and resin impregnated vulcanized fibre insulation. Snap-on washer for polarization will be supplied upon request.

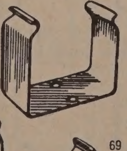
Cat. No.	Battery Types	Min. to max. Diameter	Net Each 5-19	Net Each 20-99
92*	AA	.531- .660	.07	.05
99*	AA	.531- .660	.07	.05
100†	AA	.531- .660	.12	.10
86*	C	.875-1.125	.14	.11
87†	C	.875-1.125	.16	.12
88†	D	1.187-1.375	.16	.12
89*	D	1.187-1.375	.14	.11

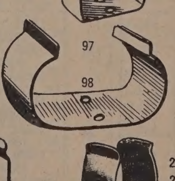
*Non-Insulated †Insulated

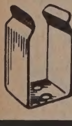


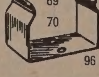


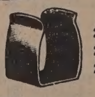












BATTERY AND COMPONENT HOLDERS

Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99	Cat. No.	Battery Types	Min. to Max. Diameters	NET EACH 5-19	NET EACH 20-99
69	2U6 or (2) AA	⅝ x 1⅛	.08	.07	96	(1) K 20	⅝ x 1 13/64	.08	.07
70	(2) RM 12	⅝ x 1 5/16	.08	.07	97	(2) "C"	(2) 1 1/64 Dia.	.12	.10
90	#7	⅜ to 29/64	.06	.04	98	(2) D	(2) 1 21/64 Dia.	.14	.12
91	(1) AA	17/32 to 21/32	.07	.05	217	1⅜ Dia.	1⅜ Dia.	.18	.14
93	(1) C	⅞ to 1⅛	.08	.07	218	1½ Dia.	1½ Dia.	.20	.15
94	(1) D	1 3/16 to 1⅜	.08	.07	219	2" Dia.	2" Dia.	.22	.16
95	(1) U-15	⅝ x 1 1/32	.08	.07					

Clips are made of Aluminum except Nos. 69, 217, 218, 219 are made of Steel.

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

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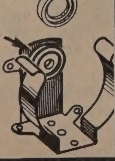
KEYSTONE BATTERY HOLDERS

KEYSTONE ELECTRONICS CORP.
NEW YORK 12 N Y

Cat. No.	NET EACH 5-19	NET EACH 20-99	Holds No. of Cells	Fig. No.	ALL BATTERIES LISTED WITHIN BOXES ARE IN THE SAME SIZE GROUP BATTERY CROSS REFERENCE Burgess	Eveready	RCA
MINIATURE CELL HOLDERS							
7	.23	.21	1	1	7	912	VS074
8	.38	.34	2	2			
9	.49	.44	3	3			
0	.64	.57	4	4			
PENCELL HOLDERS							
9	.23	.21	1	1	CD6	E9, E12	VS034A
0	.38	.34	2	2	9R, Z	E91	VS144
1	.49	.44	3	3	HG9	E133	VS149
2	.64	.57	4	4	HG12R	333	VS313A
9	.45	.36	2	5	H133	E502	VS334
1	.49	.44	3	6	HG502R	515	
2	.64	.54	4	7	920	915, 1015	
3	.93	.81	6	8	930	N46	
"C" CELL HOLDERS							
3	.30	.26	1	1	1	226	VS035A
4	.38	.34	2	2	P6	E233	VS300
7	.45	.36	3	3	120	635	VS335
5	.45	.36	2	5	130	935	VS400
05	.49	.44	3	6	H233		
06	.64	.54	4	7	302599		
07	.93	.81	6	8			
"D" CELL HOLDERS							
75	.30	.26	1	1	2	E42	VS036A
76	.38	.34	2	2	2R	N56	VS036
30	.49	.44	3	3	CD7	E95	VS336
36	.46	.37	2	5	210	D99	
09	.50	.45	3	6	230	A100	
00	.65	.55	4	7		950	
01	.95	.85	6	8		1050	
05	.95	.85	6	12			
1½ VOLT CELL HOLDERS							
54	.21	.20	1	1	N	E340	VS073
55	.35	.32	2	2		E400	
56	.49	.44	3	3		E401	
60	.49	.44	1	1	21R	964	VS236
79	.30	.26	1	1		E94	
4½ VOLT CELL HOLDERS							
39	.23	.21	1	1		333	VS1149
9 VOLT CELL HOLDERS							
39A	.23	.21	1	1		206	VS327
03P	.44	.30	1	14	2U6	216	VS323
73P	.30	.26	1	1	P6M	226	VS300A
15 VOLT CELL HOLDERS							
63	.30	.26	1	11	K10	417	
66	.30	.26	1	9	U10	411	VS083
67	.38	.34	2	10			
25	.21	.20	1	1	Y10	504	
26	.35	.32	2	2			
22½ VOLT CELL HOLDERS							
64	.30	.26	1	11	K15		
68	.30	.26	1	11		420	
77	.30	.26	1	9	U15	412	VS084
78	.38	.34	2	10			
39A	.23	.21	1	1	Y15	505	
40A	.38	.34	2	2			
71A	.49	.44	3	3			
82A	.64	.57	4	4			
30 VOLT CELL HOLDERS							
57	.30	.26	1	14	Y20	506	
65	.30	.26	1	11	K20	430	
83	.30	.26	1	9	U20	413	VS085
84	.38	.34	2	10			
34	.38	.34	1	1	Y20S	507	

INSULATED POLARIZING WASHERS



nsulated Polarizing Washers eliminate the langer of damage and short circuit to expensive transistor equipment. The washers hold securely when snapped over the eyelets ised on our standardized battery holders. **laterial:** Precision molded of plastic.

Cat. No.	NET COST EACH 5-19	NET COST EACH 20-99
59	.04	.03

A standard line of battery holders available for immediate shipment from stock. Low cost, lightweight and sturdily constructed of quality materials. Good electrical contact, low leakage current and snap-fit clips are the outstanding features.

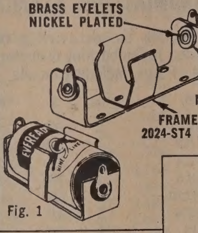

BRASS EYELETS NICKEL PLATED
COPPER LUGS CADMIUM-PLATED
FIBRE INSULATORS MOISTURE PROOFED
FRAME & CLIP 2024-ST4 ALUMINUM
EVEREADY

Fig. 1

Fig. 2

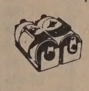


Fig. 3

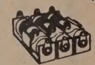


Fig. 4

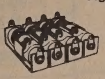


Fig. 5

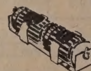


Fig. 6

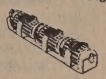


Fig. 7

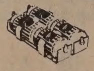


Fig. 8

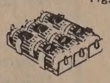


Fig. 9

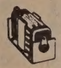


Fig. 10

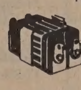


Fig. 11

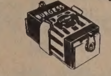


Fig. 12

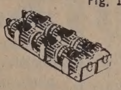
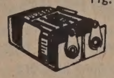
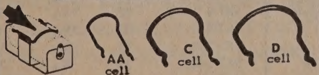


Fig. 14



RETAINER CLIPS



These retainers prevent the battery from shifting or loosening in the holder. Made of high carbon steel, heat treated to spring temper and nickel plated.

Cat. No. 61—Retainer for "A" or Mercury cells with diameters of ¹⁷⁄₃₂" to ⁹⁄₁₆" when used with Keystone **#91, 92, 99 or 100** clips also clip **#95** for rectangular battery.

Cat. No. 62—Retainer for C cells or other batteries with maximum diameter of 1⅓₂" when used with Keystone **#93, 86 or 87** clips.

Cat. No. 63—Retainer for D cells or other batteries with maximum diameter of 1¹¹⁄₃₂" when used with Keystone **#94, 88 or 89** clips.

Cat. No. 66—Retainer for mercury cells with .650 dia. when used with our **#91** clips.

Any above, Net Each (5-19) .05; (20-99) .04

MERCURY BATTERY HOLDERS

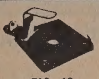


FIG. 13

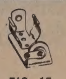


FIG. 15

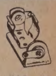


FIG. 16

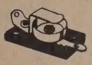


FIG 17

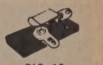


FIG 18

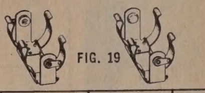


FIG. 19

Mallory Mercury Battery Listing	Aluminum and Phenolic Base Holders Cat. No.	Aluminum and Phenolic Base Holders Fig. No.	All Steel Holders One Insulated Contact Cat. No.	All Steel Holders One Insulated Contact Fig. No.	All Steel Holders All Contacts Insulated Cat. No.	All Steel Holders All Contacts Insulated Fig. No.
RM1R	101*	13	1101	15	2101	16
RM3R	103*	13	1103	15	2103	16
RM4R	104*	13	1104	15	2104	16
ZM9	139	1	1139	19	2139	19
RM12R	139	1	1139	19	2139	19
RM42	175	1	1175	19	2175	19
TR113			1113	15	2113	16
TR114			1114	15	2114	16
TR115	132	1	1132	15	2132	16
TR132	132	1	1132	15	2132	16
TR133	139	1	1139	19	2139	19
TR134	134	1	1134	19	2134	19
TR135	135	5	1135	19	2135	19
TR136	189	5	1189	19	2189	19
TR137	125	5	1125	19	2125	19
TR145			1145	15	2145	16
TR152	124**	1				
TR153	106**	1				
TR162			1113	15	2113	16
TR163	132	1	1132	15	2132	16
TR164	109	1	1109	19	2109	19
TR165	110	1	1110	19	2110	19
TR169	189	5	1189	19	2189	19
TR175	124**	1				
TR177			1142	19	2142	19
TR233	173	1	1173	19	2173	19
TR234	144	1	1144	19	2144	19
RM400	111*	18				
RM401	124**	1				
RM411	166**	9				
RM412	177**	9				
RM413	183**	9				
RM450	112*	17				
RM502	139	1	1139	19	2139	19
RM601			1116	15	2116	16
RM625	117*	17				
RM630	126*	18				
RM640	118*	13				
RM675	127*	18				
302351	119	1	1119	19	2119	19
302478	120	5	1120	19	2120	19
302642	121	1	1121	19	2121	19
302435	122**	1				
302437	139	1	1139	19	2139	19
302599	173	1	1173	19	2173	19

*Bakelite Base Holders
**Available Only in Aluminum

NET EACH PRICE LIST
MERCURY BATTERY HOLDERS

No.	5-19	20-99	No.	5-19	20-99	No.	5-19	20-99
101	.30	.26	173	.30	.26	1175	.30	.26
103	.30	.26	175	.30	.26	1189	.38	.34
104	.30	.26	177	.30	.26	2101	.34	.31
106	.30	.26	183	.30	.26	2103	.34	.31
109	.30	.26	189	.45	.36	2104	.34	.31
110	.38	.34	1101	.30	.26	2109	.34	.31
111	.30	.26	1103	.30	.26	2110	.34	.31
112	.30	.26	1104	.30	.26	2113	.34	.31
117	.30	.26	1109	.30	.26	2114	.34	.31
118	.30	.26	1110	.30	.26	2116	.34	.31
119	.38	.34	1113	.30	.26	2119	.34	.31
120	.38	.34	1114	.30	.26	2120	.41	.36
121	.38	.34	1116	.30	.26	2121	.41	.36
122	.38	.34	1119	.30	.26	2125	.34	.31
124	.23	.21	1120	.38	.34	2132	.34	.31
125	.30	.26	1121	.38	.34	2134	.34	.31
126	.30	.26	1125	.30	.26	2135	.38	.34
127	.30	.26	1132	.30	.26	2139	.26	.24
132	.30	.26	1134	.30	.26	2142	.26	.24
134	.38	.34	1135	.34	.31	2144	.23	.21
135	.38	.34	1139	.23	.21	2145	.34	.31
139	.23	.21	1142	.23	.21	2173	.33	.29
144	.26	.24	1144	.26	.24	2175	.33	.29
166	.30	.26	1145	.30	.26	2189	.41	.36
			1173	.30	.26			

KEYSTONE ELECTRONICS CORP., NEW YORK, N. Y.

Sealectro PRESS-FIT® TEFLON† TERMINALS

INSURED PERFORMANCE — OUTSTANDING LABORATORY SERVICE — PRECISION PARTS

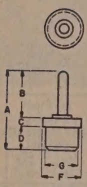


Fig. 1

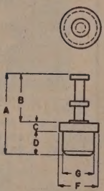
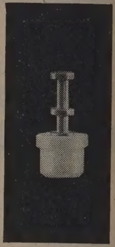


Fig. 4

SUBMINIATURE STAND-OFFS

The ultimate in space-saving terminals for subminiaturization programs. Teflon bushing diameters of the order of .148″ to .218″. Choice of lugs, including turrets.

PART NO.	FIG.	A	B	C	D	F	G
ST-SM-1	1	.350	.210	.040	.100	.172	.148
ST-SM-1L2	1	.265	.125	.040	.100	.172	.148
ST-SM-1L4	1	.250	.110	.040	.100	.172	.148
ST-SM-1L6	1	.285	.145	.040	.100	.172	.148
ST-SM-1L10	1	.594	.450	.040	.100	.172	.148
ST-SM-2C4	1	.375	.210	.050	.110	.172	.148
ST-SM-19	1	.365	.193	.040	.132	.172	.148
ST-SM-1 TUR	4	.350	.210	.040	.100	.172	.148
ST-SM-4 TUR	4	.350	.210	.040	.100	.200	.179
ST-SM-20 TUR	4	.350	.210	.040	.100	.218	.185
ST-SM-22 TUR	4	.428	.210	.093	.125	.172	.148
ST-SM-23 TUR	4	.350	.210	.040	.100	.250	.204
ST-SM-29 TUR-C2	4	.540	.250	.040	.250	.172	.148



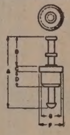


Fig. 12

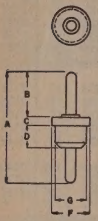


Fig. 8

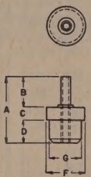


Fig. 9

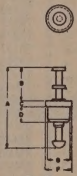
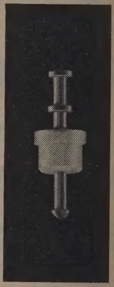


Fig. 13

SUBMINIATURE FEED-THRUS

For facilitating connections through chassis or casing, in subminiaturized components and assemblies. Choice of lug designs and finishes, including hollow-tube lugs. Generous safety factor at rated voltages.

PART NO.	FIG.	A	B	C	D	F	G
FT-SM-1	8	.515	.210	.040	.100	.172	.148
FT-SM-2C4	8	.535	.210	.050	.110	.172	.148
FT-SM-2C6	8	.410	.147	.050	.110	.172	.148
FT-SM-9L2	8	.407	.125	.040	.132	.172	.148
FT-SM-52	9	.225	.125	.040	.060	.150	.125
FT-SM-55	9	.296	.136	.060	.100	.172	.148
FT-SM-60	9	.367	.207	.050	.110	.218	.171
FT-SM-1 TUR	12	.500	.210	.040	.100	.172	.148
FT-SM-16 TUR	12	.500	.210	.040	.100	.125	.093
FT-SM-21 TUR	13	.531	.210	.040	.125	.218	.185



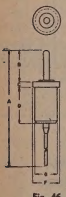


Fig. 46

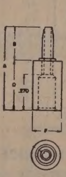


Fig. 51

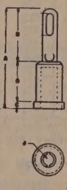


Fig. 52

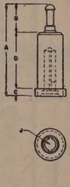
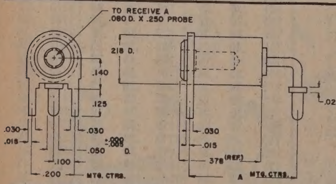


Fig. 53



PRINTED WIRING JACKS

Miniature jacks. Mount flat on printed-wiring board. Double-prong steel strap in front, connection lug at rear, fit into three holes of grid coordinate layout.

Part No. SKT-102 PC (.500″ overall centers)
Part No. SKT-103 PC (.400″ overall centers)

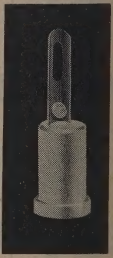
JACKS AND PLUGS

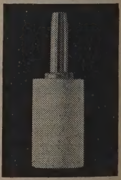
Breakaway connectors (male and female) miniature test point jacks (female) that will accept test instrument probes or companion plugs and patch cord jumpers

PART NO.	FIG.	A	B	C	D	J
SKT 1	52	11/16	.354	.046	.287	.050
SKT-4	52	11/16	.354	.046	.287	.041
SKT-8	52	11/16	.330	.046	.287	.080
SKT-2BC	53	7/16	.120	.046	.281	.090
SKT-5BC	53	7/16	.120	.046	.281	.080
SKT-10	53	.637	.187	.050	.400	.080
SKT-12	53	.375	.060	.046	.269	.090
SKT-13	53	.203	.060	—	.143	.040
SKT-14	53	.345	.120	.046	.179	.040
SKT-15	53	.732	.188	.157	.387	.050

Specifically designed as companion units (male) for connectors and test jacks. Used as test instrument probes, jumper plugs and multiple pin plugs.

PART NO.	FIG.	A	B	C	D	F	G
FT-M-2	46	2.083	1/4	.046	.287	.218	.185
FT-M-4	46	.739	9/32	.046	.287	.218	.185
PR-300	51	.645	.270	.375	—	.218	—





AVAILABLE IN COLORS — DESIGNED FOR COLOR CODING.

SEALECTRO CORPORATION MAMARONECK, N. Y.

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Sealectro PRESS-FIT® TEFLON† TERMINALS

SIMPLE INSTALLATION — WIDEST STOCK SELECTION — ASSORTED LUGS AND PLATING

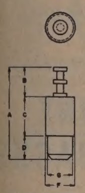


Fig. 26

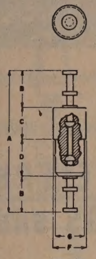


Fig. 27

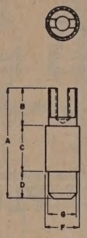


Fig. 31

MINIATURE STAND-OFFS

Wide selection of types in voltage ratings to 4000. Choice of lugs and finishes, as well as bushings. For components and assemblies stressing higher operating voltages rather than space-saving.

PART NO.	FIG.	A	B	C	D	F	G
ST-210	26	.346	.156	.103	.087	.125	.104
ST-250	26	.431	5/32	.125	.150	3/16	.165
ST-1000	26	.493	5/32	.187	.150	3/16	.165
ST-1500	26	.556	5/32	.250	.150	3/16	.165
ST-2000	26	.831	9/32	.400	.150	3/16	.165
ST-2500	26	.968	9/32	.500	.187	1/4	.215
ST-4000	26	1.268	9/32	.800	.187	1/4	.215
DST-1000	27	.819	.210	.187	.212	3/16	.171
DST-1550	27	1.187	9/32	.250	.375	1/4	.218
DST-2550	27	1.687	9/32	.500	.625	1/4	.218
ST-250 SL	31	.478	13/64	.125	.150	3/16	.171
ST-1000 SL	31	.540	13/64	.187	.150	3/16	.171
ST-1500 SL	31	.603	13/64	.250	.150	3/16	.171
ST-2500 SL	31	.890	13/64	.500	.187	1/4	.217
ST-4000 SL	31	1.190	13/64	.800	.187	1/4	.217

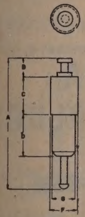


Fig. 33

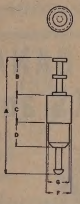


Fig. 35

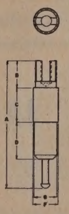
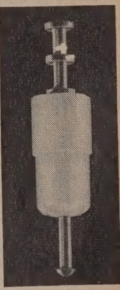


Fig. 37

MINIATURE FEED-THRUS

Handy Feed-thru terminals with choice of lugs. Handling voltage ratings up to 4000. Wide selection of bushing diameters and lengths. Ideal for making connections through chassis or casings, with generous safety factor at rated voltages.

PART NO.	FIG.	A	B	C	D	F	G
FT-310	33	.540	.133	.063	.171	.187	.171
FT-1000	33	.740	1/8	.187	.212	3/16	.171
FT-1500	33	.865	1/8	.250	.275	3/16	.171
FT-2500	33	1.365	1/8	.500	.525	1/4	.217
FT-4000	33	1.965	1/8	.800	.825	1/4	.217
FT-1000 DTUR	35	.836	1/4	.187	.212	3/16	.171
FT-1000 SL	37	.821	13/64	.187	.212	3/16	.171
FT-1500 SL	37	.947	13/64	.250	.275	3/16	.171
FT-2000 SL	37	1.197	13/64	.375	.400	3/16	.171



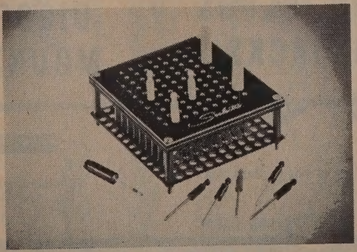
SEALECTOBOARD cordless program boards

PAT. PENDING

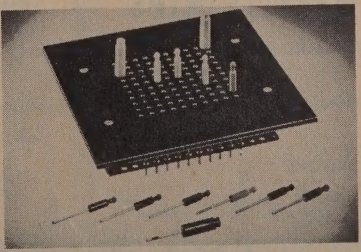
SEALECTOBOARD PROTO-KIT
9x8 SEALECTOBOARD PROTO-KIT

PROTO-KIT®

A complete programming system in a single package ready for use. The Sealectoboard Proto-Kit is available in two sizes, each complete with program board, shorting pins and component holders. Permits switching of multi-points at the push of a pin. Provides component interpositioning at any X-, Y- axis coordinate. The economical, reliable and simple answer to programming.



9 x 8 PROTO-KIT
9 x 8 Sealectoboard
8 shorting pins
3 diode holders



10 x 10 PROTO-KIT
10 x 10 Sealectoboard
10 shorting pins
3 diode holders

SEALECTRO CORPORATION

MAMARONECK, N. Y.

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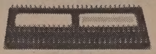
NATIONAL TEL-TRONICS CORPORATION
YONKERS, N. Y.

TERMINAL BOARDS

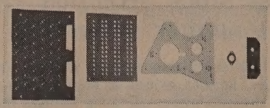
CUSTOM to your specifications



STANDARD

Custom terminal board assemblies to commercial or government specs.

FABRICATED PARTS

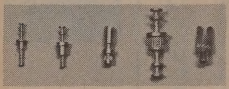


Intricate and precise parts of paper, cloth, nylon or glass laminates.

FABRICATED PRINTED CIRCUITS
TO MILITARY SPECIFICATIONS

Etched type, on copper-clad laminates.

TERMINALS
TURRET—SPLIT—SPECIAL

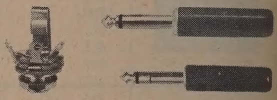


Standard terminals, silver-plated brass. Printed circuit terminals available.

MINIATURE TELEPHONE PLUGS and JACKS

For miniaturized applications.

TELEPHONE PLUGS and JACKS



Complete standard line available.

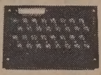
BINDING POST BOARDS
HEAVY DUTY

STANDARD

#2700 line for heavy electronic equipment.

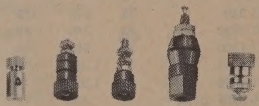
CUSTOM

Custom designed boards using #2700 terminals.



#2400 series binding post with 6-32 screw for television antenna hook-up.

BINDING POSTS



Complete line including wrap-around, 5-way grounding and fully insulated for electronic applications.

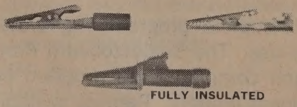
BANANA JACKS and PLUGS

Standard banana jack assembly #813 recommended use with #852 Plug. Custom plugs available.

TEST PROBES

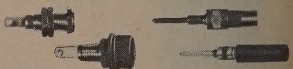
Standard line includes 3/16" or 1/4" hole.

ALLIGATOR CLIPS



Complete line of insulated, screw type and fully insulated types.

TIP PLUGS and JACKS



A complete standard line of insulated and non-insulated plugs and jacks.

TERMINAL STRIPS

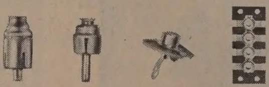
STANDARD

3/8-1/2" centers on 1/16" x 3/8" wide laminations fabricated to meet customer specs.

MINIATURE

Made to customer specs. Recommended where space is a factor.

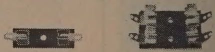
PHONO PLUGS and JACKS



A complete line of phono plugs and jacks.

WRITE FOR DATA!

DIODE and FUSE MOUNTING BASES



Custom made of spring brass and any insulating material to customer specs.

NATIONAL TEL-TRONICS CORPORATION
YONKERS, N. Y.

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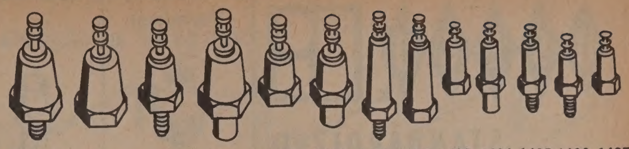
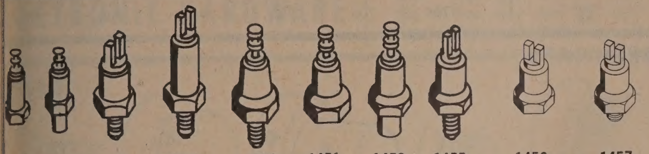
USECO®

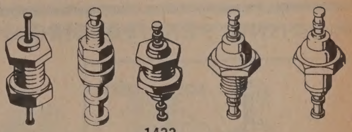
STANDARDIZED ELECTRONIC HARDWARE

INSULATED TERMINALS

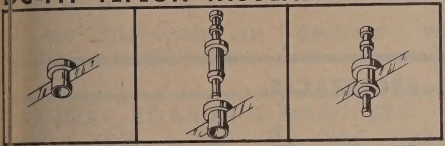

1400
1418
1401
1417
1409
1410
1419
1411
1413
1421
1422
1423
1424
1425
1426
1427


428
1429
1600, 01,02, 03,04,05
1612, 13,14, 15,16,17
1450, 60,70, 80,90
1451, 61,71, 81,91
1452, 62,72, 82,92
1455, 65,75, 85,95
1456, 66,76, 86,96
1457, 67,77, 87,97

Feed-Thru


1430
1431
1432
1433, 34,35 36
1483
1484

C-FIT TEFLON INSULATED TERMINALS

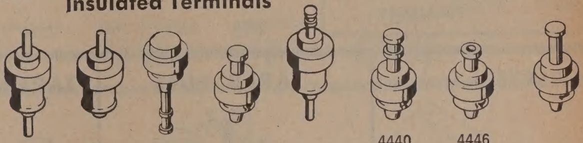


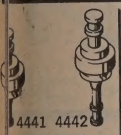
Push Teflon Grommet into hole.

2. Insert LOC-FIT terminal.

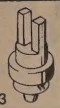
3. Snap LOC-FIT into place.

Insulated Terminals

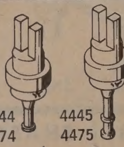

4401
4485
4402
4480
4430
4435
4437
4440
4470
4482
4446
4476
4460


4441 4442
4471 4472

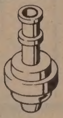
Insulated Feed-Thru


4443
4473
4484

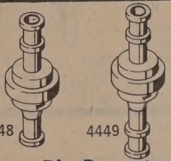
Bifurcated Terminals


4444
4474
4445
4475

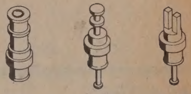
Insulated Bifurcated Feed-Thru



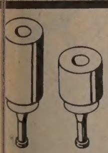
Taper Pin Receptacle



Taper Pin Receptacle Feed-Thru

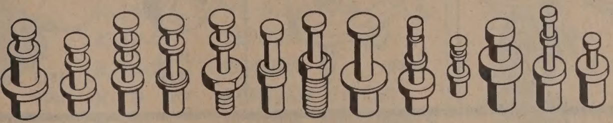

4483
4487
4489

SUB-MINIATURE INSULATED TERMINALS — FEED THRUS — BIFURCATED FEED THRU

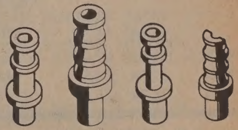


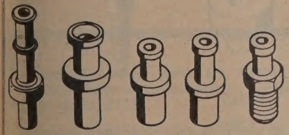
Insulated Test Point

STANDARD TERMINALS Turret

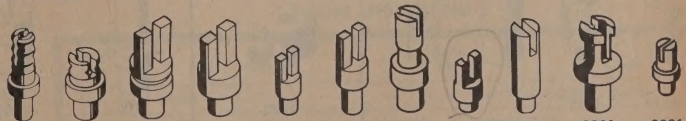

1210
1280
1299
2035
1300
1300T
1340
1340T
1350
1370
2030
2031
2060
2061
2520
2540

Hollow Lug

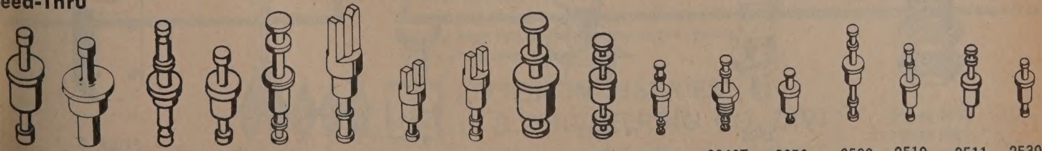

1200
1260
1330
1380


1390
1392
2010
2011
2010T

Bifurcated


1250
1240
1255
1305
1306
1307
1308
1309
1310
1391
2023
2000
2001
2002
2005
2006
2020
2022
2021

eed-Thru


1220
1221
1230
1290
1301
1311
1315
1316
1320
1360
2040
2040T
2050
2500
2509
2510
2511
2530

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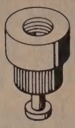
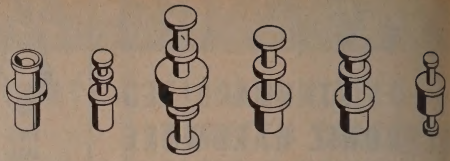
ELECTRONIC HARDWARE

Combination Terminal



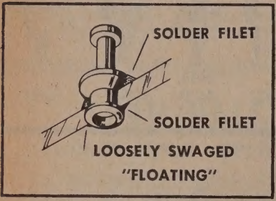
1203

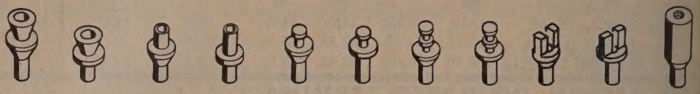
NAS Terminals



704 705 706 707 708 709

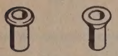
FLOATING PRINTED CIRCUIT TERMINALS





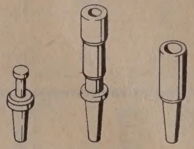
7000 7001 7010 7011 7020 7021 7030 7031 7040 7041 7050

EYELETS



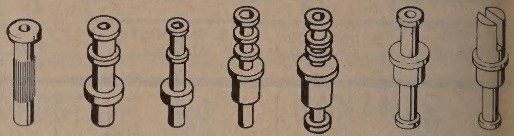
7600 7650

TAPER PINS



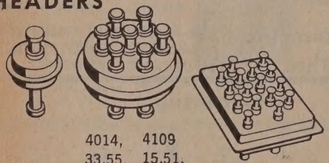
2770 2775 2776

TAPERED RECEPTACLE



2710
2720
2730
2740 2760 2761 2762 2763

HEADERS



4008
4010
4011

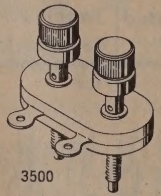
4014,
33,55,
56,64,
67,68,
74,78

4109
15,51,
52,62,
63,64,
65,67

4107
4166

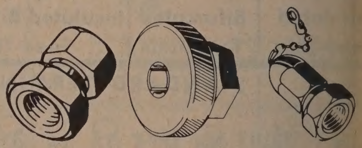
4098

BINDING POST



3500

SHAFT LOCKS

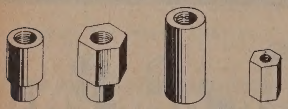


1510
1511
1512

1513
1520

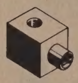
1515
1514
(CAP ONLY)

STAND-OFFS



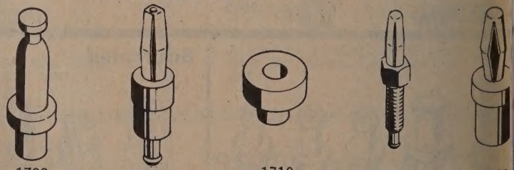
1530 1531
1540 1541 1550 1551

Chassis
Fastener



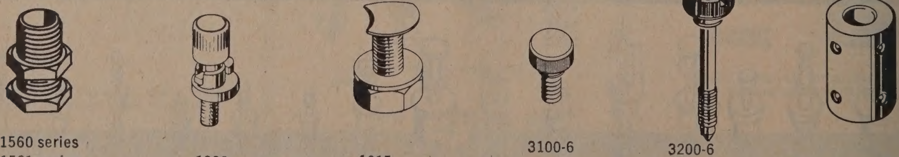
1590
1591

PLUGS & SOCKETS



1700 1705 1710 1715 1780
1785 1782 1786 1716 1781

ACCESSORY HARDWARE



1560 series
1561 series
Chassis
Bushing

1800
Dial
Lock

1815
Dial
Indicator

3100-6
8, 10
Thumb
Screw

3200-6
8,10,25
Captive
Panel Screw

3316A, B
Shaft
Coupling

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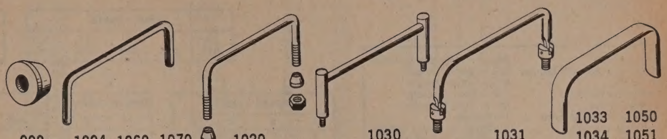
STANDARDIZED
LECTRONIC HARDWARE

HANDLES & FERRULES

Brass and Aluminum



900 901 903

1004 thru 1019

1060 thru 1069

1070 thru 1072

1020 1021

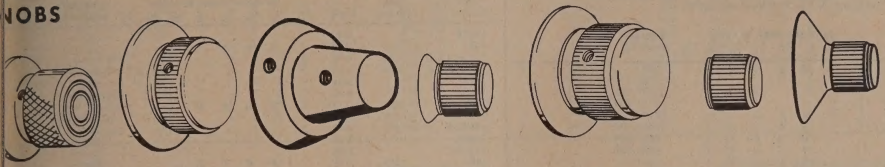
1030

1031 1032

1033 1034 1035 1036

1050 1051 1052 1053

NOBS



0 series
5 series
0 series

400 series
410 series

450 series

500 series
501 series
502 series

550 series
555 series
560 series

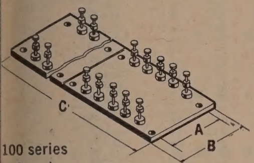
625 series
626 series
627 series

1000 series
1038 series
1040 series

FOR ANODIZED COLORS ORDER BY DASH NO.

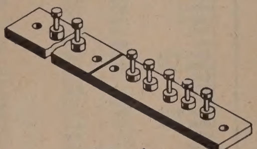
-20 PLAIN	-25 GREEN
-21 BROWN	-26 BLUE
-22 RED	-27 VIOLET
-23 ORANGE	-28 GREY
-24 YELLOW	-30 BLACK

RMINAL BOARDS & BRACKETS



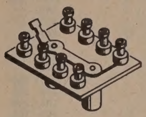
100 series
102 series
200 series
202 series

8001 series
8003 series



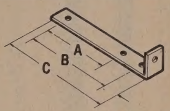
1110 series
1112 series
2210 series
2212 series

8002 series
8004 series



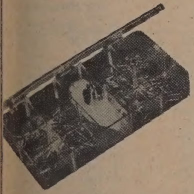
1180 1181 1182

1183 1184 1185



NO.	A	B	C	D	USE ON
11-2	1.50	—	2-1/8	.35	1100B
11-3	1.50	2.00	2-5/8	.35	1100B 1100C
11-4	2.00	2.50	3-5/16	.56	1100C 1100D
11-5	1.50	2.00	2-13/16	.56	1100B 1100C

NGINEERING DESIGN KIT



K-44	LOC FIT
K-14-1	HI ALUMINA
K-14-2	TEFLON
K-14-3	PLASTIC
K-70	PRINTED CIRCUIT
K-12	SOLDER TERMINALS

SWAGING MACHINES AND TOOLS

Model A

How To Order

Order by basic part number of terminal for which tool is to be used. Disregard letter and/or number following basic number.

Example:
1. For terminal #1300 A-1 order tool #1300
2. For LOC-FIT #4430 B-9 order tool #4330

note: unless otherwise specified, tolerances are ±.010

Standard Catalog Items are stocked by USECO Authorized Distributors throughout the country.

Special Items and information may be obtained by writing Litton Industries, U.S. Engineering Co. Div., 13536 Saticoy St., Van Nuys, Calif., or 456 Sylvan Ave., Englewood, N.J.

PLATING SPECIFICATIONS

Dash No.	Finish	Dash No.	Finish
—1	Silver 0.0003	—2	Gold/Silver 0.000030/0.0003
—3	Gold 0.000050	—4	Solder 0.0005
—5	Tin 0.0002	—6	Hot Tin 0.0002
—7	Gold 0.000015	—8	Gold/Nickel 0.000030/0.000050
—9	Gold/Silver 0.000010-0.000020/0.0003-0.0005	—10	Gold 0.000030

Order by Basic Part Number Followed by Dash Number
For Finish Required. Example: 1300A-1

LITTON INDUSTRIES
U. S. ENGINEERING CO. DIV.

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SHANK LENGTH							
NAS	-1	-2	-3	-4			
	A .075	B .105	C .135	D .165	E .195	F .230	.293 G

Al=Aluminum
Bd. Thick.=Board Thickness
Br=Brass
C=Consecutively
CW=Clockwise
CCW=Counter-clockwise
D=Swage Diameter
H=Height
M=Material
Mtg. D=Mounting Diameter
O.H.=Overall Height
O.L.=Overall Length
S.D.=Shaft Diameter
Sk. D. Skirt Diameter
T=Thread
X=Shank or Thread Length, see box as indicated

2

SHANK LENGTH				
AA .037	A .053	B .084	C .115	D .147

3

SHANK LENGTH						
A .054	B .094	C .125	D .156	E .188	F .219	G .281

4

THREAD LENGTH			
A	B	C	D
E .187	F .250	G .312	H .375

5

THREAD LENGTH	
A	B
C .125	D .218

6

SHANK LENGTH				
NAS	-1	-2	-3	-4
	A .062	B .094	C .125	D .156

7

SHANK LENGTH				
NAS	-1	-2	-3	-4
	.078	.109	.141	.17

TERMINALS & EYELETS

Order by Part Number and Letter. For example, 1300A. NAS 704-1, etc., Standard Plating All Metal Terminals -1, Insulated Terminals, -9, P.C. Terminals and Eyelets -7.

Part Number	X (see box no.)	T or D	1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.
			Bd Thick—Order by Letter								
1200	#1	.114		A	B	C	D	E	F		.328/—
1203C	.141	.221				C					.250/.172
1203D	.172	.251					D				.312/.203
1203E	.234	.258						E			.375/.203
1210	#1	.114		A	B	C	D				.266/—
1220	#1	.183			B	C	D	E	F		.250/.203
1221	#1	.183			B	C	D	E	F		.250/.203
1230	#1	.183			B	C	D	E	F		.469/.297
1240	#1	.183			B	C	D	E	F		.481/—
1250	#1	.114		A	B	C	D				.312/—
1255	#1	.114		A	B	C	D				.188/—
1260	#1	.114			B	C	D				.312/—
1280	#1	.091		A	B	C	D				.239/—
1290	#1	.114		A	B	C	D				.156/.125
1299	#1	.114		A	B	C	D	E	F		.421/—
1300	#1	.114		A	B	C	D	E	F	G	.364/—
1300T	.188	4-40									.364/—
1301	#1	.114				C	D	E	F		.364/.312
1305	#1	.114			B	C	D				.344/—
1306	#1	.135			B	C	D				.500/—
1307	#1	.186				C	D	E	F		.688/—
1308	#2	.114		A	B	C	D				.328/—
1309	#1	.091		A	B	C	D				.239/—
1310	#1	.114		A	B	C	D				.312/—
1311	#1	.114			B	C	D				.310/.250
1315	#3	.094			B	C	D				.188/.100
1316	#3	.094			B	C	D				.188/.194
1320	#1	.204			B	C	D	E	F		.344/.125
1330	#1	.135			B	C	D				.312/—
1340	#1	.079		A	B	C	D				.181/—
1340T	.125	2-56									.181/—
1350	#1	.114			B	C	D	E	F		.234/—
1360	#1	.204				C	D	E	F		.364/.315
1370	#1	.114			B	C	D			G	.469/—
1380	#1	.114			B	C	D	E			.312/—
1390	#1	.079		A	B	C	D	E	F		.328/—
1391	#1	.151		A	B	C	D	E	F		.375/—
1392	#1	.111		A	B	C	D				.188/—

Insulation Material

1400 thru 1410—Phenolic
1417 thru 1429 Alkyd
1600 thru 1617 Alkyd
1430, 33, 35—Diallyl Phthalate
1450 thru 1457 Teflon
1470 thru 1477 Teflon
1490 thru 1497 Teflon
1431, 32, 34, 36 Teflon
1460 thru 1467 Hi-Alumina
1480 thru 1487 Hi-Alumina

Part Number	X (see box no.)	T or D	1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.
1400A,B,C,D	#4	6-32									.59/—
1400E,F,G,H	#4	4-40									.59/—
1401		6-32									.59/—
1401A		4-40									.59/—
1409A,B,C,D	#4	6-32									.50/—
1409E,F,G,H	#4	4-40									.50/—
1410	#3	.188		A	B	C	D				.59/—
1411A		6-32									.50/—
1411B		4-40									.50/—
1413	#3	.115		A	B	C	D				.50/—
1417		6-32									.59/—
1417A		4-40									.59/—
1418A,B,C,D	#4	6-32									.59/—
1418E,F,G,H	#4	4-40									.59/—
1419	#3	.188		A	B	C	D				.59/—
1421	.250	6-32									1.08/—
1422		6-32									1.08/—
1423		6-32									.88/—
1424	#1	.115			B	C	D				.53/—
1425	.218	2-56									.53/—
1426A	.125	2-56									.38/—
1426B	.218	2-56									.38/—
1427		2-56									.53/—
1428		2-56									.38/—
1429	#1	.115			B	C	D				.38/—
1430		10-32									.26/.42*
1431		10-32									.26/.42*
1432	.358	5-40									.43/.348
1433		1/4-28									.355/.538*
1434		1/4-28									.355/.538*
1435		3/8-32									.542/.768*
1436		3/8-32									.542/.768*
1450A,B,C,D	#4	6-32									.60/—
1450E,F,G,H	#4	4-40									.60/—
1451		6-32									.63/—
1451A		4-40									.63/—
1452	#4	.188		A	B	C	D				.60/—
1455A,B,C,D	#4	6-32									.60/—
1455E,F,G,H	#4	4-40									.60/—
1456		6-32									.63/—
1456A		4-40									.63/—
1457	#3	.188		A	B	C	D				.60/—
1460A,B,C,D	#4	6-32									.60/—
1460E,F,G,H	#4	4-40									.60/—
1461		6-32									.63/—
1461A		4-40									.63/—
1462	#3	.188		A	B	C	D				.60/—
1465A,B,C,D	#4	6-32									.60/—
1465E,F,G,H	#4	4-40									.60/—
1466		6-32									.63/—
1466A		4-40									.63/—
1467	#3	.188		A	B	C	D				.60/—
1470A,B,C,D	#4	6-32									.51/—
1470E,F,G,H	#4	4-40									.51/—
1471A		2-56									.55/—

*approx.

TERMINALS & EYELETS

Part Number	X (see box no.)	T or D	1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.
			Bd Thick—Order by Letter								
1471B		4-40									.55/—
1472	#1	.115		A	B	C	D				.51/—
1475A,B,C,D	#4	6-32									.51/—
1475E,F,G,H	#4	4-40									.51/—
1476A		2-56									.55/—
1476B		4-40									.55/—
1477	#1	.115		A	B	C	D				.51/—
1480A,B	#5	2-56									.36/—
1480C,D	#5	4-40									.36/—
1481A,		4-40									.42/—
1481B		2-56									.42/—
1482	#3	.115		A	B	C	D				.36/—
1483	.250	1/4-28									.359/.552
1484	#1	.188			B						.39/.29
1485AB	#5	2-56									.36/—
1485CD	#5	4-40									.36/—
1486A		4-40									.42/—
1486B		2-56									.42/—
1487	#3	.115		A	B	C	D				.36/—
1490A,B	#5	2-56									.36/—
1490C,D	#5	4-40									.36/—
1491A		2-56									.39/—
1492	#3	.115		A	B	C	D				.36/—
1495A,B	#5	2-56									.36/—
1495C,D	#5	4-40									.36/—
1496A		2-56									.39/—
1497	#3	.115		A	B	C	D				.36/—
1600A,B,C,D	#4	6-32									.62/—
1600E,F,G,H	#4	4-40									.62/—
1601A		6-32									.62/—
1601B		4-40									.62/—
1602	#1	.115		A	B	C	D				.62/—
1603A,B,C,D	#4	6-32									.56/—
1603E,F,G,H	#4	4-40									.56/—
1604A		6-32									.56/—
1604B		4-40									.56/—
1605	#1	.115		A	B	C	D				.56/—
1612A,B,C,D	#4	6-32									.84/—
1612E,F,G,H	#4	4-40									.84/—
1613A		6-32									.84/—
1613B		4-40									.84/—
1614	#1	.115		A	B	C	D				.84/—
1615A,B,C,D	#4	6-32									.78/—
1615E,F,G,H	#4	4-40									.78/—
1616A		6-32									.78/—
1616B		4-40									.78/—
1617	#1	.115		A	B	C	D				.78/—
1700	#1	.135				C	D				.390/—
1705	#1	.157			B	C	D				.38/.109
1710	#1	.135				C	D				.070/—
1715	.27	2-56									.38/.39
1716	.23	4-40									.36/.36
1780	#1	.190						E	F	G	.48/—
1781	#3	.094			B	C	D				.38/—
1782	#1	.190						E	F	G	.48/.131
1785	#1	.203						E	F	G	.596/—
1786	#1	.205						E	F	G	.094/—
2000	#2	.063	AA	A	B	C	D	E			.156/—
2001	#2	.062	AA	A	B	C	D				.281/—
2002	#2	.042	AA	A	B	C	D				.125/—
2005	#2	.062	AA	A	B	C	D				.312/—
2006	#2	.042	AA	A	B	C	D				.312/—
2010	#2	.063	AA	A	B	C	D				.156/—
2010T	.125	4-40									.156/—
2011	#2	.071	AA	A	B	C	D				.187/—
2020	#2	.063	AA	A	B	C	D				.156/—
2021	#2	.063	AA	A	B	C	D				.156/—
2022	#2	.063	AA	A	B	C	D				.156/—
2023	#2	.048	AA	A	B	C	D				.156/—
2030	#2	.062	AA	A	B	C	D				.156/—
2031	#2	.042	AA	A	B	C	D				.156/—
2035	#1	.089		A	B	C	D				.340/—
2040	#1	.126		A	B	C	D				.239/.136
2040T	.125	5-40									.239/.136
2050	#1	.126		A	B	C	D				.156/.084
2060	#2	.063	AA	A	B	C	D				.094/—
2061	#2	.042	AA	A	B	C	D				.094/—
2500	#2	.091		A	B	C	D				.218/.218
2509	#2	.073		A	B	C	D				.191/.164
2510	#2	.073		A	B	C	D				.191/.082
2511	#2	.073		A	B	C	D				.191/.082
2520	#2	.073		A	B	C	D				.191/—
2530	#2	.073		A	B	C	D				.109/.082
2540	#2	.073		A	B	C	D				.109/—
2710	.531	.094									.030/—
2720	#1	.114		A	B	C	D	E	F		.328/—
2730	#1	.114		A	B	C	D	E	F		.328/—
2740	#1	.079		A	B	C	D	E	F		.328/—
2750	#1	.079		A	B	C	D	E	F		.328/—
2760	#1	.204			B	C	D				.422/.210
2761	#1	.204			B	C	D				.422/.210
2762	#3	.145		A	B	C	D	E	F	G	.250/.250
2763	#3	.145		A	B	C	D	E	F	G	.250/.250
2770	.205	taper									.188/—
2775	.281	taper									.484/—
2776	.281	taper									.250/—
4401		.142		A	B	C					.312/.266
4402		.142		A	B	C					.312/.081
4430		.142		A	B	C	D				.116/.319
4435		.142		A	B	C					.230/.081
4437		.142		A	B	C					.312/.319
4440		.142		A	B	C					.312/.081
4441		.142		A	B	C	D				.312/.205
4442		.142		A	B	C					.312/.319

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LITTON INDUSTRIES/U.S. ENGINEERING CO. DIVISION

TERMINALS & EYELETS (Cont'd)

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.
4443		.142		A	B	C					.312/.081
4444		.142		A	B	C					.312/.205
4445		.142		A	B	C					.312/.319
4446		.142		A	B	C					.230/.081
4447		.188		A	B	C					.400/.081
4448		.188		A	B	C					.400/.247
4449		.188		A	B	C					.400/.369
4450		.126		A	B	C	D				.346/.280
4451		.189		A	B	C	D				.135/.197
4460		.142		A	B	C					.312/.081
4470		.154		A	B	C					.312/.081
4471		.154		A	B	C	D				.312/.205
4472		.154		A	B	C					.312/.319
4473		.154		A	B	C	D				.312/.081
4474		.154		A	B	C					.312/.205
4475		.154		A	B	C					.312/.319
4476		.154		A	B	C					.230/.081
4480		.126		A	B						.260/.060
4482		.126		A	B						.289/.060
4483		.126		A	B						.253/.060
4484		.126		A	B						.289/.060
4485		.126		A	B						.260/.218
4487		.126		A	B						.289/.218
4489		.126		A	B						.289/.218
7000	#6	.062		A	B	C	D				.136/—
7001	#6	.062		A	B	C	D				.104/—
7010	#6	.062		A	B	C	D				.188/—
7011	#6	.062		A	B	C	D				.156/—
7020	#6	.062		A	B	C	D				.136/—
7021	#6	.062		A	B	C	D				.104/—
7030	#6	.062		A	B	C	D				.188/—

TERMINALS & EYELETS

Part Number	X (see box no.)	T or D	Bd Thick—Order by Letter 1/64	1/32	1/16	3/32	1/8	5/32	3/16	1/4	H above/ below bd.
7031	#6	.062		A	B	C	D				.156/—
7040	#6	.062		A	B	C	D				.188/—
7041	#6	.062		A	B	C	D				.156/—
7050	#6	.062		A	B	C	D				.312/—
7600	#6	.030		A	B						
7601	#6	.047		A	B	C	D				
7602	#6	.058		A	B	C	D				
7603	#6	.075		A	B	C	D				
7604	#6	.090		A	B	C	D				
7650A	.051	.030		A							
7650B	.082	.030			B						
7651A	.054	.047		A							
7651B	.085	.047			B						
7651C	.117	.047				C					
7651D	.148	.047					D				
7652A	.068	.058		A							
7652B	.099	.058			B						
7652C	.131	.058				C					
7652D	.162	.058					D				
7653A	.064	.075		A							
7653B	.095	.075			B						
7653C	.127	.075				C					
7653D	.158	.075					D				
7654A	.068	.090		A							
7654B	.099	.090			B						
7654C	.131	.090				C					
7654D	.162	.090					D				
NAS 704	#7	.110		-1	-2	-3	-4				.188/—
NAS 705	#1	.090		-1	-2	-3	-4				.237/—
NAS 706	#6	.201			-2	-3	-4				.342/.315
NAS 707	#7	.112			-2	-3	-4				.360/—
NAS 708	#7	.112			-2	-3	-4				.313/—
NAS 709	#6	.116		-1	-2	-3	-4				.156/.125

TERMINAL BOARDS & BRACKETS

A, B, C Letters Indicated on Drawing

Part Number	M	See Dwg A	B	C
11-2, 3, 4, 5	Steel	(See bracket box)		
1100A	XXXP	1.00	1.50	13.12
1100B	XXXP	1.50	2.00	13.12
1100C	XXXP	2.00	2.50	13.12
1100D	XXXP	2.50	3.00	13.12
1102A	GEE	1.00	1.50	13.12
1102B	GEE	1.50	2.00	13.12
1102C	GEE	2.00	2.50	13.12
1102D	GEE	2.50	3.00	13.12
1110	XXXP	—	.50	13.12
1112	GEE	—	.50	13.12
1180	GMG	.50	.72	.88
1181	GMG	.75	1.03	1.22
1182	GMG	.88	1.16	1.50
1183	GEE	.50	.72	.88
1184	GEE	.75	1.03	1.22
1185	GEE	.88	1.16	1.50
2200B	XXXP	.75	1.00	7.81
2200C	XXXP	.50	.75	7.81
2202B	GEE	.75	1.00	7.81
2202C	GEE	.50	.75	7.81
2210	XXXP	—	.31	7.81
2212	GEE	—	.31	7.81
8001	(materials			(See 1100 series)
8002	and			(See 1110)
8003	configurations			(See 2200 series)
8004	on request)			(See 2210)

1100 and 2200 series scored for 5 sections

KNOBS

Part Number	SD	H	SKD
300	.250	.562	.75
301	.188	.562	.75
302	.125	.562	.75
305	.250	.625	1.00
306	.188	.625	1.00
307	.125	.625	1.00
310	.250	.687	1.25
311	.188	.687	1.25
312	.125	.687	1.25
400	.250	.69	1.12
401	.188	.69	1.12
402	.125	.69	1.12
410	.250	.875	1.81
411	.188	.875	1.81
412	.125	.875	1.81

KNOBS (Cont'd)

Part Number	SD	H	SKD
450	.250/.125	.99	1.00
500	.250	.50	.62
501	.188	.50	.62
502	.125	.50	.62
550	.250	.612	.81
551	.188	.612	.81
552	.125	.612	.81
555	.250	.675	1.03
556	.188	.675	1.03
557	.125	.675	1.03
560	.250	.750	1.23
561	.188	.750	1.23
562	.125	.750	1.23
625	.250	.56	.45
626	.188	.56	.45
627	.125	.56	.45
1000	.250	.75	1.00
1001	.188	.75	1.00
1002	.125	.75	1.00
1038	.250	.88	1.38
1039	.188	.88	1.38
1040	.125	.88	1.38

HANDLES & FERRULES

Part Number	M	T	OL	H
900	Br	(Fits 1004 thru 1019)		
901	Al	(Fits 1060 thru 1069)		
903	Br	(Fits 1070 thru 1072)		
1004	Br	10-32	6.44	1.50
1005	Br	10-32	6.44	1.75
1007	Br	10-32	6.00	1.50
1010	Br	10-32	4.25	1.50
1012	Br	10-32	4.00	1.50
1013	Br	10-32	4.56	1.50
1015	Br	10-32	3.00	1.50
1017	Br	10-32	2.00	1.50
1018	Br	10-32	8.00	1.50
1019	Br	10-32	10.00	1.50
1020	Br	5/16-18	4.25	2.12
1021	Al	5/16-18	4.25	2.12
1030	Br	5/16-18	*	1.50
1031 (90° fold)	Br	3/8-24	4.00	1.81
1032 (180° fold)	Br	3/8-24	4.00	1.81
1033	Br	10-32	3.00	1.28
1034	Br	10-32	4.56	1.50
1035	Br	10-32	6.44	1.75
1036	Br	10-32	9.00	1.75
1050	Al	10-32	3.00	1.28

*Available lengths 3″ to 6″ in ½″ increments.

HANDLES & FERRULES (Cont'd)

Part Number	SD	H		SKD
1051	Al	10-32	4.56	1.50
1052	Al	10-32	6.44	1.75
1053	Al	10-32	9.00	1.75
1060	Al	10-32	6.44	1.50
1061	Al	10-32	6.44	1.75
1062	Al	10-32	6.00	1.50
1063	Al	10-32	4.25	1.50
1064	Al	10-32	4.00	1.50
1065	Al	10-32	4.56	1.50
1066	Al	10-32	3.00	1.50
1067	Al	10-32	2.00	1.50
1068	Al	10-32	8.00	1.50
1069	Al	10-32	10.00	1.50
1070	Br	6-32	1.25	1.00
1071	Br	6-32	1.75	1.00
1072	Br	6-32	2.25	1.00

HEADERS

Part No.	Mtg. D	O.H.	Pins Numbered
4008	17/64	9/16	1
4010	29/64	29/32	1
4011	29/64	1 9/32	1
4014	1 3/32	31/32	1 thru 7 CCW
4033	1 13/32	21/32	1 thru 16 CCW
4055	3/4	17/32	1 thru 9 CW
4056	29/32	17/32	1 thru 12 CW
4064	41/64	7/16	1 thru 8 CW
4067	3/4	7/16	1 thru 9 CW
4068	29/32	7/16	1 thru 12 CW
4074	37/64	7/16	1 thru 7 CW
4078	1 3/32	31/32	1 thru 7 CW
4098	61/64	7/8	1 thru 8 CW
4107	1 9/32x23/32	7/16	1 thru 16 C
4109	29/32	1/2	1 thru 12 CW
4115	3/4	31/32	1 thru 9 CW
4151	29/32	21/32	1 thru 7 CCW
4152	29/32	21/32	1 thru 7 CCW
4162	41/64	13/32	1 thru 8 CW
4163	37/64	13/32	1 thru 7 CW
4164	29/32	13/32	1 thru 12 CW
4165	3/4	13/32	1 thru 9 CW
4166	1 9/32x23/32	13/32	1 thru 16 C
4167	29/32	21/32	1 thru 7 CW

MISC. HARDWARE

Part No.	S.D.	T
1510	.250	3/8-32
1511	.250	3/8-32
1512	.125	1/4-32
1513	.125	1/4-32
1514	Cap Only	
1515	.250	3/8-32
1520	.250	3/8-32

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
1530	#1	6-32, .188	A	B	C	D	.250/—
1531	#1	6-32, .188	A	B	C	D	.250/—
1540	#1	6-32, .188	A	B	C	D	.375/—
1541	#1	6-32, .188	A	B	C	D	.375/—
1550A		4-40, .187					.250/—
1550B		4-40, .187					.375/—
1550C		6-32, .250					.250/—
1550D		6-32, .250					.375/—
1550E		6-32, .250					.500/—
1550F		6-32, .250					.625/—
1550G		6-32, .250					.750/—
1550H		8-32, .375					.250/—
1550I		8-32, .375					.375/—
1550J		8-32, .375					.500/—
1550K		8-32, .375					.625/—
1550M		8-32, .375					.750/—
1551A		4-40, .187					.250/—
1551B		4-40, .187					.375/—
1551C		6-32, .250					.250/—
1551D		6-32, .250					.375/—

MISC. HARDWARE (Cont'd)

Part Number	X (see box no.)	T and D	Bd. Thick.—Order by Letter 1/32	1/16	3/32	1/8	H above/ below bd.
1551E		6-32, .250					.500/—
1551F		6-32, .250					.625/—
1551G		6-32, .250					.750/—
1551H		8-32, .375					.250/—
1551I		8-32, .375					.375/—
1551J		8-32, .375					.500/—
1551K		8-32, .375					.675/—
1551M		8-32, .375					.750/—
1560		3/8-32, .250					.562/—
1560-1		3/8-32, .250					.438/—
1560-2		3/8-32, .250					.375/—
1560-3		3/8-32, .250					.620/—
1561		1/4-32, .125					.562/—
1561-1		1/4-32, .125					.438/—
1561-2		1/4-32, .125					.375/—
1580		3/8-32, .500					.750/—
1590	#1	6-32, .188		B	C	D	.380/—
1591	#1	4-40, .126		B	C	D	.250/—
1800		10-32, .500					1.00/.38
1815		4-40, .250					.04/.375
3100-6		6-32, .420					.375/.500
3100-8		8-32, .420					.375/.500
3100-10		10-32, .420					.375/.500
3200-6		6-32, .094					.188/.692
3200-8		8-32, .120					.188/.692
3200-10		10-32, .140					.188/.692
3200-25		1/4-20, .171					.375/1.125
3316A		.251					.750/—
3316B		.126					.750/—
3500		1.50 x .750					.766/.922

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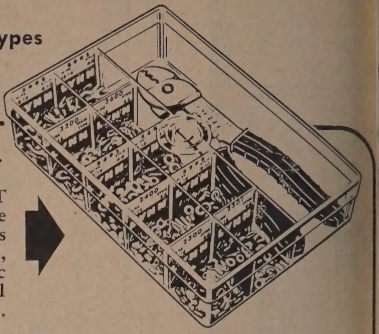
VACO® Solderless Terminals

Now Available in 2 Lines— Insulated and Non-Insulated

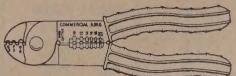
71 different types and sizes



No. 2195 Service Kit

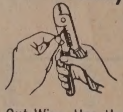
A GENERAL PURPOSE ELECTRICAL, RADIO AND TV KIT containing everything needed for making clean, fast, trouble-free electrical connections. No soldering! No fuss or muss! Kit includes .. No. 1900 Crimping Tool and Terminals Nos. 2300, 2301, 2302, 2400, 2401, 2402, 2600, 2601, 2602, and 3300 . . . all in a clear plastic box with tight-fitting lid. Individual bins marked with terminal stock number cards .... $8.95.

No. 1900 Crimping Tool

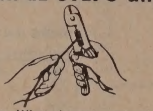


No solder . . . no iron . . . no heating . . . a perfect connection every time with this tool and Solderless Terminals by Vaco! Crimping tool has wire cutters, indenting die, wire-stripping die, shock-proof, slip-proof plastic handle sleeves. For No. 22 to No. 10 gauge wire. $3.95

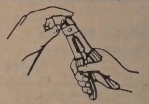
Only 3 SIMPLE STEPS and Terminal Is On



1. Cut Wire. Use the wire cutter built into the crimping tool to cut wire proper length.



2. Strip Wire. Insert end of wire into proper wire stripping opening, close jaws, rotate tool one-half turn, then pull insulation off wire.

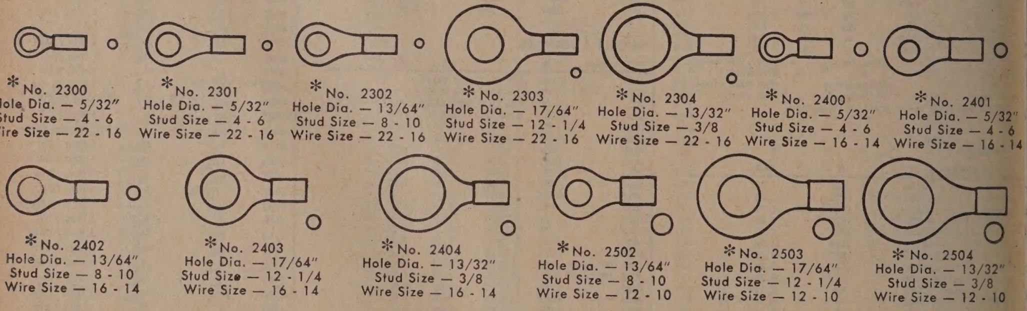


3. Crimp Terminal. Insert stripped portion of wire into terminal barrel, place barrel in proper crimping nest with seam directly opposite crimping tooth and close tool like pliers.

Extra long barrel on terminal provides easy crimp and perfect contact. Only ONE crimp necessary. Barrel always remains round.

Quick Reference Chart for Easy Terminal Identification

RING TONGUE TERMINALS



*No. 2300
Hole Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 22 - 16

*No. 2301
Hole Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 22 - 16

*No. 2302
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 22 - 16

*No. 2303
Hole Dia. — 17/64"
Stud Size — 12 - 1/4
Wire Size — 22 - 16

*No. 2304
Hole Dia. — 13/32"
Stud Size — 3/8
Wire Size — 22 - 16

*No. 2400
Hole Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 16 - 14

*No. 2401
Hole Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 16 - 14

*No. 2402
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 16 - 14

*No. 2403
Hole Dia. — 17/64"
Stud Size — 12 - 1/4
Wire Size — 16 - 14

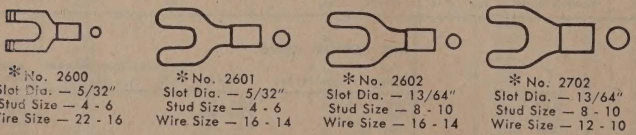
*No. 2404
Hole Dia. — 13/32"
Stud Size — 3/8
Wire Size — 16 - 14

*No. 2502
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 12 - 10

*No. 2503
Hole Dia. — 17/64"
Stud Size — 12 - 1/4
Wire Size — 12 - 10

*No. 2504
Hole Dia. — 13/32"
Stud Size — 3/8
Wire Size — 12 - 10

SPADE TONGUE TERMINALS



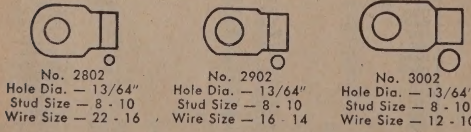
*No. 2600
Slot Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 22 - 16

*No. 2601
Slot Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 16 - 14

*No. 2602
Slot Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 16 - 14

*No. 2702
Slot Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 12 - 10

FLAG TYPE TERMINALS

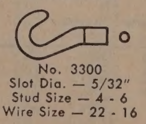


No. 2802
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 22 - 16

No. 2902
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 16 - 14

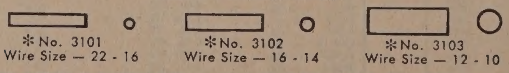
No. 3002
Hole Dia. — 13/64"
Stud Size — 8 - 10
Wire Size — 12 - 10

HOOK TYPE TERMINAL



No. 3300
Slot Dia. — 5/32"
Stud Size — 4 - 6
Wire Size — 22 - 16

BUTT CONNECTORS



*No. 3101
Wire Size — 22 - 16

*No. 3102
Wire Size — 16 - 14

*No. 3103
Wire Size — 12 - 10

*These types available in insulated style . . . use prefix 6 instead of 2. Thus 2300 becomes 6300.

CONVENIENT $ PAK

LYNN
SOLDERLESS TERMINALS

All Lynn Lightning Terminals are available in convenient $ Paks. When any of the "bins" of the service kit are empty, user merely purchases a refill just right for replacing stock. Refill Paks are well marked for trouble-free handling, and designed with "window" for easy identification $1.00

BULK PAK

Also available in bulk—packed 100 pieces to a package or in new "Bulko" Paks of 1000 each.

VACO PRODUCTS CO. • • Chicago Illinois, U.S.A.

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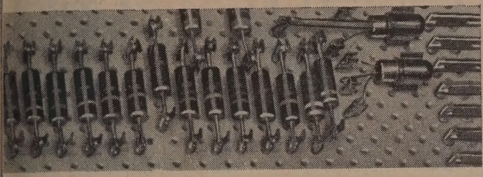
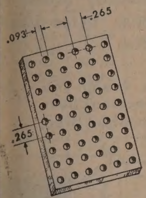
Vector Electronic Company

INCORPORATED

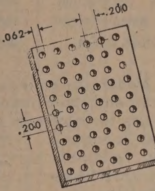
GLENDALE, CALIFORNIA

VECTORBORD

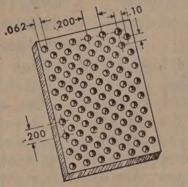




Pattern A



Pattern F



Pattern G

Pattern H - .10 x .10 Spacing

CTORBORD (Pre-Punched Terminal Board) has precision pre-punched .093″ .062″ holes at various spacings on tan XXXP Phenolic (MIL-P-18177) ivory oxy paper (MIL-P-22324), G-10 Epoxy Glass (MIL-P-1877) or Copper clad oxy glass type FLGE-91 (MIL-P-13949-B). Ideal for prototypes and many oduction uses. Vector Push-in Terminals or standard turned terminals and elets fit pre-punched holes. User can make own etched circuits with listed oper clad boards. May be sawed, drilled, or punched.

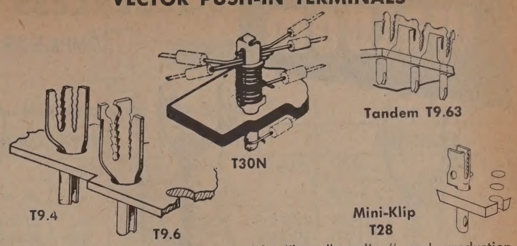
VECTORBORD TABLE OF SIZES

Cat. No.	Hole Size	Pattern	Dimensions	No. of Holes	Price 1-19
XP Phenolic					
18A18	A	.093	4.80 x 4.80 x 1/16	18 x 18	$ .43
32A9	A	.093	8.51 x 2.41 x 1/16	32 x 9	.45
32AA18	A	.093	8.51 x 4.80 x 3/32	32 x 18	.84
64A18	A	.093	4.8 x 16.99 x 1/16	64 x 18	1.25
64AA18	A	.093	4.8 x 16.99 x 3/32	64 x 18	1.60
64AA32	A	.093	16.99 x 8.51 x 3/32	64 x 32	2.45
oxy Paper					
32AA18EP	A	.093	8.51 x 4.80 x 3/32	32 x 18	1.40
64AA18EP	A	.093	16.99 x 4.80 x 3/32	64 x 18	2.73
64AA32EP	A	.093	16.99 x 8.51 x 3/32	64 x 32	4.39
85F24EP	F	.062	16.99 x 4.80 x 1/16	85 x 23	2.06
85G24EP	G	.062	16.99 x 4.80 x 1/16	2(85 x 23)	2.06
oxy Glass					
32A18WE	A	.093	8.51 x 4.80 x 1/16	32 x 18	1.89
42G24WE	G	.062	8.5 x 4.80 x 1/16	2(42 x 24)	1.94
85G24WE	G	.062	16.99 x 4.80 x 1/16	2(85 x 23)	3.81
170H48WE	H	.062	17.00 x 4.80 x 1/16	170 x 47	4.07
opper Clad XXXP Phenolic					
849XXXP-1*	F	.062	3 x 4½	22 x 15	.45
849XXXP-2**	F	.062	3 x 4½	22 x 15	.55
850XXXP-1*	F	.062	4½ x 6½	32 x 22	.84
850XXXP-2**	F	.062	4½ x 6½	32 x 22	1.04
42F22C1*	F	.062	4.5 x 8.5	42 x 22	1.07
42F22C2**	F	.062	4.5 x 8.5	42 x 22	1.34
opper Clad Epoxy Paper					
850EP-1*	F	.062	4.5 x 6.5 x 1/16		1.39
850EP-2**	F	.062	4.5 x 6.5 x 1/16		1.67
opper Clad Epoxy Glass					
42G22WEC1*	G	.062	8.5 x 4.5 x 1/16	2(42 x 22)	2.55
42G22WEC2**	G	.062	8.5 x 4.5 x 1/16	2(42 x 22)	2.60
85F42WEC1*	F	.062	16.99 x 8.51 x 1/16	85 x 42	9.33
85F42WEC2**	F	.062	16.99 x 8.51 x 1/16	85 x 42	10.25
849-1*	F	.062	3.0 x 4.5 x 1/16	22 x 15	1.01
849-2**	F	.062	3.0 x 4.5 x 1/16	22 x 15	1.10
850-1*	F	.062	4.5 x 6.5 x 1/16	32 x 22	2.03
850-2**	F	.062	4.5 x 6.5 x 1/16	32 x 22	2.21

*Indicates 2 oz. Copper Clad 1 Side

*Indicates 2 oz. Copper Clad 2 Sides

VECTOR PUSH-IN TERMINALS



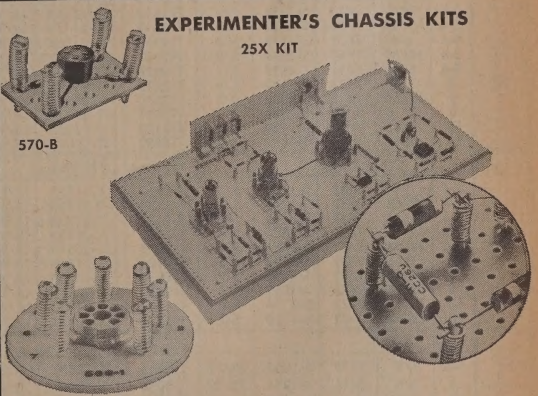
VECTOR PUSH-IN TERMINALS simplify "breadboarding" and production. Push them into .062″ or .093″ holes in 1/16″ or 3/32″ Vectorbord panels and they hold without staking. (May be staked by clipping off flush with board surface or flattening with a pair of pliers for maximum holding, if desired). All terminals except T9.4A have serrated slots to grip inserted wires. Large slot accommodates most resistor and capacitor wires. Small slot hold transistor leads. The T9.4A is supplied without "teeth" on the wire slots to permit easy removal of leads when soldered components must be changed. The T9.6 has a special "snap-in" slot to accommodate .075-080 diode leads. All types have thru hole construction enabling riser wires to be inserted down through center of terminal, and slot or hole in shank for additional connections.

SOLDERLESS SPRINGCLIP TERMINALS—Reliable truly solderless terminals for fast setup of experimental circuitry. May be used over and over—permits reusing expensive components by eliminating heat damage. Extremely low contact resistance—less than .002 ohms for T30. Order insertion tool P-92A for easy insertion in .093″ holes. Suggested board thickness 3/32″ for best support of terminal.

Cat. No.	Fits Holes	Description	Quantity Per Bag	Net Price 1-19 Bags	Bulk Price 1M-4999
T9.4	.093″	Brass, Fused Tin Pltg.	100	$1.25	$ 8.90/M
T9.4A	.093″	Brass, Fused Tin Pltg.	100	1.25	8.90/M
T28	.062″	Beryllium Copper, Fused Tin Pltg.	100	1.55	11.00/M
P91		Inserting Tool for T28	1	.50	
T30	.093″	Brass, Silver Pltg.	10	1.20	
T30	.093″	Brass, Silver Pltg.	100	8.95	63.93/M
T30N	.093″	Brass, Nickel Pltg.	10	1.15	
T30N	.093″	Brass, Nickel Pltg.	100	8.45	58.90/M
P92A		Inserting Tool for T30 & T30N	1	.50	
P92B		Spring Depressing Tool for T30 & T30N	1	.25	
T9.62	.093″	Two T9.6 in Tandem	25	1.22	
T9.63	.093″	Three T9.6 in Tandem	25	1.75	
T9.64	.093″	Four T9.6 in Tandem	25	2.27	

EXPERIMENTER'S CHASSIS KITS

25X KIT



570-B

569-1C

SOLDERLESS SOCKETS

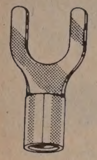
With a Vector Kit you can "breadboard" faster, easier, less expensively and more realistically. All Kits have 3/32″ chassis decks with pre-punched over-all grid of .093 holes, T9.4 Push-in Terminals and T30N Solderless Springclips, grid layout paper, wood or aluminum supporting frame, pot and switch brackets, bus strips, setup hardware (screws, nuts, brackets). Tube sockets are furnished as follows: 20X, 21X, 25X; 3-7-p, 2-8-p, 3-9-p. Transistor sockets, 21X: 6 univ. type 22X: 3 power, 4 univ., 2 Tetrode. 25X: 2 power, 4 univ. Eight wafers to make Solderless Sockets (see illus.) furnished in 25X.

Cat. No.	Description	Net Price 1-19
20X	4¾″ x 8½″ Deck, acces. above plus 75 T9.4, 20 T30N Springclips	$ 6.25
21X	4¾″ x 17″ Deck, acces. above plus 100 T9.4, 50 T30N Springclips Miscellaneous Terminals	15.25
22X	4¾″ x 8½″ Deck, acces. above plus 75 T9.4, 20 T30N Springclips Miscellaneous Terminals	$10.50
25X	4¾″ x 17″ Deck, acces. above plus 100 T9.4, 100 T30N Springclips Miscellaneous Terminals	19.50
567-1C	Solderless Octal Socket	1.50
568-1C	Solderless Noval (9-p.) Socket	1.65
569-1C	Solderless Miniature (7-p.) Socket	1.35
570-B	Solderless Transistor (Univ.) Socket	1.20

WALDOM

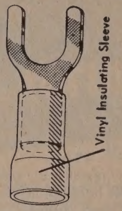
SOLDERLESS TERMINALS AND CONNECTOR

COMPLETE LINE. . . 21 TYPES, 5 CONSTRUCTION STYLES



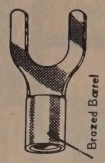
KRIMPTITE ®

Basic non-insulated electro-tin plated copper terminal. One-piece construction for maximum strength and conductivity.



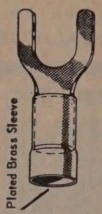
INSULKRIMP ®

All advanced features of KRIMPTITE, plus permantly attached rigid vinyl plastic insulating sleeve for increased vibration resistance.



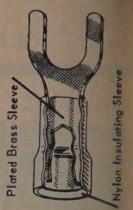
VERSAKRIMP ®

Advantageous features of KRIMPTITE plus the higher tensile strength afforded by BRAZED BARREL construction.



VIBRAKRIMP ®

Particularly suitable where high vibration is a factor. KRIMPTITE construction plus seamless annealed electro-tin plated brass sleeve.



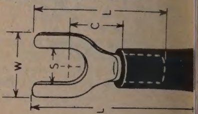
AVIKRIMP ®

All VIBRAKRIMP feature tin-plated brass sleeve pl permanently attached ove lapping nylon insulati sleeve.

Insulated terminals color coded: 22-18 Red, 16-14 Blue, 12-10 Yellow, 8 Red, 6 Blue

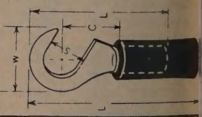
BASIC TERMINAL CONSTRUCTION DETAILS

Material: Annealed electrolytic copper, electro-tin finish. Modern one-piece design for maximum strength and conductivity. With strength gusset, open end rapid inspection, beveled edge to facilitate wire insertion. Circumferential serrations for maximum contact area and grip. Full 1/4 inch barrel length, wide crimping area, easy location. Wire ranges 22-18, .032 stock. Wire Ranges 12-10, ,040 stock. Terminals Terminals in 22-18 and 16-14 wire ranges. Are available with 5/32" barrel by adding "S" to front of part desired. Listed by Underwriter Labs., Inc.



SPADE TONGUE TERMINALS

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stud Size S	Width W	Clearance C		Length L	.125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L		Length L	.145 Max. Insulation Diameter		Length L	.145 Max. Insulation Diameter		Length L
				Cat. No.		Cat. No.	Cat. No.		Cat. No.		Cat. No.	Cat. No.		Cat. No.	Cat. No.	
22–18	3-4	1/4	7/32	S-1116	5/8	T-2116	T-2116X	13/16	B-3116	5/8	D-4116		25/32	N-5116		13/16
	3-4	19/64	7/32	S-1117	5/8	T-2117	T-2117X	13/16	B-3117	5/8	D-4117		25/32	N-5117		13/16
	5-6	1/4	7/32	S-1118	5/8	T-2118	T-2118X	13/16	B-3118	5/8	D-4118		25/32	N-5118		13/16
	5-6	19/64	7/32	S-1014	5/8	T-2014	T-2014X	13/16	B-3014	5/8	D-4014		25/32	N-5014		13/16
	5-6	5/16	5/16	S-1029	3/4	T-2029	T-2029X	15/16	B-3029	3/4	D-4029		29/32	N-5029		15/16
	8	1/4	7/32	S-1119	5/8	T-2119	T-2119X	13/16	B-3119	5/8	D-4119		25/32	N-5119		13/16
	8	19/64	7/32	S-1030	5/8	T-2030	T-2030X	13/16	B-3030	5/8	D-4030		25/32	N-5030		13/16
	8	5/16	5/16	S-1031	3/4	T-2031	T-2031X	15/16	B-3031	3/4	D-4031		29/32	N-5031		15/16
	10	19/64	7/32	S-1120	5/8	T-2120	T-2120X	13/16	B-3120	5/8	D-4120		25/32	N-5120		13/16
	10	5/16	5/16	S-1032	3/4	T-2032	T-2032X	15/16	B-3032	3/4	D-4032		29/32	N-5032		15/16
16–14						.155 Max.	.175 Max.				.175 Max.			.175 Max		
	3-4	1/4	7/32	S-1121	5/8	T-2121	T-2121X	13/16	B-3121	5/8	D-4121		25/32	N-5121		13/16
	3-4	19/64	7/32	S-1122	5/8	T-2122	T-2122X	13/16	B-3122	5/8	D-4122		25/32	N-5122		13/16
	5-6	1/4	7/32	S-1123	5/8	T-2123	T-2123X	13/16	B-3123	5/8	D-4123		25/32	N-5123		13/16
	5-6	19/64	7/32	S-1015	5/8	T-2015	T-2015X	13/16	B-3015	5/8	D-4015		25/32	N-5015		13/16
	5-6	23/64	9/32	S-1051	3/4	T-2051	T-2051X	15/16	B-3051	3/4	D-4051		29/32	N-5051		15/16
	8	1/4	7/32	S-1124	5/8	T-2124	T-2124X	13/16	B-3124	5/8	D-4124		25/32	N-5124		13/16
	8	19/64	7/32	S-1033	5/8	T-2033	T-2033X	13/16	B-3033	5/8	D-4033		25/32	N-5033		13/16
	8	23/64	9/32	S-1052	3/4	T-2052	T-2052X	15/16	B-3052	3/4	D-4052		29/32	N-5052		15/16
	10	19/64	7/32	S-1104	5/8	T-2104	T-2104X	13/16	B-3104	5/8	D-4104		25/32	N-5104		13/16
	10	23/64	9/32	S-1016	3/4	T-2016	T-2016X	15/16	B-3016	3/4	D-4016		29/32	N-5016		15/16
12–10						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
	5-6	3/8	5/16	S-1053	25/32	T-2053	T-2053X	1-3/32	B-3053	25/32	D-4053	D-4053X	1-1/32	N-5053	N-5053X	1-5/64
	8	3/8	5/16	S-1054	25/32	T-2054	T-2054X	1-3/32	B-3054	25/32	D-4054	D-4054X	1-1/32	N-5054	N-5054X	1-5/64
	10	3/8	5/16	S-1017	25/32	T-2017	T-2017X	1-3/32	B-3017	25/32	D-4017	D-4017X	1-1/32	N-5017	N-5017X	1-5/64



HOOK TONGUE TERMINALS

22–18						.125 Max.	.145 Max.				.145 Max.			.145 Max.		
	5-6	5/16	5/16	S-1018	23/32	T-2018	T-2018X	29/32	B-3018	23/32	D-4018		7/8	N-5018		29/32
	8	5/16	5/16	S-1036	23/32	T-2036	T-2036X	29/32	B-3036	23/32	D-4036		7/8	N-5036		29/32
	10	5/16	5/16	S-1037	23/32	T-2037	T-2037X	29/32	B-3037	23/32	D-4036		7/8	N-5037		29/32
16–14						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
	5-6	11/32	9/32	S-1038	23/32	T-2038	T-2038X	29/32	B-3038	23/32	D-4038		7/8	N-5038		29/32
	8	11/32	9/32	S-1039	23/32	T-2039	T-2039X	29/32	B-3039	23/32	D-4039		7/8	N-5039		29/32
	10	11/32	9/32	S-1040	23/32	T-2040	T-2040X	29/32	B-3040	23/32	D-4040		7/8	N-5040		29/32
12–10						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
	5-6	3/8	5/16	S-1057	3/4	T-2057	T-2057X	1-1/16	B-3057	3/4	D-4057	D-4057X	1	N-5057	N-5057X	1-3/64
	8	3/8	5/16	S-1058	3/4	T-2058	T-2058X	1-1/16	B-3058	3/4	D-4058	D-4058X	1	N-5058	N-5058X	1-3/64
	10	3/8	5/16	S-1045	3/4	T-2045	T-2045X	1-1/16	B-3045	3/4	D-4045	D-4045X	1	N-5045	N-5045X	1-3/64

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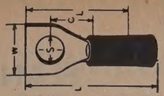
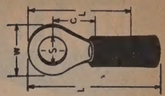
Rectangular Tongue





Ring Tongue

ECTANGULAR TONGUE TERMINALS – Not available with 5/32'' barrel

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
re nge	Stud Size S	Width W	Clear-ance C	Cat. No.	Length L	.125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L
22-18	3-4	1/4	7/32	S-1127	5/8	T-2127	T-2127X	13/16	B-3127	5/8	D-4127		25/32	N-5127		13/16
	3-4	19/64	7/32	S-1128	5/8	T-2128	T-2128X	13/16	B-3128	5/8	D-4128		25/32	N-5128		13/16
	5-6	1/4	7/32	S-1129	5/8	T-2129	T-2129X	13/16	B-3129	5/8	D-4129		25/32	N-5129		13/16
	5-6	19/64	7/32	S-1071	5/8	T-2071	T-2071X	13/16	B-3071	5/8	D-4071		25/32	N-5071		13/16
	5-6	5/16	5/16	S-1130	3/4	T-2130	T-2130X	15/16	B-3130	3/4	D-4130		29/32	N-5130		15/16
	8	1/4	7/32	S-1131	5/8	T-2131	T-2131X	13/16	B-3131	5/8	D-4131		25/32	N-5131		13/16
	8	19/64	7/32	S-1072	5/8	T-2072	T-2072X	13/16	B-3072	5/8	D-4072		25/32	N-5072		13/16
	8	5/16	5/16	S-1132	3/4	T-2132	T-2132X	15/16	B-3132	3/4	D-4132		29/32	N-5132		15/16
	10	19/64	7/32	S-1073	5/8	T-2073	T-2073X	13/16	B-3073	5/8	D-4073		25/32	N-5073		13/16
	10	5/16	5/16	S-1133	3/4	T-2133	T-2133X	15/16	B-3133	3/4	D-4133		29/32	N-5133		15/16
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	3-4	1/4	7/32	S-1134	5/8	T-2134	T-2134X	13/16	B-3134	5/8	D-4134		25/32	N-5134		13/16
	3-4	19/64	7/32	S-1135	5/8	T-2135	T-2135X	13/16	B-3135	5/8	D-4135		25/32	N-5135		13/16
	5-6	1/4	7/32	S-1136	5/8	T-2136	T-2136X	13/16	B-3136	5/8	D-4136		25/32	N-5136		13/16
	5-6	19/64	7/32	S-1074	5/8	T-2074	T-2074X	13/16	B-3074	5/8	D-4074		25/32	N-5074		13/16
	5-6	23/64	9/32	S-1137	3/4	T-2137	T-2137X	15/16	B-3137	3/4	D-4137		29/32	N-5137		15/16
	8	1/4	7/32	S-1138	5/8	T-2138	T-2138X	13/16	B-3138	5/8	D-4138		25/32	N-5138		13/16
	8	19/64	7/32	S-1075	5/8	T-2075	T-2075X	13/16	B-3075	5/8	D-4075		25/32	N-5075		13/16
	8	23/64	9/32	S-1139	3/4	T-2139	T-2139X	15/16	B-3139	3/4	D-4139		29/32	N-5139		15/16
	10	19/64	7/32	S-1076	5/8	T-2076	T-2076X	13/16	B-3076	5/8	D-4076		25/32	N-5076		13/16
	10	23/64	9/32	S-1140	3/4	T-2140	T-2140X	15/16	B-3140	3/4	D-4140		29/32	N-5140		15/16
						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
12-10	5-6	3/8	5/16	S-1077	25/32	T-2077	T-2077X	1-3/32	B-3077	25/32	D-4077	D-4077X	1-1/32	N-5077	N-5077X	1-5/64
	8	3/8	5/16	S-1078	25/32	T-2078	T-2078X	1-3/32	B-3078	25/32	D-4078	D-4078X	1-1/32	N-5078	N-5078X	1-5/64
	10	3/8	5/16	S-1079	25/32	T-2079	T-2079X	1-3/32	B-3079	25/32	D-4079	D-4079X	1-1/32	N-5079	N-5079X	1-5/64

ING TONGUE TERMINALS

						.125 Max.	.145 Max.				.145 Max.			.145 Max.		
22-18	2	7/32	5/32	S-1099	33/64	T-2099	T-2099X	45/64	B-3099	33/64	D-4099		43/64	N-5099		45/64
	3-4	7/32	5/32	S-1047	33/64	T-2047	T-2047X	45/64	B 3047	33/64	D-4047		43/64	N-5047		45/64
	3-4	9/32	1/4	S-1096	41/64	T-2096	T-2096X	53/64	B-3096	41/64	D-4096		51/64	N-5096		53/64
	5-6	7/32	5/32	S-1001	33/64	T-2001	T-2001X	45/64	B-3001	33/64	D-4001		43/64	N-5001		45/64
	5-6	9/32	1/4	S-1002	41/64	T-2002	T-2002X	53/64	B-3002	41/64	D-4002		51/64	N-5002		53/64
	5-6	5/16	5/16	S-1103	23/32	T-2103	T-2103X	29/32	B-3103	23/32	D-4103		7/8	N-5103		29/32
	8	9/32	1/4	S-1097	41/64	T-2097	T-2097X	53/64	B-3097	41/64	D-4097		51/64	N-5097		53/64
	8	5/16	5/16	S-1021	23/32	T-2021	T-2021X	29/32	B-3021	23/32	D-4021		7/8	N-5021		29/32
	10	9/32	1/4	S-1098	41/64	T-2098	T-2098X	53/64	B-3098	41/64	D-4098		51/64	N-5098		53/64
	10	5/16	5/16	S-1003	23/32	T-2003	T-2003X	29/32	B-3003	23/32	D-4003		7/8	N-5003		29/32
	10	15/32	.400	S-1111	57/64	T-2111	T-2111X	1-5/64	B-3111	57/64	D-4111		1-3/64	N-5111		1-5/64
	10	9/16	9/16	S-1141	1-7/64	T-2141	T-2141X	1-19/64	B-3141	1-7/64	D-4141		1-17/64	N-5141		1-19/64
	1/4	15/32	.400	S-1004	57/64	T-2004	T-2004X	1-5/64	B-3004	57/64	D-4004		1-3/64	N-5004		1-5/64
	1/4	9/16	9/16	S-1179	1-7/64	T-2179	T-2179X	1-19/64	B-3179	1-7/64	D-4179		1-17/64	N-5179		1-19/64
	5/16	15/32	.400	S-1005	57/64	T-2005	T-2005X	1-5/64	B-3005	57/64	D-4005		1-3/64	N-5005		1-5/64
	5/16	9/16	9/16	S-1142	1-7/64	T-2142	T-2142X	1-19/64	B-3142	1-7/64	D-4142		1-17/64	N-5142		1-19/64
	3/8	9/16	9/16	S-1143	1-7/64	T-2143	T-2143X	1-19/64	B-3143	1-7/64	D-4143		1-17/64	N-5143		1-19/64
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	2	1/4	7/32	S-1102	19/32	T-2102	T-2102X	25/32	B-3102	19/32	D-4102		3/4	N-5102		25/32
	3-4	1/4	7/32	S-1048	19/32	T-2048	T-2048X	25/32	B-3048	19/32	D-4048		3/4	N-5048		25/32
	3-4	5/16	9/32	S-1112	45/64	T-2112	T-2112X	57/64	B-3112	45/64	D-4112		55/64	N-5112		57/64
	3-4	11/32	5/16	S-1095	47/64	T-2095	T-2095X	59/64	B-3095	47/64	D-4095		57/64	N-5095		59/64
	5-6	1/4	7/32	S-1006	19/32	T-2006	T-2006X	25/32	B-3006	19/32	D-4006		3/4	N-5006		25/32
	5-6	5/16	9/32	S-1007	45/64	T-2007	T-2007X	57/64	B-3007	45/64	D-4007		55/64	N-5007		57/64
	5-6	11/32	5/16	S-1092	47/64	T-2092	T-2092X	59/64	B-3092	47/64	D-4092		57/64	N-5092		59/64
	8	1/4	7/32	S-1113	19/32	T-2113	T-2113X	25/32	B-3113	19/32	D-4113		3/4	N-5113		25/32
	8	5/16	9/32	S-1024	45/64	T-2024	T-2024X	57/64	B-3024	45/64	D-4024		55/64	N-5024		57/64
	8	11/32	5/16	S-1093	47/64	T-2093	T-2093X	59/64	B-3093	47/64	D-4093		57/64	N-5093		59/64
	10	5/16	9/32	S-1008	45/64	T-2008	T-2008X	57/64	B-3008	45/64	D-4008		55/64	N-5008		57/64
	10	11/32	5/16	S-1094	47/64	T-2094	T-2094X	59/64	B-3094	47/64	D-4094		57/64	N-5094		59/64
	10	15/32	.400	S-1106	57/64	T-2106	T-2106X	1-5/64	B-3106	57/64	D-4106		1-3/64	N-5106		1-5/64
	10	9/16	9/16	S-1144	1-7/64	T-2144	T-2144X	1-19/64	B-3144	1-7/64	D-4144		1-17/64	N-5144		1-19/64
	1/4	15/32	.400	S-1009	57/64	T-2009	T-2009X	1-5/64	B-3009	57/64	D-4009		1-3/64	N-5009		1-5/64
	1/4	9/16	9/16	S-1145	1-7/64	T-2145	T-2145X	1-19/64	B-3145	1-7/64	D-4145		1-17/64	N-5145		1-19/64
	5/16	15/32	.400	S-1041	57/64	T-2041	T-2041X	1-5/64	B-3041	57/64	D-4041		1-3/64	N-5041		1-5/64
	5/16	9/16	9/16	S-1146	1-7/64	T-2146	T-2146X	1-19/64	B-3146	1-7/64	D-4146		1-17/64	N-5146		1-19/64
	3/8	9/16	9/16	S-1147	1-7/64	T-2147	T-2147X	1-19/64	B-3147	1-7/64	D-4147		1-17/64	N-5147		1-19/64
						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
12-10	3/4	9/32	5/16	S-1148	45/64	T-2148	T-2148X	1-1/64	B-3148	45/64	D-4148	D-4148X	61/64	N-5148	N-5148X	1
	3/4	3/8	5/16	S-1114	3/4	T-2114	T-2114X	1-1/16	B-3114	3/4	D-4114	D-4114X	1	N-5114	N-5114X	1-3/64
	5-6	9/32	5/16	S-1149	45/64	T-2149	T-2149X	1-1/64	B-3149	45/64	D-4149	D-4149X	61/64	N-5149	N-5149X	1
	5-6	3/8	5/16	S-1049	3/4	T-2049	T-2049X	1-1/16	B-3049	3/4	D-4049	D-4049X	1	N-5049	N-5049X	1-3/64
	8	9/32	5/16	S-1150	45/64	T-2150	T-2150X	1-1/64	B-3150	45/64	D-4150	D-4150X	61/64	N-5150	N-5150X	1
	8	3/8	5/16	S-1050	3/4	T-2050	T-2050X	1-1/16	B-3050	3/4	D-4050	D-4050X	1	N-5050	N-5050X	1-3/64
	10	3/8	5/16	S-1011	3/4	T-2011	T-2011X	1-1/16	B-3011	3/4	D-4011	D-4011X	1	N-5011	N-5011X	1-3/64
	10	17/32	13/32	S-1115	59/64	T-2115	T-2115X	1-15/64	B-3115	59/64	D-4115	D-4115X	1-7/64	N-5115	N-5115X	1-7/32
	10	19/32	31/64	S-1107	1-1/32	T-2107	T-2107X	1-11/32	B-3107	1-1/32	D-4107	D-4107X	1-9/32	N-5107	N-5107X	1-21/64
	1/4	17/32	13/32	S-1100	59/64	T-2100	T-2100X	1-15/64	B-3100	59/64	D-4100	D-4100X	1-7/64	N-5100	N-5100X	1-7/32
	1/4	19/32	31/64	S-1012	1-1/32	T-2012	T-2012X	1-11/32	B-3012	1-1/32	D-4012	D-4012X	1-9/32	N-5012	N-5012X	1-21/64
	1/4	3/4	5/8	S-1151	1-17/64	T-2151	T-2151X	1-37/64	B-3151	1-17/64	D-4151	D-4151X	1-33/64	N-5151	N-5151X	1-9/16
	5/16	17/32	13/32	S-1101	59/64	T-2101	T-2101X	1-15/64	B-3101	59/64	D-4101	D-4101X	1-7/64	N-5101	N-5101X	1-7/32
	5/16	19/32	31/64	S-1042	1-1/32	T-2042	T-2042X	1-11/32	B-3042	1-1/32	D-4042	D-4042X	1-9/32	N-5042	N-5042X	1-21/64
	5/16	3/4	5/8	S-1152	1-17/64	T-2152	T-2152X	1-37/64	B-3152	1-17/64	D-4152	D-4152X	1-33/64	N-5152	N-5152X	1-9/16
	3/8	19/32	31/64	S-1013	1-1/32	T-2013	T-2013X	1-11/32	B-3013	1-1/32	D-4013	D-4013X	1-9/32	N-5013	N-5013X	1-21/64
	3/8	3/4	5/8	S-1153	1-17/64	T-2153	T-2153X	1-37/64	B-3153	1-17/64	D-4153	D-4153X	1-33/64	N-5153	N-5153X	1-9/16
	7/16	3/4	5/8	S-1154	1-17/64	T-2154	T-2154X	1-37/64	B-3154	1-17/64	D-4154	D-4154X	1-33/64	N-5154	N-5154X	1-9/16
	1/2	3/4	5/8	S-1155	1-17/64	T-2155	T-2155X	1-37/64	B-3155	1-17/64	D-4155	D-4155X	1-33/64	N-5155	N-5155X	1-9/16

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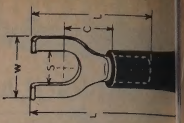
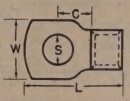
SOLDERLESS TERMINALS AND CONNECTORS

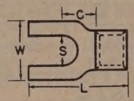
FLANGED SPADE TERMINALS



	Basic Dimensions			KRIMPTITE		INSULKRIMP			VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stud Size S	Width W	Clearance C	Cat. No.	Length L	.125 Max. Insulation Diameter	.145 Max. Insulation Diameter	Length L	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L	.145 Max. Insulation Diameter	Cat. No.	Length L
22-18	3-4 5-6 8 10	19/64 19/64 19/64 19/64	7/32 7/32 7/32 7/32	S-1125 S-1080 S-1081 S-1082	5/8 5/8 5/8 5/8	T-2125 T-2080 T-2081 T-2082	T-2125X T-2080X T-2081X T-2082X	13/16 13/16 13/16 13/16	B-3125 B-3080 B-3081 B-3082	5/8 5/8 5/8 5/8	D-4125 D-4080 D-4081 D-4082		25/32 25/32 25/32 25/32	N-5125 N-5080 N-5081 N-5082		13/16 13/16 13/16 13/16
						.155 Max.	.175 Max.				.175 Max.			.175 Max.		
16-14	3-4 5-6 8 10	19/64 19/64 19/64 19/64	7/32 7/32 7/32 7/32	S-1126 S-1083 S-1084 S-1085	5/8 5/8 5/8 5/8	T-2126 T-2083 T-2084 T-2085	T-2126X T-2083X T-2084X T-2085X	13/16 13/16 13/16 13/16	B-3126 B-3083 B-3084 B-3085	5/8 5/8 5/8 5/8	D-4126 D-4083 D-4084 D-4085		25/32 25/32 25/32 25/32	N-5126 N-5083 N-5084 N-5085		13/16 13/16 13/16 13/16
12-10						.215 Max.	.255 Max.				.235 Max.	.255 Max.		.235 Max.	.255 Max.	
	5-6 8 10	3/8 3/8 3/8	5/16 5/16 5/16	S-1086 S-1087 S-1088	3/4 3/4 3/4	T-2086 T-2087 T-2088	T-2086X T-2087X T-2088X	1-1/16 1-1/16 1-1/16	B-3086 B-3087 B-3088	3/4 3/4 3/4	D-4086 D-4087 D-4088	D-4086X D-4087X D-4088X	1 1 1	N-5086 N-5087 N-5088	N-5086X N-5087X N-5088X	1-3/64 1-3/64 1-3/64

FLAG TYPE TERMINALS-CLOSED AND OPEN

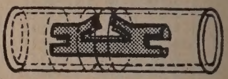




	Basic Dimensions				KRIMPTITE		KRIMPTITE	
Wire Range	Stud Size S	Maximum Width W	Clearance C	Stock	Catalog Number	Length L	Catalog Number	Length L
22-18	5-6 8 10	3/8 3/8 3/8	5/16 5/16 5/16	.032 .032 .032	S-1059 S-1060 S-1043	5/8 5/8 5/8	S-1156 S-1157 S-1158	5/8 5/8 5/8
16-14	5-6 8 10	3/8 3/8 3/8	5/16 5/16 5/16	.032 .032 .032	S-1061 S-1062 S-1044	21/32 21/32 21/32	S-1159 S-1160 S-1161	21/32 21/32 21/32
12-10	5-6 8 10	3/8 3/8 3/8	5/16 5/16 5/16	.040 .040 .040	S-1108 S-1109 S-1110	23/32 23/32 23/32	S-1162 S-1163 S-1164	23/32 23/32 23/32

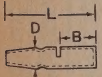
Insulated Snap Plug Receptacle

An insulated connector for use with S-1055, T-2055, T-2055X, or D-4055 only. One snap plug is inserted in either end of the receptacle. Tubular Shell is high impact transparent Styrene.



Cat. No. PR-1426

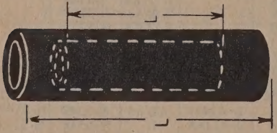
SNAP PLUGS



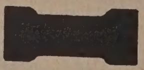
.032 Stock

	Basic Dimensions			KRIMPTITE		INSULKRIMP			VIBRAKRIMP		AVIKRIMP	
Wire Range	Length L	Barrel Length B	Diameter D	Catalog Number	Length L	.155 Max. Insulation Diameter	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L
16-14	35/64	3/16	.176	S-1056	35/64	T-2056	T-2056X	51/64	D-4056	49/64	N-5056	51/64
16-14	19/32	3/16	.157	S-1055	19/32	T-2055	T-2055X	27/32	D-4055	13/16	N-5055	27/32

BUTT CONNECTORS

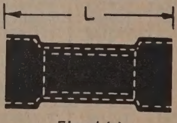


Straight



Flared (X)

PARALLEL CONNECTORS



Flared (x)

Straight

Wire ranges represent cumulative totals of wires used.

	KRIMPTITE		INSULKRIMP			VERSAKRIMP	
Wire Range	Catalog No.	Overall Length L	Catalog No.	Catalog No.	Overall Length L	Catalog No.	Overall Length
22-18	S-1019	9/16	T-2019 (.125 I.D)	T-2019X (.145 I.D.)	15/16	B-3019S	21/32
16-14	S-1020	9/16	T-2020 (.155 I. D.)	T-2020X (.175 I. D.)	15/16	B-3020S	21/32
12-10	S-1046	9/16	T-2046 (.215 I.D.)	T-2046X (.255 I.D)	1-1/16	B-3046S	21/32

	KRIMPTITE		INSULKRIMP			VERSAKRIMP	
Wire Range	Catalog No.	Overall Length L	Catalog No.	Catalog No.	Overall Length L	Catalog No.	Overall Length L
22-18	S-1105	5/16	T-2105 (.125 I.D.)	T-2105X (.145 I.D.)	11/16	B-3105S	5/16
16-14	S-1063	5/16	T-2063 (.155 I.D.)	T-2063X (.175 I. D.)	11/16	B-3063S	5/16
12-10	S-1064	5/16	T-2064 (.215 I.D.)	T-2064X (.255 I.D)	25/32	B-3064S	5/16

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

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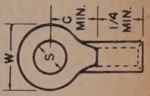
SOLDERLESS TERMINALS AND CONNECTORS

HEAVY DUTY TERMINALS

(USE 12-10 TOOLING)

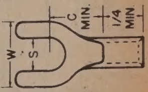
NG TONGUE .050 STOCK

se terminals are formed from heavier stock (full .050") to resist heavy vibration that tures standard terminals.



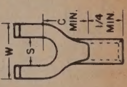
	Basic Dimensions			KRIMPTITE		INSULKRIMP			VIBRAKRIMP			AVIKRIMP		
e ge	Stud Size S	Width W	Clearance C	Catalog Number	Length L	.215 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L	.235 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L	.235 Max. Insulation Diameter	.255 Max. Insulation Diameter	Length L
	3-4	9/32	5/16	S-1401H	45/64	T-2401H	T-2401HX	1-1/64	D-4401H	D-4401HX	61/64	N-5401H	N-5401HX	1
		3/8	5/16	S-1402H	3/4	T-2402H	T-2402HX	1-1/16	D-4402H	D-4402HX	1	N-5402H	N-5402HX	1-3/64
	5-6	9/32	5/16	S-1403H	45/64	T-2403H	T-2403HX	1-1/64	D-4403H	D-4403HX	61/64	N-5403H	N-5403HX	1
		3/8	5/16	S-1404H	3/4	T-2404H	T-2404HX	1-1/16	D-4404H	D-4404HX	1	N-5404H	N-5404HX	1-3/64
	8	9/32	5/16	S-1405H	45/64	T-2405H	T-2405HX	1-1/64	D-4405H	D-4405HX	61/64	N-5405H	N-5405HX	1
		3/8	5/16	S-1406H	3/4	T-2406H	T-2406HX	1-1/16	D-4406H	D-4406HX	1	N-5406H	N-5406HX	1-3/64
	10	3/8	5/16	S-1407H	3/4	T-2407H	T-2407HX	1-1/16	D-4407H	D-4407HX	1	N-5407H	N-5407HX	1-3/64
		17/32	13/32	S-1408H	59/64	T-2408H	T-2408HX	1-15/64	D-4408H	D-4408HX	1-11/64	N-5408H	N-5408HX	1-7/32
		19/32	31/64	S-1409H	1-1/32	T-2409H	T-2409HX	1-11/32	D-4409H	D-4409HX	1-9/32	N-5409H	N-5409HX	1-21/64
	1/4	17/32	13/32	S-1410H	59/64	T-2410H	T-2410HX	1-15/64	D-4410H	D-4410HX	1-11/64	N-5410H	N-5410HX	1-7/32
		19/32	31/64	S-1411H	1-1/32	T-2411H	T-2411HX	1-11/32	D-4411H	D-4411HX	1-9/32	N-5411H	N-5411HX	1-21/64
		3/4	5/8	S-1412H	1-17/64	T-2412H	T-2412HX	1-37/64	D-4412H	D-4412HX	1-33/64	N-5412H	N-5412HX	1-9/16
	5/16	17/32	13/32	S-1413H	59/64	T-2413H	T-2413HX	1-15/64	D-4413H	D-4413HX	1-11/64	N-5413H	N-5413HX	1-7/32
		19/32	31/64	S-1414H	1-1/32	T-2414H	T-2414HX	1-11/32	D-4414H	D-4414HX	1-9/32	N-5414H	N-5414HX	1-21/64
		3/4	5/8	S-1415H	1-17/64	T-2415H	T-2415HX	1-37/64	D-4415H	D-4415HX	1-33/64	N-5415H	N-5415HX	1-9/16
	3/8	19/32	31/64	S-1416H	1-1/32	T-2416H	T-2416HX	1-11/32	D-4416H	D-4416HX	1-9/32	N-5416H	N-5416HX	1-21/64
		3/4	5/8	S-1417H	1-17/64	T-2417H	T-2417HX	1-37/64	D-4417H	D-4417HX	1-33/64	N-5417H	N-5417HX	1-9/16
	7/16	3/4	5/8	S-1418H	1-17/64	T-2418H	T-2418HX	1-37/64	D-4418H	D-4418HX	1-33/64	N-5418H	N-5418HX	1-9/16
	1/2	3/4	5/8	S-1419H	1-17/64	T-2419H	T-2419HX	1-37/64	D-4419H	D-4419HX	1-33/64	N-5419H	N-5419HX	1-9/16

ADE TONGUE .050 STOCK



-14	5-6	3/8	5/16	S-1420H	25/32	T-2420H	T-2420HX	1-3/32	D-4420H	D-4420HX	1-1/32	N-5420H	N-5420HX	1-5/64
	8	3/8	5/16	S-1421H	25/32	T-2421H	T-2421HX	1-3/32	D-4421H	D-4421HX	1-1/32	N-5421H	N-5421HX	1-5/64
	10	3/8	5/16	S-1422H	25/32	T-2422H	T-2422HX	1-3/32	D-4422H	D-4422HX	1-1/32	N-5422H	N-5422HX	1-5/64
	10	17/32	13/32	S-1426H	59/64	T-2426H	T-2426HX	1-11/64	D-4426H	D-4426HX	1-11/64	N-5426H	N-5426HX	1-7/32
	1/4	17/32	13/32	S-1427H	59/64	T-2427H	T-2427HX	1-11/64	D-4427H	D-4427HX	1-11/64	N-5427H	N-5427HX	1-7/32
	5/16	17/32	13/32	S-1428H	59/64	T-2428H	T-2428HX	1-11/64	D-4428H	D-4428HX	1-11/64	N-5428H	N-5428HX	1-7/32

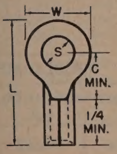
ANGED SPADE .050 STOCK



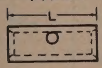
-14	5-6	3/8	5/16	S-1423H	3/4	T-2423H	T-2423HX	1-1/16	D-4423H	D-4423HX	1	N-5423H	N-5423HX	1-3/64
	8	3/8	5/16	S-1424H	3/4	T-2424H	T-2424HX	1-1/16	D-4424H	D-4424HX	1	N-5424H	N-5424HX	1-3/64
	10	3/8	5/16	S-1425H	3/4	T-2425H	T-2425HX	1-1/16	D-4425H	D-4425HX	1	N-5425H	N-5425HX	1-3/64

HIGH TEMPERATURE TERMINALS

Engineered specifically for high temperature applications, rugged TEMPTERMS are conservatively rated for continuous duty at 900°F. Terminals and connectors in this series are fabricated from a heat-resisting alloy are are specially nickel plated for corrosion-resistance at elevated temperatures.



TYPE I



TYPE II

Wire Range	Catalog Number	Type	Stud Size S	Maximum Width W	Overall Length L	Stud Clearance C
22-18	S-1165	I	5-6	7/32	33/64	5/32
	S-1166	I	5-6	9/32	41/64	1/4
	S-1167	I	8	9/32	41/64	1/4
	S-1168	I	10	9/32	41/64	1/4
	S-1169	II	—	—	9/16	–
16-14	S-1170	I	5-6	1/4	19/32	7/32
	S-1171	I	5-6	5/16	45/64	9/32
	S-1172	I	8	5/16	45/64	9/32
	S-1173	I	10	5/16	45/64	9/32
	S-1174	II	—	—	9/16	—
12-10	S-1175	I	5-6	3/8	3/4	5/16
	S-1176	I	8	3/8	3/4	5/16
	S-1177	I	10	3/8	3/4	5/16
	S-1178	II	—	—	9/16	—

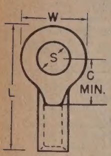
WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

WALDOM

SOLDERLESS TERMINALS AND CONNECTOR

LARGE WIRE RANGES

RING TONGUE TERMINALS

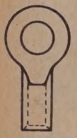


NO. 8 WIRE RANGE .050 Stock

BASIC DIMENSIONS				VERSA-KRIMP	INSUL-KRIMP
STUD SIZE S	WIDTH W	CLEAR-ANCE C	LENGTH L	CATALOG NUMBER	CATALOG NUMBER
6	15/32 3/8	11/32 11/32	61/64 29/32	B-3200 B-3224*	T-2200 T-2224
8	15/32 3/8	11/32 11/32	61/64 29/32	B-3201 B-3225*	T-2001 T-2225
10	15/32 19/32 13/16 3/8	11/32 13/32 19/32 11/32	61/64 1-5/64 1-3/8 29/32	B-3202 B-3205 B-3210 B-3226*	T-2202 T-2205 T-2210 T-2226
1/4	15/32 19/32 13/16 1-1/8 3/8	11/32 13/32 19/32 31/32 11/32	61/64 1-5/64 1-3/8 1-29/32 29/32	B-3203 B-3206 B-3211 B-3217 B-3279*	T-2203 T-2206 T-2211 T-2217 T-2279
5/16	15/32 19/32 13/16 1-1/8	11/32 13/32 19/32 31/32	61/64 1-5/64 1-3/8 1-29/32	B-3204 B-3207 B-3212 B-3218	T-2204 T-2207 T-2212 T-2218
3/8	19/32 13/16 1-1/8	13/32 19/32 31/32	1-5/64 1-3/8 1-29/32	B-3208 B-3213 B-3219	T-2208 T-2213 T-2219
7/16	19/32 13/16 1-1/8	13/32 19/32 31/32	1-5/64 1-3/8 1-29/32	B-3209 B-3214 B-3220	T-2209 T-2214 T-2220
1/2	13/16 1-1/8	19/32 31/32	1-3/8 1-29/32	B-3215 B-3221	T-2215 T-2221
5/8	13/16 1-1/8	19/32 31/32	1-3/8 1-29/32	B-3216 B-3222	T-2216 T-2222
3/4	1-1/8	31/32	1-29/32	B-3223	T-2223

NO. 6 WIRE RANGE .057 Stock

BASIC DIMENSIONS				VERSA-KRIMP	INSUL-KRIMP
STUD SIZE S	WIDTH W	CLEAR-ANCE C	LENGTH L	CATALOG NUMBER	CATALO NUMBE
8	5/8 15/32	1/2 1/2	1-1/4 1-11/64	B-3227 B-3247*	T-2227 T-2247
10	5/8 13/16 15/32	1/2 19/32 1/2	1-1/4 1-7/16 1-11/64	B-3228 B-3233 B-3248	T-2228 T-2233 T-3248
1/4	5/8 13/16 1-1/8 15/32	1/2 19/32 31/32 1/2	1-1/4 1-7/16 1-31/32 1-11/64	B-3229 B-3234 B-3240 B-3249*	T-2229 T-2234 T-2240 T-2249
5/16	5/8 13/16 1-1/8 15/32	1/2 19/32 31/32 1/2	1-1/4 1-7/16 1-31/32 1-11/64	B-3230 B-3235 B-3241 B-3250*	T-2230 T-2235 T-2241 T-2250
3/8	5/8 13/16 1-1/8	1/2 19/32 31/32	1-1/4 1-7/16 1-31/32	B-3231 B-3236 B-3242	T-2231 T-2236 T-2242
7/16	5/8 13/16 1-1/8	1/2 19/32 31/32	1-1/4 1-7/16 1-31/32	B-3232 B-3237 B-3243	T-2232 T-2237 T-2243
1/2	13/16 1-1/8	19/32 31/32	1-17/16 1-31/32	B-3238 B-3244	T-2238 T-2244
5/8	13/16 1-1/8	19/32 31/32	1-7/16 1-31/32	B-3239 B-3245	T-2229 T-2245
3/4	1-1/8	31/32	1-31/32	B-3246	T-2246



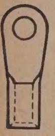
Regular

NO. 4 WIRE RANGE .075 Stock

BASIC DIMENSIONS				VERSA-KRIMP
STUD SIZE S	WIDTH W	CLEAR-ANCE C	LENGTH L	CATALOG NO.
10	21/32 15/32	1/2 1/2	1-5/16 1-7/32	B-3251 B-3257*
1/4	21/32 15/32 7/8 1-1/4	1/2 1/2 31/32 31/32	1-5/16 1-7/32 1-29/32 2-3/32	B-3252 B-3258* B-3266 B-3272
5/16	21/32 15/32 7/8 1-1/4	1/2 1/2 31/32 31/32	1-5/16 1-7/32 1-29/32 2-3/32	B-3253 B-3259* B-3267 B-3273
3/8	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3254 B-3268 B-3274
7/16	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3255 B-3269 B-3275
1/2	21/32 7/8 1-1/4	1/2 31/32 31/32	1-5/16 1-29/32 2-3/32	B-3256 B-3270 B-3276
5/8	7/8 1-1/4	31/32 31/32	1-29/32 2-3/32	B-3271 B-3277
3/4	1-1/4	31/32	2-3/32	B-3278

NO. 2 WIRE RANGE .075 Stock

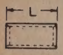
BASIC DIMENSIONS				VERSA-KRIMP
STUD SIZE S	WIDTH W	CLEAR-ANCE C	LENGTH L	CATALOG NO.
10	5/8	43/64	1-17/32	B-3280*
1/4	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3284 B-3281* B-3290 B-3296
5/16	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3285 B-3282* B-3291 B-3297
3/8	7/8 5/8 7/8 1-1/4	43/64 43/64 31/32 31/32	1-21/32 1-17/32 1-31/32 2-5/32	B-3286 B-3283* B-3292 B-3298
7/16	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3287 B-3293 B-3299
1/2	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3288 B-3294 B-3300
5/8	7/8 7/8 1-1/4	43/64 31/32 31/32	1-21/32 1-31/32 2-5/32	B-3289 B-3295 B-3301
3/4	1-1/4	31/32	2-5/32	B-3302



Elongated

*Elongated Type

PARALLEL AND BUTT CONNECTORS



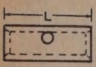
Parallel

PARALLEL CONNECTORS

		VERSAKRIMP		INSULKRIMP	
WIRE RANGE	STOCK	CATALOG NO.	LENGTH L	CATALOG NO.	LENGTH L
#8	.050	B-3260	3/8	T-2260	1
#6	.057	B-3261	7/16	T-2261	1-3/16
#4	.075	B-3262	17/32		
#2	.075	B-3303	41/64		

BUTT CONNECTORS

		VERSAKRIMP		INSULKRIMP	
WIRE RANGE	STOCK	CATALOG NO.	LENGTH L	CATALOG NO.	LENGTH L
#8	.050	B-3263	53/64	T-2263	1-7/16
#6	.057	B-3264	1-1/64	T-2264	1-3/4
#4	.075	B-3265	1-1/8		
#2	.075	B-3304	1-1/4		



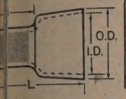
Butt

© U.C.P., Inc.

SOLDERLESS TERMINALS AND CONNECTORS

WALDOM

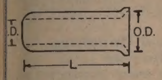
NYLON INSULATED CLOSED-END CONNECTORS



Wire Range	Catalog Number	Outside Diameter O.D.	Overall Length L	Barrel Length B	Inside Diameter I.D.	Circular Mil Area
22-14	CE-2214	5/16	39/64	11/32	1/4	600- 5,180
16-10	CE-1610	7/16	23/32	3/8	3/8	2,400-13,100

Connectors are annealed, tin-plated seamless brass. Insulation is natural-color translucent Du-Pont Nylon Molded of the finest compound obtainable. A variety of colors is available on quantity orders. Temperature rating of 105°C maximum. 600 Volts maximum in building wire and 1,000 Volts inside a sign or fixture.

CONNECTOR INSERTS

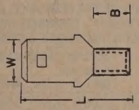


Wire Range	Catalog Number	Outside Diameter O.D.	Overall Length L	Inside Diameter I.D.	Circular Mil Area
22-14	IC-2214	1/8	21/64	5/64	600- 5,180
16-10	IC-1610	13/64	11/32	5/32	2,400-13,100

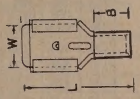
Inserts are the same annealed, tin-plated seamless brass pieces as used in the Nylon-insulated Closed-End Connectors described above. Inserts are used in applications where insulation is not essential.

QUICK-DISCONNECT PUSH-ON TYPE TERMINALS

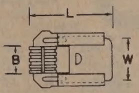
.020 Stock



Male



Female



Female Flag

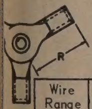
KRIMPTITE

Length L	15/32
Barrel Length B	5/32
Width W	1/4
Catalog No.	S-1091
Wire range	18-14

		Basic Dimensions			KRIMPTITE		INSULKRIMP			VIBRAKRIMP		AVIKRIMP	
	Wire Range	Length L	Barrel Length B	D Width W	Catalog Number	Length L	.155 Max. Insulation Diameter	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L	.175 Max. Insulation Diameter	Length L
MALE	18-14	21/32	1/4	1/4	S-1089	21/32	T-2089	T-2089X	27/32	D-4089	13/16	N-5089	27/32
FEMALE		43/64	7/32	1/4	S-1090	43/64	T-2090	T-2090X	55/64	D-4090	53/64	N-5090	55/64

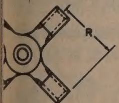
These terminals are designed to give high pressure spring-loaded connections. They incorporate a locking action caused by mating a depression on the male tongue with a raised pip in the female slot when the parts are engaged. Insulation is not available on the flag design.

3 WAY "Y" CONNECTORS



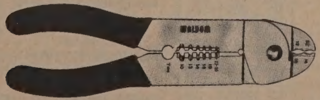
		KRIMPTITE		INSULKRIMP					VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stock	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R
22-18	.032	S-1065	33/64	T-2065	.125	T-2065X	.145	45/64	B-3065	33/64	D-4065	.145	43/64	N-5065	.145	45/64
16-14	.032	S-1066	35/64	T-2066	.155	T-2066X	.175	47/64	B-3066	35/64	D-4066	.175	45/64	N-5066	.175	47/64
12-10	.040	S-1067	37/64	T-2067	.215	T-2067X	.255	57/64	B-3067	37/64	D-4067	.235	53/64	N-5067	.235	7/8

4 WAY "X" CONNECTORS



		KRIMPTITE		INSULKRIMP					VERSAKRIMP		VIBRAKRIMP			AVIKRIMP		
Wire Range	Stock	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R	Catalog Number	Max. Ins. Dia.	Ref. Length R
22-18	.032	S-1068	33/64	T-2068	.125	T-2068X	.145	45/64	B-3068	33/64	D-4068	.145	43/64	N-5068	.145	45/64
16-14	.032	S-1069	35/64	T-2069	.155	T-2069X	.175	47/64	B-3069	35/64	D-4069	.175	45/64	N-5069	.175	47/64
12-10	.040	S-1070	37/64	T-2070	.215	T-2070X	.255	57/64	B-3070	37/64	D-4070	.235	53/64	N-5070	.235	7/8

Both the "Y" and the "X" Connectors are made up of ring tongue terminals which have been joined to form a 3-way or 4-way splice. The wire ranges apply to each terminal. The material is tin-plated copper with a plated steel rivet. Other combinations of standard terminals can usually be supplied on special order.



UNIVERSAL CRIMPING TOOL

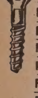
CT-4050. Crimps both insulated and non-insulated terminals. Wire ranges 22 through 12. Also cuts wire and strips wire.

$3.95

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

WALDOM Electronic Hardware

ROUND HEAD STEEL WOOD SCREWS Cadmium Plated	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-514 4 x 1/2"	.78	6.40	4.45
F-515 4 x 3/4"	.90	7.38	5.13
F-516 6 x 3/4"	.97	7.95	5.53
F-517 6 x 1"	1.20	9.84	6.84
F-518 8 x 3/4"	1.15	9.43	6.56
F-047 8 x 1"	1.35	11.07	7.70
F-519 8 x 1-1/4"	1.58	12.96	9.01
F-520 10 x 1-1/2"	2.12	17.38	12.08
F-521 12 x 1-1/2"	2.70	22.14	15.39
F-522 14 x 1-3/4"	3.80	31.16	21.66



FLAT HEAD STEEL WOOD SCREWS Cadmium Plated	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-027 4 x 1/2"	.78	6.40	4.45
F-028 4 x 3/4"	.90	7.38	5.13
F-029 6 x 3/4"	.97	7.95	5.53
F-030 6 x 1"	1.20	9.84	6.84
F-031 8 x 3/4"	1.15	9.43	6.56
F-048 8 x 1"	1.35	11.07	7.70
F-032 8 x 1-1/4"	1.58	12.96	9.01
F-044 10 x 1-1/2"	2.12	17.38	12.08
F-045 12 x 1-1/2"	2.70	22.14	15.39
F-046 14 x 1-3/4"	3.80	31.16	21.66

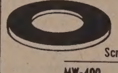
HEX STEEL NUTS Cadmium Plated Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554 2-56 x 3/16 x 1/16"	.66	5.41	3.76
F-555 3-48 x 3/16 x 1/16"	.66	5.33	3.71
F-556 4-36 x 1/4 x 3/32"	.65	5.33	3.71
F-557 4-40 x 1/4 x 3/32"	.65	5.33	3.71
F-559 6-32 x 1/4 x 3/32"	.65	5.33	3.71
F-560 6-32 x 5/16 x 7/64"	.71	5.82	4.05
F-561 8-32 x 1/4 x 3/32"	.65	5.33	3.71
F-562 8-32 x 5/16 x 7/64"	.71	5.82	4.05
F-563 10-32 x 3/8 x 1/8"	.80	6.56	4.56
F-619 12-24 x 7/16 x 5/32"	1.13	9.27	6.44
F-564 1/4-20 x 7/16 x 3/16"	1.14	9.35	6.50
F-565 3/8-32 x 1/2 x 3/32"	1.47	12.05	8.38

HEX BRASS NUTS Nickel Plated Thrd. Width Thk.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-554B 2-56 x 3/16 x 1/16"	.98	8.04	5.59
F-555B 3-48 x 3/16 x 1/16"	.89	7.30	5.07
F-556B 4-36 x 1/4 x 3/32"	1.18	9.68	6.73
F-557B 4-40 x 1/4 x 3/32"	1.17	9.59	6.67
F-559B 6-32 x 1/4 x 3/32"	1.16	9.51	6.61
F-560B 6-32 x 5/16 x 7/64"	1.40	11.58	7.98
F-561B 8-32 x 1/4 x 3/32"	1.16	9.51	6.61
F-562B 8-32 x 5/16 x 1/8"	1.40	11.48	7.98
F-563B 10-32 x 3/8 x 1/8"	1.53	12.55	8.72

STEEL LOCK WASHERS –
(INTERNAL AND EXTERNAL)
Cadmium Plated

INTERNAL Screw Size	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-416 #4	.44	3.61	2.51
MW-417 #6	.44	3.61	2.51
MW-418 #8	.48	3.94	2.74
MW-419 #10	.48	3.94	2.74
MW-420 1/4	.63	5.17	3.59
MW-421 3/8	1.07	8.77	6.10
EXTERNAL Screw Size			
MW-422 #4	.44	3.61	2.51
MW-423 #6	.44	3.61	2.51
MW-424 #8	.48	3.94	2.74
MW-425 #10	.48	3.94	2.74
MW-426 1/4	.63	5.17	3.59
MW-427 3/8	.94	7.71	5.36

STEEL CUP WASHERS Nickel Plated		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
CW-6	For #6 Oval Head or Flat Head Screws	.39	3.20	2.22
CW-8	For #8 Oval Head or Flat Head Screws	.41	3.36	2.34
CW-10	For #10 Oval or Flat Head Screws	.53	4.35	3.02



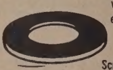
FLAT STEEL WASHERS
Cadmium Plated

	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400	#2	.092	7/32"	.018	.30	2.46	1.71
MW-401	#4	.125	9/32"	.025	.30	2.46	1.71
MW-402	#6	.150	3/8"	.032	.28	2.30	1.60
MW-403	#8	.170	3/8"	.032	.30	2.46	1.71
MW-404	#10	.204	3/8"	.032	.32	2.62	1.82
MW-408	1/4	.281	5/8"	.050	.46	3.77	2.62
MW-410	3/8	.392	11/16"	.050	.58	4.76	3.31

FLAT BRASS WASHERS
Nickel Plated

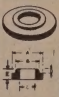
	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
MW-400B	#2	.092"	7/32"	.018"	.45	3.70	2.55
MW-401B	#4	.125"	9/32"	.025"	.47	3.85	2.70
MW-402B	#6	.150"	3/8"	.032"	.53	4.35	3.02
MW-403B	#8	.170"	3/8"	.032"	.51	4.15	2.90
MW-404B	#10	.204"	3/8"	.032"	.55	4.50	3.15

Insulating Fibre Washers – Precision made insulating washers, both flat and extruded, for insulation of components and controls from chassis or from each other.



FLAT

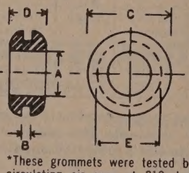
	Screw Size	I.D.	O.D.	Thick.	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-374	#4	.020"	1/4"	1/32"	.41	3.36	2.34
FW-375	#6	.145"	1/4"	1/32"	.41	3.36	2.34
FW-376	#8	3/16"	3/8"	1/32"	.41	3.36	2.34
FW-377	#10	.192"	3/8"	1/32"	.41	3.36	2.34
FW-378	1/4	.255"	1/2"	3/64"	.46	3.77	2.62
FW-379	3/8	3/8"	5/8"	3/64"	.75	6.15	4.28
FW-380	7/16	.440"	3/4"	1/32"	.75	6.15	4.28



EXTRUDED

	Screw Size	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
FW-384	#4	9/32"	13/64"	1/8"	1/32"	5/64"	.84	6.89	4.79
FW-385	#6	5/16"	7/32"	9/64"	1/32"	5/64"	.84	6.89	4.79
FW-386	#8	3/8"	1/4"	11/64"	1/32"	3/32"	.84	6.89	4.79
FW-387	#10	7/16"	9/32"	13/64"	1/32"	3/32"	.92	7.54	5.24
FW-388	1/4"	1/2"	.375"	.256"	1/32"	3/32"	.92	7.54	5.24
FW-389	3/8"	5/8"	.437"	.375"	1/32"	3/32"	.95	7.79	5.42

VINYL GROMMETS

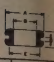


- Exceptional Aging Qualities*
- High Dielectric Properties
- Oil Resistant
- Durometer Hardness 45 to 85
- Cost Less Than Rubber
- Will Not Stain Most Surfaces

*These grommets were tested by Underwriters Laboratories in a circulating air oven at 212 degree F. for seven days with no visible change.

Cat. No.	A	B	C	D	E	PKG. OF 100	1000-4999 PER M	5000 OVER PER M
G-401	1/8	1/16	11/32	3/16	1/4	.88	7.22	5.02
G-402	3/16	1/16	7/16	7/32	5/16	.99	8.12	5.64
G-403	1/4	1/16	9/16	1/4	3/8	1.16	9.51	6.61
G-404	5/16	1/16	5/8	1/4	7/16	1.24	10.17	7.09
G-405	3/8	1/16	5/8	1/4	1/2	1.24	10.17	7.09
G-406	1/2	1/16	13/16	9/32	5/8	2.16	17.71	12.31
G-407	5/8	1/16	1-1/8	9/32	7/8	3.71	30.42	21.15

WALDOM RUBBER GROMMETS – A complete selection of highest quality rubber grommets for use in protecting insulation from raw edges of chassis hole, shock and vibration dampening. For mounting tuning condensers, sockets, phono motors, chassis, etc.



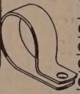
	A	B	C	D	E	PKG. OF 100	1000-4999 PER M
G-300	11/32"	1/8"	3/16"	1/16"	1/4"	1.56	12.79
G-301	9/16"	5/16"	3/16"	1/16"	15/32"	1.76	14.43
G-302	11/16"	3/8"	9/32"	1/16"	1/2"	2.26	18.53
G-305	7/16"	3/16"	7/32"	1/16"	5/16"	1.78	14.60
G-307	3/4"	7/16"	1/4"	3/64"	19/32"	2.50	20.50
G-309	5/8"	11/32"	5/16"	1/16"	15/32"	1.74	14.26
G-311	1-1/8"	5/8"	5/16"	1/16"	7/8"	5.54	45.43

Nylon and Ethyl Cellulose Cable Clamps

These clamps combine lightweight and chemical resistance with excel shock resisting properties in a temperature range of from 185° F. to –40° F the Ethyl Cellulose and 300° F. to –60° F. in the Nylon.

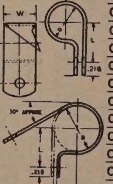
Approved 7-21-44 Army-Navy Aeronautical AN742.

- **OPENS EASILY FOR FAST ASSEMBLY** • **ONE NAIL INSTEAD OF**
- FORM STABILITY AT HIGH TEMPERATURES • ECONOMY
- ABRASION AND MOISTURE RESISTANCE • CHEMICAL RESISTANCE
- LIGHTNESS IN WEIGHT • TOUGHNESS AND RESILIENCY
- GOOD ELECTRICAL PROPERTIES • STRENGTH AND DURABILITY



NYLON CABLE CLAMPS

Cat. No.	For Use With Rod O.D.	Dia.	Width	Length	Mat. Thick.	PKG. OF 100
CCN-31	1/8"	.125"	3/8"	0.328	.050	2.85
CCN-32	3/16"	.188"	3/8"	0.390	.050	3.00
CCN-33	1/4"	.250"	3/8"	0.421	.050	3.30
CCN-34	5/16"	.313"	3/8"	0.453	.050	3.66
CCN-35	3/8"	.375"	3/8"	0.483	.050	3.89
CCN-36	7/16"	.438"	3/8"	0.531	.050	4.05
CCN-37	1/2"	.500"	3/8"	0.562	.050	4.30
CCN-38	9/16"	.563"	1/2"	0.625	.060	5.32
CCN-39	5/8"	.625"	1/2"	0.610	.060	6.24

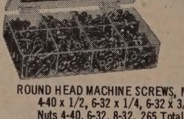


ETHYL CELLULOSE PLASTIC CLAMPS – Width 3

Cat. No.	For Use With Rod O.D.	Dia.	Length	Mat. Thick	
CCE-1	1/8"	.125"	0.328	.063	1.87
CCE-2	3/16"	.188"	0.390	.063	1.89
CCE-3	1/4"	.250"	0.421	.063	1.87
CCE-4	5/16"	.313"	0.453	.063	2.30
CCE-5	3/8"	.375"	0.483	.063	2.41
CCE-6	7/16"	.438"	0.531	.063	2.64
CCE-7	1/2"	.500"	0.562	.063	2.81
CCE-8	9/16"	.563"	0.625	.063	3.30
CCE-9	5/8"	.625"	0.610	.063	3.73
CCE-10	11/16"	.688"	0.666	.063	4.06
CCE-11	3/4"	.750"	0.765	.063	4.25
CCE-12	7/8"	.875"	0.812	.063	4.60
CCE-13	1"	1.000"	0.906	.063	4.90
CCE-14	1-1/8"	1.125"	0.968	.063	4.91
CCE-15	1-1/4"	1.250"	1.156	.063	5.52

WALDOM Skru-Bo

VARIETY ASSORTMEN
SCREWS & NUTS



ROUND HEAD MACHINE SCREWS, NUTS, SHEET METAL SCREWS. R.H.S
4-40 x 1/2, 6-32 x 1/4, 6-32 x 3/4, 8-32 x 1/2, Sheet Metal Screw #6 x
Nuts 4-40, 6-32, 8-32. 265 Total Pieces.
No. HD-4013 Net 1.

BINDER-HEAD SCREWS – Same assortment as above, but machine screws h
binder-head!
No. HD-4018 Net 1

SHEET METAL SCREWS – Slotted Hex Head Sheet Metal Screws Type A
4 x 3/8", 6 x 1/4", 6 x 1/2", 6 x 3/4", 8 x 3/8", 8 x 1/2", 8 x 5/
165 Total Pieces.
No. HD-4014 Net 1.

WASHER-HEAD SHEET METAL SCREWS – Slotted Hex Head Type A w/
washer attached, sizes 6 x 1/4, 6 x 3/8, 6 x 1/2, 6 x 3/4, 8 x 1/4, 8 x 3
8 x 1/2, 8 x 5/8. 120 Total Pieces.
No. HD.4011 Net 1.

WOOD SCREW ASSORTMENT – Round Head Wood Screws 4 x 1/2, 6 x 3/4,
6 x 1. 8 x 3/4, 8 x 1¼. Flat Head 8 x 1, 8 x 1¼. 139 Total Pieces.
No. HD-4019 Net 1.

GENERAL HARDWARE KIT – 260 Fasteners – Round Head, Binder Head,
Phillips Head Machine Screws. Hex Steel Nuts, Hex Head (slotted)
Hex Washer Head (slotted) Sheet Metal Screws, Flat Head and Round He
Wood Screws. All popular diameters and lengths.
No. HD-4020 Net 1.

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WALDOM Electronic Hardware

OUND HEAD STEEL MACHINE SCREWS
Cadmium Plated

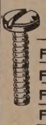
		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
-579	2-56 x 1/8"	.49	4.02	2.79
-461	2-56 x 1/4"	.44	3.61	2.51
-462	2-56 x 1/2"	.47	3.85	2.68
-463	2-56 x 3/4"	.53	4.35	3.02
-464	3-48 x 3/4"	.56	4.59	3.19
-465	4-36 x 1/4"	.47	3.85	2.68
-466	4-36 x 3/8"	.49	4.02	2.79
-467	4-36 x 1/2"	.51	4.18	2.91
-580	4-36 x 5/8"	.55	4.51	3.14
-468	4-36 x 3/4"	.58	4.76	3.31
-469	4-40 x 1/4"	.47	3.85	2.68
-581	4-40 x 3/8"	.50	4.10	2.85
-470	4-40 x 1/2"	.51	4.18	2.91
-582	4-40 x 5/8"	.55	4.51	3.14
-471	4-40 x 3/4"	.58	4.76	3.31
-472	6-32 x 1/4"	.53	4.35	3.02
-583	6-32 x 3/8"	.57	4.67	3.25
-473	6-32 x 1/2"	.60	4.92	3.42
-584	6-32 x 5/8"	.66	5.41	3.76
-474	6-32 x 3/4"	.71	5.82	4.05
-475	6-32 x 1"	.81	6.64	4.62
-476	6-32 x 1-1/4"	.97	7.95	5.33
-477	6-32 x 2"	1.46	11.97	8.32
-478	8-32 x 1/4"	.68	5.58	3.88
-479	8-32 x 3/8"	.73	5.99	4.16
-480	8-32 x 1/2"	.80	6.56	4.56
-585	8-32 x 5/8"	.85	6.97	4.84
-481	8-32 x 3/4"	.90	7.38	5.13
-482	8-32 x 1"	1.04	8.53	5.93
-483	8-32 x 1-1/4"	1.19	9.76	6.78
-484	10-32 x 1/2"	.92	7.54	5.24
-586	10-32 x 5/8"	1.00	8.20	5.70
-485	10-32 x 3/4"	1.09	8.94	6.21
-486	10-32 x 1"	1.21	9.92	6.99
-487	10-32 x 1-1/2"	1.60	13.12	9.12
-587	12-24 x 3/4"	1.49	12.22	8.49
-588	12-24 x 1"	1.78	14.60	10.15
-589	12-24 x 1-1/2"	2.30	18.86	13.11
-590	12-24 x 2"	2.71	22.22	15.45
-488	1/4-20 x 1/2"	1.81	14.84	10.32
-489	1/4-20 x 3/4"	2.06	16.89	11.74
-490	1/4-20 x 1"	2.35	19.27	13.40
-491	1/4-20 x 1-1/4"	2.67	21.89	15.22
-492	1/4-20 x 1-3/4"	3.24	26.57	18.47
-493	1/4-20 x 2-1/2"	4.08	33.46	23.26

BRASS ROUND HEAD MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
-461B	2-56 x 1/4"	.67	5.49	3.82
-462B	2-56 x 1/2"	.80	6.56	4.56
-463B	2-56 x 3/4"	.93	7.63	5.30
-464B	3-48 x 3/4"	1.05	8.61	5.99
-465B	4-36 x 1/4"	.80	6.56	4.56
-466B	4-36 x 3/8"	.91	7.46	5.19
-467B	4-36 x 1/2"	1.02	8.36	5.81
-580B	4-36 x 5/8"	1.10	9.02	6.27
-468B	4-36 x 3/4"	1.20	9.84	6.84
-469B	4-40 x 1/4"	.80	6.56	4.56
-470B	4-40 x 1/2"	1.02	8.36	5.81
-582B	4-40 x 5/8"	1.10	9.02	6.27
-471B	4-40 x 3/4"	1.20	9.84	6.84
-472B	6-32 x 1/4"	1.08	8.86	6.16
-583B	6-32 x 3/8"	1.15	9.43	6.56
-473B	6-32 x 1/2"	1.30	10.66	7.41
-584B	6-32 x 5/8"	1.43	11.73	8.15
-474B	6-32 x 3/4"	1.58	12.76	9.01

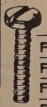
BRASS ROUND HEAD MACHINE SCREWS
(Continued)

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-475B	6-32 x 1"	1.88	15.42	10.72
F-476B	6-32 x 1-1/4"	2.18	17.88	12.43
F-477B	6-32 x 2"	3.68	30.18	20.98
F-478B	8-32 x 1/4"	1.60	13.12	9.12
F-479B	8-32 x 3/8"	1.68	13.78	9.58
F-480B	8-32 x 1/2"	1.92	15.74	10.94
F-585B	8-32 x 5/8"	2.12	17.38	12.08
F-481B	8-32 x 3/4"	2.35	19.27	13.40
F-482B	8-32 x 1"	2.80	22.96	15.96
F-483B	8-32 x 1-1/4"	3.28	26.90	18.70
F-484B	10-32 x 1/2"	2.43	19.93	13.85
F-586B	10-32 x 5/8"	2.70	22.14	15.39
F-485B	10-32 x 3/4"	2.95	24.19	16.82
F-486B	10-32 x 1"	3.52	28.86	20.06
F-487B	10-32 x 1-1/2"	4.80	39.36	27.36



BINDER HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-591	2-56 x 1/8"	.49	4.02	2.79
F-592	2-56 x 1/4"	.44	3.61	2.51
F-593	2-56 x 1/2"	.47	3.85	2.70
F-594	2-56 x 5/8"	.53	4.35	3.02
F-020	4-40 x 1/4"	.47	3.85	2.68
F-021	4-40 x 1/2"	.51	4.18	2.91
F-022	4-40 x 3/4"	.58	4.76	3.31
F-502	6-32 x 3/16"	.52	4.26	2.96
F-503	6-32 x 1/4"	.53	4.35	3.02
F-504	6-32 x 3/8"	.57	4.67	3.25
F-014	6-32 x 1/2"	.60	4.92	3.42
F-015	6-32 x 3/4"	.71	5.82	4.05
F-621	6-32 x 5/8"	.66	5.41	3.76
F-023	8-32 x 1/4"	.68	5.58	3.88
F-505	8-32 x 5/16"	.70	5.74	3.99
F-024	8-32 x 3/8"	.73	5.99	4.16
F-025	8-32 x 1/2"	.80	6.56	4.56
F-026	8-32 x 3/4"	.90	7.38	5.13
F-577	10-32 x 1/2"	.92	7.54	5.24
F-578	10-32 x 3/4"	1.09	8.94	6.21

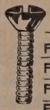


BINDER HEAD BRASS MACHINE SCREWS
Nickel Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-503B	6-32 x 1/4"	1.08	8.86	6.16
F-504B	6-32 x 3/8"	1.15	9.43	6.56
F-014B	6-32 x 1/2	1.30	10.66	7.41
F-015B	6-32 x 3/4"	1.58	12.96	9.01
F-023B	8-32 x 1/4"	1.60	13.12	9.12
F-024B	8-32 x 3/8"	1.68	13.78	9.58
F-025B	8-32 x 1/2"	1.92	15.74	10.94
F-026B	8-32 x 3/4"	2.35	19.27	13.40

FILLISTER HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-606	2-56 x 1/4"	.44	3.61	2.51
F-607	2-56 x 1/2"	.47	3.85	2.70
F-608	4-40 x 1/4"	.47	3.85	2.70
F-609	4-40 x 1/2"	.51	4.18	2.91
F-610	4-40 x 3/4"	.58	4.76	3.31
F-611	6-32 x 1/4"	.53	4.35	3.02
F-612	6-32 x 1/2"	.60	4.92	3.42
F-613	6-32 x 3/4"	.71	5.82	4.05
F-614	8-32 x 3/8"	.73	5.99	4.16
F-615	8-32 x 1/2"	.80	6.56	4.56
F-616	8-32 x 3/4"	.90	7.38	5.13
F-617	10-32 x 1/2"	.92	7.54	5.24
F-618	10-32 x 3/4"	1.09	8.94	6.21

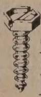


OVAL HEAD STEEL MACHINE SCREWS
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-506	6-32 x 1/2"	.60	4.92	3.42
F-507	6-32 x 3/4"	.71	5.82	4.05
F-508	8-32 x 3/4"	.90	7.38	5.13
F-509	10-32 x 1/2"	.92	7.54	5.24
F-510	10-32 x 3/4"	1.09	8.94	6.21

PHILLIPS HEAD ROUND STEEL M.S.
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-494	6-32 x 1/4"	1.14	9.35	6.50
F-018	6-32 x 5/16"	1.16	9.51	6.61
F-495	6-32 x 1/2"	1.05	8.61	5.99
F-496	6-32 x 3/4"	1.18	9.68	6.73
F-497	6-32 x 1"	1.33	10.91	7.58
F-019	8-32 x 1/4"	1.30	10.66	7.41
F-498	8-32 x 5/16"	1.00	8.20	5.70
F-499	8-32 x 1/2"	1.12	9.18	6.38
F-500	8-32 x 3/4"	1.29	10.58	7.35
F-501	8-32 x 1"	1.48	12.14	8.44

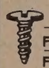


SLOTTED HEX HEAD SHEET METAL SCREWS
(Type A)
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-016	4 x 3/8"	.70	5.74	3.99
F-523	4 x 1/2"	.73	5.99	4.16
F-524	6 x 1/4"	.82	6.72	4.69
F-525	6 x 3/8"	.84	6.89	4.79
F-526	6 x 1/2"	.89	7.30	5.07
F-595	6 x 5/8"	.93	7.63	5.30
F-527	6 x 3/4"	.97	7.95	5.53
F-528	8 x 1/4"	.97	7.95	5.53
F-529	8 x 3/8"	1.02	8.36	5.81
F-530	8 x 1/2"	1.05	8.61	5.99
F-017	8 x 5/8"	1.07	8.77	6.10
F-531	8 x 1"	1.34	10.99	7.64
F-532	10 x 3/8"	1.14	9.35	6.50
F-533	10 x 1/2"	1.23	10.09	7.01
F-534	10 x 3/4"	1.36	11.15	7.76

HEX WASHER HEAD SHEET METAL SCREW
(Type A)
Steel— Indented Slotted Head
Cadmium Plated

		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-060	4 x 3/8"	.77	6.31	4.39
F-061	4 x 1/2"	.80	6.56	4.56
F-056	6 x 1/4"	.90	7.38	5.13
F-057	6 x 3/8"	.92	7.54	5.24
F-050	6 x 1/2"	.98	8.04	5.59
F-058	6 x 5/8"	1.02	8.36	5.81
F-054	6 x 3/4"	1.07	8.77	6.10
F-051	8 x 1/4"	1.07	8.77	6.10
F-052	8 x 3/8"	1.12	9.18	6.38
F-053	8 x 1/2"	1.16	9.51	6.61
F-055	8 x 5/8"	1.18	9.68	6.73
F-059	8 x 3/4"	1.32	10.82	7.52



PAN HEAD SHEET METAL SCREWS
(Type A)
Cadmium Plated

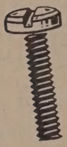
		PKG. OF 100	1000-4999 PER M	5000 OVER PER M
F-596	4 x 1/2"	.73	5.99	4.16
F-033	6 x 1/4"	.82	6.72	4.67
F-597	6 x 3/8"	.84	6.89	4.79
F-034	6 x 1/2"	.89	7.30	5.07
F-035	6 x 3/4"	.97	7.95	5.53
F-036	8 x 1/4	.97	7.95	5.53
F-598	8 x 3/8"	1.02	8.36	5.81
F-037	8 x 1/2"	1.05	8.61	5.99
F-038	8 x 1"	1.34	10.99	7.64

WALDOM ELECTRONICS INC., CHICAGO 32, ILLINOIS

Walsco ELECTRONICS

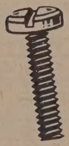
ELECTRONIC HARDWARE

WALSCO BINDING HEAD MACHINE SCREWS — STEEL NICKEL PLATED



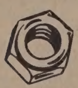
SIZE	BOX OF 100 PART NO.	NET/100	BOX OF 1000 PART NO.	NET/1000
Machine Screws, 2-56 x ¼″	8151-C	$ .53	8151-M	$ 4.20
Machine Screws, 2-56 x ½″	8152-C	.53	8152-M	4.20
Machine Screws, 2-56 x ¾″	8154-C	.53	8154-M	4.20
Machine Screws, 4-36 x ¼″	8155-C	.53	8155-M	4.20
Machine Screws, 4-36 x ½″	8156-C	.53	8156-M	4.20
Machine Screws, 4-36 x ¾″	8157-C	.53	8157-M	4.20
Machine Screws, 4-40 x ¼″	8158-C	.52	8158-M	4.18
Machine Screws, 4-40 x ½″	8159-C	.54	8159-M	4.22
Machine Screws, 4-40 x ¾″	8160-C	.64	8160-M	5.35
Machine Screws, 5-36 x ¼″	8161-C	.53	8161-M	4.20
Machine Screws, 6-32 x 3/16″	8162-C	.53	8162-M	4.20
Machine Screws, 6-32 x ¼″	8163-C	.53	8163-M	4.20
Machine Screws, 6-32 x ⅜″	8164-C	.57	8164-M	4.50
Machine Screws, 6-32 x ½″	8166-C	.65	8166-M	5.12
Machine Screws, 6-32 x ¾″	8167-C	.72	8167-M	5.17
Machine Screws, 7-32 x ⅜″	8165-C	1.57	8165-M	12.48
Machine Screws, 8-32 x ¼″	8168-C	.72	8168-M	5.62
Machine Screws, 8-32 x ⅜″	8169-C	.75	8169-M	5.85
Machine Screws, 8-32 x ½″	8170-C	.78	8170-M	6.27
Machine Screws, 8-32 x 5/16″	8171-C	.72	8171-M	5.73
Machine Screws, 8-32 x ¾″	8172-C	.95	8172-M	7.57
Machine Screws, 10-32 x ½″	8173-C	.79	8173-M	7.70
Machine Screws, 10-32 x ¾″	8174-C	1.15	8174-M	9.20

WALSCO BINDING HEAD MACHINE SCREWS — BRASS NICKEL PLATED



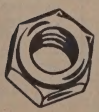
SIZE	BOX OF 100 PART NO.	NET/100	BOX OF 1000 PART NO.	NET/1000
Machine Screws, 2-56 x ¼″	8151-1-C	.84	8151-1-M	6.98
Machine Screws, 2-56 x ½″	8152-1-C	.96	8152-1-M	8.28
Machine Screws, 2-56 x ¾″	8154-1-C	1.11	8154-1-M	9.55
Machine Screws, 4-36 x ¼″	8155-1-C	.97	8155-1-M	8.32
Machine Screws, 4-36 x ½″	8156-1-C	1.19	8156-1-M	10.18
Machine Screws, 4-36 x ¾″	8157-1-C	1.40	8157-1-M	12.05
Machine Screws, 4-40 x ¼″	8158-1-C	.97	8158-1-M	8.32
Machine Screws, 4-40 x ½″	8159-1-C	1.19	8159-1-M	10.18
Machine Screws, 4-40 x ¾″	8160-1-C	1.40	8160-1-M	12.15
Machine Screws, 5-36 x ¼″	8161-1-C	1.07	8161-1-M	9.17
Machine Screws, 6-32 x 3/16″	8162-1-C	1.34	8162-1-M	11.47
Machine Screws, 6-32 x ¼″	8163-1-C	1.27	8163-1-M	10.90
Machine Screws, 6-32 x ⅜″	8164-1-C	1.35	8164-1-M	11.54
Machine Screws, 6-32 x ½″	8166-1-C	1.51	8166-1-M	12.90
Machine Screws, 6-32 x ¾″	8167-1-C	1.83	8167-1-M	15.65
Machine Screws, 8-32 x ¼″	8168-1-C	1.85	8168-1-M	15.70
Machine Screws, 8-32 x ⅜″	8169-1-C	1.94	8169-1-M	16.65
Machine Screws, 8-32 x ½″	8170-1-C	2.20	8170-1-M	18.80
Machine Screws, 8-32 x 5/16″	8171-1-C	1.88	8171-1-M	16.20
Machine Screws, 8-32 x ¾″	8172-1-C	2.70	8172-1-M	23.15
Machine Screws, 10-32 x ½″	8173-1-C	2.54	8173-1-M	21.80
Machine Screws, 10-32 x ¾″	8174-1-C	3.43	8174-1-M	29.50

HEX NUTS — STEEL NICKEL PLATED



Thread	Width	Thickness	BOX OF 100 PART NO.	NET/100	BOX OF 1000 PART NO.	NET/1000
2-56	3/16″	1/16″	8802-C	.68	8802-M	5.52
4-36	¼″	3/32″	8824-C	.67	8824-M	5.28
4-40	5/16″	7/64″	8804-C	.67	8804-M	5.28
6-32	¼″	3/32″	8806-C	.68	8806-M	5.52
6-32	5/16″	7/64″	8826-C	.73	8826-M	5.82
8-32	¼″	3/32″	8808-C	.73	8808-M	5.85
8-32	11/32″	⅛″	8828-C	.73	8828-M	5.85
10-32	⅜″	5/64″	8810-C	.97	8810-M	7.68
10-32	⅜″	⅛″	8830-C	.87	8830-M	6.98

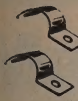
HEX NUTS — BRASS



Thread	Width	Thickness	BOX OF 100 PART NO.	NET/100	BOX OF 1000 PART NO.	NET/1000
2-56	3/16″	1/16″	8802-1-C	.98	8802-1-M	7.83
4-36	¼″	3/32″	8845-C	1.18	8845-M	9.42
4-40	5/16″	7/64″	8844-C	1.17	8844-M	9.33
6-32	¼″	3/32″	8846-C	1.17	8846-M	9.30
6-32	5/16″	7/64″	8826-1-C	1.40	8826-1-M	11.18
8-32	¼″	3/32″	8848-C	1.17	8848-M	9.30
10-32	⅜″	5/64″	8810-1-C	1.53	8810-1-M	12.27
10-32	⅜″	⅛″	8850-C	1.53	8850-M	12.27

Walsco ELECTRONICS

ELECTRONIC HARDWARE



WALSCO CABLE CLAMPS

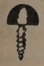
For all cable or wire groups from ⅛" to 5/16" in diameter.

Description	Mtg. Hole Size	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅛" to 3/16" cable diameter	#6	7502-F	25	7502-C	100	$ .98	7502-M	1000	$ 7.83
3/16" to ¼" cable diameter	#8	7503-F	20	7503-C	100	1.12	7503-M	1000	8.88
¼" to 5/16" cable diameter	#8	7505-F	16	7505-C	100	2.08	7505-M	1000	16.65
	Assorted	7500-F	20						

VINYL GROMMETS

Protects insulated wires from sharp edges of chassis holes. Easily installed. Extremely useful for damping vibration in mounting parts.

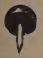
DIMENSIONS A	B	C	D	E	Cat. No.	Qty. Pkg.	Cat. No.	Qty. Pkg.	Dealer Net	Cat. No.	Std. Pack	Dealer Net Per 1000
11/32	⅛	3/16	1/16	¼	7030-F	14	7030-C	100	$1.00	7030-M	1000	$ 8.13
7/16	3/16	7/32	1/16	5/16	7032-F	12	7032-C	100	1.25	7032-M	1000	10.00
9/16	¼	¼	1/16	⅜	7034-F	12	7034-C	100	1.37	7034-M	1000	10.88
⅝	⅜	¼	1/16	½	7036-F	10	7036-C	100	1.47	7036-M	1000	11.73
13/16	½	9/32	1/16	⅝	7038-F	8	7038-C	100	2.27	7038-M	1000	18.22
				Assorted	7025-F	12						



CABINET FEET — SCREW TYPE

Made of synthetic rubber. Easily installed with wood screws, metal screws or tacks. Screw type is supplied with wood screws on "50" and "99" line packages.

Diameter	Height	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅜	3/16	7052-F	8**	7052-C	100**	$ .92	7052-M*	1000	$ 7.30
½	¼	7054-F	8**	7054-C	100**	1.47	7054-M*	1000	11.70
⅝	5/16	7056-F	8**	7056-C	100**	2.22	7056-M*	1000	17.70
¾	⅜			7058-C	100**	2.82	7058-M*	1000	22.50
	Assorted	7050-F	8**						

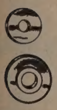


TACK TYPE

Same as above, but with handy tacks molded in feet.

Diameter	50 LINE Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅜			7071-C	100	$1.85	7071-M	1000	$14.78
½			7072-C	100	1.95	7072-M	1000	15.57
Assorted	7070-F	8						

* No screws included ** Wood screws included

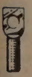


WALSCO INSULATING WASHERS

(Flat and Extruded)

Precision made from vulcanized phenolic fiber. Assures the proper and safe insulation between components and controls from each other or the chassis and other metal parts.

Fits Screw Size	DIMENSIONS A	B	C	D		50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
#6	5/16	3/16	.140	.039	Extruded			7856-C	100	$ .87	7856-M	1000	$6.90
	5/16		.140		Flat			7836-C	100	.42	7836-M	1000	3.30
					Fl & Ex.	7824-F	30						
#8	⅜	¼	.169	1/32	Extruded			7858-C	100	.87	7858-M	1000	6.90
	⅜		.166		Flat			7838-C	100	.42	7838-M	1000	3.30
					Fl. & Ex.	7825-F	30						
#10	⅜	.308	.195	1/32	Extruded			7860-C	100	.95	7860-M	1000	7.53
	⅜		.195		Flat			7840-C	100	.42	7840-M	1000	3.30
					Fl. & Ex.	7826-F	30						
¼"	½	11/32	.250	1/32	Extruded			7862-C	100	.95	7862-M	1000	7.53
	½		.250		Flat			7842-C	100	.47	7842-M	1000	3.68
					Fl. & Ex.	7827-F	24						
⅜"	⅝	½	.380	1/32	Extruded			7864-C	100	.98	7864-M	1000	7.92
	⅝		.380		Flat			7844-C	100	.77	7844-M	1000	6.12
					Fl. & Ex.	7828-F	20						



WALSCO SPADE BOLTS

Ideal for fastening condsensers, coils, shields, etc. The type 8572 is straight and has 9/32" long thread. Thread on type 8573 is 5/16" long. Both types are ¾" long overall, have 6-32 thread and hole for 6-32 screw or ⅛" rivet.

Hole Dia., .141.

Size	A	B	C	D	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
				Assorted	8570-F	15						
6-32 Straight	¾"	9/16"	9/32"	¼"			8572-C	100	$1.22	8572-M	1000	$12.23
6-32 Offset	¾"	9/16"	5/16"	15/64"			8573-C	100	2.55	8573-M	1000	20.33

WALSCO SNAP-HOLE PLUGS

The quickest, simplest way ever devised to cover a hole in chassis or panel. Spring flanges hold polished nickel-plated flat-head button firmly in place. Use Walsco Snap-Hole Plugs to seal adjustments, cover unused holes, etc.

Fits Hole Diameter	50 LINE Dir. Net .36/Pkg. Cat. No.	Qty. Pkg.	100 Pack Cat. No.	Qty. Pkg.	Dealer Net	BULK PACK Cat. No.	Std. Pack	Dealer Net Per 1000
⅛"						7302-M	1000	$25.65
3/16"						7304-M	1000	24.38
¼"	7306-F	8	7306-C	100	$2.25	7306-M	1000	18.00
⅜"	7308-F	8	7308-C	100	2.85	7308-M	1000	22.87
½"	7310-F	6	7310-C	100	3.08	7310-M	1000	24.60
⅝"	7312-F	6	7312-C	100	3.30	7312-M	1000	26.40
¾"	7314-F	5	7314-C	100	3.60	7314-M	1000	28.80
⅞"			7315-C	100	4.62	7315-M	1000	36.90
1"	7316-F	4	7316-C	100	4.95	7316-M	1000	39.60
1⅛"			7318-C		5.93	7318-M	1000	59.40
1¼"			7320-C		6.45	7320-M	1000	51.60
Assorted	7300-F	6						

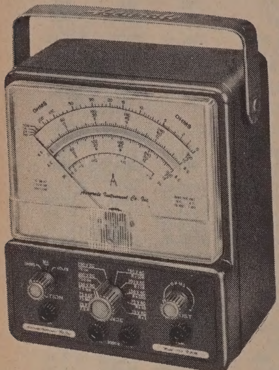
VENTILATING HOLE PLUGS

Assorted 7330-F 3

Snap these protective screen coverings into ventilating holes on chassis, portable equipment cases, amplifiers, amateur rigs, etc. Spring flange holds plug in place.

Fig. No.	Type	Hole Size	Finish	Cat. No.	Dealer Net	Cat. No.	Dealer Net
1	Screened	1"	Steel	7331-C	$21.38	7331-M	$170.99
2	Eyelet	19/32"	Brass—Not Plated	7332-C	4.50	7332-M	40.43
2	Eyelet	¾"	Brass	7333-C	6.37	7333-M	57.23

THE FIRST SIX MODELS IN THE NEW "ACCURATE" LINE — MORE TO COME!



Model 154 a Modern, Streamlined 20,000 OHMS-PER-VOLT V.O.M

FEATURES GIANT 6½" METER only $29^95 COMPLET

Not a kit . . . the 154 is a completely Wired and Calibrated Tester . . . *READY TO USE!*

The 20,000 Ohms-per-Volt-V.O.M. has been the one "must have" tester for all Radio and TV technicians since 1935 . . . and now . . . we proudly announce the most recent, streamlined edition of this around useful standard with a 6½" meter and a unbelievably low price.

MODEL 154 FEATURES AND SPECIFICATIONS

● **Mirrored Scale** permits fine accurate measurements where fractional readings are important. ● **Selected resistors** are used as multipliers to assure unchanging accurate readings on all ranges. ● **6 D.C. VOLTAGE RANGES** (at 20,000 Ohms per Volt) 0 to 15/75/150/300/-750/3000 Volts ● **6 A.C. VOLTAGE RANGES (at 5,000 Ohms per Volt)** 0 to 15/75/150/300/750/3000 Volts. ● **5 RESISTANCE RANGES:** 0 to 2000/20,000/200,000 Ohms; 0 to 2/20 Megohms. ● **5 D.C. CURRENT RAN** 0 to 75/750 Microamperes; 0 to 7.5/75 Milliampe 0 to 7.5 Amperes; ● **3 DECIBEL RANGES:** —6 d + 18 db; + 14 db to + 38 db; + 28 db to + 52

Model 154 comes complete with operating instructions and test leads. Only ________ **$29**

A
RANGE
FUNCTION
MODEL 155
SUPERTESTER

New Model 155 Super-Tester

WITH NEW 6" FULL-VIEW METER

A Combination VOLT-OHM MILLIAMMETER

plus

CAPACITY, REACTANCE, INDUCTANCE and DECIBEL MEASUREMENTS.

Also Tests

SELENIUM and SILICON RECTIFIERS, SILICON and GERMANIUM DIODES

SPECIFICATIONS:

√ D.C. Volts:	0 to 7.5/15/75/150/750/1,500.
√ A.C. Volts:	0 to 15/30/150/300/1,500/3,000.
√ D.C. Current:	0 to 1.5/15/ 150 Ma.: 0 to 1.5/15 Amperes.
√ Resistance	0 to 2,000/200,000 Ohms. 0 to 20 Megohms.
√ Capacity:	.001 to 1 Mfd. 1 to 20 Mfd.
√ Reactance:	130 to 2,600 Ohms, 2600 Ohms to 2.6 Megohms.
√ Inductance:	.35 to 7 Henries, 7 to 7,000 Henries.
√ Decibels:	— 6 to + 18, + 14 to + 38, + 34 to + 58.

The following components are all teste QUALITY at appropriate test potentials. separate BAD-GOOD scales on the n are used for direct readings.

√ All Electrolytic Condensers from 1 to 1000 Mfd.
√ All Selenium Rectifiers
√ All Silicon Rectifiers
√ All Germanium Diodes √ All Silicon Di

Model 155 comes complete with operating instructions and test leads. Use it on the bench — use it on calls. Complete with all instructions and leads. Only ________ **$28^40**

Accurate Instrument Co. Inc.
NEW YORK, U.S.A.
A
VARIABLE AUDIO
Genometer
Model-156
R.F. ATTENUATOR
OUTPUT
R.F. RANGE
AUDIO OUTPUT
MODULATION
SYNC FREQ

New Model 156 GENOMETER

SEVEN (7) SIGNAL GENERATORS IN ON

- R.F. Signal Generator for A.M. • R.F. Signal Generator for F.M. • Audio Freq. Gener
- Bar Generator • Cross Hatch Generator • Color Dot Pattern Generator • Marker Gener

A versatile all-inclusive GENERATOR which provides all the outputs for servic A.M. RADIO • F.M. RADIO • AMPLIFIERS • BLACK AND WHITE TV • COLOR

Specifications:

R.F. SIGNAL Generator: The Model 156 Genometer provides complete coverage for A.M. and alignment. Generates Radio Frequencies from 250 Kilocycles to 45 Megacycles on fundamentals from 35 Megacycles to 120 Megacycles on powerful harmonics.

CROSS HATCH GENERATOR: The Model 156 Genometer will project a cross-hatch pattern on an picture tube. The pattern will consist of non-shifting, horizontal and vertical lines interlace provide a stable cross-hatch effect.

VARIABLE AUDIO FREQUENCY GENERATOR: In addition to a fixed 400 cycle sine-wave audio, Model 156 Genometer provides a variable 300 cycle to 20,000 cycle peaked wave audio signal.

DOT PATTERN GENERATOR (FOR COLOR TV): Although you will be able to use most of your re standard equipment for servicing Color TV, the one addition which is a "must" is a Dot Pa Generator. The Dot Pattern projected on any color TV Receiver tube by the Model 156 will en you to adjust for proper color convergence.

BAR GENERATOR: The Model 156 projects an actual Bar Pattern on any TV Receiver Screen. Pa will consist of 4 to 16 horizontal bars or 7 to 20 vertical bars.

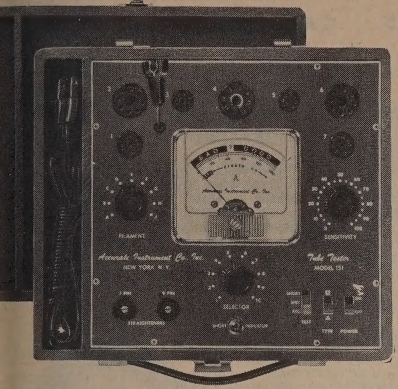
The Model 156 comes absolutely complete with shielded leads and operating instructions. Only ________ **$38^50**

MARKER GENERATOR: The Model 156 Includes all the most frequently needed marker points. The Following markers are provided: 262 Kc., 456 Kc., 600 Kc., 1000 Kc., 1600 Kc., 2500 Kc., 3.579 Mc., 4.5 Mc., 10.7 Mc., (3.579 Mc. Is the color burst frequency).

ACCURATE INSTRUMENT CO., INC., NEW YORK 59, N. Y.

© U.C.P.,

THE FIRST SIX MODELS IN THE NEW "ACCURATE" LINE — MORE TO COME!



Model 151 a Modern, Streamlined TUBE TESTER

Only $21.95 COMPLETE! ***Not a kit . . . the 151 is a completely Wired and Calibrated Tester . . . Ready to use!***

Don't let the low price mislead you!

The Model 151 was designed and produced with the knowledge that the only way to meet "imported" tester competition is to turn out a *better* product at a *lower* price.

Compare the Model 151 features and specifications below with any tube tester, domestic or foreign, in the $30.00 to $50.00 price range.

MODEL 151 FEATURES AND SPECIFICATIONS:

√ Tests over 1,000 Tube Types

√ Makes **all** necessary tests. Checks for shorts and leakages between **all** elements; tests for filament continuity; indicates the quality (emission) of all tubes.

√ Checks all modern tubes including 7-pin miniatures; octals; lock-ins; 9-pin noval miniatures and new T-9 types.

√ Five (5) Year Free Tube Data.

√ **Speedy** Operation assured by use of a new improved circuit which enables us to us a single **rotary** switch in place of the one-at-a-time slide switches previously used.

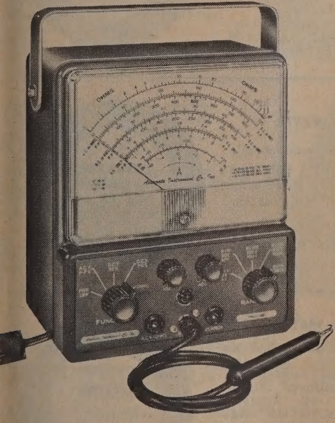
√ 7 and 9 pin tube straighteners permanently mounted on front panel.

√ Employs a rugged, accurate, highly damped meter movement with **sealed** air-damping chamber.

√ Comes housed in a beautiful portable carrying case with slip-on cover.

Model 151 comes complete — absolutely no extras. Only **$21.95**

PICTURE TUBE ADAPTER DESIGNED ESPECIALLY FOR MODEL 151 ONLY ***$3.85***



Model 152 a Modern, Streamlined

SENIOR V.T.V.M.

FEATURES GIANT 6½" METER

Only $29.95 COMPLETE! ***Not a kit . . . the 152 is a completely Wired and Calibrated Tester . . . Ready to use!***

Don't let the low price mislead you!

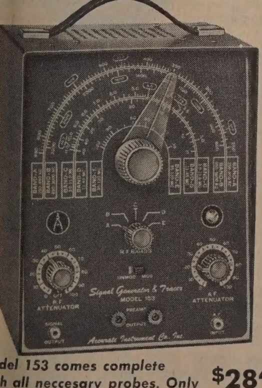
The Model 152 was designed and produced with the knowledge that the only way to meet "imported" tester competition is to turn out a *better* product at a *lower* price.

Compare the Model 152 features and specifications below with *any* wired V.T.V.M., domestic or foreign, in the $50.00 to $70.00 price range.

MODEL 152 FEATURES AND SPECIFICATIONS:

● **D.C. VOLTMETER:** Ranges: 0 to 3, 30, 150, 300, 1500 volts; Accuracy: ± 3% of full scale; Input resistance: 11 megohms. ● **ZERO CENTER VOLTMETER (for discriminator alignment):** Ranges: 0 to 1.5, 15, 75, 150, 750 volts; Accuracy: ± 3% of full scale. Input resistance: 11 megohms: ● **A.C. VOLTMETER:** R.M.S. Ranges: 0 to 3, 30, 150, 300, 1500 volts; Peak to Peak Ranges: 0 to 8, 80, 400, 800 volts; Accuracy: ± 3% of full scale. ● **OHMMETER:** Ranges: 0 to 1000 megohms (5 overlapping ranges); Center Scale Values: 10, 100, 1000, 100,000 ohms, 10 megohms. ● **DECIBEL METER (for all audio measurements):** Ranges: — 10 to + 5, + 6 to + 25, + 26 to + 45 decibels. All based on zero db. at 1.73 volts on 500 ohm line; ● Pilot light indicates when unit is "on". ● Housed in beautiful grey high-impact case, with color matched etched aluminum panel and portable handle.

Model 152 comes complete with D.C. V.T.V.M. Probe and cable, pair of standard test leads for all other services, detailed instructions. Only **$29.95**



Model 153 a COMBINATION

SIGNAL GENERATOR and SIGNAL TRACER

Now, for the first time ever, a combination Signal Generator and Signal Tracer priced at **only $28.40 COMPLETE**

The true test of the claim "two instruments in one" is; can each of the two units be used separately as well as in conjunction with each other? In the case of this versatile combination instrument, the answer is emphatically yes, for, the Signal Generator will function as a full service instrument with a range of 250 kilocycles to 120 megacycles and the Signal Tracer will follow any signal whether generated by a broadcasting station or injected by the Signal Generator section of Model 153. When used in combination with no dependence on outside signals, the compatibility of Model 153 provides ideal service, for unlike any standard signal tracer, the Model 153 first injects its own signal then traces that controllable signal to locate the source of trouble whether due to component or circuit by standard signal tracing technique.

SPECIFICATIONS:

SIGNAL TRACER: ● Hi-gain cascode pre-amplifier ● Preamplifier output available at front panel jacks for use with VTVM, oscilloscope or phones. ● Low distortion triode output stage. ● Audio Attenuator provided to prevent high signal overloading. ● 4½ inch permanent magnet speaker. ● Separate R.F. and Audio signal tracing probes.

SIGNAL GENERATOR: ● Covers from 250 KC to 120 MC in 5 bands. ● All popular and most used frequencies marked on panel in color. ● High stability electron coupled R.F. oscillator. ● Attenuator used on both R.F. and Audio circuits.

del 153 comes complete h all neccesary probes. Only **$28.40**

ACCURATE INSTRUMENT CO., INC., NEW YORK 59, N. Y.

NORTHROP VENTURA

AERO INSTRUMENT FACILITY

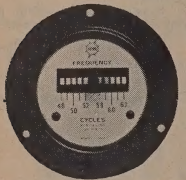
NORTH HOLLYWOOD, CALIFORNIA

VIBRATING REED FREQUENCY & TIMING INSTRUMENTS

GENERAL DESCRIPTION

Vibrating Reed Instruments are direct reading frequency indicators for use where the efficient operation of A.C. equipment depends upon the maintenance of known or constant frequency. They are self contained, their accuracy is not affected by wide voltage variations or wave form distortions and require no auxiliary apparatus. They consist of a number of steel reeds, of high Q, each of which is tuned to a single frequency within the band covered by the instrument. Indication is by visual pattern formed by the vibration of the reed in resonance with the line frequency. Excitation is electromagnetic, and the reeds are the only moving elements. **Running Time Meters** are synchronous motor operated instruments to automatically measure service periods or service requirements.

SERIES 7002



Range: 48-52 and 58-62 cycles for reading in either 50 or 60 cycles. **Voltage:** 125 volts ±20 volts. **Accuracy:** ±0.3% of designated frequency. **Power Consumption:** 1 watt. **Resistance:** Approximately 100 ohms per volt. Flush panel mounting.

2810-134—48-52 and 58-62 cy. in 3½″ flange MIL-M-6A molded bakelite case....$25.00
2810-133—48-52 and 58-62 cy. in 3½″ flange metal case........ 25.00
2810-153—48-52 and 58-62 cy. in 3¼″ flange metal case........ 25.00
2810-123—48-52 and 58-62 cy. in 2½″ flange metal case........ 25.00

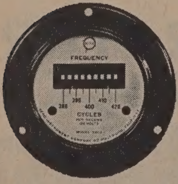
SERIES 7004

FREQUENCY
59
61
63
60
62
CYCLES

Range: 59-63 cycles. Used extensively on standby power supplies for measuring generator frequency and engine speeds. **Electrical characteristics:** Same as the Series 7002.

6915-134—59-63 cy. in 3½″ flange MIL-M-6A molded bakelite case. $21.50
6915-133—59-63 cy. in 3½″ flange metal case $21.50
6915-153—59-63 cy. in 3¼″ flange metal case $21.50
6915-123—59-63 cy. in 2½″ flange metal case $21.50

SERIES 4009



Range: 380-420 cycles. For use on 400 cycle commercial power supplies and air-raft inverters. **Accuracy:** ±0.2% at 70° F. **Power consumption:** Approximately 1.25 watts. **Resistance:** Approximately 70 ohms per volt. Flush panel mounting.

4059-134—380-420 cy. in 3½″ flange MIL-M-6A molded bakelite case. $31.00
4059-133—380-420 cy. in 3½″ flange metal case $31.00
4059-153—380-420 cy. in 3¼″ flange metal case $31.00
4059-123—380-420 cy. in 2½″ flange metal case $31.00

VOLTAGES—All frequency meters can be supplied for voltages from 10 to 440 volts.

DISCOUNTS—Quantity prices quoted upon request.

SPECIAL INSTRUMENTS—Prices on special ranges will be furnished upon request.

RUNNING TIME METERS—Special ranges, frequencies and voltages available.

Write for catalog describing complete line of Aero stock instruments.

APPLICATIONS

A large demand exists for VIBRATING REED FREQUENCY METERS for use with engine driven A.C. generator units as this is the most simple speed and frequency indicator yet devised for A.C. generator sets. These meters are also generally used in laboratory and portable test equipment, electronics, telephony, aircraft, industrial plants and numerous applications where electrical frequency indication is desired. Engineering services are available for those desiring assistance on their application problems. **Running Time Meters** are often used in conjunction with reed type frequency meters.

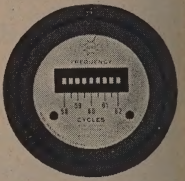
SERIES 1001

TOTAL
HOURS

Direct reading indicators to automatically and cumulatively register total operating or idle time of any equipment, machine, circuit or system to which they are connected. **Range:** 0 to 10,000 hours in hours and tenths of hours—automatically resets. **Voltage:** 125 ±20 volts. **Power consumption:** 2.5 watts. **Frequency:** 50, 60 and 400 cycles.

61134—60 cy. in 3½″ flange MIL-M-6A molded bakelite case......$19.00
41134—400 cy......Price upon request

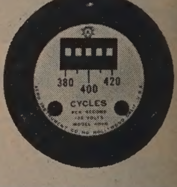
3½″ SEALED METER



Meets all applicable requirements of MIL-M-6A Specification. All 3½″ meters can be supplied in hermetically sealed cases. **Electrical characteristics:** Same as unsealed instruments.

Prices on all models available upon request.

1½″ SEALED METER



Range: 380-420 cycles. For use in air borne or ground equipment where size and weight are important factors. **Voltage:** 125 ±20 volts. **Resistance:** Approximately 70 ohms per volt. **Accuracy:** ±0.2% at 70° F. or 1.5% over range of —65° to +165° F. **Breakdown voltage:** 1500 volts. **Power consumption:** Approximately 1.25 watts.

4005-115—380-420 cy. in 1½″ hermeticaly sealed case..........$23.85

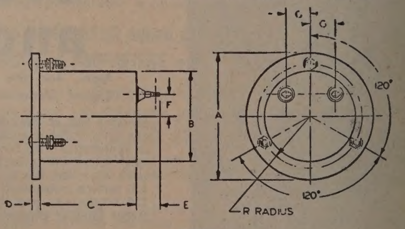


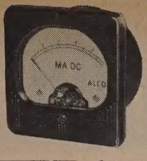
TABLE 1

CASE SIZE CHART											MOUNTING SCREWS
CASE STYLE	A	B	C	D	E	F		G		R		
	MAX	MAX	MAX	MAX	MAX	MAX	MIN	MAX	MIN	MAX	MIN	
A	2.10	1.51	1.56	0.14	0.40	.41	.35	.41	.35	.877	.873	4-36NS-2A

Series 4005
Range 380 to 420 C.P.S. Hermetically Sealed.

© U.C.P.,

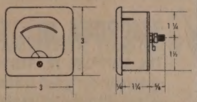
3″ RECTANGULAR
CO PANEL METERS



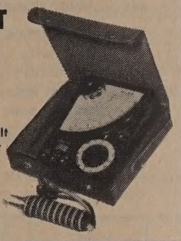
onval type; 2.5% ACCURACY. 90° scale arc. 2¾″ mounting hole. Black bakelite case.

MODEL S-35 (specify range)

	Net		Net
0 µA DC.	$8.95	0-10 MA DC.	5.95
00 µA DC..	7.95	0-50 MA DC.	5.95
00 µA DC..	7.75	0-100 MA DC.	5.95
00 µA DC..	6.95	0-300 MA DC.	5.95
0 µA DC..	7.95	0-30 VDC 1000 Ω ..	5.95
00 µA DC..	7.75	0-300 VDC per volt..	5.95
00 µA DC..	6.95	0-150 VAC	6.45
MA DC..	5.95	-20 +3 VU	6.95
MA DC..	5.95		



000 OHMS PER VOLT
'S-60H MULTITESTER



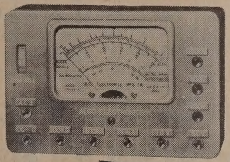
/ design; wide scale arc. Compares with 4½″ ers; has 4″ meter face. Measures 3¼″ W x ″ H. Includes leather case and test leads.

Ranges—5-25-250-500-2500 @ 20,000Ω per volt
Ranges—10-50-100-500-1000 @ 10,000Ω per volt
—.001 mfd-.1 mfd (w/10 VAC supply)
.00001 mfd-.001 mfd (w/100 VAC supply)
nt—50 µa, 2.5 ma, 250 ma.
e—0-60,000 ohms, 0-6 megs.
—20db to +22db.

$15.95
Net

T-OHM-MILLIAMETER
55A MULTITESTER

● PORTABLE



LTAGE RANGES:
, 250, 500 & 1000
LTAGE RANGES:
, 250, 500 & 1000
URRENT RANGES: 0-1 & 0-500ma
.: 20 0 +36db (2 ranges)
ANCE: 0 —100KΩ

- 5″ wide, 3⅛″ high, 1⅜″ deep

$8.95 Net

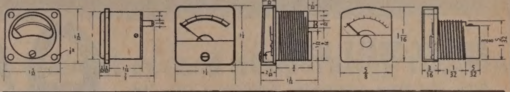
TERY-OPERATED
RTABLE VTVM

Net
$49.95

tage:	0-3, 6, 30, 120, 600V
tage:	0-3, 6, 30, 120, 600V
P-P):	0-9, 18, 90, 360, 1.8KV
nce:	Rx1, Rx100, Rx1K, Rx10K, Rx1 Meg.
np:	11 Meg (DCV range)
ity:	20 UA
ons:	8¾ x 5½ x 4⅜″
:	4¼ lbs.

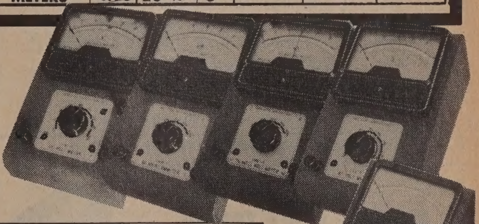
MINIATURE PANEL METERS

B-100 P-1000 S-10



PRICES APPLY TO 3 METER STYLES			B-100	P-1000	S-10
STOCK RANGES	User Net	RANGE	1″ Bakelite	1″ Clear Plastic	½″ Clear Plastic
D.C. MICROAMMETERS	$6.95	0-100	▨		▨
	6.45	0-150	▨		▨
	5.95	0-200			
	5.95	0-300		▨	▨
	5.75	0-500			
	6.95	50-0-50	▨		▨
	5.95	100-0-100			
	5.75	200-0-200	▨	▨	
	5.65	500-0-500			
D.C. MILLIAMMETERS	4.95	0-1			
	4.95	0-5			
	4.95	0-10			
	4.95	0-20			
	4.95	0-30	▨	▨	
	4.95	0-50			
	4.95	0-100			
	4.95	0-150			▨
	4.95	0-200			▨
	4.95	0-300			▨
	4.95	0-500			▨
D.C. VOLTMETERS (1000 o.p.v.)	4.95	0-3		▨	▨
	4.95	0-10			
	4.95	0-15			
	4.95	0-20	▨		▨
	4.95	0-30		▨	
	4.95	0-50			
	4.95	0-100	▨	▨	
	4.95	0-150			
	4.95	0-300			
	4.95	0-500	▨		▨
	4.95	0-1000	▨		▨
A.C. VOLTMETERS (Rectifier Type)	5.25	0-15			▨
	5.25	0-150			
	5.25	0-300		▨	▨
S METERS	4.95	0-1 MA Basic			
VU METERS	4.95	20 to +3			

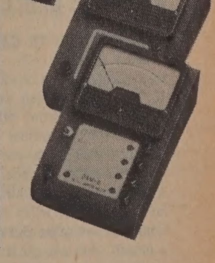
ULTI-RANGE SINGLE FUNCTION
CISION LABORATORY INSTRUMENTS



introduces a brand new series of **MULTI-RANGE** meters cular interest to schools and labs! The instruments in the ne are standard meters but ingeniously built for rugged as a standard of reliability. The adaptation of **ONE CONTROL,** wide mirrored scales, and the 5 to 10 dif- multi-ranges provide further versatility, simplicity, and ctiveness in their applications.

- **ZERO CENTER TYPES**
- **ALL MIRROR SCALES**

☐ DMM-5, **5-Range DC Microammeter:** 0-30µ, 60µ, 120µ, 300µ, 600µA DC. **26.95**	☐ DMVC-5, **Center zero 5-Range DC Millivoltmeter:** ±15m, 30m, 60m, 150m, 300mV DC. **24.95**
☐ DMMC-5, **Center zero 5-Range DC Microammeter:** ±15µ, 30µ, 60µ, 150µ, 300µA DC. **26.95**	☐ DVM-10, **10 Range DC voltmeter:** 0-1.2, 3, 6, 12, 30, 60, 120, 300, 600, 1200V DC. **24.95**
☐ DMA-11, **11-Range DC Ammeter:** 0-600µ 1.2m, 3m, 6m, 12m, 30m, 60m, 120m, 300m, 600m, 3A DC. **24.95**	☐ DVMC-10, **Center zero 10-Range DC voltmeter:** ±0.6, 1.5, 3, 6, 15, 30, 60, 150, 300, 600V DC. **24.95**
☐ DMAC-11, **Center zero 11-Range DC Ammeter:** ±300, µ 0.6m, 1.5m, 3m, 6m, 15m, 30m, 60m, 150m, 300m, 1.5A DC. **24.95**	☐ DAV-9, **9-Range AC Voltmeter:** 0-1.2, 3, 6, 12, 30, 60, 120, 300, 600V AC. **24.95**
☐ DAM-8, **8-Range DC AC Ammeter:** 0-1.2, 3, 6, 12A AC, 0-1.2, 3, 6, 12A DC. **26.95**	☐ DRM-5 B, **5-Range Ohmmeter:** 0-50, 5K, 50K, 500K, 50M from 0.02Ω 50 MegΩ on Scale line. **28.95**

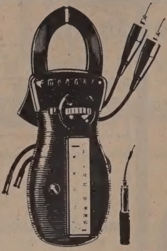


Net Prices

ALCO **ELECTRONIC PRODUCTS INC.**

LAWRENCE, MASS.

AMPROBE INSTRUMENT CORPORATION
AMPROBE INSTRUMENTS

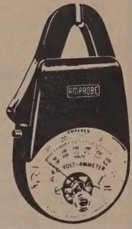


ROTARY SCALE MODELS

Offer you these outstanding features. • Only the Ohms scale plus one voltage scale or current scale is visible at any one time, providing greater reading speed and accuracy; on models other than RS-3 only scale selected appears. • Magnified unbreakable window. • Pointer-lock "freezes" pointer at reading. • Accurate within ±3% full scale reading. • One hand operation.

MODEL	RANGES	PRICE*
RS-1	0-5/15/40/100 Amps A.C. 0-150/600 Volts A.C.	$39.85
RS-2	0-5/15/40/100 Amps A.C. 0-150/300 Volts A.C.	39.85
RS-3	0-5/15/40/300 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	52.50
RS-300	0-5/15/40/300 Amps A.C. 0-150/300/600 Volts A.C.	47.50
RS-1000	0-15/40/100/300/1000 Amps A.C. 0-150/300/600 Volts A.C. 25Ω Mid-Scale	69.50

Factory Packed with Model "G" Top-Grain Cowhide
Leather Carrying Case and Model VL-22 Voltage Test Leads.
RS-1000 Packed with Model "E" Carrying Case.



AMPROBE JUNIOR

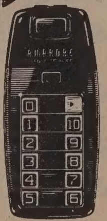
The only voltage testers in their price class that also measure amperage. They are precision instruments that measure instantly and accurately on a calibrated scale ±3% full scale (not just an indication).

MODEL	RANGES	PRICE*
Y10	0-10 Amps A.C. 0-125/250 Volts A.C.	$19.85
Y25	0-25 Amps A.C. 0-125/250 Volts A.C.	19.85
Y50	0-50 Amps A.C. 0-125/250 Volts A.C.	19.85
Y100	0-100 Amps A.C. 0-125/250 Volts A.C.	19.85
Y525	0-25 Amps A.C. 0-150/600 Volts A.C.	19.85
Y550	0-50 Amps A.C. 0-150/600 Volts A.C.	19.85
Y500	0-100 Amps A.C. 0-150/600 Volts A.C.	19.85

Price includes Model VL-55. Safety Type Voltage Leads.
P-1 Leather Punch Optional at $2.85. Order Separately.

AMPROBE CABLE TRACER

LOCATE UP TO 10 CABLES SIMULTANEOUSLY



Now you can trace conductors in cables and conduit 10 times faster than ever before — and leave your helper free to finish other jobs quickly and profitably. A tracing system in itself, revolutionary new CABLE TRACER lets you search — and unmistakably identify—up to 10 separate circuits simultaneously. What's more, with CABLE TRACER there's no needless handling of wires to locate a conductor. Every time the Indicator Button is pressed, you identify a circuit. And you do it without extra trips between conductor ends. **PRICE $39.50 ***

AMPROBE JR.
Test Master

AMPROBE JR. TEST MASTER KITS

The AMPROBE JR. TEST-MASTER KIT consists of specially designed leather case that contains one of the all new YO AMPROBE JR. voltage testers, and an AMPROBE A-45 ENERGIZER.

The new YO models are the only voltage testers in their price class that measure voltage, amperage and resistance. They are precision instruments that measure instantly and accurately on a calibrated scale (not just an indication).

The AMPROBE ENERGIZER increases the versatility of the instrument by increasing the instruments sensitivity for precise readings on fractional horse-power motors and appliances.

MODEL	2 AMMETER RANGES (full scale) A-45 5x	2 AMMETER RANGES (full scale) A-45 10x	BASIC INST.	2 VOLTAG RANGES
TM-YO "525"	0-5	0-2.5	0-25	0-150/60
TM-YO "550"	0-10	0-5	0-50	0-150/60
TM-YO "500"	—	0-10	0-100	0-150/60
TM-YO "25"	0-5	0-2.5	0-25	0-125/25
TM-YO "50"	0-10	0-5	0-50	0-125/25
TM-YO "100"	—	0-10	0-100	0-125/25

OHMMETER RANGE (All models): 25 ohms Mid Scale. **PRICE: $29.8**

AMPROBE TEST MASTER KITS

The TEST-MASTER KIT designed to hold any one of the famous AMPROBE RS models, the AMPROBE DECA-TRAN, the AMPROBE ENERGIZER. The TEST-MASTER has a separate covered section to hold your small hand tools easily, within reach.

MODEL TM-33 contains the world-famous AMPROBE RS-3 snap-around volt-ammeter-ohmmeter: 5 current ranges, 3 voltage ranges; AMPROBE DECA-TRAN: Extends amperage reading 10x, as high as 1200 amps; AMPROBE ENERGIZER: Multiplies sensitivity of any AMPROBE 5x or 10x for readings on small appliances and fractional h. p. motors. **PRICE: $84.50 ***

MODEL TM-11 contains the AMPROBE RS-1, economy snap-around ammeter; AMPROBE DECA-TRAN and AMPROBE ENERGIZER. **PRICE: $71**

MODEL HK contains AMPROBE DECA-TRAN and AMPROBE ENERG (to be used with instrument already in possession). **PRICE: $39.75**

HIGH CURRENT AMPROBES

Designed to fill the need of the individual consistently working in current and voltage ranges higher than scale reading available on the rotary scale models.

MODEL	RANGE	PRI
600	0-15/30/60/150/300/600 Amps A.C. 0-150/300/600 Volts A.C.	$59
1200	0-15/30/60/150/300/1200 Amps A.C. 0-150/300/600 Volts A.C.	67

Factory Packed with Model "E" Top-Grain Cowhide.
Leather Carrying Case and Model VL-22 Voltage Test Leads.

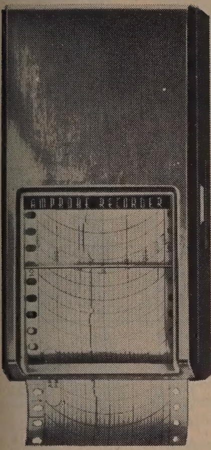
*Prices slightly higher outside the United St

AMPROBE INSTRUMENT CORPORATION, LYNBROOK, N. Y.

CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO
EXPORT CABLE ADDRESS: AMPROBE LYNBROOK

AMPROBE INSTRUMENT CORPORATION
AMPROBE RECORDERS

New miniature instrument makes permanent record of operating conditions



The new AMPROBE RECORDER is the smallest, lightest, least-expensive precision recording instrument available anywhere today. Whatever your requirements, the AMPROBE RECORDER provides a permanent, continuous record of voltage, amperage or temperature, depending upon model, to help you maintain and service electrical equipment and installations. Simple, precise and foolproof, the AMPROBE RECORDER is a time-and-labor-saving tool for which you'll find many uses.

FEATURES

- **INKLESS STYLUS** makes recording on pressure-sensitive paper.
- **MYLAR SHIELD** seals meter movement and drive mechanism from dust.
- **SIMPLE PAPER LOADING.** No rollers or drums to thread.
- **VERSATILE.** Use as a recording or indicated meter.
- **CONTEMPORARY STYLING.** Clean, modern design blends with your product.

SPECIFICATIONS

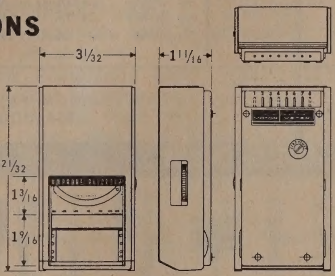
Weight: 20 ounces

Paper Size:
2½" wide x 30' long.

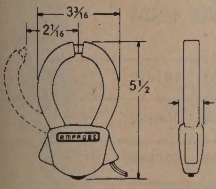
Paper Speeds:
1", 6", 12" per hour.

Power Requirements:
115 vAC, 60 cycles.
Other voltages and frequencies available.

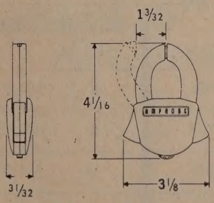
Accuracy:
DC instruments: ±2% F. S.;
AC instruments: ±3% F. S.; AC expanded-scale instruments: 95-130 v: ±1 DIV. 190-260 v: ±1 DIV. with 60 cycle sine wave input.



TRANSDUCERS



AMPROBE CURRENT TRANSDUCER. Model A-70. Heavy duty. Ranges (when used with Model AA1 RECORDER): 0/10/50/250/500 amps. Price: $24.75 List.



AMPROBE CURRENT TRANSDUCER. Model A-60. Current ranges (when used with Model AA2 RECORDER): 0/5/25/100/250 amps. Price: $14.50 List.

THERMOMETER. Model RBT-1. Resistance bulb thermometer. Range (when used with Model T100 RECORDER): −50°/+100°F., +50°/+250°F. 12 foot cord length. Price: $6.50

MODELS (all models supplied with line cord and one roll of chart paper)

Number	Description	Range	Price
DC100	Microammeter	0/100 ua DC	$74.85
DC500	Microammeter	0/500 ua DC	69.85
DB1	Milliammeter	0/1 ma DC	69.85
AA1	Ammeter (with A-70)	0/10/50/250/500 amps AC	94.85
AA2	Ammeter (with A-60)	0/5/25/100/250 amps AC	89.85
AV1X	Voltmeter (expanded-scale)	95-130/190-260 vAC	84.85
T100	Temperature Recorder*	−50°/+100°F., +50°/+250°F.	98.85
P600	Pyrometer**	0°/600°F.	79.85
P1000	Pyrometer**	0°/1000°F.	79.85
P2000	Pyrometer**	0°/2000°F.	79.85
ATM-2	Consists of AV1X & AA2 in "M" carrying case	see AV1X & AA2 ranges	181.20

*Supplied with resistance-bulb thermometer.
**Not supplied with thermocouples.

Carrying Cases
Model L—Holds one Recorder. Price: $4.50
Model M—Holds two Recorders. Price: $6.50

STRIP CHARTS

Perforated and Printed 2 Colors. Individually Boxed
*Minimum Order—Box of 6 Strip Charts. Price: $9.00 per box

501DC	50 DIVISION CHART PAPER for DC Variables—.2 Inches Spacing Between Time Lines. (Interchangeable with 501A)
5012AA2	Use with RECORDER Model AA1 and AA2
RCV12HX	Use with Expanded-Scale Voltmeter Model AV1X
2012T1	Use with Model T100 on −50°/+100°F. Range
2012T2	Use with Model T100 on +50°/+250°F. Range
NP-1	BLANK CHARTS, Perforated but without printing. For use with any AMPROBE RECORDER Where Time and Variable Coordinates are not required.
BL-12	Time Line Only—.2 Inches Spacing Between Lines
SPECIAL	CHARTS TO ORDER PRICES ON REQUEST

Prices slightly higher outside the United States.

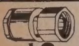
AMPROBE INSTRUMENT CORPORATION, LYNBROOK, N. Y.

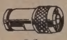
CANADIAN SALES DIVISION: ATLAS RADIO CORP., 50 WINGOLD AVE., TORONTO, ONTARIO
EXPORT CABLE ADDRESS: AMPROBE LYNBROOK

COAXIAL CABLE ASSEMBLIES

ANGLER
INDUSTRIES INC.

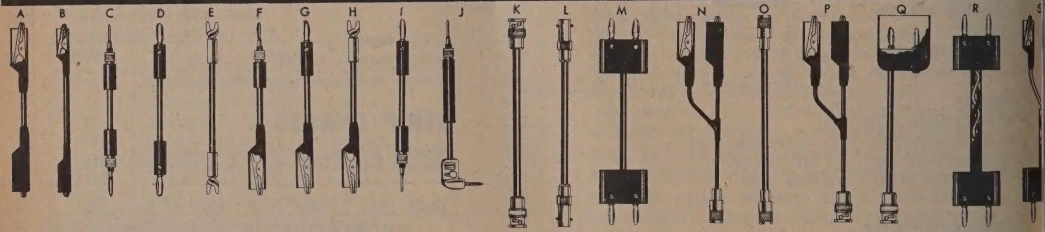
EVERY CABLE TESTED AT
HIGHEST DESIGN FREQUENCY

SERIES	IMPEDANCE	CABLE TYPE	MATING CONNECTOR TYPE PART NO. FROM	TO	PART NO.
 BNC UG88C/U UG260B/U UG89B/U UG261B/U UG913/U	50 OHMS	RG55A/U	MALE	MALE	C-100-( )†
	50 OHMS	RG55A/U	MALE	FEMALE	C-105-( )†
	50 OHMS	RG55A/U	FEMALE	FEMALE	C-110-( )†
	50 OHMS	RG55A/U	MALE	R. ANGLE	C-115-( )†
	50 OHMS	RG58C/U	MALE	MALE	C-120-( )†
	50 OHMS	RG58C/U	MALE	FEMALE	C-125-( )†
	50 OHMS	RG58C/U	FEMALE	FEMALE	C-130-( )†
	50 OHMS	RG58C/U	MALE	R. ANGLE	C-135-( )†
	75 OHMS	RG59A/U	MALE	MALE	C-140-( )†
	75 OHMS	RG59A/U	MALE	FEMALE	C-145-( )†
	75 OHMS	RG59A/U	FEMALE	FEMALE	C-150-( )†
	93 OHMS	RG62A/U	MALE	MALE	C-160-( )†
	93 OHMS	RG62A/U	MALE	FEMALE	C-165-( )†
	93 OHMS	RG62A/U	FEMALE	FEMALE	C-170-( )†
	93 OHMS	RG71A/U	MALE	MALE	C-180-( )†
	93 OHMS	RG71A/U	MALE	FEMALE	C-185-( )†
	93 OHMS	RG71A/U	FEMALE	FEMALE	C-190-( )†
 C UG583A/U UG709D/U UG572/U	50 OHMS	RG8A/U	MALE	MALE	C-300-( )†
	50 OHMS	RG8A/U	MALE	FEMALE	C-305-( )†
	50 OHMS	RG8A/U	FEMALE	FEMALE	C-310-( )†
	50 OHMS	RG9B/U	MALE	MALE	C-315-( )†
	50 OHMS	RG9B/U	MALE	FEMALE	C-320-( )†
	50 OHMS	RG9B/U	FEMALE	FEMALE	C-325-( )†
	75 OHMS	RG14A/U	MALE	MALE	C-340-( )†
 UHF PL-259 83-59	50 OHMS	RG8A/U	MALE	MALE	C-800-( )†
	50 OHMS	RG8A/U	MALE	R.ANGLE	C-805-( )†
	50 OHMS	RG8A/U	R.ANGLE	R.ANGLE	C-810-( )†
 **LC** UG154/U	50 OHMS	RG17A/U	MALE	MALE	C-500-( )†

SERIES	IMPEDANCE	CABLE TYPE	MATING CONNECTOR TYPES FROM	TO	PART N
 **N** UG21D/U UG94A/U UG23D/U UG95A/U	50 OHMS	RG5B/U	MALE	MALE	C-630-(
	50 OHMS	RG5B/U	MALE	FEMALE	C-635-(
	50 OHMS	RG5B/U	FEMALE	FEMALE	C-640-(
	50 OHMS	RG8A/U	MALE	MALE	C-600-(
	50 OHMS	RG8A/U	MALE	FEMALE	C-605-(
	50 OHMS	RG8A/U	FEMALE	FEMALE	C-610-(
	50 OHMS	RG9B/U	MALE	MALE	C-615-(
	50 OHMS	RG9B/U	MALE	FEMALE	C-620-(
	50 OHMS	RG9B/U	FEMALE	FEMALE	C-625-(
	50 OHMS	RG21A/U	MALE	MALE	C-660-(
	50 OHMS	RG21A/U	MALE	FEMALE	C-665-(
	50 OHMS	RG21A/U	FEMALE	FEMALE	C-670-(
	75 OHMS	RG6A/U	MALE	MALE	C-645-(
	75 OHMS	RG6A/U	MALE	FEMALE	C-650-(
	75 OHMS	RG6A/U	FEMALE	FEMALE	C-655-(
	75 OHMS	RG11A/U	MALE	MALE	C-675-(
	75 OHMS	RG11A/U	MALE	FEMALE	C-680-(
	75 OHMS	RG11A/U	FEMALE	FEMALE	C-685-(
	75 OHMS	RG13A/U	MALE	MALE	C-690-(
	75 OHMS	RG13A/U	MALE	FEMALE	C-695-(
	75 OHMS	RG13A/U	FEMALE	FEMALE	C-700-(
 HN UG59B/U UG495A/U UG60B/U UG333A/U	50 OHMS	RG8A/U	MALE	MALE	C-345-(
	50 OHMS	RG8A/U	MALE	FEMALE	C-350-(
	50 OHMS	RG8A/U	FEMALE	FEMALE	C-355-(
	50 OHMS	RG9B/U	MALE	MALE	C-360-(
	50 OHMS	RG9B/U	MALE	FEMALE	C-365-(
	50 OHMS	RG9B/U	FEMALE	FEMALE	C-370-(
	50 OHMS	RG17A/U	MALE	MALE	C-375-(
	50 OHMS	RG17A/U	MALE	FEMALE	C-380-(
	50 OHMS	RG17A/U	FEMALE	FEMALE	C-385-(

NOTE:
† ADD DASH NO. FOR LENGTH IN FEET **(1) 1 FT. (4) 4 FT. (12) 12**
(2) 2 FT. (6) 6 FT. (25) 25

TEST LEADS—TEST CABLES



UNSHIELDED TEST LEADS

FIGURE	1 FT. RED	1 FT. BLK.	3 FT. RED	3 FT. BLK.	5 FT. RED	5 FT. BLK.
A	**03103**	**01101**	**03303**	**01301**	**03503**	**01501**
B	**23123**	**21121**	**23323**	**21321**	**23523**	**21521**
C	**53153**	**51151**	**53353**	**51351**	**53553**	**51551**
D	**33133**	**31131**	**33333**	**31331**	**33533**	**31531**
E	**83183**	**81181**	**83383**	**81381**	**83583**	**81581**
F	**03153**	**01151**	**03353**	**01351**	**03553**	**01551**
G	**03133**	**01131**	**03333**	**01331**	**03533**	**01531**
H	**03183**	**01181**	**03383**	**01381**	**03583**	**01581**
I	**53133**	**51131**	**53333**	**51331**	**53533**	**51531**
J	**805 (4 FEET LONG)—PAIR**					

COAXIAL CABLES SHIELDED LEADS

FIGURE	1 FT.	3 FT.	5 FT.	TYPE
K	**5011501**	**5013501**	**5015501**	RG-58A/U BNC Male
L	**5021502**	**5023502**	**5025502**	RG-58A/U BNC Female
M	**5081508**	**5083502**	**5085502**	RG-58A/U Dbl. Plug
N	**5011509**	**5013509**	**5015509**	Low C. Cable BNC To Clips
O	**5031503**	**5033503**	**5035503**	RG 11A/U UHF Male
P	**5031509**	**5033509**	**5035509**	RG 11A/U UHF Clips
Q	**5011S509**	**5013S509**	**5015S509**	Low C. Cable BNC To Shield Dbl.

TWISTED PAIR

R	**5081T508**	**5083T508**	**508ST508**	Twisted Pair Dbl. Plug
S	**5081T509**	**5083T509**	**508ST509**	Twisted Pair Dbl. Pl. To Clips

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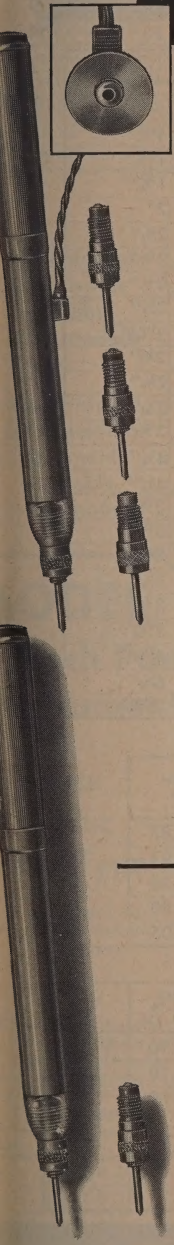
Don Bosco Electronics Inc.

• HANOVER, NEW JERSEY •
A Subsidiary of Howell Electric Motors Company

New Precision, Miniaturized Electronic Instruments



New "Stethotracer" Signal Tracer

Amplifies 1000 Times! Locates Defective Circuits Fast!

Now trace hum, oscillations, ground loops, breaks in printed circuits and other common trouble shooting ailments in seconds! The dependable vest-pocket STETHOTRACER **detects and demodulates** any low level microwatt audio or modulated radio frequency signal . . . the signal is then amplified 1000 times into a high quality earphone, or observed on a scope, using a plug-in scope adaptor (available optionally).

Ideal for test and trouble shooting all types of radio, amplifiers, phonographs, magnetic tape recorders, dictating machines, hearing aids, and phono pickup cartridges, or for use as a preamplifier.

Complete with earphone, cord, 3 interchangeable attenuator probes and RF detector-demodulator crystal diode probe, ground clip lead and battery.

SPECIFICATIONS:

AMPLIFICATION: 1000X approx. at 1kc (600 ohm load).

LOW FREQUENCY BANDWIDTH: Useable from 60cps to 100kc.

MODULATED HIGH FREQUENCY BANDWIDTH: 100kc — 200mc (with 1kc audio modulation) — microwave frequencies with special probes.

INPUT IMPEDANCE: 3,500 ohm at 0 attenuation
35,000 ohm at 20 db attenuation
350,000 ohm at 40 db attenuation

MAXIMUM AC SIGNAL INPUT VOLTAGE: One millivolt peak-to-peak for linear operation across 600 ohm scope adaptor load (0 attenuation).

MAXIMUM INPUT DC VOLTAGE: 250V DC max. from the input terminal to case ground.

OUTPUT VOLTAGE: 0.3 volts peak-to-peak across 600 ohm scope adaptor load (linear operation).

OUTPUT ACOUSTICAL LIMITING: The output sound is limited electrically to the earpiece at 2 milliwatt level so that audio output is limited to a comfortable and safe level.

EQUIVALENT INPUT NOISE LEVEL: 3 microvolt peak-to-peak broad band with input shorted.

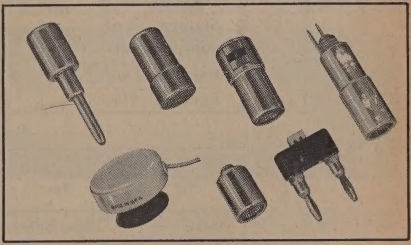
DISTORTION: 5% max. harmonic distortion within its dynamic range.

POWER SOURCE: 1.5 volt standard A. A. A. size battery (EVEREADY #912 or equivalent). Battery life: 250 hrs. normal use.

PROBES: 0db, 20db, 40db, attenuator probes, and RF crystal diode probe included.

OSCILLOSCOPE PREAMPLIFIER ADAPTOR: (Optional) equivalent of 600 ohms impedance with a DC level of +0.80 volt (use AC input on scope) output plug will fit all laboratory scopes with plug adaptor.

Accessory probes (available optionally) include Vibration Pickup Probe, Miniature Microphone Probe, Magnetic Tape Head Probe, Microwave Demodulator Probe and Telephone Pickup, Input Adaptor, Scope or Output Adaptor.



"Mosquito" Signal Generator

For Every Troubleshooting Application!

Find defective circuits quickly and exactly with the new MOSQUITO — a pocket-size, cordless, pen-size instrument which generates and injects a rich signal covering the audio, IF and RF spectrum!

The unique MOSQUITO contains a transistor oscillator, powered by a single 1.5 volt pen light cell, which completely eliminates, in many cases, the need for a large, expensive signal generator. It can be coupled into magnetic pickups and circuits **without leads** . . . oscillates at approximately 1,000 cycles per second, with a wave form rich in harmonics.

Ideal for use in radio, television, tape recorders, movie projectors, telephone circuits, sound systems, hearing aids, amplifiers, transformers, reproducers, transducers.

SPECIFICATIONS:

FREQUENCY: 1kc approximately with harmonics to 30 MC

OUTPUT VOLTAGE: 50 volts peak-to-peak approximately open circuit

OUTPUT IMPEDANCE: 10k capacitive

INPUT DC VOLTAGE: 600 volts max. from output tip to case ground

SUPPLY VOLTAGE: Use only one 1.5v conventional battery (EVEREADY #912 or any A. A. A. size equivalent).

BATTERY LIFE: 2,000 hours normal use

SIZE: 5⅝" long x ½" O. D. ONLY!

WEIGHT: ONE OUNCE!

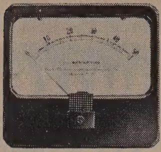
Also manufacturers of "VIBROTRACER" pocket sized vibration detector.

See your local distributor or write for details to

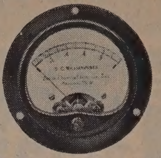
Don Bosco ELECTRONICS, INC. **HANOVER, N. J.**

WORLD'S FOREMOST PRODUCER OF PRECISION-BUILT, POCKET-SIZE TEST EQUIPMENT

BEEDE METERS


MODEL 16

MODEL 15


MODELS 310 501

MODELS 23 - 14 - 2 - 5

Model D.C.	Case Mat. & Mounting	Case Size	Barrel Diameter & Depth	Scale Length
5	Styrene - Flush	1 19/32″ x 1 19/32″	1 15/32″ Dia. x 1″	1 5/16″
411	Metal - Flush	2 9/32″ Dia.	2 1/16″ Dia. x 1 5/16″	1 25/32″
412	Metal - Flush	2 37/64″ Dia.	2 1/16″ Dia. x 1 5/16″	1 25/32″
501	Bakelite - Flush	2 3/4″ Dia.	2 5/32″ Dia. x 1 5/16″	1 25/32″
733	Metal - Surface	3 1/16″ Dia.	————	2″
2	Styrene - Flush	2 3/8″ x 2 3/8″	2 3/16″ Dia. x 1 1/32″	2 3/16″
701	Metal - Flush	3 7/32″ Dia.	2 17/32″ Dia. x 1 5/16″	2 11/64″
15	Bakelite - Flush	3″ x 3″	2 3/4″ Dia. x 1 7/16″	2 3/8″
310	Bakelite - Flush	3 1/2″ Dia.	2 3/4″ Dia. x 1 11/32″	2 3/8″
140	Styrene - Flush	3 3/8″ x 2 5/8″	2 3/16″ Dia. x 1 9/64″	2 11/16″
811	Metal - Flush	3 3/4″ Dia.	3″ Dia. x 1 11/32″	2 9/16″
815	Metal - Surface	3 1/2″ Dia.	————	2 9/16″
14	Styrene - Flush	3 13/32″ x 3″	2 3/4″ Dia. x 1 1/32″	3 3/64″
1	Bakelite - Flush	4 5/8″ x 4″	2 3/4″ Dia. x 1 1/16″	3 13/32″
16	Bakelite - Flush	4 21/32″ x 4 3/16″	2 3/4″ Dia. x 1″	4 1/4″
23	Styrene - Flush	4 21/32″ x 4 3/16″	2 3/4″ Dia. x 1 1/32″	4 1/4″
45	Bakelite - Flush	4 5/8″ x 4″	2 3/4″ Dia. x 1 1/16″	3 13/32″
425	Metal - Surface	4 1/4″ Dia.	————	3 13/32″
450	Metal - Flush	4 9/16″ Dia.	3 3/4″ Dia. x 1 11/32″	3 13/32″
458	Bakelite - Flush	4 21/32″ x 4 3/16″	2 3/4″ Dia. x 1″	4 1/4″
541	Bakelite - Flush	4 1/2″ x 3 3/8″	2 3/4″ Dia. x 1 1/16″	3 13/32″
230	Styrene - Flush	4 5/8″ x 3 5/8″	2 3/4″ Dia. x 1 9/64″	3 59/64″
6	Metal - Flush	6 1/16″ Dia.	3″ Dia. x 1 1/8″	4 23/32″
70	Styrene - Flush	7″ x 5 1/4″	2 3/4″ Dia. x 1 9/64″	6 5/32″
7	Bakelite - Flush	7 1/4″ x 7 1/4″	3″ Dia. x 1 1/8″	5 29/32″

D.C. MICROAMMETERS

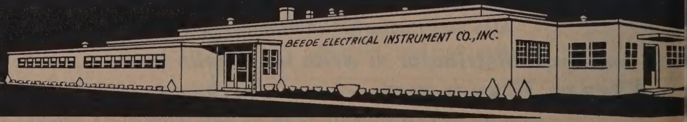
Range	Approx. Res.	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-20	3000 ohms	$24.90	$25.55	$28.75	$34.87
0-50	2000 ohms	14.23	14.60	16.43	19.94
0-100	1000 ohms	13.50	14.15	14.75	18.38
0-200	500 ohms	13.18	13.48	14.00	17.50
0-500	150 ohms	10.73	10.98	12.55	16.05

D.C. MILLIAMMETERS

Range	Models 411-412-501 2-701-733	Models 310-15-14 140-811-815	Models 1-45-16 458-23-230	Model 70
0-1	$10.10	$10.38	$10.73	$15.63
0-5	9.38	9.63	10.10	13.60
0-10	9.38	9.63	10.10	13.60
0-15	9.38	9.63	10.10	13.60
0-25	9.38	9.63	10.10	13.60
0-50	9.38	9.63	10.10	13.60
0-100	9.38	9.63	10.10	13.60

Range	Models 411-412-501 2-701-733	Models 310-15-14 140-811-815	Models 1-45-16 458-23-230	Model 70
0-150	$9.38	$9.63	$10.10	$13.60
0-200	9.38	9.63	10.10	13.60
0-250	9.38	9.63	10.10	13.60
0-300	9.38	9.63	10.10	13.60
0-400	9.38	9.63	10.10	13.60
0-500	9.38	9.63	10.10	13.60
0-1000	9.38	9.63	10.10	13.60

BEEDE ELECTRICAL
INSTRUMENT CO., INC.
PENACOOK, N. H.


BEEDE ELECTRICAL INSTRUMENT CO., INC.

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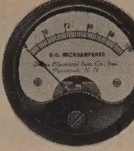
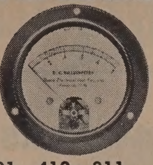
BEEDE METERS

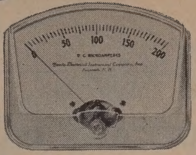
MODEL 458



MODEL 411



MODELS 701 - 412 - 811



MODELS 70 - 140 - 230

nge	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
1	$9.38	$9.63	$10.10	$13.60
5	9.38	9.63	10.10	13.60
10	9.38	9.63	10.10	13.60

D.C. AMMETERS

Range	Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-15	$9.38	$9.63	$10.10	$13.60
0-25	9.38	9.63	10.10	13.60
0-50	9.38	9.63	10.10	13.60

D.C. VOLTMETERS

Intermediate sensitivities available in all models

Magcentric® self shielding movements available in all models

Range		Models 411 - 412 - 501 2 - 701 - 733	Models 310 - 15 - 14 140 - 811 - 815	Models 1 - 45 - 16 458 - 23 - 230	Model 70
0-1	200 ohms per volt	$ 9.38	$ 9.63	$10.10	$13.60
0-5	"	9.38	9.63	10.10	13.60
0-10	"	9.38	9.63	10.10	13.60
0-15	"	9.38	9.63	10.10	13.60
0-25	"	9.38	9.63	10.10	13.60
0-50	"	9.38	9.63	10.10	13.60
0-100	"	9.38	9.63	10.10	13.60
0-150	"	9.38	9.63	10.10	13.60
0-200	1000 ohms per volt	11.60	11.88	13.45	17.05
0-250	"	11.60	11.88	13.45	17.05
0-300	"	11.60	11.88	13.45	17.05
0-500	"	11.60	11.88	13.45	17.05

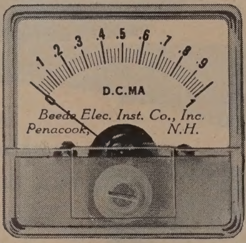
Repulsion Type AC available in all models

MODEL 5

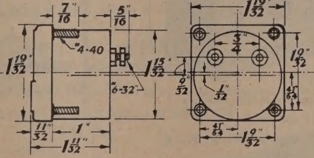
½ inch Panel Instrument

Clear Plastic Flush Type

Accuracy within 3%
Pointer Style Optional
Alnico Magnet



ACTUAL SIZE



NSTRUCTION D'Arsonval moving coil design, precision polished els and pivots, fatigue tested springs, and stress-released assembled s. Superior workmanship and individual operation inspected protion provides accurate, on the dot instruments. The Magcentric mechsm provides an inherent magnetic shield with no loss in sensitivity.

D.C. MILLIAMPERES

ange	
0-1	$10.10
0-5	9.38

D.C. AMPERES

Range	
0-1	$9.38
0-5	9.38
0.50	9.38

D.C. MICROAMPERES

Range	
0-50	$14.23
0-100	13.50
0-200	13.18
0-500	10.73

D.C. VOLTS

200 ohms per volt	$ 9.38
1000 ohms per volt	11.60

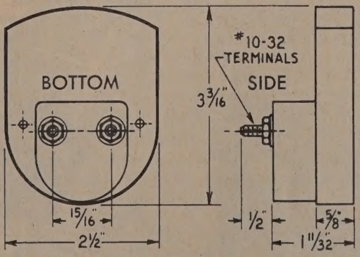
MODEL E-25 EDGEWISE

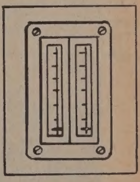
0
.2
.4
.6
.8
1.0
DC MILLIAMPERES

ACTUAL SIZE

Clear Plastic Horizontal or Vertical

CONSTRUCTION D'Arsonval moving coil design, precision polished jewels and pivots, fatigue tested springs, and stress-released assembled units. Superior workmanship and individual operation inspected production provides accurate, on the dot instruments. The Magcentric mechanism provides an inherent magnetic shield with no loss in sensitivity.





• may be paired for comparative reading.

D.C. MICROAMPERES

Range	
0-50	$16.43
0-100	14.75
0-200	14.00
0-500	12.55

D.C. MILLIAMPERES

Range	
0-1	$11.95
0-5	10.10

Accuracy within 2%
Pointer Style Optional
Alnico Magnet

CORNELL-DUBILIER ELECTRONICS

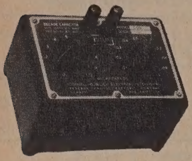
CLAS

Decades & Instruments

259.0

SERIE

DECADE CAPACITORS

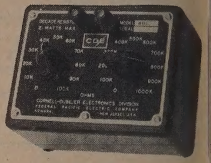


Provide an accurate source of measured capacitances for electronic and electrical substitution purposes. Units of capacitance selected from direct reading switch scales. Models CDA, CDB, and CDC can be grouped in parallel to provide capacitances from 0 to 11.111 Mfd. in steps of .0001 Mfd.

RATED VOLTAGE — 600 D.C.-220 A.C.

Model	Capacity	+ or — Tol.	Dielectric	Net Price
CDA-2	.011 mfd. in .0001 mfd. steps	2%	Mica	**$17.50**
CDA-5	.011 mfd. in .0001 mfd. steps	5%	Mica	**14.20**
CDB-5	1.1 mfd. in .01 mfd. steps	5%	Oil-Paper	**14.20**
CDB-3	1.1 mfd. in .01 mfd. steps	3%	Oil-Paper	**16.35**
CDC-5	10.0 mfd. in 1.0 mfd. steps	5%	Oil-Paper	**24.65**
CDC-3	10.0 mfd. in 1.0 mfd. steps	3%	Oil-Paper	**27.25**

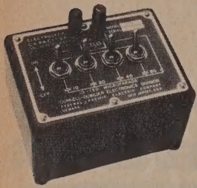
DECADE RESISTORS



Provide a reliable source of resistance for substitution purposes in a wide variety of electronic and electrical applications. Each instrument permits a possible selection of 110 resistance values, and the use of all three decades provides resistances from 1 Ohm to 1,111,110 Ohms in steps of 1 Ohm.

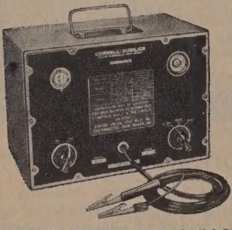
USER NET PRICES:

Model RDA — 1 to 110 Ohms	$15.35
Model RDB — 100 to 11,000 Ohms	$15.65
Model RDC — 10,000 to 1,100,000 Ohms	$15.65



ELECTROLYTIC CAPACITOR SUBSTITUTION BOX

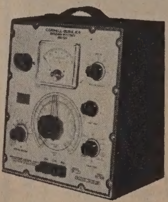
Provides 15 combinations of capacitance, from 10 Mfd. to 150 Mfd. in steps of 10 Mfd. Units can be connected in parallel to provide unlimited capacitance range. Rated at 450 WVDC. User's Net $14.20



C-D "HANDICHECK" FOR CAPACITORS Model BF-90

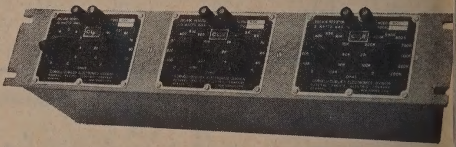
Determines the condition of open, shorted or intermittent capacitors WITHOUT REMOVING THEM FROM THE CIRCUIT. A handy dependable time saver. User's Net $41.75

C-D CAPACITOR-RESISTOR-ANALYZER Model BF-71



Improved and extended version of popular Model BF-70. Measures Current, Voltage, Power Factor; Capacitance from 10 mmfd. to 2000 mfd; Resistance from 2.5 Ohms to 25 Megohms.

Versatile and economical. Variable control, over DC voltages from as low as 1 Volt, for testing leakage current. User's Net $129.75

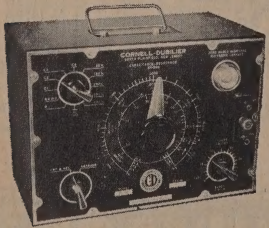


RACK-PANEL MOUNTED CAPACITOR AND RESISTOR DECADES

Three CAPACITOR or RESISTOR DECADES mounted on a standard 19-inch rack panel.

Model CDRM-3 consists of Capacitor Decades CDA-2, CDB-3 and CDC-3. User's Net $58.85

Model RDRM consists of Resistor Decades RDA, RDB and RDC. User's Net $55.00



C-D CAPACITOR-RESISTOR BRIDGE Model BF-60

Developed to measure rapidly and accurately, the important characteristics of substantially all types of Capacitors and Resistors. Range to 1000 Mfd. and 5 Megohms. User's Net $51.85

C-D CAPACITOR BRIDGE Model BN

This midget Capacitor (Wien) Bridge quickly and accurately measures the capacity of all capacitors from .00001 to 50 Mfd. A handy reliable economy priced unit. User's Net $30.20

C-D FLYBACK TRANSFORMER & YOKE CHECKER Model BF-80

Sensitive to even a single shorted winding turn. Reveals opens and shorts and checks continuity. A rapid and dependable instrument for locating defects in TV flybacks and yokes. Detects opens in coils generally and in switches, tubes, etc. User's Net $56.20

Tracks 'em Down Dead or Alive

ONLY THE VERSATILE

DESCO* Circuitracer*

Circuitracer

GIVES YOU A 3-IN-1 ELECTRICAL TEST LABORATORY

LIST PRICE $4.95 Weighs only 2½ ozs.

Satisfaction Unconditionally Guaranteed

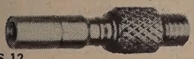
DON'T SEND A MAN TO DO A BOY'S JOB! Are the technicians in your laboratories and shops using expensive meters and instruments for sample continuity and voltage checks? Speed up production through the use of the tool specifically designed for this application. A meter should be used only when the value of voltage, resistance or current must be known. Under any other conditions a Circuitracer will provide the required information faster and easier than expensive, bulky meters.

CIRCUIT TESTING WITH A CIRCUITRACER IS FASTER because the signal light is in the tip at the point of contact. This makes it possible to determine the existence of a circuit or voltage without removing the eyes from the test point to read a meter.

SAVE METER REPAIR MONEY BY USING DESCO CIRCUITRACERS. An overvoltage across a meter usually results in extensive damage which takes the meter out of service until repaired or replaced. The worst that can happen to your Circuitracer is a burned out lamp that can be replaced by the operator in less than a minute. Total cost, ten or fifteen cents for the lamp!

The CIRCUITRACER is the only electrical tester (other than expensive meters) that can test dead circuits, low voltage live circuits AND high voltage live circuits. It is made of the finest materials available and is designed for long life.

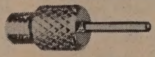
DESCO TEST PROBE ADAPTERS



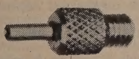
WS-12
Socket to fit 12 ga. connector pin

WP-12
Pin to fit 12 ga. connector socket

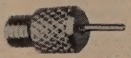
WS-16
Socket to fit 16 ga. connector pin



WP-16
Pin to fit 16 ga. connector socket



WS-20
Socket to fit 20 ga. connector pin



WP-20
Pin to fit 20 ga. connector socket

WRITE FOR CATALOG WITH FULL INFORMATION
*T.M. Reg.

INSURE CONNECTOR RELIABILITY

Manual probing of harness connectors while circuit testing can damage connectors and impair reliability. Desco Test Probe Adapters were developed to provide a test fitting identical to the pins and sockets in the connectors being tested. They make the same electrical and mechanical contact as the mating connector, and insure against scratching, bending and warping.

The adapters are made in three sizes to fit connectors using #12, #16 and #20 wire gauges. The sockets are gold plated copper with a brass sheath which retains a berylium copper spring. The pins are stainless steel to insure long life. All are made to rigid MIL-SPECS. The adapters will fit Desco Jumper Wires and the Desco Circuitracer* Tester interchangeably.

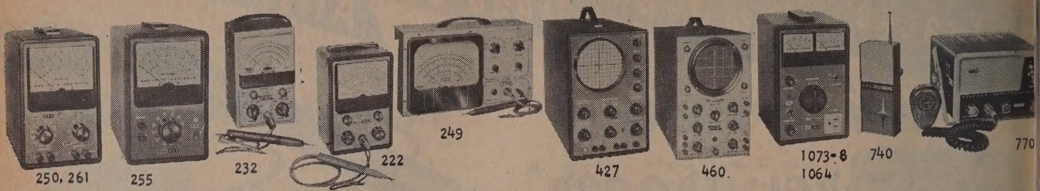
Several aircraft and missile manufacturers specify Desco Test Probe Adapters for most manual test connections. (names on request)

*DESCO

DESCO MFG. CO.

Glendale 1, Calif.

EICO® KITS and WIRED...TEST INSTRUMENTS·HI-FI·HAM GEAR



AC VTVM & AMPLIFIER #250

Kit $49.95 **Wired $79.95**

Highly sensitive, reliable AC VTVM & wideband amplifier. Measures 100 microvolts to 300V in 12 ranges; 10c-600kc ±0db response, 10 megohms input impedance, ±3% accuracy. Wideband amplifier switch-controlled for external use: 8c-800kc response, 5VRMS output, 5K ohms output impedance, gain control, noise —40db. Frame-grid triode cathode follower input circuit, freq.-compensated input attenuator, cathode circuit attenuator. Regulated power supply. 8½" x 5¾" x 7". Wt. 7 lbs.

AC VTVM #255

Kit $44.95 **Wired $72.95**

Identical to #250 above, but less the external use of the amplifier.

AC VOLT-WATT METER #261

Kit $49.95 **Wired $79.95**

AC voltmeter & load-compensated audio watt-meter of unique quality. Measures AC voltages from 1mv to 1000V in 11 ranges, power from .015mw to 150W in 7 ranges, across standard loads from 4 to 600 ohms. Tapped power resistor load (4, 8, 16 and 600 ohms) handles up to 80W on 8 ohms and 40W on other taps. Switch to external load up to 150W. Meter automatically compensated for any load selected, internal or external, to provide single watt scale. 8½" x 5¾" x 7". Wt. 6 lbs.

VACUUM TUBE VOLTMETER #222

Complete with exclusive dual-purpose †Uni-Probe®

Kit $27.95 **Wired $42.95**

Entirely electronic, direct reading measurement of resistance, and AC & DC to 1500V in 5 ranges. May be calibrated without removal from cabinet. Complete electronic overload protection, plus fuse. 1% precision ceramic resistors. Exclusive AC/DC Uni-Probe® selects DC or AC-Ohms. DC voltmeter input impedance 11 megohms, accuracy ±3%. AC voltmeter input impedance 1 megohm, accuracy ±5%. Ohmmeter 0.2 ohms to 1000 megohms in 5 ranges. 8½" x 5¾" x 7". Wt. 5 lbs.

MODEL 232 PEAK-TO-PEAK VTVM with DUAL-PURPOSE AC/DC †UNI-PROBE®

Kit $29.95 **Wired $49.95**

Measure directly p-p voltage of complex and sine waves: 0-4, 14, 42, 140, 420, 1400, 4200. DC/RMS sine volts: 0-1.5, 5, 15, 50, 150, 500, 1500 (up to 30,000 V. with HVP probe, and 250 mc with PRF probe). Ohms: 0.2 ohms to 1000 megs. 7 **non-skip** ranges on every function. Calibration without removing from cabinet. 4½" meter, can't-burn-out circuit. Zero center, 1% multipliers. Exceptional stability and accuracy. 8½" x 5" x 5". Wt. 5 lbs.

VACUUM TUBE VOLTMETER #221

Kit $25.95 **Wired $39.95**

The popular, reliable, performance-proven VTVM — over 100,000 in use! Large 4½" meter in can't-burn-out circuit. Zero center for TV/FM discriminator alignment. AC/DC Volts: 0-5, 10, 100, 500, 1000 (up to 30,000 V. with HVP probe, up to 250 mc with PRF probe, and peak-to-peak with PTP probe). Ohms: 0.2 ohms to 1000 megs. DB: −20 to +55. Input R: 25 megs. 1% precision multipliers. Stable, accurate double-triode bridge circuit. Satin aluminum etched panel; steel case. 9⁷⁄₁₆" x 6" x 5". Wt. 11 lbs.

VTVM PROBES
DUAL-PURPOSE AC/DC †UNI-PROBE®

Performs all functions — half-turn of probe-tip selects DC or AC-OHMS!

Kit $4.95 **Wired $6.95**

PEAK-TO-PEAK VTVM PROBES PTP 11 & 25

Kit $4.95 **Wired $6.95**

Read p-p voltages directly on DC scales of your VTVM. Use with any 11 or 25 megohm VTVM.

†U. S. Pat.

RF VTVM PROBES PRF-11 & 25

Kit $3.95 **Wired $4.95**

For RF voltage measurements up to 250 mc. Accuracy ±10%. Use with any 11 or 25 megohm VTVM.

HIGH VOLTAGE PROBES

HVP-1 Wired $6.95 **HVP-2 Wired $4.95**

For safe measurement up to 30,000 volts dc with any VTVM or 20,000 ohms/volt VOM. HVP-1 supplied with matching resistor for your instrument; HVP-2 supplied with choice of high quality multiplier resistors to match most popular instruments.

DELUXE PEAK-TO-PEAK VTVM #249 with 7½" METER and EXCLUSIVE †UNI-PROBE®

Kit $39.95 **Wired $59.95**

All the outstanding and exclusive features of Model 232 — PLUS the convenience and readability of its big 7½" meter. An ideal bench instrument. 8½" x 13" x 5". Wt. 9 lbs.

NEW ADVANCED GENERAL PURPOSE 5" OSCILLOSCOPE #427

Kit $69.95 **Wired $109.95**

Six-stage vertical amplifier direct-coupled for minimum phase distortion & push-pull throughout for maximum linearity. Frequency-compensated vertical input attenuator. Intensity, focus and astigmatism controls on front panel. Non-blooming trace. Instantaneous, drift-free positioning permits centering and part of a trace expanded. Easy, direct connection to vertical deflection plates. Mu metal shielded 5DEP1 CRT. V Amp: flat DC-500kc, —6db @ 1MC; sensitivity 3.5mv rms cm. H Amp: flat 2cps-450kc; sensitivity 0.18V rms/cm. Sweep: 10cps-100kc. 12½" x 8½" x 16⁷⁄₁₆". Wt. 26 lbs.

DC WIDE BAND 5" OSCILLOSCOPE #460

Kit $79.95 **Wired $129.50**

Flat from DC to 4.5 mc. usable to 10 mc., featuring DC amplifiers. Vert. Sens.: 25 mv/in., push-pull thruout. Sweep freqs.: 10 cps to 100 kc, low sweep with ext. condenser. Automatic sync limiter and amplifier eliminates sync voltage adjustment. On front panel: int. mod., saw-tooth output, 60 cps, ext. sync, ext. capacitor jacks! 60 cps variable phase sine sweep. Pre-set TV V&H sweep positions. Edge-lit plexiglass filter screen with variable illumination. 4 freq. compensated attenuator positions up to 1000:1 on either direct or capacitive coupled input. 13" x 8½" x 16". Wt. 29 lbs.

ELECTRONIC SWITCH #488

Kit $23.95 **Wired $39.95**

Simultaneously observe 2 patterns on 1 scope: compare voltage and current amplitudes, waveforms, freqs. and phase relationships. Continuously variable switching rates from less than 10 cps to over 2000 cps. Very useful as square wave generator over same range. 6" x 8" x 6". Wt. 7 lbs.

OSCILLOSCOPE VOLTAGE CALIBRATOR #495

Kit $12.95 **Wired $17.95**

Enables p-p voltage measurement of complex TV sweep waveforms displayed on scope, calibration of vert. and hor. scope amplifiers, etc. Output variable from zero on every range with full-scale readings of 0.1, 1; 10, and 100 volts p-p. Accuracy ±5% of full scale on each range. VR tube regulated power supply. 5" x 7⅝" x 4". Wt. 4 lbs.

SCOPE PROBES
MODEL PSD DEMODULATOR PROBE

Kit $3.95 **Wired $5.95**

Demodulates amplitude-modulated carriers between 150 kc and 250 mc.

MODEL PD DIRECT PROBE

Kit $2.95 **Wired $3.95**

Eliminates stray pickup and signal re-radiation.

MODEL PLC LOW CAPACITY PROBE

Kit $3.95 **Wired $5.95**

For TV waveform tracing in high Z, high frequency or wide-band circuits.

METERED VARIABLE AUTO-TRANSFORMER AC BENCH SUPPL

#1073: 3A rating **Kit $35.95** **Wired $4**
#1078: 7½A rating **Kit $42.95** **Wired $5**

For study of components under varying line cc
tions. Delivers any voltage up to 140VAC
linear variation of output throughout entire ra
Smooth rotary brush-tap controlled by panel
Highly efficient variable toroidal core design. A
transformer. No waveform distortion or vol
drop from no-load to full load. Separate ou
ammeter & output voltmeter. 8½" x 5¾" x 7".
13 lbs.

6 & 12 VOLT BATTERY ELIMINATOR & CHARGER #106

Kit $43.95 **Wired $5**

Heavy-duty 2-ranges for operating any mobile r
& transceiver including transistor or "hybrid" ty
Also usable as charger for either 6 or 12
batteries. Variable transformer provides contin
output adjustment. 2 meters simultaneously obs
output voltage and current. Ratings: 0-8V: 10A
tinuous, 20A intermittent; 0-16V: 6A cont.,
interm. AC ripple: 0-16V range: 0.3% @ 2A,
@ 6A. Heavy-duty selenium rectifiers, & autom
reset overload relay. 8½" x 5¾" x 7½". Wt. 14

CITIZENS BAND TRANSCEIVERS DELUXE 770 SERIES

	Kit	Wi
Model 770: 117 VAC only	$ 79.95	$10
Model 771: 117 VAC, 6 VDC*	89.95	11
Model 772: 117 VAC, 12 VDC*	89.95	11

*Includes mounting bracket.

4-channel crystal-controlled transmitting ch
by channel-selector knob on front panel - Cry
controlled receiving available on one transmit c
nel, continuous tuning over all 23 CB channels
the three other transmit channels - Press-to-
button microphone: transmit-receive switching
complished by high-quality relay with mini
capacity between contacts to prevent current l
ages at RF frequencies. Superhet receiver with
stage for high sensitivity and low s/n ratio; 1
kc prealigned IF strip for unequalled image re
tion and freedom from oscillator "pulling" on st
signals - Current metering jack in series in cat
circuit permits checking of input power to tr
mitter final, adjusting to FCC limit. 13-tube
formance (4 dual function, 4 single function tu
1 germ. diode) - Adjustable squelch control, a
matic noise limiter - Built-in AVC - Built-in 3
5" oval PM speaker and detachable ceramic-elen
cartridge - Posi-Lock mounting bracket per
360° rotation, positive lock every 30° - 1 tran
xtal supplied; others available, with matched
ceiving xtals if desired. 6" x 8½" x 9". Wt. 12

NEW CITIZENS BAND WALKIE-TALKIE #74

Kit $54.95 **Wired $7**

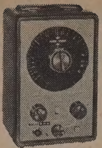
Including nickel-cadmium battery and charger,
transmit **and** receive crystals for 1 channel.
made . . . an original product of EICO researc
lightweight (19 oz), pocket-size Citizens Band 2
radio requiring no license to operate. Crystal
trolled transmit and receive. Full superhetero
receiver with crystal-controlled local oscillator;
high-level AM type transmitter incorporating
vanced circuits, highest quality circuit boards,
9 transistors. Rechargeable nickel-cadmium bat
operates 10 hours on one charge, rechargeable
times. Range is 10 miles over water, up to
miles over good terrain; better if used with
ventional 5-watt CB transceiver. Ideal for hun
fishing, boating, construction, warehouses, dri
theaters and restaurants, etc. 7⅛" x 2⅝" x 15

Ask your Distributor for full catalog data
EICO's complete line of Stereo & Mono Hi-
(everything from Tape Decks to Speakers), Te
nician & Laboratory Test Instruments, Citize
Transceivers, Ham Gear, Transistor Radio
Electronics Teaching Aids.

4

540

536
526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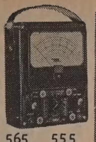
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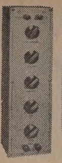
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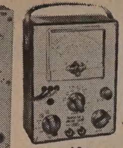
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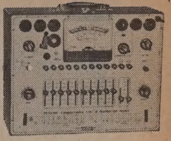
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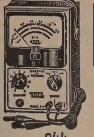
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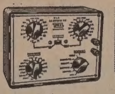
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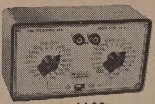
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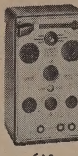
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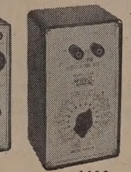
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625

CO VOLT-OHM MILLIAMMETERS

#565 — 20,000 OHMS/VOLT V-O-M

.95 **Wired $29.95**

l Scale Ranges - DC/AC/Output Volts: 0-2.5, , 250, 1000, 5,000 - DC Current: 0-100 ua; 0, 500 ma; 1 Amp. - Ohms: 0-2000, 200K, 20 5 DB Ranges: −12 to +55. - Large 4½″ Meter Movement. - High-Impact Bakelite ¾″ x 5¼″ x 3″. Wt. 3 lbs.

#555 — 20,000 OHMS/VOLTS V-O-M

.95 **Wired $34.95**

ve, with 1% precision resistors.

#566 — 1000 OHMS/VOLT V-O-M

.90 **Wired $20.95**

: Same as Model 536 (see below), plus 7 voltage ranges. Large 4½″ 400 ua meter ent. 6¾″ x 5¼″ x 3″. Wt. 3 lbs.

#556 — 1000 OHMS/VOLT V-O-M

.90 **Wired $23.50**

as Model 566, with 1% precision resistors.

#536 — 1000 OHMS/VOLT V-O-M

2.90 **Wired $16.90**

00 Full-Scale Ranges Ohms/Volt. - DC/AC Zero to 1, 5, 10, 50, 100, 500, 5000. - DC/AC t: 0-1, 10 ma.; 0.1, 1 Amp. - Ohms: 0-5000, 1 meg. - 6 DB Ranges: −20 to +69 - Large ua Meter Movement - High-Impact Bakelite ¼″ x 3¾″ x 2″. Wt. 2 lbs.

#526 — 1000 OHMS/VOLT V-O-M

3.90 **Wired $18.90**

ve, with 1% precision resistors.

BATTERY TESTER #584

.95 **Wired $12.95**

curate, true DYNAMIC test of all A and B e radio batteries, lantern batteries, and types — in or out of equipment. Test Posi- Volts): 1.5, 4.5, 6.0, 7.5, 9.0, 22.5, 45, 67.5, plus Spare Position. Test leads provided. npact Bakelite case and satin aluminum 6¼″ x 3¾″ x 2″. Wt. 2 lbs.

READI-TESTER #540

2.95 **Wired $15.95**

ectrical and electronic servicing; for home utomotive repairs; an all-in-one multi-range voltmeter, ammeter, ohmmeter, wattmeter akage checker. Instruction book contains an uction to electricity, complete operating d, and procedures for common repair jobs. 6½″ x 3½″. Wt. 3 lbs.

CADE RESISTANCE BOX #1171

24.95 **Wired $29.95**

tionally accurate, wide-range, versatile instru- 0-99,999 ohms in 1-ohm steps with 5 decades % precision. 12″ x 3½″ x 3″. Wt. 3 lbs.

CADE CONDENSER BOX #1180

4.95 **Wired $19.95**

ion silver-mica capacitors (±1% accuracy, DC rated) arranged in 3 decades for ex- y wide range of 100 mmf to 0.111 mf in of 100 mmf. Positive detent ceramic wafer es, silverplated contacts. 9″ x 3½″ x 3½″. lbs.

ESISTANCE SUBST. BOX #1100

.95 **Wired $10.95**

es rapid substitution of wide range of EIA ance values from 15 ohms to 10 megohms in e multiples of 15, 22, 33, 47, 68, 100 ohms. standard 1 watt, ±10% EIA resistors. 3¾″ x 3½″. Wt. 2 lbs.

CAPACITANCE SUBST. BOX #1120

Kit $5.95 **Wired $9.95**

Enables rapid substitution of a wide range of EIA capacitance values from 0.0001 to 0.22 mfd in an operating circuit. Minimum accuracy ±10%. Uses silver mica and molded plastic capacitors, most conservatively rated at 600 volts. Convenient 5-way jack-top binding posts. 3¾″ x 6½″ x 3½″. Wt. 2 lbs.

SERIES/PARALLEL R-C COMBINATION BOX #1140

Kit $13.95 **Wired $19.95**

Only EICO has it!

A combination of Models 1100 and 1120 (above), with switching facilities permitting selection of any R alone, any C alone, or 1350 combinations of same in series or parallel. Open and short circuit positions provided. Standard EIA values, 10% accuracy. Convenient jack-top binding posts. 6¾″ x 5¼″ x 2⅜″. Wt. 3 lbs.

IN-CIRCUIT CAPACITOR TESTER #955

Kit $19.95 **Wired $39.95**

Tests capacitors in the circuit without unsoldering. Checks for shorts, (even in the presence of as little as 1 ohm shunt resistance). Checks open units (as little as 5mmf in the circuit). Measures capacitance with ±10% accuracy between 0.1mf and 50mf. Measures RC product, convertible into dissipation or power factor. Utilizes electron-ray tube EM84/6FG6 with sharp bar pattern. Line adjust control permits maximum sensitivity regardless of the line voltage variations. 8½″ x 5¾″ x 6″. Wt. 4 lbs.

R-C BRIDGE & R-C-L COMPARATOR #950B

Kit $19.95 **Wired $29.95**

A versatile and truly useful service instrument for direct measurement of capacity **or** resistance over a wide range of values. For leakage testing of electrolytics, a continuously variable polarizing test voltage from 0 to 500 VDC (±10%) is provided. Bridge balance and leakage are both indicated by a sensitive electron-ray tube indicator. The bridge provides 4 capacitance ranges from 10 mmf to 5000 mf and 4 resistance ranges from 0.5 ohms to 500 megohms. A comparator range permits comparison measurement of capacitance, resistance, or Induction against a standard. Transformer-operated power supply. 8″ x 10″ x 4¾″. Wt. 8 lbs.

DYNAMIC CONDUCTANCE TUBE AND TRANSISTOR TESTER #666

Complete with rugged steel carrying case, matching steel cover, and carrying handle for easy portability.

Kit $69.95 **Wired $109.95**

Checks transistor collector current and Beta using Internal dc power supply. Tests all receiving tubes Including subminiatures (and tv pic tubes with accessory adapter). Composite indication of mutual conductance, plate conductance, and peak emission. Simultaneous sel. of any 1 of 4 combinations of 3 plate, 3 screen, and 3 ranges of control grid voltage. Grid voltage variable over 3 ranges with 5% accuracy pot. New series-string voltages for 600, 450 and 300 ma types. 5 ranges meter sens. with 1% precision shunts and 5% accurate pot. 10 six-position lever switches for free-point connection of every tube pin or cap. 10 push-buttons for rapid insert of any tube element in leakage circuit and speedy sel. of individual tube sections. Direct reading of inter-element leakage in ohms. New gear-driven rollchart. 200 ua meter. 12″ x 15″ x 4½″. Wt. 20 lbs.

TUBE TESTER #625

Kit $34.95 **Wired $49.95**

Tests new 600 ma filament series string tubes and ALL conventional and TV tubes. 10 individual lever-type element switches. 4½″ meter, 3-color scale. illuminated anti-backlash "SPEEDROLL" roll-chart. Protective overload bulb. Line-adjust control. 2 grid caps. Blank socket for future tube types. Pilot light test socket. 9½″ x 12½″ x 4¼″. Wt. 11 lbs.

Tube Tester Kit with Counter Display Case

Model 625-CK, Kit	**$44.95**
Model 625-C, factory wired	**$59.95**
Lid for your EICO Tube Tester	**$3.98**

CATHODE RAY TUBE CHECKER #630

Kit $13.95 **Factory Wired $18.95**

Tests all TV picture and oscilloscope type C-R tubes — in set or carton. Measures peak beam current (proportional to screen brightness). Balance control calibrated directly in terms of tube condition. Detects open and shorted elements. 9½″ x 6½″ x 3″. Wt. 5 lbs.

TRANSISTOR & CIRCUIT TESTER #680

Kit $25.95 **Wired $39.95**

Measures ICEO, ICBO & DCβ directly, ACβ indirectly, without charts or special settings — plus all dc volts, currents & resistances needed to service transistor equipment. Battery powered. 50ua, 3½″ face meter movement provides sensitivity & scale length necessary for accuracy. Built-in 20,000ΩV VOM facilities frees your other test equipment. 6¾″ x 5¼″ x 3″. Wt. 3 lbs.

TUBE TESTER ADAPTER #610

Kit $5.95 **Wired $11.95**

Adapts EICO models 625 or 666 tube testers for testing the following new tube types: nuvistor 5-pin; nuvistor 7-pin; novar; 10-pin miniature; compactron, 12-pin. Included are roll chart supplements for both 625 and 666 models. 1¼″ x 2½″ x 6″. Wt. 1 lb.

PICTURE TUBE TEST ADAPTER CRA-110

For 110° deflection tubes.

Wired $3.95

FAST TUBE & CRT FILAMENT TESTER #612

Kit $3.95 **Wired $5.95**

Includes batteries

Fast filament check of series string & all other TV & radio tubes (9-pin, octal, loctal, 7-pin); 14-pin, 12-pin, 8-pin CRT's; bayonet & screw-type pilot lamps; cartridge fuses. Just plug tube into tester socket, observe indicator lamp — no fiddling with controls or switches. Self-powered for convenience & safety. 7-pin & 9-pin miniature tube pin straighteners provided. 6¼″ x 3¾″ x 2″. Wt. 2 lbs.

FLYBACK XFMR & YOKE TESTER #944

Kit $23.95 **Wired $34.95**

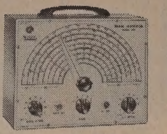
Positive check of all flybacks and yokes, in or out of set, **in just seconds!** Uses sensitive grid-dip principle — shows up even 1 shorted turn! **Exclusi** separate calibration for air and iron-core flybacks. Checks any inductance of not too low impedance; also usable for general continuity testing. Large 4½″ 50 ua meter, 3 separate colored scales. 7″ x 5″ x 4″. Wt. 5 lbs.

EICO ELECTRONIC INSTRUMENT CO., Inc. • Long Island City, N. Y.

ALL PRICES 5% HIGHER IN THE WEST

EICO® KITS and WIRED...TEST INSTRUMENTS•HI-FI•HAM GEAR

324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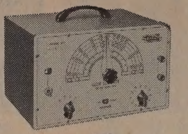
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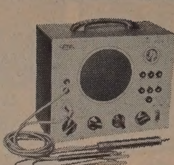
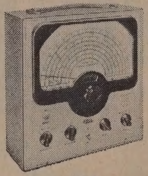

147A

1055

368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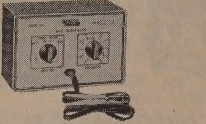
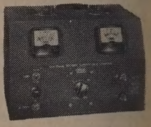

352

1020


1050, 1060

RF SIGNAL GENERATOR #324

Kit $26.95 **Wired $39.95**

Extended frequency range: 150 kc to 145 mc on fundamentals in 6 bands; 111-435 mc on calibrated harmonics. ±1.5% frequency accuracy; 6:1 vernier tuning knob and excellent spread at most important alignment frequencies. Etched tuning dial, plexiglass windows, edge-lit hairlines. Colpitts RF oscillator, directly plate-modulated by cathode follower for improved modulation. Variable depth of internal modulation 0-50% by 400 cps Colpitts oscillator. Variable gain external modulation amplifier: only 3.0 volts needed for 30% modulation. Turret-mounted slug-tuned coils. Fine and Coarse (3-step) attenuators, 50-ohm output Z. RF and AF outputs respectively 100,000 uv and up to 10 V. Tubes: 12AU7, 12AV7, selenium rectifier, xfmr-operated. 5-way jack-top binding posts for AF in/out; coaxial connector and shielded cable for RF out. Satin aluminum panel and grey wrinkle steel case. 8″ x 10″ x 4¾″. Wt. 8 lbs.

TV-FM SWEEP GENERATOR AND MARKER #368

Kit $69.95 **Wired $119.95**

Entirely electronic sweep circuit with accurately biased increductor: superb linearity on both sides of selected center freq. Newly-designed AGC circuit automatically adjusts osc. for max. output on each band with min. amplitude variations. Sweep gen. range 3-216 mc in 5 OVERLAPPING FUND. BANDS. Sweep width continuously variable from 0-3 mc lowest max. deviation to 0-30 mc highest max. deviation. Variable marker gen. range from 2-75 mc in 3 FUND. BANDS plus a calibrated harmonic band 60-225 mc. Variable marker calibrated with int. crystal marker gen. 4.5 mc crystal included. Ext. marker provision. Double pi line filter. Edge-lit hair-lines eliminate parallax. 8¾″ x 13½″ x 7¼″. Wt. 16 lbs.

RF SIGNAL GENERATOR #320

Kit $19.95 **Wired $29.95**

Low-cost, high quality signal generator providing modulated or unmodulated RF. Separate 400 cps output with level control. For AM/FM alignment, and TV marker frequencies. Stable Hartley RF oscillator, vernier tuning capacitor, Colpitts audio oscillator. Five fundamental RF ranges from 150 cps to 34 mc. Two ranges of calibrated harmonics to 102 mc. 8″ x 10″ x 4¾″. Wt. 8 lbs.

RF SIGNAL GENERATOR #322

Kit $23.95 **Wired $34.95**

Identical to Model 320 but provided with 5 trimmers, one for each fundamental band, for increased frequency accuracy.

DELUXE RF SIGNAL GENERATOR #315

Kit $39.95 **Wired $59.95**

Laboratory-precision generator EICO Service-Engineered with 1% accuracy. Frequency range: 75 kc-150 mc in 7 calibrated ranges. Extremely stable. Illuminated hairline VERNIER TUNING. VR stabilized line supply. 400-cycle pure sine wave with less than 5% distortion. Tube complement: 6X5, 6SL7, 6C4, VR-150. Satin aluminum etched panel; rugged steel case. 115 V. 60 cycles AC. 12″ x 13″ x 7″. Wt. 18 lbs.

TV-FM SWEEP GENERATOR #360

Kit $34.95 **Wired $49.95**

Covers all TV-FM alignment frequencies, 500 kc 228 mc. Vernier-driven dial. Center of each of 13 TV channels marked on front panel. Sweep width variable 0-30 mc with mechanical inductive sweep — permits gain comparison of adjacent TV channels. Crystal marker oscillator, variable amplitude. Provides for injection of external marker. Phasing control. Complete with HF tubes. Less Crystal. 10″ x 8″ x 6¾″. Wt. 11 lbs.

EICO 5 MC and 4.5 MC Crystals — $3.95 ea.

SINE & SQUARE WAVE AUDIO OSCILLATOR #377

Kit $34.95 **Wired $49.95**

RC (Wein Bridge) oscillator incorporating 1% resistors and a 2-gang tuning capacitor providing sine wave frequencies from 20 cps to 200 kc in 4 bands. Sine wave distortion is less than 1%. Output amplitude is flat ±1.5 db from 60 cps to 150 kc. Square wave output is obtained from an overdriven clipper and the waveform is free of excessive tilt or rounding between 200 cps and 20 kc. A high degree of frequency stability is obtained after a very short warm-up, and calibration accuracy is the greater of ±3% or 1 cps. The output stage is a split-load cathode follower providing 10 V rms into a 1000-ohm load. The power supply employs full-wave rectifiers and a pi-type LC filter. Hum is less than 0.4% of rated output. 8¾″ x 13½″ x 7¼″. Wt. 13 lbs.

BAR GENERATOR #352

Kit $14.95 **Wired $19.95**

Produces 16 to 23 V bars and 13 to 22 H bars, adjustable in number to accommodate all screen sizes. Incorporates VHF osc., RF osc., and LF multivibrator. Adjustable from Channel 2 to 6. Deluxe 3-way antenna terminal clip fits any type antenna terminal including plug-in type. Output voltage: 100,000 microvolts. Tubes: 1-12AU7, 1-6C4; selenium rectifier. 5″ x 7½″ x 4½″. Wt. 4 lbs.

DELUXE MULTI-SIGNAL TRACER #147A

Kit $24.95 **Wired $39.95**

Entirely new 5-tube instrument provides high gain RF and low gain audio channels with both visual and aural monitors (electron-ray tube and 5″ speaker). Permits RF, IF and audio signal tracing in TV, FM and AM sets. Highly useful noise localizer circuit that applies DC test voltage thru probe to suspected component and simultaneously picks up and amplifies effect. Wattmeter circuit detects abnormal power consumption in TV and radio receivers. May be connected as test speaker, amplifier or output transformer, and has output for VTVM or scope. Excellent for gain-per-stage estimation, null detector, scope preamplifier, utility amplifier, small P.A. system. New satin finish etched panel: grey wrinkle steel case. 105-125 VAC, 50/60 cps. 8″ x 10″ x 4¾″. Wt. 10 lbs.

LOW-COST MULTI SIGNAL TRACE
#145A

Kit $19.95 **Wired $28**

More than enough RF gain to trace up to recei
input; signal heard through built-in 5″ PM speal
Shielded RF crystal demodulator and direct pro
supplied. Noise localizer circuit applies DC
voltage through probe to suspected component
simultaneously picks up and amplifies effect. 7
x 5⁹⁄₁₆″ x 5¹⁄₁₆″. Wt. 7 lbs.

POWER & BIAS SUPPLY FOR TRANSISTORIZED EQUIPMENT
#1020

Kit $19.95 **Wired $27**

Extremely low ripple DC power supply for hum-f
operation of transistor radios, hearing ai
"walkie-talkie" transistor transceivers, transis
preamps and tuners, language lab transistor am
fiers, transistor test equipment, etc. May also
used in TV and radio service work as a bias sup
to offset AVC and AGC voltages during alignme
and to cut off the color burst amplifier in cc
TV adjustments. May also be used as a varia
bias supply in the development of transistor
tube circuits, including the supply of the DC b
for filaments or as a filament DC power sup
within the current ratings. **Output Voltage Ran**
0-30 V DC, continuously variable. **Max. Output C**
rent Capacity (continuous): 150 ma from 0-12 V,
ma from 12-24 V, 300 ma from 24-30
Ripple: (120 cps); 0.005% at full load. **Power**
quirements: 117 V, 60 cps. 5″ x 4″ x 5½″. Wt. 5 l

6V & 12V BATTERY ELIMINATOR AND CHARGER #1050

Kit $29.95 **Wired $38**

All the power you need for 6-volt and 12-volt b
tery charging and auto radio servicing. Two
ranges: 0-8 V (10 amps continuous, 20 amps int
mittent), 0-16 volts (6 amps continuous, 12 an
intermittent). Continuous voltage adjustment w
variable-type transformer. Separate voltmeter
ammeter. Heavy duty selenium rectifiers. Fus
primary; automatic reset circuit-breaker ope
secondary circuit upon overload. Rugged, well-ve
tilated steel cabinet. 8¾″ x 10½″ x 7¾″. Wt.
lbs.

B.E. ACCESSORY FILTER #1055

Kit $11.95 **Wired $15.**

L-C filter provides additional filtering of output
EICO #1050 or similar unit, for powering trans
tor and "hybrid" car radios. Functions on eith
6V or 12V ranges. 10 amps max current; can
main in use for ALL functions of the Battery Elir
nator. Wt. 7 lbs.

EXTRA-FILTERED 6V & 12V BATTER ELIMINATOR AND CHARGER #106

Kit $38.95 **Wired $47.**

Combines Model 1050K Battery Eliminator a
Model 1055 Filter in a single unit. Powers bo
transistor and conventional equipment. 8¾″ x 10
x 7¾″. Wt. 17 lbs.

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EMC *for BEST VALUES in INSTRUMENTS or KITS!*

MODEL 102 VOM . . .

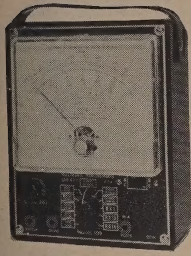
Resistance to 1 meg.
AC and DC Volts to 3000V.
3 AC and DC Current Ranges.

Wired	$14.90
Kit	12.50

MODEL 102F . . .

(With Fused Meter)

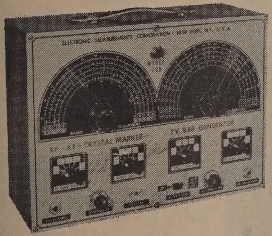
Wired	$15.55
Kit	13.10



MODEL 109 VOM . . .

20,000 ohms per Volt DC.
10,000 ohms per Volt AC.
4½" 40 Microampere Meter
5 AC and DC Volt Ranges to 3000V. 3 Resistance Ranges to 20 megs.
3 AC & DC Current Ranges.

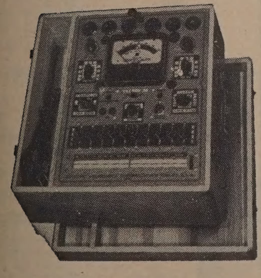
Wired	$26.95
Kit	19.25



MODEL 700 AUDIO AND RF GENERATOR . . .

Complete coverage from 18 cycles to 108 MC on fundamentals. Bar Generator. Square Wave Generator.

Wired	$55.90



MODEL 206P DYNAMIC MUTUAL CONDUCTANCE TUBE TESTER . . .

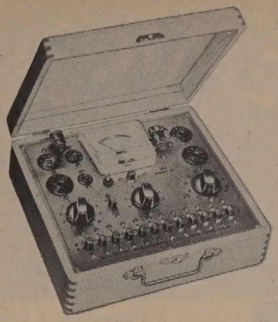
Checks micromho value. Gas Content Flexible switching. Lowest Priced Mutual Conductance Tester on Market.

Wired	$83.50

(Oak Portable Case)

MODEL 213 TUBE TESTER . . .

Checks all the new 12 prong (Compactron), Nuvistor, Novar and 10 prong tubes, in addition to octal, loctal, miniature and 9 prong tubes. Tests each tube for quality, shorts, leakages and intermittents. Each section of multi purpose tube is checked separately. Comes complete with instructions and tube charts in ring bound manual.

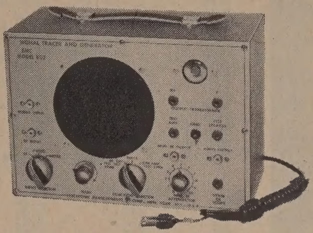


Model 213 (in high impact bakelite case with strap)	$28.90
Model 213 Kit	18.90
Model 213P (in wood carrying case)	32.25
Model 213P Kit	21.90
Model CRT picture tube adaptor	4.50

MODEL 802 SIGNAL TRACER AND GENERATOR . . .

Generates its own Audio and RF signals for tracing. Complete with RF and 2 Audio leads. Uses Magic Eye and Speaker. Checks noisy components.

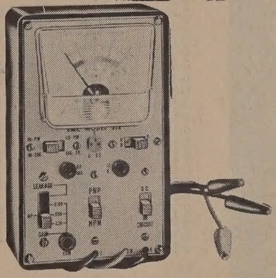
Wired	$38.95
Kit	24.95



MODEL 212 TRANSISTOR ANALYZER . . .

Checks all transistors in or out of circuit. Checks for gain and leakage. Can be used to signal trace AF, IF or RF circuits. Measures battery voltage. Checks diodes. Measures DC current drain. Comes complete with test leads and instruction manual.

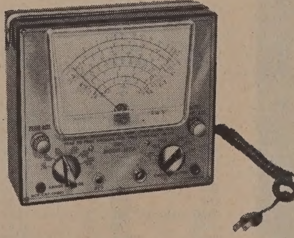
Wired	$18.50
Kit	13.50



MODEL 107A PEAK-TO-PEAK VACUUM TUBE VOLT-OHM-CAPACITY TESTER . . .

Uses 6" meter. Bakelite Case. 6 AC & DC volt ranges to 2800 V.
6 capacity ranges from 50 MMFD to 5000 MFD.
6 resistance ranges from .2 ohm to 1000 megs.

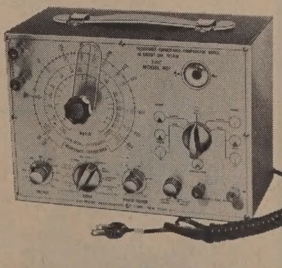
Wired	$51.40
Kit	36.50



MODEL 801 RC BRIDGE AND IN-CIRCUIT CHECKER . . .

Checks condensers completely in and out of circuit. Checks resistance. Checks condensers for value, leakage and power factor.

Wired	$38.95
Kit	24.95



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ELECTRONIC MEASUREMENTS CORPORATION
New York, New York

EMICO

PRECISION-PLUS

PRECISIO

the Recognized Leader

ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA

PRICE LIST

PRICES—Prices listed are net and include all hardware and individual boxing. Resistance approximate. If important request factory engineering confirmation.

DC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-1	.15	2101	$1.90	2201	$2.00	2301	$2.30			
0-3	.032	2101-A	1.90	2201-A	2.00	2301-A	2.30			
0-5	.016	2102	1.90	2202	2.00	2302	2.30			
0-10	.00115	2103	1.90	2203	2.00	2303	2.30	.0025	2403	$
0-15	.00115	2103-A	1.90	2203-A	2.00	2303-A	— 2.30	.0025	2403-A	
0-20	.00115	2104	1.90	2204	2.00	2304	2.30			
0-25	.00115	2104-A	1.90	2204-A	2.00	2304-A	2.30			
0-30	.00115	2105	1.90	2205	2.00	2305	2.30	.0006	2405	
0-60	.000116	2106-A	2.60	2206-A	2.70	2306-A	3.00			
1-0-1	.08	2109	1.90	2209	2.00	2309	2.30			
3-0-3	.00115	2110	1.90	2210	2.00	2310	2.30			
6-0-6	.00115	2111	1.90	2211	2.00	2311	2.30			
10-0-10	.00115	2112	1.90	2212	2.00	2312	2.30			
15-0-15	.00115	2113	1.90	2213	2.00	2313	2.30			
20-0-20	.00115	2114	1.90	2214	2.00	2314	2.30	.0006	2414	
30-0-30	.00115	2115	1.90	2215	2.00	2315	2.30	.0006	2415	
75-0-75	.000116	2116-A	2.95	2216-A	3.05	2316-A	3.35			

DC MILLIAMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-1	850	2120	$3.70	2220	$3.75	2320	$4.05	950	2420	$
0-3	425	2121	2.60	2221	2.65	2321	2.95			
0-5	925	2125	2.35	2225	2.40			130	2425	
0-5	1300					2325	2.70			
0-10	300	2126	2.20	2226	2.25			75	2426	2
0-10	350					2326	2.55			
0-20	95	2127	1.90	2227	2.00			23	2427	
0-20	105					2327	2.30			
0-25	65	2127-A	1.90	2227-A	2.00	2327-A	2.30			
0-30	37	2128	1.90	2228	2.00			12	2428	2
0-30	45					2328	2.30			
0-50	14.5	2129	1.90	2229	2.00			5.5	2429	2
0-50	18					2329	2.30			
0-100	7.0	2130	1.90	2230	2.00			1.8	2430	2
0-100	8.3					2330	2.30			
0-150	1.8	2130-A	1.90	2230-A	2.00			1.0	2430-A	2
0-150	2.15					2330-A	2.30			
0-200	1.5	2130-B	1.90	2230-B	2.00			.5	2430-B	2
0-200	1.7					2330-B	2.30			
0-300	.61	2131	1.90	2231	2.00			.35	2431	2
0-300	.8					2331	2.30			
0-500	.21	2132	1.90	2232	2.00			.12	2432	2
0-500	.27					2332	2.30			

DC VOLTMETERS (HIGH RESISTANCE)

(100 ohms/volt except 150 and 300 volt ranges are 200 ohms per volt)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price
0-10	1050	2140	$2.75	2240	$2.85	2340	$3.15
0-30	2800	2141	2.75	2241	2.85	2341	3.15
0-50	4000	2142	2.95	2242	3.05	2342	3.35
0-150	28000	2143	3.10	2243	3.20	2343	3.60
0-300	55000	2144	3.20	2244	3.30	2344	3.60

DC VOLTMETERS (LOW RESISTANCE)

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-1	33	2134	$1.90	2234	$2.00	2334	$2.30			
0-3	100	2135	1.90	2235	2.00	2335	2.30	150	2435	$2.
3-0-3	30	2136	1.90	2236	2.00	2336	2.30			
0-5	140	2136-A	1.90	2236-A	2.00	2336-A	2.30			
0-8	225	2136-B	1.90	2236-B	2.00	2336-B	2.30			
0-10	280	2137	1.90	2237	2.00	2337	2.30	500	2437	2.
0-15	450	2137-A	1.90	2237-A	2.00	2337-A	2.30	750	2437-A	2.
0-20	600	2137-B	1.90	2237-B	2.00	2337-B	2.30	1000	2437-B	2.
0-30	1000	2137-C	1.90	2237-C	2.00	2337-C	2.30	1500	2437-C	2.
0-50	1400	2138	1.90	2238	2.00	2338	2.30	2500	2438	2.

AC AMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-1	.365	6101	$3.05	6201	$3.15	6301	$3.45			
0-3	.078	6102	3.05	6202	3.15	6302	3.45			
0-5	.023	6103	3.05	6203	3.15	6303	3.45			
0-10	.013	6104	3.05	6204	3.15	6304	3.45	.023	6404	$3.

AC MILLIAMMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-25	750	6125	$3.05	6225	$3.15	6325	$3.45			
0-50	175	6126	3.05	6226	3.15	6326	3.45			
0-100	58	6127	3.05	6227	3.15	6327	3.45			
0-250	12	6128	3.05	6228	3.15	6328	3.45			
0-500	1.75	6129	3.05	6229	3.15	6329	3.45	1.15	6429	$3.

AC VOLTMETERS

Range	Approximate Resist. Ohms	MODEL NF-2C Catalog Number	MODEL NF-2C Dealers' Net Price	MODEL RF-2C Catalog Number	MODEL RF-2C Dealers' Net Price	MODEL RF-2¼C Catalog Number	MODEL RF-2¼C Dealers' Net Price	Approximate Resist. Ohms	MODEL 13 Catalog Number	D Ne
0-5	50	6135	$3.05	6235	$3.15	6335	$3.45			
0-10	175	6136	3.05	6236	3.15	6336	3.45			
0-15	300	6137	3.05	6237	3.15	6337	3.45	300	6437	$3.
0-25	920	6137-A	3.05	6237-A	3.15	6337-A	3.45			
0-50	1800	6138	3.05	6238	3.15	6338	3.45			
0-150	9530	6139	3.60	6239	3.70	6339	4.00	15000	6439	4.
0-300	32000	6140	4.20	6240	4.25	6340	4.55	32000	6440	4.

Net

© U.C.P

ETERS

Precision Products

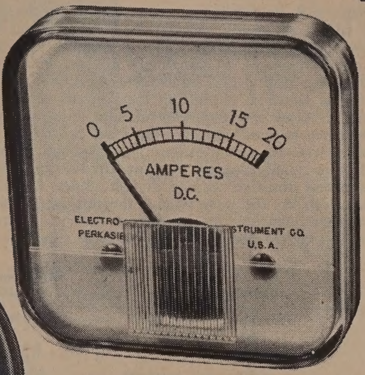
EMICO

PRECISION-PLUS

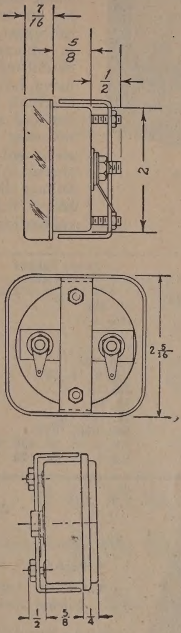
ELECTRO-MECHANICAL INSTRUMENT CO. PERKASIE, PENNSYLVANIA

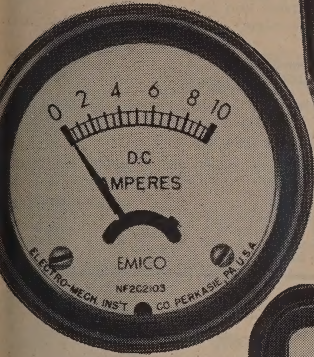
D.C. MILLIAMPERES
0 1 2 3 4 5
ECTRO-MECH. INSTR. CO. PERKASIE, PA. U.S.

MODEL 13
Edge Reading Type

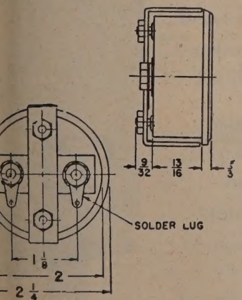

0 5 10 15 20
AMPERES
D.C.
ELECTRO-
PERKASIE
TRUMENT CO.
U.S.A.

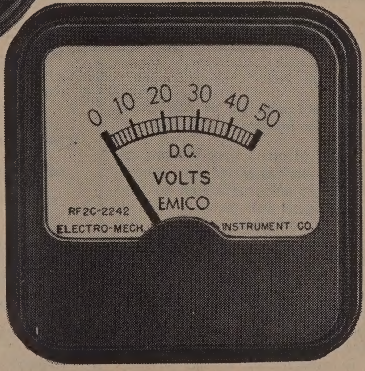
MODEL RF2¼C


7/16
5/8
1/2
2
2 5/16
1/2
5/8
1/4

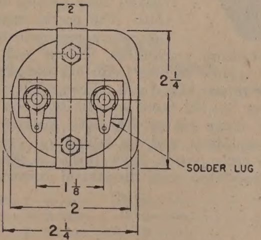

0 2 4 6 8 10
D.C.
AMPERES
EMICO
NF2C2-03
ELECTRO-MECH. INS'T. CO. PERKASIE, PA. U.S.A.

MODEL NF2C


9/32
13/16
1/3
SOLDER LUG
1 1/8
2
2 1/4


0 10 20 30 40 50
D.C.
VOLTS
EMICO
RF2C-2242
ELECTRO-MECH.
INSTRUMENT CO.

MODEL RF2C


2
2 1/4
SOLDER LUG
1 1/8
2
2 1/4

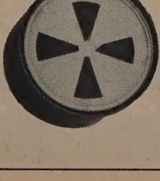
Precision instruments engineered for

- accuracy
- long life
- economy

EMICO Miniature Circuit Indicator
MODEL 801

Gives snap-action response at .001 (milliwatt) to monitor all circuit malfunctions or on-off conditions. Dependable through millions of on-off cycles. Simplified panel installation.

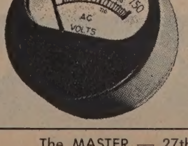
Dealer's Net **$5.00**



EMICO A.C. Voltage Tester

Accurate, precision mechanism plug-in type with damped meter movement. Convenient 90° swivel prongs for ease of reading from any position.

Dealer's Net **$3.45**

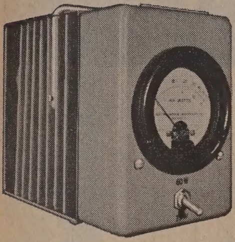

0 50 100 150
AC
VOLTS

Average Reading R. F. POWER METERS

EMPHASIZING MAINTAINABILITY

1. Calibrate these Power Meters in your plant or laboratory against low frequency power standards at power line frequencies. No need to ship to manufacturer for repair and recalibration.
2. No correction curves necessary.
3. Simple operation.

200 KC TO 500 MC — GREATLY IMPROVED



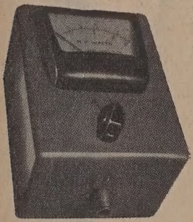
Model PM-10

- **Portable, Continuous Duty.**
- **Can be recalibrated anywhere with DC or Alternating Current Power against a low frequency standard.**

These broad band R.F. Power Meters are of the absorption-type consisting of an oil filled, air cooled, coaxial load resistor and a voltmeter calibrated to read watts. The power meter is suitable for use as a field or laboratory test instrument, is completely shielded and non-radiating, permitting transmitter testing and adjustment without interference. The meter box is easily detached, permitting location of the load resistor at a remote point. In cases where power measurements are not required the load resistor may be used as a dummy load. No correction curve is necessary to cover the frequency range. The spurious response usually associated with directional couplers and capacitative voltage dividers is absent in this purely resistive voltage divider. Since this is a resistive voltage divider which has the same voltage division at DC, 60 cycle AC, and at high radio frequencies, this instrument can be calibrated and its calibration can be checked frequently on 60 cycle supply voltages.

Models PM-7, 14

Model	Power Ranges In Watts	Dielectric	Max. Power Dissipation	Price
PM-3	60, 150	Oil	150 watts	$220.00
PM-4	.15, .6	Air	1 watt	95.00
PM-5	.6, 1.5	Air	1.5 watts	95.00
PM-6	1.5, 6	Air	10 watts	95.00
PM-7	150, 600	Oil	600 watts	285.00
PM-8	1.5, 6, 15, 60	Oil	100 watts	225.00
PM-9	2.5, 10	Air	10 watts	105.00
PM-10	15, 60	Oil	90 watts	145.00
PM-14	25, 100, 500	Oil	500 watts	325.00
PM-16	150, 600, 1500	Oil	1500 watts	375.00
PM-18	1.5, 6, 15, 60, 150, 600	Oil	600 watts	485.00
PM-19	1.5, 6, 15, 60, 120	Oil	100 watts	250.00



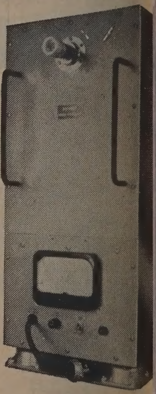
100 KC TO 200 MC

- **Intermittent Duty.**
- **Portable.**
- **Can be recalibrated anywhere with DC or Alternating Current Power against a low frequency standard.**

These broad band R.F. Power Meters are of the absorption-type consisting of an oil or air filled, air cooled, coaxial load resistor and a voltmeter calibrated to read watts. The power meter is suitable for use as a field or laboratory test instrument, is completely shielded and non-radiating, permitting transmitter testing and adjustment without interference. It is designed to operate in the frequency range of 100 KC to 200 MC with an accuracy of plus or minus 5%. In this Power Meter a resistive voltage divider is used. This voltage divider has the same voltage divisions at DC, 60 cycle AC and throughout the frequency range up to 200 MC. Because of this feature it is possible to calibrate this Power Meter and its calibration can be checked frequently with DC power or with 60 cycle power. Since this is a resistive voltage divider, the spurious response usually associated with directional couplers in capacitative voltage dividers is eliminated.

Model	Power Ranges In Watts	Dielectric	Max. Power Dissipation (Intermittent Duty)	Price
AM-3	60, 150	Oil	150 watts	$95.00
AM-6	1.5, 6	Air	10 watts	60.00
AM-7	150, 6	Oil	600 watts	150.00
AM-8	1.5, 6, 16, 60	Oil	100 watts	95.00
AM-9	2.5, 10	Air	10 watts	60.00
AM-10	15, 60	Oil	90 watts	75.00
AM-14	25, 100, 500	Oil	500 watts	175.00
AM-16	150, 600, 1500	Oil	1500 watts	200.00
AM-18	1.5, 6, 15, 60, 150, 600	Oil	600 watts	250.00
AM-19	1.5, 6, 15, 60, 120	Oil	100 watts	125.00

MODEL PM-6K



POWER MEASURING RANGE:

6000 watts Max.

100 watts Min.

MAXIMUM CONTINUOUS POWER DISSIPATION:

6000 watts

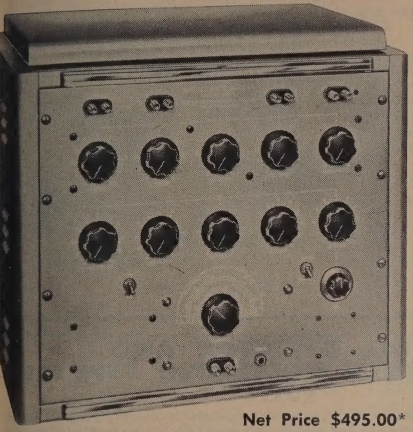
Frequency Range	100 KC – 30
Impedance	50
V.S.W.R.	1.2 Maxi
Power Requirements	115 V 60 cps, 1
Accuracy	±5% of full
Electron Tube complement	1 ea IN21 + 1

Electro IMPULSE Laboratory

• RED BANK, N.J. •

INCREMENTAL INDUCTANCE BRIDGES

TYPE 1110-C



Net Price $495.00*

MAXIMUM SUPERIMPOSED DC UP TO 2 AMPERES

Direct in-line readings of inductance and conductance of iron core component at audio frequencies with or without superimposed direct current. The bridge uses the Owens circuit with provisions for measuring the series or parallel inductance and conductance of the unknown inductor; five precision resistance and capacitance decades are provided to indicate these values. "Q" or storage factor can be measured as the product of the inductive reactance and the conductance.

SPECIFICATIONS

Inductance Range: Five decade resistors are used for the inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Range: 5 decades 1111.1 H max. — 1 Mh min.
3 decades 11.1 H max. — 10 μh min.
2 decades 1.1 H max. — 1 μh min.

Frequency Range: 20 cycles to 10kc.

Accuracy: ±.5% up to 5 kc, ± 2% to 10 kc.

Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.015 micromho to 100 mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials. @ 100 cycles.

Superimposed DC: 2 amperes 1 Mh — 100 Mh.
1 ampere 0.1 H — 10 H.
0.32 ampere 10 H — 100 H.
0.1 ampere 100 H — 1000 H.

Dimensions: 21¾ x 17½ x 15¼ inches. **Weight:** 50 lbs.

TYPE 1185

MAXIMUM DC TO 30 AMPERES

Designed for 30 Ampere incremental inductance measurements, same operational controls as supplied on type 1110-C and 1115 bridges.

SPECIFICATIONS

Inductance Balance: Five decade resistors are used for inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Inductance Range:
5 decades 111.1 H max. - 100 μh min.
3 decades 1.1 H max. - 1 μh min.
2 decades 0.11 H max. - 0.1 μh min.

Frequency Range: 20 cycles to 10 kc.

Accuracy: ±1% to 5 kc; ±3% to 10 kc.

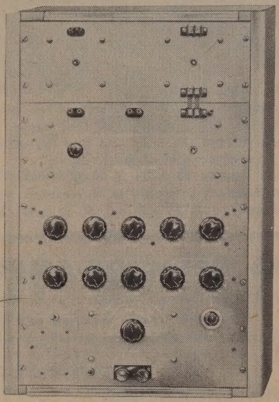
Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.15 micromho-1000 Mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials. @ 100 cycles.

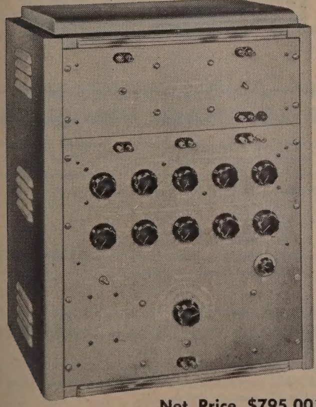
Superimposed DC Range:
30 amperes 0.1 Mh - 100 Mh.
8 amperes 0.1 H - 1 H.
4 amperes 1 H - 10 H.
1 ampere 10 H - 100 H.

Dimensions: 21¾ x 33¼ x 15¼ inches.
Weight: 100 lbs.



Net Price $1,250.00*

TYPE 1115



Net Price $795.00*

MAXIMUM DC TO 15 AMPERES

Offers all features of the Type 1110-C Inductance Bridge with increased superimposed DC rating.

SPECIFICATIONS

Inductance Balance. Five decade resistors are used for inductance balance with a maximum resistance of 111,110 ohms in steps of 1 ohm.

Inductance Range:
5 decades 111.1 H max. - 100 μh min.
3 decades 1.1 H max. - 1 μh min.
2 decades 0.11 H max. - 0.1 μh min.

Frequency Range: 20 cycles to 10 kc.

Accuracy: ±1% up to 5 kc. - ±3% to 10 kc.

Conductance Balance: Five decade capacitors and one air variable, maximum capacitance 11.111 MF.

Conductance Range: 0.15 micromho-1000 Mho.

"Q" Range: Series operation, 600 max. @ 100 cycles.
Parallel operation, 80 five dials. @ 100 cycles.

Superimposed DC Range:
15 amperes 0.1 Mh. - 100 Mh.
4 amperes 0.1 H - 1 H.
1 ampere 1 H - 10 H.
0.4 ampere 10 H - 100 H.

Dimensions: 21¾ x 28 x 15¼ inches.
Weight: 80 lbs.

** These items can be supplied for rack mounting. Write for prices.*

NULL DETECTOR AMPLIFIER TYPE 1140-A

USES

A sensitive null indicator for bridge measurements, providing visual null indications or aural when used in conjunction with headphones. The unit may also be used as a high gain amplifier for general laboratory work.

DESCRIPTION

Functionally the instrument consists of a high gain linear amplifier with a 30 db. input attenuator in addition to the variable gain control. A four-inch panel meter provides visual null indications, the response of the meter circuit is approximately logarithmic over a 40 db. voltage range. Resonant circuits tuned to 60, 400 and 1000 cycles limit the amplifier transmission characteristics to the three audio frequencies commonly used for bridge measurements or it may be used as a non-selective amplifier with filter "off." Other selective frequency can be obtained by use of a Type 1940 Filter Unit.

SPECIFICATIONS

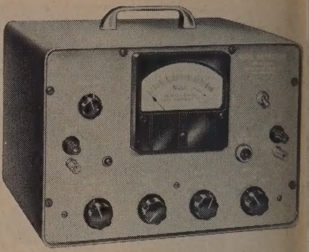
Input Impedance: 1 megohm in parallel with 25 mmf. GAIN: 100 db. with 1 megohm load (6 mmf. shunt capacity).

Null Detector Sensitivity: At 1 kc, 10 microvolts will give a 15% meter deflection.

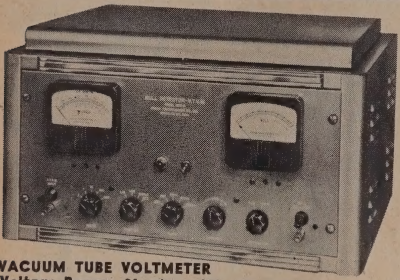
Selective Amplifier: 26 db. second harmonic attenuation at 60, 400 and 1000 cycles.

Power Supply: 105-125 volts, 50-60 cycles, 35 watts consumption.

Dimensions: 12" x 8½" x 10". **Weight:** 24 lbs.



Net Price $235.00*



NULL DETECTOR AND VACUUM TUBE VOLTMETER TYPE 1210-

USES

The Type 1210-A Null Detector and Vacuum Tube Voltmeter is primarily designed for brid measurements. The Null Detector indicates the balance of the bridge, and the Vacuum Tu Voltmeter indicates the voltage across the unknown two terminal or four terminal netwo

SPECIFICATIONS

NULL DETECTOR

Input Impedance: 1 megohm in parallel with 25 mmf.

Frequency Response: 2 db from 20 to 20,000 cycles.

Null Detector Sensitivity: At 1000 cycles, 10 microvolts will give a 15% meter deflection.

Selective Amplifier: 26 db second harmonic attenuation at 60,400 and 1000 cycl Selectivity at any other frequency between 20 cycles and 20 kc. may be obtained connecting Freed Model 1940 to the external filter jack.

VACUUM TUBE VOLTMETER

Voltage Range: .01 volts to 150 volts in four ranges — (.15 — 1.5 — 15 — 150 volts at full scale.)

Accuracy: 2% of full scale on all four ranges.

Waveform Error: The instrument is a full wave average meter and is free of turnover effects. For small amounts of distortion the accuracy of t instrument is independent of the waveform.

Frequency Range: 20 cycles to 20,000 cycles (1 db.)

Input Impedance: Equivalent to 50 megohms resistance in parallel with a 25 mmf condenser.

Power Supply: 105-125 volts AC. 50-60 cycles. **Dimensions:** 21" x 15" x 13". **Weight:** 37 lbs.

Net Price $350.00*

NULL DETECTOR-AMPLIFIER TYPE 2075

The Type 2075 Null Detector-Amplifier is a sensitive, transistorized, battery operated bridge detector. A continuously tunable filter, low noise level and isolation from the power line provides an ideal balance indicator for all A.C. bridge measurements.

SPECIFICATIONS

Sensitivity: 1 microvolt full scale.

Input Impedance: 50K ohms.

Frequency Range: 20 cycles to 100 KC. ±3 db.

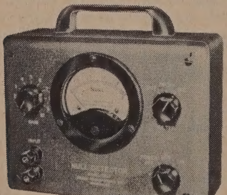
Continuously Variable Filter: 20 to 20,000 cycles.

Dimensions: 8" x 6" x 8".

Weight: 6 lbs.

Net Price $345.00*

TUNING
NULL DETECTOR AMPLIFIER
INPUT
GAIN
FREQUENCY
OUTPUT



NULL DETECTOR TYPE 2050 (ALL TRANSISTOR)

The Freed Type 2050 Null Detector, when used in conjunction with other battery operated equipment, allo complete isolation from the power lines. This feature, plus battery operation, provide a lower noise level whi makes it useful in all types of AC Bridge measurements. Readily portable and independent of power lin this instrument is particularly suited for bridge measurements in any location.

FEATURES

- Complete isolation from power lines.
- Portable — lightweight.
- Economical operation.
- High sensitivity throughout battery life.
- Maintenance — free service.
- Simplified operations — no warm-up, no zero setting
- Built-in harmonic filters.

Sensitivity: (with 400 cycle or 1000 cycle filter)

A — 200µV for full-scale } in "Linear" position
80µV for 30% deflection

B — 2000µV for full-scale } in "Null" position
100µV for 30% deflection

Net Price $185.00

SPECIFICATIONS

Input Impedance: Approximately 1 Megohm (resistive) at 1000 cycles.

Frequency Range: 40 cycles to [illegible]0 kc ±1 db.

In "Direct" position: 20 cycles to 50kc ±5 db.

Filters: 400 cycles and 1000 cycles, greater than 22 db rejection of 2nd Harmonic

Power Supply: 5.2 volts (4 mercury cells).

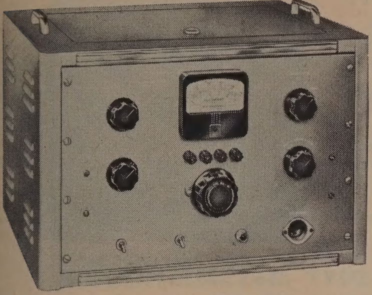
Battery Life: At least 1800 hours.

Size: 6 x 8 x 3½ inches. **Weight:** 3½ lbs. with batteries.

* *These items can be supplied for rack mounting. Write for pric*

© U.C.P.,

D.C. SUPPLY TYPE 1170-A



Net Price $350.00*

USES

Intended as a dependable source of direct current for the Incremental Inductance Bridge Type No. 1110-C. Can also be used as a general laboratory supply.

DESCRIPTION

Consists of an electronically regulated high voltage supply. Four independent control circuits provide four current ranges, namely 5 milliamperes, 25 milliamperes, 100 milliamperes and 1 ampere. The output current is indicated by a multirange 4" meter.

SPECIFICATIONS

Current Ranges: Four current ranges: 5, 25, 100 milliamperes and 1 ampere.

Voltage Ranges: The maximum no load voltages corresponding to the four current ranges are the following: 1 ampere — 270 volts, 100 MA — 270 volts, 25 MA — 55 volts, 5 MA — 25 volts.

Voltage Regulation: The unit operates from a 115 volts, 50-60 cycle line. For a line variation of plus or minus 10%, the output voltage shall not vary more than ±1½%.

Dimensions: 21" x 15" x 14". **Weight:** 89 lbs.

FILTER TYPE 1940

USES

is filter may be used with the Freed Type 1140-A Null Detector and Type 1210-A Null Detector V.T.V.M. or similar mplifiers. It can be set to any one of 7 fixed frequencies to reduce noise and harmonics when making ridge measurements.

DESCRIPTION

e filters are parallel resonant circuits, and are designed to be used in the plate circuit of the amplifier. D.C. current rough the inductor is limited to 3 ma. Terminals are provided for connecting an external capacitor to tune to ny frequency between 50 cps and 20 kc.

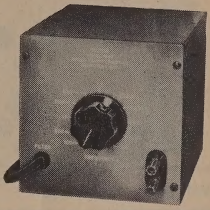
FEATURES

Each of 7 tuned frequencies is quickly available.
Any resonant frequency between 50 cps and 20 kc can be obtained with external capacitors.

- Sharp anti-resonant tuning.
- Can be used directly in plate circuit.

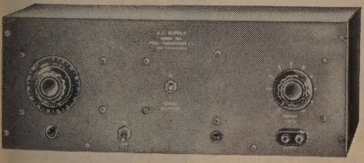
SPECIFICATIONS

requencies: 100 cps, 200 cps, 500 cps, 800 cps, 1200 cps, 2000 cps and 10 kc, adjusted to any accuracy of ±2%.
iscrimination vs 2nd harmonic approximately 23 db.
erminals: Shielded cord and plug for connection to null detector. Binding posts for connecting external capacitors
imensions: 6" x 6" x 6". **Weight:** 7 lbs.



Net Price $100.00

A.C. SUPPLY TYPE 1180



Net Price $115.00*

USES

The type 1180 A.C. Supply is designed for both laboratory and production applications where a power line isolated source of A.C. test voltage is required. It will have particular application to bridge measurements where a source of voltage in small increments is needed.

SPECIFICATIONS

Voltage Range: .01 — 130 volts AC — 50-60 cycles.
Dimensions: Width 19"; Depth 5"; Height 7".
Weight: 13½ lbs.

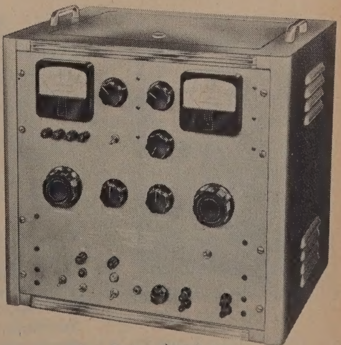
INCREMENTAL INDUCTANCE COMPARISON BRIDGE TYPE 1870

DESCRIPTION

e unit is completely self-contained, consisting of a metered 500 ma D.C. supply, a metered 35 volt, 60 cycle supply and a direct reading % deviation indicator. An external oscillator jack provided so that test frequencies from 60 cycles to 10 kc may be used.

SPECIFICATIONS

nductance Range: 25 mh to 100 h.
eviation Range: ±20% with an accuracy of 1%., ±30% with an accuracy of 5%.
requency: 60 cycles to 10,000 cycles.
oltage Applied to Unknown: Variable from 0 to 135 volts.
.C. Current Range: 0 to 500 ma in four overlapping ranges, 0-5 ma, 0-25 ma, 0-100 ma, -500 ma.
acuum Tube Voltmeter: .01, .1, 10, and 100 volts full scale.
ower Supply: Instrument is entirely self-contained, operates on 100-125 volts, 50-60 cycles.
imensions: 19½" high x 22" wide x 15" deep. **Weight:** 150 lbs.



Net Price $550.00*

** These items can be supplied for rack mounting. Write for prices.*

FREED TRANSFORMER COMPANY, INC.

UNIVERSAL BRIDGE TYPE 1150-A

The Freed Type 1150-A Universal Bridge offers the laboratory a combination of eight bridges in one instrument. This bridge will measure the reactive and resistive component of impedances, capacitance, resistance and phase angle. In the Hay and/or Owen bridge configuration the incremental permability of an inductance can be measured.

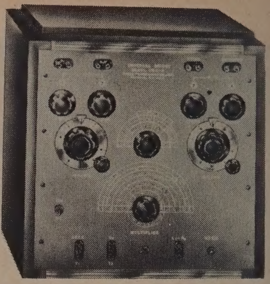
BRIDGE TYPES

- Maxwell
- Hay
- Series* Owen
- Parallel* Owen
- Resonance
- Series Resistor Condensor
- Parallel Resistance Condensor
- Resistance

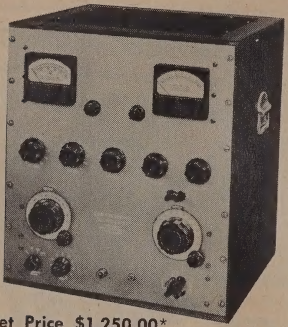
SPECIFICATIONS

Accuracy: The basic bridge accuracy at 1000 cycles is ±0.5% for all bridge configurations.
Inductance Range: 1 μh - 1110H.
Conductance Range: 0.015 μmho - 100 mho (*Owen Bridge).
Superimposed D.C.: Up to 2 amperes.
"Q" Range: Up to 100 @ 1 kc.
Capacitance Range: 10 PF - 10 MF.
Resistance Range: 1 ohm - 1 megohm.
Frequency Range: 20-20,000 cycles.
Dimensions: 21¾″ x 24½″ x 17″.
Weight: 65 lbs.

*Owen Bridge measurements require external decade capacitor.



Net Price $795.00*



Net Price $1,250.00*

LOW FREQUENCY "Q" INDICATOR TYPE 1030-A

USES

Measures the "Q" factor of coils directly and the inductance of coils, distributed capaci impedance and dielectric losses. The "Q" Indicator can be used to study the magnetic propert of iron, such as stability of iron cores in function of applied voltages, and, iron losses as function of the frequency.

FEATURES

- Direct reading
- Unaffected by line voltage variations.
- Self contained — A.C. operate

SPECIFICATIONS

Range of "Q" Measurements: The range of "Q" factors is from 0.1 to 1000 over the frequen range from 20 to 50,000 cycles with an accuracy of 5%; from 50,000 to 200,000 cycles t accuracy of "Q" measurements is limited by the residual capacity of the measuring circuit.
Oscillator Frequency Range: Continuously variable from 20 to 200,000 cycles in four range
Power Supply: The instrument is entirely self-contained and operates on 105-125 volts, 50- cycles. Total power consumption 200 watts. **Dimensions:** 19½″ x 14½″ x 23″. **Weight:** 120 l

MEGOHMMETER TYPE 1020-C

USES

A rugged A.C. powered instrument for measuring resistance from 1 megohm to 2,000,000 megohms. Stabilized test voltages make this unit particularly useful for measuring leakage in capacitors.

FEATURES

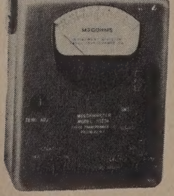
Selection of 50, 100 or 500 volt test potential by front panel switch. Resistance values are indicated directly in megohms on a single scale meter which is protected against overload. Safe and rapid testing of capacitors is achieved by providing discharge and charge positions as the first two steps on the range switch. A lever switch with lock and spring return positions is provided for applying test voltage to non-capacitive components. Regulated test and supply voltages assure steady meter readings in the presence of line transients.

SPECIFICATIONS

Range: 1 megohm to 2,000,000 megohms with 500 volt test potential; 0.1 to 200,000 megohms with either 50 or 100 volt test potential.
Accuracy: ±3% at full scale for x 1, x 10, x 100, x 1000, 10,000 range; ±5% for x 100,000 range.
Test Voltages: 50, 100 and 500 volt D.C., all voltages are regulated and are within ±5% of nominal value. Other test voltages optional.
Power Supply: 105-125 volts, 50-60 cycles. An instrument to operate on other power line voltages and/or frequencies available on special order.
Dimensions: 9½″ x 10½″ x 8″.
Weight: 18 lbs.

Net Price $250.00

BATTERY OPERATED PORTABLE MEGOHMMETER TYPE 2030



Net Price $195.00

USES

The Freed Type 2030 Megohmmeter is a battery operated instrument especially suited for measuring leakage of transformers, motors, cables, condensers and insulating materials wherever the power line i inaccessible or where battery operation is more desirable.

FEATURES

Resistance values are indicated on a 3″ expanded scale meter protected against overload. Low resistance in series with component under test provides very short charging time for even the largest condensers. Calibration position provided to check accuracy of 500 volt test potential. The 500 volt D.C. test potential is obtained from a regulated transistor power supply.

SPECIFICATIONS

Range: 5 megohms to 5 million megohms indications to 10 million megohms in 5 overlapping ranges.

Accuracy: Plus or minus 3% on resistance values up to 100,000 megohms: plus or minus 5% from 100,000 megohms to 5,000,000 megohms.

Voltages on Unknown: The voltage applied to the Unknown terminals is 500 volts D.C. and is independent (less than 1%) of the value of the Unknown.

Terminals: Four terminals are provided, two for connecting the Unknown, one guard and one ground.

Dimensions: 6″ x 8″ x 4″. **Weight:** 8 lbs.

* *These items can be supplied for rack mounting. Write for prices.*

© U.C.P.,

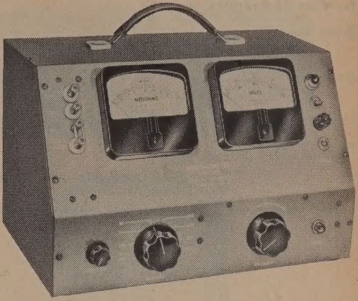
VARIABLE TEST VOLTAGE MEGOHMMETER TYPE 1620

reed Type 1620 Megohmmeter is a versatile insulation resistance measurement instrument
continuously variable DC test potential from 50 to 1000 volts.
onents such as transformers, condensers, motors, printed circuits; cables and insulation material
e tested at their rated voltage and above, for safety factor.

sistance — 0.1 megohms to 4,000,000 megohms.
ltage — variable, 50 - 1000 volts.
ccurate — plus or minus 5% on all ranges.
r Supply: 105-125 volts AC — 50-60 cycles.
nsions: 15" x 9" x 7½". **Weight:** 24 lbs.

- **Simple** — for use by unskilled operators.
- **Rack Mounting available** — Type 1620R — 19" x 10½" x 9½".

Net Price $335.00*



MEGOHMMETER TYPE 1620-C

atures same as type 1620 with additional circuitry for measuring capacitor leakage with test
es from 50-1000 volts D.C.

Net Price $360.00*

MEGOHMMETER TYPE 1620-D

ype 1620-D combines the features of the Types 1620 and 1620-C with an additional low
oltage range and an increase, by a factor of 10, of the upper resistance range.

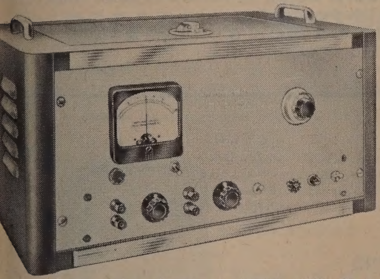
ge Range: 5-100 volts, 100-1000 volts

tance Range: 5-100 volts, 1 megohm to 4,000,000 megohms
100-1000 volts, 10 megohms to 40,000,000 megohms

racy: ±5%, except highest range which is ±10%

Net Price $385.00*

.C. DIFFERENTIAL VOLTMETER TYPE 1560



USES

Measures differences in voltage levels as low as 0.01% regardless of their phase relation. It is extremely useful when checking response and attenuation of filters, transformers, amplifiers and other applications where a small difference in two voltages is to be measured. Because of its excellent stability and high sensitivity the differential voltmeter may also be used to observe drift in amplifiers, meters and filters.

DESCRIPTION

This instrument consists of a balanced dual-channel AC Amplifier with separate rectifiers; a D.C comparison circuit which indicates percent difference on a calibrated multiturn potentiometer; a chopper modulated D.C. Amplifier operating at 60 cps; a synchronous detector which is polarity-sensitive; and a 4" center-zero null meter.

SPECIFICATIONS

Percent Difference: −10% to +5% in .01% increments on multiturn potentiometer dial.
Input Voltage (each channel): .3 volt to 100 volts rms in 5 ranges.
Input Impedance: 470 K ohms shunted by approximately 20 mmf capacitance on 1 volt range; 400 K ohms shunted by 40 mmf.
uency Range: 20 to 20,000 cps (MODEL 1560); 20 to 200,000 cps (MODEL 1560E).
bration Linearity: ±.25% difference, 20 to 20kc; ±.5% difference, 20 to 200kc.
Power Supply: Electronically regulated; 115 volts, 60 cps input.
Dimensions: 21" x 15" x 10½". **Weight:** 37 lbs.

TYPE 1560 Net Price $525.00*

TYPE 1560E Net Price $550.00*

WIDE BAND AND CARRIER REQUENCY DISTORTION METER TYPE 1410

USES

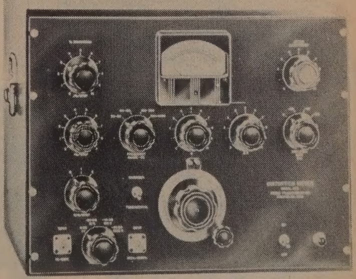
Type 1410 Distortion Meter may be used in the laboratory or for production testing of Wide
Amplifiers, Carrier Frequency, Telemetering and Ultra-Sonic equipment.

DESCRIPTION

high sensitivity of the instrument permits measurements to be made on signals as low as 0.2
to an accuracy of 0.1%. Signals as high as 1000 volts may be applied to the input terminals
tly. The frequency range of the instrument is 20 kc to 1 mc. in 10 overlapping ranges.
encies up to 3 mc. are passed without attenuation by the amplifier circuits, so that distortion
urements can be made on fundamental frequencies up to 1 mc.
solation transformer and line filter provided with the instrument prevent any feedback through
ower line.

SPECIFICATIONS

uency Range: 20 kc to 1 mc.
t Impedance: 500,000 ohms shunted by 70 mmfd. (plus capacity of input cable) in all ranges
he 0.1 volt range. The shunt capacity on this range is 800 mmfd.
uracy: Harmonic Distortion can be measured accurately to 0.1%.
itivity: Distortion levels of 0.1% can be read accurately for a signal input as low as 0.2
Maximum input signal is 1000 volts rms.
ination Characteristics: Eliminates fundamental completely while attenuating second harmonic approximately 3%. **Power Supply:** 105-125 volts,
cycles. **Dimensions:** 19¾" x 16¾" x 15¾". **Net Weight:** 60 pounds.



Net Price $875.00*

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* *These items can be supplied for rack mounting. Write for prices.*

FREED TRANSFORMER COMPANY, INC.

FREQUENCY COUNTER TYPE 2025

A compact low cost instrument for frequency measurements, or counting of random events, in the range of 1 c.p.s. to 100 kc., to an accuracy of .1%

Utilization of glowtransfer tubes for combined counting and display functions, and the use of Digital type dividers in the line frequency derived timebase results in an instrument requiring the minimum of maintenance.

SPECIFICATIONS

Counting Rate: 1 cps to 100 kc.

Number of Decades: 4

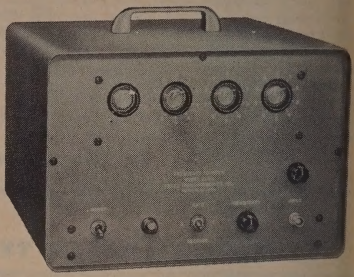
Gate Time: .1 sec and 1 sec.
10 second gate optional

Accuracy: .1% nominal, ±1 count, accuracy proportional to the accuracy of the power line frequency.

Input Voltage: .5v peak min. into 100k

Size: 12″ W. x 8½″ H. x 10″ D.

Type 2026 available — 1 cps to 500kc.

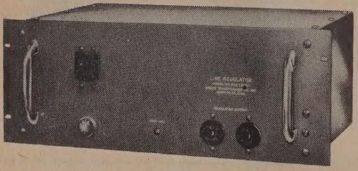


Net Price $375.00

AC LINE REGULATOR TYPE RAC-1.5/

- TUBELESS
- DISTORTION FREE
- HIGHLY EFFICIENT
- REGULATES 60 CYCLES
- REGULATES 400 CYCLES
- ELECTRO-MECHANICAL
- CIRCUIT BREAKER ON-OFF SWI
- FUSED VARIAC CIRCUIT
- FUSED CONTROL CIRCUIT

Utilizing . . . a fast response phase reversible magnetic amplifier preceded by a transistor comparison amplifier with a zener reference.



Net Price $380.00

SPECIFICATIONS

Nominal Input Voltage and Frequency: 115V @ cps or 400 cps.

Output Voltage: Adjustable 110-120 Volts.

KVA Rating and Regulation Range: 3KVA for a Regulation Range of ±1
of Adjusted Voltage.
1.5KVA for a Regulation Range of ±20% of Adjusted Voltage.

Regulation Accuracy: ±0.25% for a ±10% Regulation Range.
±0.50% for a ±20% Regulation Range.

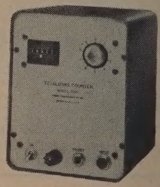
Response Speed Volt/Second: 10 @ ±10%. 20 @ ±20%.

Size: 7″ H. x 13″ D. x 19″ W.

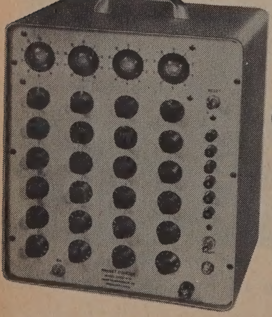
Weight: 45 lbs.

ELECTRONIC COUNTING AND CONTROL EQUIPMENT

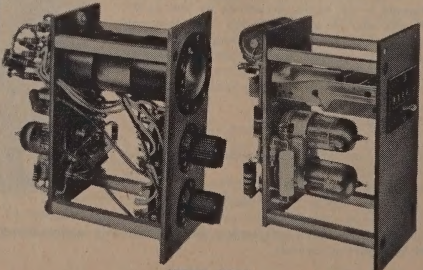
Freed offers a wide range of Industrial counters including TOTALIZING COUNTERS, PRESET COUNTERS, PRESET INTERVAL GENERATORS AND MODULAR COUNTERS. Special counters custom designed to your requirements are a Freed specialty — we invite your inquiries.



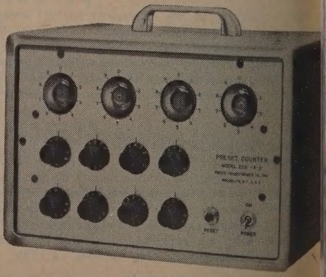
SERIES 2022



SERIES 2020



SERIES 3000



SERIES 2021

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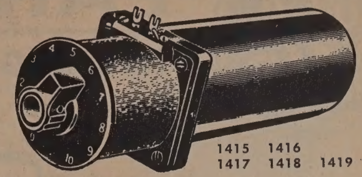
DECADE CAPACITORS

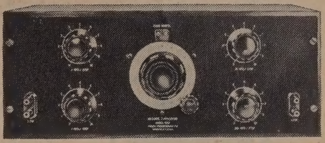

1415 1416
1417 1418 1419

The Freed series of Decade Capacitors covers a wide range of values and can be supplied as individual decades from 0.0001 mfd. per step to 1 mfd. per step or in various combinations of assembled decade boxes.

Single decade units can be assembled in different capacitor values for use in experimental and permanent equipment. The decade boxes are useful for laboratory work in bridge measurements and as components of filters and tuned circuits.

Polystyrene dielectric is used in the manufacture of the capacitor assemblies with the exception of the 1 mfd. per step unit which uses Mylar as a dielectric. All capacitors are non-inductively wound and heat treated for stability, low dielectric absorption and low losses.

Each decade is variable from 0 to 10 by use of 11 position selector switch. The losses in the switches and mountings are kept low by the use of special low loss, impregnated switch wafers. A positive detent mechanism allows the switch to be set accurately.


1350 Decade Capacitor

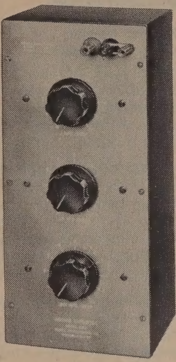
SPECIFICATIONS

Accuracy: Individual capacitors are adjusted to an accuracy of ±1% when measured at 1kc. The capacitance at the terminals, less the zero capacitance, is within ±1% of indicated dial setting. The zero capacitance of the decade boxes is supplied with each unit. Single decade units have a zero terminal capacity of approximately 8 mmfd. except Type 1419, which is compensated for true terminal capacity.

Dissipation Factor: The dissipation factor of the polystyrene units when measured at 1kc is less than 0.0002, the 1 mfd. per step decade (Mylar) is less than 0.005.

Maximum Voltage: The .maximum voltage that may be applied to these decades is 500 DC or peak.

Note: Individual capacitors can be supplied to better than ±1% Tolerance. Write for complete information.


1250

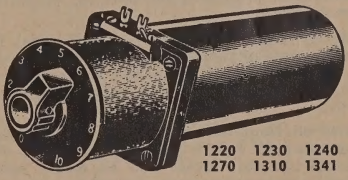
Type	Step	Total Capacity	Size	Wgt.	Net Price
1415	1. mfd.	10. mfd.	3" x 3" x 7"	2 lbs.	$ 35.00
1416	0.1 mfd.	1. mfd.	3" x 3" x 7"	2 lbs.	50.00
1417	0.01 mfd.	0.1 mfd.	3" x 3" x 7"	2 lbs.	35.00
1418	0.001 mfd.	0.01 mfd.	3" x 3" x 7"	2 lbs.	30.00
1419	0.0001 mfd.	0.001 mfd.	3" x 3" x 7"	2 lbs.	45.00
1250*	0.001 mfd.	1.110 mfd.	13¾" x 6" x 4½"	8 lbs.	170.00
1350†	0.001 mfd.	11.111 mfd.	19" x 7¾" x 8"	20 lbs.	260.00*
1351‡	0.0001 mfd.	11.1111 mfd.	19" x 10¾" x 8"	25 lbs.	305.00*
1352	0.0001 mfd.	1.111 mfd.	19" x 5¼" x 8"	15 lbs.	220.00*

*3 decade unit
†4 decade unit plus 1000 pf air variable
‡5 decade unit plus 100 pf air variable

DECADE INDUCTORS

DESCRIPTION

nit is an assembly of four Toroids wound on a stabilized Molybdenum permalloy ore protected against moisture. Four coils (nominal inductance valves 1, 2, 3, 4) nnected in series, the inductance is varied from 0-10 by use of an 11 position ss switch. A positive detent mechanism allows the switch to be set accurately.


1220 1230 1240
1270 1310 1341

USES

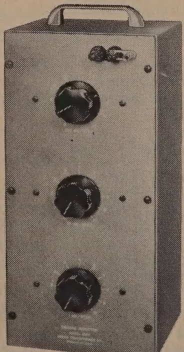
eed Toroidal Decade Inductors are available in single units from 1 Millihenry per 10 henries per step or in various combinations of assembled decade. They are lly useful in the design of filters and equalizers at audio and supersonic fre-es where the variable feature allows adjustments for optimum circuit performance.

SPECIAL FEATURES

High stability of inductance valve.
Small variation of inductance with frequency (high self resonant frequency).
Small variation of inductance with AC and DC currents.
High Q in the operating frequency range.
Low temperature coefficient.
True astatic construction.

MAXIMUM Q VALUES ABOVE 200

e	Frequency Range cps.	Maximum Q*	Inductance Per Step	Total Inductance	Size	Wgt. Lbs.	Net Price
†	30- 2,000	60 @ 300	.1 Hy	111. Hy	15" x 7" x 5½"	28	$250.00
	500-20,000	230 @ 4kc	0.001 Hy	0.01 Hy	3" x 3" x 9"	4½	80.00
	500-20,000	280 @ 3kc	0.01 Hy	0.1 Hy	3" x 3" x 9"	4½	75.00
	500-20,000	260 @ 3kc	0.1 Hy	1. Hy	3" x 3" x 9"	4½	80.00
	500-20,000	190 @ 2kc	1. Hy	10. Hy	3" x 3" x 9"	4½	90.00
	500-20,000	280 @ 3kc	0.001 Hy	1.11 Hy	13¾" x 6⅛" x 5½"	16	260.00
	500-20,000	280 @ 3kc	0.001 Hy	11.11 Hy	15" x 7" x 5½"	20	335.00
	500-20,000	280 @ 3kc	0.01 Hy	11.1 Hy	13¾" x 6⅛" x 5½"	16	260.00
	100- 2,000	100 @ 1kc	10. Hy	100. Hy	3" x 3" x 9"	4½	90.00


1164 1280
1290 1310

ACCURACY OF TOROIDAL INDUCTANCE

ance per Step:	1 mh	10 mh	100 mh	1 h
al Accuracy:	±2%	±1%	±0.5%	±0.25%

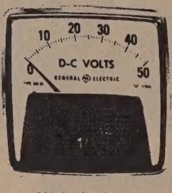
num Q depending on inductance value and AC voltage across the coil.

1164 Decade Inductance is wound on a special nickel alloy laminated core, al inductance ±.1%.

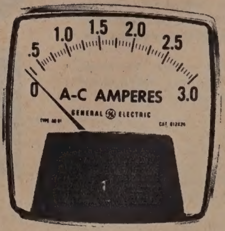
** These items can be supplied for rack mounting. Write for prices.*

PANEL METERS

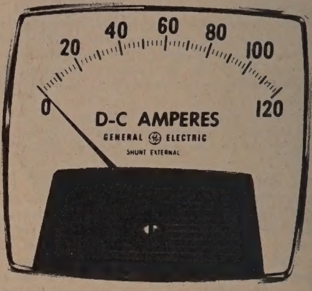
THE BIG LOOK IN SMALL PANEL METERS



2½-inch design
Type DW-91 Voltmeter



3½-inch design
Type AO-91 Ammeter



4½-inch design
Type DO-92 Ammeter

General Electric's BIG LOOK panel meters offer such added values as distinctive appearance, excellent readability, completely sealed cases and self-shielded d-c core-magnet mechanisms. And you get full-line selectivity with 2½-, 3½-, or 4½-inch models . . . a-c, d-c, or Rectifier types.

Distinctive Appearance

BIG LOOK panel meters are designed specifically to meet industry's increasing demands for panel components that contribute to end-product eye appeal. BIG LOOK panel meters—with their distinctive and modern, but not radical design—offer an important added value by complementing the appearance of the finest equipment.

Excellent Readability

Big, clear, easy-to-read numerals are positioned above the scale divisions so that they cannot be obscured by the pointer. The absence of arc-lines and use of a slim, tapered pointer facilitates quick accurate readings. Functional cover design eliminates confusing shadows by admitting natural light from all sides.

Completely Sealed Cases on 2½- and 3½-inch Designs

General Electric quality is built in to stay. Gasketed construction on 2½- and 3½-in. models protect internal parts from dirt, dust, and water and helps assure extra-long, reliable life.

Snap-on, Snap-off Covers on 4½-inch Designs

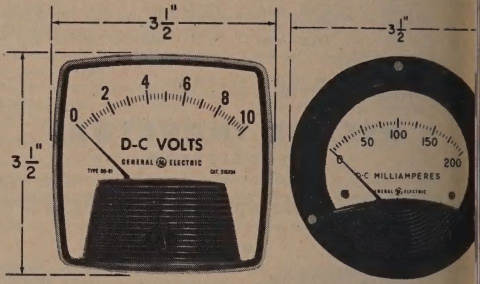
Snap-on, snap-off covers are supplied on all 4½-in. BIG LOOK panel meters. Covers can be easily removed and replaced while meter remains in normal mounted position.

Electroluminescent Scale Plate

For illuminated instrument applications, an electrolu nescent scale plate is now available for all 4½-inch a-c d-c Big Look panel meters. Excited by a-c voltage, they a soft, even, green light over entire surface of scale plat

Mirror-backed Scale

Also available on the 4½-inch meter exclusively mirror-backed scales (with knife-edge pointers, if desi for more precise, antiparallax reading.



As this size comparison shows, the new design appears to look n bigger, but will actually fit into the same usable panel space as o style meter.

GENERAL SPECIFICATIONS

	D-C TYPES			A-C TYPES		
	DW-91	DO-91	DO-92	AW-91	AO-91	AO-92
Accuracy (percent of full scale)*	2%	2%	2%	2%	2%	2%
Scale length	2.1"	2.9"	3.93"	2.0"	2.9"	3.93"
Damping (nominal overshoot)						
(a) All ratings except those listed below:	3%	3%	10%	40%	40%	45%
(b) 20 microamps	25%	25%	—	—	—	—
(c) 30 microamps	25%	25%	—	—	—	—
(d) 50 microamps	25%	25%	33%	—	—	—
Maximum weight — Net	7 oz	7 oz	9 oz	7 oz	7 oz	9 oz
Shipping	12 oz	12 oz	13 oz	12 oz	12 oz	13 oz

Insulation level—All types meet requirements of ASA specifications C39.1 (2600 volts RMS live parts to panel.)

A-C Burden: AO-91, AW-91 and AO-92 rated 5A; 0.5 VA at 0.5 pf lag.
AO-91, AW-91 and AO-92 voltmeters have approximately unity power factor at 60 cycles.

Overload Capacity: All Big Look panel meters meet requirements of ASA specifiations C39.1.
Voltmeters (a-c and d-c types) Momentary and sustained: 20% greater than rated capacity.
Ammeters (a-c and d-c types)
Momentary: 10 times rated current applied for 10 consecutive intervals of ½ second with a one-minute inter between successive applications. Sustained: 20% greater than rated capacity for 8 hours.

More specific information on a-c ammeters is as follows:

Rating (Types AO-91, AW-91, and AO-92 A-c Ammeters)	Overload x Full scale for 5 sec	15 sec	30 sec
10A and under	10	6	4
15A—30A	6	4	3
50A	5	3	2

*Rectifier type accuracy: ±3% of F.S. @ 25°C, 60 cycle sine wave.

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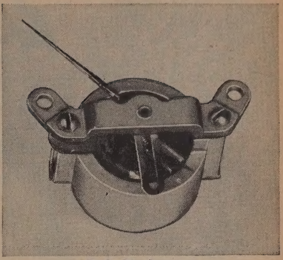
D-C PANEL METERS

Shelf-shielded D-C Mechanism

re-magnet mechanisms with inherent shielding are used for all d-c ratings. permits mounting on magnetic or magnetic panels without special calion and cluster-mounting bezel-to-without interaction.

lf-shielding also minimizes effects of magnetic fields. Weight is reduced, too. Because of these important added values, the core-magnetic mechanism has gained industry-wide acceptance. (General Electric pioneered in the development of the core-magnet mechanism.) The superior operating characteristics of BIG LOOK meters—excellent damping, a high torque-to-weight ratio and minimum burden—are the result of continuous progress in development and use of high-quality, modern materials.



D-C Mechanism

Scale and Rating	Approx. Terminal Resistance (Ohms)	DW-91 2½-inch		DO-91 3½-inch		DO-92 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
VOLTMETERS (Self-contained)							
0-1.5V	1000 ohms per volt	517X84	$12.00	516X84	$12.80	50-171011 LCLC	$15.20
0-3V		517X88	12.00	516X88	12.80	50-171011 LJLJ	15 20
0-5V		517X90	12.00	516X90	12.80	50-171011 LSLS	15.20
0-8V		517X92	12.00	516X92	12.80	50-171011 MJMJ	15.20
0-10V		517X94	12.00	516X94	12.80	50-171011 MTMT	15.20
0-15V		517X96	12.00	516X96	12.80	50-171001 NDND	15.20
0-30V		519X4	12.00	518X4	12.80	50-171011 NLNL	15.20
0-50V		519X6	12.00	518X6	12.80	50-171011 NTNT	15.20
0-80V		519X8	12.00	518X8	12.80	50-171011 PDPD	15.20
0-100V		519X10	12.80	518X10	13.60	50-171011 PKPK	16.00
0-150V		519X12	12.80	518X12	13.60	50-171011 PZPZ	16.00
0-200V		519X14	12.80	518X14	13.60	50-171011 RLRL	16.00
0-250V		519X16	12.80	518X16	13.60	50-171011 RSRS	16.00
0-300V		519X18	13.60	518X18	14.40	50-171011 RXRX	16.80
0-500V		-------	----	518X20	15.20	50-171011 SFSF	17.60
0-600V		-------	----	518X22	15.20	50-171011 SJSJ	17.60
VOLTMETERS (For use with external resistors—prices do not include resistors)							
0V Rated 0-1 MA	125 ohms	519X20	$11.20	-------	-----	----------------	------
0V		519X22	11 20	-------	-----	----------------	------
0V		519X24	11 20	518X24	$12.00	50-171111 FASM	$16.00
AMMETERS (Self-contained)							
0-1A	0.0500	513X58	$11.20	512X58	$12.00	50-171111 LALA	$14.40
0-1.5A	0.0333	513X60	11.20	512X60	12.00	50-171111 LCLC	14.40
0-2A	0.0250	513X62	11.20	512X62	12.00	50-171111 LELE	14.40
0-3A	0.0167	513X64	11.20	512X64	12.00	50-171111 LJLJ	14.40
0-5A	0.0100	513X66	11.20	512X66	12.00	50-171111 LSLS	14.40
0-10A	0.0050	513X70	11.20	512X70	12.00	50-171111 MTMT	14.40
0-15A	0.0033	513X72	11.20	512X72	12.00	50-171111 NDND	14.40
0-20A	0.0025	513X74	11.20	512X74	12.00	50-171111 NGNG	14.40
0-30A	0.00167	513X76	11.20	512X76	12.00	50-171111 NLNL	14.40
0-50A	0.00100	-------	------	512X80	12.00	50-171111 NTNT	14.40
AMMETERS (For use with 50 millivolt external shunts—prices do not include shunt or shunt leads)							
A Rated 0-50 MV	12 5 ohms (Calibrated for use with 2-way lead resistance of 0.063 ohms)	515X6	$11.20	514X6	$12.00	50-171121 ECNT	$14.40
A		515X10	11.20	514X10	12.00	50-171121 ECPB	14.40
00A		515X14	11.20	514X14	12.00	50-171121 ECPK	14.40
50A		515X16	11.20	514X16	12.00	50-171121 ECPZ	14.40
00A		515X18	11.20	514X18	12.00	50-171121 ECRL	14.40
50A		515X20	11.20	514X20	12.00	50-171121 ECRS	14.40
00A		515X22	11.20	514X22	12.00	50-171121 ECRX	14.40
00A		515X24	11.20	514X24	12.00	50-171121 ECSC	14.40
00A		515X26	11.20	514X26	12.00	50-171121 ECSF	14.40
00A		515X28	11.20	514X28	12.00	50-171121 ECSJ	14.40
00A		515X30	11.20	514X30	12.00	50-171121 ECSN	14.40
KA		515X32	11.20	514X32	12.00	50-171121 ECVA	14.40
2KA		515X34	11.20	514X34	12.00	--------------	-----
5KA		515X36	11.20	514X36	12.00	--------------	-----
KA		515X38	11.20	514X38	12.00	--------------	-----
AMMETERS (For use with 100-mv external shunts—prices do not include shunt or shunt leads)							
A Rated 0-100 MV	25 ohms. (Calibrated for use with 2-way lead resistance of 0.063 ohms)	515X68	$11.20	514X68	$12.00	----------------	-----
A		515X72	11.20	514X72	12 00	----------------	-----
A		515X74	11.20	514X74	12.00	50-171121 GBNT	$14.40
5A		515X78	11.20	514X78	12.00	50-171121 GBPP	14.40
00A		515X82	11.20	514X82	12.00	50-171121 GBPK	14.40
0A		515X84	11.20	514X84	12.00	50-171121 GBPZ	14.40
00A		515X86	11.20	514X86	12.00	50-171121 GBRL	14.40
50A		515X88	11.20	514X88	12.00	50-171121 GBRS	14.40
00A		515X90	11.20	514X90	12.00	50-171121 GBRX	14.40
00A		515X92	11.20	514X92	12.00	50-171121 GBSC	14.40
00A		515X94	11.20	514X94	12.00	50-171121 GBSF	14.40
00A		515X96	11.20	514X96	12.00	50-171121 GBSJ	14.40
00A		515X98	11.20	514X98	12.00	50-171121 GBSM	14.40
KA		517X2	11.20	516X2	12.00	50-171121 GBVA	14.40
KA		517X8	11.20	516X8	12.00	50-171121 GBVB	14.40
MICROAMMETERS							
0-20UA	3400	513X2	$22.40	512X2	$23.20	----------------	---
0-50UA	1600	513X6	17.60	512X6	18.40	50-171111 CYCY	$20.80
0-100UA	1525	513X10	14.40	512X10	15.20	50-171111 DRDR	17.60
0-2000UA	690	513X14	12.80	512X14	13.60	50-171111 EAEA	16.00
0-500UA	220	513X18	11.20	512X18	12.00	50-171111 EMEM	14.40
MILLIAMMETERS							
0-1MA	64	513X22	$11.20	512X22	$12.00	50-171111 FAFA	$14.40
0-1.5MA	64	513X24	11.20	512X24	12.00	50-171111 FDFD	14.40
0-3MA	2.5	513X28	11.20	512X28	12.00	50-171111 FNFN	14.40
0-5MA	2.5	513X30	11.20	512X30	12.00	50-171111 FXFX	14.40
0-10MA	1.8	513X32	11.20	512X32	12.00	50-171111 GZGZ	14.40
0-20MA	1.5	513X34	11.20	512X34	12.00	50-171111 HFHF	14.40
0-25MA	2.0	513X36	11.20	512X36	12.00	50-171111 HJHJ	14.40
0-30MA	1.67	513X38	11.20	512X38	12.00	50-171111 HMHM	14.40
0-50MA	1.00	513X40	11.20	512X40	12.00	50-171111 HYHY	14.40
0-80MA	0.62	513X42	11.20	512X42	12.00	50-171111 JJJJ	14.40
0-100MA	0.50	513X44	11.20	512X44	12.00	50-171111 JRJR	14.40
0-150MA	0.33	513X46	11.20	512X46	12.00	50-171111 JXJX	14.40
0-200MA	0.25	513X48	11.20	512X48	12.00	50-171111 KAKA	14.40
0-250MA	0.20	513X50	11.20	512X50	12.00	50-171111 KDKD	14.40
0-300MA	0.167	513X52	11.20	512X52	12.00	50-171111 KGKG	14.40
0-500MA	0.100	513X54	11.20	512X54	12.00	50-171111 KMKM	14.40
0-800MA	0 062	513X56	11.20	512X56	12.00	50-171111 KWKW	14.40

nufacturer's suggested resale prices.

ror-backed, rectifier-type, and zero-center panel meters are available also. Refer to your General Electric Supplier.

A-C PANEL METERS

A-C VOLTMETERS (Self-contained)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-3V	11.1	613X68	$11.20	612X68	$12.00	50-171031 LJLJ	$14.40
0-5V	29	613X69	11.20	612X69	12.00	50-171031 LSLS	14.40
0-10V	110	613X72	11.20	612X72	12.00	50-171031 MTMT	14.40
0-15V	251	613X73	11.20	612X73	12.00	50-171031 NDND	14.40
0-30V	779	613X76	11.20	612X76	12.00	50-171031 NLNL	14.40
0-50V	2500	613X77	12.00	612X77	12.80	50-171031 NTNT	15.20
0-150V	15000	613X81	12.80	612X81	13.60	50-171031 PZPZ	16.00
0-300V	54000	613X85	14.40	612X85	15.20	50-171031 RXRX	17.60
0-500V	118000	------	----	612X87	19.20	50-171031 SFSF	21.60
0-600V	141000	------	----	612X88	19.20	50-171031 SJSJ	21.60

A-C VOLTMETERS (Transformer rated—prices do not include transformers)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-600V Rated 0-150 Volts	15000	613X90	$12.80	612X90	$13.60	50-171031 PZRX	$16.00
0-750V	15000	613X91	12.80	612X91	13.60	50-171031 PZSJ	16.00
0-3KV	15000	613X92	12.80	612X92	13.60	50-171031 PZSM	16.00

400-CYCLE A-C VOLTMETERS (Self-contained—for use at 400 cycles)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-150V	15000	817X1	$12.80	816X1	$13.60	50-171061 PZPZ	$16.00
0-300V	54000	817X2	14.40	816X2	15.20	50-171061 RXRX	17.60

A-C AMMETERS (Self-contained)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-1A	0.16	613X20	$12.00	612X20	$12.80	50-171141 LALA	$15.20
0-3A	0.015	613X24	12.00	612X24	12.80	50-171141 LJLJ	15.20
0-5A	0.007	613X25	12.00	612X25	12.80	50-171141 LSLS	15.20
0-8A	0.003	613X28	12.00	612X28	12.80	50-171141 MJMJ	15.20
0-10A	0.0024	613X29	12.00	612X29	12.80	50-171141 MTMT	15.20
0-15A	0.0016	613X31	12.00	612X31	12.80	50-171141 NDND	15.20
0-20A	0.001	613X32**	12.80	612X32**	13.60	50-172141 NGNG**	16.00
0-30A	0.0006	613X34**	12.80	612X34**	13.60	50-172141 NLNL**	16.00
0-50A	0.0004	------	----	612X35**	15.20	50-172141 NTNT**	17.60

A-C AMMETERS (Transformer rated—prices do not include transformers)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-10A Rated 0-5 Amperes	0.007	613X36	$12.00	612X36	$12.80	50-171141 LSMT	$15.20
0-15A		613X37	12.00	612X37	12.80	50-171141 LSND	15.20
0-20A		613X38	12.00	612X38	12.80	50-171141 LSNG	15.20
0-30A		613X40	12.00	612X40	12.80	50-171141 LSNL	15.20
0-40A		613X41	12.00	612X41	12.80	50-171141 LSNP	15.20
0-50A		613X42	12.00	612X42	12.80	50-171141 LSNT	15.20
0-75A		613X44	12.00	612X44	12.80	50-171141 LSPB	15.20
0-80A		613X45	12.00	612X45	12.80	50-171141 LSPD	15.20
0-100A		613X46	12.00	612X46	12.80	50-171141 LSPK	15.20
0-150A		613X49	12.00	612X49	12.80	50-171141 LSPZ	15.20
0-200A		613X50	12.00	612X50	12.80	50-171141 LSRL	15.20
0-300A		613X52	12.00	612X52	12.80	50-171141 LSRX	15.20
0-400A		613X53	12.00	612X53	12.80	50-171141 LSSC	15.20
0-500A		613X54	12.00	612X54	12.80	50-171141 LSSF	15.20
0-600A		613X55	12.00	612X55	12.80	50-171141 LSSJ	15.20
0-800A		613X56	12.00	612X56	12.80	50-171141 LSSN	15.20
0-1KA		613X57	12.00	612X57	12.80	50-171141 LSVA	15.20
0-1.2KA		613X58	12.00	612X58	12.80	50-171141 LSVB	15.20
0-1.5KA		613X59	12.00	612X59	12.80	50-171141 LSVC	15.20
0-2KA		613X60	12.00	612X60	12.80	50-171141 LSVE	15.20
0-3KA		613X62	12.00	612X62	12.80	50-171141 LSVJ	15.20

A-C LOAD INDICATORS—Rated 0-5A. Can be applied to any 60-cycle a-c motor when used with the variable-ratio Type JCH-0 current transformer

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
Scale legend: PERCENT MOTOR LOAD CURRENT Scale markings: 0-150; (red band 100-150)		------	----	612X98	$14.40	50-171141 LSPZ1-AAA	$16.80
0-150; (green band 0-100) (yellow band 100-125) (red band 125-150)		------	----	612X99	17.60	50-171141 LSPZ1-AAB	20.00

A-C MILLIAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-10MA	2158	613X4	$12.00	612X4	$12.80	50-171141 GZGZ	$15.20
0-25MA	341	613X7	12.00	612X7	12.80	50-171141 HJHJ	15.20
0-50MA	84	613X9	12.00	612X9	12.80	50-171141 HYHY	15.20
0-100MA	21	613X12	12.00	612X12	12.80	50-171141 JRJR	15.20
0-200MA	4.1	613X14	12.00	612X14	12.80	50-171141 KAKA	15.20
0-500MA	0.7	613X17	12.00	612X17	12.80	50-171141 KMKM	15.20

RECTIFIER-TYPE A-C VOLTMETERS (Self-contained)

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-10 V	1000 Ohms per Volt	50-152051MTMT2	$16.80	50-162051MTMT2	$17.60	50-171051MTMT1	$20.00
0-15 V		50-152051NDND2	16.80	50-162051NDND2	17.60	50-171051NDND1	20.00
0-20 V		50-152051NGNG2	16.80	50-162051NGNG2	17.60	50-171051NGNG1	20.00
0-25 V		50-152051NJNJ2	16.80	50-162051NJNJ2	17.60	50-171051NJNJ1	20.00
0-30 V		50-152051NLNL2	16.80	50-162051NLNL2	17.60	50-171051NLNL1	20.00
0-50 V		50-152051NTNT2	16.80	50-162051NTNT2	17.60	50-171051NTNT1	20.00
0-80 V		50-152051PDPD2	16.80	50-162051PDPD2	17.60	50-171051PDPD1	20.00
0-100 V		50-152051PKPK2	17.60	50-162051PKPK2	18.40	50-171051PKPK1	20.80
0-150 V		50-152051PZPZ2	17.60	50-162051PZPZ2	18.40	50-171051PZPZ1	20.80
0-200 V		---------------	------	50-162051RLRL2	18.40	50-171051RLRL1	20.80
0-250 V		---------------	------	50-162051RSRS2	18.40	50-171051RSRS1	20.80
0-300 V		---------------	------	50-162051RXRX2	19.20	50-171051RXRX1	21.60

RECTIFIER-TYPE A-C MICROAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-500 µA	985	50-152151EMEM2	$16.00	50-162151EMEM2	$16.80	50-171151EMEM1	$19.20
0-800 µA	655	50-152151EWEW2	16.00	50-162151EWEW2	16.80	50-171151EWEW1	19.20

RECTIFIER-TYPE A-C MILLIAMMETERS

Scale and Rating	Approx. Terminal Resistance (Ohms)	AW-91, 2½-inch		AO-91, 3½-inch		AO-92, 4½-inch	
		Cat. No.	Net Price*	Cat. No.	Net Price*	Cat. No.	Net Price*
0-1 MA	570	50-152151FAFA2	$16.00	50-162151FAFA2	$16.80	50-171151FAFA1	$19.20
0-1.5 MA	375	50-152151FDFD2	16.00	50-162151FDFD2	16.80	50-171151FDFD1	19.20
0-2 MA	325	50-152151FGFG2	16.00	50-162151FGFG2	16.80	50-171151FGFG1	19.20
0-3 MA	197	50-152151FNFN2	16.00	50-162151FNFN2	16.80	50-171151FNFN1	19.20
0-5 MA	139	50-152151FXFX2	16.00	50-162151FXFX2	16.80	50-171151FXFX1	19.20
0-10 MA	90	50-152151GZGZ2	16.00	50-162151GZGZ2	16.80	50-171151GZGZ1	19.20
0-20 MA	62	50-152151HFHF2	16.00	50-162151HFHF2	16.80	50-171151HFHF1	19.20

*Manufacturer's suggested resale prices.

**Furnished with external magnetic shield assembled to meter base.

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TIME METERS

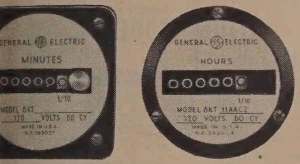
me meters provide for proper servicing and preventive tenance, or to indicate component life.General Electric meters are the ideal indicators for these purposes:

ronic Component Testing and Operation Life
dio Transmitters
wer Supplies and Converters
dar, Sonar, Doppler and other Military Equipment
gine-Generator Test Stands
ta Handling Systems
dustrial and Nuclear Control Systems
st Equipment

Electrical Machinery Operating Time
Conveyors
Molding and Extrusion Machines
Drill and Punch Presses
Machine Tools
Welding Machines
Industrial Ovens

Preventive Maintenance
Operating Time
Shut-down Time
Total Operating Life
Correct Intervals for Inspecting and Servicing Machines

TYPE KT TIME METERS



ype KT time meter, with 6-digit counter as rd and the last digit in contrasting color to te tenths, can be supplied for minutes or in ratings of 120, 208, 240, and 480 volts; 50 cycles.

lete line for every time-measuring applica- Includes 2½- and 3½-inch sizes in either or square case for panel mounting.

device available for front-of-meter mounting but the sealed model.

nism is completely enclosed in die-cast zinc and plastic case, providing a dust-resistant ure.

sed operating temperature range from 67°F)°F means more flexible application, longer life, and less maintenance.

cial model is available for military applica-

STANDARD RATINGS—60 Cycles

Volts	Non-Reset Type			With Reset Knob		
	Register		Net Price*	Register		Net Price*
	Minutes	Hours		Minutes	Hours	
	Model No.			Model No.		

TYPE KT-11—2½-INCH ROUND CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	8KT11AAA1	8KT11AAA2	$17.60	8KT11AAB1	8KT11AAB2	$24.00
240	8KT11ABA1	8KT11ABA2	18.40	8KT11ABB1	8KT11ABB2	24.80
480	8KT11ALA1	8KT11ALA2	19.20	8KT11ALB1	8KT11ALB2	25.60

TYPE KT-11—2½-INCH SQUARE CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	8KT11BAA1	8KT11BAA2	$17.60	8KT11BAB1	8KT11BAB2	$24.00
240	8KT11BBA1	8KT11BBA2	18.40	8KT11BBB1	8KT11BBB2	24.80
480	8KT11BLA1	8KT11BLA2	19.20	8KT11BLB1	8KT11BLB2	25.60

TYPE KT-11—3½-INCH ROUND CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	8KT11CAA1	8KT11CAA2	$17.60	8KT11CAB1	8KT11CAB2	$24.00
240	8KT11CBA1	8KT11CBA2	18.40	8KT11CBB1	8KT11CBB2	24.80
480	8KT11CLA1	8KT11CLA2	19.20	8KT11CLC1	8KT11CLB2	25.60

TYPE KT-11—3½-INCH SQUARE CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	8KT11DAA1	8KT11DAA2	$17.60	8KT11DAB1	8KT11DAB2	$24.00
240	8KT11DBA2	8KT11DBA2	18.40	8KT11DBB1	8KT11DBB2	24.80
480	8KT12DLA1	8KT11DLA2	19.20	8KT11DLB1	8KT11DLB2	25.60

NEW TYPE 236 TIME METERS

MINUTES
1/10
GENERAL ELECTRIC

Type 236 elapsed-time indicators, latest addi-) G-E's BIG LOOK line of panel components, industry's need for instruments that enhance roduct eye appeal through compatible design. now offer the same distinctive appearance excellent readability found in G-E's BIG ammeters and voltmeters, plus outstanding ing accuracy and reliability.

TURES

device available.
ry sealed model available.
-large counter numbers.
and dust-resistant case.
panel-mounting dimensions.

STANDARD RATINGS—60 Cycles

Volts	Non-reset Type			Reset Type		
	Register		Net Price*	Register		Net Price*
	Minutes	Hours		Minutes	Hours	
	Cat. No.			Cat. No.		

2½-INCH COMMERCIAL CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236401AAAA1	50-236402AAAA1	$17.60	50-236411AAAA1	50-236412AAAA1	$24.00
240	50-236401ABAA1	50-236402ABAA1	18.40	50-236411ABAA1	50-236412ABAA1	24.80
480	50-236401ACAA1	50-236402ACAA1	19.20	50-236411ACAA1	50-236412ACAA1	25.60

3½-INCH COMMERCIAL CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236301AAAA1	50-236302AAAA1	$17.60	50-236311AAAA1	50-236312AAAA1	$24.00
240	50-236301ABAA1	50-236302ABAA1	18.40	50-236311ABAA1	50-236312ABAA1	24.80
480	50-236301ACAA1	50-236302ACAA1	19.20	50-236311ACAA1	50-236312ACAA1	25.60

2½-INCH SEALED CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236421AAAA1	50-236422AAAA1	$20.00			
240	50-236421ABAA1	50-236422ABAA1	20.80			
480	50-236421ACAA1	50-236422ACAA1	21.60			

3½-INCH SEALED CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236321AAAA1	50-236322AAAA1	$20.00			
240	50-236321ABAA1	50-236322ABAA1	20.80			
480	50-236321ACAA1	50-236322ACAA1	21.60			

2½-INCH CONDUIT CASE

Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236431AAAD1	50-236432AAAD1	$20.80	50-236441AAAD1	50-236442AAAD1	$27.20
240	50-236431ABAD1	50-236432ABAD1	21.60	50-236441ABAD1	50-236442ABAD1	28.00
480	50-236431ACAD1	50-236432ACAD1	22.40	50-236441ACAD1	50-236442ACAD1	28.80

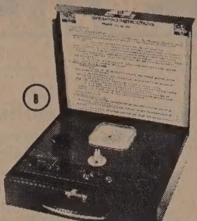
2½-INCH PORTABLE CASE

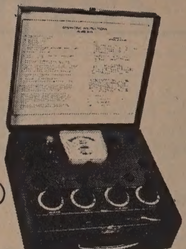
Volts	Minutes	Hours	Net Price*	Minutes	Hours	Net Price*
120	50-236451AAAE1	50-236452AAAE1	$22.40	50-236461AAAE1	50-236462AAAE1	$28.80
240	50-236451ABAE1	50-236452ABAE1	23.20	50-236461ABAE1	50-236462ABAE1	29.60
480	50-236451ACAE1	50-236452ACAE1	24.00	50-236461ACAE1	50-236462ACAE1	30.40

*Manufacturer's suggested resale prices.

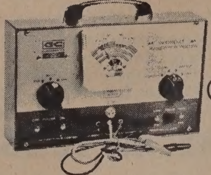
GLOBE ELECTRONICS TEST EQUIPMENT

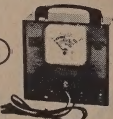
A
COMPONENT SELECTOR
GC

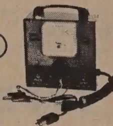


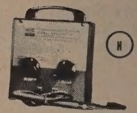


D
GC
SIGNAL OPTIMIZER









(A) COMPONENT SELECTOR—Instant component substitution of 45 different Resistors, Capacitors and Electrolytics. Eliminates wasted time hunting for parts, determines the value of illegible capacitors and ends soldering mess created by individual substitution. Portable, compact design, first quality, full discharge protection. Completely self-contained in Scotch Grain finish Metal case with High Visibility recessed panel in two tone.

Cat. No. 36-524 .... Net **$24.95**

(B) TRANSISTOR RADIO TROUBLE SHOOTER—Indispensible and time saving . . . Tests PNP, NPN, Power Transistors, diodes and rectifiers (semi-conductors), all transistors; operates as a SIGNAL GENERATOR of 400 CPS (approx.) audio signal; also acts as a POWER SUPPLY — BATTERY ELIMINATOR. GC's Trouble Shooter gives an indirect battery test through substitution.

VOLT METER-MILLIAMMETER measures both external DC voltage 0-24 and milliammeters 0-100 without use of power supply. The wide angle meter (90% — 5 scales) and 8 position selector switch to give simple operation but accurate and dependable.

Cat. No. 36-568 .... Net **$49.50**

(C) PORTABLE TUBE TESTER & CRT REACTIVATOR — TESTS OVER 1750 TUBES — Test all tubes including Compactrons, Nuvisors, Ten-Pin Sylvania, Novars, Foreign Tubes, Hybrid Auto Radio Tubes, some Industrial Tubes — and as an extra feature, will test and reactivate CRT Tubes. Over 1,750 tubes. Only four knobs to set, the Checker does the rest. Tests black and white and all color Receiving Tubes. Six sockets eliminate search problems. Allows for feature tubes (including Color). Selenium Rectifiers can be tested and provides "Grid to Cathode" and "Filament to Cathode". Short Tests, spots "Gassy" Tubes. Grid emission shown on meter inter-element leakage sensitivity can be adjusted to suit individual serviceman.

Cat. No. 36-540 .... Net **$67.50**

(D) GC TEST "SIGNAL OPTIMIZER"
To Get the "MOST" Out of Your Own CB Equipment.

To Get the "MOST" Out of Your CB Servicing!
7 Testers in One.

- . . . "Wattmeter" measures antenna power in Watts
- . . . "Modulation Monitor"
- . . . Field Strength Meter
- . . . Measures Antenna output
- . . . Checks and Tests the frequency and overtone of CB Crystals
- . . . Measures standing wave ratio (SWR)
- . . . It measures the "Efficiency" of your base (or Mobile) Antenna

Cat. No. 36-590 .... Net **$47.50**

(E) IN AND OUT OF CIRCUIT TRANSISTOR TESTER —Test all common NPN, PNP transistors and provide an indication of collector to emitter shorts, collector to base shorts, the condition of the collector junction and the DC current gain. Indicates the condition of diodes and rectifiers. Provides an "In-Circuit" test to determine the transistor's ability to oscillate as a blocking oscillator. This test is often most expedient in isolating troubles — The in-circuit check is not a gain test but only indicate whether or not the transistor is operative.

Cat. No. 36-570 ....Net **$24.95**

(F) TRANSISTOR TESTER—Tests PNP, NPN, power transistors, diodes and Rectifiers (Semi-conductors). The Tester's basic measurement capacities are Open Test, Short Test, Leakage — ICO, Gain — BETA, In-Circuit, Out-of-Circuit. GC's Tester operates on 2 penlite batteries. Wide angle meter with zero adjustment registers Shorts, Leakage and Gain. On/Off switch eliminates possible battery and/or Meter damage through accidental shorts.

Size: 5″ x 5″ x 1⅞″

Cat. No. 36-560 .... Net **$19.95**

(G) POWER SUPPLY AND BATTERY ELIMINATOR—Operate units without batteries, through especially designed transformer. At higher or lower than normal output voltages, giving technicians better analysis of relative performance. Well filtered source of DC/0-24 volts checks current drain; large capacitor filter provides less than a fraction of one percent ripple; OPTIMUM FULL WAVE rectification through 2 heavy duty silicon rectifiers. 3 18″ leads, common, B+ variable, plus extra 1½″ V tap; equipped with mini-gator clips and slip-on insulators. Ideal for recharging nickel cadmium batteries. Can be used to align individual stages in trans-radio.

Size: 5″ x 5″ x 1⅞″

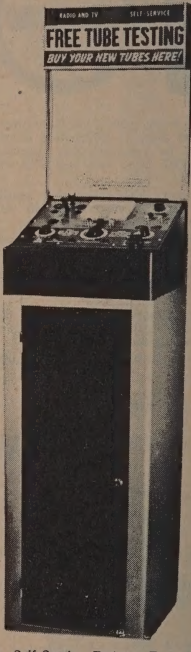
Cat. No. 36-562 .... Net **$19.95**

(H) TRANSISTORIZED SIGNAL GENERATOR — For service repairs on Transistor Radios, Auto Radios, conventional Radios and Hi-Fi Stereo sets. Makes trouble shooting quick and easy through the signal injection method, isolating defects to a specific stage. 18″ leads; neg. side has insulated alligator clip, possible: thin probe, for hard-to-reach areas.

Size: 5″ x 5″ x 1⅞″

Cat. No. 36-564 .... Net **$9.95**

FLOOR MODEL



Dynamic Self-Service Tester — Test All 4 — 1. TV-Radio tubes, past, present, and future! 2. Car Radio Vibraters. 3. Portable Radio Batteries. 4. Hi-Fi — Stereo Tubes.

Exclusive Master Switch and Just 6 Sockets — Provides accurate, dynamic testing for over 1200 current tubes, plus the majority of all future tubes.

Beats Obsolescence — Master Switch accommodates new tubes.

Fast and Easy to Use — No complicated mass of sockets. Attractive, uncluttered test panel looks . . . and is . . . easy to operate!

Battery Test — Tests battery models ranging from 1.5 to 90 volts.

Instruction Book Included — Tube settings for over 1200 tube types.

Five Drawers—Storage space for over 275 tubes in sliding drawers with egg-crate dividers.

Size: 15″ W x 61″ H x 14″ D

Cat. No. 36-500 with drawer base....Net $199.50
Cat. No. 36-502 counter top model....Net 159.50

SPECIALISTS in Sub-Miniature Panel Meters

FIRST in U.S. to manufacture 1"-diameter meter
FIRST to produce 1" and 1½" illuminated meters
FIRST to produce 1½" self-contained DB and VU meters
FIRST to produce miniature side indicators

RUGGEDIZED METERS

1½" Square

Meets MIL-M-10304 (SIG.C.) Accurate within ±3% of full scale deflection. Basic d-c ranges 0-100 d-c ua, 0-1 d-c ma, and 0-10 d-c mv. VU meters and other ranges also available

DC MICROAMPERES

Vertical Scale

DC MICROAMPERES
50 40 30 20 10 0 10 20 30 40 50
INTERNATIONAL INSTRUMENTS

Model 2547

Horizontal Scale

NEW! CONTACTLESS ELECTRONIC CONTROL METERS

Provide continuous output signal past selected control setting, with uninterrupted, accurate, full-scale indication at all times. No electrical contacts at control point, so no control-point problems. Models with single or double independent control-arm circuits, and with scales for horizontal or vertical mounting, with zero at center, left or right. Accuracy held to ±2% of full scale for dc, ±5% for ac.

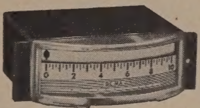
Patent Nos. 2, 871, 450 and 2, 967, 278

Model 1120

Vertical Mounting

*Model 1135**

Horizontal Mounting



*Model 1145**

Horizontal Mounting

*Patented

SIDE INDICATORS

- GREATER READABILITY
- REDUCES PANEL AREA TO ⅓ OF CONVENTIONAL METER INSTALLATIONS OF SAME SCALE LENGTH
- HORIZONTAL OR VERTICAL MOUNTING

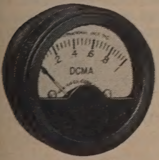
THREE SIZES AVAILABLE:

MODEL 1120—Scale length 1.2".

MODEL 1135—Scale length 2.1".
Front external zero adjuster.

MODEL 1145—Scale length 2.75".
Front external zero adjuster.

International Instruments' components lead the way for miniaturization through practical engineering design.



Model 150

1½" ROUND and SQUARE

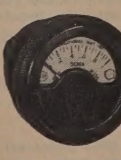
1½" barrel diameter. Full 90° scale arc, scale length 1.322". Model 153 meets MIL-M-3823 requirements. Also available: self-contained VU and DB meters — illuminated meters with lamp housing attached.

Model 153

VOM-20 Multi-Tester

Sensitivity: 20,000 ohms per volt for dc, 15,500 ohms per volt for ac. Three big scales with ranges: (1) to 1500 acv, dcv (2) to 500 dcma (3) to 2 megohms. Moderately priced.

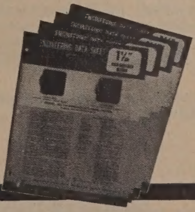
1" ROUND



Model 100

1" barrel diameter. Full 90° scale arc, scale length .770". VU, DB and illuminated meters also available with external accessory attached.

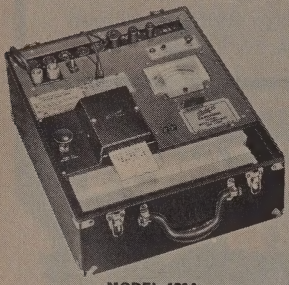
ENGINEERING DATA SHEETS COMPLETELY DESCRIBING THESE INSTRUMENTS ARE AVAILABLE. WRITE FOR YOUR COPIES TODAY.



international instruments

INCORPORATED
ORANGE, CONNECTICUT, CABLE "INTERINST"

HICKOK TEST EQUIPMENT



MODEL 123A
Cardmatic Automatic Tube Tester

NEW!

MODEL 539C
New Industrial and Laboratory Portable Tube Tester

NEW!

MODEL 752A
New Industrial and Communications Portable Tube Tester

MODEL 800
Service Technician's Portable Tube and Transistor Tester

NEW!

MODEL 6000A
Service Technician's Deluxe Portab
Tube and Transistor Tester

MODEL 123A
Cardmatic® Automatic Tube Tester

Ideal for industrial and laboratory applications. A genuinely complete tube tester—card-programs complete "fringe" tests, saturation and cut-off tests, in addition to basic Gm measurement. Gm Ranges: 500-26,000 umhos: Current Ranges: 100ua to 510MA. Will test Nuvistors using SA-3 Nuvistor Adapter. Complete with pin straighteners, socket savers and 500 selected cards. In black leatherette portable case, 19½" x 16½" x 9¼". 105-125v, 50-60 cycles, 55 watts. Shipping weight, 57 lbs.

Model 123A Cardmatic Automatic Tube Tester—Net Each . $585.00

Model 121 Cardmatic® Automatic Tube Tester—Net Each . $359.50

NEW MODEL 752A
New Industrial and Communications Portable Tube Tester

Designed for use in maintaining communications equipment and industrial electronic apparatus. New voltage regular test circuit tests VR tubes to handbook specifications, including firing point, regulating voltage and current range. Tests Nuvistors, Compactrons, Novars, 10-pin types. Push button test for dual-section tubes speeds selection of tubes for balanced or matched characteristics. Covers 1500 to 30,000 umhos in five ranges. Interelement leakage read directly on the meter (Sensitivity to 10 megohms). Illuminated meter and roll chart. Complete with socket savers and pin-straighteners. In black leatherette portable case, 18⅜" x 16¾" x 7½". 105-125v, 50-60 cycles, 40-70 watts. Shipping weight, 27 lbs.

Model 752A Industrial and Communications Portable Tube Tester—Net Each $345.00

MODEL 539C
New Industrial and Laboratory Portable Tube Tester

Tests VR tubes, low power thyratrons, "4 digit" types. VR test evaluates voltage regulator tubes under actual operating conditions. Tests Nuvistors, Novars, Compactrons, 10-pin types. Provision for separate monitoring of plate current. Panel terminals provide access to grid, plate, cathode and heater circuits, permitting direct measurement of voltages and current for "non-standard" or "tailored" tests. Covers 600 to 60,000 umhos in six ranges. Dual leakage readings: directly on meter or by neon short indicators (Sensitivity to 50 megohms). Complete with socket savers. In black leatherette portable case, 16¾" x 18⅜" x 7½". 105-125v, 50-400 cycles, 40 watts. Shipping weight, 35 lbs.

Model 539C Industrial and Laboratory Portable Tube Tester—Net Each $485.00

NEW MODEL 6000A
Service Technician's Deluxe Portable Tube and Transistor Te

Has replaceable socket plate for obsolescence protection. Sensi
instantaneous inter-element leakage and shorts test (Sensitivity
excess of 3 megohms) filament continuity test. Covers 3,000 to 15
umhos in 3 ranges. Tests Compactrons, Nuvistors, Novars and 10
types. Also tests transistors and diodes. In red leatherette port
case, 16¾" x 11¾" x 7½". 105-125v, 50-70 cycles, 40 watts. Ship
weight, 21 lbs.

Model 6000A Deluxe Portable Tube and Transistor Tester—Net Each $23

MODEL 800
Service Technician's Portable Tube and Transistor Tester

Lowest priced tester with the Hickok Gm Circuit. Provides direct m
reading of inter-element leakage and shorts. Tests Nuvistors, t
sistors and diodes. New filament continuity test speeds test of ser
string tubes. Tests Compactrons, 10-pin headers, Novars with M
CA-4 adapter listed below. 105-125v, 400 cycles—40 watts. In red leat
ette portable case, 16¾" x 11¾" x 7½". Shipping weight, 21 lbs.

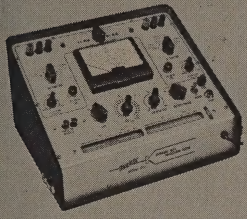
Model 800 Service Technician's Portable Tube and Transistor Tester—Net Each $17

Model 800 Tube Tester with CRT Adapter, Replaceable Socket Savers and SA-2 Subminiature Socket Adapter—Net Each $22

CA-4 Universal Adapter for testing Compactrons, Novars, Nuvistors and 10-pin types. For use with all current Hickok manual tube testers—Net Each . . . . $ 4

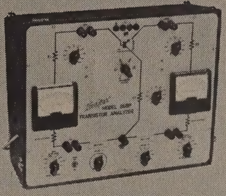
HICKOK
Electrical Instrument Co.
Cleveland, Ohio

HICKOK TEST EQUIPMENT



MODEL 870
Dynamic Beta Transistor Tester

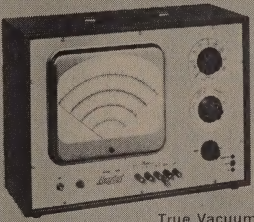
MODEL 890
Dynamic Beta In-Circuit Transistor Tester



MODEL 850P
Engineer's Portable Transistor Analyzer

NEW!

MODEL 725
Stereo Standard FM Multiplex Generator



NEW!

MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere
and Capacitance Meter

DEL 870
amic Beta Transistor Tester

asures AC and DC Beta. Collector test current variable up to 2 peres, permitting Beta measurement on power transistors rated 5 peres or more. Variable collector voltage and current permit tests ording to manufacturers' specifications—Tests switching transis- , measures large signal DC Beta on power transistors—small signal Beta on low and medium power transistors. Icbo Ranges: 100ua, , 10ma; Beta Ranges: 0-100, 0-300. Complete with replaceable roll rt and test leads in black leatherette portable case 14⁹⁄₁₆" x 11¾" x . 115v-60 cycles, 40 watts. Shipping weight, 22 lbs.

del 870 DYNAMIC BETA Transistor Tester—Net Each . . $355.00

DEL 890
amic Beta In-Circuit Transistor Tester

izes unique new test circuit to measure AC Beta in OR OUT of uit with 5% accuracy. Measures these in-circuit parameters: AC a, Ic, Rin (transistor input impedance), Z Ohms (base-emitter uit impedance). Measures AC Beta, Ic, Rin and Icbo out of circuit. table, completely self-contained, fully-transistorized—battery rated. 10¾" x 9" x 6½". Shipping weight 8 lbs.

del 890 Dynamic Beta In-Circuit Transistor Tester—Net
h $137.50

DEL 850P
ineer's Portable Transistor Analyzer

al for use as a "breadboard" in transistor circuit design and development. Checks basic transistor parameters in any of three configurations; common base, common emitter and common collector. Identical input and output meters cover 100ua to 1 ampere in 5 ranges. Battery operated. Furnished complete with leads in black leatherette portable case, 16½" x 8" x 13½". Shipping weight 20 lbs.

Model 850P Engineer's Portable Transistor Analyzer—Net
Each $169.50

MODEL 725
Stereo Standard FM Multiplex Generator

NEW—STEREO STANDARD FM Multiplex Generator. Provides composite stereo signal per FCC specifications, correct for service and alignment of FM Stereo tuners and adapters. Pilot phase check feature assures proper separation; separation is 35 db or better. Choice of 5% or 10% pilot carrier level. Fully compensated to accept external modulation source, such as tape or record player. Shipping weight, 23 lbs.

Model 725 Stereo Standard Generator—Net Each $495.00

MODEL 209B
True Vacuum Tube Volt-Ohm-Milliampere and Capacitance Meter

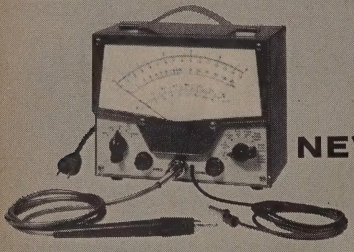
Has advanced Uni-Scale Design. 100 Millivolt Sensitivity. Special "lo-ohms" range. Measures capacitance as low as 1 uuf and up to 1,000 uf; inductance, 50 mh to 100 henries (with conversion chart). 1% stability with ±10% variation in line voltage. Complete with AC and DC probe assemblies, test leads, low capacity-high frequency probe. Shipping weight, 26 lbs.

Model 209B True Vacuum Tube Volt-Ohm-Milliampere and
Capacitance Meter—Net Each $249.00

Hickok Electrical Instrument Co.

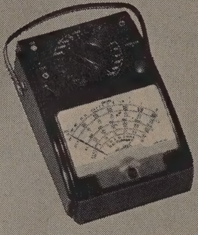
Cleveland, Ohio

HICKOK TEST EQUIPMENT

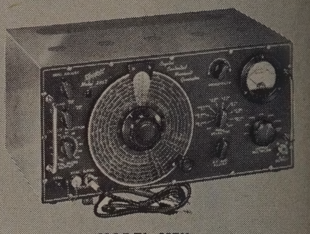


MODEL 470A
Electronic Volt-Ohmmeter

NEW!



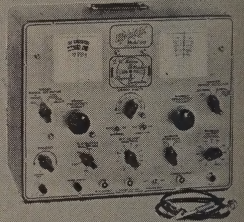
MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter



MODEL 295X
Microvolt and Crystal Controlled Generator

NEW!

MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator



MODEL 615
Sweep and Marker Alignment Generator

MODEL 470A
Electronic Volt-Ohmmeter

A major advance in VTVM design, the 470A provides increased ranges in all functions—using just two basic scales to cover eight ranges. AC and DC values are read from the same scales—AC errors due to crowding are eliminated. Ranges: DC, AC rms and AC peak-to-peak, 0.5-1500v. New AC-DC—Ohms single unit probe eliminates the need for multiple leads. Ohmmeter: Center Scale, 10 Ohms, Ohms X1, X10, X100, X1000, X10,000, X100,000, X1M, X10M. Readability 0.2 ohms to 100 megohms. Input impedance DC volts 15 megohms, AC volts 15 megohms. DC resistance paralleled with approximately 150 uufd. 105-125v, 50-400 cycles, 15 watts, 6⅜" x 7½" x 4½". Complete with single unit probe and test leads. Shipping weight, 8 lbs.

Model 470A Electronic Volt-Ohmmeter—Net Each . . . . . $ 79.50

MODEL 455A
Burn-Out Proof Volt—Ohm—Milliammeter

Has Hickok's exclusive overload cut-out and protection system providing complete safety against burn-outs for the meter and all multipliers, shunts and other components. 20,000 ohms/volt AC and DC. AC/DC Volts: 3, 15, 60, 150, 600, 1200v: Resistance, 0-100 megohms in 4 ranges: Center Scale Ranges: 5, 500, 5000, 500,000 ohms. Current Ranges: 50 ua, 1, 10, 100, 100 MA, 10 amperes. Attractive, streamlined case, large easy to read meter. Battery operated. 8½"L x 5⅞"W x 3"H tapering to 1¾"H. Complete with leads. Shipping weight (two per carton), 12 lbs.

Model 455A Burn-Out Proof Volt-Ohm-Milliammeter—Net Each $79.50

MODEL 295X
Microvolt and Crystal Controlled Generator

Provides continuous frequency coverage in 8 bands from 125KC to 175 MC. Calibrated, metered output from 0.1 to 100,000 microvolts Dial calibration accuracy. Built-in 1MC crystal standard. Precision attenuator, direct reading, vernier tuning. 105-125v, 50-400 cycles watts in steel case 19" x 12½" x 9". Complete with 1MC crystal, 48- output cable with 2 connectors. Shipping weight, 47 lbs.

Model 295X Microvolt and Crystal Controlled Generator—Net Each $6

MODEL 288AX
Crystal Controlled AM-FM Sweep and Marker Generator

A complete alignment instrument with built-in decibel meter and cr frequency standard (100KC and 1000KC). Covers 35KC to 110MC bands frequency modulated and 35KC to 160MC in 8 bands amplit modulated. Includes new ultrasonic range from 35KC to 125KC. plied with 100KC/1000KC crystal, cable assembly and meter le Case size, 16" x 7" x 13", Shipping weight, 33 lbs.

Model 288AX Crystal Controlled AM-FM Sweep and Marker Generator—Net Each $3

MODEL 615
Sweep and Marker Alignment Generator

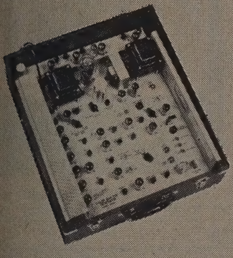
For complete TV, IF and RF alignment, including color TV alignm Also provides harmonic output on UHF. All electronic Sweep wit moving parts. Amplitude modulation less than 0.1db/MC. 110-120 cycles, 40 watts. Furnished in steel carrying case, 16¼" x 8" x complete with leads. Shipping weight 39 lbs.

Model 615 Sweep and Marker Alignment Generator—Net Each $3

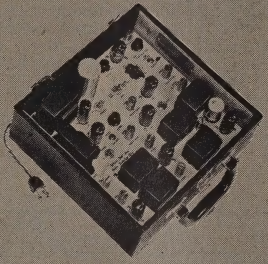
Hickok Electrical Instrument Co.

Cleveland, Ohio

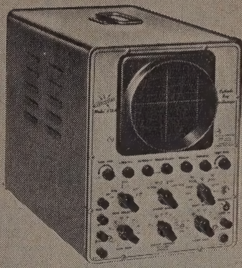
HICKOK TEST EQUIPMENT



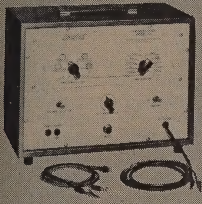
MODEL 656
Color Bar-White Dot Generator



MODEL 660
Crystal Controlled White Dot-Bar Color Display TV Generator

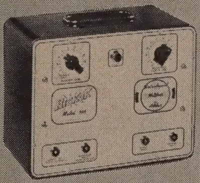


MODEL 675A
Wide Band, High Sensitivity Oscilloscope



NEW!

MODEL 661
Chrom-Aligner Combined NTSC Color Bar-White Dot Generator



MODEL 691
Heterodyne Marker-Adder

DEL 656
or Bar-White Dot Generator

duces 100% fully-saturated NTSC standard patterns. Provides com-
e range of signals for chroma alignment, including R-Y, B-Y,—G-Y
nodulation systems. 105-125v, 60 cycles, 40 watts. Furnished in black
herette portable case, 16¾" x 18⅜" x 7¼", complete with cable.
pping weight, 48 lbs.

del 656 Color Bar-White Dot TV Generator—Net Each $549.50

DEL 661
om-Aligner NTSC Color Bar-White Dot Generator

erates individual 100% saturated color bars to NTSC standards.
vides the following demodulator alignment signals: R-Y, B-Y,—G-Y,
at 90°, RF output on channels 3 or 4. Crystal-controlled chroma
sync. Video output 1.5v p-p across 75 ohms. 110v—60 cycles—20
ts—Complete with leads.

del 661 Chrom-Aligner Generator $349.50

DEL 660
stal Controlled White Dot-Bar Color Display TV Generator

requencies crystal controlled and locked together providing stable
of correct size. Provides rainbow color display. Circuitry completely
patible with new design receivers. Lightweight portable for installa-
convergence and in-the-home servicing. 105-125v, 50-60 cycles,
atts. Furnished in black leatherette portable carrying case, 10½" x
10½" x 5¼" complete with two crystals and output cable. Shipping weight, 21 lbs.

Model 660 Crystal Controlled White Dot-Bar Color Display TV Generator—Net Each $245.00

MODEL 691
Heterodyne Marker-Adder

Provides a continuously visible marker, (including trap points) that will not alter or distort the receiver's response curve. Functions with any associated marker and sweep equipment that has an output capability of 0.5 volts, or more. 105-125v, 50-60 cycles, 25 watts. Furnished in steel case, 11¼" x 7" x 8¼", complete with leads. Shipping weight, 16 lbs.

Model 691 Heterodyne Marker Adder—Net Each $109.00

MODEL 675A
Wide Band, High Sensitivity Oscilloscope

5" scope with an illuminated, calibrated screen. Vertical amplifier response within 3 db, DC through 4.5MC, flat through 3.58MC color burst frequency. Astigmatic control provides a new standard of undistorted trace detail. 105-125v, 50-400 cycles, 125 watts. In steel case, 10" x 16" x 13" complete with low capacity probe and ground lead. Shipping weight, 45 lbs.

Model 675A, Wide Band, High Sensitivity Oscilloscope—Net Each $299.90

Model 770 Industrial and Laboratory 5" Oscilloscope: Response, DC to 5MC, within 3 db (Rise time 0.07 usec)—Net Each $470.00

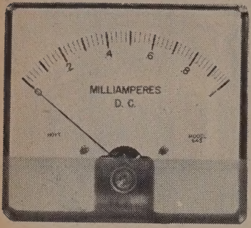
Hickok Electrical Instrument Co.

Cleveland, Ohio

Hoyt
SINCE 1904

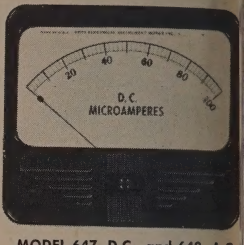
HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications



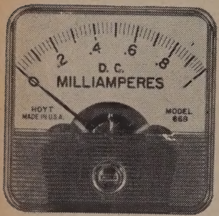
MODEL Nos.
641, 645, 653 and 649, D.C.
642, 646, 654 and 650, A.C.
Clear Plastic Styrene Cases

HOYT moving-coil Meters are built on the D'Arsonval principle using carefully selected jewel bearings and polished steel pivots. Accuracy within 2%. Alnico Magnets with soft-iron pole-pieces of uniform flux density used in all movements. Permanently correct balance assured by HOYT "cross arm" spiral wire balance. High torque to weight ratio. Quick response and good damping under all conditions. Choice of "knife-edge" or "lance" type pointers. Full 100° movements standard on most models.

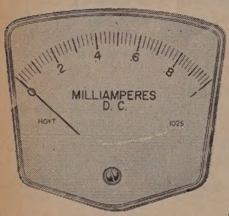


MODEL 647, D.C., and 648, A.C.

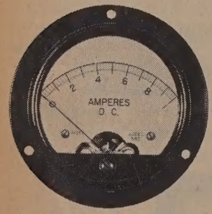
METER SIZE	MODEL DC	MODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIAM. AC - DC	BODY DE AC - D
1½"	668	669R	Styrene Sq.	1.800"	1.740"	1.500"	1.000"
2½"	17/3	552	Bakelite Rd.	2.015"	2.690"	2.200"	1.375"
2½"	17/3	552	Metal Rd.	2.015"	2.547"	2.063"	1.297"
2½"	1025	1026	Styrene	2.500"	2.87" x 2.59"	2.16"	1.12"
2½"	635	636	Bakelite Sq.	2.015"	2.375"	2.200"	1.400"
2½"	649	650	Styrene Sq.	2.480"	2.625" x 2.375"	2.200"	1.125"
3½"	17/L	560	Metal Rd.	2.480"	3.219"	2.500"	1.500"
3½"	17/L	560	Metal Surf.	2.480"	3.063"	2.500"	—
3½"	582	584	Bakelite Rd.	2.720"	3.500"	2.750"	1.375"
3½"	1037	1038	Styrene	3.812"	3.500"	2.750"	1.125"
3½"	597	598	Bakelite Sq.	2.720"	3.000"	2.750"	1.375"
3½"	653	654	Styrene Sq.	3.435"	3.375" x 3.125"	2.750"	1.125"
3¾"	570	580	Metal Rd.	2.850"	3.750"	3.000"	1.688"
3¾"	570	580	Metal Surf.	2.850"	3.625"	3.000"	—
3¾"	607	610	Bakelite Sq.	2.850"	3.625" x 3.313"	2.250"	1.063"
4¼"	641	642	Styrene	4.250"	4.500" x 3.844"	2.750"	1.125"
4½"	574	617	Metal Rd.	3.875"	4.500"	3.750"	1.594"
4½"	574	617	Metal Surf.	3.875"	4.500"	3.750"	—
4½"	600	601	Bakelite Sq.	4.034"	4.500" x 4.000"	2.750"	1.063"
4½"	645	646	Styrene Sq.	4.470"	4.625" x 4.188"	2.750"	1.125"
4½"	647	648	Bakelite Sq.	4.470"	4.500" x 4.188"	2.750"	1.125"
4½"	1045	1046	Styrene	4.500"	4.81"	2.750"	1.125"
6"	1060	1061	Styrene	5.375"	6.000" x 4.500"	2.750"	1.100"



MODEL No. 668 DC
1½" Clear Plastic Square
Styrene Case



MODEL Nos.
1025, 1037, 1045, 1060 D.C.
1026, 1038, 1046, 1061 A.C.
Clear Plastic Styrene Case



MODEL Nos. 582 & 17/3, D.C.
MODEL Nos. 584 and 552, A.C.

	Size:	1½"	2½"	3½"	3¾"	4½"	6"
Range	*Approx. Resist.*	#668	#1025 #17/3 #635 #649	#1037 #17L #653 #582 #597	#570 #607	#1045 #574 #641 #645 #600 #647	#1060
			D.C. MILLIAMMETERS				
0/1	*60*	$10.85	$10.25	$10.85	$11.40	$12.00	$14.40
Above prices also apply to 0/3, 0/5, 0/10, 0/15 MA Standard ranges.							
0/25	*1.7*	11.15	10.50	11.15	11.65	12.30	14.80
Above prices also apply to 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA Standard ranges.							
			D.C. MICROAMMETERS				
0/20	*3000*		$18.30	$18.95	$19.50	$20.10	—
0/50	*2000*		15.50	16.00	16.55	17.15	—
0/100	*2000*	14.00	13.50	14.00	14.55	15.15	17.55
0/200	*1000*	12.15	11.50	12.15	12.65	13.30	15.65
0/500	*200*	11.50	10.95	11.50	12.00	12.65	15.00
Zero center microammeters available for most models in 25/0/25, 50/0/50, 100/0/100, 500/0/500 UA. Prices on request.							
			D.C. MILLIVOLTMETERS				
0/50	*3*	10.85	10.25	10.85	11.40	12.00	14.40
			D.C. AMMETERS				
0/1	*0.005*	10.85	10.25	10.85	11.40	12.00	14.40
0/5	*0.004*	11.20	10.65	11.20	11.75	12.40	15.10
Above prices for 0/5 amp. range also apply to standard ranges of 0/10, 0/15, 0/25, 0/30*, 0/50* amps on all models. No. 668 uses external shunt over 5 amps. See Shunt Table below for High Current Ammeter Ranges.							
			D.C. VOLTMETERS				
0/1	*1000Ω/V.*	11.60	11.10	11.60	12.15	12.75	15.10
Above prices also apply to standard ranges of 0/3, 0/5, 0/10, 0/15, 0/25, 0/30*, 0/50*, 0/100, 0/150*, 0/300* volts on all models.							
0/500	*2000Ω/V.*		11.60	12.25	12.75	13.40	15.75
Above prices also apply to standard ranges at 0/600, 0/750 volts on all models except #668.							

6¾"—8½"	3" x 4"	5" x 4
PANEL METERS		PORTABLE METERS
# 583 #602		#578 #575
Prices on request.		

NOTE:

If "in-between" ranges are quired, add $2.00 to price next higher range listed. "zero-center" ranges are quired, add $2.00 to price that range. For in-betw ranges on moving-coil type V meter 150 volts and up, a $3.00 to next higher range.

NOTE:

Please specify type of case order from chart above. Unl specified, all meters are ca brated on non-magnetic pane If steel panels are used, gi thickness of steel and size panel hole (No extra charg All prices are net — subject change or withdrawal with notice.

*These ranges carried IN STO . . . Models #582, 597, and only. (Calibrated for non-magne panels)

STANDARD SWITCHBOARD SHUNTS AND AMMETER RANGES

On High Current Ammeters, add 0/50 millivoltmeter price to external shunt price below. Shunts include 3 ft. leads. Standard Ammeter and Shunt Ranges on types 17/3, 532 and 547 only; others listed are special ranges at slight extra cost.

0/25—$8.60 0/30—$8.60 0/50—$7.55 0/75—$7.55 0/100—$7.55 0/150—$7.55
0/200—$7.55 0/300—$8.80 0/500—$13.25 0/600—$15.90 0/800—$20.15 0/1000—$29.25

Net

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Hoyt
INCE 1904

HOYT ELECTRICAL INSTRUMENTS

For Original Equipment and Replacement Applications

YT A.C. Meters for indicating 60 cycle Voltage and Cur-
t are of the repulsion type with pneumatic damping.
nished in the same case styles and sizes as HOYT D.C.
ers, they match the D.C. meter where both types are
l on the same panel. See DC-AC Specification Chart on
osite page.
uracy is 2%. A choice of pointers is available, and special shields can be supplied at additional cost.

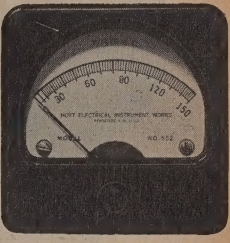
VU METERS, with "A" scale, available in #649, #653, #645, and #647 case styles.
Prices on request.

NOTE: A.C. Meters calibrated at any special frequency. Prices on request.

CE LIST:

		PANEL MOUNTING					PORTABLE	
	Size:	2½"	3½"	3¾"	4½"	6"	3" x 4"	5" x 4"
e	Approx. Resist.	#1026 #552 #636 #650	#560 #1038 #654 #584 #598	#580 #610	#617 #601 #648 #642 #646 #1046	#1061	#562 Prices on request	#517
		A.C. MILLIAMMETERS						
	6000	$10.95	$11.75	$12.30	$13.05	—	—	—
0	*2700*	9.90	10.70	11.25	12.00	14.40	—	—
		Prices for ranges: 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. for all models—same as 0/10 MA. range above.						
		A.C. AMMETERS						
	0.271	9.90	10.70	11.25	12.00	14.40	—	—
		Above prices also apply to all models of standard single ammeter ranges—0/3, 0/5*, 0/10, 0/15, 0/25, 0/30*, 0/50* amps. A.C. Ammeters are self-contained to 50 amps. For High Current Ranges—See Transformer Section below.						
		A.C. VOLTMETERS (Repulsion Type)						
5	*1476*	10.25	10.70	11.40	12.00	14.40	—	—
		Above prices also apply to all models in standard ranges of 0/30, 0/50, 0/100 volts.						
50*	*25,000*	11.20	11.80	12.35	13.05	15.35	—	—
00*	*50,000*	11.20	11.80	12.35	13.05	16.50	—	—
00	*83,300*	—	17.00	17.50	18.10	20.50	—	—
00*	*99,960*	—	17.00	17.50	18.10	20.50	—	—

These ranges carried IN STOCK on Models #584, #598 and #648 only (calibrated for non-magnetic panels).
OTE: If "in-between" ranges are required, add $2.00 to next higher price as shown above (add $3.00, if above 150 olts). Standard calibration is for non-magnetic panels. Steel panel calibration at no extra charge if order specifies hickness of steel and size of panel hole. Please specify type of meter case.
IAL COSTS: Standard range dials only—$1.00 each; special hand drawn single range dials only $3.00 each; other ustom dials on special order.



MODEL Nos. 635 and 597, D.C.
MODEL Nos. 636 and 598, A.C.

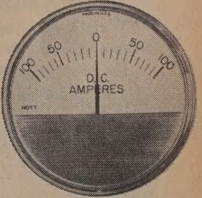
●

5% RECTIFIER TYPE VOLTMETERS

Available in the following ranges: 0/5, 0/10, 0/15, 0/25, 0/30, 0/50, 0/100, 0/150, 0/300 volts.

Above ranges apply to models #584-R, #598-R, #654-R at $16.20 ea.

Above ranges apply to models #642-R, #646-R, #648-R at $17.95 ea.



MODEL No. 740 D.C. Indicator. 2¼" Metal Case w/Plastic Cover

HIGH CURRENT DONUT TYPE TRANSFORMERS (In Stock)

or prices on HIGH CURRENT AC AMMETERS, add price of ammeter model above to transformer price below, plus n additional $3.00 except on models #552, #584, and #648. Transformers have 2-ft. leads and 2 VA burden. Other anges available on request.

5	$9.15	100/5	$9.15	200/5	$9.15	500/5	$16.50
5	9.15	150/5	9.15	300/5	9.15	600/5	16.50

MOVING MAGNET INDICATORS

0
.2
.4
.6
.8
1
DC
MILLIAMPERES

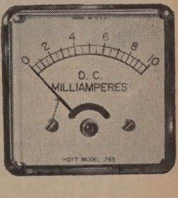
MODEL No. 640, D.C.
2¼" Metal Case

HOYT Moving Magnet Indicators have been used for many years by the leading manufacturers of electrical devices. Feature long scales and accuracy within 5%.
Attractive appearance is combined with a sturdy movement.

Furnished in round or square cases at low cost. Standard finish on metal cases is black. Chrome Plate is available at slight additional cost. Many types of mounting arrangements available.

NOTE: A.C. Vane Meters are furnished in quantity only. Prices on request.
NOTE: If in-between ranges are required — add $1.00 to next higher range price; for "zero-center" ranges, add $1.00 to same range price.
NOTE: DC Ammeters up to 100 amps. have internal shunts.

ODEL AC	CASE TYPE PANEL MTG.	SCALE LENGTH DC	FLANGE	BODY DIA. DC	BODY DEPTH DC
531AC	Nar. Metal Rd.	1.400"	2.281"	2.000"	1.078"
531AC	Metal Surface	1.400"	2.375"	2.000"	—
594	Metal Sq.	1.400"	2.625"	2.000"	0.563"
794	Plastic Sq.	1.715"	2.375"	2.000"	0.500"
741	Plastic Rd.	1.715"	2.375"	2.000"	0.520"



MODEL No. 793 D.C., 794 A.C.
2½" Metal Case with Plastic Cover

D.C. MILLIAMMETERS

ange	*Approx. Resist.*	#640	#693	#740 #793
/1	*1000*	$4.05	$4.10	$4.40
/3	*700*	3.00	3.10	3.35
/5	*480*	2.75	2.80	3.10
/10	*180*	2.55	2.65	2.90
/15	*130*	2.20	2.25	2.55

Prices for 0/25, 0/30, 0/50, 0/100, 0/150, 0/200, 0/300, 0/500 MA. ranges:

		#640	#693	#740 #793
		2.15	2.20	2.50

D.C. AMMETERS

Range	#640	#693	#740 #793
0/1	$2.15	$2.20	$2.50
Above prices also apply to 1/0/1, 3/0/3, 0/5, 5/0/5, 0/10, 10/0/10, 0/15 amp. ranges.			
20/0/20	2.70	2.75	3.00
Above prices also apply to 0/25, 0/30, 30/0/30 amp. ranges.			
0/50	2.90	2.95	3.25
50/0/50	2.90	2.95	3.25
0/75	3.35	3.45	3.80
0/100	3.90	4.00	4.30

D.C. VOLTMETERS

Range	*Approx. Resist.*	#640	#693	#740 #793
0/1		$2.15	$2.20	$2.50
Above prices also apply to 0/3, 0/5, 0/10, 0/15 volt ranges.				
0/25	*1375*	2.50	2.55	2.85
0/30	*1650*	2.50	2.55	2.85
0/50	*2200*	2.70	2.75	3.00
0/100	*20,000*	2.70	2.75	3.00
0/150	*30,000*	2.75	2.80	3.10
0/300	*60,000*	3.70	3.80	4.10

Industrial Instruments

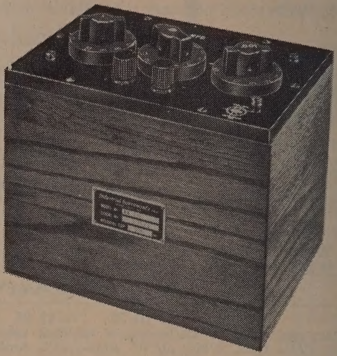
ELECTRICAL

RESISTANCE DECADES

- Available in a wide variety of standard models. Accuracy at 1.0 and 0.1 ohm steps is ±0.25%. Accuracy of all other resistors is ±0.1% of indicated value. Self-cleaning, molded nylon and silver plated brass switch mounted below panel. Zero resistance is less than .003 ohms per dial. Hardwood case. Models DR-1D to DR-4D, 8″ x 5½″ x 4½″. Weight 4 lbs. net, 6 lbs. shipping. Models DR-50D to DR-52D, 9″ x 6″ x 4½″ h. Weight 5 lbs. net, 7 lbs. shipping. Models DR-70D and DR-71D, 17¼″ x 5″ x 4½″ h. Weight 6 lbs. net, 8 lbs. shipping.

ELECTRICAL SPECIFICATIONS AND PRICES

Model No.	Total Resistance Ohms	Decade Steps	Accuracy	Price
DR-1D	1,110,000	10x(1,000+10,000 +100,000)	±0.1%	$ 78.00
DR-2D	111,000	10x(100+1,000 +10,000)	±0.1%	67.00
DR-3D	11,100	10x(10+100+1,000)	±0.1%	65.00
DR-4D	1,110	10x(1.+10+100)	±0.25 & ±0.1%	65.00
DR-50D	11,111	10x(.1+1+10+100 +1,000)	±0.25 & ±0.1%	95.00
DR-51D	111,110	10x(1+10+100 +1,000+10,000)	±0.25 & ±0.1%	100.00
DR-52D	1,111,100	10x(10+100+1,000 +10,000+100,000)	±0.1%	112.00
DR-70D	1,111,111	10x(.1+1+10+100 +1,000+10,000 +100,000)	±0.25 & ±0.1%	165.50
DR-71D	11,111,110	10x(1+10+100 +1,000+10,000 +100,000 +1,000,000	±0.25 & ±0.1%	215.25



CAPACITANCE DECADES

- These are 3-dial units with the sum of the dial settings indicating total capacity in microfarads. Mylar and silver-mica capacitors are used for high stability, low-loss characteristics. Polished hardwood case, engraved dial graduations.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	Decade Steps MF	Accuracy	Dielectric	P.F.	Peak Volts	Price
DK-2A	10x(.001+.01 +0.1)	±1%	Silver Mica	0.2%	700 (.001) (.01) 500 (.1)	$175.00
DK-4	10x(.001+.01 +0.1)	±1% (.001) (.01)	Silver Mica	0.2%	700	80.00
		±3% (0.1)	Mylar	1%	400	
DK-5A	10x(.01+0.1 +1.0)	±1% (.01)	Silver Mica	0.2%	700	
		±3% (0.1) (1.0)	Mylar	1%	400	95.00
DK-11A	10x(.01+0.1 +1.0)	±0.5% (.01) (0.1)	Silver Mica	0.2%	700 (.01) 500 (0.1)	185.00
		±2% (1.0)	Mylar	1%	400 (1.0)	
DK-10	10x(.0001 +0.001 +.01)	±0.5% or 10 mmf	Silver Mica	0.2% 2% (.0001)	700	95.00

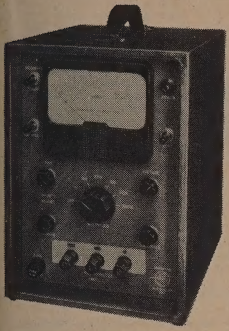
PHYSICAL SPECIFICATIONS

	Overall Dimensions	Weight (Lbs.) Net	Weight (Lbs.) Shipping
DK-2A, DK-4, DK-10	8 x 5½ x 7½	8	10
DK-5A, DK-11A	10¾ x 7¾ x 7½	10	12

Net

© U.C.P., Ir

TEST EQUIPMENT



TYPE L MEGOHMMETERS

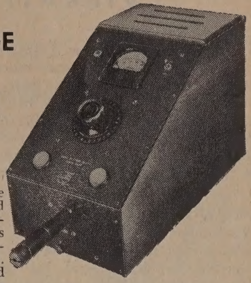
Type L Megohmmeters are used for both laboratory and high speed production testing of motor and transformer winding insulation, cable insulation, high value resistors, capacitor insulation, and for the measurement of surface and volume leakage of insulating materials. These instruments meet the requirements for testing insulation resistance in accordance with ASTM D-257, and Federal Specification LP-406B, Method 4041.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	TEST Voltage	RANGE Low in meg.	High in meg.	POWER Consumption	WEIGHT Net	Ship.	Size	Price
L-2A	200 fixed	1	100,000	40 Watts	12	15	15″x8″x10″	**$175.**
L-4A	200 and	1	100,000	52 Watts	14	17	15″x8″x10″	**215.**
	500 fixed	2.5	250,000					
L-6B	100 to 600*	1	100,000	82 Watts	15	18	15″x8″x10″	**310.**
L-7	100 to 600*	1	5x10^{13}	75 Watts	20	24	8″x10½″ x11½″	**383.**

*Continuously variable, built-in voltmeter for accurate setting.

TYPE P—VOLTAGE BREAKDOWN TESTERS



The Type P Series Voltage Breakdown Testers are designed for safe, accurate and fast testing of materials, components and circuits both in the laboratory and on the production line. All types have self-contained metered high-voltage power supply with safety features including interlock switches and pilot warning lights. Load current is limited to values shown in table below. Output voltage continuously variable over range listed for each model.

ELECTRICAL SPECIFICATIONS AND PRICES

Model	VOLTAGE RANGE AC volts RMS	DC volts	CURRENT RANGE AC	DC	Price
P1	-	0-4000		5 ma (max)*	**$218.00**
P2	0-3000	0-4000	7 ma (max)	5 ma (max)*	**264.00**
P3B	0-8000	0-10,000	60 ma (max)	50 ma (max)*	**488.00**

*Models P1, P2 and P3B incorporate a variable series resistance which limits short circuit current independently of voltage.

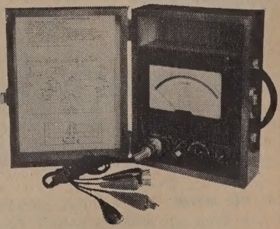
Other power supplies up to 100 KV can be supplied to your specifications. Send complete details for quotation.

WHEATSTONE BRIDGES TYPE RN

Universally used for the measurement of all types of resistance devices and circuits where high accuracy is required. Models available for performing Murray-Varley Loop tests.

Model	Total Resistance of Decade	Ratio Dial Settings	Circuits	Dimensions	Price
RN-1	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000	....	9″x8″x6½″	**$176.50**
RN-2	9x(1+10 +100 +1000)	.001, .01, .1, 1, 10, 100, 1000, M10, M100, M1000	Murray & Varley	9″x8″x6½″	**193.25**
RN-3	10x(1+10 +100) +9(1000)	1/1000, 1/100, 1/10, 1/9, 1/4, 1/1, 10/1, 100/1, M10, M100, M1000	Murray & Varley	9½″x8″x6½″	**226.00**

TYPE LRO-1 LOW RESISTANCE OHMMETER



The Type LRO-1 Low Resistance Ohmmeter is useful for the measurement of resistance of sensitive relay contacts, fuses, bus-bars and connections, rail joints, pipe or conduit, switch contacts, transformer windings, motor windings, bonding, grounding and similar applications. The current through the unknown resistance never exceeds 110 ma.

Price $148.85

FEATURES: Extreme accuracy for the most critical measurements. • Entirely self-contained, including 1½ volt flashlight battery • Ranges: .1 ohm, 1 ohm and 10 ohms. 100 meter scale divisions. • Accuracy of plus/minus 1½% on LRO-1 based on full scale values. • Full Scale Readings. • Maximum current through piece under test = 0.11 amp.

• Other electrical test equipment manufactured by Industrial Instruments can be found in current editions of ELECTRONIC ENGINEERS MASTER. For complete technical details and specifications on test equipments listed here and many others request a copy of Catalog 25.

Industrial
Instruments:

Industrial Instruments INC.
CEDAR GROVE, N. J.

J-B-T® INSTRUMENTS & TESTERS . . . .

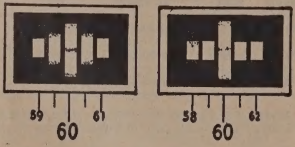
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

VIBRATING REED FREQUENCY METERS (PATENTED)

• USES — J-B-T Vibrating Reed Frequency Meters are used extensively in radio, telephone, and television service, on engine generator sets, in laboratories, in many types of electronic equipment, on panel and control boards, in inspection set-ups—wherever constant or known frequency is important to efficient operation of equipment. More than 20 years of continuous experience covering many thousands of these instruments are your assurance of quality for both commercial and defense applications.

• OPERATING PRINCIPLE — The patented, simplified design used in the J-B-T meter operates on AC or interrupted DC. Each reed is adjusted to respond by resonance to but one frequency. As the current excites the driving coil, the reed "in tune" with the frequency in the coil will respond by vibrating rapidly because of permanent magnet polarization and induced magnetism from the coil. The instrument is adapted to specified operating voltage by a series resistor. To determine frequency, simply read the reed.

• RESPONSE PATTERNS — These patterns differ with the increments of frequency between reeds. For example, at 60 cycles, half-cycle steps give the broad response shown below at left, whereas full cycle steps bring the sharp response at right. In general, the lower the frequency the greater the amplitude, the higher the frequency the less the amplitude. Thus a 12 cycle reed normally will have substantially greater amplitude than a 1000 cycle reed.



• ADVANTAGES — Guaranteed accuracy at reference temperatures of 77°F is ±0.3% or better of the AC frequency being measured, unless otherwise stated. Accuracy on interrupted DC may be somewhat less. High fatique safety factor for continuous operation. Temperature compensations are not required as temperature coefficient of reeds is only approximately 75 parts per million per degree F., negative.

• STABILITY — All meters are permanently calibrated at the factory and do not require subsequent adjustment. J-B-T reeds have relatively high Q characteristics, an especially desirable factor in electronic circuits. Wave form or external fields do not ordinarily have an adverse effect. Built with no pivoted parts and with lock washers at every critical point, these rugged meters can take rougher treatment than many instruments.

• TRUST THE METER — If a meter plugged in on a 60-cycle AC power line does not indicate exactly 60 cycles, trust the meter! Power supply may momentarily be off-frequency due to changing load conditions. All J-B-T Frequency Meters are meticulously calibrated at the factory, entirely independent of frequency of power supply. Production and inspection equipment are checked regularly against National Bureau of Standards frequency signals.

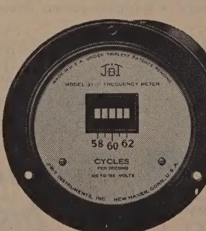
5 OR 7 REEDS

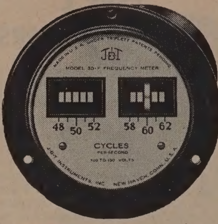
Used on standby power equipment. Handy for accurately measuring frequency of power source. 5 reeds (as illustrated), 58-62 cycles, or 7 reeds, 57-63 cycles, 100-130 volts. Other characteristics same as Model 30-F. See Table of Dimensions, lines 4 and 5.

31-F, (illustrated) 58-62 cy., 5 reeds, 3-1/4" metal case **$26.65**

31-FX, 58-62 cy., 5 reeds, 3-1/2" Molded case, MIL-M-6B mtg **$23.65**

31-FX-7, 57-63 cy., 7 reeds, 3-1/2" Molded case, MIL-M-6B mtg.. **$25.85**





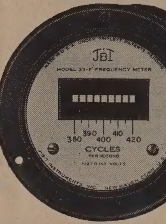
(Meter operating at 60 cycles)

10 REEDS

Range: 48-52 and 58-62 cycles. Do
window for ease of reading e
range. Often specified for ex
100-130 volts; 130 ohms per vol
watt power consumption. Other
ages available on special order.
curacy ±0.3% at reference temp
ture. Flush panel mounting. See T
of Dimensions, lines 4 and 5.

30-F, (illustrated), 48-52 and 58-62
3¼" Metal Case.......... **$3**

30-FX, 48-52 and 58-62 cy., 3½" M
ed Case, MIL-M-6B mtg.......... **$2**



9 REEDS — 400 CY.

Used for measuring frequency of h
cycle power sources, particularly
craft. Accuracy ±0.3% at refere
temperature. Nine reeds, 380-420 c
range. 100-130 volts; 90 ohms per v
1.5 watts power consumption. O
voltages available on special or
Flush panel mounting. See Table
Dimensions, lines 4 and 5.

33-F, (illustrated). 380-420 cy.,
Metal Case **$3**

33-FX, 380-420 cy., 3½" Molded C
MIL-M-6B mtg. **$3**

JBT
56 58 60 62 64
CYCLES

9 REEDS — 60 CY.

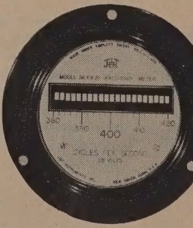
Covers a broad frequency band. N
reeds, 56-64 cycles, or in half-c
steps (accuracy ±0.2%) 58-62 cyc
100-130 volts; 110 ohms per volt
watt power consumption. Flush pc
mounting. See Table of Dimensic
lines 4 and 5.

34-F, 56-64 cy., 3¼" Metal Case 1-c
steps. **$3**

34-FX, (illustrated). 56-64 cy., 3
Molded Case, MIL-M-6B mtg. **$2**

34-F-Z, 58-62 cy., 3¼" Metal C
½-cycle steps. **$31**

34-FX-Z, 58-62 cy., 3½" Molded C
MIL-M-6B mtg. **$2**



18 OR 21 REEDS

Advanced design offers 21 reeds
an interchangeable 3½" panel me
with 2-cycle intervals for close re
ing over the band of 380 to 420 cyc
per second. Accuracy ±0.3% at re
ence temperature. The reed flag s
is necessarily smaller than in a 9-re
400-cycle meter, such as the mo
33-FX, but the 21 reeds are located
an enlarged window 2" wide w
flags 3/32" high x 1/16" wide to g
maximum readability. A patented
ternal construction for mounting
reeds in one clamp assures rugg
ness. This instrument and its va
tions are particularly useful wh
unusually close indication of f
quency throughout the band is de
able. See Table of Dimensions, line

36-FX-21, (as illustrated). 380-420 cycles, 21 reeds, 28 volts operati
3½" Molded Case; 18 ohms per volt; 1.6 watts power consumpti
.... **$43.**

36-FX-21-115*, 380-420 cycles, 21 reeds, 100-130 volts; 90 ohms per vc
1.5 watts power consumption .... **$45.**

30-FX-18, (not illustrated). 46-54 and 56-64 cycles, 18 reeds in one w
dow with two groupings, 100-130 volts; 210 ohms per volt; 0.7 wa
power consumption .... **$36.**

All have 3½" Molded Case, MIL-M-6B mounting. Meters marked
are normally stocked.

Net Effective Aug. 31, 1962

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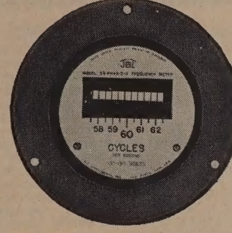
INSTRUMENTS & TESTERS

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

3½" SEALED FREQUENCY METERS



K TYPE Sealed meters, glass-
etal construction, with solder
nals and detachable flange,
rsede the former FHX sealed
rs. While JAN-I-6, MIL-M-6B,
MIL-M-10304B (Type MR36) do
efer specifically to frequency
ators, the FHXX series uses
ront mounting dimensions of
specifications, and meets or
eds the sealing and electrical
irements including 3000 volt
kdown. Electrical characteris-
nd accuracy are the same as
orresponding F models with-
the HXX designation. Every
r is tested in water where the
lute pressure of the air above
vater is reduced to 2.5 inches
ercury (approx. 57,000 ft. altitude) and is maintained for one minute.
dimensions, see Table, Line 8, and Print SK-51 Rev. D. Standard
ge is 100-130. Meters marked * are normally stocked; others are
ıced on order.

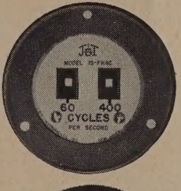
IXX, 10 reeds, 48-52 cy. and 58-62 cy.	$34.30
IXX, 5 reeds, 58-62 cy.	30.45
IXX*, 9 reeds, 380-420 cy.	40.90
IXX*, 9 reeds 56-64 cy.	34.05
IXX-11, 11 reeds, 55-65 cy.	36.25
IXX-Z-11, illustrated, 11 reeds, 57.5-62.5 cy.	37.90

2½" SEALED METERS

manufactures 2½" sealed frequency meters which are similar to
½" sealed above, except with dimensions per Line 3 of Table.

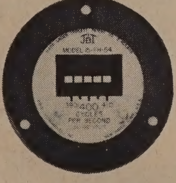
IXX, 5 reeds, 58-62 cy., 100-130 volts	$34.85
IXX, 5 reeds, 380-420 cy., 100-130 volts (normally stocked)	$39.80

1½" SEALED METERS



EL 15-FHAC. Widely used as the fre-
cy standard on audio-oscillators, the
el illustrated operates 2 reeds, 60 and 400
es, at approximately 8-10 volts on 0.04
s for a cathode follower circuit. Accu-
±0.5% at 77°F. Steel case has tele-
e black case, solder terminals. Barrel
½" diameter; 2-3/32" detachable flange
covers glass-to-metal seal. See Table of
ensions, line 1

IAC	$20.30



I-5 METERS (lower photo) also use the
black metal case with 2-3/32" detach-
flange and glass-to-metal seal. The 15-
series features 5 reeds in a row for
30 volt operation. Specified where size
weight are important. Same 100% inspec-
for approx. 57,000 ft. altitude as FHXX
s. Standard meters, but not regularly
ked. See Table of Dimensions, line 1.

I-54, 5 reeds, 390-410 cycles, 1.25 watts wer consumption	$25.85
I-56, 5 reeds, 58-62 cycles, 0.25 watts wer consumption	$21.45
I-400, 5 reeds, 380-420 cy., 1.25 watts wer consumption	$25.85

RUGGEDIZED METERS

el with "RUG"—Sealed vibrating reed frequency meters and sealed
sed time meters are available, when so ordered, to the intent of
M-10304B, which covers ruggedization of other kinds of meters.
feature usually is specified only for extra-severe shock and
ation.

400 CYCLES, IN 1 CYCLE STEPS; 800 CYCLES

ong the non-cataloged variations which J-B-T produces on special
er, are 21-reed, 390-410 cycles in 3½" case; and 11-reed 780-820
es with 5-cycle increments. Quotations on request.

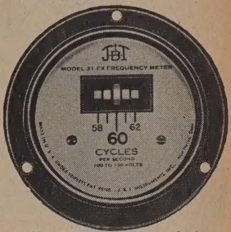
NOTE ON METER VOLTAGE

J-B-T Vibrating Reed Frequency Meters of all sizes normally are made with two studs and are designed to be connected across one phase of a multi-phase line. The single phase voltage where the meter will be used thus becomes the voltage to be specified for the meter. Special meters with extra studs are made only for the purpose of reading two or more voltages, not additional phases.

2½" METERS — 5 REEDS

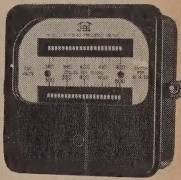
MODEL 21-FX, 23-FX. Matches other 2½" panel instruments. Meets ASA. C39.1-1951 and MIL-M-6B (Type MR 24 or MR 25) in depth of case and mounting dimensions. Weighs only 4½ ozs.; 5 reeds 58-62 cycles 500 ohms per volt 0.25 watt power consumption. At 400 cycles, 170 ohms per volt, 0.7 watts power consumption. Flush panel mounting; see print MD-20, Rev. B, also Table of Dimensions, Line 2.

21-FX, 58-62 cy.; 2-11/16" Molded Case, 1 cy. steps	$22.55
23-FX-54, 390-410 cy., 2-11/16" Molded Case, 5 cy. steps	$27.50
23-FX, 380-420 cy., 2-11/16" Molded Case, 10 cy. steps	$27.50



(Operating at 60 cycles)

400 CYCLE BROAD AND VERNIER INDICATORS



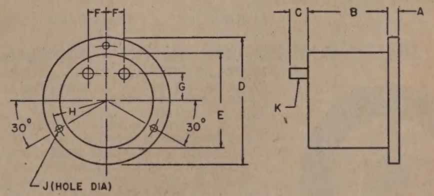
MODEL 41-FX-42 (supersedes Model 41-FX) Widely used in commercial and military testing, this model provides two windows: for 300-500 cycles, 21 reeds in 10-cycle steps, and, for a vernier effect, 380-420 cycles with 21 reeds in 2-cycle steps. Black molded case, flush front is 4-3/64" wide x 4-3/64" high x 2-29/32" deep behind panel over studs. 100-130 volts is standard; also made with 4 studs for 200-240, 115 and 30 volts, 4.5 watts at 115 volts, 7.7 watts at 200 volts, 2 watts at 30 volts. For mounting, see Print MD-38-11

41-FX-42, 100-130 volts	$125.00
41-FX-42, 3 voltages, without switch.	$140.00

PORTABLE FREQ. TESTERS

FP SERIES, METAL OR MOLDED CASE. Accuracy of ±0.3% meets the exacting test requirements of aviation, signal, and communication equipment. **M-Types** use anodized gray aluminum case, 6⅜" long x 4" wide x 3-9/32" deep. Leads permanently attached. See Print SK-63-10. With pertinent name plate, **33-FP-9M** is known as **TS-328 A/U. L-Types,** sturdy molded case within top grain leather carrying case 6-3/32" x 4¼" x 2¾"; 4' leads with 5" test picks and banana plugs.

33-FP-9M, 380-420 cy., 9 reeds, 100-130 volts, 70 ohms per volt, 1.5 watts power consumption; com. quality and packing	$49.25
34-FP-9M, 56-64 cy., 9 reeds, 100-130 volts, 130 ohms per volt, 1 watt power consumption, com. quality and packing	$42.35
33-FP-9L, (illustrated) 380-420 cy., 9 reeds, 100-130 volts	$47.60
34-FP-9L, 56-64 cy., 9 reeds, 100-130 volts	$40.70



FREQUENCY AND FREQUENCY — TIME METERS, TABLE OF DIMENSIONS, INCHES

	MODEL	MIL-M-6B* MOUNTING	A	B	C	D	E	F	G	H	J	K TERMINAL DESCRIPTION
Line 1	15-FH Series	—	1/8	1-9/16	3/8	2-3/32	1-1/2	3/8	3/8	0.875	0.125	Solder, 1/16" dia. hole
Line 2	21-FX and 23-FX Series	MR 24, MR 25	13/64	1-3/8	23/32	2-11/16	2-5/32	7/16	9/16	1.220	0.116	10-32 NF-2 studs
Line 3	21-FHXX, 23-FHXX	MR 26**	3/32	1-27/32	11/16	2-11/16	2-1/8	1/2	1/2	1.220	0.125	Solder, 3/32 hole
Line 4	30-F to 34-F Series	—	7/64	2-3/32	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150	10-32 NF-2 studs
Line 5	30-FX to 36-FX Series	MR 34, MR 35	19/64	2	23/32	3-1/2	2-11/16	7/16	7/8	1.580	0.150	10-32 NF-2 studs
Line 6	31-FE Series	—	7/64	3-7/8	23/32	3-1/4	2-9/16	7/16	7/8	1.453	0.150	10-32 NF-2 studs
Line 7	31-FEX-1 Series	MR 34, MR 35	7/64	3-7/8	23/32	3-1/2	2-9/16	7/16	7/8	1.453	0.150	10-32 NF-2 studs
Line 8	30-FHXX to 34-FHXX Series	MR36**	3/32	2-1/4	5/8	3-1/2	2-11/16	1/2	3/4	1.580	0.150	Solder, 3/32 hole

*Also JAN-I-6 and ASA C39.1-1951 Mounting   **Also MIL-M-10304B Mounting

Net Effective Aug. 31, 1962

INSTRUMENTS & TESTERS . . . .

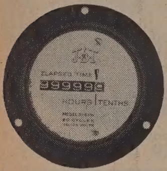
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

ELAPSED TIME METERS; FREQUENCY-TIME METERS; REED RELAYS AND OSCILLATOR CONTROLS

• USES AND ADVANTAGES OF ELAPSED (OR RUNNING) TIME METERS

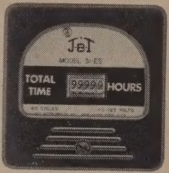
To record operating time of AC electrical and electronic equipment, these self-starting synchronous instruments normally register in 1/10th hour steps to 9,999.9 or 99,999.9 hours, then automatically reset. They are widely used for tube life, TV equipment, punch presses, conveyors, oil burners, ground support equipment, maintenance schedules, etc. J-B-T engineers recommend the AC type of elapsed time meter for superior accuracy, especially where voltage or ambient temperature vary widely.

New WIDE-NUMERAL ELAPSED TIME METERS



MODEL 31-EXW. The latest J-B-T elapsed time meter is Model 31-EXW, illustrated. Easily-read, wide 6-digit numerals register to 99,999.9 hours then automatically reset. Distinctive contemporary dial shows tenths in black on white, and units in white on black. The 3½" black molded case is interchangeable with Model 31-EX and FX types of frequency meters. Print SK-125 gives mounting information.

Model 31-EXW, 6-digits, 0-99,999.9 hours, 60 cy., 110-125 volts. **$16.95**



MODEL 31-ES. A square black molded case, matching other 3" x 3" meters, differentiates this model from the round 31-EX. Ask for Print SK-110, Rev. F showing standard rear mounting 2¼" bet. centers of molded-in studs, new rugged case with overall depth 3-11/32" behind flange, and electrical studs on center line. Variations can be made for 99,999 hours (suffix U), 230 volts, minutes, matte finish, or 50 cycles.

31-ES, 60 cy., 110-125 volts, 0-9,999.9 hours. **$17.05**

ELAPSED TIME METERS — Tenths of Minutes

MODEL 31-EXM, 60 cycles, 110-125 volts, reading 0-9,999.9 **minutes;** for short-run applications or readings at closer intervals than 31-EX. Tenths of minutes in red on white, minutes in white on black numerals, otherwise identical with 31-EX **$16.25**

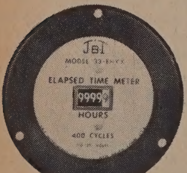
3½" SEALED ELAPSED TIME METERS — 60 Cycles

J-B-T
ELAPSED TIME METER
TOTAL TIME
00000
HOURS

MODEL 31-EHXX. Where rugged requirements make a completely sealed elapsed time meter desirable, this glass-to-metal construction with flat glass front and 3½" diameter separable flange, often is specified. Heavy-duty solder terminals are supplied. Every instrument is checked in a vacuum chamber. Overall dimensions and appearances match the FHXX series sealed frquency meters. Maximum voltage between terminals and case, 1,000 volts, R.M.S. The meter registers in 1/10 hour steps to 9,999.9 hours, then automatically resets. Tenths indicator is red on white, all others in white on black. Mount according to SK-85, Rev. C.

31-EHXX, 60 cy., 110-125 volts.... **$19.75**

3½" SEALED ELAPSED TIME METERS — 400 Cycles



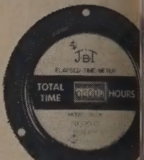
MODEL 33-EHXX. This stable, self-starting 400-cycle elapsed time meter is extensively used for preventive maintenance and for reliability testing and checking in a wide variety of equipment. The instrument is entirely enclosed in a 3½" flanged case, glass-to-metal sealed construction with separable flange; heavy-duty solder terminals; flat glass front. 1/10 hours are shown in red on white, all other numerals white on black. The external appearance matches FHXX frequency meter series. For dimensional details see SK-61, Rev. B.

33-EHXX, 400 cy., 0-9,999.9 hours, 1/10 hour steps, 110-125 volts **$58.00**

2½" SEALED ELAPSED TIME METERS

MODEL 21-EHXX. A full size counter reading 9,999.9 hours in 1/10 hour steps and a rugged self-starting synchronous motor are built into this 2½" sealed meter. Its front mounting dimensions are the same as Type MR26 electrical indicating instruments in MIL-M-6B. Glass-to-metal seal makes the instrument completely tamper-proof. Ask for Print SK-68, Rev. G. A. 2½" 400-cycle meter, **Model 23-EHXX** also is made on special order.

21-EHXX, 60 cy., 110-125 volts **$24.75**



MODEL 31-EX. First in popularity among all J-B-T elapsed time meters, this self-starting instrument registers to 9,999.9 hours in 1/10 hour steps before automatically resetting. Red numerals on white are used for tenths, all others are white on black. Black molded case matches FX series 3½" frequency meters and completely encloses all parts. This case, with centered terminals, meets type MR34 or MR35 mounting dimensions of MIL-M-6B, also JAN-I-6. Referring to line 5 of the Table of Dimensions on the preceding page, barrel depth (B) is 2½", stud height above center (G) is zero, and all other measurements are as shown. Types for 99,999 hours, or 50 cycles, or special voltages available on special order.

31-EX, 60 cy., 110-125 volts **$1**

31-EX-200, 60 cy., 230 volts (not regularly stocked) **$1**

CLEAR-PLASTIC ELAPSED TIME METERS

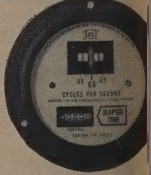
J-B-T
110-125 VOLTS
ELAPSED TIME METE
HOURS
MODEL 21-EPL

EPL TYPE. The modern clear-plastic front gathers light from every side and is compatible with many other instruments. A sturdy metal case with solder terminals is used behind the panel. The 2½" size is 2-19/32" wide x 2⅜" high with 2⅛" diam. meter barrel, per print SK-102, Rev. C. The 3½" is per print SK-108, Rev. C.

21-EPL, 2½" size (illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$25.75**

31-EPL, 3½" size (not illus.), 60 cy., 110-125 v., 0-9,999.9 hrs. **$23.75**

ELAPSED TIME — FREQUENCY METERS



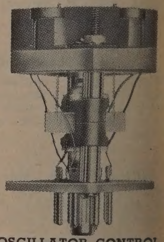
31-FE SERIES. To conserve panel space and centralize information, this panel instrument combines elapsed time or running time meter with frequency reeds. It is used on motor generator sets and on electrical equipment where maintenance routine calls for periodic servicing. The J-B-T design, proved by years of field experience, uses a separate exciting coil for the reeds to achieve close control of reed amplitude and frequency. Reads 0-9,999.9 hours, and 58-62 cycles with 5 reeds, for 100-130 volt operation; self starting. Tenths shown in red on white, all other numerals in white on black. Black metal case with front mounting per Table of Dimensions, line 6. Power c sumption is 4.7 watts. For variations having 7, 9, or 11 reeds, regularly stocked, such as Model 34-FE, see print SK-45. Rev. C.

31-FE, 3¼" metal case 4-19/32" deep, ... **$33**

31-FEX-1, (per print SK-44—not regularly stocked) like Model 31-FE, cept with 3½" metal flange permanently attached for MIL-M-6B fr mounting per line 7, Table of Dimensions **$34**

RESONANT — REED RELAYS AND OSCILLATOR CONTROLS

RELAY RR-A11A-124.0



OSCILLATOR CONTROL RO-B10B-188.0

J-B-T's many years of experience in the manufacture of resonant re products is being utilized to produce, on a custom basis, frequenc sensitive electro-mechanical control devices of **two types.** The **contc type** makes use of a resonant reed in conjunction with a highly reliab control system. Typical are Series RR-A- and RR-B-plug-in **relays** (som times known as decoders) which respond to a signal of predetermin frequency in the range of 50 to 1000 cps. **Oscillator controls** (sometim known as tone generators or encoders) are made in octal and 7-pro plug-in types, double or single reeds, in frequencies corresponding the relays. Typical in Series RO-B-, of which a 188.0 cycle cut-away mo el is illustrated. For further information, see Bulletin 162R. The **contactle type** is a new, patented device evolved from combining resonant re and photoelectric principles. The reed acts as a shutter in the light bea from light source to a photo-sensor. For further details, please reque reprint of technical paper on Photoreeds. For quotations, please descri application as fully as possible.

Net Effective Aug. 31, 1962

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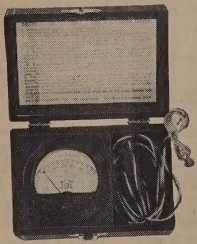
.... INSTRUMENTS & TESTERS

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

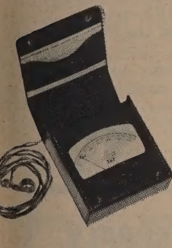
APPLIANCE TEMPERATURE TESTERS AND ACCESSORIES LABORATORY TEMPERATURE INDICATORS; ACCESSORIES

OVEN TESTERS

MODEL 23-JP-1. This popular portable indicating pyrometer saves time and furnishes reliable information in testing and setting thermostats on electric or gas ranges and other appliances by showing oven temperatures as they change. Standard size dial, 0-650°F., with 2⅜" scale arc reading, is used but covered by clear-plastic instrument front. The indicator is mounted on a black metal panel affixed inside a pocket-sized, black top-grain leather case 4½" x 2⅞" x 4¼" over hardware. Characteristic of more expensive pyrometers, the 23-JP-1 is automatically compen-
d for ambient temperature. Thus the
r eliminates calculations, avoids likeli-
d of serious error as temperature
nges inside the instrument itself, and
s foolproof direct readings. Supplied
attached SA-116, 5½' calibrated ther-
ouple, clip, and convection shield **$26.00**

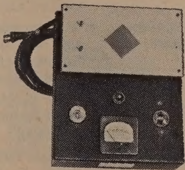


DEL 32-JP-3. This time-tested model uses
gid outer carrying case 6" x 3⅞" x 3¾",
ered in black leatherette. The glass-
ered indicator shows 0-650°F. range in
divisions readable to 2½° on a 2⅜"
e arc. Exceptionally fast, continuous
onse. Automatic compensation for am-
t temperature is a valuable feature
ther the tester is used for service work,
s demonstrations, or inspection. At-
ed SA-116, 5½' thermocouple, clip for
ching to grill and convection shield
uded **$28.00**



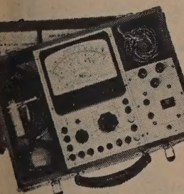
NEWEST MODEL 32-JP-7. Most versatile, and easiest to read of J-B-T oven temperature testers, Model 32-JP-7 offers a 650°F scale more than 4" long. Automatic compensation for ambient temperature change is included, so that temperatures are read directly and without calculations. The 32-JP-7 also provides color-coded external binding posts. These permit quick attachment or interchanging of various J-B-T theromcouples placed in one or more of the heat zones to be checked. An SA-116 5½' thermocouple with attachment clip, convection shield is supplied and is left attached when the tester is carried. For maximum usefulness in checking irons, washers, toasters, clothes dryers, etc., appropriate accessory thermocouples are suggested. Tester price includes stitched Ever-ready case, 5" wide x 5½" high x 2¾" deep, of sturdy, scuff resistant black vinyl. **$29.50**

IRON TESTER



DEL 32-JIT. Self-contained bench-type
ter; checks all makes of irons; measures
rmostat temperatures; shows open or
rt circuits. Automatically compensated
room temperature. Also indicates oper-
ng temperature of the sole plate (work-
surface) on non-electric or cordless
ns. Black metal base; overall size 10" x
x 5½", scale 0-650°F, 15 amp fuse, 6'
d, 110 volt, 50-60 cycles. **$34.50**

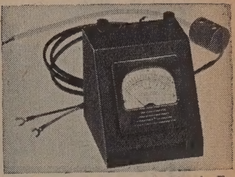
ALL-PURPOSE TESTER



MODEL 61-JRT. A 9-in-1 tester to speed accurate temperature adjustment and electrical analysis of ranges, refrigerators, etc. Rapidly reads four cold zones —100°F, +80°F. up to 14' distant; two heat zones 0-600°F. up to 5½' distant; one voltage range 0-300 AC; and, with transformer, two current ranges, 0-30 and 0-60 amps, AC. Sturdy, polished walnut case, 15½" x 10 3/16" x 4¾". Two color etched metal panel. Separate switches protect bulb and ammeter circuits. Requires one standard flash-
ht cell, replaceable in the field. Temperature accuracy ±2% of full
ale; rectified AC readings ±5%. Accessories as listed may be added
testing appliances. Includes two SA-162 resistance bulbs, two SA-116
ermocouples, electrical leads, and AS-TR-2 built-in transformer **$124.00**

ODEL 61-JRT (LESS TRANSFORMER)
me unit, same scales except no reading in amperes; AS-TR-2 trans-
rmer omitted. **$110.00**

HEAT INDICATORS



MODEL 32-J PYROMETER IN SN-7 STAND. Mounted in sloping front black metal stand, 4¼" high x 4⅜" deep x 4⅛" wide. Compensated for ambient temperature. Medium resistance system, damped for quick reading on 2⅜" scale, assures ruggedness and pointer stability. For ±2% accuracy, use only the type and resistance of thermocouple and lead provided; if extra length,—coil it—to maintain calibration. A protection tube usually is not required. For convenience keep an extra thermocouple and lead on hand.

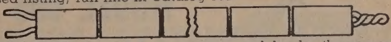
MODEL 32-J IN SN-7 STAND (Supersedes SN-3 Stand)

0° -650°F-350°C, includes SA-91 thermocouple, SA-84 lead, and CB-1 connector block	$33.50
0°-1200°F-650°C, includes SA-87, SA-82, and CB-1	33.50
0°-2000°F-1100°C, includes SA-87, SA-82, and CB-1	33.50

MODEL 32-J IN SN-8 STAND (not illustrated). With 3 binding posts to accommodate flexible extra lead and thermocouple for hard-to-reach locations. (Stand supersedes SN-5)
0°-650°F with SA-91 thermocouple, SA-84 lead, CB-1 connector block, and SA-86 flexible leads and thermocuple **$37.50**

TEMPERATURE AND TESTER ACCESSORIES

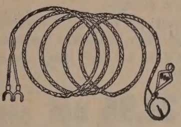
Condensed listing; full line in Catalog 562



THERMOCOUPLES. For J-B-T pyrometers and leads, thermocouples are carefully selected, standardized, and tested.

SA-87. 12" #14 Ga. chromed-alumel, 2 hole ceramic beads, fits 5/16" hole; welded tip **$3.40**

SA-91. 12" #14 Ga. iron-constantan, 1938 calibration; 2-hole ceramic beads, fits 5/16" hole; welded tip **$2.90**



SA-116 with **SHIELD** and **CLIP.** Flexible No. 22 gauge iron constantan, asbestos insulated, 5½', with attachment clip and convection shield for use with 23-JP-1, 32-JP-1, 32-JP-2, 32-JP-3, 32-JP-4, 32-JP-7, 60-JRT and 61-JRT Testers. (See SA-199 for extra quality glass insulated type).

SA-116 **$2.00**

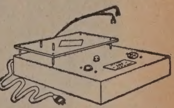
SA-175 (PLAIN TIP). For roasters, waffle irons, etc., 5½' #22 Ga. with small ball tip; use where clip and shield are unsuitable **$1.60**

SA-176 (for **TOASTERS,** etc). Same as SA-175 except tip has special disc to collect heat **$3.00**

SA-188 (for **AUTOMATIC WASHER TEMPERATURES,** etc.). 3/16" dia, copper tube, 4" long, encloses couple; for use in pipe or sample of water **$4.50**

SA-199 (with **SHIELD** and **CLIP**). Same as SA-116 except duplex non-fraying glass braid construction; dia. .115"; for frequent use above 400°F. **$2.65**

SA-300 (for **SURFACE READINGS**). Spring-type 1-C in Transite tip with handle and 5' #22 Ga. lead for rapid reading; not regularly stocked **$8.00**



ACCESSORY IRON TESTER, MODEL IT-1. This attachment is identical with 32-JIT except there is no meter. **$18.00**

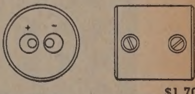
LEAD WIRES SA-82. 6' compensating lead for chromel-alumel couples; duplex stranded, asbestos-insulated: outside moisture-proof and flame-proof (not interchangeable with SA-84) **$1.70**

TRANSFORMERS. AS-TR-2. Attachment for 61-JRT to read 30 and 60 AC amp scales on tester; includes jumper lead and panel **$18.00**

AS-TR-3 For 60-JRT tester. To read 30 and 60 AC amp by dividing volt scale by 10 or 5. Complete with attachments **$20.00**

RESISTANCE BULBS (for cold testing). **SA-142.** Bulb with 14' polyethylene ribbon lead, for 60-JRT only. **$ 6.50**

SA-162. Bulb, with 14' polyethylene ribbon lead, for 50-50 and 61-JRT testers **$ 6.50**



CONNECTOR BLOCK MODEL CB-1. Lava connector block, withstands high temperatures, accommodates all thermocouples. Heavy brass connectors keep contact resistance low. Useable with or without connector head **$1.85**

LEAD WIRES

SA-82, 6' for chromel-alumel couples	$1.70
SA-84, 6' for iron constantan couples	$1.70
SA-86, 7' Iron constantan thermocouple and lead combined; #20 Ga., twisted pair asbestos insulated.	$2.05

Net Effective Aug. 31, 1962

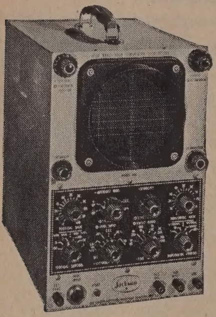
J-B-T INSTRUMENTS, INC.
NEW HAVEN 8, CONN.

Electrical Instruments, Testers and Electronic Components

For other J-B-T Products, see Sec. 5100

"SERVICE ENGINEERED" TEST EQUIPMENT

THE JACKSON ELECTRICAL INSTRUMENT COMPANY, DAYTON, OHIO



MODEL 600 LABORATORY OSCILLOSCOPE

A new, compact, laboratory oscilloscope, equally suited to service, industrial and scientific applications. Features choice of wide-band or high sensitivity operation, originated by Jackson. Power supply regulated for stable operation.

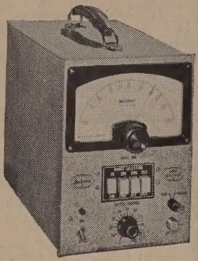
- Wide band vertical amplifier, flat within 1db from less than 20 cycles to 4.9 MC, usable to 10 MC.
- Two-range vertical sensitivity from 20 mv/inch.
- Horizontal amplifier response uniform within 2 db from 20 cycles to 200 KC.
- Linear Sawtooth Sweep, 10 cycles to 100 KC.
- Sync Sources: Internal Signal, Internal 60 or 120 cycle, External Source.
- Input Calibration Voltage, 10 V, P-P.
- Provision for direct connection to CRT deflection plates.
- Lighted graticule with variable illumination.
- Camera studs for any standard scope camera.
- Variable sweep expansion.
- Return Trace Blanking.
- Intensity modulation, external, or internal 60 cycles.
- Flat face CRT for improved linearity.
- Sweep frequency pulse on panel terminal for transformer ringing test.

Size: 15″ H x 9⅛″ W x 13″ D, overall.

Power Requirements: 105-125 VAC, 50-60 cycle, 75 watts.

Accessory Probes: Uses same probes as Model CRO-2.

$335.00 net SHIPPING WEIGHT 29 LBS.



MODEL 605 AUDIO SINE-SQUARE WAVE OSCILLATOR

A new, precision audio generator with a choice of either sine wave or true square wave output. Square wave is NOT a clipped sine wave but is generated by a special Schmitt Trigger circuit. Features push-button range selection and variable output.

Range: 20 cycles to 200,000 cycles, sine or square wave in 4 ranges.

Accuracy: 3% or 1 cycle, whichever is greater.

Output: High Impedance, continuously variable. Sine wave 0 to 5.0 RMS Volts, Square Wave 20 mv to 7.0 P-P.

Sine Waveform: Less than 1% distortion.

Output Level Characteristic: ±1 db over full range.

Hum Level: Down more than 50 db at all output levels.

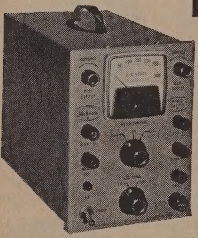
Square Wave Rise Time: Less than 0.2 μsec.

Square Wave Tilt: 5% at 60 cycles. Less than 1% above 200 cycles.

Dimensions: 11″ H x 7⅝″ W x 13″ D.

Power Requirements: 110-120 VAC, 50-60 cycles, 50 watts.

$129.95 net SHIPPING WEIGHT 21 LBS.



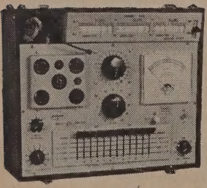
MODEL 607 VARIABLE REGULATED POWER SUPPLY

A complete laboratory power supply which provides heater, bias and regulated variable B+ voltages in one compact package.

- AC Heater Output: 6.3 VAC at 3 A max.
- DC Bias Output: 30 to 275 VDC, no load. 15 to 150 VDC at 20 ma.
- DC Regulated Output: Low Position 150 to 225 VDC, 0 to 100 ma. max. High Position 225 to 300 VDC, 0 to 100 ma. Regulation: Within 1.5%. no load to 100 ma. at 300 volts.
- Ripple Content: Bias Supply: Less than 0.003% at 20 ma. Regulated Supply: Less than 0.005% at 100 ma.
- Metered Output: For Bias and Regulated B+ Supply.
- Dimensions: 8¼″ H x 5⅜″ W x 10¼″ D.

$79.95 net

SHIPPING WEIGHT 12 LBS.



MODEL 598 LOW-COST DYNAMIC® TUBE TESTER

An economical tube tester featuring the famous Jackson Dynamic principle, already proved by service men everywhere. Checks practically all receiving tubes under load conditions. Completely flexible for future tubes, without having to buy extra cards or sockets.

- 23 Separate Heater Voltages for any receiving tube.
- Variable Plate Voltage and Load.
- Grouped Tube Socket Sub-Assembly.
- Good/Bad, plus "percentage" meter indications.
- Zig-Zag Roll Chart in Quick-Change Housing.
- Variable Shorts Sensitivity Test.
- Line Voltage Indicating Control.
- Convenient Lever Switching.
- Portable case for shop or on-the-job use.

Dimensions: 16½″ L x 14½″ W x 6¾″ D.

POWER CHART AVAILABLE

$109.95 net

SHIPPING WEIGHT 21 LBS.

Jackson

"SERVICE ENGINEERED"

Test Equipment

THE JACKSON ELECTRICAL INSTRUMENT CO., DAYTON, OHIO

MODEL CRO-2 5-INCH WIDE-BAND, HIGH SENSITIVITY OSCILLOSCOPE

Laboratory quality scope with highly stable circuitry and every feature for accurate TV work, color and black & white. Widely used, too, in many laboratory and industrial applications.

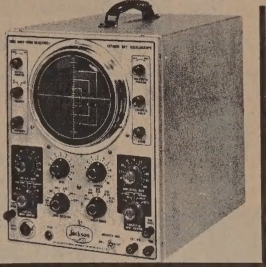
- Wide Band Amplifier, flat within 1 db 20 cycles to 4.5 mc.
- Two-range vertical deflection sensitivity from 0.018 rms volts-per-inch
- Highly stable amplifier circuits. No balancing required.
- Positive or negative internal horizontal sync.
- Linear sawtooth oscillator, 20 cycles through 50 kc.
- Input calibrating voltage, 10 volts peak-to-peak
- Vertical polarity reversal
- Variable sweep expansion
- Return trace blanking
- Z-axis modulation — internal, external or 60-cycle
- Direct connection to deflection plates when required

ACCESSORY PROBES

LC2-1P Low Capacity Probe. Cathode follower type. 2:1 attenuation. Not more than 8 *uuf* effective impedance .... $19.95 net.

LC10-P High Voltage Low Capacity Probe. 10:1 attenuation ratio. For circuits where up to 1,000-volts is present .... $7.95 net

DEM-P Demodulation Probe. For RF or IF signal tracing .... $9.95 net



$225.00 net SHIPPING WEIGHT 32 lBS.

MODEL TVG-2 SWEEP MARKER GENERATOR AND CRYSTAL CALIBRATOR

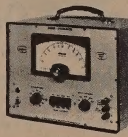
The TVG-2 is a complete alignment generator for any TV set or FM broadcast receiver—in fact, any receiver within its tuning range. Has ample output for even the most badly de-tuned receiver. Valuable for working with FM broadcast receivers, low band police FM receivers and others in the VHF ranges covered.

- Wide range sweep oscillator covers three bands all on fundamentals: 2 to 38 mc, 38 to 108 mc, and 174 to 216 mc.
- Variable sweep width 0 to 18 mc in 8 steps
- Video Sweep (30 kc) for color circuit adjustments
- Accurate Marker Generator (¼%) from 4 to 216 mc.
- Crystal oscillator for any crystal 3 mc to 20 mc with beat detector
- 400 cycle modulation for marker or crystal oscillators
- Provision for video signal modulation
- Variable output impedance on 10K range
- Provides oscilloscope timing axis with phase and blanking controls

$289.95 net SHIPPING WEIGHT 35 LBS.

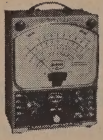
MODEL 655 WIDE RANGE AUDIO OSCILLATOR

- Push-button range selection
- Exceptionally stable RC tuned sine wave generator
- Frequency range 20 cycles to 200,000 cycles in 4 steps
- Up to 500 milliwatt output
- Output impedances of 10, 250, 500, or 5,000 ohms plus resistive output
- Frequency characteristic within 1 db 30 to 15,000 cycles on transformer output
- Accuracy, 3% or 1 cycle whichever is greater
- Sinusoidal Waveform
- Hum Level down 60 db at maximum output
- Logarithmic Calibration Curve
- Continuously variable output
- Factory-calibrated for guaranteed accuracy



$150.00 NET
SHIPPING WEIGHT 32 LBS.

MODEL 590 ALL-NEW 7" VTVM



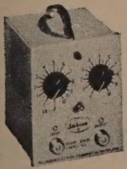
- Large 7" meter and hairline pointer for greatest accuracy
- Fast warm-up time—complete accuracy in less than 5 minutes
- Single Probe for all measurements
- Accurate a-c voltage readings from 20 cycles to 2 mc.
- All-new silicon diode circuitry
- Factory calibrated for guaranteed accuracy

$69.95 NET. SHIPPING WEIGHT 8 LBS.

RANGES: DC volts, plus or minus, and AC volts: 1, 5, 10, 50, 100, 500, 1000 volts full scale. Separate 1 volt rms scale, separate peak-to-peak and Zero-center d-c scales. Ohms Rx1, 10, 100, 1k, 10k, 100k and 1 meg. Center of Rx1 scale, 10 ohms. Accuracy d-c and ohms, 3% of full scale; a-c volts 5% full scale.

MODEL 59 H.P. HIGH VOLTAGE PROBE FOR 590.......... $9.95 NET

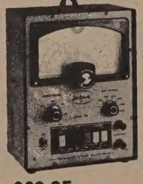
MODEL 606 SQUARE WAVER



$34.95 NET
SHIPPING WT. 5 LBS.

Now you can get true square waves from your present sine wave generator. The Model 606 square wave characteristics are the same as Model 605 Generator. Provides true square waves over the frequency range provided by the driving source generator. Input and output continuously variable. Negligible rise time and tilt. Square wave shape is independent of the driving source wave shape. Ideal for producing a square wave output from the Model 655.

MODEL 691 WIDE-RANGE CAPACITANCE CHECKER



$69.95 NET
SHIPPING WEIGHT 11 LBS.

- Tests capacity from 10 *uuf* to 1000 *uf* in 4 ranges
- Color-coded range push-buttons match scale colors for easy selection
- Graduated leakage tests for both polarized and unpolarized capacitors
- Low voltage bridge for testing electrolytic capacitors in transistorized circuits with complete safety
- Graduated power factor test for electrolytics, 0 to 60%
- Electron-ray indicator tube for all tests
- Complete with test leads
- Factory-wired and calibrated for guaranteed accuracy

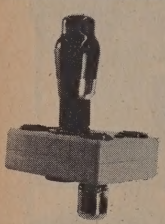
Jackson

"SERVICE ENGINEERED" Dynamic® Tube Testers

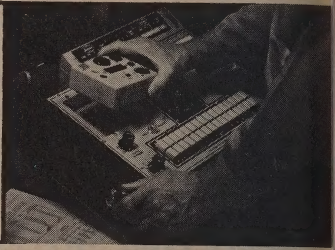
New Models Test ALL New Tube Types

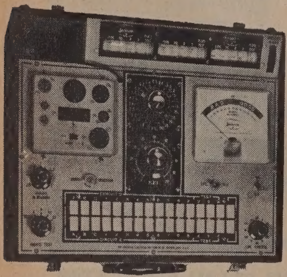
• Nuvistors—5 and 7 pin versions • Compactrons • Novars • New 10 pin • Sub-miniature
• New, Small Diameter 12 pin • New, Large Diameter 12 pin • Low Power Special Purpose Tubes

Plus all TV and Radio Tubes • 12 volt Hybrid Tubes • Eye Tubes • Rectifier Tubes • VR Tubes



Compact, Double-Face Socket Assembly—7 sockets for popular and newer tubes on Side 1 and 7 sockets for regular old tubes on Side 2. Fits into receptacle with interlocked safety switch. Simply lift out and reverse socket assembly to accommodate type of tube being checked.

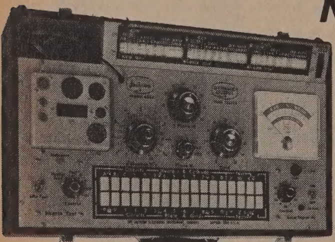




648S Dynamic® Tube Tester

- Best for servicemen... faster, more accurate and completely versatile for all new tubes.
- Double face Socket assembly with 14 sockets
- Push-button sequence switching makes set-up time less than tube warm-up time
- Angled view zig-zag roll chart
- Semi-conductor rectifier for insta warm-up
- 23 Separate Heater Voltages from .7 to line voltage
- Variable Sensitivity Shorts Test—u to 2 Megohms
- Automatic Line voltage indicator

$154.95 net SHIPPING WEIGHT 22 LBS.



New 658A Dynamic® Output Tube Teste

Faster, more versatile, designed for industrial, laboratory, engineering and service applications, the new Jackson 658A makes all these tests on new and old tube types.

Heater Continuity—Heater Current
Rectifier Tests—Dynamic "Eye"
Tube Tests-Grid Leakage

Features:

- Double Face Socket Assembly with 14 Sockets
- Push-Button Sequence Switching
- Silicon Rectifier Balanced Doubl Bridge Circuit
- 231 Heater Voltage Combination from 0.6 to 120 volts
- Panel Mounted Fused Line fo Overload Protection
- Compact, Portable Case, 21″ 13¾″ x 7″

$214.95 net

SHIPPING WEIGHT 26 LBS.

FASTER, MORE ACCURATE, MORE VERSATILE, MORE PROFITABLE!

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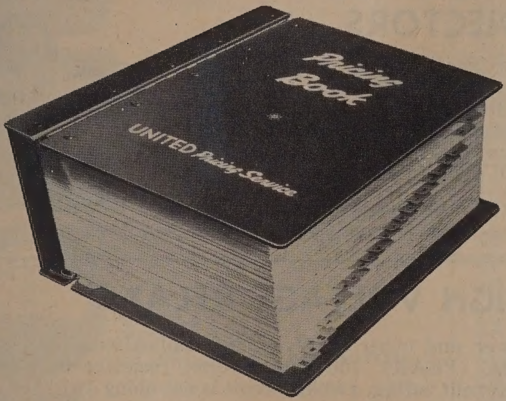

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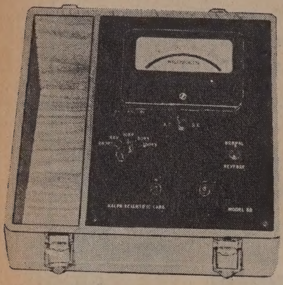
Kalpa SCIENTIFIC LABORATORIE

Manufacturers of High Voltage Components



HIGH RANGE KILOVOLTMETER

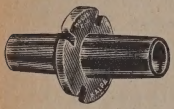
RANGES

0 to 5,000/10,000/50,000/
100,000
Volts DC. or 60 cycles AC.
Model 50-AC or DC $400.00
Model 60-DC only $300.00

Measures extra high voltages as eas as standard low voltage tests. Speci highly insulated probes are used f both AC and DC readings. Pan mounted trimpots allow for insta recalibration, should this ever b required. Large 6 inch mirror sca meter for maximum accuracy.

HIGH VOLTAGE CONNECTORS

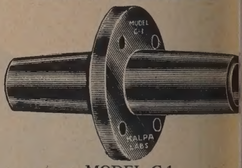
RATED FOR
5,000 VOLTS DC



MODEL C-0

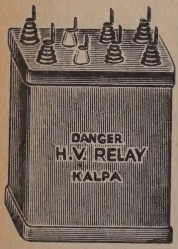
Sturdily constructed of plastic high voltage barrier material. Has the convenience of mating with any standard banana jack for quick disconnect or 10/32 machine bolt for permanent service. Widely used for mounting on front panels. Sealed center conductor permits operation in oil filled tanks.

RATED FOR
25,000 VOLTS DC



MODEL C-1

Miniature Model C-0	*Rated for 5,000 Volt DC service.*	*Price $ 5.00 each.*
Standard Model C-1	*Rated for 25,000 Volt DC service.*	*Price $10.00 each.*



HIGH VOLTAGE RELAYS

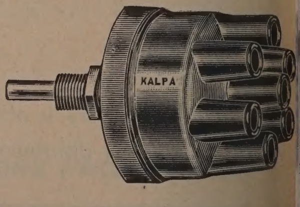
For polarity change-over and other H. V. circuit applications. Will carry up t 15,000 Volts DC or AC (PEAK). 150 Milliamperes, resistive load switching. amperes steady state current rating, (when circuit is not being switched). Standar coil rated for 115 volts 60 cycles AC.

MODEL	RATING	TYPE	PRICE
5 HV—SPDT —A	5 KV	S.P.D.T.	$ 40.00
5 HV—DPDT—B	5 KV	D.P.D.T.	60.00
10 HV—SPDT —A	10 KV	S.P.D.T.	60.00
10 HV—DPDT—B	10 KV	D.P.D.T.	80.00
10 HV—3PDT —C	10 KV	3.P.D.T.	100.00
15 HV—SPDT —A	15 KV	S.P.D.T.	80.00

HIGH VOLTAGE SWITCH

For use in High Voltage low current circuits. DPDT types and Single Pole six position types available. Nominal rating 5,000 Volts DC or AC (PEAK). May be used in lower duty circuits at up to 10,000 Volts.

Model SW-1 DPDT $20.00
SW-2 SP6T $20.00



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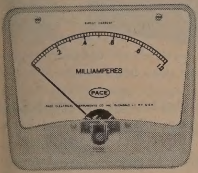
PANEL INSTRUMENTS FOR EQUIPMENT MANUFACTURERS

DIRECT CURRENT
MILLIAMPERES
PACE

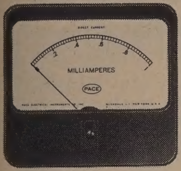
Model 55. . . . 5¼"
Rectangular
Phenolic



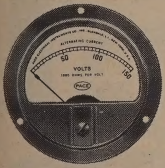
Model 15-LP ... 1½"
Model 25-LP .. 2½"
Model 35-LP ..... 3"
Model 45-LP ....4⅞"
Rectangular
Acrylic
Standardly available
clear or black finish

MILLIAMPERES
PACE

Model 42-W. . . 4¼"
Rectangular
Phenolic



Model 45-L. . . 4⅝"
Rectangular
Phenolic

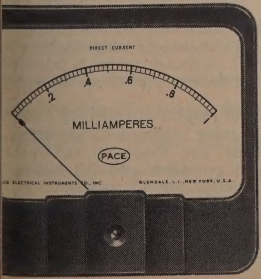


Model 25-R. . . 2½"
Model 35-R. . . 3½"
Round
Phenolic

MILLIAMPERES
PACE

Model 25-L ..... 2⅜"
Model 35-L .... 3"
Rectangular
Phenolic

VU Meters
Available with
Standard A
or B Scales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.8
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PACE
PACE ELECTRICAL INSTRUMENTS CO., INC.
GLENDALE, L.I., NEW YORK, U.S.A.

Model 75. . . . . .7"
Rectangular
Phenolic

SPECIAL PACE FEATURES

Apply to both standard external magnet and core-magnet meters.

- **Full Double-Bridge D'Arsonval Movement**
- **Precision Die-Cast Movement Frame**
- **High Density Sintered Iron Pole Pieces**
- **Coined, Soft-Iron Pole Faces**
- **High-Flux Alnico Magnets**
- **Optimum Torque To Mass Ratio**

These features, coupled with strict quality control, result in superior shock and vibration characteristics, high accuracy and long, trouble-free life. **PACE** meters are supplied in production quantities to meet the custom requirements of Original Equipment Manufacturers. (Specify External or Core Magnet). **PACE** stock meters also available at electronic parts distributors.

	Ranges	Approx. Resistance (ohms)	Models 15-LP*, 25-L, 25-R, 25-LP*	Models 35-L, 35-R, 35-LP*	Models 42-W, 45-L, 45-LP*	Model 55	Model 75
D.C. MICROAMMETERS	0-25	6000	$18.50	$19.50	$21.50	$24.00	—
	25-0-25	2000	15.85	16.40	17.60	19.35	—
	0-50	2000	15.85	16.40	17.60	19.35	—
	50-0-50	1000	13.75	14.30	15.50	17.00	—
	0-100	1000	13.75	14.30	15.50	17.00	—
	0-200	500	12.20	12.90	14.10	15.50	$22.55
	0-500	200	11.30	11.85	13.20	14.50	20.35
D.C. MILLIAMMETERS	0-1	100	$10.35	$11.00	$12.20	$13.40	$18.70
	1-0-1	50	10.35	11.00	12.20	13.40	18.70
	0-2.5	40	10.35	11.00	12.20	13.40	18.70
	0-3	33.3	10.35	11.00	12.20	13.40	18.70
	0-5	20	10.35	11.00	12.20	13.40	18.70
	0-10	10	10.35	11.00	12.20	13.40	18.70
	0-25	4	10.80	11.45	12.65	14.00	19.55
	0-50	2	10.80	11.45	12.65	14.00	19.55
	0-75	1.33	10.80	11.45	12.65	14.00	19.55
	0-100	1.0	10.80	11.45	12.65	14.00	19.55
	0-200	.5	10.80	11.45	12.65	14.00	19.55
	0-250	.4	10.80	11.45	12.65	14.00	19.55
	0-300	.33	10.80	11.45	12.65	14.00	19.55
	0-500	.2	10.80	11.45	12.65	14.00	19.55
D.C. AMMETERS	0-1	.100	$10.80	$11.45	$12.65	$14.00	$19.55
	0-2.5	.040	10.80	11.45	12.65	14.00	19.55
	0-3	.033	10.80	11.45	12.65	14.00	19.55
	0-5	.010	11.35	12.00	13.20	14.50	20.10
	0-10	.005	11.35	12.00	13.20	14.50	20.10
	0-50	.001	11.35	12.00	13.20	14.50	20.10
D.C. VOLTMETERS	0-3	1000 ohms per volt	$11.20	$11.80	$13.00	$14.30	$19.80
	0-10		11.20	11.80	13.00	14.30	19.80
	0-15		11.20	11.80	13.00	14.30	19.80
	0-40		11.20	11.80	13.00	14.30	19.80
	0-50		11.20	11.80	13.00	14.30	19.80
	0-75		11.20	11.80	13.00	14.30	19.80
	0-100		11.20	11.80	13.00	14.30	19.80
	0-150		11.20	11.80	13.00	14.30	19.80
	0-200		11.20	11.80	13.00	14.30	19.80
	0-250		11.20	11.80	13.00	14.30	19.80
	0-300		11.20	11.80	13.00	14.30	19.80
	0-500		11.80	12.45	13.65	14.95	20.65
	0-1000	2000 ohms per volt	14.15	14.95	16.40	17.95	24.80
A.C. MILLIAMMETERS (Rectifier Type)	0-1	1500	$15.25	$16.75	$18.65	$20.50	$26.35
	0-5	375	15.25	16.75	18.65	20.50	26.35
	0-10	150	15.25	16.75	18.65	20.50	26.35
	0-25	60	15.25	16.75	18.65	20.50	26.35
	0-50	30	15.25	16.75	18.65	20.50	26.35
	0-100	15	15.25	16.75	18.65	20.50	26.35
A.C. VOLTMETERS (Rectifier Type)	0-3	1000 ohms per volt	$14.65	$16.25	$18.15	$20.00	$25.85
	0-10		14.65	16.25	18.15	20.00	25.85
	0-15		14.65	16.25	18.15	20.00	25.85
	0-50		14.65	16.25	18.15	20.00	25.85
	0-150		14.65	16.25	18.15	20.00	25.85
	0-250		14.65	16.25	18.15	20.00	25.85
	0-300		14.65	16.25	18.15	20.00	25.85
	0-500		15.20	16.80	18.70	20.70	26.70
	0-1000	2000 ohms per volt	18.25	20.25	22.45	24.85	32.00
V.U. METERS (A or B Scale)	—20 to +3	3900	$19.00	$20.65	$22.55	—	—

All prices are subject to change without notice.

*Add 50 cents to prices indicated for "BLACK" acrylic cases Models 15-LPB, 25-LPB, 35-LPB and 45-LPB. PACE external magnet meters are calibrated for use on non-magnetic panels. For use on magnetic panels, state panel material and thickness and add $1.50 to prices indicated. Core magnet meters are not affected by panel.

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Manufacturers of fine electronic instruments for over a quarter of a century.

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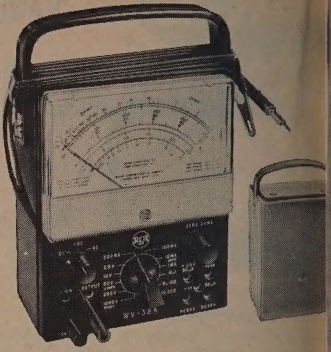


WG-270A Accessory Carrying Case f
WV-38A VOM **$4.95***
**User Price (Optional)*

WV-38A V-O-M (KIT or WIRED)

Ohms-divider network fuse-protected. Easier-to-read scales on extra-large 5¼ inch meter. Polarity reversal switch. Full-wave bridge rectifier. Less circuit loading. Standard dbm ranges.

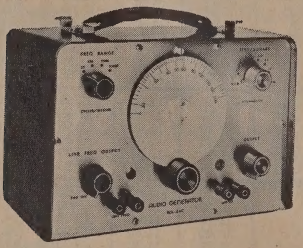
Extra 1-volt and 0.25-volt (250 mv) ranges.

Handle clips accommodate probes and test leads for extra carrying convenience.

The WV-38A VOM has an input resistance of 20,000 ohms-per-volt on dc and 5,000 ohms-per-volt on ac and an accuracy of ±3% of full scale on dc, ±5% of full scale on ac. Regular scales: 2.5, 10, 50, 250, 1000, 5000 volts, ac and dc; 50 μamp, 1, 10, 100, 500 ma, 10 amps (dc); plus extra scales of 250 mv and 1-volt (dc)! Frequency response (ac), flat from 10 cps to 50 Kc with usable response at 500 Kc. Ohms—3 ranges—R x 1 (0-2,000 ohms), R x 100 (0-200,000 ohms), R x 10,000 (0-20,000,000 ohms). Dimensions: W 5¼" x H 6⅞" x D 3⅜".

$29.95* WV-38A(K) VOM Kit
$43.95* WV-38A VOM (factory wired and calibrated)

WA-44C AUDIO SIGNAL GENERATOR
SINE/SQUARE WAVE OUTPUT



$98.50* Complete with 20 page instruction booklet.
**User Price (Optional)*

The Compact WA-44C is ac operated from a 50-to-60 cycle, 105-1 volt source, and covers in four bands a range from 20 cps to 200,000 c Can be used for a wide variety of applications, including the measur ment of frequency response characteristics of audio amplifiers, and t testing of loudspeakers and enclosures or finding the impedance of L combinations. Width 10$\frac{11}{16}$", Height 7", Depth 6⅛".

The circuit of the sine-wave function consists of a "Bridged-T" oscill tor with a cathode follower output stage. The square-wave output is d veloped by using the sine-wave oscillator output to drive a clipping an shaping circuit. Produces a stable signal with an amplitude variation not more than ±1.5 db. Total harmonic distortion is limited to 0.25 over the range of 30 cps to 15 kc.

- Switch selection for sinewave or squarewave output
- Simple one-scale dial
- Separate 60 cps output for intermodulation distortion measuremen
- Wide frequency range, 20 cps to 200,000 cps.
- Less than ¼ of 1% distortion over the audio-frequency range

WR-64A COLOR-BAR/DOT/CROSSHATCH GENERATOR

$189.50*
Complete with RF output cable, cable-carrying bracket attachment and instruction booklet.

**User Price (Optional)*

For checking over-all operation of Color-TV receivers. A "must" for adjusting and trouble-shooting color phasing and matrixing circuits. Generates signals for producing ten bars of different colors simultaneously Also provides extremely stable fine-line crosshatch and dot patterns fre from "jitter" and "crawl". Fixed number of bars and dots facilitate adjustment of over-scan (height and width) and linearity in both colo and black-and-white sets.

The Color-Bar and Dot/Crosshatch generating functions require n external sync connections. All three patterns are RF outputs, factory se to channel 3 (can be set to channel 4). A sound carrier is provided t permit accurate adjustment of the fine-tuning control on the receive

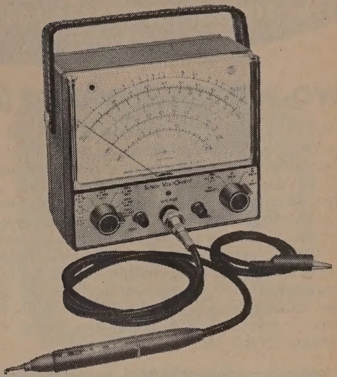
The WR-64A features a chroma control helpful in checking color syn lock and color AFC alignment. The color sub-carrier frequency, th horizontal sync-pulse frequency, and the "bar" frequency are all crysta controlled. A shielded output cable is provided with the instrument Width 13½", Height 10", Depth 7½". Weight only 13 pounds.

RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WV-98C Senior VoltOhmyst®

(Kit or Wired)



A plication: provides direct reading ot peak-to-peak voltages of complex w eforms found in video, sync and deflection circuits. Includes an improved ci uit providing ±3% accuracy full scale on both ac and dc measurements w h less than 1% tracking error. Separate color-coded, peak-to-peak and rms-v age scales in two distinctive colors simplify readings. Features die-cast al minum case; high input resistance; electronic protection against burnout; ru ged 200-microampere meter movement; precision multiplier resistors with ac racy of ±1% and 0.5-volt full-scale dc range for checking transistor ci uits.

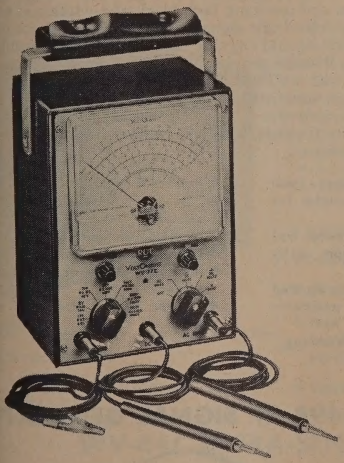
- **rge 6½" easy-to-read, full vision eter (26 sq. in.).**
- **easures complex waveforms direct- from 0.2 volt to 4200 volts peak-to- ak in 7 overlapping ranges.**
- **easures rms values of sine waves om 0.1 volt to 1500 volts in 7 over- pping ranges.**
- **easures from 0.02 volt to 1500 volts on two scales in 7 overlapping -to-1" ranges.**
- **INPUT RESISTANCE — 11 megohms on all dc ranges.**
- **Measures resistance from 0.2 ohm to 1000 megohms on single scale, with 7 overlapping ranges.**
- **FREQUENCY RESPONSE — 30 cps to 250 Mc with WG-301A Crystal-Diode Accessory Probe.**
- **Compact design: 7" wide, 3¾" deep, 6½" high.**

Ki eatures pre-assembled DC/AC-OHMS Probe

$57.95* WV-98C(k) Senior VoltOhmyst Kit.
$79.50* WV-98C Senior VoltOhmyst (Factory Wired).

**User Price (Optional)*

V-77E VoltOhmyst® (Kit or Wired)



The WV-77E features flat frequency response ±5% from 40 cps to 5 Mc on the 1.5, 5, and 15-volt rms ranges and the 4, 14, and 40-volt peak-to-peak ranges. The WV-77E measures dc from 0.02 volt to 1500 volts, rms ac from 0.1 volt to 1500 volts, peak-to-peak ac from 0.2 volt to 4000 volts, and resistance from 0.2 ohm to 1000 megohms—all in seven overlapping ranges! Full-scale accuracy is ±3% on dc and ±5% on ac. Meter is electronically protected against burnout. Separate scales are provided for low ac measurements. Input resistance is standard 11 megohms. Width 5⅝", Height 7¾", Depth 4¾", Weight 5 lbs.

- **Sleeve on handle stores probes and cables**
- **Fuse in ohms circuit prevents accidental burnout**
- **Circuit minimizes effect of residual gas in bridge tube**
- **Color-coded scales for easier, faster readings**
- **Ultra-slim probes and extra-flexible cables**

$29.95* WV-77E(K) VoltOhmyst Kit
$43.95* WV-77E VoltOhmyst (Factory-Wired)

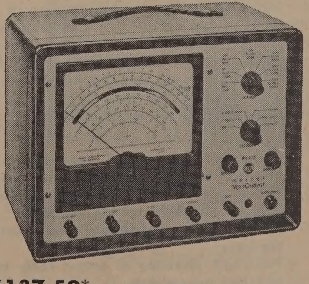
**User Price (Optional)*

(Prices for WV-77E(K) and WV-77E include d probe and cable, ac/ohms probe and cable, ground lead and clip, and instruction booklet. Assembly instruction sheet is provided with the WV-77E(K) VoltOhmyst Kit.)

A plication: measures dc voltages accurately in high-impedance cir- c s even with ac present; reads rms values of sine waves and the p k-to-peak value of complex waves or recurrent pulses even in p ence of dc. Invaluable for television, radar and other types of pulse w k. Has the accuracy and stability necessary for many laboratory a lications including a mirror scale.

- **:2% accuracy on ac and dc volts.**
- **easures resistance from 0.2 ohm to 1000 megohms, current from 10 icroamperes to 15 amperes.**
- **atures ±1% multiplier and shunt resistors.**
- **ero-center scale adjustment for discriminator alignment.**
- **nsitivity on 1.5 v range — 7.3 megohm/volt.**
- **C polarity reversing switch.**
- **easures dc Voltage from 0-1500 volts; ac from 0-1500 volts rms; 4200 volts eak-to-peak.**
- **requency Response—30 cps to 250 Mc using auxiliary WG-301A Crystal- ode Probe.**

WV-87B Master VoltOhmyst®



$137.50* complete with probes and cables; including WG-299D DC/AC-Ohms Probe and Cable, current cable, ground cable insulator, instruction booklet.

**User Price (Optional)*

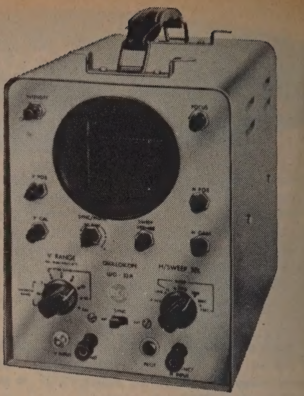
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WO-33A OSCILLOSCOPE (Kit or Wired)

The WO-33A 3-inch Oscilloscope is the "all purpose" scope! All the bandwidth you need for servicing color-TV, video broadcast monitors and cameras; and for square-wave testing of audio and ultrasonic equipment! All the gain you need for low-level audio work — servicing pickups, microphones, preamps; plus signal-tracing radios, amplifiers—trouble shooting communications signaling systems, ham radio and hi-fi equipment, industrial electronics machinery and other applications.
With vertical amplifier in narrow-band position, sensitivity is 3 rms millivolts/inch; bandwidth within –3 db, 20 cps to 150 Kc. Wide band position: sensitivity 100 rms millivolts/inch; bandwidth within –3 db, 5.5 cps to 5.5 Mc. Sweep circuit: Sawtooth range from 15 cps to 75 Kc; sync — external, ± internal; line sweep — 160° adjustable phase; sync range—to 4.5 Mc.

- **for accuracy—voltage-calibrated frequency-compensated, 3-to-1 step attenuator**
- **for measurements—scaled graph screen and calibrating voltage source allows direct reading of peak-to-peak voltages**
- **for stability—"plus-minus" internal sync . . . holds sync to 4.5 Mc**
- **for completeness—shielded input cable with low-capacitance probe included**
- **for portability—compact size—W 6½" x H 8¾" x D 10¼"—weight only 14 lbs. Plus built-in brackets to hold power cord and cables**



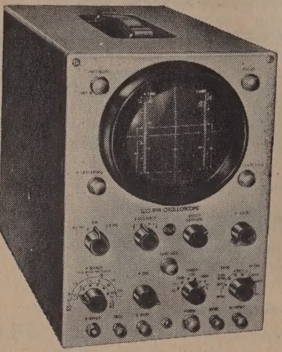
$79.95*—WO-33A(K) Oscilloscope Kit

$129.95*—WO-33A Oscilloscope

(Prices for the WO-33A(K) and WO-33A include Direct Low-Cap probe and cable, and instruction booklet.

**User Price (Optional)*

WO-91A 5" OSCILLOSCOPE



$249.50* complete with WG-300B two-way Direct/Low-Capacitance Probe and Cable, alligator clip and insulator, ground cable; green graph screen. Instruction booklet.

**User Price (Optional)*

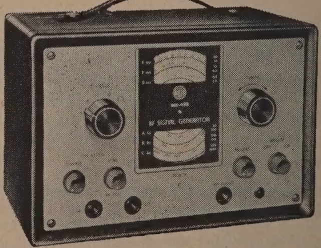
Application: for production and servicing both black-and-white and color receivers. Used to measure color burst signals and for trouble-shooting w band color circuits, signal tracing and aligning wide-band video amplifiers, chrominance circuits. A multi-scale graph screen makes peak-to-peak volt measurements as simple as with a VTVM. Response: Wide-band within ±1 from 10 cps to 4.5 Mc; High sensitivity within –1 db from 10 cps to 0.5 within –6 db to 1.5 Mc. Sensitivity: 0.05 volt peak-to-peak per inch (0. volts rms) in high-sensitivity position; 0.15 volt peak-to-peak per inch (0. rms volts in wide-band position).

- **Voltage - calibrated, frequency - compensated, 3-to-1 step attenuator for "V" amplifier.**
- **Shielded vertical-input connector and shielded cable minimize hum, stray field pickup.**
- **Input Resistance—1 megohm shunted by 40$\mu\mu$f. Low capacitance position—10 megohm shunted by 11 $\mu\mu$f.**
- **Z-Axis input 12 volts for blanking.**
- **Preset "V" and "H" sweep positi**
- **"Plus" or "Minus" internal-sync selector.**
- **Positive-lock internal sync.**
- **Sweep Frequency: 10 cps to 100**
- **Maximum ac input: 600 volts p to-peak.**
- **Weight: 30 lbs. Size 13½" x 16 x 9".**

WR-49B RF SIGNAL GENERATOR

Application: for alignment and signal tracing of AM and FM radio receivers, alignment of low-frequency if amplifiers in TV receivers, and signal tracing and trouble-shooting in TV receivers. Continuously tunable from 85 Kc to 30 Mc. With the WR-49A you can inject rf signals into plate circuits and other points where dc is present without placing a dc load on circuit under test . . . with protection from burn-out in both equipment and signal generator.

- **Cathode-follower output stage isolates oscillator from effects of load reactance and resistance, thereby maintaining good output waveform, voltage regulation and frequency stability of the oscillator.**
- **Functional-design dial facilitates accurate, easy readings.**
- **Full-length shielding of output cable minimizes radiation and hum pickup.**
- **Built-in dc blocking capacitors.**
- **Built-in 400 cycle oscillator for internal or external use.**
- **Range: 85 Kc to 30 Mc in 6 ranges.**
- **Maximum output at "hi" connector — .05 volts; at "lo" connector — .01 volts rms.**



$79.50* complete with shielded cable for rf or af output, instruction booklet.

**User Price (Optional)*

- **Calibration accuracy of Dial — ±1%.**
- **Attentuation range — 65 db.**
- **Percentage of modulation — adjustable to 70%.**
- **External modulation input available.**
- **Weight: 8 lbs. Size: 7½" x 10½" x 6".**

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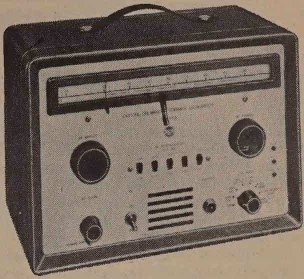
RCA TEST EQUIPMENT

FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-99A CRYSTAL-CALIBRATED MARKER GENERATOR

plication: supplies a fundamental frequency rf carrier of crystal accuracy use in aligning and trouble-shooting TV (color and black-and-white) FM receivers, and other electronic equipment operating in the range of to 260 Mc. Built-in crystal calibrator, heterodyne detector, amplifier and aker provides calibrating beats at 1 Mc or 10 Mc intervals throughout ire tuning range which is covered by 8 bands. A built-in 4.5 Mc crystal vides necessary accuracy for alignment of intercarrier-if amplifiers and criminators.

- **At least 0.1 volt output, into 95 ohms terminated.**
- **Provides signals for adjusting vertical or horizontal linearity.**
- **Precision matched impedance/resistance pad attenuator, 0-60 db in 5 db steps.**
- **Special modulation input available for re-transmission.**
- **Provision for use as Heterodyne Frequency Meter.**
- **Provides dual markers for band-width checks and rf alignment.**
- **Triple markers for sound-if alignment and band-width checks.**
- **Adjustable dial pointer for accurate registration with crystal-calibration check points.**



$242.50* complete with rf output cable, instruction booklet.

**User Price (Optional)*

R-70A RF/IF/VF MARKER ADDER

4.50* complete with four coaxial cables d instruction booklet.

**User Price (Optional)*

Application: for rf, if and video sweep alignment of both color and black-and-white TV receivers. Provides sharp, easy-to-read markers for alignment. A choice of four different marker shapes is available, permitting use of marker type best suited to the response curve. Designed for use with conventional marker and sweep generators, such as the RCA WR-39 and WR-89 series marker generators and the WR-59 and WR-69 series TV sweep generators. With the WR-70A, the marker signal is added to the sweep-response curve after the sweep signal is taken out of the receiver under test.

- **Eliminates or reduces distortion of sweep curve by the marker.**
- **Permits trap alignment without marker "suckout."**
- **Hi-Q markers — high in amplitude, narrow in width.**
- **Four marker choices — positive peak, negative peak, positive and negative peaks (wide band), positive and negative peaks (narrow band).**
- **Voltage stabilized for rock-steady trace display.**

SPECIFICATIONS

IF/VF sweep input — 50 Kc to 50 Mc. RF input — 50 Mc to 250 Mc.

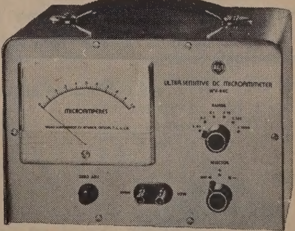
MINIMUM INPUT VOLTAGES — IF/VF — 0.1 volts rms. RF Sweep sample input—0.005 volts rms. Marker input—0.1 volts rms. Maximum demodulator signal input—8 volts peak-to-peak.

MAXIMUM SIGNAL OUTPUT — Marker signal — 2.5 volts rms. Demodulator signal — 10 volts peak-to-peak. Input and output impedances all 100 ohms except demodulator signal input of 0.5 megohm.
Weight: 8 lbs. Size: 7½" x 10½" x 6¼".

WV-84C ULTRA-SENSITIVE DC MICROAMMETER

plication: a battery-operated vacuum tube microammeter designed for easuring minute direct currents, for making current and voltage measureents in electrolysis and corrosion investigations, and for checking currents light meters, ultra-violet and infrared detectors, and spectrophotometric vices. Self-contained batteries permit use almost anywhere. Low-drain tubes tend battery life and protect the delicate meter against burnout due to accintal overloads. When used as a voltmeter, it is especially suited to measureents in circuits where loading is a critical factor. Can also be used as an mmeter to measure extremely high resistances, such as leakage and inlation resistance.

- **Six direct-current ranges for measuring currents from 0.0002 to 1000 microamperes.**
- **Can be used as ohmmeter to measure resistance in the order of billions of ohms.**
- **Voltage drop for full-scale deflection only 0.5 volts.**
- **Input resistance of 100 megohms for measurement of voltages from 0.1 to 1 volt; 1000 megohms input resistance for voltages from 1 to 10 volts, 1005 megohms for voltages from 1 to 100 volts.**



$110.00* includes 50- and 950-megohm multiplier resistors, instruction booklet.
(less batteries)

**User Price (Optional)*

- **Over-all microammeter accuracy on .01 range ±5% or better; accuracy on all other ranges ±4% or better.**
- **Size 7½" x 10½" x 6¼". Weight: 10 lbs. including batteries.**

RCA TEST EQUIPMENT

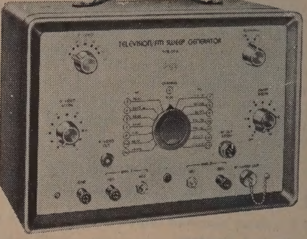
FOR SERVICE, INDUSTRY, SCHOOLS, LABORATORIES

WR-69A

TELEVISION/FM SWEEP GENERATOR

Tops for visual alignment of both TV and FM receivers, the WR-69A has preset switch positions for all VHF TV channels, the FM broadcast band, and TV video, chrominance, and if frequencies. VHF output is on fundamental frequencies only; no beat notes or harmonics are used. Exceptionally good linearity is provided by a precision vibrator capacitor. Continuously adjustable sweep width and flat output make for accurate sweep response portrayals. The WR-69A is especially suited to alignment of color receivers. Special sample-voltage terminal on panel permits use with marker-adder units in alignment. Dual-piston attenuator provides smooth even attenuation over 60 db range. Width 13⅝", Height 10", Depth 7".

- **IF/Video output frequency continuously tunable from 50 Kc to 50 Mc.**
- **Sweep-frequency bandwidth continuously adjustable from 50 Kc to 20 Mc on if/video and fm - 12 Mc max. on TV channels.**
- **Return trace blanking.**
- **Two adjustable bias voltages available on front panel.**



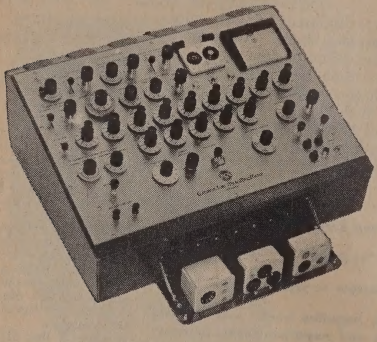
$295.0

(complete with RF Output cable, IF/Video Output cable and instruction booklet.)

**User Price (Option*

WT-100A Electron-Tube MicroMhoMet

A precision laboratory measuring instrument which tests tubes unc typical operating conditions as specified in the tube manufacturers' tec nical data manuals. It is particularly useful in production line testi design and development work, pre-selecting for critical applicatio quality control programs, and preventive maintenance. MEASUR MENTS PERFORMED: ac heater current from 0.02 ampere to amperes • dc filament current up to 250 ma • voltage drop acr rectifier tubes and semiconductor diodes • transconductance from micromhos to 100,000 micromhos. Within the range of its facilities will test: vacuum tubes—diodes, triodes, tetrodes, pentodes, heptod spetodes, octodes, and multi-unit types; gas tubes—thyratrons, volta regulators, cold-cathode and hot cathode rectifiers; in these bases a envelopes—bases with 4, 5, and 6 pins, lock-in, miniature, sub-miniatu pencil and lighthouse; and semi-conductor diodes—small dry-disc rec fiers, germanium and silicon diode types. Size: W 23½" x H 8" x 18½". Weight: 50 lbs.

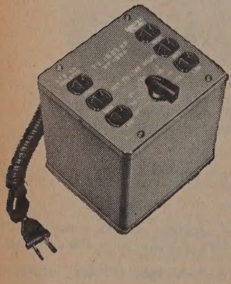


$989.00* Electron-Tube MicroMhoMeter

(complete with 4 multiple-socket plug-in units, instruction booklet.)

- **measures transconductance to an accuracy of better than ± 3%**
- **accurate measurement of "hybrid" auto receiver tube types under actual operating conditions**
- **built-in shorts test for any combination of tube elements**

- **measures transconductance up to 100,000 micromhos in six rang**
- **measures both control-grid-to-plate and suppressor-grid-to-pla transconductance**
- **built-in calibrating circuit—no null meters or extra devices require**
- **meter completely burnout-proof**
- **regulated power supplies for dc plate and screen test voltages**



WP-25A
TV ISOTAP

Speeds up servicing, prevents damage to test equipment, minimizes shock hazard, cuts down costly returns. The WP-25A may be used as a high-medium-low voltage isolation transformer or as an auto-transformer for testing radio and TV receivers at various settings of line voltage. Supplies outputs of 130, 115, and 105 volts at maximum load and is tapped to match line voltages from 105 to 130 volts in six steps **$22.00***

WG-304B
RF MODULATOR

An accessory used to check th over-all frequency response o TV receivers from antenna t picture tube grid. The unit per mits modulation of an rf marke signal from a marker generato (such as WR-89A or WR-99A by a signal from a video sweep generator (such as WR-59C o WR-69A).

$12.50*

**User Price (Optional)*

Net

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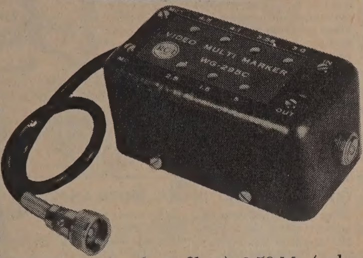
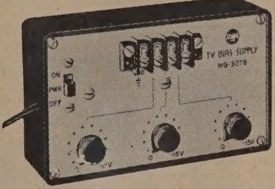
RCA TEST EQUIPMENT ACCESSORIES

G-295C VIDEO MULTIMARKER



vides seven si-
ltaneous absorp-
n-type markers
accurately pre-
frequencies for
rking video re-
nse curves in
lor receivers.
rkers are at 0.5
(For (Q. R-Y,
Y, G-Y filters),
Mc (for J filter), 2.5 Mc (for bandpass filter), 3.58 Mc (color
carrier frequency), 3 and 4.1 Mc (video and bandpass ampli-
s), and 4.5 Mc (sound-trap frequency). Each marker is
ntified simply by touching a corresponding contact on the
G-295C case. This reduces the amplitude of the particular
rker. The WG-295C connects between the IF/VF output on
sweep generator and the video output cable. Equipped with
rting switch. With instruction booklet **$32.50***

WG-307B(K) TV BIAS SUPPLY KIT

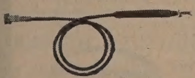


Three separate dc output voltages each adjustable from 0 to −15 V. Panel isolated from all circuits. Measures 6⅜" x 3¾" x 2". Weight: 22 ounces. **$11.95***

WG-301A CRYSTAL-DIODE PROBE

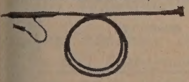
"Slip-on" type for use with the WG-299A, B or C DC/AC Ohms Probe and Cable extending the frequency range of VoltOhmysts® to 250 Mc. **$7.75***

WG-299D DC/AC OHMS PROBE AND CABLE



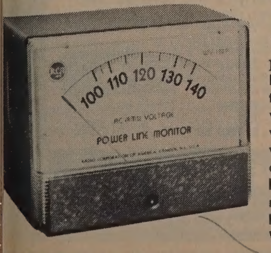
The WG-299D is a single-unit probe for use with Volt Ohmysts® except WV-77E. Switch provides instant selection of dc or ac/ohms operation. The WG-299D replaces the WG-299A, WG-299B and WG-299C. **$7.95***

WG-300B DIRECT/LOW CAPACITANCE PROBE AND CABLE



Designed for use with the RCA Scopes. Cable is 48" long, completely shielded from microphone connector to probe tip to minimize hum and stray field pick-up. Built-
switch provides instant selection of direct or low-capacitance
peration. Input characteristics: 10 megohms resistance, les
an 12.5 $\mu\mu f$ capacitance in low capacitance position. Includes
round lead and clip. **$9.95***

WV-120A POWER LINE MONITOR



For constant indication of power line voltage

Features: ● expanded scale 100 to 140 volts indicates true rms values ● accuracy ±2% at 120 volts, ±3% at 100 and 140 volts ● readable from 10 feet or more ● plugs in to power line outlet ● wide frequency range, 25 to 400 cps. H 3¹⁵⁄₁₆", W 5", D 3¹⁄₁₆"; Weight: 1½ lbs. $14.95*

WG-289, WG-297 HIGH-VOLTAGE PROBES

The WG-289 extends the dc-voltage range of the WV-77A, WV-77B, WV-77C, WV-87A, WV-87B, WV-97A, WV-98A and WV-98B VoltOhmysts to 50,000 volts. The WG-297 extends the range of the WV-77E VoltOhmyst® and WV-38A volt-ohms-milliammeter to 50,000 volts dc.

The WG-289 is provided with a microphone-type connector, and the WG-297 is provided with banana-plugs for use with appropriate VoltOhmysts and other VTVM's, VOM's.

A choice of three multiplier resistors is available, enabling these probes to be used with many popular electronic and non-electronic volt-ohm-meters!

WG-206—1090-megohm multiplier resistor for VTVM's having 11-megohm input (multiplying factor 100).

WG-210—900-megohm resistor multiplies 5000-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 10.

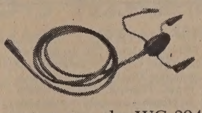
WG-211—495-megohm resistor multiplies 250-volt dc range of 20,000-ohms-per-volt VOM's by a factor of 100.

WG-289 or WG-297, Probe Only **$7.15***

WG-206, WG-210, or WG-211, Multiplier Resistor Only (each) ... **$2.80***

*User Price (Optional)

WG-349A DIRECT/LOW-CAPACITANCE PROBE

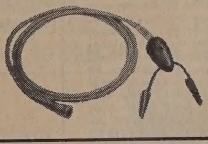


A 48-inch, small diameter, extremely flexible shielded cable designed for use with the WO-33A Oscilloscope. The probe consists of three short leads with alligator clips for ground, direct, and low-capacitance connections. For convenient use, the WG-394A eliminates the need for switching. It connects to the oscilloscope by means of a miniature-type microphone connector. Input characteristics: 10 megohms, 12 uuf capacjtance, when used with the WO-33A and WO-33A(K). **$4.95***

WG-302A RF/IF/VF SIGNAL TRACING PROBE

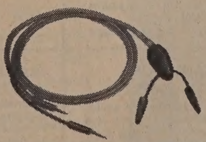
"Slip-on" type high-frequency probe designed for use with the WG-300A and B probe and cable to permit visual signal tracing for rapid isolation of trouble in radio receivers and in television if and video stages.............................**$8.50***

WG-350A DEMODULATOR PROBE



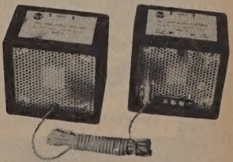
For use with the WO-33A Super-Portable Oscilloscope for demodulation and signal tracing of radio/TV rf and if signals. **$4.95***

WG-351A CRYSTAL DIODE PROBE



For extending the rf measuring capability of the WV-77E VoltOhmyst, and WV-77E(K) VoltOhmyst Kit, to over 100 Mc. **$4.95***

WG-360A PHASE CHECKER



Used for a dynamic check of phasing in any audio system from input to the output of the speakers.

Features:

- **sound powered; requires no external voltage source**
- **any VOM, VTVM, or oscilloscope may be used as the indicator**

$14.95*

**User Price (Optional)*

8855 86⁵⁰

SECO TEST EQUIPMENT

DELUXE COMPLETE TUBE TESTER

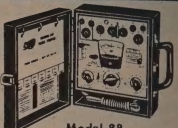
Model 107A

Tests all newest types!

Three complete tests in one compact, portable instrument! Ideal tester for Radio-TV, Industrial and Foreign types—including sub-miniature. Dynamic Mutual Conductance Test on pre-wired chassis—Cathode Emission Test for all tubes by free point selector system—"Good-Bad" meter indicates merit. Nationally accepted Grid Circuit Test, developed and patented by Seco. 12AU7 Cascode Amplifier; 6AF6G Electron Eye Indicator; 3" meter. Size: 13½" long x 9" high x 6" wide. Shipping weight: 14½ lbs. In portable carrying case with handy flip-chart for fast, easy tube set-up data. For 105-125 V, 60 cycle AC.

MODEL 107A . . . Wired and Factory Tested........$149.50 NET

GRID CIRCUIT AND TUBE MERIT TESTER



Model 88

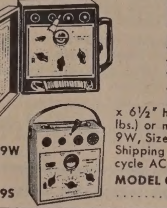
Tests all newest types!

Compact, portable, low-cost tester. Fast, easy to use! Offers complete TV tube type coverage—all modern heater type radio tubes including hybrid and battery types. Incorporates patented Seco Grid Circuit Test plus reliable Cathode Emission Test—also checks filament continuity and provides open element test. One easy-to-read meter indicates results for both Grid Circuit and Tube Merit Tests. Two-stage DC amplifier isolates and protects meter—achieves wide range of load currents and test conditions. Size: 9" wide x 10½" high x 5½" deep. Shipping weight: 6 lbs. For 110-125 V, 60 cycle AC. With portable carrying case and flip-chart for quick set-up data.

74.50

MODEL 88 . . . Wired and Factory Tested...........$69.50 NET

GRID CIRCUIT TUBE TESTER



GCT-9W

GCT-9S

Only Grid Circuit tester with full TV tube coverage—including voltage amplifiers; power output and heater-type diodes; types with Grid, Plate or Cathode caps; and hundreds of Foreign and Industrial tube types. Tests for Grid Emission, leakage, shorts and gas in one operation! Two new exclusive tests—Cathode Continuity Check and Inter-element Short Test with short identified to pin number. Easy to operate—available in metal case with exposed panel (Model GCT-9S, Size: 6½" wide x 6½" high x 2½" deep. Shipping Weight: 4 lbs.) or mounted in carrying case (Model GCT-9W, Size: 6½" wide x 6½" high x 2½" deep. Shipping weight: 4½ lbs.) For 105-125 V, 60 cycle AC.

MODEL GCT-9-S . . . Wired and Factory Tested ....$32.95 NET (GCT-9-W $34.95 NET)

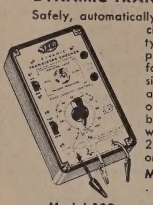
TRANSISTOR AND TUNNEL DIODE ANALYZER

Model 250

Gives you the most rapid, complete and accurate semi-conductor check in the medium priced field—plus many circuit analyzing features. Requires no set-up data—identifies NPN and PNP transistors immediately—provides dynamic GO-NO-GO test without removing transistors from circuit—provides accurate DC analysis of transistors out of circuit—indicates transistor leakage and gain—matches transistors of similar types by AC dynamic test or DC analysis—tests signal and power transistors, also tunnel and zener diodes—indicates tunnel diode negative resistance characteristics—indicates diode forward conductance and reverse leakage current—includes VOM meter with appropriate ranges. Reads BOTH Icbo and Iceo leakage—cancelling feature on Iceo gives direct, true gain reading. Choice of metal or wood case.

MODEL 250 B (Battery Powered)....................$74.50 NET
MODEL 250 A (AC Powered).......................$86.50 NET

DYNAMIC TRANSISTOR CHECKER

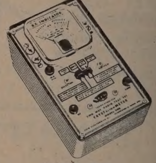


Model 100

Safely, automatically tests PNP and NPN transistors "in or out" of circuit. No set-up necessary. Covers wide range of types: small signal including "drift" types; medium power and power types. Provides positive check for "opens", shorts and gain—indicates results by simple visual signal. Also provides GO-NO-GO test at practical collector currents, and permits matching of similar transistor types. Transistors under test may be easily plugged into unit or "clipped" into circuit with external leads. Size: 3¼" wide x 6¼" long x 2¼" deep. Shipping weight: 1½ lbs. Powered by one 1.5 V "C" cell.

MODEL 100 . . . Wired and Factory Tested... ....$19.95 NET

2-WAY RADIO TEST SET



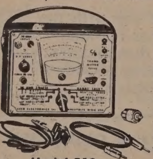
Model 500

Combination Crystal Checker, RF Signal and Field Strength Meter! Cuts service and installation time on all types of crystal controlled transmitters and receivers! Checks crystal activity on third overtone transmitter crystals—checks fundamental types and third overtone receiver crystals at fundamental frequency. Plug into jacks and use 0-50 ma. meter for final amplifier tuning. Use as output indicator. Insert crystal for quick check of "on channel" operation. Supplies low power, unmodulated RF signal for adjusting squelch, etc.—or tone modulated RF signal for peaking. Unit may be modulated by external signal generator or voice modulator. Lets you check modulation visually or with headphones. With 15 ft. remote cable. Size: 2¼" deep x 3¼" wide x 6¼" high. Shipping weight: 1½ lbs. Powered by two 1.5 V "C" cells.

MODEL 500 . . . Wired and Factory Tested ....$29.95 NET

TRANSMITTER TESTER

For Citizens Band and low power transmitters up to 160 MC. Large 3" meter is calibrated for direct reading amplitude modulation percentage; 0-5 watts RF output; 0-400 ma. RF output. High impedance input provided for Handy Talkies. Percentage of modulation scale provides check of positive and negative modulation peaks. Model 510 is equipped for headphone modulation monitoring or the connection of a scope to the unit. Measures losses in transmission lines . . . ideal for testing coaxial insertion devices such as connectors, switches, relays, filters, tuning stubs and patch cords. An Attenuator cable is available for RF metering up to 15 feet. Optional "T" pad attenuator adapts the Model 510 for use with transmitters rated up to 50 watts. Size 6¾" wide x 2¼" deep x 5¼" high—shipping weight 2 lbs.



Model 510

MODEL 510 . . $46.95 NET

ATTENU-LOAD

Dual purpose 50 Ohm—50 Watts attenuator and load termination. Ten db "T" pad attenuator reduces power levels by ratio of 10 to 1. The fully shielded 50 ohm termination is designed for coaxial cable applications.

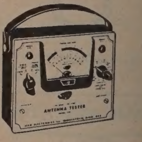
MODEL 511A.......... ....$15.95 NET

Model 511A

ANTENNA TESTER

In-line antenna efficiency tester and in-line R. F. Power Meter. Dual cylinder air coupler rated at 1000 watts maximum—does not insert error into coaxial line up to 160 MC. Direct reading scales show clear numerical values. An English reading "Antenna System Efficiency" scale marked off in red and green, GOOD-POOR. Scale is graduated in percent. A direct reading of FORWARD POWER AND REFLECTED POWER. A standing Wave Ratio scale from 1:1 to 8:1 for those who prefer this accepted scale. Three "Watts" ranges are provided with switching, 0-10 watts, 0-100 watts and 0-1000 watts. Size 6¾" wide x 2¼" deep x 5¼" high . . . shipping weight 2½ pounds.

MODEL 520. . . . .$46.95 NET



Model 520

VARIABLE, REGULATED TRANSISTOR AND TUNNEL DIODE POWER SUPPLY

Model RPS-4

A metered variable DC supply for transistorized equipment, tunnel diode circuits, experiments, relays and similar electrical equipment, charging batteries, and biasing. Transistorized circuit maintains constant voltage over a wide load variation. Four output and meter ranges—0-1½ V, 0-30 V, 0-30 ma, and 0-150 ma. Max. ripple .01% at full load—output impedance, 1.4 ohms resistive, 3.8 ohms reactive. Specia bias tap for simultaneous 1½ V and 3 V output. This is the first transistorized power supply in the low current range.

MODEL RPS-4.........$26.95 NET

TRANSISTORIZED "S" METER

A SECO PLUS—this is the only transistorized "S" Meter on the market. Indicates signal strength accurately with no loading on AVC—illuminated "zero" to "30 db over 9" meter—controls for zero set and sensitivity—self powered, operates on 9 v transistor battery—builds into set or mounts on suction cup base.

S-METER
MODEL 540.... .....$13.88 NET

Model 540

SIGNAL FILTER

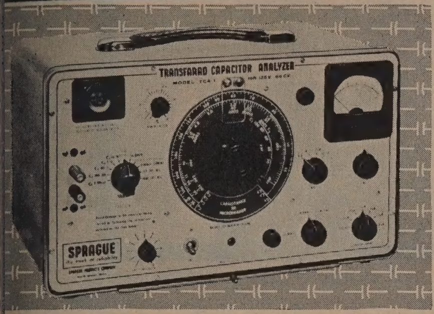
Noise limiter and controllable squelch electronically cleans signal. Clips noise pulses—increases reception range—filters ignition noises without costly suppression installations—compact (only 1⅜" x 2½" x 4¼")—rugged, encapsulated circuit assembly. For most CB tube-type transceivers—all AM superheterodyne receivers with 6 or 12 V AC or DC and 150 V "B" power supply—mobile or base station.

Model 530

SIGNAL FILTER
MODEL 530....... ....$15.88 NET

SECO ELECTRONICS, INC.
MINNEAPOLIS • MINNESOTA
A subsidiary of Di-Acro Corporation • Lake City, Minnesota

SPRAGUE TEST EQUIPMENT



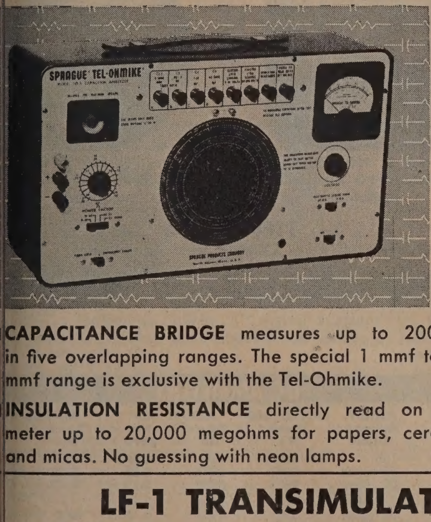
TCA-1 TRANSFARAD*

THE FIRST ANALYZER SPECIFICALLY DESIGNED TO SAFELY TEST TRANSISTOR CIRCUIT CAPACITORS. CHECK THESE FEATURES!

- **CAPACITANCE BRIDGE** measures 1$\mu\mu$F to 2000μF.5 overlapping ranges. Only 0.5 volt applied to bridge during tests. No possibility of overheating or deforming any low voltage capacitor during measurements.
- **INSULATION RESISTANCE** directly read from 50 megohms to 20,000 megohms.
- **LEAKAGE CURRENT** measured directly from 0.6μa to 600μa in seven ranges.
- **POWER FACTOR** measured by Wien bridge from 0 to 50 per cent.
- **MAGIC EYE** null detector permits accurate measurement of small capacitors.
- **SHORT-TIME STABILITY** assured by dual regulation of power supply.
- **BINDING POSTS** are shielded assuring greater accuracy.
- **FOR SAFETY** the capacitor under test is automatically discharged after testing. Three wire cord grounds case.
- **OPERATING PROCEDURES** clearly shown on convenient pull-out slide.

T Sprague TCA-1 is specifically designed to safely test pacitors such as tantalum capacitors, low-leakage minum electrolytic miniatures, low voltage ceramics d low voltage paper and film capacitors used in tranors and other low voltage circuits. No industrial laboray or modern electronic service shop can afford to be hout one! *Trademark

MODEL TCA-1 TRANSFARAD 115 VAC/60 cy..............$197.50 net
MODEL TCA-1RM for rack mounting..............$207.50 net



TO-5 TEL-OHMIKE® CAPACITOR ANALYZER

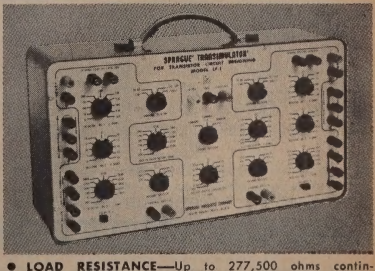
- **LEAKAGE CURRENT** of electrolytics measured directly on meter, with exact rated voltage up to 600v. applied from continuously adjustable power supply. Two ranges: 0-6-60 ma. No guessing on eye-width or counting lamp blinks!
- **POWER FACTOR** of electrolytics measured by Wien bridge up to 55% in three ranges.
- **TURNS RATIO SCALE** to measure power and audio transformers.
- **MAGIC EYE TUBE** simplifies bridge balancing for power factor and capacitance measurements.
- **PUSH BUTTONS** for instant range selection, also discharges capacitors for safety upon release.
- **MODERN CASE** finished in two-tone grey: 8⅞" high, 14⅝" wide, 6⅛" deep. Weight only 12½ pounds.
- **CAPACITANCE BRIDGE** measures up to 2000 μf in five overlapping ranges. The special 1 mmf to 100 mmf range is exclusive with the Tel-Ohmike.
- **INSULATION RESISTANCE** directly read on large meter up to 20,000 megohms for papers, ceramics, and micas. No guessing with neon lamps.

MODEL TO-5............115 VAC/50-60 cy............$92.50 net
MODEL TO-5X..........115-230 V/25-60 cy..........98.75 net
MODEL TO-5RM for rack mounting....................102.50 net

LF-1 TRANSIMULATOR®

SPEEDS TRANSISTOR CIRCUIT DESIGN—ELIMINATES BREADBOARDS

Bring transistor circuits to life in a matter of minutes with the ague LF-1 Transimulator. This instrument lets you simulate any ampli- stage, ac or direct coupled, short of high power audio output; also tivibrator, switching, phasing, push-pull, Class A and B, and many ers using cross-coupled Transimulators . . . whether the circuit is comn or grounded emitter, base, or collector . . . whether the transistors PNP, NPN or Surface Barrier. You can simulate circuits stage-by-stage cascade operation . . . or use a separate Transimulator for each stage get simultaneous multi-stage operation. Everything you need is lt right into the LF-1. An ideal oratory instrument. Use the LF-1 est transistors *in the circuit* . . . only real proof of design ameters. A complete step-by- instruction manual makes option fast, simple and easy.



FEATURES OF THE LF-1 TRANSIMULATOR

- **TRANSISTORS—**PNP and NPN Junction, and Surface Barrier.
- **CIRCUITS—**Common or Grounded Emitter, Base, Collector.
- **RANGE—**Audio, up to 100 kc.
- **TRANSISTOR POWER—**Through medium power audio output.
- **BATTERY SUPPLY—**Separate bias and load. 1.5, 3, 4.5, 6 volts d-c. Polarity Reversing Switch.
- **COUPLING—** 2 μf and 20 μF Direct, and Ext. C. posts on both Input and Output.
- **BIAS RESISTANCE—**Up to 555,000 ohms continuously variable.
- **LOAD RESISTANCE—**Up to 277,500 ohms continuously variable.
- **EMITTER RESISTANCE—**Up to 2,500 ohms variable.
- **BASE COLLECTOR STABILITY—**Up to 250,000 ohms variable. Series resistor and bypass capacitor can be added.
- **VOLTAGE DIVIDER STABILITY—**Up to 50,000 ohms variable.
- **5-WAY BINDING POSTS—**For meters, transformer coupling, external supply voltage, degeneration, bypass, coupling, signal input and output, almost any connection required.

$79.50 NET LESS BATTERIES

yright 1962, Sprague Products Company

REM-65-6224

All prices and sizes subject to change without notice.

Shurite® PANEL METERS

• **SHURITE Meters** are attractive, rugged, dependable instruments with accuracy well within ±5%, and have the ability to duplicate readings. DC meters are polarized-vane solenoid type, or moving-magnet construction when indicated; AC meters are double-vane repulsion type with jeweled bearing. The jewel construction costs more to build, but it pays off by providing continuing accuracy during a longer useful life. Models 550 and 950 fit 2 5/32" hole, and Model 850 also fits any small size down to 2 1/16". All are guaranteed.

FEATURES

GUARANTEE: Meters are guaranteed to users against defective workmanship and material, and will be repaired or replaced if sent to the factory postpaid with 40¢ handling charge within one year after purchase . . . **ALL METAL DIALS**—age and moisture resistant, lithographed in black on white for high visibility . . . **STURDY DESIGN**—with husky coil frames designed to prevent breakage, rigidly mounted in cases with anti-turning square head studs . . . **VISCOSITY DAMPING**—careful application of new silicone compound on bearing surfaces damps pointer overtravel . . . **WIDE SELECTION**—Shurite offers the broadest line of standard meters in the economy-priced field. Distributor stocks are backed by an extensive factory inventory.

WHAT'S NEW IN THIS CATALOG—In response to the growing demand for increasingly sensitive meters in the rugged, dependable Shurite construction, three 500 microampere models as listed below have been introduced. The internal magnetic design tends to minimize the effects of external magnetic forces. Volume production makes moderate prices possible. Nine additional ranges in Edgewise meters including a VU meter, and a new S meter in 850 series case, now also are stocked.

DC MICROAMMETERS

RANGE Ua.	RESIST. Approx. Ohms	Model 550* Stock No.	Model 950* Stock No.	Model 950* Net Each	Model 850* Stock No.	Model 850* Net Each
0-500**	1000	5902	9902	$4.10	8902	$4.30

* For zero adjuster, add 35c to price and Z to stock number
** Sensitive type, note internal resistance. DC bridge-type construction.

DC MILLIAMMETERS

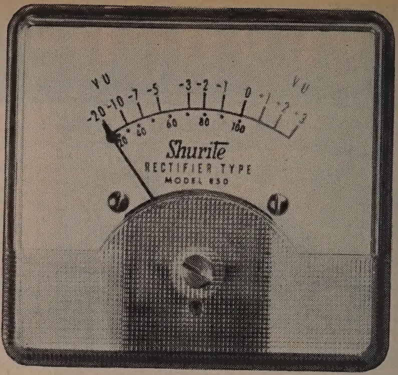
RANGE Ma.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-1**	1000	5300Z	9300Z	$3.75	8300Z	$3.95
0-3L**	500	5332Z	9332Z	3.45	8332Z	3.65
0-3	4800	5301	9301	2.85	8301	3.05
0-5	3475	5302	9302	2.60	8302	2.80
0-10	870	5303	9303	2.35	8303	2.55
0-15	485	5304	9304	2.15	8304	2.35
0-25	172	5305	9305	2.15	8305	2.35
0-50	46	5306	9306	2.15	8306	2.35
0-100	10.4	5307	9307	2.15	8307	2.35
0-150	4.7	5308	9308	2.15	8308	2.35
0-200	2.8	5309	9309	2.15	8309	2.35
0-300	1.5	5310	9310	2.15	8310	2.35
0-400	.46	5311	9311	2.15	8311	2.35
0-500	.30	5312	9312	2.15	8312	2.35

* For zero adjuster, add 35c to price and Z to stock number.
** Sensitive type, note internal resistance. Moving-magnet construction, patent pending. Price includes zero adjuster built-in.

AC MILLIAMMETERS

RANGE Ma.	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0-10	4800	5607	9607	$3.50	8607	$3.70
0-25	750	5601	9601	3.35	8601	3.55
0-50	150	5602	9602	3.35	8602	3.55
1-100	37	5603	9603	3.35	8603	3.55
0-250	5.4	5604	9604	3.35	8604	3.55
0-500	1.34	5605	9605	3.35	8605	3.55

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.



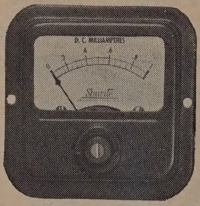
MODEL 850

(Actual Siz

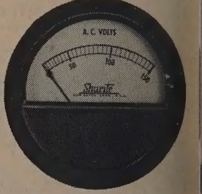
ZERO ADJUSTER OPTIONAL

CLEAR PLASTIC INSTRUMENTS

Now number one in popularity, the 850 series dresses up pan and retains the characteristically sturdy construction of the Shur metal-cased 550 and 950 series. The 850 snap-on front of crys polystyrene 2 17/32" wide x 2 5/16" high, admits light from sides and accentuates the appearance of the scale arc which is t longest in its field. The case back, with interior frosted finish, molded of the same material to provide weight reduction a superior insulation.



MODEL 950 SERIES WITH ZERO ADJUSTER (metal-case)



MODEL 550 SERIES (Rimless Round) (metal-case)

TYPICAL USES

Amateur radio rigs . . . Citizens Band equipment . . . batte eliminators . . . battery chargers . . . volt-ohm-milliammeters ar kits . . . model train equipment . . . tuning circuits for stereo ar tape recorders . . . burglar, fire alarm, or emergency lightir systems . . . transistor testers . . . plating equipment . . . voltag regulators . . . school and demonstration panels . . . many othe applications.

DC AMMETERS

RANGE Amps.	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Ne Ea
0-1	.105	5201	9201	$2.15	8201	$2.
0-3	.02 Max.	5202	9202	2.15	8202	2.
0-5	.02 Max.	5203	9203	2.15	8203	2.
0-8	.02 Max.	5204	9204	2.15	—	—
0-10	.02 Max.	5205	9205	2.15	8205	2.
0-15	.02 Max.	5206	9206	2.15	8206	2.
0-25	.02 Max.	5207	9207	2.60	8207	2.
0-50	.02 Max.	5208	9208	2.60	8208	2.
3-0-3	.02 Max.	5210	9210	2.25	—	—
5-0-5	.022 Max.	5211	9211	2.25	—	—
6-0-6	.02 Max.	5212	9212	2.25	—	—
10-0-10	.02 Max.	5213	9213	2.60	8213	2.
20-0-20	.02 Max.	5214	9214	2.60	8214	2.
30-0-30	.02 Max.	5215	9215	2.60	8215	2.
50-0-50	.02 Max.	5216	9216	2.75	8216	2.

* For zero adjuster, add 35c to price and Z to stock number.

AC AMMETERS

RANGE Amps	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Ne Eac
0-1	.42 Max.	5501	9501	$3.25	8501	$3.4
0-3	.072 Max.	5502	9502	3.25	8502	3.4
0-5	.041 Max.	5503	9503	3.25	8503	3.4
0-10	.02 Max.	5504	9504	3.25	8504	3.4
0-15	.02 Max.	5508	9508	3.25	8508	3.4
0-30	.02 Max.	5505	9505	3.35	8505	3.5
0-50	.02 Max.	5506	9506	3.75	8506	3.9

NO ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850.
* For zero adjuster add 35c to price and Z to stock number.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1962

DC VOLTMETERS

GE	RESIST. Approx. Ohms	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
	10	5101	9101	$2.15	—	—
	93	5102	9102	2.15	8102	$2.35
	250	5103	9103	2.15	—	—
	300	5104	9104	2.15	8104	2.35
	390	5105	9105	2.15	—	—
	600	5106	9106	2.15	8106	2.35
	880	5107	9107	2.15	8107	2.35
	2370	5108	9108	2.15	8108	2.35
	3500	5121	9121	2.15	8121	2.35
	1240	5109	9109	2.45	8109	2.65
I**	5800	5110	9110	2.85	8110	3.05
	2540	5122	9122	2.40	8122	2.60
I**	11800	5111	9111	3.10	8111	3.30
	3740	5112	9112	2.45	—	—
	5140	5113	9113	2.45	—	—
H**	23800	5114	9114	3.00	—	—
	7540	5115	9115	2.60	8115	2.80
H**	34800	5116	9116	3.25	8116	3.45
H**†	74800	5117	9117	3.35	8117	3.55
H**†	124800	5118	9118	3.60	8118	3.80
H**†	184800	5119	9119	4.10	—	—

*r zero adjuster add 35c to price and Z to stock number.
* denotes high resistance.
†pplied with external resistors.

AC VOLTMETERS

GE	RESIST. Approx. Ohms	MODEL 550 Stock No.	MODEL 950 Stock No.	MODEL 950 Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
	11	5401	9401	$3.40	—	—
	15.8	5402	9402	3.40	—	—
	27	5403	9403	3.40	8403	$3.60
	32.3	5404	9404	3.40	8404	3.60
	53	5412	9412	3.40	8412	3.60
	96	5405	9405	3.75	8405	3.95
	100	5406	9406	3.85	8406	4.00
**	100	5407	9407	4.35	8407	4.55
**	100	5408	9408	4.90	—	—
**	100	5409	9409	5.50	—	—

ZERO ADJUSTER ON AC METERS, EXCEPT ON MODEL 850
*r zero adjuster add 35c to price and Z to stock number.
**pplied with external resistors.

RESISTANCE METERS

GE s	Volts	MODEL 550* Stock No.	MODEL 950* Stock No.	MODEL 950* Net Each	MODEL 850* Stock No.	MODEL 850* Net Each
0	4.5**	5701	9701	$2.75	8701	$2.95

*r zero adjuster add 35c to price and Z to stock number.
*quires 3 flashlight cells for resistance readings but does not re-ire resistor for voltage readings.

VU and S METERS

METERS—To measure volume levels in audio transmission circuits; e —20 to +3 VU, red and black scale; AC rectifier type; pointer ally at —20 VU; 1400 Ohms ±5% internal resistance; see Bulletin 62 for application circuitry.

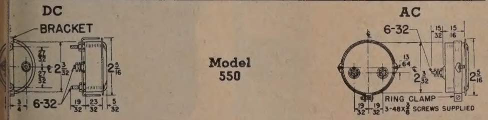
CK NO. 8801Z, 850 series case, zero adjuster included; as illustrated preceding page **$5.85**

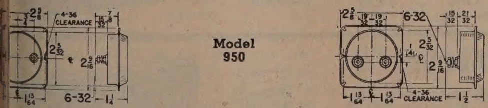
CK NO. 3801, 350 series edgewise case; zero adjuster not available. **$5.50**

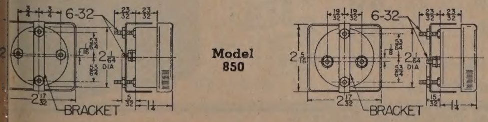
ETERS—To measure relative signal strength; range 0-40 db; black red scale; basic movement is 0-5 Ma. DC with 1000 ohms internal tance ±5%; for application notes and typical circuits, see Bulletin 62.

CK NO. 3333, 350 Series edgewise case, as illustrated, pointer norm-y at 40 .... **$3.45**

CK NO. 8333*, 850 Series case, pointer normally at zero **$3.35**
zero adjuster, add 35c to price and Z to stock·number.





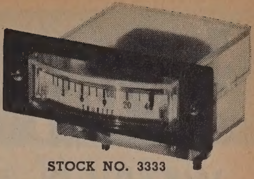


Shurite®

EDGEWISE

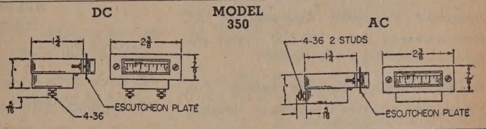
MODEL 350

Including S and VU Meters


STOCK NO. 3333

The crystal polystyrene front of the Model 350 series adds beauty to panel designs and the 1.2" scale length offers easy reading. Requires less than half the panel space of other Shurite meters. Horizontal mounting; weight under 2 ozs.; accuracy well within ±5%; black escutcheon plate supplied.

RANGE	Resistance Approx. Ohms	Stock No.	Net Each
0-1 DC Milliamperes	500	3300	$3.70
0-5 DC Milliamperes	3100	3302	3.45
0-10 DC Milliamperes	800	3303	3.45
0-25 DC Milliamperes	150	3305	3.35
0-50 DC Milliamperes	25	3306	3.35
0-100 DC Milliamperes	8	3307	3.35
0-200 DC Milliamperes	3	3309	3.35
0-300 DC Milliamperes	2	3310	3.35
0-500 DC Milliamperes	1.5	3312	3.35
0-100 AC Milliamperes	32	3603	3.45
0-3 DC Amperes	.02 Max.	3202	3.35
0-5 DC Amperes	.02 Max.	3203	3.35
0-10 DC Amperes	.02 Max.	3205	3.45
10-0-10 DC Amperes	.02 Max.	3213	3.55
0-5 AC Amperes	.04	3503	3.45
0-5 DC Volts	725	3104	3.35
0-10 DC Volts	850	3107	3.35
0-15 DC Volts	1400	3108	3.35
0-15 AC Volts	728	3404	3.45
0-150 AC Volts	14000	3406	4.10
VU Meter —20 to +3 VU	1400	3801	5.50
S Meter 0—40 db	1000	3333	3.45



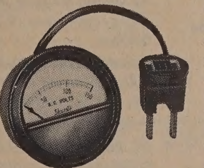
POCKET TYPE METERS

Please ask for Catalog 94-D which describes 11 types of battery testers (pocket meters). Their stock numbers begin with the digit 4. Typical is **Stock No. 4151,** 0-7 DC volts, approx. res. 670 ohms. **$2.50**

3-HOLE MOUNTING ADAPTER

To adapt any Model 550 (round) meter for 3-hole flange mounting (former Model 650)—attach this 2¾" flange from front of panel **Model 5-A,** standard black with hardware, each **$0.18**

HANDY AC-DC LINE VOLTAGE TESTER



Stock 5406-LT — To use this highly popular line tester, push in the plug and read line voltage, then plug in the TV set, iron, toaster, washer, air-conditioner, or other appliance, and note the new reading. Find (and demonstrate) voltage drop or inadequate wiring. Cord is permanently attached to metal-cased meter which tests single outlets without accessories. Range 0-150 Volts. Standard package of 6 individually boxed meters includes attractive counter display at no extra charge. Per meter **$4.10**

IMPORTANT — HOW TO ORDER

For all standard models, give (1) Model Number, (2) Range, (3) Stock Number.

ZERO ADJUSTERS (Z) For DC meters, available only on Models 550, 850, and 950. For AC meters, available on Model 850. When ordering, add Z to stock number, as 5101Z, and 35¢ to price.

PANEL CALIBRATION (S) Meters are calibrated for non-magnetic panels. If steel panel mounting, specify thickness and overall size of panel; add -S to stock number, as 5101-S.

SEE YOUR DISTRIBUTOR Authorized Shurite distributors of electronic parts carry most models and can obtain your other needs promptly.

Shurite® METERS
New Haven 8, Conn.

PRICES NET, F.O.B., New Haven, Conn. Individually Boxed, Domestic Packed, Effective September 1, 1962

Simpson VOMs and ADAPTERS

WORLD FAMOUS 260® VOM

- **Converts to 9 Different Testers (See Adapters Below)**
- **Over a Million Purchased . . . Recognized Reliability**
- **20,000 opv, DC; 5,000 opv, AC**
- **Adjust-A-Vue Handle**

- **Polarity Reversing Switch:** Makes DC measurements easier and faster . . . no lead reversal.
- **50 Microampere-250 Millivolt Range:** Gives more sensitive measurements.
- **Easier-to-Read Scales:** Black and red scales have been spread out for faster reading, less chance of error!
- **Less Circuit Loading:** Sensitivity of AC voltage ranges increased to 5000 OHMS-PER-VOLT!
- **Popular DBM Ranges:** −20 DBM to +50 DBM, one milliwatt in 600 ohms!
- **Improved Frequency Response in AC Measurements:** 5 to 500,000 cycles per second!
- **Full-Wave Bridge Rectifier System:** Provides more accurate AC voltage measurements!

VOLTAGE RANGES

DC: 0-250mv; 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.

AC: 0-2.5v; 0-10v; 0-50v; 0-250v; 0-1000v; 0-5000v.

AF: 0-2.5v; 0-10v; 0-50v; 0-250v.

DB (1MW—600Ω): −20 to +10 db; −8 to +22 db; +6 to +36 db; +20 to +50 db.

CURRENT RANGES

DC: 0-50ua; 0-1ma; 0-10ma; 0-100ma; 0-500ma; 0-10 amps.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ωctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

Essentially flat through 50,000 cps.

ACCURACIES

DC Volts ±3% of full scale. DC current ±3% of full scale.

AC Volts ±3% of full scale.

DC resistance ±3% of arc length.

Size: 5¼" x 7" x 3⅛" . . . **Net Wt.:** 3½ lbs.

Complete with test leads No. 7500 and operator's manual.

$48.95

260 in roll top safety case, **260RT**

$54.95

260® VOM

*Trademark

ACCESSORIES

Leads, Probes and Cases	Part No.	Price
Banana plugs and alligator clip..	7500	$ 2.1
Banana plugs and test prods......	7538	2.5
10,000v High voltage probe........	0497	10.2
25,000v High voltage probe........	0247	11.5
50,000v High voltage probe........	0248	12.5
Leather Carrying Case..................	1818	8.5
Ever-Redy Carrying Case............	4236	9.7
Roll top safety case only, **260-3**	0249	9.95

1½% VOM — MODEL 270. Converts to Different Testers with Adapters Below

Excellent Repeatability

Greater Accuracy Predictable Over a Wide Temperature Range

DC Accuracy, 1½%* Full Scale

AC Accuracy, 2%* Full Scale

Resistance Accuracy, ±1½° of Arc

*At an Ambient Temperature of 77°F

RANGES

DC Voltage (20,000 ohms-per-volt): 0-250 mv; 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AC Voltage (5000 ohms-per-volt): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v; 0-1000 v; 0-5000 v.

AF Output Voltage (With .1 microfarad internal series capacitor): 0-2.5 v; 0-10 v; 0-50 v; 0-250 v.

Volume Level in Decibels (Zero DB equal to 1 milliwatt across a 600 ohm line): −20 to +10 DB; −8 to +22 DB; +6 to +36 DB; +20 to +50 DB.

DC Resistance: 0-2000 ohms (12 ohms center); 0-200,000 ohms (1200 ohms center); 0-20 megohms (120,000 ohms center).

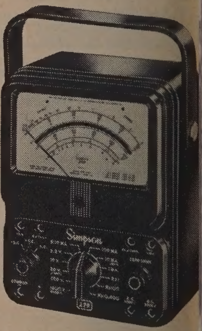
Direct Current: 0-50 mu a; 0-1 ma; 0-10 ma; 0-100 ma; 0-500 ma; 0-10 amp.

MODEL 270, complete with test leads and Operator's Manual **$59.95**

MODEL 270 RT, in Roll-Top Case **65.95**

See accessories under 260 VOM above.

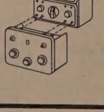
270 VOM



ADUST-A-VUE HANDLE

PLUG-IN ADAPTERS FOR 260® AND 270 VOMs ABOVE

Transistor Testers, Model 650	**$26.95**
DC VTVM, Model 651	**32.95**
Temperature Tester, Model 652	**38.95**
AC Ammeter, Model 653	**18.95**
Battery Tester, Model 656	**19.95**
Microvolt Attenuator, Model 655	**$18.95**
Audio Wattmeter, Model 654	**18.95**
Milliohmmeter, Model 657	**39.95**
DC Ammeter, Model 661	**17.95**



SIMPSON 260 ADAPTER
TRANSISTOR "BETA" TESTER

See your distributor or write for Bulletin 2064 giving specifications

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

Net

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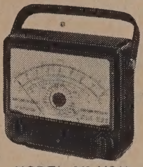
Simpson VOMs and TESTERS

AC/DC VOLT-OHM-MILLIAMMETERS AND TESTERS*

MODEL 269 VOM
100,000 opv

MODEL 267 VOM
20,000 opv

MODEL 268 VOM
20,000 opv


MODEL 262 VOM
20,000 opv

MODEL 355
VOLT-OHMMETER

MODEL 269

VOLTAGE RANGES

: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
: 3v; 8v; 40v; 160v; 800v.
: 3v; 8v; 40v; 160v.
: **(1MW-600Ω):** −12 to +45.5 db in four ges.

CURRENT RANGES

: 0-16ua; 0-160ua; 0-1.6ma; 0-16ma; 60ma; 0-1.6 amps; 0-16 amps.

RESISTANCE RANGES

KΩ (18Ω ctr.); 0-20KΩ (180Ω ctr.); 0-200KΩ 00Ω ctr.); 0-2 megΩ (18KΩ ctr.); 0-20 megΩ 0KΩ ctr.); 0-200 megΩ (1.8 megΩ ctr.).

FREUENCY RESPONSE

entially flat through 50 kc.

ACCURACIES

Volts ±3% of full scale. **AC Volts** ±5% full scale. **DC Resistance** ±3% of arc gth.

mplete with test leads No. 8463, 4000 V probe extension and operator's manual.

$89.95

MODEL 267

Volts: 0-.25/2.5/10/50/250/500/1000.
Volts: 0-2.5/10/50/250/500/1000.
Microamperes: 0-50.
Milliamperes: 0-1/10/100/500.
Amperes: 0-10.
Scale: −20 +10, 1 mw, 600 ohms.
tput Ranges: AC volt ranges to 250 V with mfd condenser in series.
ee "ACCESSORIES" Section for carrying cases, etc.

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg. (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 KC ±5%
50 VAC 20 cps — 150 KC ±5%

ACCURACY

DC V, Milliampers, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual **$54.95**

MODEL 262

VOLTAGE RANGES

DC: 1.6v; 8v; 40v; 160v; 400v; 1600v; 4000v.
AC: 3v; 8v; 40v; 160v; 800v.
AF: 3v; 8v; 40v; 160v.
DB: (1 MW-600Ω): −12 to +45.5 db in four ranges.

CURRENT RANGES

DC: 80ua; 160ua; 1.6 ma; 16 ma; 1.6 amps; 16 amps.

RESISTANCE RANGES

DC: 0-500Ω (4.5Ω ctr.); 0-5KΩ (45Ω ctr.); 0-50KΩ (450Ω ctr.); 0-500KΩ (4,500Ω ctr.); 5 megΩ (45Ω ctr.); 0-50 megΩ (450KΩ ctr.).

FREQUENCY RESPONSE

Essentially flat through 50 kc.

ACCURACIES

DC Volts ±3% of full scale. **AC Volts** ±5% of full scale. **DC Resistance** ±3% of arc length Complete with test leads No. 8463, 4000 V DC probe extension and operator's manual.

$69.95

MODEL 268

AC Volts: 0-3/12/60/300/600/1200
DC Volts: 0-3/12/60/300/600/1200
DC Microamperes: 0-60.
DC Milliamperes: 0-1.2/12/120
DC Amperes: 0-12
DB Scale: −12 +11, 1 mw, 600 ohms

OUTPUT RANGES

AC Volt: Ranges to 300 V with .1/mfd condenser in series

RESISTANCE RANGES

0-2000Ω (12Ω ctr.); 0-200KΩ (1200Ω ctr.); 0-20 meg (120KΩ ctr.)

FREQUENCY RESPONSE

2.5/10 VAC 20 cps — 500 kc ±5%; 50 VAC 20 cps — 150 kc ±5%

ACCURACY

DC V, Milliampers, Amperes ±3% F.S.; **DC Mics** ±2% F.S.; **AC Volts** ±5% F.S.; **Ohms** ±3% of linear arc.

Complete with test leads No. 7500 and operator's manual

$54.95

MODEL 355, MIDGETESTER®

10,000 Ohms per Volt AC-DC
Size: 2¾" x 4½" x 1"

Complete with test leads and operator's manual

$34.95

(WRITE FOR BULLETIN 2064)

AND-SIZE MICROTESTERS — MEASURE ONLY 3" x 5⅞" x 2½"

-DC Volt-Ohm-Milliammeter, del 240 — 1000 ohms per t, AC and DC. **Volts:** 15, 150, 750, 3000. **Volts:** 15, 75, 300, 750, 3000. **Milliamperes:** 15, 150, 750. **ms:** 0-3000 (center scale 30); 00,000 (center scale 3000). th Leads **$31.95**

-DC Volt-Ohm-Milliammeter, Model 230 — Volts: 10, 250, 1000 (400 ohms per volt) DC Volts: 10, 50, 250, 1000 (1000 ohms volt) — DC Milliamperes: 10, 50, 250 — ms: 0-1000, 0-100,000 — With Leads....**30.95**

Ammeter, Model 375 — 0-1, 2.5, 5, 10, 25 ps **21.95**

Milliammeter, Model 373 — 0-1, 5, 10, 25, 100, 250, 1000 ma **21.95**

Microammeter, Model 374 — 0-50, 100, 250, 500, 1000 ua **24.95**

AC Ammeter, Model 370 — 0-1, 0-2.5, 0-5, 0-10, 0-25 amps **22.95**

AC Milliammeter (Self-contained transformer), Model 378 — 0-5, 25, 100, 250, 1000 ma **24.95**

DC Voltmeter (Res. 1000 ohms per volt), Model 377 — 0-1, 2.5, 5, 10, 25, 50, 100, 250, 500, 1000 DC volts **22.95**

Millivoltmeter, Model 387 — 10, 30, 100, 1000 mv; with leads and manual....................**29.95**

AC Voltmeter (Rec. Type — 1000 ohms per volt), Model 376 — 0-5, 10, 25, 50, 100, 250, 500, 1000 AC volts **21.95**

AC Voltmeter, Model 371 — 0-150, 0-300, 0-600 volts **22.95**

Ohmmeter, Model 372 — 0-500 ohms (5 ohms center); 0-5000 ohms (50 ohms center); 0-50,000 ohms (500 ohms center); 0-500,000 ohms (5,000 ohms center); 0-5 meg. (50,000 ohms center); 0-50 meg. (500,000 ohms center) — with Leads **29.95**

Low Ohmmeter, Model 362 — 0-5, 0-25 ohms, with Leads and Manual **24.95**

AC Volt-Amp-Wattmeter, Model 390 — Volts: 0-150, 300 — Amps: 0-0.3, 15 — Watts: 0-300, 600, 1500, 3000 — with break-in plug and Leads **48.95**

AC-DC Volt-Wattmeter, Model 391 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1500, 0-3000 — with Cord and Plug **43.95**

AC-DC Volt-Wattmeter, Model 392 — AC or DC — Volts: 0-130, 0-260 — Watts: 0-1000, 0-5000 — with Cord and Plug **43.95**

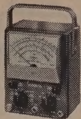
Battery Tester, Model 379 — (Seperate arcs for Radio A Batteries, Hearing Aid A Batteries, and for all B Batteries) — with Leads **29.95**

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

Simpson VTVMs and STANDARDS

VACUUM TUBE VOLT-OHM-MILLIAMMETERS*



MODEL 311
AC-DC

MODEL 303
AC-DC

MODEL 715
AC ONLY

MODEL 311 VOLTAGE RANGES

DC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (22 megΩ input impedance)

AC: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v; (RMS) (Min. 2.2 megΩ input impedance)

PP: 0-4v; 14v; 40v; 140v; 400v; 1400v; 4000v. (Min. 2.2 megΩ input impedance)

AF: 0-1.5v; 5v; 15v; 50v; 150v; 500v; 1500v. (30 cycles to 100Kc ±5%)

RF: 1.5v; 5v; 15v; 50v; 150v. with probe (50 cycles to 100mc, 0-150 VRMS)

RESISTANCE RANGES

1KΩ (10Ω center); 10KΩ (100Ω center); 100KΩ (1KΩ center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 100 megΩ (1 megΩ center); 1000 megΩ (10 megΩ center).

FREQUENCY RESPONSE

±5% to 100 kc (with RF probe, usable to 250 mc)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 311 with AC/DC ohms probe No. 0734, ground lead No. 0733 and operator's manual. **$69.95**

MODEL 303 VOLTAGE RANGES

AC-DC: 1.2v; 12v; 60v; 300v; 1200v.
AF: 1.2v; 12v; 60v.
RF: 20 volts maximum. (With RF Probe)
DB: −20 to +63 db in five ranges.

RESISTANCE RANGES

1KΩ (10Ω center); 100KΩ (1000Ω center); 1 megΩ (10KΩ center); 10 megΩ (100KΩ center); 1000 megΩ (10 megΩ center).

INPUT IMPEDANCE

10 megohms (all ranges) on DCV; 275K ohms shunted by 210 uuf on ACV.

FREQUENCY RESPONSE

AF: Flat to 100 Kc on the three low AC ranges
RF: 20 Kc to 100 Mc (with RF probe)

LINE VOLTAGE

105/125 v, 50/60 cycles.

ACCURACIES

DC Volts: ±3% of full scale.
AC Volts: ±5% of full scale.
DC Resistance: ±3% of arc length (resistance).

Model 303 with DCV probe No. 0067, ACV-ohm probe No. 0068, ground lead No. 0069 and operator's manual. **$73.95**

Model 303RT (in roll top safety case) **$82.95**

MODEL 715 RANGES

Volts: 0-.01/.03/.1/.3/1/3/10 30 100 300 rms.
Decibels: Total Range −52 to +52 DBM.
Zero DBM: 1 millivolt in 600 ohms.
Scale Markings: −12 to +2 DB.

ACCURACY

±5% of full scale.

TESTER SENSITIVITY

10 millivolts full scale on lowest range.

INPUT IMPEDANCE

Minimum 1 meg @ 1 KC shunted by 25 u

INTERNAL MULTIPLIERS

±1% precision resistors.

FREQUENCY RESPONSE

10 cps to 400 KC ±1 DB.

INPUT POWER REQUIREMENTS

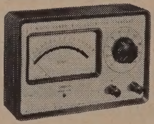
110 to 125 VRMS, 50/60 cps @ 10 wa

Complete with operator's manual and shielded input cable. **$69.95**

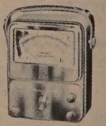
*Also See "ACCESSORIES" Section.

PORTABLE STANDARDS

NEW
SERIES 1700
MULTI-RANGE



MODELS
9 & 10



MODEL
880

Accuracy: Model 9, ½ of 1% of Full Scale @ 77°F. Models 10 and 880, 1% of Full Scale @ 77°F. 4½" Hand drawn scale, mirror; knife-edge pointer.

SPECIFICATIONS	DC Voltmeter MODEL 1700	DC Ammeter MODEL 1701	DC Milliammeter MODEL 1702	DC Microammeter MODEL 1703	DC Millivoltmeter MODEL 1704
RANGES	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-0.75, 1.5, 3.0, 7.5, 15, 30, 75	0-1.5, 3, 7.5, 15, 30, 75, 150, 300, 750, 1500	0-75, 150, 750, 1500	0-30, 75, 150, 750, 1500
ACCURACY	½ of 1% of Full Scale in Horizontal Position @ 25°C				
LOSS (Max.)	1 milliampere	45 mv (approx.)	50 to 150 mv	.160—.578 Volts	5 ma
EXT. TEMP. INFLUENCE	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%	¼ of 1%
DIELECTRIC TEST	3000 V. RMS	3000 V. RMS	3000 V. RMS	3300 V. RMS	3300 V. RMS
MIRROR SCALE LENGTH	5.5"	5.5"	5.5"	5.5"	5.5"
DAMPING	Magnetic	Magnetic	Magnetic	Magnetic	Magnetic
METER MOVEMENT	Deep Core Magnet Meter Movement (1-5/16")				
SENSITIVITY	1000 Ω/V	—	—	—	200 Ω/V
ZERO ADJUSTER	External	External	External	External	External
SIZE	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"	11⅜" x 7⅜" x 3¼"
PRICE	$160.00	$155.00	$135.00	$140.00	$150.00

Made to Conform to ASA C 39.1-1959
MODELS 9 & 10 — D'ARSONVAL (DC) AND IRON VANE (AC) METER MOVEMENTS

SINGLE RANGE

	DC Model 9	AC Model 10
VOLTMETERS		
50	$ 49.50	$43.95
100	49.50	43.95
150	49.50	43.95
300	55.00	49.50
MILLIAMMETERS		
1	57.15	—
50	49.50	43.95
100	49.50	43.95
500	49.50	43.95
AMMETERS		
5	49.50	43.95
15	49.50	43.95
30	49.50	43.95
50	49.50	43.95
100	52.50	—
MICROAMMETERS		
5	71.55	—
100	67.00	—
200	64.95	—

MULTIPLE RANGE

	DC Model 9	AC Model 10
VOLTMETERS		
15-150	$ 55.00	—
150-300	60.45	$55.00
300-750	66.00	60.45
15-150-300	63.75	—
150-300-600	66.00	60.45
MILLIAMMETERS		
10-100	55.00	—
25-250	55.00	—
100-500	55.00	—
—	—	—
AMMETERS		
2.5-5	55.00	—
5-10	55.00	—
2.5-10-25	60.45	—
10-25-50	60.45	—
—	—	—
—	—	—
—	—	—
—	—	—

MODEL 880 — AC-DC DYNAMOMETER TYPE METER MOVEMENT

WATTMETERS, SINGLE PHASE — Maximum Volts 150-300

Amperes Normal	Amperes Maximum	Watts Range Low	Watts Range High	Price
1	1.5	100	200	$60.45
2	3.0	200	400	60.45
5	7.5	500	1000	60.45
10	15.	1000	2000	60.45
20	30.	2000	4000	66.00
50	75.	5000	10000	66.00

WATTMETERS, DOUBLE CURRENT RANGE — Maximum Volts 150-30

2.5- 5	3.75- 7.5	250- 500-1000	$76.95
5-10	7.5 -15.0	500-1000-2000	76.95

VOLTMETERS — Single and Multiple Ranges

Maximum Volts	Price
0-150	$60.45
0-150-300	71.55
0-75-150-300	76.95
0-150-300-600	76.95

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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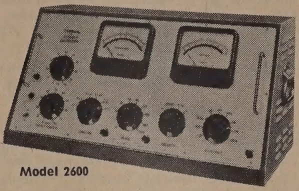
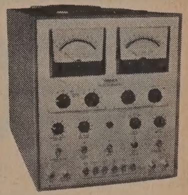
Simpson TEST EQUIPMENT

ABORATORY TYPE TEST EQUIPMENT

Model 1900


Model 2600


Model 2620

EW DC DECADING VOLTMETER
MODEL 1900

- **'oltage Range: 1 through 1000 Volts D.C.**
- **'oltage Accuracy:** p/m .1% of reading at 5°C; p/m .25% of reading from 15°C to 5°C
- **ccuracy of Calibration Source:** p/m .05%
- **ccuracy of Decades:** p/m .05%
- **ensitivity:** 1000 ohms per volt
- **xternal Power Requirements:** none
- **nternal Power Requirements:** 1-45 volt attery Eveready No. 482 or equivalent used for the calibration circuit only)
- **attery Life:** based on two calibrations per ay, approx. one year
- **ize:** 17″ x 9″ x 6½″ **Weight:** 16½ lbs. net)

Price **$345.00**

SELF-POWERED LAB STANDARD CALIBRATOR MODEL 2600

A Self-Powered Calibrator for Electrical Instrument Maintenance and High Accuracy Testing. Two terminal connections cover all 49 ranges for unusually fast operation. DC accuracy is ±0.5% F.S.; AC, ±0.75% F.S. (at 77°F, 25°C). Separate meters (**self shielded** movements) for DC and AC readings. **Size:** 15″ x 31″ x 15″. **Power Requirement:** Approx. 50 watts. **Net Wt:** 132 lbs. @ 117.5 volts, 60 cps.

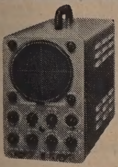
Price **$1620**

PULSE GENERATOR MODEL 2620

No Other Unit Offers Such Accuracy, Versatility, and Set-Up Speed Within This Price Range. Twin meters read pulse repetition frequency and pulse duration simultaneously. Rise time is 0.02 microseconds; decay time, 0.03 microseconds. Pulse duration, continuously variable from 0.1 to 1000 microseconds. Jitter, less than 0.005 microseconds. Pulse repetition rate, continuously variable from 10 to 1000,000 pps in four ranges. **Size:** 15½″ x 13¼″ x 21″. **Net Wt:** 66 lbs. 110v., 50/60 cycles.

Price **$625**

WRITE FOR ADDITIONAL SPECIFICATIONS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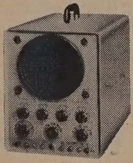
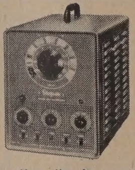
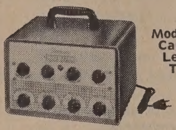
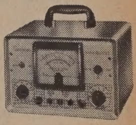

Model 458
Color
Scope


Model 430
Color Bar
Generator


Model 434A
White Dot
Generator


Model 383A
Capacitor
Leakage
Tester

MODEL 466
GENERAL PURPOSE SCOPE

F quency Response of Vertical Amplifier: F n 15 cycles/sec to 100 Kc/sec, flat within db; 6 db down at 250 Kc/sec; usable to 1 Ac/sec.

N cimum Vertical Deflection Sensitivity: 30 N ivolts RMS/inch.

F quency Response of Horizontal Amplifier: F n 15 cycles/sec to 20 Kc, flat within ±1 d 6 db down at 100 Kc/sec.

N cimum Horizontal Deflection Sensitivity: 0 volt RMS/inch.

Z xis Sensitivity (Voltage Required to Extiuish Beam): 20 volts RMS.

C ibrating Voltage (at 117.5 VAC power s rce): 1 volt P-P ±10%.

N cimum Input Voltage: 400 volts peak.

I ut Resistance: 0.1 Meg (at atten. x 1); 0.5 N (at atten. x 100).

I ut Capacitance: 40 uuf (at atten. x 1); 35 u (at atten. x 100).

S tooth Sweep Range: 15 cycles/sec to 80 K sec.

S : 7⅞″ x 12¼″ x 16⅛″. **Net Wt:** 19 lbs. F use on 110 volts, 60 cycles.

Complete with input cable No. 0100 and operator's manual.

$149.95

MODEL 458 COLOR SCOPE

- ' Cathode Ray Tube.
- 'ide band operation, the frequency response is at within ±1.0 db to 4.5 Mc. Faithfully dis-ays COLOR BURST frequency with a sensivity greater than 40 Mv rms per inch of ertical deflection.
- Narrow band operation, the frequency response is flat within ±2 db from 10 cycles to 300 Kc with a sensitivity greater than 15 Mv rms per inch.
- Good square wave response provides accurate representation of sync pulses and composite wave-form pattern for trouble-shooting video, sync, and sweep circuits.
- Horizontal sweep, to 250 Kc, for expansion of high frequency wave-form detail and color burst.
- Vernier and Compensated Decimal Step Attenuator for better signal controls.
- Provision for Intensity Modulation of CRT.
- 1 volt peak calibrating voltage.

Line Voltage: 105/125v, 50/60 cycle.

Size: 11″ x 16½″ x 14½″. **Weight:** 29 lbs.

Complete with operator's manual.

$249.95

MODEL 430
COLOR BAR GENERATOR

- 100% Saturated NTSC Signals • Outputs pictured on a single, master control . . . a color print of the signal output is featured at each position on the master control • Line Voltage 105/125 volts, 60 cycle only.

Outputs—Y; chroma; color bar (8 bars simultaneously); R-Y; B-Y; R-Y and B-Y simultaneously; I; Q; I and Q simultaneously; G-Y at 90°; sync and burst; horizontal sync; high level 3.58 megacycle output; high level modulated rf output; positive or negative video output. 4.5 Megacycle (crystal controlled) marker for proper tuning.

Chroma Level Switch—O db for checking older style receivers and some current models; −6 db for video checks of newer receivers using vestigal color sideband alignment; −15 db for checking color sync lock under weak signal conditions. Variable chroma control position for other chroma levels.

Size: 19¼″ x 17½″ x 14″. **Shpg. Wt:** 26 lbs.

Complete with operator's manual and test leads.

$395.00

MODEL 434A
WHITE DOT GENERATOR

- White dot pattern with variable dot size (from 1 to 8 scanning lines, with corresponding dot widths).
- Variable dot number (from 6 to 12 horizontal dots, and 6 to 14 vertical dots).

Horizontal and vertical sync pulses provided with adjustable vertical sync which can be operated at line frequency or off-line frequency. Also operates as a hum-check control. Modulated r-f output is available, operating on fundamentals from Channel 2 to Channel 6. Positive or negative video output is also available. **Line Voltage:** 105/125v, 60 cycles, 45 watts.

Complete with operator's manual.

$149.95

MODEL 383A
CAPACITOR LEAKAGE TESTER

- Measures the leakage resistance of defective paper, mica, or ceramic capacitors. Indicates directly the capacitance of good paper, mica, or ceramic capacitors over a range of 10.0 mmf to 10.0 mf.

Pulse technique detects many marginal capacitors. All measurments are made under load conditions. No adjusting of a bridge circuit and balancing controls. **Line Voltage:** 105/125v, 60 cycle only.

Complete with test leads and operator's manual.

$89.95

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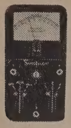
SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

Simpson TEST EQUIPMENT and ACCESSORIES

TEMPERATURE TESTERS


Model 385-3L

Models 388-3L and 389-3L

MODEL 385-3L

Accuracy: ±1°F about center scale; ±2°F at either end. For measuring temperatures from +70°F to as low as −50°F. Available in 3 lead model only. Supplied with one No. 0010 15 ft. thermistor probe and operator's manual.

$33.95*

MODEL 388-3L — Therm-O-Meter

Measures Temperatures −50°F to +1000°F. **Accuracy:** +1½ scale divisions. Standard models have combination Fahrenheit and Centigrade scale. Sensing Element: Thermocouple (Iron-Constantan). Supplied with internal battery and one 8′ general purpose probe No. 0190, and operator's manual. Order additional probes as required.

Model 388-3L: For three probes.

$67.95*

MODEL 389-3L

This dual range instrument provides a m for temperature measurements betw −50°F and +100°F and between +1 and +250°F. Accuracy is ±2°F. Supplied internal battery and one 15′ thermistor probe (No. 0010). Order additional probe required.

Model 389-3L (for 3 leads). **$62.9**

*See accessories below for other types of p leads.

ACCESSORIES FOR SIMPSON TEST EQUIPMENT

CARRYING CASES

For Models	Cat. No.	Price
260, 270 — Leather	1818	$8.50
260, 270, 303 — Ever-Redy Leather	4236	9.75
262, 267, 268, 269, 388-3L, 389-3L— Ever-Redy Vinyl	5262	9.95
385-3L — Ever-Redy Leather	8073	8.75
391, 392 — Leatherette-Covered	3413	5.95
355 — Ever-Redy Leather	6355	3.95
All Microtesters — Ever-Redy Leather	4299	7.50
All Microtesters — Leatherette-Covered	3011	5.95
Roll Top Safety Case For 260-2, 9, 10, 880's	6192	9.95
Roll Top Safety Case for 260-3, 270	0249	9.95
Roll Top Safety Case For 303	6379	9.95

LEADS

For Models	Cat. No.	Price
260 Series 3, Banana plugs and alligator clip	7500	$2.10
260 Series 3, 267, 268 Banana plugs and test prods	7538	2.50
355 Test prods.	8600	1.85
385-3L, 389-3L Free Air Temperature Probe	0330	6.45
385-3L, 389-3L, 15 ft. Thermistor lead	0010	4.75
385-3L, 389-3L, 30 ft. Thermistor lead	0216	5.55
385-3L, 389-3L, 50 ft. Thermistor lead	0415	6.50
385-3L, 389-3L, 100 ft. Thermistor lead	0416	8.70
385-3L, 389-3L, 150 ft. Thermistor lead	0417	10.95
388-3L Rugged Service Lead (8 ft.)	0496	5.25
388-3L General purpose thermocouple	0190	4.95
388-3L Surface temperature thermocouple (300°F. Max.)	0187	8.90
389-3L Surface temperature probe	0084	4.95
1704 — 0.26Ω leads for Millivolt Standard; spade lugs both ends	0105	2.95
466, 715 Input cable	0100	2.85
Test prods and elbow terminals 230/240/260-2/372	8381	2.50
Test prods and spade terminals — all microtesters	8379	2.50
Alligator clips and elbow terminals — 230/240/260-2/372	8375	1.75
Alligator clips and spade terminals — all microtesters	8376	1.75
Combination test prods with removable alligator clips and elbow terminals 262/269	8463	2.30

PROBES — High Voltage Types

For Models	Cat. No.	P
221 (30,000v)	0009	$12.55
260 Series 2 (25,000v)	0007	10.75
260 Series 2 (50,000v)	0179	1
260 Series 3 (10,000v)	0497	1
260 Series 3 (25,000v)	0247	1
260 Series 3 (50,000v)	0248	1
262 (16,000v)	0172	1
262 (40,000v)	0180	1
267 2500 V DC Multiplier	8568	
267 5000 V DC Multiplier	8569	
267 2500 V AC Multiplier	8570	
267 5000 V AC Multiplier	8571	
268 3000 V DC Multiplier	8572	3
268 6000 V DC Multiplier	8573	
268 3000 V AC Multiplier	8574	3
268 6000 V AC Multiplier	0004	3
269 (16,000v)	0173	11
269 (40,000v)	0181	13
270 (25,000v)	0247	11
270 (50,000v)	0248	12
303 (30,000v)	0074	11

PROBES — Miscellaneous Types

For Models		
303 High frequency	0073	$8
303 AC Probe	0068	3
303 DC Probe	0067	3
303 Ground lead	0069	1
311 High Frequency	0731	11
311 High voltage	0732	11
311 DC-AC/OHMS	0734	8
311 Ground lead	0733	1
479, 480 High Frequency crystal probe and cable	0185	7
479, 480 Output cable 45 mc.	0046	4
Voltage Doubler	0740	14
Low Capacitance	0741	14
100:1 Voltage Divider	0742	15
Direct Resistive Dual Purpose	0743	11.

OSCILLOSCOPE PROBE KIT — Model 739

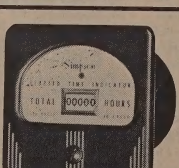
For use with Model 458 Oscilloscope. Includes *low capacity prol voltage doubler, detector, 100:1 voltage divider and dual direct resistive. (isolation)

Complete with 4 probes, plastic roll, and operator's manual......$45.

*For Model 458 only.

3½″ ELAPSED TIME METERS

Model 55ET


Model 57ET

These meters use self-starting synchronous clock motors.

They indicate up to 9999.9, then recycle and begin again at 0000.0. Molded bakelite case. Case depth—2$\frac{9}{16}$″.

Range	Model 55 ET	Model 57
120V-60 cps	$18.85	$18.85
240V-60 cps	19.15	19.15

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SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

Net

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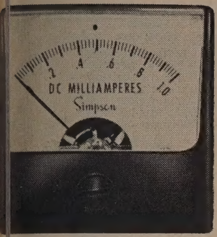
Simpson

1½", 2½", 3½", 4½" WIDE-VUE PANEL METERS



WIDE-VUE SPECIFICATIONS

Size	Model No.	Accuracy	Scale Length
1½"	1212C	±2% of full scale	1.5" @ 90° Arc (38.1 mm)
	1214C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
2½"	1227C 1257	±2% of full scale	2.5" (63.8 mm)
3½"	1327C 1337C	±2% of full scale	3.04" (77.2 mm)
	1347C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1357	±2% of full scale	
4½"	1329C 1339C	±2% of full scale	3.93" (100 mm)
	1349C	±3% F. S. @ 25°C. & 60 cy. Sine Wave	
	1359	±2% of full scale	

Calibration and Dials — All DC Wide-Vue meters listed below have the Simpson self-shielded core-type movement (Calibration not affected by stray magnetic fields). All AC Wide-Vue meters have the Simpson Iron-vane type movement. AC Milliammeters and Ammeters to 5 amps are calibrated for use on 25 through 800 cps; AC Ammeters (10 amps and up) and all AC Voltmeters are calibrated for use on 25 through 125 cps. For other specified frequencies up to 800 cps add $1.65 to the list price.

DC VOLTMETERS

Core Magnet Type Movement

Range	Resistance	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
-		$12.75	$13.80	$14.25	$15.75
-		—	—	14.25	15.75
-		12.75	13.80	14.25	15.75
-		12.75	13.80	14.25	15.75
-	1000	12.75	13.80	14.25	15.75
-	ohms	12.75	13.80	14.25	15.75
-	Per	12.75	13.80	14.25	15.75
-0	volt	12.75	13.80	14.25	15.75
-0		12.75	13.80	14.25	15.75
-0		—	13.80	14.25	15.75
-0		—	13.80	14.25	15.75
-0		—	13.80	14.25	15.75
-0	2000	12.75	—	—	—
-0	ohms	16.05	14.25	15.00	16.20
-0	per	—	17.55	15.00	16.20
-00	volt	—	17.85	18.60	19.80

nal Multipliers, Model 183 on 1½" DC meters 500 or higher; on 2½" DC meters 750 volts or higher; on 3½" and 4½" DC meters 1000 volts or higher. thers are self contained.

AMMETERS—Core Magnet Type Movement

-	.050	$12.75	$13.05	$13.65	$15.00
-5	.033	—	13.05	13.65	15.00
-	.025	12.75	13.05	13.65	15.00
-	.0166	12.75	13.05	13.65	15.00
-	.010	12.75	13.05	13.65	15.00
-	.005	12.75	13.05	13.65	15.00
-	.0033	12.75	13.05	13.65	15.00
-	.0020	12.75	13.05	13.65	15.00
-	.0017	—	13.05	13.65	15.00
-	.001	12.75	13.05	13.65	15.00
-0	10.0	—	13.05	13.65	15.00
-0	10.0	—	13.05	13.65	15.00
-0	10.0	—	13.05	13.65	15.00
-0	10.0	—	13.05	13.65	15.00
-0	10.0	—	—	13.65	15.00
-15	.0033	—	—	14.55	—
-30	.0017	—	—	14.55	—
-50	.001	—	—	14.55	—

DC Ammeters are self contained through 10 amps. mps and higher are supplied as 50 MV meters to sed with external shunts. 2½", 3½" and 4½" DC ters are self contained through 50 amps. Higher DC ammeters are 50 MV meters to be used with nal shunts.

DC MILLIAMMETERS

Core Magnet Type Movement

-	46	$12.30	$12.90	$13.50	$14.25
-	46	—	12.90	13.50	14.25
-	23	12.30	12.90	13.50	14.25
-	2.2	12.30	12.90	13.50	14.25
-	2.2	12.30	12.90	13.50	14.25
-	2.2	—	12.90	13.50	14.25
-	6.0	12.75	13.20	13.80	15.00
0-50	3.0	12.75	13.20	13.80	15.00
0-100	1.5	12.75	13.20	13.80	15.00
0-150	1.0	12.75	13.20	13.80	15.00
0-200	.75	12.75	13.20	13.80	15.00
0-250	.60	12.75	13.20	13.80	15.00
0-300	.50	12.75	13.20	13.80	15.00
0-500	.30	12.90	13.20	13.80	15.00
0-750	.20	—	—	13.80	15.00
0-1000	.05	—	13.20	13.80	15.00

DC MICROAMMETERS

Core Magnet Type Movement

Range	(ohms) Approx. Resistance	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
0-15‡	4500	—	—	$22.50	$24.60
0-25‡	2200	—	$19.20	20.10	22.20
0-50‡	2000	$16.20	16.65	17.10	18.45
0-100	2000	14.40	15.00	15.60	17.40
0-200	1000	13.05	13.65	14.25	15.75
0-500	200	12.80	13.50	13.95	15.15
25-0-25‡	2000	16.35	—	17.25	18.60
50-0-50	2000	14.55	15.15	15.75	17.55
100-0-100	1000	13.20	13.80	14.40	15.90
500-0-500	46	12.45	13.05	13.65	14.40

DC MILLIVOLTMETERS

Core Magnet Type Movement

0-50 10 7005 $12.75, 7010 $13.05, 7020 $13.65, 7030 $15.00

Simpson VU meters meet all the Electrical and Ballistic specifications established by Bell Laboratories and American Standards Association as required by broadcasting, communication and sound engineers. They are available with either type A or B scales. Type A scale stresses the level in VU for monitoring wire lines. Type B scale stresses per cent use of transmitter output and is the standard for broadcast service.

VOLUME LEVEL INDICATORS
DECIBEL METERS

Zero Power Level—6 MW. 500 Ohm Line—

Core Magnet Type Movement

Range	1½" Model 1214C	2½" Model 1247C	3½" Model 1347C	4½" Model 1349C
General-Purpose 5000 ohms	—	$18.35	$19.60	$20.25

VOLUME LEVEL INDICATORS—V. U. METERS

Reference Level—1 MW. 600 Ohms Line. External Magnet Type Movement except Model 1214C which is core magnet type movement.

Range	1½" Model 1214C	2½" Model 1247	3½" Model 1347	4½" Model 1349
‡A—Scale	$19.80	$21.90	$22.50	$23.70
‡B—Scale	—	—	22.50	23.70

DC GALVANOMETERS

Core Magnet Type Movement

Scale	Sensitivity Micro-Amperes	Resistance (ohms)	1½" Model 1212C	2½" Model 1227C	3½" Model 1327C	4½" Model 1329C
50-0-50	500-0-500	46	$12.45	$12.90	$13.65	$14.40
50-0-50	75-0-75	2000	13.20	13.95	15.15	16.65

RF AMMETERS—Core Magnet Type Movement

Range Amperes	(ohms) Approx. Resistance	1½" Model 1212C	2½" Model 1237C	3½" Model 1337C	4½" Model 1339C
0-1	.343	—	—	$15.90	$18.15
0-1.5	.200	—	—	15.90	18.15
0-2	.120	—	—	15.90	18.15
0-2.5	.10	—	—	15.90	18.15
0-3	.08	—	—	15.90	18.15
0-5	.045	—	—	15.90	18.15
0-8	.031	—	—	15.90	18.15
0-10	.023	—	—	15.90	18.15

RF MILLIAMMETERS

0-500	.63	—	—	$18.75	$21.15

AC VOLTMETERS—Iron-Vane Type Movement

Range	(ohms) Approx. Resistance	2½" Model 1257	3½" Model 1357	4½" Model 1359
0-5	33	—	$12.60	$14.40
0-10	133	$12.30	12.60	14.40
0-15	300	12.30	12.60	14.40
0-25	833	12.45	13.05	14.40
0-50	3,333	12.45	13.05	14.40
0-100	16,666	12.75	13.65	14.40
0-150	25,000	13.05	13.95	15.00
0-250	41,166	13.05	13.95	15.00
0-300	50,000	13.05	13.95	15.00
0-500	83,333	16.65	17.85	19.05

External Multipliers, Model 183 (Featured on back page) are furnished on AC meters having a range of 500 volts or higher. All others are self contained.

AC AMMETERS—Iron Vane Type Movement

0-1	.287	$11.70	$12.45	$14.55
0-1.5	.185	11.70	12.45	14.55
0-2	.115	—	12.45	14.55
0-3	.027	11.70	12.45	14.55
0-5	.012	11.70	12.45	14.55
0-10	.0031	11.70	12.45	14.55
0-15	.0022	11.70	12.45	14.55
0-25	.0003	12.30	12.90	15.00
0-30	.0003	12.30	12.90	15.00
0-50	.0006	12.30	12.90	15.00
0-75	.012	—	13.05	13.95
0-100	.012	11.70	12.45	14.55
0-150	.012	11.70	12.45	14.55
0-200	.012	11.70	12.45	14.55
0-300	.012	11.70	12.45	14.55

2½" AC ammeters are self contained through 50 amps. 3½" and 4½" AC ammeters self contained through 75 amps. Higher range AC ammeters are 5 amp meters to be used with external current transformer.

AC MILLIAMMETERS

Iron Vane Type Movement

0-10	2,000	$11.70	$12.45	$14.55
0-50	80	11.70	12.45	14.55
0-100	20	11.70	12.45	14.55
0-250	5	11.70	12.45	14.55
0-500	.9	11.70	12.45	14.55

AC VOLTMETERS—RECTIFIER TYPE

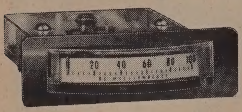
Core Magnet Type Movement

Range Volts	Resistance	1½" Model 1214C	2½" Model 1247C	3½" Model 1347C	4½" Model 1349C
0-5		$17.70	$16.50	$18.30	$20.10
0-10	1000	17.70	16.50	18.30	20.10
0-15	ohms	—	—	18.30	20.10
0-50	per	—	—	18.30	20.10
0-150	volt	17.70	16.50	18.30	20.10
0-300	2000	—	16.50	18.30	20.10
0-150	ohms per volt	—	—	19.05	20.85
0-300	2000 ohms per volt	18.30	—	—	—

es listed without prices(—) are available on special order only. †1½" DC Milliammeters all self contained. Voltage drop 150 MV or less. ‡Has external magnet type movement except Model 1212C & 1214C which have core type meter movements. Resistance of Model 1212C 0-50 MIC Meter is 5300 ohms. Range 0-15 in models 1327 and 1329 and the MIC in model 1329 are high flux movements and cannot be recalibrated for use on steel panels. (—) Available on special order only.

Simpson METERS and METER RELAYS

EDGEWISE METERS



Types: Direct Current and AC Rectifier. **Accuracy:** DC 2% of full scale; AC Rectifier, 5%. **Standard Scale:** Black numbers on white background; 1⅞" long. **Terminals:** Solder or stud type. **Case:** Dust-proof, molded lucite.

DC MILLIAMMETERS

Range Milliamperes	Approx. Resistance	Model 1522C
0-1	20 ohms	$14.85
0-5	2.5 ohms	14.85
0-10	13.5 ohms	14.85
0-25	5.4 ohms	15.45
0-50	2.7 ohms	15.45
0-100	1.35 ohms	15.45
0-150	.9 ohms	15.45
0-200	.675 ohms	15.45
0-250	.54 ohms	15.45
0-300	.45 ohms	15.45
0-500	.27 ohms	15.45

VOLUME LEVEL INDICATORS—VU Meters

Range	Model 1542E
"A" SCALE	$24.75
"B" SCALE	24.75

AC VOLTMETERS—Rectifier Type

Range	Approx. Resistance	Model 1542C
0-150	1000 ohms per volt	$19.20
0-300		19.20

DC VOLTMETERS

Range Volts	Approx. Resistance	Mo 152
0-10	1000 ohms per volt	$15.
0-15	1000 ohms per volt	15.
0-25	1000 ohms per volt	15.
0-50	1000 ohms per volt	15.
0-150	1000 ohms per volt	15.
0-300	1000 ohms per volt	15.
0-500	2000 ohms per volt	15.

DC AMMETER

Range	Approx. Resistance	
0-1	.050 ohms	$15.
0-5	.010 ohms	15.
0-10	.005 ohms	15.
0-15	.0033 ohms	15.
0-25	.002 ohms	15.
0-50	.001 ohms	15.

DC MICROAMMETERS

Range	Approx. Resistance	
0-25	3150 ohms	$22.
0-50	1800 ohms	19.
0-100	1100 ohms	17.
0-200	290 ohms	15.
0-500	90 ohms	15.

4½" METER RELAY — FRONT ADJUSTABLE — MODEL 29XA

General: Model 29XA Relays are of the D'Árson-val Type. Externally adjusted limit setting contacts are non-locking and intended for circuits with external locking provisions or for light duty non-locking applications.

Calibration: Accuracies ±2% of full scale.

Contacts: Platinum Alloy. For use @ 15 volts DC @ 10 milliamperes maximum on resistive or diode protected inductive loads.

Contact Adjustment: Contacts are externally adjustable over 95° of 100° scale arc, and within 5° of each other. The pointer will indicate the contact make position within 2° of actual contact intercept.

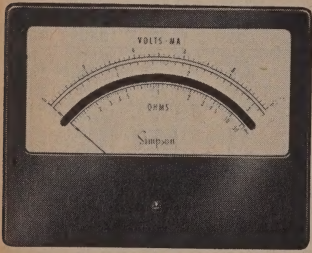
Contact Differential: Normally, contacts will cl within 2% of full scale value and break wit 10% of full scale value.

Insulation: Breakdown 300 volts AC from Re contacts to meter circuit. 3 KV AC from Re terminals to mounting panel. (All Tests at cycles.)

Range	Description	Approx. Resistance (ohms)	Pr
0-50	DC Microammeter	5200	$4
0-100	DC Microammeter	1800	4
0-200	DC Microammeter	1000	39
0-500	DC Microammeter	280	39
0-1	DC Milliammeter	140	38
0-50	DC Millivoltmeter	10	38

1% AND 2% PANEL METERS — 6" SIZE

Red knife-edge pointers; ¼-28 studs; front surface glass mirrors on 1% meters; molded black phenolic case; scale length, 4.6" (114.8 mm).



6 INCH RECTANGULAR PANEL METERS — 1% & 2% tolerance

Range	Approx. Resist.	DC Voltmeters[1] Model 1150E, 2%	Resist. (ohms)	DC Millivoltmeters[1] Model 1150E, 2%	Resist. (ohms)	DC Ammeters[1] Model 1150E, 2%
0-1		—	—	—	.050	$19.65
1-5		—	—	—	.010	19.65
-10		$18.90	—	—	.005	19.65
-15		—	—	—	.0033	19.65
-25	1000	18.90	—	—	.0020	19.65
0-30	OHMS	—	—	—	.0016	19.65
0-50	PER	18.90	10	$19.65	.001	19.65
0-100	VOLT	18.90	—	—	—	—
0-150		18.90	—	—	—	—
0-200		—	—	—	—	—
0-300		18.90	—	—	—	—
0-500	2000 Ω/V	19.50	—	—	—	—

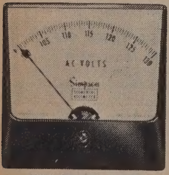
Range	Approx. Resist.	DC Milliammeters[1] Model 1150E, 2%	DC Milliammeters[1] Model 1150E-1 1%	Resist. (ohms)	DC Micro ammeters Model 1150H, 2%	Mo 1150H 1
0-1	46	$18.90	$23.85	—	—	-
0-10	10	18.90	—	—	—	-
0-15	—	—	—	5500	$29.95	-
0-25	—	—	—	5500	26.85	-
0-50	2.0	18.90	—	5000	24.45	$29
0-100	1.0	18.90	23.85	2800	23.40	28.
0-200	—	—	—	1200	20.40	25.
0-500	.2	18.90	23.85	200	19.80	24.

[1] All ranges 1-5/16" shallow core movement.

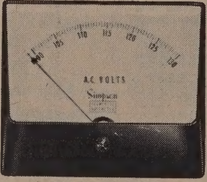
[2] Ranges 15 through 100 use high flux movements designated as Model 1150H and cannot be calibrated for use on steel panels. Ranges 200 through 500 use 1-5/16" shallow core movement designated as 1150E.

†Supplied as Model 1150E which has 1-5/16" shallow core meter movement. Ranges listed without prices (—) are available on special order only.

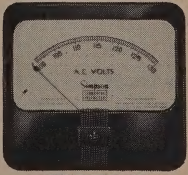
SEGMENTAL VOLTMETERS (Expanded Scale) 100 — 130 AC Volts



3½" Model 1347C
Wide-Vue



4½" Model 1349C
Wide-Vue



4½" Model 49C
Rectangular

Simpson Segmental AC Voltmeters improve meter accuracy and readability over most conventional type meters. Used primarily in monitoring line voltage, these segmental Voltmeters increase the efficiency, reliability and life of costly components .

WIDE-VUE

Size	Model	Price
3½"	1347C	$40.80
4½"	1349C	40.95

RECTANGULAR

Model	Price
—	—
49C	$40.50

MODEL NO.	1347C	1349C	49C
Scale Length	3.14" (79.7 mm)	3.93" (100 mm)	3.5" (89.0 mr
Operating Frequency Range	20-2000 cps		
Accuracy	±.5% of Center scale value at 25°C and 60 cps sine wave		
Movement Type	Core Magnet Meter Movement		
Frequency Influence	Less than 0.5% of Center scal value for temperature range o ±20° from 25°C.		
Sensitivity	160 to 100 ohms/volt end scal values. Sensitivity decreases a input voltage increases.		
Intermittent Input Voltage (max.)	150 volt RMS for 10 seconds		

WRITE ON LETTERHEAD FOR GENERAL CATALOG 18 — DEPT. V

SIMPSON ELECTRIC CO. • CHICAGO, ILLINOIS

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Simpson

2½, 3½, 4½ ROUND AND RECTANGULAR PANEL METERS

AC VOLTMETERS—RECTIFIER TYPE

ge	Ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 49
		—	$18.15	$19.95
		—	18.15	19.95
		—	18.15	19.95
	1000	—	18.15	19.95
5	ohms	—	18.15	19.95
	per volt	—	18.15	19.95
00		—	18.15	19.95
50		—	18.15	19.95
00		—	18.15	19.95
		—	18.75	20.55
		—	18.75	20.55
		—	18.75	20.55
	2000	—	18.75	20.55
5	ohms	—	18.75	20.55
	per volt	—	18.75	20.55
00		—	18.75	20.55
50		—	18.75	20.55
00		—	18.75	20.55

AC MILLIAMMETERS—RECTIFIER TYPE

	600	—	18.00	19.50
	400	—	18.00	19.50
	200	—	18.00	19.50

AC MICRAMMETERS—RECTIFIER TYPE

00	3400	—	20.55	22.05
00	2400	—	18.15	19.80
00	1800	—	18.00	19.50
00	1200	—	17.70	19.20

AC VOLTMETERS

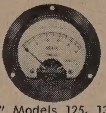
ge	Approx. Resistance	2½" Models 155/157	3½" Models 55/57	4½" Model 59
5	3 ohms	$11.70	$12.45	$14.10
	12	11.70	12.45	14.10
	33	11.70	12.45	14.10
	....	—	—	—
	133	11.70	12.45	14.10
5	300	11.70	12.45	14.10
5	833	12.15	12.75	14.10
	....	—	—	—
	3,333	12.15	12.75	14.10
00	16,666	13.20	13.80	14.70
50	25,000	12.90	13.65	14.85
00	....	—	—	—
50	41,166	12.90	13.65	14.85
00	50,000	12.90	13.65	14.85
00	83,333	17.40	17.70	18.30
50	125,000	19.20	19.35	20.10
000	166,666	20.70	20.85	21.75
500	....	—	—	—

nal Multipliers, Model 183 (Featured on back are furnished on A.C. meters having a range of olts or higher; on 2½" D.C. meters 750 volts or r; and on 3½" and 4½" D.C. meters 1000 volts igher. All others are self contained.

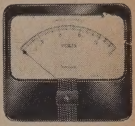
AC AMMETERS

1	.287	$11.55	$12.15	$14.40
1.5	.185	11.55	12.15	14.40
2	.115	11.55	12.15	14.40
3	.027	11.55	12.15	14.40
5	.012	11.55	12.15	14.40
10	.003	11.55	12.15	14.40
15	.0022	11.55	12.15	14.40
25	.0003	11.85	12.45	15.00
30	.0003	11.85	12.45	15.00
50	.0006	11.85	12.45	15.00
75	.012	11.55	12.15	14.40
75	.012	—	13.20	14.55
100	.012	11.55	12.15	14.40
150	.012	11.55	12.15	14.40
200	.012	11.55	12.15	14.40
0-250	.012	11.55	12.15	14.40
0-300	.012	11.55	12.15	14.40
0-500	.012	11.55	12.15	14.40

ACCURACY: DC METERS OR AC IRON VANE TYPE METERS ±2% OF FULL SCALE; RECTIFIER TYPE ±3% OF FULL SCALE @ 25°C. AND 60 CYCLE SINE WAVE.


2½" Models 125, 135, 145, 155, 175
3½" Models 25, 35, 45, 55, 75

2½" Models 127, 137, 147, 157, 177
3½" Models 27, 37, 47, 57, 77


4½" Models 29, 39, 49, 59, 79, 142

All meters listed below, except wattmeters, have the Simpson external magnet meter movement, calibrated for non-magnet panel. When ordering these meters for use on steel panels, state panel thickness and add 1.65 to price shown below for re-calibration. Wattmeters listed below have the Simpson dynamometer movement calibrated for either magnetic or non-magnetic panels and for a frequency range of 25—125 cycles.

AC MILLIAMMETERS

0-1	....	—	—	—
0-1.5	....	—	—	—
0-3	....	—	—	—
0-5	....	—	—	—
0-10	2,000 ohms	$11.55	$12.15	$14.40
0-15	875	11.55	12.15	14.40
0-20	....	—	—	—
0-25	390	11.55	12.15	14.40
0-50	80	11.55	12.15	14.40
0-75	....	—	—	—
0-100	20	11.55	12.15	14.40
0-150	....	—	—	—
0-200	....	—	—	—
0-250	5	11.55	12.15	14.40
0-300	....	—	—	—
0-500	.9	11.55	12.15	14.40
0-750	....	—	—	—
0-1000	....	—	—	—

DC AMMETERS

Range	(ohms) Approx. Resistance	2½" Models 125/127	3½" Models 25/27	4½" Model 29
0-1	.050	$12.90	$13.35	$14.70
0-1.5	.033	12.90	13.35	14.70
0-2	.025	12.90	13.35	14.70
0-3	.0166	12.90	13.35	14.70
0-5	.010	12.90	13.35	14.70
0-10	.005	12.90	13.35	14.70
0-15	.0033	12.90	13.35	14.70
0-25	.0020	12.90	13.35	14.70
0-30	.0017	12.90	13.35	14.70
0-50	.001	12.90	13.35	14.70
0-75	10.0	12.45	12.90	14.40
0-100	10.0	12.45	12.90	14.40
0-150	10.0	12.45	12.90	14.40
0-200	10.0	12.45	12.90	14.40
0-250	10.0	12.45	12.90	14.40
0-300	10.0	12.45	12.90	14.40
0-500	10.0	12.45	12.90	14.40
0-750	10.0	12.45	12.90	14.40
0-1000	10.0	12.45	12.90	14.40
15-0-15	.0033	13.20	13.65	15.15
30-0-30	.0017	13.20	13.65	15.15
50-0-50	.001	13.20	13.65	15.15

DC MICROAMMETERS

0-15*	4500	—	$22.95	$25.05
0-25‡	2200	$19.65	20.55	22.65
0-50	2000	17.10	17.55	18.90
0-100	2000	14.85	15.45	17.25
0-200	1000	13.20	13.95	15.45
0-500	200	12.75	13.35	14.85
25-0-25	2000	17.35	17.70	19.05
50-0-50	2000	15.00	15.60	17.40
100-0-100	1000	12.90	14.10	15.75
500-0-500	46	12.30	12.90	14.10

DC MILLIVOLTMETERS

0-50	10	$12.45	$12.90	$14.40
0-100	20	12.45	12.90	14.40

RF AMMETERS — Internal Thermocouple Type

Range	Approx. Resistance	2½" Model 135/137	3½" Model 35/37	4½" Model 39
0-1	.343 ohms	$14.10	$15.00	$17.25
0-1.5	.200	14.10	15.00	17.25
0-2	.120	14.10	15.00	17.25
0-2.5	.10	14.10	15.00	17.25
0-3	.08	14.10	15.00	17.25
0-5	.045	14.10	15.00	17.25
0-8	.031	14.10	15.00	17.25
0-10	.023	14.10	15.00	17.25

RF MILLIAMMETERS ‡0-100 linear scale

‡0-115	4.0 ohms	—	28.35	29.85
0-150	4.5	—	18.00	20.40
0-250	3.5	—	18.00	20.40
0-500	.63	—	18.00	20.40

VOL. LEVEL INDICATORS — DECIBEL METERS

Zero Power Level — 6 MW 500 Ohm Line

Range	2½" Models 145/147	3½" Models 45/47	4½" Model 49
General Purpose Type —10 to +6 db 5000 ohms	$18.30	$18.45	$20.10
High Speed Type —10 to +6 db 5000 ohms	—	20.40	21.75
Low Speed Type —10 to +6 db 5000 ohms	—	20.25	21.15

VOLUME LEVEL INDICATORS — VU METERS

Reference Level — 1 MW 600 Ohm Line

Range Scale 3900 ohms	2½" Models 145/147	3½" Models 45/47	4½" Model 142
"A" Scale; Not Illuminated	—	$22.35	$24.15
"B" Scale; Not Illuminated	—	22.35	24.15
"A" Scale; Illuminated	—	—	26.70
"B" Scale; Illuminated	—	—	26.70

WATTMETERS — DYNAMOMETER TYPE

Single Phase

Range Watts	Max. Volts	Max. Amps.	2½" Model 175/177	3½" Model 75/77	4½" Model 79
0-75	150	1.0	$26.25	$27.60	$33.90
0-150	150	2.0	26.25	27.60	33.90
0-300	150	4.0	26.25	27.60	33.90
0-750	150	10.0	26.25	27.50	33.90
0-600	300	4.0	28.65	30.00	36.45
0-1500	300	10.0	28.65	30.00	36.45
0-3000	300	20.0	28.65	30.00	36.45

COMPENSATED WATTMETERS — Single Phase

0-10	300	.175	—	44.10	45.75
0-20	300	.400	—	44.10	45.75
0-20	500	.175	—	44.10	45.75
0-30	300	.650	—	44.10	45.75
0-30	500	.300	—	44.10	45.75
0-50	500	1.25	—	44.10	45.75

DC GALVANOMETERS

Scale	Sensitivity Micro-Amperes	Res. Ohms	2½" Models 125/127	3½" Models 25/27	4½" Model 29
50-0-50	500-0-500	46	$12.75	$13.20	$14.85
50-0-50	75-0-75	2000	13.65	15.00	15.45

ammeters are self-contained. Higher range AC ammeters can be supplied with external current transformers and include 2 foot leads. External current transformers should be ed separately. DC ammeters are self-contained for ranges up to and including 50 amperes. Higher range DC ammeters (50MV) listed above can be supplied with external s and include 5 foot leads. *These meters use the Hi Flux magnet and cannot be recalibrated for use on steel panels. ‡The Model 29 meters in this range use the Hi Flux et and cannot be recalibrated for use on steel panels. Ranges without prices are available on special order.

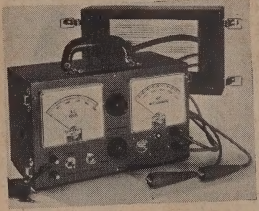
Insulation Testers

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.
PIQUA 3, OHIO

High-voltage Leakage Tester

checks insulation for...leakage
...grounds
.....arcing



MODEL
122

16 lb. Portable for lab and field work

VARIABLE VOLTAGE RATINGS TO 5 KV AC & DC. DUAL RANGE LEAKAGE METER 0/100/1000 μa. . . .CAPACITY COMPENSATION. . . MEASURES INSULATION RESISTANCE, CAPACITY, POWER FACTOR.

Automatic H-V Insulation Tester

for precision checking . . . breakdowns
. . . leakage
. . . grounds

MODEL
103-MP

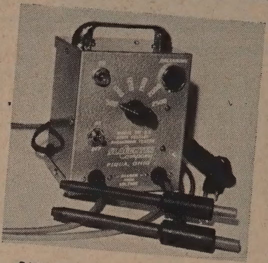
Automatic Test Cycle

FULLY AUTOMATIC TEST CYCLE. . . CONTROLLED RATE-OF-RISE. . . ADJUSTABLE TEST VOLTAGE, DWELL TIME, & LEAKAGE LIMIT. . . CAPACITY COMPENSATION ON AC TEST. . . FOR PRECISION TEST OF CRITICAL PARTS & ASSEMBLIES. . .

SLAUGHTER CO. • PIQUA 3, OHIO

High-voltage Insulation Tester

with buzzer signal on breakdowns
. . . grounds
. . . . shorts



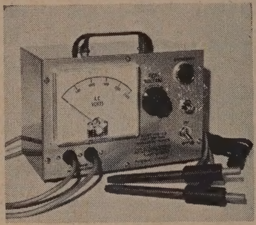
MODEL
101

Watch what you are doing . . . not the tester

SIX TEST VOLTAGES . . 500 to 2500 V.A.C. PRICED SO YOU CAN AFFORD TO SPOT A FEW ALONG YOUR ASSEMBLY LINES. FOR SAFETY

Adjustable High-voltage Tester

with buzzer signal on breakdowns
. . . grounds
. . . . shorts



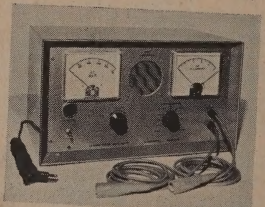
MODEL
106

Voltmeter shows actual Test Voltage

CONTINUOUSLY VARIABLE TEST VOLTAGE RATINGS TO 10,000 VOLTS AC & DC . . RECOMMENDED FOR BREAKDOWN TESTING AT FINAL ASSEMBLY AND INSPECTION

High-voltage Leakage Tester

audibly signals excess leakage
...grounds
.....arcing



MODEL
103

Measures Leakage . . . not capacity current

TEST VOLTAGE CONTINUOUSLY VARIABLE ADJUSTABLE LEAKAGE LIMIT. . CAPACITY COMPENSATION ON AC TESTS. . .RATINGS TO 10,000 VOLTS AC & DC. . . . LIMITED ENERGY. . NON-DESTRUCTIVE. . . FOR LAB AND PRODUCTION LINE SERVICE. . . . . .

SLAUGHTER CO. • PIQUA 3, OHIO

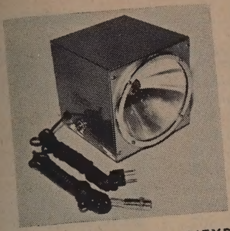
© U.C.P., In

Stroboscopes

WRITE FOR DATA SHEETS ON THE INSTRUMENTS SHOWN . . . ALL ARE STANDARD PRODUCTION MODELS, AVAILABLE FOR IMMEDIATE DELIVERY FROM STOCK . . . LET US QUOTE ON YOUR REQUIREMENTS FOR MODIFIED UNITS OR SPECIAL TEST EQUIPMENT.

SLAUGHTER CO.
PIQUA 3, OHIO

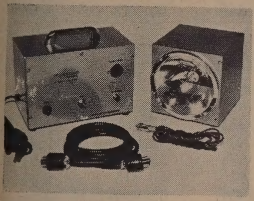
Inspection Stroboscope
.....with high intensity daylight lamp



MODEL
161
0/2,000
Flashes per Minute

LIGHT WEIGHT INEXPENSIVE TRIGGERED FLASH UNIT.....PUSH-TO-SEE SWITCH.... INTENSE WHITE LIGHT FOR INSPECTION ON —THE —GO.

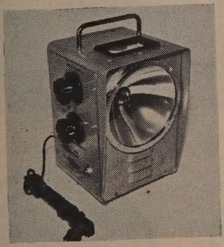
Inspection Stroboscope
...with extra high intensity daylight lamp



MODEL
167
0/600
Flashes per Minute

SUPER INTENSITY TRIGGERED FLASH UNIT ... PUSH—TO—SEE SWITCH.... FOR INSPECTION ON-THE-GO UNDER HIGH AMBIENT LIGHT CONDITIONS.

Metered Precision Stroboscope
.....with high intensity daylight lamp

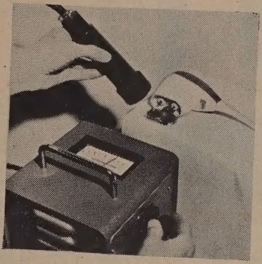


MODEL
165
50/16,000
Flashes per Minute

PRECISION STROBOSCOPE TACHOMETER INSTANT STARTING. . .HIGH INTENSITY WHITE LIGHT. . . OPERATES FROM EXTERNAL CONTACTS OR INTERNAL OSCILLATOR. . EASILY SYNCHRONIZED. .OUTPUT JACKS TO COUPLE SCOPE, ETC....

SLAUGHTER CO. • PIQUA 3, OHIO

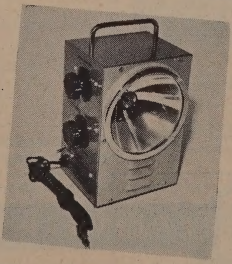
MIDGET STROBOSCOPE FLASH HEAD



MODEL
166
0/10,000
Flashes per Minute

FOR WORK ON MINIATURIZED EQUIPMENT .... FOR PRINTING TRADES. . . . FOR BIO—MEDICAL WORK. . ADAPTS TO ANY SLAUGHTER STROBOSCOPE...

Universal Stroboscope
...with high intensity daylight lamp

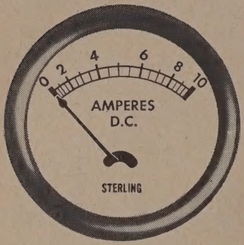


MODEL
163
50/16,000
Flashes per Minute

UNIVERSAL UNIT FOR MOTION STUDY & INSPECTION ON-THE-GO... INSTANT STARTING ... HIGH INTENSITY WHITE LIGHT .... TRIGGER EXTERNALLY OR OPERATE FROM INTERNAL OSCILLATOR

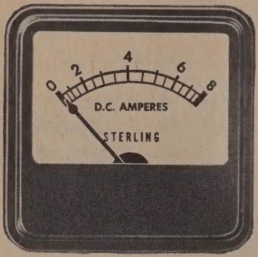
SLAUGHTER CO. • PIQUA 3, OHIO

STERLING PANEL METERS



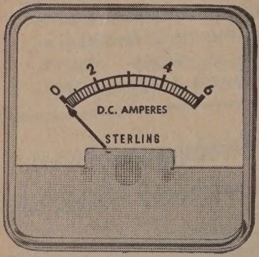
MODEL 80

2-5/32″ dia. flange, flush case. Fits mounting hole 2-1/32″ dia. Black clamp mounting. Black enamel finish.



MODEL 75

2-1/4″ square flange, fits mounting hole 2-1/32″ dia., Back clamp mounting. Black enamel finish.



MODEL 55

2-1/4″ clear plastic face. Fits mounting hole 2-1/32″ dia. Back clamp mounting.

All Sterling meters have rugged, time-proven linear-power movement. Calibration accuracy is within 5%.

PRICE LIST

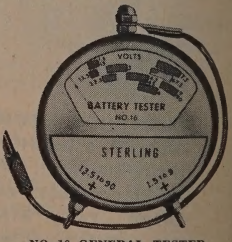
D.C. AMMETERS

Range	Approximate Resist. Ohms	Model 80 Part No.	NET EACH	Model 75 Part No.	Model 55 Part No.	NET EACH
0-1	.02 Max.	80-855	$1.80	75-855	55-855	$2.05
0-3	.02 Max.	80-856	1.80	75-856	55-856	2.05
0-6	.02 Max.	80-857	1.80	75-857	55-857	2.05
0-8	.02 Max.	80-928	1.80	75-928	55-928	2.05
0-10	.02 Max.	80-858	1.80	75-858	55-858	2.05
0-15	.02 Max.	80-864	1.80	75-864	55-864	2.05
0-25	.02 Max.	80-865	1.80	75-865	55-865	2.05
0-50	.02 Max.	80-866	2.40	75-866	55-866	2.65
30-0-30	.02 Max.	80-867	1.80	75-867	55-867	2.05
D.C. MILLIAMMETERS						
0-1	1000	80-834	$3.60	75-834	55-834	$3.85
0-2	4350	80-835	2.70	75-835	55-835	2.95
0-5	2175	80-836	2.25	75-836	55-836	2.55
0-10	750	80-837	2.10	75-837	55-837	2.40
0-15	319	80-838	1.80	75-838	55-838	2.05
0-25	130	80-839	1.80	75-839	55-839	2.05
0-50	33	80-840	1.80	75-840	55-840	2.05
0-100	8	80-841	1.80	75-841	55-841	2.05
0-150	3	80-842	1.80	75-842	55-842	2.05
0-200	2.4	80-843	1.80	75-843	55-843	2.05
0-300	1.3	80-844	1.80	75-844	55-844	2.05
0-500	.23	80-848	1.80	75-848	55-848	2.05
D.C. VOLTMETERS						
0-1	15	80-801	$1.80	75-801	55-801	$2.05
0-3	130	80-802	1.80	75-802	55-802	2.05
0-5	210	80-804	1.80	75-804	55-804	2.05
0-10	1000	80-807	1.80	75-807	55-807	2.05
0-15	1580	80-808	1.80	75-808	55-808	2.05
0-25	1700	80-809	1.80	75-809	55-809	2.05
0-50	3340	80-811	1.80	75-811	55-811	2.05
0-150	10000	80-815	2.25	75-815	55-815	2.55
0-300	100000	80-817	3.00	75-817	55-817	3.30
A.C. AMMETERS						
0-1	.7	80-886	$2.85	75-886	55-886	$3.15
0-3	.09	80-887	2.85	75-887	55-887	3.15
0-5	.04	80-888	2.85	75-888	55-888	3.15
0-10	.02	80-889	2.85	75-889	55-889	3.15
0-15	.02	80-917	2.85	75-917	55-917	3.15
0-30	.02	80-892	3.00	75-892	55-892	3.30
A.C. MILLIAMMETERS						
0-100	104	80-882	$2.85	75-882	55-882	$3.15
0-250	16	80-883	2.85	75-883	55-883	3.15
0-500	3	80-884	2.85	75-884	55-884	3.15
A.C. VOLTMETERS						
0-10	104	80-872	$2.85	75-872	55-872	$3.15
0-15	210	80-873	2.85	75-873	55-873	.3.15
0-25	1750	80-910	2.85	75-910	55-910	3.15
0-50	2750	80-879	2.85	75-879	55-879	3.15
0-150	11500	80-874	3.60	75-874	55-874	3.90
0-300	19400	80-875	4.05	75-875	55-875	4.35

For meters with special scales, ranges or construction, contact the factory or local Sterling representative.

STERLING POCKET METERS

No. 10	Dual A and B for Hearing Aids. Has 2-0-2 and 50-0-50 scales	**Net Price $3.30**
No. 13	Transistor Hearing Aid tester. Has 0-7 volt scale.	**Net Price $3.00**
No. 24	Ammeter 0-35 amp. for No. 6 dry cells. Scale has 1 amp. divisions	**Net Price $2.25**
No. 34	Voltmeter for "hot-shot" batteries. 0-10 volt scale with 1/5 volt divisions.	**Net Price $2.40**
No. 16	General voltmeter. Has green color zones for batteries from 1.5 to 90 volts.	**Net Price $4.05**
No. 44	Voltammeter. 0-35 amp. scale, 1 amp. divisions, 0-10 volt scale, 1/5 volt divisions.	**Net Price $2.76**



NO. 16 GENERAL TESTER

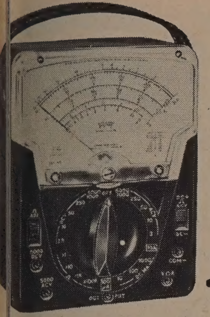
SEND FOR CATALOGS OF OUR COMPLETE LINE OF POCKET METERS AND PORTABLE BATTERY TESTERS.

The STERLING Manufacturing Company
Cleveland, Ohio

© U.C.P., Inc

TEST EQUIPMENT

TRIPLETT



MODEL 630-PL VOLT-OHM-MILLIAMETER

- Instant-vision, wider spread scales; streamlined case, handsome modern design.
- Outstanding linear ohm scale; low reading .1 ohm; high to 100 megs.
- One switch selects any range; minimizes chance of incorrect settings and burnouts. 5 to 500,000 cycles per second frequency response in AC measurements.
- DC Polarity reversing switch.
- High Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt D.C.

RANGES

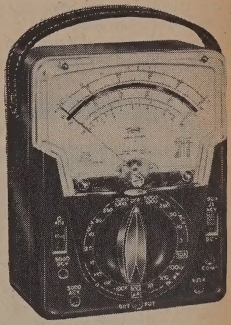
DC Volts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/volt.
AC Volts: 0-3-10-50-250-1,000-5,000 — at 5,000 ohms/volt.
Decibels: —20 to +11, +21, +35, +49, +61, +75; "0" DB at 1 MW on 600 ohm line.
DC Microamperes: 0-100—at 250 millivolts.
DC Milliamperes: 0-10-100-1,000—at 250 millivolts.
DC Amperes: 0-10—at 250 millivolts.
Ohms: 0-1,000-10,000—(4.4-44 at center scale).
Megohms: 0-1-100—(4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3$^{11}/_{32}$" x 5½" x 7½".

MODEL 630-PL—U.S.A. Dealer Net.......................... **$49.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

……

MODEL 630-APL VOLT-OHM-MILLIAMMETER



- boratory type V-O-M featuring ½% resistors and more accurate movement for greater accuracy.
- ng MIRRORED scales to eliminate parallax in reading.
- e switch selects any range; minimizes chance of incorrect settings and burnouts. 5 to 500,000 cycles per sec-d frequency response in AC measurements.
- Polarity reversing switch.
- gh Sensitivity: 5,000 ohms per volt AC; 20,000 ohms per volt DC.

RANGES

C olts: 0-2.5-10-50-250-1,000-5,000—at 20,000 ohms/t.
C olts: 0-3-10-50-250-1,000-5,000 — at 5,000 ohms/t.
e els: —20 to +11, +21, +35, +49, +61, +75; " DB at 1 MW on 600 ohm line.
C licroamperes: 0-100—at 250 millivolts.
C lilliamperes: 0-10-100-1,000—at 250 millivolts.
C mperes: 0-10—at 250 millivolts.
Ohms: 0-1,000-10,000—(4.4-44 at center scale).
Megohms: 0-1-100—(4,400-440,000 at center scale).
Output V (AC): 0-3-10-50-250-1,000—at 5,000 ohms/volt, jack with condenser in series with AC ranges.
Case: Molded, fully insulated; 3$^{11}/_{32}$" x 5½" x 7½".

MODEL 630 APL—U.S.A. Dealer Net....................... **$59.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

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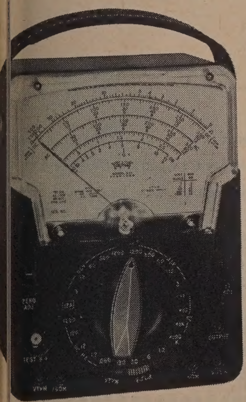


MODEL 631 — COMBINATION VOLT-OHM-MILLIAMMETER AND VACUUM TUBE VOLTMETER

- Two fundamental units at the price of a single tester; the number one instrument for all electronic men.
- VTVM stability assured by battery operation.
- Sensitivity plus—sensitivity of the 1.2 volt (VTVM) range is equal to over nine million ohms per volt.
- Long battery life on VTVM action.
- A V-O-M for general use and a VTVM when needed; ranges entirely adequate for servicing needs.
- Large meter easy to read; unbreakable meter face.
- Single switch selects all ranges; minimizes chance of incorrect settings and burnouts.
- Accuracy 3% DC to 1200 V.

V-O-M RANGES

DC Volts: 0-3-12-60-300-1,200 (20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (5,000 ohms per volt).
Ohms: 0-1,500-15,000.
Megohms: 0-1.5-150.
DC Microamperes: 0-60 at 250MV. Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
DC Milliamperes: 0-1.2-12-120-1,200 at 250 MV.
DC Amperes: 0-12 at 250 MV.
DB: —20, +11, +23, +37, +51, +63. (600 ohm line at 1 MW).

VTVM RANGES

DC Volts: 0-1.2-6-30-120.
CASE—Molded, fully insulated, 3$^{11}/_{32}$" x 5½" x 7½".

MODEL 631—U.S.A. Dealer Net **$69.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

……

MODEL 630-NA — VOLT-OHM-MILLIAMMETER

- he super deluxe of VOMs.
- eventy ranges; nearly double those f conventional testers.
- requency compensated from 35 cps 20 kc.
- emperature compensated.
- ccurate within 1½% of full scale eading on DC.
- arge open front meter easy to ead.
- lirrored scale.
- leter protection against overloads.

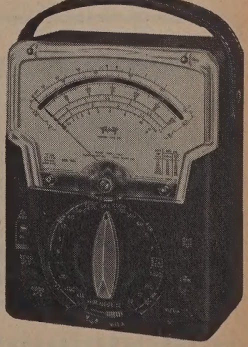
R GES

D Volts: 0-.240-.6-3-12-60-300-1,200-000 at 10,000 ohms per volt.
20-.3-1.5-6-30-150-600-3,000 at 20,-0 ohms per volt.

AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
0-1.5-6-30-150-600-3,000 at 10,000 ohms per volt.
Ohms: 0-1K-10K-100K.
Megohms: 0-1-10-100.
DC Microamperes: 0-120 at 240 millivolts. 0-60-600 at 120 millivolts.
DC Milliamperes: 0-1.2-12-120-1,200 at 240 millivolts. 0-6-60-600 at 120 millivolts.
DC Amperes: 0-12 at 240 millivolts. 0-6 at 120 millivolts.
DB: —20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated, 3$^{11}/_{32}$" x 5½" x 7½".

MODEL 630-NA—U.S.A. Dealer Net.. **$79.50**

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.



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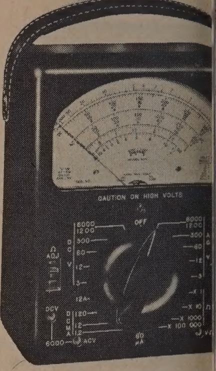
TRIPLETT

TEST EQUIPMENT

MODEL 630 — VOLT-OHM-MILLIAMMETER



- Popular streamlined tester with long meter scales arranged for easy reading.
- Outstanding linear ohm scale; low reading .1 ohm, high 100 megs.
- One switch will select any range; minimizes chance of incorrect settings and burnouts.
- Accuracy 3% DC to 1200 V.

RANGES

DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated. 3 7/32″ x 5½″ x 7½″.
MODEL 630—U.S.A. Dealer Net.. **$49.50**
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

MODEL 630-A — VOLT-OHM-MILLIAMMETER

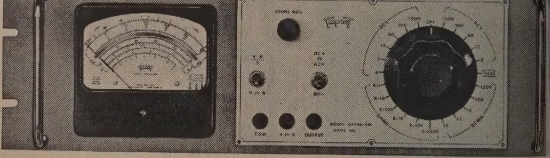
- A laboratory type VOM with ½% resistors for greater accuracy.
- Long mirrored scale to eliminate parallax.
- Banana jacks, low resistance connections.
- High flux magnet for increased ruggedness.
- One switch selects any range; minimizes chance of incorrect settings and burnouts.
- Accuracy 1½% on DC to 1200 V.

RANGES

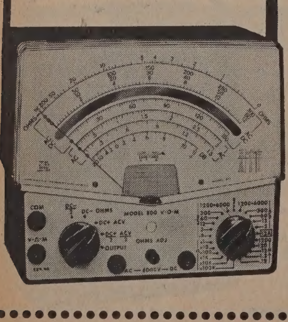
DC Volts: 0-3-12-60-300-1,200-6,000 at 20,000 ohms per volt.
AC Volts: 0-3-12-60-300-1,200-6,000 at 5,000 ohms per volt.
Ohms: 0-1,000-10,000.
Megohms: 0-1-100.
DC Microamperes: 0-60 at 250 millivolts.
DC Milliamperes: 0-1.2-12-120 at 250 millivolts.
DC Amperes: 0-12 at 250 millivolts.
DB: −20 to +77 (600 ohm line at 1 MW).
Output Volts: 0-3-12-60-300-1,200; jack with condenser in series with AC ranges.
CASE—Molded, fully insulated. 3 7/32″ x 5½″ x 7½″.
MODEL 630-A—U.S.A. Dealer Net.. $
Complete with leads, alligator clips, rubber feet, batteries and instruction manual.

MODEL 630-NA-RM — RACK MOUNTED V-O-M

Rack mounted V-O-M with ranges same as Model 630-NA opposite page, except for 6000 AC and DC Volts. The heavy etched aluminum panel, 19″ x 5¼″ has two chrome plated handles for easy removal of the tester from the rack. The 4″ meter has mirror scale and knife-edge pointer. Standard test leads come out the front. Also provision in the back for a three-lead connector. There is a DC reversing switch on the panel. Large, easy to turn single selector switch. Tester components and wiring enclosed in aluminum housing.



MODEL 630-NA-RM—U.S.A. Dealer Net.. $



MODEL 800 — VOLT-OHM-MILLIAMMETER

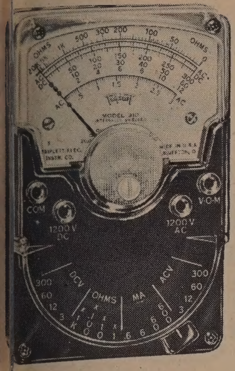
- New design with open front for readibility.
- Seventy ranges: nearly double those of conventional testers.
- Greater scale length (7″), knife edge pointer, mirror scale.
- Frequency compensated from 40 cps to 20 kc to 300 V.
- Temperature compensated.
- Accurate within 1½% of full scale reading on DC.

RANGES

DC Volts: 0-.240-0.6-3-12-60-300-1200-6000 at 10,000 Ohms per Volt.
0-.120-0.3-1.5-6-30-150-600-3000 at 20,000 Ohms per Volt.
AC Volts: 0-3-12-60-300-1200-6000 at 5,000 Ohms per Volt.
0-1.5-6-30-150-600-3000 at 10,000 Ohms per Volt.
DB: −30 to +70 in 12 ranges.
DC Microamperes: 0-60-600 at 120 MV. 0-120 at 240 MV.
DC Milliamperes: 0-6-60-600 at 120 MV. 0-1.2-12-120-1200 at 240 MV.
DC Amperes: 0-6 at 120 MV. 0-12 at 240 MV.
Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale).
Output: Condenser in series with AC volt ranges.
MODEL 800—U.S.A. Dealer Net.. **$89.50**

TEST EQUIPMENT

TRIPLETT



MODEL 310 VOLT-OHM-MILLIAMMETER

- The only complete miniature V-O-M with 20,000 ohms per volt and selector range switch.
- Self-shielded for checking in strong magnetic field.
- Rugged, high torque, bar-ring instrument.
- Unbreakable plastic meter window. Fitting interchangeable test prod into top of tester makes it the common probe, freeing one hand.
- Standard sensitivity, 20,000 ohms per volt DC, and 5,000 ohms per volt AC.
- Accuracy 3% DC.

RANGES

DC Volts: 0-3-12-60-300-1,200 (at 20,000 ohms per volt).
AC Volts: 0-3-12-60-300-1,200 (at 5,000 ohms per volt).
Ohms: 0-20,000-200,000.
Megohms: 0-2-20.
DC Microamperes: 0-600 at 250 millivolts.
DC Milliamperes: 0-6-60-600 at 250 millivolts.
WEIGHT: Approx. 14 oz. complete with batteries.
CASE—Molded, fully insulated, 2¾" x 4¼" x 1$\frac{9}{16}$".
MODEL 310—U.S.A. Dealer Net **$37.50**
Complete with leads, batteries and instruction manual.

TRIPLETT MODEL 10 CLAMP-ON ADAPTER

RANGES
AC Amperes: 0-6-12-30-60-120-300.

Just plug into any Triplett Model 310 Miniature V-O-M it becomes an AC clamp-on ammeter to measure AC amperes without cutting or opening current carrying wires. The split transformer yoke opens at the touch of a lever to fit around a single conductor or bus-bar for direct readings of AC amperes from 6 to 300 in 6 steps.

MODEL 10 .... **$15.50**

T Model 10 can be used at a distance from the Model 310 b using No. 311 lead attachment. This permits readings in d cult locations.

N 311 Leads .... **$2.10 net**

In addition, to use with the Model 310, the Model 10 Adapter also can be used as a Clamp-On Ammeter with any Volt-Ohm-Milliammeter having a 3 AC Volt scale at 5,000 ohms per volt such as Triplett Models 630, 630-A, 630-NA, 630-PL, 631, etc., by employing Triplett

No. 611 Leads .... **$2.10 net**

R GE	Max. Capacity Amps.
D ct	30
D le by 10	12
D le by 20	6

TRIPLETT MODEL 101 LINE SEPARATOR

Serves to plug in at outlet to divide 2 conductor cords for clamp-on measuring. Makes accurate, rapid testing of radio and TV sets, appliances, motors, etc., possible without opening or splitting double conductors. Also serves to increase ammeter sensitivity 10X and 20X, if desirable, for easier reading.

MODEL 101 .... **$6.00 net**

TRIPLETT
OM AND CLAMP-ON AMMETER SET

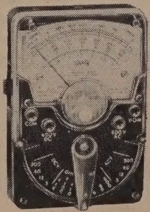
MODEL 100 V-O-M AND CLAMP-ON AMMETER SET

Consists of Model 310 VOM, Model 10 Clamp-On Adapter, Model 101 Line Separator, No. 311 leads — all conveniently packaged in one handy, durable, high-quality Model 379 leather carrying case which has provision for all parts.

MODEL 100 .... **$64.50 net**
MODEL 100C—Same as above, but with Model 310-C .... **$71.50 net**

NEW TRIPLETT MODEL 310-C

Same small size—
same convenient features as Model 310



PLUS:

1. Fully enclosed lever range switch
2. 15,000 Ohms per volt AC (20,000 O/V DC, same as 310)
3. Reversing Switch for DC Measurements

LI THER CARRYING CASES

Ca **639**	Net $9.90
Ca **639-N** (Center open flap snaps back, use tester in case)	Net $9.90
Ca **639-P** (Sponge rubber lined)	Net $14.90
Ca **669**	Net $6.90
Ca **369** (For testers 310, 305, 308, 309)	Net $3.20
Ca **369-T** (Neckstrap carrying case for Model 310)	Net $7.70
Ca **379** (For 310-10-101)	Net $6.00
Ca **659** (For Tester 650)	Net $11.90
Ca **659-P** (For Tester 650)	Net $17.60
Ca **629** (For 625-NA, 660, 661, 690-A)	Net $7.20

TESTER STAND

Metal stand holds Model 630, 630-A, 630-PL, 630-APL, 630-NA, 630-T, 631 or 650 tester in approximately a 45° angle; will enable you to make easier readings.

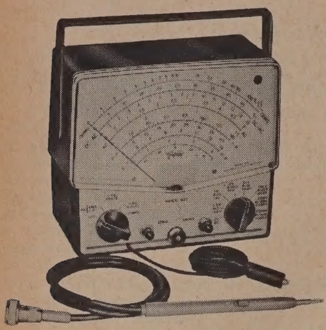
STAND ONLY—Pt. T-255-A-33—U.S.A. Dealer .... **Net $1.00**

EXTERNAL SHUNTS

Pt. T-91-247— 30 Amperes (Plug-In)	$ 9.90
Pt. T-91-248— 60 Amperes (Portable)	$13.20
Pt. T-91-255—120 Amperes (Portable)	$13.20

© C.P., Inc.

TEST EQUIPMENT



MODEL 850 ELECTRONIC VOLT-OHMMETER

- Extremely versatile with superior voltage measuring capabilities.
- .5 volt full scale range on DC—useful in low voltage transistor circuits.
- Better stability—meter connected in cathode circuit of 12AU7.
- Full view scales—7″ long at top arc for easy reading.
- Electrical protection of meter against burnout.

RANGES

Eight DC Volts Ranges: 0-.5-1.5-5-15-50-150-500-1500.

Seven AC RMS Volts Ranges: 0-1.5-5-15-50-150-500-1500.

Seven Peak-to-Peak Volts Ranges: 0-4-14-40-140-400-1400-4000.

Seven Resistance Ranges: 0-1000-10,000-100,000—1 Meg-10 Meg-100 Megohms-1000 Megohms.

Frequency Range: 15 CPS to 3 MC; (Up to 250 MC with accessory diode probe available extra.)

Input Impedance: DC Volts 11 Megohms; AC Volts minimum of .83 Megohms.

CASE—Molded black case completely insulated. 7⅝″ x 6 7/16″ x 3¾″. Carrying handle also can be used to pl the tester at 25° angle for ease in reading.

PANEL—Etched aluminum.

MODEL 850—U.S.A. Dealer Net $79

MODEL 630-NS VOLT-OHM-MILLIAMETER

- 200,000 Ohms per Volt D.C. for greater accuracy on high resistance circuits. 20,000 Ohms per Volt A.C.
- 64 ranges.
- Frequency Response: Flat from 20 cps to 100,000 cps.
- Temperature compensated.
- Long 4.5 inch scale—mirrored for greater accuracy.
- Large open front meter—easy to read.
- Overload protection on accidental overloads.

RANGES

D.C. Volts: 0-0.300-0.6-3-12-60-300-1200 at 100,000 Ohms/Volt.
0-0.150-0.3-1.5-6-30-150-600 at 200,000 Ohms/Volt.

A.C. Volts: 0-3-12-60-300-1200 at 10,000 Ohms/Volt.
0-1.5-6-30-150-600 at 20,000 Ohms/Volt.

DB: −20 to +77 in 12 ranges.

D.C. Microamperes: 0-60-600 at 150 M.V.—0-120 at 300 M.V.

D.C. Milliamperes: 0-6-600 at 150 M.V.—0-1.2-12-120-1200 at 300 M.V.

D.C. Amperes: 0-6 at 150 M.V.—0-12 at 300 M.V.

Ohms: 0-1K-10K-100K (4.4-44-440 at center scale).

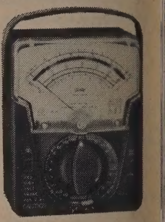
Megohms: 0-1-10-100 (4400-44,000-440,000 Ohms center scale).

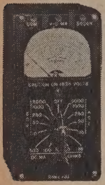
Output: Condenser in series with AC Volt ranges.

CASE—Molded, fully insulated, 3 11/32″ x 5½″ x 7½″.

MODEL—630 NS—U.S.A. Dealer Net $99.50

Complete with leads, alligator clips, rubber feet, batteries and instruction manual.





MODEL 666-HH POCKET VOLT-OHM-MILLIAMMETER

Compact, hand-size V-O-M.

Three-inch meter integral with panel, adjusted to 400 microamperes at 250 millivolts.

Only three jacks necessary for all ranges.

Accuracy 3% DC to 1000 V.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-2,000-400,000.

DC Milliamperes: 0-10-100-500 at 250 millivolts.

Output Volts: 0-10-50-250-1,000; jack with condenser in series with ranges.

CASE—Black molded, insulated 3 1/16″ x 5⅞″ x 2 9/16″.

MODEL 666-HH—U.S.A. Dealer Net $29

Complete with leads, alligator clips, battery and instruction man

MODEL 666-R — POCKET VOLT-OHM-MILLIAMMETER

Hand-size—the ideal tester for electrical maintenance.

Recessed range knob enables tester to fit in tool kit.

AC rectifier pre-calibrated unit for easy replacement.

Banana jacks at top of the panel lessen possibility of leads falling over the meter dial.

Single switch selects all ranges; minimizes chance of incorrect settings and burnouts.

Accuracy 3% DC to 1000 V.

RANGES

DC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

AC Volts: 0-10-50-250-1,000-5,000 at 1,000 ohms per volt.

Ohms: 0-3,000-300,000.

Megohms: 0-3.

DC Milliamperes: 0-10-100 at 250 MV.

DC Amperes: 0-1 at 250 MV.

Output Volts: 0-10-250-1,000; jack with condenser in series with AC ranges.

CASE—Black molded, streamlined, completely insulated. Handy pocket size, 3 1/16″ x 5⅞″ x 2 9/16″.

MODEL 666R—U.S.A. Dealer Net $32.50

Complete with leads, alligator clips, batteries and instruction manual.

Special field case designed for the 666-R. Camera-type leather case, **No. 669-RL** $6.60

MODEL 630-T — VOLT-OHM-MILLIAMMETER

Specially designed for telephone maintenance. Accuracy 2% on DC. Fused protected circuit protects resistors and meter in ohms ranges.

Special neck strap supplied to hold instrument, leaving both hands free.

Banana jack connectors to eliminate all shock hazard.
Completely insulated case to protect instrument from ground.

RANGES

DC Volts: 0-.3-3-12-60-300-600 at 20,000 ohms per volt.

AC Volts: 0-3-12-60-300-600 at 3,000 ohms per volt.

Ohms: 0-1K-10K-100K.

Megohms: 0-1-10.

DC Microamperes: 0-60 at 150 millivolts.

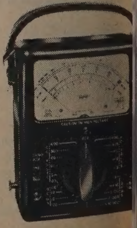
DC Milliamperes: 0-1.2, 12-120 at 150 millivolts.

DB: −20 to +57.

CASE—Molded, completely insulated to protect instrument from ground, 3 7/32″ x 5½″ x 7½″.

WEIGHT—4 lbs.

MODEL 630-T—U.S.A. Dealer Net $59.50



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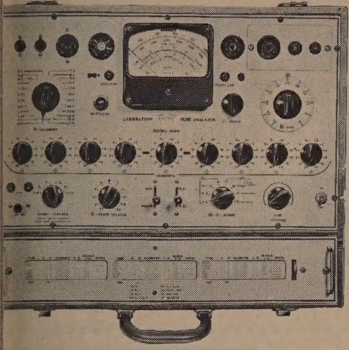
TEST EQUIPMENT

TRIPLETT



MODEL 3444 — NEW PORTABLE TRUE DYNAMIC MUTUAL CONDUCTANCE TUBE ANALYZER

Rapid, positive, completely analyzes, solves the most perplexing tube analysis problems—Laboratory, Research, Industrial Production, Radio, TV, Theatre, PA Equipment, Communications, etc.

Measures true Gm—no extra compensating factors—using proper value DC electrode potentials, 5 KC-AC signal source and vacuum tube micro-ammeter at very low 33 ohm plate impedance.

Offers unique test advantages never before available in portable models: CHECKS PLATE current cut-off. PLOTS tube characteristic curves. CHECKS GAS under actual operating condition. CHECKS RECTIFIERS under load. CHECKS THYRATRON firing voltage, grid current. CHECKS DUAL section tubes with only 1 lever movement. CHECKS ACCURACY Gm circuits by self-checking Gm circuit. PROVIDES SHORTS, LEAKAGE measurements from 0-10 megohms using filtered DC supply 85V. New easy tube chart data. PROVIDES cut-off measurements voltage, amplifiers. RECESSED SOCKET SAVERS (under-panel mounted) easily removable for replacement.

CASE: Wood, gray leatherette covered, 15¾₆" x 18¹³⁄₁₆" x 7¾".

MODEL 3444—U.S.A. Dealer Net **$279.50**

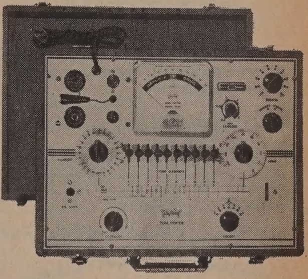
MODEL 3414 — TUBE TESTER — MORE FLEXIBLE

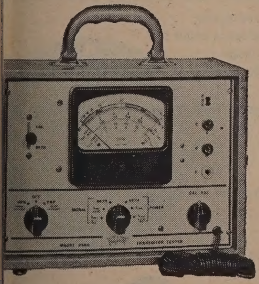
switch settings made before tube warms up; ready for testing before filaments reach proper temperature.
ects burned out tubes instantly without filament heatup. Complete flexibility for new tube setups; plus non-
solescence factor. Few simple switch settings give complete accurate story tube capabilities. Modified plate
ductance circuit for closer correlation to tube characteristics. Neon indicator shorts test. Slightest inter-
ment shorts show while cathodes are hot. New variable leakage test from 0.3 Meg. to over 3 Meg. Checks all
ay's and tomorrow's tubes (including new series filament tubes). With BV adapter ($5.40) tests TV picture tubes
set. Wide angle neon indicator for greater visibility glow test. Checks appliances for shorts, open circuits.

SE: Counter-portable, wood, dark gray leatherette covered, 15⅞" x 11½" x 6½".

NEL: Etched, heavy gauge aluminum, black and red markings, 12 lbs.

DEL 3414—U.S.A. Dealer Net **$89.50**

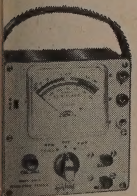




MODEL 2590 — NEW TRANSISTOR TESTER

Tests Power Type Transistors and Signal Type Transistors under SIMULATED OPERATING CONDITIONS. Tests for shorts and leakage . . . Provides for testing ICEO (at 9.5 volts); ICBO (at 9.5 volts), and BETA (at 3 volts) on both NPN and PNP transistors . . . Checks leakage and forward currents of Diodes . . . SIMPLE AND STRAIGHTFORWARD IN OPERATION . . . No roll chart or special technical data is required. The only information needed to make a test is the transistor type . . . FOR ANY BASING ARRANGEMENT. A transistor socket and a set of external leads permit use with any basing arrangement . . . Power—115 volts, 50-60 cycle AC. No batteries are required . . . **CASE**—Handsome gray leatherette covered case, 11⅝" x 8⅝" x 5⅛". Case has rubber feet. Luggage style handle for ease in carrying . . . **RECESSED PANEL**—Panel of etched heavy gauge aluminum has natural finish with black and red markings and trim . . . **WEIGHT**—Approximately 5¼ lbs.; Shipping weight, 9 lbs.

MODEL 2590—Suggested U.S.A. Dealer Net Price **$54.50**



MODEL 690-A — TRANSISTOR TESTER

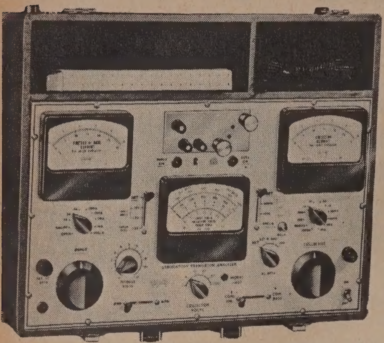
Leakage and gain tests for all low and medium power PNP and NPN type transistors . . . Measures DC Beta (current gain from base to collector with grounded emitter) from 5 to Infinity. The long, GOOD scale provides a better indication of the degree of quality . . . Affords an exact test for shorts and leakage . . . Checks forward and reverse leakage of diodes. Prevents drain on batteries in case of accidental shorting of leads. Battery operation eliminates need for external power supply . . . Error-proof controls . . . Easily portable. Transistor socket and external leads for any basing layout. **CASE**—Black molded 2½" x 5½" x 6" with removable black leather strap handle. Overall thickness of tester 3".

PANEL—Black and red markings etched on aluminum.

MODEL 690-A—U.S.A. Dealer Net **$32.50**

Carrying case 629.

TEST EQUIPMENT



MODEL 3490 — TRANSISTOR ANALYZER

RANGES

Input Current (Emitter or Base)	0-1 Amp, 0-300 Ma, 0-100 Ma, 0-100 Ma, 0-30 Ma, 0-10 0-3 Ma, 0-1 Ma, 0-300 Ua.
Collector Current	0-10 Amp, 0-3 Amp, 0-1 Amp, 0-300 Ma, 0-100 Ma, 0-30 0-10 Ma, 0-3 Ma, 0-1 Ma, 0-300 Ua.
ICEO, ICO (ICBO)	0-60 Ma, 0-6 Ma, 0-600 Ua, 0-60 Ua.
Collector Voltage	0-120V, 0-60V, 0-30V, 0-12V, 0-3V
Emitter or Base Voltage	0-12V, 0-1.2V
Tetrode	0-10V Calibrated Control

For the ultimate in Transistor Analysis, Model 3490 offers among other features:

THREE INDEPENDENT Power Supplies—COLLECTOR currents to 10 Amperes—INPUT currents 1 Ampere—SEPARATE Input and Collector meters (4½″) monitor emitter or base—CONTINUOU VARIABLE Emitter or Base Voltage or Current—CONTINUOUSLY VARIABLE Tetrode Voltage—MEASU MENT AT ANY POTENTIAL of ICO and ICEO—DC ALPHA or BETA measurement on Signal and Po Types—MEASUREMENT OF AC BETA on Signal Types at 1000 cycles—CONTINUOUS INSTRUMI COVERAGE, no skips—ALSO HANDLES Punch Through; Saturation and Floating Potential Measu ments—ANALYZES transistors in either the Common Base or Common Emitter configuration.

CASE—Wood, gray leatherette covered, 18$^{13}/_{16}$″ x 15$^{7}/_{16}$″ x 8″ with removable cover and slop etched aluminum panel.

MODEL 3490—Suggested U.S.A. Dealer Net $399

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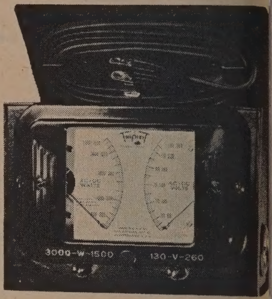
MODEL 2002 — APPLIANCE TESTER



For installations and servicing.

Shows power consumption of industrial equipment, radios, electric ranges, refrigerators, washers and other household appliances under actual operating conditions, on either DC or AC between 25 and 133 cycles.

A Wattmeter on the left and a Voltmeter on the right permit Watts and Volts to be read simultaneously or independently.

Shows if voltage remains within limits under operating loads.

Current coils assure ample capacity for momentary tests on motor starting overloads.

Heavy inner construction assures ample current capacity for momentary tests on motor starting overloads.

Shows faulty power lines.

RANGES

Watts: DC-AC: 0-1,500-3,000.

Volts: DC-AC: 0-130-260.

CASE—Heavy leather and snap button cover and leather handle, 6½″ x 4½″ x 3¼″. Storage space for leads furnished which include one cord to plug into wall socket, another with a socket to receive connections from appliances under test.

MODEL 2002—U.S.A. Dealer Net $49.50

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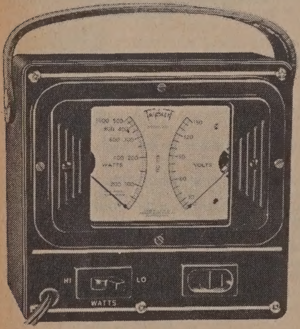

MODEL 660, 661 — LOAD CHECK

A time-saver, designed for TV servicing. Helps prevent repair come-backs.

No time lost in connecting this unit. Just plug in the power cord of the radio and all meters are connecte

Quick way to locate hidden shorts and overloaded circuits.

Double meter indication provides simultaneous check of line voltage and power.

Shows faulty power line wiring as well as proper functioning of the appliance under test.

Simple operation by means of only one toggle switch to change watts range.

Double range on Watts meter permits one unit to serve from a 5-tube radio to the largest TV set.

RANGES **Watts:** DC-AC: 0-500-1,000 **Volts:** DC-AC: 0-150

CASE—Black molded, 2½″ x 5½″ x 6″, insulated to protect instrument from ground. Removable black leath strap handle.

MODEL 660—U.S.A. Dealer Net .... $39.

MODEL 661

RANGES **Watts:** DC-AC: 0-150-300 **Volts:** DC-AC: 0-150

Designed for Radio and Low Wattage Appliances. Appearance and construction same as 660 with watt range 150-30

MODEL 661—U.S.A. Dealer Net .... $39.

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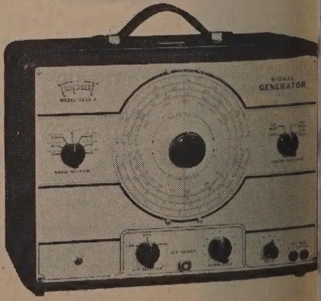
MODEL 3432-A — SIGNAL GENERATOR



The generator is provided with a 400 cycle audio frequency with variable control for 0-100 per cent modulation.

Band A	160-370 KC	Band E	4.85-13 MC
B	360-735 KC	F	12.5-35 Mc
C	715-1875 KC	G	34-110 MC
D	1825-4950 KC	G (Harmonics)	68-220 MC

CASE—Metal with black baked suede finish, 15$^{1}/_{32}$″ x 11$^{1}/_{32}$″ x 6¼″. Black leather strap handle, rubber feet.

MODEL 3432-A—U.S.A. Dealer Net $109.50

Designed for new servicemen coming into the service field. One generator to align radio, television (monochrome and color).

Complete frequency coverage 160 KC to 110 MC fundamental with seven bands (220 MC harmonics).

R.F. circuits are double shielded with copper steel shields.

Large easily read etched aluminum dial.

Cathode follower output provides good stability by acting as a buffer to the oscillator.

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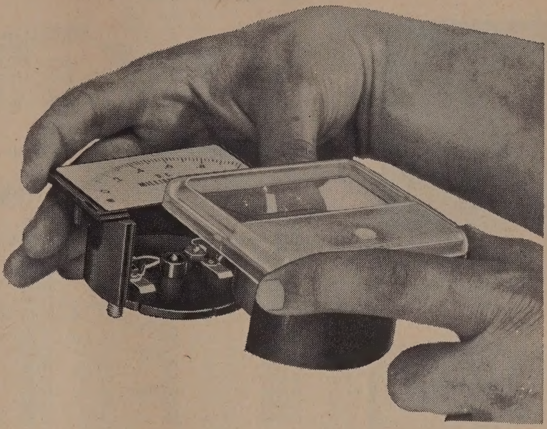
TEST EQUIPMENT

TRIPLETT

UNIMETERS



innovation in self-service meters these Select-Your-Range meters consist of two basic meter movements, which can combined with any one of a number of separate dial-compo- t units for a wide variety of meter ranges. The basic meter ements and the Dial-Component units lock together simply; soldering, no wiring, no opening of the dust-proof movement equired.

two sizes, 327-U 3½″ rectangular and 420-U 4½″ rectangu- with mirror scale for greater accuracy in reading. Also in dy kits, both sizes, as below. The triple-purpose kit case handle provides handy portability; easy protective storage attractive display.

UNIMETER PRICE LIST — BASIC MOVEMENTS

	U.S.A. Dealer Net		U.S.A. Dealer Net
Model 327-U 0-1 DC Milliammeter (50 MV)	$12.10	**Model 420-U** 0-1 DC Milliammeter (50 MV)	$13.20
Model 327-U 0-50 DC Microammeter (250 MV)	17.50	**Model 420-U** 0-50 DC Microammeter (250 MV)	18.70

DIAL-COMPONENT UNITS

U.S.A. Dealer Net Price Each Unit (Specify for use with 327-U or 420-U) $2.75

DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA	DC-MA		DC-VM 1000 o/v Film Type	DC-AM	AC-VM Rectifier Type*	DC-UA
0-1	0-100	0-10	0-1	0-10	0-50	0-15	0-250	0-150	0-15		0-500
0-5	0-150	0-25	0-5	0-150	0-100	0-25	0-300	0-300	0-25		
0-10	0-200	0-50	0-10	0-300	0-200	0-50	0-500	0-500	0-50	*500 o/v	

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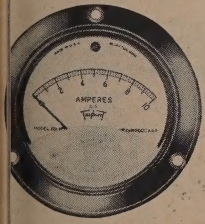

RUGGEDIZED INSTRUMENTS

A complete line of 2½″ and 3½″ ruggedized and sealed instruments designed to meet government specification MIL-M-10304A.

Triplett ruggedized instruments employ the unique and exclusive bar-ring construction so well adapted to ruggedization, that the addition of spring loaded jewels and an internal rubber mount (both designed for jewel protection) constitute the essential difference between the commercial and ruggedized movements.

The bar-ring construction is inherently self-shielding so that the heavy steel case does not affect instrument calibration nor does mounting in a steel panel of any thickness.

The unusually strong housing consists of a drawn steel case with heavy die cast window bezel. The bezel seals the window to the case with a simple gasket and screws. A tough plastic window is used instead of glass.

Husky gasket-sealed studs are used for electrical connections to provide additional protection over delicate glass sealed types.

Most catalog ranges of DC: MV, Volts, Mic. Ma, Amp and AC rectifier type can be supplied. Regular dials in accordance with MIL-M-10304A are supplied although special dials of all descriptions can be made up for special applications.

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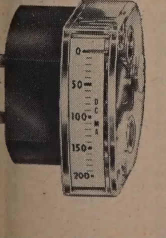

MINIATURE EDGEWISE PANEL INSTRUMENTS

If space on your panel is at a premium here is a miniature meter that will fit into even the most restricted area—yet give you the readability, performance and reliability you expect from the conventional 2½″ sizes.

Weighing only four ounces this meter also is of value to the user who has a weight limitation factor on his hands.

Accuracy—DC 2% of full scale; AC Rectifier type 5% of full scale.

Self-Shielded Bar-Ring Magnet—Not affected by magnetic panels. High torque, exceedingly rugged and accurate.

Mounting—Horizontal, zero at left and barrel down is standard.

Vertical mounting or other special adaptations in quantity orders.

Panel Hole Required—Only ⁹⁄₁₆″ x 1¹¹⁄₁₆″.

DC-MA	Dealer Net
0-1	$10.90
0-10	10.90
0-25	11.30
0-50	11.30
0-100	11.30
0-150	11.30
0-200	11.30
0-300	11.30
0-500	11.30
DC-VM	
0-10	$11.80
0-50	11.80
0-150	11.80

DC-UA	Dealer Net
0-50	$16.40
0-100	14.30
0-200	12.20
DC-AM	
0-10	$11.80
AC-VM (Rect. Type)	
0-150	$19.70
0-300	20.70
VU Meters	
A or B Scales	$21.90

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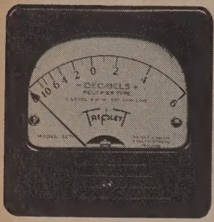
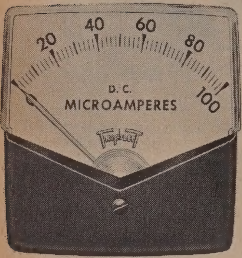
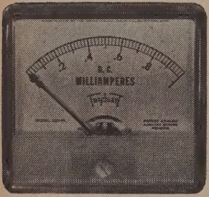
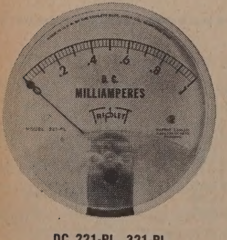
TRIPLETT INSTRUMENTS


DC 221-T, 321-T
AC 231-S, 331-S


DC 220-M, 320-M,
420-M


DC 227-PL, 327-PL
AC 237-PL, 337-PL


DC 221-PL, 321-PL
AC 231-PL, 331-PL

DC MILLIVOLTMETERS

Range	Approx. Res.	Scale Div.	2½″ Models 221-T 227-T	2½″ Models 220-M 221-PL 227-PL	3½″ Models 320-M 321-T 327-T	3½″ Models 321-PL 327-PL	4½″ Model 420	4½″ Mo 420- 420-
0-50	6.3	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12
0-100	12.5	50	10.90	10.90	11.60	11.60	12.80	12
0-150	20	75(30)**	10.90		11.60		12.80	

DC VOLTMETERS (1000 Ohms per Volt) — FILM TYPE RESISTORS

Range	Scale Div.	2½″ Models 221-T, 227-T	2½″ Models 220-M, 221-PL, 227-PL	3½″ Models 321-T, 327-T	3½″ Models 320-M, 321-PL, 327-PL	4½″ Mod 420-M, 4 420-PL
0-10	50	$11.80	$11.80	$12.30	$12.30	$13.5
0-15	75(30)**	11.80	11.80	12.30	12.30	13.5
0-25	50	11.80	11.80	12.30	12.30	13.5
0-50	50	11.80	11.80	12.30	12.30	13.5
0-100	50	11.80	11.80	12.30	12.30	13.5
0-150	75(30)**	11.80	11.80	12.30	12.30	13.5
0-200	40	11.80	11.80	12.30	12.30	13.5
0-250	50	11.80	11.80	12.30	12.30	13.5
0-300	60(30)	11.80	11.80	12.30	12.30	13.5
0-500	50	14.10***	14.10***	13.00	13.00	14.2
0-750	75(30)**	17.20***	17.20***	13 00	13.00	14.2
0-1000	50	14.90	14.90	15.50	15.50	16 7
0-2000	40	15.50	15.50	16.20	16.20	17.4
0-3000	60(30)**	16.20	16.20	16.80	16.80	18 0
0-4000	40	16.50	16.50	17.20	17.20	18.4
0-5000	50	16.80	16.80	17.50	17.50	18.7

DC VOLTMETERS (1000 Ohms per Volt) — WIREWOUND RESISTORS

Range	Scale Div.	2½″ Models 221-T, 227-T	2½″ Models 220-M, 221-PL, 227-PL	3½″ Models 321-T, 327-T	3½″ Models 320-M, 321-PL, 327-PL	4½″ Mod 420-M, 4 420-PL
0-1	50	$11.80	$11.80	$12.30	$12.30	$13.5
0-3	60(30)**	11.80	11.80	12.30	12.30	13.5
0-5	50	11.80	11.80	12.30	12.30	13.5
0-10	50	11.80	11.80	12.30	12.30	13.5
0-25	50	14.40	14.40	15.00	15.00	16.2
0-50	50	14.40	14.40	15.00	15.00	16.2
0-100	50	15.00	15.00	15.60	15.60	16.8
0-150	75(30)**	15.00	15.00	15.60	15.60	16.8
0-300	60(30)**	18.30	18.30	18.90	18.90	20.1
0-500	50	20.50***	20.50***	21.00	21.00	22.2
0-750	75(30)**	23.40***	23.40***	24.10	24.10	25.3
The following supplied with external resistor boxes at prices shown:						
0-1000	50	41.30	41.30	42.00	42.00	43.10
0-2000	40	67.70	67.70	68.20	68.20	69.40

***Supplied with external resistors.

DC MICROAMMETERS

Range	Approx. Res.	Scale Div.	2½″ Models 221-T, 227-T	2½″ Models 220-M, 221-PL, 227-PL	3½″ Models 321-T, 327-T	3½″ Models 320-M, 321-PL, 327-PL	4½″ Model 420	4½″ Models 420-M, 420-PL
0-20	4750	40	$19.40	$19.40	$20.00	$20.00	$21.20	$21.20
0-50	2000	50	16.40	16.40	16.90	16.90	18.20	18.20
0-100	825	50	14.30	14.30	14.90	14.90	16.10	16.10
0-200	360	40	12.20	12.20	12.90	12.90	14.10	14.10
0-500	156	50	11.70	11.70	12.20	12.20	13.40	13.40
50-0-50	825	50	14.30	14.30	14.90	14.90	16.10	16.10
100-0-100		50	12.20	12.20	12.90	12.90	13.40	13.40
500-0-500	55	50	10.90	10.90	11.60	11.60	12.80	12.80

DC MILLIAMMETERS

Range	Approx. Res.	Scale Div.	2½″ Models 221-T, 227-T	2½″ Models 220-M, 221-PL, 227-PL	3½″ Models 321-T, 327-T	3½″ Models 320-M, 321-PL, 327-PL	4½″ Model 420	4½″ Models 420-M, 420-PL
0-1	55	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-1.5	30	75(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-3	14	60(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-5	8.5	50	10.90	10.90	11.60	11.60	12.80	12.80
0-10	3.1	50	10.90	10.90	11.60	11.60	12.80	12.80
0-15	6.6	75(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-25	4	50	11.30	11.30	12.00	12.00	13.20	13.20
0-50	2	50	11.30	11.30	12.00	12.00	13.20	13.20
0-75	1.3	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-100	1	50	11.30	11.30	12.00	12.00	13.20	13.20
0-150	0.6	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-200	0.5	40	11.30	11.30	12.00	12.00	13.20	13.20
0-250	0.4	50	11.30	11.30	12.00	12.00	13.20	13 20
0-300	0.33	60(30)**	11.30	11.30	12.00	12.00	13.20	13 20
0-400	0.25	40	11.30	11.30	12.00	12.00	13.20	13 20
0-500	0.2	50	11.30	11.30	12.00	12.00	13.20	13 20
0-750	0.13	75(30)**	11.30	11.30	12.00	12.00	13.20	13.20
0-1000	0.1	50	11.30	11.30	12.00	12.00	13.20	13.20

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INSTRUMENTS

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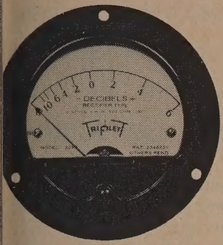

DC AMMETERS

Range	Scale Div.	2½″ Models 221-T, 227-T	2½″ Models 220-M, 221-PL, 227-PL	3½″ Models 321-T, 327-T	3½″ Models 320-M, 321-PL, 327-PL	4½″ Model 420	4½″ Models 420-M, 420-PL
0-1	50	$10.90	$10.90	$11.60	$11.60	$12.80	$12.80
0-3	60(30)**	10.90	10.90	11.60	11.60	12.80	12.80
0-5	50	11.80	11.80	12.30	12.30	13.50	13.50
0-10	50	11.80	11.80	12.30	12.30	13.50	13.50
0-15	75(30)**	11.80	11.80	12.30	12.30	13.50	13.50
0-25	50	11.80	11.80	12.30	12.30	13.50	13.50
0-30	60(30)**	11.80	11.80 } 221-PL only	12.30	12.30 } 321-PL only	13.50	
0-50	50	11.80	11.80	12.30	12.30	13.50	

D.C. Ammeters are self-contained up to and including 50 Amperes. Shunts 75 Amperes (50 M.V.) and higher are switchboard type with 5 ft. leads.

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AC VOLTMETERS

nge	Approx. Ohms/Volt	Scale Div.	2½″ Models 231-S, 237-S	2½″ Models 231-PL, 237-PL	3½″ Models 331-S, 337-S	3½″ Models 331-PL, 337-PL	4½″ Model 430	4½″ Model 430-PL
.5	1.33	75(30)**	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
	3.33	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
	4	50	11.40	11.40	12.10	12.10	12.80	12.80
0	10	50	11.40	11.40	12.10	12.10	12.80	12.80
5	16	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
5	20	50	11.40	11.40	12.10	12.10	12.80	12.80
0	50	50	11.40	11.40	12.10	12.10	12.80	12.80
00	91	50	11.40	11.40	12.10	12.10	12.80	12.80
50	125	75(30)**	12.50	12.50	13.10	13.10	13.80	13.80
50	144	50	13.10	13.10	13.80	13.80	14.40	14.40
00	144	60(30)**	13.80	13.80	14.30	14.30	15.00	15.00
00*	125	50	17.80	17.80	18.50	18.50	19.10	19.10
50*	125	75(30)**	20.60	20.60	21.20	21.20	21.90	21.90
000*	125	50	22.20	22.20	22.90	22.90	23.50	23.50

These A.C. Voltmeters are for use on frequencies from 25 to 133 cycles. *Supplied with external resistor boxes at prices shown above. All other instruments are self-contained. Double-range Voltmeters are available on special order. Prices on request.

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AC AMMETERS

nge	Approx. Res.	Scale Div.	2½″ Models 231-S, 237-S	2½″ Models 231-PL, 237-PL	3½″ Models 331-S, 337-S	3½″ Models 331-PL, 337-PL	4½″ Model 430	4½″ Model 430-PL
	.21	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
	.11	40	11.40	11.40	12.10	12.10	12.80	12.80
	.02	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
	.01	50	11.40	11.40	12.10	12.10	12.80	12.80
0	.005	50	11.40	11.40	12.10	12.10	12.80	12.80
5	.002	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
5	.001	50	11.40	11.40	12.10	12.10	12.80	12.80
0	.011	60(30)**	11.40	11.40	12.10	12.10	12.80	12.80
0	.0005	50	11.40	11.40	12.10	12.10	12.80	12.80
5	.0003	75	-		13.30		14.50	

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AC MILLIAMMETERS

ange	Approx. Res.	Scale Div.	2½″ Models 231-S, 237-S	2½″ Models 231-PL, 237-PL	3½″ Models 331-S, 337-S	3½″ Models 331-PL, 337-PL	4½″ Model 430	4½″ Model 430-PL
0	0-10	50	$11.40	$11.40	$12.10	$12.10	$12.80	$12.80
5	1150	75(30)**	11.40	11.40	12.10	12.10	12.80	12.80
5	344	50	11.40	11.40	12.10	12.10	12.80	12.80
0	82	50	11.40	11.40	12.10	12.10	12.80	12.80
00	21	50	11.40	11.40	12.10	12.10	12.80	12.80
00	6.7	40	11.40	11.40	12.10	12.10	12.80	12.80
50	3.4	50	11.40	11.40	12.10	12.10	12.80	12.80
00	0.8	50	11.40	11.40	12.10	12.10	12.80	12.80

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THERMO AMMETERS (R.F.)

ange	Approx. Res.	Scale Div.	2½″ Models 241-T, 247-T	3½″ Models 341-T, 347-T	3½″ Models 341-PL, 347-PL	4½″ Model 440	4½″ Model 440-PL
5 Amps	.93	50	$12.10	$12.80	$12.80	$14.00	$14.00
Amps	.35	50	12.10	12.80	12.80	14.00	14.00
.5 Amps	.21	75(30)	12.10	12.80	12.80	14.00	14.00
.5 Amps	.13	50	12.10	12.80	12.80	14.00	14.00
Amps	.06	50	12.10	12.80	12.80	14.00	14.00
0 Amps	.03	50	12.10	12.80	12.80	14.00	14.00

Internal couples are normally furnished at prices shown. If external couples are required, please specify on order, adding $6.10 net to price of instrument shown above. External couples only less meter, with leads, $7.30 net each.

**Scale divisions for 2-inch Models in parentheses.

***Supplies with external resistors.

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. **Manufacturer's Catalog Numbers and Page Numbers.**
2. **The Year and Edition of This MASTER.**

This will avoid confusion and expedite delivery.

Thank you!

The
Radio-Electronic
MASTER

UNITED SYSTEMS CORPORATION

Offers... a new LOW COST in DVM $287.50

CERTIFIED ACCURACY - 0.2% FULL SCALE

.001 TO 1020 V-D.C.

RESOLUTION 0.05%

PORTABLE (7 lbs.)

FLOATING OR GROUNDED INPUT

COMPLETELY TRANSISTORIZED - RELIABLE

LOW COST Outstanding performance is provided in a low cost instrument providing digital readout. Small (5½" x 7" x 8") and weighing only 7 lbs., unit is conveniently designed for either lab or production use.

RESOLUTION and REPEATABILITY The warranted accuracy is 2 digits for all ranges. This covers all thermal effects and reference circuit errors. The instrument can be easily read and is sensitive to small voltage changes. For short term observation, under stabilized ambient conditions, unit will repeat to ½ digit or .05%. Thus, for many applications, the instrument can be used to a comparative accuracy of .05%.

READABILITY Presentation is readable upon application of slowly changing voltages. Thus, input voltage drift can be continuously observed.

READING SPEED Instrument comes to reading balance quickly and without annoying creep. Average reading time is 2 seconds. Numerals are illuminated.

CALIBRATION EASE High input impedance permits direct calibration from a standard cell. Under normal usage, recalibration is required only at 6 month intervals.

RELIABILITY High reliability is achieved by a completely transistorized amplifier and the absence of stepping switches and relays. Normal overloads or incorrect polarity will not damage instrument.

LOW POWER CONSUMPTION The efficient circuit requires only 28 watts maximum, thus minimizing heat rise and attending problems.

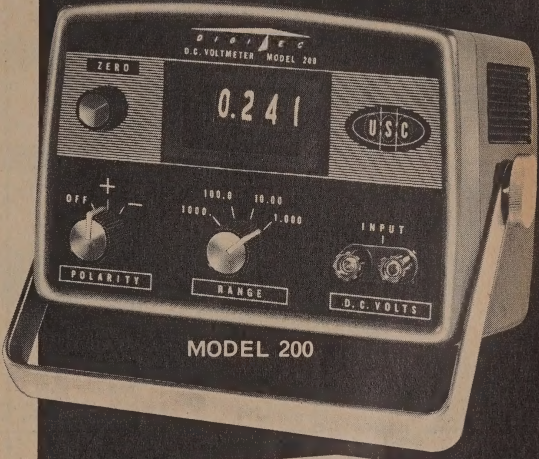
OTHER USES By use of compatible DC transducers, the Digitec® 200 can be used to display readings of current, pressure, speed, position, flow, angle or any parameter.

READING RETENTION A jack is available on the rear of the case to permit holding of a displayed voltage by means of an external switch. Suitable switches complete with cord and plug are available as optional accessories.

CARRYING HANDLE A convenient carrying handle also serves as a means for setting the viewing angle for optimum readability.

USC

UNITED SYSTEMS CORPORATION
DAYTON 3, OHIO

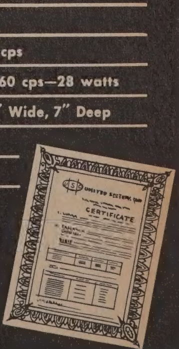


MODEL 200

DIGITEC

SPECIFICATIONS

D.C. Voltage Ranges Manually Selected	0.000 to 1.020 000.0 to 102.0 00.00 to 10.20 0000. to 1020.
Decimal Point	Illuminated—Automatically shifts with range switch
Accuracy	2 digits (0.2% full scale) over ambient range of 60° to 100° F.
Resolution and Readability	½ digit (0.05% full scale)
Balance Time	4 seconds full scale
Input Impedance	2 megohms
A.C. Rejection	50 db. at 60 cps
Power Requirements	105/125 V—60 cps—28 watts
Size	5½" High, 8" Wide, 7" Deep
Weight	7 lbs.
Price	$287.50


USC
CERTIFICATE

This certificate of accuracy is furnished with each instrument

WESTON INSTRUMENTS

201/301 PANEL INSTRUMENT SERIES

MODELS 201/301 — D-C VOLTMETERS — 1000 OHMS PER VOLT

	Scale Div.		Price	
Range	201	301	201	301
1.5	—	75	—	$14.20
3	30	60	$13.25	14.20
5	25	50	13.25	14.20
10	20	50	13.25	14.20
15	30	75	13.25	14.20
30	30	60	13.25	14.20
50	25	50	13.25	14.20
100	20	50	13.25	14.20
150	30	75	13.25	14.20
200	40	40	13.70	14.65
250	25	—	13.70	—
300	30	60	13.70	14.65
500	25	50	14.20	15.10
800	—	40	—	17.00
IKV	—	50	—	18.85

MODEL 201/301 — D-C MILLIAMMETERS

	Scale Div.		Approx Resis. Ohms		Price	
Range	201	301	201	301	201	301
1	20	50	100	88	$12.80	$13.70
1.5	—	75	—	88	—	13.70
2	—	40	—	45	—	13.70
3	—	60	—	45	—	13.70
5	25	50	6	8	12.80	13.70
10	20	50	2.5	2.5	12.80	13.70
15	30	75	2.5	2.5	12 80	13.70
20	40	40	2.5	2.5	12.80	13.70
30	30	60	2.5	2.5	12.80	13.70
50	25	50	2	2	12.80	13.70
100	20	50	1	1	12.80	13.70
150	30	75	0.66	0.66	12.80	13.70
200	—	40	—	0.5	—	13.70
300	—	60	—	0.33	—	13.70
500	25	50	0.2	0.2	12.80	13.70
800	—	40	—	0.12	—	13.70
1-0-1	40	40	40	45	12.80	13.70
10-0-10	—	50	—	2.5	—	13.70
50-0-50	—	50	—	2	—	13.70
100-0-100	40	40	1	1	12.80	13.70

MODELS 201/301 — D-C AMMETERS

	Scale Div.		Price	
Range	201	301	201	301
1	20	50	$12.80	$13.70
1.5	30	75	12.80	13.70
2	—	40	—	13.70
3	30	60	12.80	13.70
5	25	50	12.80	13.70
10	20	50	12.80	13.70
15	30	75	13.70	14.65
20	20	—	13.70	14.65
30	30	60	13.70	14.65
50	—	50	—	14.65
10-0-10	—	40	—	13.70
30-0-30	—	60	—	14.65
50-0-50	—	50	—	14.65

MODELS 201/301—206*/306* D-C MICROAMMETERS

	Scale Div.		Approx. Resis.				Price			
Range	201/ 206	301/ 306	201	206	301	306	201	206	301	306
10	20	50	—	3800	—	3800	—	—	—	—
20	40	40	—	1480	5500	1480	—	—	$22.55	$25.10
30	30	60	—	1480	5500	1480	—	—	21.40	—
50	25	50	4150	1175	4800	1175	$18.35	$22.30	19.30	22.30
100	20	50	870	660	1230	660	15.60	—	16.50	—
200	40	40	600	—	600	55	13.25	—	14.20	20.45
500	25	50	160	—	230	—	13.25	—	14.20	—
10-0-10	—	—	—	—	5500	—	—	—	22.55	—
25-0-25	—	—	4150	—	4800	—	15.60	—	19.30	—
50-0-50	20	50	870	—	1230	—	15.10	—	16.50	—
100-0-100	40	40	600	—	600	—	13.25	—	14.20	—
500-0-500	20	50	100	—	88	—	12.80	—	13.70	—

*External magnet type, unshielded

MODELS 202/302 RECTIFIER TYPE A-C VOLTMETERS

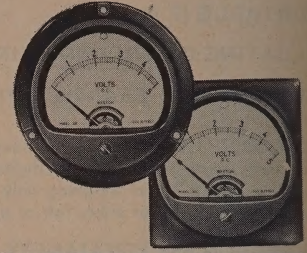
1000 ohms per volt

	Scale	Price	
Range	Div.	202	302
3	60	—	$19.75
5	50	—	19.75
10	50	—	19.75
15	75	—	19.75
30	60	—	19.75
50	50	—	19.75
100	50	—	19.75
150	75	—	19.75
300	60	—	20.25

2000 ohms per volt

	Scale	Price	
Range	Div.	202	302
1	50	—	$20.25
15	75	—	20.25
50	50	—	20.25
150	75	—	20.25

- 2½″ and 3½″ Sizes
- 2% Accuracy Full Scale
- Spring Back Jewels
- Long Term Stability
- Self Shielded Mechanism
- Cases Sealed Against Dust
- Minimum Power Consumption
- Minimum Response Time
- Note: Specify Round or Square Case



MODELS 202/302 RECTIFIER TYPE A-C MILLIAMMETERS

	Scale Div.		Approx. Resis.	Price	
Range	202	302	202-302	202	302
1	20	50	470	—	$19.75
2	40	40	270	—	19.75
3	25	50	150	—	19.75

MODELS 202/302 RECTIFIER TYPE A-C MICROAMMETERS

	Scale Div.		Approx Resis.	Price	
Range	202	302	202-302	202	302
100	20	50	3400	—	$23.25
500	25	50	1030	—	19.75

MODELS 204/304—A-C VOLTMETERS—25-125 CYCLES

		OHMS/V		Price	
Range	Scale Div.	204	304	204	304
1.5	30	—	3	—	$17.20
3	30	—	15	—	17.20
5	50	26	26	$16.30	17.20
8	40	—	81	—	17.20
10	50	100	100	16.30	17.20
15	30	—	250	—	17.20
30	30	—	790	—	17.20
50	50	—	2124	—	17.20
100	50	—	10065	—	17.20
130	26	—	13065	—	17.65
150	30	20295	20295	16.75	17.65
300	30	81550	81550	18.15	19.10
500	50	—	131550	—	20.45

MODELS 204/304—A-C AMMETER—25-500 CYCLES

	Amps Scale		Scale Div.		Approx. Resis.		Price	
Range	204	304	204	304	204	304	204	304
1	1	1	50	50	0.130	0.130	$15.80	$16.75
1.5	—	1.5	—	30	—	0.555	—	16.75
2	2	2	40	40	0.026	0.026	15.80	16.75
3	3	3	30	30	0.013	0.013	15.80	16.75
5	5	5	50	50	0.005	0.005	15.80	16.75
5 Amps.*	—	100	—	50	—	—	—	16.75
5 Amps.*	—	200	—	40	—	—	—	16.75
5 Amps.*	—	300	—	30	—	—	—	16.75
10	10	10	50	50	0.0014	0.0014	15.80	16.75
15	15	15	30	30	0.0015	0.0015	15.80	16.75
20	20	20	40	40	0.0005	0.0005	15.80	16.75
30	30	30	30	30	0.0004	0.0004	15.80	16.75
50	50	50	50	50	0.0002	0.0002	15.80	16.75

*For use with Current Transformer. Above prices do not include Transformer.

MODELS 204/304 — A-C MILLIAMMETERS

	Scale Div.		Approx. Resis.		Price	
Range	204	304	204	304	204	304
50	—	50	—	34	—	$16.75
100	—	50	—	8.5	—	16.75
500	50	50	0.42	0.42	$15.80	16.75

MODELS 208/308 — THERMO-AMMETERS

	Scale Div.		Price	
Range	208	308	208	308
1	—	50	—	$27.90
1.5	—	60	—	27.90
2	—	40	—	27.90
3	—	60	—	27.90
5	25	50	$27.00	$27.90
8	—	40	—	27.90
10	—	50	—	27.90
15	—	60	—	27.90

MODELS 208/308 — THERMO-MILLIAMMETERS

	Scale Div.		Approx. Resis.		Price	
Range	208	308	208	308	208	308
† 10	—	50	—	85	—	$61.40
† 50	—	50	—	5	—	61.40
100	20	50	5.2	8	—	31.60
*115	100	100	5.2	5.2	—	31.60
120	30	60	5.2	5.2	—	31.60
150	—	75	—	5.2	—	31.60
200	—	40	—	2.7	—	31.60
300	30	60	1.8	2.4	—	31.60
500	25	50	1.3	1.3	—	31.60

†Vacuum Thermocouple Type.
*Current Squared Galvanometer with uniform 100 division scale.

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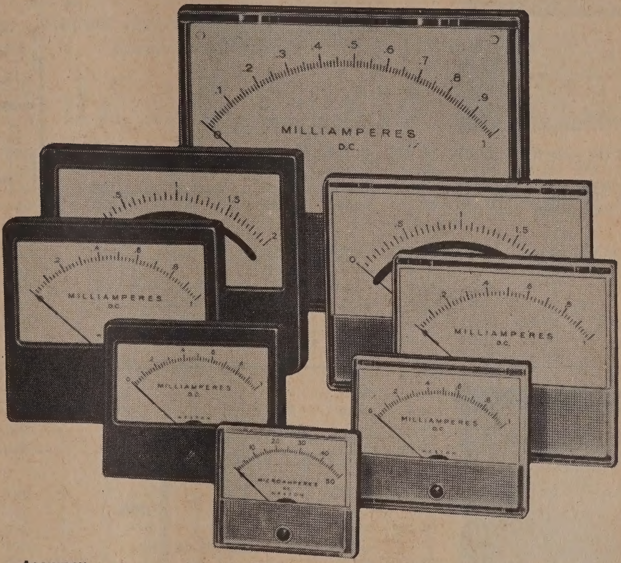
WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

GENERAL

The 1900 Series is an integrated line of a-c and d-c panel instruments, providing a carefully selected choice of sizes, case styles, accuracies, pointers, scales and ranges. Particular attention has been paid to designing instruments that will present an overall appearance of harmony, even when random sizes are mounted side by side. Mounting bezels provide three types of mounting—recess, flush and conventional.

One of the many features of this new Weston series is the method of construction which provides quick interchangeability of fronts and easy access for adjustment or service, if ever required. From their spring-backed jewels to their unique fastening clips, the 1900 Series incorporate the fine workmanship and quality that has always been associated with Weston.



SPECIFICATIONS

2½″ SIZE	Function & Mechanism	Accuracy (Full scale value)	Scale Length (100° arc)	Pointer	Type Scale	Case Front
Model 1921	D-C CORMAG®	2%	2.3″	Lance	Plain	Plastic
Model 1922	Rect. CORMAG®	3%**	2.3″	Lance	Plain	Plastic
Model 1924	Iron Vane	2%	2.3″	Lance	Plain	Plastic
3½″ SIZE						
Model 1931	D-C CORMAG®	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1932	Rect. CORMAG®	3%**	2.7″	Lance	Plain	Plastic/Bakelite
Model 1934	Iron Vane	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1936	D-C Ext. Mag.	2%	2.7″	Lance	Plain	Plastic/Bakelite
Model 1938	Thermo. Ext. Mag.	2%	2.7″	Lance	Plain	Plastic/Bakelite
4½″ SIZE						
Model 1941	D-C CORMAG®	2%*	3.9″	Lance	Plain	Plastic/Bakelite
Model 1942	Rect. CORMAG®	2%**	3.9″	Lance	Plain	Plastic/Bakelite
Model 1944	Iron Vane	2%	3.9″	Lance	Plain	Plastic/Bakelite
Model 1946	D-C Ext. Mag.	1%	3.9″	Knife-edge	Mirrored	Plastic/Bakelite
Model 1948	Thermo. Ext. Mag.	2%	3.9″	Lance	Plain	Plastic/Bakelite
5½″ SIZE						
Model 1951	D-C CORMAG®	2%*	4.7″	Lance	Plain	Plastic/Bakelite
Model 1952	Rect. CORMAG®	2%**	4.7″	Lance	Plain	Plastic/Bakelite
Model 1954	Iron Vane	2%	4.7″	Lance	Plain	Plastic/Bakelite
Model 1956	D-C Ext. Mag.	1%	4.7″	Knife-edge	Mirrored	Plastic/Bakelite
Model 1958	Thermo. Ext. Mag.	2%	4.7″	Lance	Plain	Plastic/Bakelite
7½″ SIZE						
Model 1971	D-C CORMAG®	1%†	7.2″	Lance	Plain	Plastic
Model 1972	Rect. CORMAG®	2%††	7.2″	Lance	Plain	Plastic
Model 1976	D-C Ext. Mag.	1%†	7.2″	Lance	Plain	Plastic
Model 1977	Rect. Ext. Mag.	2%††	7.2″	Lance	Plain	Plastic

*1% when knife-edge pointer and mirrored scale is specified.
**on sine wave 60 cycle source at normal room temperature of 25 C.
†½% with knife-edge pointer and mirrored scale on special order ONLY.
††on sine wave 60 cycle source at normal room temperature; 1½% can be supplied on special order.

NOTE: If Models 1924, 34, 36, 44, 46, 54, 56 and 76 are used on steel panels, order should specify panel thickness to assure proper adjustment.

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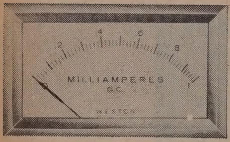
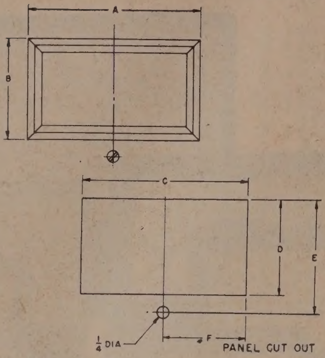
WESTON INSTRUMENTS

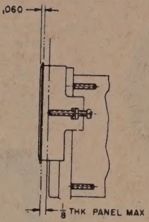
THREE TYPES OF MOUNTINGS


2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

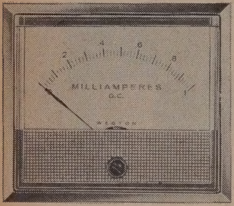
RECESS (Plastic front only)

Only the scale is visible since meter is mounted behind the panel . . . half bezel fits into window.


A
B
C
D
E
F
$\frac{1}{4}$ DIA
PANEL CUT OUT

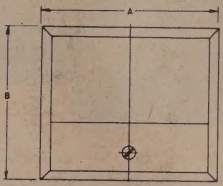

.060
$\frac{1}{8}$ THK PANEL MAX

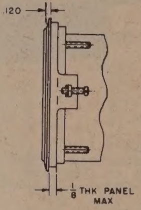
MODEL	A	B	C	D	E	
1921 1922 1924	3.120	1.720	3.000	$1\frac{19}{32}$	2.070	1
1931 1932 1934 1936 1938	3.860	2.265	$3\frac{23}{32}$	$2\frac{5}{32}$	2.550	1
1941 1942 1944 1946 1948	4.960	2.900	$4\frac{13}{16}$	$2\frac{3}{4}$	3.290	2
1951 1952 1954 1956 1958	6.060	3.300	$5\frac{7}{8}$	$3\frac{5}{32}$	3.950	2

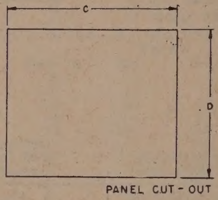

2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

FLUSH (Plastic front only)

Full Bezel permits mounting flush with panel through rectangular cutout.




.120
$\frac{1}{8}$ THK PANEL MAX


C
D
PANEL CUT - OUT

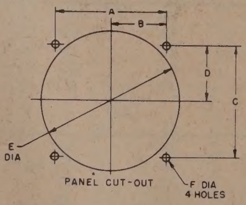
MODEL	A	B	C	D
1921 1922 1924	3.050	2.620	$2\frac{31}{32}$	$2\frac{17}{3}$
1931 1932 1934 1936 1938	3.830	3.320	$3\frac{11}{16}$	$3\frac{3}{16}$
1941 1942 1944 1946 1948	5.000	4.550	$4\frac{25}{32}$	$4\frac{11}{32}$

2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

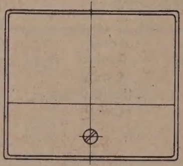
2
4
6
8
1
MILLIAMPERES
D.C.
WESTON

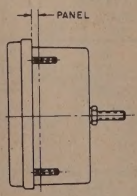
CONVENTIONAL

Use same dimensions, whether you choose a meter with taut band or pivot and jewel movement.


A
B
D
C
E DIA
PANEL CUT-OUT
F DIA 4 HOLES

MODEL	A	B	C	D	E	F
1921 1922 1924	1.880	.940	1.880	.940	2.220 DIA	.125 DIA
1931 1932 1934 1936 1938	2.250	1.125	2.250	1.125	2.820 DIA	.125 DIA
1941 1942 1944 1946 1948	4.000	2.000	3.560	2.020	2.820 DIA	.154 DIA
1951 1952 1954 1956 1958	5.250	2.625	3.000	2.150	2.820 DIA	.154 DIA
1971 1972	6.000	3.000	4 500	3.500	3.560 DIA	.156 DIA





WESTON 1900 T SERIES WITH TAUT BAND MECHANISMS

Available in Bakelite or static-free clear plastic cases in sizes from 3½" through 7½".

Taut-Band instruments are slightly higher in price than the 1900 Series with conventional pivot and jewel movements, but are completely interchangeable.

Taut-Band mechanisms are free from friction and inertia. They offer outstanding sensitivity, reliability and uniformity from zero to full scale.

Your distributor can provide complete information on Weston 1900 T Series with Taut Band Mechanisms.

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Net

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WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

D-C (Cormag) — MODELS 1921/1931/1941/1951/1971

	Ranges		Scale Divisions		Nominal Resist. Ohms			PRICES				
	2½" M-1921 3½" M-1931 4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921 3½" M-1931 4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921 3½" M-1931	4½" M-1941 5½" M-1951	7½" M-1971	2½" M-1921	3½" M-1931	4½" M-1941	5½" M-1951	7½" M-1971
ua												
50	x	x	50	100	4800	2500	5160	$17.75	$18.20	$19.15	—	—
100	x	x	50	100	1225	2500	4640	16.55	17.05	17.95	$30.25	$43.00
200	x	x	40	100	600	850	1700	15.85	16.30	17.25	29.30	40.20
500	x	x	50	100	240	240	935	14.90	15.35	16.30	28.85	—
ma*												
1	x	x	50	100	88	115	93	$13.95	$14.40	$15.35	$26.50	$38.35
1.5		x		150			93	—	—	—	—	—
2	x	x	40	100	45	16	69	—	14.40	15.35	26.50	—
3		x		150			33.5	—	—	—	—	—
5	x	x	50	100	8.5	11	12.6	13.95	14.40	15.35	26.50	—
10	x	x	50	100	2.5	2.7	3.36	13.95	14.40	15.35	26.50	—
20	x	x	40	100	2.2	2.7	1	—	14.40	15.35	26.50	—
30		x		150			1	—	—	—	—	—
50	x	x	50	100	2.0	2	1	13.95	14.40	15.35	26.50	—
100	x	x	50	100	1.0	1	.5	13.95	14.40	15.35	26.50	—
200	x	x	40	100	0.5	0.5	.25	—	14.40	15.35	26.50	—
500	x	x	50	100	0.2	0.2	.1	—	14.40	15.35	26.50	—
amps**												
1	x	x	50	100		Approx. MV Drop 50		$13.95	$14.40	$15.35	$27.20	—
1.5		x		150				—	—	—	—	—
2	x	x	40	100				13.95	14.40	15.35	27.20	—
3		x		150				—	—	—	—	—
5	x	x	50	100				13.95	14.40	15.35	27.20	—
10	x	x	50	100				13.95	14.40	15.35	27.20	—
20	x	†	40					13.95	14.40	15.35	27.20	—
30	x	†	60					13.95	14.40	15.35	27.20	—
volts												
1		x		100		Ohms Per Volt 1000		—	—	—	—	—
1.5		x		150				—	—	—	—	—
2	x	x	40	100				$14.65	$15.10	$16.05	$27.20	—
3		x		150				—	—	—	—	—
5	x	x	50	100				14.65	15.10	16.05	27.20	—
10	x	x	50	100				14.65	15.10	16.05	27.20	—
15	x	x	75	150				14.65	15.10	16.05	27.20	—
30	x	x	60	150				—	15.10	16.05	27.20	—
50	x	x	50	100				14.65	15.10	16.05	27.20	—
80		x		80				—	—	—	—	—
100	x	x	50	100				14.65	15.10	16.05	27.20	—
150	x	x	75	150				14.65	15.10	16.05	27.20	—
200	x		40					—	15.10	16.05	27.20	—
300	x	x	60	150				14.65	15.10	16.05	27.20	—
500	x	x	50	100				14.65	15.10	16.05	27.20	—

*NOTE: Range of 50 ma and up are shunted and have a drop of approximately 50 mv on Model 1971 and 100 mv on Models 1921, 1931, 1941 and 1951.

**For ranges above 30 amps use a 50 mv instrument, with required external shunt.

†For ranges above 10 amps use external shunts.

D-C (External Magnet) — MODELS 1936/1946/1956/1976

	Ranges			Scale Divisions		Nominal Resist. Ohms	PRICES			
	3½" M-1936	4½" M-1946 5½" M-1956	7½" M-1976	3½" M-1936 4½" M-1946 5½" M-1956	7½" M-1976	3½" M-1936 4½" M-1946 5½" M-1956 7½" M-1976	3½" M-1936	4½" M-1946	5½" M-1956	7½" M-1976
ua										
20	x	x*		40		5400	$26.50	$29.05	$33.70	—
30			x		150		—	—	—	—
50	x	x	x	50	100	2180	26.50	29.05	33.70	$53.70
100	x	x	x	50	100	870	25.60	28.35	33.00	46.25
200	x	x	x	40	100	550	25.10	27.65	32.10	43.50
500	x	x		50		120	24.65	26.95	30.70	—

*2% accuracy only.

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WESTON INSTRUMENTS

1900 PANEL INSTRUMENT SERIES

RECTIFIER TYPE A-C (Cormag) — MODELS 1922/32/42/52/72

	Ranges 2½" M-1922, 3½" M-1932, 4½" M-1942, 5½" M-1952	Ranges 7½" M-1972	Scale Divisions 2½" M-1922, 3½" M-1932, 4½" M-1942, 5½" M-1952	Scale Divisions 7½" M-1972	Nominal Resist. Ohms 2½" M-1922, 3½" M-1932, 4½" M-1942, 5½" M-1952	Nominal Resist. Ohms 7½" M-1972	PRICES 2½" M-1922	PRICES 3½" M-1932	PRICES 4½" M-1942	PRICES 5½" M-1952	PRICES 7½" M-1972
ua											
100	x		50		4000		$21.40	$21.85	$22.80	$26.75	—
200	x	x	40	100	2000	3000	21.40	21.85	22.80	26.75	$54.80
500	x	x	50	100	800	1500	21.40	21.85	22.80	26.75	53.70
ma											
1	x	x	50	100	475	460	18.35	18.85	19.75	23.50	52.55
2	x		40		280		18.35	18.85	19.75	23.50	52.55
5	x	x	50	100	140	150	18.35	18.85	19.75	23.50	—
volts											
3	x		60		Ohms Per Volt 1000		—	19.75	20.70	24.40	—
7.5	x		75				—	19.75	20.70	24.40	—
15	x	x	75	150			—	19.75	20.70	24.40	—
30	x	x	60	150			—	19.75	20.70	24.40	—
75	x	x	75	150			—	19.75	20.70	24.40	—
150	x	x	75	150			—	19.75	20.70	24.40	—
300	x	x	60	150			—	—	20.70	24.40	—
500	x	x	50	100			—	—	20.70	24.40	—

THERMO (Linear Scale ONLY) — MODELS 1938/1948/1958

	Ranges 3½" M-1938, 4½" M-1948, 5½" M-1958	Scale Divisions 3½" M-1938, 4½" M-1948, 5½" M-1958	PRICES 3½" M-1938	PRICES 4½" M-1948	PRICES 5½" M-1958
amps					
1	x	50	—	—	—
1.5	x	75	—	$48.85	$60.45
2	x	40	—	—	—
3	x	60	—	48.85	60.45
5	x	50	—	—	60.45
7.5	x	75	—	48.85	60.45
10	x	50	—	—	—
15	x	75	—	48.85	60.45

A-C (Iron Vane) — MODELS 1924/1934/1944/1954

	Ranges 2½" M-1924, 3½" M-1934, 4½" M-1944, 5½" M-1954	Scale Divisions 2½" M-1924	Scale Divisions 3½" M-1934, 4½" M-1944, 5½" M-1954	Approx. Resist. Ohms 2½" M-1924, 3½" M-1934, 4½" M-1944, 5½" M-1954	PRICES 2½" M-1924	PRICES 3½" M-1934	PRICES 4½" M-1944	PRICES 5½" M-1954
ma†								
10	x	20	50	2550	$18.15	$18.60	$19.55	$25.35
20	x	40	40	637	18.15	18.60	19.55	25.35
50	x	25	50	100	18.15	18.60	19.55	25.35
100	x	20	50	25	18.15	18.60	19.55	25.35
200	x	40	40	6.33	—	18.60	19.55	25.35
500	x	25	50	1.0	18.15	18.60	19.55	25.35
amps*								
1	x	20	50	.25	18.15	18.60	19.55	25.35
2	x	40	40	.062	18.15	18.60	19.55	25.35
5	x	25	50	.016	18.15	18.60	19.55	25.35
10	x	20	50	.0045	18.15	18.60	19.55	25.35
20	x	40	40	.0011	18.15	18.60	19.55	25.35
30	x	30	60	.00056	18.15	18.60	19.55	25.35
volts**								
3	x	30	60	6	19.05	19.55	20.45	26.30
7.5	x	37.5	75	37	19.05	19.55	20.45	26.30
15	x	30	75	150	19.05	19.55	20.45	26.30
30	x	30	60	600	19.05	19.55	20.45	26.30
75	x	37.5	75	3750	19.05	19.55	20.45	26.30
150	x	30	75	15,000	19.05	19.55	20.45	26.30
300	x	30	60	60,000	19.05	19.55	20.45	26.30
500	x	25	50	100,000	19.05	19.55	20.45	26.30

†Frequency: 25 to 500 cycles.

*Power consumption: 5 ampere range at 5 amperes, 0.45 watts; at 60 cycles, 0.45 volt-amperes.
Frequency: 25 to 500 cycles.

**Power consumption: 150 volt range at 115 volts, 1.15 watts, at 60 cycles, 1.15 volt-amperes.
Frequency: adjusted for use on frequencies of 25 to 125 cycles.

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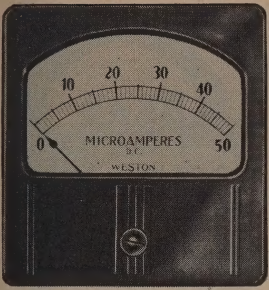
WESTON INSTRUMENTS

741-744 PANEL INSTRUMENT GROUP



741/744 PANEL INSTRUMENTS

These instruments are regularly supplied in flush, black bakelite cases which can be mounted on panels up to ⅞" thick. The adjustable mounting arrangement is invisible from the front of the panel. Illumination feature available if required.

Rated Accuracy: 1% of full scale value.

Overall Dimensions: 4" x 4.25" (101.6 x 107.9 mm)

Scale: 3.52" (90 mm)

Model 741: Permanent Magnet Moving Coil Type

Model 744: Movable Iron Type

MODEL 741 D-C VOLTMETERS
(1000 ohms/volt)

Range	Scale Div.	Price
10	50	$42.10
30	60	42.10
50	50	42.10
150	75	43.50
300	60	46.25

MODEL 741 D-C AMMETERS

Range	Scale Div.	Price
1	50	$42.10
5	50	42.10
10	50	42.10
25	50	42.10
50	50	42.10

MODEL 741 D-C MILLIAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
1	60	39	$42.10
10	50	2.8	42.10
25	50	1.06	42.10
50	50	2	42.10
100	50	1	42.10
200	40	0.5	42.10
300	60	0.33	42.10
500	50	0.2	42.10

MODEL 741 D-C MICROAMMETERS

Range	Scale Div.	Approx. Resistance Ohms	Price
30	60	1800	$58.50
50	50	720	57.20
100	50	290	56.05
200	40	475	44.65
500	50	98	44.65

MODEL 744 A-C VOLTMETERS
(25-125 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
10	50	33	$46.05
15	75	98	46.05
30	60	362	46.05
130	65	7880	47.45
150	75	9100	47.45
*300	60	18200	55.10
*500	—	—	66.05

*Furnished with Exterior Resistor Type 51.

MODEL 744 A-C AMMETERS
(25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
1	50	1.12	$46.05
3	60	0.112	46.05
5	50	0.0275	46.05
10	50	0.0135	46.05
15	75	0.0068	46.05
20	40	0.0026	46.05
30	60	0.0020	46.05
50	50	0.00070	46.05

MODEL 744 A-C MILLIAMMETERS
(25-500 Cycles)

Range	Scale Div.	Approx. Resistance Ohms	Price
250	50	10.2	$46.05

PORTABLE INSTRUMENTS

MATCHED A-C AND D-C PORTABLE INSTRUMENTS

MODEL 433—A-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ¾ of 1% — Movable Iron Type — Shielded Case Size 5⁵⁄₁₆" x 5¼" x 3¼"—Weight 2½ lbs.—Hand Calibrated Mirror Scales Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

A-C VOLTMETERS

Made with single, double and triple ranges. For use on frequencies from 25 to 125 cycles.

Range	Price
10, 15, 150, 250	$ 94.25
10/5, 20/10, 30/15	95.75
450/300/150	112.25
600/300/150	112.25
750/300/150	112.25

A-C MILLIAMMETERS

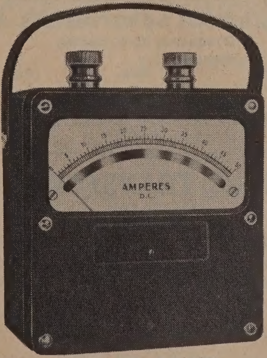
Made in single and double ranges only, for use on frequencies from 25 to 500 cycles.

Range	Price
15, 30, 150, 500	$ 85.75
300/150	100.25

A-C AMMETERS

Made in single, double and triple ranges for use on frequencies from 25 to 500 cycles. All instruments have two binding posts; double and triple range instruments are provided with a range selector switch.

Range	Price
1, 3, 5, 10	$ 89.25
15, 30, 50	89.25
2/1, 5/2.5, 10/5	102.25
3/1.5/0.75, 5/2.5/1, 10/5/1	140.25
20/5/2, 30/7.5/3, 50/20/5	140.25



MODEL 432—D-C AND SINGLE PHASE A-C WATTMETERS

Double voltage and single or double current ranges, self-contained up to 300 volts and 50 amperes, frequencies from 25 to 125 cycles.

Electrodynamometer Type

Accuracy ½ of 1%....Scale Length 4.04"

Case Size 5⁵⁄₁₆" x 5¼" x 3¼" ....Wt. 3¼ lbs.

Normal Volts	Normal Amps	Price
150/75	1	$192.25
Double Current Ranges		
300/150	5/2.5	$192.25

MODEL 931—D-C INSTRUMENTS

Scale Length 4.04"—Accuracy within ½ of 1% Core Magnet Moving Coil Type. Case Size: 5⁵⁄₁₆" x 5¼" x 3¼"—Weight 2 lbs. — Hand Calibrated Mirror Scales — Bakelite Case with Carrying Strap.

Note: These instruments are calibrated for use in a horizontal position.

D-C VOLTMETERS

Range	Price 1,000 Ohms Per Volt	Price 5,000 Ohms Per Volt
3, 15, 50	$ 87.25	$ 98.75
300/150/3	101.25	112.75
750/300/150	101.25	112.75

D-C AMMETERS

	Price
3, 5, 15, 50	$ 89.00
30/15/3	101.50
50/20/5	101.50

Self-contained up to 50 amperes inclusive, but can be supplied with external 50 mv shunts and 5 ft. leads.

D-C MILLIAMMETERS

Range	Price
15, 150	$ 85.50
1500/150/15	98.75
15/1.5/.15	110.50

Single range, Milliammeters with ranges above can be supplied with external 50 mv shunts and 30 ma are shunted and have a drop of 50 mv ±5%.

D-C MICROAMMETERS

	High Resistance		Low Resistance	
Range	Approx. Res. Ohms	Price	Approx. Res. Ohms	Price
30	2300	$110.50	490	$112.75
100	2000	98.75	60	110.50
200	600	94.00	15	98.75

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WESTON INSTRUMENTS

PORTABLE INSTRUMENTS

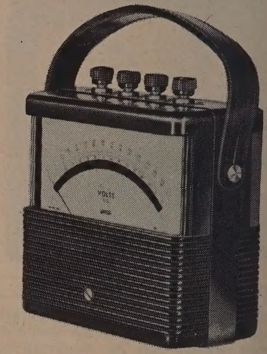
901-904 GROUP ¼-½% ACCURACY

Size: 7½″ x 7¼″ x 3⅝″ Scale Length: 5½″

D-C 901, ¼% Accuracy, Self Shielded Permanent Magnet Moving Coil Type

A-C 904, ½% Accuracy, Movable Iron Type

These modern style instruments are used for general testing and for checking other meters in daily use in industry where easy reading and high shielding are desired. Long 5½″ hand calibrated mirror scales combined with knife-edge pointers eliminate reading errors. Leather carrying cases are available, specify instrument model and range—Price $24.50.



Model 901

D-C VOLTMETER (7 RANGE)—Model 901

(5000 ohms per volt)

Range (Volts)	Price
750/300/150/75/30/15/3	$182.25

D-C AMMETER—Model 901

Range (Amperes)	Price
50 mv/20/5/2	$162.25

D-C MILLIAMMETERS (7 RANGE)—Model 901

Range (Ma)	Approx. Res. Ohms	Price
1000/500/200/100/50/20/10	.049/.099/.244/.475/.9/1.88/2.5	$172.25
100/50/20/10/5/2/1	1.49/2.96/7.28/14.1/26.4/52.5/60	172.25

A-C VOLTMETER—Model 904

Range (Volts)	Approx. Res. Ohms	Price
750/300/150/75/ 30/15/7.5/3**	117,500/18,400/5180/ 1145/182/46/11.1/1.76	$247.50

†Other frequency ranges available. Prices on request.
*Frequency 25-125 cps.
**Frequency 50-125 cps, accuracy ½%; 125-450 cps, accuracy 1%.

A-C MILLIAMMETERS—Model 904

(Frequency 25 to 500 cycles)

Range (Ma)	Approx. Res. Ohms	Price
150/75	16/64	$176.50
300/150*	4/16	176.50

*Also stocked for 25-1000 cycles at $191.50.

A-C AMMETERS—Model 904

Range (Amperes)	Price
200/100/50/20/10/5/2**	$222.50
(Frequency 25 to 1000 cycles)	
50/20/10/5/2/1	215.50

**Frequency is 50-450 cps.

D-C AND SINGLE PHASE A-C WATTMETERS—Model 905

(Frequency 25-60 cycles)

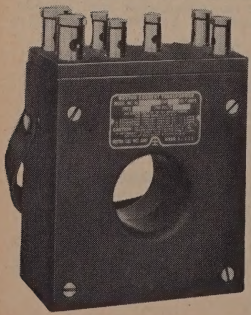
Volts		Amperes		Watts		
Normal	Max.	Normal	Max.	High Range	Low Range	Price
200/100	300/150	25	50	5 KW	2.5 KW	$197.50
		5	10	1 KW	.5 KW	197.50
		10/5	20/10	2/1 KW	1/.5 KW	212.50
		5/2.5	10/5	1000/500	500/250	212.50

CURRENT TRANSFORMERS

Model 461

Size: 7.97″ x 6.63″ x 2.75″ Weight: Type 1—8 lbs.; Type 2—8.4 lbs. Core Opening: 2.12″

Models 461 are used with A-C instruments as multipliers. Four self-contained primary ranges are brought out to binding posts. A secondary short circuiting switch is provided. Black bakelite case.



Range (Amps)	Type*	Price
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	1	$117.25
800/400/200/ 100/50/20/10 Pri. to 5 Sec.	2	147.25
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	1	117.25

Range (Amps)	Type*	Price
1000/500/250/ 100/50/25/10 Pri. to 5 Sec.	2	$147.25
500/250/100/ 50/25/10/5/ 2.5/1/0.5 Pri. to 5 Sec.	5	157.25

*Type 1—Primarily used for Ammeter applications.

Type 2—Primarily used for Wattmeter applications

Type 5—Similar to Type 2 except for additional ranges.

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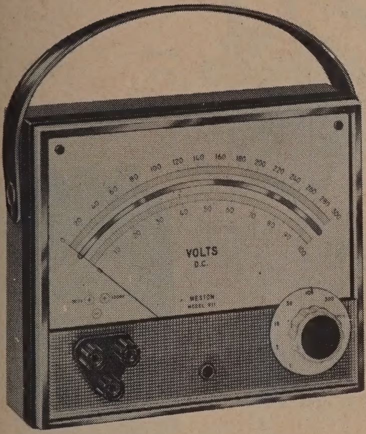
WESTON INSTRUMENTS

911/912 PORTABLE/PANEL INSTRUMENTS

Newly designed Weston Portable/Panel instruments now provide a combination of features never before offered in portable test equipment. Equally valuable in shop or field, these units feature high accuracy, long-scale length and modern styling. And, these instruments are designed for . . .
Panel or switchboard mounting without special adaptors or attachments! Simply remove meter from case and mount on panel . . . **all** hardware is supplied. The compact steel case may be attached behind panel when mechanical protection is required.



Model 911/912

SPECIFICATIONS

ACCURACY—±1% of full scale value on d-c voltmeters and milliammeters (±2% of full scale value on 300 and 1000 volts d-c).
±2% of full scale value on rectifier type a-c voltmeters 10 through 300 volts.
±3% of full scale value on rectifier type a-c voltmeters for 1000 volt range and 3 volt range above mid-scale.

COMPACT CASE—Modern designed instrument front of clear durable plastic provides unlimited natural illumination which, coupled with knife-edge pointers and mirror scale, provide unexcelled readability. The instrument is cased in heavy duty, grey finished steel. Handle can be swung under instrument so that it may be tilted for easy reading. Size: 7½" x 6½" x 2⅜".

COMPONENTS—Weston VAMISTOR® precision metal film resistors and other long-life components are used.
Adjustable resistors provide for easy calibration, if required.

BINDING POSTS—Screw type with captive heads can use all types of leads. Triangular base allows greater torque when securing leads. Wide ¾" spacing permits use of plug type leads. Cross hole located so fine wire is not cut.

SCALE—Large 7.2" mirror back with knife-edge pointer.

MECHANISM—CORMAG® self-shielding, with spring-backed jewels.

RANGE SWITCH—Large, sure-grip knob.

SIZE—7½" x 6½" x 2⅜".

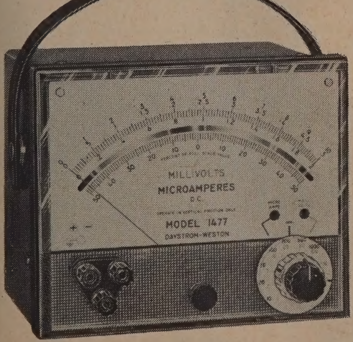
RANGES AND PRICES

Model 911 D-C VOLTMETER (20,000 ohms per volt) 1000/300/100/30/10/3/1 Volts	Price $68.50
Model 911 D-C AMMETER 10/3/1 amps., 300/100/30/10 ma	Price $68.50
Model 911 D-C MILLIAMMETER 100/30/10/3/1/.3/.1 milliamperes	Price $68.50
Model 912 A-C VOLTMETER (5,000 ohms per volt) 1000/300/100/30/10/3 Volts	Price $78.50

WESTON D-C MILLIVOLT/MICROAMMETER

D-C MILLIVOLT/MICROAMMETER—Model 1477

Size: 7½" x 6½" x 4⅜" **Weight: 5½ lbs.** **Scale Length: 7.2"**



A portable test instrument designed to measure potentials and currents in the low-level millivolt and microampere ranges. No energy is drawn from the input circuit during steady-state operation. Only with an initial input application is there a small current taken during the transient period prior to steady state indication.

D-C Input Ranges		
	Millivolts	1/2/5/10/20/50/ 100/200/500/1000
	Microamperes	10/20/50/100/200/500/1000
D-C Output	**(Rear Terminals)**	1 MA DC for full scale input (into a load up to 5000 ohms)
Power Requirements		120 volts AC, 5 or 60 cycles, 19 watts
Accuracy		
	Panel Indicator (Both Scales)	±1% of full scale value on ranges of 2-1000 MV and 20-1000 μA ±2% of full scale value on ranges of 1 MV and 10 μA
	1 MA Output	±0.25% on ranges of 5-1000 MV and 50-1000 μA ±0.5% on ranges of 1-2 MV and 10-20 μA
Operating Position		Vertical
Price		$446.25

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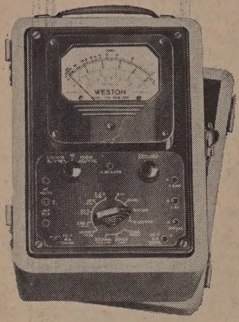
WESTON INSTRUMENTS

SUPER-SENSITIVE ANALYZER MODEL 779



Model 779 Type 1B
Price..........................$194.25

ACCURACY: A-C within 3%; D-C within 2% to 250 volts; 3% on 1,000 volt range.
Size: 6⅜″ x 9⅛″ x 4⅞″ (162 x 232 x 124 mm)
Approx. Wt.: 6 lbs. (2.72 kgs.)

A compact 26 range ultra-sensitive analyzer with five d-c voltage ranges at a sensitivity of either 1,000 or 20,000 ohms per volt. A-C temperature compensated; precision resistors throughout. Supplied in a rugged solid oak case with a removable cover and convenient carrying handle. Test leads are provided.

RANGES

Volts		Current	Decibels	Ohms
D-C	A-C	D-C Only		
2.5	2.5	.1 Ma	— 14 to + 2*	0-3000
10	10	1 Ma	— 2 to + 14*	0-30,000
50	50	10 Ma	+ 12 to + 28*	0-300,000
250	250	50 Ma	+ 26 to + 42†	0-30 Meg
1000	1000	250 Ma	+ 38 to + 54††	
		1 Amp	(6 milliwatts,	
		10 Amp	500 ohms, zero level)	

*Substantially flat to 10,000 cycles.
†Substantially flat to 3,000 cycles. ††Substantially flat to 1,000 cycles.

MODEL 799 INSULATION TESTER

Model 799

ACCURACY: Within ⅛″ of scale length.
SCALE: 2.375″ (60.3 mm)
Size: 3⅜″ x 5¼″ x 5″ (86 x 133 x 127 mm)
Approx. Wt.: 3.8 lbs. (1.7 kgs.)

For leakage measurements up to 10,000 megohms at low voltage at a maximum test potential 50 volts. Test leads, tubes, batteries and oak case are supplied.

RANGES: 0-10,000 megohms (Logarithmic scale)

Price......................$108.75

MARK II ANALYZER

The new thin-line Mark II is a highly sensitive and extremely rugged volt-ohm-milliammeter designed for a wide range of accurate test measurements in the electronic field.

Famous CORMAG® mechanism protects the instrument against false readings due to magnetic disturbances. Electrostatic shielding assures accurate measurements at high d-c voltages. Fuses in the low ohmmeter circuits prevent burnout if voltages are mistakenly applied. Interchangeable parts eliminate all need for parts selection in the event replacements are ever necessary. The breakproof case will withstand dropping and thus eliminate the major source of repair and maintenance costs.

FEATURES

- Modern Thin-Line Design
- Spring Back Jewels for Maximum Shock Resistance
- Fused Resistance Ranges
- Transit Switch Position to Dampen Movement During Transportation
- Fully Insulated Crack-proof Case
- Single Selector Knob for all Functions and Ranges
- Wide Angle Scale for Maximum Visibility
- Precision Components —No Parts Selection Required
- Single Board Etched Wiring Circuit for Easy Maintenance
- Static Shielded for Accurate High Voltage Measurement
- 4-Way Combination Tilt Stand and Protective Cover Available

SPECIFICATIONS

Accuracy: 2%, d-c; 3%, a-c.

Scale Length: 4.63″

Ranges:
  D-C Volts: 1.6, 8, 40, 160, 400, 800, 4000 . . . at 20,000 ohms/volt.
  A-C Volts: 1.6, 8, 40, 160, 400, 1600 . . . at 1,000 ohms/volt.
  DB Range: —15 db to +54 db (in six ranges).
  D-C Amperes: 8
  D-C Milliamperes: 1.6, 8, 80, 800.
  D-C Microamperes: 80.

Ohms Range	Center Scale	Full Scale
R x 1	25	1,000
R x 10	250	10,000
R x 100	2,500	100,000
R x 1,000	25,000	1 megohms
R x 10,000	250,000	10 megohms

Case: Black impact resistant plastic, with carrying strap.

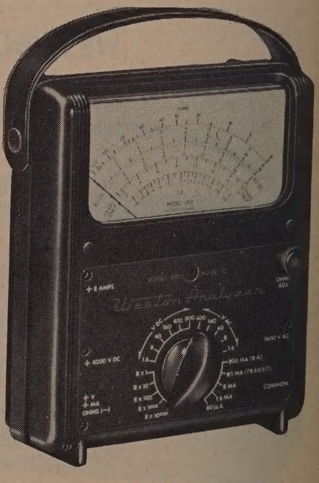
Panel: Black impact resistant plastic with engraved white markings.

Size: 6.25″ x 7.50″ x 2.25″.

Approx. Weight: 2.5 lbs.

Ohms: Four decade ranges: 1K to 10 meg full scale; 25 ohms to 250K center scale

High Voltage Probes: High voltage probes are available for measuring high voltages up to 20 kv at 50 microamperes or less. Probes have multiplier resistors encased in insulated handles. Multipliers are rated with a flash voltage of 30 kv.



Model 980 Mark II

Price..................................$53.50

Combination protective front cover and tilt stand $5.50

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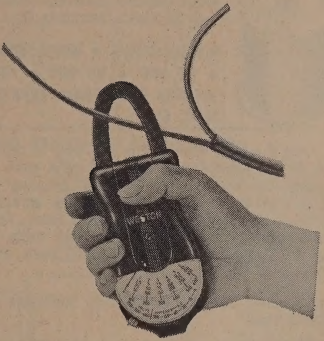
WESTON INSTRUMENTS

Model 749
Miniature Clamp Volt-Ammeter



Light weight and rugged pocket-size instrument for quick easy servicing. Has self-shielded core magnet mechanism with spring backed jewels, and shatter-proof Plexiglas window. Only one scale for all ranges and functions. Jaws take up to 1" round, or 1¾" x ⅜" rectangular conductors. Furnished with test leads in scuff proof case.

Plug-In Adapter available for making both current and voltage measurements . . . has female receptacles on both sides for plugging in load without disturbing circuit being tested . . . convenient for lead insertion for voltage checks . . . serves as 10 to 1 divider for low current measurements.

RATED ACCURACY: (Model 749) ±3% full scale deflection.

RANGES: Current 300/150/60/30/15/6 amperes a-c.
Voltage 600/300/150 volts a-c.

Model 749—$51.50 complete Plug-In Adapter—$5.25

Model 633 Clamp Volt-Ammeter and Clamp-Ammeter

Model 633 Type VA-1

	Price
Model 633 Type VA-1 (Incl. Potential Leads)—1000/250/100/25/10 amperes a-c 700/350/175 volts a-c	$141.50
Model 633 Type A-3—2000/1000/500/250/100/50 amperes a-c	133.50
Model 9958, 50 foot Extension Cable, Plug & Receptacle for Model 633 Type A-3	79.25
Leather Carrying Case (Model 633 Types VA-1, A-3)	13.50
Leather Carrying Case (Model 9958—Cable, Plug and Receptacle)	22.50

NOTE—Model 633 instruments may be used for continuous duty up to 500 amperes.

Approximate Dimensions and Weights

Model 633 Types VA-1, A-3	13⅝"x4⅜"x2½"	3¼ lbs.
Leather Carrying Case (Types VA-1, A-3)	14½"x5½"x3⅝"	2¼ lbs.
Model 9958, 50 Foot Extension Cable, Plug & Receptacle		4¼ lbs.
Leather Carrying Case (Model 9958—Cable, Plug & Receptacle)	14"x8½"x3¾"	4¼ lbs.

Foot-Candle Meters — Model 614

Size: 7⅜" x 3⅜" x 2¼" Scale Length: 2.36"
Weight: 1 lb. 13 ozs.

This unit is ideal for general commercial lighting surveys where wide ranges of light values exxist. Completely self-contained, no outside power or batteries being required. Available for checking two different light situations.

†VISCOR filtered, 0-60/120/600 foot-candles, for visual correction for color ..... Price $133.25

†VISCOR and Cosine correction filtered, 0-100/250/500 foot-candles for visual correction for color and direction correction. Price $136.25

OFF
HIGH
MED
LOW

Model 614

Sightmeters—Model 703

Size: 4⅝" x 2⅝" x 1⁵⁄₁₆" Scale Length: 1.57"
Weight: 10 ounces

This pocket sized meter is ideal for checking illumination levels at work stations. It is available for checking three different light situations. Leather case available ..... Price $3.00

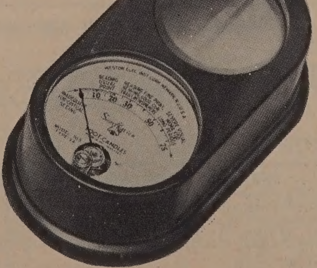
Unfiltered, Type 3A, 0-75 foot-candles. ..... Price $48.50

†VISCOR filtered, Type 6A, 0-75 foot-candles for visual correction for color ..... Price $60.50

†VISCOR and Cosine correction filters Type 7, 0-100 foot-candles for visual correction for color and direction correction. Price $63.75

Model 9924 Multiplier Disc fits Type 3A and Type 6A and multiplies scale readings by 10 ..... Price $1.75

†VISCOR—A registered trademark.



Model 703

PRICE SUBJECT TO CHANGE WITHOUT NOTICE

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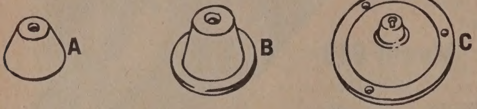
Birnbach GLAS-LINE CABLE | INSULATORS ANTENNA • FEED-THRU STAND-OFF

STEATITE FEEDTHRU INSULATOR

Useful in many constructions. Has high dielectric and mechanical strength. They are made of L-5 Glazed Steatite. No hardware is included.



Cat. No.	Figure	Height	Base Diam.	Max. Screw Size	Std. Pkg.
4200	A	7/8″	1¼″	10-32	25
4201	A	1⅛″	1¾″	¼-20	25
4202	B	1⅝″	2½″	⅜-16	25
4203	C	1″	3⅛″	8-32	12

STEATITE FEEDTHRU PANEL BUSHING INSULATORS

Made of L-5 Glazed Steatite. These Feedthrus have male and female (tops and bottoms) for feeding thru chassis, panels, shields, racks or panels. No hardware included. (100 to Std. Package)

Cat. No.	Top Height	Max. Dia.	Panel Hole	Panel Thickness	Max. Screw Sz.
4204	⅛″	½″	5/16″	To ⅛″	6-32
4205	7/32″	⅝″	7/16″	To ⅛″	8-32
4206	⅜″	½″	¼″	To 3/16″	6-32
4207	⅜″	⅝″	⅜″	To ⅜″	8-32
4208	¾″	1⅛″	¾″	To ⅜″	10-32
4209	1⅝″	1¼″	½″	To 2″	10-32

NEW FROM BIRNBACH INSULATED *GLAS-LINE* CABLE

Provides complete isolation of any antenna syst where support must be obtained from metallic obje such as towers, windmills, etc.

NON-INDUCTIVE • NON-CONDUCTING • NON-ABSORBI • NO SAG • NO ROT • NO SHRINK • FLEXIBLE USE FOR DIRECTIONAL ARRAYS, BEAMS, RHOMBIC S TEMS, ETC.

This Birnbach non-metallic guy wire is not to be handled as regu wire. Do not twist around itself for solid joint; it must be knotted fir in place (use bow line knot) — use coupling devices such as our N 472, 473 or 474 insulators. Must not be abraided by constant friction will wear and break line; avoid tight turns. An open thimble should used to couple the Birnbach "Glas-Line" cable to an eye-bolt at mast tree. Glass fibers conform to Mil 1140 Spec. and plastic jacket confor to Mil-I-631C Spec.

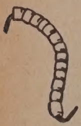
*The breaking strength indicated is applicable when "Glas-Line" cable properly used.

DESCRIPTION: Fiberglass insulation with PVC insulation overall. Color coc per indicated tensile strength.

Cat. No.	Put-Up	*Tensile Strength	Color	Nom. O.D.
GL 1	100′, 500′, 1000′ 2500′	500 lbs.	Green	.125″
GL 2	100′, 500′, 1000′ 2500′	1000 lbs.	Gray	.2187″
GL 3	100′, 500′, 1000′ 2500′	2500 lbs.	White	.3125″

For greater strength — doubling or tripling the cable will doul or triple the tensile strength.

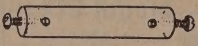
FISH SPINE BEADS



Made of L-5 Glazed Steatite. Useful for insulating Buss or Heavy Lines. Ball and Socket style interlocks permitting beads to follow bends and curves. Four Beads cover approx. 1″-Package of 100 covers 25″ of wire. Dimensions: 5/16″ O.D. ⅛″ I.D. Beads are treated with special Dow Corning treatment to prevent accumulation of surface moisture.

Cat. No.		Std. Pkg.
4215	FISH SPINE BEADS	100

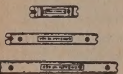
LUCITE SPREADERS



They are made of Dupont Lucite rod whi has a very low loss at radio frequenci It is water clear and has very low wat absorption. The holes are drilled to take a No. 12 wire. A screw at t end of the spreader locks the wire in position.

Cat. No.	Wire-Spacing	Std. P
436	2″	25
437	4″	25
438	6″	25

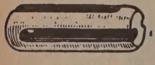
BIRNBACH FEEDER SPREADERS



They have a cross section of ⅜″ x ½″. Made of highly vitrified, low absorption, high tensile strength porcelain with a smooth white glaze overall.

Cat. No.	Std. Pkg.
462—Spreader, 2″ long	25
464—Spreader, 4″ long	25
469—Spreader, 6″ long	25

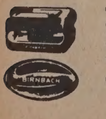
BIRNBACH STEATITE AIRPLANE INSULATORS



A very small compression type Steatite insulator with small wind resistance: Fully glazed. It is 1½″ in length; 17/32″ in diameter; ¾″ line spacing.

Cat. No.	Std. Pkg.
463—Steatite Airplane Insulators	25

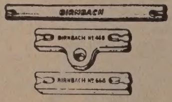
BIRNBACH AIRPLANE INSULATORS



They are used on mobile and aircraft and also with guy wire on TV installations. They are shaped for the least air resistance and have very high tensile strength, and low loss. Nos. 473 and 474 are made of white glazed low absorption porcelain. No. 472 is made of wet process glazed brown.

Cat. No.	Std. Pkg
472—2¼″ (brown)	25
473—2″ (white)	100
474—1½″ (white)	100

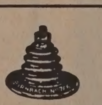
BIRNBACH ANTENNA INSULATORS



These antenna insulators have exceptionally low moisture absorption. The leakage path is long and the cross section is small and is consistent with the strength required. Smooth white glaze overall prevents the accumulation of dirt or ice.

Cat. No.	Std. Pkg.
468—4½″ long Center Insulator	10
668—4¼″ long	25
470—7″ long	10
471—12″ long	5

BEEHIVE STANDOFF



Base measures 2-3/16″ diam. with 3 holes on 1-15/16″ circle for No. 6 screws. Height of base 1½″. Complete with 10-32 brass screw and nuts. No. 766J has a No. 403 Jack. Available in white glaze.

Cat. No.	Std. Pkg.
766 —Standoff Insulator, 10-32 Screws	10
766J—Jack Type with No. 403 Jack	10

See Pages 1620-1625 for Birnbach Prices for Above Items

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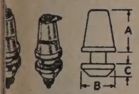
Birnbach FEEDTHRU • STEATITE PILLARS • CORRUGATED CERAMIC • STANDOFF INSULATORS

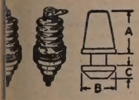
BIRNBACH FEEDTHRU INSULATORS



Made of highly vitrified, low absorption porcelain smoothly glazed to prevent accumulation of dust or dirt. Maximum strength is achieved by the proper proportions and flat mounting surfaces. Long insulating sleeves on the lower part of the insulator contribute much to their performance on high voltages. Brass nickel plated hardware.

.	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
3	⅝"	50	11/16"	¼"	5/16"	6-32
3	1"	25	13/16"	5/16"	7/16"	10-32
J	1"	25	13/16"	5/16"	7/16"	No. 403 Jack
5	1¼"	25	⅞"	⅜"	7/16"	10-32
5J	1¼"	25	⅞"	⅜"	7/16"	No. 403 Jack
4	2¾"	10	2"	1"	1¼"	¼-20
5	2¾"	10	1¼"	¾"	⅝"	¼-20
5J	2¾"	10	1¼"	¾"	⅝"	No. 394 Jack

CORRUGATED FEEDTHRU INSULATORS



The six new corrugated type feedthru insulators have more than twice the leakage path of the straight type because of increased surface of the corrugations and recommends itself where a straight side insulator of equal height is not satisfactory because of its shorter leakage path. Brass nickel plated hardware and cork mounting washers supplied.

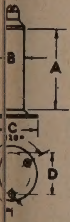
.	Height A	Std. Pkg.	Dimensions B	C	Mounting Hole	Hardware
	1⅜"	25	1¼"	11/16"	9/16"	10-32
J	1⅜"	25	1¼"	11/16"	9/16"	No. 403 Jack
6	2¾"	10	1⅝"	1"	¾"	¼-20
6J	2¾"	10	1⅝"	1"	¾"	No. 394 Jack
2	4½"	5	2⅛"	1½"	1"	¼-20
2J	4½"	5	2⅛"	1½"	1"	No. 394 Jack

HIGH VOLTAGE FEEDTHRU INSULATOR

This insulator has been designed to meet the demand for an insulator having high dielectric and mechanical strength. The extra long leakage path is made possible by the corrugations on the top insulator. The bottom sleeve taper from a base dia. of 1-3/16" where the electric stress is greatest.

Cat. No.	Height	Std. Pkg.	Base Dia.	Mounting Hole	Hardware
4233	1⅝"	10	2"	1¼"	¼-20

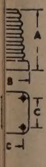
STEATITE PILLARS



Have great tensile strength with extremely low losses at very high frequencies. Tapped on both ends; supplied with nickel plated mounting base and top hardware.

Cat. No.	Height A	Std. Pkg.	Dimen. B	Base Dia. C	D	Hardware
450	1"	10	½"	1⅛"	⅞"	6-32
450J	1"	10	½"	1⅛"	⅞"	No. 403 Jack
451	1½"	10	½"	1⅛"	⅞"	6-32
451J	1½"	10	½"	1⅛"	⅞"	No. 403 Jack
452	2½"	10	½"	1⅛"	⅞"	6-32
452J	2½"	10	½"	1⅛"	⅞"	No. 403 Jack
453	2½"	5	¾"	1-9/16"	1-3/16"	¼-20
453J	2½"	5	¾"	1-9/16"	1-3/16"	No. 395 Jack
454	4"	5	¾"	1-9/16"	1-3/16"	¼-20
454J	4"	5	¾"	1-9/16"	1-3/16"	No. 395 Jack

BIRNBACH METAL BASE INSULATORS



BIRNBACH
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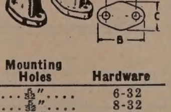
Corrugated surface provides long leakage path. Made of high tensile strength low absorption porcelain fully glazed. Supplied with nickel plated brass screws and nuts, cadmium plated drawn steel bases.

Cat. No.	Height A	Std. Pkg.	Base Dimension B	C	Mtg. Screw D	Hardware
867	1⅜"	25	1⅞" x 1 5/16"	1½"	2 No. 8	10-32
867J	1⅜"	25	1⅞" x 1 5/16"	1½"	2 No. 8	403 Jack
4176	2¾"	10	1¾" x 1¾"	1⅜"	4 No. 10	¼-20
4176J	2¾"	10	1¾" x 1¾"	1⅜"	4 No. 10	395 Jack
4451	4½"	5	2¼" x 2¼"	1¾"	4 No. 10	¼-20
4451J	4½"	5	2¼" x 2¼"	1¾"	4 No. 10	395 Jack

RNBACH STANDOFF INSULATORS

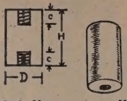


le of highly vitrified low orption glazed porcelain. No hers necessary — mounting ace is ground flat for No. . No. 966 it is advisable to cork washers which are avail-. All brass nickel plated dware supplied.

t. .	Height A	Std. Pkg.	Base Dimension B	C	D	Mounting Holes	Hardware
	⅝"	100	1"	17/32"	11/16"	5/32"	6-32
	1"	50	1¼"	¾"	13/16"	5/32"	8-32
	1"	50	1⅜"	⅞"	1"	5/32"	8-32
J	1"	50	1⅜"	⅞"	1"	5/16"	No. 403 Jack
	1½"	25	1¾"	1⅛"	1¼"	5/32"	10-32
J	1½"	25	1¾"	1⅛"	1¼"	5/16"	No. 403 Jack
SJ	1½"	10	1¾"	1⅛"	1¼"	5/32"	No. 395 Jack
5	2¾"	10	2¾"	2"	2⅛"	¼"	¼-20
5J	2¾"	10	2¾"	2"	2⅛"	¼"	No. 399 Jack
0	4½"	5	3⅝"	2½"	2⅝"	9/32"	¼-20
6J	4½"	5	3⅝"	2½"	2⅝"	9/32"	No. 399 Jack

BIRNBACH STEATITE PILLARS JAN-I-8 and JAN-I-10 SPECS.

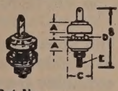
(Less Hardware)



In many constructions, these unmounted threaded Steatite pillars will facilitate assembly because of the one hole mounting and parallel mounting surfaces. They are made of L5 glazed Steatite with threaded holes on both sides.

Cat. No.		Height	Diam.	Threaded Hole		Std. Pkg.
Cat. No.	Conforms to Type	H	D	Length of Thread	Thread	Std. Pkg.
441		¼"	¼"	All	6-32	100
441B		⅜"	¼"	5/32"	6-32	100
441A		½"	¼"	5/32"	6-32	100
444A		¾"	¼"	¼"	6-32	100
445A		1"	¼"	¼"	6-32	100
442		⅜"	⅜"	5/32"	6-32	100
442A	NS5W0104	½"	⅜"	5/32"	6-32	100
443A	NS5W0105	⅝"	⅜"	¼"	6-32	100
444B	NS5W0106	¾"	⅜"	¼"	6-32	100
445B	NS5W0108	1"	⅜"	⅜"	6-32	100
446B	NS5W0110	1¼"	⅜"	⅜"	6-32	100
446A	NS5W0112	1½"	⅜"	⅜"	6-32	100
446C	NS5W0116	2"	⅜"	⅜"	6-32	100
443		½"	½"	9/64"	6-32	100
444		¾"	½"	¼"	6-32	100
445		1"	½"	⅜"	6-32	100
446		1½"	½"	⅜"	6-32	100
447		2½"	½"	⅜"	6-32	100
440	NS5W0205	⅝"	½"	3/16"	8-32	100
440A	NS5W0206	¾"	½"	¼"	8-32	100
440B	NS5W0208	1"	½"	⅜"	8-32	100
440C	NS5W0210	1¼"	½"	⅜"	8-32	100
440D	NS5W0212	1½"	½"	⅜"	8-32	100
440E	NS5W0216	2"	½"	⅜"	8-32	100
440F	NS5W0220	2½"	½"	⅜"	8-32	100
444C		¾"	¾"	¼"	10-32	100
445C	NS5W0308	1"	¾"	⅜"	10-32	100
445D	NS5W0310	1¼"	¾"	⅜"	10-32	100
445E	NS5W0312	1½"	¾"	⅜"	10-32	100
445F	NS5W0316	2"	¾"	⅜"	10-32	100
445G	NS5W0320	2½"	¾"	⅜"	10-32	100
448		2½"	¾"	¾"	¼-20	50
449		4"	¾"	¾"	¼-20	50
447B	NS5W0412	1½"	1"	½"	¼-20	50
447D	NS5W0420	2½"	1"	⅝"	¼-20	50
447E	NS5W0424	3"	1"	⅝"	¼-20	50

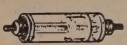
STEATITE BUTTONS



This specially designed Steatite button is intended for use to simplify wiring and to be used as a binding post or a binding post insulator. Attention is called to the uniqueness of the design which prevents either section of the insulator from turning in respect to the special screw. The specially designed screw locks both sections.

Cat No.					Std. Pkg.
457—Button					25
Dimensions	A	B	C	D	E
	5/16"	1⅜"	¾"	½"	6-32

"LUCITE" FEEDTHRU INSULATORS



These feedthru insulators are ideal for bringing high frequency leads thru a panel. They are made of genuine Dupont Lucite. Because of its low loss at high frequency, it is well adapted to insulated elements of high frequency circuits. The ½" dia. insulators have brass nickel plated 6-32 hardware and the ¾" dia. insulators, 10-32 hardware.

Cat. No	Height Above Panel	Insulator Dia.	Mounting Hole	Bottom Height	Std. Pkg.
377	¼"	½"	5/16"	¼"	25
378	½"	½"	5/16"	¼"	25
379	1"	½"	5/16"	¼"	25
475	1½"	¾"	7/16"	½"	25
476	2"	¾"	7/16"	½"	25

BIRNBACH LEADIN INSULATORS

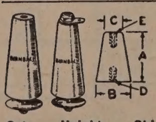
BIRNBACH
BIRNBACH

Each cone is 2¾" high and made of low absorption, highly vitrified glazed porcelain. The Nos. 4237 and 4238 Leadin Insulators have sufficient insulating bushings to insulate the rod that goes through the wall. In addition, 2 bushings are included, ¼" and ½" long, allowing complete insulation of the threaded rod of any length in multiples of ¼". They come complete with brass nickel plated hardware and lead and cork washers to permit a water-tight seal.

Cat. No.	Description	Std. Pkg
4235	10" Rod	10
4236	15" Rod	10
4237	10" Rod with bushings	10
4238	15" Rod with bushings	10

BIRNBACH CONE STANDOFF INSULATORS

(Steatite)

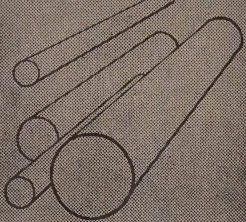


Made of low absorption high tensile strength Steatite with a smooth glaze. All heights except the No. 430 are available with a Jack or a threaded hole top. Available in a white glaze and are complete with screws, metal and cork washers.

Cat. No	Height A	Std. Pkg.	Base Dimensions B	C	Threaded Holes D	E	Mtg. Hole
430	⅝"	100	⅝"	7/16"	6-32	6-32	5/32"
431	1"	50	11/16"	½"	8-32	8-32	3/16"
431J	1"	50	11/16"	½"	8-32	No. 403 Jack	3/16"
432	1½"	50	⅞"	⅝"	10-32	10-32	7/32"
432J	1½"	50	⅞"	⅝"	10-32	No. 403 Jack	7/32"
433	2¾"	25	1¼"	¾"	¼-20	¼-20	9/32"
433J	2¾"	25	1¼"	¾"	¼-20	No. 395 Jack	9/32"

PLASTICS for electronics

ROD →



(R = Rods, B = Bars, ½R = Half Round)

EXAMPLE: Cat. No. R11A-½ is ½" diameter Acrylic Rod 1 foot long.

MATERIAL →	POLY-STY-RENE	ACRYLIC			PHENOLIC Paper Base	PHENOLIC Canvas Base	POLY-ETHY-LENE	NYLON	TEFLON			MACH-INABLE LAVA	MACH-INABLE CER-AMIC
Length →	1′	1′	1′	1′	1′	1′	1′	1′	1′	6″	3″	1′	8″
CAT. NO. →	R10A	R11A	½R11A	B11A	R12A	R13A	R14A	R15A	R16A	R16P	R16L	B17A	B18R
Dia.													
1/16	—	—	—	—	—	—	—	.06	—	—	—	—	—
1/8	.03	.06	—	—	.69	1.02	—	.18	—	—	—	—	—
3/16	.06	.09	—	—	.71	1.04	—	.27	.98	.63	.37	—	—
1/4	.09	.15	—	.27	.72	1.05	.10	.45	1.18	.77	.47	—	—
5/16	.14	.21	—	—	.80	1.16	—	.63	1.52	.97	.58	—	—
3/8	.18	.29	—	.53	.92	1.36	.39	.87	1.94	1.34	.81	—	—
1/2	.36	.48	.35	.84	1.38	2.03	.53	1.49	3.10	2.25	1.34	1.95	.90
5/8	.60	.75	.60	1.50	2.12	2.85	.72	1.94	4.55	3.32	2.00	—	—
3/4	.81	1.08	.86	—	2.76	3.72	1.05	2.64	6.38	4.64	2.78	2.70	1.80
7/8	1.20	1.43	—	—	3.44	4.67	1.43	3.48	8.47	6.30	3.78	—	—
1″	1.70	1.88	—	—	4.16	5.70	2.03	4.38	10.95	7.32	4.79	4.05	2.70
1 1/8″	2.11	2.33	—	—	4.56	6.91	—	5.43	13.76	9.58	6.14	—	—
1 1/4″	2.54	2.78	—	—	5.37	8.13	2.93	6.39	16.87	11.08	7.45	—	—
1 3/8″	3.38	3.83	—	—	6.43	9.74	—	7.28	20.12	13.60	8.96	—	—
1 1/2″	3.58	4.13	—	—	7.55	11.43	4.20	8.40	23.88	16.29	10.57	9.45	—
1 5/8″	4.23	—	—	—	8.64	13.08	—	10.25	27.95	19.60	12.56	—	—
1 3/4″	4.91	5.47	—	—	10.79	16.34	—	11.97	32.35	22.92	13.88	—	—
1 7/8″	5.54	—	—	—	12.75	19.32	—	13.29	40.70	26.48	16.03	—	—
2″	6.24	6.98	—	—	15.05	22.77	7.05	15.42	41.48	29.86	17.38	14.63	—

R10, 11, 14, 15 and 16 also available in 4′ and 6′ lengths. R12 and 13 also available in 3′ random lengths. Smaller sizes in the R15 are available in 100′ and 500′ continuous lengths.

The Illumitronic Jobber Line of PLASTICS is the most complete line available in small standard sizes and short lengths. All sizes are available from stock. For quantity requirements request quotation.

illumitronic

sunnyvale, california

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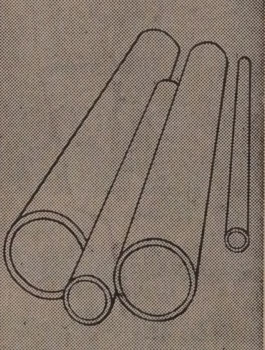
TUBING →



EXAMPLE: Cat. No. T15A-¼x⅛ is ¼" O.D. with ⅛" I.D. Nylon Tubing 1 foot long.

MATERIAL →	POLY-STY-RENE	ACRY-LIC	PHENOLIC Paper Base	PHENOLIC Canvas Base	POLY-ETHY-LENE	NYLON	TEFLON		MACH-INABLE CER-AMIC
Length →	1′	1′	1′	1′	1′	1′	1′	6″	8″
CAT. NO. →	T10A	T11A	T12A	T13A	T14A	T15A	T16A	T16P	T18R
O.D. I.D.									
1/8 x 3/32	—	—	—	—	—	.06	—	—	—
1/4 x 1/8	.09	.15	.60	.83	.09*	—	—	—	—
1/4 x 3/16	—	—	—	—	—	.14	1.53	1.01	—
3/8 x 1/4	.15	.21	.64	.88	.18*	—	1.79	1.17	—
3/8 x 19/64	—	—	—	—	—	.27	—	—	—
1/2 x 3/8	.21	.37	.74	.97	.24*	.72	—	—	—
1/2 x 1/4	—	—	—	—	—	—	2.99	1.96	—
5/8 x 1/2	.24	.41	.81	1.05	.36	—	—	—	—
3/4 x 5/8	.30	.51	.88	1.20	.42	—	—	—	—
3/4 x 1/2	—	—	—	—	—	—	5.08	3.30	—
7/8 x 3/4	.39	.63	.94	1.30	—	—	—	—	—
7/8 x 5/8	—	—	—	—	—	—	5.98	3.88	—
1 x 7/8	.42	—	1.04	1.47	.54	—	—	—	—
1 x 3/4	.81	1.13	1.42	2.22	—	—	7.69	5.00	—
1 1/4 x 1	1.12	1.35	1.58	2.55	.81	—	—	—	—
1 1/2 x 1 1/4	1.20	1.65	1.73	3.00	1.05	—	—	—	3.30
1 3/4 x 1 1/2	1.58	1.80	2.02	3.30	1.27	—	—	—	—
2 x 1 3/4	1.65	2.25	—	—	—	—	—	—	5.40
2 1/4 x 2	—	3.00	—	—	—	—	—	—	—
2 1/2 x 1 3/4	—	—	—	—	—	—	—	—	5.85
3 x 2 3/4	—	3.60	—	—	—	—	—	—	—
3 x 2 1/2	—	—	—	—	—	—	—	—	6.15

T10, T11 and T14 also available in 4′ and 6′ lengths. T12 and T13 also available in 3′ random lengths.
*T14 also available in 100′ and 500′ continuous lengths.

For specifications, contact us or consult your local distributor.

PLASTICS
for electronics

SHEET

MATERIAL →	POLYSTYRENE			ACRYLIC			PHENOLIC Paper Base			PHENOLIC Canvas Base		
SIZE →	6"x12"	12"sq.	24"sq.	6"x12"	12"sq.	24"sq.	6"x12"	12"sq.	24"sq	6"x12"	12"sq.	24"sq.
CAT. NO. →	S10A	S10C	S10E	S11A	S11C	S11E	S12A	S12C	S12E	S13A	S13C	S13E
Thickness												
1/32	1.77	2.82	9.18	—	—	—	.39	.60	1.86	.57	.96	3.02
1/16	1.84	3.08	10.77	1.59	2.66	8.41	.61	1.02	3.23	1.05	1.76	5.56
⅛	2.46	4.11	14.50	1.68	2.79	8.84	1.23	2.04	6.48	2.10	3.51	11.13
3/16	3.20	5.32	18.35	1.99	3.34	10.53	1.83	3.06	9.68	3.16	5.27	16.69
¼	3.64	6.07	21.55	2.35	3.93	12.45	2.44	4.08	12.93	4.21	7.02	22.25
⅜	5.08	8.47	29.93	3.78	6.30	19.96	3.67	6.14	19.44	6.33	10.55	33.38
½	6.27	10.46	36.71	5.03	8.39	26.57	4.90	8.18	25.87	8.43	14.06	44.52
⅝	8.55	14.25	47.35	6.22	10.83	32.85	6.13	10.23	32.37	10.54	17.57	55.63
¾	11.79	19.65	65.44	7.42	12.38	39.21	7.35	12.26	38.80	12.66	21.09	66.77
⅞	12.65	21.07	70.09	8.65	14.42	45.66	8.58	14.31	45.31	14.76	24.60	77.88
1"	16.02	26.70	89.24	9.84	16.40	51.92	9.82	16.37	51.82	16.86	28.11	89.02

S11 also available in sizes 36"x60", 36"x36". S12 and S13 also available in sizes 36"x48", 36"x36".

MATERIAL DESIGNATION

10 = Polystyrene	15 = Nylon
11 = Acrylic*	16 = Teflon
12 = Paper Base Phenolic	17 = Machinable Lava**
13 = Canvas Base Phenolic	18 = Machinable Ceramic**
14 = Polyethylene	

*(Acrylic is also called Plexiglas or Lucite)

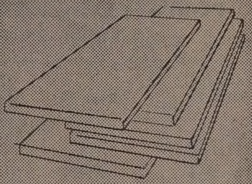
**May be drilled or machined.

SHEET

MATERIAL →	POLYETHYLENE			NYLON				TEFLON		
SIZE →	6"x12"	12"sq.	24"sq.	3"x6"	4"x12"	6"x12"	12"sq.	3"x6"	6"x12"	12"sq.
CAT. NO. →	S14A	S14C	S14E	S15L	S15M	S15A	S15C	S16L	S16A	S16C
Thickness										
.005	.14	.27	.93	—	—	—	—	* .32	.93	1.48
.010	.24	.36	1.26	—	.48	—	—	* .53	1.73	2.66
.015	.33	.48	1.65	—	.68	—	—	* .80	2.55	4.00
.020	.39	.60	2.00	—	.83	—	—	* 1.09	3.46	5.33
.025	—	—	—	—	1.05	—	—	* 1.30	4.34	6.68
.030	.54	.90	3.06	—	1.20	—	—	* 1.57	5.11	8.00
.040	.68	1.17	4.06	—	1.50	—	—	* 2.10	6.81	10.66
.050	.75	1.35	4.66	—	1.83	—	—	* 2.63	8.51	13.33
.060	.97	1.65	5.65	—	2.25	—	—	* 3.14	10.21	15.99
1/32	.54	.90	3.06	—	1.20	—	—	* 1.57	5.11	8.00
1/16	.97	1.65	5.65	—	2.25	6.38	9.38	* 3.14	10.21	15.99
⅛	1.62	2.70	9.31	—	5.03	10.64	15.00	4.81	16.01	25.38
3/16	2.01	3.36	11.77	3.99	—	13.30	18.75	7.08	23.67	37.00
¼	3.00	4.95	17.36	5.19	—	17.29	24.38	8.92	29.79	46.50
⅜	4.65	7.74	26.73	7.18	—	23.94	33.75	13.77	45.75	71.63
½	6.30	10.50	36.77	7.98	—	26.60	37.50	17.82	59.32	92.75
⅝	7.95	13.26	46.42	9.98	—	33.25	46.88	22.34	**	**
¾	11.55	19.20	**	11.97	—	39.90	56.25	26.40	—	—
⅞	—	—	—	—	—	**	**	30.46	—	—
1"	15.60	25.95	—	—	—	—	—	35.38	—	—

S14 also available in sizes 60"x36" and 36"x36". S16 also available in size 24"x24".
*1/16 and smaller are skived sheets, larger are cast sheets.
**Larger sizes available on request.

EXAMPLE: Cat. No. S14C-¼ is ¼" thick Polyethylene Sheet 12"x12".



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TOLERANCES:

6" ± 1/16"	3"x6" ± 1/16"
1' ± ⅛"	6"x12" ± ¼"
3' ± ¼"	12"x12" ± ¼"
4' ± ½"	24"x24" ± ½"
6' ± 1"	36"x36" ± 1"

For Vinyl Sleeving, Vinyl lacing cord, Spiral Wrap, Zippertubing, Cable Clamps and other plastic items see other Illumitronic sheets. For Physical Properties ask for Tele-Hint #9.

Available from Leading Jobbers nationally.

For specifications, contact us or consult your local distributor.

POLYSTYRENE ROD — TUBING — SHEET

For radio and electronic applications, because of its very low loss factor at ultra high frequencies, Polystyrene is the ideal material for insulators, coil forms, shields, etc. It has excellent arc resistance, is non-tracking and has splendid insulating properties. Because its water absorption is practically zero it has excellent dimensional stability.

POLYSTYRENE ROD—Transparent

Available in 12″ or 48″ lengths

Catalog Number	Diameter	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-100	⅛″	$ .03	$ .12
JB-101	3/16″	.07	.28
JB-102	¼″	.12	.48
JB-103	5/16″	.18	.72
JB-104	⅜″	.26	1.04
JB-105	7/16″	.36	1.44
JB-106	½″	.48	1.92
JB-107	⅝″	.72	2.88
JB-108	¾″	1.00	4.00
JB-109	⅞″	1.42	5.68
JB-110	1″	1.90	7.60
JB-111	1⅛″	2.50	10.00
JB-112	1¼″	3.00	12.00
JB-113	1⅜″	3.60	14.40
JB-114	1½″	4.30	17.20
JB-116	1¾″	6.00	24.00
JB-118	2″	7.50	30.00

POLYSTYRENE TUBING—Satin Finish

Available in 12″ or 48″ lengths.

Catalog Number	O.D.	I.D.	Net Price 12″ lgth.	Net Price 48″ lgth.
JB-201	¼″	⅛″	$ .10	$ .40
JB-202	5/16″	3/16″	.14	.56
JB-203	⅜″	¼″	.18	.72
JB-205	½″	⅜″	.26	1.04
JB-206	⅝″	½″	.32	1.28
JB-207	¾″	⅝″	.40	1.60
JB-208	1″	⅞″	.56	2.24
JB-220	1½″	1¼″	1.50	6.00
JB-222	2″	1¾″	2.20	8.80

POLYSTYRENE SHEET

The following sheets are all crystal clear with smooth surfaces fully protected against abrasion by masking paper on both sides.

Catalog Number	Thickness	Sheet Size	Net Price
JB-125	1/16″	12″ x 12″	$4.15
JB-126	3/32″	12″ x 12″	4.80
JB-127	⅛″	12″ x 12″	5.50
JB-128	3/16″	12″ x 12″	7.15
JB-129	¼″	12″ x 12″	8.15
JB-245	1/16″	12″ x 24″	7.80
JB-246	3/32″	12″ x 24″	9.15
JB-247	⅛″	12″ x 24″	10.50
JB-248	3/16″	12″ x 24″	13.15
JB-249	¼″	12″ x 24″	15.65
JB-315	1/32″	24″ x 24″	9.65
JB-301	1/16″	24″ x 24″	11.15
JB-302	3/32″	24″ x 24″	13.00
JB-303	⅛″	24″ x 24″	14.80
JB-304	3/16″	24″ x 24″	18.75
JB-305	¼″	24″ x 24″	23.00
JB-316	5/16″	24″ x 24″	27.65
JB-309	⅜″	24″ x 24″	31.25
JB-311	½″	24″ x 24″	38.65
JB-317	⅝″	24″ x 24″	50.00
JB-318	¾″	24″ x 24″	69.25
JB-319	1″	24″ x 24″	94.15

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CARLSTADT, N. J.

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12 rolls—½" x 150"

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High Dielectric Strength—Flexible—Good Stretch and Conformability—Snug Wrap—Waterproof—Resists Oil, Gasoline, Water, Salt Water, Alkalis and Sunlight. Hundreds of uses!

PERMACEL 29
PLASTIC ELECTRICAL TAPE
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Dielectric Strength	10,000 volts
Thickness	7 mils
Adhesion (oz./inch)	32
Tensile Strength (lbs./inch)	25
Elongation	175%

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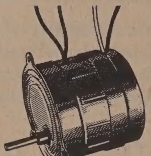
HEAVY DUTY SYNCHRONOUS MOTORS

Small Size, Low Cost Motors for Continuous Timing Applications Beyond the Capacity of Standard Clock Motors

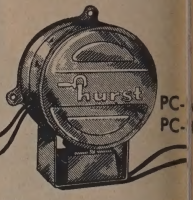
Hurst Synchronous Motors were developed to fill the repeatedly expressed need for a timing unit of larger capacity than clock motors, at a practical low cost, light in weight and compact in size. In this middle area of size and price, Hurst motors provide outstanding quality and performance.



CA

DA

SM



Rugged synchronous motors for continuous duty applications. In a wide choice of output speeds for alarm systems, extra-large cl displays, railroad signaling equipment, process controls, code signal devices, time switches, program instruments, aircraft training vices, etc. Engineered for tough jobs requiring accurate timing. Will not overheat during continuous duty or in a stalled posi Gear trains are constructed to withstand considerably more than the motor's rated capacity. Venting prevents moisture contaminc and insures proper lubrication at all times. Mounting can be made in any plane with assurance of trouble-free service. Specifica common to all Hurst motors: Operating temperature, 40° to 105° C. Power required, 5 watts, 95-130 volts AC, 60 cycles. Shaft, s less steel 3/16" dia. x 1" long flattened. Finest quality bronze bearings. Hardened steel pinions and wheel shafts. Brass gears l cated for lifetime service. Completely enclosed cases, cadmium plated. Mounting, 3 No. 6 holes spaced 120°.

100 INCH-OUNCE REVERSIBLE. (**CA** Series) Instantly reversible (with SPDT switching). Completely accurate both clockwise and counter-clockwise. 1200 rpm rotor speed for quiet performance. Torque, 100 inch-ounce at 1 rpm. Case dimensions, 2½" dia. x 2⅛". Output shaft 3/16" dia. x 1" long flattened. Shipping Wt., 1 lb. 2 oz. Most versatile and economical motor in its field!

Model	Output Speed	Net Each, Lots of 1-49	50-71	72-107
CA	⅓ RPM	$9.25	$8.33	$7.40
CA	½ RPM			
CA	1 RPM			
CA	1½ RPM			
CA	2 RPM			
CA	2½ RPM			
CA	3 RPM	$9.25	$8.33	$7.40
CA	4 RPM			
CA	5 RPM			
CA	6 RPM			
CA	8 RPM			
CA	10 RPM			
CA	12 RPM	$9.25	$8.33	$7.40
CA	15 RPM			
CA	16 RPM			
CA	20 RPM			
CA	24 RPM			
CA	25 RPM			
CA	30 RPM	$9.25	$8.33	$7.40
CA	32 RPM			
CA	33⅓ RPM			
CA	40 RPM			
CA	48 RPM			
CA	50 RPM			
CA	60 RPM	$9.25	$8.33	$7.40
CA	64 RPM			
CA	80 RPM			
CA	100 RPM			
CA	120 RPM			
CA	150 RPM			
CA	160 RPM	$9.25	$8.33	$7.40
CA	200 RPM			
CA	240 RPM			
CA	400 RPM			
CA	600 RPM			
CA	800 RPM			
CA	1000 RPM	(Price includes capacitor)		

POSITIVE CLUTCH SM SERIES. Basic SM motor with Positive Clutch and Instantaneous Brake. Starts in 10 milliseconds — stops 60 rpm shaft in 6°; 1 rpm, 1/10°. Shipping Wt., 1 lb. 4 oz.

Model	Output Speed	Net Each, Lots of 1-49	50-71	72-107
PC-SM	½ RPM	$13.20	$11.88	$10.56
PC-SM	1 RPM			
PC-SM	2 RPM			
PC-SM	3 RPM			
PC-SM	4 RPM			
PC-SM	5 RPM			
PC-SM	6 RPM	$13.20	$11.88	$10.56
PC-SM	10 RPM			
PC-SM	15 RPM			
PC-SM	30 RPM			
PC-SM	60 RPM			

120 INCH-OUNCE REVERSIBLE. (**DA** Series) Instantly rever (with SPDT switching). Completely accurate both clockwise counter-clockwise. 100g shock resistance. Vibration resistance, curate synchronization at 10-55 cps at .065" excursion. Pe magnetic shielding. Torque, 120 inch-ounce at 1 rpm. Case di sions, 2½" dia. x 1¾". Output shaft 3/16" dia. x 1" long tened. Shipping Wt., 1 lb. 1 oz.

Model	Output Speed	Net Each, Lots of 1-49	50-71	72-10
DA	1 RPM	$10.80	$9.72	$8.6
DA	2 RPM			
DA	4 RPM			
DA	6 RPM			
DA	8 RPM			
DA	10 RPM			
DA	12 RPM	$10.80	$9.72	$8.6
DA	20 RPM			
DA	30 RPM			
DA	60 RPM			
DA	120 RPM	(Price includes capacitor)		

POSITIVE CLUTCH DA SERIES. Basic DA motor with Positive Cl and Instantaneous Brake. Starts in 10 milliseconds — stops 60 shaft in 6°; 1 rpm, 1/10°. Shipping Wt. 1 lb. 5 oz.

Model	Output Speed	Net Each, Lots of 1-49	50-71	72-107
PC-DA	1 RPM	$14.92	$13.42	$11.9
PC-DA	2 RPM			
PC-DA	4 RPM			
PC-DA	6 RPM			
PC-DA	8 RPM			
PC-DA	10 RPM			
PC-DA	12 RPM	$14.92	$13.42	$11.9
PC-DA	20 RPM			
PC-DA	30 RPM			
PC-DA	60 RPM			
PC-DA	120 RPM	(Price includes capacitor)		

40 INCH-OUNCE UNIDIRECTIONAL. (**SM** Series) Shaded p Clockwise rotation. Instant start at full torque of 40 inch-ounce 1 rpm. 100g shock resistance. Vibration resistance, accurate s chronization at 10-55 cps at .065" excursion. Case dimensio 2½" dia. x 1¾". Output shaft 3/16" dia. x 1" long flatten Shipping Wt., 1 lb.

Model	Output Speed	Net Each, Lots of 1-49	50-71	72-107
SM	½ RPM	$9.08	$8.17	$7.26
SM	1 RPM			
SM	2 RPM			
SM	3 RPM			
SM	4 RPM			
SM	5 RPM			
SM	6 RPM	$9.08	$8.17	$7.26
SM	10 RPM			
SM	15 RPM			
SM	30 RPM			
SM	60 RPM			

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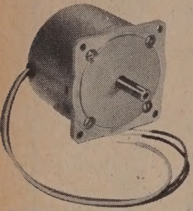
SLO-SYN® *Synchronous Motors*

- **INSTANT STARTING, STOPPING, REVERSING**
- **72 RPM SHAFT SPEED WITHOUT GEARS**
- **CAN BE USED AS D-C STEPPING MOTORS**

A SLO-SYN Synchronous Motor is a permanent magnet type a-c motor having instant start, stop and reverse characteristics and a basic shaft speed of 72 RPM with 60 cycles applied. Adaptable for use as a d-c stepping motor or incremental positioning device that can be stepped 200 times per revolution of the motor shaft. Compact and economical, has almost negligible overshoot, no ratchets or detents. A single-pole, three-position switch can give complete forward, reverse "off" control because the motor has three leads only. St or stops in less than 0.025 second or approximately 1.5 cy No need for mechanical or electrical braking; stops in than 5° of motor shaft rotation. Starting and operating rents are nearly identical; no excessive inrush current w motor is turned on. All types have lubricated-for-life beari



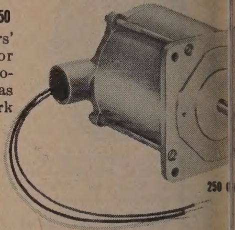
50 OZ-IN

TYPES SS50 AND SS50M

Well-suited for limited space applications, actuating selector switches, tape handling, process timing. Militarized type SS50M meets or exceeds applicable military specifications. Planetary gear types available.

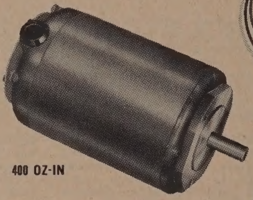
TYPE X250

Explosion-proof. Underwriters' Laboratories Approved for Class 1, Group D service. Provides safe operation in areas where a small arc or spark could cause an explosion.

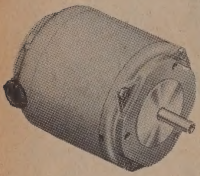


TYPE SS400

Ideally suited for heavy duty industrial applications, remotely controlled gate and butterfly valves, machine tool carriage feeds, telemetering, numerical control systems.



400 OZ-IN



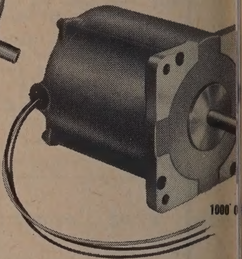
150 AND 250 OZ-IN

TYPES SS150, SS152, SS150M, SS250 AND SS252

Types SS150 and SS152 can be ordered with resistor and capacitor integrally mounted in an enclosure on the end of the motor (suffix RC when ordering). Militarized type SS150M meets or exceeds applicable military specifications. Planetary gear types available.

TYPE X1000

Explosion-proof. Underwriters' Laboratories Approved for Class 1, Group D service. Ideally suited for "on-off" a-c servo duty and heavy duty applications.



TORQUE (Oz-In)	VOLTS	MAXIMUM AMPERES	RESISTOR*	CAPACITOR*	TYPE	APPROXIMATE WEIGHT (POUNDS)	
						NET	SHIPPING
50/60 CYCLES, 1 PHASE, 72 RPM @ 60 CYCLES							
50	120	0.3	250 ohms ± 5%, 25W	2.6 mfd ± 6%, 330VAC	SS50 SS50M	3	3½
150	120	0.4	250 ohms ± 5%, 25W	3.75 mfd ± 6%, 330VAC	SS150 SS150M	6½	8
150	240	0.2	1200 ohms ± 5%, 25W	1.0 mfd ± 6%, 660VAC	SS152	6½	8
250	120	0.6	150 ohms ± 5%, 50W	6.5 mfd ± 6%, 330VAC	SS250 X250	6½ 7¾	8 9
250	240	0.3	750 ohms ± 5%, 50W	1.75 mfd ± 6%, 660VAC	SS252	6½	8
400	120	0.6	150 ohms ± 5%, 50W	6.5 mfd ± 6%, 330VAC	SS400	12¼	13¾
1000	120	3.0	65 ohms ± 5%, 160W	30.0 mfd ± 5%, 330VAC	X1000†	22	25

*User must supply resistor and capacitor

†For 60 cycle operation only

PLANETARY GEAR TYPES

Standard types having specially-designed planetary gear assemblies are available. The speed reduction assembly is completely enclosed in a dust proof housing mounted on the shaft end of the motor. The load is evenly distributed over three nylon gears thereby reducing the possibility of tooth damage. The self-lubricated nylon gears provide quiet operation and long life. The planetary gear shaft is ball bearing mounted. When ordering, the basic type number must be suffixed with the desired planetary gear assembly number. For example, type SS50-P1.

PLANETARY ASSEMBLY SUFFIX	GEAR RATIO	APPROX. SPEED* (RPM)	OUTPUT TORQUE			
			BASIC TYPES SS50 SS50M	BASIC TYPES SS150 SS150M SS152	BASIC TYPES SS250 SS252	BASIC TYP X250
P1	4-1/3	16.6	120 oz-in	400 oz-in	650 oz-in	650 oz-i
P2	21-2/3	3.32	600 oz-in	2000 oz-in	—	2000 oz-i
P3	108-1/3	0.665	2000 oz-in	2000 oz-in	—	2000 oz-i
P4	541-2/3	0.133	2000 oz-in	2000 oz-in	—	2000 oz-i
P5	2708-1/3	0.027	2000 oz-in	2000 oz-in	—	2000 oz-i

*Exact speed may be calculated from basic motor speed (72 RPM) and given ratio.

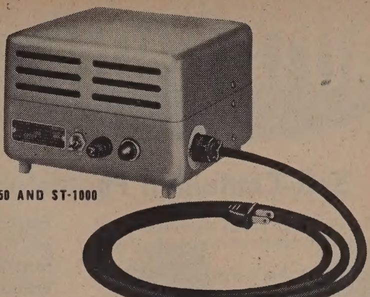
THE SUPERIOR ELECTRIC COMPANY
Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100 AND 4000

© U.C.P.,

SLO-SYN® *Translators*

A SLO-SYN Translator is a pulse-to-step converter intended f use with appropriate bifilar type SLO-SYN Synchronous M tors. It converts low-level signal pulses or square waves into t correct switching sequence needed to drive the SLO-SYN m tor at 200 discrete steps per revolution. Internal power supply a ws alternate operation from an external shorting switch if d ired. Power input is 120 volts a-c, 0.5 ampere for type S-250 and 120 volts a-c, 1.0 ampere for type ST-1000. SLO-SN Translators are used in programmed positioning, remote p itioning, indexing and indicating operations.


TYPES ST-250 AND ST-1000

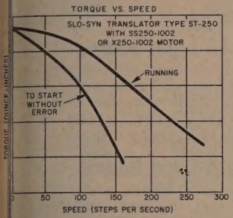


FIGURE 1

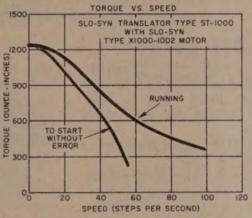
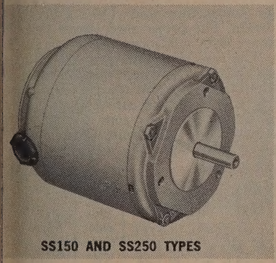


FIGURE 2

Torque vs. speed characteristics for a SLO-SYN Translator type ST-250 are as shown in Figure 1 when used with a type SS250-1002 or type X250-1002 motor. SLO-SYN Translator type ST-250 can also be used with a type SS150-1010 motor or, for higher stepping rates, with a type SS50-1009 motor and a 2 ohm, 25 watt dropping resistor. Figure 2 shows the torque vs. speed characteristics for a SLO-SYN Translator type ST-1000 when operated with a type X1000-1002 SLO-SYN motor. For higher stepping rates, SLO-SYN Translator type ST-1000 can be used with a type SS400-1002, type SS250-1027 or type X250-1003 motor and a 1 ohm, 50 watt dropping resistor.

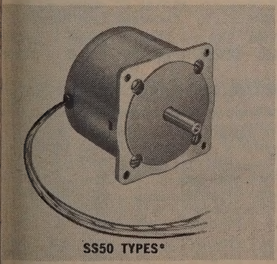
Bifilar and Four-Lead SLO-SYN® *Synchronous Motors*


SS150 AND SS250 TYPES

BIFILAR SLO-SYN Synchronous Motors are used for d-c stepping applications where the use of push-pull circuitry and a center-tapped power supply is not possible or where increased torque at high stepping speeds is required.

BIFILAR SLO-SYN SYNCHRONOUS MOTORS—RATINGS FOR STEPPING APPLICATIONS

TYPE	D-C VOLTS	AMPERES PER WINDING	APPROXIMATE WEIGHT (POUNDS)	
			NET	SHIPPING
SS50-1010	2.0	3.3	3	3½
SS50-1009	5.5	1.3		
SS50-1008	8.0	0.85		
SS50-1001	14.0	0.53		
SS50-1007	35.0	0.21		
SS150-1023	1.4	8.5	6½	8
SS150-1009	2.5	4.0		
SS150-1010	10.0	1.25		
SS150-1017	25.0	0.5		
SS250-1006	2.5	5.0	6½	8
SS250-1027	4.6	3.1		
SS250-1002	9.0	1.55		
SS250-1004	22.5	0.61		
X250-1003	4.6	3.1	7¾	9
X250-1002	9.0	1.55		
SS400-1002	8.3	2.2	12¼	13¾
SS400-1006	21.2	0.85		
X1000-1002	10.0	3.6	22	25


SS50 TYPES*

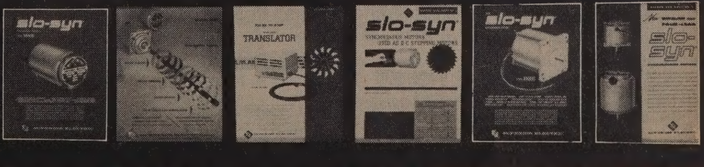
FOUR-LEAD SLO-SYN Synchronous Motors are designed to provide the flexibility needed for use with equipment requiring isolated windings with no common connection.

FOUR-LEAD SLO-SYN SYNCHRONOUS MOTORS—RATINGS FOR STEPPING APPLICATIONS

TYPE	D-C VOLTS	AMPERES PER WINDING	APPROXIMATE WEIGHT (POUNDS)	
			NET	SHIPPING
SS50-1012	2.5	3.1	3	3½
SS50-1011	10.0	0.75		
SS50-1002	25.0	0.30		
SS50-1014	50.0	0.15		
SS150-1007	2.0	6.3	6½	8
SS150-1018	7.0	1.75		
SS150-1015	17.5	0.70		
SS150-1025	35.0	0.35		
SS250-1010	3.0	5.3	6½	8
SS250-1009	8.0	2.0		
SS250-1008	16.0	1.0		
SS250-1007	32.0	0.50		
SS400-1005	15.0	1.2	12¼	13¾
SS400-1007	30.0	0.6		
X1000-1005	11.5	3.2	22	25

***Bifilar types have five leads.**

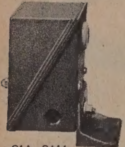
FOR MORE DETAILED INFORMATION about ratings, specifications and technical data about SLO-SYN synchronous motors and SLO-SYN translators, request the complete SLO-SYN literature file which includes information about the use of SLO-SYNS as d-c stepping motors.



AUTOTRON Photoelectric Controls

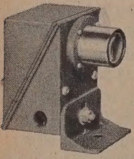
AUTOTRON, INC Danville, Illinois

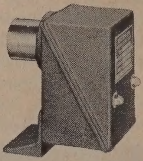
Self-Contained Photoelectric ON/OFF Controls and Light Sources


S1A, S4A1

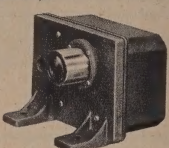
L1A

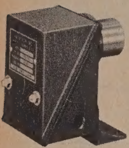
3-3/4 X 4 X 5-1/4

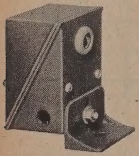

S2A, S5A1

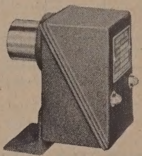

L2A

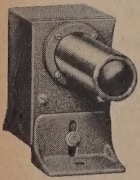
5-1/4 X 4 X 5-1/4

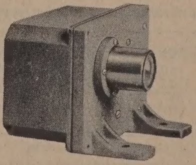

F1B, F2B
6 X 7-1/4 X 5-1/4


L2A


L1A


A579
5-1/4 X 4 X 5-1/4


L3A
8 X 4 X 5-1/4


L4 6 X 7-1/4 X 5-1/4

FEATURES and NOTES

R—Built-in SAFETY Relay (contacts SPDT, rated 5 amps. at 115 VAC)

In Control: Energizes when power comes on; de-energizes when tube filament burns out or power goes off.

In Light Source: Energizes when light comes on; de-energizes when lamp fails or power goes off.

Y—Built-in Light Beam Intensity Adjustment.

*Available with built-in heating element at $7.50 extra.

DARK Energized—Plate relay energizes when light beam is interrupted; de-energizes when the light beam is restored, when a tube filament fails or any tube loses emission.

LIGHT Energized—Plate relay energizes when

continued in column 3

Each self-contained unit includes sensing element or lamp with lenses, transformers and other components for operation direct from electric power. The illustrations show Controls and Light power) specified Sources in pairs or sets to illustr their use. However any Control can used with any Light Source if the Li Source provides, at the installed tance, the minimum light (cand for the control.

S Series ON-OFF Controls

Rugged, industrial Photoelectric Controls, moderately sensitive, factory adjusted for use where object interrupts light beam 100%

Minimum dark time, .06 second; minimum light time, .06 seconds.

Plate Relay Contacts, SPDT, rated 8 amperes at 115 VAC non-inductive load.

Splashproof cast aluminum case with adjustable bracket; tapped for ½″ conduit.

Power consumption 10 watts.

S1A and S4A1 have ¾″ lens mounted in flexible neoprene—require 20 foot-candles minimum light.

S2A and S5A1 have 1½″ lens—require 10 foot-candles minimum light.

Energized		50-60 cycles	Net Each
Dark	Light	volts	
S1A	S4A1	115/230	$38.75
S1AR	S4A1R	115 or 230 (specify)	50.75
S2A	S5A1	115/230	45.00
S2AR	S5A1R	115 or 230 (specify)	57.00

F Series ON/OFF Controls

"Fail Safe", sensitive, high speed. Widely used where "safe" relay action is required in case of tube failure, where light change is limited, and where photo-tube dark time or light time is short. Special, quick response DC circuit permits speeds to 1200 operations (cycles) per minute. Sensitivity adjustment inside case inhibits tampering. Shaftlock secures setting.

Minimum light, 5 foot-candles. Minimum phototube dark time, .025 second; minimum phototube light time, .025 second.

Plate Relay: Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Splashproof cast aluminum case tapped for ½″ conduit. Rigid mounting feet. Lens dia. 1½″. 115/230 v., 50-60 cycles. Power 20 watts.

Energized		For 115/230 v., 50-60 Cycles	Net
†Dark	†Light	Description	Each
*F2B	*F1B	Photoelectric Control	$67.50
*F2BR	*F1BR	Above with R feature	79.50

A579 Transistor ON-OFF Control

Fast Acting, rugged industrial construction. Photoelectric Control.

.025 second light time; .025 second dark time (minimums).

Rugged, 8-ampere DPDT plug-in relay with transparent plastic enclosure.

No tubes. Cad Cell and Transistors replace tubes. Transistors protected from transient voltage. Cad Cell exceptionally well shielded from extraneous light by long lens tube and carefully designed mounting arrangement.

All components are securely mounted on modern printed circuit board.

All contacts of the 8-ampere DPDT Relay are wired to large, easily accessible screw type terminals, separated by high barriers.

Splashproof cast aluminum case with adjustable mounting bracket; tapped for ¾″ conduit. Power consumption; 5 watts. Maximum ambient operating temperature 115°F.

Relay de-energizing time delay easily added by user; instructions included with control.

Requires 5 foot-candles minimum light. Operates from 115 or 230 v (specify) 50-60 cycles. Power consumption, 5 watts.

A579 LIGHT-ENERGIZED Transistor ON/OFF Photoelectric Control..............NET each $58.00

L1A Light Source

Has ¾″ lens mounted in flexible Noepre Splashproof cast aluminum case tapped ½″ conduit. Adjustable mounting brac

Model	L1A	L1AY	L1AR	L1AR
Net each	$18.50	$23.50	$30.50	$35.

L2A Light Source

Has 1½″ lens mounted in a brass lens tu Splashproof cast aluminum case tapped ½″ conduit. Adjustable mounting bracket

Model No.	L2A	L2AY	L2AR	L2AR
Net each	$21.80	$26.80	$33.80	$38.

L4A Light Source

Has prefocused, two-filament lamp, extra l voltage connection and 1½″ OD strai fixed beam. The prefocused lamps permit placement with minimum change in the li beam. The dual filaments provide protect against shutdowns—when one filament f the other lights up and a signal light in housing comes on indicating that the la should be replaced as soon as convenie Splashproof cast aluminum case with ri mounting feet, taped for ½″ conduit.

L4 Light Source **Net each $4**

Model No.	FOOT CANDLES 20	10	5	2	Lens Dia-meter	NET each	Sh w lb
	DISTANCE IN FEET						
L1A	8	12	15	18	¾	$18.50	2.
L2A	13	20	30	45	1½	21.80	2.
L4	N7 L2	12 4	— 6	— 12	1½	49.50	8

L3A Light Source

Has 1½″ lens with light beam adjustme from a minimum focal length of 4¾″ a corresponding focal size of 5/16 x ¼″ to straight light beam of 1½″ O.D. Light o put at twice the focal distance exceeds foot-candles.

Increasing the focal length increases the foc size. For example at 6″ focal length the foc size is ½ x ⅜″ and at 12″ focal length t focal size is 1½″ (straight light beam).

Model No.	L3A	L3AY	L3AR	L3AR
Net each	$29.30	$34.30	$41.30	$46.3

Control and Light Source Sets

(practically any light source can be used with any cont

MODEL NUMBERS energized DARK	LIGHT	max. ft. between lenses	Min. Dark Time	Min. Light Time	Net per Set
S1A-L1A	S4A1-L1A	8	.06	.06	$57.2
S2A-L1A	S5A1-L1A	12	.06	.06	63.5
S2A-L2A	S5A1-L2A	20	.06	.06	66.8
S2A-L4	S5A1-L4	N 12 L 4	.06	.06	94.5
F2B-L1A	F1B-L1A	15	.025	.025	86.0
F2B-L2A	F1B-L2A	30	.025	.025	89.3
F2B-L4	F1B-L4	N — L 6	.025	.025	117.0
—	A579-L1A	15	.025	.025	76.5
—	A579-L2A	30	.025	.025	79.8
	A579-L4	N — L 6	.025	.025	107.5

continued from column 1

light beam is restored; de-energizes whe light beam is interrupted, when tube filame fails or any tube loses emission.

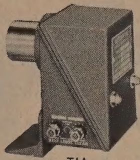
Specified minimum dark and light time ar based on the specified minimum foot-candle

AUTOTRON Photoelectric Controls

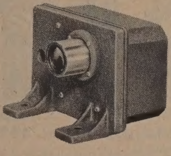
Self-Contained Photoelectric Timing Controls *(for Light Sources see preceding page)*

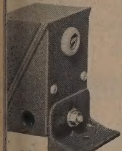
For applications requiring delayed plate relay response to light change, such as conveyor jam-up, spraying, processing, etc.

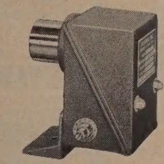
A
5 4 x 4 x 5-1/4


T1A
5-1/4 x 4 x 5-1/4

L2A


T2B, T3A, T5A
6 x 7-1/4 x 5-1/4


L1A
4 X 4 X 5-1/4


A579P
5-1/4 x 4 x 5-1/4

T1A Photoelectric Timing Control

Relay energizes DARK—unit times out DARK. Time delay with shaft lock adjustment from 1 to 10 seconds. Repeat accuracy 4%. Minimum light, 40 foot-candles. Plate relay: Contacts SPDT, rated 8 amps at 115 v. AC, non-inductive load. Splashproof aluminum case, tapped for ½″ conduit. Adjustable mounting bracket. Lens dia. 1½″. Power consumption, 10 watts. 115/230 v., 50-60 cycles.

T1A Photoelectric Timing Control. Net each $57.50

T2B, T3A and T5A Timing Controls

Plate Relay: Contacts DPDT, rated 8 amps at 115 v. AC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case tapped for ½″ conduit. Lens diameter 1½″. 115/230 v., 50-60 cycles. Power consumption 20 watts.

T2B Photoelectric Timing Control

Relay energizes LIGHT—unit times out with DARK. Repeat accuracy 3%. Minimum light 20 foot-candles.

Timing Ranges (specify)	Min. Light Time
No. 1 1. to 3. sec.	.2 sec.
No. 2 2.5 to 8. sec.	.4 sec.
No. 3 4. to 15. sec.	.8 sec.

T2B Photoelectric Timing Control. Net each $72.50
T2BR—Above with Safety Relay. . Net each 84.50

T3A Photoelectric Timing Control

Relay energizes LIGHT—unit times out with LIGHT. Timing accuracy, 2%. Minimum light 10 foot candles.

T3A and T5A Timing Ranges (specify)

No. 0.1	.03 to .3 sec.	No. 1.	.6 to 15 sec.
No. 0.2	.06 to 3. sec.	No. 2.	1. to 25 sec.
No. 0.5	.1 to 6. sec.	No. 2.5	1.5 to 50
		No. 3.	30. to 300.

T3A Photoelectric Timing Control. Net each $72.50
T3AR—Above with Safety Relay. . Net each $84.50

T5A Photoelectric Timing Control

Relay energizes DARK—unit times out with DARK. Timing accuracy 2%. Minimum light, 10 foot candles. Timing ranges—same as T3A (specify).

T5A Photoelectric Timing Control. Net each $82.50
T5AR—Above with Safety Relay. . Net each $94.50

A579P Transistor Timing Control.

Photoelectric—Relay energizes LIGHT—unit times out with DARK. Cad Cell and Transistors replace tubes. Plug-in plate relay, with plastic dust cover; Contacts DPDT, rated 8 amps at 115 VAC, non-inductive load. Time delay adjustment has shaft lock. Splashproof cast aluminum case with adjustable mounting bracket, tapped for ¾″ conduit. Repeat accuracy 4%. Power consumption, 5 watts.

Adjustable timing ranges (specify) {No. 4: .1 to 5 sec.
No. 2: 1. to 20 sec.

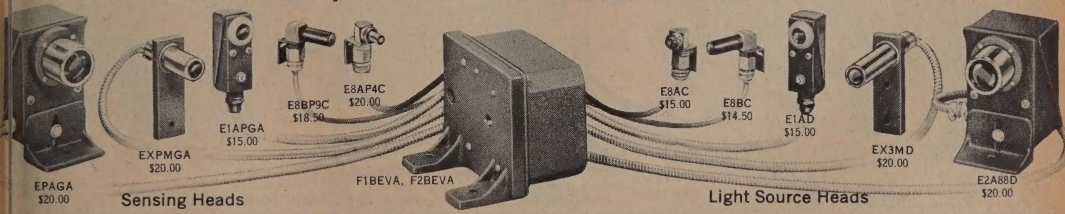
A579P Timing Control. . . . . Net each $67.00

Control and Light Source Sets

(practically any Light Source can be used with any Control)

Model Numbers	max. ft. between lenses	Min. dark time	Min. light time	Price per set.
T1A-L1A	5 ft	——	.5	$76.00
T1A-L2A	10 ft	——	.5	79.30
T3A-L1A	12 ft	.005	——	91.00
T3A-L2A	20 ft	.005	——	94.30
T5A-L1A	12 ft	——	.005	101.00
T5A-L2A	20 ft	——	.005	104.30
T2B-L1A	8 ft	——	.4	91.00
T2B-L2A	13 ft	——	.4	94.30
A579P-L1A	15 ft	——	.5	85.50
A579P-L2A	30 ft	——	.5	88.80

F Series Photoelectric ON/OFF Controls with Remote Sensing and Light Source Heads



eries ON/OFF Controls have a special ick response DC circuit which permits eeds to 1200 operations per minute. nsitivity adjustment inside case inhibits npering. Shaft lock secures setting.

ate Relay: Contacts DPDT, rated 8 ps at 115 VAC, non-inductive load. lashproof cast aluminum case, tapped ½″ conduit. Power consumption, 20 tts.

DIMENSIONS

F1BEVA, F2BEVA	6 x 7-1/4 x 5-1/4
EPAGA, E2A88D	5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD	3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC	2-3/4 x 7/8 x 1-1/8
E8AP4C, E8AC	2 x 7/8 x 1-1/8

Model Number	Max. ft. between heads	Min. dark time	Min. light time	Price	With R Feature		Ship. Wt. lbs.
Control Sensing Head Light Source					Model Number	Price	
LIGHT ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)							
F1BEVA-EPAGA-E2A88D	30	.025	.025	$117.50	F1BEVAR-EPAGA-E2A88D	$129.50	12
F1BEVA-E1APGA-E1AD	5	.025	.025	107.50	F1BEVAR-E1APGA-E1AD	119.50	9
F1BEVA-EXPMGA-EX3MD	focused	.025	.025	117.50	F1BEVAR-EXPMGA-EX3MD	129.50	9
F1B4EVE-E8AP4C-E8AC	1⅛	.05	.025	112.50	F1B4EVER-E8AP4C-E8AC	124.50	9
F1B4EVF-E8BP9C-E8BC	12	.025	.025	110.50	F1B4EVFR-E8BP9C-E8BC	122.50	9
DARK ENERGIZED F Series Controls with Sensing and Light Source Heads (115/230 V, 50-60 C)							
F2BEVA-EPAGA-E2A88D	30	.025	.025	117.50	F2BEVAR-EPAGA-E2A88D	129.50	12
F2BEVA-E1APGA-E1AD	5	.025	.025	107.50	F2BEVAR-E1APGA-E1AD	119.50	9
F2BEVA-EXPMGA-EX3MD	focused	.025	.025	117.50	F2BEVAR-EXPMGA-EX3MD	129.50	9
F2B4EVE-E8AP4C-E8AC	1⅛	.05	.025	112.50	F2B4EVER-E8AP4C-E8AC	124.50	9
F2B4EVF-E8BP9C-E8BC	12	.025	.025	110.50	F2B4EVFR-E8BP9C-E8BC	122.50	9

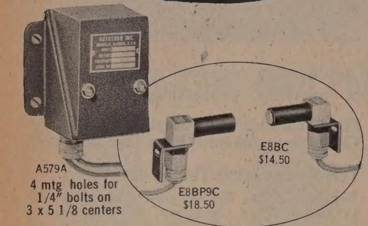
odels F1BEVA and F2BEVA have connections for operating remote nsing and remote light source heads.

he Sensing and Light Source Heads are listed in "matched" pairs. owever, either light source may be used with either sensing head provided the light source has sufficient foot candle output at the installed distance.

Each AUTOTRON Remote Sensing Head and Light Source Head is equipped with 6-foot connecting cable.

AUTOTRON Photoelectric Controls

A579A Transistor Photoelectric ON/OFF Control with Remote Hea



Furnished wired to E8BP9C Photo Cell Sensing Head and E8BC Light Source Head, with 6-foot cable to each head. Max. distance between heads, 12 feet. Minimum light time, .025 second; Minimum dark time, .025 second. LIGHT-energized. Rugged, 5-ampere plug-in DPDT Relay with transparent cover.

Cad Cell and transistors instead of tubes.

Transistors protected from transient voltage.

Cad Cell exceptionally well shielded from extraneous light.

All circuit components securely mounted on a modern printed circuit board.

All contacts of the DPDT Relay wired t large easily accessible screw type terminal with high barriers.

Splash-proof, cast aluminum case, tapped fo ¾" conduit.

Power consumption—5 watts.

Time delay easily added by user.

AUTOTRON No. 650 Control Pack Net each $87.8 (includes A579A ON/OFF Control wit E8BP9C and E8BC Remote Heads and cor necting cables.)

P-204 E8B Infrared Filter Assembly. . . . Net 3.4

A725 Transistor Photoelectric ON/OFF Control and A750 Timing Control with remote heads

EPAGA
$20.00
EXPMGA
$20.00
E1APGA
$15.00
E8BP9C
$18.50
E8AP4C
$20.00
Sensing Heads
A725, A750
E8AC
$15.00
E8BC
$14.50
E1AD
$15.00
EX3MD
$20.00
E2A88D
$20.00
Light Source Heads

The A725 On/Off Control and A750 Timing Control have the same case.

Both have rugged, 5-ampere DPDT Plug-in Relay with plastic dust cover.

Both have Cad Cell and Transistors instead of tubes.

Both have Transistors protected from transient voltage and Cad Cell exceptionally well shielded from extraneous light.

Both have all circuit components securely mounted on a modern printed circuit board.

Both have all contacts of the DPDT Relay wired to large, easily accessible, screw type terminals.

Both may be changed from DARK to Light or Light to DARK energized by moving a single connection.

Both operate at ambient temperatures to 115°F.

Both can be furnished in JIC enclosures at $12.50 extra. Both are equipped to operate remote sensing and light source heads.

A725 ON/OFF Control

Sensitive and fast acting. Approximately .025 second light time and .025 second dark time (minimum). Power consumption, 15 watts. Sensitivity adjustment has shaft lock.

A725 ON/OFF Control without heads. . . . . net each $69.50

A750 Timing Control

Almost instant re-cycle time (.015 second) and re-cycle time is independent of the light level on the sensing cell. The timing control is voltage regulated and variation in timing between 100 and 130 volts is negligible.

When connected to LIGHT terminals, relay energizes LIGHT—unit times out with DARK.

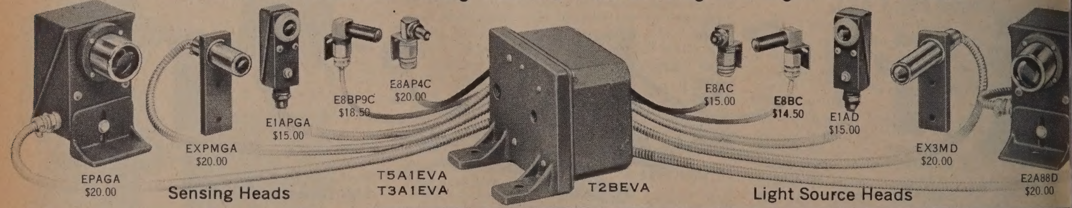
When connected to DARK terminals, relay energizes DARK—unit times out with LIGHT.

A750 Timing Control without heads. . . . . . net each $88.00

MODEL NUMBERS control sensing head light source	max. ft. between heads	NE pe Se
A725 ON/OFF Control (.025 sec. li time and .025 sec. dark time, minimum)		
A725-E8AP9LC-E8AC	2	$104
A725-E8BP91C-E8BC	30	102
A725-EXPM9LC-EX3ME	70	109
A725-E1AP6LC-E1AE	60	104
A725-EPA9LC-E2A88E	150	109
A725-EPA9LC-E4BE	24	127
A750 Timing Control (.015 sec. recy time)		
A750-E8AP9LC-E8AC	1	123.
A750-E8BP91C-E8BC	15	121.
A750-EXPM9LC-EX3ME	35	128.
A750-E1AP6LC-E1AE	30	123.
A750-EPA9LC-E2A88E	75	128.
A750-EPA9LC-E4BE	12	146.

Other Sensing and Light Source Head cor nations are practical when needed.

T Series Photoelectric Timing Controls with Sensing and Light Source Heads



T Series Controls are built for heavy Duty Industrial Service. Plate Relay Contacts: DPDT, Silver Cadmium Oxide, rated 8 amps at 115 VAC, non-inductive load.

Time Delay adjustment with shaftlock, inside case.

Timing Ranges same as self-contained models, page 2. H Feature available with all models—to order add Suffix "H" to Model Number and $7.50 to price.

The Sensing and Light Source Heads are listed in matched pairs for convenience. Other combinations are practical when required.

DIMENSIONS

A579A	6 1/4 x 3-1/2 x 5-1/2
A725, A750	8-3/8 x 4-1/4 x 10-3/8
T5A1EVA, T3A1EVA, T2BEVA	6 x 7-1/4 x 5-1/4
EPAGA, E2A88D	5-1/4 x 4 x 5-1/4
EXPMGA, EX3MD	3-3/4 x 1-1/2 x 4-3/4
E8BP9C, E8BC	2-3/4 x 7/8 x 1-1/8
E8AP4C, E8AC	2 x 7/8 x 1-1/8

Model Number Control Sensing Head Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	With R Feature Control Sensing Head Light Source	With R Feature Price	Shi W Lb
DARK-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)							
T5A1EVA-EPAGA-E2A88D	23	delay	.005	$132.50	T5A1ERVA-EPAGA-E2A88D	$144.50	11
T5A1EVA-E1APGA-E1AD	5	delay	.005	122.50	T5A1ER VA-E1APGA-E1AD	134.50	9
T5A1EVA-EXPMGA-EX3MD	5	delay	.005	132.50	T5A1ERVA-EXPMGA-EX3MD	144.50	9
T5A4EVE-E8AP4C-E8AC	1.2	delay	.01	127.50	T5A4ERVA-E8AP4C- E8AC	139.50	9
T5A4EVF-E8BP9C-E8BC	5	delay	.005	125.50	T5A4ERVF-E8BP9C-E8BC	137.50	9
LIGHT-ENERGIZED—ENERGIZE DELAY (115/230 V, 50-60 C)							
T3A1EVA-EPAGA-E2A88D	23	.005	delay	$132.50	T3A1ERVA-EPAGA-E2A88D	$144.50	11
T3A1EVA-E1APGA-E1AD	5	.005	delay	122.50	T3A1ERVA-E1APGA-E1AD	134.50	9
T3A1EVA-EXPMGA-EX3MD	5	.005	delay	132.50	T3A1ERVA-EXPMGA-EX3MD	144.50	9
T3A4EVE-E8AP4C-E8AC	1.2	.05	delay	127.50	T3A4ERVA-E8AP4C- E8AC	139.50	9
T3A4EVF-E8BP9C-E8BC	5	.025	delay	125.50	T3A4ERVF-E8BP9C-E8BC	137.50	9
LIGHT-ENERGIZED—DE-ENERGIZE DELAY (115/230 V, 50-60 C)							
T2BEVA-EPAGA-E2A88D	16	delay		$122.50	T2BERVA-EPAGA-E2A88D	$134.50	11
T2BEVA-E1APGA-E1AD	3	delay	See	112.50	T2BERVA-E1APGA-E1AD	124.50	9
T2BEVA-EXPMGA-EX3MD	3	delay	Chart	122.50	T2BERVA-EXPMGA-EX3MD	134.50	9

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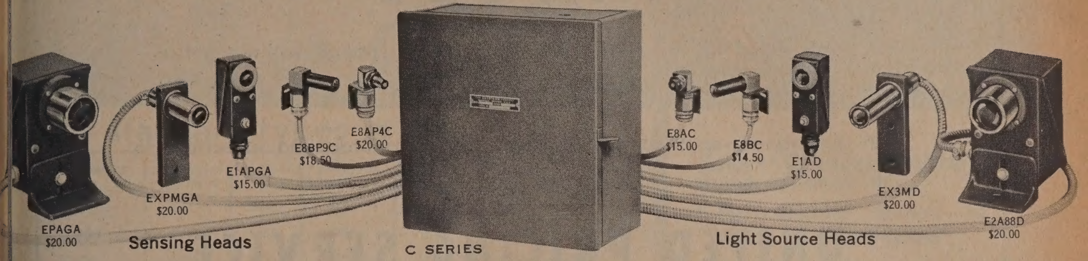
AUTOTRON Photoelectric Controls

C-Series Impulse Actuated Photoelectric Timing Controls



C Series Controls are triggered (ENERGIZED) by electric impulses. De-Energizing is controlled by adjustable time delay—the relay remains energized through the timing period for which the control is set. DARK-energized Controls time out with LIGHT; LIGHT-energized Controls time out with DARK.

When the "ENERGIZING" light change occurs *before the timing period expires* the relay remains energized through another complete timing period.

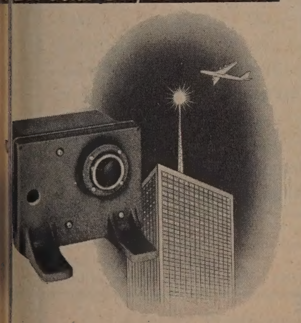
Quick "Light Change" is required. Objects should travel at near 60 feet per minute (unless specified). Timing repeat accuracy, 1%. Power consumption, 20 watts.

Plate Relay: SPDT contacts rated 15 ampere at 115 VAC, non-inductive load.

Timing Range Numbers	0.6	1	2	3
Timing Range in Seconds	.05 to .5	0.1 to 1.0	0.5 to 5.0	1.0 to 10.0

Model Number Control	Sensing Head	Light Source	Max. Ft. Between Heads	Min. Dark Time	Min. Light Time	Price	Ship. Wt. Lbs.
DARK-ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C3V-ERAGB-E2A88D			13	.00001	.001	$197.00	19
C3V-E1APGB-E1AD			10	.00001	.001	187.00	16
C3V-EXPMGB-EX3MD			10	.00001	.001	197.00	17
C3403V-E8AP403C-E8AC			1⅙	.00001	.001	192.00	16
C3403V-E8BP9C-E8BC			4	.00001	.001	190.00	16
LIGHT ENERGIZED — DE-ENERGIZE Delay (115/230 V, 50-60 C)							
C4V-EPAGB-E2A88D			13	.001	.00001	$197.00	19
C4V-E1APGB-E1AD			10	.001	.00001	187.00	16
C4V-EXPMGB-EX3MD			10	.001	.00001	197.00	17
C4403V-E8AP403C-E8AC			1⅙	.001	.00001	192.00	16
C4403V-E8BP9C-E8BC			4	.001	.00001	190.00	16

BX Solar ON/OFF Control



matically turns lights "ON" at preset value—and turns lights "OFF" when exceeds preset value.

T Control Relay energizes when light eds intensity for which control is set; ergizes when light falls below the t level.

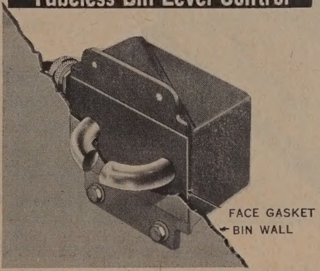
se of tube failure the relay de-ener-; providing same control action as light falls below preset level.

Time Delays prevent operation by r momentary light flashes or shadows. ern, simple circuitry uses one rugged, ium type power tube. Light intensity stment from outside of housing. Gas-ealed cast aluminum housing, tapped ½" conduit. For 115/230 v, 50-60 c. lable with three adjustment ranges:

2BX-.2; 1 to 5 fc for street lighting, parking lots
2BX-.5; 15 to 50 fc for signs, parking lots
2BX-1; 20 to 150 fc for obstruction or tower lights

Solar Control (all models) Net $76.95

Tubeless Bin Level Control

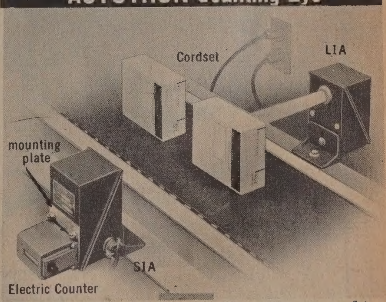


Tubeless Photoelectric actuation — unaffected by pressure of material in the bin. Only rigid, non-moving Lucite probes project into the bin. Cast aluminum, gasket-sealed housing mounts to bin wall as shown. Removal of cover makes all parts accessible. Dust-covered plug-in DPDT 8-ampere relay provides ON/OFF control for either high or low bin level. All wiring connections brought out of case in 3-foot oil proof cable. For 115/230V, 50-60 C.

A700 Bin Level Control..... Net each $68.00

(Includes 3-foot cable, face gasket and mounting template)

AUTOTRON Counting Eye

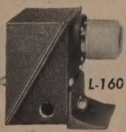


Counts anything—Automatically—without touching the object. Each object must interrupt the light beam .06 second or more. Space between objects must permit restoration of the light beam .06 second or more. Max. distance between lenses, 8 feet.

Counting Eye Components	
S1A Photoelectric Control (see page 1)	$38.75
L1A Light Source (see page 1)	18.50
Cordset: two 6-foot rubber covered cords with plugs and attachment clamps	2.50
Plate and hardware for mounting counter (4 mounting holes on 3-15/16 x 1-23/64" centers)	1.50
CE-600AS602 Electric Counter (6-digit, knob reset)	$21.40

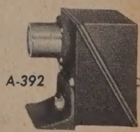
A-138 Counting Eye 115 v., 50-60 c ... **Net each $89.05**
(includes above items wired ready to plug in.)

Photoelectric Controls with Infrared Light Beams


L-160

For burglar alarms, safety applications, etc. Controls and Light Sources are designed for use in pairs as listed.

CONTROL		LIGHT SOURCE		Max. ft.	CONTACTS		Ship.
No.	Net Each	No.	Net Each	between lenses	combination	Rating amps.	wt. lbs.
A392	$52.50	L-160	$30.65	15	SPDT	8	5½
A435	83.50	L-148	46.50	50	DPDT	10	14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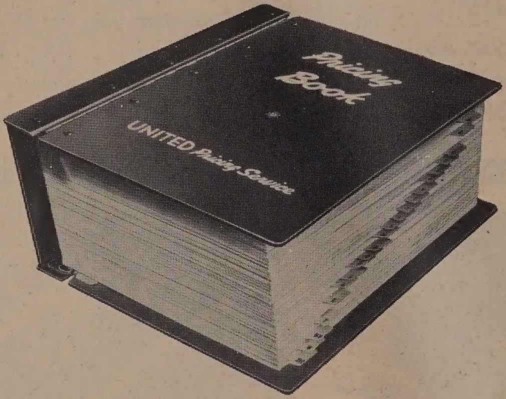

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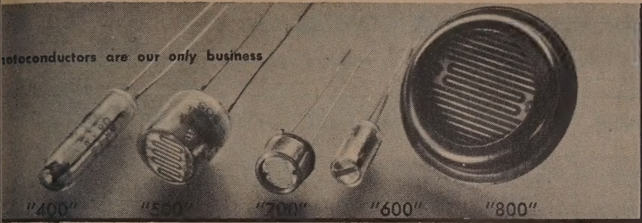

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5 Series in Glass or Metal
. . . TO MEET MOST DESIGN NEEDS !

25 standard types in glass . . . Plus*

CL Cell #	Sensitive Material	Enclosure (inches)	Pk. Spectral Response, A	Light Resistance[1]	Voltage Rating (Max.)	Power[4] (MW)
CL402	CdS	.265x1	5150	1M	300	75
CL402S[5]	CdS	.265x1	5150	1M	300	75
CL403	CdSe	.265x1	7350	133K	300	75
CL403S[5]	CdSe	.265x1	7350	133K	300	75
CL403A	CdSe	.265x1	7350	75K	300	75
CL403AS[5]	CdSe	.265x1	7350	75K	300	75
CL403ASL[5]	CdSe	.265x1.	7350	3.5K	60	75
CL404	CdSe	.265x1	6900	30K	300	75
CL404S[5]	CdSe	.265x1	6900	30K	300	75
CL404SL[5]	CdSe	.265x1	6900	1.5K	60	75
CL407	CdS	.265x1	6150	133K	300	75
CL407S[5]	CdS	.265x1	6150	133K	300	75
CL504	CdSe	.5x.5	6900	1.5K	250	500-250[2]
CL504L	CdSe	.5x.5	6900	0.25K	60	500-250[2]
CL505	CdS	.5x.5	5500	9K	250	500-250[2]
CL505L	CdS	.5x.5	5500	1.5K	60	500-250[2]
CL602[3]	CdS	.25x.5	5150	1M	300	75
CL603[3]	CdSe	.25x.5	7350	133K	300	75
CL603A[3]	CdSe	.25x.5	7350	75K	300	75
CL603AL	CdSe	.25x.5	7350	3.5K	60	75
CL604[3]	CdSe	.25x.5	6900	30K	300	75
CL604L	CdSe	.25x.5	6900	1.5K	60	75
CL605	CdS	.25x.5	5500	166K	300	75
CL605L	CdS	.25x.5	5500	7.5K	60	75
CL607[3]	CdS	.25x.5	6150	133K	300	75

Operating temperature, all types, +50 to −75° C.

[1] DC resistance measured at 2 foot-candles, 2870° K. and 25° C ambient. (± 33⅓%)

[2] With and without heat sink.

[3] Designed to replace previous plastic types. [4] At 25° C ambient. [5] S denotes side view cell.

Salient Charactertistics:

- Hermetically Sealed in Glass or Metal-Glass.
- A variety of Spectral Response and Resistance.
- Low Resistance "L" types for Transistor and other low voltage applications.
- The High Sensitivity and Fast Response of Cadmium Selenide.
- High Ratio of Light to Dark Current at low light levels.
- Stable and closely controlled Parameters.
- NEW ! . . . Custom "700" Series in short, TO-5 Case; includes useful Twin-Element types.
- NEW ! . . . Custom "800" Series with Power Dissipation to several watts, continuous.

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*Two new Clairex custom, metal Series, "700" and "800", now available on special order; the three standard glass Series are still generally available through your local distributor from stock. If not, call or write our New York office for direct and immediate service, or contact our technical representative in your area.

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Write for Engineering Bulletins on these items or on any requirements not shown here.

EXCITER LAMP & PHOTO-CELL RECEIVER

The Exciter Lamp unit is designed to project the light beam and the Photo-Cell Receiver is designed to pick up the beam and convert its light into electrical energy through the Amplifier unit.

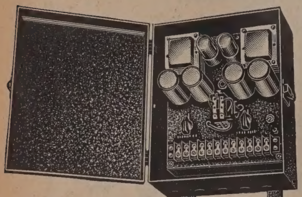
Model 33

Model 23

For Use With Amplifiers Nos. 63, 63-A, 63-B, 63-C and No. 64 Listed Below

Model 33 Exciter Lamp and Model 23 Photo-cell Receiver units operate as a Set most generally installed for industrial applications. The light beam from the Model 33 series Exciter Lamps covers a distance of from a few inches up to 25 ft. from unit to unit. (See Price List for distances of various models). The Set is heavy cast iron with ½ in. conduit fittings. Gray finish. For use in damp areas, the Set can be made moisture-proof at slight additional cost.

Model No.	Description	Size, Inches	Price, Each
33	Exciter Lamp Unit	4¼ x 2¾ x 2¾	$19.50
23	Photo-Cell Receiver	4¼ x 2¾ x 2¾	22.50



MODEL 63 SERIES AMPLIFIERS

(Electronically Operated Relays)

Size: 9¼" x 11½" x 5"

Insure Positive and Accurate Performance

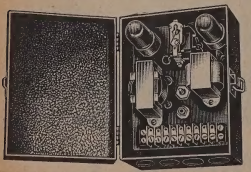
Especially designed for use with the above combination of standardized Worner Photo-Cell and Exciter Lamp units shown. The relay under normal conditions will operate up to 650 times a minute. Will operate also from light sources such as daylight, artificial lights, radiant energy, etc.

MODEL 63 Series Amplifiers are specially engineered, highest quality units. They enjoy wide preference as they efficiently meet exacting requirements and replace the need of costly individually engineered equipment. For technical details, please address the factory.

	Price, Each
Model 63, Described Above	**$117.00**
Model 63-A, combines Model 63 and Time Delay Circuit giving delay from zero to 45 seconds	**134.10**
Model 63-B, same as Model 63 with additional amplification to operate on less active change of light	**141.30**
Model 63-C, same as Model 63 but operates with "on" light	**117.00**

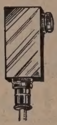
MODEL 64 AMPLIFIER

An efficient unit for practically any industrial applications that do not require fine detection and where the Relay is not required to operate in excess of 450 times a minute. (For fine detection at greater speeds, we recommend a choice of Model 63 series.)



Model 64 Amplifier .... **ea. $67.35**

"MINIATURE" FOTOLECTRIC HEADS



Exciter Lamp

Model M-36

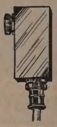


Photo-Cell Receiv

Model M-26

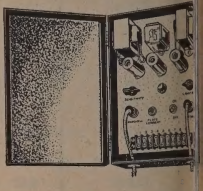
For horizontal installation, order Models M-37 and M-27

Size 1¼" x ¾" x 2½" for space limitations. One-piece solid alumin machined for components. Pin-point detection on cross-over beam at tances from 3" to 12". Directional beam supervises objects 1" or larger distance up to 8 ft. Operates up to 10,000 counts per minute with Mo 66-A below. Units equipped with 6 ft. of cable with prong-type posi connectors. For guaranteed efficiency, Miniature Heads should be u only with Amplifiers described below.

Model M-36 Vertical Exciter Lamp	**$24**
Model M-26 Vertical Photo-cell Receiver	**28**
Model M-37 Horizontal Exciter Lamp	**24**
Model M-27 Horizontal Photo-cell Receiver	**28**

MODEL 66 SERIES AMPLIFIERS

Use With Miniature Heads



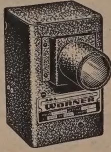
Speeds shown below are based upon "on" and "off" periods being equal. Model 66, double-pole, double-throw relay with contact rating of 110 v. 60 cy. a.c., 10 amps. non-inductive, 5 amps. inductive. Light beam intensity control.

Model 66-A Amplifier, for use with ultra high speed electronic dec counters. Accurate counts of light beam interruption or variation intensity up to 10,000 counts per minute ....**Each $138**

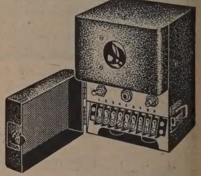
Model 66 Amplifier, same as Model 66-A except that it operates up 900 counts per minute ....**Each $131**

Model 67 Amplifier, for applications where fine detection at high speed not a factor or Relay is not required to operate in excess of 450 ti per minute ....**Each $69**

TWO-UNIT SET for INDOOR USE
Model 62 R & L



Model 62-L
Exciter Lamp



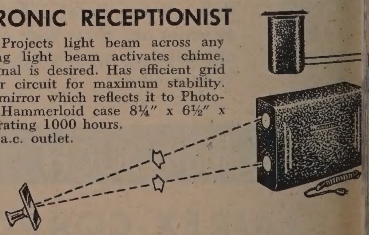
Model 62-R
Amplifier

This Amplifier unit includes Photo-Cell, Relay and Components. Effic for distances from a few inches to 75 ft., where Relay is not require operate in excess of 400 times a minute, such as: Counting, sorting la objects; limit switches; start, stop operations; opening doors, etc.

Model 62 R & L "Two-Unit Set" ....**Per Set $82**

THE ELECTRONIC RECEPTIONIST

Three-piece set. Projects light beam across any entrance. Breaking light beam activates chime, located where signal is desired. Has efficient grid controlled rectifier circuit for maximum stability. Projects beam to mirror which reflects it to Photo-cell in the unit. Hammerloid case 8¼" x 6½" x 3¾". Lamp-life rating 1000 hours. Plugs into 110 v.a.c. outlet.



Model 61 Fotolectric Announcer, ...**Per Set $4**

Prices slightly higher West of Rockies

WORNER BURGLAR ALARM SYSTEMS

Write for Engineering Bulletins on these items or on any requirements not shown here.

DEL 9000 SERIES This is the Worner Master Control System. It con-
f the Model 9000-S Master Control Panel which supervises 1, 2, 3 or 4 Foto-
Sets of Model No. 9000 series shown. Each Fotolectric Set consists of Exciter
and Photo-cell Receiver chosen in pairs for distance to be covered. Fotolectric
re located for detection. Control Panel remotely installed, contains Relays which
ze alarm circuits.

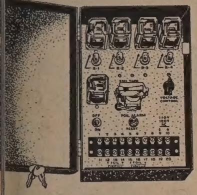


Illustration shows four Relay units plugged in to show plug-in location for 1, 2, 3 or 4 Relays as needed. Model 9000-S Master Control Panel is priced "less Relays". One Relay unit is automatically supplied with each Model No. 9000 series Fotoelectric Set ordered.

SIZE: 7" wide, 10¼" hi., 4⅜" dp.

DEL 9000-S MASTER CONTROL PANEL supervises up to
Fotolectric Sets. On a separate circuit, it will also supervise foil tape,
traps and window switch systems. Both circuits operate independently and
taneously. Sounds continuous alarm (until reset) when either of these
ion circuits is opened or wiring of Fotolectric system is tampered with.
l 9000-S Master Control Panel prevents false
s should power fail or drop momentarily and
automatically when power is restored. Also
tes with any type electrical devices employed by
sional burglar alarm companies. For 110-120 v.
) cy. ac.

l 9000-S Master Control Panel ......each, $61.05

OLECTRIC SETS Models for 100 and 150
nges are not weatherproof, for indoor use only.
ls for 75, 250 and 500 ft. ranges are weather-
, for both indoor and outdoor use. Exciter Lamps
l ranges project infra-red (invisible) light beams.
for 75, 150, 250 and 500 ft. ranges have un-
ed light rejector which improves day-light range.

l No.	Range	Fotolectric Set	Per Set
00	100 ft.	Master Tresp. Trap	$ 96.00
50	150 ft.	Master Tresp. Trap	112.50
75	75 ft.	Master Tresp. Trap	118.50
50	250 ft.	Master Tresp. Trap	130.80
00	500 ft.	Master Tresp. Trap	146.25

DEL 7000 SERIES operates with burg-
larm company's central office control, police sig-
r local alarm. The Relay may be connected either
ries or parallel to meet circuit requirements. One
ore Fotolectric Sets of No. 7000 series can be
and can be operated by an existing control panel.
be used with foil systems, etc., if Control Panel
equipped. For 110-120V or 24V.

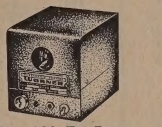
el No.	Range	Fotolectric Set	Per Set
100	100 ft.	Central Cont. Tresp. Trap	$ 96.00
150	150 ft.	Central Cont. Tresp. Trap	112.50
75	75 ft.	Central Cont. Tresp. Trap	118.50
250	250 ft.	Central Cont. Tresp. Trap	130.80
500	500 ft.	Central Cont. Tresp. Trap	146.25

DEL 5000 SERIES is a TWO-PIECE
comprising No. 5000 series Fotolectric sets. For
ft. and 150 ft. ranges for interior use only where
ngle beam is ample protection. Not intended for
with foil systems, etc. Equipped with lock and key.
V.

del No.	Range	Fotolectric Set	Per Set
100	100 ft.	Single Beam Tresp. Trap	$ 96.00
150	150 ft.	Single Beam Tresp. Trap	112.50

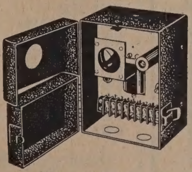
FOTOLECTRIC SETS

Same cases house different components. Order by Model Number of Series desired.

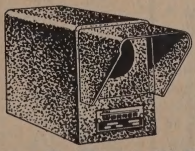


For 100 Ft. Ranges Exciter Lamps and Photo-cell Receivers have matching cases.

For 150-Ft. Range Exciter Lamp



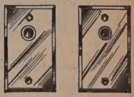
For 150-Ft. Range Photo-cell Receiver



For 75, 250 and 500-Ft. Ranges, all units are Weatherproof. Exciter Lamps and Photo-cell Receivers are externally the same.

"MINIATURE" FOTOLECTRIC BURGLAR ALARM

"In-Wall" Concealment



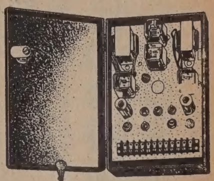
Light Source and Photo-cell Receiver units concealed in light-switch type face plates. Projects invisible light beam ranging up to 35 feet (indoors). Standard size wall plates concealing Fotolectric detection units are high finish stainless steel. Light bulb rated 2000 hours. For guaranteed efficiency Fotolectric sets must be used only with specially engineered amplifiers listed below.

Model 81	"In-Wall" Light Source, each	$21.18
Model 82	"In-Wall" Photo Cell Receiver, each	22.92

MODEL 80 SERIES AMPLIFIERS

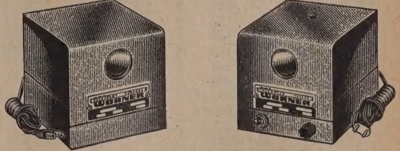
Use With Above Fotolectric Units

Two specially engineered units. Circuits with no-voltage control relay prevent false alarms due to line voltage irregularities and will sound alarm if tampered with. Standard alarm continuous, regulated warning signal "special" upon order. For 110, 120 volts, 60 cycle, a.c.



Model 86-1 is a single channel Amplifier Panel that will amplify current flow of one Fotolectric Set. **each $115.50**

Model 86-2 is a dual channel Amplifier Panel that will amplify current flow of two Fotolectric Sets, each installed to guard a separate area. Will also supervise one Fotolectric Set where amplification is provided for future addition of a second Fotolectric Set, **each $178.50**



THE TWO-UNIT WORNER WATCHMAN

Exciter Lamp is equipped with removable infra-red filter. Provides invisible light beam ranging up to 50 ft. The Electronically Operated Relay combines Photo-cell and electrical components. Equipped with toggle switch for either continuous alarm or to sound only while light beam is broken. Extraneous light rejector maintains daylight range. Two-piece case construction enables removal of cover without unmounting. Identical cases 5" x 5" x 5½" welded steel, mahogany hammerloid finish. For indoor use; 110-120V. 60 cycle A.C.

Model 4000 Two Unit Watchman ....per set $63.00

MORE THAN FIFTY STOCK UNITS

comprise the Worner line. For more information on Industrial Control, Burglary, Automatic Lighting, Fire Protection, etc., please write or phone your wholesaler. Catalogs and Engineering Bulletins available from the factory on request.

FOTOLECTRIC FIRE PROTECTION

SMOKE DETECTION For institutions, schools, hospitals, hotels, etc., where fire originating in or drawn into ventilating or air conditioning ducts are fan driven to a succession of uncontrollable outbreaks throughout building. The Worner Fan Motor Stop installed on air duct minimizes this hazard by early detection, automatic stopping of fan and signaling of alarm. Meets requirements of National Board of Fire Underwriters and listed by Underwriters Laboratories. Write for Bulletin 650.

Also request data on "Fotolectric Fire Protection in Space Areas".

Prices slightly higher West of Rockies

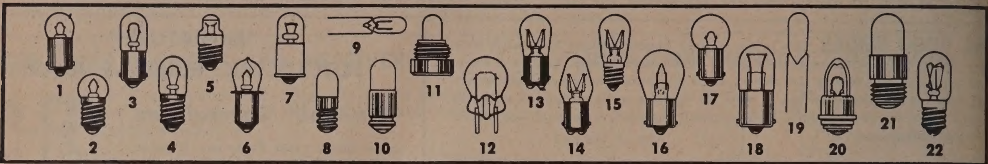
CHICAGO MINIATURE LAMPS

—backed by over 50 years experience in standard and special lamp design.

The list below merely represents a few of our most popular lamps. Specifications and engineering data covering all standard and special lamps available on request.

For proved dependability always ask us for Chicago Miniature Lamps.

CHICAGO MINIATURE LAMP WORKS, CHICAGO 40, ILL.



PANEL, INDICATOR, RADIO and COIN MACHINE LAMPS

Lamp No.	Bulb	Base	Fig.	Volt	Amps or Candle-Power	Hrs. Life	Net Each	Lot of Ten
43	T-3¼	Min. Bay	3	2.5	.50	3000	$ .15	$ .92
44	T-3¼	Min. Bay	3	6.3	.25	3000	.15	.92
46	T-3¼	Min. Scr.	4	6.3	.25	3000	.15	.92
47	T-3¼	Min. Bay	3	6.3	.15	3000	.15	.92
48	T-3¼	Min. Scr.	4	2.0	.06	1000	.15	.92
49	T-3¼	Min. Bay	3	2.0	.06	1000	.15	.92
50	G-3½	Min. Scr.	2	7.5	.25	500	.15	.92
51	G-3½	Min. Bay	1	7.5	.22	1000	.15	.92
52	G-3½	Min. Scr.	2	7.5	.22	1000	.25	1.53
53	G-3½	Min. Bay	1	14.4	.12	1000	.15	.92
55	G-4½	Min. Bay	1	7.0	.41	500	.15	.92
57	G-4½	Min. Bay	1	14.0	.24	1000	.15	.92
57X	G-4½	Min. Bay	1	14.0	.24	1000	.20	1.22
63	G-6	S.C. Bay	17	7.0	.63	1000	.20	1.22
63L	G-6	S.C. Bay	17	7.0	.79	L	.50	3.06
81	G-6	S.C. Bay	17	6.5	1.02	500	.25	1.53
1458	G-5	Min. Bay	17	20.0	.25	250	.20	1.22
1489	T-5	S.C. Bay	18	6.5	2.75	125	2.45	15.00
1490	T-3¼	Min. Bay	3	3.2	.16	3000	.17	1.04
1618	S-8	D.C. Bay	16	6.4	21 C.P.	200	.70	4.28
1648	S-8	D.C. Bay	16	8.0	21 C.P.	200	.70	4.28
1815	T-3¼	Min. Bay	3	14.0	.20	3000	.20	1.22
1822	T-3¼	Min. Bay	3	36.0	.10	1000	.60	3.67
1847	T-3¼	Min. Bay	3	6.3	.15	L	.20	1.22
1866	T-3¼	Min. Bay	3	6.3	.24	L	.20	1.22
1891	T-3¼	Min. Bay	3	14.0	.24	500	.17	1.04
1892	T-3¼	Min. Bay	3	14.0	.12	L	.25	1.53

FLASHLIGHT AND LANTERN LAMPS

PR-2	B-3½	Min. Flgd.	6	2.4	.50	15	.20	1.22
PR-3	B-3½	Min. Flgd.	6	3.6	.50	15	.20	1.22
PR-4	B-3½	Min. Flgd.	6	2.3	.27	10	.20	1.22
PR-6	B-3½	Min. Flgd.	6	2.5	.30	30	.20	1.22
PR-7	B-3½	Min. Flgd.	6	3.8	.30	30	.20	1.22
PR-12	B-3½	Min. Flgd.	6	6.0	.50	15	.20	1.22
PR-13	B-3½	Min. Flgd.	6	4.75	.50	15	.20	1.22
13	G-3½	Min. Scr.	2	3.8	.30	15	.17	1.04
14	G-3½	Min. Scr.	2	2.5	.30	15	.17	1.04
27	G-4½	Min. Scr.	2	5.0	.30	30	.17	1.04
31	G-4½	Min. Scr.	2	6.15	.30	15	.20	1.22
112	TL-3	Min. Scr.	5	1.1	.22	5	.17	1.04
123	G-3½	Min. Scr.	2	1.2	.30	10	.17	1.04
222	TL-3	Min. Scr.	5	2.2	.25	5	.17	1.04
425	G-4½	Min. Scr.	2	5.0	.50	15	.17	1.04
502	G-4½	Min. Scr.	2	5.1	.15	100	.17	1.04

SMALL STANDARD VOLTAGE LAMPS

Lamp No.	Watts	Bulb	Fig.	Base	Voltage	Net Each	Lot of Ten
3S-6/5	3	S6	—	Canda.	110-125	$.39	$2.70
6T4½/1	6	T-4½	4	Canda.	110-125	.70	4.90
6S6	6	S-6	15	Canda.	110-125	.22	1.50
6S6/D.C.	6	S-6	13	D.C. Bay	110-125	.33	2.30
7C7	7	C-7	22	Canda.	110-125	.22	1.50
10C7	10	C-7	22	Canda.	110-125	.27	1.90
10C7/D.C.	10	C-7	14	D.C. Bay	110-125	.29	2.10
10S6/10	10	S-6	15	Canda.	230-250	.52	3.60
10S6/D.C.	10	S-6	13	D.C. Bay	230-250	.67	4.70

AIRCRAFT AND SPECIAL LAMPS

Lamp No.	Bulb	Base	Fig.	Volts	Amps or Candle-Power	Hrs. Life	Net Each	Lot of Ten
301	G-5	S.C. Bay	17	28	3 C.P.	500	$ .40	$2.44
302	G-5	D.C. Bay	17	28	3 C.P.	500	.40	2.44
303	G-6	S.C. Bay	17	28	6 C.P.	500	.40	2.44
304	G-6	D.C. Bay	17	28	6 C.P.	500	.40	2.44
305	S-8	S.C. Bay	16	28	15 C.P.	300	.60	3.67
306	S-8	D.C. Bay	16	28	15 C.P.	300	.85	5.19
307	S-8	S.C. Bay	16	28	21 C.P.	300	.60	3.67
307F	S-8	S.C. Bay	16	28	21 C.P.	300	.70	4.28
308	S-8	D.C. Bay	16	28	21 C.P.	300	.70	4.28
309	S-11	S.C. Bay	16	28	32 C.P.	300	.70	4.28
310	S-11	D.C. Bay	16	28	32 C.P.	300	.90	5.50

AIRCRAFT AND SPECIAL LAMPS (cont.)

Lamp No.	Bulb	Base	Fig.	Volts	Amps or Candle-Power	Hrs. Life	Net Each	Lot of Ten
311	S-11	S.C. Bay	16	28	50 C.P.	300	$ .90	$ 5.50
312	S-11	D.C. Bay	16	28	50 C.P.	300	1.15	7.03
313	T-3¼	Min. Bay	3	28	.17	500	.35	2.14
313R	T-3¼	Min. Bay	3	28	.17	500	.55	3.36
323	T-1¼	Special	11	3	.19	350	1.00	6.11
323R	T-1¼	Special	11	3	.19	350	1.05	6.42
325	T-1¼	Special	21	3	.19	350	1.25	7.64
327	T-1¾	Mid. Flgd.	7	28	.04	1000	.90	5.50
328	T-1¾	Mid. Flgd.	7	6	.20	500	.70	4.28
328L	T-1¾	Mid. Flgd.	7	6	.20	3000	2.10	12.80
328NR	T-1¾	Mid. Flgd.	7	6	.20	500	3.85	23.50
329	T-1¼	Special	21	2.5	.40	30	1.80	11.00
330	T-1¾	Mid. Flgd.	7	14	.08	750	1.00	6.11
331	T-1¾	Mid. Flgd.	7	1.35	.06	500	.80	4.89
332	T-1¾	Mid. Flgd.	7	6	.20	500	1.45	8.86
334	T-1¾	Mid. Grvd.	10	28	.04	1000	.90	5.50
335	T-1¾	Mid. Scr.	8	28	.04	1000	1.20	7.33
336	T-1¾	Mid. Grvd.	10	14	.08	750	1.50	9.17
337	T-1¾	Mid. Grvd.	10	6	.20	500	1.45	8.86
337L	T-1¾	Mid. Grvd.	10	6	.20	3000	2.10	12.80
338	T-1¾	Mid. Flgd.	7	2.7	.06	500	.80	4.89
342	T-1¾	Mid. Scr.	8	6	.04	1000	1.40	8.55
344	T-1¾	Mid. Flgd.	7	10	.015	L	1.50	9.17
345	T-1¾	Mid. Flgd.	7	6	.04	1000	1.40	8.55
1251	G-6	S.C. Bay	17	28	3 C.P.	1000	.40	2.44
1767	T-1¾	Mid. Scr.	8	2.5	.20	500	.60	3.67
1768	T-1¾	Mid. Scr.	8	6.0	.20	500	.90	5.50
1768L	T-1¾	Mid. Scr.	8	6.0	.20	3000	2.25	13.70
1769	T-1¾	Mid. Scr.	8	2.5	.20	500	.80	4.89
1775	T-1¾	Mid. Scr.	8	6.3	.075	500	.80	4.89
1816	T-3¼	Min. Bay	3	13	.33	1000	.30	1.83
1819	T-3¼	Min. Bay	3	28	.035	1000	.45	2.75
1820	T-3¼	Min. Bay	3	28	.10	1000	.40	2.44
1829	T-3¼	Min. Bay	3	28	.07	1000	.35	2.14

SPECIAL ULTRAMINIATURE LAMPS

With T1 bulb and rated at 5 volts. All conforming to MS24367 (*) or MS 24515 (†).

Lamp No.	Base	Fig.	Candle Power	Hrs. Life	Net Each	Lot of Ten
CM8-680*	Unbased	19	.060	L	$3.20	$19.60
CM8-715*	Unbased	19	.115	L	3.20	19.60
CM8-682†	Special	20	.060	L	4.00	24.40
CM8-718†	Special	20	.115	L	4.00	24.40
CM8-685†	Special	20	.060	L	4.00	24.40
CM8-714†	Special	20	.075	L	4.00	24.40
CM8-683*	Unbased	19	.060	L	3.20	19.60
CM8-713*	Unbased	19	.075	L	3.20	19.60
CM8-682 AS15†	Special	20	.029 ± 15%	L	4.10	25.40
CM8-685 AS15†	Special	20	.048 ± 15%	L	4.10	25.40
CM8-714 AS15†	Special	20	.080 ± 15%	L	4.10	25.40
CM8-718 AS15†	Special	20	.132 ± 15%	L	4.10	25.40
CM8-680 AS15*	Unbased	19	.132 ± 15%	L	3.30	20.60
CM8-683 AS15*	Unbased	19	.053 ± 15%	L	3.30	20.60
CM8-713 AS15*	Unbased	19	.088 ± 15%	L	3.30	20.60
CM8-715 AS15*	Unbased	19	.147 ± 15%	L	3.30	20.60

POPULAR NEON GLOW LAMPS

Lamp No.	Watts or MA	Bulb No.	Base	Fig.	Series Resistor Ohms	Life	Net Each	Lot of Ten
NE-2	1/25	T-2	Unbsd.	9	200K	25000	$.10	$ .60
NE-2A	1/25	T-2	Unbsd.	9	200K	25000	.10	.60
NE-2D	1/10	T-2	Mid. Flg.	7	62K	5000	.82	5.10
NE-2E	1/10	T-2	Unbsd.	9	62K	5000	.10	.60
NE-2H	1/4	T-2	Unbsd.	9	25K	5000	.12	.70
NE-2J	1/4	T-2	Mid. Flg.	7	25K	5000	.82	5.10
NE-2X	1/10	T-2	Unbsd.	9	62K	5000	.09	.63
NE-45	1/4	T-4½	Canda.	4	30K	7500	.85	5.30
NE-48	1/4	T-4½	D.C. Bay	3	30K	7500	.70	4.30
NE-51	1/25	T-3¼	Min. Bay	3	200K	15000	.21	1.30
NE-51H	1/4	T-3¼	Min. Bay	3	25K	5000	.23	1.50
NE-57	1/4	T-4½	Canda.	4	30K	5000	.99	6.10

Prices shown include Federal Excise Tax.

NOTE: "L" in "Hrs. Life" column indicates extremely long life far in excess of 60,000 hrs. at rated voltage.

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THE COMPLETE LINE OF

DIALCO® PILOT LIGHTS

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

DATALITES®

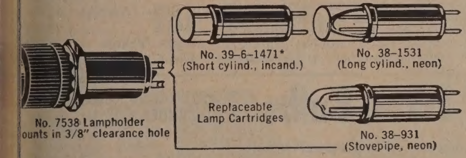
or the Computer-Automation Industries

D ALITES by DIALCO are ultra-miniature Indicator Lights sp ally designed to meet the critical requirements of the com-pu -automation fields. Made in 2 basic styles: *Lamp Holders* wi DIALCO'S own *replaceable Lamp Cartridges,* or inte-gr d DATALITES *with Built-in Neon Lamps* which are *not re ceable* (see below). Ultra-compact, single units mount in ⅜ clearance hole.

D ALITES have fully insulated terminals and conform to all ap cable military specifications. Integrated units are available wi *or without built-in resistors* (see below).

Al available—twin-lamp assemblies which mount in ¾" cle ance hole.

DATALITES with DIALCO'S Replaceable Lamp Cartridges



No. 39-6-1471* (Short cylind., incand.)

No. 38-1531 (Long cylind., neon)

Replaceable Lamp Cartridges

No. 38-931 (Stovepipe, neon)

No. 7538 Lampholder ounts in 3/8" clearance hole

NEON or INCANDESCENT LAMP CARTRIDGES

Lamps used: T-1¾ wire-lead incandescent Lamps...or Neon Lamps NE-2E (regular), or NE-2H (High Brightness) which is specified by adding **H** to the Cat. No....Example: 38H-931.

Neon Cartridge Cat. Nos.

LENS COLOR (Transparent)	STOVEPIPE	LONG CYL.
d	38-931	38-1531
llow (Amber)	38-933	38-1533
hite	38-935	38-1535
ght Yellow	38-936	38-1536
ear (Colorless)	38-937	38-1537

Green or blue lenses are not listed. They are not recommended for use with Neon lamps.

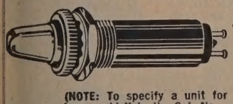
Incandescent Cartridge Cat. Nos.

LENS COLOR (Translucent)	SHORT CYL. (Translucent)
Red	* 39-6-1471
Green	39-6-1472
Yellow (Amber)	39-6-1473
Blue	39-6-1474
White	39-6-1475
Light Yellow	39-6-1476

***NOTE:** The **-6-** in the Cat. Nos. indicate a 6V lamp. For 14V or 28V, change the -6- to-**14**- or -**28**-. Example: 39-14-1471.

DATALITES with Built-in NE-2E or NE-2H Neon Lamps

(Lamps are not replaceable.)



No. 249-7841-931 with built-in resistor

Available-shorter unit, without resistor, No. 249-7840-1431

(NOTE: To specify a unit for the High Brightness Neon Lamp, add H to the Cat. No....Example: 249-7841H-931.)

H T-STAMPED LEGENDS *(Digits, Letters or Symbols)* on Dialco Lamp Cartridge Lenses

SH RT and LONG CYLINDRICAL lenses can be hot-stamped with one *to ree* digits of standard size, as follows: 1 DIGIT, 11/64" high (14 pt. typ . . . 2 DIGITS, 9/64" high (10 pt. type) . . . 3 DIGITS, 5/64" hig (8 pt. type) . . . *These standard sizes of Legends will be provided in uniform manner per order*—i.e., the size of type will be determined by e largest legend indicated in each individual order.

St lard—BLACK letters; but white, red, green, or blue letters can be su ied to order.

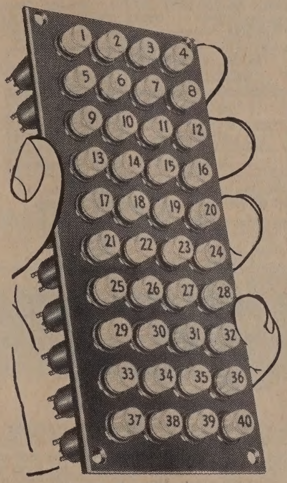
Co ed Legends on black or gray lenses: Legends can also be furnished in *"n ative"*, or *"reverse" style.* That is, the legend is illuminated in white or her color while the background remains opaque black or gray. To or , insert *—XP20B—* for black lens and *—XP20G—* for gray lens.
Ex.: 39—6—*XP20B*—1471; 39—6—*XP20G*—1471.

MULTIPLE INDICATORS

in a compact "package"—

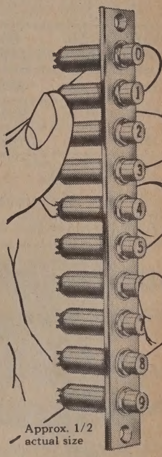
Ready to install in a minimum of space

For Data-Processing Equipment, Computers, and Automation Applications



Approx. ½ actual size

"DATA MATRIX" No. DM-7538-40; panel size, 5½" x 2½"; accommodates 40 Lamp Holders with Incandescent Lamp Cartridges capped with short cylindrical lenses.



Approx. 1/2 actual size

"DATA STRIP" No. DSV-7538-10. Vertical, complete with 10 No. 39-28-1475 Dialco Lamp Cartridges . . . **No. DSH-7538-10,** same as above, but for *horizontal* reading.

A Complete "Data Matrix" and "Data Strip" Manufacturing Service

To expedite installation of multiple-indicators, let DIALCO perform the following manufacturing services for you:

- **Fabricate** a "Data Matrix" or "Data Strip" panel to your specifications . . . **Punch** the necessary holes therein for DIACO Lamp Holders and your fuses, switches, screws, etc.
- **Mount** the required number of Lamp Holders on the panel for vertical or horizontal reading . . . **Lamp Holders** can be spaced on any center-to-center measuring from 7/16" up. (½" center-to-center spacing is standard, as shown on typical configurations illustrated above) . . . **There is no basic (or stock) item;** we can supply from 2 to 40 Lamp Holders on a panel or strip.
- **Insert** required Lamp Cartridge into Lamp Holders.
- **Hot Stamp** or engrave legends on lenses (see column at left).

Lamp Holders accommodate DIALCO's Neon or Incandescent Lamp Cartridges (see column at left) . . . Each Lamp Holder has 2 Solder Cup terminals and is completely insulated (without the use of insulating shoulder washers); Turret, or AMP "53" Terminals can also be furnished.

MATERIALS AND FINISHES: Lamp Holder housing, panel or strip, and cartridge sleeve are aluminum with clear anodize finish.

Option: black anodize finish or to specifications.

For complete data, see brochure *FORM L-160C.*

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DIALCO® PILOT LIGHTS

Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)

Sub-Miniature Indicator Lights for NEON Lamps

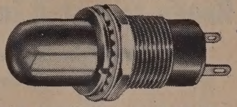
NE-2D *(regular)*
NE-2J *(high brightr*
(See below)

TWO TERMINALS — FULLY INSULATED — Conform to all applicable military specifications

For FRONT of Panel Insertion in 15/32″ Clearance Hole

With Built-in Resistor

(A patented DIALCO feature—
U.S. Pat No. 2,421,321)



Conform to MS25257

Accommodates a T-2 Neon Glow Lamp: NE-2D (MS25252) for 105-125 Volts A.C. or D.C.; *for Catalog Numbers see below* . . . **NE-2J** (High Brightness) for 110-125 Volts A.C. only; *for Catalog Numbers, see Brochure L-159C.*

DIALCO Cat. No. WITHOUT LAMP	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25252–NE-2D	LENS COLOR
137–8836–933 ■	MS25257–2	MS25257–1	Aviation Yellow
137–8836–931 ■	MS25257–4	MS25257–3	Identification Red
137–8836–937 ■	MS25257–6	MS25257–5	Clear (Colorless)

■ With patented built-in resistor: 62K ± 10%.

*MARKING: The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

Also: Similar Series not covered by MS25257: For NE-2D lamp, with standard 62K built-in resistor . . . For NE-2J *(high brightness)* lamp, with standard 18K built-in resistor. See *Brochure L-159C.*

The LIGHT SOURCE: Tiny Neon Glow Lamps NE-2D or NE-2J

These lamps have formed bulbs and midget flanged bases; designat *NE-2D* for the regular lamp, and as *NE-2J* for the high brightness which has higher voltage characteristic requiring 110 volts A.C. or 140 volts D.C. for reliable performance. A resistor (or other ballast) must be used. Since the current is never more than 3 m.a., the resistor may be the 1/3 watt type. Recommended values are as follows:

For NE-2D at 105-125 volts A.C. or D.C.

Bright light	Medium intensity	Long life
62,000 ohms	100,000 ohms	220,000 ohms

For NE-2J (High Brightness) at 110-125 V. (A.C. only)

Bright light	Medium intensity	Long life
18,000 ohms	33,000 ohms	100,000 ohms

For FRONT of Panel Insertion in 15/32″ Clearance Hole

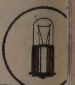
Without Built-in Resistor

This Series is similar in size, general appearance, and construction to the Series shown at the left, except for the following: Has no built-in resistor or anti-rotation tab. *Catalogue Numbers,* with soldering terminals, are as follows:

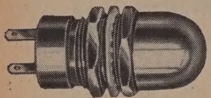
Red	137-853
Yellow (Amber)	137-853
White	137-853
Light Yellow	137-853
Clear (Colorless)	137-853

Sub-Miniature Indicator Lights for T-1¾ Bulbs

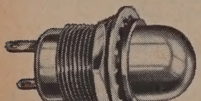
MIDGET FLANGE BASE
INCANDESCENT



TWO TERMINALS — FULLY INSULATED — Conform to all applicable military specifications



Back of Panel Insertion: Requires a single 15/32″ Clearance Hole



Front of Panel Insertion: Requires a single 17/32″ Clearance Hole

CATALOGUE NUMBERS

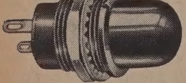
Transparent colors

Color	(Back insertion)	(Front insertion)
Red	101-3830-931	101-5030-931
Green	101-3830-932	101-5030-932
Yellow (Amber)	101-3830-933	101-5030-933
Blue	101-3830-934	101-5030-934
White (Opal)	101-3830-935	101-5030-935
Light Yellow	101-3830-936	101-5030-936
Clear (Colorl's)	101-3830-937	101-5030-937

Translucent colors

Red	101-3830-971	101-5030-971
Green	101-3830-972	101-5030-972
Yellow (Amber)	101-3830-973	101-5030-973
Blue	101-3830-974	101-5030-974
White (Opal)	101-3830-975	101-5030-975
Light Yellow	101-3830-976	101-5030-976

These pilot lights are also available with *Taper-Tab* Terminals. By changing the middle part of the catalog number "-3830-" to "-6330-", & "-5030-" to "-6530-".



Front of Panel Insertion: Requires a single 15/32″ Clearance Hole

Anti-rotation Tab on face of flange prevents rotation of unit while nut is being tightened.

DIALCO Catalog No.	MS No. WITHOUT LAMP*	MS No. WITH LAMP* MS25237–327	CAP COLOR
162–8430–933	MS25256–2	MS25256–1	Aviation Yellow
162–8430–932	MS25256–4	MS25256–3	Aviation Green
162–8430–931	MS25256–6	MS25256–5	Identification Red
162–8430–937	MS25256–8	MS25256–7	Aviation White
162–8430–975	MS25256–10	MS25256–9	Translucent White
162–8430–934	MS25256–12	MS25256–11	Aviation Blue

*MARKING: The Part No. marked on the assembly is the Part No. for the complete assembly less lamp.

RUGGED CONSTRUCTION, PHENOLIC INSULATION — Lamp, socket, and all connections are completely insulated from the bushing and panel to which it is attached. The use of phenolic material for military specification grade assures permanent isolation from ground.

These assemblies are solidly made to withstand usual vibration and corrosion resistance tests.

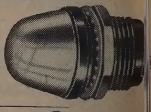
Order Complete with Lamp. Specify Lamp Number.

MANUFACTURER'S RATINGS

LAMP No. (ASA)	MILITARY No.	VOLTS	AMPS	H
331 *	——	1.3	.06	
338 *	——	2.7	.06	
328	MS25237	6.0	.20	1
345	——	6.0	.04	1
344 *	——	10.0	.015	6
367	——	10.0	.04	6
349	——	6.3	0.20	3
330	——	14.0	.08	
327	MS25237	28.0	.04	1

* Recommended for use with transparent lenses

New WATER-TIGHT Series

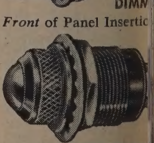


Series No. 177-8430-971 is designed to be water-tight, oil-tight, and dust-tight on face of panel. Mounts from front of panel in 15/32″ clearance hole. Two 1/16″ thick neoprene retained "O" rings assure absolute seal. Stovepipe lens; choice of 7 colors.

DIMMERS — MECHANICAL or POLAROID

DIMM

Front of Panel Insertic



NON-DIMM

Illustrated: Units for *Front* of Panel Insertion; require a 17/32″ clearance hole. Units for *Back* of Panel Insertion require a 15/32″ clearance hole.

CATALOGUE NUMBERS

DIMMING	(*Back* insert.) Lens, unfrosted	(*Front* insert.) Lens, unfrosted
Semi-blackout	109-3830-131	109-5030-131
Blackout	108-3830-131	108-5030-131
Polaroid	112-3830-131	112-5030-131
NON-DIMMING	111-3830-131	111-5030-131

For *"Lens, backfrosted,"* change series numbers ending in —131 to —*111*. For *"Lens, frosted all over,"* change series numbers ending in —131 to —*121*.

LENS COLOR: The *final figure* in Catalogue Number indicates that the has RED color. When color other than red is desired, change this dig a figure from the listing below. Note that white lenses are translucent are always furnished unfrosted (For example: 111-3830-135).

Red — 1 . . . Green — 2 . . . Yellow (Amber) — 3 . . . Blue — 4
White Trans. — 5 . . . Light Yellow — 6 . . . Clear (Colorless) — 7

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(Illustrations are approx. actual size)

SSEMBLIES with BUILT-IN RESISTORS (U. S. Patent No. 2,421,321)

For the T-3¼ NEON GLOW LAMP FOR VOLTAGES UP TO 250

For operation on 105-125V. or 210-250V. . . . The required resistor is an integral part of the unit — BUILT IN. Also, simple external resistors for all higher voltages.

Assemblies Conform to All Applicable Military Specifications.

OTE: To designate a unit for with the High Brightness **NE-51H** np, add **H** to the Catalog Number.
Example: 52408**H**–991

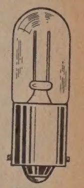
75W., 125V.

PR ER CHOICE OF LAMP AND BUILT-IN RE TOR VALUES: The NE-51 glow lamp types ar shown with resistor tables. Lamps are the st lard *NE-51* and the *new NE-51H*. The *high br tness lamp* may be operated at about three tir the level of current that may be applied to th tandard lamp and it will produce more than ei times as much light.

* **NE-51H** Neon Glow Lamp is not recommended for use on **DC** circuits under 160 V.

BUILT-IN RESISTOR VALUES for the NE-51 TYPE GLOW LAMPS (Values in ohms)

NE-51			New NE-51H (high brightness)		
VOLTS	Applied to terminals 105-125	210-250	VOLTS*	Applied to terminals 105-125	210-250
BRIGHT LIGHT	56,000 (1/3 watt)	180,000 (1/3 watt)	BRIGHT LIGHT	18,000 (1/3 watt)	56,000 (1/3 watt)
MEDIUM LAMP LIFE	100,000 (1/3 watt)	270,000 (1/3 watt)	MEDIUM LAMP LIFE	33,000 (1/3 watt)	100,000 (1/3 watt)
VERY LONG LAMP LIFE	220,000 (1/3 watt)	680,000 (1/3 watt)	VERY LONG LAMP LIFE	100,000 (1/3 watt)	220,000 (1/3 watt)

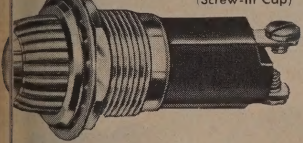


NE-51
or NE-51H
(High
Brightness)

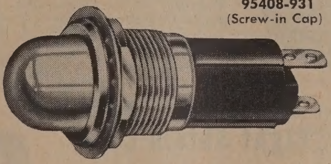
External resistors will be furnished which will permit use of these pilot lights on voltages higher than 250 volts.

For Mounting in 11/16″ Clearance Hole *(For Front of Panel Insertion)*

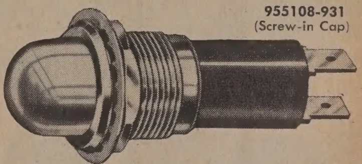
132-1308-991
(Screw-in Cap)



95408-931
(Screw-in Cap)

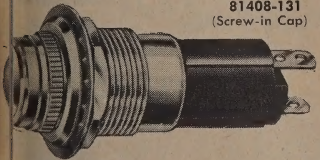


955108-931
(Screw-in Cap)

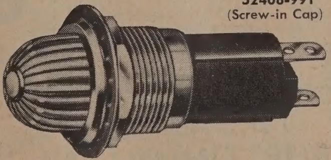


With SCREW TERMINALS **With SOLDERING TERMINALS** **With QUICK-CONNECT TERMINALS**

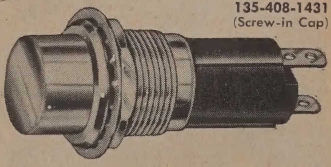
81408-131
(Screw-in Cap)



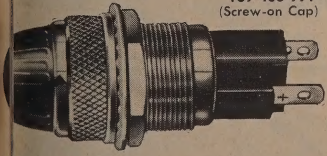
52408-991
(Screw-in Cap)



135-408-1431
(Screw-in Cap)



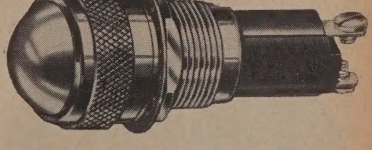
169-408-991
(Screw-on Cap)



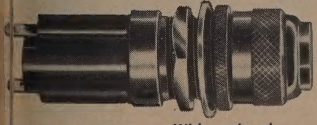
LENS COLOR: The *final figure* in the Catalog Number indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note: White lenses are translucent and are always furnished unfrosted. (For example: 37408-335).

Red—1; Yellow (Amber)—3;
White Translucent—5;
Light Yellow—6; Clear (Colorless)—7.

851308-831
(Screw-on Cap)



9/16″ Assemblies mount from BACK of panel only

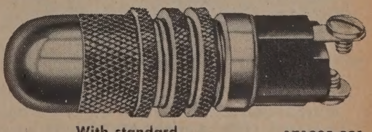


08-XP15-331
rew-on Cap)

With optional hardware

Assemblies which mount in a 9/16″ clearance hole are useful where close center-to-center spacing is required.

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.



With standard hardware

171308-931
(Screw-on Cap)

ORDER COMPLETE WITH LAMPS so that you will be assured of receiving the pilot lights and correct lamps at one time, ready for immediate use.

.C.P., Inc.

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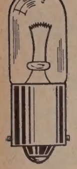
Foremost Manufacturer of Pilot Lights

DIALIGHT CORPORATION • BROOKLYN 37, N. Y.

(Illustrations are approx. actual size)



ASSEMBLIES for T-3¼ INCANDESCENT LAMP

2 to 55V
(No Highe

With Miniature Bayonet Base

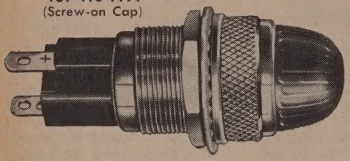
Conform to All Applicable Military Specifications

75W., 125

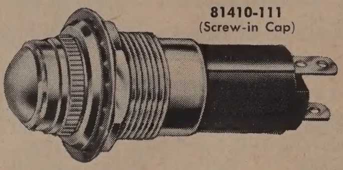
For Mounting in 11/16″ Clearance Hole

For Front of Panel Insertion

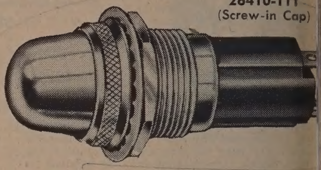
169-410-1191
(Screw-on Cap)



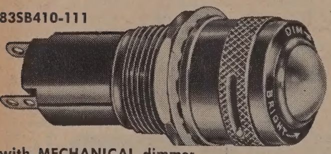
81410-111
(Screw-in Cap)



26410-111
(Screw-in Cap)



83SB410-111



with **MECHANICAL** dimmer

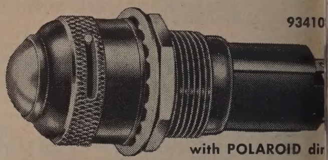
Mechanical and Polaroid Dimmers

Mount in 11/16″ clearance hole

Any of the Dialco mechanical dimmers can be supplied either for *"Complete Blackout"* or for *"Semi-Blackout"*. Typical Catalogue Numbers are as follows:

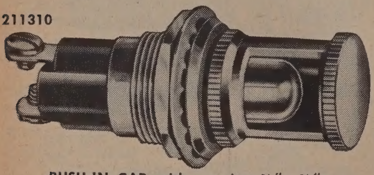
83B410-111 ("Complete Blackout")
83SB410-111 ("Semi-Blackout")

93410



with **POLAROID** dir

211310



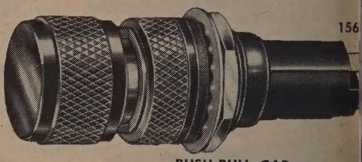
PUSH-IN CAP with opening ½″ x ½″
Typical Assembly. Other Catalog Nos. are assigned to cover other optional features.

Assemblies with Light Shield Caps

Mount in 11/16″ clearance hole

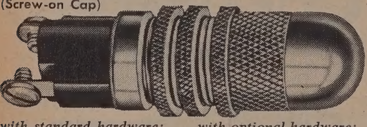
Complete Series available with the following Push-in Caps: With ONE opening 3/32″ x 1/2″, 3/16″ x 1/2″, 3/16″ x 9/16″, 1/2″ x 1/2″ . . . With TWO openings 1/2″ x 1/2″ . . . Also Screw-in Cap with opening 3/16″ x 1/2″, and Friction-Fit Cap with opening 1/8″ x 1/2″.

156



PUSH-PULL CAP
Variable Opening—from 0″ to ¼″ x ⅜

(Screw-on Cap)



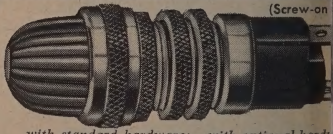
with standard hardware: **171310-931**
with optional hardware: **171310-XP15-931**

For Mounting in 9/16″ Clearance Hole

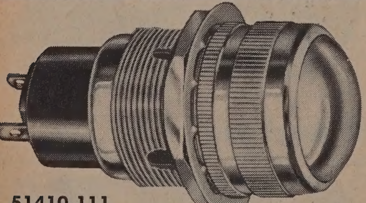
(from BACK of panel)

Standard Hardware consists of 3 knurled rings . . . *Optional Hardware* consists of 1 ring, 1 lockwasher, and 1 mounting nut . . . Specify hardware desired.

(Screw-on



with standard hardware: **70410-1191**
with optional hardw **70410-XP10-**

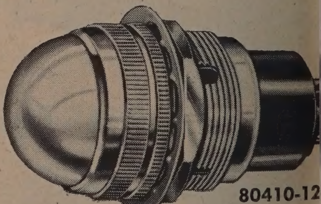


51410-111
(With Convex Lens)

For Mounting in 1″ Clearance Hole

Complete Series available with Screw-on Caps (as illustrated), Friction-Fit Caps, or Bayonet Caps. Choice of 9 Lens Types: Flat, Dome, Stovepipe, Faceted, Torpedo Faceted, Torpedo, Large Torpedo, Small Convex, Large Convex. 7 Lens Colors (see below).

GLASS LENSES: Plastic lenses are not recommended for use with lamps rated over 2 watts.



80410-12
(With Dome L

LENS COLOR: The *final figure* in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted. (For example: 80410-1235.)

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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rations are approx. actual size)

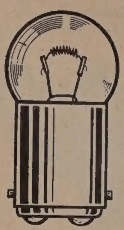
SEMBLIES for INCANDESCENT LAMPS

(with double contact bayonet base or candelabra screw base)

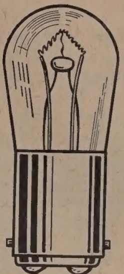
For Mounting in 1″ Clearance Hole

75W., 125V.

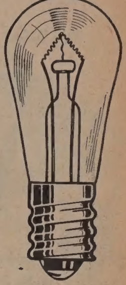
FEATURES: DIALCO makes the most extensive line of 1″ enclosed assemblies for large incandescent lamps. 3 such styles of lamps are shown here together with 6 typical units. These units are available with Screw Terminals, Soldering Terminals, or Quick Connect Terminals (will mate with standard solderless female connectors) . . . 8 glass lens types are available, in 7 colors (see below). Plastic lenses are not recommended be se of the high degree of heat that incandescent lamps generate.



G-6
D.C. Bay.
(32V. max.)

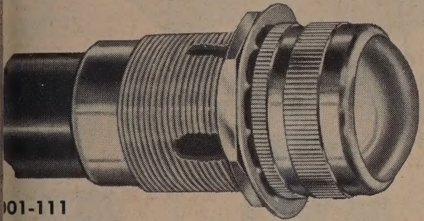


S-6
D.C. Bay.



S-6
Cand. Screw

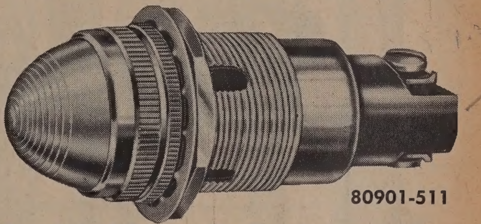
VOLTAGES (at 6 watts): 6, 12, 24, 32, 48, 70-80, 125, 130, 135, 145.



51 01-111

As mbly with Screw-on Cap, Convex Lens, and Sol ring Terminals. Similar units available with Qu Connect Terminals.

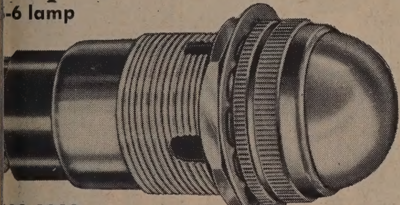
Typical assemblies for use with S-6 bulb with candelabra screw base



80901-511

Assembly with Screw-on Cap Torpedo Lens, and Screw Terminals in side position. Similar units available with screw terminals in protruding position.

Fo -6 lamp

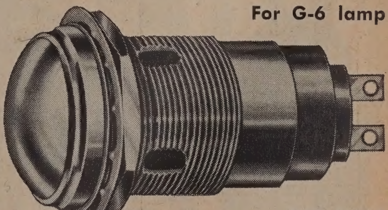


80502-1211

As mbly with Screw-on Cap, Dome Lens, and Scr v Terminals. Terminals may be specified as fix type or *movable* type.

Typical assemblies for use with double contact bayonet base incandescent lamps

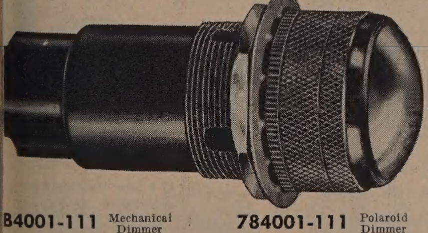
For G-6 lamp



31204-111

Assembly with Friction Cap, Convex Lens, and Soldering Terminals. 2 other types of soldering terminals are *fixed* or *movable*.

DIMMERS and LIGHT SHIELDS

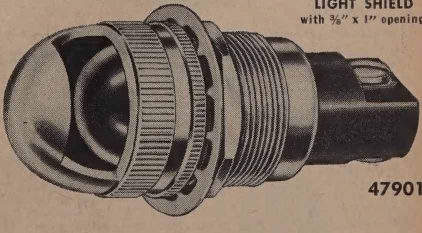


784001-111 Mechanical Dimmer **784001-111** Polaroid Dimmer

Typical assemblies for use with S-6 bulb with candelabra screw base

Shown are typical assemblies in a most extensive Series available only from DIALCO.

LIGHT SHIELD with 3/8″ x 1″ opening



47901

LENS COLOR: The *final* figure in the above numbers indicates that the lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that *white lenses* are translucent and are always furnished unfrosted. (For example: 80901-535).

Red—1; Green—2; Yellow (Amber)—3; Blue—4; White Translucent—5; Light Yellow—6; Clear (Colorless)—7.

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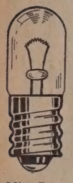
(Illustrations are approx. actual size)

A SELECTION OF OPEN TYPES

For T-3¼ Low Voltage Incandescent Lamps

Typical assemblies for bayonet base lamp.
Available also for screw base type. See listing below.


Min. Screw Base (2-48V.)

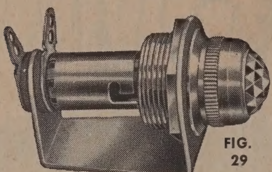
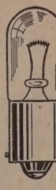


FIG. 29


Min. Bayonet Base (2-55V.)

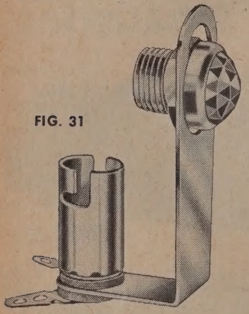


FIG. 31

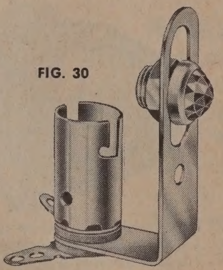


FIG. 30

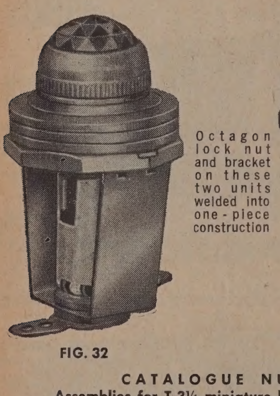


FIG. 32

Octagon lock nut and bracket on these two units welded into one-piece construction

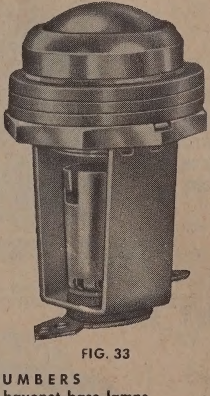


FIG. 33

CATALOGUE NUMBERS

Assemblies for T-3¼ miniature bayonet base lamps

No. 810B-431 Faceted ½″ lens. For 11/16″ mounting hole. Fig. 29
No. 710U-431 Faceted ½″ lens. For 7/16″ mounting hole. Fig. 31
No. 755U-431 Faceted 11/32″ lens. For 9/32″ mounting hole. Fig. 30
No. 857B-431 Faceted ½″ lens. For 11/16″ mounting hole. Fig. 32
No. 67B-111 Convex ¾″ lens. For 13/16″ mounting hole. Fig. 33

Assemblies for T-3¼ miniature screw base lamps

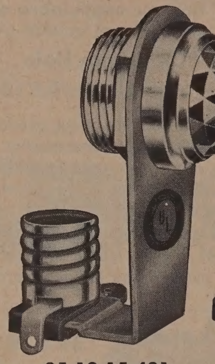
Similar to
No. 810M-431 Faceted ½″ lens. For 11/16″ mounting hole. Fig. 29
No. 510-431 Faceted ½″ lens. For 7/16″ mounting hole. Fig. 31
No. 555-431 Faceted 11/32″ lens. For 9/32″ mounting hole. Fig. 30
No. 855-431 Faceted ½″ lens. For 11/16″ mounting hole. Fig. 32
No. 66M-111 Convex ¾″ lens. For 13/16″ mounting hole. Fig. 33

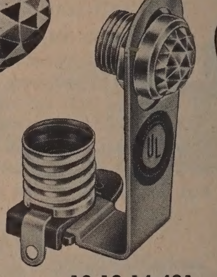
LENS COLOR: The **final figure** in the catalogue number indicates that lens has RED color. When color other than red is desired, change this digit to a figure from the listing below. Note that white lenses are translucent and are always furnished unfrosted.

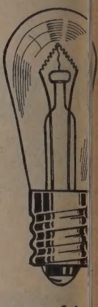
Red—1 Green—2 Yellow (Amber)—3 Blue—4
White Translucent—5 Light Yellow—6 Clear (Colorless)—7

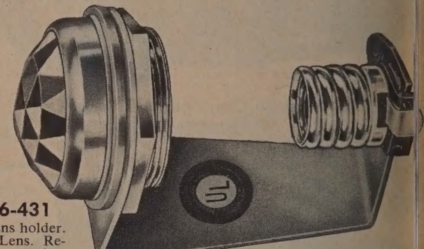
For Candelabra Screw Base Lamps

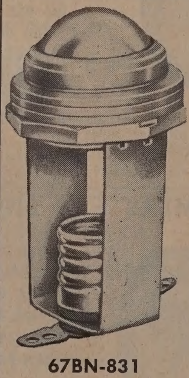
75W., 125V

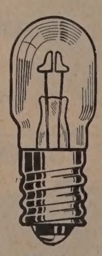

25-18-15-431
Tamper-proof lens holder. 5/8″ Faceted Lens. Requires 11/16″ mounting clearance hole.


10-18-14-431
With elongated slot. 1/2″ Faceted Lens. Requires 7/16″ mounting clearance hole.


S-6
(6 to
145 V.

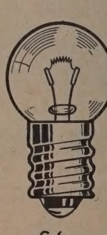

31-18-16-431
Friction-fit lens holder. 1″ Faceted Lens. Requires 1″ mounting clearance hole.

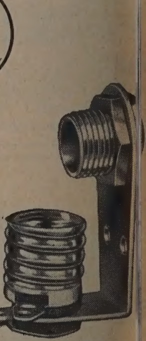

67BN-831


NE-45

For NE-45 Neon Glow Lamps (105-125 V.)

Friction-fit lens holder. 3/4″ Plastic Dome Lens. Requires 13/16″ mounting clearance hole . . . Octagon lock nut and bracket on this unit welded into one-piece construction.


G-6


610-121

For G-6 Low Voltage Lamps (up to 32 V., no higher)

Tamper-proof lens holder. 1/2″ Co
Lens. Requires 7/16″ mounting clear
hole.

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you will be assured of receiving the pilot l
and correct lamps at one time, ready for in
diate use.

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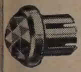
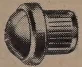
Lens Holders with Lenses for Panel Mounting

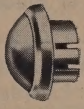
FRICTION FIT PUSH IN TYPES



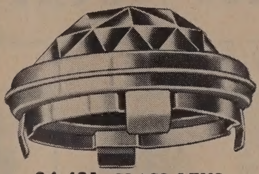
004-431
/32" hole
/4" shank



6004-631
9/32" hole
1/4" shank

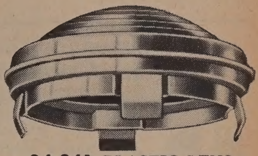


38003-631
3/8" mtg. hole
3/16" shank
Options: 1/8", 3/32"

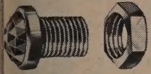


34-431 GLASS LENS

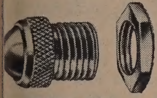
These Holders snap into a 1⅜" hole



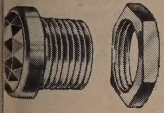
34-841 PLASTIC LENS



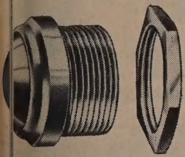
5006-431
9/32"—32 thread
3/8" shank
(option 1/4")



7005-631
3/8"—24 thread
5/16" shank

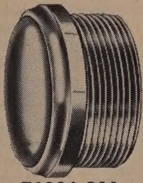


10006-431
7/16"—27 thread
3/8" shank
options: 1/4", 5/8")



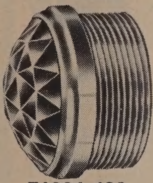
25006-111
11/16"—27 thread
3/8" shank
(option 1/4")

FLAT (frosted back)



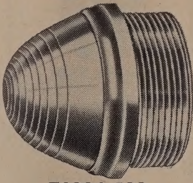
76006-211

FACETED (unfrosted)



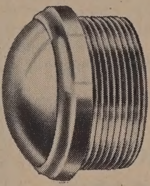
76006-431

TORPEDO (frosted back)

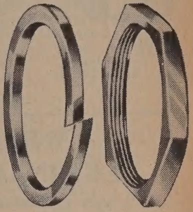


76006-511

CONVEX (frosted back)



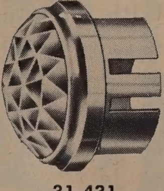
76006-111



1"—27 thread   3/8" shank—tamper proof

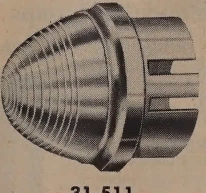
Mount in 1" clearance hole

FACETED (unfrosted)



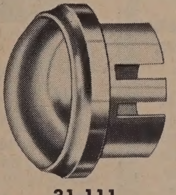
31-431

TORPEDO (frosted back)



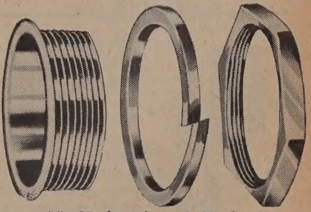
31-511

CONVEX (frosted back)



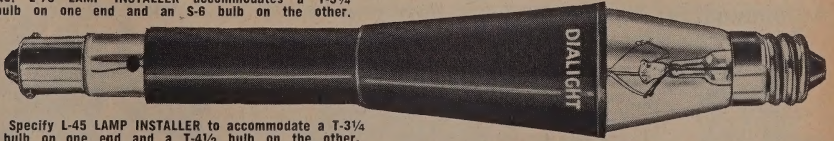
31-111

BUSHING 31246



1"—27 thread   3/8" shank

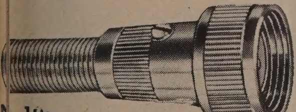
No. L-73 LAMP INSTALLER accommodates a T-3¼ bulb on one end and an S-6 bulb on the other.



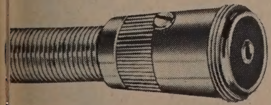
Specify L-45 LAMP INSTALLER to accommodate a T-3¼ bulb on one end and a T-4½ bulb on the other.

CONNECTORS FOR SINGLE CONDUCTOR CABLE

For Microphones, Speakers, Pick-ups, Jacks (using cable shield for second conductor). Female Cable Connector, Catalog **No. 104.** This unit has a spring protector to prevent sharp bending of cable. It solders to cable sheath, and is secured by a set screw. **Catalog No. 101** has the same general characteristics, but is a **male** connector.



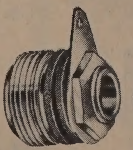
N. 104



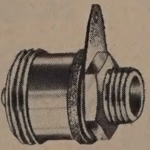
o. 101

Male Chassis Connectors . . . No. 50. Shell grounds to panel, or may be insulated by washers. Fits a ⅜"—24 threaded hole, or may be secured by nut. **No. 50P** is similar to No. 50, but is designed to force fit in hole in panel. Does not require a nut to fit in place. **No. 51 Connector** has a sprung center contact which grounds before cable connection is broken, preventing open circuit howls.

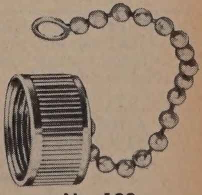
Cap and Chain, Catalog No. 103. To protect unused male connectors. Chain secured by screw prevents loss when removed to make connection.



No. 50



No. 51



No. 103

LEECRAFT BRACKET MOUNTED SOCKETS FOR SMALL LAMPS

LEECRAFT MANUFACTURING CO., Inc. • LONG ISLAND CITY 1, N.Y.

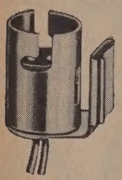
(Illustrations are approx. actual size)

Bracket Mounted SOCKETS For Incandescent or Neon Lamps

75W., 12

Accommodates Lamps With Double Contact Candelabra Bayonet Base

12-200 Series



Cat. No. 12-258

12-200 Series Sockets are furnished with bakelite discs, including separately sprung contacts, and have 6″ wire leads. Also available with ceramic discs (called *1200* Series) for heat-resistant applications.

5700 Series Sockets use tab terminals. These assemblies are ruggedly constructed with moulded bakelite housings and specially designed contacts.

5700 Series

Cat. No. 57-07

Accommodates Lamps With Candelabra Screw Base

400 Series

Cat. No.4-45

400 Series Sockets are housed in heavy moulded bakelite. They are equipped with built-in wire leads, 6″ long.

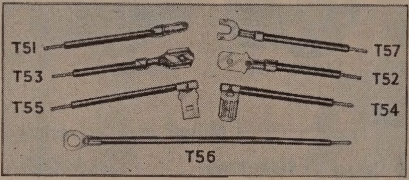
1800 Series Sockets are intended for use with lamps on commercial voltages. Terminals are locked in place and thoroughly insulated from the bracket and each other.

1800 Ser

Cat. No. 18

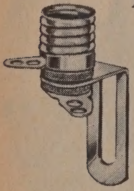
WIRE TERMINATIONS

All wire assemblies are furnished with 6″ long standard leads, ends stripped ½″. Standard insulation is vinyl plastic with copper conductors. Special insulations such as Asbestos, 105°C Plastic, Rubber, SRIR, etc., may be furnished.



A large variety of *solderless terminals* can be furnished with most wire lead assemblies. Some standard popular types are shown here. To assure your receiving the correct terminal, please specify our assembly part number as well as the terminal required.

600 Series



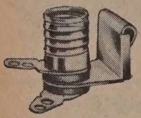
Cat. No. 6-06

Accommodates Lamps With Candelabra Screw Base

600 Series Sockets have soldering terminals, and can be furnished with the same basic brackets as shown in grouped illustration below.

Accommodates Lamps With Miniature Screw Base

500 Series



Cat. No. 5-03

500 Series Sockets are supplied with soldering terminals. This group, as well as those sockets in the *600* and *700 Series*, are also furnished for *Grounded* use with only *one* terminal.

ORDER COMPLETE with LAMP so that you will be assured of receiving the proper socket and correct lamp at one time, ready for immediate use.

CHOICE OF BRACKETS ⋙→ The series of brackets shown at the right can be used with any of our 200, 500, 600, and 700 Series Sockets. All the sockets have 2 terminals.

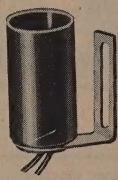
Accommodates Lamps With Miniature Bayonet Bas

300 Series Sockets have moulded bakelite housing. UL and CSA listed for 75W., 125 V.

700 Series Sockets have soldering terminals. Some popular basic types are shown in illustration below.

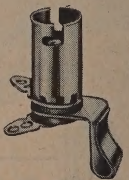
200 Series Sockets are supplied with insulating sleeves, eliminating any accidental grounding.

300 Series



Cat. No. 3-05

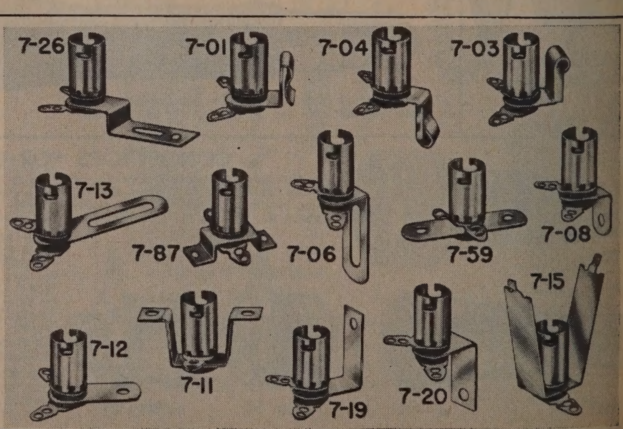
700 Series



Cat. No. 7-02

200 Serie

Cat. No. 2



INDICATOR LIGHTS

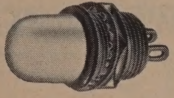
for every panel design by

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

Shown below are only a few of the more than 50 basic standard types of indicator lights available from Control Switch Division. Actually, there are dozens of variations in color, mounting, appearance and circuitry possible for almost every basic style. For example, indicator lights are available for 6, 14, or 28 volt, D.C. and 110 V. A.C. circuits. So whatever your needs, there are ready-made, in-stock indicator lights to fit your panel.

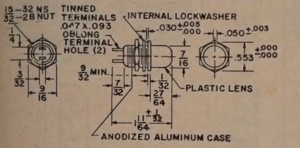
(LIST PRICES BELOW ARE FOR UNITS WITHOUT LAMPS)

SERIES L14005B

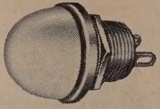


Conforms to MS-25256. Long plastic lens for 180° visibility. Front panel mounting (L14000) shown; also available for back mounting (L14200). Uses MS-25237 lamps.

LIST $0.98

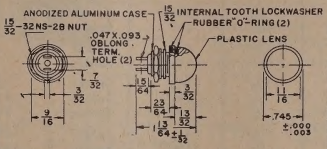

15/32-32 NS-2B NUT
TINNED TERMINALS
.047 X .093 OBLONG TERMINAL HOLE (2)
INTERNAL LOCKWASHER
.030 +.005 -.000
.050 ±.003
.553 +.000 -.003
9/32 MIN.
PLASTIC LENS
ANODIZED ALUMINUM CASE

SERIES L5105



Watertight, front-of-panel mounting. Wide-angle visibility. 2-terminal circuit. Mounts in ½-inch hole. Uses MS-25237 lamps. Press-to-Test Model L16200 available.

LIST $1.62

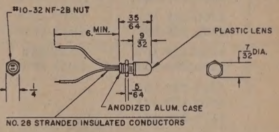

ANODIZED ALUMINUM CASE
15/32-32NS-2B NUT
INTERNAL TOOTH LOCKWASHER
RUBBER "O"-RING (2)
.047 X .093 OBLONG TERM. HOLE (2)
PLASTIC LENS
.745 +.000 -.003

SERIES L10000

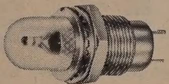
Supplied with 5V. Lamp

Sub-miniature, moisture-proof. Rated life of 60,000 continuous hours at 5 volts. Models available to mount flush with panel surface.

LIST $5.45

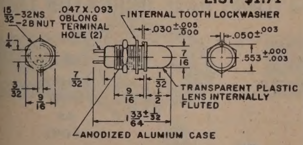

#10-32 NF-2B NUT
6" MIN.
PLASTIC LENS
7/32 DIA.
ANODIZED ALUM. CASE
NO. 28 STRANDED INSULATED CONDUCTORS

SERIES L15015B



Neon indicator with built-in 62,000 ohm resistor for 115V circuits. Conforms to MS-25257. Available for front or back panel mounting.

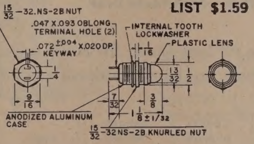
LIST $1.71


15/32-32NS-2B NUT
.047 X .093 OBLONG TERMINAL HOLE (2)
INTERNAL TOOTH LOCKWASHER
.030 +.005 -.000
.050 ±.003
.553 +.000 -.003
TRANSPARENT PLASTIC LENS INTERNALLY FLUTED
ANODIZED ALUMIUM CASE

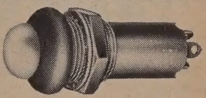
SERIES L14215

Special model for back-of-panel mounting on very compact panels. Mounting nut is tightened from front. Lens has knurled nut for easy removal of lens-lamp module. Uses MS-25237 lamps.

LIST $1.59

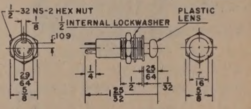

15/32-32 NS-2B NUT
.047 X .093 OBLONG TERMINAL HOLE (2)
INTERNAL TOOTH LOCKWASHER
.072 ±.004 X .020 DP. KEYWAY
PLASTIC LENS
ANODIZED ALUMINUM CASE
15/32-32NS-2B KNURLED NUT

SERIES L3060

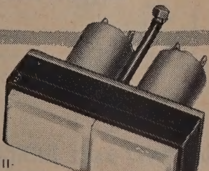


Moisture-proof push-to-test indicator light. Test lamp circuit by pushing plastic lens. Supplied with or without silicon rubber boot to seal panel. Lens has "O"-ring seal. Flange-type mounting in ½-inch hole. Uses MS-25237 lamps.

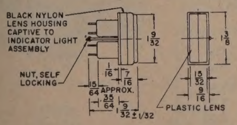
LIST $4.45


1/2-32 NS-2 HEX NUT
1/2 INTERNAL LOCKWASHER
PLASTIC LENS
.109

SERIES L5915

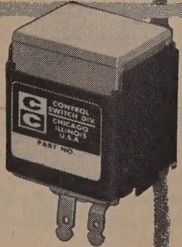


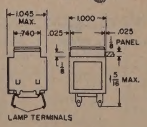
Miniature "billboard" placard contains two MS-25237 lamps. 2-color model shown (L5915), also available: 1-color (L5900) and Press-to-Test (L5200). All legends engraved (not hot-stamped). Self-indexing unit. Captive lens. **L5915: LIST $5.90**


BLACK NYLON LENS HOUSING CAPTIVE TO INDICATOR LIGHT ASSEMBLY
NUT, SELF LOCKING
APPROX.
PLASTIC LENS

SERIES C6

TWINLITE modular Indicator light assembly with identical panel appearance and mounting configuration to Series C6 lighted push-buttons. Mounts with barriers in rows, in matrix, or individually. Contains two lamps on individual or common circuits. Split or solid color buttons available. With 6 V. or 28 V. lamps. **LIST $5.25**

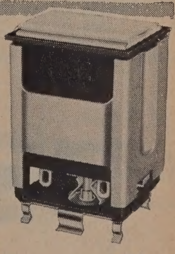

CONTROL SWITCH DIV. CHICAGO ILLINOIS U.S.A.
PART NO.

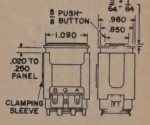

1.045 MAX.
.740
1.000
.025
.025 PANEL
15/16 MAX.
LAMP TERMINALS

NEW M-SERIES

Indicator version of new M-Series switchlites has four lamps with silicon rubber color filters, four lamp circuits. Relamps from front without tools. Mounts without hardware in single cut-out from front of any panel .020 to .250 thick. One piece legend button. Matrix-mounted assemblies, splash-proof model. Snap-on switch modules in DPDT and 4PDT, alternate or momentary action, or solenoid-hold.

LIST $7.50



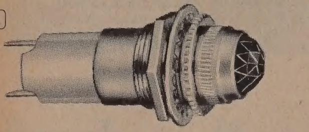

PUSH-BUTTON
1.090
.960
.850
.020 TO .250 PANEL
CLAMPING SLEEVE

DRAKE

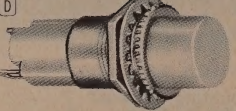
CHICAGO 31, ILLINOIS

INDICATOR LIGHTS

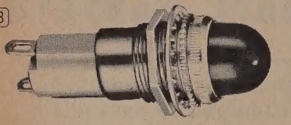
A



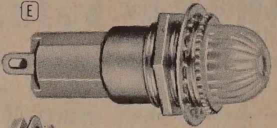
D



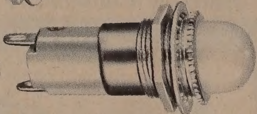
B



E



C



"DELUXE MOLDED" Series

MINIATURE BAYONET BASE INDICATOR LIGHTS

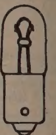
Polished chrome finish (MIL units are black nic plated), molded Glaskyd housing give fine appearan assure dependability. All "DELUXE MOLDE units have Drake's E-Z-Tite flange for quick assem with Drake No. 32 wrench. Install lamps a mount units from front of panel up to 13/32" thick, 11/16" dia. mounting hole on 31/32" centers. Units wi built-in 1/3 watt series resistors take neon lamps.

(ALL ILLUSTRATIONS APPROX. 3/4 ACTUAL SIZ

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
A	5200-222-110		1/2"	17/32"	1 5/8"	Solder		$2.00
B	5200-222-301		5/8"	11/16"	1 5/8"	Solder		2.40
C	5200-222-304		5/8"	1/2"	1 5/8"	Solder		1.72
D	5200-222-604		5/8"	1/2"	1 5/8"	Solder		1.72
	5200-228-101	LH75-LC14	1/2"	17/32"	1 5/8"	Solder		2.07
B*	5200-228-301	LH75-LC15	5/8"	11/16"	1 5/8"	Solder		2.43
	5200-229-101	LH62-BR2	1/2"	17/32"	1 5/8"	Solder		1.94
C*	5200-229-303	LH62-PR5	5/8"	1/2"	1 5/8"	Solder		1.68
	5200-232-103		1/2"	17/32"	1 5/8"	Solder	22K	2.22
E	5200-232-323		5/8"	1/2"	1 5/8"	Solder	22K	2.06
	5200-232-623		5/8"	1/2"	1 5/8"	Solder	22K	2.06
	5200-242-103		1/2"	17/32"	1 5/8"	Solder	100K	2.22
E	5200-242-323		5/8"	1/2"	1 5/8"	Solder	100K	2.06
	5200-242-623		5/8"	1/2"	1 5/8"	Solder	100K	2.06
	5200-248-100	LH76-LC14	1/2"	17/32"	1 5/8"	Solder	100K	2.43
	5200-249-103	LH64-PR2	1/2"	17/32"	1 5/8"	Solder	100K	2.20
C*	5200-249-303	LH64-PR5	5/8"	1/2"	1 5/8"	Solder	100K	2.05

LEN DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

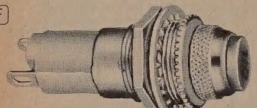
*Black Finish.



T-3¼ BULB
6.3 to 28V

LAMP NO.
NE51H — 125V
and 250V

F



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHT

with Friction Fit Lens Shank, for Easy Legend Alignment

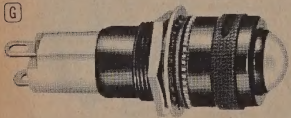
Other features are same as those of units listed above.

•
LAMPS
SAME
AS
ABOVE
•

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
F	5203-222-550		1/2"	15/32"	1 5/8"	Solder		$2.28
F	5203-232-544		1/2"	15/32"	1 5/8"	Solder	22K,	2.46

LENS DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

G



"DELUXE MOLDED" MINIATURE BAYONET BASE INDICATOR LIGHT

with Mechanical Dimmer Lens Assembly: Type 5207 for Complete Blackout, Type 5208 for Partial Blackout

Other features are same as those of units listed above.

•
LAMPS
SAME
AS
ABOVE
•

Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
G	5207-228-101	LH75-LC17	1/2"	27/32"	1 5/8"	Solder		$3.45
G	5207-248-100	LH76-LC17	1/2"	27/32"	1 5/8"	Solder	100K	3.79
G	5208-228-101	LH75-LC18	1/2"	27/32"	1 5/8"	Solder		3.45
G	5208-248-100	LH76-LC18	1/2"	27/32"	1 5/8"	Solder	100K	3.79

LENS DESCRIPTION CODE (last three Drake Number digits): See next page for explanation.

ALL PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COL

Trade Discount Applies To List Prices Only

© U.C.P.,

INDICATOR LIGHTS

DRAKE

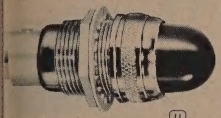
CHICAGO 31, ILLINOIS

DRAKE LENS CODE NUMBER DATA

On all units illustrated and described, the last three digits of the DRAKE NUMBER identify the lens shape and other variants. These types are described below.

100 : Convex glass clear
101 : Convex glass diffusing
103 : Convex plastic clear
110 : Convex glass faceted
113 : Convex plastic faceted
203 : Dome plastic clear
204 : Dome plastic translucent
301 : Macrodome glass diffusing
303 : Macrodome plastic clear
304 : Macrodome plastic translucent
305 : Macrodome Lexan diffusing
320 : Macrodome glass fluted
323 : Macrodome plastic fluted
410 : Beehive glass faceted
430 : Beehive glass signal lined
431 : Beehive glass diffusing
500 : Flat glass clear
503 : Flat plastic clear
504 : Flat plastic translucent
523 : Flat plastic fluted
544 : Flat plastic translucent, imprinted
550 : Flat glass clear, printed disc
603 : Cylindrical plastic clear
604 : Cylindrical plastic translucent
623 : Cylindrical plastic fluted transparent
624 : Cylindrical plastic fluted semi-transparent
644 : Cylindrical plastic imprinted
703 : Long Macrodome plastic clear

LENS COLORS: incandescent and neon—Red, Yellow (amber), White or Colorless;—incandescent only—Green or Blue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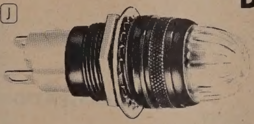

J

"DELUXE MOLDED" Series INDICATOR LIGHTS

MINIATURE BAYONET BASE

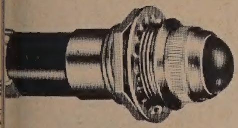
with 5/8" GLASS MACRODOME LENS (JEWEL)

Lens holder with female thread permits neon lamp to project all the way up into macrodome lens for maximum visibility. Other "DELUXE MOLDED" features as previous.

ig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
H	5204-222-301		5/8"	27/32"	19/32"	Solder		$2.47
J*	5204-232-320		5/8"	27/32"	19/32"	Solder	22K	2.76
J	5204-238-320	LH78-LC20	5/8"	27/32"	19/32"	Solder	27K	2.90
J*	5204-242-320		5/8"	27/32"	19/32"	Solder	100K	2.76
J	5204-248-320	LH77-LC20	5/8"	27/32"	19/32"	Solder	100K	2.84

LAMPS SAME AS FOR OTHER "DELUXE MOLDED" TYPES

LES DESCRIPTION CODE (last three Drake Number digits): See above explanation.
*shed Chrome Finish.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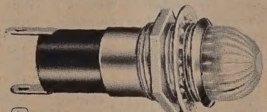

L

"STANDARD" INDICATOR LIGHTS

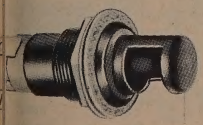
MINIATURE BAYONET BASE

Serviceable series, with nickel plated lens holder and flange. Lamp installed and units mounted from front of panels up to 13/32" thick, in 11/16" dia. mounting hole on 31/32" centers. Built-in ½ watt series resistors for neon lamps.

ig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
K	5100-182-101		1/2"	17/32"	1 21/32"	Solder		$ .93
	5100-182-304		5/8"	1/2"	1 21/32"	Solder		.93
K	5100-192-103		1/2"	17/32"	1 23/32"	Solder	25K	1.17
L	5100-192-323		5/8"	1/2"	1 23/32"	Solder	25K	1.10
K	5100-202-103		1/2"	17/32"	1 23/32"	Solder	100K	1.17
L	5100-202-323		5/8"	1/2"	1 23/32"	Solder	100K	1.10

LAMP NOS.
NE51—125V
NE51H — 125 and 250V

LES DESCRIPTION CODE (last three Drake Number digits): See above explanation.


M

MINIATURE BAYONET BASE

INSTRUMENT LIGHT

Uses T-3¼ bulbs, inserted from front of panel up to 13/32" thick, in 11/16" dia. hole on 31/32" centers.

ig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lugs	Built-In Resistor (Ohms)	List Price
M	168E			11/16"	1 3/8"	Solder		$2.36

T-3¼ BULB
6.3 to 28V

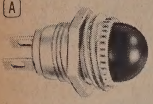
(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

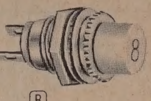
. PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR

DRAKE

CHICAGO 31, ILLINOIS

INDICATOR LIGHTS





"TINYLITE" MIDGET SCREW BASE INDICATOR LIGHTS

SMALLEST INDICATOR LIGHTS WITH REPLACEABLE LAMP

Fully enclosed. Supplied with midget lamp installed. Lamps replaced and ur mounted from front of panels up to 9/32" thick, in 7/16" dia. mounting hole on 1 centers. Friction device prevents lamps from loosening in use.

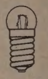
Fig. No.	Drake Number	MIL Style Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Lamp Voltage	Replacement Lamp No.	List Price
A	121- 7-204		7/16"	21/64" on all numbers	13/16"	7	765	$1.22
B*	121- 7-604		3/8"		13/16"	7	765	1.22
B	121- 7-644		3/8"		13/16"	7	765	1.36
A	121-14-204		7/16"		13/16"	14	1465	1.24
B*	121-14-604		3/8"		13/16"	14	1465	1.24
B	121-14-644		3/8"		13/16"	14	1465	1.38
A	121-28-204		7/16"		29/32"	28	335	2.00
B*	121-28-604		3/8"		29/32"	28	335	2.00
B	121-28-644		3/8"		29/32"	28	335	2.14

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

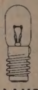
*Unprinted

REPLACEMENT LAMPS

NO. 335 (28V)....$0.83 NO. 765 (7V)....$0.34 NO. 1465 (14V)....$0.36

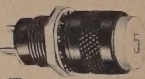


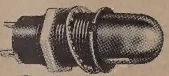
LAMP
NO. 765
7V
NO. 1465
14V

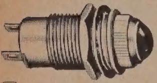


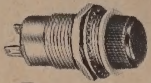
LAMP
NO. 335
28V

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SI





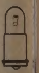




"MF" INDICATOR LIGHTS

FOR USE WITH MIDGET FLANGE BASE LAMPS IN MIL STANDARD OR COMMERCIAL APPLICATIONS

Small but sturdy—only 9/16" max. dia. MIL units, black anodized finish; other units, clear finish. Lamps replaced and units mounted from front of panel, in 15/32" dia. mounting hole on 3/4" centers. Built-in series resistor takes NE2D neon lamp; other units take T-1¾ bulb.

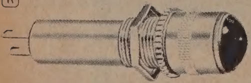


BULB N
T-1¾
1.2 to 2

Fig. No.	Drake Number	MIL Style Number	MS Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Max. Panel Thickness	List Price
C	5131-038-303	LH73-LC12	MS25256	7/16"	29/64"	49/64"		9/32"	$1.81
C	5131-038-304	LH73-LC12		7/16"	29/64"	49/64"		9/32"	1.81
D	5132-038-544	LH73-LC11		15/32"	35/64"	49/64"		9/32"	2.42
E	5133-048-703	LH74-LC13	MS25257	7/16"	35/64"	1 1/64"	62K	15/32"	3.15
F	5130-032-101			5/16"	11/32"	1 1/64"		15/32"	1.86
G	5133-032-504			7/16"	3/16"	1 1/64"		15/32"	1.69

LAMP N
NE2D
115V

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.



"TELESLIDE" INDICATOR LIGHTS

FOR USE WITH TELEPHONE SLIDE BASE LAMPS

Recommended for voltages from 24 to 55. Lamps replaced from front of panel. Mount in 15/32" dia. hole on 23/32" centers. No. 135 replaces more expensive lampjack assembly.

BULB N
T-2
6 to 55

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Max. Panel Thickness	Mounting	Lens Fitting	Finish	List Price
H	135-101	5/16"	1/4"	2 7/32"	17/32"	Front	Friction	Plain Brass	$1.77
J	136-624	5/8"	13/16"	1 5/8"	7/32"	Front or Rear	Threaded	Nickel Plate	1.52
K	137-101	1/2"	25/32"	1 23/32"	5/16"	Front or Rear	Threaded	Nickel Plate	1.83

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

ALL PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COL

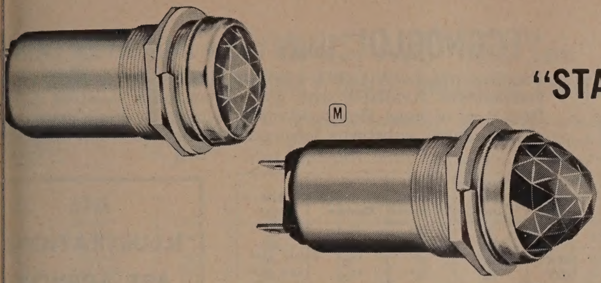
Trade Discount Applies To List Prices Only

© U.C.P., In

INDICATOR LIGHTS

DRAKE

CHICAGO 31, ILLINOIS

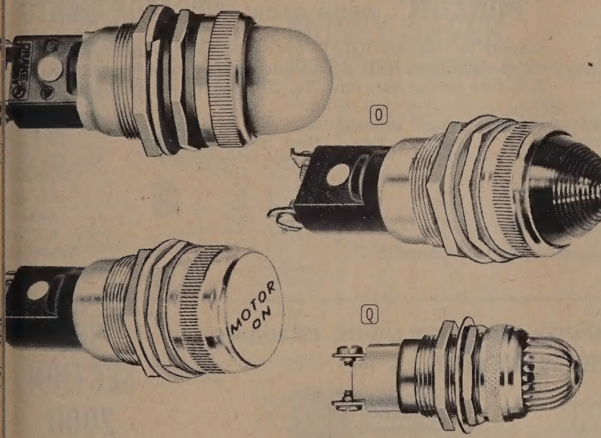


"STANDARD" INDICATOR LIGHTS

Practical, good-looking—polished chrome plated lens holder. Special feature: easy front replacement of pop-forward lamps. Snap-in lens assembly. Mount from front of panels up to ½″ thick, in 1″ dia. hole on 1⅜″ centers.

Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	List Price
B1476L-ISE-110		1″	Cand. Screw	7/16″	2 9/16″	6S6 or 10C7	$1.95
B1476L-ISE-410		1″	Cand. Screw	¾″	2 5/16″	6S6 or 10C7	1.96

DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.



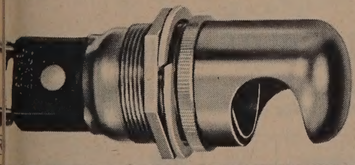
"TITELITE"

OIL-WATER-DUST PROOF INDICATOR LIGHTS

Neoprene gaskets seal out oil, water, dust, dirt. Ruggedly made for severe duty. Polished chrome plated screw-on lens holder (MIL types, black nickel plated); octagon nut for easier mounting. Pop-forward lamp on screw base units, easily replaced from front of panel. Mount from front or rear of panels up to 7/16″ thick, in 1″ dia. hole on 1⅜″ centers. No. 5205-233 has built-in ⅓ watt series resistor for NE51H lamp. Mounts from front or rear of panels up to ⅜″ thick, in 11/16″ dia. hole on 31/32″ centers.

Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamps	List Price
B979S-IBE-305	LH80-LC22	1″	D.C. Cand. Bay.	1 9/32″	1 ⅞″		6S6DC	$3.27
B979S-IBE-410		1″	D.C. Cand. Bay.	1 3/16″	2 ⅛″		6S6DC	3.23
B979S-IBE-430		1″	D.C. Cand. Bay.	1 3/16″	2 ⅛″		6S6DC	3.29
B979S-IBE-550		1″	D.C. Cand. Bay.	27/32″	2 ⅛″		6S6DC	3.48
B1479S-IBE-305		1″	Cand. Screw	1 9/32″	1 9/16″		6S6 or NE45	3.51
B1479L-IBE-410		1″	Cand. Screw	1 3/16″	1 27/32″		6S6 or 10C7	3.51
B1479L-IBE-430		1″	Cand. Screw	1 3/16″	1 27/32″		6S6 or 10C7	3.51
B1479L-IBE-550		1″	Cand. Screw	27/32″	2 1/32″		6S6 or 10C7	3.70
5205-223-301		⅝″	Min. Bayonet	29/32″	1 7/32″		44	2.99
5205-233-320		⅝″	Min. Bayonet	29/32″	1 7/32″	25K	NE51H	3.36

S DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.



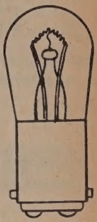
CANDELABRA SCREW BASE INSTRUMENT LIGHT

For 120V, 6S6 lamp. Nickel plated friction hood. Mounts from front or rear of panels up to ½″ thick, in 1″ dia. hole on 1⅜″ centers.

g. o.	Drake Number	MIL Style Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Lamps	List Price
R	900-006			Cand. Screw	1 9/32″	1 29/32″	6S6	$2.17

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

LAMP NO.
6S6
120V



LAMP NO.
6S6DC
120V

LAMP NO.
NE45
120V

LAMP NO.
T-3¼
6.3 to
28V

LAMP NO.
NE51H
125 to 250V

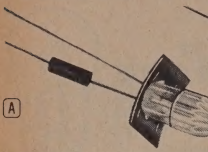
•
LAMP
SAME
AS 6S6
ABOVE
•

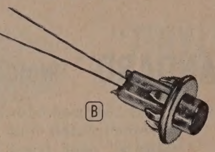
. PRICES LIST ★ ABOVE UNITS CAN BE ORDERED WITH LAMP INSTALLED ★ ALWAYS SPECIFY LENS COLOR

DRAKE

C H I C A G O 3 1 , I L L I N O I S

INDICATOR LIGHTS





"ECONOGLO" NEON GLOW INDICATOR LIGHT

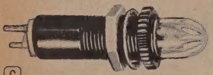
Excellent for LOW COST 115V applications or as D.C. circui components. Available with or without series resistors. Mour from front of panel. Equipped with 2" wire leads. Plain macrodom also available; substitute lens code 303 for 323 when ordering.

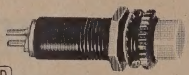
Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A*	116-323 or 303	11/32" on all numbers	3/8"	15/32"		5/16"	1/4"	17/32"	$ .37
	116-603		3/16"	11/16"		5/16"	7/16"	17/32"	.37
A	R116-323 or 303		3/8"	15/32"	100K	5/16"	1/4"	17/32"	.46
	R116-603		3/16"	11/16"	100K	5/16"	7/16"	17/32"	.46
	117-323 or 303		7/16"	13/32"		1/2"	1/16"	11/16"	.48
B	117-603		1/4"	5/8"		1/2"	1/16"	11/16"	.48
	R117-323 or 303		7/16"	13/32"	100K	1/2"	1/16"	11/16"	.57
B**	R117-603		1/4"	5/8"	100K	1/2"	1/16"	11/16"	.57

ALL ILLUSTRATIONS ARE APPROX. 3/4 ACTUAL SIZE

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H". * No Resistor ** With Resistor

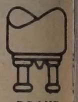




"MINEON" NEON GLOW INDICATOR LIGHTS

Similar to "ECONOGLO" types, except mounted in black an dized aluminum body with solder lugs or turret terminals. Drak E-Z-Tite facing nut, and No. 20 wrench, make assembly fast.

Fig. No.	Drake Number: Pin Lugs	Drake Number: List Price	Drake Number: Turret Lugs	Drake Number: List Price	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers
C	118-323	$1.14	119-323	$1.63	11/32"	15/32"	1 3/16"		3/8"	3/8"	5/8"
D	118-604	1.14	119-604	1.63	11/32"	9/32"	1 3/16"		3/8"	3/8"	5/8"
C	R118-323	1.46	R119-323	2.07	11/32"	15/32"	1 3/16"	100K	3/8"	3/8"	5/8"
D	R118-604	1.46	R119-604	2.07	11/32"	9/32"	1 3/16"	100K	3/8"	3/8"	5/8"

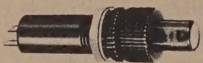


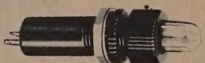
DRAKE NO. 119 TURRET LUG

LENS DESCRIPTION CODE (last three Drake Number digits): See preceding page for explanation.

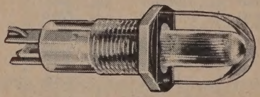
For HI-BRIGHTNESS Lamps, prefix Drake Number with letter "H".

FOR FULL DETAILS ABOUT DRAKE'S *COMPUTER INDICATOR LIGHTS*, INCLUDING BI-PIN CARTRIDGE LIGHTS





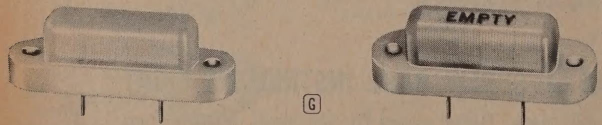
SEE SECTION 2000



"POSTLITE" INDICATOR LIGHTS

Unique all polystyrene neon indicator light wit built-in series resistor. Extremely decorative.

Fig. No.	Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
F	105	5/8" (Sq.)	3/4"	1 9/16"	100K	Std.	9/16"	7/8"	$1.13
F	105-025 (Hi-Brite)	5/8" (Sq.)	3/4"	1 9/16"	25K	Hi-Brite	9/16"	7/8"	1.13



"FLUSHLITE" INDICATOR LIGHT

"One-of-a-kind" neon unit—all nylon wit built-in series resistor. Exceptional appearanc

Fig. No.	Drake Number	Lens Size	Length in Front of Panel	Length Behind Panel Face	Built-In Resistor (Ohms)	Lamp	Max. Panel Thickness	Mounting Centers	List Price
G	110	13/32" x 1 1/4"	11/32" or 9/16"	17/32" or 5/16"	100K	NE2E	11/32" (Rear Mtd.)	9/16" or 1 7/8"	$ .83
G	110-022 (Hi-Brite)	13/32" x 1 1/4"	11/32" or 9/16"	17/32" or 5/16"	22K	NE2H	11/32" (Rear Mtd.)	9/16" or 1 7/8"	$ .83

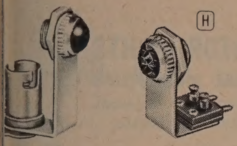
ALL PRICES LIST ★ ALL ABOVE UNITS HAVE NON-REPLACEABLE LAMPS ★ *ALWAYS SPECIFY LENS COLO*

© U.C.P., Ir

INDICATOR LIGHTS

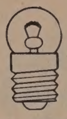
DRAKE

CHICAGO 31, ILLINOIS


H

"MINISPACE" 5/16″ Lens
MONEY SAVER INDICATOR LIGHTS

For practical economy. Lamp replacement from behind panel. Cadmium plated lens holder has Drake E-Z-Tite knurl, for fast assembly with Drake No. 14 wrench.

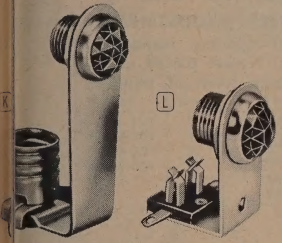

MIN. SCREW
BULB NO. G-3½
1.3 to 6.3V

MIN. BAY.
BULB NO. G-3½
63 to 28V

Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
5-113	5/16″	Min. Screw	7/32″	29/32″		G-3½	5/16″	1/8″	5/8″	$ .39
5B-103	5/16″	Min. Bay.	7/32″	29/32″		G-3½	5/16″	1/8″	5/8″	.42
2005-IL-113	5/16″	Min. 2-Pin	7/32″	13/16″		G-3½	5/16″	1/8″	5/8″	.39
5005-272-113	5/16″	Min. Wedge	7/32″	21/32″		T-3¼	5/16	1/8″	5/8″	.39

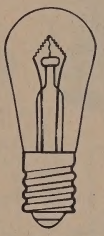
DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

2-PIN
BULB NO. G-3½
2.5 to 6.3V


L

MONEY SAVER
INDICATOR LIGHTS—1/2″ Lens

Popular low cost units. Lamps replaced from behind panel. Nickel plated lens holder.


LAMP NO. 6S6
120V

WEDGE BASE
BULB NO. T-3¼
6.3 to 14V

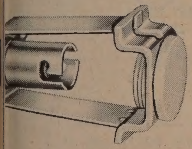
MIN. SCREW
BULB NO. T-3¼
2.5 to 6.3V

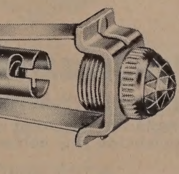
Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Bulb Size	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
10-113	½″	Min. Screw	9/32″	31/32″		T-3¼	7/16″	¼″	23/32″	$ .35
10C-113	½″	Cand. Screw	9/32″	1″		S6	7/16″	¼″	23/32″	.52
10G-113	½″	Min. Bay.	9/32″	31/32″		G-3½	7/16″	¼″	23/32″	.35
10T-113	½″	Min. Bay.	9/32″	1 7/32″		T-3¼	7/16″	¼″	23/32″	.35
5010-272-113	½″	Min. Wedge	9/32″	21/32″		T-3¼	7/16″	¼″	23/32″	.43

DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
No. 10C-113 is UL and CSA Listed.

(ALL ILLUSTRATIONS APPROX. ¾ ACTUAL SIZE)

MIN. BAY.
BULB NO. T-3¼
6.3 to 28V

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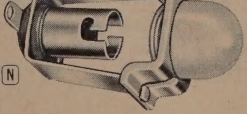

N

MONEY SAVER
MINIATURE BAYONET BASE
INDICATOR LIGHTS
with Snap-in Brackets

Available with attached ⅓ watt series resistor for NE51H Hi-Brightness neon lamp. Specify 100 K resistor for NE51 lamp. Lamps replaced from behind panel. No. 54 has nickel plated lens holder with Drake E-Z-Tite knurl for Drake No. 24 wrench.

Drake Number	Lens Dia.	Length in Front of Panel	Length Behind Panel Back	Built-In Resistor (Ohms)	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
52-504	11/16″	1/16″	1 ½″		9/16″	3/32″	23/32″	$ .34
N252-IL-503	11/16″	1/16″	1 ½″	22K	9/16″	3/32″	23/32″	.71
53-304	5/8″	7/16″	1 7/32″		9/16″	3/32″	23/32″	.34
N253-IL-323	5/8″	7/16″	1 7/32″	22K	9/16″	3/32″	23/32″	.71
54-113	½″	11/32″	1 13/32″		9/16″	5/16″	23/32″	.54
N254-IL-103	½″	11/32″	1 13/32″	22K	9/16″	5/16″	23/32″	.85

LAMP NO.
NE51H
125 V

MIN. BAY.
BULB NO. T-3¼
6.3 to 28V

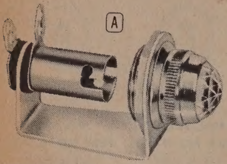
ESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.
N253, N254 are UL and CSA Listed.

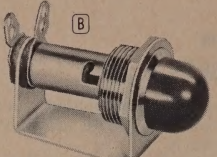
PRICES LIST* ★ ABOVE UNITS CAN BE ORDERED WITH LAMPS ★ *ALWAYS SPECIFY LENS COLOR

DRAKE

CHICAGO 31, ILLINOIS

INDICATOR LIGHTS





MIN. BAY.
BULB NO. T-3
6.3-28V

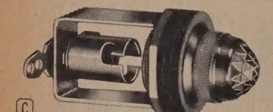
MONEY SAVER INDICATOR LIGHTS

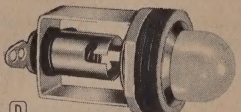
HORIZONTAL MOUNTING

Plastic lens. Lamps replaced from front of panel. Nickel plated lens holder. Rated at 2 watts.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Back	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
A	20-113	½″	Min. Bay.	17/32″	1 11/32″	11/16″	7/64″	1″	$ .53
	20S-113	½″	Min. Screw	17/32″	1 5/32″	11/16″	15/64″	1″	.54
B	21C-304	⅝″	Min. Bay.	½″	1 9/32″	11/16″	15/64″	1″	.44

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.





MIN. SCREW
BULB NO. T-3
2.5-6.3V

•
MIN. BAY.
AS ABOVE
•

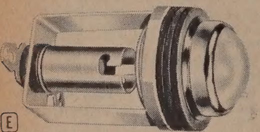
MONEY SAVER INDICATOR LIGHTS

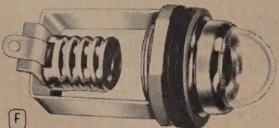
FOR EASY PANEL THICKNESS ADJUSTMENT

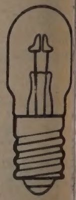
Supplied with three fiber spacing washers. Sturdily built. Plastic lens. Nickel plated lens holder. Lamps replaced from front of panel. Rated at 2 watts.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
C	50-113	½″	Min. Bay.	17/32″	1 9/32″	11/16″	¼″	1″	$ .74
D	51-304	⅝″	Min. Bay.	½″	1 7/32″	11/16″	¼″	1″	.63

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.







LAMP NO. NE-
125V

"STANDARD" INDICATOR LIGHTS

FRONT LAMP REPLACEMENT

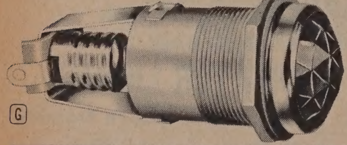
Smallest diameter units with front lamp replacement for 120 V incandescent lamps. Polished chrome friction lamp holder.

Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
E	60-101	¾″	Min. Bay.	⅜″	1 ½″	13/16″	¼″	1⅛″	$1.40
	A460N-IL-100	¾″	Cand. Screw	⅜″	1 13/16″	13/16″	¼″	1⅛″	1.45
F	A461N-IL-203	¾″	Cand. Screw	19/32″	1 ¼″	13/16″	¼″	1⅛″	1.42

LENS DESCRIPTION CODE (last three Drake Number digits): See earlier page for explanation.

N460N-IL-100 and A461N-IL-203 are UL and CSA Listed.

LAMP NO.
6T4/3
120V



LAMP NO. 6
120V

MONEY SAVER INDICATOR LIGHT

SLIP-FIT BEZEL FOR EASY INSTALLATION

Lamps may be replaced from front or rear of panel. Polished chrome friction lens holder.

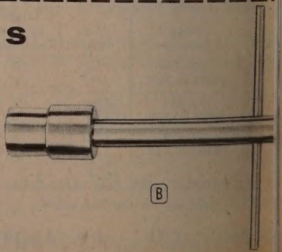
Fig. No.	Drake Number	Lens Dia.	Base	Length in Front of Panel	Length Behind Panel Face	Mounting Hole Dia.	Max. Panel Thickness	Mounting Centers	List Price
G	75-110	1″	Cand. Screw	7/16″	2 ¼″	1″	½″	1⅜″	$1.46

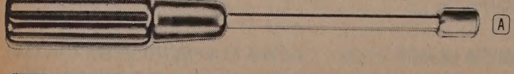
LENS DESCRIPTION CODE (last three Drake Number digits): see earlier page for explanation.

DRAKE *E-Z-TITE* WRENCHES

Special Socket Wrenches to fit specially knurled mounting bushing flanges or nuts. Speeds up mounting of units. Number of required wrench given in unit descriptions.

Fig. No.	Drake Number	Size
A	651-14	7/16″ dia.
A	651-20	½″ dia.
A	651-24	⅝″ dia.
B	652-32	13/16″ dia.





LENSES & LAMPHOLDERS

DRAKE

CHICAGO 31, ILLINOIS

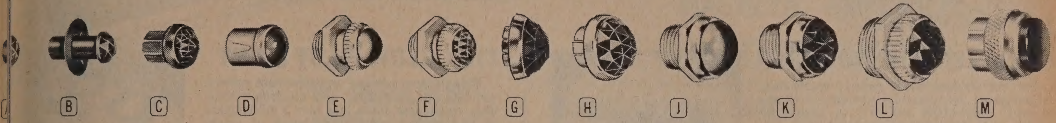


Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
A	615S-113	9/32"	.218	Solid	1/8"	$ .09
B	615L/1-113	9/32"	.218	Solid	1/2"	.12
C	24-113	5/16"	.278/.282	15/64"	1/4"	.11
D	36-101	5/16"	.324/.330	19/64"	5/16"	.41
E	14L-15-113	5/16"	5/16"—32 Thd.	15/64"	3/8"	.25
F	14L-15-103	5/16"	5/16"—32 Thd.	15/64"	3/8"	.28

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
G	31-113	1/2"	.373/.377	11/32"	5/64"	.18
H	23-113	1/2"	.373/.377	11/32"	3/16"	.17
J	16-17-113	1/2"	7/16"—27 Thd.	11/32"	3/8"	.22
K	16-17-103	1/2"	7/16"—27 Thd.	11/32"	3/8"	.26
L	38-52B-110	1/2"	9/16"—27 Thd.	7/16"	3/8"	.39
M	103A-500	1/2"	.483/.485	15/32"	3/16"	.51

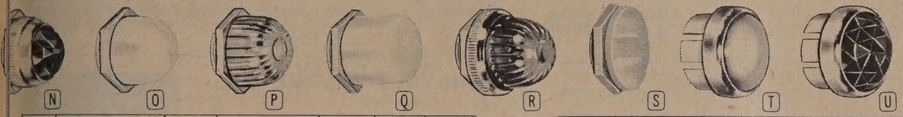


Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
N	25-52B-110	1/2"	9/16"—27 Thd.	7/16"	3/16"	.35
O	25P-52B-304	5/8"	9/16"—27 Thd.	7/16"	3/16"	.32
P	25P-52B-323	5/8"	9/16"—27 Thd.	7/16"	3/16"	.32
Q	25P-52B-604	5/8"	9/16"—27 Thd.	7/16"	3/16"	.32

Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
R	25G4-52B-320	5/8"	9/16"—27 Thd.	7/16"	3/16"	.76
S	52A-B-504	11/16"	9/16"—27 Thd.	7/16"	3/16"	.22
T	60A-101	3/4"	.685/.687	5/8"	1/4"	.60
U	60A-110	3/4"	.685/.687	5/8"	1/4"	.57

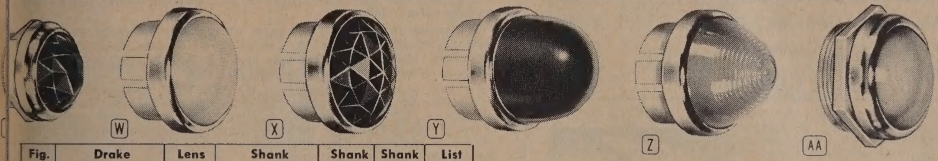


Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
V	60A3-27-110	3/4"	11/16"—27 Thd.	37/64"	3/8"	.44
W	75A-101	1"	.887/.889	53/64"	5/16"	.65

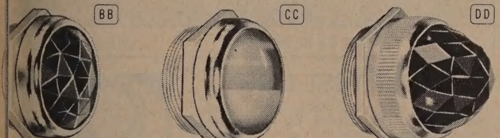


Fig. No.	Drake Number	Lens Dia.	Shank O.D.	Shank I.D.	Shank Length	List Price
X	75A-110	1"	.887/.889	53/64"	5/16"	.61
Y	75A-305	1"	.887/.889	53/64"	5/16"	.73
Z	75A-431	1"	.887/.889	53/64"	5/16"	.69
AA	75A3-C-101	1"	1"—27 Thd.	53/64"	3/8"	1.05
BB	75A3-C-110	1"	1"—27 Thd.	53/64"	3/8"	1.01
CC	75A3-C-500	1"	1"—27 Thd.	53/64"	3/8"	1.04
DD	75A4-C-410	1"	1"—27 Thd.	7/8"	5/16"	1.18

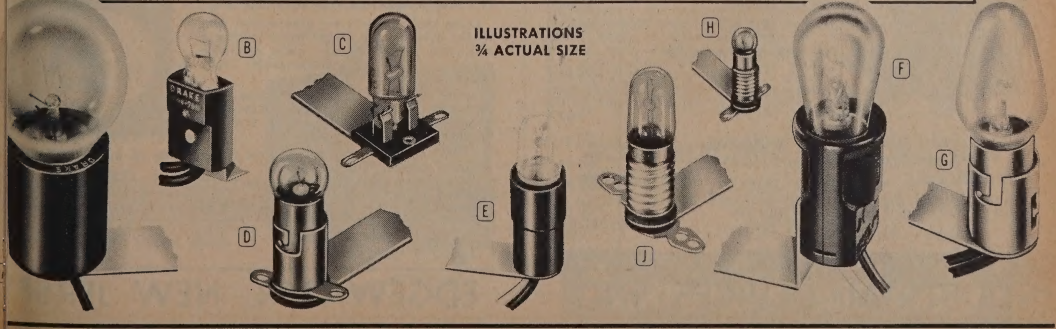
(ALL ILLUSTRATIONS APPROX. 3/4 ACTUAL SIZE)

★ ***ALWAYS SPECIFY LENS COLOR*** ★

A FEW DRAKE LAMPHOLDERS

Ask for additional information about these and other styles

- A: No. A1700 Intermediate Screw Base with Phenolic Housing
- B: No. 1900 Miniature 2-Pin Base with Phenolic Housing
- C: No. 4272 "WEDGE-GRIP" Miniature Wedge Base
- D: No. 4080 Miniature Bayonet Base
- E: No. N500 Miniature Bayonet Base with Nylon Housing
- F: No. B1400 Candelabra Screw Base with Phenolic Housing
- G: No. A1100 Double Contact Bayonet Base
- H: No. 2100 Midget Screw Base
- J: No. 100 Miniature Screw Base

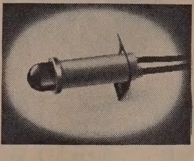


ILLUSTRATIONS
3/4 ACTUAL SIZE

INDUSTRIAL DEVICES, Inc.

EDGEWATER, NEW JERSEY

OMNI-GLOW PILOT LIGHT



For use on instrument panels, appliances, switchboards, all electrical and electronic apparatus, OMNI-GLOW will last in excess of 10,000 to 25,000 hours of operating life.

With built-in glow lamp and current limiting resistor, all mechanical spring contacts are eliminated, providing a cost-saving, rugged unit relatively free from failure due to vibration or shock.

Easy mounting — only a ½" hole required for any panel thickness. Instant fastening — speed nut assures permanent shock and vibration-proof attachment.

Drawing less than 1/10 watt at 115 volts, long life, high reliability operation is provided over the 75-150 volt range; can also be used at higher voltage with decreased life.

Nylon body and acrylic lens assembly is 1 15/16" long overall. Lens extends 17/32" in front of panel. Black plastic (105°C) leads are 4½" long, stripped and tinned ½".

Four standard models have red (Model #1010A1), clear (Model #1010A2), amber (Model #1010A3), or white translucent (Model #1010A4) lenses.

Furnished complete with lamp and speed nut, OMNI-GLOW is UL approved—CSA Approval No. 13346.

Catalog Number	Description	List Price
1010A1	OMNI-GLOW Pilot Light (red lens)	$ .90
1010A2	OMNI-GLOW Pilot Light (clear lens)	$ .90
1010A3	OMNI-GLOW Pilot Light (amber lens)	$ .90
1010A4	OMNI-GLOW Pilot Light (white lens)	$ .90

SAFE-T-KLIP

(U. S. Patent 2,754,490)

New convenience and safety are realized through the use of 100% insulation on these test clips. Tough nylon insulation covers the entire clip, including the nose, without the bulkiness of rubber boots or insulating tape. Danger of short circuit due to clips touching each other or other components is eliminated, and test leads may be changed from one connection to another without cutting the power in the equipment.

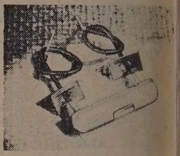
Available in pairs (one red, one black) SAFE-T-KLIP incorporates a cadmium plated steel alligator clip and provides shock-proof, short-circuit proof operation in excess of 600 volts. Width of the clips is ⅜"; maximum height is ⅝".

Four models are available. The #1410A is for use with a wire lead and provides either a soldered or screw terminal connection. The nylon sleeve is threaded to the clip for easy connection: Overall assembled length is 2 13/16". The #1410B, with overall length of 2 11/32", provides positive clip connection to all standard (.081 dia.) phone-tip test prods. The #1410C has a jack for standard banana plugs and an overall length of 2 1/16".

The 1410D is similar to 1410B except that the entrance hole is modified for Signal Corps. application.

Catalog Number	Description	List Price
1410A	SAFE-T-KLIP for use with lead wire provides screw terminal or solder	$1.80 pr.
	Color — black (Model No. 1410-A1)	.90 ea.
	Color — red (Model No. 1410-A2)	.90 ea.
1410B	SAFE-T-CLIP for use with standard .080" test prod	1.50 pr.
	Color — black (Model No. 1410-B1)	.75 ea.
	Color — red (Model No. 1410-B2)	.75 ea.
1410C	SAFE-T-KLIP for use with banana plug	1.20 pr.
	Color — black (Model No. 1410-C1)	.60 ea.
	Color — red (Model No. 1410-C2)	.60 ea.
1410D	SAFE-T-KLIP for Signal Corps use	1.40 pr.
	Color — black (Model No. 1410-D1)	.70 ea.
	Color — red (Model No. 1410-D2)	.70 ea.

TINY-GLOW PILOT LIGHT



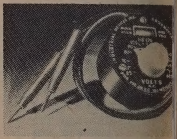
Midget Size. For use on instrument panels, switchboards, electrical and electronic aparatus. Neon lamp draws less than 1 milliampere at 110 volts. Over 25,000 hours of actual service, operates over a wide range, 75 to 250 volts. A.C. or D.C. TINY-GLOW outlasts the equipment that it serves.

Shock and vibration proof, no spring contacts, soldered connections. Requires less back-of-panel space than any other pilot light. Polished chrome plated housing, ⅜" brass mounting studs. Mounts simply and easily with speed nuts on two 13/64" hol
1⅜" apart. Furnished complete with lamp and speed nuts. Dimensions: 1 11/16
7/16" x ⅜".

Catalog Number	Description	List Price
300	TINY GLOW Pilot Light	$1.25

MINI-VOLT VOLTMETER

(U.S. Pat. 2,644,134)



MINI-VOLT is an "abuse-proof" voltmeter, sufficiently accurate to indicate a 2 or 3 volt drop on 110 volt line. Virtually burn-out proof, this rugged unit is used by electricians, radio and TV repairmen, refrigeratior and air conditioning servicemen, experimentors, lab technicians, handymen.

MINI-VOLT has wide application for all equipment whose proper operat
requires correct voltage.

In addition to measuring the exact voltage over the range from 65 to
volts, Model #400B is used to identify AC or DC lines, check rectifiers, fil
capacitors, chokes; test for blown fuses, grounded components, DC polar
measure voltage drops with load, and 1001 other uses.

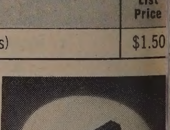
For use on AC (any frequency) or DC, MINI-VOLT, with an impedance of
proximately ½ megohm, draws negligible current and can therefore prov
dependable voltage readings even on circuits used in electronic apparatus.

Will provide a lifetime of service — glow lamp is guaranteed for 25,000 ho
of actual operation. Furnished complete with extra-heavy insulated 12-in
flexible test leads and test prods.

Lightweight impact resistant case and dial panel, thoroughly insulated.
rugged that instrument can be thrown into tool box or dropped to floor with
damage C.S A. approval #8910.

Catalog Number	Description	List Price
400B	Range 65 to 660 volts	$3.75

LINE-VOLT TEST LIGHT



LINE-VOLT Model No. 1310 is a rugged, compact test light covering the wide range of 55-550 VAC or 90-600 VDC.

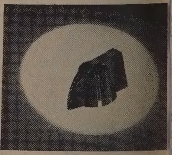
LINE-VOLT tells immediately whether there is power in the line, checks fuses, can identify AC or DC lines, grounded components, continuity of line circuits.

Leads are 12" long overall and are heavy-duty flexible wire terminating
3½" insulated prods with really sharp points—able to pierce insulation, pai
or oxidation. Bright lamp provides immediate positive indication.

14" long overall, diameter ⅝".

Catalog Number	Description	List Price
1310	LINE-VOLT Test Lite (55-550 volts)	$1.50

NYLON CONTROL KNOBS



Loose knob problems are gone forever with molded nylon pointer knobs! Nylon toughness eliminates metal bushings; nylon resilience provides a positive, vibration-proof, high-torque lock against the shaft.

Nylon knobs are practically unbreakable, can't fade or chip, have high insulation resistance, are virtually immune to acid and solvents.

Furnished complete with set-screw, these knobs fit a ¼" shaft and
available in red or black.

Catalog Number	Description	List Price
1431-1	Nylon pointer knob, 1¼" x 19/32" x ¾", black	$ .25
1431-2	Same in red	.25

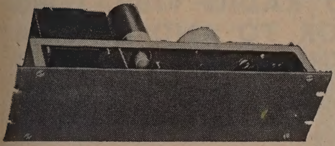
INDUSTRIAL DEVICES, INC. EDGEWATER, NEW JERSEY

© U.C.P., I

Acme ACME Electric
ENGINEERED FOR QUALITY

POWER SUPPLIES
CONSTANT VOLTAGE STABILIZERS
MAGNETIC AMPLIFIERS
VOLTAGE ADJUSTORS

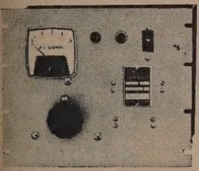
DC REGULATED POWER SUPPLIES



Continuous duty magnetic power supplies. No tubes. Output voltage adequately maintained. Rapid recovery from input line variations and/or sudden load changes. Current limited. Units feature constant voltage transformer, resonant capacitor, electrolytic filter, silicon rectifiers, adequate bleeder. Bulletin 174.

100-130 volt, 60 cycles; Less than 1% ripple voltage RMS.

Catalog No.	Watts	Amps	D.C. Volts	Approx. Efficiency
PS-41423	150	6.25	24	76
PS-41424	200	4.15	48	81
PS-41425	250	2.0	125	86
PS-41426	300	2.0	150	86
PS-41427	200	1.0	200	80
PS-41428	250	1.0	250	85



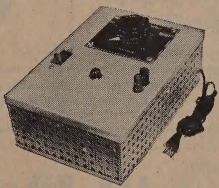
UNFILTERED, NON REGULATED POWER SUPPLIES

Sturdily built, economically priced, manual regulation, silicon rectifiers provide full-wave d-c output. Bulletin 174.

Input 100-120 volts, 60 cycles.

Catalog No.	Watts	D.C. Volts	Amps
PS-39887	300	0-100	3
PS-39888	500	0-100	5
PS-39889	1000	0-100	10
PS-39890	2000	0-100	20

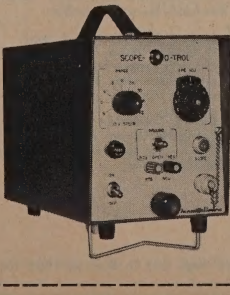
ADJUSTABLE DC POWER SUPPLIES
Portable or Rack Models



95-130 volts, 60 cycle. Direct current output stabilized and adjustable from 0-45 volts, current outputs 0:2.5 amp. and 0-5 amps. Voltage regulation approximately 5% between full load and no load.

Available in portable, plug-in model or standard rack type. Bulletin 17.

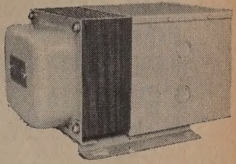
SCOPE-O-TROL



Operates from 115 volt, 60 cycle circuit. Regulated output range from 0 to 300 volts d-c, stabilized at any desired setting. Coarse adjustment, 75 volt steps, fine adjustment .25/degree. Less than 1 millivolt ripple RMS. Current limiting and short circuit protection. Bulletin 17.

CONSTANT VOLTAGE STABILIZERS

VA Output Capacity	Catalog Number	Input Voltage	Output Voltage ±1%
15	T-19700	95-130	6.3
15	T-19701	95-130	120
25	T-19703	95-130	6.3
25	T-19704	95-130	120
50	T-19706	95-130	6.3
50	T-19707	95-130	120
100	T-31901	95-130	120
200	T-31902	95-130	120
300	T-31903	95-130	120
500	T-31905	95-130	120
1000	T-31908	95-130	120
2000	T-31909	95-130	120
100	T-31921	190-260	120
200	T-31922	190-260	120
300	T-31923	190-260	120
500	T-31925	190-260	120
1000	T-31928	190-260	120
2000	T-31929	190-260	120
100	T-31911	190-260	240
200	T-31912	190-260	240
300	T-31913	190-260	240
500	T-31915	190-260	240
1000	T-31918	190-260	240
2000	T-31919	190-260	240



Standard units stabilize output voltage ±1% while input voltage may vary ±15% of nominal rating. Voltage correction response within 2 cycles. Automatic overload and short circuit protection. Write for Bulletin 09.

SPECIAL FOR TV RECEIVERS AND SIMILAR USE

200 va capacity, fully automatic, noiseless operation. Corrects 95-130 volts fluctuation to normal ±2% within 1/30th second. Automatic secondary disconnect when not loaded. Supplied with primary cord and receptacle for output connection. Bulletin 091.

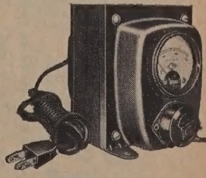
MAGNETIC AMPLIFIERS

Combine solid state electronic components with magnetic reactors and advanced circuitry. Bias control winding is converted from input line to provide self saturation of core. Independent gain control operates from 0-5 ma signal. Independent potentiometers permit individual adjustment of bias or gain control.

Catalog No.	Watts	Dc Output Volts	Amps	AC Input
MA-42900	5	24	0.21	120
MA-42901	40	80	0.5	120
MA-42902	80	80	1.0	120
MA-42903	125	80	1.6	120
MA-42904	250	80	3.2	120
MA-42905	500	80	6.4	120
MA-42906	500	160	3.2	240
MA-42907	1000	80	12.8	120
MA-42908	1000	160	6.4	240

MANUAL VOLTAGE ADJUSTORS

An inexpensive voltage adjustor that increases a low voltage or reduces a high voltage condition to 115 volts. Seven steps of adjustment from 95 to 125 volts input to approximately 115 volts output. Units supplied with integrally mounted tap-switch, cord and plug and plug-in receptacle for outlet connection. Write for Bulletin 091.



ACME ELECTRIC CORPORATION
11 Water Street **Cuba, New York**
In Canada: Acme Electric Corp. Ltd., 50 Northline Rd.,
SAA-3581-2034 **Toronto, Ont.**

Acme ACME Electric

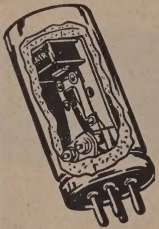
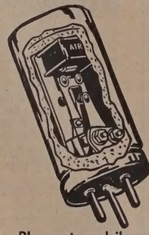
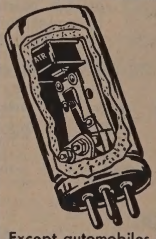
INSIST on ATR VIBRATORS-*Get the Best!!*

ATR Replacement Vibrator Specifications

FOR COMPLETE INFORMATION ON AUTO RADIO VIBRATORS FOR AUTOMOBILES MANUFACTURED PRIOR TO AND IN 1954 SEE ATR VIBRATOR MANUAL NO. 554. THIS MANUAL ALSO CONTAINS INFORMATION ON HOUSEHOLD, 2-WAY COMMUNICATION SETS AND:

- VIBRATOR LISTINGS BY RECEIVER NAME AND MODEL NUMBER.
- BUFFER REFERENCE CIRCUITS.
- SUBSTITUTION CHART ON DISCONTINUED VIBRATORS.
- VIBRATOR SPECIFICATIONS.
- VIBRATOR EQUIVALENT CHARTS.
- CROSS REFERENCE LISTINGS.
- AUTO BATTERY GROUND CHARTS.
- INSTALLATION NOTES.
- SERVICING PROCEDURE FOR AUTO RADIO VIBRATORS.

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW

No. 340 (Boxed) No. 1400 (Bulk)	No. 1343 (Boxed) No. 1843 (Bulk)	No. 1340 (Boxed) No. 1840 (Bulk)
 4-Prong 6-Volt For all 6-Volt Sets Since 1954	 3-Prong 12-Volt FOR ALL 12-VOLT GENERAL MOTORS SINCE 1954 Plus automobiles shown in box below.	 4-Prong 12-Volt For 12 Volt Cars other Than GM Since 1954 Except automobiles shown in box below.

ATR Type 1343 and 1843 also used in following automobiles: 1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco).

EVERYBODY AGREES ATR AUTO-RADIO VIBRATORS *are* TOPS

Here's why-

ATR Vibrators, the heart of vibrator-operated power supplies, are proven units of the highest quality engineered to perfection. They are backed by more than thirty-one years of vibrator design and research, development and manufacturing — ATR pioneered in the vibrator field.

All ATR Products incorporate only the best materials and workmanship and are carefully manufactured under rigid engineering inspections and tests making them the finest that can be built.

...ATR Vibrators Feature

- ✓ **Ceramic Stack Spacers** with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.
- ✓ **Instant Starting** — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.
- ✓ **Large Oversize Tungsten Contacts** having Full Wiping Action — for greater reliability and longer life.
- ✓ **Perforated Reed** of Highest Quality Swedish Spring Steel — for uniform flexibility and prevention of reed breakage.
- ✓ **Highest Precision Construction and Workmanship** — Practically all parts used are held to within a tolerance of 0.0005 of inch.
- ✓ **Value Plus** — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

© U.C.P., Inc.

Communication Vibrators for SUPER SERVICE

As introduced in the 1954 May-June issues of many leading radio magazines, ATR COMMUNICATION VIBRATORS are truly THE WORLD'S FINEST. See reprint of ad on this page for feature specifications.

ATR COMMUNICATION VIBRATORS eliminate the problem of short-life call-backs on those tough two-way communication rigs. Yes, Sir! these ATR COMMUNICATION VIBRATORS deliver SUPER SERVICE.

ATR VIBRATORS FEATURE:

CERAMIC STACK SPACERS with Two-Bolt Stack Construction — for adjustment permanency under any operating condition.

INSTANT STARTING — as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

LARGE OVERSIZED TUNGSTEN CONTACTS having Full Wiping Action—for greater reliability and longer life.

PERFORATED REED of Highest Quality Swedish Spring Steel—for uniform flexibility and prevention of reed breakage.

HIGHEST PRECISION CONSTRUCTION AND WORKMANSHIP — Practically all parts used are held to within a tolerance of 0.0005 of an inch.

VALUE PLUS — as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship.

ATR INTRODUCES

ATR
ATR
VIBRATOR
348
35404
For use only on approved
6 volt D. C. Circuits
PATENTS PENDING
ATR MFG. CO., INC.
ST. PAUL, MINNESOTA
MADE IN U.S.A.

The World's Finest Communication VIBRATORS

featuring:

- CERAMIC STACK SPACERS
- ¼″ DIAMETER POWER CONTACTS
- DRIVER-TYPE COIL CONSTRUCTION
- SPECIAL REED HINGE and WIRING
- POWER CAPABILITY UP TO 15 AMPERES

A COMPLETE LINE OF REPLACEMENT

ATR VIBRATORS

FOR AUTOMOTIVE, HOUSEHOLD and TWO-WAY COMMUNICATION SETS

ATR VIBRATORS are proven units of the highest quality, engineered to perfection. They are backed by more than 31 years of vibrator design and research, development and manufacturing.
ATR pioneered in the vibrator field.

POLICE
POLICE
TAXI
FIRE
COMMERCIAL

JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

© U.C.P., Inc.

ATR

"A" BATTERY ELIMINATORS

. . . FOR DEMONSTRATING AND TESTING AUTO RADIOS

6 VOLT OR 12 VOLT!

TRANSISTOR or VIBRATOR OPERATED!

LOW RIPPLE!!

Specially Designed for Testing and Operating Auto Radios and D.C. Electrical Apparatus on Regular A.C. Lines, 105-125 Volts, 50-60 Cycles.

SUGGESTED USES:

As a power supply for radio sets, aircraft instruments, relays, motors and other electrical and electronic equipments. In the laboratory, for supplying various low D.C. voltages.

Battery Eliminators may be treated as batteries in the sense that they can be connected in series for higher voltages at the same current output per unit or in parallel for the same output voltage per unit at higher currents.

- ✓ **Eliminates Storage Batteries and Battery Chargers.**
- ✓ **Operates the Equipment at Maximum Efficiency at All Times.**
- ✓ **Delivers Filtered Direct Current at the Correct Voltage for Proper Operation.**
- ✓ **Minimum Ripple**
- ✓ **Fully Automatic and Fool-Proof**
- ✓ **Adjustable Voltage Control**

D.C. VOLTS
AMPERES
6V
12V
ATR RECTIFIER POWER SUPPLY
FUSE

Featured cut illustrates Heavy Duty "A" Battery Eliminator, Model 620C-ELIT; equipped with Voltmeter, Ammeter and Voltage Control.

Illustrates Standard "A" Battery Eliminator, Model 610C-ELIF; equipped with Voltmeter, Ammeter and Voltage Control.

Equipped with Full-Wave Dry Disc Selenium Rectifier, Assuring Noiseless, Interference-Free Operation and Extreme Long Life and Reliability.

TYPE 610C-ELIF—Rated output 6 volts at 10 amperes continuous or 12 volts at 6 amperes continuous. Size 6½" x 9⅛" x 8½". Shipping weight, 22 lbs. Code word "SELIT." USER NET PRICE $49.95

TYPE 620C-ELIT—Rated output 6 volts at 20 amperes continuous or 12 volts at 10 amperes continuous. Uses dual rectifiers. Sizes 6½" x 12⅞" x 8½". Shipping weight, 33 lbs. Code word "HELIT." USER NET PRICE $66.95

Either 6 or 12 volt output obtainable by means of simple output toggle switching arrangement having locking device to prevent accidental switching.

All ATR Eliminators have as standard equipment: On-Off Switch, 8-Position Voltage Control, Meter(s), Fuse Protection, Rubber Mounting Feet, 6-ft. All-Rubber Cord Set and Cabinet of heavy gauge metal having attractive grey-hammerloid finish.

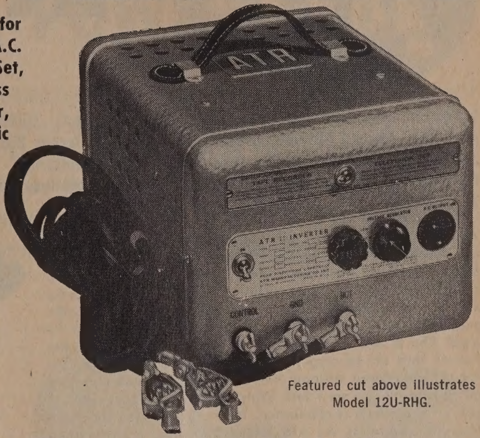
JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

© U.C.P., Inc.

UNIVERSAL INVERTERS

Specially Designed for Operating Standard A.C. Tape Recorder, Television Set, Dictating Machine, Radio Set, Ham Gear, Public Address System, Amplifier, Record Player, Electric Razor, Food Mixer, Vacuum Cleaner, Sewing Machine, Business Machine, Electric Drill, Fluorescent and Incandescent Lamp, and Electronic Test Equipment from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Trains, Planes, and D.C. Districts. Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

ATR Universal Inverters are actually a combination of 4 Inverter designs in one unit! These Inverters are especially recommended for applications as mentioned above and feature complete RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector utilizing a simple toggle switch. With ATR Inverters, the need for special equipment is eliminated. They are designed for quiet, long-life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in Inverter Vibrators. These Inverters also come equipped with four-point voltage regulator which make possible the correct output voltage for minimum to maximum loads and also help compensate for input voltages which are lower or higher than normal. The operating efficiency is in excess of 75%. To figure approximate current consumption from storage battery, divide the rated input wattage of the recorder (or load) being operated by the storage battery voltage and further divide this answer by .75 which will give the actual current consumption based on the actual load and efficiency. The battery current consumption required for a tape recorder is normally less than that drawn by ordinary automobile headlight(s). These Universal Inverters are recommended only for use with loads having power factors in excess of 70%.



Featured cut above illustrates Model 12U-RHG.

ATR Inverters should be used only for the applications as outlined.

"—P" models equipped with cigarette lighter cord set to plug into dash receptacle.

All ATR Universal Inverters are housed in attractively finished grey-hammerloid metal cabinets.

Dimensions of Standard (RSF) Model Universal Inverters, 8½" x 9⅞" x 5¼"; shipping weight 22 lbs.

Dimensions of Heavy Duty (RHG) Model Universal Inverters, 6⅞" x 11¼" x 8½"; shipping weight 27 lbs.

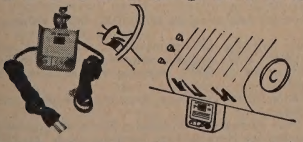
Dimensions of Super Heavy Duty (HSJ) Model Universal Inverters 6½" x 12⅞" x 8½"; shipping weight 37 lbs.

For correct replacement Vibrator, consult Inverter Vibrator Guide.

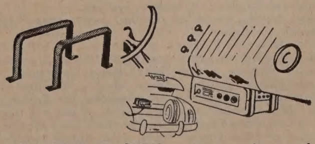
Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	Dealer Price
6U-RSF	6	110 Volts	100	80	22 lbs.	$ 50.00
6U-RSF-P	6	110	100	80	22	50.00
6U-RHG	6	110	150	125	27	66.34
6U-HSJ	6	110	175	150	37	83.34
12U-RSF	12	110	125	100	22	50.00
12U-RSF-P	12	110	125	100	22	50.00
12U-RHG	12	110	175	150	27	66.34
12U-HSJ	12	110	250	200	37	83.34
*28U-RSF	28	110	125	100	22	59.97
*28U-RHG	28	110	175	150	27	79.67
*28U-HSJ	28	110	250	200	37	96.67
32U-RSF	32	110	150	100	22	59.97
32U-RHG	32	110	200	180	30	70.50
32U-HSJ	32	110	325	225	37	96.67
50U-RSF	50	110	150	100	22	59.97
50U-RHG	50	110	225	200	27	79.67
110U-RSF	110	110	250	150	22	50.00
110AU-RHG	110	110	325	250	27	59.97
110BU-RHG	110	110	450	350	30	70.50
110U-HSJ	110	110	600	400	37	96.67
220U-RSF	220	110	250	150	22	53.00
220U-RHG	220	110	325	250	27	66.34
220U-HSJ	220	110	500	300	37	103.34

* Recommended for 24 volt battery systems.

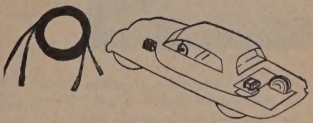
ACCESSORIES for 6, 12, and 28 Volt D.C. Input Inverters.



REMOTE CONTROL UNIT — for under-dash mounting permitting installation of Inverter in auto-trunk compartment. Dealer Price $5.97



MOUNTING BRACKETS — to securely mount Inverter in trunk compartment of car or under-dash, as illustrated. Dealer Price $3.30 pr.



EXTENSION CABLES — to provide additional cable lengths for installation of Inverter in trunk compartment. Dealer Price $6.63 pr.

JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

ATR

PORTABLE — Plug-in Type INVERTERS

Specially Designed for Operating Standard A.C. Dictating Machines, Record Players, Incandescent Lamps, Electric Razors, Electronic Test Equipment, and Other Small Electrical and Electronic Devices from D.C. Voltages in Automobiles, Buses, Trucks, Boats, Planes, Trains, and D.C. Districts.

ATR Portable Inverters are light-weight plug-in units for applications as recommended above. These Inverters feature instant starting, frequency stability, and high efficiency and reliability. Inverters have partial RF filtering which is only suitable for small insensitive type radios. For sensitive radio sets, ATR Universal Inverters, catalog sheet 657U, must be used. The 6 and 12-volt units are equipped with cigarette lighter cord set to plug into dash receptacle; whereas, the other higher input voltage units are equipped with standard two-blade plug-in cord sets. With ATR Inverters the need for special equipment is eliminated. They are designed for quiet, long-life operation. All ATR Models indicated are equipped with ATR plug-in Inverter Vibrators. Models RME and RMF come equipped with a four-point voltage regulator which makes possible the correct output voltage for minimum to maximum loads. The battery current consumption required is normally less than that drawn by one ordinary automobile headlight. The operating efficiency is approximately 75%. To figure battery current consumption see catalog sheet 657U. These Inverters are recommended only for use with loads having power factors in excess of 80% and should be used only for the applications as outlined above and on the reverse side of this sheet. **These Portable Inverters are not recommended for tape recorder operation, except as specified in (2) below.**

ATR
ATR VIBRATOR POWER SUPPLY
ATR MANUFACTURING CO., INC.

Illustrates ATR Mighty Midget (DME) Model Inverter having Cigarette Lighter Plug Attachment.

ATR
ATR INVERTER
VOLTAGE REGULATOR
A.C. OUTPUT
FUSE
ON

Illustrates ATR Medium (RME and RMF) Model Inverter having Four-Point Voltage Regulator and Cigarette Lighter Plug Attachment.

EASY TO INSTALL

EASY TO OPERATE

Ideal for Emergency Lighting Applications for Civil Defense, Red Cross, Rescue Work, etc., Simply Using Extension Cords.

TYPE	INPUT D.C. VOLTS	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE Int.	OUTPUT WATTAGE Cont.	SHIPPING WEIGHT	DEALER PRICE
6-DME (1)	6	110 Volts	40	30	5 lbs.	$16.63
6C-DME (1)	6/12	110	40	30	5	19.30
6-RMF (2)	6	110	80	60	12	33.00
6C-RMF (2)	6/12	110	80	60	12	36.64
12-DME (1)	12	110	50	40	5	16.63
12T-RME (2) (3)	12	110	125	90	12	33.00
*28-RME (2)	28	110	100	80	12	46.34
32-RME (2)	32	110	100	80	12	46.34
110-RME (2)	110	110	150	100	12	39.67

* Recommended for 24-Volt Battery Systems.

For Inverters having larger or smaller output capacities, or for operation on other D.C. input voltages, please consult available ATR Inverter catalog sheets.

All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of Medium (RME and RMF) Model Inverters, 8⅜″ x 8″ x 3¾″; shipping weight, 12 lbs. Dimensions of Mighty Midget (DME) Model Inverters, 5¼″ x 4¾″ x 2¾″; shipping weight, 5 lbs.* For correct replacement vibrator, consult Inverter Vibrator Guide.

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Soundscriber (with engine of car not running).

(2) Primarily recommended for Dictaphone's Time Master, Gray Audograph and DeJur Stenorette dictating machines, or other similar types. Also, highly recommended for Norelco Tape Recorder Model EL-3516 and Geloso Model G255-S.

(3) THIS INVERTER SPECIALLY DESIGNED AND RECOMMENDED ALSO FOR USE WITH RCA 8½″ PORTABLE TV SET OR G.E. 9″ PORTABLE TV SET IN AN AUTOMOBILE.

Illustrates Under-Dash Mounting for ATR Models RME and RMF. See Page 942 for available accessories.

JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

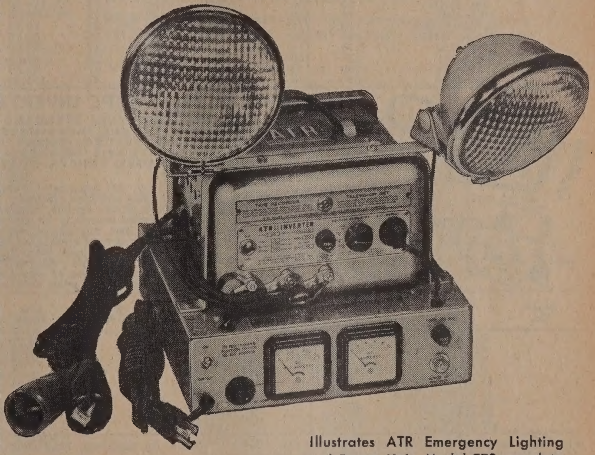
ATR EMERGENCY LIGHTING AND POWER UNITS

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

ATR Emergency Lighting and Power Units are actually a combination of an ATR Inverter, automatic Battery Charger, and transfer panel. These Emergency Standby-Power Units are especially recommended for applications as mentioned above and feature RF frequency interference suppression, instant starting, frequency stability, and built-in power factor corrector. ATR Emergency Lighting and Power Units provide instantaneous operation of the equipment being protected, within approximately 1/20th of a second. They are designed for quiet long life operation at high efficiency and maximum reliability. All models indicated are equipped with ATR heavy duty plug-in type Inverter Vibrators. These Inverters also come equipped with four-point voltage regulators which make possible the correct output voltage for the power load being protected. These Inverters are recommended for use only with loads having power factors in excess of 70%. Additional external power factor correction is required in order to operate lower power factor loads as low as 50%.

The ATR Charger portion is completely automatic and will maintain the storage battery at full charge, with minimum gassing, from regular 115-volt AC 60 cycle power line. In the event of power line failure, the storage battery, which has been kept fully charged for this purpose from the regular power line, is connected automatically to the lamps, or to the Inverter, or both. The Inverter then supplies power automatically to the load being protected. When the commercial power is restored, the transfer unit automatically switches the "protected load" to commercial power and turns the Inverter and lights off. At this point, depending on the state of charge of the battery, the battery charger will deliver approximately 6-3 amperes to a 6-volt battery (or less to a 12-volt battery) for fast recharging. As soon as battery reaches full charge, the charger will automatically switch to a trickle charge of 100-150 milliamperes (adjustable) to maintain this full charge.

SERIES ETA



Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

TYPE	*STORAGE BATTERY INPUT	A.C. OUTPUT 60 CYCLES	OUTPUT WATTAGE INT.	CONT.	DEALER NET PRICE COMPLETE WITH LAMPS
661-ETM	6-volts	110-volts	80	60	$102.67
662-ETS	6	110	100	80	119.67
663-ETH	6	110	150	125	136.00
1232-ETS	12	110	125	100	119.67
1233-ETH	12	110	175	150	136.00
1234-ETJ	12	110	250	200	153.00

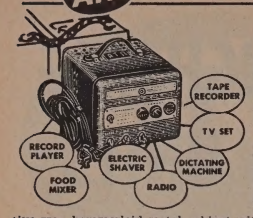
Above models come equipped with lamps, as illustrated. These lamps operate directly from storage battery. Each ATR model above permits maximum flexibility in its utilization; that is, lamps and power unit may be operated all at the same time or individually as the user may select. Models as above are available without lamps and, if so desired, please specify "less lamps."

All models designated above are housed in attractively finished grey-hammerloid metal cabinets. Dimensions of ETM Model complete with lamps, 11⅝" x 16" x 15"; shipping weight, 29½ lbs. Dimensions of ETS Model complete with lamps. 11⅝" x 16" x 16¼"; shipping weight, 36½ lbs. Dimensions of ETH Model complete with lamps, 11⅝" x 16" x 18"; shipping weight, 42½ lbs. Dimensions of ETJ Model complete with lamps, 12⅞" x 16" x 19¾"; shipping weight; 50½ lbs. All of the above models "less lamps" have similar dimensions except the 16" dimension is changed to 11" and the shipping weight is 4½ lbs. less.

* Recommend 100 ampere-hour lead-acid type automobile storage battery for general use; however, for minimum maintenance, we recommend 50-100 ampere-hour nickel-cadmium type battery. Both types are available direct from storage battery supplier.

JOBBERS ATTENTION: See Page 1030 in this ATR Section and Page 646 in Section 1900 for your Catalog Needs!

ATR Inverters, Vibrators, "A" Eliminators, etc.



ATR DC TO AC UNIVERSAL INVERTERS

New, universal inverters for operating 110-v., 60 cycle AC equipment from DC voltages in autos, buses, trucks, boats, trains, planes and DC districts. Designed especially for standard 110-volt AC tape recorders, TV sets, radios, PA systems, electric razors, test equipment, etc. Units are carefully engineered and ruggedly constructed to provide long life operation. All feature complete RF interference suppression and exceptional frequency stability. Have operating efficiency in excess of 75%. Four-point voltage regulator corrects output voltage for minimum and maximum loads, and also helps compensate for input voltages lower or higher than normal. Inverters are recommended for use with loads having power factors in excess of 70%. Built-in toggle switch selects most efficient operation for use with TV sets or tape recorders. Inverters are not recommended for use with large motor driven appliances such as refrigerators, washing machines, etc. All have ON-Off switches. Housed in attractive gray hammerloid metal cabinet with convenient leather carrying strap. Sizes: Standard Model RSF, 8½x9⅞x5¼"; Heavy-Duty Model RHG 6⅞x11¼x8½", Extra-Heavy-Duty Model HSJ, 6½x12⅞x8½". With battery clips for instant connection to power source. Models with "P" suffix equipped with adapter cord for use in auto cigarette lighter receptacles. *Recommended for24 volt battery operation. **Before ordering, check wattage of equipment with which inverter will be used.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6U-RSF	6	110 Volts	100	80	22 lbs.	$75.00	**$50.00**
	6U-RSF-P	6	110	100	80	22	75.00	**50.00**
	6U-RHG	6	110	150	125	27	99.50	**66.34**
	6U-HSJ	6	110	175	150	37	125.00	**83.34**
	12U-RSF	12	110	125	100	22	75.00	**50.00**
	12U-RSF-P	12	110	125	100	22	75.00	**50.00**
	12U-RHG	12	110	175	150	27	99.50	**66.34**
	12U-HSJ	12	110	250	200	37	125.00	**83.34**
	* 28U-RSF	28	110	125	100	22	89.95	**59.97**
	* 28U-RHG	28	110	175	150	27	119.50	**79.67**
	* 28U-HSJ	28	110	250	200	37	145.00	**96.67**
	32U-RSF	32	110	150	100	22	89.95	**59.97**
	32U-RHG	32	110	200	180	30	105.75	**70.50**
	32U-HSJ	32	110	325	225	37	145.00	**96.67**
	50U-RSF	50	110	150	100	22	89.95	**59.97**
	50U-RHG	50	110	225	200	27	119.50	**79.67**
	110U-RSF	110	110	250	150	22	75.00	**50.00**
	110AU-RHG	110	110	325	250	27	89.95	**59.97**
	110BU-RHG	110	110	450	350	30	105.75	**70.50**
	110U-HSJ	110	110	600	400	37	145.00	**96.67**
	220U-RSF	220	110	250	150	22	79.50	**53.00**
	220U-RHG	220	110	325	250	27	99.50	**66.34**
	220U-HSJ	220	110	500	300	37	155.00	**103.34**

ATR PORTABLE PLUG-IN TYPE INVERTERS

SPECIALLY DESIGNED FOR OPERATING STANDARD A. C. DICTATING MACHINES, RECORD PLAYERS, INCANDESCENT LAMPS, ELECTRIC RAZORS, ELECTRONIC TEST EQUIPMENT, AND OTHER SMALL ELECTRICAL AND ELECTRONIC DEVICES FROM D. C. VOLTAGES IN AUTOMOBILES, BUSES, TRUCKS, BOATS, PLANES, TRAINS, AND D. C. DISTRICTS.

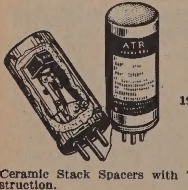
Lightweight inverters for operating 110 v. AC equipment from DC voltage sources. Feature excellent frequency stability and high efficiency. 6 and 12-volt units plug into cigarette lighter receptacle of any vehicle; others are equipped with standard 2-prong plugs. All are designed especially for use with dictating machines; record players, electric razors, test equipment, etc. Not recommended for tape recorders and large motor driven appliances such as refrigerators, washing machines, etc. Gray Hammerloid case with leather carrying strap. Sizes: DME, 5¼x4¾x2¾"; RME and RMF, 8⅜x8x3¾". *Recommended for 24-volt operation. **Check wattage rating of equipment before ordering. RMF/RME Model Inverters equipped with voltage regulator.**

Stock No.	Mfr's Type	Input D.C. Volts	A.C. Output 60 Cycles	Output Watt. Int.	Output Watt. Cont.	Shipping Weight	List Price	Net Price
	6-DME (1)	6	110 Volts	40	30	5 lbs.	$24.95	**$16.63**
	6C-DME (1)	6/12	110	40	30	5	28.95	**19.30**
	6-RMF (2)	6	110	80	60	12	49.50	**33.00**
	6C-RMF (2)	6/12	110	80	60	12	54.95	**36.64**
	12-DME (1)	12	110	50	40	5	24.95	**16.63**
	12T-RME (2) (3)	12	110	125	90	12	49.50	**33.00**
	* 28-RME (2)	28	110	100	80	12	69.50	**46.34**
	32-RME (2)	32	110	100	80	12	69.50	**46.34**
	110-RME (2)	110	110	150	100	12	59.50	**39.67**

(1) These Inverters primarily recommended for Edison VP dictating machines. May also be used with Model 200 Sound-scriber (with engine of car not running).

(2) Primarily recommended for Dictaphone's Time Master, DeJur Stenorette, and Gray Audograph dictating machines or other similar types. Also recommended for use with Norelco tape recorder Model EL-3516 and Geloso Model G 255-S tape Recorder.

(3) **This Inverter specially designed and recommended also for use with RCA 8½" portable TV set or G.E. 9" portable TV set in an automobile.**



ATR VIBRATORS

FOR ALL AUTO RADIO SETS SINCE 1954 USE ONE OF THE ATR VIBRATORS LISTED BELOW ... ATR VIBRATORS FEATURE

Ceramic Stack Spacers with Two-Bolt Stack construction.

Instant Starting—as a result of highly efficient magnetic circuit with formed base for more uniform operation on both high and low voltages.

Large Oversize Tungsten Contacts having Full Wiping Action—for greater reliability and longer life.

Perforated Reed of Highest Quality Swedish Spring Steel.

Highest Precision Construction and Workmanship—Practically all parts used are held to within a tolerance of 0.0005 of inch.

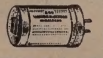
Value Plus—as readily evidenced by the Larger Contacts, Ceramic Spacers and Precision Construction and Workmanship. Available in TEN-PAK.

ATR No. 1400 (Bulk), 4-Prong, 6-Volt For All 6-Volt Sets Since 1954. . . . . **Net $1.19**

ATR No. 1843 (Bulk), 3-Prong, 12-Volt For All 12-Volt General Motors Since 1954. . . . . . **Net $1.25**

ATR No. 1843 also used in following automobiles: 1956 Ford (Philco), Lincoln (Bendix), and Mercury (Bendix); 1956 Chrysler (Philco); 1955-57 Packard; 1956-57 Plymouth (Philco); 1956 Studebaker (Philco) and 1957 Mercury (Philco)

ATR No. 1840 (Bulk), 4-Prong, 12-Volt For 12 Volt Cars other Than GM Since 1954. . . . . . **Net $1.25**

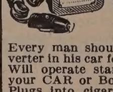


ATR ELECTRONIC TUBE PROTECTOR

A "MUST" FOR EVERY TV HOME! WILL DOUBLE OR TRIPLE THE LIFE OF ALL TYPES OF ELECTRONIC TUBES, INCLUDING TV PICTURE TUBE. Automatic in operation, for use with any electronic equipment having input wattage of 100 to 300 watts. Fuse protected; rugged construction; and enclosed in interior decorator's golden brown hammerloid-finish metal case. Available in two models. Our Floor Model 300 is 4"x2⅝"x2¾" and weighs 2 lbs. Has 6 ft. cord set to plug into wall socket. Wall Model 250 is 1-15/16" OD x 3⅛" in length and plugs directly into wall socket. Shipping weight is 1 lb.

—Wall Model 250
(115 volt A.C.). . . . . **Net $2.63**

—Floor Model 300
(115 volts A.C.) . . . . **Net $3.30**

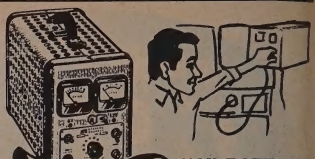


ATR SHAV-PAKS

Every man should have this lightweight ATR Inverter in his car for that "Keep Clean-Shaved Look." Will operate standard A.C. Electric Shavers from your CAR or Boat*. Complete with 3 ft. cord set. Plugs into cigarette lighter receptacle. Fuse protected, rugged construction, and attractively housed in grey hammerloid-finish steel case. Size 4"x2⅝"x 2¾". Shipping weight 2½ lbs.

Model 6-SPB (6 volt) . . . . **Net $7.97**

Model 12-SPB (12 volt) . . . . **Net $7.97**



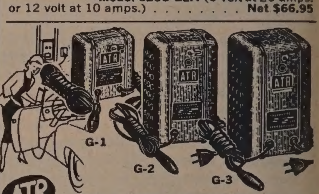
ATR "A" BATTERY ELIMINATOR

FOR DEMONSTRATING AND TESTING TRANSISTOR OR VIBRATOR-TYPE AUTO RADIOS. Designed for testing D.C. Electrical Apparatus on regular 110 volt A. C. lines . . . equipped with full-wave dry disc-type rectifier, assuring noiseless, interference-free operation. Fully Automatic and Fool-Proof; has voltmeter, ammeter, and 8-position voltage control. Fuse protected, and housed in heavy gauge grey hammerloid-finish metal case. 6 ft. cord set included. Size: Model 610C-ELIF, 6½"x9⅛"x8½"—shipping weight 22 lbs.; Model 620C-ELIT, 6½"x12⅞"x8½"—shipping weight 33 lbs.

IDEAL AS A POWER SUPPLY FOR MODEL RAILROAD TRAINS, RADIO SETS, ELECTRO PLATING OUTFITS, AND OTHER 6 OR 12 VOLT, D.C. EQUIPMENT. MAY ALSO BE USED AS A BATTERY CHARGER.

—Model 610C-ELIF (6 volt at 10 amps. or 12 volt at 6 amps.) . . . . **Net $49.95**

—Model 620C-ELIT (6 volt at 20 amps. or 12 volt at 10 amps.) . . . . **Net $66.95**



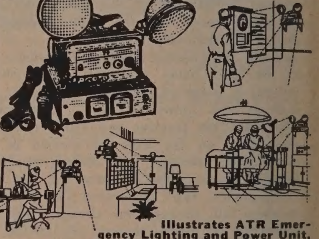
ATR AUTO PLUG-IN, HOME-TYPE PORTABLE BATTERY CHARGERS

No installation . . . just plug into cigarette lighter receptacle! Makes motor starting easy! Keeps your car battery fully charged in your own garage. Operates directly from standard 110 volt A.C. Household Current. Available in three portable sizes for both 6 or 12 volt cars. Light in weight, rugged in construction, economical, and built to last. Each battery charger is housed in grey hammerloid-finish metal case. Complete with cord sets. Size of G1 is 5⅜"x4⅞"x2¾"—shipping weight is 6 lbs.; G2 is 8½"x5½"x3⅞"—shipping weight is 8 lbs.; and G3 is 8½"x5½"x5¼"—shipping weight is 10 lbs.

(G-1) **—Model 612CA4** (4 amp.)
6 or 12 volt . . . . **Net $19.46**

(G-2) **—Model 612CA6** (6 amp.)
6 or 12 volt . . . . **Net $22.46**

(G-3) **—Model 612CA10** (10 amp.)
6 or 12 volt . . . . . . **Net $27.71**



Illustrates ATR Emergency Lighting and Power Unit, Model ETS complete with lamps.

ATR EMERGENCY LIGHTING and POWER UNIT

Completely Automatic Standby-Power Units Specially Designed to Permit the Instantaneous Continued Operation of Critical Lighting Equipment, PA Systems, Amplifiers, Intercom Systems, Burglar Alarms, Fire Alarms, Synchronous Electric Clocks, Electric Time and Recording Clocks, Incubators, Gas Valves, Telephone and Test Equipment, and Similar Critical Devices in the Event of 115 Volt AC Commercial Power Line Failure. For Use: In Hospitals, Banks, Hotels, Theatres, Factories, Office Buildings, Schools, Homes, and Many Other Areas of Operation.

Type	*Storage Battery Input	A.C. Output 60 Cycles	Output Wattage Int.	Output Wattage Cont.	Net With Lamps
661-ETM	6-volts	110-volts	80	60	**$102.67**
662-ETS	6	110	100	80	**119.67**
663-ETH	6	110	150	125	**136.00**
1232-ETS	12	110	125	100	**119.67**
1233-ETH	12	110	175	150	**136.00**
1234-ETJ	12	110	250	200	**153.00**

For Units Without Lamps Deduct $13.33 Net

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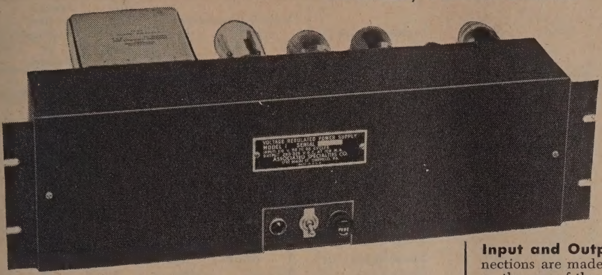
Associated Specialties Co.

OREFIELD, PENNSYLVANIA



ELECTRONICALLY REGULATED D.C. CONSTANT VOLTAGE POWER SUPPLIES

RELAY RACK MOUNTING TYPES $52.50

MODEL 1-BK (BLACK RIPPLE FRONT PANEL)

MODEL 1-GR (GRAY RIPPLE FRONT PANEL)

Input: 105-125 volts AC. 50-60 cycles.

DC Output Voltage: Continuously variable from 200 to 325 volts DC for load currents 0 to 100 ma.

Regulation of DC Voltage: Better than 1% for loads of 0 to 100 ma. and line voltage variations from 105 to 125 volts.

Ripple Output: Less than 10 millivolts rms.

Isolated Output: Both positive and negative sides of the output are isolated from ground. Either side may be grounded or the output may be left floating.

AC Output for Filaments: An isolated AC voltage of 6.3 volts AC at 3 amperes is available at the output terminal connections.

Overload Protection: A fuse mounted on the front panel protects supply against external overloads or internal failure.

Input and Output Connections: All input and output connections are made to a single terminal strip conveniently located on the rear of the chassis.

Dimensions: Standard 19″ relay rack mounting. Panel Width: 19 inches; Panel Height: 5¼ inches; Depth Behind Panel: 7¼ inches.

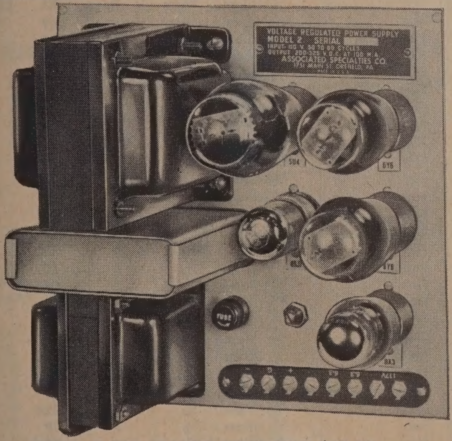
Cabinet Finish: Standard Black ripple enamel.

Controls: Rear Chassis—DC output voltage control. Front Panel—Pilot light, input power switch, and fuse.

Weight: Net weight is approximately 20 pounds.

High Quality Components: Only components of the highest quality are used in this equipment insuring you years of trouble-free dependable operation.

Accessibility: By removing two small screws, the front panel may be removed while the supply stays mounted on a relay rack or cabinet. This allows quick and easy inspection.



MODEL 2 SUB-CHASSIS MOUNTING $49.50

Sub-chassis mounting type regulated power supplies are designed to save space and money. They can be mounted on a chassis along with other components and thereby save space which would be used by a relay rack mounting supply. Savings are made in the size and cost of the cabinet required for a job along with the lower cost of the sub-chassis mounting supplies.

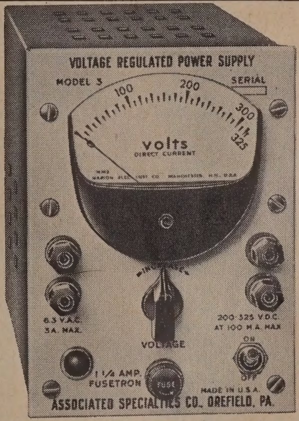
SAME AS MODEL 1 EXCEPT

Dimensions: 9″ wide, 8¾″ long, 4¾″ high above chassis, 1¾″ clearance required below chassis. Size of cut-out required, 8¼″ wide x 8″ high. Location of four mounting holes: 8⅝″ wide x 8$\frac{11}{32}$″ high.

Chassis Finish: Aluminum.

Controls: DC output voltage control adjustable from the top side of the chassis.

Weight: Net weight is approximately 14½ lbs.



MODEL 3 CABINET MOUNTING $69.50

An ideal unit for bench work or assembly into equipment.

SAME AS MODEL 1 EXCEPT

Input Connections: A line cord at rear of cabinet.

Output Connections: 5 way binding posts.

Dimensions: 5″ wide, 7″ high, 16″ deep.

Panel Finish: Aluminum.

Cabinet Finish: Gray enamel.

Controls: D.C. output voltage on front panel.

Meters: Output voltage.

Weight: Net weight is approximately 20 pounds.

MODEL P2 PANEL $9.00

Mounts two Model 2 power supplies side by side in a 19 inch relay rack space 8¾″ high.

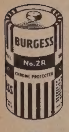
OUTPUT	MOUNTING	SIZE	COLOR	MODEL	PRICE
-325 V.D.C., 0-100 M.A. GULATION INE BETTER THAN 1% OAD BETTER THAN 1% PPLE LESS THAN 10 MILLIVOLTS R.M.S.	RACK MOUNTED	SEE ABOVE	GRAY COVER	1-GR	$52.50
	RACK MOUNTED	SEE ABOVE	BLACK COVER	1-BK	$52.50
	SUB-CHASSIS MOUNTING	SEE ABOVE	ALUMINUM CHASSIS	2	$49.50
	CABINET	SEE ABOVE	GRAY	3	$69.50
200 V.D.C., 0-100 M.A. GULATION INE BETTER THAN 1% OAD BETTER THAN 1% PPLE LESS THAN 5 MILLIVOLTS R.M.S.	RACK MOUNTED	SAME AS 1-GR	GRAY COVER	11GR	$69.50
	RACK MOUNTED	SAME AS 1-BK	BLACK COVER	11-BK	$69.50
	SUB-CHASSIS MOUNTING		ALUMINUM CHASSIS	12	$66.50
	CABINET		GRAY	13	$79.50

BURGESS BATTERIES

P6

2U6

Hg-9


2R

C5

XX45

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Pri Each
BURGESS ACTIVATORS FOR TRANSISTOR CIRCUITS										
NE	--------	--------	1½	Flashlight	7/16	(diam.)	1 11/64	6	1/8	$ .1
XX9	1900	239	9, 13½	Socket	1 9/32	29/32	2 17/32	1	1/8	1.5
D6	1603	276	9	Snap Type	2 9/16	2	3 5/32	1	1	1.8
2N6	1602	246	9	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.8
4D4	1400	274	6	Snap Type	2 17/32	2	7 5/16	1	2½	4.7
2U6	1604	216	9	Snap Type	1	39/64	1 7/8	12	7/8	.6
A4	--------	--------	6	Flat Contacts	1 9/32	1 9/32	2 11/32	1	1/4	1.0
D6PI	1601	2506	3, 6, 9	Socket	2 19/32	1 7/16	7 27/32	1	1 3/8	2.5
C6X	1612	2356	9	Snap Type	2 5/16	1 1/32	6 1/16	1	5/8	1.6
P6	1600	226	9	Snap Type	1	(diam.)	1 15/16	12	1 3/8	.8
D5	26	707	7½	Snap Type	2 9/16	2	2 23/32	1	7/8	1.5
130	14	635	1½	Flashlight	63/64	(diam.)	1 15/16	12	1 3/8	.2
230	13	A100	1½	Flashlight	1 21/64	(diam.)	2 25/64	24	5¼	.2
930	15	1015	1½	Flashlight	35/64	(diam.)	1 31/32	12	½	.2
M6	1605	266	9	Snap Type	1 13/16	1 13/16	2 7/16	1	2/5	1.5
D6S	1608	2761	9	Socket	2¼	1¼	7 29/32	1	1 1/8	1.9
2Z3	1610	243	4½	Snap Type	1 3/8	1 3/8	2 3/4	1	3/10	1.5
Y6 (YL6)	1606	E177	9	Snap Type	3/5	3/5	1 9/10	12	½	1.2
L6	1611	206	9	Flat Contacts	47/64	(diam.)	1 31/32	12	1	.7
2MN6	--------	216	9	Snap Type	1	39/64	1 7/8	12	7/8	.9
PM6	--------	226	9	Snap Type	1	(diam.)	1 15/16	6	5/8	1.1
BURGESS MERCURY ACTIVATORS Information on additional Mercury Batteries not listed below is available.										
Hg-1		--------	1.4	Flat	5/8	(diam.)	21/32	4	.13	.5
Hg-1R		E1	1.35	Flat	5/8	(diam.)	21/32	4	.13	.6
Hg-3R		E3	1.35	Flat	1	(diam.)	21/32	4	.30	.8
Hg-4R		E4	1.35	Flat	1 13/64	(diam.)	21/32	4	.45	1.05
Hg-9		E9	1.4	Flat	17/32	(diam.)	1 31/32	12	.90	.7
Hg-12		--------	1.4	Flat	5/8	(diam.)	2	2	.25	1.1
Hg-12R		E12	1.35	Flat	5/8	(diam.)	2	2	.25	1.2
Hg-42R		E42	1.35	Flat	1 13/64	(diam.)	2 3/8	1	.50	2.75
H115R		E115	6.75	Flat	43/64	(diam.)	1 21/64	2	.15	2.5
H126		E126	8.4	Flat	41/64	(diam.)	1 63/64	12	1.00	1.25
H132R		E132	2.7	Flat	43/64	(diam.)	1 5/16	2	.15	1.3
H133		E133	4.2	Flat	21/32	(diam.)	2	12	1.20	1.5
H133R			4.05	Flat	21/32	(diam.)	2	2	.20	1.7
H134R		E134	5.4	Flat	43/64	(diam.)	2 5/8	2	.25	2.1
H135R		E135	6.75	Flat	43/64	(diam.)	3 9/32	2	.30	2.80
H136R		E136	8.1	Flat	43/64	(diam.)	3 15/16	2	.35	3.2
H146		E146	8.4	Snap	1	19/32	1 7/8	6	.50	1.5
H153R		E153	4.05	Flat	31/32	(diam.)	1 45/64	2	.075	1.5
H163		E163	4.2	Flat	21/32	(diam.)	1 5/16	2	.15	1.5
H164		E164	5.6	Flat	21/32	(diam.)	1 3/4	12	.80	1.7
H165		E165	7.0	Flat	21/32	(diam.)	2 13/64	2	.20	2.25
H177		E177	9.8	Snap	35/64	(diam.)	1 29/32	12	.30	1.75
H233		E233	4.2	Flat	1 1/64	(diam.)	1 31/32	1	.20	2.65
Hg-312		E312	1.4	Flat	5/16	(diam.)	9/64	6	.024	.3
Hg-400R		E400	1.35	Flat	29/64	(diam.)	9/64	6	.024	.3
Hg-401		E401	1.4	Flat	29/64	(diam.)	1 1/8	3	.09	.50
Hg-450R		E450	1.35	Flat	29/64	(diam.)	9/16	4	.01	.50
Hg-502R		E502	1.35	Flat	17/32	(diam.)	1 31/32	2	.16	.96
Hg-520		E520	1.40	Flat	½	(diam.)	9/32	6	.22	.25
Hg-601R		E601	1.35	Flat	5/8	(diam.)	1 9/64	2	.16	1.00
Hg-625			1.4	Flat	5/8	(diam.)	1/4	4	.05	.45
Hg-625R		E625	1.35	Flat	5/8	(diam.)	1/4	4	.05	.50
Hg-630		E630	1.4	Flat	5/8	(diam.)	1/4	4	.05	.45
Hg-630R		--------	1.35	Flat	5/8	(diam.)	1/4	4	.05	.50
Hg-640		E640	1.4	Flat	5/8	(diam.)	7/16	4	.15	.45
Hg-675		E675	1.4	Flat	29/64	(diam.)	13/64	6	.02	.40
302157			1.35	Socket	2 7/16	1 5/16	4 3/16	1	.844	15.75
303145			8.4	Snaps	2 1/8	13/16	4 3/8	1	.551	9.10
BURGESS PORTABLE RADIO "A"										
Z4	2	724	6	Flat Contacts	1 3/16	1 3/16	2 7/32	1	1/5	1.00
F3	3	736	4½	Socket	4	1 7/16	4 1/8	1	1	1.35
4F	4	742	1½	Socket	2 5/8	2 5/8	4 3/32	6	8½	1.65
F4P1	6	744	6	Socket	2 21/32	2 21/32	4 1/8	6	9	1.65
G3	7	746	4½	Socket	4 1/16	1 7/8	4 11/16	1	1 1/5	1.50
B5	8	713	7½	Socket	3 29/32	7/8	2 27/32	1	½	2.25
C5	9	717	7½	Socket	2 7/32	1 15/16	3 1/32	6	4¾	1.50
T5	10	W360	7½	Socket	2 17/32	2 19/32	3 29/32	3	4	1.90
2R	13	950	1½	Flashlight	1 21/64	(diam.)	2 25/64	48	11	.20
2D	18	720	1½	Socket	2 9/16	1 9/32	2 31/32	1	2/5	1.20
D3	19	726	4½	Socket	3 7/8	1 5/16	2 15/16	6	4½	1.35
21R	20	964	1½	Flashlight	1 21/64	(diam.)	4 1/8	1	2/5	.45

Trade Discount Applies To *List Prices Only*

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BURGESS BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS PORTABLE RADIO "B" BATTERIES										
P45	211P	477	67½	Snap Type	1 29/32	1	5 9/32	6	3¾	$3.10
XX45	200	467	67½	Snap Type	2¾	1 11/32	3 43/64	6	4½	3.50
XX30	--------	455	45	Snap Type	2 17/32	31/32	3 21/32	6	3 3/10	2.75
M30	--------	482	45	Socket	3 9/16	1¾	5½	1	2	3.85
K45	203	457	67½	Snap Type	2 11/16	1 5/16	2¼	6	2½	3.45
N60	204	490	90	Snap Type	3 11/16	1 9/32	3 19/32	6	6	4.50
XX50	--------	437	75	Snap Type	1 27/32	1 5/16	6 5/16	6	5¼	4.50
U30	213	415	45	Snap Type	1 3/32	19/32	3 17/32	1	⅛	2.50
P60	214	479	90	Snap Type	1 29/32	1	7 13/32	6	5	3.95
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
UX45	--------	416	67½	Snap Type	1 7/32	31/32	3 31/32	1	¼	2.95
N60X	216	495	90	Snap Type	1⅞	1 11/32	7⅛	1	1	4.95
D30	--------	487	45	Socket	5 1/16	2 1/32	7 5/16	1	4½	4.95
V45	200	468	67½	Snap Type	2¾	1 11/32	3 43/64	6	4½	3.50
V60	--------	--------	90	Snap Type	3 23/32	1 9/32	3 11/16	6	8	4.50
BURGESS PORTABLE RADIO "A & B" BATTERIES										
G6B60	400	752	9A, 90B	Recessed Plug	13 29/32	2 13/16	4 21/32	1	6 3/10	8.25
F6A60	401	753	7½, 9A, 90B	Socket	9 15/16	2 21/32	4 5/16	1	5⅖	7.75
T5Z50	403	755	6, 7½A, 75B	Socket	8½	3 11/32	2⅜	1	3½	7.25
T5Z50P	431	785	7½A, 75B	Recessed Plug	8½	3 11/32	2⅜	1	3½	6.90
F6A60P	406	757	9A, 90B	Recessed Plug	9 7/16	2¾	4 11/32	1	5 3/10	7.95
T6Z60	405	756	7½, 9A, 90B	Socket	8 15/16	2 3/16	3 13/16	1	4 3/10	6.95
T6Z60P	428	727	9A, 90B	Recessed Plug	8 15/16	2 3/16	3 13/16	1	4 3/10	7.45
4TZ60	425	729	1½A, 90B	Socket	7⅝	2⅛	3¾	1	3⅘	6.25
BURGESS SEALED RECHARGEABLE NICKEL CADMIUM CELLS AND BATTERIES *(L after cell number indicates types with solder lugs on terminals). Information on additional Nickel Cadmium Batteries not listed below is available.										
CD1			1.25		.460 (diam.)		.225	1		1.66
CD2			1.25		.610 (diam.)		.236	1		1.16
CD8			1.25		.984 (diam.)		.232	1		1.29
CD8L			1.25		.984 (diam.)		.257	1		1.41
CD3			1.25		.984 (diam.)		.275	1		1.31
CD3L			1.25		.984 (diam.)		.300	1		1.44
CD4			1.25		.984 (diam.)		.350	1		1.36
CD4L			1.25		.984 (diam.)		.375	1		1.73
CD5			1.25		1.700 (diam.)		.300	1		2.10
CD5L			1.25		1.700 (diam.)		.325	1		2.29
CD6(AA)			1.25		.560 (diam.)		1.950	1		2.75
CD6L(AA)			1.25		.560 (diam.)		2.275	1		3.14
CD9			1.25		.550 (diam.)		3.680	1		4.30
CD7(D)			1.25		1.300 (diam.)		2.425	1		5.00
CD7L(D)			1.25		1.300 (diam.)		2.775	1		5.35
CD10(D)			1.25		1.300 (diam.)		2.425	1		8.75
CD10L(D)			1.25		1.300 (diam.)		2.775	1		9.15
CD11(D)			1.25		1.300 (diam.)		2.425	1		6.50
CD11L(D)			1.25		1.300 (diam.)		2.775	1		6.85
D12 (short C)			1.25		.876 (diam.)		1.672	1		3.85
D13 (half D)			1.25		1.273 (diam.)		1.440	1		5.70
CD21			6		1.065 (diam.)		1.525	1		8.20
CD22			6		1.065 (diam.)		1.975	1		8.43
CD23			6		1.800 (diam.)		1.725	1		14.50
CD24			9.6		1.065 (diam.)		2.650	1		13.41
CD25			9.6		1.065 (diam.)		3.200	1		13.68
CD25L			9.6		1.065 (diam.)		3.200	1		13.54
CD26			9.6		1.800 (diam.)		2.575	1		22.50
CD27			12		1.065 (diam.)		2.925	1		16.50
CD28			12		1.065 (diam.)		3.600	1		17.08
CD29			12		1.800 (diam.)		3.100	1		27.95
CD30			6		1½	1½	3 13/16	1		28.53
CD31			6		3 13/16	1 17/32	3⅝	1		34.00
CD100			1.25		1.36	.75	3.36	1		9.15
CD101			1.25		1.36	1.36	2.40	1		9.12
CD102			1.25		1.36	1.36	3.36	1		10.35
CD103S			1.25		1.57	.92	4.01	1		17.71
CD104			1.25		1.67	1.93	3.13	1		14.12
CD105			1.25		1.67	1.93	3.65	1		15.67
CD106S			1.25		1.57	1.48	4.01	1		20.18
CD107			1.25		1.67	1.93	4.25	1		14.91
CD108			1.25		1.05	3.56	4.90	1		19.04
CD109			1.25		1.34	3.56	4.90	1		23.50
CD110			1.25		1.66	3.56	4.90	1		27.17
CD111			1.25		1.97	3.56	4.90	1		36.10

F6A60

CD3

CD7

CD25

F2BP

F4BP

5308

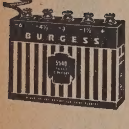
(Continued on next page)

BURGESS BATTERIES

Y15

U10

XX30PI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TW1

4FH

BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("A" TYPES)

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
5R	. . .	. . .	1½	Flashlight	49/64 (diam.)		2 15/64	12	¾	.36
8R	23	960P	1½	Socket	1 3/32 (diam.)		3 15/16	1	¼	.85
9R	. . .	1015E	1½	Flashlight	35/64 (diam.)		1 63/64	12	½	.17
37	. . .	. . .	1½	Flashlight	1 5/16 (diam.)		6⅛	1	9/16	.98
2F	11	W353	1½	Socket	2 19/32	1⅜	4¼	1	¾	1.10
2Z	. . .	1016E	1½	Flashlight	1⅛	19/32	1 63/64	10	¾	.45
2FBP	700	W354	1½	Binding Post	2 21/32	1⅜	4 1/32	5	4⅕	1.15
F2BP	701	W352	3	Binding Post	2 21/32	1⅜	4 1/32	5	4	1.15
F4BP	915	510S	6	Binding Post	2⅝	2⅝	4	1	1⅖	1.19
2F2H	703	W356	3	Binding Post	2⅝	2⅝	4 1/16	5	7	1.55
422	704	750	3	Brass Straps	1 11/32	23/32	2 5/16	10	1⅕	.85
432	705	751	4½	Brass Straps	1 31/32	21/32	2¼	10	2	1.00
532	706	703	4½	Brass Straps	2 15/32	13/16	2 23/32	1	3/10	1.02
44	. . .	. . .	1½	Binding Post	1 29/32 (diam.)		4 5/32	1	⅞	2.61
2BBP	. . .	. . .	1½	Binding Post	1 19/32	27/32	2 11/16	1	¼	1.65
B2BP	. . .	. . .	3	Binding Post	1⅝	13/16	2 11/16	1	¼	1.40
2F2BP	. . .	. . .	3	Binding Post	5 3/16	1 5/16	4 5/32	1	1⅘	3.20
F4X	. . .	. . .	6	Binding Post	5 5/16	1 13/32	4⅛	1	1¾	3.79
2F4	1	718	6	Socket	4	2 13/16	5 7/16	1	2½	3.90
6F	5	743	1½	Socket	4 3/32	2¾	4 1/16	1	2⅙	2.75
8F	17	741	1½	Socket	3 29/32	2 23/32	5½	1	3	3.45

BURGESS INDUSTRIAL - ELECTRONIC - TRANSISTOR BATTERIES ("B" TYPES)

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
U10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
U15	215	412	22½	Flat Contact	1	39/64	1 31/32	1	1 oz.	1.50
U20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
W30	—	—	45	Binding Post	3	1¼	3 25/32	1	⅗	3.15
XX15	—	425P	22½	Socket	1 11/32	15/16	3⅞	1	¼	1.95
XX22	—	433P	33	Socket	2 17/32	31/32	3⅛	1	⅓	2.45
XX30PI	—	455P	45	Socket	2 17/32	31/32	4 1/32	1	½	3.00
Y10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	1.15
Y15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.50
Y20	223	506	30	Flat Contact	1 3/16	19/32	1 13/32	1	1 oz.	1.85
Y20S	222	507	30	Flat Contact	19/32	19/32	2 9/16	1	1 oz.	1.85
Z30NX	711	W350	45	Binding Post	3 1/32	1⅞	4 19/32	5	7⅗	3.85
U200	722	493	300	Pin Jacks	2¾	2 9/32	3⅞	1	1	11.95
Z30T	—	—	45	Socket	3	2 5/16	4⅛	1	1 3/10	3.75
W30BPX	—	W358	45	Binding Post	3	1¼	3 25/32	1	⅗	3.55
Z30BP	—	W351	45	Binding Post	3 11/16	2 11/32	3 7/16	1	1⅗	7.55
Z96P (9968)	—	—	144	Binding Post	2⅝	2⅝	13 5/16	1	3¾	26.00
5156PI	721	768	22½	Socket	4 7/64	2⅜	2 55/64	1	1⅗	4.45
A60	—	—	90	Socket	4 7/16	3⅜	4½	1	3⅓	7.95
W20PI	—	—	30	Socket	1 5/16	1 13/16	3 7/32	1	½	2.47
XX69	227	W361	103½	Flashlight	1 11/32	1 11/32	11 23/32	1	1	6.57
Z30	205	738	45	Socket	3	2 5/16	4 1/16	2	2¾	3.95
A30	206	W359	45	Socket	3 9/16	2¼	4 5/16	2	3½	3.55
B30	207	484	45	Socket	4 1/16	2 17/32	5 5/16	2	4½	4.70
4156	710	763	22½	Binding Post	3 17/32	2⅛	2 29/32	1	1	2.35
5156SC	708	778	22½	Spring Clip	4⅛	2½	2¾	5	8	4.45
5308	709	W376	45	Binding Post	4 1/16	2 9/16	5⅛	1	2½	4.35
K10	224	417	15	Flat Contact	1¼	⅞	1 17/32	1	2 ozs.	1.65
K15	225	420	22½	Flat Contact	1¼	⅞	2 9/32	1	2 ozs.	1.75
K20	226	430	30	Flat Contact	1¼	15/16	2 23/32	1	3 ozs.	2.15

BURGESS INDUSTRIAL AND ELECTRONIC "C" BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
2370PI	718	771	4½	Binding Post	4 1/64	1 27/64	2 63/64	5	3⅖	2.25
2370	712	761T	4½	Binding Post	3 15/16	1⅜	2⅞	5	3 7/10	1.90
5540	713	773	7½	Bndg Post Neg	4	⅞	2¾	5	1 9/10	2.35
5360	714	781	4½	Binding Post	2 13/32	27/32	2 21/32	10	2⅗	1.25
W5BP	—	W362	7½	Binding Post	2 31/32	23/32	1¾	6	⅘	2.10
A3BPX	—	—	4½	Binding Post	1 31/32	23/32	2¼	1	¼	2.50
A8BP	—	—	12	Binding Post	2 25/32	1 25/64	2 15/32	1	½	6.22
2156	702	766	22½	Spring Clips	6 21/32	4 1/16	2 31/32	6	17½	6.25

BURGESS FARM RADIO "A", "B", AND "A" & "B" BATTERIES

BURGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
20F2	720	X-125	3	Socket	11½	4	6⅛	1	13 9/10	9.30
20F	719	740	1½	Socket	7⅝	2 9/16	6 15/16	1	6⅘	9.85
21308PI	727	W364P	45	Socket	8⅛	4 15/32	7 9/32	1	12⅘	7.65
21308SC	715	W364F	45	Spring Clip	8⅛	4 15/32	7 9/32	1	12⅘	7.65
10308PI	726	W363P	45	Socket	8 1/32	4 1/32	7 3/16	1	11½	6.90
10308SC	716	W363F	45	Spring Clip	8 1/32	4 1/32	7 3/16	1	12	6.90
2308PI	717	W365P	45	Socket	8 3/32	2 31/32	7¼	1	7⅘	5.50
2308SC	723	W365F	45	Spring Clip	8 3/32	2 31/32	7¼	1	7½	5.50
17GD60	413	759	1½A, 90B	Socket	15 11/16	4⅜	7 1/16	1	20½	10.65

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BURGESS BATTERIES

URGESS Number	NEDA Numbers	Other	Volts	Terminal Type	Overall Dimensions L	W	H	Unit Package Quantities	Weight of Unit Package in Pounds	List Price Each
BURGESS FLASHLIGHT AND LANTERN BATTERIES										
24V)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	48	10½	$ .20
50 Bulk)	13	950	1½	Flashlight	1 21/64 (diam.)		2⅜	50	11	.20
) (24V)	------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	48	11	.25
) (Bulk)	------	1050	1½	Flashlight	1 21/64 (diam.)		2⅜	50	10¾	.25
	14	935	1½	Flashlight	63/64 (diam.)		1 15/16	24	2⅝	.20
	15	915	1½	Flashlight	35/64 (diam.)		1 31/32	12	½	.15
	24	912	1½	Flashlight	13/32 (diam.)		1¾	12	¼	.15
(Bare)	910	904	1½	Flashlight	7/16 (diam.)		1 11/64	12	⅕	.125
4H	908	509	6	Spring	2⅝	2⅝	4⅜	12	18	1.19
W1	918	731	6	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	2.75
W2	926	------	12	Binding Post	5⅜	2⅞	4 15/16	1	3⅕	2.75
BURGESS IGNITION - TELEPHONE AND PROTECTIVE SYSTEM BATTERIES * Battery also available with spring clip terminals ** Battery also available with screw terminals										
FH	900	735	1½	Screw Terminal	2⅝	2⅝	4	12	16	1.25
F2H	901	W357	3	Spring Clip	3 29/32	2 11/16	5 13/32	1	2⅗	2.05
F4H	902	706	6	Binding Post	8 5/16	2 13/16	5 13/16	1	6⅕	4.98
F5H	903	715	7½	Binding Post	7 3/16	3 31/32	5 13/16	1	7⅖	7.25
F6H	904	716	9	Binding Post	8½	3 31/32	5 13/16	1	9	8.25
Ign.	905	6 Ign.	1½	Screw Terminal	2½ (diam.)		6⅝	12	21 3/10	1.25
* Tel.	906	6 GL	1½	Spring Clip	2½ (diam.)		6⅝	12	24⅗	1.25
Ind.	911	6 Ind.	1½	Screw Terminal	2½ (diam.)		6⅝	12	25	1.35
461	907	1461	6	Binding Post	10½	2¾	7 13/32	6	53½	4.98
BURGESS PHOTO-FLASH BATTERIES										
20	. . .	835	1½	Flashlight	1 (diam.)		1 15/16	48	4½	.25
20	. . .	850	1½	Flashlight	1 11/32 (diam.)		2 25/64	48	11	.25
20	. . .	815	1½	Flashlight	35/64 (diam.)		1 31/32	24	1	.20
15	215	412	22½	Flat Contact	31/32	9/16	1 31/32	1	1 oz.	1.50
10	220	504	15	Flat Contact	19/32	19/32	1 23/64	1	1 oz.	1.15
15	221	505	22½	Flat Contact	19/32	19/32	1 31/32	1	1 oz.	1.50
10	208	411	15	Flat Contact	1	39/64	1 7/16	1	1 oz.	1.15
20	210	413	30	Flat Contact	1	39/64	2 17/32	1	2 ozs.	1.75
X150	. . .	489	225	Pin Jacks	4¼	2⅝	4¼	1	2½	9.95
160	. . .	491	240	Flat Contact	2 9/16	1 5/16	4 13/32	1	⅘	7.95
150	. . .	492	225	Pin Jacks	3 9/16	2¾	4¾	1	2½	8.75
320	. . .	497	510	Flat Contact	2 15/16	1 17/32	5 7/16	1	1½	15.95
30P-K			45	Battery & Bulb				6	2½	2.50
BURGESS ALKALINE BATTERIES										
L-9	815	E91	1½	Flat Contact	17/32 (diam.)		1 31/32	12	1	.50
L-1	814	E93	1½	Flat Contact	63/64 (diam.)		1 15/16	6	1	.75
L-133	1306	333	4½	Flat Contact	21/32 (diam.)		2	12	1	.95
L-N	910	904	1½	Flat Contact	29/64 (diam.)		1⅛	3	1 oz.	.35
L-7	------	------	1½	Flat Contact	13/32 (diam.)		1¾	12	¼	.45

URGESS RADAR LIGHTS

NOTICE: All Radar Lights are packed in individual cartons complete with battery.

RGESS mber	Description	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	LIST PRICE EACH Head Only	Battery	Complete
W3	Radar-Lite Spot-Flasher (Lamp 4546, 407)	1	5 1/10	$10.20	$2.75	$12.95
W4	Radar-Lite Spot-Without Flasher (Lamp 4546)	1	4¾	7.75	2.75	10.50
W7	Radar-Lamp Chrome-Finish (Lamp 1651)	1	4⅕	6.50	2.75	9.25
W8	Radar-Lamp Copper-Finish (Lamp 1651)	1	4⅕	6.50	2.75	9.25
W9	Radar Bearcat Focusing Lantern (Lamp 425 or 502)	1	4⅛	4.50	2.75	7.25
W11	Radar-Lite (Bulb Reflector Model) (Lamp 425)	1	4¾	6.20	2.75	8.95
W12	12 Volt Radar-Lite (Uses TW2 Battery) (Lamp 965)	1	5	8.20	2.75	10.95
W4E	Power Failure Operated Lantern (Spot Beam) (Lamp 4546)	1	6	17.50	2.75	20.25
W6E	Power Failure Operated Lantern (Flood Beam) (Lamp 4512)	1	6	17.50	2.75	20.25
W34	Radar-Flash (Lamp 407)	1	4⅕	3.95	2.75	6.70

BURGESS RADAR-MATE FLASHLIGHTS (less batteries)

BURGESS Number	Description (Batteries not included)	Unit Pkg. Quan.	Wt. of Un. Pkg. in Lbs.	List Price Each
R1	4½ Volt Lantern. Uses 3 No. 2 (Size D) batteries (Lamp PR3)	6	7½	$4.98
61	Magnet Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	3	1.99
59	Aurora Flashlight—2 Cell Prefocused (Lamp PR2 or PR4)	6	2¾	1.69
57	Satellite Torch—2 Cell Junior Prefocused (Lamp PR2 or PR4)	3	1	1.75
57	Satellite Torch—2 Cell Prefocused (Lamp PR2 or PR4)	6	2¾	1.95
52	Penlight—Tu-Tone Colors (Lamp 224)	12	⅞	.88
50	2 Cell Tough Industrial Flashlight (Lamp PR2)	6	3	1.90
53	2 Cell Industrial—Safety Light (Lamp PR2)	1	½	5.00
92	Penlight (Heavy Duty) Assorted Colors (Lamp 222)	6	½	.88

BURGESS
NO 6 GIANT IGNITION

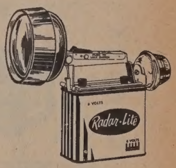
No. 6 Ignition

BURGESS
LEAKPROOF
Photo-Flash

220

BURGESS
U15

U15



TW3

TW7

357

CARTER • CARTER • CARTER • CARTER • CARTER

Carter Motor — GENEMOTORS, DC-AC CONVERTERS FREQUENCY CHANGERS

CARTER CUSTOM DYNAMOTORS

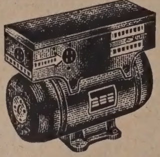
For railroad and marine radio-telephone, industrial communications systems, locomotives, telephone emergency standby power, etc. Heavy duty construction. Low rpm speed, small temperature rise assure extra long life. Filter not normally required. **Size:** 12⅝" x 6¹¹⁄₁₆" x 7¼" Weight, 47 lbs.

Carter Number	Input Range	Output Volts	Output Recv.	Amps Trans.	List Price
DS1220P	118-132	12.8	5	18	**$253.00**
HS1220P	67-74	12.8	5	18	**253.00**
CS1220P	33-37	12.8	5	18	**253.00**
WS1220P	45-50	12.8	5	18	**253.00**
DS640P	118-132	6.3	15	40	**253.00**
HS640P	67-74	6.3	15	40	**253.00**
CS640P	33-37	6.3	15	40	**253.00**

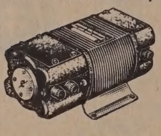
MARINE REFRIGERATOR-APPLIANCE CONVERTERS

Operates standard refrigerators, compressors (up to 1/6 hp only), vacuum cleaners and other appliances from DC; for use aboard commercial and pleasure boats. Converter operates only when power is called for. Input, from 24 to 230 v. DC. Size: 14" x 6¾" x 11" high. Net Weight, 65 lbs.

Carter Number	DC Input	List Price
RF24	24 v.	**$493.90**
RF28	28 v.	**493.90**
RF32	32 v.	**493.90**
RF48	48 v.	**493.90**
RF64	64 v.	**493.90**
RF115	115 v.	**493.90**
RF230	230 v.	**493.90**



DUOVOLT 6/12 VOLT GENEMOTORS

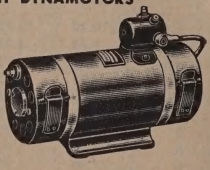


Will operate 30- to 100-watt mobile transmitters. Incorporates two separate six-volt windings, each having its own field. Six or twelve volt operation is obtained simply by connecting the four input leads in parallel or in series. May be transferred from one car to another regardless of battery voltage, without replacing genarator and without wiring modification of hookup. Size: 3½" high, 4¾" wide, 8" long. Weight, 11½ lbs.

Carter No.	Input		Input		Output		Duty	List Price
	Volts	Amps	Volts	Amps	Volts	Amps		
450ABNS	6	29	12	14.5	400	.250	Int.	**$108.35**
4030VBNS	5.2	40	10.4	20	400	.300	Int.	**108.90**
4228VBNS	5.8	33	11.6	16.5	420	.280	Int.	**108.90**
4432VBNS	5.8	42	11.6	21	430	.325	Int.	**109.45**
520ABNS	6	28	12	14	500	.200	Int.	**111.10**
624VBNS	5.7	46	11.4	23	600	.240	Int.	**111.10**
6427VBNS	5.7	51	11.4	25.5	640	.270	Int.	**113.30**
7212ABNS	6.1	28	12.2	14	720	.125	Int.	**113.30**

CHANGE-A-VOLT DYNAMOTORS

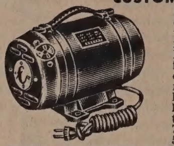
Operate 6 volt 2-way radio equipment from 12 volt systems without rewiring. Supplied complete with starting relay and switch, 12 volt fuse block and wiring to directly convert a 12 volt battery to a 6 volt radio supply. B615V delivers 15 amps continuously and 45 amps intermittent. 65% efficiency. Can also serve as battery equalizer when operating low voltage equipment. Size: 11⅛" x 4½" x 7¹⁄₁₆" high. Weight, 25 lbs.



Carter No.	Input*		List Price	Carter No.	Input†		List Price
	Volts	Amps			Volts	Amps	
B615V	12	11.5	**$129.80**	**E128V**	24	6.0	**$129.80**
E615V	24	5.7	**129.80**	**J128V**	28	5.3	**129.80**
J615V	28	5.0	**129.80**	**C128V**	32	4.6	**129.80**
C615V	32	4.3	**129.80**	**HS128V**	70	2.2	**129.80**
HS615V	70	2.1	**129.80**	**D128V**	115	1.3	**129.80**
D615V	115	1.2	**129.80**	....	......	....	....

*Output 6 volts, 15 amps. †Output 12 volts, 8 amps.

CUSTOM CONVERTERS



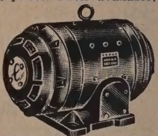
Dependable rotary power for operating office business machines, professional tape recorders, railroad, mobile and marine radio and radar equipment. Finest construction. Sealed ball bearings require no lubrication. Long life, continuous duty, high efficiency on all models. Only popular models listed here. For 50-cycle output, add **$5.50** to list prices. All models 100% power factor. Size: 200 watts, 12⅝" w. x 6¾" d. 7¼" h.; 210 and 300 watts, 11⅝" w.; 500 watts, 12⅝" w; 750 watts, 13⅞" w.

Carter Number	DC Inp.		List Price	Carter Number	DC Inp.		List Price
	V.	A.			V.	A.	
DS1020C5P	115†	2.6†	**$231.00**	**D1030CP**	115§	4.6§	**$209.00**
HS1020C5P	64†	5†	**234.85**	**E1050CP**	24#	33#	**240.35**
CS1020C5P	32†	9†	**234.85**	**C1050CP**	32#	25#	**240.35**
BR1021CP*	12‡	29‡	**286.00**	**D1050CP**	115#	7#	**236.50**
B1030CP	12§	45§	**209.00**	**C1075CP**	32▲	32▲	**270.60**
E1030CP	24§	22§	**209.00**	**D1075CP**	115▲	8.8▲	**270.60**
C1030CP	32§	19§	**209.00**				....

Watts At 115 v. AC, 60 cps: †200 ‡210 §300 #500 ▲750

*Equipped with manual frequency control. For frequency control on all other models, add **$82.50** to list prices. Filter available; add **$44.00** to list prices.

MONARCH CONVERTERS

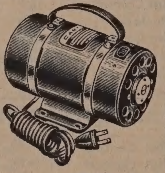


The Monarch series is ideal for heavy-duty industrial service, marine, mine, crane and railroad communications. Slow speed (1800 rpm.), long life, 4-pole design; ball bearing equipped. **No filter is necessary for most applications.** Size: 19" x 11" x 12" high. Three-phase output available at no extra charge. 24 and 28 v. input available.

Carter Number	DC Input		Watts*	List Price
	Volts	Amps		
C10150M	32	69	1500	**$704.00**
W10200M†	48	60	2000	**759.00**
H10200M†	64	45	2000	**759.00**
D10200M‡	115	25	2000	**759.00**
K10200M‡	230	12.5	2000	**759.00**

†Reduced voltage starters necessary, add **$159.50** to list price.
‡Reduced voltage starters necessary, add **$103.40** to list price.
*At 115 v. AC, 60 cps.

MARK II SUPER CONVERTERS



New, long life design increases brush life and assures dependable service. Smooth, quiet, ball bearing operation. Standard 100% P.F. models change DC to AC for operating amplifiers, office equipment, test instruments, radios and other high-power-factor equipment. Also available in 70% P.F. models to operate popular tape recorders from DC input. Many other catalog models available promptly from factory stock. A converter can be furnished to operate any tape recorder. Continuous duty. Size: 8¼" x 4½" x 5" high. Weight, 13 lbs.

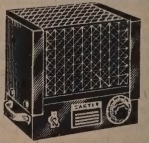
STANDARD 100% PF CONVERTERS

Carter No.	DC Input		Watts, AC at 60 cps, 115 v.	List Price
	Volts	Amps		
D1040CB	115	.7	40	**$126.50**
D1010CB	115	1.7	100	**129.80**
D1015CB	115	2.0	150	**130.90**
B1040CB	12	8	40	**116.60**
B1010CB	12	15	100	**119.90**
B1015CB	12	23	150	**121.00**

Mark II **Heavy Duty Super Converter.** Continuous duty, less filter, 10¼" long, 4½" wide, 5" high. Weight, 19 lbs.

Carter No.	Volts	Amps	Watts, AC at 60 cps, 115 v.	List Price
D1020CB	115	2.6	200	**$145.20**
D1025CB	115	3.2	250	**145.20**
B1020CB	12	30	200	**135.30**
B1025CB	12	34	250	**135.30**

AC TO AC FREQ. CHANGERS



Produces 115 v., 50 or 60 cycle AC output from 25 to 400 cycle input. For operating standard equipment on non-standard frequencies. Standard units are for single phase input and output. Three-phase output available on order. 70% PF models to run tape recorders, optional at no extra cost. For frequency control (meter), add **$44.00** to list price.

Carter No.	Output Watts	List Price	Carter No.	Output Watts	List Price
FC1020L	20	**$271.70**	**FC1025CP**	250	**$533.50**
FC1040L	40	**272.80**	**FC1050CP**	500	**566.50**
FC1060L	60	**273.90**	**FC1075CP**	750	**599.50**
FC1080C	80	**348.70**	**FC10100M**	1000	**1094.50**
FC1010C	100	**349.80**	**FC10150M**	1500	**1144.00**
FC1015C	150	**350.90**	**FC10200M**	2000	**1204.50**
FC1020C	200	**365.20**			

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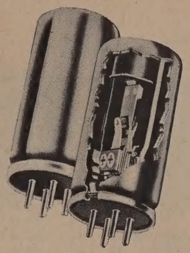
CARTER • CARTER • CARTER • CARTER • CARTER

CORNELL-DUBILIER ELECTRONICS

LASS
50.01 Standard and Special Purpose
50.20 Communications Vibrators

CDE



Designed for reliable service and long shelf life. "Seal-Vent" protected until placed in service. "Seal-Vent" protected on the shelf and "Breathes" in service.

Beveled counterweights provide quicker starting and smoother operating.

Ceramic block insulators are precision ground, permitting perfect contact alignment.

STANDARD AND SPECIAL PURPOSE

INTERRUPTER

6 Volt

Type No.	List Price	Net Price
5300	$4.95	**$2.97**
5301	4.95	**2.97**
5303	5.15	**3.09**
5304	6.70	**4.02**
5307	5.15	**3.09**
5314	5.15	**3.09**
5320	5.15	**3.09**
5321	5.15	**3.09**
5323	4.40	**2.64**
5326	4.40	**2.64**
5331	5.15	**3.09**
5333	5.15	**3.09**
5335	5.15	**3.09**

6 Volt

Type No.	List Price	Net Price
5342	$3.80	**$2.28**
5366	6.70	**4.02**
5370	5.15	**3.09**
5371	4.95	**2.97**
5372	4.95	**2.97**
5506	7.55	**4.53**
5510	7.55	**4.53**
5513	8.10	**4.86**
5516	7.25	**4.35**
5560	9.05	**5.43**

12 Volt

Type No.	List Price	Net Price
6301	$5.15	**$3.09**
6326	4.80	**2.88**
6330	5.15	**3.09**
6370	4.95	**2.97**
6371	5.15	**3.09**
6372	5.15	**3.09**
6511	8.10	**4.86**
6513	8.10	**4.86**
6514	10.45	**6.27**
6517	8.10	**4.86**
Other Voltages		
5300-32	$7.55	**$4.53**
5314-4	5.15	**3.09**
5513-4	8.10	**4.86**
5514-4	8.10	**4.86**

SYNCHRONOUS

6 Volt

Type No.	List Price	Net Price
5400	$8.10	**$4.86**
5404	8.10	**4.86**
5406	8.10	**4.86**
5407	8.10	**4.86**
5408	8.10	**4.86**
5409	8.10	**4.86**
5410	8.10	**4.86**
5411	8.10	**4.86**
5425	9.65	**5.79**
5426	8.10	**4.86**
5429	9.65	**5.79**
5437	8.10	**4.86**
5438	8.10	**4.86**

6 Volt

Type No.	List Price	Net Price
5607	$9.05	**$5.43**
5610	8.10	**4.86**
5616	9.05	**5.43**
5620	8.10	**4.86**

12 Volt

Type No.	List Price	Net Price
6607	$10.45	**$6.27**
6609	10.45	**6.27**
6610	9.05	**5.43**
6614	9.05	**5.43**
6615	9.05	**5.43**
6616	10.45	**6.27**
Other Voltages		
5468-2	$11.30	**$6.78**
5469-2	10.30	**6.18**
5615-24	9.05	**5.43**

COMMUNICATIONS TYPES

INTERRUPTER

6 Volt

Type No.	List Price	Net Price
5715	$7.25	**$4.35**
5718	7.25	**4.35**
5721	7.25	**4.35**
5722	9.05	**5.43**
5725	7.25	**4.35**

6 or 12 Volts

Type No.	List Price	Net Price
6715	$7.25	**$4.35**
6718	7.25	**4.35**
6721	7.25	**4.35**
6722	9.05	**5.43**
6725	7.25	**4.35**

12 Volt Only

Type No.	List Price	Net Price
6715S	$7.25	**$4.35**

SYNCHRONOUS

6 Volt

Type No.	List Price	Net Price
5805	$8.10	**$4.86**
5820	8.10	**4.86**
5822	9.05	**5.43**
5824	10.45	**6.27**

6 or 12 Volts

Type No.	List Price	Net Price
6805	$8.10	**$4.86**
6820	8.10	**4.86**
6821	7.25	**4.35**
6822	9.05	**5.43**
6824	10.45	**6.27**

12 Volt Only

Type No.	List Price	Net Price
6820S	$8.10	**$4.86**

CORNELL-DUBILIER ELECTRONICS

Heavy Duty Vibrators

CDE

SPECIFICATIONS

POPULAR TYPES IN STANDARDIZED SERIES

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
6VB6H	6	60 ± 2	15	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	$14.20	**$8.52**
6VD6H	6	60 ± 2	30	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
6VL6H	6	60 ± ½	12	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
6VL10	6	100 ± 3	10	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
12VB6H	12	60 ± 2	10	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
12VD6H	12	60 ± ½	20	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
12VL6H	12	60 ± ½	9	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
12VL10	12	100 ± 3	8	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VB6H	28	60 ± 2	8	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
28VD6H	28	60 ± ½	15	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
28VL6	28	60 ± 2	7	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
28VL10	28	100 ± 3	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
32VB6H	32	60 ± ½	6	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
32VD6H	32	60 ± ½	12	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
32VL6H	32	60 ± ½	6	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**
32VL10	32	100 ± 3	5	HA	Vert. Single	1 31/32 Dia. x 4 9/16	12.90	**7.74**
110VB6H	110	60 ± ½	3	HB	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
110VC6H	110	60 ± ½	6	HE	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
110VL6H	110	60 ± 1	3	HA	Vert. Single	1 31/32 Dia. x 4 9/16	14.20	**8.52**

POPULAR OLD TYPES (Not directly replaceable by Standardized Series)

Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
427	6	60 ± 2	12	HF	Vert. Single	2 3/16 Dia. x 4 11/16	$12.90	**$7.74**
490	6	60 ± 3.0	25	HL	Horiz. Tandem	2 23/32 x 5 15/16 x 3 3/8	24.70	**14.82**
491	6	60 ± 2	20	HL	Horiz. Tandem	2 5/32 x 5 3/8 x 2 9/16	24.70	**14.82**
1315	110	60 ± 2	3	HH	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	14.20	**8.52**
1315H	110	60 ± ½	3	HH	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	15.25	**9.15**
3077	110	60 Adj.	2	HH	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	15.25	**9.15**
11028	110	60 ± 2	3	HF	Horiz. Single	2 5/32 x 5 9/16 x 2 9/16	15.25	**9.15**

SMALL VIBRATORS USED IN VIPOWERS

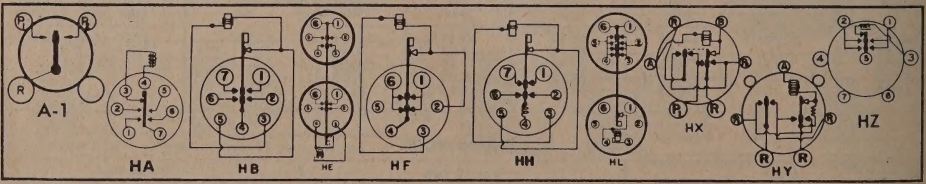
Vibrator	Voltage	Frequency	*D.C. Amps.	Base	Type	Size	List Price	Net Price
2522	110	60 ± 3	5	HX	Vert. ARV	1½ Dia. x 2 7/8	$9.10	**$5.46**
2529	6	60 ± 5	5	None	Wire-in	1 x 1 x 2 3/8	4.40	**2.64**
2530	12	60 ± 5	3	None	Wire-in	1 x 1 x 2 3/8	4.40	**2.64**
2531	6	60 ± 3	10	A-1	Vert. ARV	1½ Dia. x 2 7/8	8.10	**4.86**
2532	12	60 ± 3	5	A-1	Vert. ARV	1½ Dia. x 2 7/8	8.10	**4.86**
2533	110	60 ± 5	6	None	Wire-in	1 x 1 x 3/8	4.40	**2.64**
2563	6	60 ± 3	15	HZ	Vert. ARV	1½ Dia. x 2 7/8	10.90	**6.54**
2564	28	60 ± 3	5	HZ	Vert. ARV	1½ Dia. x 2 7/8	10.90	**6.54**
2565	110	60 ± 3	8	HY	Vert. ARV	1½ Dia. x 2 7/8	10.90	**6.54**

POPULAR OLD TYPES (Directly replaceable by Standardized Series)

Old	New	Old	New	Old	New
2989	**32VB6H**	**3079**	**110VC6H**	**3103**	**6VB6H**
3047	**12VD6H**	**3087**	**12VB6H**	**4123**	**6VD6H**

*D.C. Ampere rating is based upon measurement made with a D.C. ammeter in primary lead. Circuit must be properly designed for load being handled. Technical advice is available through CDR Vibrator Department, Fuquay Springs, N. C.

BASE DIAGRAMS



OBSOLETE TYPES

It is entirely impractical to continue to stock the hundreds of different heavy-duty vibrators that have been supplied in past years for a large variety of uses. Every attempt is made to maintain equipment in service, even though it originally used vibrators which have generally become obsolete. Some obsolete vibrator types are still carried in limited stock at the factory. In a great many cases, simple instructions are available so that a radio technician can change wiring, sockets, or other minor features in an old design to adapt it for use with new standard vibrators.

For information regarding a possible replacement for obsolete vibrators, send details including model number of equipment, original vibrator type number, voltage and frequency to the CDR Vibrator Department, Fuquay Springs, N. C.

Trade Discount Applies To List Prices Only

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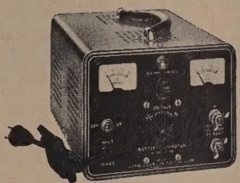
CORNELL-DUBILIER ELECTRONICS

"VIPOWER®" Power Supplies

INVERTERS
DC-AC



BATTERY ELIMINATORS
AC-DC

MOBLPAKS
DC-DC

SPORTSMAN, SR.
PORTABLE

- COMPLETE COVERAGE — Each inverter applicable to widest variety of uses. Good inventory turnover.
- SIMPLIFIED SERVICING — All components individually and readily accessible. No potted assemblies.
- SINE-WAVE-REGULATED — Models hold output steady as input or load varies and provide commercial wave form for best operation of sensitive equipment.
- POWER FACTOR CORRECTION — Auxiliary PF Correctors available to permit standard inverters to handle low PF loads. Special Inverters are not required.
- SPORTSMAN, SR. — Combines a vibrator inverter, battery charger and a compartment for standard 12 volt auto battery, so that 110 volt AC power is available for operation of TV, radio, record players, etc.
- MOBLPAK VIPOWERS — Supply up to 500 V. DC — 225 MA from 6 to 12 volt sources for mobile radio service.
- BATTERY ELIMINATORS — Compact, well filtered, conveniently styled power package for test bench.

REGULAR STANDARD VIPOWERS
(DC to 110 V.AC)

Model	Input Volts	Output Watts	Class	*List Price
12SP2	12	20	SP	**$13.40**
12L8	12	80	L	**39.50**
12S10	12	100	S	**63.60**
12H15	12	150	H	**87.30**
12SH22	12	225	SH	**113.65**
28H15	28	150	H	**99.00**
32H18	32	180	H	**103.50**
110S15	110	150	S	**63.15**
110H25	110	250	H	**78.60**
110SH40	110	400	SH	**149.15**

BATTERY ELIMINATORS

Model	Input Volts	Output Watts	Class	*List Price
110B6	110	6A–12 V.DC 10A– 6 V.DC	H	**$87.30**
110B12	110	10A–12 V.DC 20A– 6 V.DC	H	**111.90**

TRANSIPOWER TRANSISTORIZED MOBILE SUPPLIES

Model	Input Volts	Output Watts	Price
12TP3	12	300 V.DC* 100 MA	**$45.00** User Net
12TP12	12	500 V.DC* 240 MA	**60.00** User Net

* Have taps at one-half rated voltage.

SINE-WAVE-REGULATED VIPOWERS
(DC to AC)

Model	Input Volts	Output Watts	Class	*List Price
12SW10	12	100	H	**$122.35**
12SW25	12	250	SH	**135.50**
110SW15	110	150	H	**122.35**

"SPORTSMAN, SR."
(110 V.AC from self-contained battery)

- Model **12SS14** Input Volts 12

Output Watts 140 Class SS User Net **$65.00**

Note: Unit includes 140 Watt Inverter, built-in Battery Charger and compartment for standard 12 V. auto battery (not provided)

DICTATOR VIPOWER (6/12 V.DC to 110 V.AC)

6/12D6	6/12	60	L	**$43.90**

MOBLPAK VIPOWERS (Low DC to High DC)

6/12DC6	6/12	300 V.DC 200 MA	S	**$65.70**
6/12DC12	6/12	500 V.DC 225 MA	S	**105.00**

VIPOWER ACCESSORIES

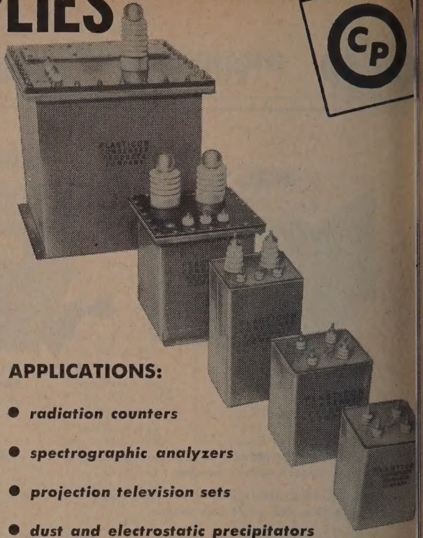
Model No.	Explanation	*List Price
LEAD KITS		
LK-605	Dual #6 — 5 feet	**$8.95**
LK-612	Dual #6 — 12 feet	**16.50**
LK-616	Dual #6 — 16 feet	**20.50**
LK-805	Dual #8 — 5 feet	**6.25**
LK-812	Dual #8 — 12 feet	**10.75**
LK-816	Dual #8 — 16 feet	**13.00**
LK-1005	Dual #10 — 5 feet	**5.25**
LK-1012	Dual #10 — 12 feet	**8.50**
LK-1016	Dual #10 — 16 feet	**10.25**
MOUNTING KITS		
MK-3544-1	For L and S cases	**$5.50**
MK-3544-2	For H case only	**6.00**
MK-3544-3	For SH case only	**7.50**
REMOTE CONTROL KITS (For 6 and 12 volt models in L, S, H and SH cases)		
RK-105	5′ extension cable	**$9.00**
RK-112	12′ extension cable	**11.00**
RK-116	16′ extension cable	**12.00**
MASTER FUSE KITS (2″ cartridge)		
FK-220	20 ampere	**$3.50**
FK-230	30 ampere	**3.50**
FK-240	40 ampere	**4.50**
FK-250	50 ampere	**4.50**
FK-260	60 ampere	**4.50**
POWER FACTOR CORRECTORS		
PF-1	60% PF loads 10-100 watts; 30% PF loads 10- 25 watts	**$17.10**
PF-2	60% PF loads 150-300 watts; 30% PF loads 50- 75 watts	**34.20**
PF-3	60% PF loads 350-500 watts; 30% PF loads 100-150 watts	**42.70**

*List prices are subject to Dealer Discount.

1. Standard models deliver 110 volts, 60 cycle, AC power. Output watt ratings are based on continuous operation on high power factor loads. They should be reduced by the percent of power factor where inductive loads are involved.
2. All models are housed in cases of similar design and appearance. The class designations signify approximate size and weight as follows:

SP — Shaver Pack	2 5/8 x 2 1/2 x 3 7/32	2 lbs.
LM — Light Midget	3 x 3 1/2 x 4 13/16	4 lbs.
M — Midget	3 15/16 x 4 5/8 x 5 15/16	6 lbs.
L — Lightweight	5 1/2 x 6 1/4 x 8	12 lbs.
S — Standard	5 1/2 x 6 1/4 x 9	14 lbs.
H — Heavy	6 1/2 x 7 1/2 x 11	20 lbs.
SH — Super Heavy	8 x 9 1/2 x 13	35 lbs.
SS — Sportsman, Sr.	9 1/2 x 9 1/2 x 14	20 lbs. (less bat.)

PLASTICON POWER SUPPLIES



HI VOLT POWER SUPPLIES

These hermetically-sealed, self-contained power supplies are designed for Hi Voltage low current DC for many applications. Our exclusive engineering techniques and oil-filled construction assure smaller, lighter, more reliable units.

HI VOLT POWER SUPPLIES FEATURE —

- Hermetically sealed oil filled construction **to assure small size and light weight.**
- Variable output voltage when the input voltage is supplied through an auto transformer **to assure flexibility.**
- High quality components safely rated and carefully assembled **to assure reliability.**
- Neutral case which may also be made either positive or negative **to assure safety.**

APPLICATIONS:

- ***radiation counters***
- ***spectrographic analyzers***
- ***projection television sets***
- ***dust and electrostatic precipitators***
- ***oscilloscopes***
- ***display tubes***

STANDARD POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current Ma.	Max. Output Current Ma.	% Ripple At Rated Current	Circuit	Case Size	Weight Pounds
PS2-2M60	2	2.0	5.0	1.5	Half Wave	3¾ x 3$\frac{3}{16}$ x 5½″ Hi.	4.5
PS5-3M60	5	3.0	3.0	.6	Half Wave	3¾ x 4$\frac{9}{16}$ x 6″	9.0
PS5-5M60	5	5.0	5.0	.8	Half Wave	3¾ x 4$\frac{9}{16}$ x 6″	9.0
PS10-1M60V	0-12	1.0	1.75	2.0	Full Wave Doubler	3¾ x 4$\frac{9}{16}$ x 8″	11.5
PS10-5M60V	0-10	5.0	5.0	3.0	Full Wave Doubler	3¾ x 4$\frac{9}{16}$ x 8″	11.5
PS15-1M60V	0-15	1.0	1.75	3.0	Full Wave Doubler	3¾ x 4$\frac{9}{16}$ x 8″	12.0
PS15-5M60V	0-15	5.0	5.0	1.5	Full Wave Doubler	3¾ x 4$\frac{9}{16}$ x 8″	12.0
PS30-1M60V	0-30	1.0	1.5	3.0	Full Wave Doubler	7 x 7 x 9¼″	25.0
PS50-2M60VT	0-50	2.0	4.0	1.5	Full Wave Tripler	12½ x 12½ x 12½″	80.0

NOTES:

1. The case can be made either positive or negati
2. The PS50 Supply has a separate accessible co partment for the rectifier tubes.
3. Hi Volt Supplies are rated at 118 V AC inp 60 cycles.
4. Hi Volt Supplies for 400 cycle operation are a available for aircraft use — built to milit specifications.
5. Hi Volt Supplies are engineered for vari applications. Send us your requirements.

NEW! SUB-MINIATURE SOLID-STATE POWER SUPPLIES

Model No.	Output Voltage KVDC	Rated Output Current MA.	Max. Output Current MA.	% Ripple At Rated Current	Circuit	Case Dimensions	Approx. Weight Pounds
PST2-2M60	0-2.	2.	3.00	0.5	Half Wave	3¾ x 2¼ x 3½″ Hi	2.5
PST5-2M60	0-5.	2.	3.00	0.5	Full Wave Doubler	3¾ x 2¼ x 3½″ Hi	2.5
PST10-1M60	0-10.	1.	1.75	1.0	Full Wave Doubler	3¾ x 3$\frac{3}{16}$ x 4″ Hi	4.5
PST15-1M60	0-15.	1.	1.75	1.0	Full Wave Doubler	4$\frac{9}{16}$ x 3¾ x 5½″ Hi	8.5

NOTES:

1. The case is neutral — Output has reversi polarity.
2. Input rated @ 115 V AC ±5% from 60 to cycle operation.
3. Case is standard CP70 Type Container.
4. Finish on all units consists of Zinc Chrom Primer & Secondary Coat of Grey Lacquer.
5. Terminals are Ceramic Solder Seal Type w No. 8-32 Threaded Studs except Model PST 1M60 which has No. 10-32 Threaded Studs output terminals.
6. Units can be mounted in any position.

CONDENSER PRODUCTS has designed and built high voltage D.C. power supplies for:

- ***Airborne Equipment***
- ***Shipboard Installation***
- ***380 to 1,000 CPS Applications***
- ***High voltage output from 1 to 50 KV with current ratings up to 50 ma.***
- ***and many other varied applications***
- ***Let CONDENSER PRODUCTS engineers solve your high voltage power supply problems.***

Condenser Products Company

MANUFACTURERS

- *Glassmike Capacitors*
- *Plasticon Capacitors*
- *HiVolt Power Supplie*
- *Pulse Forming Netwo*

See Sect. 1500 for Capacitors

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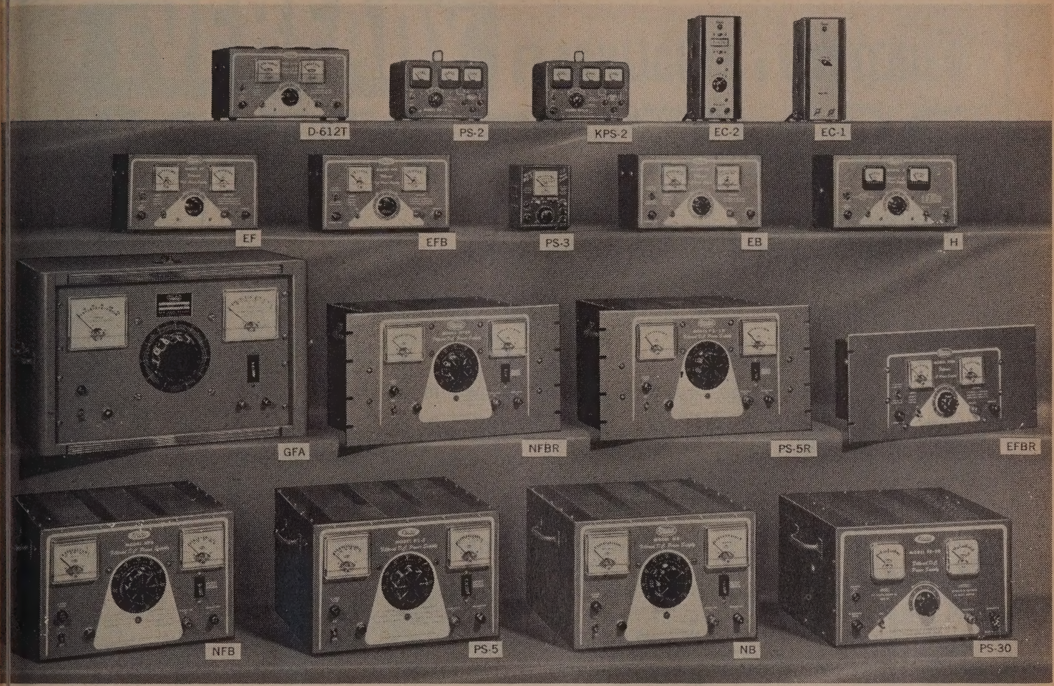
Electro
CHICAGO

Filtered, variable output
DC POWER SUPPLIES



...for all types of low DC voltage applications
GUARANTEED PERFORMANCE, LONG LIFE AT LOW COST

Model	Voltage Output	Amperage Output	Regulation (V/A)	Maximum Ripple (%)	Meters	DC Impedance (ohms)	Size	Weight (lbs. net)	Prices (net)
GFA	0-125	0-10	1.6 to 10A (12% of no-load voltage @ max. output)	1	0-150V,0-20A	1.6	14¼ x 22 x 15¾	150	$575.00
PS-5	0-55	0-10	0.8 (0-10A)	0.5	0-75V,0-10A	0.8	9¾ x 14¼ x 14¼	60	250.00
PS-5R	0-55	0-10	0.8 (0-10A)	0.5	0-75V,0-10A	0.8	10½ x 19 x 14¼	71	275.00
NFB	0-32	0-15	0.3 (0-15A)	0.75	0-50V,0-25A	0.3	9¾ x 14¼ x 14¼	71	250.00
NFBR	0-32	0-15	0.3 (0-15A)	0.75	0-50V,0-25A	0.3	10½ x 19 x 14¼	82	275.00
NB	0-32	0-15	0.3 (0-15A)	5	0-50V,0-25A	0.3	9¾ x 14¼ x 14¼	61	225.00
EFB	0-32 0-16	0-4 0-8	1.25 (0-4A) 1 (0-8A)	0.1	0-40/20V,0-10A	1.25 1.0	7 x 12 x 8½	31	140.00
EFBR	0-32 0-16	0-4 0-8	1.25 (0-4A) 1 (0-8A)	0.1	0-40/20V,0-10A	1.25 1.0	8¾ x 19 x 8½	34	160.00
EB	0-32 0-16	0-4 0-8	1.25 (0-4A) 1 (0-8A)	5	0-40/20V,0-10A	1.25 1.0	7 x 12 x 8½	23	115.00
EF	0-28 0-14	0-5 0-5	0.9 (1-5A) 0.6 (1-5A)	1	0-50V,0-6A	0.9 (1-5A) 0.6 (1-5A)	7 x 12 x 8½	21	98.00
PS-3	0-15 15-25	0-200MA 0-100MA	100MV	1MV	0-25V/100MA/200MA	0.5	6¼ x 5 x 6	3½	79.50
PS-2	0-20 0-16	0-75MA 0-5A	1.6	0.15 0.5	0-20V,0-10A & 0-75MA	1.6	6 x 8½ x 8	12	56.00
KPS-2 (Kit)	0-20 0-16	0-75MA 0-5A	1.6	0.15 0.5	0-20V,0-10A & 0-75MA	1.6	6 x 8½ x 8	12	44.95
D-612T	0-16 0-8	0-10 0-10	.44 (3-10A) .3 (3-10A)	0.5 @ 5A, 2 @ 10A	0-20V,0-10A	.44 (3-10A) .3 (3-10A)	7 x 12 x 8½	20	59.95
EC-2	0-16	0-5	1.8	0.5	0-20V/10A	1.8	10¾ x 4⅜ x 6½	9	39.95
PS-30	12 (adjustable)	0-30	2.7 (6-30A)	1	0-20,0-50A	0.27	9¼ x 16¾ x 13	56	195.00
H	12 (adjustable) 6 (adjustable)	0-10 0-20	.23 (3-10A) .15 (3-20A)	5	0-20V,0-30A	.23 (3-10A) .15 (3-20A)	7 x 12 x 8½	29	86.00
EC-1	12 (adjustable)	0-5	1.4	0.5	———	1.4	10¾ x 4⅜ x 6½	10	29.95

Prices subject to change without notice.

ELECTRO PRODUCTS LABORATORIES
CHICAGO 40, ILLINOIS

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Since 1936 — Pioneers in Low Voltage DC Power Supplies

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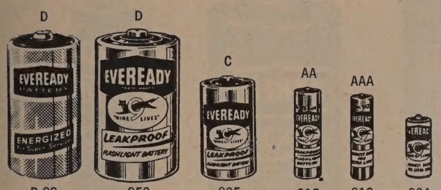
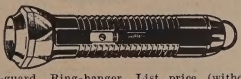
EVEREADY TRADE-MARK FLASHLIGHTS & BATTERIES

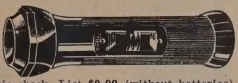
POWER TO SPARE



D-99 Heavy duty | 950 General Purpose | 935 | 915 | 912 | 904

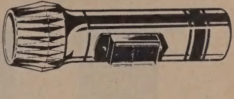


No. 1251 — 2-Cell Heavy Duty Spotlight. Rugged insulated case. Will not shatter, crack or dent. Unbreakable safety-glow lens-guard. Ring-hanger. List price (without batteries) **$2.89. No. 1259** — 2-Cell Safety Flashlight. Approved by United States Bureau of Mines and listed with Underwriters Laboratories Inc. List price each (without batteries) **$4.15.** Both types available in 3-Cell sizes. **(No. 1351, $3.29; No. 1359, $4.35.)**

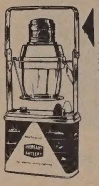


No. 330 Utility Lite. shock-resistant. Resists acids, alkalies, oils, greases, temperature extremes. Insulated against electric shock. List **$0.99** (without batteries).

No. 5MF Magnet Lite with powerful "Alnico" magnet. Uses 2 "Eveready" No. 950 or D-99 batteries and PR2 lamp. List price **$1.99** (without batteries). Also 6-5MF display package containing 6 Magnet Lights. List **$11.94** per display package.



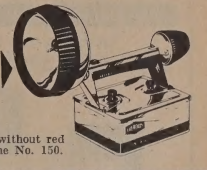
No. 100 "Big Jim" Lantern with red beacon flasher, weather-proof switches and wiring. Heavy-gauge, chrome-plated steel. Sealed beam visible up to 1 mile. List **$10.75** (without battery.)



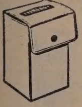
No. 105 "Big Jim" Camp and Emergency Lantern: Combination floodlight, searchlight, red-flashing warning light. Uses "Eveready" No. 731 weatherproof battery . . . "Eveready" No. PR13 Headlamp . . . "Eveready" No. 407 Signal Lamp. List price **$13.50** complete.

Highlander

No. 27 Highlander contains 7 "Eveready" flashlights. Chrome-colored with 3 red, 2 yellow, 2 turquoise heads. List **$1.19** ea.

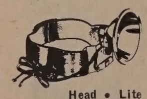


No. 150 NEW stainless steel, weatherproof "Captain": With automatic red flasher. Uses new 6 volt alkaline battery No. 520. Gives twice the light of other lanterns. A precision-engineered, super-powered light. List price **$14.45** (without battery). Also available No. 151 "Captain" without red flasher but with all the fine features of the No. 150. List **$12.45** (without battery).



Pouch for No. 3452 Head Lite: rain-proof — fits on belt or strap. List **69c** each.

Head Lite with long-range beam frees both hands for work at home or on the job. List **$3.29** each (without batteries).



Pouch No. 1348

Head • Lite No. 3452

Display Package No. 15—"Little Jim," replica of the famous "Eveready" Masterlite Square Flashlight. Pocket-size, with unbreakable decorator colored safety-glow lens-guard. List **69c** each (without batteries).

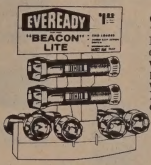
handy EVEREADY
"Little Jim" pocket lite

Display No. 15

Display Package No. 130B — "All American" assortment of 14 flashlight in 5 decorator colors: turquoise, coral, red, white or black — safety-glow head and easy-to-work jumbo switch. List **$1.19** each (without batteries.)

EVEREADY
ALL AMERICAN FLASHLIGHTS

Display No. 130B



Contains 7 "Beacon Lites." Chrome colored case with red or copper-colored case with green. List price **$1.29** each.

No. 20

EVEREADY
penlite
EVEREADY
penlite

No. 23

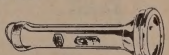
No. 230

No. 23 contains 12 No. 230 Heavy-Duty Penlites. No. 230 Penlite also available in individual boxes. List Price **$0.98** each.

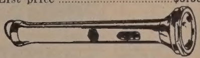
EVEREADY
SLIM
PENLITE

No. 212

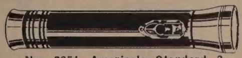
No. 21C contains 12 No. 212 Small Penlites. No. 212 Penlite also available in individual boxes. List **$0.98** each.



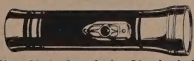
No. 7352P—Three-cell "Big Jim" Searchlight. Uses 3 No. 950 or D-99 Batteries and Lamp No. PR3.
List price $3.95



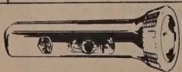
No. 7552P — Five-Cell "Big Jim". Searchlight. Uses 5 No. 950 or D-99 Batteries and Lamp No. PR12.
List price $4.95



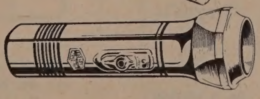
No. 2351 America's Standard 3-Cell: Individually boxed. Uses 3 No. 950 or D99 and Lamp PR3. Lsit price **$2.35.**



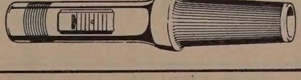
No. 2251 America's Standard 2-Cell: All metal. Deluxe 3-way lock switch. In display 25 or individually boxed. Uses 2 No. 950 or D99 and Lamp No. PR2. List price **$1.95.**



No. 7231P—Small Square Spotlight. Uses 2 No. 935 Batteries and Lamp No. PR4. List price......................$1.95



No. 7251P — Deluxe "Masterlite" heavy-gauge square flashlight with lens guard. Uses 2 No. No. 950 or D-99 Batteries and Lamp No. PR2. List price **$1.99** (without batteries).



No. 2T5 Dual-Purpose Torch Lite. With 5" signal wand visible up to ½ mile. Also piercing white beam. Jumbo switch. List price **$1.59** without batteries.

EVEREADY TRADE-MARK BATTERIES FOR RADIO

ELECTRONIC AND OTHER APPLICATIONS

POWER TO SPARE

ENERGIZERS FOR TRANSISTOR RADIOS AND OTHER ELECTRONIC APPLICATIONS

No. 206 9 VOLTS
NEDA 1611
EVEREADY
ENERGIZER
FOR TRANSISTOR RADIO AND ELECTRONIC INSTRUMENTS

No. 206
9 VOLTS

No. 216
NEDA 1604 9 VOLTS
EVEREADY
ENERGIZER
FOR TRANSISTOR RADIO AND ELECTRONIC INSTRUMENTS

No. 216
9 VOLTS

No. 226
NEDA 1600 9 VOLTS
EVEREADY
ENERGIZER
FOR TRANSISTOR RADIO AND ELECTRONIC INSTRUMENTS

No. 226
9 VOLTS

SPECIAL
EVEREADY
ENERGIZER
ELECTRONIC APPLICATIONS

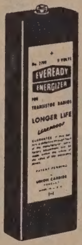
No. 635
1½ VOLTS

No. 1015 1.5 VOLTS
EVEREADY
ENERGIZER
FOR TRANSISTOR RADIO AND ELECTRONIC APPLICATIONS
UNION CARBIDE

No. 1015
1½ VOLTS

CATHODIC ENVELOPE BATTERIES

for Transistor Radios


EVEREADY
ENERGIZER
LONGER LIFE
LEAKPROOF

No. 2709
9 VOLTS

EVEREADY
ENERGIZER
with built-in LONGER LIFE for transistor radios
GUARANTEED LEAKPROOF
UNION CARBIDE

No. 2356
9 VOLTS

ALKALINE ENERGIZER BATTERIES

for portable TV, Transistor Radio, Toys and Mechanical Power Applications

EVEREADY
Energizer

No. E91
1.5 VOLTS

EVEREADY
ALKALINE Energizer
FOR TRANSISTOR RADIO ELECTRONIC

No. E95
1.5 VOLTS

EVEREADY
ALKALINE Energizer

No. E93
1.5 VOLTS

No. 561 15 Volts
EVEREADY
ALKALINE BATTERY
Rechargeable

No. 561
1.5 VOLTS

SEALED RECHARGEABLE NICKEL CADMIUM BATTERIES

No. N24
1.25 VOLTS

No. N24
EVEREADY

EVEREADY
Nickel Cadmium
RECHARGEABLE

No. N73
1.25 VOLTS

EVEREADY
Nickel Cadmium
RECHARGEABLE

No. N46
1.25 VOLTS

LANTERN BATTERIES

No. 509
6 VOLTS
No. 510S
Screw Terminals
No. 510F
Fahnestock

EVEREADY
NINE LIVES
Weatherproof
LANTERN BATTERY

Weatherproof
EVEREADY BATTERY
for marine utility lighting

No. 731
6 VOLTS

DRY CELL

No. 6 • 1½ Volts
EVEREADY
NINE LIVES
IGNITOR
General Purpose
DRY CELL
UNION CARBIDE

No. 6 IGNITOR
1½ VOLTS
No. 6 RR & IND
No. 6 TELEPHONE

HOT-SHOT BATTERIES

EVEREADY
Weatherproof
HOT SHOT
For Electric Fence Controllers
Ignition • Alarms • Lighting

No. 1461	**6 VOLTS**
No. 1462	**6 VOLTS**
No. 1463	**12 VOLTS**
No. 1562	**7½ VOLTS**
No. 1662	**9 VOLTS**

EMERGENCY LIGHTING

No. 715
20 CELL POWER
7½ Volts
EVEREADY
NINE LIVES
Weatherproof
BATTERY
For Emergency Lights • Portable Lights • Ignition • Etc.
UNION CARBIDE

No. 715	**7½ VOLTS**
No. 706	**6 VOLTS**
No. 716	**9 VOLTS**

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	List Price Each	Major Use
E1	1100	0.625 Diam. x 0.650	Flat Contact—, +1.40		0.43	4	$ 0.60	Meters, Instruments, Signal Lights, Miniature Radios
E1N		0.625 Diam. x 0.650	Flat Contact—, +1.35		0.43	4	0.65	
E3		0.985 Diam. x 0.660	Flat Contact—, +1.35		0.93	4	0.80	
E4		1.195 Diam. x 0.660	Flat Contact—, +1.35		1.6	4	1.05	
EPX-4		0.662 Diam. x 1.965	Flat Contact—, +5.40		1.16	1	1.95	Camera
No. 6 "Ignitor" Gen. Purpose	905 914	2⅝ Diam. x 6⅝	**Screw—, +1½	2	2	12	1.25	Ignition, Lighting
No. 6 "Gray Label" Telephone	906	2⅝ Diam. x 6⅝	***Fahnestock—, +1½	2	2	12	1.25	Telephone
No. 6 Railroad & Industrial	911	2⅝ Diam. x 6⅝	**Screw—, +1½	2	2	12	1.35	Ignition, Telephone
EPX-6		0.662 Diam. x 4.090	Flat Contact—, +5.40, +12.15		1.6	1	3.07	Camera
E9	1103	0.550 Diam. x 1.968	Flat Contact—, +1.40		1.05	4	0.75	Transistor Applications
E9N		0.550 Diam. x 1.968	Flat Contact—, +1.40		1.05	2	0.80	Transistor Radio
E12	1101	0.640 Diam. x 1.968	Flat Contact—, +1.40		1.4	2	1.10	Instruments, Miscellaneous
E12N		0.640 Diam. x 1.968	Flat Contact—, +1.35		1.4	2	1.25	Meters, Instruments
N22		0.449 Diam. x 0.201	Flat Contact—, +1.25		0.04	1	1.50	Instruments, Hobby, Transistor Applications, Miscellaneous
N24		0.61 Diam. x 0.235	Flat Contact—, +1.25		0.12	1	1.00	
N26		0.988 Diam. x 0.230	Flat Contact—, +1.25		0.32	1	1.10	
N26T		0.988 Diam. x 0.230 (plus tabs)	Solder Tabs—, +1.25		0.32	1	1.20	
N28		0.988 Diam. x 0.252	Flat Contact—, +1.25		0.4	1	1.15	
N28T		0.988 Diam. x 0.252 (plus tabs)	Solder Tabs—, +1.25		0.4	1	1.25	
N32		0.988 Diam. x 0.343	Flat Contact—, +1.25		0.44	1	1.20	
N32T		0.988 Diam. x 0.343 (plus tabs)	Solder Tabs—, +1.25		0.44	1	1.30	
N36		1.697 Diam. x 0.286	Flat Contact—, +1.25		1.16	1	2.10	
N36T		1.697 Diam. x 0.286 (plus tabs)	Solder Tabs—, +1.25		1.16	1	2.20	
N38		1.355 Diam. x 0.380	Flat Contact—, + 1.25		1.0	1	2.50	Instruments
N38T		1.355 Diam. x 0.380 (plus tabs)	Solder Tabs—, +1.25		1.0	1	2.60	Instruments
N40		1.984 Diam. x 0.394	Flat Contact—, +1.25		2.0	1	4.00	Instruments, Miscellaneous
S40		0.450 Diam. x 0.155	Flat Contact—, +1.50		0.06	6	0.30	Instruments, Meters
N41		1.984 Diam. x 0.719	Flat Contact—, +1.25		3.4	1	6.70	Instruments, Miscellaneous
E42		1-9/32 Diam. x 2.390	Flat Contact—, +1.40		5.85	1	2.50	Instruments
E42N		1-9/32 Diam. x 2.39	Flat Contact—, +1.35		5.85	1	2.75	Instruments
N43		1.984 Diam. x 0.988	Flat Contact—, +1.25		4.8	1	8.15	
N45		17/32 Diam. x 1-31/32	Solder Tabs—, +1.25		0.8	1	3.00	
N46		17/32 Diam. x 1-31/32	Flat Contact—, +1.25		0.8	1	2.75	
N52		17/32 Diam. x 3-35/64	Solder Tabs—, +1.25		1.4	1	4.55	
N56		1-11/32 Diam. x 2-13/32	Flat Contact—, +1.25		4.5	1	5.00	Instruments, Hobby, Transistor Applications, Miscellaneous
N67		1-15/32 x 1-15/32 x 3-25/32	Wire Leads—, +6		8.3	1	26.40	Instruments, Hobby, Transistor Applications, Miscellaneous
N70		3-53/64 x 1-35/64 x 3⅝	Wire Leads—, +6	1	12	1	42.30	
N73		1-23/64 x 1-23/64 x 2-13/32	Nut & Stud; Tab—, +1.25		5.9	1	8.65	
N74		1-23/64 x 1-23/64 x 3-25/64	Nut & Stud; Tab—, +1.25		9.2	1	10.15	
N75		1-23/32 x 2 x 3-5/32	Nut & Stud—, +1.25		12.3	1	13.35	
N76		1-23/32 x 2 x 3-45/64	Nut & Stud—, +1.25		15.2	1	14.60	
N77		1-23/32 x 2 x 4-¼	Nut & Stud—, +1.25	1	1.6	1	15.95	
N79		1-1/16 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	1	12	1	19.70	
N81		1-25/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	2	2.9	1	23.95	
N83		1-45/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	2	9.6	1	28.45	
N85		2-1/64 x 3-37/64 x 4-15/16	Nut & Stud—, +1.25	3	1.6	1	32.75	
E90		0.470 Diam. x 1.130	Flat Contacts—, +1.5		0.35	3	0.35	Radio, Electronic
E91		9/16 Diam. x 1-31/32	Flat Contacts—, +1.5		0.75	24	0.50	Portable Radio
E93		1-1/32 Diam. x 1-15/16	Flat Contact—, +1.5		2.0	12	0.60	Radio, Electronic
E94	927	1-11/32 Diam. x 1-7/32	Flat Contact—, +1½		1.8	12	0.50	Electronic Photoflash Communication Equipment
E95		1-11/32 Diam. x 2-13/32	Flat Contact—, +1½		4.3	12	0.75	
E97S		1-11/32 Diam. x 5-7/32	Ins. Screw—, +1½		8	12	1.10	Hobby
†D99		1-11/32 Diam. x 2-13/32	Flat Contact—, +1½		3.3	48	0.25	Flashlight, Toys
A100	13	1-11/32 Diam. x 2-13/32	Flat Contact—, +1½		3.3	48	0.25	Portable Radio "A", Transistor
E113		0.660 Diam. x 0.845	Flat Contact—, +4.05		0.45	1	1.95	Instruments
E114		0.660 Diam. x 1.080	Flat Contact—, +5.40		0.59	1	2.30	Instruments
E115		0.660 Diam. x 1-3/32	Flat Contact—, +6.75		0.73	1	2.50	Instruments
E126		0.724 Diam. x 2	Flat Contact—, +8.4		1.7	1	1.25	Transistor Radio
E132		0.662 Diam. x 1.315	Flat Contact—, +2.70		0.9	2	1.35	Transistor Applications
E133	1304	0.662 Diam. x 1.965	Flat Contact—, +4.2		1.4	2	1.50	Transistor Applications
E134		0.662 Diam. x 2.620	Flat Contact—, +5.40		1.9	2	2.15	Transistor Applications
E135		0.662 Diam. x 3.275	Flat Contact—, +6.75		2.4	1	2.80	Instruments
E136		0.662 Diam. x 3.930	Flat Contact—, +8.10		2.9	1	3.20	Instruments
E137		0.662 Diam. x 4.585	Flat Contact—, +9.45		3.3	1	3.85	Instruments
E145		21/32 Diam. x 1-3/16	Flat Contact—, +7		0.6	1	2.30	Electronic
E146	1604	1-1/32 x ⅝ x 2	Min.Snap—, +8.40		1.6	1	1.50	Transistor Radio
E152		0.485 Diam. x 1.140	Flat Contact—, +2.70		0.42	1	1.15	Instruments
E153		0.485 Diam. x 1.708	Flat Contact—, +4.05		0.60	1	1.50	Instruments
E162		0.662 Diam. x 0.887	Flat Contact—, +2.70		0.58	1	1.30	Instruments
E163	1305	0.662 Diam. x 1.327	Flat Contact—, +4.20		0.87	2	1.50	Transistor Applications
E164	1404	0.662 Diam. x 1.767	Flat Contact—, +5.60		1.16	2	1.75	Transistor Applications
E165	1500	0.662 Diam. x 2.217	Flat Contact—, +7.00		1.45	2	2.25	Transistor Applications
E169		0.662 Diam. x 3-63/64	Flat Contact—, +12.6		4.2	1	4.79	Instruments
E175		1/2 Diam. x 1-3/32	Flat Contact—, +7.0		1.0	10	1.50	Transistor Radio
E177	1606	35/64 Diam. x 1-29/32	Min. Snap—, +9.8		0.67	1	1.75	Transistor Radio
206	1611	3/4 Diam. x 2	Flat Contacts, Neg. Recessed—, + 9		1.2	1	0.75	Transistor Radio
216	1604	1-1/32 x 11/16 x 1-29/32	Min. Snap—, +9		1.3	12	0.69	Transistor Radio
226	1600	1 Diam. x 1-15/16	Snap Type—, +9		2.0	6	0.89	Transistor Radio
228		1 Diam. x 2-7/16	Snap Type—, +12		2.3	1	1.50	Transistor Radio
E233	1300	1-1/64 Diam. x 1-31/32	Flat Contact—, +4.20		3	1	2.65	Transistor Radio
E234		1-1/64 Diam. x 2-5/8	Flat Contact—, +5.60		3.88	1	3.75	Instruments
239	1900	1-21/64 x 1-1/32 x 2-11/16	Socket—, +9, +13-½		3	1	1.50	Transistor Radio
243	1610	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +4½		4.5	1	1.70	Transistor Radio
246	1602	1-13/32 x 1-11/32 x 2¾	Min. Snap—, +9		4.5	1	1.85	Transistor Radio
266	1605	1-13/16 x 1-13/16 x 2-7/16	Snap Type—, +9		7	1	1.50	Transistor Radio
274	1400	2-9/16 x 2-1/32 x 7-29/32	Snap Type—, +6	2	7	1	4.75	Transistor Radio
276	1603	2-9/16 x 2-1/32 x 3-5/32	Snap Type—, +9		15	1	1.80	Transistor Radio
E312		0.310 Diam. x 0.140	Flat Contact—, +1.40		0.02	6	0.35	Instruments
323	1306	0.662 Diam. x 1.965	Flat Contacts—, + 4.5		0.9	1	0.75	Transistor Radio
W-350	711	3-1/32 x 1⅞ x 4-31/32	Ins. Screw—, +22½, +45		14.5	1	8.85	Radio, Transceivers, Instruments
W-351		3⅝ x 2¼ x 3-11/16	Screw—, +22½, +45	1	5.5	1	7.55	Radio, Transceivers, Instruments
W-352	701	2-21/32 x 1-11/32 x 4-9/16	Ins. Screw—, +3		12.5	1	1.25	Electronic Devices, Instruments
W-353	11	2-19/32 x 1⅜ x 4¼	Socket—, +1½		12.5	1	1.10	Portable Radio
W-354	700	2-21/32 x 1-11/32 x 4⅜	Screw—, +1½		12.2	1	1.25	Instruments
W-356	*	2⅝ x 2⅝ x 4-9/16	Ins. Screw—, +3	1	6	1	1.55	Radio and Electric Devices
W-357	901	3⅞ x 2-11/16 x 5-13/16	Fahnestock—, +3	2	12	1	2.05	Model Ignition, Telephone
W-358		2-15/16 x 1-3/16 x 4⅛	Ins. Screw—, +45		8.75	1	3.55	Industrial
W-359	206	3-9/16 x 2¼ x 4½	Socket—, +45	1	11.8	1	3.55	Portable "B"
W-360	10	2-9/16 x 2-9/16 x 4-1/32	Socket—, +7½	1	3	1	1.90	Portable "A"
W-361	227	1-11/32 x 1-11/32 x 11-23/32	Flat Contacts—, +103½	1	4	1	6.57	Portable "B"
W-362		2-15/16 x 11/16 x 1¾	Screw+, —4½, —7½		1.5	1	2.10	Radio "C"
▲W-363F	*	8-1/32 x 4-1/16 x 7⅝	Fahnestock—, +22½, +45	10	5	1	6.90	Heavy Duty Radio "B"
▲W-364F	*	8⅛ x 4-7/16 x 7-11/16	Fahnestock—, +22½, +45	11	14	1	7.65	Heavy Duty Radio "B"

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

†Flashlight types.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

††Shipped from factory only.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

▲ Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W-365P.

COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs.	ozs.	Unit Pkg. Quan.	List Price Each	Major Use
▲W-365F	723	8-1/16 x 2-15/16 x 7⅝	Fahnestock—, +22½, +45	7	7.5	1	5.50	Industrial "B"
W-366	407	9-1/32 x 2-1/32 x 4-23/32	Socket—"A", +1½ "A", —"B", +63 "B"	4	4	1	8.80	Portable Radio "A-B"
W-367	408	9⅛ x 2¾ x 4-7/16	Socket—"A", +7½ "A", —"B", +63 "B"	4	5	1	9.20	Portable Radio "A-B"
W-368	*	9-1/32 x 2-23/32 x 3-9/16	Recessed Plug—"A", +6 "A", —"B", +75 "B"	4		1	9.50	Portable Radio "A-B"
W-369	410	9-15/16 x 2-¼ x 4-23/32	Socket—"A", +1½ "A", —"B", +90 "B"	4	5	1	7.85	Portable Radio "A-B"
W-370	*	2-13/32 x 1-11/32 x 7-5/32	Socket—"A", +1½ "A", —"B", +60 "B"	1	1.5	1	5.85	Portable Radio "A-B"
W-371		1-5/32 x 1-5/32 x 2-9/16	Socket (including plug)—, +3		2.2	1	0.95	Model Ignition
E400	1106	0.455 Diam. x 0.135	Flat Contact—, +1.35		0.04	6	0.35	Transistor Applications
E401	1102	0.470 Diam. x 1.130	Flat Contact—, +1.40		0.4	3	0.50	Transistor Applications
409	916	2-5/8 x 2-5/8 x 4-13/32	Coil Spring—, + 6	1	6.5	1		Industrial
411	208	1-1/32 x ⅝ x 1-29/64	Flat Contact—, +15		0.8	1	1.15	Pocket Radio "B", Instruments
412	215	1-1/32 x ⅝ x 2	Flat Contact—, +22½		1.2	1	1.50	Pocket Radio "B", Instruments
413	210	1-1/32 x ⅝ x 2-9/16	Flat Contact—, +30		1.4	1	1.75	Pocket Radio "B", Instruments
415	213	1-3/64 x ⅝ x 3-11/16	Min. Snap—, +45		2.5	1	2.50	Pocket Radio "B"
416	217	1-21/64 x 63/64 x 3½	Min. Snap—, +67½		4	1	2.95	Portable Radio "B"
417	224	1-5/16 x 31/32 x 1-9/16	Flat Contact—, +15		1.8	1	1.65	Pocket Radio "B", Instruments
420	225	1-5/16 x 31/32 x 2-3/16	Flat Contact—, +22½		2.5	1	1.75	Pocket Radio "B", Instruments
425P		1-23/64 x 1-1/32 x 3-15/16	Socket—, +22½		4.1	1	1.95	Instruments
430	*	1-5/16 x 1 x 2-13/16	Flat Contacts—, +30		3.2	1	2.15	Pocket Radio "B", Instruments
430P		1-23/64 x 1-1/32 x 3-11/32	Socket—, +30		3.2	1	2.15	Instruments
433P		2-21/32 x 1-1/64 x 3-1/16	Socket—, +33		6	1	2.45	Instruments
437	212	1-15/16 x 1-15/32 x 6-15/32	Snap Type—, +75		14.8	1	4.50	Portable Radio "B"
E450		0.455 Diam. x 0.570	Flat Contact—, +1.35		0.18	4	0.52	Instruments
455	*	2-21/32 x 1 x 3-11/16	Snap Type—, +45		7.8	1	2.95	Portable Radio "B"
455P		2-21/32 x 1-1/64 x 3-29/32	Socket—, +45		8.6	1	3.00	Instruments
457	203	2-13/16 x 1⅜ x 2½	Snap Type—, +67½		7.4	1	3.45	Portable Radio "B"
460K		1-29/64 x 1-3/8 x 2.344	Flat Contact—, +45		5.3	6	2.50	Photoflash
467	200	2-13/16 x 1⅜ x 3-45/64	Snap Type—, +67½		12	1	3.50	Portable Radio "B"
468		2-13/16 x 1-3/8 x 3-45/64	Snap Type—, + 67-1/2		12	1	3.95	Radio Electronic
477	211	1-29/32 x 63/64 x 5-7/16	Snap Type—, +67½		8.6	1	3.25	Portable Radio "B"
479	214	1-31/32 x 1-1/32 x 7-15/32	Snap Type—, +90		12	1	3.95	Portable Radio "B"
482	202	3-19/32 x 1-27/32 x 5½	Socket—, +45	1	15	1	3.85	Portable Radio "B"
484	207	3-31/32 x 2-17/32 x 5-5/16	Socket—, +45	3	2	1	4.70	Fluorescent Lantern
487		5⅛ x 2-1/16 x 7¼	Socket—, +22½, +45	4	2	1	4.95	Farm Radio "B"
489		4-11/32 x 2-11/16 x 4-3/16	Socket—, +225	2	12	1	9.95	Electronic Photoflash
490	204	3-23/32 x 1⅜ x 3-45/64	Snap Type—, +90		15	1	4.50	Portable Radio "B"
491		2-19/32 x 1-5/16 x 4½	Flat Recessed & Socket—, +240		13	1	7.95	Electronic Photoflash
492		3-9/16 x 2-29/32 x 4-29/32	Socket—, +180, +225	2	8	1	$ 8.75	Electronic Photoflash
493	722	2-11/16 x 2-7/32 x 3-29/32	Pinjacks—, +300		14.5	1	11.95	Geiger Counter
495	*	1-15/16 x 1-15/32 x 7⅛	Snap Type—, +90	1		1	4.95	Portable Radio "B"
497		3 x 1-19/32 x 5⅝	Flat Recessed—, +180, +510	1	10	1	15.95	Electronic Photoflash
E502		0.550 Diam. x 1.968	Flat Contact—, +1.35		1.05	2	0.95	Transistor Applications
504	220	⅝ x 19/32 x 1⅜	Flat Contact—, +15		0.6	1	1.15	Pocket Radio "B", Instruments
505	221	⅝ x 19/32 x 1-63/64	Flat Recessed—, +22½		0.8	1	1.50	Pocket Radio "B", Instruments
506	223	1-13/64 x ⅝ x 1-27/64	Flat Contact—, +30		0.9	1	1.85	Pocket Radio "B", Instruments
507	222	⅝ x 19/32 x 2.605	Flat Contact—, +30		0.9	1	1.85	Pocket Radio "B", Instruments
509	908	2⅝ x 2⅝ x 4-13/32	Coil Springs—, +6	1	5	1	1.19	Lanterns
510F	917	2⅝ x 2⅝ x 4-13/32	Fahnestock—, +6	1	4	1	1.19	Miscellaneous
510S	*	2⅝ x 2⅝ x 4⅜	Screw—, +6	1	4	1	1.19	Miscellaneous
515		35/64 Diam. x 1-31/32	Flat Contact—, + 1.5		0.5	24	0.15	Flashlights, Toys
520	930	5-17/32 x 4-21/32 x 2-21/32	Ins. Screw—, +6	2	8	1	4.50	Lanterns, Electronics
523		0.662 Diam. x 1.965	Flat Contact—, +4.5		1.1	1	1.00	Transistor Radio
528		1-1/32 x 11/16 x 1-29/32	Min. Snap—, +9.0		1.3	6	1.00	Transistor Radio
560		2-21/32 x 1-17/32 x 7-5/32	Socket—, +7½	1	10	1	5.25	Portable Television
561		8-5/16 x 2-13/16 x 5-7/8	Socket—, +15	6		1	14.95	Portable Television
E601		0.627 Diam. x 1.40	Flat Contact—, +1.35		1.22	1	1.00	Instruments
621		2-9/16 Diam. x 13	Screw—, +3	4	10	12	3.90	Fishing Buoy
E625		0.615 Diam. x 0.238	Flat Contact—, +1.35		0.14	4	0.50	Transistor Applications
E630		0.615 Diam. x 0.238	Flat Contact—, +1.40		0.17	4	0.45	Transistor Radio
635	14	1-1/32 Diam. x 1-15/16	Flat Contact—, +1½		1.4	12	0.25	Portable Radio "A" Transistor
E640		0.625 Diam. x 0.440	Flat Contact—, +1.40		0.38	4	0.45	Transistor Applications
E675		0.455 Diam. x 0.210	Flat Contact—, +1.40		0.07	6	0.40	Instruments
702		2-17/32 x ⅞ x 3⅛	Socket—, +4½		5	1	1.85	Shot Firing
703	*	2-7/16 x 27/32 x 3-1/16	Spring—, +4½		5	1	1.10	Instruments
704		2-11/16 x 1-11/32 x 4⅜	Socket—, +3		11.8	1	2.10	Shot Firing
706	902	8-5/16 x 2-13/16 x 6-7/16	Ins. Screw—, +6	5	14	1	5.98	Ignition, Emergency Lighting
707	26	2-9/16 x 2-1/32 x 2-13/16	Snap Type—, +7½		12	1	1.50	Portable Radio "A"
708		2⅝ x 2¾ x 4-13/16	Socket—, +22½	1	11	1	4.75	Shot Firing
713	8	3-29/32 x 53/64 x 2-27/32	Socket—, +7½		6.3	1	2.75	Portable Radio "A"
714		3-31/32 x 1-11/32 x 3½	Screw—, +4½		14.5	1	1.75	Telephone Test Sets
715	903	7¼ x 4-1/16 x 6-7/16	Ins. Screw—, +7½	7	10	1	7.25	Ignition, Emergency Lighting
716	*	8-37/64 x 4-1/16 x 6-7/16	Ins. Screw—, +9	8	8	1	8.25	Ignition, Emergency Lighting
717	9	2-5/32 x 1-15/16 x 3-1/32	Socket—, +7½		8	6	1.65	Portable Radio "A"
††718	1	3-29/32 x 2¾ x 5-7/16	Socket—, +6	2	4	1	3.90	Portable Radio "A"
720	18	2-25/32 x 1-13/32 x 3-1/32	Socket—, +1½		6.5	1	1.20	Portable Radio "A"
724	2	1-7/32 x 1-7/32 x 2-11/32	Flat Contact—, +6		2.5	1	1.00	Portable Radio "A"
726	19	4-3/32 x 1-7/16 x 2-15/16	Socket—, +4½		10.5	1	1.35	Portable Radio "A"
727	428	8⅞ x 2⅛ x 3-25/32	Recessed Plug—"A", +9 "A", —"B", +90 "B"	2	14	1	7.45	Portable Radio "A-B"
††729	*	3-27/32 x 2-7/32 x 7-13/16	Socket—"A", +1½ "A", —"B", +90 "B"	2	7	1	6.25	Portable Radio "A-B"
731	918	5-11/32 x 2-27/32 x 4-15/16	Ins. Screw—, +6	3	4	1	2.75	Lantern
735	900	2⅝ x 2⅝ x 4⅜	Screw—, +1½	1	7	1	1.25	Model Ignition "Glo-Plug"
736	3	3-15/16 x 1-5/16 x 4-3/32	Socket—, +4½	1		1	1.35	Portable Radio "A"
738	205	3 x 2-5/16 x 4⅛	Socket—, +22½, +45	1	3	1	3.95	Portable Radio "B"
††740	719	4-19/32 x 3⅞ x 7¾	Socket—, +1½	6		1	9.95	Farm Radio "A"
††741	17	3⅞ x 2-11/16 x 5⅜	Socket—, +1½	2	10	1	3.45	Portable Radio "A"
742	4	2⅝ x 2⅝ x 3-27/32	Socket—, +1½	1	6	1	1.65	Portable Radio "A"
††743	5	3-13/16 x 2⅝ x 4-1/32	Socket—, +1½	1	15	1	2.75	Portable Radio "A"
744	*	2⅝ x 2⅝ x 3-27/32	Socket—, +6	1	6	1	1.65	Portable Radio "A"
746	7	3-15/16 x 1-5/16 x 4-21/32	Socket—, +4½	1	3	1	1.50	Portable Radio "A"
750	*	1-11/32 x 11/16 x 2-21/32	Spring—, +3		2	1	0.95	Instruments
751	705	2 x 11/16 x 2-21/32	Spring—, +4½		3	1	1.00	Instruments
752	400	14-1/16 x 2-11/16 x 4-1/16	Recessed Plug—"A", +9 "A", —"B", +90 "B"	6	2	1	8.25	Portable Radio "A-B"
752W	*	14-1/16 x 2-11/16 x 4-1/16	Recessed Plug—"A", +9 "A", —"B", +90 "B", —, +1½	6	8	1	9.25	Portable Radio "A-B"
753	401	9-7/32 x 2-23/32 x 4-5/16	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	4	12	1	7.75	Portable Radio "A-B"
754	402	10-15/32 x 3¼ x 4	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	6	1	1	9.45	Portable Radio "A-B"
755	403	8-9/16 x 3¾ x 2-7/16	Socket—"A", +6 "A", +7½ "A", —"B", +75 "B"	3	9	1	7.25	Portable Radio "A-B"
756	*	8⅞ x 2⅛ x 3-25/32	Socket—"A", +7½ "A", +9 "A", —"B", +90 "B"	2	14	1	6.95	Portable Radio "A-B"

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

†Flashlight types.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

††Shipped from factory only.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

▲Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W-365P.

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COMPLETE LINE SPECIFICATIONS

"Eveready" Battery Number	NEDA Number	Overall Dimensions in Inches L W H	Terminals & Voltages	Battery Weight lbs.	Battery Weight ozs.	Unit Pkg. Quan.	List Price Each	Major Use
757	406	9-7/32 x 2-23/32 x 4-7/32	Recessed Plug—"A", +9 "A", —"B", +90 "B"	4	12	1	7.95	Portable Radio "A-B"
759	*	15-11/16 x 4-1/32 x 6-15/16	Socket—"A", +1½ "A", —"B", +90 "B"	16	4	1	10.65	Farm Radio "A-B"
761T	712	4-1/16 x 1-15/32 x 3½	Screw—, +1½, +3, +4½		14	1	2.25	Telephone Test Sets
762S	709	4-3/32 x 2-9/16 x 5-7/16	Ins. Screw—, +22½, +45	2	12	1	4.35	Instruments
763	710	3½ x 2-3/32 x 2-15/16	Screw—, +22½		14	1	2.35	Instruments
766T	*	6¾ x 4⅛ x 3-15/16	Fahnestock—, +16½, +18, +19½, +21, +22½	4	10	1	6.25	Switchboard Testing
771	*	3-29/32 x 1⅜ x 3-1/16	Socket+, —3, —4½		13	1	2.35	Radio "C"
773	*	3-29/32 x ⅞ x 3⅛	5 Screw; 1 wire+, —1½, —3, —4½, —6, —7½		9	1	2.35	Radio "C"
776	*	7-27/32 x 4⅛ x 9⅞	Socket & Recessed Plug—"A", +7½ "A", +9 "A", —"B", +90 "B"	14	12	1	14.95	Home Receiver "A-B"
778	*	4⅛ x 2-17/32 x 3-7/16	Fahnestock+, —3, —4½ —6, —9, —10½, —16½, —22½	1	8	1	4.45	Instruments
781	*	2-15/32 x 55/64 x 3¼	Screw+, —4½		5	1	1.25	Instruments
785	431	8⅜ x 3⅝ x 2¼	Socket—"A", +7½ "A", —"B", +75 "B"	2	12	1	6.90	Portable Radio "A-B"
789		5-9/32 x 1-7/16 x 3¼	Flat—, +3	1	1.5	1	2.75	Finger Print Camera
799		8-5/32 x 4¼ x 8-19/32	Fahnestock—, +22½, +45, +49½	13	5	1	11.95	Camera Cranking
815		9/16 Diam. x 1-31/32	Flat Contact—, +1-1/2		0.6	24	0.25	Photoflash
835		1-1/32 Diam. x 1-15/16	Flat Contact—, +1-1/2		1.4	24	0.25	Photoflash
850		1-11/32 Diam. x 2-13/32	Flat Contact—, +1-1/2		3.3	12	0.25	Photoflash
†904	910	0.445 Diam. x 1.180	Flat Contact—, +1½		0.22	6	0.125	Flashlight, Novelties
†912	24	13/32 Diam. x 1¾	Flat Contact—, +1½		0.3	12	0.15	Flashlight, Toys
†915		9/16 Diam. x 1-31/32	Flat Contact—, +1½		0.6	24	0.20	Flashlight, Toys
†935	814	1-1/32 Diam. x 1-15/16	Flat Contact—, +1½		1.4	24	0.20	Flashlight, Toys
†950	813	1-11/32 Diam. x 2-13/32	Flat Contact—, +1½		3	48	0.20	Flashlight, Toys
960P	23	1-11/32 Diam. x 4-1/16	Socket—, +1½		5	1	0.85	Portable Radio "A"
964	20	1-11/32 Diam. x 4-3/16	Flat Contact—, +1½		5.9	12	0.45	Portable Radio "A"
1015	15	9/16 Diam. x 1-31/32	Flat Contact—, +1½		0.6	24	0.25	Transistor Portable
1016		1-9/64 x 19/32 x 2-1/64	Flat Contact—, +1½		1.1	1	0.45	Pocket Radio "A"
1050		1-11/32 Diam. x 2-13/32	Flat Contacts—, + 1-1/2		3.3	48		Industrial
1052P		1-1/8 Diam. 3-29/32	Socket—, + 1.5		3.6	1	0.80	Instrument
1461	907	10-13/32 x 2-25/32 x 7-9/32	Ins. Screw—, +6	9	9	4	4.98	Ignition, Fence Controllers
1462		5⅜ x 5⅜ x 7¼	Ins. Screw—, +6	9	7	4	5.98	Ignition, Fence Controllers
1463	922	10-13/32 x 2-25/32 x 7-9/32	Ins. Screw—, +12	7	8	1	5.75	Toy Cars
1562	*	7-15/16 x 5 x 7½	Ins. Screw—, +7½	11	10	4	7.25	Ignition, Searchlights
1662	913	7-27/32 x 5-9/32 x 7-9/32	Ins. Screw—, +9	14	1	4	8.25	Ignition, Searchlights
2314	2400	1-21/64 x 1-1/32 x 2⅞	Socket+, —12, —21		3	1	2.25	Transistor Portable
2356	1612	2-3/16 x 1-5/32 x 6¼	Snap Type—, +9	1	1	1	1.60	Transistor Radio
2506	1601	8 x 2-13/16 x 1-9/16	Socket—, +3, +6, +9	1	8	1	2.50	Transistor Portable
2709	1613	1-13/32 x 47/64 x 4-11/16	Snap Type—, +9		4	1	1.50	Transistor Portable
2713	1403	1-13/32 x 47/64 x 4-11/16	Min. Snap—, +6		4	1	1.00	Transistor Portable
2731	1303	2-13/16 x 1¾ x 8-11/32	Socket—, +4½	2	11	1	2.75	Transistor Radio
2744	920	2-21/32 x 2-21/32 x 3⅞	Socket—, +6	1	14	1	1.60	Barricade Flasher, Miscellaneous
2745	924	2-21/32 x 2-21/32 x 4-7/16	Coil Springs—, +6	1	14	1	1.60	Barricade Flasher, Lantern
2746	925	2-21/32 x 2-21/32 x 4⅜	Screw—, +6	1	14	1	1.60	Lighting, Miscellaneous
2761	1608	2-9/32 x 1¼ x 7-31/32	Socket—, +9	1	9	1	2.25	Transistor Portable
2762	1609	2-13/16 x 1¾ x 8-11/32	Socket—, +9	2	11	1	2.75	Transistor Radio
2780	923	5-11/32 x 2-27/32 x 4-5/32	Socket—, +12	3	8	1	3.40	Barricade Flasher, Miscellaneous
E302125		1-11/32 Diam. x 3-1/32	Wire Leads—, +7.00		3.9	1	6.55	Fire Alarm
E302157		2½ x 1⅜ x 4¼	Socket—, +1.35		13.5	1	15.50	Radiation Equipment
E302158		3¼ x 1⅜ x 4¼	Socket—, +47.25	1	3	1	37.00	Radiation Equipment
E302227		11/16 Diam. x 15/16	Tabs—, +4.05		0.5	1	2.55	Meter
E302229		11/16 Diam. x 1-7/32	Tabs—, +5.40		0.62	1	2.70	Meter
E302240		2-1/4 x 1-3/8 x 5-9/32	Wire Leads—, +24.3	1	3.0	1	34.60	Instruments
E302249		23/32 Diam. x 1-15/32	Tabs—, +6.75		0.75	1	3.50	Radiation Equipment
E302250		11/16 Diam. x 1-29/32	Tabs—, +9.45		1.0	1	3.75	Radiation Equipment
E302257		1-5/16 Diam. x 2-7/16	Spec. Leads—, +1.35		6.4	1	11.40	Test Equipment
E302271		45/64 Diam. x 4-5/8	Wire Leads—, +1.35, +13.5		3.0	1	7.85	Instruments
E302351		1-1/16 Diam. x 2⅝	Flat Contact—, +5.40		4.5	1	4.10	Fire Alarm
E302354		3/4 Diam. x 1-1/4	Wire Leads—, +5.40		0.50	1	2.75	Radiation Equipment
E302358		3/4 Diam. x 2-5/32	Wire Leads—, +10.8		0.87	1	4.35	
E302360		3/4 Diam. 2-11/16	Wire Leads—, +13.5		1.0	1	5.30	
E3022362		23/32 Diam. x 3-5/32	Wire Leads—, +16.2		1.13	1	5.95	
E302424		11/16 Diam. x 3-15/32	Tabs—, +6.75		2.5	1	3.95	Instruments
E302425		2-13/16 x 1 x 2-25/32	Snap—, +48.6		8.0	1	25.40	"B" Battery
E302435		11/16 Diam. x 1-1/2	Flat Contacts—, +6.75		0.75	1	3.50	Radiation Equipment
E302437		11/16 Diam. x 1-31/32	Flat Contacts—, +9.45		1.0	1	3.55	Radiation Equipment
E302462		2-13/16 x 1-17/32 x 6-3/8	Wire Leads—, +97.2	2		1	49.75	Transmitter "B"
E302463		2-1/8 Diam. x 2-5/16	Wire Leads—, +1.35		8.0	1	9.35	Geophysical
E302464		2-1/8 Diam. x 2-5/16	Wire Leads—, +6.75		8.0	1	11.30	Geophysical
E302465		2-3/16 Diam. x 3-3/4	Wire Leads—, +47.25	1	1.0	1	22.50	Geophysical
E302467		11/16 Diam. x 2-7/8	Tabs—, +5.40		2.0	1	2.85	Test Equipment
E302478		1-9/32 Diam. x 3⅝	Flat Contact—, +9.80		9.0	1	6.60	Wire Recorder
E302497		1-1/16 Diam. x 4-1/8	Screw—, +6.75		6.0	1	6.40	Test Equipment
E302499		2-3/4 x 1-3/8 x 3-21/32	Wire Leads—, +64.8	1		1	42.50	Missile
E302502		2-3/32 Diam. x 2-31/32	Wire Leads—, +94.5		10.5	1	38.50	Geophysical
E302506		1-3/8 x 3/4 x 2-1/8	Wire Leads+, —16.2, +4.05		3.0	1	14.10	Telemetry
E302510		2-7/32 x 2-25/32 x 2-5/32	Screw—, +1.35	1	5.0	1	23.75	Computer
E302519		2-3/4 x 1-7/16 x 2-11/32	Wire Leads—, +5.40		15.0	1	17.65	Test Equipment
E302527		2-5/32 x 1-15/32 x 3-3/8	Wire Leads—, +97.2		10.0	1	38.50	"B" Batttery
E302530		2-23/32 x 2-23/32 x 5-11/16	Spec. Posts—, +10.8	4	4.0	1	59.20	Missile
E302539		1-3/8 x 3/4 x 3-1/32	Socket—, +21.6		2.35	1	15.05	Instruments
E302540		1-13/64 Diam. x 2-25/64	Tabs—, +1.36		6.0	1	4.40	Test Equipment
E302554		2-5/32 x 1-15/32 x 3-5/8	Snap—, +97.2		10.0	1	38.50	"B" Battery
E302558		2-3/4 x 1-3/8 x 3-21/32	Wire Leads—, +35.1, +64.8		15.0	1	37.50	Missile
E302579		1-13/32 x 3/4 x 3-3/16	Wire Leads—, +29.7		5.0	1	16.70	Test Equipment
E302580		2-23/32 x 2-23/32 x 3-29/32	Socket—, +27.0	2	6.0	1	32.19	Instruments
E302589		1-7/16 x 1-7/16 x 1-15/16	Socket—, +21.6		2.35	1	18.00	
E302604		0.645 Diam. x 1.069	Flat Contacts—, +5.40		0.62	1	2.10	
E302609		43/64 Diam. x 2-5/8	Flat Contacts—, +12.15		1.5	1	4.15	
E302642		1-9/32 Diam. x 2⅝	Flat Contact—, +7.00		5.0	1	5.25	Fire Alarm
E302651		1-5/16 Diam. x 2-7/16	Spec. Leads—, +1.35		6.14	1	5.64	Instruments
E302667		6-15/32 x 1-15/32 x 2-23/32	Wire Leads—, +6.75	1	14.7	1	34.42	Instruments
E302702		1-1/8 Diam. x 1-5/8	Wire Leads—, +2.70		2.0	1	4.10	Geophysical
E302795		1-7/16 x 1-7/16 x 4-29/32	Socket—, +10.8		11.8	1	23.65	Instruments
E302800		2-3/4 x 1-7/16 x 5	Snap—, +75.6	1	9.3	1	40.50	Instruments
E302830		3-15/32 x 7/8 x 6-1/2	Socket—, +6.75, +12.15		24	1	29.50	Instruments
E302896		2-9/16 x 1-13/16 x 2-1/4	3 Neg. Snap—, +9.45, +1.35		11.8	1	24.30	Recorder
E302904		1-11/32 Diam. x 2-31/32	Wire Leads—, +5.40		6.0	1	6.65	Meter
E302905		1-11/32 Diam. x 3-19/32	Wire Leads—, +6.75		9.0	1	8.70	Test Equipment
E302907		1-5/16 Diam. x 4-7/8	Wire Leads—, +9.45		11.6	1	10.50	Instruments
E302908		1-11/32 Diam. x 5-9/16	Wire Leads—, +10.8		12.0	1	11.40	Radiation Equipment
E303035		1-9/32 Diam. x 4-1/32	Flat Contacts—, +8.10		10.0	1	7.78	Instruments
E303145	1614	2-3/16 x 7/8 x 4-7/16	Snap—, +8.40		8.82	1	9.10	Depth Finder

*NEDA number same as an "Eveready" battery number on a different battery. Omitted to prevent errors in shipping.

†Flashlight types.

**Equipped with screw terminals unless Fahnestock spring terminals are specified.

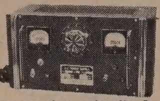
††Shipped from factory only.

***Equipped with Fahnestock spring terminals unless screw terminals are specified.

▲Furnished with Fahnestock spring terminals. If socket terminals required, specify W-363P, W-364P, W-365P.

DC POWER SUPPLIES
SILICON & SELENIUM RECTIFIERS

SILICON POWER RECTIFIER



For transistor circuits & electronic equipment
MODEL G92F

INPUT: 115 volts AC 60 cycles, 1 phase
OUTPUT: 0-30. Volts DC, 0-10 Amperes D.C. continuous duty
REGULATION: No load to full load 15%
RIPPLE: Less than 0.5% RMS
METERS: 2% Accuracy

PRICE: $145.00 NET

*Also available in 5 Amperes
PRICE: $95.00 NET

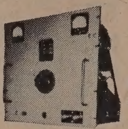
INDUSTRIAL POWER UNITS

MODEL A10

INPUT 115 or 230 AC Volts, 60 cycles—Single Phase.
DC OUTPUT 115 Volts DC 125 Watts
APPLICATION: Power sources for operating DC Motors, Relays, Solenoids, Magnetic Chucks.
DIMENSIONS: 11" H x 9" W x 6½" D

PRICE $63.00 NET

SILICON INDUSTRIAL POWER UNIT



MODEL #G30-40F

INPUT: 115 or 230 Volts AC, 60 cycles, single phase
OUTPUT: 0-32 Volts DC, 0-40 Amperes DC, continuous duty
RIPPLE: 1% RMS
DIMENSIONS: 12¼"Hx19"Wx13"D
REGULATION: D.C.V. at full load: 32 minimum D.C.V. at ¹⁄₁₀ load: 35 maximum

PRICE: $385.00

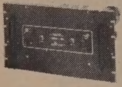
SILICON POWER RECTIFIER

MODEL G30.10FR

INPUT: 115 Volts AC, 60 Cycles, Single Phase
OUTPUT: 0-30 Volts DC, 0-10 Amperes, continuous duty
CONTROL: Continuously variable over entire range
REGULATION: 6% No Load to Full Load
RIPPLE: 0.2% RMS
METERS: 2% Accuracy
DIMENSIONS: 19"Wx13"Dx10½"H

PRICE: $185.00 NET

SILICON RACK MOUNT SUPPLY

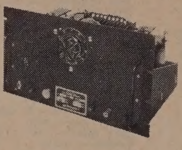


MODEL #GX30-10

INPUT: 115 Volts AC 60 Cycles, Single Phase
OUTPUT: 30 Volts DC 0-10 Amperes Continuous Duty
REGULATION: 10% No Load to Full Load
RIPPLE: Below 0.5% RMS
DIMENSIONS: 8¾" H x 19" W x 10" D

PRICE: $137.50 NET

SELENIUM POWER SUPPLY

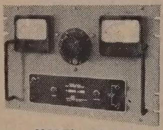


MODEL G48-6FM

INPUT: 115 Volts AC 60 Cycles—Single Phase
OUTPUT: 0-48 Volts DC, 0-6 Amperes
CONTROL: Continuously variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 19" W x 13" D x 10½" H, Fits RETMA, Western Electric racks

PRICE: $190.00 NET

AIRCRAFT BATTERY ELIMINATOR

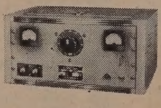


MODEL #G101F

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 0-30 Volts DC, 0-20 Amperes, continuous duty
RIPPLE: 0.5% RMS
Unique overload device prevents needle slam and shows overload condition
REGULATION: D.C.V. at full load: 30
D.C.V. at 1/10 load: 35
METERS: 2% Accuracy

PRICE: $200.00 NET
PRICE: $185.00 LESS DUST COVER
May be used for Rack or Bench

SILICON POWER SUPPLY

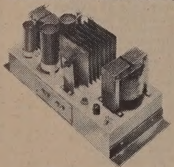


MODEL #GS 14-15F

INPUT: 115 Volts AC, 1 Phase, 60 cycles
OUTPUT: 0-14 Volts DC, 0-15 Amperes, continuous duty
RIPPLE: Less than 1% RMS
METER ACCURACY: 2%
DIMENSIONS: 9" H x 17½" W x 9" D

PRICE: $125.00 NET

SELENIUM POWER SUPPLY



MODEL GX 30-5

INPUT: 115 Volts AC 60 cycles, single phase
OUTPUT: 30 Volts DC, 0-5 Amperes, DC Continuous Duty
REGULATION: 12% No Load to Full Load
RIPPLE: Below 1% RMS
DIMENSIONS: 5" W x 13½" L x Overall Height 10"

PRICE: $75.00 NET

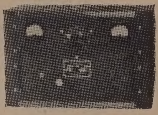
SILICON GENERAL PURPOSE RECTIFIER

MODEL G-115

INPUT: 115 or 220 Volts AC 60 cycles, 1 Phase
OUTPUT: 0-32 Volts DC, 0-50 Amperes DC, Continuous duty variable over entire range
RIPPLE: 1% RMS
DIMENSIONS: 22"H x 19"W x 15"D

PRICE: $475.00 NET

DC POWER SUPPLY



MODEL G94F

INPUT: 115 Volts AC 60 cycles, 1 Phase DC
OUTPUT: 0-300 Volts DC Continuous Variable 0-1 Amperes.
RIPPLE: 100 MV RMS
DIMENSIONS: Rack 8¾" H x 19" L x 9½" D
CABINET: 10½"Hx22"Lx12"D

PRICE: $240.00

SILICON POWER SUPPLY

MODEL GX30-20

INPUT: 115 Volts, 1 Phase, 60 cycles
OUTPUT: 0-34, Volts, DC 0-20 Amperes, continuous duty
REGULATION: No load to full load: 18%
RIPPLE: Below 1%
Silicon Rectifiers, High Efficiency
DIMENSIONS: 10" x 17" x 3"

PRICE: $185.00 NET

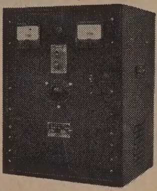
GATES ELECTRONIC CO.

BRONX, N. Y.

See Our Ad on Power Supplies Page 1292 in the 5th Edition of the Electronic Engineering Master

DC POWER SUPPLIES
SILICON & SELENIUM RECTIFIERS

SILICON POWER RECTIFIER
Model G50-50R



UT: 220 Volts AC, 60 ycles, 3 phase

TPUT: 0-50 volts DC, -50 amperes con- inuous duty

PLE: 0.5% RMS

ULATION: No Load to Full Load 8%

TERS: 2% Accuracy

SILICON INDUSTRIAL POWER UNIT
Model G30-100

INPUT: 220 Volts AC, 60 cycles, 3 phase

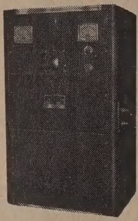
OUTPUT: 0-30 Volts DC, 0-100 amperes continuous duty

RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and at maximum output voltage setting

METERS: 2% Accuracy

SILICON AIRCRAFT BATTERY ELIMINATOR
Model G30-200



INPUT: 220 Volts AC, 60 cycles, 3 phase

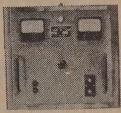
OUTPUT: 0-30 Volts DC, 0-200 amperes continuous duty

RIPPLE: 4% RMS

REGULATION: 5-8% 1/10th load to full load with constant input and maximum output voltage setting

METERS: 2% Accuracy

SILICON REGULATED POWER SUPPLY
Model G530-40M



INPUT: 115 Volts AC, 60 cycles, 1 phase

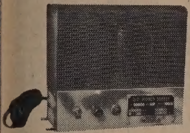
OUTPUT: 5-30 Volts DC, 0-40 amperes

RIPPLE: 1% RMS

REGULATION: ±1% from no load to full load

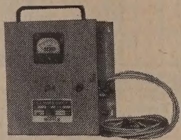
METERS: 2% Accuracy

SILICON POWER SUPPLY
Model GX24-1



INPUT: 115 Volts AC, 60 cycles, 1 phase
OUTPUT: 24 Volts DC, 0-1 ampere DC, continuous duty
RIPPLE: 0.4% RMS
REGULATION: 10% no load to full load
PRICE: $50.00

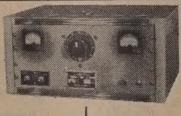
PORTABLE SILICON BATTERY CHARGER
Model G612-20



INPUT: 115 volts AC, 60 cycles, 1 phase
OUTPUT: 6/12 Volts DC, 20 amperes continuous duty
METER: Amp. meter 2% Accuracy
DIMENSIONS: 11"H x 9"W x 6½"D
PRICE: $45.00

BENCH PLATING RECTIFIER
Model G10-8

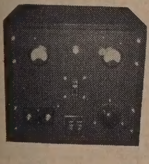
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 10 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy volt meter, amp. meter
PRICE: $75.00



BENCH PLATING RECTIFIER
Model G30-8

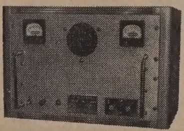
INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 30 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $115.00

BENCH PLATING RECTIFIER
Model G50-8



INPUT: 115 volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-8 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METER: 2% Accuracy, volt meter, amp. meter
PRICE: $175.00

BENCH PLATING RECTIFIER
Model G100-8



INPUT: 115 Volts, 50-60 cycles, 1 phase

OUTPUT: 100 amperes, 0-8 Volts DC

RECTIFIER: Full wave selenium rectifier

VOLTAGE CONTROL: Powerstat

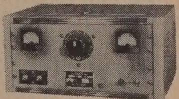
METERS: 2% Accuracy, volt meter, amp. meter

PRICE: $275.00

BENCH PLATING RECTIFIER
Model G200-6

INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 200 amperes, 0-6 Volts DC
RECTIFIER: Full wave selenium rectifiier
COOLING: Fan
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $395.00

BENCH PLATING RECTIFIER
Model G50-15



INPUT: 115 Volts, 50-60 cycles, 1 phase
OUTPUT: 50 amperes, 0-15 Volts DC
RECTIFIER: Full wave selenium rectifier
VOLTAGE CONTROL: Powerstat
METERS: 2% Accuracy, volt meter, amp. meter
PRICE: $210.00

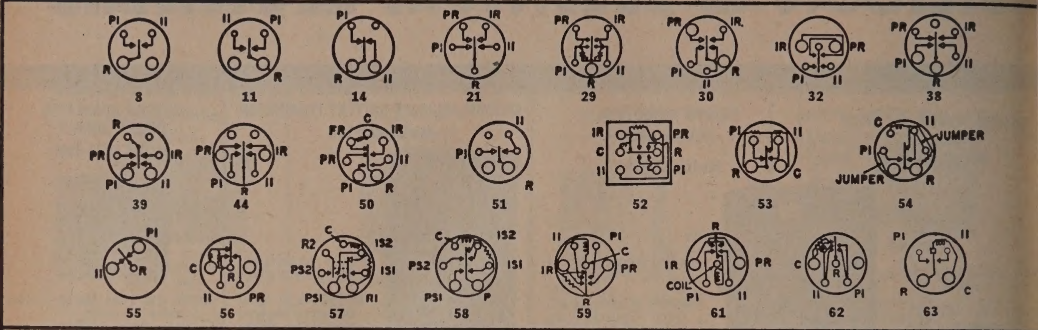
GATES ELECTRONIC CO.

BRONX, N. Y.

See Our Ad on Rectifiers in Section 4800 & Transformers in Section 5600

MALLORY Vibrators

P. R. MALLORY & CO. Inc.



BASE DIAGRAMS: C = Coil; FR = Frame; II = Inertia Interrupter; IR = Inertia Rectifier; IS = Inertia Spring; PI = Pull Interrupter; PR = Pull Rectifier; PS = Pull Spring; R = Reed.

COMMON AUTO REPLACEMENT TYPES

Famous **"Gold Label"** models indicated by *

Mallory No.	Volts	Type	Base Diag.	Can Type	Size, In. A x B x C	Net Each
G1601*	12	Int.	8	1	1½ x 2⅝	$2.82
G1602*	12	Int.	55	9	1½ x 2⅝	2.82
W1601	4	Int.	8	1	1½ x 2⅝	2.94
509P	6	Int.	8	1	1½ x 2⅞	2.49
716	6	Syn.	30	7	1¹⁵⁄₁₆x 3½	4.62
903M	6	Int.	8	1	1½ x 2⅞	2.16
1501	6	Int.	53	1	1½ x 2⅞	3.81
1601*	6	Int.	8	1	1½ x 2⅝	2.82

COMPLETE VIBRATOR SPECIFICATIONS

Mallory No·	†	Volts	Type	Base Diag.	Can Type	Size, Inches A x B x C	Net Each
F294	1	32	Int.	8	1	1½x2⅞	$4.29
F826S	1, 2	32	Int.	8	1	1½x2⅞	4.62
G294	...	12	Int.	8	1	1½x2⅞	5.13
G1501	1	12	Int.	53	1	1½x2⅞	4.14
G1502	...	12	Int.	54	.....	1½x2⅞	4.62
G1601	...	12	Int.	8	1	1½x2⅝	2.82
G1602	...	12	Int.	55	9	1½x2⅝	2.82
G1603S	1, 2	12	Int.	8	1	1½x2¹⁵⁄₁₆	4.62
G1604	...	12	Int.	8	1	1¼x2³⁄₁₆	4.62
G1801	...	12	Syn.	32	1	1½x2⅞	5.13
G1801S	1, 2	12	Syn.	32	1	1½x2¹⁵⁄₁₆	5.97
G1802S	1, 2	12	Syn.	21	1	1½x2¹⁵⁄₁₆	5.97
G1803S	...	12	Int.	38	1	1½x3	5.97
G1807	...	12	Syn.	44	1	1½x2⅞	5.13
G1808	...	12	Syn.	38	1	1½x2⅞	5.13
M1501	...	24	Int.	53	1	1½x2⅞	4.14
W1601	3	4	Int.	8	1	1½x2⅝	2.94
W1802	3	4	Syn.	21	1	1½x2⅞	4.95
273C	...	6	Syn.	29	1	2x4½	5.49
294	...	6	Int.	8	1	1½x2⅞	2.94
298	...	6	Int.	51	1	1½x2⅞	3.81
509P	...	6	Int.	8	1	1½x2⅞	2.49
716	...	6	Syn.	30	7	1¹⁵⁄₁₆x3½	4.62
743	...	6	Syn.	38	1	1¼x2⅞	4.62
825S	1, 2	6	Int.	8	1	1½x2⅞	4.14
854	...	6	Int.	11	1	1½x2⅞	2.94
870	...	6	Int.	14	1	1½x2⅞	2.94
903M	...	6	Int.	8	1	1½x2⅞	2.16
954	...	6	Syn.	39	1	1½x3⁵⁄₁₆	4.62
1501‡	1	6	Int.	53	1	1½x2⅞	3.81
1512‡	...	6	Int.	54	1	1½x2⅞	4.14
1513‡	...	6/12	Int.	56	1	1½x2⅞	4.14
1514‡	...	6	Int.	53	1	1½x2⅞	4.14
1601	1	6	Int.	8	1	1½x2⅝	2.82
1603S	1, 2	6	Int.	8	1	1½x2¹⁵⁄₁₆	3.81
1604	...	6	Int.	8	1	1⁵⁄₁₆x2³⁄₁₆	2.94
1610	...	6	Int.	63	1	1½x2⅝	3.30
1701‡	...	6/12	Int.	57	1	1½x3	5.76
1751‡	...	6	Int.	58	1	1½x3	5.88
1752‡	...	6/12	Int.	62	1	1½x3	5.82
1801S	1, 2	6	Syn.	32	1	1½x2¹⁵⁄₁₆	5.13
1802	1	6	Syn.	21	1	1½x2⅞	4.62
1806	...	6	Syn.	61	1	1½x2⅞	4.62
1807‡	...	6	Syn.	44	1	1½x2⅞	4.62
1808‡	...	6	Syn.	38	1	1½x2⅞	4.62
1813‡	...	6	Syn.	32	1	1½x2⅞	4.62
1852‡	...	6	Syn.	59	1	1½x2⅞	5.82
GC7	4	Ground Cup		.....	....	.27
AR-1	5	Adapter		.....	....	.90
VP-1	...	Vibrator Puller		.....	....	1.65

†—**1:** For new equipment design only, other types for replacement purposes only. **2:** Hermetically sealed. **3:** Designed for photoflash applications. **4:** A grounding cup for 1½″ dia. vibrators which makes low RF ground between vibrator can and power supply. **5:** Five special sockets for Practical Vibrator tester. Supplied as complete kit only. **Int.**—Interrupter. **Syn.**—Synchronous. ‡For Mobile communications and heavy duty uses.

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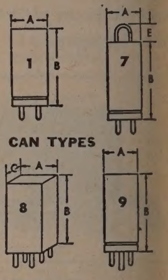
MALLORY
VIBRATOR
FOR USE ON
6 VOLT BATTERY

Mallory Vibrators are assembled from carefully matched materials built to extremely close tolerances, assuring perfect balance and precise operation. Crude rubber insulation and heavy cans effectively deaden sound and vibration. Every Mallory vibrator is tested for output, starting voltage and wave form. If Mallory type number is not known refer to diagram above or write for **VIBRATOR GUIDE, 15c** FREE when request is included with order for Mallory Vibrators.



CAN TYPES

COMMUNICATION TYPE

Designed for mobile communications and other heavy duty uses. Engineered to the finest standards and will give long, trouble-free service when used as recommended.

Mallory No.	Volts	Type	Base Diag.	Size, Inches	Net Each
G1501	12	Int.	53	1½ x 2⅞	$4.14
G1502	12	Int.	54	1½ x 2⅞	2.94
G1801	12	Syn.	32	1½ x 2⅞	5.13
G1807	12	Syn.	44	1½ x 2⅞	5.13
1501	6	Int.	53	1½ x 2⅞	3.81
1512	6	Int.	54	1½ x 2⅞	4.14
1513	6/12	Int.	56	1½ x 2⅞	4.14
1514	6	Int.	53	1½ x 2⅞	4.14
1701	6	Int.	57	1½ x 3	5.76
1751	6	Int.	58	1½ x 3	5.88
1752	6/12	Int.	62	1½ x 3	5.82
1807	6	Syn.	44	1½ x 2⅞	4.62
1808	6	Syn.	38	1½ x 2⅞	4.62
1813	6	Syn.	32	1½ x 2⅞	4.62
1852	6	Syn.	59	1½ x 2⅞	5.82

BUFFER CAPACITORS

Tubular paper capacitors have case molded from high grade, mineral-filled bakelite; sealed against moisture and mechanical shock by epoxy resin. Double tinned copperweld wire leads. Tolerance, ±10%. Working voltage, 1600 v. DC; test 3200 v. DC.

Mallory No.	Capacity µf	Size, Inches Dia. x Length	Net Each
GEM-1621	.001	⅜ x 1¼	39c
GEM-16215	.0015	⅜ x 1¼	39c
GEM-1622	.002	⅜ x 1¼	39c
GEM-16225	.0025	⁷⁄₁₆ x 1¼	45c
GEM-1623	.003	⁷⁄₁₆ x 1¼	39c
GEM-16233	.0033	⁷⁄₁₆ x 1¼	39c
GEM-1624	.004	⁷⁄₁₆ x 1¼	39c
GEM-16247	.0047	½ x 1½	39c
GEM-1625	.005	½ x 1½	39c
GEM-16256	.0056	½ x 1½	39c
GEM-1626	.006	½ x 1½	39c
GEM-16268	.0068	½ x 1½	39c
GEM-1627	.007	½ x 1½	39c
GEM-16275	.0075	½ x 1½	39c
GEM-1628	.008	½ x 1½	39c
GEM-16282	.0082	½ x 1½	39c
GEM-1611	.01	½ x 1½	42c
GEM-161125	.0125	⅝ x 1⅞	42c
GEM-1612	.02	⅝ x 1⅞	36c
GEM-16122	.022	⅝ x 1⅞	45c
GEM-1613	.03	⅝ x 1⅞	42c
GEM-1614	.04	¾ x 2¼	42c
GEM-1615	.05	¾ x 2¼	42c

P. R. MALLORY & CO. Inc. MALLORY Batteries

MANGANESE ALKALINE BATTERIES

Mallory	Volts	Use	Oz.	Net
Mn1300	1.5	All Purpose "D"	5 1/4	**65c**
Mn1306	4.5	Transistor radio	1 1/3	**70c**
Mn1400	1.5	All Purpose "C"	2 1/3	**51c**
Mn1500	1.5	All Purpose "AA"	.82	**33c**
Mn1604	9	Transistor radio	1 1/3	**70c**
Mn2400	1.5	All Purpose "AAA"	.4	**31c**
Mn9100	1.5	All Purpose "N"	.34	**24c**

MERCURY BATTERIES

Mallory Number	Volts	Cap., MAH	Use	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
RM-1	1.4	1000	Electronic	5/8 dia. x 21/32	0.75	**$0.38**
RM-1R	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.44**
RM-1RT†	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.49**
RM-1RT2‡	1.35	1000	Electronic	5/8 dia. x 21/32	0.75	**.53**
RM-3R	1.35	2200	Electronic	1 dia. x 21/32	0.93	**.54**
RM-4R	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	**.69**
RM-4RT†	1.35	3400	Electronic	1.2 dia. x 21/32	1.6	**.74**
RM-4Z	1.4	2400	Electronic	1.2 dia. x 1/2	1.2	**.58**
RM-12	1.4	3600	Electronic	5/8 dia. x 2	2.0	**.75**
RM-12R	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.82**
RM-12RT†	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.87**
RM-12RT2‡	1.35	3600	Electronic	5/8 dia. x 2	2.0	**.92**
RM-42	1.4	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.70**
RM-42R	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.85**
RM-42RT†	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.90**
RM-42RT2‡	1.35	14000	Electronic	1.2 dia. x 2 3/8	5.9	**1.95**
RM-312	1.4	36	Electronic	5/16 dia. x 9/64	0.01	**.24**
RM-400R	1.35	75	Electronic	29/64 dia. x 9/64	0.04	**.24**
RM-401	1.35	800	Electronic	29/64 dia. x 1 1/8	0.4	**.34**
RM-411	14	120	Electronic	1 x 17/32 x 1 3/32	1	**2.00**
RM-412	22.4	120	Electronic	1 x 17/32 x 1 5/16	1	**2.55**
RM-413	28	120	Electronic	1 x 17/32 x 2 1/2	1.5	**3.25**
RM-415§	42	120	Electronic	1 x 17/32 x 3 1/2	2.5	**5.10**
RM-450R	1.35	350	Electronic	29/64 dia. x 9/16	0.18	**.34**
RM-502R	1.35	2400	Electronic	1/2 dia. x 1 31/32	1.05	**.62**
RM-520	1.4	130	Electronic	1/2 dia. x 9/32	0.07	**.16**
RM-601R	1.35	1800	Electronic	5/8 dia. x 1 5/32	1.2	**.65**
RM-625R	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.34**
RM-625RT†	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.39**
RM-625RT2‡	1.35	350	Electronic	5/8 dia. x 1/4	0.15	**.44**
RM-630	1.4	350	Electronic	5/8 dia. x 1/4	0.17	**.30**
RM-640*	1.4	500	Electronic	5/8 dia. x 7/16	0.38	**.30**
RM-640RT2‡	1.35	500	Electronic	5/8 dia. x 7/16	0.38	**.40**
RM-675	1.4	175	Electronic	29/64 dia. x 13/64	0.07	**.26**
TR-113R	4.05	250	Electronic	21/32 dia. x 53/64	0.45	**1.29**
TR-114R	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	**1.50**
TR-114RT2‡	5.4	250	Electronic	21/32 dia. x 1 1/16	0.59	**1.60**
TR-115R	6.75	250	Electronic	21/32 dia. x 1 5/16	0.73	**1.70**
TR-126	8.4	.....	Radio	3/4 dia. x 1 15/16	1.6	**.85**
TR-132R	2.7	1000	Electronic	21/32 dia. x 1 5/16	1	**.92**
TR-133*	4.2	1000	Radio, Pag.	21/32 dia. x 2	1.4	**1.00**
TR-133R	4.05	1000	Radio, Pag.	21/32 dia. x 2	1.4	**1.18**
TR-134R	5.4	1000	Electronic	21/32 dia. x 2 39/64	1.9	**1.45**
TR-135R	6.75	1000	Electronic	21/32 dia. x 3 1/4	2.4	**1.85**
TR-136R	8.1	1000	Electronic	21/32 dia. x 3 29/32	2.9	**2.18**
TR-145	7	250	Electronic	21/32 dia. x 1 3/16	0.58	**1.55**
TR-146§*	8.4	350	Radio	1 x 19/32 x 1 15/16	1.6	**1.02**
TR-152R	2.7	350	Electronic	15/32 dia. x 1 1/8	0.42	**.78**
TR-153R	4.05	350	Electronic	15/32 dia. x 1 11/16	0.6	**1.02**
TR-162R	2.7	500	Electronic	21/32 dia. x 7/8	0.58	**.87**
TR-163	4.2	500	TV tuner	21/32 dia. x 1 5/16	0.87	**1.02**
TR-164*	5.6	500	Radio	21/32 dia. x 1 3/4	1.16	**1.15**
TR-165	7	500	TV tuner	21/32 dia. x 2 3/16	1.45	**1.50**
TR-169	12.6	.....	Electronic	....	2.88	**3.20**
TR-175	7	350	Radio	31/64 dia. x 1 3/32	1	**1.02**
TR-177§*	9.8	250	Radio	35/64 dia. x 1 29/32	1	**1.15**
TR-233	4.2	2200	Radio	1 1/64 dia. x 1 31/32	3	**1.80**
TR-234	5.6	2200	Electronic	1 dia. x 2 19/32	3.88	**2.50**
DM-9N	1.4	2400	Radio	1/2 dia. x 1 31/32	1	**.54**
ZM-9*	1.4	2400	Radio	1/2 dia. x 1 31/32	1	**.51**

*Available in plastic jewel box, add suffix **P**, e.g., TR-146**P.** †1 tab, 1 flat terminal. ‡2 tab terminals. §Snap terminals.

MERCURY POWER-PAK BATTERIES

Mallory Number	Volts	Cap., MAH	Use	Terminals	Net Each
302125-M	7.0	2400	Fire alarm	Flat	**$ 4.25**
302157	1.35	28000	Radiation eqpt.	Sckt	**10.35**
302158	22.95, 2.7 47.25, 5.4	500	Radiation eqpt.	Sckt	**24.38**
302227	4.05	250	P.H. meter	Tabs	**1.65**
302229	5.4	250	P.H. meter	Tabs	**1.75**
302240	24.3	2400	Instruments	Leads	**22.50**
302249	6.75	250	Radiation eqpt.	Tabs	**2.28**
302250	9.45	250	Radiation eqpt.	Tabs	**2.45**
302257	1.35	14400	Test equipment	Leads	**7.40**
302271-M	1.35-13.5	3600/250	Electronic	Leads	**5.18**
302351-M	5.4	2200	Fire alarm	Flat	**2.67**
302354	5.4	250	Radiation eqpt.	Leads	**1.80**
302358	10.8	250	Radiation eqpt.	Leads	**2.83**
302360	8.1	250	Radiation eqpt.	Leads	**3.60**
302362	16.2	250	Radiation eqpt.	Leads	**3.87**
302424	6.75	1000	Instruments	Tabs	**2.57**
302425	48.6	250	"B"	Snaps	**16.51**
302435	6.75	250	Radiation eqpt.	Flat	**2.28**
302437	9.45	250	Radiation eqpt.	Flat	**2.30**
302462	97.2	1000	Transmitter "B"	Leads	**32.34**
302464	6.75	3600	Geophysical	Leads	**7.35**
302465	47.25	1000	Geophysical	Leads	**15.40**
302467	5.4	1000	Test equipment	Tabs	**1.85**
302478-M	9.8	2400	Recorder	Flat	**4.29**
302497	6.75	2200	Test equipment	Posts	**4.16**
302499	64.8	500	Missile	Leads	**28.50**
302502	94.5	250	Geophysical	Leads	**26.50**
302506	16.2, 4.05	250	Telemetry	Leads	**9.17**
302510	1.35	43200	Computer	Posts	**15.44**

MALLORY
MALLORY
Mercury Battery
FOR RADIO AND TRANSISTOR APPLICATIONS
TR-146
8.4 VOLTS
FLASHLIGHT RADIO PHOTOFLASH
MALLORY
ALL PURPOSE
ALKALINE BATTERY
Longer Life

MERCURY POWER-PAKS (CONTINUED)

Mallory Number	Volts	Cap., MAH	Use	Terminals	Net Each
302519	5.4	7200	Test equipment	Leads	**$11.47**
302527	97.2	250	"B"	Leads	**26.50**
302530	10.8	14000	Missile	Posts	**38.48**
302539	21.5	250	Electronic	Sckt	**9.78**
302540	1.35	14000	Test equipment	Tabs	**2.86**
302554	97.2	250	"B"	Snaps	**26.50**
302558	64.8, 34.1	500	Missile	Leads	**25.50**
302579	29.7	250	Test equipment	Leads	**10.85**
302580	27	3400	Electronic	Sckt	**21.40**
302589	21.5	250	Electronic	Sckt	**12.20**
302604	5.4	250	Electronic	Flat	**1.37**
302609	12.15	250	Electronic	Flat	**2.70**
302642	7.0	2400	Fire alarm	Flat	**3.40**
302651	1.35	14000	Electronic	Leads†	**3.62**
302667	6.7	14000	Electronic	Leads	**22.37**
302702	2.7	2200	Geophysical	Leads	**2.67**
302795	10.75	3600	Electronic	Sckt	**15.37**
302800	75.6	1000	Electronic	Snaps	**27.50**
302830	12.06-6.7	1000/7200	Electronic	Sckts	**19.25**
302896	9.4, 1.35	3600	Recorder	Snaps‡	**15.80**
302904	5.4	3400	Meter	Leads	**4.32**
302905	6.75	3400	Test equipment	Leads	**5.65**
302907	9.45	3400	Electronic	Leads	**6.70**
302908	10.8	3400	Radiation eqpt.	Leads	**7.48**
303145	8.4	3600	Depth finder	Snap	**6.33**
303203	4.05	2200	Electronic	Flat	**1.80**
303219	9.8	175	Electronic	Flat	**1.80**

†Special leads. ‡Three negative leads.

MERCURY VOLTAGE REFERENCE BATTERY

Mallory No. 303113—Eight outputs, 0–10.80 v. in 1.35 v. steps. **Size:** 6 1/2" x 2 5/8" x 1". In lined leatherette case with complete technical information. Net Each........... **$39.50**

ZINC-CARBON BATTERIES

Mallory No.	Nom. Volts	Use	T*	Size, Inches L. x W. x H.	Wt., Oz.	Net Each
M-4	1.5	Radio "A"	a	2 11/16x2 11/16x4 7/16	20	**$1.16**
M-6	6	Radio "A"	a	2 9/16x2 9/16x3 31/32	9	**1.16**
M-9	7.5	Radio "A"	a	2 7/32x1 15/16x3 1/32	31	**1.15**
M-13F	1.5	Flashlight "D"	b	1 11/32 dia. x 2 13/32	3.3	**.13**
M-13R	1.5	Radio "D"	b	1 11/32 dia. x 2 13/32	3.3	**.155**
M-13X	1.5	Industrial "D"	b	1 11/32 dia. x 2 13/32	3.3	**#**
M-14F	1.5	Flashlight "C"	b	1 1/32 dia. x 1 15/16	1.5	**.13**
M-14R	1.5	Radio "C"	b	1 1/32 dia. x 1 15/16	1.5	**.155**
M-15F	1.5	"AA" penlight	b	9/16 dia. x 1 31/32	0.5	**.13**
M-15R	1.5	Radio penlight	b	9/16 dia. x 1 31/32	0.5	**.155**
M-20	1.5	Radio "A"	b	1 3/8 dia. x 4 11/64	6	**.32**
M-24F	1.5	Junior penlight	b	13/32 dia. x 1 3/4	0.3	**.095**
M-200	67.5	Radio "B"	c	2 13/16x1 3/8x3 45/64	12	**2.45**
M-208	15	Electronic "B"	b	1 1/32x5/8x1 29/64	0.8	**.81**
M-210	30	Electronic "B"	b	1 1/32x5/8x2 9/16	1.4	**1.23**
M-211P	67.5	Radio "B"	c	1 29/32x63/64x5 7/16	8.5	**2.27**
M-213	45	Radio "B"	c	1 3/64x5/8x3 11/16	3	**1.75**
M-214	90	Radio "B"	c	1 31/32x1 1/32x7 15/32	12	**2.77**
M-215	22.5	Radio "B"	b	1 1/32x5/8x2	1.5	**1.05**
M-413	1 1/2, 90	Farm radio	a	15 11/16x4 1/32x6 15/16	260.0	**7.95**
M-504	15	Electronic "B"	b	5/8x19/32x1 3/8	0.6	**.81**
M-505	22.5	Electronic "B"	b	5/8x19/32x1 63/64	0.6	**1.05**
M-506	30	Electronic "B"	b	1 13/64x5/8x1 27/64	0.9	**1.30**
M-507	30	Electronic "B"	b	5/8x19/32x2 39/64	0.9	**1.30**
M-900	1.5	Ignition	e	2 5/8x2 5/8x4 9/32	20	**.84**
M-902	6	Lighting	e	8 5/16x2 13/16x6 7/16	94.0	**4.01**
M-903	7.5	Lighting	e	7 1/4 x4 1/16x6 7/16	122.0	**4.86**
M-904	9	Lighting	e	8 37/64x4 1/16x6 7/16	136.0	**5.53**
M-905	1.5	Ignition	e	2 5/8 dia. x 6 5/8	34	**.84**
M-906	1.5	Telephone	f	2 5/8 dia. x 6 5/8	34	**.84**
M-907	6	Industrial	e	10 13/32x2 25/32x7 9/32	153	**3.34**
M-908	6	Metal lantern	g	2 11/16x2 11/16x4 7/16	21	**.79**
M-910F	1.5	Flashlight "N"	b	29/64 dia. x 1 3/16	0.22	**.08**
M-911	1.5	R.R., Indust.	e	2 5/8 dia. x 6 5/8	34	**.90**
M-914	1.5	Ignition	f	2 5/8 dia. x 6 5/8	34	**.84**
M-915	6	Lighting	e	2 11/16x2 11/16x4 5/32	21	**.79**
M-916	6	R.R. lantern	g	2 11/16x2 11/16x4 11/16	21	**.79**
M-918	6	Lighting	e	5 11/32x2 27/32x4 15/16	52	**1.83**
M-920	6	Flasher	a	2 11/16x2 11/16x4 7/16	21	**#**
M-1600	9	Radio	c	1 dia. x 1 15/16	1.8	**.62**
M-1602	9	Radio	c	1 13/32x1 11/32x2 3/4	4.5	**1.30**
M-1603	9	Radio	c	2 9/16x2 1/32x3 5/32	15	**1.26**
M-1604	9	Radio	c	1 1/32x11/16x1 29/32	1.3	**.48**
M-1605	9	Radio	c	1 13/16x1 13/16x2 7/16	7	**1.05**
M-1611	9	Radio	b	3/4 dia. x 2	7	**.53**

CATHODIC ENVELOPE BATTERIES

M-1608	9	Radio	a	2 9/32x1 1/4x7 31/32	25	**$1.58**
M-1612	9	Radio	c	2 9/32x1 1/4x6 1/4	17	**1.10**
M-9200	6	Flasher	a	2 21/32x2 21/32x3 7/8	30	**1.10**

*Terminals: **a**—Socket. **b**—Flat. **c**—Snap. **d**—Recessed plug. **e**—Screw. **f**—Fahnestock clip. **g**—Coil spring. #Write for price.

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PRECISE MEASUREMENTS COMPANY BUILDS HIGH VOLTAGE POWER SUPPLIES

These well designed and constructed power packs are proven by many years of service in industry, laboratories, universities and by the United States Government. Only the best available selected material goes into these units. Listed below are some of our standard design models. Other voltages and currents available as we stock large quantities of specialized transformers and components to give you faster more efficient service. Since 50 per cent of our orders are for special supplies, we will cheerfully give you quotations on your specific requirements.

AC INSULATION AND BREAKDOWN TESTERS

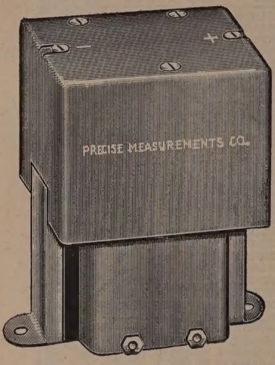
DANGER HIGH VOLTAGE!

Used in testing insulation where AC voltages are desired. Dual instruments are also available which provide choice of AC or DC output with simple toggle switch selection. Units include kilovoltmeter, current meter and automatic overload cutout circuits.

Model	Voltage	VA	AC	Price AC and DC
3000	0 to 3,000	75	$150.00	$ 250.00
3010	0 to 3,000	300	250.00	400.00
3050	0 to 3,000	1,500	500.00	650.00
3100	0 to 6,000	3,000	700.00	1,100.00
5000	0 to 5,000	75	175.00	300.00
1000	0 to 10,000	75	200.00	350.00
1500	0 to 15,000	75	250.00	AC only
2500-AC	0 to 25,000	75	400.00	AC only
2500-DC	0 to 25,000	75	DC only	400.00

ROCK TOP

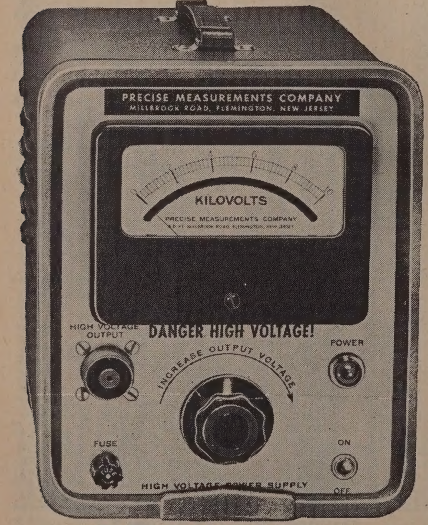
PACKAGED POWER SUPPLIES


PRECISE MEASUREMENTS CO.

Snap-Together, Packaged Power Supplies with new patent applied for features. Consists of a molded basic transformer which has undergone rigid tests for insulation and power handling capacity; plus a ROCK TOP head containing the rectifier and filter section. This simple fool-proof construction results in longest possible life with minimum space requirements. Should repair ever be required, simply discard either the top or bottom section and replace with new element. In a matter of minutes, full operation is restored. The Filtered D.C. Output Voltage may be varied from zero to full rated voltage by adjustment of input AC level with a rheostat or Variac. Output is completely isolated and either side may be grounded. Ideal for all high voltage applications and photomultiplier circuits. All units rated for 5 milliamperes current.

Model	Output Voltage	Price	Model	Output Voltage	Price
05-KV-5MA	500 Volts DC	$50.00	7.5-KV-5MA	7.5-KV-DC	110.00
1-KV-5MA	1-KV-DC	60.00	10-KV-5MA	10-KV-DC	125.00
2-KV-5MA	2-KV-DC	70.00	15-KV-5MA	15-KV-DC	140.00
3-KV-5MA	3-KV-DC	80.00	20-KV-5MA	20-KV-DC	235.00
5-KV-5MA	5-KV-DC	95.00	30-KV-5MA	30-KV-DC	300.00

HANDY PORTABLE MODELS


PRECISE MEASUREMENTS COMPANY
MILLBROOK ROAD, FLEMINGTON, NEW JERSEY
KILOVOLTS
HIGH VOLTAGE OUTPUT
DANGER HIGH VOLTAGE!
POWER
INCREASE OUTPUT VOLTAGE
FUSE
ON
OFF
HIGH VOLTAGE POWER SUPPLY

New Mirror Scale Instrument Illustrated

One of the most popular power supplies on the market. Completely redesigned for greater ruggedness and convenience of operation. Widely used for powering electronic equipment and for routine breakdown and insulation testing. Output voltage is well filtered D.C. which is adjustable with convenient front panel control. Input is 115 Volt, 60 cycle A.C. Larger 6″ precision 1% mirror scale movement available on order. Regulated models offer closely stabilized output voltage regardless of line or load changes.

Model	Max. Voltage	Regulated 100 Microamps	Unregulated 1 MA.	Unregulated 5 MA.
6000-1	1,000		$150.00	$200.00
6000	2,500	120.00	175.00	225.00
6005	5,000	135.00	200.00	250.00
6010	10,000	145.00	225.00	275.00
6015	15,000	155.00	250.00	300.00
6025	25,000	205.00	275.00	350.00

Note. Regulated power supplies are of the radio frequency type and adjust from approximately 20% to full rated voltage. The 1 and 5 milliampere types are transformer operated and have a range of zero to full voltage output. These are recommended for industrial service applications.

Mirror Scale Higher Accuracy Meter. Recommended for more exact calibration or test purposes. Add $50.00 to any meter equipped power supply.

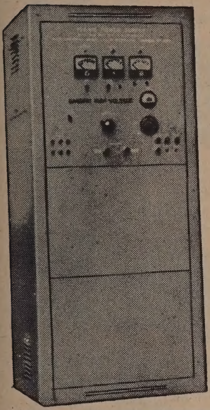
For additional built-in current meter (both meters are 3 inch size), including automatic meter protector circuit, add $50.00 to any power supply.

PRECISE MEASUREMENTS COMPANY

FLEMINGTON, NEW JERSEY

PRECISE MEASUREMENTS COMPANY BUILDS
HIGH VOLTAGE POWER SUPPLIES
FOR INDUSTRIAL APPLICATIONS

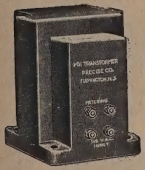
HEAVY DUTY POWER SUPPLIES



For use in applications where high voltages at extra high currents are required. Either fixed or fully variable types are available. Automatic circuits protect against over-current conditions, turning off main power in a split second. Used for Plasma research, Electron beam furnaces, plate power and condenser charging.

Model	Voltage	Current Amps	Price
A 1-A	0 to 100	100	$ 2,000.00
A 1-B	0 to 100	1000	12,500.00
A 10A	0 to 1,000	5	2,500.00
A 10B	0 to 1,000	10	3,700.00
A 30A	0 to 3,000	5	4,500.00
A 31	0 to 3,000	10	6,750.00
A 32	0 to 3,000	20	7,850.00
A 50	0 to 5,000	5	5,900.00
A 51	0 to 5,000	10	8,350.00
A 72	0 to 7,500	10	9,250.00
A 100	0 to 10,000	5	10,250.00
A 110	0 to 10,000	10	14,575.00
A 200	0 to 20,000	5	16,450.00
A 300	0 to 30,000	5	19,200.00
A 500	0 to 50,000	5	27,500.00

METERING TRANSFORMERS



MOLDED ROCK design. Used for insulation and breakdown testing, meter calibration and for elimination of static charges on plastics and paper. Primary windings for 0 to 115 Volts 60 cycles AC. Secondary provides high AC voltage in true RMS. One side of secondary brought out to a LOW POST. High side of secondary is sheathed in plastic deep well for maximum safety. A third winding with 1/100 ratio permits standard low voltage precision voltmeter to be used to indicate exact value of high voltage.

Model	Voltage	Price
5 KV-EXP	5,000	$40.00
10 KV-EXP	10,000	65.00
15 KV-EXP	15,000	75.00

FILAMENT TRANSFORMERS

Primary designed for 115 Volts, 60 cycles AC. Secondary has special insulation for minimum leakage and smallest practical size.

Model	Filament Voltage	Current	Insulation	Price
F-1	1.2 Volts	500 Ma.	20 KV test	$ 5.00
F-2	Dual 1.2 Volts	500 Ma.	20 KV test	7.50
F-3	2.5 Volts	2 amps	15 KV test	8.00
F-5	5 Volts	500 Ma.	15 KV test	8.00
F-50	5 Volts	10 amps	45 KV test	40.00
F-51	5 Volts	35 amps	10 KV test	35.00
F-15-EXP.	15 Volts	35 amps	45 KV test	100.00
F-5-5-5-5-EXP.	Four 5 V. wdgs.	15A & 30A	45 KV test	250.00

HIGH VOLTAGE CONVERTERS

MODEL 10 MVT. Miniature chopper type voltage converter with built in transformer. Small and compact. Weighs only three ounces. Simply connect input to 1 to 3 volts DC or AC (60 cycles) and any voltage from 0 to 6,000 Volts AC or DC (when rectified) will be produced depending upon loading. Circuits supplied with each unit. Model 10 MVT Converter Price $10.00 each.

MODEL 18 VT. Chopper type voltage converter. Produces up to 18,000 Volts peak pulse from standard 115 volts 60 cycles AC. Special current limiting design for maximum safety. May be connected to half wave rectifier for up to 18,000 Volts DC (at very light loading) output or voltage doubler circuit for up to 30,000 Volts output. Full circuit details with each unit.
Model 18 VT Converter Price $35.00 each

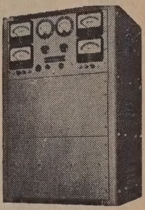
INDUSTRIAL POWER SUPPLIES

These industrial type power supplies are built for service and efficiency. All are of the transformer type and employ husky components that have been selected for their power handling capacity. Controls are arranged so that operation is greatly simplified and a number of safety features are built in for maximum protection of personnel and equipment. Output is continuously variable from zero to full rated value. Polarity reversing models (as illustrated) can be had at additional cost.

Standard hum level 5% or less. .01% to 1% ripple available. All power supplies have automatic overload cutout control circuits. Regulated models available.

Model	Voltage	Current	Price
F-100V	0-100	10 Amp	$650.00
F-500V	0-500	3 Amp	800.00
F-6001	0-1000	2 Amp	975.00
F-6002	0-2000	1 Amp	985.00
F-6003-AI	0-3000	100 MA	375.00
F-6003-AV	0-3000	500 MA	550.00
F-6003-AK	0-3000	1 Amp	1100.00
F-6005-AI-H	0-5000	100 MA	550.00
F-6005-AV	0-5000	500 MA	750.00
F-6005-AIK	0-5000	1 Amp	1200.00
F-6010-AI	0-10,000	100 MA	800.00
F-6010-AV	0-10,000	500 MA	3000.00
F-6020-A05	0-20,000	50 MA	975.00
F-6030-A3	0-30,000	300 MA	5000.00
F-6050-T	0-50,000	½ MA	600.00
F-6100-T	0-100,000	½ MA	1100.00

CONSTANT CURRENT POWER SUPPLIES



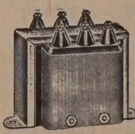
Designed for application where output current must remain constant regardless of loading resistance changes. Used for magnet fields, plating applications, gaseous lamps. Dependable magnetic current stabilizer has no moving parts, no tubes, no transistors to replace. Simply set current to desired level, no balancing or other adjustments needed. Ideal for lamp operation since operating state ionizing voltage in no way affects lamp current. Standard hum level 5%. Lower hum levels available on order.

Model	Max. Voltage	Current	Price
C-25-100	25 V.	100 Amp.	$ 980.00
C-70-70	70 V.	70 Amp.	1,700.00
C-500-10	500 V.	10 Amp.	1,700.00
C-Dual 500-10	500 or 1000 V.	10 or 20 Amp.	2,750.00
C-1000-5	1000 V.	5 Amp.	3,000.00
C-3000-1	3000 V.	1 Amp.	2,500.00
C-5000-1	5000 V.	1 Amp.	3,450.00
C-10K-5H	10 KV.	500 Ma.	3,850.00

Duel 500 V - 500 V, 10 Ampere Power Supply. Isolated outputs may be seried or paralleled.

TRANSFORMERS, HIGH VOLTAGE

For experimental, industrial, or production use. These units are small and compact and rated for constant service. Primary designed for 115 Volts, 60 Cycle. Secondary is isolated. Only standard models are listed. We can wind specials for any frequency or voltage.



Two types of construction is available. Open frame type windings with leads or MOLDED ROCK design with screw connections. All have 5 Milliampere current rating.

Model	Voltage	Open Frame	MOLDED ROCK
1-KVT	1000 Volts	$10.00	$15.00
2-KVT	2000 Volts	12.50	17.00
3-KVT	3000 Volts	15.00	19.00
5-KVT	5000 Volts	20.00	25.00
7.5-KVT	7500 Volts	30.00	42.50
10-KVT	10,000 Volts	50.00	65.00
50-KVT	50,000 Volts	600.00	——

PRECISE MEASUREMENTS COMPANY
FLEMINGTON, NEW JERSEY

RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

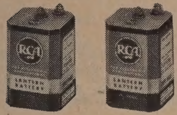
	RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	INTERCHANGEABILITY GUIDE			STANDARD PKG.		MAX. DIMENSIONS (In.)		
					EVEREADY	NEDA	BURGESS	QTY.	WT. (lbs.)	L.	W. or DIAM.	HT.
PORTABLE "A" TYPES	**VS002**	(Substitute Type VS067)										
	VS004	1.15	1.65	1½	742	4	4F	12	16	2⅝	2⅝	4 1/16
	VS009	1.16	1.65	6	744	6	4FP1	12	17	2 23/32	2 23/32	4 5/16
	VS065	1.15	1.65	7½	717	9	C5	12	6½	2 7/32	1 15/16	3 1/32
	VS067	.95	1.35	4½	736	3	F3	12	13	4	1 7/16	4 3/16
	VS068	.70	1.00	6	724	2	Z4	12	2	1¼	1¼	2 7/16
	VS069	.84	1.20	1½	720	18	2D	12	5½	2⅝	1⅜	2 15/16
	VS070	.60	.85	1½	960P	23	8R	12	4½	—	1 11/32	4 1/16
	VS072	.95	1.35	4½	726	19	D3	12	9	3 31/32	1 7/16	3
	VS129	1.58	2.25	7½	713	8	B5	6	2½	4 1/16	15/16	3
	VS141	.77	1.10	1½	W353	11	2F	6	5	2 19/32	1⅜	4¼
	VS236	.32	.45	1½	964	20	21R	48	19	—	1⅜(dia.)	4 11/64
	VS315	1.05	1.50	7½	707	26	D5	6	6	2 9/16	2 1/32	2 13/16
PORTABLE "B" TYPES	**VS012**	3.29	4.70	45	484	207	B30	6	19¾	3 31/32	2 17/32	5 5/16
	VS013	2.70	3.85	45	482	202	M30	6	12⅖	3 19/32	1 27/32	5½
	VS014	2.49	3.55	45	W359	206	A30	5	10⅛	3 7/16	2¼	4 9/16
	VS015	2.76	3.95	22½-45	738	205	Z30	5	7	3	2 5/16	4⅛
	VS016	2.45	3.50	67½	467	200	XX45	12	10	2 13/16	1⅜	3 45/64
	VS055	2.08	2.95	45	455	201	XX30	12	6¾	2 21/32	1	3 11/16
	VS082	2.42	3.45	67½	457	203	K45	12	6½	2 13/16	1⅜	2½
	VS084	1.05	1.50	22½	412	215	U15	12	1	1 1/32	⅝	2
	VS086	1.75	2.50	45	415	213	U30	12	2	1 3/64	⅝	3 11/16
	VS090	3.15	4.50	90	490	204	N60	12	13	3 23/32	1⅜	3 45/64
	VS217	3.15	4.15	75	437	212	XX50	12	12½	1 15/16	1 15/32	6 15/32
	VS218	2.27	3.25	67½	477	211P	P45	12	6⅖	1 29/32	63/64	5 7/16
	VS219	2.77	3.95	90	479	214	P60	12	9	1 31/32	1 1/32	7 15/32
	VS316	3.47	4.95	90	495	216	N60X	6	7	1 15/16	1 15/32	7⅛
	VS318	2.07	2.95	67½	416	217	UX45	6	1¾	1 21/64	63/64	3½
PORTABLE "A-B" TYPES	**VS019**	5.43	7.75	7½-9-90	753	401	F6A60	6	32	9¼	2 13/16	4 7/16
	VS047	5.78	8.25	9-90	752	400	G6B60	6	41¾	13 3/16	2 13/16	4 7/16
	VS050	5.08	7.25	6-7½-75	755	403	T5Z50	6	23	8⅝	2½	3 11/16
	VS057W	4.87	6.95	7½-9-90	756	405	T6Z60	6	19	8⅞	2¼	3⅞
	VS058	5.57	7.95	9-90	757	406	F6A60P	6	31	9 13/16	2¾	4 7/16
	VS059	5.22	7.45	9-90	727	428	T6Z60P	6	20	9 7/16	2¼	3 13/16
	VS060	4.83	6.90	7½-75	785	431	T5Z50P	6	18	8 9/16	2 7/16	3 11/16
	VS064	4.38	6.25	1½-90	729	425	4TZ60	6	16½	7 13/16	2¼	3 13/16
TRANSISTOR BATTERIES	**VS150****	.30	.45	1.4	E640	—	RM640	20	½	—	0.625	0.440
	VS163**	1.10	1.60	4.2	E163	—	TR163	10	¾	—	0.662	1.327
	VS164°**	1.15	1.75	5.6	E164	—	TR164	10	1	—	0.662	1.767
	VS165**	1.64	2.45	7	—	—	TR165	10	1	—	0.662	2.217
	VS300A°	.62	.89	9	226	1600	P6M	36	4½	—	31/32	1 31/32
	VS301	1.76	2.50	3, 6, 9	2506	1601	D6P1	12	18	8	1 9/16	2 13/16
	VS304	1.05	1.50	13½	239	1900	XX9	12	2⅝	1 21/64	1 1/32	2 11/16
	VS305	1.30	1.85	9	246	1602	2N6	12	3½	1 13/32	1 11/32	3 3/16
	VS306	1.26	1.80	9	276	1603	D6	6	5¾	2 9/16	2 1/32	3 5/32
	VS309A**	1.37	1.95	9.8	E177	1606	TR177	12	½	—	35/64	1 29/32
	VS312°**	1.02	1.50	8.4	E146	1604	TR146	12	1¼	1	19/32	1 15/16
	VS313°**	.51	.75	1.4	E9	15	ZM9	96	7	—	9/16	1 31/32
	VS321	1.93	2.75	4½	2731	—	—	12	36¾	2 13/16	1¾	8 11/32
	VS322	1.05	1.50	9	266	1605	M6	12	5¾	1 13/16	1 13/16	2 7/16
	VS323°	.48	.69	9	216	1604	2U6	36	2.7	1 1/32	11/16	1 29/32
	VS324	1.19	1.70	4.50	243	1610	2Z3	12	3½	1 13/32	1 11/32	2¾
	VS325	.71	1.00	6	2713	1403	—	6	1.8	1 13/32	47/64	4 11/16
	VS326	1.05	1.50	9	2709	1613	—	6	2	1 13/32	¾	4 11/16
	VS327	.53	.75	9	206	1611	—	12	1	—	¾	2
	VS328**	.85	1.25	8.4	E126	1611	H126	24	2.0	—	.645	1.975
	VS329	1.05	1.50	12	228	—	—	12	1.7	—	1	2 7/16
	VS334°	.155	.25	1.5	1015	15	930	144	5¼	—	9/16	2
	VS335	.155	.25	1.5	635	14	130	72	8¼	—	1	15/16
	VS336	.155	.25	1½	A-100	13	230	192	40½	—	1 11/32	2 13/32
	VS400**	1.80	2.65	4	E233	1300	TR233R	10	2½	—	1 1/32	1 31/32
	VS401**	.34	.50	1.4	E401	910	—	24	1.0	—	.455	1.130
	VS1073†°	.35	.24	1.5	—	910	Mn9100	72	2	—	0.470	1.130
	VS1149‡°	.65	.95	4.5	—	1306	Mn1306	24	2	—	0.662	1.965
	VS1334†°	.33.	.50	1.5	E91	15	Mn1500	48	3	—	0.550	1.968
	VS1335†°	.51	.75	1.5	E93	14	Mn1400	24	4	—	1 1/32	2
	VS1336†°	.64	.95	1½	E95	—	—	72	25	—	1 5/16	2⅜

*Optional **Mercury Types †New Alkaline Multi-Purpose Type ‡New Alkaline Radio Type
°Also available in blister pack at 1c higher dealer prices

RCA BATTERIES

RADIO • FLASHLIGHT
FARM • TRANSISTOR
INDUSTRIAL • PHOTO FLASH

LIGHTING TYPES



RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	INTERCHANGEABILITY GUIDE			STANDARD PKG.		MAX. DIMENSIONS (in.)		
				EVEREADY	NEDA	BURGESS	QTY.	WT. (lbs.)	L.	W. or DIAM.	HT.
VS034A	.125	.20	1½	915	15	Z	144	6	—	9/16	2
VS035A	.125	.20	1½	935	14	1	240	26	—	1	1 15/16
VS036	.125	.20	1½	950	13	2R	192	38	—	1 5/16	2⅜
VS040C	.79	1.19	6	509	908	F4H	12	16½	2¾	2¾	4⅜
VS040S	.79	1.19	6	510S	915	F4BP	12	16¼	2¾	2¾	4¼
VS073	.08	.125	1½	904	910	N	96	1½	—	7/16	1 3/16
VS074	.095	.15	1½	912	24	7	120	2½	—	7/16	1¾
VS138	1.45	2.05	3	W357	901	4F2H	5	14½	3 15/16	2¾	6¼
VS317	1.83	2.75	6	731	918	TW1	4	13	5 7/16	2⅞	4 5/16

FARM TYPES

RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	EVEREADY	NEDA	BURGESS	QTY.	WT. (lbs.)	L.	W. or DIAM.	HT.
VS022	7.95	10.65	1½-90	759	413	17GD60	3	52	16 1/16	4¼	6 11/16
VS119	10.47	14.95	7½-9-90	776	415	S6D60	3	47	8¼	4½	13⅞

INDUSTRIAL and SPECIAL-PURPOSE TYPES

RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	EVEREADY	NEDA	BURGESS	QTY.	WT. (lbs.)	L.	W. or DIAM.	HT.
VS006C	.84	1.25	1½	6GL	914	—	12	27	—	2⅝	6⅝
VS006S	.84	1.25	1½	61GN	905	61GN	12	27	—	2⅝	6⅝
VS028	.88	1.25	4½	781	714	5360	5	1¾	2 17/32	15/16	3 1/16
VS029	1.65	2.35	1½-3-4½-6-7½	773	713	5540	10	5	4⅛	15/16	3
VS039	3.34	4.98	6	1461	907	S461	4	38	10⅜	2⅞	7⅜
VS070	.60	.85	1½	960P	23	8R	12	4½	—	1 5/16	3 15/16
VS083	.81	1.15	15	411	208	U10	12	¾	1 1/32	⅝	1 29/64
VS085	1.23	1.75	30	413	210	U20	12	1¼	1 1/32	⅝	2 9/16
VS093	8.37	11.95	300	493	722	U200	3	3½	2 11/16	2 7/32	3 29/32
VS100	.87	1.25	3	W352	701	F2BP	5	4¼	2 11/16	1 7/16	4 9/16
VS101	.87	1.25	1½	W354	700	2FBP	5	4¼	2⅝	1 7/16	4 9/16
VS102	1.61	2.35	—22½	763	710	4156	5	5	3¼	2⅛	2 13/16
VS103	4.01	5.98	6	706	902	4F4H	4	23½	8 5/16	2 13/16	6 5/16
VS106	.84	1.25	1½	735	900	4FH	12	15½	2 11/16	2 11/16	4 3/16
VS112	3.05	4.35	22½-45	W376	709	5308	5	15¼	4 3/16	2 11/16	6
VS114	2.69	3.85	22½-45	W350	711	Z30NX	5	6½	3	1⅞	4 15/16
VS127W•	4.84	6.90	22½-45	W363F	724	10308SC	4	44½	8 3/16	4 7/16	8
VS130	1.33	1.90	—1½-3-4½	761T	712	2370ST	5	5	4	1 7/16	3 1/16
VS131	3.12	4.45	—22½♦	778	708	5156SC	4	6½	4⅛	2½	3 5/16
VS133	.68	1.02	4½	703	706	532	10	3	2⅜	15/16	3 1/16
VS134	.57	.85	3	750	704	422	10	1¼	1 7/16	¾	2 9/16
VS136	1.08	1.55	3	W356	703	2F2H	5	8	2 11/16	2 11/16	4¼
VS139	4.86	7.25	7½	715	903	4F5H	4	31½	7¼	4	6 5/16
VS140	5.53	8.25	9	716	904	4F6H	4	38	8½	4 1/16	6 7/16
VS141	.77	1.10	1½	W353	11	2F	6	5	2 21/32	1 7/16	4¼
VS142	.66	1.00	4½	751	705	432	10	2	2	¾	2 5/16
VS143**	.38	.59	1.34	E1	—	RM1R	40	2	—	0.625	0.650
VS144**	.82	1.25	1.35	E12	—	RM12R	10	1¼	—	0.640	1.968
VS145**	.25	.36	1.35	E400	—	RM400R	60	½	—	0.455	0.135
VS147**	.30	.45	1.4	E630	—	RM630R	40	½	—	0.615	0.238
VS148**	.84	1.25	2.7	E132	—	TR132R	10	¾	—	0.662	1.315
VS149°**	1.00	1.50	4.2	E133	1306	TR133R	10	1	—	0.662	1.965
VS157W•	5.53	7.90	22½-45	W364F	715	21308SC	4	51	8⅛	4⅝	7 11/16
VS317	1.83	2.75	6	731	918	TW1	4	13	5 7/16	2⅞	4 5/16

PHOTO FLASH

RCA TYPE NO.	DEALER PRICE EA.*	LIST PRICE EA.*	VOLTAGE	EVEREADY	NEDA	BURGESS	QTY.	WT. (lbs.)	L.	W. or DIAM.	HT.
VS013	2.70	3.85	45	482	202	M30	6	12.6			
VS016	2.45	3.50	67½	467	200	XX45	12	10.0			
VS072	.95	1.35	4½	726	19	D3	3	2.1			
VS083	.81	1.15	15	411	208	U10	6	.5			
VS084	1.05	1.50	22½	412	215	U15	12	11			
VS085	1.23	1.75	30	413	210	U20	12	1.4			
VS090	3.15	4.50	90	490	204	N60	12	13.0			
VS335	.115	.25	1.5	635	14	130	72	7.0			
VS704	.81	1.15	15	504	220	Y10	12	.37			
VS705	1.05	1.50	22½	505	221	Y15	12	.5			
VS734	.16	.25	1½	815	—	920	144	6.0	—	9/16	1 31/32
VS735	.16	.25	1½	835	—	120	72	7.0	—	1 1/32	1 15/16
VS736	.16	.25	1½	850	—	220	72	13.0	—	1 1/32	2 13/32
VS1073	.24	.35	1.5	E90	910	MN9100†	72	2.0			
VS1334	.33	.50	1.5	E91	15	MN1500†	48	2.75			
VS1335	.51	.75	1.5	E93	14	MN1400†	24	4.0			
VS1336	.65	.95									

• Wax coated. ♦ Other voltage taps: 3, 4½, 6, 9, 10½, 16½. * Optional ■ Sealed-in-Steel.

© U.C.P., Inc.

OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

"V.T." VARIABLE TRANSFORMERS

Toroidal core type autotransformers providing distortion-free continuously adjustable voltage from fixed AC input. Highly advanced Ohmite design. Sizeable bonus in current available in all units where output greater than line volts ("overvoltage") is not required ("N" suffix); "LN" suffix indicates low input (36V max.) and very high current output; positive current transfer achieved with direct brush to slip spring shunt. **Mounting:** VT2 panel mounting by ⅜-32 bushing; VT2 tandem units by ¼-20 bolts; all VT4 and VT8 types panel or table mounting by ¼-20 bolts; VT20, VT20B, panel or table mounting by four ⅜" dia. bolts or three ⅜-24 bolts. Shafts of VT4, VT8, VT20 units slide to brush or base side. Units not cased except where indicated. Over-all dimensions include shaft. Suffixes "-2" and "-3" indicate number of units in tandem assembly (shipped with connection instructions).

SINGLE-PHASE

Input Volts	Freq.[1] cps. from . . .	Maximum Output		Feature or Connection	Size, Inches	Stk. No.	Weight Lbs.[7]	Net $ [7] 1-5
		Amps	Volts					
SINGLE TRANSFORMERS — UNCASED								
36	50	5	0-36	Hi-amps, low volts	2-13/16 dia. x 2-15/16	VT2LN	2.4	9.75
36	50	12.0	0-36	Hi-amps, low volts	3-9/16 x 4-7/32 x 4¾	VT4LN	5.25	14.50
36	50	22.0	0-36	Hi-amps, low volts	4⅞ x 5-11/16 x 5½	VT8LN	10.25	20.50
120	60 [8]	1.5	0-120/132	Basic 1.5A Model	2-13/16 dia. x 2-15/16	VT2	2.4	8.50
120	60	1.8	0-120	No overvoltage	2-13/16 dia. x 2-15/16	VT2N	2.4	9.00
120	50	3.5	0-120/140	Basic 3.5A Model	3-9/16 x 4-7/32 x 4¾	VT4	5.25	12.50
120	50	4.75	0-120	No overvoltage	3-9/16 x 4-7/32 x 4¾	VT4N	5.25	13.00
120	50	7.5	0-120/140	Basic 7.5A Model	4⅞ x 5-11/16 x 5½	VT8	10.25	18.00
120	50	10.0	0-120	No overvoltage	4⅞ x 5-11/16 x 5½	VT8N	10.25	18.50
120	50	20.0	0-120/140	Basic 20A Model	7½ x 8-1/16 x 5-9/16	VT20	22.0	45.00
120	50	25.0	0-120	No overvoltage	7½ x 8-1/16 x 5-9/16	VT20N	22.0	45.50
240 [2]	50	3.0	0-240/280	240V Input [2]	4⅞ x 5-11/16 x 5½	VT8H	10.25	20.00
240 [2]	50	4.0	0-240	240V In. No ovrvlt. [2]	4⅞ x 5-11/16 x 5½	VT8HN	10.25	21.00
SINGLE TRANSFORMERS — CASED								
120	60 [8]	1.2	0-132 [4]	Fixed Mtg.	3¼ x 2½* x 4¼	VT2E	2.8	12.50
120	60 [8]	1.5	0-132 [3]	Portable	3¼ x 2½* x 4¼	VT2F	3.2	14.50
120	60	1.45	0-120	Fixed Mtg.	3¼ x 2½* x 4¼	VT2NE	2.8	13.00
120	60	1.8	0-120	Portable	3¼ x 2½* x 4¼	VT2NF	3.2	15.00
120	50	2.8	0-140 [4]	Fixed Mtg.	4½ x 4½* x 6	VT4E	7.4	17.50
120	50	3.5	0-140 [3]	Portable	4½ x 4½* x 6	VT4F	7.8	18.50
120	50	3.8	0-120	Fixed Mtg.	4½ x 4½* x 6	VT4NE	7.4	18.00
120	50	4.75	0-120	Portable	4½ x 4½* x 6	VT4NF	7.8	19.00
120	50	6.0	0-140 [4]	Fixed Mtg.	5-5/32 x 5-5/16† x 7-3/16	VT8E	13.5	23.00
120	50	7.5	0-140 [3]	Portable	5-5/32 x 5-5/16† x 7-3/16	VT8F	13.8	24.00
120	50	6.0	0-120/140 [3]	Deluxe Portable	5-5/32 x 5-5/16† x 7-3/16	VT8G	14.2	28.50
120	50	8.0	0-120	Fixed Mtg.	5-5/32 x 5-5/16† x 7-3/16	VT8NE	13.5	23.50
120	50	10.0	0-120	Portable	5-5/32 x 5-5/16† x 7-3/16	VT8NF	13.8	24.50
120	50	20.0	0-120/140	Basic Case	7½ x 8-1/16 x 5-11/16	VT20B	22.5	50.00
120	50	25.0	0-120	Basic Case	7½ x 8-1/16 x 5-11/16	VT20NB	22.5	50.50
TWO-IN-TANDEM ASSEMBLIES [5] [10]								
240	60 [8]	1.5	0-240/264	Series Conn. [6]	3-13/16 dia. x 6-3/16	VT2-2	5.25	25.00
240	60	1.8	0-240	Series Conn. [6]	3-13/16 dia. x 6-3/16	VT2N-2	5.25	26.00
240	50	3.5	0-240/280	Series Conn. [6]	4-5/32 x 4-13/16 x 8⅞	VT4-2	11.3	37.00
240	50	4.75	0-240	Series Conn. [6]	4-5/32 x 4-13/16 x 8⅞	VT4N-2	11.3	38.00
240	50	7.5	0-240/280	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	VT8-2	20.6	44.50
240	50	10.0	0-240	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	VT8N-2	20.6	45.50
240	50	20.0	0-240/280	Series Conn. [6]	7½ x 8-1/16 x 11⅛	VT20-2	45.0	107.00
240	50	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 11⅝	VT20-2B	46.0	117.00
240	50	25.0	0-240	Series Conn. [6]	7½ x 8-1/16 x 11⅛	VT20N-2	45.0	108.00
240	50	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 11⅝	VT20N-2B	46.0	118.00
480	50	3.0	0-480/560	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	VT8H-2	20.6	49.00
480	50	4.0	0-480	Series Conn. [6]	4⅞ x 5-11/16 x 10⅝	VT8HN-2	20.6	51.00
THREE-PHASE								
TWO-IN-TANDEM ASSEMBLIES [5] [10]								
120	60	1.5	0-120/132	Open Delta Conn.	3-13/16 dia. x 6-3/16	VT2-2	5.25	25.00
120	60	1.8	0-120	Open Delta Conn.	3-13/16 dia. x 6-3/16	VT2N-2	5.25	26.00
120	50	3.5	0-120/140	Open Delta Conn.	4-5/32 x 4-13/16 x 8⅞	VT4-2	11.3	37.00
120	50	4.75	0-120	Open Delta Conn.	4-5/32 x 4-13/16 x 8⅞	VT4N-2	11.3	38.00
120	50	7.5	0-120/140	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	VT8-2	20.6	44.50
120	50	10.0	0-120	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	VT8N-2	20.6	45.50
120	50	20.0	0-120/140	Open Delta Conn.	7½ x 8-1/16 x 11⅛	VT20-2	45.0	107.00
120	50	20.0	0-120/140	Above unit, B case	7½ x 8-1/16 x 11⅝	VT20-2B	46.0	117.00
120	60	25.0	0-120	Open Delta Conn.	7½ x 8-1/16 x 11⅛	VT20N-2	45.0	108.00
120	60	25.0	0-120	Above unit, B case	7½ x 8-1/16 x 11⅝	VT20N-2B	46.0	118.00
240	50	3.0	0-240/280	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	VT8H-2	20.6	49.00
240	50	4.0	0-240	Open Delta Conn.	4⅞ x 5-11/16 x 10⅝	VT8HN-2	20.6	51.00
THREE-IN-TANDEM ASSEMBLIES [5] [10]								
240	60	1.5	0-240 [9]	"Y" Conn.	3-13/16 dia. x 8-15/16	VT2-3	8.0	40.00
240	60 [8]	3.5	0-240/280	"Y" Conn.	4-5/32 x 4-13/16 x 12-15/16	VT4-3	17.0	59.50
240	60 [8]	7.5	0-240/280	"Y" Conn.	4⅞ x 5-11/16 x 15⅛	VT8-3	31.0	61.50
240	60 [8]	6.0	0-240/280	Above unit, E case	5-3/16 x 7-3/16 x 15¾†	VT8-3E	40.0	77.00
240	60 [8]	20.0	0-240/280	"Y" Conn.	7½ x 8-1/16 x 16-3/16	VT20-3	68.0	155.00
240	60 [8]	20.0	0-240/280	Above unit, B case	7½ x 8-1/16 x 16⅞	VT20-3B	69.5	170.00
240	60	25.0	0-240	"Y" Conn.	7½ x 8-1/16 x 16-3/16	VT20N-3	68.0	156.50
240	60	25.0	0-240	Above unit, B case	7½ x 8-1/16 x 16⅞	VT20N-3B	69.5	171.50
480	60 [8]	3.0	0-480/560	"Y" Conn.	4⅞ x 5-11/16 x 15⅛	VT8H-3	31.0	69.50

[1] Frequency shown is a minimum—units may be used to well over 400 cps.

[2] VT8H and VT8HN also have taps for 120V input with 280V output for VT8H and 240V output for VT8HN. With use of 120V input the max. current rating applies up to 120V output but reduces to approx. 50% at max. output voltage. (Cat. 500)

[3] Connected at factory for overvoltage output—easily reconnected by user for no-overvoltage output. On VT8G, switch selects overvoltage or no-overvoltage.

* Add ⅞" for knob thickness.

† Add 1" for knob thickness.

[4] User wires for desired output. Dial normally calibrated for overvoltage.

[5] Tandem assemblies normally furnished without interconnection between units.

[6] When transformers are series connected, load cannot be grounded.

[7] Includes knob and dial.

[8] May be used at 50 cps if connected for no-overvoltage output.

[9] Overvoltage connection must not be used.

[10] Specify 240 volt dial if desired.

ACCESSORIES, PARTS

Adapter Plate for 4-hole mtg. of VT4—matches other popular 4-hole mtgs.; dimensions same as shown for front plate of VT4 tandems, (Cat. 500).

Stk. No. 6512..............................Net 1-5 $0.67

Brush-Contact Assemblies for . . .

	Stk. No.	Net 1-5
VT2 Types except VT2LN	6514	$1.00
VT2LN	6517	2.00
VT4 Types except VT4LN	6515	1.00
VT4LN	6518	2.00
VT8 Types except VT8H, HN, LN	6516	1.25
VT8H, HN only	6516H	1.25
VT8LN only	6519	2.50
VT20 Types except VT20N	6590	1.75
VT20N	6594	1.75

Adjustable stop for limiting rotational arc of transformers.

	Stk. No.	Net 1-5
Stop for VT4 types	6536	$ .50
Stop for VT8 types	6537	.50

Extra Dials or Dials with C.C.W. Calibration

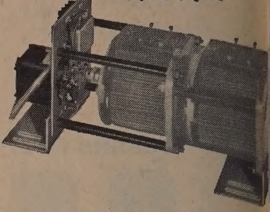
"v.t."	Dial Calibration	Stk. No.	Net 1-5
VT2	0-120, 0-132 C.W.	5005	$ .25
	0-100, 100-0* C.W.	5011	.25
VT4 and VT8	0-120, 0-140 C.W.	5006	.50
	0-120, 0-140 C.C.W.	5008	.50
	0-240, 0-280 C.W.	5009	.50
	0-240, 0-280 C.C.W.	5010	.50
	0-100, 100-0* C.W.	5012	.50
VT20	0-120, 0-140 C.W.	5013	1.20
	0-120, 0-140 C.C.W.	5014	1.20
	0-240, 0-280 C.W.	5015	1.20

*Percent-of-output dial furnished with "LN" series units.

Extra Knobs for Uncased Units

	Stk. No.	Net 1-5
For VT2 types	5158	$ .35
For VT4, VT8 types	5155	1.00
For VT20 types	5157	1.75

NEW!



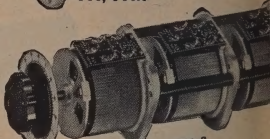
MOTOR MODULE PACKAGE

For VT4 or VT8, single or ganged, une closed models. Attaches in 15 minutes wi everyday tools. Five speeds in stock. **Call yo distributor or the factory.**

VT2, VT2N

VT8, VT8N

VT4, VT4N

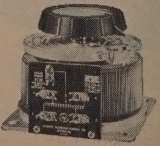


VT8-3

VT8F

VT8G

VT4E



VT20

VT20B

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Rely on RAY-O-VAC® Batteries

SUPPORTED BY A COMPLETE MERCHANDISING PROGRAM

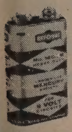
2LP

6 Ign. SC.

TRANSISTOR BATTERIES

STOCK NO.	VOLTAGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
13	1 1/2	1 11/32 diam.	—	2 13/32	Flashlight	A100	230	VS036	.25
14	1 1/2	1 1/32 diam.	—	1 31/32	Flashlight	635	130	VS035	.25
15	1 1/2	9/16 diam.	—	1 31/32	Flashlight	1015	930	VS034	.25
1600	9	31/32 diam.		1 31/32	2 Snap Fasteners	226	P6	VS300	.89
1601	9, 6, 3	8	2 3/4	1 9/16	4-Hole Socket	2506	D6PI	VS301	2.50
1602	9	1 3/8	1 3/8	2 3/4	2 Snap Fasteners	246	2N6	VS305	1.85
1603	9	2 9/16	2 1/32	3 3/32	2 Snap Fasteners	276	D6	VS306	1.80
1604	9	1	19/32	1 31/32	2 Snap Fasteners	216	2U6	VS312	.69
1605	9	1 13/16	1 1/4	2 5/16	Snap Fasteners	M6	266	—	1.50
1606	9	35/64		1-29/32	2 Snap Fasteners	E177	—	VS309A	1.61
1608	9	2 9/32	1 1/4	7 31/32	Cinch 2676	2761	D6S	—	2.25
1900	9, 13 1/2	1 1/4	7/8	2 9/16	3 Hole Socket	239	XX9	VS304	1.50

Note: 2LP or 5LP size D, 1LP size C and 7R or 7LP size AA 1 1/2 Volt batteries are also used in transistor applications. These batteries are listed under the lighting and ignition battery section.



1604M

941

MERCURY TRANSISTOR BATTERIES

STOCK NO.	VOLTAGE	MAX. DIMENSIONS L	W	O.A.H.	COMPARATIVE GUIDE E	B	RCA	LIST PRICE
15M	1 1/2	9/16	—	1-31/32	E9	H69	VS313	.75
1600M	9	31/32	—	1-31/32	226	P6M	VS300A	1.50
1604M	9	1	19/32	1-31/32	E146	2U6	VS323	1.50
1611M	9	11/16	—	2	206	—	VS321	.98
1810M	12	31/32	—	2-25/64		—	—	2.49

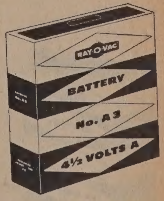
7R

1600

LIGHTING AND IGNITION BATTERIES

STOCK NO.	VOLTAGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
1LP (NEDA 14)	1 1/2	1 1/32 Diam.	—	1 31/32	Flashlight	935	1	VS035	.20
2LP	1 1/2	1 11/32 Diam.	—	2 13/32	Flashlight	950	2R	VS036	.20
3LP	1 1/2	1 11/32 Diam	—	2 13/32	Flashlight	1050	210	—	.25
5LP (NEDA 13)	1 1/2	1 11/32 Diam.	—	2 13/32	Flashlight	D99	—	—	.25
7LP	1 1/2	9/16 Diam.	—	1 31/32	Flashlight	915	Z	VS034	.20
7R (NEDA 15)	1 1/2	9/16 Diam.	—	1 31/32	Flashlight	915	Z	VS034	.15
400 (NEDA 24)	1 1/2	7/16 Diam.	—	1 49/64	Flashlight	912	7	VS074	.15
716 (NEDA 910)	1 1/2	29/64 Diam.	—	1 13/64	Flashlight	W468	N	VS073	.125
941 SP (NEDA 908)	6	2 11/16	2 11/16	4 7/8	2 Coil Spring	509	F4H	VS040C	1.19
941 SCREW (NEDA 915)	6	2 11/16	2 11/16	4 7/8	Screw	510S	F4BP	—	1.19
941 CLIP (NEDA 917)	6	2 11/16	2 11/16	4 7/8	Clip	510F	F4SC	—	1.19
941 RR (NEDA 916)	6	2 11/16	2 11/16	4 7/8	Spring	409	—	—	1.19
918	6	5 3/8	2 13/16	4 7/8	2 Screw	731	TW1	—	2.75
900	1 1/2	2 11/16	2 11/16	4 3/16	2 Screw	735	4FH	VS106	1.25
6 Ign. SC. (NEDA 905)	1 1/2	2 5/8 Diam.	—	6 9/16	2 Screw	6 Ign.	6 Ign.	VS006S	1.25
6 Ign. Clip (NEDA 914)	1 1/2	2 5/8 Diam.	—	6 5/8	2 Spring Clip	6 Ign. Clip	6 Ign. Cl.	VS006C	1.25
6 Tel CLIP (NEDA 906)	1 1/2	2 5/8 Diam.	—	6 5/8	2 Spring Clip	6 GL	6 Tel.	VS042C	1.25
641 (NEDA 907)	6	10 3/8	2 13/16	7 3/8	2 Screw	1461	S461	VS039	4.98
903	7 1/2	7 1/4	4	6 5/16	2 Screw	715	4F5H	VS139	7.25
904	9	8 9/16	4	6 17/32	2 Screw	716	4F6H	VS140	8.25

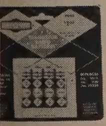
918



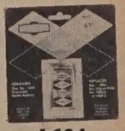
A3*

BUBBLE PAK TRANSISTOR BATTERIES

RAY-O-VAC NUMBER	VOLTAGE	UNIT PKG.	COMPARATIVE NUMBERS EVEREADY	BURGESS	RCA	RETAIL EACH
14 Bubble Two Pak	1 1/2	12	635	130	VS035	.25
15 Bubble Four Pak	1 1/2	48	1015	930	VS034	.25
1304M Bubble One Pak	4	1	E133	H133	VS149	1.50
1600 Bubble One Pak	9	12	226	P6	VS300	.89
1604 Bubble One Pak	9	12	216	2U6	VS312	.69
1611M Bubble One Pak	9	1	206	L6	VS327	.98



15
ubble 4 Pak



1604
Bubble one Pak

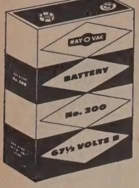
† Over-all height. * Prefix A added to NEDA number to eliminate duplication of existing Ray-O-Vac number.

RAY-O-VAC FIRST WITH NEDA NUMBERING

RAY·O·VAC ®

BATTERIES FOR ALL RADIO, ELECTRONIC, LIGHTING & HOBBY NEEDS

A COMPLETE LINE OF POWERFUL BATTERIES


RAY-O-VAC
BATTERY
No. 200
67½ VOLTS B

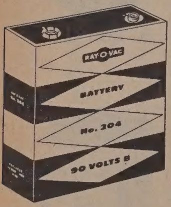
200

RAY-O-VAC
BATTERY
No. 211M
67½ VOLTS B

211M

B BATTERIES

STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
200	67 1/2	2 11/16	1 3/8	3 3/4	RMA 119	467	XX45	VS016	3.50
201	45	2 21/32	1	3 11/16	RMA 119	455	XX30	VS055	2.95
202	45	3 9/16	1 13/16	5 1/2	RMA 110	482	M30	VS013	3.85
203	67 1/2	2 3/4	1 3/8	2 1/2	RMA 119	457	K45	VS082	3.45
204	90	3 11/16	1 3/8	3 3/4	RMA 119	490	N60	VS090	4.50
205	22 1/2, 45	3 1/16	2 5/16	4 1/16	RMA 111	738	Z30	VS015	3.95
207	45	4 1/8	2 5/8	5 5/16	RMA 111	484	B30	VS012	4.70
208	15	1 1/32	39/64	1 7/16	RMA 120	411	U10	VS083	1.15
A210*	30	1 1/64	39/64	2 17/32	RMA 120	413	U20	VS085	1.75
211M	67 1/2	1 29/32	63/64	5 33/64	2 Snap Fasteners	—	P45M	VS216/ 215	3.95
211P	67 1/2	1 7/8	1	5 15/32	2 Snap Fasteners	477	P45	VS218	3.25
212	75	1 13/16	1 3/8	6 1/4	2 Snap Fasteners	437	XX50	VS217	4.50
213	45	1 3/16	35/64	3 9/16	2 Snap Fasteners	415	U30	VS086	2.50
214	90	1 7/8	1	7 15/32	2 Snap Fasteners	479	P60	VS219	3.95
215	22 1/2	1 1/64	5/8	2	RMA 120	412	U15	VS084	1.50
217	67 1/2	1 21/64	63/64	3 1/2	Snap Fasteners	416	UX45	VS318	2.95


RAY-O-VAC
BATTERY
No. 204
90 VOLTS B

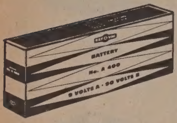
204

RAY-O-VAC
BATTERY
No. 213
45 VOLTS B

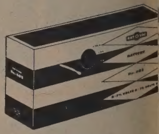
213

A B BATTERIES

STOCK NO.	VOLTAGE	DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
A400*	9, 90	13 5/8	2 3/4	4 9/16	4 Prong Recessed Plug	752	G6B60	VS047	8.25
405	7 1/2, 9, 90	8 11/16	2 3/16	3 3/4	RMA 116	756	T6Z60	VS057W	6.95
413	1 1/2, 90	15 3/4	4 1/4	6 13/16	RMA 115	759	17GD60	VS022	10.65


RAY-O-VAC
BATTERY
No. A 400
9 VOLTS A · 90 VOLTS B

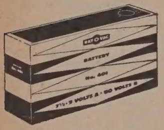
A400*


RAY-O-VAC
BATTERY
No. 403

403

A BATTERIES

STOCK NO.	VOLT-AGE	MAX. DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
A2*	6	1 5/32	1 5/32	2 11/32	Flashlight	724	Z4	VS068	1.00
A4*	1 1/2	2 5/8	2 5/8	4	RMA 101	742	4F	VS004	1.65
A6*	6	2 5/8	2 5/8	4	RMA 104	744	F4PI	VS009	1.65
8	7 1/2	4 1/16	15/16	3	RMA 105	713	B5	VS129	2.75
9	7 1/2	2 5/16	2	3 1/16	RMA 105	717	C5	VS065	1.50
11	1 1/2	2 9/16	1 5/16	4 1/4	RMA 101	W353	2F	VS141	1.10
20	1 1/2	1 3/8 Diam.	—	4 11/64	Flashlight	964	21R	VS236	.45
26	7 1/2	2 19/32	2 1/16	2 7/8	2 Snap Fasteners	707	D5	VS315	1.50
27	6	3 7/8	2 3/4	5 1/2	RMA 105	—	2F4S	—	2.90


RAY-O-VAC
BATTERY
No. 401
7½-9 VOLTS A · 90 VOLTS B

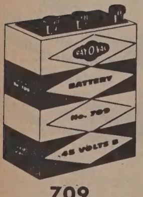
401

RAY-O-VAC
BATTERY
No. 413
1½ VOLTS A · 90 VOLTS B

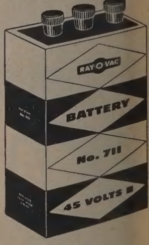
413

INDUSTRIAL AND SPECIAL-PURPOSE BATTERIES

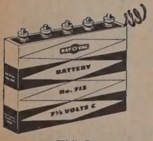
STOCK NO.	VOLTAGE	DIMENSIONS L	W	† O.A.H.	TERMINALS	COMPARATIVE GUIDE EVEREADY	BURGESS	RCA	LIST PRICE
700	1 1/2	2 5/8	1 3/8	4 9/16	2 Screw	W354	2FBP	VS101	1.25
701	3	2 5/8	1 3/8	4 9/16	2 Screw	W352	F2BP	VS100	1.25
704	3	1 3/8	3/4	2 9/16	2 Flat Spring	750	422	VS134	.95
705	4 1/2	2	3/4	2 5/8	2 Flat Spring	751	432	VS142	1.10
706	4 1/2	2 15/32	13/16	3 1/16	2 Flat Spring	703	532	VS133	1.10
708	3, 4 1/2, 6, 9, 10 1/2, 16 1/2, 22 1/2	4 1/8	2 1/2	3 5/16	8 Spring Clip	778	5156SC	VS131	4.45
709	22 1/2, 45	4 1/8	2 5/8	5 7/16	3 Screw	W376	5308	VS112	4.35
A710	22 1/2	3 7/16	2 1/8	2 3/4	Screw	4156	763	VS102	2.35
711	22 1/2-45	2 31/32	1 27/32	5	3 Screw	W350	Z30NX	VS114	3.85
712	1 1/2, 3, 4 1/2	3 15/16	1 3/8	3	4 Screw	761T	2370ST	VS130	2.25
713	1 1/2, 3, 4 1/2, 6, 7 1/2	3 15/16	7/8	3	5 Screw 1 Pigtail	773	5540	VS029	2.35
714	4 1/2	2 15/16	13/16	2 7/8	2 Screw	781	5360	VS028	1.25
715	22 1/2, 45	8 1/8	4 5/8	7 11/16	3 Spring Clip	W364F	21308SC	VS157	7.65
A716	22 1/2, 45	8	4	7 3/8	3 Spring Clip	W363F	10308SC	VS127	6.90
717	22 1/2, 45	8 1/16	3 3/16	7 3/16	RMA 107	W365P	2308P1	VS026	5.00
721	3, 4 1/2, 16 1/2, 22 1/2	4	2 1/2	3	RMA 113	768	5156P1	VS031	4.45
722	300	2 5/8	2 5/32	3 13/16	2 Flush Pin Jack	493	U200	VS093	11.95


RAY-O-VAC
BATTERY
No. 709
45 VOLTS B

709


RAY-O-VAC
BATTERY
No. 711
45 VOLTS B

711


RAY-O-VAC
BATTERY
No. 713
7½ VOLTS C

713

RAY-O-VAC
BATTERY
No. 20
1½ VOLTS A

20

†Over-all height. *Prefix A added to NEDA number to eliminate duplication of existing Ray-O-Vac number.

Trade Discount Applies To List Prices Only

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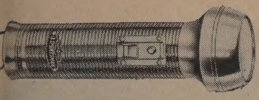
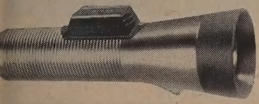
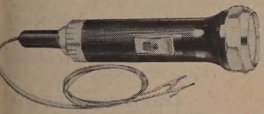
WORLD-FAMOUS FLASHLIGHTS LANTERNS . . . HEADLIGHTS


S22F

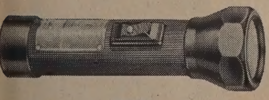
303


ML22

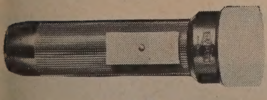
S367F


N22T

AN22


BM32

L298 and L19


h22

STOCK No.	DESCRIPTION	LIST PRICE
SPORTSMAN® LINE		
S21F	2-cell chrome knurled baby spotlight, ring hanger	$ 1.95
S22F	2-cell chrome knurled regular spotlight, ring hanger	1.95
S32F	3-cell chrome knurled spotlight, ring hanger	2.35
S33F	3-cell chrome searchlight with ring hanger	3.95
S367F	7 cell searchlight — converts to 3, 4, 6 cell.	8.95
S53F	5-cell chrome searchlight with ring hanger	4.95
S62F	6-cell chrome spotlight — converts to 3-cell	5.95
301	Sealed beam SPORTSMAN® lantern, knurled barrel grip — price includes battery	10.50
303	Sealed beam SPORTSMAN® lantern has shock absorber and red signal flasher — price includes battery	12.95
304	SPORTSMAN® lantern with swivel head — allows diffused glow or piercing beam — price includes battery	9.95
305	Lantern with swivel head and red signal flasher	11.95
RAY-O-VAC MAGNET LIGHTS		
ML12	2-cell baby, magnet independent of switch	1.89
ML22	2-cell regular, magnet independent of switch	1.99
RAY-O-VAC PENLIGHTS		
P20	2-cell pen size	.98
Z21P	2-cell size "AA"	.98
HEAVY-DUTY FLASHLIGHTS Rubber End Caps		
BR22	2-cell prefocused spotlight with 3-position switch	1.85
G22	2-cell prefocused spotlight with replaceable switch	2.60
G32	3-cell prefocused spotlight with replaceable switch	2.67
HEAVY-DUTY WORKMAN® FLASHLIGHTS		
N22	2-cell prefocused spotlight, replaceable lock switch	3.25
N22T	2-cell prefocused spotlight, continuity tester built into removable end cap	6.75
UNDERWRITER-APPROVED SAFETY LIGHTS		
AN22	2-cell prefocused spotlight with safety head	3.98
BM22	2-cell prefocused spotlight with safety head	3.45
BM32	3-cell prefocused spotlight with safety head	4.20
HUNTER® LANTERN		
398	Versatile HUNTER® lantern with 3" reflector for piercing beam. Signal button on switch.	4.95
HEAVY DUTY UTILITY LIGHT		
H22	2 cell pefocused heavy duty utility light	1.19
NITE HAWK® LINE		
L298	Headlight	3.29
L19	Battery pouch for headlight	.69

RAY-O-VAC COMPANY, MADISON, WISCONSIN

A DIVISION OF THE ELECTRIC STORAGE BATTERY COMPANY

SPELLMAN **POWER SUPPLIES**

HIGH VOLTAGE
RF TYPE - DC

MODEL RG-30

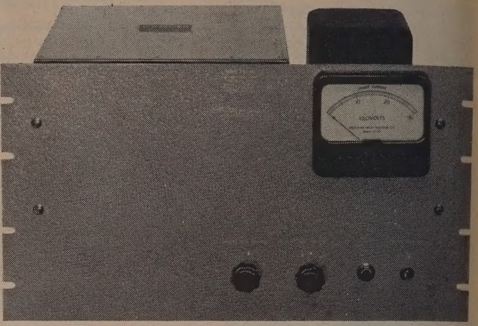
CONTINUOUSLY VARIABLE 15-30 KV REGULATED DC POWER SUPPLY WITH REGULATED FOCUS VOLTAGE TAP

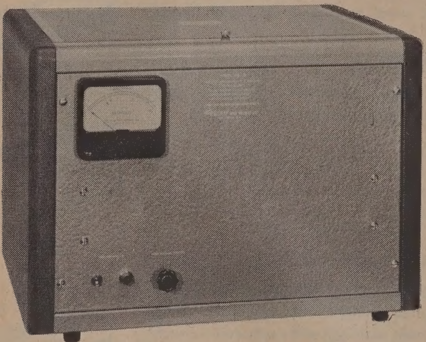
A continuous duty DC supply with highly filtered outputs and regulations better than 0.5% at 1 ma. — no load to full load. A variable focus tap 4-6 KV for use with 5WP11, 5TP4 and flying spot tubes. Dimensions: 19″ wide x 10½″ high x 13″ deep.

With HV meter $375 Net **Less meter $325 Net**

MODEL RG-40 is a 20-40 KV unit with focus tap designed for use with 5AZP4 projection tube. In wide use in projection television systems. Same specifications as RG-30 except .7 ma. at 40 KV.

With meter $375 Net **Less meter $325 Net**





MODEL LAB-30PN

DC POWER SUPPLY REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 30 KV

Regulated DC Power Supply with regulations of 0.5% at 2 milliamperes. Polarity reversible from front panel.

Standard Rack Model — 19″ wide x 12″ high x 13″ deep.
Standard Bench Model — 21″ wide x 14″ high x 15″ deep.

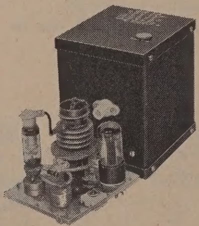
With HV meter $645 Net **Less Meter $595 Net**

MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With meter $545 Net **Less meter $495 Net**

SPECIAL MODELS up to 5 ma. output AVAILABLE

MODEL 4575



5 KV — 1 ma. DC POWER SUPPLY

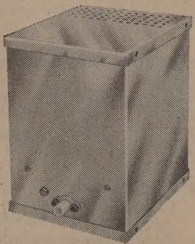
For an output voltage of 5 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7½ KV. Dimensions: 5⅝″ high x 5″ deep x 4¼″ wide. In completely enclosed metal housing. **$32.50 net**

MODEL 4575-2 — same as above with 2 ma. output at 5 KV .... **$42.50 net**

MODEL 4575PN — Reversible polarity. High voltage secondary floating or can be grounded. 1 ma. at 5 KV .... **$42.50 net**

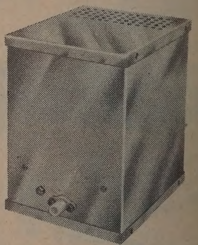
MODEL 4575-2PN — Reversible polarity. 2 ma. at 5 KV .... **$52.50 net**

MODEL 7512



12KV — 1 ma. DC Power Supply — Voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5¾″ W., 8¼″ H., 6¾″ D. .... **$42.50 net**

MODEL 7516



20 KV — .5 ma. DC POWER SUPPLY

Voltage output of approx. 10 to 20 KV. obtain output voltage of 10 KV at 1 m low voltage input requirement is 300 DC at 50 ma. Maximum input voltage 425 V at 100 ma. will give an output 20 KV at .5 ma. 5¾″ W., x 8¼″ H., x 6¾″

MODEL 7516..**$48.50**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

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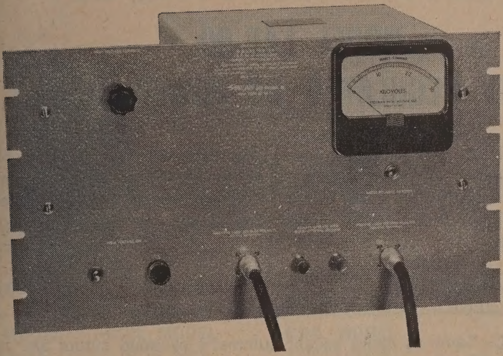
SPELLMAN

HIGH VOLTAGE
RF TYPE - DC

POWER SUPPLIES



MODEL PN-30

REVERSIBLE POLARITY
Continuously Variable 1-30 KV
Unregulated DC Power Supply

A light, compact unit in wide use for insulation testing, condenser charging, precipitators and laboratory research. Polarity reversible from front panel. Current output — 2 milliamperes at 20 KV: 1 ma. at 30 KV. Input — 117V AC 60 cycles. Dimensions: 19" x 10½" x 13". .... **$275 net**

Less meter .... **$225 Net**

MODEL PN-30C — Same as above except automatic overload and reset button provided. Adjustable sensitivity 0.5 ma. to 2.5 ma.

With meter	**$325 net**
Less meter	**$275 net**

MODEL 2040

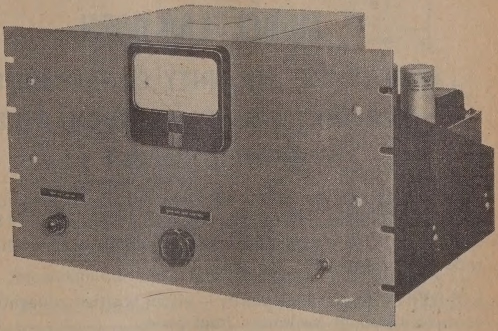
40 KV DC POWER SUPPLY

A ruggedly built RF type power supply which is in constant use in laboratories and industrial plants throughout the world for condenser charging, electrostatic paint spraying and insulation testing, electrostatic flocking, etc. In wide use for spot knocking by TV tube manufacturers. Designed for constant use and will stand severe abuse. Available with either positive or negative 40 KV output. Voltage range is approx. 12 to 40 KV continuously variable. The 12 to 40 KV variance in voltage is controlled through a knob on the front panel. Voltage supplied through a 6 ft. HV Safety Cable. Specify desired polarity when ordering. Specifications: Continuously variable 12 to 40 KV. 1 ma. at 30 KV Input: 117V — 60 cycles. 19" wide x 12¼" high x 13" deep.

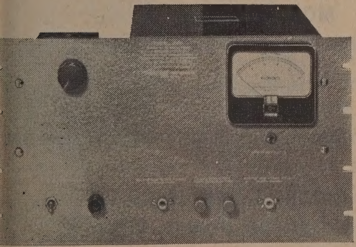
With meter on front panel	**$215 net**
Less meter	**$165 net**

MODEL 2040C — Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity 0.5 ma. to 2 ma.

With meter	**$265 net**
Less meter	**$215 net**



MODEL PN-15

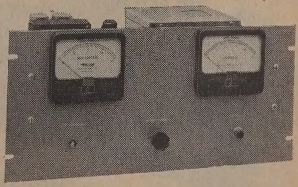


FLOATING REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1 TO 15 KV UNREGULATED DC POWER SUPPLY

The high voltage output available through Alden HV connectors on front panel. Reversible and floating secondary — either positive or negative can be grounded or left floating. Current output 2 ma. at 15 KV. Voltage continuously variable through knob on front panel. Dimensions 8¾" high x 19" wide x 11" deep.

Complete with meter .... **$250 net**

MODEL LAB-10



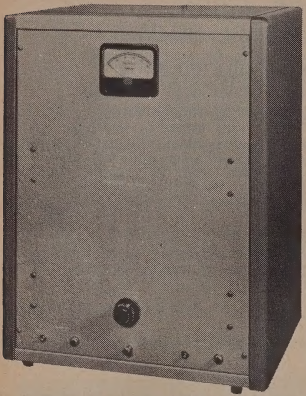
CONTINUOUSLY VARIABLE 0-10 KV REGULATED DC SUPPLY

Output current 2 ma. Regulations better than 1%. Complete with HV and current meters 19" W x 8¾" H x 13" D .... **$275 net**

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

SPELLMAN **POWER SUPPLIES**

HIGH VOLTAGE
RF TYPE - DC



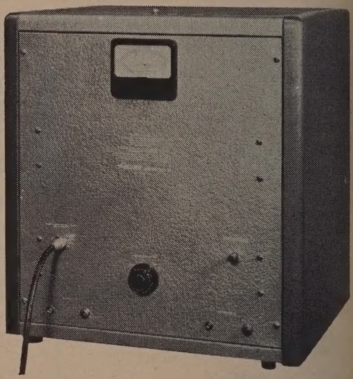
MODEL LAB-90
0-90 KV REGULATED DC POWER SUPPLY

Continuously variable 0 to 90 KV DC Power Supply. Ideal for kinematic electron diffraction equipment and high voltage condenser charging. Output current .7 ma. at 90 KV. 1 ma. at 80 KV. 2 ma. from 40 KV down. Voltage regulations better than 1% throughout entire range. Dimensions in cabinet: 28″ high x 21¾″ wide x 18″ deep.

LAB-90 Complete with HV meter ....**$900 Net**
Specify polarity output — positive or negative.

MODEL LAB-90C—Same as above except automatic overload cutout and reset button provided. Adjustable sensitivity. .5 ma. to 2.5 ma. ....**$950 Net**

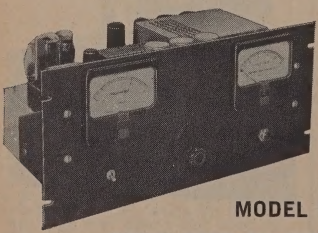
MODEL LAB-60PN
REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 0-60 KV DC REGULATED POWER SUPPLY



Current output 1 ma. at 60 KV 2 ma. may be drawn from 50 KV down. Regulations — no load to full load 1% at 1 ma. 21¾″ wide x 22¾″ high x 18″ deep. Dimensions in cabinet: 22¾″ high x 21″ wide x 18″ deep.

LAB-60PN — Reversible polarity — either positive or negative output controlled through switch on front panel. ....**$820 Net**

LAB-60 — Same as above not reversible. Specify polarity when ordering...**$765 Net**



MODEL RG-5, 5 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 4 to 6 KV.

Complete with Current and Volt Meters ....**$250 Net**

MODEL RG-10, 10 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 8 to 12 KV.

Complete with Current and Volt Meters ....**$260 Net**

MODEL RG-15, 15 KV REGULATED DC POWER SUPPLY

Output current 2 ma. Regulated against line and load 1%. Variable 13 to 17 KV.

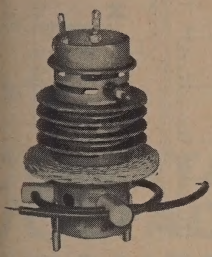
Complete with Current and Volt Meters ....**$275 Net**

DIMENSIONS: Panel Height 8¾″, Width 19″, Depth 11″.

SPELLMAN HIGH VOLTAGE CO., INC. | **BRONX 69, N. Y.**

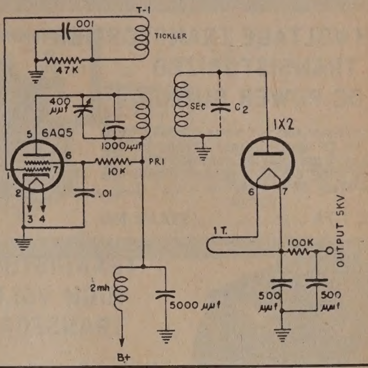
SPELLMAN HIGH VOLTAGE STEP-UP COILS

FOR RF POWER SUPPLIES



COIL MODEL 5 KV

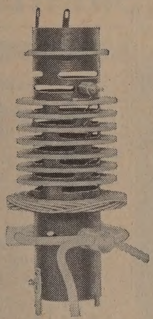
Secondary Height	3½″
Secondary Windings Consisting of 4 Pie Windings	1¾″
Primary Diameter	2¼″
Secondary Voltage Output	5 KV
Secondary Current	2 Milliamperes
Approx. Frequency	300 KC
5KV Coil	**$7.00 Net**

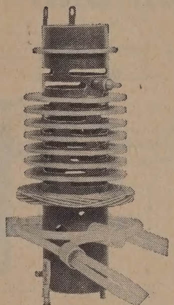

T-1
.001
TICKLER
47K
400 μμf
6AQ5
1000μμf
10K
PRI
.01
SEC
C2
1X2
1 T.
100K
OUTPUT 5KV
2mh
5000 μμf
500 μμf
500 μμf
B+

IL MODEL 10-15 KV

COIL MODEL 10-15 KV-1

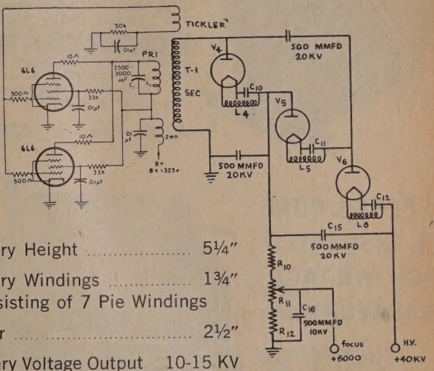
COIL MODEL 10-15 KV-2





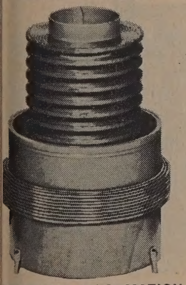
15 KV
00 Net

10-15 KV-1 with filament winding for single 1B3 rectifier **$12.50 Net**
10-15 KV-2 with 2 filament windings for two 1B3 rectifiers **$13.00 Net**


TICKLER
PRI
T-1
SEC
6L6
6L6
V4
V5
V6
C10
C11
C12
L4
L5
L6
500 MMFD 20KV
500 MMFD 20KV
500 MMFD 20KV
C15
R10
R11
R12
C16
500MMFD 10KV
focus +6000
H.V. +40KV
B+ +325v
2mh

Secondary Height	5¼″
Secondary Windings Consisting of 7 Pie Windings	1¾″
Diameter	2½″
Secondary Voltage Output	10-15 KV
Secondary Current	2 Milliamperes
Approx. Frequency	175 KC

L4, L5, L6 are Spellman RF Filament Transformers



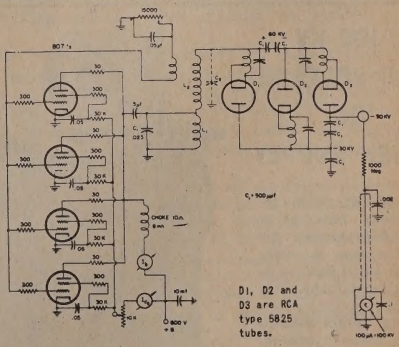
ECHNICAL INFORMATION AND CIRCUIT DIAGRAMS FURNISHED WITH EACH COIL

COIL MODEL 35 KV

Secondary Height	7″
Secondary Windings Consisting of 10 Pie Windings	3″ dia.
Primary (separate from secondary) Height	4″
Diameter	4¼″
Secondary Voltage Output	35 KV
Secondary Current	5 Milliamperes
Approx. Frequency	70 KC
35KV Coil	**$42.00 Net**

25KV—Same as 35 KV except Secondary Height 6″
25KV Coil **$36.00 Net**

70KV—Same as 35KV except Sec. height 10″, 12 pie windings 4″ dia., Primary height 4″, Diameter 5″, Approx. Frequency 70 KC.
70KV Coil **$75.00 Net**


15000
807's
80 KV
D1
D2
D3
300
30K
CHOKE 10A 8mh
C1 = 500 μμf
800 V
100μA = 100 KV

D1, D2 and D3 are RCA type 5825 tubes.

L4, L5, L6 are Spellman RF Filament Transformers

RF FILAMENT TRANSFORMERS

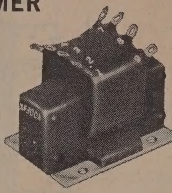
A self-resonant auto transformer for use with type 1B3 Rectifier tube. Complete with instructions.

Will operate with Spellman HV coils	**$1.50**
Tuning Padder for Filament Transformer	**.58**

SPELLMAN HIGH VOLTAGE CO., INC. | **BRONX 69, N. Y.**

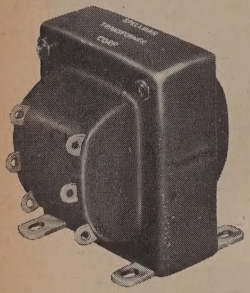
SPELLMAN HIGH VOLTAGE TRANSFORMERS

HIGH VOLTAGE TRANSFORMER FOR TRANSISTORIZED 7KV DC POWER SUPPLY



For a transistorized full wave DC to DC Converter. For 25 Volt DC input. Output voltage 7KV DC at .5 ma. may be obtained. Supplied with operating circuit diagram. Completely encapsulated. 2″ H x 2¾″ W x 1¾″ D.

MODEL T-7A ....**$24.00 Net**

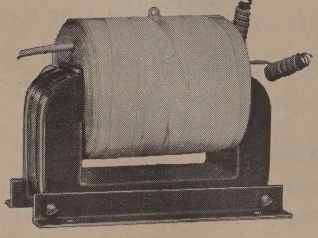


TRANSISTORIZED HIGH VOLTAGE TRANSFORMER

Designed for input voltage from 11 to 15 Volts DC. Input current from 2 to 10 amps. Output voltage from single rectifier stage 10 KV at 2 ma. Supplied with operating circuit diagram showing transistors and rectifier for an operational power supply. Completely encapsulated. 4″H x 3¼″ W x 4″ D.

MODEL T-10 ....**$28.00 Net**

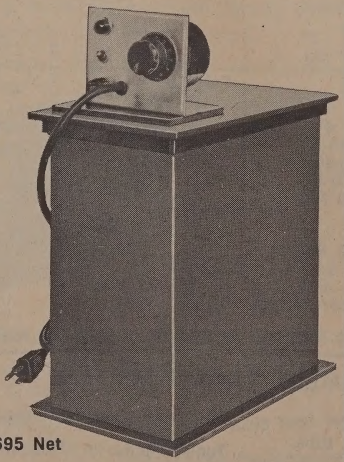
HYPERSIL CORE OIL INSULATED HIGH VOLTAGE TRANSFORMER



Voltage input 110 Volts AC. Output 20 KV Rms. Suitable for use in 50 KV DC 10 ma. Power Supply.

MODEL HV-20 ....**$51.00 Net**

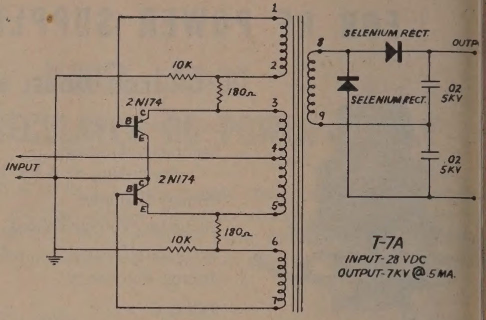
0-100 KV HIGH VOLTAGE DC POWER SUPPLY

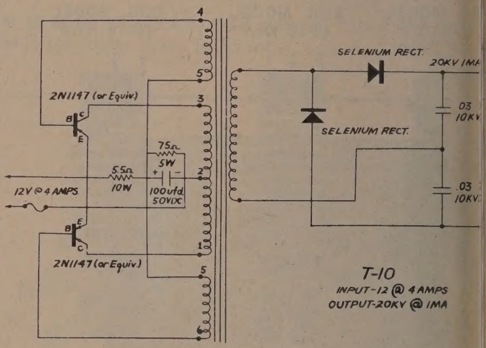


0-100 KV @ 25 microamperes. This solid state encapsulated DC power supply is available in either positive or negative output. Designed for insulation testing, electrostatic paint spray systems, powder separation, detearing, etc.

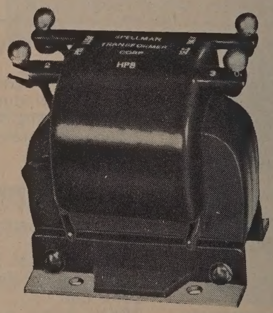
Shown less case. Dimensions: 12½″ high x 11½″ deep x 6½″ wide.

MODEL P-110 ....**$695 Net**


1
2
3
4
5
6
7
8
9
10K
180Ω
2N174
B
C
E
INPUT
2N174
10K
180Ω
SELENIUM RECT.
OUTP
SELENIUM RECT.
.02 5KV
.02 5KV
T-7A
INPUT-28 VDC
OUTPUT-7KV @.5MA.


4
5
3
2
1
5
6
2N1147 (or Equiv.)
B
C
E
75Ω 5W
5.5Ω 10W
+
−
100ufd. 50VDC
12V @ 4 AMPS
2N1147 (or Equiv.)
SELENIUM RECT.
20KV IMA
SELENIUM RECT.
.03 10KV
.03 10KV
T-10
INPUT-12 @ 4 AMPS
OUTPUT-20KV @ IMA

HIGH VOLTAGE TRANSFORMER



Voltage input 110 volts 60 cycles.

Output 8 KV Rms. 10 ma.

Dimensions: 5″ wide x 5″ high x 4¼″ deep.

Suitable for use in 20 KV doubler circuit.

MODEL HP-8 ....**$30.00 Net**

SEND FOR COMPLETE INFORMATION

SPELLMAN HIGH VOLTAGE CO., INC. | BRONX 69, N. Y.

SOLA

BPC

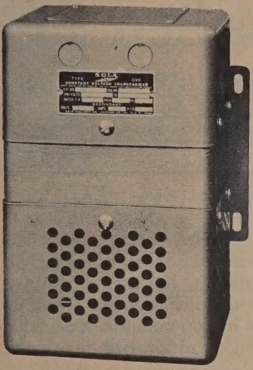
A Division of

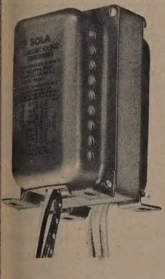
Basic Products Corporation

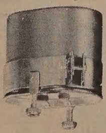
PRICES AND SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

CONSTANT VOLTAGE TRANSFORMERS

—automatic, instantaneous voltage regulators







Sola Constant Voltage Transformers are static-magnetic voltage regulators. They are designed to provide a stabilized output voltage even though the nput voltage varies over a considerable range. They have nine distinct advantages over electronic-type regulators or regulators which depend solely upon saturation of core materials for their regulating action:

1. Completely automatic, continuous regulation.
2. Virtually instantaneous response time of 1½ cycles or 25 milliseconds at 60 cycles.
3. Mechanically rugged — as resistant to mechanical shock as a conventional power transformer.
4. No moving or renewable parts — no manual adjustment or maintenance is necessary.
5. Type CVS units have the ability to improve a poor voltage wave-form applied to input terminals.
6. Self-protecting against short circuits on output or load circuit.
7. Inherently incapable of producing an output over-voltage.
8. Current-limiting characteristic protects load equipment from excessive fault currents. Inrush current is held within manufacturers' tolerance, eliminating the need for starting relays.
9. Available in step-up or step-down ratios, permitting substitution in place of conventional, non-regulating transformers.
10. Capable of serving a wide range of electrical devices. CVS Standard catalog items available in 51 different primary-secondary voltage combinations from 30 to 7500 volt-amperes. CVN units available in many combinations.
11. High degree of isolation between input and output circuit usually eliminates the need for electrostatic shielding. Input and output are isolated both physically and electrically.
12. Relatively compact compared to other equipment for a-c voltage regulation.

Sola static-magnetic transformers are supplied for a number of voltage-regulating requirements. They supply constant voltage in nominal line values, in filament and combination plate-and-filament values, and in variable voltage outputs.

The following pages list the widest range of stock ratings and types offered by any manufacturer of static-magnetic voltage regulators.

Standard Sinusoidal Type (CVS)

± 1% regulation of AC line input for electrical and electronic equipment

Sola Standard Sinusoidal Constant Voltage Transformers regulate voltage within ±1% regardless of input voltage variations as great as ± 15%. Displaying fast* regulating action, their response time is usually 1.5 cycles or less. With less than 3% total rms harmonic content in their output voltage wave, they are particularly suitable for use with rectifiers or other equipment which is sensitive to, or is affected by, harmonics in the supply voltage. Nineteen stock ratings are listed. Special designs are available in production quantities. Fifty cycle versions of popular items also available from stock.

Electrical specifications 60 cycle single phase **Mechanical specifications**

Voltage Rating		VA	Catalog Number	Price Ind'l & Govt. Users	Nominal Dimensions		Approximate Shipping Weight lbs.	*Str tu Co
Regulated Output	Input Range				Outline	Mounting		
118	95-130	30	23-13-030(a)	25.00	6 1/8 x 4 x 5 3/16	3 x 3 1/2	9	W
	190-260X 380-520	30	23-23-030(a)	27.00	6 1/8 x 4 x 5 3/16	3 x 3 1/2	9	W
	95-130	60	23-13-060(a)	$30.00	6 15/16 x 4 x 5 3/16	3 x 3 1/2	10	W
	190-260X 380-520	60	23-23-060(a)	32.00	6 15/16 x 4 x 5 3/16	3 x 3 1/2	10	W
	95-130X 190-260	120	23-22-112(a)	38.00	8 x 4 x 5 3/16	3 x 3 1/2	14	W
	190-260X 380-520	120	23-23-112(a)	41.00	8 x 4 x 5 3/16	3 x 3 1/2	14	W
	95-130X 190-260	250	23-22-125(b)	52.00	9 5/8 x 5 3/8 x 7 7/16	4 1/8 x 4 3/4	28	W
	190-260X 380-520	250	23-23-125(b)	56.00	10 x 5 3/8 x 7 7/16	4 1/8 x 4 3/4	28	W
	95-130X 190-260	500	23-22-150(c)	81.00	12 7/16 x 9 x 6 7/16	5 5/8 x 8 1/8	47	W
	190-260X 380-520	500	23-23-150(c)	86.00	12 7/16 x 9 x 6 7/16	5 5/8 x 8 1/8	47	W
118 x 236	95-130X 175-235X 190-260	1000	23-25-210(c)	135.00	17 15/16 x 9 x 6 7/16	5 5/8 x 8 1/8	80	W
	190-260X 380-520	1000	23-26-210(c)	135.00	17 15/16 x 9 x 6 7/16	5 5/8 x 8 1/8	80	W
	95-130X 175-235X 190-260	2000	23-25-220	245.00	19 15/16 x 12 3/4 x 10 11/16	4 1/2 x 11 3/4	145	W
	190-260X 380-520	2000	23-26-220	245.00	19 15/16 x 12 3/4 x 10 11/16	4 1/2 x 11 3/4	145	W
	95-130X 175-235X 190-260	3000	23-25-230-3	330.00	21 7/8 x 12 3/4 x 10 11/16	6 7/16 x 11 3/4	192	W
	190-260X 380-520	3000	23-26-230	330.00	21 7/8 x 12 3/4 x 10 11/16	6 7/16 x 11 3/4	192	W
	95-130X 175-235X 190-260	5000	23-25-250	515.00	20 9/16 x 25 13/16 x 10 11/16	5 7/16 x 24 13/16	475	Y
	190-260X 380-520	5000	23-26-250	515.00	20 7/8 x 25 13/16 x 10 11/16	5 7/16 x 24 13/16	475	Y
	190-260X 380-520	7500	23-28-275	900.00	20 9/16 x 38 1/4 x 11 1/16	5 7/16 x 37 1/4	710	Z
#1 115 (fixed) #20-130 (adjustable)	100-130	500	*23-90-150	275.00	9 x 19 x 12 1/2	relay rack mounting or bench top use	83	P

Normal-Harmonic Type (CVN) — for built-in component use

**portable, fully adjustable unit.*

These units provide the same ±1% regulation as the standard sinusoidal models on Page 2. They have an average of 20% total rms harmonic content in their output voltage. Along with the sinusoidal type, they offer simplicity, reliability and freedom from maintenance. They are reliable sources of voltage for most electrical loads such as filaments, relays, solenoids, other transformers serving ac loads — in fact, all loads not affected by harmonics in the supply voltage. This series includes those mechanical designs specially engineered for use as built-in components. Special designs are available in production quantities.

Electrical specifications 60 cycle single phase **Mechanical specifications**

Voltage Rating		Output Capacity in VA	Catalog Number	Approx. Net Price Each to Industrial, Commercial or Govt. Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
Regulated Output	Input Range				Outline	Mounting		
118	95-130	15	20-10-015	$15.00	5 9/16 x 2 5/8 x 3 1/2	5 1/16 x 1 1/8	4	D
			20-11-015	20.00	5 1/4 x 3 1/2 x 2 1/4	3 x 1 1/2	4	S
			20-14-015	14.00	4 5/16 x 2 3/8 x 2 7/16	1 3/4 x 1 7/8	3	E
		30	20-14-030	16.00	4 5/16 x 2 3/8 x 3 5/16	1 7/8 x 2 5/8	5	E
			20-13-030(a)	20.00	6 x 4 x 5 3/16	3 x 3 1/2	7	W
		60	20-13-060(a)	25.00	6 13/16 x 4 x 5 3/16	3 x 3 1/2	10	W
			20-14-060	21.00	4 13/16 x 3 1/8 x 3 7/8	2 1/2 x 3 7/8	8	E
118	95-130	120	20-14-112	29.00	4 13/16 x 3 1/8 x 4 15/16	2 1/2 x 3 7/8	11	E
			20-13-112(a)	33.00	7 3/8 x 4 x 5 3/16	3 x 3 1/2	13	W
236	190-260	120	20-21-112(a)	33.00	7 7/8 x 4 x 5 3/16	3 x 3 1/2	13	W
118	95-130	150	20-13-115(b)	40.00	8 7/8 x 5 3/8 x 7 7/16	4 1/8 x 4 3/4	22	W
		250	20-13-125(c)	49.00	11 1/8 x 6 15/16 x 6 7/16	4 5/8 x 6 1/8	25	W
	190-260x 380-520		20-23-125(c)	49.00	11 1/8 x 6 15/16 x 6 7/16	4 5/8 x 6 1/8	25	W
	95-130	500	20-13-150(c)	77.00	12 5/16 x 6 15/16 x 6 7/16	4 5/8 x 6 1/8	36	W
	190-260x 380-520		20-23-150(c)	77.00				
236			20-24-150(c)	77.00	12 1/2 x 6 15/16 x 6 7/16			
118	95-130	1000	20-13-210	128.00	15 1/8 x 6 15/16 x 6 7/16	4 5/8 x 6 1/8	54	W
	190-260		20-20-210	128.00				
118x 236	95-130x 175-235x 190-260	2000	20-25-220	232.00	20 x 10 1/2 x 10 11/16	4 9/16 x 9 1/2	166	W
		3000	20-25-230	315.00	22 x 10 1/2 x 10 11/16	6 7/16 x 9 1/2	230	W
	190-260x 380-520	5000	20-27-250	490.00	21 x 14 1/2 x 14 3/8	7 x 13	279	W
		10000	20-26-310	925.00	21 x 29 7/16 x 14 3/8	7 x 27 15/16	590	Y

© U.C.P., Inc.

lectronic Power Type

±1% regulation for filament voltage; ±3% regulation of plate-filament supply

la Electronic Power Type Constant Voltage Trans-mers are designed as components for simple assembly o electronic manufacturers' own product. The fila-nt type provides 6.0 or 6.3 volts output, regulated thin ±1% over line voltage variations as great as 5%. The combination plate-and-filament type provides voltage regulated within ±3% for line voltages varying up to ±15%. Both types provide filaments with stabilized voltage supply, and thus contribute to reliable operation, long life, and reduced service expense for load equipment. Thirteen stock units are listed. Special designs available in production quantities.

or Filament Service (Type CVF)

Electrical specifications
60 cycle single phase

Mechanical specifications

Voltage Rating		Output Capacity in Amps.	Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship Wt. in Lbs.	* Structure Code
egulated % Output	Input Range				Outline	Mounting		
6.0	95-130	2.50	20-01-015	$15.00	5 9/16 x 2⅝ x 3½	5 1/16 x 1⅛	6	D
			20-06-015	14.00	4 5/16 x 2⅜ x 2 7/16	1¾ x 1⅞	4	E
6.3	95-130	2.38	20-02-015	15.00	5 9/16 x 2⅝ x 3½	5 1/16 x 1⅛	6	D
			20-03-015	20.00	4 15/16 x 2⅜ x 2 7/16	1¾ x 1⅞	4	S
			20-04-015	14.00	4 15/16 x 2⅜ x 2 7/16	1¾ x 1⅞	4	E
	95-130X 190-260	5.0	20-04-030	16.00	4 13/16 x 3⅛ x 3⅛	2½ x 2 1/16	6	E
		10.0	20-04-065	20.00	4 13/16 x 3⅛ x 3¾	2½ x 2 11/16	7	E
		15.0	20-04-095	24.00	4 13/16 x 3⅛ x 4 11/16	2½ x 3⅝	11	E
		20.0	20-04-113	31.00	7 x 4½ x 5⅛	3⅝ x 3 9/16	20	E
		25.0	20-04-116	35.00	7 x 4½ x 5 11/16	3⅝ x 4⅛	23	E
6.3	95-130	5	20-05-030	25.00	6 1/16 x 4 13/16 x 4¾	portable, for bench-top use	8	F

or Plate-Filament Service (Type CVE)

Electrical specifications
60 cycle single phase

Input range, 100-130 volts

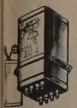
Mechanical specifications

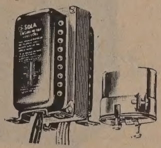
ypical ectifier Tube	Average D.C. Input Volts to Filter*	Filament Windings		Catalog Number	Approx. Net Price Each to Industrial Users	Nominal Dimensions (Inches)		Approx. Ship. Wt. in Lbs.	* Structure Code
		6.3 Volts	5.0 Volts			Outline	Mounting		
5Y3	275v D.C. @ 50 M.A.	2.5 amps C.T.	2.0 amps	7104	$12.00	4 13/16 x 3⅛ x 3 3/16	2½ x 2⅛	6	E
5Y3	385v D.C. @ 110 M.A.	3.0 amps C.T.	2.0 amps	7106	15.00	4 13/16 x 3⅛ x 3 15/16	2½ x 2⅞	8	E
5U4	380v D.C. @ 250 M.A.	No. 1: 4.0 amps No. 2: 8.0 amps unregulated	3.0 amps	7107	27.00	7 x 4½ x 4⅞	3⅝ x 3⅜	19	E

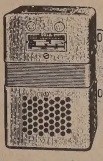
oltage values are taken at output of 5Y3GT rectifier for No. 7104 and No. 106 transformers and at output of 5U4GA-GB for No. 7107. Guaranteed regulation of ±3% on plate voltage output is contingent on the use of Sola-regulated 5.0v filament supply winding for the rectifier tube.

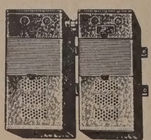
"Structure code" letter refers to one of these general types of mechanical assemblies:

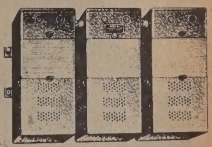
D—Drawn case; integral capacitor unit; flex leads.

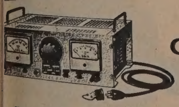

S—Hermetically-sealed case; separate capacitor; solder lugs.

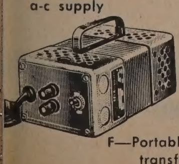

E—Exposed core; end bells; separate capacitor: flex leads.


W—Exposed core; end housings; screw-type terminals in outlet box.


Y—Same as W, but duplex assembly.


Z—Same as W, but triplex assembly.

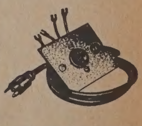

—Portable adjustable a-c supply


F—Portable filament transformer.

Cord/receptacle adapter kits

Adapter kits may be used when the convenience of input plug and output receptacle is preferred to the standard arrangement of terminals in the transformer housing. See footnote 1 and accompanying chart.

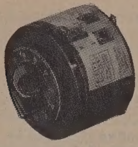
Code	Adapter Kit Catalog No.	Input Cord	Output Connections	Net price each to industrial users
(a)	999-004 999-018	2-wire 3-wire	2-wire receptacle 3-wire receptacle	$1.75 2.50
(b)	999-005 999-019	2-wire 3-wire	2-wire receptacle 3-wire receptacle	1.75 2.50
(c)	999-009 999-020	2-wire 3-wire	2-wire receptacle 3-wire receptacle	2.00 2.50

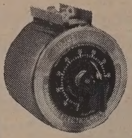


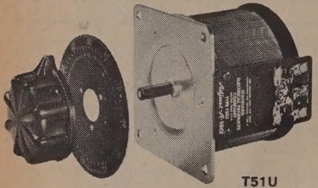
The transformers described in this folder are manufactured under one or more of the following United States Patents: Nos. 2,694,177; 2,753,513; 2,806,199, and patents pending.

STACO® *Adjust-A-Volt*® Variable Auto-Transformers

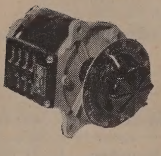
Bench and Panel Mounted Units for Control of AC lines, Power, Heat, Speed and Light. Adjust-A-Volts feature smooth, continuous control, zero waveform distortion, excellent regulation and high efficiency.


100BU


250BU


T51U

300BU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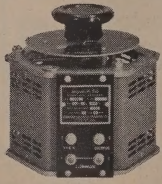
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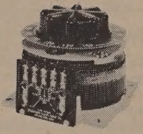
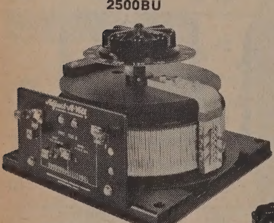

2500BU

2500B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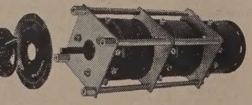

300BU-3

Uncased Units or Cased with Bare Conduit or Terminal Box

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	Kva Max	Shipping Wgt. Lbs.	Ne Pric
100BU	120	0-132	60	1.25	.165	2.2	$ 8.
250BU	120	0-132	60	2.5	.33	2.5	$ 9.
T21U	120	0-140	50/60	2.4	.33	4	$ 15.
300BU	120	0-140	60	3.0	.42	5	$ 12.
T51U	120	0-140	50/60	6.0	.84	8	$ 18.
500BU	120	0-140	50/60	7.5	1.05	10	$ 18.
1500B	120	0-140	50/60	15	2.1	20	$ 46.
2500B	120	0-140	50/60	*30	*4.2	22	$ 49.
2500BU	120	0-140	50/60	*30	*4.2	23	$ 55.
T501U	120	0-140	50/60	50	7	60	$120.

All of the above units may be easily connected by user to attain 0-120 line voltage output for either 50 or 60 cycle current.

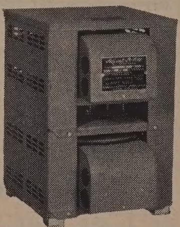
*These ratings are permitted only if the brush position is changed quently, if ample cooling is provided and the atmosphere is relatively free. Otherwise the unit should be derated to approx. 25 amps.

Cased Units with Line Cord, Receptacle, Fuse, Switch and Pilot Light

PA-1 PA-1L	120	0-132 0-120	60 50/60	1.25	.165	3 3	$ 16
PA-3 PA-3L	120	0-140 0-120	60 50/60	3.0	.42	7 7	$ 26
500B	120	0-140 0-120	50/60	7.5	1.05	11	$ 23.

*Note: 0-120 line voltage is attained by connections made by user.

Ganged assemblies and motorized units availab
Write for General Catalog 61.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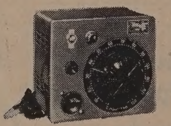
PA-1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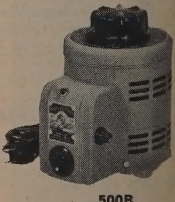

500B

STANDARD electrical products company, Dayton, Ohi

A Subsidiary of General Electronic Control, Inc., Minneapolis, Minnesota

STACO® *Adjust-A-Volt*® ISOLATED TRANSFORMERS

These units provide a means for smooth control of an electrically isolated AC voltage output. Uncased models give the design engineer a wide variety of circuit arrangements for both original equipment and custom-built lab applications. Cased units have line cord, input switch, pilot light, output receptacle, output voltmeter and thermal circuit breaker.

Uncased IV Series for Panel Mounting

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Connection	Shipping Wgt. lbs.
1-2U	120	0-140	50/60	2	.28	Isolated	8
	120	0-120N	50/60	5	.60	Non-Isolated	Net Price $30.25
	120	120-260N	50/60	4.5-2	.52VD	Voltage Doubler	
	240	110-240N	50/60	4.5	1.08	Series	
1-9U	120	0-140	50/60	9	1.26	Isolated	28
	120	0-120N	50/60	25	3	Non-Isolated	Net Price $57.50
	120	120-260N	50/60	20-9	2.34VD	Voltage Doubler	
	240	110-240N	50/60	20	4.8	Series	

Cased IV Series for Bench Use

Type	Input Voltage	Output Voltage	Cycles	Rated Amps	KVA Max	Shipping Wgt. lbs.	Net Price
1-2M	120	0-140	50/60	2	.28	13	$69.50
1-4M	120	0-140	50/60	4	.56	20	79.50
1-9M	120	0-140	50/60	9	1.26	32	97.50

Deluxe Cased Units with Panel Switches & Dual Range Voltmeter

1-2D	120	0-140	50/60	2	.28	NON ISOLATED VOLTAGE DOUBLER	14 Net Price $84.50
	120	0-120N	50/60	4	.48		
	120	120-160N	50/60	4-2	.52VD		
1-4D	120	0-140	50/60	4	.56	NON ISOLATED VOLTAGE DOUBLER	21 Net Price $109.50
	120	0-120N	50/60	8	.96		
	120	120-260N	50/60	8-4	1.04VD		

N on Voltage means Non-Isolated

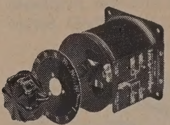
ADJUST-A-VOLT
C AUTOMATIC VOLTAGE REGULATORS

	IVR Series Instantaneous	VR Series Electro-Mechanical
g. Accuracy	± 0.10%	± 0.5%
me Constant	100 Milliseconds	
eed of Correction		.05 sec/volt
tput Voltage	110-120	110-120
put Voltage	95-130 1 Ph.	95-135 1 Ph.
equency	60 cycle	60 cycle
ad Range	0 — Full Load	0 — Full Load
F @ Full Load	90% @ Unity P.F.	97% VR-1-50 97.5% VR-1-75
ower Factor Range	1.0 to 0.7%	Any
ave Form Distortion	3% Max.	None
mb. Temp. Oper. Range	—0°C — +40°C	—20°C — +40°C

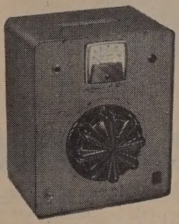
0—150 Volts AC Output Meter on all Models

ype	KVA	Rated Amps.	Shipping Wgt. lbs.		Net Price	
			Rack	Cabinet	Rack	Cabinet
R-1-10	1	8.7	95	115	$405	$435
R-1-25	2.5	22.0	195	220	$610	$665
R-1-50	5	44	90	110	$495	$525
R-1-75	7.5	66	100	122	$545	$575

R = Rack Type C = Cabinet Type—add letter to Type No. when ordering i.e. IVR-10R


IV-1-2U

IV-1-9U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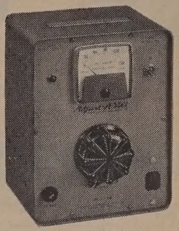
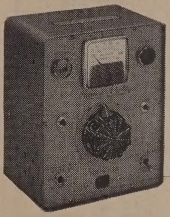
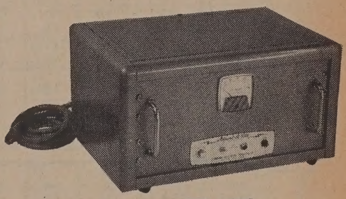

IV-1-2M


IV-1-2D


IVR-1-10C

VR-1-75R

All Adjust-A-Volt Variable Transformers and Voltage Regulator Models and Full Specifications with Eng. data are Covered in New Gen. Cat. No. 61

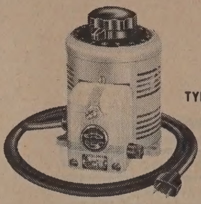
GENERAL CATALOG 61
STACO
STANDARD electrical products company, Dayton, Ohio

STANDARD electrical products company
Dayton, Ohio

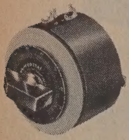
POWERSTAT® *Variable Transformers*

- **ZERO WAVEFORM DISTORTION**
- **RUGGED CONSTRUCTION**
- **GOLD-ALLOY PLATED COMMUTAT**

Deliver continuously-adjustable voltage from a-c power lines. All manually-operated types listed in charts except 10B, EN116-EN216 and EN117-EN217 Series are also available with motor-drives if desired. Motor-driven speeds are 5, 15, 30 or 60 seconds for full range travel except types suffixed 4P, 4PS, 4D, 5P, 6P, 6PS, 6D and 6Y which do not offer the 5 second speed. 117-217, 126-226 and 136-236 types are also available with 2- or 3-wire cord-plug sets. 1156D-1256D Series types are available in ratings up to 244 KVA.


TYPE 116

TYPE EN2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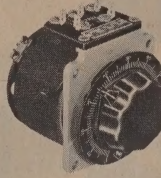
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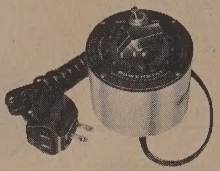
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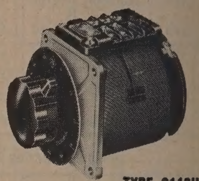
TYPE Q116U

RATINGS AND SPECIFICATIONS

10B SERIES

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	60	0-132	1.0	0.132	1.0	.132	2PF10	3.3
120	50/60	0-120	1.75*	0.21	2.5	.30	10B	2.4
120	60	0-132	1.75*	0.23	1.75*	.23		
240	50/60	0-240	1.75	0.42	2.5	.60	10B-2	5.6
240	60	0-264	1.75	0.46	1.75	.46		
Three Phase								
120	50/60	0-120	1.75	0.36	2.5	.52	10B-2	5.6
120	60	0-132	1.75	0.40	1.75	.40		
240	60	0-240	1.75	0.73	2.5	1.0	10B-3	8.3

21 SERIES

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	3.75	0.45	5.5	0.66	21	6
120	50/60	0-140	3.75	0.53	3.75	0.53		
240	50/60	0-240	3.75	0.90	5.5	1.3	21-2	12
240	50/60	0-280	3.75	1.0	3.75	1.0		
Three Phase								
120	50/60	0-120	3.75	0.78	5.5	1.1	21-2	12
120	50/60	0-140	3.75	0.91	3.75	0.91		
240	50/60	0-240	3.75	1.6	5.5	2.3	21-3	17
240	60	0-280	3.75	1.8	3.75	1.8		

116-216 and 117-217 SERIES†

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	7.5	0.90	10.0	1.2	116	12
120	50/60	0-140	7.5	1.0	7.5	1.0		
120	60	0-120	10.0	1.2	13.0	1.6	117T	12
240	50/60	0-240	3.0	0.72	4.5	1.1	216	12
240	50/60	0-280	3.0	0.84	3.0	.84		
240	60	0-240	4.0	1.0	6.3	1.5	217T	12
240	50/60	0-240	7.5	1.8	10.0	2.4	116T-2	24
240	50/60	0-280	7.5	2.1	7.5	2.1		
240	60	0-240	10.0	2.4	13.0	3.1	117T-2	24
480	50/60	0-480	3.0	1.4	4.5	2.2	216T-2	24
480	50/60	0-560	3.0	1.7	3.0	1.7		
480	60	0-480	4.0	1.9	6.3	3.0	217T-2	24

116-216 and 117-217 SERIES† (contd.)

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Three Phase								
120	50/60	0-120	7.5	1.6	10.0	2.1	116T-2	24
120	50/60	0-140	7.5	1.8	7.5	1.8		
120	60	0-120	10.0	2.1	13.0	2.7	117T-2	24
240	50/60	0-240	3.0	1.2	4.5	1.9	216T-2	24
240	50/60	0-280	3.0	1.5	3.0	1.5		
240	60	0-240	4.0	1.7	6.3	2.6	217T-2	24
240	50/60	0-240	7.5	3.1	10.0	4.2	116T-3	36
240	60	0-280	7.5	3.6	7.5	3.6		
240	60	0-240	10.0	4.2	13.0	5.4	117T-3	36
480	50/60	0-480	3.0	2.5	4.5	3.7	216T-3	36
480	60	0-560	3.0	2.9	3.0	2.9		
480	60	0-480	4.0	3.3	6.3	5.2	217T-3	36

EN116-EN216 and EN117-EN217 SERIES

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	6.5	.78	10.0	1.2	EN116	15
120	50/60	0-140	6.5	.91	6.5	.91		
120	60	0-120	8.5	1.0	12.5	1.5	EN117	15
240	50/60	0-240	2.6	.62	4.0	.96	EN216	15
240	50/60	0-280	2.6	.73	2.6	.73		
240	60	0-240	3.5	.84	5.2	1.2	EN217	15
240	50/60	0-240	6.5	1.6	10.0	2.4	EN116-2	28
240	50/60	0-280	6.5	1.8	6.5	1.8		
240	60	0-240	8.5	2.0	12.5	3.0	EN117-2	28
480	50/60	0-480	2.6	1.2	4.0	1.9	EN216-2	28
480	50/60	0-560	2.6	1.5	2.6	1.5		
480	60	0-480	3.5	1.7	5.2	2.5	EN217-2	28
Three Phase								
120	50/60	0-120	6.5	1.4	10.0	2.1	EN116-2	28
120	50/60	0-140	6.5	1.6	6.5	1.6		
120	60	0-120	8.5	1.8	12.5	2.6	EN117-2	28
240	50/60	0-240	2.6	1.1	4.0	1.7	EN216-2	28
240	50/60	0-280	2.6	1.3	2.6	1.3		
240	60	0-240	3.5	1.5	5.2	2.2	EN217-2	28
240	50/60	0-240	6.5	2.7	10.0	4.2	EN116-3	39
240	60	0-280	6.5	3.2	6.5	3.2		
240	60	0-240	8.5	3.5	12.5	5.2	EN117-3	39
480	50/60	0-480	2.6	2.2	4.0	3.3	EN216-3	39
480	60	0-560	2.6	2.5	2.6	2.5		
480	60	0-480	3.5	2.9	5.2	4.3	EN217-3	39

FOOTNOTES

*Rating is 2.0 amperes when mounted on a metal panel.

†Also available with open construction for back-of-panel mounting (suffix U when ordering). Prefix Q if square frame is desired instead of round frame on open construction (U) types.

THE SUPERIOR ELECTRIC COMPANY

Bristol, Connecticut, U.S.A.

SEE OTHER SUPERIOR ELECTRIC PRODUCT PAGES IN SECTIONS 2100 AND 3500

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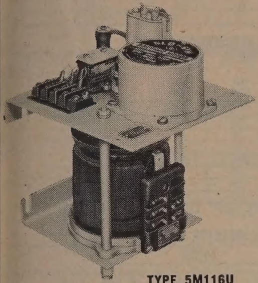
POWERSTAT® *Variable Transformers*

• EXCELLENT REGULATION **• HIGH EFFICIENCY** **• CONSERVATIVE RATINGS**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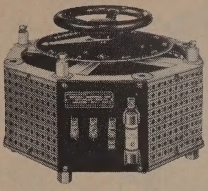
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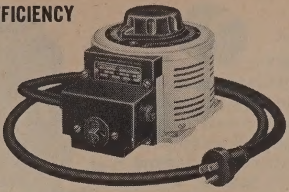
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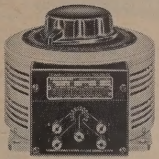
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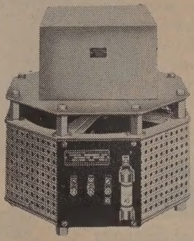
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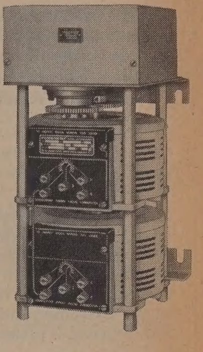
TYPE 15MC136-2

126-226 SERIES**

INPUT		OUTPUT						
Volts	Cycles	Volts	Const. Current Load Max. Amps.	Const. Current Load Max. KVA	Const. Impedance Load Max. Amps.	Const. Impedance Load Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase								
120	50/60	0-120	12.5	1.5	18.0	2.2	126	17
120	50/60	0-140	12.5	1.8	12.5	1.8		
240	50/60	0-240	6.0	1.4	9.0	2.2	226	17
240	50/60	0-280	6.0	1.7	6.0	1.7		
240	50/60	0-240	12.5	3.0	18.0	4.3	126-2	32
240	50/60	0-280	12.5	3.5	12.5	3.5		
480	50/60	0-480	6.0	2.9	9.0	4.3	226-2	32
480	50/60	0-560	6.0	3.4	6.0	3.4		
Three Phase								
120	50/60	0-120	12.5	2.6	18.0	3.7	126-2	32
120	50/60	0-140	12.5	3.0	12.5	3.0		
240	50/60	0-240	6.0	2.5	9.0	3.7	226-2	32
240	50/60	0-280	6.0	2.9	6.0	2.9		
240	50/60	0-240	12.5	5.2	18.0	7.5	126-3	49
240	60	0-280	12.5	6.1	12.5	6.1		
480	50/60	0-480	6.0	5.0	9.0	7.5	226-3	49
480	60	0-560	6.0	5.8	6.0	5.8		
136-236 SERIES **								
Single Phase								
120	50/60	0-120	20.0	2.4	25.0	3.0	136	25
120	50/60	0-140	20.0	2.8	20.0	2.8		
120	50/60	0-120	40.0	4.8	50.0	6.0	136-2§	52
120	50/60	0-140	40.0	5.6	40.0	5.6		
240	50/60	0-240	9.0	2.2	12.5	3.0	236	25
240	50/60	0-280	9.0	2.5	9.0	2.5		
240	50/60	0-240	20.0	4.8	25.0	6.0	136-2	52
240	50/60	0-280	20.0	5.6	20.0	5.6		
480	50/60	0-480	9.0	4.3	12.5	6.0	236-2	52
480	50/60	0-560	9.0	5.0	9.0	5.0		
Three Phase								
120	50/60	0-120	20.0	4.2	25.0	5.2	136-2	52
120	50/60	0-140	20.0	4.8	20.0	4.8		
240	50/60	0-240	9.0	3.7	12.5	5.2	236-2	52
240	50/60	0-280	9.0	4.4	9.0	4.4		
240	50/60	0-240	20.0	8.3	25.0	10.4	136-3	76
240	60	0-280	20.0	9.7	20.0	9.7		
480	50/60	0-480	9.0	7.5	12.5	10.4	236-3	76
480	60	0-560	9.0	8.7	9.0	8.7		

LW136 SERIES††

INPUT		OUTPUT				
Volts	Cycles	Volts	Max. Amps.	Max. KVA	TYPE	Ship. Wt. Lbs.
Single Phase						
120/240	50/60	15-0-15	35.0	.52	LW136	25
120/240/480	50/60	30-0-30	35.0	1.0	LW136-2	52
120/240	50/60	45-0-45	35.0	1.6	LW136-3	76
120/240	50/60	0-30	25.0	.75	LW136	25
120/240/480	50/60	0-60	25.0	1.5	LW136-2	52
120/240	50/60	0-90	25.0	2.2	LW136-3	76
Three Phase						
120/240	50/60	0-30	25.0	1.3	LW136-2	52
120/240	50/60	0-30	43.3	2.2	LW136-3	76
120/240	50/60	0-52	25.0	2.2	LW136-3	76
240/480	60	0-35	43.3	2.6	LW136-3	76
240/480	60	0-60	25.0	2.6	LW136-3	76
1156D-1256D SERIES§§						
Single Phase						
120	50/60	0-140	45.0	6.3	1156D	79
120	50/60	0-140	90.0	12.6	1156D-2P	158
120	50/60	0-140	135.0	18.9	1156D-3P	274
120	50/60	0-140	180.0	25.2	1156D-4P	395
120	50/60	0-140	225.0	31.5	1156D-5P	490
120	50/60	0-140	270.0	37.8	1156D-6P	584
240	50/60	0-280	28.0	7.8	1256D	79
240	50/60	0-280	45.0	12.6	1156D-2S	152
240	50/60	0-280	56.0	15.7	1256D-2P	158
240	50/60	0-280	84.0	23.5	1256D-3P	274
240	50/60	0-280	90.0	25.2	1156D-4PS	386
240	50/60	0-280	112.0	31.4	1256D-4P	391
240	50/60	0-280	140.0	39.2	1256D-5P	490
240	50/60	0-280	135.0	37.8	1156D-6PS	583
240	50/60	0-280	168.0	47.0	1256D-6P	588
480	50/60	0-560	28.0	15.7	1256D-2S	152
480	50/60	0-560	56.0	31.4	1256D-4PS	386
480	50/60	0-560	84.0	47.0	1256D-6PS	583
Three Phase						
120	50/60	0-140	45.0	10.9	1156D-2D	152
120	50/60	0-140	90.0	21.8	1156D-4D	386
120	50/60	0-140	135.0	32.7	1156D-6D	583
240	50/60	0-280	28.0	13.6	1256D-2D	152
240	60	0-280	45.0	21.8	1156D-3Y	225
240	50/60	0-280	56.0	27.2	1256D-4D	386
240	50/60	0-280	84.0	40.7	1256D-6D	583
240	60	0-280	90.0	43.6	1156D-6Y	569
480	60	0-560	28.0	27.2	1256D-3Y	225
480	60	0-560	56.0	54.3	1256D-6Y	569

FOOTNOTES

§Requires also one paralleling choke type T5000.
** 126-226 and 136-236 Series also available with open construction for back-of-panel mounting (suffix U when ordering).
†† LW136 Series ratings are for use as low voltage isolated output transformer. Also permits connection for use as limited range transformer or as a line corrector. Full connections and ratings on request.
§§ 1156D-1256D Series types also have terminals for limiting output voltage to line voltage.

COMPLETE LITERATURE
containing full product information,
engineering data, outline drawings, connections,
ratings, charts and illustrations on all standard
and special use POWERSTATS
is available on request.
Specify whether 50/60 cycle,
400/800 cycle or complete file is desired.

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POWERSTAT® *Variable Transformers*

40-VOLT SERIES

Meet high current, low voltage requirements of low voltage power supplies and a wide range of transistor circuit applications. Single, 2- and 3-gang single phase types available.

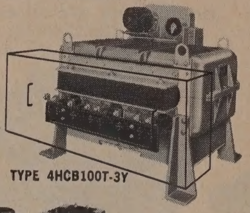
TYPE 10B-40

TYPE 21-40

TYPE 116U-40

H-C SERIES

High current, high efficiency types featuring a new variable transformer design concept with helical coils and patented re-entry rings. Extremely fine voltage division. 3 phase only.



TYPE 4HCB100T-3Y

LINE CORRECTORS, OIL-COOLED, EXPLOSION-PROOF

Special use types to meet the requirements of a wide range of applications.

LINE CORRECTOR TYPE LC2106C

OIL-COOLED TYPE 0-116

EXPLOSION-PROOF TYPE X-116

40-VOLT SERIES

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SH W LB
Single Phase						
40	60	0-40	6.0	0.24	10B-40	3.
			15.0	0.6	21-40	6
			25.0	1.0	116U-40	11

H-C SERIES

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SHI WI LB
240	60	0-270	200	93.5	2HC200T-3Y*	180
240	50/60	0-240	200	83	2HC200LT-3Y*	
240	60	0-270	360	168	2HCB200T-3Y†	
240	50/60	0-240	360	149	2HCB200LT-3Y†	
480	60	0-540	100	93.5	4HC100T-3Y*	
480	50/60	0-480	100	83	4HC100LT-3Y*	
480	60	0-540	200	187	4HCB100T-3Y†	
480	50/60	0-480	200	166	4HCB100LT-3Y†	

*Convection cooled †Forced-air cooled

LINE CORRECTOR SERIES

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SHI WI LB
Used as Line Correctors — SINGLE PHASE						
95-135	50/60	115	17.5	2.0	LC2102C	5
95-135	50/60	115	52.0	6.0	LC2106C	8
95-135	50/60	115	130.0	15.0	LC2115C	20
195-255	50/60	230	32.5	7.5	LC2207C	8
205-250	50/60	230	120.0	27.5	LC2228C	20
400-520	50/60	460	15.0	6.6	LC2407C	8
400-520	50/60	460	40.0	17.6	LC2418C	20
Used as Line Correctors — THREE PHASE						
195-255	50/60	230	25.0	10.0	LC3210YC	211
195-255	50/60	230	38.0	15.0	LC3215YC	22
195-255	50/60	230	50.0	20.0	LC3220YC	241
195-255	50/60	230	113.0	45.0	LC3245YD	615
195-255	50/60	230	175.0	70.0	LC3270DD	795
400-520	50/60	460	16.0	12.5	LC3412YC	200
400-520	50/60	460	22.0	17.5	LC3417YC	215
400-520	50/60	460	33.0	25.0	LC3425YC	230
400-520	50/60	460	66.0	50.0	LC3450YD	580
400-520	50/60	460	100.0	75.0	LC3475YD	630
420-500	50/60	460	131.0	100.0	LC34100YD	630

When units of the LC series are used as limited range adjustable transformers, the input voltage is the output voltage shown in the above chart and the output voltage is the input voltage shown in the above chart.

OIL-COOLED

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	15.0	1.8	0-116	32
120	50/60	0-140	15.0	2.1		
120	50/60	0-140	30.0	4.2	0-1126	100
240	50/60	0-240	6.0	1.4	0-216	32
240	50/60	0-280	6.0	1.7		
240	50/60	0-280	18.0	5.0	0-1226	105

OTHER TYPES AVAILABLE ON SPECIAL ORDER

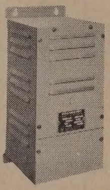
EXPLOSION-PROOF

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SHIP. WT. LBS.
120	50/60	0-120	7.5	0.90	X-116	47
120	50/60	0-140	7.5	1.0		
120	50/60	0-140	12.0	1.7	X-1126	142
240	50/60	0-240	3.0	0.72	X-216	47
240	50/60	0-280	3.0	0.84		
240	50/60	0-280	6.0	1.7	X-1226	142

other variable voltage controls

SOLIDSTAT Variable Voltage Controls

Solid-state, semiconductor type variable a-c voltage controls for inductive or lagging power factor loads. Can be controlled by small indicating potentiometer, current feedback sensing or voltage sensing circuits.



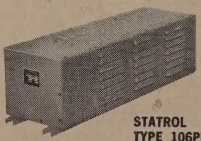
SOLIDSTAT TYPE CSR106

SOLIDSTAT VARIABLE VOLTAGE CONTROLS

INPUT		OUTPUT				
VOLTS	FREQUENCY CYCLES	VOLTS	MAX. AMPS. AT MAX. VOLTS	MAX. KVA	TYPE	SHIP. WT. LBS.
120	60	0-115	50	6.0	CSR106	21
240	60	0-230	50	12.0	CSR212	21
120	60	0-115	100	12.0	CSR112	42
240	60	0-230	100	24.0	CSR224	42

STATROL Magnetic Amplifiers

Two-stage magnetic amplifiers controlled by small indicating potentiometer. Contains no moving parts, relays or tubes.



STATROL TYPE 106PM

STATROL MAGNETIC AMPLIFIERS

INPUT		OUTPUT				
VOLTS	CYCLES	VOLTS	MAX. AMPS.	MAX. KVA	TYPE	SHIP. WT. LBS.
Single Phase						
120	60	0*-120	25	3.0	103PM	92
			50	6.0	106PM	142
			83	10.0	110PM	202
			125	15.0	115PM	260

*Nominal zero (12 volts maximum)

THE SUPERIOR ELECTRIC COMPANY

Bristol, Connecticut, U.S.A.

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FLEXIFORMER® *Packaged Transformer Primary*

THE "Do-it-yourself" TRANSFORMER

- A SOURCE OF A-C VOLTAGE
- A CURRENT TRANSFORMER
- 150 VA AND 1000 VA TYPES

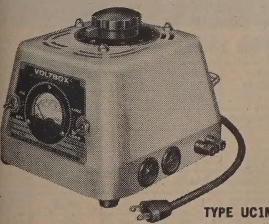
TYPE TP150

A FLEXIFORMER Packaged Transformer Primary is a self-contained toroidal primary coil encased in durable high impact plastic. Colored SUPERIOR 5-WAY Binding Posts for connections are integrally mounted. When used as a source of a-c voltage, the center opening permits hand-threading the correct number of secondary winding turns to obtain the desired output voltage. When used as a current transformer, the FLEXIFORMER winding is shunted by an ammeter which indicates the current flow in a conductor hand-threaded through the center opening. Can be portable or fastened permanently

AS A SOURCE OF A-C VOLTAGE					AS A CURRENT TRANSFORMER					
NOMINAL PRIMARY VOLTS*	CYCLES	MAX. VA	VOLTS PER SECONDARY TURN	REG. AT MAX. OUTPUT	INPUT/ OUTPUT RATIO	MAX. PRIMARY AMPS.†	MAX. SECONDARY AMPS.†	ACCURACY AT 60 CYCLES	TYPE	SHIP. WT. LBS.
120	50/60	150	0.3	25%	400/1	400	1.0	1%	TP150	6
120	50/60	1000	0.75	10%	160/1	800	5.0	1%	TP1000	24

*Maximum 175 volts at 60 cycles, 145 volts at 50 cycles.
†Ratings for continuous duty. Double for intermittent duty but with reduced accuracy.

VOLTBOX®
A-C Power Supply



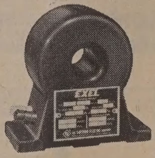
TYPE UC1M

INPUT VOLTS	OUTPUT			
	VOLTS	MAX. AMPS.	MAX. KVA	TYPE
120	0-140	7.5	1.0	UC1M
240	0-280	3.0	0.84	UC2M

OTHER TYPES AVAILABLE ON SPECIAL ORDER

Compact versatile instrument containing all the necessary components for tests involving a-c voltage: POWERSTAT Variable Transformer, direct reading voltmeter, three output receptacles, two SUPERIOR 5-WAY Binding Posts, "on-off" switch, line-load meter switch, fuse and 6-foot cord-plug. For 50/60 cycle service.

EXEL
Loading Reactor

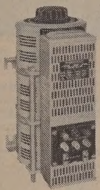


Type LR2

120 volts, 60 cycles
2.0 amperes at 120 volts
Inductive reactance 60 ohms
D-C resistance 4.0 ohms
Inductance 0.16 henrys

Designed to provide a convenient inductive load which can be made adjustable when used in conjunction with a POWERSTAT variable transformer. Used primarily for testing apparatus at various lagging power factors, i.e., to simulate an inductive load. Essentially consists of a gapped, strip-wound silicon steel toroid core, wire-wound and imbedded in epoxy compound. Entire assembly enclosed in a self-contained, durable, high grade phenolic case having two SUPERIOR 5-WAY binding posts for connections. At 60 cycles, the EXEL has essentially a linear current curve from 0 to nominal 2.0 amperes for continuous duty and up to 3.0 amperes for intermittent duty.

VARICELL®
adjustable
A-C/D-C Power Supply

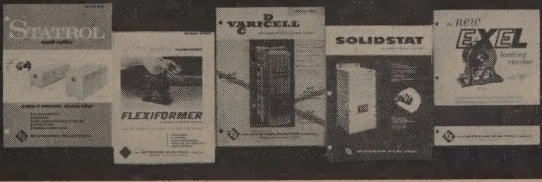


Type V4050-3

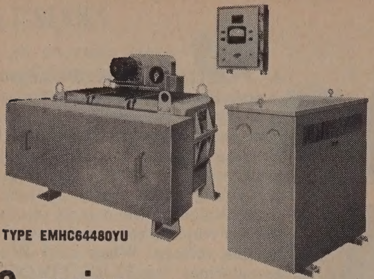
A-C INPUT:	240 v., 50/60 cycles, 3-phase (Primary delta connected) 480 v., 50/60 cycles, 3-phase (Primary wye connected)
A-C OUTPUT:	0-25 v., 40 amps., 3-phase (Secondary delta connected) 0-50 v., 25 amps., 3-phase (Secondary wye connected)
D-C OUTPUT:	0-35 v., 50 amps. (Secondary delta connected) 0-60 v., 30 amps. (Secondary wye connected)

Provides a source of adjustable low a-c or d-c voltage from a-c power lines. Essentially consists of a 3-phase, low voltage POWERSTAT variable transformer combined with a static d-c power supply. Power supply uses highly efficient silicon rectifier cells connected for full-wave 3-phase operation. The a-c and d-c outputs cannot be simultaneously loaded or externally interconnected. The a-c output can be used either single or three-phase.

REQUEST BULLETINS AND DATA SHEETS giving complete information on SOLIDSTAT Variable Voltage Controls, STATROL Magnetic Amplifiers, FLEXIFORMER Packaged Transformer Primaries, VOLTBOX A-C Power Supplies, VARICELL Adjustable A-C/D-C Power Supplies, and EXEL Loading Reactors.



STABILINE® automatic VOLTAGE REGULATORS

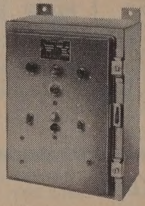

TYPE EMHC64480YU

EMHC series

For heavy-duty applications to 480 KVA. Feature zero waveform distortion, efficiency as high as 99%. Patented re-entry rings and helical coils on variable transformer component permit extremely fine voltage adjustment with very low voltage drop.

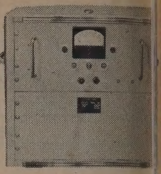
DC Regulator Control

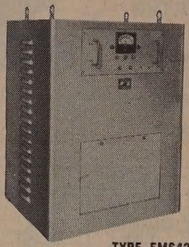
Provides automatically regulated d-c voltage adjustable from 25 to 100% of maximum with an input variation of ±10% in a-c line voltage at 50/60 cycles. Accuracy is ±1% of 100% voltage setting. Designed for use with a motor-driven POWERSTAT Variable Transformer and associated d-c components supplied by the user. Supply can be from either a single-phase full-wave or a 3-phase full-wave unfiltered source. Error detection requires either 1 milliampere, 300 kilohms or 10 milliamperes, 15 kilohms supplied from the d-c output.


TYPE CB5001

EMT series

Electro Mechanical Transistorized types in ratings from 2 to 100 KVA. Control circuit is completely transistorized. Speed of response sufficiently fast for most applications.


TYPE EMT4115

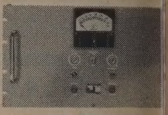

TYPE EMS42100

EMS series

Electro Mechanical Transistori
types for single or three phase d
with ratings from 25 to 275 K
Several types available with indiv
ual line control for greater appli
tion flexibility.

EMK series

Electro Mechanical high speed, high accuracy assemblies in ratings of 2.5/5.0 KVA. Accuracy ±1.0% of nominal output voltage.


TYPE EMK4105R

RATINGS AND SPECIFICATIONS

EMT SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	17.5	2.0	.075	EMT4102†
	95-135	110-120	52.0	6.0	.075	EMT4106B§
	105-125	110-120	104.0	12.0	.15	EMT4112B*§
	95-135	110-120	130.0	15.0	.125	EMT4115
120	108-137	110-120	35.0	4.2	0.1	EMT4104†† EMT4104U†† EMT4104UT††
230‡	195-255	220-240	32.5	7.5	.083	EMT4207
	205-250	220-240	120.0	27.5	.111	EMT4228B
240‡	228-256	220-240	35.0	8.4	0.1	EMT4104 †† EMT4104U †† EMT4104UT ††
460	400-520	440-480	15.0	6.6	.041	EMT4407
	400-520	440-480	40.0	17.6	.041	EMT4418
For 50/60 Cycle, Three-Phase Operation						
230‡	195-255	220-240	25.0	10.0	.083	EMT6210Y
			38.0	15.0	.083	EMT6215Y
			50.0	20.0	.083	EMT6220Y
			113.0	45.0	.25	EMT6245Y
			175.0	70.0	.25	EMT6270D
460	400-520	440-480	16.0	12.5	.041	EMT6412Y
			22.0	17.5	.041	EMT6417Y
			33.0	25.0	.041	EMT6425Y
			66.0	50.0	.125	EMT6450Y
			100.0	75.0	.125	EMT6475Y
460	420-500	440-480	131.0	100.0	.188	EMT64100Y

See Footnotes on Facing Page

EMS SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 60 Cycle, Single Phase, 2 Wire, Single Control Operation						
115	103.5-126.5	110-120	833	100	.65	EMS41100
230**	218.5-241.5	220-240	435	100	.22	EMS42100**
For 50/60 Cycle, Single Phase, 3 Wire, Individual Line Control Operation						
240/120	204-276/102-138	230-250/115-125	104	25	.06/.03	EMSI4225
	204-276/102-138	230-250/115-125	250	60	.06/.03	EMSI4260
	228-252/114-126	220-240/110-120	417	100	.21/.10	EMSI42100††
For 50/60 Cycle, Three Phase, Single Control Operation						
230**	203-257	220-240	339	135	.28	EMS62135Y**
460	445-495	440-480	230	180	.30	EMS64180Y
			347	275	.30	EMS64275Y
For 50/60 Cycle, Three Phase, Individual Line Control Operation						
208/120	177-239/102-138	191-217/115-125	250	90	.08/.14	EMSI6290Y
	165-233/95-135	191-217/115-125	525	190	.22/.37	EMSI62190Y††

EMK SERIES

For 50/60 Cycle, Single Phase Operation						
115	95-135	110-120	21.5	2.5	.02	EMK4105†
	105-125	110-120	43.0	5.0	.04	

EMHC SERIES

For 50/60 Cycle, Three Phase Operation						
460	380-520	440-480	300	240	.28	EMHC64240Y
			600	480	.28	EMHC64480Y

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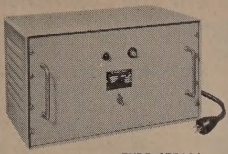
STABILINE® *automatic VOLTAGE REGULATORS*

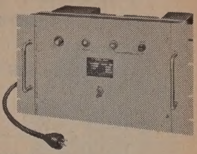
IE series

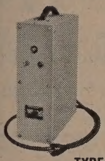
stantaneous Electronic types
ve no moving parts. Hold out-
voltage to within ±0.1% for
de line variations, within
.15% for any load current
inge or power factor change
m .5 lagging to unity.


TYPE IE5101

TM series

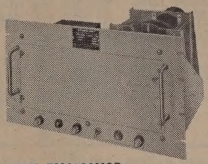
Tubeless Magnetic types have no tubes, transistors or moving parts. Response time for ordinary line and/or load changes is within ½ second; accuracy is within a 1.0 volt bandwidth. Waveform distortion is 4% or less.


TYPE TM7101R


TYPE IET51002

IET series

Instantaneous Electronic Transistorized types in ratings from 0.25 to 1.0 KVA. Output voltage remains within a 0.5 volt bandwidth for any and all variations in line voltage, load current and load power factor.


TYPE EM4108MCR

MILITARIZED

Standard Instantaneous Electronic, Electro Mechanical and Electro Mechanical Transistorized types that meet requirements of applicable military specifications. Type EMTH41007MH is 3½ x 6 x 4½″; others fit standard 19″ relay rack.

MR series

ovide the constant RMS volt-
e required to maintain proper
be filament temperature. Re-
onse time will not exceed 0.6
ond under most adverse line
load changes.

TYPE MR6F015

400 CYCLE

Instantaneous Electronic types in ratings of 1.0 and 5.0 KVA. Maximum waveform distortion is 3.5% under all input line and most load conditions. Other 400 cycle types listed under MR Series and Militarized types.

TYPE IEH5101R

RATINGS AND SPECIFICATIONS

IE SERIES

MINAL UTPUT LTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
r 60 ± 10% Cycle Operation					
115	95-135	110-120	2.2	0.25	IE51002†
			4.5	0.5	IE51005†
			8.5	1.0	IE5101†
			22.0	2.5	IE5102†
			43.5	5.0	IE5105†
			87.0	10.0	IE5110
230	195-255	220-240	1.1	0.25	IE52002†
			2.2	0.5	IE52005†
			4.5	1.0	IE5201†
			11.0	2.5	IE5202†
			22.0	5.0	IE5205†
			43.5	10.0	IE5210
or 50 ± 10% Cycle Operation					
115	95-135	110-120	4.5	0.5	IEL51005†
			8.5	1.0	IEL5101†
			43.5	5.0	IEL5105†
230	195-255	220-240	2.2	0.5	IEL52005†
			4.5	1.0	IEL5201†
			11.0	2.5	IEL5202†
			22.0	5.0	IEL5205†

IET SERIES

or 60 ± 5% Cycle Operation					
115	95-135	110-120	2.2	0.25	IET51002†
			4.5	0.5	IET51005†
			8.5	1.0	IET5101†

TM SERIES

or 60 ± 5% Cycle Operation					
115	95-135	110-120	8.5	1.0	TM7101†
			43.5	5.0	TM7105B†

MR SERIES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	FREQUENCY (cycles)	LOAD RANGE IN AMPERES	RATED OUTPUT	TYPE
6.3	120V. RMS ± 10%	6.0-6.5	60 ± 10%	8.0-25.0	150 VA	MR6F015
6.3	120V. RMS ± 10%	6.0-6.5	400 ± 5%	2.5- 8.2	50 VA	MRH6F005

IEH 400 CYCLE TYPES

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAX. OUTPUT AMPS.	RATED OUTPUT KVA	TYPE
For 400 ± 5% Cycle Operation					
115	95-130	110-120	8.5	1.0	IEH5101R
			43.5	5.0	IEH5105†

MILITARIZED TYPES IE5101MR AND IEH5101MR

For 60 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IE5101MR
For 400 ± 5% Cycle, Single Phase Operation					
120	105-135	115-125	8.3	1.0	IEH5101MR

MILITARIZED TYPES EM4108MCR AND EMTH41007MH

NOMINAL OUTPUT VOLTAGE	INPUT VOLTAGE RANGE	OUTPUT VOLTAGE (adjustable)	MAXIMUM OUTPUT AMPERES	RATED OUTPUT KVA	CORRECTION RATE (sec./volt)	TYPE
For 45-66 Cycle, Single Phase Operation						
120	105-135‡‡	115-125	66.6	8.0	0.1	EM4108MCR
For 380-420 Cycle, Single Phase Operation						
115	103.5-126.5	—	6.0	0.69	0.23	EMTH41007MH

FOOTNOTES (all charts)

†Also available as rack models (suffix R when ordering). ††For 60 cycle operation only.

*Can also be operated on an input range of 95 to 135 volts with a rating of 52.0 amperes, 6.0 KVA and a correction rate of .075 seconds per volt.

**Can also be operated at nominal 208 volts output with proportional changes in input and output voltage ranges.

‡Units can be converted for 208 volt operation by simple tap changes. Input and output voltage ranges change in proportion.

‡‡At 120 volt output. Shifts proportionally with output voltage setting. §Also available as rack (suffix R when ordering) or wall mounted (suffix W when ordering) models.

FOR MORE DETAILED INFORMATION about ratings, specifications and technical data on STABILINE automatic voltage regulators, request either the complete STABILINE literature file or individual bulletins describing the series that meet your particular requirements.

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TECHNICAL APPARATUS BUILDERS

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SILTA

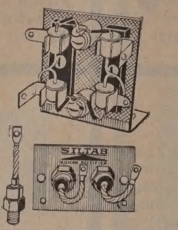
"SILTAB"® SILICON JUNCTION FINNED STACKS —65°C TO +150°C CONVECTION COOLED

Single Phase Full Wave Bridge

DC AMP	36VAC 32VDC		70VAC 62VDC		140VAC 125VDC		280VAC 250VDC	
1.2	JA36	2.75	JA70	3.15	JA140	3.90	JA280	5.75
2	JE36	4.75	JE70	5.00	JE140	7.60	JE280	9.90
3	JF36	5.45	JF70	6.30	JF140	7.90	JF280	19.15
6	JJ36	8.60	JJ70	11.90	JJ140	16.15	JJ280	32.00
12	JL36	12.45	JL70	18.15	JL140	23.00	JL280	40.75
24	JN36	16.45	JN70	22.3′	JN140	33.45	JN280	46.30
35	JR36	24.90	JR70	32.75	JR140	79.60	JR280	99.45
50	JS36	31.00	JS70	38.00	JS140	68.00	JS280	108.00
70	JU36	36.0C	JU70	45.45	JU140	72.00	JU280	126.00
160	JO36	45.00	JO70	60.0C	'O140	81.00	JO280	144.90
240	JY36	75.00	JY70	99.00	JY140	153.90	JY280	243.75

Center Tap Full Wave

36VCT 16VDC		72VCT 32VDC	
SA36	2.60	SA72	3.00
SE36	3.60	SE72	4.30
SF36	4.75	SF72	6.00
SJ36	6.00	SJ72	10.75



SELENIUM-SILICON
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LOW PRICES!
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"Surgtab"® Transient Peak V-Surge Protectors!

RMS VOLTS	PEAK VOLTS	SINGLE UNIT	DUAL UNIT
ST18	25	.90	1.75
ST26	36	.90	1.80
ST40	56	.90	1.90
ST50	70	1.15	2.15
ST60	84	1.15	2.15
ST125	175	1.15	2.15
ST150	210	1.30	2.60
ST170	238	1.45	2.75
ST2225	315	1.60	2.90
ST250	350	1.75	3.30

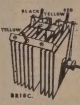
OTHER SIZES & TYPES TO YOUR SPEC

Selenium "Teksel" Rectifier Stacks—All Types! Sizes & Current Convection Cooled Ratings!
Full Wave Bridge

DC AMP	18VAC 14VDC		36VAC 28VDC		54VAC 42VDC		72VAC 58VDC		130VAC 100VDC		144VAC 118VDC		266VAC 217VDC		F.W.C.T. 26 V.C.T. 12 V.D.C.	
0.5	BV18	1.00	BV36	1.45	BV54	2.30	BV72	3.85	BV130	4.90	BV144	5.45	BV266	9.75	CV26	1.
1	BA18	1.40	BA36	2.15	BA54	3.00	BA72	4.90	BA130	7.15	BA144	8.00	BA266	15.75	CA26	1.
2	BE18	2.00	BE36	2.90	BE54	4.45	BE72	6.25	BE130	9.30	BE144	12.45	BE266	19.45	CE26	2.
3	BF18	2.60	BF36	3.90	BF54	5.75	BF72	8.60	BF130	13.00	BF144	17.25	BF266	27.30	CF26	3.
4	BG18	3.50	BG36	6.15	BG54	9.60	BG72	10.90	BG130	16.75	BG144	21.90	BG266	47.60	CG26	Que
6	BJ18	4.40	BJ36	8.30	BJ54	11.45	BJ72	14.00	BJ130	21.90	BJ144	25.15	BJ266	63.45	CJ26	3.
10	BK18	6.35	BK36	10.75	BK54	17.60	BK72	18.15	BK130	29.00	BK144	33.60	BK266	75.15	CK26	4.
12	BL18	8.00	BL36	11.45	BL54	21.95	BL72	25.60	BL130	41.75	BL144	47.75	BL266	86.75	CL26	6.
15	BW18	10.30	BW36	12.90	BW54	22.75	BW72	32.75	BW130	52.60	BW144	48.90	BW266	106.90	CW26	7.
20	BM18	12.45	BM36	20.45	BM54	24.30	BM72	40.90	BM130	75.90	BM144	69.60	BM266	152.00	CM26	8.
20	BN18	14.75	BN36	29.15	BN54	35.00	BN72	48.30	BN130	80.90	BN144	90.00	BN266	162.30	CN26	10.
30	BQ18	19.00	BQ36	36.30	BQ54	53.60	BQ72	66.45	BQ130	117.30	BQ144	125.75	BQ266	249.60	CQ26	14.
36	BR18	23.75	BR36	47.15	BR54	69.30	BR72	81.00	BR130	132.00	BR144	153.90	BR266	299.45	CR26	16.
50	BS18	33.45	BS36	63.75	BS54	121.50	BS72	108.75	BS130	172.45	BS144	207.60	BS266	398.90	CS26	Que

Three Phase Full Wave Bridge

DC AMP	36VAC 42VDC		130VAC 160VDC		234VAC 282VDC		420VAC 460VDC	
1	PA36	4.90	PA130	17.90	PA234	33.75	PA420	63.20
2	PE36	7.45	PE130	21.75	PE234	39.90	PE420	66.90
4	PG36	9.90	PG130	33.15	PG234	62.15	PG420	99.75
6	PJ36	12.90	PJ130	46.90	PJ234	81.75	PJ420	108.60
10	PK36	16.60	PK130	62.45	PK234	116.00	PK420	197.45
12	PL36	18.45	PL130	66.60	PL234	132.15	PL420	212.60



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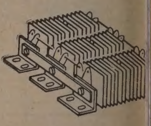
WE CAN SUPPLY EXACT EQUALS ON ALL MAKES AND TYPES OF RECTIFIERS — SIZE, TYPE CURRENT TO YOUR SPECIFICATIONS



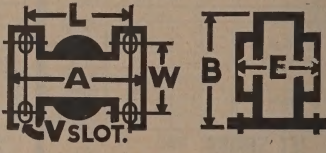
RECTIFIER "TABTRAN" TRANSFORMERS
F.W.B., C.T. & H.W.—ISOLATED PRI. & SECD!

Sec'd Volts (Dual †0-9-15-18 & 0-9-15-18)†
Series secds = 0-3-6-9-12-15-18-21-24-27-30-33-36 volts
Pri = 115VAC/50 to 800 cys/1ø; (*115 & 230VAC)

TR4000R 2x16V @ 1 Amp each Sec'd Wndg(2)	$ 3.45
†TR4001 @ 1 Amp per each Sec'd Wndg(2)	4.60
†TR4002 @ 2 Amp per each Sec'd Wndg(2)	6.30
†TR4003 @ 5 Amp per each Sec'd Wndg(2)	9.00
†TR4005 @ 12 Amp per each Sec'd Wndg(2)	16.15
†TR4006 @ 24 Amp per each Sec'd Wndg(2)	32.00
*†TR4008 @ 100 Amp per each Sec'd Wndg(2)	125.00
*TR4009 Sec'd 165, 160, 150, 125 @ 5Amps	54.00
*TR4010 Sec'd 165V, 160, 150, 125 @ 10Amps	89.75
*TR4011 Sec'd 330V, 320, 300, 250 @ 5Amps	79.00
*TR4012 Sec'd 330V, 320, 300, 250 @ 10Amps	128.00

56V/Dual Sec'd(2) 0-14-28; *Parallel* 28V ct @ 2X Cur

TR4013 @ 2 Amps per each Sec'd Wndg(2)	8.80
TR4014 @ 4 Amps per each Sec'd Wndg(2)	12.50
TR4015 @ 6 Amps per each Sec'd Wndg(2)	20.00
TR4016 @ 12 Amps per each Sec'd Wndg(2)	29.00



"TABTRAN" UNIVERSAL RECTIFIER CHOKES

CR6001 1 Amp 0.1Henrys/1.4ohm I.R.	2.90
CR6002 2 Amp 0.1Henrys/0.67ohm I.R.	5.15
CR6003 5 Amp 0.07Henrys/0.6ohm I.R.	9.00
CR6008 10 Amp 0.01Henrys/0.1ohm I.R.	5.45
CR6004 12 Amp 0.015Henrys/0.1ohm I.R.	11.45
CR6005 24 Amp 0.005Henrys/0.025ohm I.R.	14.90
CR6006 50 Amp 0.001Henrys/0.001ohms I.R.	43.00
CR6009 100 Amp 0.0005Henrys/0.005ohms I.R.	53.90

*"TABPOST" Heavy Duty *Five Way Binding Posts*

Type	Amps	1 to 9	10/49	50/999
BP8*	8	.16@	.14@	.12@
BP10*	10	.20@	.18@	.15@
BP30*	30	.33@	.27@	.24@
BP60*	60	1.50@	1.24@	1.00@
BP100	100	2.10@	1.80@	1.50@

BRACKETS FOR CAPACITORS 25c EACH

"TABCAP" Electrolytic Hi-Amp Filter Capacitors

Type	MFD	D.C. VOLTAGE	Price
CE152M*	2000	15	$1.00
CE156M	6000	15	2.00
CE505C*	500	50	1.00
CE502M	2000	50	3.30
CE2005C	500	200	3.00
CE4004C	400	300	3.00

We reserve the right to change specifications and prices without notice.

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TABTRON

TECHNICAL APPARATUS BUILDERS

Write for all DC Power Requirements Eng. Dept. Specialists in Design. Mfgrs. of D.C. Power Supplies. "TABTRON"®, "TABPAK"®, "REG-O-TAB"®, "REG-O-VAC"®, "TABSTAT"®

PACKAGED DC POWER ENGINEERED FOR INDUSTRY

TRON" VARIABLE DC POWER SUPPLIES, COMPLETELY BUILT, DESIGNED FOR CONTINUOUS SERVICE, READY TO USE. "VARIAC"® VARIABLE TRANSFORMER, ISOLATION RECTIFIER TRANSFORMER, FULL WAVE BRIDGE RECTIFIER. METERS, VOLT AND AMP., T LIGHT, SWITCH, TERMINALS AND FUSE. CABINET OR RACK MT'D (RP). STD 115V/60Cy INPT. OTHER INPTS TO ORDER.

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
12V15ARM	0 to 12VDC @ 15Amp/1% Ripple, ±5% Regulation	CAMCA	50 LBS	$133	2
12V25AC	0 to 12VDC @ 25Amp @ 1% Ripple @ 10 Amps	AGAIN	50 LBS	144	2
12V100ASJ	0 to 12VDC @ 100Amp/up to 150Amp Int.	AMEER	196 LBS	299	3
14V20ACC	0 to 14VDC @ 20Amp @ 1% Ripple 140Mv Max.	ABYSU	60 LBS	124	2
14V30ARM	0 to 14VDC @ 30Amp/1% Ripple, ±5% Regulated	CRYPT	100 LBS	288	2
14V40ACT	0 to 14VDC @ 40Amp/0.1% Ripple 14Mv Max.	AGINN	80 LBS	$243	2
16V5ACE	0 to 16VDC @ 5Amp/0.5% Ripple 80Mv Max.	AMBAS	20 LBS	39	1
16V10E	0 to 16VDC @ 10Amp/Int up to 18 Amp	AMBER	30 LBS	43	1
16V10ACC	0 to 16VDC @ 10Amp/0.5% Ripple 80Mv at 5 Amps	AGTEA	38 LBS	57	1
16V25E	0 to 16VDC @ 25Amps	AMBIT	48 LBS	93	1
28V5A2CC	0 to 28VDC @ 5Amp/.01% Ripple 3Mv Max.	ABAME	30 LBS	$125	1
28V12A2CC	0 to 28VDC @ 12Amp/.01% Ripple 3Mv Max.	AMBLE	90 LBS	198	2A
28V24A2CC	0 to 28VDC @ 24 Amp/.1% Ripple 30Mv Max.	ABUTE	152 LBS	287	2A
T32V5A	0 to 32V(AC&DC) @ 5Amp/0.5% Ripple 160Mv Max.	VARIT	30 LBS	89	1
32V5A	0 to 32VDC @ 5Amp	ABBRE	28 LBS	59	1
32V5ACC	0 to 32VDC @ 5Amp/0.5% Ripple 160Mv Max.	ABDIC	39 LBS	$ 79	1
32V12A	0 to 32VDC @ 12Amp	ABETS	50 LBS	120	1
32V12ACC	0 to 32VDC @ 12Amp/0.5% Ripple 160Mv Max.	ABIDE	81 LBS	169	2A
32V15ARM	0 to 32VDC @ 15Amp/1% Ripple, ±5% Regulation	CLOCK	50 LBS	207	2A
32V24A	0 to 32VDC @ 24Amp	ABLED	95 LBS	174	2
32V24ACC	0 to 32VDC @ 24Amp/0.5% Ripple 160Mv Max.	ABUND	100 LBS	$234	2A
32V30ARM	0 to 32VDC @ 30Amp/1% Ripple, ±5% Regulated	COLOR	95 LBS	369	2A
32V50A	0 to 32VDC @ 50Amp	ABYSM	120 LBS	300	3
32V50ACC	0 to 32VDC @ 50Amp/1% Ripple 320 Mv Max.	ACADE	196 LBS	372	3
32V60ARM	0 to 32VDC @ 60Amp/1% Ripple, ±5% Regulated	CUNEO	220 LBS	576	3
48V5ACC	0 to 48V @ 5Amp/1% Ripple 480Mv. Max.	AMEND	110 LBS	$149	2A
48V10ACC	0 to 48V @ 10Amp/0.5% Ripple 240Mv Max.	ATELE	145 LBS	175	2A
130V2A	0 to 130V @2Amp	AMIAB	45 LBS	135	2
130V2ACC	0 to 130V @ 2Amp/1% Ripple 1.3V Max.	AMYEL	60 LBS	159	2
130V5A	0 to 130V @5Amp	ACRES	75 LBS	234	2
120V5ACC	0 to 120V @ 5Amp/1% Ripple 1.2V Max.	ACEDA	150 LBS	$289	2A
130V10A	0 to 130V @10Amp	ACMES	180 LBS	299	2A
130V10ACC	0 to 130V @ 10Amp/1% Ripple 1.3V Max.	ACORN	230 LBS	390	3
220V10A	0 to 220V @10Amp	ACROM	231 LBS	395	3
220V10ACC	0 to 220V @ 10Amp/1% Ripple 2.2V Max.	ACREP	298 LBS	486	3

LO-PRICED BASIC DC SUPPLIES FOR BENCH, OR INBUILT USE

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
12V15ACM	12VDC @ 15Amp/.5%/60Mv Ripple, ±5% Regulated	CRISP	52 LBS	$130	5
12V15ARM	12VDC @ 15Amp/3% Ripple, ±5% Regulated	CANAL	48 LBS	99	5
12V24A	12VDC @ 24Amp	ADJON	65 LBS	97	5
12V24ACC	12VDC @ 24Amp/1% Ripple 120Mv Max	ADJUR	78 LBS	145	5
28V1AC	28VDC @ 1Amp/1% Ripple 280Mv Max	ACOOT	7 LBS	16	
28V5A	28VDC @ 5Amp	ACOUS	20 LBS	43	5
28V12A	28VDC @ 12Amp	ACCEN	49 LBS	$ 90	5
28V15ARM	28VDC @ 15Amp/3% Ripple 280Mv, ±5% Regulated	CAJOL	48 LBS	162	5
28V24A	28VDC @ 24Amp	ADDLE	90 LBS	139	5
28V24ACC	28VDC @ 24Amp/1% Ripple 280Mv Max	ADAGE	125 LBS	187	5
28V30ARM	28VDC @ 30Amp/3% Ripple 280Mv, ±5% Regulated	COPYS	98 LBS	333	5

LO-PRICED RELAY-PAKS CASED FILTERED 24-28VDC

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
12VER	12-16VDC @ 2Amp/Filtered & Cased	AMENA	2.5 LBS	$ 10	8
12VGR	12-16VDC @ 4Amp/Filtered & Cased	ALLEY	4 LBS	19	8
12VKM	12VDC @ 8Amp/5% Ripple, ±5% Regulated	CAJON	46 LBS	50	5
24VAR	24VDC @ 1Amp/Filtered & Cased	AMEND	2.3 LBS	10	8
24VER	24-28VDC @ 2Amp/Filtered & Cased	ALEAD	4 LBS	$ 15	8
24VET	24-28VDC @ 2Amp/.05% Ripple 10Mv Cased	ALBET	4 LBS	30	8
24VJR —	24-28VDC @ 6Amp/Filtered & Cased	ALIMB	10.5 LBS	29	7
24VLM	24VDC @ 12Amp/5% Ripple, 5% Regulated	CANDY	48 LBS	89	5

BATTERY CHARGERS TRUCK-AUTO-INDUSTRIAL-AERO-MARINE! WRITE FOR SEMI & FULL AUTOMATIC UNITS!

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
C612VT5A	6 & 12V @ up to 5Amp Full Charge & Trickle	AERYS	11 LBS	$ 27	7
C612VT35A	6 & 12V @ up to 40Amp/Full Charge & Trickle	AERIA	48 LBS	54	5
C12/28VT5A	12 & 28V @ up to 5Amp/Full Charge & Trickle	AEPOR	11 LBS	39	7

"TABSTAT® TRANSISTORIZED INVERTERS & CONVERTERS! WRITE FOR OTHER TYPES VOLTS, AMPS FREQ.!

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
TR1250B	12Volts Inpt 500 & 250VDC @ 200Ma	RANGE	5 LBS	$ 38	10
TR1260B	12 Volts Inpt 600 & 300VDC @ 200Ma	RINGS	5 LBS	48	10
TPC200W —	12Volts Inpt 115V at 200 Watts at 60Cys (SQ/W)	RATER	9 LBS	32	10

"MAGREGPAK"® REGULATED ±1% AT 25 to 28 VOLTS

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
MRT32V25ACC	0 to 32VDC @ 25Amp/1% Ripple	AFRAY	125 LBS	$396	2A
MRT32V50ACC	0 to 32VDC @ 50Amp/1% Ripple	AFFET	225 LBS	777	3

*"TRANSISTORIZED" REGULATED/*VARIABLE, †SHORTPRUF!*

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
VT14V1AQ	0 to 14VDC @ 1Amp (Non-Regulated)	THRIT	6 LBS	$ 18	8
VT2.5V.25AQ	0.2 to 2.5VDC @ 250Ma (Tunnel Diode P/S) L&LR	TUNEL	6 LBS	27	8
VT15V3AQ	0 to 15VDC @ 3A Reg 5%/Rip 0.5% L&LR	TIME	15 LBS	69	1
VT816VQ	0 to 8V @ 8A or 0 to 16V @ 5A/Int 20Amp/.01% Rip 1.6Mv	TELCO	16 LBS	58	1
VT612HSQ	6 or 12VDC @ 40Amp @ 1% Reg & 1% Ripple	TRANE	189 LBS	639	3
VT20V5AQ	0 to 20V @ 5Amp Reg & Rip/40Mv/0.2% L&LR	TAME	90 LBS	$399	Q
VT28V4AQ	0.5 to 30VDC @ 4Amp/1% Reg/ 100Mv L&LR	TRADE	35 LBS	162	2
VT28V2AQ	0.5 to 28VDC @ 2Amp/0.5% Reg/Rip 100Mv L&LR	TREAT	34 LBS	99	1
P25V.5AQ	25VDC @ 500Ma/Rip & Reg 100Mv/0.4% L&LR	TAMES	12 LBS	49	7
P28V3AQ	28VDC @ 3Amp/Rip & Reg 280Mv L&LR	TALLY	32 LBS	66	7

TRANSIENT INDICATOR "T1Q"! CIRCUIT BREAKER "CBQ"

Type	Description D.C. Volts & Amps Ripple! Regulation	Code Word	Ship. Wgt.	Price	Fig.
TIQ	"Transtab"® Transient Peak V Indicator up to 2000V	PULSE	8 LBS	$150	1
CBQ	"Voltab"® Circuit Breaker 12 to 500Ma, 4 to 80V	BREAK	3 LBS	50	Q

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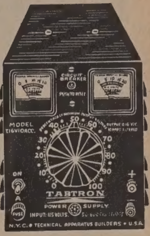

Fig. 1
(7¾H x 6½W x 12D)

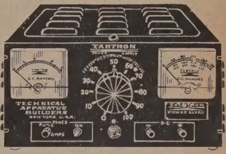

Fig. 2 9H x 15W x 7D
Fig. 2A Rack Mtd. & Cab. 10½H x 21½ W x 15D

TABTRON
B24 VER

Fig. 8

Fig. 3

19¼H x 21½W x 15D

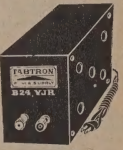

Fig. 7

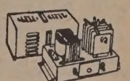

Fig. 5

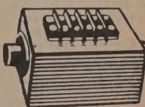

Fig. 10

terado DC-AC Inverters, Chargers, Relays

CHANGES BATTERY CURRENT TO 110 VOLT AC, 60 CYCLE

Frequency stable within 1 cyc
with change in load & input voltag

INVERTERS

DUAL CONTINENTAL
(Transistorized, 600 watts)

Converts 12 V.D.C. to 110 V., 60 cycle 550 to 600 watts. Complete with battery cables and remote control with variable A.C. output. Filtered for tape recorders. Frequency stable within ½ cycle with changing input voltage and load. **Size** 10¾" w. x 13" d. x 6" h. Shpg. Wt., 60 lbs.
Terado No. 50-202—Net Each **$232.68**

CONTINENTAL (Transistorized, 300 watts)

Same features as DUAL above, but has capacity of 275 to 300 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 30 lbs.
Terado No. 50-191—Net Each **$116.34**

ATLAS (Transistorized, 200 watts)

Same features as CONTINENTAL above, but has capacity of 175 to 200 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 21 lbs.
Terado No. 50-200—Net Each **$87.07**

TITAN (Transistorized, 175 watts)

Same features as ATLAS above less remote control, but with on-off switch and A.C. receptacle in case. Capacity 150 to 175 watts. **Size** 10¾" x 6" x 6". Shpg. Wt., 20 lbs.
Terado No. 50-201—Net Each **$73.34**

SUPREME

Converts 12 v. DC to AC; power output, 175-200 watts. Complete with wire for installation and remote control. Remote control has variable AC output switch and signal light indicating proper AC output voltage. Filtered for use with tape recorders. Steel case. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 25 lbs.
Terado No. 50153—Net Each ________ **$73.34**

RECORDER

Same case as "Supreme" less remote control. Input, 12 v. DC; output, 150-175 w. Plugs into cigarette lighter. Hi-low voltage selector switch to maintain proper output voltage. Filtered for use with tape recorders and portable TV. **Size:** 10¾" w. x 6" d. x 6" h. Shpg. Wt., 21 lbs.
Terado No. 50175—Net Each ________**$66.37**

CHIEF

Operates tape recorders, power tools, dictation machines, mixers, blenders, etc. Two models available. Direct connection to battery. Front AC receptacle. Toggle switch output control. Ventilated steel case. Easy to mount. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 8 lbs.
Terado No. 50137—Voltage input, 6 v.
AC Power Output, 75-100 watts. Net ____ **$46.66**
Terado No. 50138—Voltage input, 12 v.
AC Power Output, 100-125 watts. Net ___ **$46.66**

AUTOMATIC

Operates automatically from 6 or 12 v. DC without vibrator change or switching (6 v., 55-75 watts; 12 v., 85-110 watts). Easy installation into cigarette lighter. For dictation machines, radios, tape recorders, phonographs, heating pads, etc. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shpg. Wt., 8 lbs.
Terado No. 50134—Net Each ________ **$38.65**

SUPER

Operates dictation machine, radios, phonograph, tape recorders, massaging equipment, etc. Two compact, lightweight models available. Simple installation into cigarette lighter. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 8 lbs.
Terado No. 50126—Voltage input, 6 v.
AC Power Output, 60-75 watts. Net ____**$33.32**
Terado No. 50127—Voltage input, 12 v.
AC Power Output, 75-100 watts. Net ____ **$33.32**

MASTER

Operates some dictation machines and tape recorders, radios and phonographs, emergency lighting, etc. Easy to install into cigarette lighter. Steel case. Seal brown baked enamel. **Size:** 3½" w. x 6½" d. x 4" h. Shipping Weight, 6 lbs.
Terado No. 50122—Voltage input, 12 v.
AC Power Output, 60-75 watts. Net ____**$27.68**

ELECTRAL

Glove compartment size converters, available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Operates De Jur Stenorette; Geloso, G.B.C., Stenocord, Norelco dictation machines, radios, etc. Vinyl coated steel case with leatherette appearance. **Size:** 3" w. x 2¼" d. x 5½" h. Shipping Weight, 3 lbs.
Terado No. 50167—Voltage input, 12 v.
AC Power Output, 42-52 watts. Net ____ **$17.98**

SENIOR

Operates radios, lights, phonographs and small tape recorders. Available in 6 v. or 12 v. input. Simple to install into cigarette lighter. Aluminum case. Seal brown baked enamel. **Size:** 2½" w. x 4½" d. x 2¼" h. Shipping Weight, 3 lbs.
Terado No. 50115—Voltage input, 6 v.
AC Power Output, 35-40 watts. Net ____**$15.98**
Terado No. 50116—Voltage input, 12 v.
AC Power Output, 40-50 watts. Net ____**$15.98**

DYNAMO

Converts any small table radio to a car radio. Changes your car DC current to 110 volts AC, 60 cycles. Pocket-sized. Operates from any 12 volt car. No installation—just plug into cigar lighter. Needs no outside aerial (Radio built-in only). Also operates all electric shavers. Complete with generator condenser and ignition noise suppressor. **Size:** 2" x 2" x 3¾". Shpg. Wt., 1½ lbs.
Terado No. 50196—Net Each ________**$8.62**

AUTO SHAVER

Operates all electric shavers by plugging into AC receptacle provided. Available in 6 v. or 12 v. input. Easy installation into cigarette lighter. Polyethylene non-breakable case. **Size:** 3⅝" w. x 2¼" d. x 4¼" h. Shipping Weight, 2 lbs.
Terado No. 50102—Voltage input, 6 v.
AC Power Output, 10-15 watts, Net Ea. ____**$9.31**
Terado No. 50103—Voltage input, 12 v.
AC Power Output, 15-20 watts, Net Each. __**$9.31**

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BATTERY CHARGERS

Electronically engineered full wave silicon rectifier chargers. Miniaturization with full power charge rate.

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Terado No. 50186—Net Each ________ **$5.90**

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Copper clad steel case. Charge rate 1½ amps, both 6 and 12 volts. Warning buzzer for improper connection. Size: 2-1/16" x 3" x 5½". Weight, 1½ lbs.
Terado No. 50185—Net Each ________ **$7.66**

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Copper clad steel case. Charge rate 3 amps, 12 volts only. Warning buzzer for improper connection. **Size:** 2¼" x 3" x 5½". Weight, 2 lbs.
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HI-WAY CHARGER

Charge your boat battery while travelling! For any American 12 volt car. Charges 6 or 12 volt batteries without removing battery from boat. Charges up to 10 amps. No installation—just plug into cigar lighter. Large dial indicator shows state of charge. 30 ft. extension cord with battery clamps.
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Copper clad steel case. Charge rate 4 amps, both 6 and 12 volts. Automatic circuit breaker protection. **Size:** 2¼" x 3" x 5½". Weight, 2 lbs.
Terado No. 50188—Net Each ________ **$13.27**

HI-POWER

Copper clad steel case. Charge rate 5 amps, 12 volts only. Cigarette lighter plug-in. Charge indicator light shows condition of battery. **Size:** 2¼" x 3" x 5½". Weight, 3 lbs.
Terado No. 50180—Net Each ________ **$13.97**

CHALLENGER

Brown baked enamel, ventilated steel case. Charge rate 6 amps, both 6 and 12 volts. Charge rate meter. Brackets for coiling wire provided. **Size:** 4" x 5" x 6". Weight, 5 lbs.
Terado No. 50189—Net Each ________**$20.27**

SUPER CHARGER

Brown baked enamel, ventilated steel case. Charge rate 10 amps, both 6 and 12 volts. Color coded meter shows condition of battery and charge rate. **Size:** 4" x 5" x 6". Weight, 7½ lbs.
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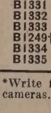
60 MILLIWATT OPERATING POWER



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B1334	8,000 ohms	24-28	10.55
B1335	10,000 ohms	32	10.91

*Write for quantity prices. †Used in most TV cameras.

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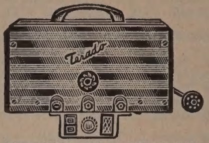

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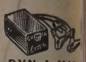

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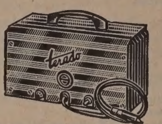
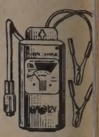


RECORDER—TITAN



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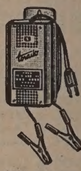

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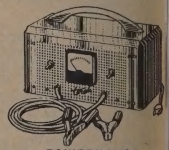

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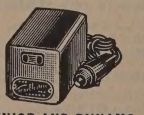

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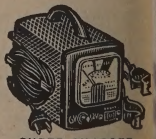

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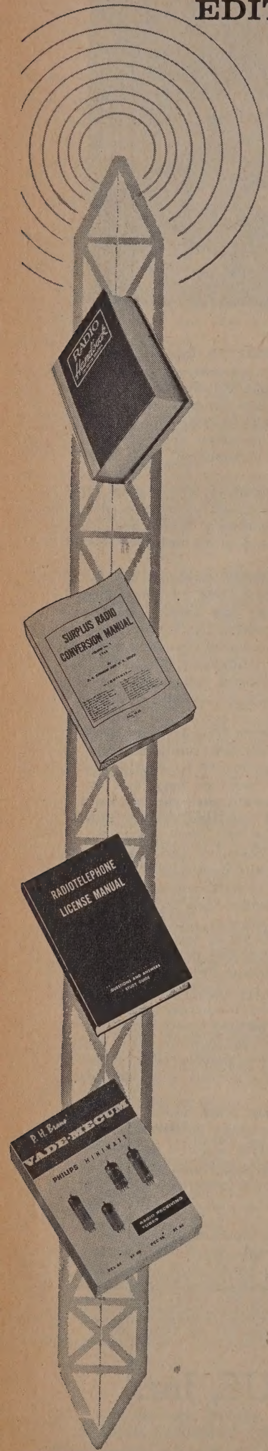

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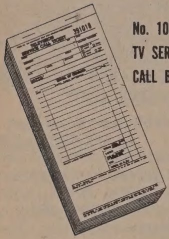

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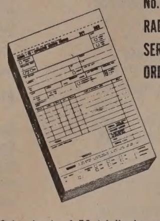

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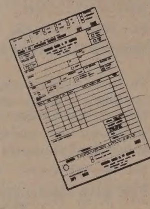

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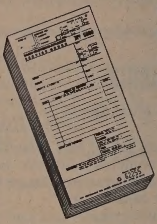

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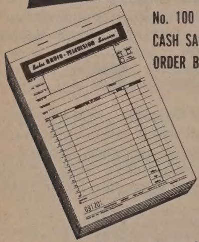

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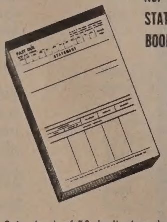

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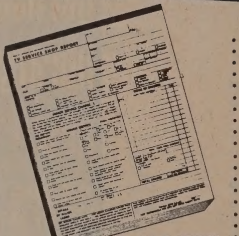

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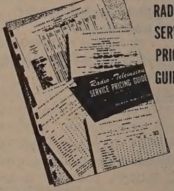

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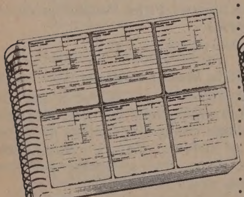

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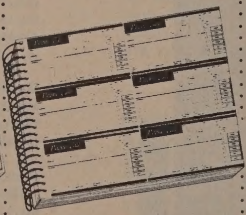

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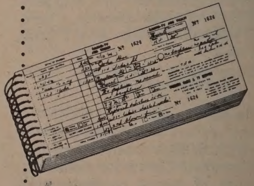

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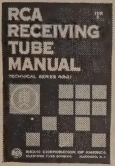

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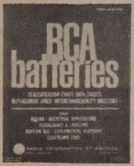

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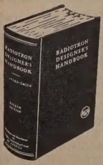

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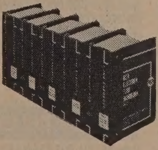

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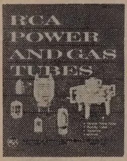

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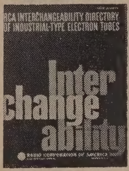
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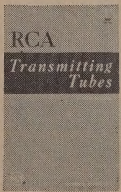

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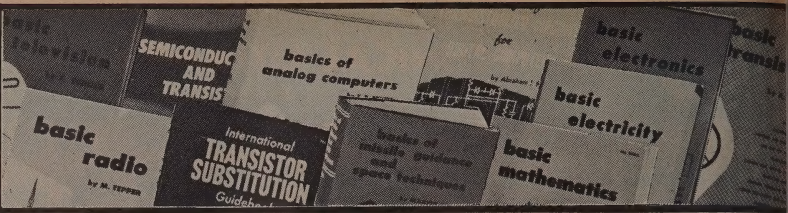
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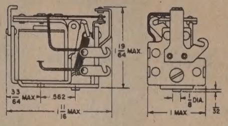
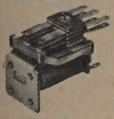
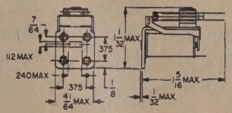
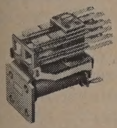
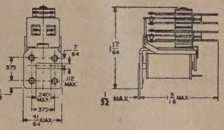
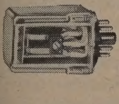
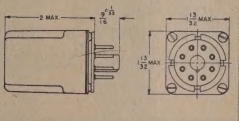
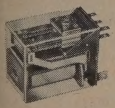
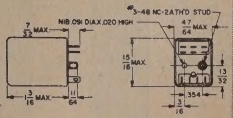
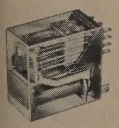
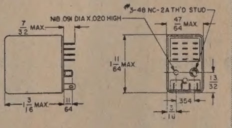
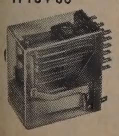
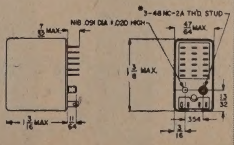
GENERAL PURPOSE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
AS							 19/64 MAX 33/64 MAX .562 11/16 MAX 1/8 DIA 1 MAX 1/32	Compact design, single hole mounting, terminal board on the front and contacts on top for easy inspection. **Terminals:** .078 x .107 hook **Weight:** 2.0 ounces max. **Mounting:** (1) 6-32 NC-2B tapped hole 7-32 deep
AS-3A	115v a-c	SPDT	5	3.5 va	850	$3.75		
AS-3D	26.5v d-c	SPDT	5	1.3 w	528	3.40		
TAT-2C 							 7/64 1 1/32 MAX .375 .112 MAX .240 MAX .375 41/64 MAX 1/8 1 5/16 MAX 1/32 MAX	Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.70 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
TAT-2C	6v d-c	DPDT	2	700 mw	52	$2.85		
TAT-2C	12v d-c	DPDT	2	700 mw	185	2.85		
TAT-2C	24v d-c	DPDT	2	700 mw	700	2.85		
TAT-2C	48v d-c	DPDT	2	700 mw	2500	2.85		
TAT-2C	115v d-c	DPDT	2	700 mw	15000	4.20		
TAT-4C 							 1 17/64 7/64 .375 .112 MAX .240 MAX .375 41/64 MAX 1/8 1/32 MAX 1 5/16 MAX	Subminiature with the performance of a miniature plus extra long life **Terminals:** Elongated holes .080 x .040 **Weight:** 0.75 ounces max. **Mounting:** (4) 4-48 NF-2B tapped holes
TAT-4C	6v d-c	4PDT	2	700 mw	52	$3.21		
TAT-4C	12v d-c	4PDT	2	700 mw	185	3.21		
TAT-4C	24v d-c	4PDT	2	700 mw	700	3.21		
TAT-4C	48v d-c	4PDT	2	700 mw	2500	3.21		
TAT-4C	115v d-c	4PDT	2	700 mw	15000	4.56		
TFMDO 							 2 MAX 9/16 ±1/32 1 13/32 MAX 1 13/32 MAX	Enclosed in a transparent polycarbonate cover and rigidly secured to base. **Enclosure:** Dust cover **Weight:** 2.5 ounces **Socket:** Any std. RETMA or EIA octal
TFMDO-2C	6v d-c	DPDT	5	700 mw	52	$5.58		
TFMDO-2C	12v d-c	DPDT	5	700 mw	185	5.58		
TFMDO-2C	24v d-c	DPDT	5	700 mw	700	5.58		
TFMDO-2C	115v d-c	DPDT	5	700 mw	15000	6.93		
TF154-2C 							 #3-48 NC-2A TH'D STUD N18 .091 DIA X .020 HIGH 7/32 MAX 47/64 MAX 15/16 MAX 13/32 .354 3/16 1 3/16 MAX 11/64	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
TF154-2C	6v d-c	DPDT	5	700 mw	52	$3.27		
TF154-2C	12v d-c	DPDT	5	700 mw	185	3.27		
TF154-2C	24v d-c	DPDT	5	700 mw	700	3.27		
TF154-2C	48v d-c	DPDT	5	700 mw	2500	3.27		
TF154-2C	115v d-c	DPDT	5	700 mw	15000	4.62		
TF154-4C 							 #3-48 NC-2A TH'D STUD N18 .091 DIA X .020 HIGH 7/32 MAX 47/64 MAX 1 11/64 MAX 13/32 .354 3/16 1 3/16 MAX 11/64	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
TF154-4C	6v d-c	4PDT	5	700 mw	52	$3.75		
TF154-4C	12v d-c	4PDT	5	700 mw	185	3.75		
TF154-4C	24v d-c	4PDT	5	700 mw	700	3.75		
TF154-4C	48v d-c	4PDT	5	700 mw	2500	3.75		
TF154-4C	115v d-c	4PDT	5	700 mw	15000	5.10		
TF154-6C 							 #3-48 NC-2A TH'D STUD N18 .091 DIA X .020 HIGH 7/32 MAX 47/64 MAX 1 3/8 MAX 13/32 .354 3/16 1 3/16 MAX 11/64	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
TF154-6C	6v d-c	6PDT	5	1.5 w	25	$4.79		
TF154-6C	12v d-c	6PDT	5	1.5 w	90	4.79		
TF154-6C	24v d-c	6PDT	5	1.5 w	430	4.79		
TF154-6C	48v d-c	6PDT	5	1.5 w	1550	4.79		
TF154-6C	115v d-c	6PDT	5	1.5 w	9000	5.64		

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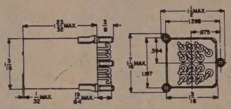
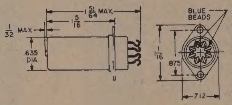
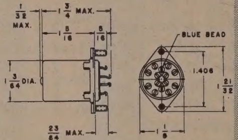
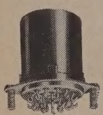
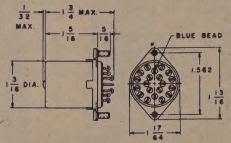
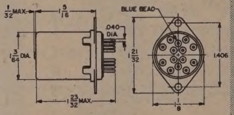
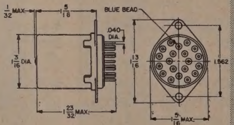
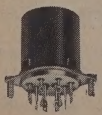
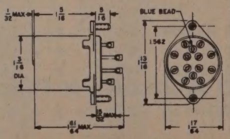
MINIATURE TYPE RELAYS

RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
CH								
CH-12D	26.5v d-c	4PDT	10	4.0 w	180	$30.00		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 15 milliseconds **Release:** 10 milliseconds **Temp:** —65°C to +125°C **Weight:** 5.0 ounces max. **Mounting** : (3) 6-32 NC-2A thd. studs
MH-6								
MH-6D MHB-6D	26.5v d-c 26.5v d-c	DPDT DPDT	5 5	1.75 w 1.25 w	400 325	$14.25 14.25		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 8 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** — 65°C to +125°C **Weight:** 2.0 ounces max. **Mounting** : (2) 0.125 dia. hole
MH-12								
MH-12D MHB-12D	26.5v d-c 26.5v d-c	4PDT 4PDT	5 5	2.5 w 3.0 w	300 250	$20.90 20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125° **Weight:** 3.0 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
MH-18 								
MH-18D MHB-18D	26.5v d-c 26.5v d-c	6PDT 6PDT	5 5	3.0 w 3.5 w	240 200	$23.75 23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp. MH:** —55°C to +85°C **MHB:** —65°C to +125° **Weight:** 4.2 ounces max. **Mounting** : (2) 6-32 NC-2A thd. studs
MHUO-12								
MHUO-12D	26.5v d-c	4PDT	5	2.5 w	300	$20.90		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 3.0 ounces max. **Mounting** : (2) 0.156 dia. hole **Socket:** Allied type 16188-1
MHUO-18								
MHUO-18D	26.5v d-c	6PDT	5	3.0 w	240	$23.75		**Vibration:** 15g to 1000 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —55°C to +85°C **Weight:** 4.2 ounces max. **Mounting** : (2) 0.152 dia. hole **Socket:** Allied type 16189-1
MHY 								
MHY-12D	26.5v d-c	4PDT	10	3.5 w	200	$25.41		**Vibration:** 20g to 500 cps **Shock:** 50g operational **Operate:** 10 milliseconds **Release:** 5 milliseconds **Temp:** —65°C to +125°C **Weight:** 4.2 ounces max. **Mounting** : (2) #6-32 NC-2A thd. studs

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ALLIED CONTROL

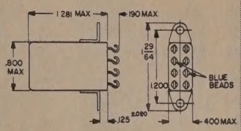
ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

SENSITIVE and PLATE CIRCUIT RELAYS

JSH

Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
JSH-3D	3.2 ma d-c	SPDT	2	25 mw	2500	$13.52
JSH-3D	2.2 ma d-c	SPDT	2	25 mw	5000	13.52
JSH-3D	1.6 ma d-c	SPDT	2	25 mw	10000	15.46
JSH-6D	4.0 ma d-c	DPDT	2	40 mw	2500	14.49
JSH-6D	2.8 ma d-c	DPDT	2	40 mw	5000	14.49
JSH-6D	2.0 ma d-c	DPDT	2	40 mw	10000	16.43

OUTLINE DRAWING

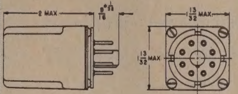

1 281 MAX
.190 MAX
.800 MAX
1 29/64
1200
BLUE BEADS
.125 ±.020
400 MAX

DESCRIPTION

Vibration: 15g to 2000 cps
Shock: 50g operational
Operate: 15 milliseconds
Release: 10 milliseconds
Temp: −65°C to +125°C
Weight: 1.1 ounces max.
Mounting :(2) 0.125 dia. holes

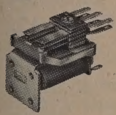
TFMDO

Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
TFMDO-2C	9.5 ma d-c	DPDT	5	220 mw	2500	$5.87
TFMDO-2C	7.0 ma d-c	DPDT	5	250 mw	5000	6.33
TFMDO-2C	5.5 ma d-c	DPDT	5	300 mw	10000	7.22

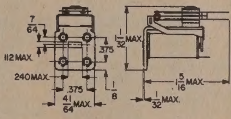

2 MAX
5/16 ± 1/32
1 13/32 MAX
1 13/32 MAX

Inclosed in a transparent polycarbonate cover and rigidly secured to base.
Enclosure: Dust cover
Weight: 2.5 ounces max.
Socket: Any std. RETMA or EIA octal

TFT

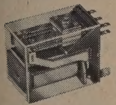


Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
TFT-2C	9.5 ma d-c	DPDT	5	220 mw	2500	$3.26
TFT-2C	7.0 ma d-c	DPDT	5	250 mw	5000	3.72
TFT-2C	5.5 ma d-c	DPDT	5	300 mw	10000	4.61

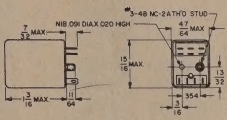

7/64
112 MAX.
.375
240 MAX.
.375
41/64 MAX.
1/8
1 1/32 MAX.
1 5/16 MAX.
1/32 MAX.

Subminiature with small size moving parts resulting in quick release and exceptional contact rating.
Terminals: Elongated holes .080 x .040
Weight: 0.70 ounces max.
Mounting: (4) 4-48NF 2B tapped holes

TS154-2C

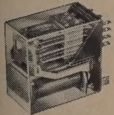


Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
TS154-2C	5.8 ma d-c	DPDT	1	85 mw	2500	$3.44
TS154-2C	4.1 ma d-c	DPDT	1	85 mw	5000	3.90
TS154-2C	3.1 ma d-c	DPDT	1	85 mw	10000	4.79

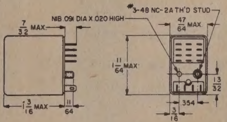

#3-48 NC-2A TH'D STUD
NIB .091 DIA X .020 HIGH
7/32 MAX.
47/64 MAX
15/16 MAX.
13/32
354
3/16
1 3/16 MAX.
11/64

Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.
Terminals: Elongated holes .080 x .040
Enclosure: Dust cover
Weight: 0.80 ounces max.
Socket: Allied type 30055-1

TS154-4C



Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
TS154-4C	8.4 ma d-c	4PDT	1	175 mw	2500	$3.83
TS154-4C	6.2 ma d-c	4PDT	1	175 mw	5000	4.29
TS154-4C	4.5 ma d-c	4PDT	1	175 mw	10000	5.18

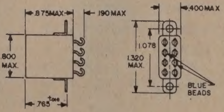

#3-48 NC-2A TH'D STUD
NIB .091 DIA X .020 HIGH
7/32 MAX.
47/64 MAX
1 11/64 MAX.
13/32
354
3/16
1 3/16 MAX.
64

Features no internal wiring. Contact arms extend to form combination solder and plug in terminals.
Terminals: Elongated holes .080 x .040
Enclosure: Dust cover
Weight: 0.95 ounces max.
Socket: Allied type 30055-2

SUBMINIATURE TYPE RELAYS

KHJ

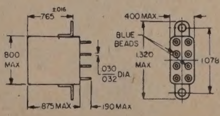
Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
KHJ-6D	6v d-c	DPDT	2	1.5 w	39	$12.64
KHJ-6D	12v d-c	DPDT	2	1.5 w	147	12.64
KHJ-6D	26.5v d-c	DPDT	2	1.5 w	612	12.64
KHJ-6D	48v d-c	DPDT	2	1.5 w	2370	14.44
KHJ-6D	115v d-c	DPDT	2	1.5 w	10000	18.14


.875 MAX
.190 MAX
.800 MAX.
.765 ±.016
.400 MAX
1.078
1.320 MAX.
BLUE BEADS

Vibration: 20g to 2000 cps
Shock: 100g operational
Operate: 5 milliseconds
Release: 3 milliseconds
Temp: −65°C to +125°C
Weight: 0.5 ounces max.
Mounting :(2) 0.120 dia. holes

KHJO

Relay Type	Coil Voltage or Current	Contacts Forms	Contacts Amps	Coil Power at 25°C	Coil Resist. Ohms	Net Price
KHJO-6D	26.5v d-c	DPDT	2	1.5 w	612	$12.64

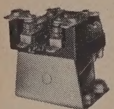
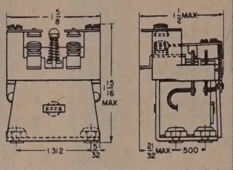
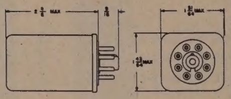
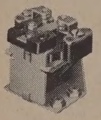
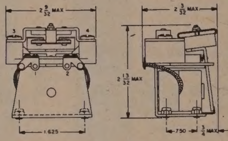
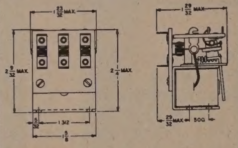
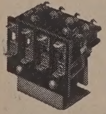
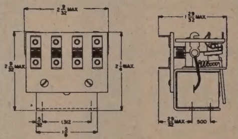

.765 ±.016
800 MAX
.030/.032 DIA
.875 MAX
.190 MAX
400 MAX
BLUE BEADS
1.320 MAX
1.078

Vibration: 20g to 2000 cps
Shock: 100g operational
Operate: 5 milliseconds
Release: 3 milliseconds
Temp: −65°C to +125°C
Weight: 0.5 ounces max.
Mounting :(2) 0.120 dia. holes
Socket: Armel type HRC-1 or equiv.

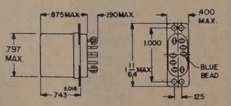
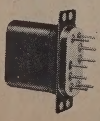
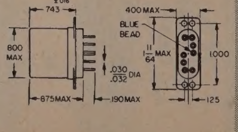
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

POWER RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
BO 	BO-6A	6v a-c	DPDT	15	5.0 va	1.07	$4.93		Compact, rugged design wi contacts and terminals, rea ily accessible on top of rel **Terminals:** .096 diameter holes, tin dipped **Weight:** 5.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	BO-6A	24v a-c	DPDT	15	5.0 va	17	4.93		
	BO-6A	115v a-c	DPDT	15	5.0 va	445	5.08		
	BO-6A	220v a-c	DPDT	15	5.0 va	1700	5.19		
	BO-6D	6.3v d-c	DPDT	15	2.5 w	14.2	4.60		
	BO-6D	13.2v d-c	DPDT	15	2.5 w	70	4.60		
	BO-6D	26.5v d-c	DPDT	15	2.5 w	230	4.66		
	BO-6D	115v d-c	DPDT	15	2.5 w	5000	5.17		
BOHRO	BOHRO-6A	115v a-c	DPDT	15	5.0 va	445	$10.46		**Vibration:** 10-55 cps at .062″ double amplitude **Shock:** 30g operational **Temp:** —55°C to +71.5°C **Weight:** 9.5 ounces max. **Socket:** Any std. RETMA or EIA octal
	BOHRO-6D	26.5v d-c	DPDT	15	2.5 w	230	10.04		
CNA 	CNA-13A	115v a-c	SPST NO DB	25	10.5 va	145	$7.00		Heavy duty, compact relay wit double break contact constru tion eliminating pigtails **Terminals:** Coil (1 & 2) 3-32 dia. holes Contacts (3 & 4) 10-32 screw type **Weight:** 9.5 ounces max. **Mounting:** (4) 6-32 elastic stop nuts
	CNAS-13A	115v a-c	SPST NO DB	50	10.5 va	145	8.15		
PO-9	PO-9A	24v a-c	3PDT	15	10.5 va	8.0	$5.54		Low cost, compact, multi pol **Terminals:** .079 x .164 hook, tin dipped **Weight:** 7.5 ounces max. **Mounting** : (4) 6-32 tapped holes
	PO-9A	115v a-c	3PDT	15	10.5 va	145.0	5.54		
	PO-9D	13.2v d-c	3PDT	15	2.5 w	70	5.18		
	PO-9D	24.0v d-c	3PDT	15	2.5 w	230	5.18		
	PO-9D	115.0v d-c	3PDT	15	2.5 w	5000	5.80		
PO-12 	PO-12A	115v a-c	4PDT	15	10.5 va	145	$6.16		Low cost, compact, multi po **Terminals:** .079 x .164 hook, tin dipped **Weight:** 8.0 ounces max. **Mounting** : (4) 6-32 tapped holes
	PO-12D	13.2v d-c	4PDT	15	2.5 w	70	5.80		
	PO-12D	24.0v d-c	4PDT	15	2.5 w	230	5.80		

SUBMINIATURE TYPE RELAYS

	RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
KHY	KHY-6D	6v d-c	DPDT	2	1.5 w	34	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** —65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(4) 0.096 dia. hol
	KHY-6D	12v d-c	DPDT	2	1.5 w	155	12.64		
	KHY-6D	26.5v d-c	DPDT	2	1.5 w	615	12.64		
	KHY-6D	48v d-c	DPDT	2	1.5 w	1920	14.44		
	KHY-6D	115v d-c	DPDT	2	1.5 w	8120	17.24		
KHYO 	KHYO-6D	26.5v d-c	DPDT	2	1.5 w	615	$12.64		**Vibration:** 20g to 2000 cps **Shock:** 50g operational **Operate:** 5 milliseconds **Release:** 3 milliseconds **Temp:** —65°C to +125°C **Weight:** 0.5 ounces max. **Mounting** :(4) 0.096 dia. hol **Socket:** Armel type HRK-1 equiv.

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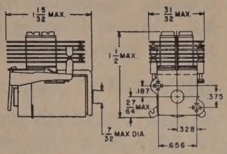
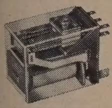
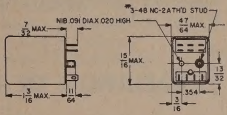
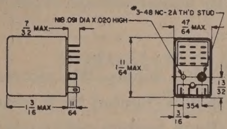
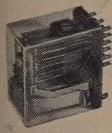
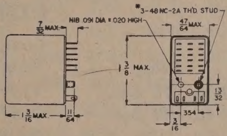
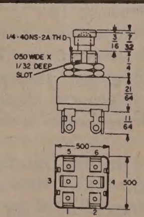
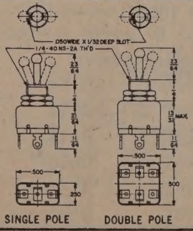
ALLIED CONTROL

ALLIED CONTROL COMPANY INC., NEW YORK, NEW YORK

TELEPHONE TYPE RELAYS

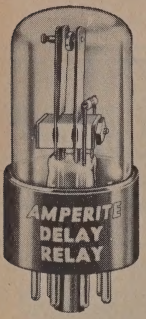
RELAY TYPE	COIL VOLTAGE OR CURRENT	CONTACTS FORMS	CONTACTS AMPS	COIL POWER AT 25°C	COIL RESIST. OHMS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
SK								
SK-4C	24v d-c	4PDT	2	1.5 w	425	$3.94	 1 15/32 MAX. 31/32 MAX. 1 1/2 MAX. .187 .375 27/64 MAX. 7/32 MAX DIA. .328 .656	Miniature size for front of panel wiring with an efficient metal to metal hinge. **Terminals:** elongated holes .062 x .125 **Weight:** 2.5 ounces max. **Mounting:** (2) 4-40 NC-2B thd.
T154-2C 								
T154-2C	6v d-c	DPDT	2	700 mw	52	$3.15	 3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX 15/16 MAX. 13/32 .354 1 3/16 MAX. 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.80 ounces max. **Socket:** Allied type 30055-1
T154-2C	12v d-c	DPDT	2	700 mw	185	3.15		
T154-2C	24v d-c	DPDT	2	700 mw	700	3.15		
T154-2C	48v d-c	DPDT	2	700 mw	2500	3.15		
T154-2C	115v d-c	DPDT	2	700 mw	15000	4.50		
T154-4C								
T154-4C	6v d-c	4PDT	2	700 mw	52	$3.51	 3-48 NC-2A TH'D STUD NIB .091 DIA X .020 HIGH 7/32 MAX. 47/64 MAX. 1 11/64 MAX 13/32 .354 1 3/16 MAX 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 0.95 ounces max. **Socket:** Allied type 30055-2
T154-4C	12v d-c	4PDT	2	700 mw	185	3.51		
T154-4C	24v d-c	4PDT	2	700 mw	700	3.51		
T154-4C	48v d-c	4PDT	2	700 mw	2500	3.51		
T154-4C	115v d-c	4PDT	2	700 mw	15000	4.86		
T154-6C 								
T154-6C	6v d-c	6PDT	2	1.5 w	25	$4.43	 3-48 NC-2A TH'D STUD NIB .091 DIA x .020 HIGH 7/32 MAX. 47/64 MAX 1 3/8 MAX. 13/32 .354 1 3/16 MAX 11/64 3/16	Features no internal wiring, contact arms extended to form combination solder and plug-in terminals **Terminals:** Elongated holes .080 x .040 **Enclosure:** Dust cover **Weight:** 1.0 ounces max. **Socket:** Allied type 30055-20
T154-6C	12v d-c	6PDT	2	1.5 w	90	4.43		
T154-6C	24v d-c	6PDT	2	1.5 w	430	4.43		
T154-6C	48v d-c	6PDT	2	1.5 w	1550	4.43		
T154-6C	115v d-c	6PDT	2	1.5 w	9000	5.28		

SWITCHES

	SWITCH TYPE	POSITIONS	CONTACTS FORMS	CONTACTS AMPS	NET PRICE	OUTLINE DRAWING	DESCRIPTION
	PM-7	—	3PST Normally Open	2	$4.28	 1/4-40NS-2A TH'D .050 WIDE X 1/32 DEEP SLOT 3/16 7/32 1/4 21/64 11/64 .500 5 6 3 4 1 2 .500	**Elec. Life:** 10,000 make and break cycles (min) **Vibration:** 5-28 cps at 0.5" double amplitude **Shock:** 50g operational **Weight:** 4.5 grams max.
	TC-3	ON-OFF-ON	SPDT	5	$3.20	 .050 WIDE X 1/32 DEEP SLOT 1/4-40 NS-2A TH'D 23/64 13/32 MAX. .500 .250 .500 SINGLE POLE DOUBLE POLE	**Elec. Life:** 20,000 make and break cycles (min) **App. Mil. Specs:** Mil S-3950 as applicable to SCL-6305 **Vibration:** 5-28 cps at 0.5" double amplitude **Shock:** 50g operational **Weight:** From 3.0 to 5.5 grams max.
	TE-3	MOM-OFF-ON	SPDT	5	3.20		
	TG-3	MOM-OFF-MOM	SPDT	5	3.20		
	TS-3	ON-ON	SPDT	5	3.00		
	TS-6	ON-ON	DPDT	5	3.90		

THERMOSTATIC **AMPERITE** DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT



STANDARD

AMPERITE THERMOSTATIC DELAY RELAY

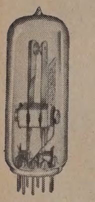
Amperite Thermostatic Delay Relays are actuated by a heater . . . can therefore be used A.C., D.C., or pulsating current. Being hermetically sealed, Amperite Relays are not affected altitude, moisture, or other atmospheric conditions. **REPLACED AS EASILY AS A RADIO TUBE.**

CIRCUITS SPST: Available only — normally open or normally closed.

HEATER VOLTAGES AVAILABLE: 2.5, 5.0, 6.3, 12.6, 26, 60, 115V.
For 220V use a 6500 ohm-5 watt resistor in series with 115V heater.

HEATER WATTAGE: Standard and Miniature Relays—all voltages—2w prox. All heaters may operated continuously. Heaters will not be damaged by a 50% voltage overload for duration 1 hour or less.

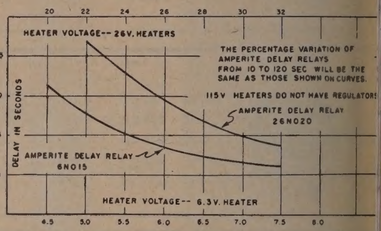
VARIATION OF DELAY WITH HEATER VOLTAGE



MINIATURE

FIGURE 1 — Effect of change in heater voltage on delay in seconds. Only low voltage heaters (2.5 to 26 V.) incorporate heater voltage regulations as shown in this diagram.

For 22 to 30 V. supply: We recommend Amperite Delay Relays with 26 V. heaters for airplanes and similar power supplies. These heaters are regulated for battery variation of 22 to 30 V. as shown in this diagram.



Figure

CONTACT RATING

	Delay	Contact Rating Non-Inductive	DC Voltage Breakdown Contact-to-Contact	DC Voltage Breakdown Heater-to-Contact
STANDARD	2 to 10 Sec.	115V — 3a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 3a AC	800V	800V
		220V — 1a AC	800V	800V
MINIATURE	2 to 10 Sec.	115V — 2a AC	250V	500V
RELAYS	15 to 180 Sec.	115V — 2a AC	800V	800V
		220V — 1a AC	800V	800V
FLASHERS		—½a AC	250V	500V

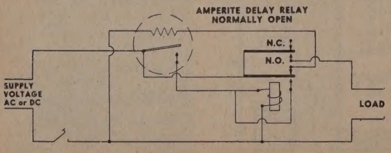
CONTACT DROP: —0.1V — Prox. at 1A.

AMBIENT TEMPERATURES: Relays are compensated for temperatures of −55° to +80°C. (Relays can be operated from −80°C to +125°C without damage). Tolerances given are for 20°C. Ambient temperature tolerances depend on type. Low voltage heater 26V or less have better ambient compensation than high voltage heaters.

DELAYS AVAILABLE: From 2 to 180 seconds. Relays can be used in series to obtain longer delays. The delay of any individual relay can be increased up to 50% by using a resistor in series with the heater. Relays with short delays such as 2 to 5 seconds can be increased 100%.

LIFE of any individual relay will depend on the service the contacts are subjected to. With a 115 V. — 2A A.C. non inductive load the contacts will withstand at least 250,000 operations. SHELF LIFE of Amperite Delay Relays is over 10 years.

INDUCTIVE A.C. LOADS: When breaking an inductive A.C. load, use a condenser of .01 to .1 mfd. across contacts.



INSTANTANEOUS RECYCLE: This can be obtained by using a normally open Amperite Delay Relay in conjunction with a DPDT Magnetic Relay as shown at left. If normally closed is required — use a **normally open** Amperite Delay Relay — and use the NC contacts on the magnetic relay. Choose the Amperite Delay Relay for the voltage required and the delay required (e.g. — 115N030 — would be used on 115 volt supply — for a 30 second delay).

LONG RECYCLE RELAYS: are also available. For example, Amperite Delay Relay 115N07T has a delay in closing of 3 to 8 seconds. After heater is disconnected, contacts will remain closed for 30 seconds minimum. Write us about your requirements.

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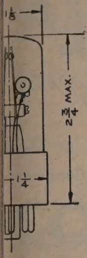
THERMOSTATIC AMPERITE DELAY RELAYS

GLASS ENCLOSED • HERMETICALLY SEALED • A.C., D.C., OR PULSATING CURRENT

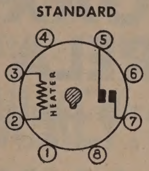
REAKING D.C. CURRENT: When Relay contacts open .C. Current above 50 volts, a condenser with a resistor series with the condenser must be connected across e contacts. The following condenser values are pproximate.

	50 V. D.C.	115 V. D.C.	230 V. D.C.
0 to .5 Amps................	None	.1 MF	.25 MF
.5 to 1.5 Amps................	"	.25 "	.25 "
1.5 to 3 Amps................	.25 MF	1 "	.5 "

SPECIFICATIONS:



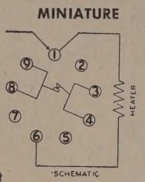
lard Octal Base



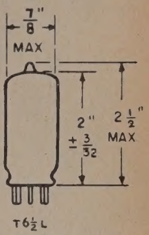
Bottom View
Schematic Diagram

Base Wiring:
Standard Radio Octal:
Prongs 2-3-heater;
Prongs 5-7-contacts.

Base Wiring:
9-Pin Miniature:
Prongs 1-6 heater;
Prongs 3-4, 1 contact;
Prongs 8-9, 2nd contact



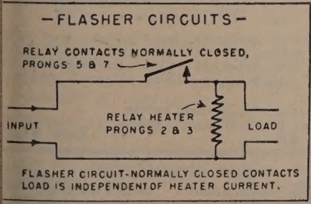
Bottom View
Schematic Diagram



9-Pin Miniature Base

STANDARD AND MINIATURE TYPES OF AMPERITE DELAY RELAYS AND FLASHERS... Net $2.40 each
MINIATURE TYPES: Designated by letter T. (e.g. 6N05T). Types shown in Bold Type are the more popular types, and are more readily available. Miniature type relays available in 2-120 Seconds Delay. All Standard Octal Base Types are available in 2-180 Seconds Delay.

ay-nds	Tolerance Seconds at 20°C	NORMALLY OPEN CONTACTS HEATER VOLTAGES							NORMALLY CLOSED CONTACTS HEATER VOLTAGES						
		2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.	2.5 V.	5.0 V.	6.3 V.	12.6 V.	26 V. (22-30)	50 V.	115 V.
2	1½	2N02	5N02	6N02	12N02	26N02	50N02	115N02	2C2	5C2	6C2	12C2	26C2	50C2	115C2
3	1½	2N03	5N03	**6N03**	12N03	**26N03**	50N03	**115N03**	2C3	5C3	**6C3**	12C3	**26C3**	50C3	**115C3**
5	2½	2N05	5N05	**6N05**	12N05	**26N05**	50N05	**115N05**	2C5	5C5	**6C5**	12C5	**26C5**	50C5	**115C5**
3	3	2N08	5N08	**6N08**	12N08	**26N08**	50N08	**115N08**	2C8	5C8	**6C8**	12C8	**26C8**	50C8	**115C8**
)	4	2N010	5N010	**6N010**	12N010	**26N010**	50N010	**115N010**	2C10	5C10	**6C10**	12C10	**26C10**	50C10	**115C10**
5	4	2N015	5N015	**6N015**	12N015	**26N015**	50N015	**115N015**	2C15	5C15	**6C15**	12C15	**26C15**	50C15	**115C15**
)	5	2N020	5N020	**6N020**	12N020	**26N020**	50N020	**115N020**	2C20	5C20	**6C20**	12C20	**26C20**	50C20	**115C20**
)	10	**2N030**	**5N030**	**6N030**	**12N030**	**26N030**	50N030	**115N030**	2C30	5C30	**6C30**	12C30	**26C30**	50C30	**115C30**
5	10	2N045	5N045	**6N045**	12N045	**26N045**	50N045	**115N045**	2C45	5C45	**6C45**	12C45	**26C45**	50C45	**115C45**
)	15	**2N060**	5N060	**6N060**	12N060	**26N060**	50N060	**115N060**	2C60	5C60	**6C60**	12C60	**26C60**	50C60	**115C60**
5	15	2N075	5N075	**6N075**	12N075	**26N075**	50N075	**115N075**	2C75	5C75	**6C75**	12C75	**26C75**	50C75	**115C75**
)	20	2N090	5N090	**6N090**	12N090	**26N090**	50N090	**115N090**	2C90	5C90	**6C90**	12C90	**26C90**	50C90	**115C90**
)	35	2N0120	5N0120	**6N0120**	12N0120	**26N0120**	50N0120	**115N0120**	2C120	5C120	**6C120**	12C120	**26C120**	50C120	**115C120**
)	35	2N0150	5N0150	**6N0150**	12N0150	**26N0150**	50N0150	**115N0150**	2C150	5C150	**6C150**	12C150	**26C150**	50C150	**115C150**
)	45	2N0180	5N0180	**6N0180**	12N0180	**26N0180**	50N0180	**115N0180**	2C180	5C180	**6C180**	12C180	**26C180**	50C180	**115C180**


–FLASHER CIRCUITS–
RELAY CONTACTS NORMALLY CLOSED, PRONGS 5 & 7
INPUT
RELAY HEATER PRONGS 2 & 3
LOAD
FLASHER CIRCUIT-NORMALLY CLOSED CONTACTS LOAD IS INDEPENDENT OF HEATER CURRENT.

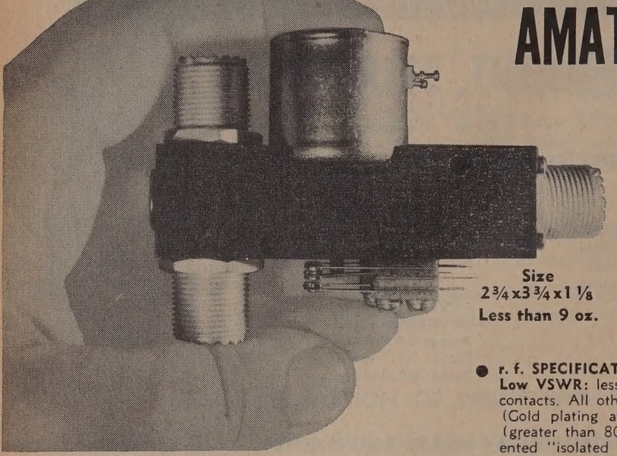
ashers operate approximately ⅓ on, off. The percentage time on can be creased by reducing the voltage of the ater.

Normally closed flashers are standard, and are indicated by the letter "F." The number following letter "F" denotes flashes per minute. *For example a 6F30 flasher,* has 6.3V heater, normally closed 30 FPM with a ± 15 flashes per minute tolerance. A 6F30T, would be the same type but in 9-pin miniature. Flashers are available from *30 to 90 Flashes per minute* with tolerances as shown in the chart below:

FLASHERS have contact rating of ½a AC, non-inductive.

Tol. FPM — 20°C	Standard Flashers Available		
10 ± 5	6F10	26F10	115F10
30 ± 15	6F30	26F30	115F30
45 ± 15	6F45	26F45	115F45
60 ± 20	6F60	26F60	115F60
75 ± 20	6F75	26F75	
90 ± 25	6F90	26F90	

DOW-KEY RELAYS



Size
2¾x3¾x1⅛
Less than 9 oz.

AMATEURS! INDUSTRIALS!

DK60 SERIES COAXIAL RELAYS

4 VERSATILE MODELS, A.C. or D.C.

(And Types C, TNC, BNC, N, UHF Connectors)

UNCONDITIONAL GUARANTEE
(We will repair if faulty within 1 year)

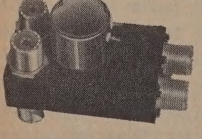
STANDARD RELAYS, WITH TYPE UHF CONNECTORS, INCLUDE:

- **DK60** — SPDT r.f. switch **each $12.45**
- **DK60-G** — SPDT r.f. switch with special "isolated" connector in de energized position **each $13.70**
- **DK60-2C** — SPDT r.f. switch with DPDT auxiliary contacts **each $14.35**
- **DK60-G2C** — SPDT r.f. switch with DPDT auxiliary contacts and special "isolated" connector in de-energized position **each $15.65**

Weather proof model
available for exterior installation.

- **r. f. SPECIFICATIONS:**
  Low VSWR: less than 1.15:1 from 0 to 500 mc — **Low Losses:** Pure silver contacts. All other parts used in crucial positions are plated with fine silver. (Gold plating available at extra cost, special order.) — **Low Cross-Talk:** (greater than 80 db) in DK60-G and DK60-G2C through the use of a patented "isolated connector" arrangement which opens the disconnected conductor and simultaneously provides an electrostatic shield between it and the rest of the circuit — **High Power Rating:** (a) one kilowatt through straight connectors (b) to 10 watts through "isolated connector" — excellent for video switching — **Single Pole Double Throw r.f. contacts:** r.f. leakage — extremely low, below leakage of typical r.f. connectors. A wide variety of connectors available. Example: UHF, N, C, and others in both straight and "isolated" models.
- **MECHANICAL SPECIFICATIONS:**
  High Contact Pressures: Long-Life Expectancy greater than one million operations — **Continuous Duty.** Teflon feed-through terminals used on coil to provide connection ease — **Small, Compact:** only 2¾"x3¾"x1⅛" — **Lightweight:** less than 9 ounces — Dow designed UHF (standard) or type N (slight additional cost) r.f. connectors available. Specify if type N connector required.
- **ELECTRICAL SPECIFICATIONS:**
  Wide variety of coil voltages: 6, 12, 24, 28, 32, 48, 110, 220 D.C. volts at 2.0 watts; 6, 12, 24, 110, 220 A.C. volts at 6 volt-amps 50-60 cps. (Special voltage or resistances available on request.) — **Less than 50°C temperature rise above ambient:** maximum operating temperature is 100°C except on special order — Auxiliary contacts available for power control — DPDT at 5a. 110 v a.c. on DK60-2C and DK60-G2C.

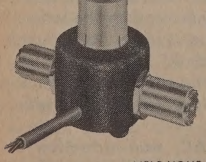
DOW-KEY DK2-60 DPDT r.f. SWITCH



. . . for switching two coaxial lines simultaneously. Specifications similar to DK60 series.

DK2-60 . . . Each $19.00

Signals 'pop out' with DOW-KEYS DKC-RFB PREAMPLIFIER



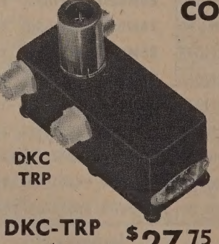
Amateurs will hear signals they didn't hear before!

Compact
1⅜"x1⅜"x2¼"
Wt. 10 oz.

DKC-RFB
only $10 75

HELP YOUR RECEIVER! The DKC-RFB Booster is a 50 to 70 ohm impedance matching "broadband preamplifier" guaranteed to increase the over-all gain by 1 to 6 "S" units on all bands (1.5 to 30mc). Worth dollars and dollars more to the amateur with low cost equipment desiring to improve sensitivity, work with DX, and bring up weak unintelligible signals. Designed for receivers up to the $300 class.

COAXIAL ELECTRONIC TR SWITCH with Built-in Power Supply



DKC-TRP each......... $27 75
FACTORY WARRANTY

Designed to operate in 1.8 to 30 mc. range. NO EXTERNAL D.C. POWER SUPPLY NEEDED! Just plug into any regular 120 v. A.C. outlet! About 15 watts of power required.

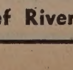
A vacuum tube T-R switch utilizes grid-blocking scheme when in transmit mode. In receive mode, circuit provides a small amount of gain between the antenna and receiver. Employs circuitry with large signal handling capabilities to reduce locally-generated cross-modulation types of interference.

DKC-TRP features include: Rated maximum legal power. Low VSWR. Cast aluminum construction makes DKC-TRP TVI proof. Switch allows break-in operation with a single antenna system. Has standard UHF coaxial connectors; type "N" connectors available at small, additional cost.

DKC-TRM-1 Electronic antenna change-over switch, UHF connectors 6-volt filament, 125 to 150 V B+, 1 KW. **Each $12.50**

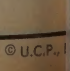
DOW-KEY
products available
at your local
distributor
or write:

UHF CONNECTORS



PANEL MOUNT
Durable, silver plated, precision made. Only ⅝" hole is needed, no screws.
DK60-P . . .70

DOUBLE MALE
Favorite everywhere. Precision made, rugged locking type. Silver. plated.
DKF-2. . 1.25



Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

Net

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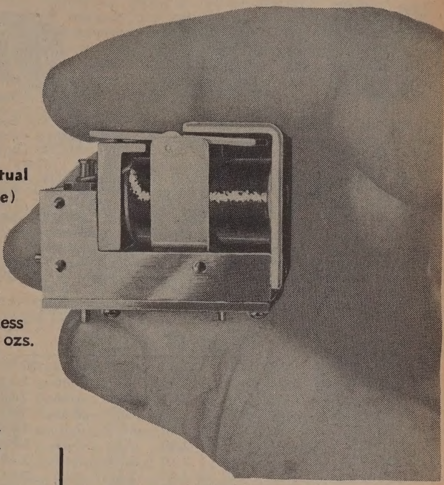
RELAY PROBLEMS?

INDUSTRIAL
MILITARY
APPLICATION

Investigate . . . this Tested, Proven

DOW-KEY DKC-61
COAXIAL RELAY



(Actual Size)

Wt. Less than 3 ozs.

A compact superb new DOW-KEY relay specifically designed, thoroughly tested and proven, for the rugged requirements of industrial and military application.

R. F. SPECIFICATIONS:

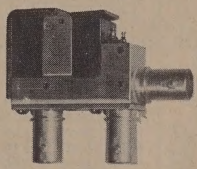
Low VSWR: Less than 1.10:1 from 0 to 400 mc. Less than 1.20:1 from 0 to 1000 mc. — **Low Losses:** Contact material available for low and high power levels. — **Cross-Talk:** Greater than 40 db @ 400 mc. — **Power Rating:** 100 watts. — **Connectors Available:** Connectors shown are std., available in BNC, TNC, and other miniature connectors.

ELECTRICAL SPECIFICATIONS:

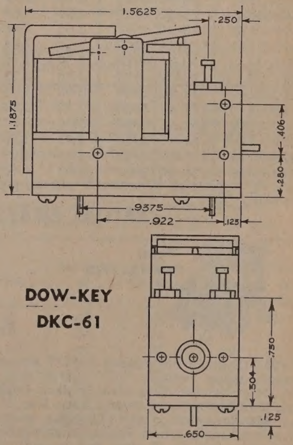
Coil Voltages: 6, 12, 24, 28, 48, 110 or 220 V DC at less than 3.0 watts. — **Operating Time:** Less than 15 ms. Auxiliary SPDT or DPDT contacts available for power control rated at 5 a at 150 V DC.

ENVIRONMENTAL AND MECHANICAL SPECIFICATIONS:

Operating Temperature Range: -55° C. to + 125° C. — **Duty Cycle:** Continuous. — **Life Expectancy:** Greater than 500,000. — **Vibration:** Withstands vibration tests in accordance with MIL-STD-202B, Test Condition B. — **Finish:** Silver plated per Mil Spec QQ-S-365 type 3 and cadmium plated per QQ-P-416 type 2 to withstand salt spray and humidity tests. — **Weight:** Less than 3 ounces.

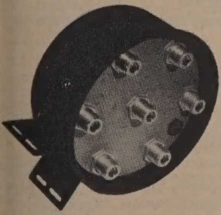


TYPE BNC CONNECTORS



DOW-KEY
DKC-61

DKC-71 Single Pole, Six-Throw



WEATHER-PROOF
ELECTRO-MAGNETIC
COAXIAL RELAY
FOR REMOTE SELECTION OF R.F. SOURCES

. F. SPECIFICATIONS:

Low VSWR: Less than 1.2:1 at 500 mc. — **Cross-Talk:** Greater than 50 db at 100 mc. — **High Power Rating:** 1 kw. — **Coaxial connectors:** Available in types UHF, N, BNC, TNC and C.

ECHANICAL SPECIFICATIONS:

Size: 5¾" diameter by 2¾" deep. — **Finish:** Connectors silver plated per Mil Spec QQ-S-365, relay body iridite per MIL-C-5541. — **Coil Voltage:** All standard A.C. and D.C. voltages. — **Life Expectancy:** 1,000,000 operations. — **Duty:** Continuous.

DKC-71 with UHF connectors .... **Each 49^{50}**

SERVICE AND DELIVERY

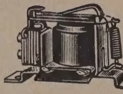
Our engineering staff, completely equipped plant, and technicians invite the opportunity to serve you in developing, designing or building your specific relay requirements. Try Us!

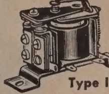
OW-KEY products available at your local distributor or write:

Manufactured by DOW-KEY COMPANY, Thief River Falls, Minnesota

GUARDIAN® *Highest Quality Industrial Controls..*

Type IR-500 -505


Type IR-120


Type IR-220

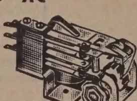
IR-500-505 Compact, lightweight relay capable of unusually heavy power control for its size. Long life, high quality, available in a variety of AC and DC voltages with a selection of contact combinations. Contact rated 10 amps., 60 cy., 115 V. non-inductive. Size, 1¹¹⁄₁₆″ x 1½″ x 1″. Shpg. wt. 4 oz. **IR-120** An economical unit for requirements not exceeding S.P.D.T. combinations. Armature carries the contact blade and both are common to the field piece. Contacts rated 8 amps., 60 cy., 115 V. non-inductive load. Size, 3″ x 1⅞″ x 1½″. Shpg. wt. 4.5 oz. **IR-220** Rugged unit breaks up to 20 amperes. Armature is equipped with bakelite contact mounting block carrying ⁵⁄₁₆″ dual contacts. Bakelite is tested at 1500 volts breakdown to ground. Contacts are silver alloy. Available in S.P.S.T.N.O. contact combination only. Contact rated 20 amp., 60 cy., 230 V. non-inductive load. Size, 3″ x 1⅞″ x 1¾″. Shpg. wt. 5.5 oz.

Mfg. No.	Volts	Cont. Comb.	Quantities 1-24	25-49	50-99	100-149	250-Up
IR-500-A6	6-AC	SPST*	$2.50	$2.25	$2.13	$2.00	$1.75
IR-500-C6	6-AC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-500-G6	6-AC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-500-GG6	6-AC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-500-A24	24-AC	SPST*	2.50	2.25	2.13	2.00	1.75
IR-500-C24	24-AC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-500-G24	24-AC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-500-GG24	24-AC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-500-A115	115-AC	SPST*	2.50	2.25	2.13	2.00	1.75
IR-500-C115	115-AC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-500-G115	115-AC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-500-GG115	115-AC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-500-G230	230-AC	DPDT	3.70	3.33	3.15	2.96	2.59
IR-505-A6	6-DC	SPST*	2.50	2.25	2.13	2.00	1.75
IR-505-C6	6-DC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-505-G6	6-DC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-505-GG6	6-DC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-505-A12	12-DC	SPST*	2.50	2.25	2.13	2.00	1.75
IR-505-C12	12-DC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-505-G12	12-DC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-505-GG12	12-DC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-505-A24	24-DC	SPST*	2.50	2.25	2.13	2.00	1.75
IR-505-C24	24-DC	SPDT	2.80	2.52	2.38	2.24	1.96
IR-505-G24	24-DC	DPDT	3.10	2.79	2.64	2.48	2.17
IR-505-GG24	24-DC	4PDT	4.30	3.87	3.66	3.44	3.01
IR-505-A110	110-DC	SPST*	3.05	2.75	2.59	2.44	2.14
IR-505-C110	110-DC	SPDT	3.15	2.84	2.68	2.52	2.21
IR-505-G110	110-DC	DPDT	3.50	3.15	2.98	2.80	2.45
IR-505-GG110	110-DC	4PDT	4.70	4.23	4.00	3.76	3.29
IR-120-C24	24-AC	SPDT	3.05	2.75	2.59	2.44	2.14
IR-120-C115	115-AC	SPDT	3.50	3.15	2.98	2.80	2.45
IR-120-C230	230-AC	SPDT	5.30	4.77	4.51	4.24	3.71
IR-220-A24	24-AC	SPST*	3.95	3.56	3.36	3.16	2.77
IR-220-A115	115-AC	SPST*	4.45	4.01	3.78	3.56	3.12
IR-220-A230	230-AC	SPST*	4.95	4.46	4.21	3.96	3.47

*Normally Open

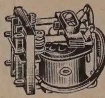
RATCHET RELAYS—AC

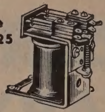
Type IR-M-120 -115


Type 670

IR-M-120-115 Small but rugged 4 PDT stepper with 3-position switch operation, center position "off." Large cam assures precision "step" action. 24 pt. ratchet. Fine silver contacts rated for 10 amps., 115 volts, 60 cps. Unit rated at intermittent duty. Size, 3″ x 2¼″ x 2⁵⁄₁₆″. Shpg. wt. 10 oz. **670** For on/off control of lighting, motors, appliances and speaker applications, among others. Highly reliable operation over 1,000,000 steps. Each impulse (up to 10 steps per second) reverses contacts. Contact arrangements to DPDT and ratings to 12½ amperes resistive load at 115 v., 60 c. Intermittent duty coil with voltages to 230 VAC or 115 VAC. Size, 3″ x 1¾″ x 2¹⁄₁₆″. Shpg. wt. 7.5 ounces.

Mfg. No.	Volts	Cont. Comb.	Quantities 1-24	25-49	50-99	100-249	250-Up
IR-M-120-115	115 AC	4PDT	$11.75	$10.58	$9.99	$9.40	$8.23
670-C115	115 AC	SPDT	5.75	5.18	4.89	4.60	4.03
670-G-115	115 AC	DPDT	5.85	5.27	4.97	4.68	4.10


Type 1200 -1205

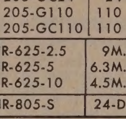

Type IR-625

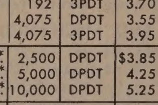
Type IR-805-S

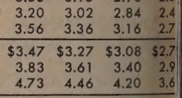
1200 Rated at 8 amps. 60 cycles, 115 V. non-inductive load. Heavy solde lug type terminals molded in phenolic block, with barriers for over-surfac insulation, built to meet U/L specifications. Applicable to automatio communications, remote control, selectors, switching devices and exper mental uses. Size, 1⅝″ x 1″ x 1¼″. Shpg. wt. 2.5 oz.
IR-625 plate circuit control with extra long coil for greater sensitivit Adaptable to voltage operating as well as sensitive plate circuit contr installations. Coil impregnated for reliability and longer life. Averag power requirement, 0.2 watts. Contacts, 8 amps. Size, 2⅛″ x 2″ x 1½ Shpg. wt. 5.5 oz. **IR-805-S** Group selector relay can simultaneousl make common up to 32 circuits. All circuits insulated from groun Contact blades molded in thermoseting phenolic. All contact membe completely enclosed. Phenolic plunger housing, 32 poles made commo upon energization. Size, 2⁷⁄₃₂″ x 1¹⁷⁄₃₂″ x 2⅛″. Shpg. wt. 6 oz.

Mfg. No.	Volts AC	Coil Res.	Cont. Comb.	Quantities 1-24	25-49	50-99	100-249	250 Up
1200-G6	6	2	DPDT	$3.60	$3.24	$3.06	$2.88	$2.5
1200-GC6	6	2	3PDT	4.00	3.60	3.40	3.20	2.8
1200-G24	24	33	DPDT	3.60	3.24	3.06	2.88	2.5
1200-GC24	24	33	3PDT	4.00	3.60	3.40	3.20	2.8
1200-C115	115	800	SPDT	3.50	3.15	2.98	2.80	2.4
1200-G115	115	800	DPDT	3.60	3.24	3.06	2.88	2.5
1200-GC115	115	800	3PDT	4.00	3.60	3.40	3.20	2.8
1200-G230	230	3,500	DPDT	3.85	3.47	3.27	3.08	2.7
1200-GC230	230	3,500	3PDT	4.25	3.83	3.61	3.40	2.9
	DC							
1205-G6	6	12	DPDT	$3.30	$2.97	$2.81	$2.64	$2.3
1205-GC6	6	12	3PDT	3.70	3.33	3.15	2.96	2.5
1205-G12	12	48	DPDT	3.30	2.97	2.81	2.64	2.3
1205-GC12	12	48	3PDT	3.70	3.33	3.15	2.96	2.5
1205-C24	24	192	SPDT	3.20	2.88	2.72	2.56	2.2
1205-G24	24	192	DPDT	3.30	2.97	2.81	2.64	2.3
1205-GC24	24	192	3PDT	3.70	3.33	3.15	2.96	2.5
1205-G110	110	4,075	DPDT	3.55	3.20	3.02	2.84	2.4
1205-GC110	110	4,075	3PDT	3.95	3.56	3.36	3.16	2.7
IR-625-2.5	9M.A.*	2,500	DPDT	$3.85	$3.47	$3.27	$3.08	$2.7
IR-625-5	6.3M.A.*	5,000	DPDT	4.25	3.83	3.61	3.40	2.9
IR-625-10	4.5M.A.*	10,000	DPDT	5.25	4.73	4.46	4.20	3.6
IR-805-S	24-DC	72 Ohms		$4.30	$3.87	$3.66	$3.44	$3.0

*Oper. Mils.


Type IR-610L.


Type IR-1200/1200

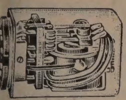

Type-X-300-ER

IR-610L Single coil and 5 ampere contact rating for S.P.S.T., or S.P.D. contact combinations. Recommended for positive ON/OFF control positioning devices, remote controls, lighting circuits, etc. Impulse short as M.S. energizes coil to reverse position of snap-action switch Holds last position of switch with coil de-energized. Size: 2¹⁄₁₆″ L. 1⅛″ W. x 1⅝″ H. Shpg. wt. 4 oz. **IR-1200/1200** Two interlocki AC relays in sturdy metal frame bracket. Used to maintain circu continuously without coil power consumption. Unit is electrically pu operated with mechanical hold and electrical release. Contacts rated 8 amps., 60 cps, non-inductive. Size, 1¹³⁄₁₆″ x 1¾″ x 2⅞″. Shpg. wt. 5.5
X-300-ER Applicable for use in industrial panel installation, provid precise protection from current surges and continuous overloads. Rem panel installation of control potentiometer simplifies adjustment of rel to operate on any current value from 250 to 750 milliamperes. Auxilia for pilot light indication of "overload" or "clear" position. Reset rel can be operated from any point convenient to operator. Insulati between coil and ground rated 3,000 v. Shpg. wt. 13 oz. Size, 4¾″x2x1

Mfg. No.	Volts AC	Cont. Comb.	Quantities 1-24	25-49	50-99	100-249	250 Up
IR-610L-A115	115	SPST	$3.80	$3.42	$3.23	$3.04	$2.6
IR-610L-C115	115	SPDT	3.95	3.56	3.36	3.16	2.7
IR-1200/1200-GG115		4PDT	10.25	9.23	8.71	8.20	7.1
X-300-ER	115		8.85	7.97	7.52	7.08	6.2

GUARDIAN ELECTRIC
MANUFACTURING COMPANY

. Available NOW from your STOCKING DISTRIBUTOR



ENCLOSED PLUG-IN AC-DC RELAY

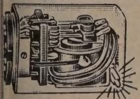
1210—1215

werful and economical relay enclosed in a transparent, lightweight te case which has high impact strength, unaffected by weather, is resistant to temperatures of 200° F. Relay available with 8 pin l plug for DPDT and 11 pin for 3PDT. Contacts rated for 8 amperes 0 cycles, 115 V. AC non-inductive load. Shipping Weight, 3.5 oz.

e, 2 23/32" x 1 3/8" x 1 3/8"				Quantities				
g. .	Volts AC	Coil Res.	Cont. Comb.	1- 24	25- 49	50- 99	100- 249	250- Up
10-G6	6,	2	DPDT	$5.70	$5.13	$4.85	$4.56	$3.99
10-GC6	6	2	3PDT	7.10	6.39	6.04	5.68	4.97
10-G24	24	33	DPDT	5.70	5.13	4.85	4.56	3.99
10-GC24	24	33	3PDT	7.10	6.39	6.04	5.68	4.97
10-G115	115	1,000	DPDT	5.70	5.13	4.85	4.56	3.99
10-GC115	115	1,000	3PDT	7.10	6.39	6.04	5.68	4.97
10-G230	230	5,230	DPDT	5.95	5.36	5.06	4.76	4.17
10-GC230	230	5,230	3PDT	7.35	6.62	6.25	5.88	5.15
	DC							
15-G6	6	12	DPDT	$5.80	$5.22	$4.93	$4.64	$4.06
15-GC6	6	12	3PDT	7.25	6.53	6.16	5.80	5.08
15-G12	12	60	DPDT	5.80	5.22	4.93	4.64	4.06
15-GC12	12	60	3PDT	7.25	6.53	6.16	5.80	5.08
15-G24	24	192	DPDT	5.80	5.22	4.93	4.64	4.06
15-GC24	24	192	3PDT	7.25	6.53	6.16	5.80	5.08
15-G110	110	5,042	DPDT	6.05	5.45	5.14	4.84	4.24
15-GC110	110	5,042	3PDT	7.50	6.75	6.38	6.00	5.25

CLOSED PLATE CIRCUIT PLUG-IN RELAY-DC

g.	Oper. Mils MA	Coil Res.	Cont. Comb.	1- 24	25- 49	50- 99	100- 249	250- Up
5-G2.5	10	2,500	DPDT	$6.00	$5.40	$5.10	$4.80	$4.20
5-GC2.5	12	2,500	3PDT	7.00	6.30	5.95	5.60	4.90
5-G5	7.2	5,000	DPDT	6.10	5.49	5.19	4.88	4.27
5-GC5	8.5	5,000	3PDT	7.20	6.48	6.12	5.76	5.04
5-G10	5	10,000	DPDT	6.40	5.76	5.44	5.12	4.48
5-GC10	6	10,000	3PDT	7.50	6.75	6.38	6.00	5.25



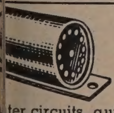
ENCLOSED PLUG-IN AC RELAY

1210-N

With Built-In Neon Lamp to Indicate Circuit Faults

plug-in relay utilizes a miniature neon lamp connected across erminals. The lamp lights each time the coil is energized, or ates a circuit fault when lamp is "dark." Ideal for detecting circuit in relay banks, mass relay arrangements, or where relays are y located at intermediate switching points of the circuitry. Pre-s the use of circuit testers. Available with 8 pin octal plug for and 11 pin for 3PDT. Contacts rated 8 amperes at 115 V. AC, cles, non-inductive load. Shipping Weight, 3.5 ounces.

, 2 23/32" x 1 3/8" x 1 3/8"			Quantities				
.	Coil Res.	Cont. Comb.	1- 24	25- 49	50- 99	100- 249	250- Up
0N-G115	1,000	DPDT	$6.30	$5.67	$5.36	$5.04	$4.41
0N-GC115	1,000	3PDT	7.70	6.93	6.55	6.16	5.39



ROTOMITE STEPPER-DC

IR-705-12P

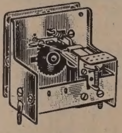
Unit enables engineers to apply the stepping relay principle over a wide range of applications. Applications include business machines, ter circuits, automated devices, counting, lighting, sorting, model among others. Stepping mechanism, coils and contacts completely ed. Continuous rotation on 12 positions up to 20 steps per second. ontact rating 3 amperes resistive, 1 ampere inductive (50% P.F.). ils are continuous duty for 6, 12, or 24 V. DC. Tests well over 000 operations. Shipping Weight, 5 ounces.

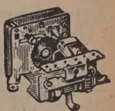
2" L. x 1 3/16" Dia.			Quantities				
	No. Pts.	Volts DC	1- 24	25- 49	50- 99	100- 249	250- Up
5-12P-6D	12	6	$5.40	$4.86	$4.59	$4.32	$3.78
5-12P-12D	12	12	5.40	4.86	4.59	4.32	3.78
5-12P-24D	12	24	5.40	4.86	4.59	4.32	3.78

STEPPING CONTROLS

For accurate sequence selecting, pulse multiplying, pulse dividing, circuit selecting, automatic homing, remote homing, counting and latching. Guardian steppers are specified for automatic control of electrically operated business machines, accumulators (coin and other), animated displays, electric scoreboards, automatic overhead garage doors, assembly line controls, automatic packaging (loading) controls, sump pump controls, commercial slide projectors, electric scoreboards, among others. All Guardian steppers are *intermittent duty* direct-drive units with switching operations completed upon energization.

CONTINUOUS ROTATION



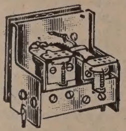


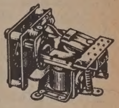
IR-M.C.

Type IR-P.C. Constructed with micro-finished shaft and Oilite shaft bearing. Beryllium copper pawl control shutter. Selection contacts are terminated on a phenolic board, solder beaded for easy soldering. Mechanical life expectancy estimated 4,000,000 steps. Will operate satisfactorily at 15% below or 10% above rated voltage.

Type IR-M.C. is a smaller continuous rotation operation stepper similar to the P.C. with life expectancy of 2,000,000 steps.

ELECTRICAL RESET



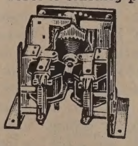


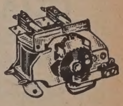
M.E.R.

Type IR-P.E.R. Constructed with micro-finished shaft and Oilite shaft bearing. Positive mechanical stops limit total number of "steps" in any single unit. Returns automatically to home or start position when reset coil is energized.

Type M.E.R. A direct drive (steps on energization) with positive mechanical reset interlock actuated by the reset magnet and unlocked on the first energization of the step magnet. Assures positive reset on as short a pulse as one-hundredth of a second or even from its own selection contacts. Unit is capable of counting in groups up to 21, then resetting automatically. By interconnecting two or more Steppers, count can be increased to any desired total counting by tens, or any convenient multiple. Will control a sequence of operation and then automatically reset to starting position.

ADD AND SUBTRACT





IR-M.A.S.

Type IR-R.A.S. Non-ferrous shutters control motion of the pawl to extend life of unit and prevent skipping of the ratchet. Steps one step at a time in either direction, depending upon which one of two coils may be energized.

Type IR-M.A.S. Midget Add and Subtract Stepper is similar to the R.A.S. in general operation. A zero position switch is opened at home position.

Auxiliary switches connected in series with the commutator of the selecting finger may be added to the step and/or reset magnet to increase the normal contact rating. The Guardian Series 200-M3 Contact Switch Kit may be used to add switches (except RAS stepper). Contact fingers are insulated from the shaft. Guardian Steppers are *intermittent duty units* rated at 10% duty cycle (out of each hour), maximum energization single period, 5 minutes. See chart for details.

All stepper contact points are rated 1½ amps resistive, at 115 V., 60 cps. Coil* Voltages are 115 V. AC, 60 cps.

Mfg. No.	Volt Amperes	Watts	Number of Points	No. of Active Contacts ***	Max. Steps Per Second	Shpg. Wt. Oz.
IR-PC-115	70	45	40	40	20	17
IR-MC-115	30	18	24	24	20	9½
IR-PER-115	70-25**	45-15**	40	36	20	22
MER-115	30-9**	18-7**	24	22	20	11½
IR-RAS-115	100	45	40	38	10	29½
IR-MAS-115	15	10	30	****	10	11

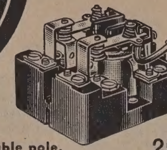
*Steppers will operate satisfactorily at 15% below or 10% above rated voltage.
**Listings are for stepping coil and reset coil, respectively.
***Includes Zero (0) position.
****Zero (0) position switch only.

Mfg. No.	SIZE			Quantities				
	Length	Width	Height	1- 24	25- 49	50- 99	100- 249	250- Up
IR-PC-115	3⅜	3	3 9/16	$18.15	$16.34	$15.43	$14.52	$12.71
IR-MC-115	2 3/16	3	3¼	13.00	11.70	11.05	10.40	9.10
IR-PER-115	3	3⅜	3 9/16	24.20	21.78	20.57	19.36	16.94
MER-115	3¼	2 3/16	3¼	14.00	12.60	11.90	11.20	9.80
IR-RAS-115	3 1/16	4⅛	3 9/16	25.30	22.77	21.51	20.24	17.71
IR-MAS-115	1 15/16	3⅛	3	15.95	14.36	13.56	12.76	11.17

GUARDIAN ELECTRIC
MANUFACTURING COMPANY

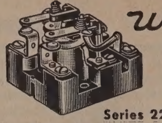
GUARDIAN® POWER RELAYS

with Interchangeable Coil Assemblie



Series 2200
D.P.D.T.
Contacts: double pole, double throw. Wt. 11 oz.
Size: 3⅜" x 2½" x 2³⁄₁₆".

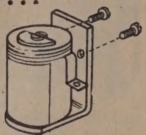
25 Amperes



Series 2210.
D.P.S.T.N.O. Contacts: double pole, single throw, normally open. Wt. 10 oz.
Size: 2¹¹⁄₁₆" x 2½" x 2³⁄₁₆".

Interchangeable Coil Assemblies . . .

(No Solder Connections)



By removing two easily accessible screws, coil assembly can be replaced by coil of another value. Complete instructions for this operation are included with each unit. Solder connections are not required when changing coils.

Replacement Coils for Either Relay

Mfg. No.	Volts AC	Quantities 1-24	25-49	50-99	100-249	250-UP
2200-6A	6	$2.25	$2.03	$1.91	$1.80	$1.57
2200-24A	24	2.25	2.03	1.91	1.80	1.57
2200-115A	115	2.25	2.03	1.91	1.80	1.57
2200-230A	230	2.50	2.25	2.13	2.00	1.75

POWER RELAY REPLACEMENT CONTACT SWITCH PARTS

Available for Series 2200, only—Replacement Contact Switch Parts for easy right or left S.P.D.T. assembly. No solder needed. Package contains one normally open and one normally closed contact bracket, complete moving blade and one terminal. Left or Right Switch Assemblies determined by viewing relay from armature hinge end with contacts up.

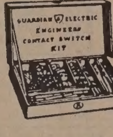
Mfg. No.	Quantities 1-24	25-49	50-99	100-249	250-UP
CS-2200—LEFT	$1.85	$1.67	$1.57	$1.48	$1.29
CS-2200—RIGHT	1.85	1.67	1.57	1.48	1.29

The Guardian Series 2200, D.P.D.T., and the Series 2210, D.P.S.T.N. power relays have 25-ampere contacts and *interchangeable* coil assemb for either relay. Replaceable contact switch parts available for Se 2200, only. These power relays provide a much wider latitude of con for a variety of heavy duty industrial applications including m starting and heater loads. Series 2200 and 2210 power relays are rate 25 amperes, continuous duty at 230 volts A.C., with 75% power fac Operating power requirement for A.C. is 9.5 volt amperes, 60 cycles. drain approximately .080 amperes at 115 volts, 60 cycles. Approxi weight of replacement coil assemblies is 6 ounces.

MOUNTING: 2 holes .196"dia. on 1⅞" centers.

2200 and 2210 Power Relays

Mfg. No.	Volts AC	Quantities 1-24	25-49	50-99	100-249	250-
2200-DPDT-6	6	$6.10	$5.49	$5.19	$4.88	$4.2
2200-DPDT-24	24	6.10	5.49	5.19	4.88	4.2
2200-DPDT-115	115	6.10	5.49	5.19	4.88	4.2
2200-DPDT-230	230	6.50	5.85	5.53	5.20	4.5
2210-DPST-N.O.-6	6	5.25	4.73	4.46	4.20	3.6
2210-DPST-N.O.-24	24	5.25	4.73	4.46	4.20	3.6
2210-DPST-N.O.-115	115	5.25	4.73	4.46	4.20	3.6
2210-DPST-N.O.-230	230	5.60	5.04	4.76	4.48	3.9



ENGINEER'S CONTACT SWITCH KIT

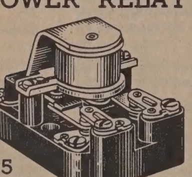
Guardian Contact Switch Kit is indispens to experimental engineers and those who des plan, build, repair or test electrically oper controls. All materials are standard high-qu Guardian production items.

Net Ea. $10.95

GUARDIAN

Series 2400 AC – 2405 DC POWER RELAY

In power applications that require up to 15 ampere contacts the Guardian Series 2400 A.C., or Series 2405 D.C.P Relays are specified. Both have standard D.P.D.T. contacts rated for 15 amperes non-inductive, or 1 H.P 115/230 volts, 60 cycles. Series 2400 standard coil voltages are 6, 12, 24 and 115 V.A.C. Series 2405 standard voltages are 6, 12, 24 and 110 V.D.C. Inverted coil construction protects armature and contacts. Armature extension permits manual circuit testing. Screw type terminals easily accessible for top or bottom connections. Easy to mount recessed auxiliary switch, up to S.P.D.T. for 10 ampere operation, available for both A.C. and D.C. versions.



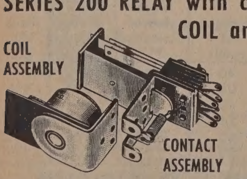
15 Amperes

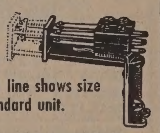
Size: 3⁵⁄₁₆"x2½"x2¹⁄₁₆"
Shpg. Wt.: 8 ounces.
Mounting: Two .196" Dia. holes on 1⅞" centers.

Mfg. No.	Volts	Rating	Quantities 1-24	25-49	50-99	100-249	20 U
2400-DPDT-6	6 AC	15 Amps.	$5.40	$4.86	$4.59	$4.32	$3.
2400-DPDT-24	24 AC	15 Amps.	5.40	4.86	4.59	4.32	3.
2400-DPDT-115	115 AC	15 Amps.	5.40	4.86	4.59	4.32	3.
2400-DPDT-230	230 AC	15 Amps.	5.70	5.13	4.85	4.56	3.
2405-DPDT-6	6 DC	15 Amps.	$5.60	$5.04	$4.76	$4.48	$3.
2405-DPDT-12	12 DC	15 Amps.	5.60	5.04	4.76	4.48	3.
2405-DPDT-24	24 DC	15 Amps.	5.60	5.04	4.76	4.48	3.
2405-DPDT-110	110 DC	15 Amps.	5.90	5.31	5.02	4.72	4.
2400-SPDT-AUX Auxiliary Switch		10 Amps.	$1.35	$1.21	$1.15	$1.08	$.

GUARDIAN

SERIES 200 RELAY with completely interchangeable COIL and CONTACT ASSEMBLIES





MIDGET CONTACT ASSEMBLY. Dotted line shows size of standard unit.

Two basic parts—a coil assembly and a contact switch assembly—comprise this simple, yet versatile Guardian relay. The coil assembly consists of the coil and field piece; the contact assembly consists of switch blades, armature, return spring and mounting bracket. The Guardian Midget Contact Assembly is *interchangeable* with the standard Series 200 coil assembly. Available with SPDT, DPDT or 4 PDT contact switch assemblies, each *interchangeable* with all A.C. or D.C. coils.

CONTACT SWITCH PARTS Use contact switch parts 200-3 for adding poles to contact switch assemblies 200-1 and 200-2. Use midget contact switch parts 200-M3 to add poles to midget contact switch assemblies 200-M1 and 200-M2.

Mfg. No.	Quantities 1-24	25-49	50-99	100-249	250-UP
200-3	$1.50	$1.35	$1.28	$1.20	$1.05
200-M3	$1.50	$1.35	$1.28	$1.20	$1.05

SERIES 200

Mfg. No.	Coils	Volts	Quantities 1-24	25-49	50-99	100-249	2
200-6A	A.C.	6	$1.75	$1.58	$1.49	$1.40	$1.
200-12A	A.C.	12	1.75	1.58	1.49	1.40	1.
200-24A	A.C.	24	1.75	1.58	1.49	1.40	1.
200-115A	A.C.	115	2.05	1.85	1.74	1.64	1.
200-230A	A.C.	230	2.70	2.43	2.30	2.16	1
200-6D	D.C.	6	1.90	1.71	1.62	1.52	1
200-12D	D.C.	12	1.90	1.71	1.62	1.52	1
200-24D	D.C.	24	1.90	1.71	1.62	1.52	1
200-32D	D.C.	32	1.90	1.71	1.62	1.52	1
200-110D	D.C.	110	2.50	2.25	2.13	2.00	1
200-5,000D	PLATE COIL		2.20	1.98	1.87	1.76	1
200-10,000D	PLATE COIL		2.50	2.25	2.13	2.00	1

CONTACT SWITCH ASSEMBLIES

Mfg. No.	Type	Contact Amps.	Cont. Comb.	Quantities 1-24	25-49	50-99	100-249	2
200-1	STANDARD	8	SPDT	$1.50	$1.35	$1.28	$1.20	$1
200-2	STANDARD	8	DPDT	2.00	1.80	1.70	1.60	1
200-4	STANDARD	12.5	DPDT	2.25	2.03	1.91	1.80	1
200-5	STANDARD	8	4PDT	3.50	3.15	2.98	2.80	2
200-M1	MIDGET	10	SPDT	1.40	1.26	1.19	1.12	
200-M2	MIDGET	10	DPDT	1.75	1.58	1.49	1.40	1
200-M5	MIDGET	8	4PDT	2.85	2.57	2.42	2.28	1

GUARDIAN

A.C. INDUSTRIAL SOLENOIDS ® D.C.

INTERMITTENT AND CONTINUOUS

A Complete Line for Every Industrial Application

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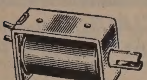
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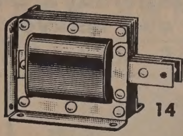
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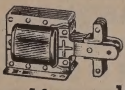
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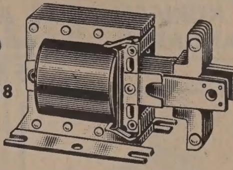
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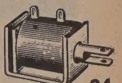
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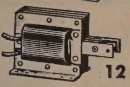
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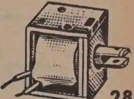

28

ermittent duty solenoids may be specified when the cycle of operations es not require energization of the solenoid coil for more than five isecutive minutes with a sufficient time lapse between operations to mit cooling of the coil to approximately the 24° C. (72° F.) ambient perature. If energized more frequently and for shorter periods, the le should be such that the temperature rise of the coil is not greater than 85° C. (185° F.) at 24° C. ambient temperature. **Continuous duty** solenoids are constructed that they will not exceed a maximum temperature rise of 85° C. above 24° C. ambient temperature under continuous operation, at rated load. Ambient temperature for temperature rise tests on these solenoids has been fixed at 24° C. (72° F.).

fg. lo.	Duty		Volts	Ohms	Amps	Power Req.	Max. *Lift (Oz.)	Adj. Stroke Inches	Size Shipping Weight	Quantities 1-24	25-49	50-99	100-249	250-Up
-Int-115A	AC	Inter.	115AC	300	.17	20VA.	8.0	⅛″-½″	1 1/16″ H. x 1¾″ L. x 15/16″ W. Shipping Wt. 4.5 ounces	$2.80	$2.52	$2.38	$2.24	$1.96
-Cont-115A		Cont.	115AC	675	.076	9VA	3.0	⅛″-⅜″		2.80	2.52	2.38	2.24	1.96
-Int-24D	DC	Inter.	24DC	42.6	.56	14.70W	5.0	⅛″-⅜″	1 1/16″ H. x 1¾″ L. x 15/16″ W. Shipping Wt. 4.5 ounces	2.50	2.25	2.13	2.00	1.75
-Cont-24D		Cont.	24DC	74.4	.32	7.01W	2.0	⅛″-¼″		2.50	2.25	2.13	2.00	1.75
-Int-115D		Inter.	115DC	803	.14	14.70W	5.0	⅛″-⅜″		3.00	2.70	2.55	2.40	2.10
-Cont-115D		Cont.	115DC	2070	.05	7.01W	2.0	⅛″-¼″		3.00	2.70	2.55	2.40	2.10
t-115A	AC	Inter.	115AC	60	.50	61VA	27.0	⅛″-⅞″	1⅝″ H. x 1 9/16″ L. x 1 7/16″ W. Shipping Wt. 10 ounces	3.20	2.88	2.72	2.56	2.24
ont-115A		Cont.	115AC	166	.155	18VA	10.5	⅛″-⅞″		3.20	2.88	2.72	2.56	2.24
t-115A	AC	Inter.	115AC	37	.64	75VA	24.0	⅛″-1″	1⅝″ H. x 2″ L. x 1 7/16″ W. Shipping Wt. 14.5 ounces	3.80	3.42	3.23	3.04	2.66
ont-115A		Cont.	115AC	133	.14	16VA	6.0	⅛″-½″		3.80	3.42	3.23	3.04	2.66
t-24D	DC	Inter.	24DC	15	1.6	37.4W	57.0	⅛″-1″	1⅝″ H. x 2″ L. x 1 7/16″ W. Shipping Wt. 14.5 ounces	3.80	3.42	3.23	3.04	2.66
ont-24D		Cont.	24DC	50	.48	10.8W	20.0	⅛″-⅞″		3.80	3.42	3.23	3.04	2.66
t-115D		Inter.	115DC	346	.33	37.4W	57.0	⅛″-1″		4.00	3.60	3.40	3.20	2.80
ont-115D		Cont.	115DC	1210	.09	10.8W	20.0	⅛″-⅞″		4.00	3.60	3.40	3.20	2.80
nt-24A	AC	Inter.	24AC	5.1	1.10	26.4VA	20.0	⅛″-1″	1 3/16″ H. x 1 5/16″ L. x 1 27/32″ W. Shipping Wt. 7.5 ounces	2.70	2.43	2.30	2.16	1.89
Cont-24A		Cont.	24AC	12	.33	7.9VA	8.0	⅛″-1″		2.70	2.43	2.30	2.16	1.89
nt-115A		Inter.	115AC	125	.225	26.0VA	20.0	⅛″-1″		2.70	2.43	2.30	2.16	1.89
Cont-115A		Cont.	115AC	300	.072	8.0VA	8.0	⅛″-1″		2.70	2.43	2.30	2.16	1.89
nt-6D	DC	Inter.	6DC	2	3.00	18.0W	39.0	⅛″-⅞″	1 3/16″ H. x 1 5/16″ L. x 1 27/32″ W. Shipping Wt. 7.5 ounces	2.70	2.43	2.30	2.16	1.89
Cont-6D		Cont.	6DC	5	1.2	7.2W	21.0	⅛″-⅝″		2.70	2.43	2.30	2.16	1.89
nt-24D		Inter.	24DC	32	.750	18.0W	39.0	⅛″-⅞″		2.70	2.43	2.30	2.16	1.89
Cont-24D		Cont.	24DC	72	.333	8.0W	21.0	⅛″-⅝″		2.70	2.43	2.30	2.16	1.89
nt-115A	AC	Inter.	115AC	100	.27	32VA	32.0	⅛″-1″	1 7/16″ H. x 1⅝″ L. x 1 3/16″ W. Shipping Wt. 6 ounces	4.15	3.74	3.53	3.32	2.90
ont-115A		Cont.	115AC	150	.155	18VA	22.0	⅛″-⅞″		4.15	3.74	3.53	3.32	2.90
nt-115A	AC	Inter.	115AC	11	1.4	164VA	110.0	⅛″-1½″	2 1/16″ H. x 2 7/16″ L. x 1 7/16″ W. Shipping Wt. 19 ounces	5.50	4.95	4.68	4.40	3.85
ont-115A		Cont.	115AC	18	.52	61VA	65.0	⅛″-1½″		5.50	4.95	4.68	4.40	3.85
nt-115A	AC	Inter.	115AC	41	.54	62VA	96.0	⅛″-¾″	1 7/16″ H. x 1⅝″ L. x 1⅛″ W. Shipping Wt. 7.5 ounces	3.20	2.88	2.72	2.56	2.24
ont-115A		Cont.	115AC	85	.19	23VA	55.0	⅛″-⅝″		3.20	2.88	2.72	2.56	2.24
t-230A		Inter.	230AC	224	.230	49VA	96.0	⅛″-¾″		3.40	3.06	2.89	2.72	2.38
ont-230A		Cont.	230AC	350	.110	25VA	55.0	⅛″-⅝″		3.40	3.06	2.89	2.72	2.38
t-115A	AC	Inter.	115AC	8.8	1.45	170VA	304.0	⅛″-1″	2 1/16″ H. x 2½″ L. x 1 13/16″ W. Shipping Wt. 16.5 ounces	4.50	4.05	3.83	3.60	3.15
ont-115A		Cont.	115AC	19.7	.39	45VA	145.0	⅛″-1″		4.50	4.05	3.83	3.60	3.15
t-230A		Inter.	230AC	45	.59	136VA	304.0	⅛″-1″		4.70	4.23	4.00	3.76	3.29
ont-230A		Cont.	230AC	78	.20	46VA	145.0	⅛″-1″		4.70	4.23	4.00	3.76	3.29
nt-6D	DC	Inter.	6DC	4.7	1.27		24.0	1/16″-⅜″	¾″ H. x 1⅛″ L. x ¾″ W. Shipping Wt. 2.5 ounces	2.60	2.34	2.21	2.08	1.82
ont-6D		Cont.	6DC	9	.667		13.0	1/16″-¼″		2.60	2.34	2.21	2.08	1.82
nt-24D		Inter.	24DC	60	.4		24.0	1/16″-⅜″		2.60	2.34	2.21	2.08	1.82
ont-24D		Cont.	24DC	144	.167		13.0	1/16″-¼″		2.60	2.34	2.21	2.08	1.82
nt-115A	AC	Inter.	115AC	310	.13		19.0	1/16″-⅝″	59/64″ H. x 1¼″ L. x 27/32″ W. Shipping Wt. 3 ounces	2.95	2.66	2.51	2.36	2.06
ont-115A		Cont.	115AC	500	.07		12.0	1/16″-⅝″		2.95	2.66	2.51	2.36	2.06
nt-24A	AC	Inter.	24AC	7.5	.900		35.0	1/16″-½″	1 3/16″ H. 1⅛″ L. x 15/16″ W. Shipping Wt. 3 .5 ounces	2.70	2.43	2.30	2.16	1.89
Cont-24A		Cont.	24AC	17.4	.340		20.0	1/16″-½″		2.70	2.43	2.30	2.16	1.89
nt-115A		Inter.	115AC	220	.160		35.0	1/16″-½″		2.90	2.61	2.46	2.32	2.03
ont-115A		Cont.	115AC	400	.077		20.0	1/16″-½″		2.90	2.61	2.46	2.32	2.03
nt-6D	DC	Inter.	6DC	3.3	1.80		41.0	1/16″-½″	1 3/16″ H. 1⅛″ L. x 15/16″ W. Shipping Wt. 3.5 ounces	2.60	2.34	2.21	2.08	1.82
Cont-6D		Cont.	6DC	7.7	.78		35.0	1/16″-⅜″		2.60	2.34	2.21	2.08	1.82
nt-12D		Inter.	12DC	13	.92		41.0	1/16″-½″		2.60	2.34	2.21	2.08	1.82
Cont-12D		Cont.	12DC	27	.45		35.0	1/16″-⅜″		2.60	2.34	2.21	2.08	1.82
nt-24D		Inter.	24DC	50	.48		41.0	1/16″-½″		2.60	2.34	2.21	2.08	1.82
Cont-24D		Cont.	24DC	104	.23		35.0	1/16″-⅜″		2.60	2.34	2.21	2.08	1.82

Data Obtained During "Cold" Operation, when plunger is down.

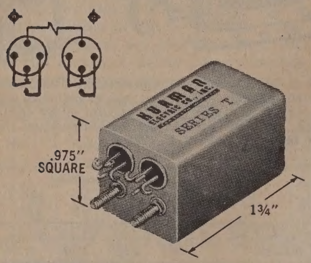
GUARDIAN ELECTRIC

MANUFACTURING COMPANY

KURMAN RELAYS

At KURMAN SALES AGENCIES, yesterday's SPECIALS are today's STANDARDS . . . stocked in your own backyard at Factory Prices!

SENSITIVE RELAYS

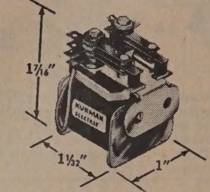


SERIES T002

SUB-MINIATURE — DC

Highest quality sensitive relay meeting both military and commercial DC requirements. Sensitivity—40 milliwatts—DPDT. Wide range of coil resistances up to 20,000 ohms. Special versions as low as 10 milliwatts. Mounting: 2 #4-40 screws on ½" centers.

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	Net Ea. 1-10
T002-2000	2000	4.5 MA	DPDT	2	$15.10
T002-5000	5000	2.8 MA	DPDT	2	16.25
T002-8000	8000	2.2 MA	DPDT	2	16.75

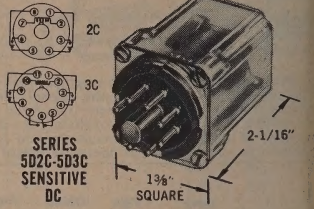


SERIES 52C-54C SENSITIVE DC

The 52C, DPDT and 54C, 4PDT are the smallest, lightest plate circuit relays offering self-wiping contacts. Either of two adjustments can be specified—50 milliwatts per pole (5 amp contacts) and "OFF THE SHELF" 100 milliwatts per pole (5 amp contacts). Coil resistances are available up to 20,000 ohms. Variations can be supplied up to 4PDT including hermetic sealing. Mounting: two No. 6/32 tapped holes on 0.437" centers.

100 MILLIWATTS PER POLE

Relay No.	(Ohms) Coil Resistance	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
52C-500	500	DPDT	5	$5.60
52C-2500	2500	DPDT	5	5.60
52C-5000	5000	DPDT	5	5.90
52C-8000	8000	DPDT	5	6.10
52C-10000	10000	DPDT	5	6.20
54C-500	500	4PDT	5	6.95
54C-2500	2500	4PDT	5	6.95
54C-5000	5000	4PDT	5	7.15
54C-8000	8000	4PDT	5	7.45
54C-10000	10000	4PDT	5	7.65



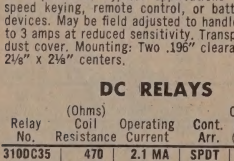
SERIES 5D2C-5D3C SENSITIVE DC

All standard operating characteristics of Series 52C are available in this new polystyrene high heat cover. Two adjustment ranges are provided—50 milliwatts per pole and "OFF THE SHELF" 100 milliwatts per pole. Variations can be supplied with contact arrangements up to 3PDT only. Mounting 8 pin octal plug for 5D2C; 11 pin for 5D3C.

100 MILLIWATTS PER POLE

Relay No.	(Ohms) Coil Resistance	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
5D2C-500	500	DPDT	5	$6.60
5D2C-2500	2500	DPDT	5	6.60
5D2C-5000	5000	DPDT	5	6.80
5D2C-8000	8000	DPDT	5	7.10
5D2C-10000	10000	DPDT	5	7.20
5D3C-500	500	3PDT	5	7.70
5D3C-2500	2500	3PDT	5	7.70
5D3C-5000	5000	3PDT	5	8.00
5D3C-8000	8000	3PDT	5	8.30
5D3C-10000	10000	3PDT	5	8.40

SEE COMPLETE ENGINEERING SPECS FOLLOWING CATALOG LISTINGS



SERIES 310 MICROAMP DC SERIES 321 MICROAMP AC

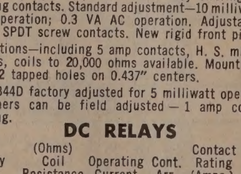
High sensitivity relay—2 milliwatts. Ideal for all low power in-put circuits where available current is at a premium. Typical applications include high speed keying, remote control, or battery operated devices. May be field adjusted to handle currents up to 3 amps at reduced sensitivity. Transparent plastic dust cover. Mounting: Two .196" clearance holes on 2⅛" x 2⅛" centers.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
310DC35	470	2.1 MA	SPDT	1	$8.85
310DC37	1200	1.3 MA	SPDT	1	8.85
310DC40	4680	0.7 MA	SPDT	1	8.85
310DC42	11700	0.4 MA	SPDT	1	10.75
310DC44	29250	0.25 MA	SPDT	1	12.40

AC RELAYS

Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps)	1-10 Net Ea.
321DC78	6 V	SPDT	2	$9.25
321DC81	12 V	SPDT	2	9.25
321DC84	24 V	SPDT	2	9.25
321DC91	110 V	SPDT	2	9.50



SERIES 51C — MIDGET — AC or DC

Smallest, lightest plate circuit relay offering self-wiping contacts. Standard adjustment—10 milliwatts* DC operation; 0.3 VA AC operation. Adjustable 2 amp. SPDT screw contacts. New rigid front pile-up.

Variations—including 5 amp contacts, H. S. military relays, coils to 20,000 ohms available. Mounting: 2 #6-32 tapped holes on 0.437" centers.

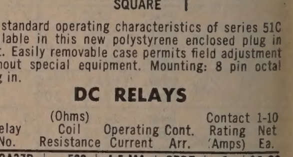
*51CB44D factory adjusted for 5 milliwatt operation — others can be field adjusted — 1 amp contact rating.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps.)	1-10 Net Ea.
51CA37D	500	4.5 MA	SPDT	2	$5.20
51CA40D	2000	2.3 MA	SPDT	2	5.20
51CA42D	5000	1.4 MA	SPDT	2	5.70
51CA43D	8000	1.2 MA	SPDT	2	5.70
51CB44D	13000	0.6 MA	SPDT	1	6.20

AC RELAYS

Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps.)	1-10 Net Ea.
51C83A	6 V	SPDT	2	$5.60
51C86A	12 V	SPDT	2	5.60
51C89A	24 V	SPDT	2	5.60



SERIES 5D1C DUST COVER AC AND DC OPERATION

All standard operating characteristics of series 51C available in this new polystyrene enclosed plug in unit. Easily removable case permits field adjustment without special equipment. Mounting: 8 pin octal plug in.

DC RELAYS

Relay No.	(Ohms) Coil Resistance	Operating Current	Cont. Arr.	Contact Rating (Amps)	1-10 Net Ea.
5D1CA37D	500	4.5 MA	SPDT	2	$6.20
5D1CA40D	2000	2.3 MA	SPDT	2	6.20
5D1CA42D	5000	1.4 MA	SPDT	2	6.70
5D1CA43D	8000	1.2 MA	SPDT	2	6.70
5D1CB44D	13000	0.6 MA	SPDT	1	7.20

AC RELAYS

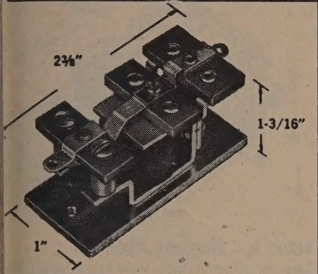
Relay No.	Operating Voltage	Contact Arrangement	Contact Rating (Amps)	1-10 Net Ea.
5D1C83A	6 V	SPDT	2	$6.60
5D1C86A	12 V	SPDT	2	6.60
5D1C89A	24 V	SPDT	2	6.60

© U.C.P.

IMMEDIATE DELIVERY

of stock relays at factory prices will save you engineering and purchasing time

POWER AND ANTENNA RELAYS



SERIES 261C—ECONOMY POWER

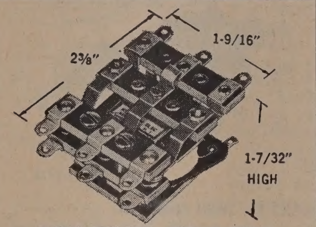
Both space and cost economy have been carefully balanced in the design of this heavy duty power relay. SPDT contacts rated at carrying continuous loads of 20 amps are standard. AC or DC operation. Mounting: 2 #6-32 tapped holes on 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
261C	SPDT	20	$5.45	$6.00

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
261C	SPDT	20	$5.45	$6.00



SERIES 262C-263C—MEDIUM POWER

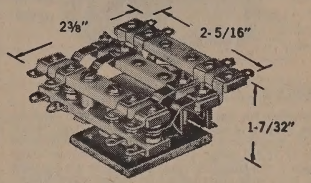
The DPDT and 3PDT relays feature self-wiping contacts, which will continuously handle 20 amp loads. AC or DC coils. This high speed relay will handle the majority of all power applications. Standard operating power; 1 watt—DPDT; 1½ watts—3PDT. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
262C	DPDT	20	$6.45	$7.00
263C	3PDT	20	6.95	7.50

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
262C	DPDT	20	$6.45	$7.00
263C	3PDT	20	6.95	7.50

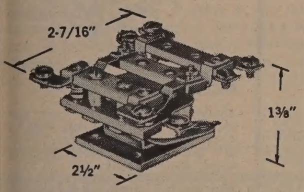


SERIES 264C—MEDIUM POWER—DC

Special version of Series 26 for DC application only. Available as 4PDT. With a minimum of operating power, it is now possible to handle up to 4 power control circuits at one time. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
264C	4PDT	10	$8.55	$9.15

SEE COMPLETE ENGINEERING SPECS FOLLOWING CATALOG LISTINGS



SERIES 26L—SCREW TERMINALS

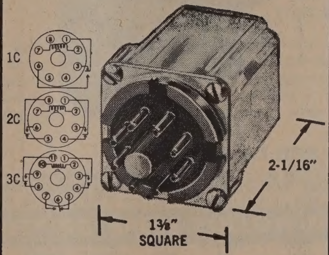
leavy duty industrial control relay for all applica-ions requiring high speed operation, long life and eliable high current contacts. All contacts rated at 0 amp. Heavy duty screw terminals. Mounting: two /16" diameter holes on 1⅞" centers.

DC RELAYS

ype	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
6L2C	DPDT	30	$7.20	$7.75

AC RELAYS

ype	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
6L2C	DPDT	30	$7.20	$7.75



SERIES 26D—DUST COVER

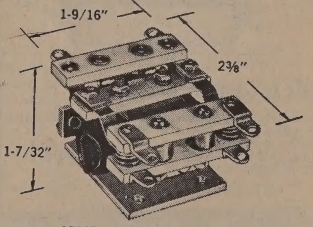
Midget version of standard Series 26 in clear polystyrene enclosure. Available up to 3PDT with standard contacts rated at 10 amps. Mounting: 8 pin octal plug in for standard DPDT; 11 pin octal type plug in for 3PDT.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
26D1C	SPDT	10	$5.45	$5.95
26D2C	DPDT	10	6.45	7.00
26D3C	3PDT	10	7.95	8.50

AC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24, 115 V Net	230 V Net
26D1C	SPDT	10	$5.45	$6.15
26D2C	DPDT	10	6.45	8.00
26D3C	3PDT	10	7.95	8.50



SERIES 252C-253C—ANTENNA

Powerful antenna change-over relay, capable of transferring up to 1500 watts RF load. High speed DPDT self-wiping contacts. AC or DC operation. Low loss handling of RF energy is insured by the use of G-7 insulating bridges. Present use includes the 450 megacycle range. Standard operating power—1 watt. Mounting: 4 #6-32 tapped holes on 13/16" x 1-3/16" centers.

DC RELAYS

Type	Contact Arr.	Contact Rating (Amps)	6, 12 24 V Net	110 V Net
252C	DPDT	1.5 KW RF	$7.50	$8.10
253C	3PDT	1.5 KW RF (2C) 20 amp (1C)	8.50	8.60

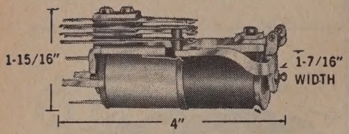
AC RELAYS

Type	Contact Arr	Contact Rating (Amps)	6, 12 24 V 115 V Net
252C	DPDT	1.5 KW RF	$7.50
253C	3PDT	1.5 KW RF (2C) 20 amp (1C)	8.00

All prices are for orders from 1-10 relays. Write for quantity discounts.

KURMAN RELAYS

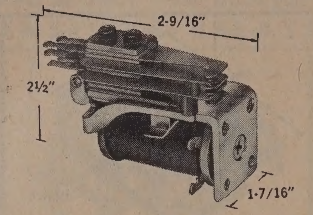
MICRO-MINIATURE AND TELEPHONE TYPE RELAYS



SERIES A — LONG FORM — DC

Designed for applications requiring rapid opening and closing of up to 15 individual circuits (forms A-E). Single or double wound coils with resistances up to 75,000 ohms. The heavy duty armature hinge with a non-loosening knurled armature pin provides an extra long operational life. Tinned solder terminals for rear of panel wiring. For sensitivity, ruggedness, reliability, multiple switching and economy, the Series A has no equal. Mounting: 2 #8-32 tapped holes on ¾" centers.

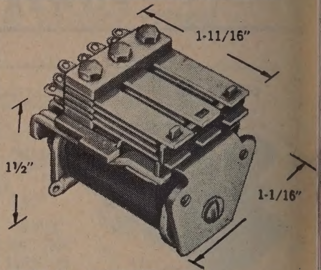
Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
A004-6	4PDT	6	40	3	$8.65
A004-12	4PDT	12	140	3	9.10
A004-24	4PDT	24	600	3	9.20
A004-110	4PDT	110	10,000	3	10.30



SERIES E — SHORT FORM — DC

Featuring all the benefits of the long form relay, and incorporating a shortened coil and heel piece, this relay is desired where space economy is a factor. Extremely fast contact switching — ideal for computer applications. High reliability—designed for hundreds of millions of operations. Sensitive versions as low as 100 milliwatt per pole. Mounting: 4 #8-32 tapped mounting holes on ⅝" x ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
E004-6	4PDT	6	40	3	$7.65
E004-12	4PDT	12	145	3	8.10
E004-24	4PDT	24	590	3	8.20
E004-110	4PDT	110	10,000	3	9.30

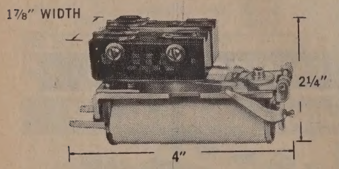


SERIES M — MINIATURE — DC

Ideal for all applications where space, weight and economy are factors. Short springs and light-weight armature provide fast action, reliability and long life. Up to 18 contact arms, forms (A-D). Good shock and vibration characteristics. DC operation only. Mounting: 2 #4-40 tapped holes on ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
M004-6	4PDT	6	30	3	$6.30
M004-12	4PDT	12	120	3	6.30
M004-24	4PDT	24	480	3	6.30
M004-110	4PDT	110	12,000	3	7.25

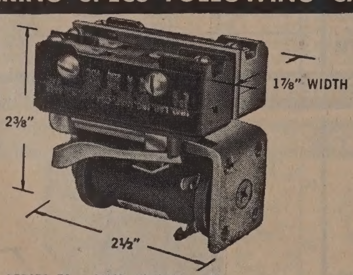
SEE COMPLETE ENGINEERING SPECS FOLLOWING CATALOG LISTINGS



SERIES AS — SNAP ACTION — DC

Special version of Series A shown above, offered with either one or two snap action switches. For sensitive switching of power control circuits, carrying currents of up to 15 amps per pole. Mounting: 2 #8-32 tapped holes on ¾" centers.

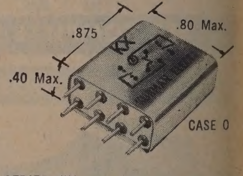
Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
AS2-6	DPDT	6	40	15	$12.00
AS2-12	DPDT	12	140	15	12.45
AS2-24	DPDT	24	600	15	12.55
AS2-110	DPDT	110	10,000	15	13.70



SERIES ES — SNAP ACTION — DC

Either one or two snap action switches mounted on standard Series E frame, offering sensitive operation, handling high currents in ⅝ of the volume of the Series AS. Mounting: 4 #8-32 tapped holes on ⅝" x ¾" centers.

Relay No.	Contact Arr.	Coil Volt	Coil (Ohms)	Contact Rating (Amps)	Net 1-10
ES2-6	DPDT	6	23	15	$11.50
ES2-12	DPDT	12	92	15	11.95
ES2-24	DPDT	24	370	15	12.05
ES2-110	DPDT	110	8,250	15	13.20



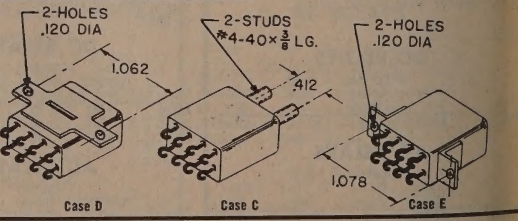
SERIES KX1 — MICRO-MINIATURE — DC

Equipped with special DPDT 2 amp contacts rated to carry any load from dry circuit to full rating. Features at 1/10" grid spaced header. Nominal operating power—250 milliwatts.

New torsional rotation balanced armature offers 20G, 2,000 cycle vibration and 50G shock immunity. Proven reliability under all environmental conditions. A frictionless bearing assures repeatability and long life.

MICRO-MINIATURE RELAYS—DC

Relay No.	Case Style	Header	Cont. Arr.	Contact Rating (Amps)	6, 12, 24 VDC Net 1-10
KX1P20	0	Plug-in	DPDT	2 amp	$15.95
KX1H2D	D	Solder	DPDT	2 amp	16.20
KX1H2C	C	Solder	DPDT	2 amp	16.20
KX1H2E	E	Solder	DPDT	2 amp	16.20



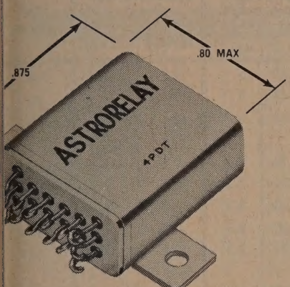
QUANTITY DISCOUNTS

1 - 10	Net
11 - 25	Less 5%
26 - 50	Less 10%
51 - 75	Less 15%
76 - 100	Less 30%
101 - 250	Less 40%
251 - 500	Less 45
501 - 1000	Less 47
1001 or more	Less 50

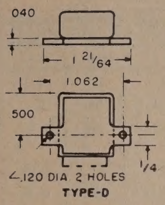
IMMEDIATE DELIVERY

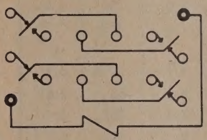
of stock relays at factory prices will save you engineering and purchasing time

HERMETICALLY SEALED AND ASTRORELAY



Mil R-5757D





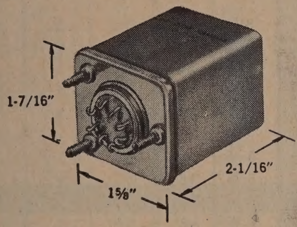
SERIES KX4-4PDT MICRO-MINIATURE

The "Astrorelay" will function under a 100G shock and vibration to 40G at 2000 cycles. Temperatures vary from −65°C to 125°C.

Pull-in power is approximately 250mw. Closing time is about 8 millisec. Dropout speed is less than 4 millisec. Contact load from dry circuit up to two amps at 28v d-c resistive. Contact resistance is less than 30 milliohms.

The relay will withstand a high potential breakdown test of 750v a-c between any mutually insulated terminals or terminals to case. Insulation resistance is in excess of 1000 megohms. It weighs only ½ oz.

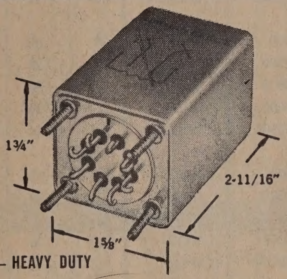
Relay No.	Contact Arrangement	Coil Volt	Coil Ohms	Contact Rating (Amps)	Net 1-10
KX4H4D-6	4PDT	6	35	2	$26.00
KX4H4D-12	4PDT	12	150	2	26.00
KX4H4D-24	4PDT	24	600	2	26.00



M004E — MINIATURE TELEPHONE

ermetically sealed version of Series M. This relay equipped with 4PDT ontacts rated at 3 amp. Operating from a 26.5 V DC nominal input source. older lug terminals. Hermetic enclosure makes the relay impervious to all etrimental atmospheric conditions, including contaminating gases, dust alt, etc. Mounting: 3 #6-32 studs on 15/16" x 1-3/16" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
SM004E	4PDT	3	26.5 V DC	$12.10 Net

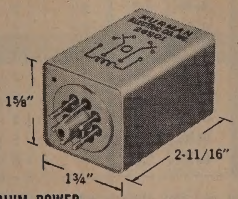


#26S20 — HEAVY DUTY

Hermetically sealed version of Series 26, equipped with heavy duty construction, offering contacts rated at 25 amps. Relay operates at 115 V AC nominal, and offers a standard DPDT construction. Can be externally wired for double-make or break arrangements. Excellent for all industrial and other remote power controls. Mounting: 4 #6-32 studs on 1¼" x 1⅛" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
26S20	DPDT	25	115 V AC	$14.80 Net

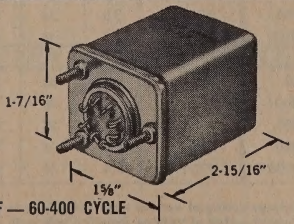
SEE COMPLETE ENGINEERING SPECS FOLLOWING CATALOG LISTINGS



#26S01 — MEDIUM POWER

ermetically sealed Series 26 relay. DPDT contacts—rated at 10 amps. 115 AC nominal coil operation. Equipped with octal plug-in. Small enclosures. lounting: 8 pin octal plug-in.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
26S01	DPDT	10	115 V AC	$12.85 Net



SM004F — 60-400 CYCLE

Special version of Series M relay equipped with internal rectifiers. Nominal operation—110 V AC, 400 cycle (this relay can be used on frequencies as low as 60 cps). 4PDT contacts rated at 3 amp. Excellent vibration and shock characteristics. Solder lug terminals. Mounting: 3 #6-32 studs on 15/16" x 1-3/16" centers.

Relay Type	Contact Arrangement	Contact Rating (Amps)	Coil Voltage	1-10
SM004F	4PDT	3	115 V AC-60-400 CPS	$13.85 Net

All prices and specifications are subject to change without notice. Prices shown are for quantities of 1-10. Consult a Kurman Sales Agency for discounts on larger quantities.

KURMAN relays-engineering specifications

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

SENSITIVE DC RELAYS

(See Illustrations and Dimensions on Preceeding Pages)

Relay No.	Resistance (ohms) ± 10%	Contact Arrangements	OPERATE CHARACTERISTICS						Oper. time† (milli-secs)		Contact rating + (amp)		Coil Impreg.
			Current (ma)			Approx. Voltage * (volts)							
			Pull In	Max.	Drop out	At Pull In I	at Max. I	at Drop Out I	at †† Nom. I	at Max. I	28 VDC	115 VAC	
T002-2000	2000	DPDT	4.5	35	1.5	9	70	3.0	20-40	5	2	2	no
T002-5000	5000	DPDT	2.8	22	1.0	14	100	5	20-40	5	2	2	no
T002-8000	8000	DPDT	2.3	18	0.8	18	128	6.4	20-40	5	2	2	no
310DC35	470	SPDT	2.1	65	0.2	1.0	31	0.09	10-20	2-3	0.5	1	no
310DC37	1200	SPDT	1.3	41	0.13	1.56	49	0.15	10-20	2-3	0.5	1	no
310DC40	4680	SPDT	0.65	20	0.06	3.0	98	0.3	10-20	2-3	0.5	1	yes
310DC42	11700	SPDT	0.41	13	0.04	4.8	152	0.48	10-20	2-3	0.5	1	yes
310DC44	29250	SPDT	0.26	8	0.02	7.6	243	0.7	10-20	2-3	0.5	1	yes
51CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no
51CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes
51CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes
51CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes
51CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes
52C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no
52C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes
52C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes
52C-8000	8000	DPDT	5.0	16	0.30	40	128	2.4	8-16	3-8	5	5	yes
52C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes
54C-500	500	4PDT	28.2	63	2.8	14.2	32	1.4	8-16	3-8	5	5	no
54C-2500	2500	4PDT	12.6	28	1.3	32	70	3.2	8-16	3-8	5	5	yes
54C-5000	5000	4PDT	8.9	20	0.9	45	100	4.5	8-16	3-8	5	5	yes
54C-8000	8000	4PDT	7.0	16	0.7	56	128	5.6	8-16	3-8	5	5	yes
54C-10000	10000	4PDT	6.3	14	0.6	63	140	6.3	8-16	3-8	5	5	yes
5D1CA37D	500	SPDT	4.5	63	0.45	2.2	31.5	0.22	10-20	2-3	2	2	no
5D1CA40D	2000	SPDT	2.3	32	0.22	4.5	63	0.45	10-20	2-3	2	2	yes
5D1CA42D	5000	SPDT	1.4	20	0.14	7.0	100	0.7	10-20	2-3	2	2	yes
5D1CA43D	8000	SPDT	1.2	16	0.11	9	126	0.9	10-20	2-3	2	2	yes
5D1CB44D	13000	SPDT	0.6	12	0.06	8.2	161	0.8	10-20	2-3	1	1	yes
5D2C-500	500	DPDT	20	63	1.2	10	32	0.6	8-16	3-8	5	5	no
5D2C-2500	2500	DPDT	8.8	28	0.5	22	70	1.3	8-16	3-8	5	5	yes
5D2C-5000	5000	DPDT	6.3	20	0.3	32	100	1.9	8-16	3-8	5	5	yes
5D2C-8000	8000	DPDT	5.0	16	0.30	40	128	2.4	8-16	3-8	5	5	yes
5D2C-10000	10000	DPDT	4.4	14	0.2	44	140	2.6	8-16	3-8	5	5	yes
5D3C-500	500	3PDT	24.4	63	2.5	12.2	32	1.2	8-16	3-8	5	5	no
5D3C-2500	2500	3PDT	10.9	28	1.1	27.2	70	2.8	8-16	3-8	5	5	yes
5D3C-5000	5000	3PDT	7.7	20	0.7	39	100	3.9	8-16	3-8	5	5	yes
5D3C-8000	8000	3PDT	6.0	16	0.6	48	128	4.8	8-16	3-8	5	5	yes
5D3C-10000	10000	3PDT	5.4	14	0.5	54	140	5.4	8-16	3-8	5	5	yes

NOTES:

* Voltage rating of current operated relays is specified at nominal resistance and may vary directly with actual resistance
** Current rating of voltage operated relays is specified at nominal resistance and may vary inversely with actual resistance
† When energized from a high impedance power source.
†† For timing purposes, nominal current is considered 5% above pull-in current
+ All ratings are for 100,000 operations minimum, with resistive load.
++ Not specified uses two internal rectifiers. Varies with source frequency ranging 47-440 CPS
All figures are based on 20°C. ambient temperature operation.

ALL SHADED AREAS ARE APPROXIMATE VALUES

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KURMAN

relays-engineering specifications (continued)

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

DC RELAYS

(See Illustrations and Dimensions on Preceeding Pages)

Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS Approx DC Current** (ma)			Approx DC Voltage (volts)				Oper. time† (milli-secs)		Contact Rating† (amps)		Coil Impreg.
			at Pull In V	at Nom. V	at Drop Out V	Pull In	Nom.	Max.	Drop Out	Nom. V	Max. V	28 VDC	115 VAC	
DC MEDIUM POWER AND ANTENNA RELAYS														
26D1C6DC	27	SPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no
26D1C12DC	108	SPDT	84	112	8.8	9	12	18	1.0	10-15	5-10	10	10	no
26D1C24DC	428	SPDT	42	56	4.2	18	24	36	2.0	10-15	5-10	10	10	no
26D1C110DC	6800	SPDT	11	16	1.1	75	110	140	10	10-15	5-10	10	10	yes
26D2C6DC	27	DPDT	185	222	18.5	5	6	9	0.5	10-15	5-10	10	10	no
26D2C12DC	108	DPDT	88	112	8.8	9.5	12	18	1.0	10-15	5-10	10	10	no
26D2C24DC	428	DPDT	47	56	4.7	20	24	36	2.0	10-15	5-10	10	10	no
26D2C110DC	6800	DPDT	12	16	1.2	80	110	140	10	10-15	5-10	10	10	yes
26D3C6DC	17	3PDT	294	350	29	5	6	7	0.5	10-15	5-10	10	10	no
26D3C12DC	68	3PDT	147	176	15	10	12	14	1.0	10-15	5-10	10	10	no
26D3C24DC	270	3PDT	74	89	7.4	20	24	28	2.0	10-15	5-10	10	10	no
26D3C110DC	6800	3PDT	13	16	1.3	90	110	140	10	10-15	5-10	10	10	yes
261C6DC	43	SPDT	108	140	10.8	5	6	13	0.5	10-15	5-10	20	20	no
261C12DC	170	SPDT	56	71	5.6	9.5	12	26	1.0	10-15	5-10	20	20	no
261C24DC	680	SPDT	26	35	2.6	18	24	52	2.0	10-15	5-10	20	20	no
261C110DC	6800	SPDT	10.4	16	1.0	70	110	165	10	10-15	5-10	20	20	yes
262C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	20	20	no
262C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	20	20	no
262C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10	20	20	no
262C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10	20	20	yes
263C6DC	17	3PDT	265	350	29	4.5	6	8	0.5	10-15	5-10	20	20	no
263C12DC	68	3PDT	147	176	14.7	9.5	12	16	1.0	10-15	5-10	20	20	no
263C24DC	270	3PDT	78	89	7.8	20	24	33	2.0	10-15	5-10	20	20	no
263C110DC	6800	3PDT	12.5	16	1.25	85	110	165	10	10-15	5-10	20	20	yes
26L2C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	20	30	no
26L2C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10	20	30	no
26L2C24DC	428	DPDT	48	56	4.8	20	24	41	2.0	10-15	5-10	20	30	no
26L2C110DC	6800	DPDT	12	16	1.2	80	110	165	10	10-15	5-10	20	30	yes
252C6DC	27	DPDT	185	222	18.5	5	6	10	0.5	10-15	5-10	1.5 KW RF		no
252C12DC	108	DPDT	88	112	8.8	9.5	12	21	1.0	10-15	5-10			no
252C24DC	428	DPDT	42	56	4.2	18	24	41	2.0	10-15	5-10			no
252C110DC	6800	DPDT	12	16	1.1	80	110	165	10	10-15	5-10			yes
253C6DC	17	3PDT	265	350	29	4.5	6	8	0.5	10-15	5-10	1C-20 amp 2C-1.5 KW RF		no
253C12DC	68	3PDT	140	176	14.7	9.5	12	16	1.0	10-15	5-10			no
253C24DC	270	3PDT	74	89	7.4	20	24	33	2.0	10-15	5-10			no
253C110DC	6800	3PDT	12.7	16	1.3	85	110	165	10	10-15	5-10			yes
DC TELEPHONE RELAYS														
A004-6	40	4PDT	125	150	25	5	6	20	1.0	15-20	5-10	3	3	no
A004-12	140	4PDT	68	86	14	9.5	12	37	1.9	15-20	5-10	3	3	no
A004-24	600	4PDT	33	40	6.6	20	24	77	4	15-20	5-10	3	3	no
A004-110	10K	4PDT	9.5	11	1.9	95	110	300	19	15-20	5-10	3	3	no
E004-6	40	4PDT	125	150	25	5	6	15	1.0	15-20	5-10	3	3	no
E004-12	145	4PDT	65	83	13	9.5	12	30	1.9	15-20	5-10	3	3	no
E004-24	590	4PDT	34	41	6.8	20	24	60	4	15-20	5-10	3	3	no
E004-110	10K	4PDT	9.5	11	1.9	95	110	240	19	15-20	5-10	3	3	no
M004-6	30	4PDT	166	200	33	5	6	11	1.0	15-20	5-10	3	3	no
M004-12	120	4PDT	79	100	16	9.5	12	22	1.9	15-20	5-10	3	3	no
M004-24	480	4PDT	42	50	8.4	20	24	44	4	15-20	5-10	3	3	no
M004-110	12K	4PDT	8	9.2	1.6	95	110	220	19	15-20	5-10	3	3	yes
AS2-6	40	DPDT	125	150	12.5	5	6	20	0.5	15-20	5-10	6	15	no
AS2-12	140	DPDT	68	203	6.8	9.5	12	37	0.9	15-20	5-10	6	15	no
AS2-24	600	DPDT	33	40	3.3	20	24	77	2.0	15-20	5-10	6	15	no
AS2-110	10K	DPDT	9.5	11	0.95	95	110	300	9.5	15-20	5-10	6	15	no
ES2-6	23	DPDT	218	260	22	5	6	12	0.5	15-20	5-10	6	15	no
ES2-12	92	DPDT	98	130	10	9.5	12	24	0.9	15-20	5-10	6	15	no
ES2-24	370	DPDT	54	65	5.4	20	24	47	2.0	15-20	5-10	6	15	no
ES2-110	8250	DPDT	10.5	13.4	1.1	95	110	220	9.5	15-20	5-10	6	15	no
DC MICRO-MINIATURE AND HERMETICALLY SEALED RELAYS														
KX1P20 KX1H2C KX1H2D KX1H2E } -6	35	DPDT DPDT DPDT DPDT	92		9.2	3.4	6	7.2	0.3	5	3-5	2	2	no
KX1P20 KX1H2C KX1H2D KX1H2E } -12	150	DPDT DPDT DPDT DPDT	45		4.5	6.7	12	14.5	0.7	5	3-5	2	2	no
KX1P20 KX1H2C KX1H2D KX1H2E } -24	600	DPDT DPDT DPDT DPDT	21		2.1	13	24	30	1.3	5	3-5	2	2	no
KX4H4D-6	35	4PDT	92		9.2	3.4	6	7.2	0.3	6-8	6	2	2	no
KX4H4D-12	150	4PDT	45		4.5	6.7	12	14.5	0.7	6-8	6	2	2	no
KX4H4D-24	600	4PDT	21		2.1	13	24	30	1.3	6-8	6	2	2	no
SM004E	300	4PDT	60	89	10	18	26.5	35	3	15-20	10-15	3	3	no

See Preceeding Page for Symbol Descriptions

KURMAN

relays-engineering specifications (continued)

Complete electrical operating characteristics of all standard stock relays available off-the-shelf at factory prices.

AC RELAYS

(For Illustrations and Dimensions of Sensitive Relays see Preceeding Pages)

Relay No.	Resistance (ohms) ±10%	Contact Arrangements	OPERATE CHARACTERISTICS				Oper. Time† (milli-secs)		Contact rating† (amps)		Coil Impregnation
			Approx. AC Current (ma) at nom. voltage	AC Voltage (in volts)							
				min.	nom.	max.	Nom. V	Max. V	28 VDC	115 VAC	
AC SENSITIVE RELAYS											
321DC78	19	SPDT	59	5.2	6	17	16	16	2	2	no
321DC81	73	SPDT	29	10	12	33	16	16	2	2	no
321DC84	292	SPDT	15	20	24	66	16	16	2	2	no
321DC91	7300	SPDT	3.2	95	115	300	16	16	2	2	yes
51C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no
51C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no
51C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no
5D1C83A	32	SPDT	64	4.7	6	9.1	16	16	2	2	no
5D1C86A	125	SPDT	32	9.3	12	18	16	16	2	2	no
5D1C89A	500	SPDT	16	18.5	24	36	16	16	2	2	no
AC MEDIUM POWER RELAYS											
26D1C6AC	3	SPDT	675	5.5	6	6.8	16	16	10	10	no
26D1C12AC	12	SPDT	335	9.5	12	13.5	16	16	10	10	no
26D1C24AC	49	SPDT	170	21	24	27	16	16	10	10	no
26D1C115AC	1200	SPDT	35	90	115	130	16	16	10	10	no
26D1C230AC	4900	SPDT	17	190	230	260	16	16	10	10	yes
26D2C6AC	3	DPDT	675	5.5	6	6.8	16	16	10	10	no
26D2C12AC	12	DPDT	335	9.5	12	13.5	16	16	10	10	no
26D2C24AC	49	DPDT	170	21	24	27	16	16	10	10	no
26D2C115AC	1200	DPDT	35	95	115	130	16	16	10	10	no
26D2C230AC	4900	DPDT	17	190	230	260	16	16	10	10	yes
26D3C6AC	3	3PDT	675	5.5	6	6.8	16	16	10	10	no
26D3C12AC	12	3DPT	335	10.5	12	13.5	16	16	10	10	no
26D3C24AC	49	3PDT	170	22	24	27	16	16	10	10	no
26D3C115AC	1200	3PDT	35	95	115	130	16	16	10	10	no
26D3C230AC	4900	3PDT	17	195	230	260	16	16	10	10	yes
261C6AC	2.7	SPDT	835	5.2	6	7	16	16	20	20	no
261C12AC	11	SPDT	417	9.5	12	14	16	16	20	20	no
261C24AC	43	SPDT	208	20	24	28	16	16	20	20	no
261C115AC	1080	SPDT	44	95	115	130	16	16	20	20	no
261C230AC	4280	SPDT	22	190	230	260	16	16	20	20	yes
262C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	20	20	no
262C12AC	10	DPDT	335	10	12	14	16	16	20	20	no
262C24AC	39	DPDT	170	21	24	27	16	16	20	20	no
262C115AC	980	DPDT	35	95	115	130	16	16	20	20	no
262C230AC	3900	DPDT	17	195	230	270	16	16	20	20	yes
263C6AC	2.5	3PDT	675	5.5	6	6.9	16	16	20	20	no
263C12AC	10	3PDT	335	10.5	12	14	16	16	20	20	no
263C24AC	39	3PDT	170	21	24	27	16	16	20	20	no
263C115AC	980	3PDT	35	95	115	130	16	16	20	20	no
263C230AC	3900	3PDT	17	190	230	270	16	16	20	20	yes
26L2C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	30	30	no
26L2C12AC	10	DPDT	335	10	12	14	16	16	30	30	no
26L2C24AC	39	DPDT	170	21	24	27	16	16	30	30	no
26L2C115AC	980	DPDT	35	95	115	130	16	16	30	30	no
26L2C230AC	3900	DPDT	17	190	230	270	16	16	30	30	yes
252C6AC	2.5	DPDT	675	5.5	6	6.9	16	16	1.5 KW RF		no
252C12AC	10	DPDT	335	10	12	14	16	16			no
252C24AC	39	DPDT	170	21	24	27	16	16			no
252C115AC	980	DPDT	35	95	115	130	16	16	↓		no
253C6AC	2.5	3PDT	675	5.5	6	6.9	16	16	1C–20 amp		no
253C12AC	10	3PDT	335	10.5	12	14	16	16	2C–1.5 KW, RF		no
253C24AC	39	3PDT	170	21	24	27	16	16			no
253C115AC	980	3PDT	35	95	115	130	16	16	↓		no
AC HERMETICALLY SEALED RELAYS											
26S01	980	DPDT	35	95	115	130	16	16	10	10	no
26S20	980	DPDT	35	95	115	130	16	16	25	25	no
SM004F	++	4PDT	++		115	130	20	20	3	3	no

ORDERING INFORMATION: Relays PREVIOUSLY ORDERED are readily identified by the Kurman type number, which is placed on the relay. Please include this number when re-ordering.

Relays shown on these pages are STANDARD relays in stock for immediate shipment. From these pages a relay can be chosen meeting the needs of most electrical or electronic applications.

VARIATIONS of these relays, are available, as shown in our GS catalog, with slightly extended delivery schedules.

Please SPECIFY the Kurman relay type and coil voltage or resistance, AC or DC.

CONTACT LEGEND; S–Single; D–Double; P–Pole; T–Throw; N–Normally; O–Open; C–Closed.

All prices and specifications are subject to change without notice.

See Preceeding Page for Symbol Descriptions

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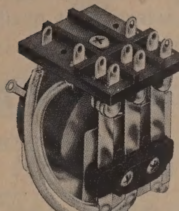
GLOBE RELAYS

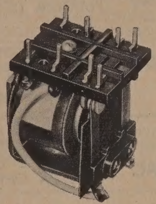


TYPE "W" MIDGET GENERAL PURPOSE

relay offers high reliability at a mini-
ı cost. The silver cadmium-oxide con-
; are mounted on beryllium copper
es.** There is good contact wiping ac-
. This unit operates well in ambient
peratures up to 125° C.

ne silver contacts for 5 amp applications.

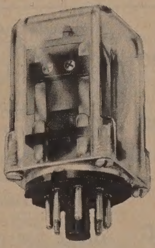
TACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC Arrangement 1, 2 or 3 PDT.
.: D-C applications up thru 120 VDC, A-C applications up thru 230 VDC.
INTING: One 6-32 screw and keying boss to prevent turning.



TYPE "WP" MIDGET PRINTED CIRCUIT

y is identical to the "W" type using
same integrally moulded parts. The ter-
ls are designed for direct mounting
printed circuit boards. They will fit
.050 inch diameter holes and project
inch beyond an ⅛ inch thick circuit
d. Base plate area on the board is only
0 x .890 inches. Dimensional artwork
iole configuration is available.

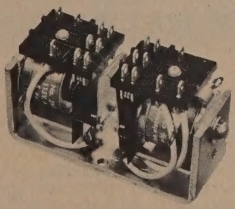
TACTS: 5 armps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC Arrangement 1, 2 or 3 PDT.
.: D-C applications up thru 120 VDC, A-C applications up thru 120 VDC.
INTING: Soldered into printed circuit boards.



TYPE "WC" MIDGET GENERAL PURPOSE
WITH DUSTITE ENCLOSURE

y is identical to type "W". However,
unit provides a clear dustproof poly-
ne case on Octal type plug-in base.
ating temperatures up to 85° C am-
t. Variation of base or a hermetically
d can, can be provided on request.
unit comes in standard Globe wiring.
special wiring to meet existing instal-
ns specify "WZ" wiring.

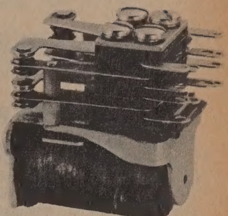
TACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC. Arrangement 1, 2 or 3 PDT.
.: D-C applications up thru 120 VDC, A-C applications up thru 230 VDC.
INTING: Octal plug-in.



TYPE "WL" MIDGET LATCHING

latching relay may be had with either
to operate at any specified voltage. It
esigned that either coil may be used
perate the contacts into a latched posi-
The other coil will latch or unlatch
contacts into the opposite position.

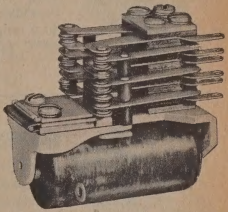
TACTS: 5 amps @ 24 VDC or 115 VAC, 10 amps @ 24 VDC or 115 VAC.
.: D-C applications up thru 120 VDC, A-C applications up thru 230 VDC on either coil.
INTING: 2 holes for #6 screws in center of frame.



TYPE "P" MINIATURE TELEPHONE

A compact design incorporating a floating hinged armature mount for maximum resistance to shock and vibration. It offers proved dependability and long life through millions of cycles of trouble free operation. Available for both D-C, and A-C applications with the use of rectifiers. Ambient temperatures up to 125° C. Choice of single or bifurcated pattern blades with a variety of precious or semi-precious contact materials.

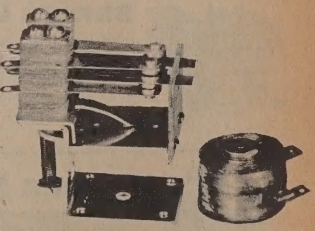
CONTACTS: Bifurcated Pattern — 3 amps resistive @ 28 VDC or 115 VAC, 1P ST thru 4P DT. Single Pattern—10 amps @ 28 VDC or 115 VAC resistive or inductive, 1P ST thru 4P DT.
COIL: Up thru 120 VDC, up thru 230 VAC 60 or 400 cycles (w/rectifier).
CONFIGURATION: Hermetically sealed, Dustite enclosures or Open construction.



TYPE "Q" SENSITIVE MINIATURE TELEPHONE

Designed with 30 to 50 per cent more coil ampere turns, which provides greater sensitivity than conventional types. Even with this greater built-in power, the unique construction allows these units to fall in a miniature class. Available for both D.C. and A.C. applications with the use of rectifiers. Ambient temperatures up to 125° C. Choice of single or bifurcated pattern blades with a variety of precious of semi-precious contact materials.

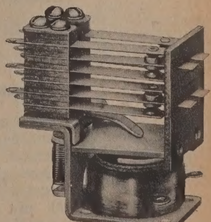
CONTACTS: Bifurcated Pattern — 3 amps resistive @ 28 VDC or 115 VAC, 1P ST thru 6P DT. Single Pattern—10 amps @ 28 VDC or 115 VAC resistive or inductive, 1P ST thru 6P DT.
COIL: Up thru 120 VDC, up thru 230 VAC 60 or 400 cycles (w/rectifier).
CONFIGURATION: Hermetically sealed, Dustite enclosures or open construction.



TYPE "X" DO IT YOURSELF
ALL PURPOSE

An ideal relay for bread-boards, experiments and prototypes. Easily interchangeable coils with one screw installation. Relay is factory adjusted and has rugged construction. A limited selection of contact assemblies and coils provide a multitude of variations.

CONTACTS: 5 amps, 10 amps and 15 amps, 28 VDC or 115 VDC. Arrangements SPDT, DPDT, 4 PDT.
COIL: 6 VDC thru 120 VDC, 6 VAC thru 230 VAC.
MOUNTING: Single screw in coil center.



TYPE "A" INDUSTRIAL

Employing the time-tested "clapper" design; its simple manufacturing process permits use where low cost is a determining factor. It is recommended for application on stationary industrial equipment and qualifies for U.L. approval. When speed and positive action of snap-action switches are required, this relay may be supplied in either 2P DT 10 amp or a 1P DT 15 amp. Also available in mechanical latching relays up to a 4P DT arrangement.

CONTACTS: 5, 10 & 15 amp @ 28 VDC of 115 VAC resistive or inductive, 1P ST thru 6P NO. Snap-action switches—15 amp 1P DT or 10 amp 2P DT.
COIL: Up thru 120 VDC, up thru 230 VAC.
CONFIGURATION: Open construction.

obe electrical mfg. co. gardena, california

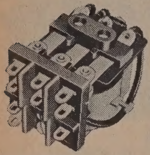
Write for technical information and complete catalog of Globe Relays.

LINE
ELECTRIC CO.
DIVISION OF INDUSTRIAL TIMER CORPORATION

A complete line of industrial relays . . .

serving the nation's foremost equipment producers with a wide and varied selection of quality electrical components to meet specific space and time requirements.

GENERAL PURPOSE RELAYS

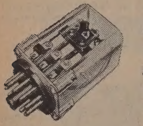


SERIES MK

Open type relay in standard contact arrangements up to 3PDT. 5 or 10 amp contact rating. Voltages up to 230 volts, A.C. or D.C. Factory adjusted to pull in at 75% max. of nominal voltage D.C. and 80% max. of nominal voltage A.C. Designed to pass 1,000 volt A.C. Hipot test between all elements.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 c
AC	MK1A SPDT	$3.10	$3.55
	MK2A DPDT	3.75	4.15
		6, 12, 24V	110V
DC	MK1D SPDT	$3.05	$3.45
	MK2D DPDT	3.40	3.85

All models available 3PDT, and in 10 amp contact rating.

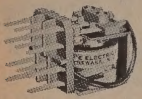


SERIES MKP

Plug-in type relay, same factory tested, quality features as above. Will operate continuously in ambient temperature ranges of 45° to 75°C. for D.C. coils and —45° to 55°C. for A.C. coils. Metal or polystyrene dust cover.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cy
AC	MKP1A SPDT	$5.45	$5.90
	MKP2A DPDT	6.05	6.45
		6, 12, 24V	110V
DC	MKP1D SPDT	$5.40	$5.85
	MKP2D DPDT	6.00	6.40

All models available 3PDT, and in 10 amp contact rating.

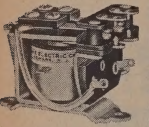


SERIES MKT

Printed circuit type relay incorporating coil, frame and load contacts of standard Series MK. Connector lugs fit standard amp terminal #41355.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cy
AC	MKT1A SPDT	$3.25	$3.65
	MKT2A DPDT	3.95	4.35
		6, 12, 24V	110V
DC	MKT1D SPDT	3.20	$3.60
	MKT2D DPDT	3.60	4.05

All models available 3PDT, and in 10 amp contact rating.

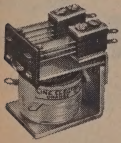


SERIES LR

Open type, heavy-duty type relay designed for many applications. Standard fine silver contacts rated at 10 amperes, optional Silver Cadmium load contacts rated at 15 amps. Ambient temperature operating range, continuous duty: A.C., —45° to 55°C.; D.C., —45° to 75°C.

	10 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cy
AC	LR1A SPDT	$4.65	$5.10
	LR2A DPDT	5.05	5.45
		6, 12, 24V	110V
DC	LR1D SPDT	$4.65	$5.10
	LR2D DPDT	5.05	5.45

All above available SPDT-DB (15 amp). Plug-In Type (Series LRP) also availab



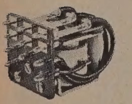
SERIES MW

A small, versatile relay available in a variety of contact configurations consisting of forms A, B, C or D (make before break), up to a maximum of 12 springs. Coils can be supplied for operation on D.C. or A.C. 60 cps. Operation on 400 cps. source is available with self-contained rectifiers on relays with covers.

	10 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cy
AC	MW1A SPDT	$2.70	$3.10
	MW2A DPDT	3.30	3.75
		6, 12, 24V	110V
DC	MW1D SPDT	$2.60	$3.10
	MW2D DPDT	3.25	3.65

All models available 3PDT and 4PDT.

HEAVY DUTY RELAYS



SERIES LG

Open type relay, specifically designed for extremely heavy-duty applications. Standard Fine Silver load contacts are rated at 15 amps. with optional Silver Cadmium Oxide contacts where larger inrush loads are encountered. Loads are rated at 115/60 non-inductive. All load contacts are factory gold-flashed to prevent contact oxidation prior to use.

	15 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cyc
AC	LG1A SPDT	$4.85	$5.30
	LG2A DPDT	5.60	6.05
		6, 12, 24V	110V
DC	LG1D SPDT	$4.70	$5.40
	LG2D DPDT	5.40	6.10

All models available 3PDT.

SERIES LGP

Plug-in type relay, with same quality features as above. Also available in either metal or clear plastic enclosure. Ambient temperature operating range, continuous duty; A.C., —45° to 55°C.; D.C., —45° to 75°C.

	15 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cyc
AC	LGP1A SPDT	$7.75	$8.25
	LGP2A DPDT	9.15	9.60
		6, 12, 24V	110V
DC	LGP1D SPDT	$7.65	$8.35
	LGP2D DPDT	8.90	9.60

All models available 3PDT.

Prices are Suggested LIST

Trade Discount Applies to List Prices Only

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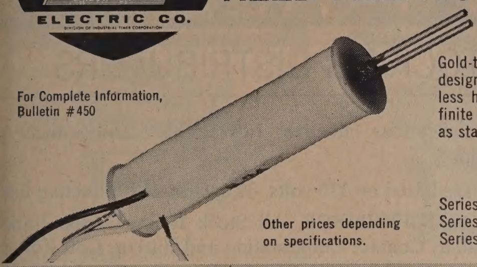
LINE ELECTRIC CO.

REED RELAYS . . . in a variety of standard packages or customed-designed to specifications!



For Complete Information, Bulletin #450

Gold-tipped dry reed contacts sealed in glass with inert gas. Super-small—designed for computer, data handling, guidance system applications. Generate less heat than switching diodes. Operate in millisecond range and have infinite resistance in open contact position. Up to 12 reeds (Form A, B or C) as standard.

STANDARD PACKAGES

	6, 12, 24VDC	6, 12, 24VDC
Series FRP, Plug-In Type	SPST (NO)—$6.00	SPDT—$9.00
Series FRT, Printed Circuit	SPST (NO)—$5.25	SPDT—$8.25
Series FR, Open Coil	SPST (NO)—$2.75	SPDT—$5.50

Other prices depending on specifications.

MECHANICAL LATCH RELAYS

SERIES RL

Open type for use where a sustained relay closure is required, and current drain of a relay coil is to be eliminated. Incorporates two coils, one to close load contacts, the other to reset them. Requires only momentary electrical contact to operate or release. Provides positive mechanical latch, eliminating chatter during sustained relay closure.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cycle
AC	RL1A SPDT	$7.15	$8.00
	RL2A DPDT	8.25	9.00
		6, 12, 24V	110V
DC	RL1D SPDT	$6.50	$7.75
	RL2D DPDT	7.50	8.75

All models available 3PDT, 4PDT, 5PDT, 6PDT, and in 10 amp contact rating.

SERIES RLP

Plug-in type, same factory-tested quality features as above. Available in transparent closure up to 5PDT.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cycle
AC	RLP1A SPDT	$ 9.40	$10.25
	RLP2A DPDT	10.50	11.30
		6, 12, 24V	110V
DC	RLP1D SPDT	$8.75	$10.05
	RLP2D DPDT	9.85	11.15

All models available 3PDT, 4PDT, 5PDT, and in 10 amp contact rating.

POWER RELAYS

SERIES ST

A 25 amp. power relay ideally suited for starting motors up to 1 hp, elevator controls, and many other applications which require high current or high voltage switching with maximum dependability. One piece molded base, sturdy two-hole mounting.

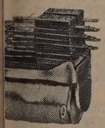
	6, 12, 24, 115VAC	220VAC
ST2A DPDT	$6.55	$6.85
	6, 12, 24, VDC	110VDC
ST2D DPDT	$6.55	$6.85

SERIES STM

Same quality features as above, SPDT.

	6, 12, 24, 115VAC	220VAC
ST1A SPDT	$4.25	$4.65
	6, 12, 24, 110VDC	
ST1D SPDT	4.25	

MINIATURE TELEPHONE RELAYS



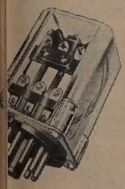
SERIES GT

Fast acting miniature telephone type relay. Highly versatile, supplied in contact arrangements up to 6PDT, and in a variety of styles including open, dust cover, and hermetically sealed. Factory will supply enclosure details.

		6, 12, 24, 115V	
AC	GT1A SPDT	(contact factory for prices)	
	GT2A DPDT	(contact factory for prices)	
		6, 12, 24V	110V
DC	GT1D SPDT	$3.55	$4.00
	GT2D DPDT	4.80	5.40

All models available in 3PDT, 4PDT, 5PDT, and 6PDT.

SPOTLIGHT RELAYS



High quality, general purpose plug-in relay with built-in circuit indicator lamp. Available in colored cases for circuit identification and in metal can. Saves panel space, reduces costly labor.

	5 amp contact rating	6, 12, 24, 115V—60 cycle	220V—60 cycle
AC	A-1A SPDT	$6.40	$6.85
	A-2A DPDT	7.00	7.40
		6, 12, 24V	110V
DC	A-1D SPDT	$6.35	$6.75
	A-2D DPDT	6.95	7.35

All models available 3PDT.

LINE ELECTRIC CO. **Orange, New Jersey**

Division of Industrial Timer Corporation

IN CANADA: Sperry Gyroscope Ottawa Ltd. • Ottawa, Ontario

Prices are Suggested LIST

MAGNECRAFT RELAYS

Immediate Delivery from STOCKING DISTRIBUTORS

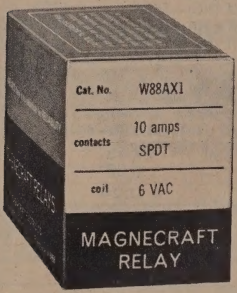
All prices and specifications effective July 1, 1962 and subject to change without notice.

All contact ratings are based on 115 volts, 60 cycles, non-inductive load.

ORDER BY CATALOG NUMBER. All Stock Relay Carton Labels carry Catalog Number; Contact Combination and Rating; Coil Voltage or Current.

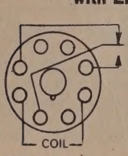
All enclosed relays are identified by catalog number and wiring diagram.

NOTE: Order MAGNECRAFT STOCK RELAYS from STOCKING DISTRIBUTORS. Their supplies are supplemented by complete stocks maintained at the MAGNECRAFT plant in Chicago.

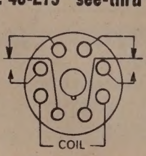


All Purpose MAGNECRAFT RELAYS

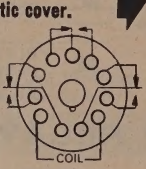
†Wiring Diagrams for small AC-DC Plug-in Relays with Enc. 40-279 "see-thru" plastic cover.



†WD-1 SPDT, 8-pin

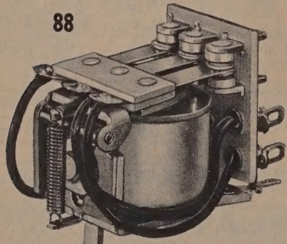


WD-2 DPDT, 8-pin



WD-3 3PDT, 11-pin

88



1¾ l, 1 3/16 w, 1¼ h.

Small AC-DC General Purpose Relay

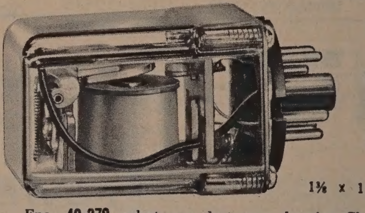
Open Type Relay. Has 10 ampere silver alloy contacts. Tinned solder terminals, spaced for easy wiring. One #6-32 tapped mounting hole with locating boss. Weight, 2 ounces.

Class **88** is basically a clapper type relay that is similar to and interchangeable with many relays made by others. The BIG DIFFERENCE is the Class 88 has been developed to maintain the high standards of reliability users have learned to expect from MAGNECRAFT Telephone Type Relays. The result is reliability, stability of adjustment and long life at reduced cost for a great range of application.

For the first time in a relay of this type, the MAGNECRAFT Class 88 has a rugged, pin type armature hinge with centerless ground stainless steel pin and heavy duty yoke with precision reamed bearing surfaces; this is the hinge design used on the finest telephone type relays to stabilize adjustment through long wear life, reduce friction and improve contact effectiveness. Other features include fiber glass melamine insulation to provide high di-electric strength and greater resistance to humidity and temperature change; independently riveted; ruggedized coil terminals; riveted contacts with built-in contact wipe.

The many refinements plus MAGNECRAFT quality control and inspection standards produce relays so outstanding you can see the difference.

†WD is abbreviation for Wiring Diagram



Small AC-D
Plug-in Rela
with "see-thr
plastic cove

88CP

1⅜ x 1⅜ x 2⅛ h*

Enc. **40-279** polystyrene dust cover housing Class **88** all purpose relay with 8- or 11-pin standard octal plug. Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

contact arrangement	COIL			10 ampere silver alloy contacts				
				OPEN RELAY		WITH ENCLOSURE 40		
	volt. or current	res. ohms	nominal power	Cat. No.	NET	Cat. No.	Plug	
alternating current voltage actuated								
SPDT †WD-1	6VAC	—	3 VA	W88AX1	3.35	W88ACPX1	8-pin	
	12VAC			W88AX2	3.35	W88ACPX2		
	24VAC			W88AX3	3.40	W88ACPX3		
	115VAC			W88AX4	3.55	W88ACPX4		
DPDT WD-2	6VAC	—	3 VA	W88AX5	3.95	W88ACPX5	8-pin	
	12VAC			W88AX6	3.95	W88ACPX6		
	24VAC			W88AX7	4.00	W88ACPX7		
	115VAC			W88AX8	4.15	W88ACPX8		
	230VAC			W88AX32	4.60	W88ACPX32		
3PDT WD-3	6VAC	—	3 VA	W88AX9	4.35	W88ACPX9	11-pin	
	12VAC			W88AX10	4.35	W88ACPX10		
	24VAC			W88AX11	4.40	W88ACPX11		
	115VAC			W88AX12	4.55	W88ACPX12		
direct current voltage actuated								
SPDT †WD-1	6VDC	25	1.5W	W88X2	3.20	W88CPX1	8-pin	5
	12VDC	100		W88X3	3.20	W88CPX2		5
	24VDC	400		W88X4	3.25	W88CPX3		5
	110VDC	8000		W88X5	3.80	W88CPX4		5
DPDT WD-2	6VDC	25	1.5W	W88X6	3.55	W88CPX5	8-pin	5
	12VDC	100		W88X7	3.55	W88CPX6		5
	24VDC	400		W88X8	3.60	W88CPX7		5
	110VDC	8000		W88X9	4.15	W88CPX8		6
3PDT WD-3	6VDC	25	1.5W	W88X10	3.95	W88CPX9	11-pin	7
	12VDC	100		W88X11	3.95	W88CPX10		7
	24VDC	400		W88X12	4.00	W88CPX11		7
	110VDC	8000		W88X13	4.55	W88CPX12		7
DC current actuated for plate circuit operation								
SPDT †WD-1	7.2 MA	2500	125MW	W88X14	3.75	W88CPX13	8-pin	5
	5.0 MA	5000		W88X15	3.85	W88CPX14		6
	3.6 MA	10000		W88X16	4.25	W88CPX15		6
DPDT WD-2	10 MA	2500	250MW	W88X17	4.01	W88CPX16	8-pin	6.
	7.2 MA	5000		W88X18	4.11	W88CPX17		6.
	5 MA	10000		W88X19	4.51	W88CPX18		6.
3PDT WD-3	12.3 MA	2500	375MW	W88X20	4.44	W88CPX19	11-pin	7.
	8.7 MA	5000		W88X21	4.54	W88CPX20		7.
	6.1 MA	10000		W88X22	4.94	W88CPX21		8.

h* is overall dimension above socket

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Net

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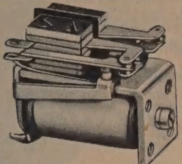
MAGNECRAFT Telephone Type Relays

page 2

Sub-miniature—DC—3 amps.

33



1 11/32 l, 11/16 w, 1 3/64 h, max.

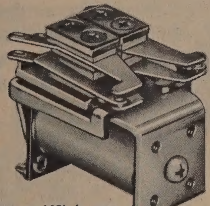
Class **33** midget sub-miniature; the smallest telephone type MAGNECRAFT Relay and one of the smallest telephone type relays on the market. Class 33 is also the fastest operating and inherently more shock resistant and vibration resistant. Long life, reliability and accuracy fit Class 33 relays for a wide range of small space requirements. They are extensively used for aircraft, computer and mobile applications where small size, light weight and resistance to shock and vibration are essential.

Palladium contacts; 3 ampere rating. Four 4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 3 amps	voltage DC	res. ohms	nominal power	Cat. No.	NET
DPDT	6VDC	17	2.0W	W33X237	4.87
	12VDC	75		W33X238	4.87
	24VDC	280		W33X239	4.92
	110VDC	6500		W33X240	5.50
4DPT	6VDC	17	2.0W	W33X241	6.58
	12VDC	75		W33X242	6.58
	24VDC	280		W33X243	6.63
	110VDC	6500		W33X244	7.23

Miniature—DC—5 amps.

11



1⅝ l, 15/16 w, 1 27/32 h, max.

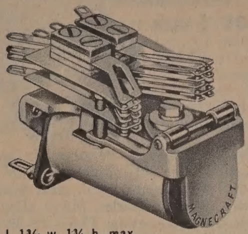
Class **11** miniature telephone type MAGNECRAFT Relay is a small, fast acting space saving relay that has BIG relay reliability, accuracy and long life. The Class 11 is extensively used to replace larger relays with completely satisfactory results where space is limited or weight saving is needed.

Silver alloy contacts; 5 ampere rating. Tinned solder terminals with easy-to-wire spacing. Four 4-40 tapped mounting holes on ⅜ x 7/16 centers. Weight, 3 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
4PDT	6VDC	25	1.5W	W11X505	6.78
	12VDC	100		W11X506	6.83
	24VDC	400		W11X507	6.83
	110VDC	9000		W11X508	8.07
6PDT	6VDC	13	2.5W	W11X509	9.49
	12VDC	56		W11X510	9.49
	24VDC	280		W11X511	9.54
	110VDC	5000		W11X512	10.12
	DC current actuated for plate circuit operation				
DPDT	5 MA	10000	250MW	W11X513	6.16

Small—AC-DC—Twin Contacts

22T



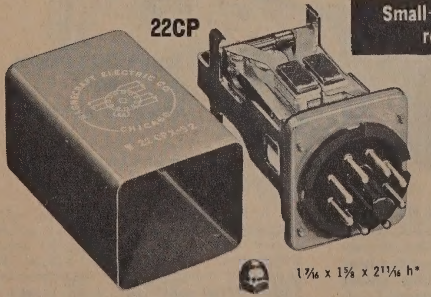
2 1/16 l, 1 3/32 w, 1¾ h, max.

Class **22T** —miniature long form relay with accuracy reliability and long life equal and sometimes superior to larger relays. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long, flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
DPDT	115VAC	500	5VA	W22ATX12	5.94
	direct current voltage actuated				
4PDT	6VDC	20	2.0W	W22TX267	8.44
	12VDC	80	2.0W	W22TX268	8.44
	24VDC	375	1.5W	W22TX269	8.49
	110VDC	8000	1.5W	W22TX270	9.97
6PDT	6VDC	12	3.0W	W22TX271	11.87
	12VDC	50		W22TX272	11.87
	24VDC	225		W22TX273	11.92
	110VDC	5000		W22TX274	12.91
	DC current actuated for plate circuit operation				
SPDT	4.5 MA	5000	100MW	W22TX276	5.91
	6.0 MA	2700		W22TX277	5.24
	3.2 MA	10000		W22TX278	6.18
DPDT	4.5 MA	10000	200MW	W22TX275	6.93

22CP

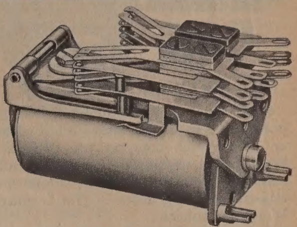


1 7/16 x 1⅝ x 2 11/16 h*

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
DPDT WD-5	115VAC	500	5VA	W22CPX60	10.23
	direct current voltage actuated				
SPDT †WD-4	6VDC	20	2.0W	W22CPX44	8.73
	12VDC	80	2.0W	W22CPX45	8.73
	24VDC	375	1.5W	W22CPX46	8.78
	110VDC	8000	1.5W	W22CPX47	10.02
DPDT WD-5	6VDC	20	2.0W	W22CPX48	9.85
	12VDC	80	2.0W	W22CPX49	9.85
	24VDC	375	1.5W	W22CPX50	9.90
	110VDC	8000	1.5W	W22CPX51	11.14

Medium—AC-DC—Twin Contacts

66T



2⅜ l, 1 3/32 w, 2 high, max.

Class **66T** —similiar to 22T except has larger coil for greater sensitivity and/or effective switching of more circuits. A unique, pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through millions of operations. Twin Palladium contacts with long flexible bifurcated contact springs assure the ultimate in switching reliability.

Twin Palladium contacts, 4 ampere rating. All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	alternating current voltage actuated				
4PDT	115VAC	300	6VA	W66ATX2	7.72
	direct current voltage actuated				
4PDT	6VDC	30	1.0W	W66TX23	7.59
	12VDC	135		W66TX24	7.59
	24VDC	540		W66TX25	7.64
8PDT	6VDC	20	2.0W	W66TX29	13.21
	12VDC	85		W66TX30	13.21
	24VDC	250		W66TX31	13.26
	110VDC	5750		W66TX32	13.84
	DC current actuated for plate circuit operation				
4PDT	5.3 MA	11000	300MW	W66TX26	8.96
6PDT	6.75 MA	11000	500MW	W66TX27	12.64
8PDT	8.5 MA	11000	800MW	W66TX28	14.25

Small—AC-DC—Plug-in with removable dust cover

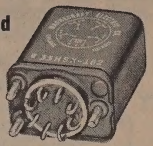
40-284 enclosure with removable dust cover housing Class 22 relay with 8- or 11-pin standard octal plug. Internal bracket supports cover and protects relay. One screw holds cover in place. Silver alloy contacts, 5 ampere rating. Weight, 6 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
	direct current voltage actuated				
3PDT WD-6	6VDC	20	2.0W	W22CPX52	11.87
	12VDC	80	2.0W	W22CPX53	11.87
	24VDC	375	1.5W	W22CPX54	11.92
	110VDC	8000	1.5W	W22CPX55	13.16
	DC current actuated for plate circuit operation				
SPDT †WD-4	4.5 MA	5000	100MW	W22CPX57	9.36
	6.0 MA	2700		W22CPX58	9.02
	3.2 MA	10000		W22CPX59	10.02
DPDT WD-5	4.5 MA	10000	200MW	W22CPX56	11.14

MAGNECRAFT Sealed and Dustcover Enclosed Telephone Type Relays (page 3)

Hermetically Sealed Sub-miniature DC 5 amps.

33HS



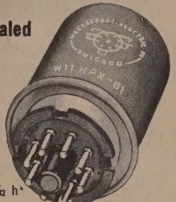
$\frac{31}{32}$ x $1\frac{11}{32}$ x $1\frac{41}{64}$ h*

40-157 enclosure, hermetically sealed, housing Class 33 miniature relay with 8- or 14-pin high compression, glass insulated, solder terminal header. Silver alloy contacts, 5-ampere rating. Three 4-40 tapped mounting holes on ½ x 1 centers. Weight, 3 ounces.

contacts 5 amps.	voltage DC	res. ohms	nominal power	Cat. No.	NET
DPDT †WD-8	6VDC	17	2.0W	W33HSX177	13.21
	12VDC	75		W33HSX178	13.21
	24VDC	280		W33HSX179	13.26
	110VDC	6500		W33HSX180	13.87
4PDT WD-9	6VDC	17	2.0W	W33HSX181	16.65
	12VDC	75		W33HSX182	16.65
	24VDC	280		W33HSX183	16.70
	110VDC	6500		W33HSX184	17.36

Hermetically Sealed Miniature DC 4 amps.

11HP



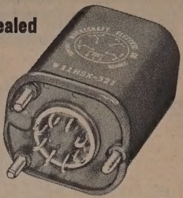
$1\frac{21}{32}$ diameter x $2\frac{11}{32}$ h*

40-101 enclosure, hermetically sealed, housing Class 11 miniature relay with standard 8-pin octal plug. Silver alloy contacts, 4 ampere rating. Weight, 5 ounces.

contacts 4 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
DPDT WD-5	6VDC	25	1.5W	W11HPX81	9.86
	12VDC	100		W11HPX82	9.91
	24VDC	400		W11HPX83	9.91
	110VDC	9000		W11HPX84	11.15
DC current actuated for plate circuit operation					
DPDT WD-5	5 MA	10000	250MW	W11HPX85	11.15

Hermetically Sealed Miniature DC 5 amps.

11HS



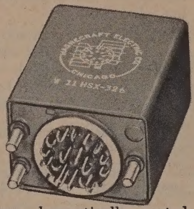
$1\frac{5}{8}$ x $1\frac{3}{4}$ x $2\frac{1}{16}$ h*

40-102 enclosure, hermetically sealed, housing Class 11 miniature relay with 14-pin, high compression, glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on $\frac{15}{16}$ x $1\frac{3}{16}$ centers. Weight, 6 ounces.

contacts 5 amps.	volt. or current	res. ohms	nominal power	Cat. No.	NET
4PDT WD-9	6VDC	25	1.5W	W11HSX321	15.92
	12VDC	100		W11HSX322	15.97
	24VDC	400		W11HSX323	15.97
	110VDC	9000		W11HSX324	17.06
DC current actuated for plate circuit operation					
DPDT WD-8	5 MA	10000	250MW	W11HXS325	13.70

Hermetically Sealed Miniature DC 5 amps.

11HS



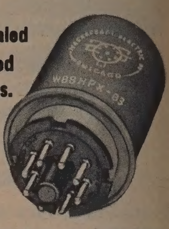
$1\frac{15}{64}$ x $1\frac{47}{64}$ x $2\frac{3}{8}$ h*

40-188 enclosure, hermetically sealed, housing Class 11 miniature relay with 20-pin high compression glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 NC-2 threaded mounting studs on ½ x $1\frac{13}{32}$ centers. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
6PDT WD-10	6VDC	13	2.5W	W11HSX326	19.91
	12VDC	56.		W11HSX327	19.91
	24VDC	280		W11HSX328	19.96
	110VDC	5000		W11HSX329	20.18

Hermetically Sealed Plug-in Mounted Small—4 amps. AC and DC

88HP



1-21/32 diameter x 2-11/32 h*

40-101 enclosure, hermetically sealed, housing Class **88** high reliability relay (see page 1) with standard 8-pin octal plug. Silver alloy contacts, 4 ampere rating. Weight, 5 ounces.

contacts 4 amps.	voltage	res. ohms	nominal power	catalog number	NET
alternating current voltage actuated					
DPDT WD-2 See page 1	6VAC	—	3VA	W88AHPX-4	8.59
	12VAC	—		W88AHPX-5	8.59
	24VAC	—		W88AHPX-6	8.64
	115VAC	—		W88AHPX-7	8.79
direct current voltage actuated					
DPDT WD-2 See page 1	6VDC	25	1.5W	W88HPX-3	8.19
	12VDC	100		W88HPX-4	8.19
	24VDC	400		W88HPX-5	8.24
	110VDC	8000		W88HPX-6	9.29

All Prices are net for 1 to 9 relays. Quantity Prices on Request.

Hermetically Sealed small AC-DC 5 amps.

22HS

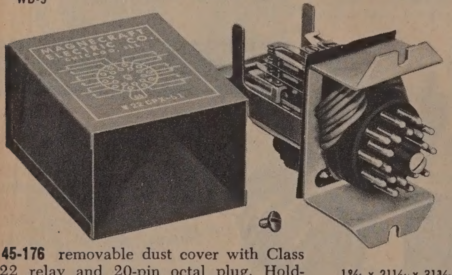
$1\frac{7}{16}$ x $1\frac{5}{8}$ x $2\frac{11}{16}$ h*

40-158 enclosure, hermetically sealed, housing Class 22 relay with 14-pin glass insulated solder terminal header. Silver alloy contacts, 5 ampere rating. Three #6-32 threaded mounting studs on $\frac{15}{16}$ x $1\frac{3}{16}$ centers. Weight, 7 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
alternating current voltage actuated					
4PDT WD-9	115VAC	500	5VA	W22AHSX32	17.30
direct current voltage actuated					
4PDT WD-9	6VDC	20	2.0W	W22HSX144	17.00
	12VDC	80	2.0W	W22HSX145	17.00
	24VDC	375	1.5W	W22HSX146	17.05
	110VDC	8000	1.5W	W22HSX147	18.03

22CP

Small—DC—Plug-in with removable dust cover

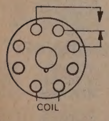


$1\frac{9}{16}$ x $2\frac{11}{16}$ x $3\frac{13}{32}$ h*

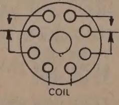
45-176 removable dust cover with Class 22 relay and 20-pin octal plug. Hold-down bracket permits mounting in any position. Internal bracket supports cover. One screw holds cover. Rubber gasket seals out dust. Silver alloy contacts, 5 ampere rating. Hold down bracket has two mounting holes for 6-32 screws on $2\frac{21}{32}$ centers. Weight, 8 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
6PDT WD-7	6VDC	12	3.0W	W22CPX61	16.72
	12VDC	50		W22CPX62	16.72
	24VDC	225		W22CPX63	16.77
	110VDC	5000		W22CPX64	17.35

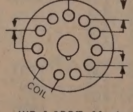
Plug-in Header †Wiring Diagrams



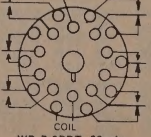
†WD-4 SPDT, 8-pin



WD-5 DPDT, 8-pin

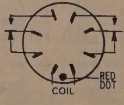


WD-6 3PDT, 11-pin

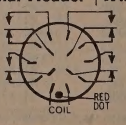


WD-7 6PDT, 20-pin

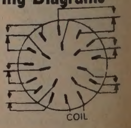
Solder Terminal Header †Wiring Diagrams



†WD-8 DPDT, 8-hook



WD-9 4PDT, 14-hook



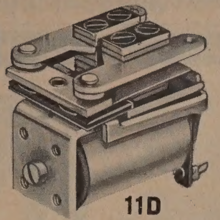
WD-10 6PDT, 20-hook

MAGNECRAFT

Power, Latch-in and Special Purpose Relays

page 4

Miniature Power DC 50 amps SPST-NO-DB



11D

1⅜ l, ¹⁵⁄₁₆ w, 1⁷⁄₁₆ h.

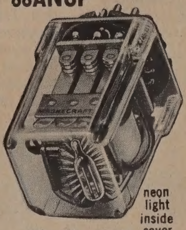
Class **11D** miniature telephone type relay with heavy brass contact arms and large 50-ampere silver alloy, single pole, single throw, normally open, double break contacts. The Class 11 is a small size relay with big relay reliability, accuracy and long life.

Solder terminals, spaced for easy wiring. Four 4-40 tapped mounting holes on ⅜ x ⁷⁄₁₆ centers. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPST	6VDC	25		W11DX38	5.39
NO	12VDC	100	1.5W	W11DX39	5.45
double	24VDC	400		W11DX40	5.45
break	110VDC	9000		W11DX41	6.08

Small AC 10 amp. plug-in relay with neon "ON" light

88ANCP



1⅜ x 1⅜ x 2⅛ h*

Enc. 40-279 polystyrene dust cover with 8- or 11-pin standard octal plug housing Class **88** high reliability relay (see page 1) *with built-in neon circuit indicator light.* Indicator light comes on when coil is energized.

- *Eliminates need for expensive pilot lamp assemblies*
- *Saves panel space*
- *Circuit condition can be seen at a glance*

Silver alloy contacts, 10 ampere rating. Weight, 3 ounces.

contacts 10 amps.	wiring diagrams	volt. AC	nominal power	catalog number	NET
SPDT	WD-1*	115		W88ANCPX-1	6.64
DPDT	WD-2*	115	3VA	W88ANCPX-2	7.29
3PDT	WD-3*	115		W88ANCPX-3	8.81

*See page 1.

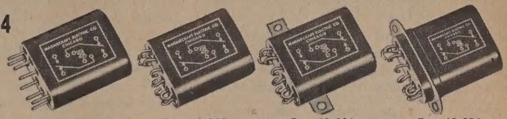
Micro-Miniature Rotary Relays

MAGNECRAFT Class 44 Rotary Relays have been developed to provide increased reliability in the crystal can size. Here are a few of many areas in which improvement has been made:

1. Frame and header assembly of rugged bridge-type construction—assures greatly increased resistance to distortion from shock, vibration and temperature—to military specification requirements
2. Balanced armature—minimizes the effect of gravity, shock and vibration on operating reliability.
3. Hinge design—oversize, instrument type bearings at *BOTH* ends.
   a. Minimizes friction for increased sensitivity and greater contact pressure.
   b. Increases operating reliability and life.
4. The latest and finest developments in high temperature insulation.
5. Hermetically sealed in inert gas for maximum protection against severe ambient conditions.

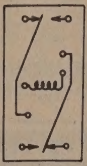
Contact combination: Double Pole, Double Throw
Contact rating: 2 amperes at 28 VDC or 115 VAC, non-inductive.
Operate Time: 5 milliseconds maximum with nominal voltage
Release Time: 3 milliseconds maximum.

44



Enc. 40-227 plug-in header no bracket — Enc. 40-222 solder terminals no bracket — Enc. 40-224 solder terminals side bracket — Enc. 40-234 solder terminals flange bracket

Case – .875 x .797 x .359

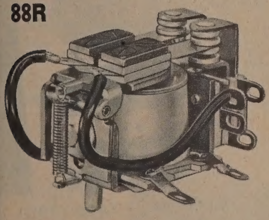


Standard wiring diagram for Class 44 Relays

DC voltage	res. ohms	nominal power	catalog number	NET	catalog number	NET
			Enc. 40-227		**Enc. 40-222**	
6.5	34		W44HPX-34	17.60	W44HSX-103	17.60
11	92		W44HPX-35	17.60	W44HSX-104	17.60
26.5	552	1.2W	W44HPX-36	17.60	W44HSX-105	17.60
38.5	1278		W44HPX-37	18.00	W44HSX-106	18.00
76	5000		W44HPX-38	19.90	W44HSX-107	19.90
			Enc. 40-224		**Enc. 40-234**	
6.5	34		W44HSX-108	17.95	W44HSX-113	17.95
11	92		W44HSX-109	17.95	W44HSX-114	17.95
26.5	552	1.2W	W44HSX-110	17.95	W44HSX-115	17.95
38.5	1278		W44HSX-111	18.35	W44HSX-116	18.35
76	5000		W44HSX-112	20.25	W44HSX-117	20.25

Small—Power—AC-DC—15 amps.

88R



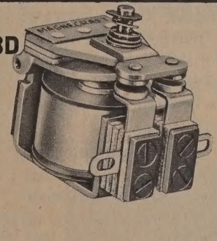
1⅞ l, 1¹⁵⁄₃₂ w, 1⁹⁄₃₂ high

Class **88R** extra quality, high reliability clapper type relay with 15 ampere heavy duty silver alloy contacts for industrial control applications. Has the exclusive quality features of Class 88 relays described on page one. Tinned solder terminals. One #6-32 tapped mounting hole and locating boss. Weight 3 ounces.

contacts 15 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
	6VAC	—		W88ARX1	5.97
DPDT	12VAC	—	3VA	W88ARX2	5.97
	24VAC	—		W88ARX3	6.02
	115VAC	—		W88ARX4	6.17
	6VDC	25		W88RX1	5.90
DPDT	12VDC	100	1.5W	W88RX2	5.90
	24VDC	400		W88RX3	5.95
	110VDC	8000		W88RX4	6.40

Power - AC and DC - 50 amps.

88D



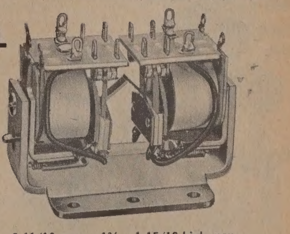
1-13/16 x 1-1/4 (less soldering tabs) x 1-7/16 high

The popular high reliability Class 88 Relay (see page 1) specially designed with 50-ampere SPST, Double Break, Normally Open contacts. Developed especially for switching heavy current in minimum space reliably and economically. Unique contact structure provides positive wiping action. One 6-32 tapped mounting hole and locating boss. Weight, 3 ounces.

contacts 50 amps.	voltage	res. ohms	nominal power	Cat number	NET
50	24VAC	—		W88ADX-1	5.15
amperes	115VAC	—	3VA	W88ADX-2	5.25
SPST	230VAC	—		W88ADX-3	5.70
Double	6VDC	25		W88DX-1	4.65
BREAK,	12VDC	100	1.5W	W88DX-2	4.65
Normally	24VDC	400		W88DX-3	4.70
Open	110VDC	8000		W88DX-4	5.94

Latch-In - AC and DC - Small

88L



2-11/16 max. x 1¾ x 1-15/16 high max.

Two class 88 relays (see page 1) with interlocking latch-in levers mounted on a common base. Each armature latches when pulled in. Energizing one armature releases (resets) the other. Each relay is complete with independent operating coil. Contacts are silver alloy, 10 ampere rating. Relay coils are designed for continuous duty operation. Weight 6½ ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	catalog number	NET
	6VAC	—		W88ALX-2	10.60
4PDT	24VAC	—	6VA	W88ALX-3	10.60
	115VAC	—	prox	W88ALX-4	10.60
	6VAC	—		W88ALX-5	12.80
6PDT	24VAC	—	6VA	W88ALX-6	12.80
	115VAC	—	prox.	W88ALX-7	12.80
	6VDC	12		W88LX-1	9.65
4PDT	12VDC	50		W88LX-2	9.65
	24VDC	200	3W	W88LX-3	9.65
	110VDC	400		W88LX-4	10.85
	6VDC	12		W88LX-5	11.75
6PDT	12VDC	50		W88LX-6	11.75
	24VDC	200	3W	W88LX-7	11.75
	110VDC	4000		W88LX-8	12.95

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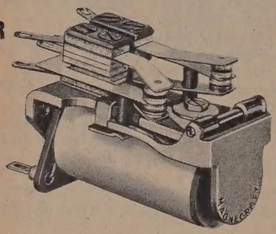
Power, Latch-in and Special Purpose Relays (page 5)

Small—Power—AC-DC—10 amps.

22R



2 1/16 l, 1 3/32 w, 1¾ high, max.

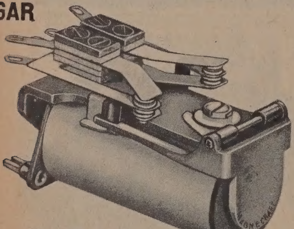
Class **22R** small size, high reliability, long life relay with heavy duty 10 ampere silver alloy contacts and same pin type armature hinge as Class 66AR.

All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
DPDT	6VAC	2.0	5VA	W22ARX38	6.25
	24VAC	20		W22ARX39	6.25
	115VAC	500		W22ARX40	6.30
DPDT	6VDC	20	2.5W	W22RX67	6.00
	12VDC	88		W22RX68	6.00
	24VDC	225		W22RX69	6.05
	110VDC	5000		W22RX70	6.63
4PDT	6VDC	20	2.5W	W22RX71	8.79
	12VDC	80		W22RX72	8.79
	24VDC	225		W22RX73	8.84
	110VDC	5000		W22RX74	9.42

Medium—Power—AC—10 amps.

66AR



2⅜ l, 1 3/32 w, 1¾ h, max.

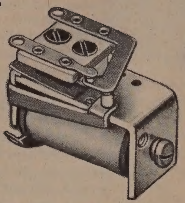
Class **66AR** high reliability, long life relay with heavy duty 10 ampere silver alloy contacts for industrial control applications. Resembles the Class 22R except has larger coil. A unique pin type armature hinge of heavy duty design and precision construction assures stabilized adjustment through long life and the positive contact pressure needed for switching heavy loads.

All mounting and wiring at heel end. Tinned solder terminals with easy-to-wire spacing. Two #6-32 tapped mounting holes on ¾ centers. Weight, 5 ounces.

contacts 10 amps.	voltage	res. ohms.	nominal power	Cat. No.	NET
4PDT	24VAC	15	6VA	W66ARX10	8.79
	115VAC	300		W66ARX11	9.04

RF Switching — Sub-miniature

33F



1 11/32 l, 11/16 w, 1 1/16 h.

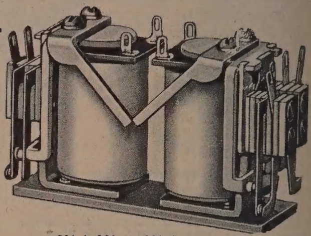
Class **33F**—Class 33 sub-miniature telephone type relay designed especially to afford lowest possible capacitance between springs and to minimize losses at high frequencies. Suitable for antenna change-over switching. Contact springs have ceramic insulation. Contacts are Palladium, 2 ampere rating.

Tinned solder terminals. Four #4-40 tapped mounting holes on ⅜ x ⅜ centers. Weight, 1 ounce.

contacts 2 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
SPDT	6VDC	28	1.5W	W33FX20	4.06
	12VDC	100		W33FX21	4.11
	24VDC	500		W33FX22	4.16
	110VDC	6500		W33FX23	4.69

Latch-in—Miniature—DC

11L



2 9/16 l, 1 3/16 w, 1 9/16 h.

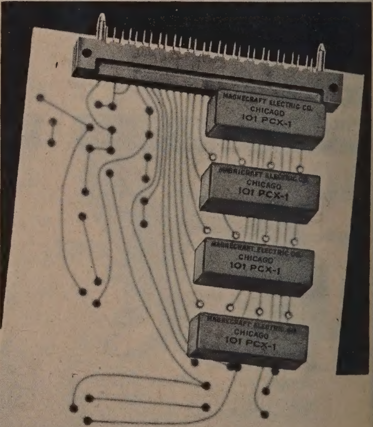
Two Class **11** Miniature Telephone Type Relays mounted on a common base with armatures mechanicaly interlocked. Each armature latches when pulled in. Energizing one armature resets (releases) the other. Each relay is complete with DPDT 5-ampere silver alloy contacts. The latching levers are alloy steel, heat treated and hard chrome plated for reliability and long wear. Tinned solder terminals. Two #6-32 tapped mounting holes. Weight, 6 ounces.

contacts 5 amps.	voltage	res. ohms	nominal power	Cat. No.	NET
two DPDT	6VDC	13	2.7	W11LX100	14.74
	12VDC	56	2.7	W11LX101	14.74
	24VDC	280	2.0	W11LX102	14.87
	110VDC	5000	2.0	W11LX103	15.96

Encapsulated MAGNEREED Relay Installation (see page 6)

Illustration shows four of seven encapsulated MAGNEREED Relays "plugged" into place. Spaces for the other three relays with sockets for their terminal pins can be seen between the four relays.

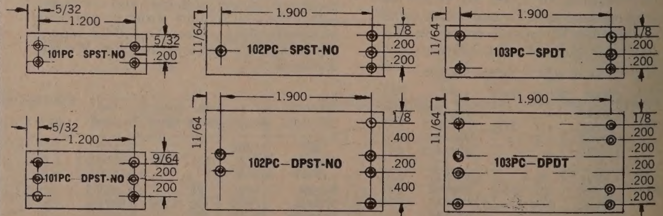
Please note the compact arrangement of the relays, the wide spaces between terminals and the extreme simplicity of the assembly.


MAGNECRAFT ELECTRIC CO. CHICAGO 101 PCX-1
MAGNECRAFT ELECTRIC CO. CHICAGO 101 PCX-1
MAGNECRAFT ELECTRIC CO. CHICAGO 101 PCX-1
MAGNECRAFT ELECTRIC CO. CHICAGO 101 PCX-1

Encapsulated MAGNEREED Relays are shown on page 6

Terminal Pin Spacings of Encapsulated MAGNEREED Relays.

All Terminal Pins are .040 Dia. and ⅛" long.


5/32
1.200
5/32
.200
101PC SPST-NO
11/64
1.900
1/8
.200
.200
102PC—SPST-NO
11/64
1.900
1/8
.200
.200
103PC—SPDT
5/32
1.200
9/64
.200
.200
101PC DPST-NO
11/64
1.900
1/8
.400
.200
.400
102PC—DPST-NO
11/64
1.900
1/8
.200
.200
.200
.200
.200
103PC—DPDT

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MAGNECRAFT

Ultra High Reliability (page 6) MAGNEREED Relays

In this new approach to enduring relay reliability pre-adjusted gold contacts are hermetically sealed inside a glass capsule in an atmosphere of inert gas. The contacts are actuated magnetically by a coil around the hermetically sealed capsule.

Magnereed Relays are easily adaptable to mounting configurations as well as grouping to meet multi-pole switching requirements.

Magnereed Relays have many valuable features:

- Contacts are permanently sealed from dust, contamination and tampering.
- Contact resistance is stabilized over long life.
- Operation is sensitive
- Switching is fast.
- Construction is simple.

MAGNEREED Relays may be mounted in any position.

SPST-NO Miniature Magnereed

CLASS 101 MAGNEREED

Overall length, 1½; glass length, ¾; outside diameter, 7/16; weight, 1 oz.

Contact Combination: Single pole, single throw, normally open

Contacts: Gold—rated 12VA at .250 amp. max. or 100 VAC max.

Operate time: less than 1 millisecond.

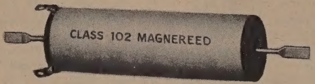
Release time: less than ½ millisecond.

Nominal power, 200MW

Life Expectancy:
At max. rating, 5 million cycles
½ max. rating, 20 million cycles

direct current		res.	catalog	NET
current	volts	ohms	number	each
46MA	6V	100	W101X-1	5.47
30MA	12V	250	W101X-2	5.47
20MA	24V	500	W101X-3	6.42
9MA	—	2500	W101X-4	7.09

SPST-NO Standard Magnereed



Overall length, 3¼; glass length, 1 15/16; outside diameter, ⅝; weight, 2 oz.

Contact Combination: Single pole, single throw, normally open.

Contacts: Gold—rated 15VA at 1 amp. max. or 250 VAC max.

Operate time: less than 1 millisecond.

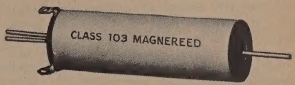
Release Time: less than ½ millisecond.

Nominal Power, 100MW

Life Expectancy:
At max. rating, 20 million cycles
½ max. rating, 100 million cycles
Low load (1/10 amp. at 12V.) 200 million cycles.

direct current		res.	catalog	NET
current	volts	ohms	number	each
32MA		100	W102X-1	3.57
23MA	6V	200	W102X-2	3.57
14.5MA	12V	500	W102X-3	3.57
7.5MA	24V	2000	W102X-4	3.75
4.6MA		5000	W102X-5	4.51

SPDT (Form C) Magnereed



Overall length, 3½; glass length, 2⅛; outside diameter, ½; weight, 2 oz.

Contact Combination; Single pole, double throw

Contacts; Gold—Rated 10 watts resistive load, 1 ampere or 250 VAC maximum

Operate time: Less than 1 millisecond

Release time: Less than 1 millisecond

Contact Bounce: 2 milliseconds maximum on release (N/C contact)

Nominal Power, 100MW

Life Expectancy:
At max. rating, 25 million cycles
½ max. rating, 50 million cycles
Low load rating, 100 million cycles

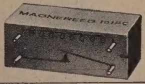
direct current		res.	catalog	
current	volts	ohms	number	NET
32MA	—	100	W103X-8	6.32
23MA	6V	200	W103X-9	6.60
14.5MA	12V	500	W103X-10	7.13
7.5MA	24V	2000	W103X-11	7.87
4.6MA	—	5000	W103X-12	8.04

Encapsulated MAGNEREED Relay Assemblies have many Added Advantages

1. Switch capsule, coil and terminal leads are encased in Epoxy resin which forms a terminal board of great dielectric strength.
2. Rigid, tinned terminal pins, spaced on 0.1 inch grid centers, reduce printed circuit installation to a simple "plug-in" operation.
3. Wide spacing between terminals provides wide safety margins in insulation and dielectric strength and permits similar safety margins in printed board design.
4. Compact design and shape simplify mounting and facilitate compact printed board application.

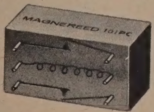
Contacts: Gold—rated 12VA at .250 amp. max. or 100 VAC max.

101PC
SPST-NO
1½ x ½
x 9/16 h
weight, 2 oz.



direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	65	W101PCX-5	7.58
—	12V	250	W101PCX-6	7.65
—	24V	1000	W101PCX-7	7.79
8MA	—	5000	W101PCX-8	8.41

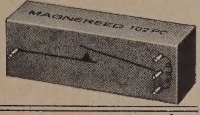
101PC
DPST-NO
1½ x 1 1/16
x 9/16 h
weight, 3 oz.



direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	40	W101PCX-9	10.60
—	12V	150	W101PCX-10	10.64
—	24V	650	W101PCX-11	10.72
8MA	—	5000	W101PCX-12	11.40

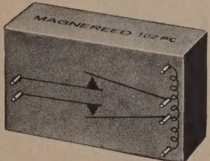
Contacts: Gold—rated 15VA at 1 amp. max. or 250 VAC max.

102PC
SPST-NO
2¼ x 21/32
x ⅝ h
weight 3 oz.



direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	100	W102PCX-1	7.07
—	12V	400	W102PCX-2	7.15
—	24V	1500	W102PCX-3	7.22
6.5MA	—	5000	W102PCX-4	7.89

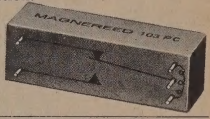
102PC
DPST-NO
2¼ x 1¼
x ¾ h
weight 4 oz.



direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	50	W102PCX-5	9.22
—	12V	200	W102PCX-6	9.31
—	24V	800	W102PCX-7	9.38
9MA	—	5000	W102PCX-8	10.04

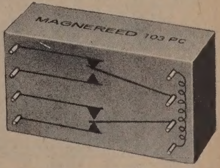
Contacts: Gold—rated 10 watts resistive load, 1 amp or 250 VAC max.

103PC
SPDT
2¼ x 21/32
x ⅝ h
weight 3 oz.



direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	100	W103PCX-1	10.70
—	12V	400	W103PCX-2	10.77
—	24V	1500	W103PCX-3	10.84
6.5MA	—	5000	W103PCX-4	11.50

103PC
DPDT
2¼ x 1¼
x ¾ h
weight 4 oz.



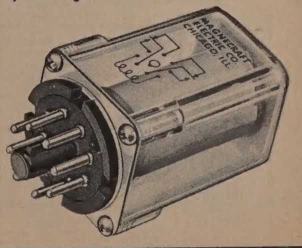
direct current		res.	catalog	1 to 9
current	volts	ohms	number	
—	6V	50	W103PCX-5	15.95
—	12V	200	W103PCX-6	15.99
—	24V	800	W103PCX-7	16.07
9MA	—	5000	W103PCX-8	16.76

For Terminal Pin Spacings of Encapsulated MAGNEREED Relays see Page 5, lower right

Plug-in MAGNEREED Relay Assemblies with Plastic Dust Cover

These assemblies combine the many great qualities of MAGNEREED Relays with convenient plug-in mounting. Each assembly includes two or three MAGNEREED Class 103 SPDT Relays (see operating characteristics above) with a common operating coil, 8- or 11-pin standard octal plug and Magnecraft No. 40-279 polystyrene "see-thru" dust cover housing. Dimensions: 1⅜ x 1⅜ x 2⅛ h. Weight, 5 oz.

	direct current		res.	catalog	1 to 9
contacts	current	volts	ohms	number	
DPDT	—	6V	75	W103CPX-7	15.95
DPDT	—	12V	300	W103CPX-8	15.99
DPDT	—	24V	1000	W103CPX-9	16.07
DPDT	8MA	—	5000	W103CPX-10	16.76
3PDT	—	6V	40	W103CPX-11	20.70
3PDT	—	12V	150	W103CPX-12	20.78
3PDT	—	24V	650	W103CPX-13	20.92
3PDT	10MA	—	5000	W103CPX-14	21.60



OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

MODEL "GPR" GENERAL PURPOSE RELAYS

Simple, rugged, low cost relays handling substantial power for small size. Uncomplicated design provides unusual flexibility for making and changing connections and mounting. Stock includes relays in versatile enclosures, some with indicator light, also plate and latching versions. Wide commercial and industrial use where economy and versatility are important.

Basic (Unenclosed) Relay: All connections terminate on barrier-type terminal panel on combination solder-quick-connect (push-on) lugs which accept AMP 110 female connectors. Fixed contacts are integral inlay on the terminal itself. Terminal panel design permits use of relay in printed circuit assemblies.

Contact Ratings: Two ratings—fine silver contacts, 5 amps at 115VAC or 32VDC; silver cadmium fixed contacts, silver cadmium oxide movable contacts, 10 amps.

Contact Combinations: As shown in stock tables. (Also see GPR "Latching Relay" following for larger combinations.) Others made to order.

Insulation: Tested at 1000 VAC.

Coil Wattage: 1.4 watts DC operation; 1.60 watts (2.0 volt-amperes) AC (except see "Latching Relays")

Coil Operating Voltage: Up to 230 VAC 60 cycles or 115 VDC.

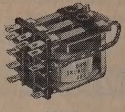
Weights—shown below stock tables, are based on 3PDT relays. Relays with fewer poles weigh slightly less.

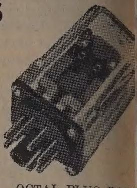
Enclosed Relays (GPRTA-, GPRTT-, GPRTP-) Three types of clear plastic enclosures as follows:

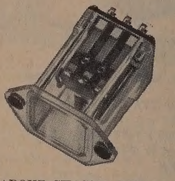
Chassis Mounting Types: "GPRTA"—("Terminals-Above-Chassis" type) has terminal panel opposite to mounting flange; "GPRTT" — ("Terminals-Through-Chassis" type) has terminal panel on same end as mounting flange, requires chassis cutout.

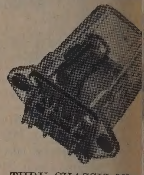
Plug Mounting Type: "GPRTP"—employs octal plug for 1 and 2 pole relays; 11-pin plug for 3-pole. The octal plug base is integral with relay for rigidity—**is designed with recessed pins which meet UL spacing requirements (150V).**

Indicator Relay: Incorporates light bulb to indicate energized condition of coil. Stocked only in GPRTP enclosures described above. Neon bulb furnished with coil ratings 115 volts and above; incandescent bulbs for coil ratings below 115 volts.


3PDT
1 5/16" x 1 25/32" x 1 9/16"


OCTAL PLUG BASE
(GPRTP) 2⅛"x1⅜"x1


ABOVE CHASSIS MTG.*
(GPRTA) 2 21/64"x2¼"x1 18/32"


THRU-CHASSIS MTG.
(GPRTT) 2¼" x 1⅜"
Extends 1 15/16" above chas

* MULTI-USE TERMINALS: Can be soldered, inserted in a PC board, or will take AMP Style 110 push-on terminal

STOCK GPR RELAYS—5 AMP AND 10 AMP

Contacts	COIL DATA Volts	Amps	Ohms	5 AMP CONTACTS Unenclosed GPR	Net $ 1-24	Enclosed Above Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	10 AMP CONTACTS Unenclosed GPR	Net $ 1-24	Enclosed Plug Base GPRTP	Net $ 1-24	Indicator Plug Base GPRTP	Net 1-2
SPDT	6VAC	.334	4.2	GPRX-3T	3.19	GPRTAX-3T	5.19	GPRTTX-3T	5.19	GPRTPX-3T	5.43	GPRX-203T	3.23	GPRTPX-203T	5.52	—	
DPDT	6VAC	.334	4.2	GPRX-6T	3.84	GPRTAX-6T	5.84	GPRTTX-6T	5.84	GPRTPX-6T	6.03	GPRX-206T	3.93	GPRTPX-206T	6.22	GPRTPX-291T	7.1
3PDT	6VAC	.334	4.2	GPRX-9T	4.24	GPRTAX-9T	6.74	GPRTTX-9T	6.74	GPRTPX-9T	7.48	GPRX-209T	4.38	GPRTPX-209T	7.77	—	
SPDT	12VAC	.167	17	GPRX-12T	3.19	GPRTAX-12T	5.19	GPRTTX-12T	5.19	GPRTPX-12T	5.43	GPRX-212T	3.23	GPRTPX-212T	5.52	—	
DPDT	12VAC	.167	17	GPRX-15T	3.84	GPRTAX-15T	5.84	GPRTTX-15T	5.84	GPRTPX-15T	6.03	GPRX-215T	3.93	GPRTPX-215T	6.22	GPRTPX-292T	7.1
3PDT	12VAC	.167	17	GPRX-18T	4.24	GPRTAX-18T	6.74	GPRTTX-18T	6.74	GPRTPX-18T	7.48	GPRX-218T	4.38	GPRTPX-218T	7.77	—	
SPDT	24VAC	.084	65	GPRX-21T	3.19	GPRTAX-21T	5.19	GPRTTX-21T	5.19	GPRTPX-21T	5.43	GPRX-221T	3.23	GPRTPX-221T	5.52	—	
DPDT	24VAC	.084	65	GPRX-24T	3.84	GPRTAX-24T	5.84	GPRTTX-24T	5.84	GPRTPX-24T	6.03	GPRX-224T	3.93	GPRTPX-224T	6.22	GPRTPX-293T	7.1
3PDT	24VAC	.084	65	GPRX-27T	4.24	GPRTAX-27T	6.74	GPRTTX-27T	6.74	GPRTPX-27T	7.48	GPRX-227T	4.38	GPRTPX-227T	7.77	—	
SPDT	115VAC	.0174	1600	GPRX-30T	3.19	GPRTAX-30T	5.19	GPRTTX-30T	5.19	GPRTPX-30T	5.43	GPRX-230T	3.23	GPRTPX-230T	5.52	—	
DPDT	115VAC	.0174	1600	GPRX-33T	3.84	GPRTAX-33T	5.84	GPRTTX-33T	5.84	GPRTPX-33T	6.03	GPRX-233T	3.93	GPRTPX-233T	6.22	GPRTPX-294T	7.1
3PDT	115VAC	.0174	1600	GPRX-36T	4.24	GPRTAX-36T	6.74	GPRTTX-36T	6.74	GPRTPX-36T	7.48	GPRX-236T	4.38	GPRTPX-236T	7.77	—	
SPDT	230VAC	.0087	7000	GPRX-39T	3.58	GPRTAX-39T	5.58	GPRTTX-39T	5.58	GPRTPX-39T	5.82	GPRX-239T	3.62	GPRTPX-239T	5.91	—	
DPDT	230VAC	.0087	7000	GPRX-42T	4.23	GPRTAX-42T	6.23	GPRTTX-42T	6.23	GPRTPX-42T	6.42	GPRX-242T	4.32	GPRTPX-242T	6.61	GPRTPX-295T	7.50
3PDT	230VAC	.0087	7000	GPRX-45T	4.63	GPRTAX-45T	7.13	GPRTTX-45T	7.13	GPRTPX-45T	7.87	GPRX-245T	4.77	GPRTPX-245T	8.16	—	
SPDT	6VDC	.23	26	GPRX-48T	3.04	GPRTAX-48T	5.04	GPRTTX-48T	5.04	GPRTPX-48T	5.38			GPRTPX-248T	5.47	—	
DPDT	6VDC	.23	26	GPRX-51T	3.39	GPRTAX-51T	5.39	GPRTTX-51T	5.39	GPRTPX-51T	5.98			GPRTPX-251T	6.17	GPRTPX-296T	7.06
3PDT	6VDC	.23	26	GPRX-54T	3.84	GPRTAX-54T	6.34	GPRTTX-54T	6.34	GPRTPX-54T	7.43			GPRTPX-254T	7.72	—	
SPDT	12VDC	.114	105	GPRX-57T	3.04	GPRTAX-57T	5.04	GPRTTX-57T	5.04	GPRTPX-57T	5.38			GPRTPX-257T	5.47	—	
DPDT	12VDC	.114	105	GPRX-60T	3.39	GPRTAX-60T	5.39	GPRTTX-60T	5.39	GPRTPX-60T	5.98			GPRTPX-260T	6.17	GPRTPX-297T	7.06
3PDT	12VDC	.114	105	GPRX-63T	3.84	GPRTAX-63T	6.34	GPRTTX-63T	6.34	GPRTPX-63T	7.43			GPRTPX-263T	7.72	—	
SPDT	24VDC	.060	400	GPRX-66T	3.04	GPRTAX-66T	5.04	GPRTTX-66T	5.04	GPRTPX-66T	5.38			GPRTPX-266T	5.47	—	
DPDT	24VDC	.060	400	GPRX-69T	3.39	GPRTAX-69T	5.39	GPRTTX-69T	5.39	GPRTPX-69T	5.98			GPRTPX-269T	6.17	GPRTPX-298T	7.06
3PDT	24VDC	.060	400	GPRX-72T	3.84	GPRTAX-72T	6.34	GPRTTX-72T	6.34	GPRTPX-72T	7.43			GPRTPX-272T	7.72	—	
SPDT	110VDC	.0110	10,000	GPRX-75T	3.63	GPRTAX-75T	5.63	GPRTTX-75T	5.63	GPRTPX-75T	5.97			GPRTPX-275T	6.06	—	
DPDT	110VDC	.0110	10,000	GPRX-78T	3.98	GPRTAX-78T	5.98	GPRTTX-78T	5.98	GPRTPX-78T	6.57			GPRTPX-278T	6.76	GPRTPX-299T	7.65
3PDT	110VDC	.0110	10,000	GPRX-81T	4.43	GPRTAX-81T	6.93	GPRTTX-81T	6.93	GPRTPX-81T	8.02			GPRTPX-281T	8.31	—	
Approx. weight →				2.5 oz.		3.0 oz.		3.0 oz.		3.5 oz.		2.5 oz.		3.5 oz.		3.5 oz.	

STOCK "GPR" PLATE CIRCUIT RELAYS—5 AMP CONTACTS

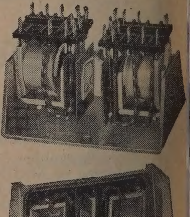
Contacts	COIL DATA Ohms	Pull-in max. ma.	Unenclosed GPR	Net $ 1-24	Enclosed Above-Chassis GPRTA	Net $ 1-24	Enclosed Thru-Chassis GPRTT	Net $ 1-24	Enclosed Plug-Base GPRTP	Net $ 1-24
SPDT	2500	7.2	GPRX-82T	3.62	GPRTAX-82T	5.52	GPRTTX-82T	5.52	GPRTPX-82T	5.86
DPDT	2500	10	GPRX-83T	4.15	GPRTAX-83T	5.67	GPRTTX-83T	5.67	GPRTPX-83T	6.26
3PDT	2500	12.3	GPRX-84T	4.75	GPRTAX-84T	6.62	GPRTTX-84T	6.62	GPRTPX-84T	7.71
SPDT	5000	5	GPRX-85T	3.72	GPRTAX-85T	5.62	GPRTTX-85T	5.62	GPRTPX-85T	5.96
DPDT	5000	7.2	GPRX-86T	4.25	GPRTAX-86T	5.77	GPRTTX-86T	5.77	GPRTPX-86T	6.36
3PDT	5000	8.7	GPRX-87T	4.85	GPRTAX-87T	6.72	GPRTTX-87T	6.72	GPRTPX-87T	7.81
SPDT	10,000	3.6	GPRX-88T	4.12	GPRTAX-88T	6.02	GPRTTX-88T	6.02	GPRTPX-88T	6.36
DPDT	10,000	5	GPRX-89T	4.65	GPRTAX-89T	6.17	GPRTTX-89T	6.17	GPRTPX-89T	6.76
3PDT	10,000	6.1	GPRX-90T	5.25	GPRTAX-90T	7.12	GPRTTX-90T	7.12	GPRTPX-90T	8.21
Approx. weight →			2.5 oz.		3.0 oz.		3.0 oz.		3.5 oz.	

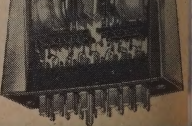
Plate Relays—Feature same physical construction as standard general purpose relays but are adjusted for greater sensitivity and can be used as electronic circuit controls, i.e., in the plate circuits of vacuum tubes.

Latching Relay—Consists of two GPR relays with armatures linked so that the n.o. contacts of one are mechanically latched in closed position when, and after, this relay is energized. When 2nd relay is energized, first relay restores and latches 2nd. Permits switching of twice the number of circuits and holding without coil current. Coil rating is higher than non-latching types, 3.70 volt-amperes. Unenclosed type "GPRLE". Enclosed type "GPRLETP" in clear plastic case with Jones plug P-324-SB. Plug fits Jones S-324-AB socket.

STOCK "GPR" LATCHING RELAYS—5 AMP CONTACTS

Total Contacts	COIL DATA—(Each Coil) Volts	Amps.	Ohms	Unenclosed GPRLE	Net $ 1-24	Enclosed Plug-Base GPRLETP	Net $ 1-24
4PDT	6VAC	.650	2.5	GPRLEX-1T	10.47	GPRLETPX-1T	16.47
6PDT	6VAC	.650	2.5	GPRLEX-2T	12.57	GPRLETPX-2T	19.57
4PDT	12VAC	.309	10.0	GPRLEX-3T	10.47	GPRLETPX-3T	16.47
6PDT	12VAC	.309	10.0	GPRLEX-4T	12.57	GPRLETPX-4T	19.57
4PDT	24VAC	.155	40.0	GPRLEX-5T	10.47	GPRLETPX-5T	16.47
6PDT	24VAC	.155	40.0	GPRLEX-6T	12.57	GPRLETPX-6T	19.57
4PDT	115VAC	.0325	1000	GPRLEX-7T	10.47	GPRLETPX-7T	16.47
6PDT	115VAC	.0325	1000	GPRLEX-8T	12.57	GPRLETPX-8T	19.57
4PDT	230VAC	.0147	4000	GPRLEX-9T	11.25	GPRLETPX-9T	17.25
6PDT	230VAC	.0147	4000	GPRLEX-10T	13.35	GPRLETPX-10T	20.35
4PDT	6VDC	.23	26	GPRLEX-11T	9.42	GPRLETPX-11T	15.42
6PDT	6VDC	.23	26	GPRLEX-12T	11.42	GPRLETPX-12T	18.42
4PDT	12VDC	.114	105	GPRLEX-13T	9.42	GPRLETPX-13T	15.42
6PDT	12VDC	.114	105	GPRLEX-14T	11.42	GPRLETPX-14T	18.42
4PDT	24VDC	.060	400	GPRLEX-15T	9.42	GPRLETPX-15T	15.42
6PDT	24VDC	.060	400	GPRLEX-16T	11.42	GPRLETPX-16T	18.42
4PDT	110VDC	.0110	10,000	GPRLEX-17T	10.60	GPRLETPX-17T	16.60
6PDT	110VDC	.0110	10,000	GPRLEX-18T	12.60	GPRLETPX-18T	19.60
Approx. weight →				7.0 oz.		11.3 oz.	


LATCHING
(GPRLE)
2⅞"x1¾"x1⅞"


ENCLOSED
LATCHING
(GPRLETP)
3 11/16"x3"x1½"

OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

ALL-PURPOSE RELAYS (Also see Model GPR Relays)

MODEL DO RELAY

AC or DC OPERATION

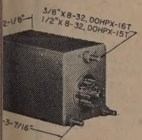
Ideal for mobile equipment applications where severe shock and vibration are encountered. Coil drain: 3-watts DC, 6 watts 60 cycle AC. Contact ratings: 10 amps. at 115 v. AC; 32 volt DC non-inductive load. Insulation tested at 1500 v. AC. Size, (4 pole) 2¼ x 2$\frac{1}{16}$ x 1$\frac{13}{16}$"; (3 pole) 2¼ x 1⅝ x 1$\frac{13}{16}$".

k No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
-50T	3PDT	6	2.10	8.65
-183T	4PDT	6	2.10	9.85
-49T	3PDT	12	1.13	8.65
-184T	4PDT	12	1.13	9.85
-181T	3PDT	24	.57	8.65
-185T	4PDT	24	.57	9.85
-226T	‡DPST*	115	.110	8.60
-227T	‡3PST	115	.110	7.84
-46T	3PDT	115	.110	8.65
-228T	‡4PST	115	.110	8.80
-53T	4PDT	115	.110	9.85
-61T	3PDT	230	.060	9.05
-130T	4PDT	230	.060	10.25

Stock No.	Type	Coil Data V.D.C.	Amps.	Net 1-24
DOX-145T	3PDT	6	.487	7.47
DOX-186T	4PDT	6	.487	8.65
DOX-51T	3PDT	12	.231	7.47
DOX-102T	4PDT	12	.231	8.65
DOX-141T	3PDT	24	.105	7.47
DOX-137T	4PDT	24	.105	8.65
DOX-93T	3PDT	110	.022	8.07
DOX-187T	4PDT	110	.022	9.25
DOX-182T	3PDT	220	.014	8.75
DOX-188T	4PDT	220	.014	9.93

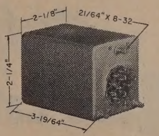
‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 20 Amp.

DO RELAYS IN HERMETIC ENCLOSURES



DOHPX-16T, 3PDT, 11 Prongs
DOHPX-15T, 4PDT, 20 Prongs

Stock DO relays with 115 volt coil in hermetically sealed metal enclosures, filled with dry nitrogen. Both 3 and 4-pole DO relays are supplied in these enclosures with plug (DOHPX-) or solder terminal (DOHX-) connectors as illustrated. **Weights:** 3-pole hermetic relay approx. 14 oz.; 4-pole approx. 15 oz.

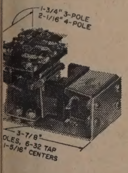


DOHX-22T, 3PDT, 14 Terminals
DOHX-23T, 4PDT, 14 Terminals

10 AMP. CONTACTS

k No.	Type	Coil Data Volts	Amps.	Net 1-24
PX-16T	3PDT	115VAC	.110	21.95
PX-15T	4PDT	115VAC	.110	27.95
X-22T	3PDT	115VAC	.110	21.31
X-23T	4PDT	115VAC	.110	22.90

MODEL DO LATCHING RELAY (DOLEX-)



Consists of Model DO relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relays and reset coils) are 115VAC. Available with 3 or 4-pole relays. **Weights:** 3-pole—16.5 oz.; 4-pole —17 oz.

DOLEX-3T, 3PDT
DOLEX-5T, 4PDT

10 AMP. CONTACTS

k No.	Type	Coil Data† Volts	Amps.	Net 1-24
EX-3T	3PDT	115VAC	.110	15.17
EX-5T	4PDT	115VAC	.110	16.37

il data applies to relay part of latching assembly. Reset magnet operates on VAC, 60 cycle also.

MODEL DOSY RELAY

FOR PLATE CIRCUIT OPERATION

The high operating sensitivity makes the DOSY relay adaptable to a wide range of electronic control circuits, such as plate circuit controls, etc.

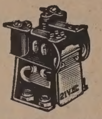
The insulation is of high grade, molded phenolic material. At 115 v. AC or 32 v. DC, non-inductive load, Model DOSY relay has a contact rating of 15 amperes.

ere are two DPDT types, one having 10,000 ohms coil resistance (maximum in current of 8 ma. DC); the other having 5,000 ohms coil resistance. Dimensions same as for Model DOS next column.

k No.	Type	Coil Data D.C. Ohms	Max. Pull-in Current	Net Each 1-24
YX-67T	DPDT	10,000	8 MA	6.09
YX-68T	DPDT	5,000	11 MA	6.09
YX-69T	SPDT	10,000	5 MA	5.62
YX-70T	SPDT	5,000	7 MA	5.62

MODEL DOS RELAY

AC or DC OPERATION



Quality, general-purpose relays originally designed to meet rigorous aircraft specs. Extremely compact yet rugged. Coil drain: 2.5 watts DC, 3 watts at 60 cycles AC. Contact ratings: DP, 15 amps. at 115 v. AC or 32 v. DC non-inductive load; SP, 25 amps. Molded phenolic insulation; tested at 1500 v. AC. 1⅞ x 1⅝ x 1$\frac{13}{32}$".

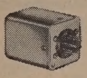
Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
DOSX-229T	‡SPST*	6	.650	4.84
DOSX-230T	‡DPST	6	.650	4.94
DOSX-30T	DPDT	6	.650	5.46
DOSX-16T	DPDT	12	.380	5.46
DOSX-231T	‡SPST*	24	.166	4.84
DOSX-232T	‡DPST	24	.166	4.94
DOSX-162T	DPDT	24	.166	5.46
DOSX-233T	‡SPST*	115	.043	4.84
DOSX-234T	‡DPST	115	.043	4.94
DOSX-7T	DPDT	115	.043	5.46
DOSX-235T	‡SPST*	230	.030	5.24
DOSX-236T	‡DPST	230	.030	5.34
DOSX-12T	DPDT	230	.030	5.86

Stock No.	Type	Coil Data V.D.C.	Amps.	Net 1-24
DOSX-158T	DPDT	6	.550	4.96
DOSX-66T	DPDT	12	.210	4.96
DOSX-9T	DPDT	24	.105	4.96
DOSX-237T	‡SPST*	110	.022	4.99
DOSX-238T	‡DPST	110	.022	5.09
DOSX-59T	DPDT	110	.022	5.56
DOSX-177T	DPDT	220	.013	6.14

‡ Normally open
† AC Voltage is 60 cycle
* Double Break Contacts — 25 Amp.

MODEL DOS PLUG-IN & ENCL. TYPES

DOSPX-1T

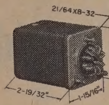


DOSEPX-5T

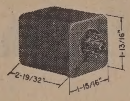
Model DOS, DPDT relay with standard octal plug base, unenclosed or enclosed types. Enclosed dust-proof type has drawn aluminum cover. Overall dimensions, exclusive of plug: DOSPX-1T—1⅝ x 2 x 1$\frac{15}{16}$"; DOSEPX-5T—2⅛ x 2½ x 2⅛". Contacts—15 amps. Similar to DOSX-7T shown under "DOS Relays" above.

Stock No.	Type	Coil V.A.C.	Amps.	Net 1-24
DOSPX-1T Unenclosed	DPDT	115	.043	7.26
DOSEPX-5T Enclosed	DPDT	115	.043	8.30

DOS RELAYS IN HERMETIC ENCLOSURES



Hermetic Enclosures with 8 Terminals
DOSHX-39T, 115VDC
DOSHX-40T, 115VAC



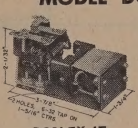
Hermetic Enclosures with Octal Plugs
DOSHPX-46T, 115VDC
DOSHPX-47T, 115VAC

Hermetically Sealed non-removable enclosures, filled with dry nitrogen, are also available to provide protection under adverse ambient conditions. DOS relays with 115 volt AC or DC coils are provided in these enclosures with either octal plug (DOSHPX-) or solder-terminal (DOSHX-) connectors as illustrated. **Weights:** 8 oz. each approx.

15 AMP. CONTACTS

Stock No.	Type	Coil Data Volts	Amps.	Net 1-24
DOSHX-40T	DPDT	115VAC	.043	13.58
DOSHPX-47T	DPDT	115VAC	.043	13.66
DOSHX-39T	DPDT	110VDC	.022	13.68
DOSHPX-46T	DPDT	110VDC	.022	13.76

MODEL DOS LATCHING RELAY (DOSLEX-)



DOSLEX-1T

Consists of Model DOS relay and a "reset magnet" with both armatures mechanically latched so that the normally open contacts of the relay remain closed when the relay energizing voltage is removed. The relay releases to normal position when the reset coil is pulsed. Permits "holding" of circuits without continuous coil current. Coils of stock units (both relay and reset magnet) are 115VAC. **Weight:** 14.2 oz.

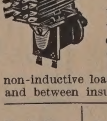
15 AMP. CONTACTS

Stock No.	Type	Coil Data † Volts	Amps.	Net 1-24
DOSLEX-1T	DPDT	115VAC	.043	11.98

† Coil data applies to relay part of latching assembly. Reset magnet operates on 115VAC, 60 cycle also.

MODEL CRU RELAY

AC or DC OPERATION



Precision-engineered, general-application relays. Used in recorders, vending machines, etc. Features small size and extremely rugged construction. Designed for long life performance. Has nickel-silver springs and pure silver contacts. Coil drain: 2.75 watts DC, 5.6 watts 60 cycle AC. Contact ratings: 5 amps. at 115 v. AC; 32 v. DC non-inductive load. Insulation tested at 750 v. AC between all insulated metal parts and between insulated metal parts and ground. Size 2$\frac{7}{16}$ x 2 x 1$\frac{3}{32}$".

Stock No.	Type	Coil Data †V.A.C.	Amps.	Net 1-24
CRUX-192T	SPDT	6	1.20	3.15
CRUX-193T	DPDT	6	1.20	3.70
CRUX-171T	4PDT	6	1.20	4.81
CRUX-194T	SPDT	24	.38	3.15
CRUX-195T	DPDT	24	.38	3.70
CRUX-196T	4PDT	24	.38	4.81
CRUX-197T	SPDT	115	.075	3.15
CRUX-175T	DPDT	115	.075	3.70
CRUX-163T	4PDT	115	.075	4.81

Stock No.	Type	Coil Data V.D.C.	Amps.	Net 1-24
CRUX-198T	SPDT	6	.40	2.94
CRUX-199T	DPDT	6	.40	3.47
CRUX-133T	4PDT	6	.40	4.52
CRUX-200T	SPDT	24	.10	2.94
CRUX-201T	DPDT	24	.10	3.47
CRUX-165T	4PDT	24	.10	4.52
CRUX-202T	SPDT	110	.022	3.81
CRUX-145T	DPDT	110	.022	4.34
CRUX-137T	4PDT	110	.022	5.39

† AC Voltage is 60 cycle.

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INDEX BY TYPE

EPHONE		PLATE CIR. & SENSITIVE		POWER		GEN. PURPOSE		SPEC. PURPOSE		SPEC. PURPOSE	
ay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page
	1	GB	2	AB	4	GA	5	AP	6	FC, FL	8
	1	KCP	3	ABC	4	GP	5	BU	6	SC, SCG	8
	1	LB	3	GF	4	GP Kit	5	JM (Insert)		SL, SLG	8
	2	LM	3	MR	4	KA	5	KB	6	BS Cover	1
	2	PW	3	PM	4	KHP	5	KM	7	MS/MR	
	2	RS	3	PR	4	KL	5	KT	7	Cover	7
	2	SM	3			KRP	6	PC	7	"P" Case	6
	2	SS	3			KRP-N	6	MS	7	Hld. Dwn.	6
								SA	7	PR Cover	4

ALPHABETICAL INDEX

Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page	Relay	Page
AB	4	GB	2	KL	5	MB	2	PC	7	SL, SLG	8
ABC	4	GF	4	KM	7	MC	2	PM	4	SM	3
AP	6	GP	5	KRP	6	MG	2	PR	4	SS	3
BS	1	GP Kit	5	KRP-N	6	MH	2	PR			
BS		JM (Insert)		KT	7	ML	2	Cover	4	'P" Case	6
Cover	1	KA	5	LB	3	MR	4	PW	3	Hold Down	
BU	6	KB	6	LM	3	MS	7	RS	3	Spring	6
FC, FL	8	KCP	3	LS	1	MS/MR		SA	7		
GA	5	KHP	5	LT	1	Cover	7	SC, SCG	8		

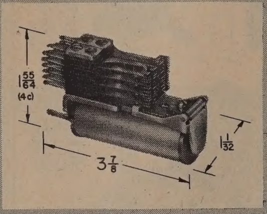
KEY TO SUFFIXES

FFIX	STANDS FOR	EXAMPLE	SUFFIX	STANDS FOR	EXAMPLE
A	— Alternating Current	BS17A	N	— Neon Light	KRP11AN
D	— Direct Current	BS17D	P	— Enclosed in Plastic Dust Cover	MG11DP
DD	— DC in a sealed "D" can	MH23DD	R	— With Built-in Rectifier	MH17AMR
G	— Silver Cad.-Oxide Contacts	KRP5AG	S	— Sealed in can	PW5DS, SM5DS
L	— Plate Circuit	SM5L	T	— Sealed in "T" can	MG11DT
M	— Sealed in "M" can	MH17DM	Y	— U/L Listed	AB11AY

ordering information on P&B page 7.

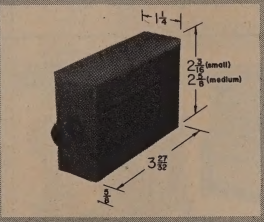
TELEPHONE TYPE RELAYS

SERIES Long coil telephone type. d for computer and automatic test equip- applications requiring large numbers of . Tinned, pierced solder type terminals ear panel wiring. Mounting: Two No. NC 2B tapped holes on ¾" centers. Con- arms: Bifurcated with 1/16" dia. twin pal- m contacts. Weight: Approximately s.

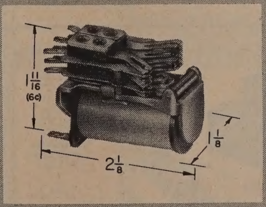


DUST COVER Built of sheet steel protection against dust, dirt, mechanical age. Also provides magnetic and elec- atic shielding. Cover can be removed elay inspection. For BS series only. Two : Small, will accept up to 6 form C DT, BS23); medium, will accept up to orm C relay. Both sizes come complete cover, knob attached, relay bracket, screws and lockwashers. Weight: Small zs., medium 7 ozs.

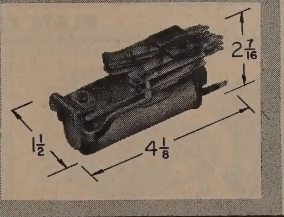
188, Small	NET $1.80
189, Medium	NET $1.80



SERIES Short springs and light weight ature provide fast action without sacri- g reliability and long life. Stainless steel e bearing designed to give 100 million ations. Tinned, pierced solder type ter- als. Mounting: Two No. 6-32 tapped s on ¾" centers. Bifurcated contact arms 1/16" dia. twin palladium contacts. ght: Approximately 4 ozs.



SERIES A fast acting, inherently re- le telephone type relay with a long coil. ature has a full width hinge bearing able of 50 million mechanical operations. single contact arms with 5/64" dia. pal- um contacts rated at 3 amps. DC coils . Mounting: Two 8-32 tapped holes on centers. Weight: 12 ozs., max.



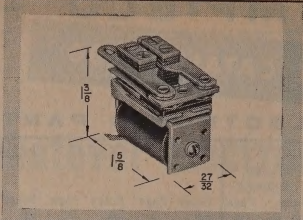
TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrange-ment	Rate in Amps	
BS17A	**115V**	**71**	**17.9VA**	**4PDT**	**4**	**$ 9.00**
BS17D	24V	1,000	576MW	4PDT	4	7.40
BS17D	48V	1,600	1.4W	4PDT	4	7.75
BS17D	110V	6,500	1.8W	4PDT	4	8.00
BS17L	5.5MA	10,000	300MW	4PDT	4	8.00
BS23A	115V	71	17.9VA	6PDT	4	10.50
BS23D	24V	1,000	576MW	6PDT	4	8.95
BS23D	48V	1,600	1.4W	6PDT	4	9.30
BS23D	110V	6,500	1.8W	6PDT	4	9.50
BS23L	7.6MA	10,000	600MW	6PDT	4	9.50
LS17D	**24V**	**300**	**1.8W**	**4PDT**	**4**	**5.60**
LS17D	48V	1,300	1.8W	4PDT	4	5.75
LS17D	110V	8,000	1.8W	4PDT	4	6.00
LS23D	24V	300	1.8W	6PDT	4	6.80
LS23D	48V	1,300	1.8W	6PDT	4	6.95
LS23D	110V	8,000	1.8W	6PDT	4	7.20
LT17D	**24V**	**300**	**1.92**	**4PDT**	**3**	**5.50**
LT17D	48V	1,300	1.77	4PDT	3	5.85
LT17D	110V	11,300	1.07	4PDT	3	6.10
LT23D	24V	300	1.92	6PDT	3	6.40
LT23D	48V	1,300	1.77	6PDT	3	6.75
LT23D	110V	6,500	1.86	6PDT	3	7.00

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

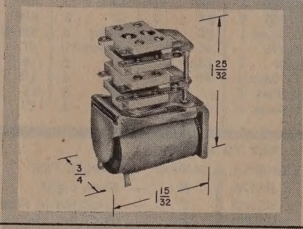
OTTER & BRUMFIELD DIVISION OF AMERICAN MACHINE & FOUNDRY COMPANY
PRINCETON, INDIANA
1/1/62-R
TWX: PRINCETON 73

Potter & Brumfield Relays

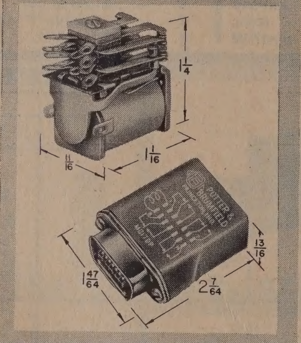
MB SERIES Miniature DC contactor. Designed for very high current applications. Extra rugged construction insures long life. Handles 150 ampere surges for 0.3 sec. Contact arms: Stationary, heavy brass, ¼" dia. silver contacts pierced solder terminals. Movable, ¼" x 13/16" silver bar contact. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Weight: 2 ozs.



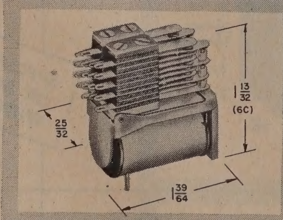
MC SERIES Built with ceramic contact spaces for RF switching to minimize losses at high frequencies. Intercontact capacitance 1.5 mmfd. max. Tinned, pierced solder type terminals. Mounting: Four No. 3-48 tapped holes on ⅜" x ⅜" centers. Contacts: 3/32" dia. palladium. Weight: 2 ozs.



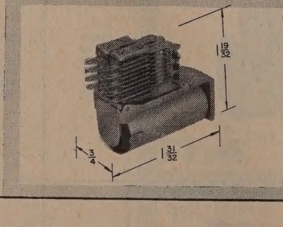
MG SERIES Sub-miniature telephone type relay for aircraft, computer and other applications requiring good shock and vibration characteristics. Furnished open, sealed or in nylon dust cover. Mounting: Open model has four No. 3-48 tapped holes on ⅜" x ⅜" centers. Sealed model has three No. 4-40 threaded studs on 1" x ½" centers. Dust cover model has plug-in header that fits Amphenol receptacle No. 57-20140 or similar. Contacts: 3/32" dia. silver. Weight: Open 1.2 ozs.; Dust cover 2.0 ozs.; Sealed 2.75 ozs.



MH SERIES MINIATURE TYPE
Ideal for miniature program applications where space and weight are factors. Sealed AC MH17AMR operates with a built-in rectifier. Mounting: Open model, MH11L, one No. 6-32 threaded stud 11/32" long plus locating boss. All other open models have four No. 3-48 holes on ⅜" x ⅜" centers. Sealed models, M enclosures, three 6-32 NC 2 threaded studs on 1¼" x ½" centers. D enclosures, three 6-32 threaded studs on 1 3/16" x 15/16" centers. All sealed models have hook end solder terminals. All models have ⅛" dia. gold-flashed silver contacts. Weight: Open models 2½ oz. max. Sealed models 5 ozs. max.



ML SERIES A small telephone type relay having excellent sensitivity with outstanding switching capabilities. Ideal for transistorized computor networks, telephone systems and battery powered communications equipment. Single contact arms have ⅛" dia. gold-flashed silver contacts rated at 3 amps for 100,000 operations. Pierced solder terminals. Mounting: Four 3-48 holes on ⅜" centers. Weight: 2.5 ozs.

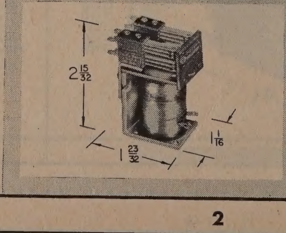


TELEPHONE TYPE RELAYS

TYPE	COILS			CONTACTS		N
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
MB3D	**6V**	**13.3**	**2.7W**	**SPST-NO-DB**	**60**	$
MB3D	12V	62.3	2.7W	SPST-NO-DB	60	
MB3D	24V	245	2.7W	SPST-NO-DB	60	
MB3D	110V	5,000	2.7W	SPST-NO-DB	60	
MC5A	**6V**	**2.5**	**4.6VA**	**SPDT**	**1**	
MC5A	115V	800	4.6VA	SPDT	1	
MC5D	6V	23	1.6W	SPDT	1	
MC5D	12V	96	1.6W	SPDT	1	
MC5D	24V	365	1.6W	SPDT	1	
MC11A	6V	2.5	4.6VA	DPDT	1	
MC11A	115V	800	4.6VA	DPDT	1	
MC11D	6V	23	1.6W	DPDT	1	
MC11D	12V	96	1.6W	DPDT	1	
MC11D	24V	365	1.6W	DPDT	1	
MC11D	110V	6,200	1.6W	DPDT	1	
MG11D	**6V**	**23**	**1.6W**	**DPDT**	**2**	5
MG11D	12V	90	1.6W	DPDT	2	5
MG11D	24V	365	1.6W	DPDT	2	5
MG11D	110V	7,560	1.6W	DPDT	2	5
MG11DP§	24V	365	1.6W	DPDT	2	9
MG11DP§	110V	7,560	1.6W	DPDT	2	10
MG11DT†	24V	365	1.6W	DPDT	2	10
MG17D	6V	23	1.6W	4PDT	2	6
MG17D	12V	90	1.6W	4PDT	2	6
MG17D	24V	365	1.6W	4PDT	2	6
MG17D	110V	7,560	1.6W	4PDT	2	7
MG17DP§	6V	23	1.6W	4PDT	2	11
MG17DP§	12V	90	1.6W	4PDT	2	11
MG17DP§	24V	365	1.6W	4PDT	2	11
MG17DP§	110V	7,560	1.6W	4PDT	2	12
MG17DT†	24V	365	1.6W	4PDT	2	12
MG17DT†	110V	7,560	1.6W	4PDT	2	13
MH11L	**4.5MA**	**10,000**	**200MW**	**DPDT**	**3**	5.
MH11LM†	4.5MA	10,000	200MW	DPDT	3	9.
MH17AMR†	24V	365	2VA	4PDT	5	23.
MH17AMR†	115V	6,200	2VA	4PDT	5	17.
MH17D	6V	23	1.6W	4PDT	5	5.
MH17D	12V	96	1.6W	4PDT	5	5.
MH17D	24V	365	1.6W	4PDT	5	5.
MH17DM†	6V	23	1.6W	4PDT	5	11.
MH17DM†	12V	96	1.6W	4PDT	5	11.
MH17DM†	24V	365	1.6W	4PDT	5	11.
MH23D	6V	13.3	2.5W	6PDT	5	6.
MH23D	12V	62.3	2.5W	6PDT	5	6.
MH23D	24V	245	2.5W	6PDT	5	6.
MH23D	110V	5,000	2.5W	6PDT	5	7.
MH23DD†	6V	13.3	2.5W	6PDT	5	14.
MH23DD†	12V	62.3	2.5W	6PDT	5	14.
MH23DD†	24V	245	2.5W	6PDT	5	14.
MH23DD†	110V	5,000	2.5W	6PDT	5	15.
ML11D	**4.0MA**	**2,500**	**40MW**	**DPDT**	**3**	6.
ML11D	2.83MA	5,000	40MW	DPDT	3	6.
ML11D	2.0MA	10,000	40MW	DPDT	3	6.
ML17D	5.65MA	2,500	80MW	4PDT	3	7.
ML17D	4.0MA	5,000	80MW	4PDT	3	7.
ML17D	2.83MA	10,000	80MW	4PDT	3	7.
ML23D	6.93MA	2,500	120MW	6PDT	3	8.
ML23D	4.9MA	5,000	120MW	6PDT	3	8.
ML23D	3.46MA	10,000	120MW	6PDT	3	8.

PLATE CIRCUIT and SENSITIVE RELAY

GB SERIES (See GA series for similar voltage actuated relays.) Sensitivity 115 milliwatts for single pole and 275 milliwatts for 4 pole. Medium cost, high quality relay. Pull-in is not adjustable. Mounting: No. 8-32 tapped core and locating boss. Contacts: 3/16" dia. silver. Weight: Approximately 5 ozs.



GB5D	**6.8MA**	**2,500**	**115MW**	**SPDT**	**5**	3.
GB5D	4.8MA	5,000	115MW	SPDT	5	3.
GB5D	3.4MA	10,000	115MW	SPDT	5	4.
GB11D	7MA	2,500	125MW	DPDT	5	4.
GB11D	5MA	5,000	125MW	DPDT	5	4.
GB11D	3.53MA	10,000	125MW	DPDT	5	5.
GB17D	10.5MA	2,500	275MW	4PDT	5	5.
GB17D	7.4MA	5,000	275MW	4PDT	5	5.
GB17D	5.25MA	10,000	275MW	4PDT	5	6.

†Sealed Relay
§Enclosed Relay

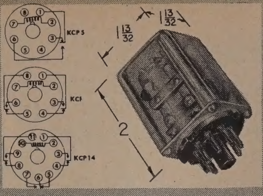
See ordering information on P. & B. page

© U.C.P., In

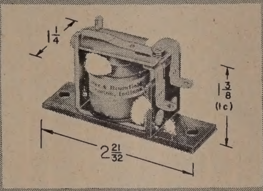
Potter & Brumfield Relays

PLATE CIRCUIT and SENSITIVE RELAYS

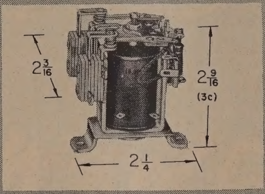
(CP SERIES Low cost plate circuit re-
ıy enclosed in clear cellulose acetate cover. ensitivity 125 mw single pole; 250 mw ouble pole; 375 mw three pole. Mounting: tandard octal plug-in type. Eight pin for CP5 and KCP11. Eleven pin for KCP14. ontacts: ⅛" dia. gold-flashed silver. Weight: pproximately 3 ozs. See KCP-KRP hold own spring when vibration, inverted or horiontal mounting are factors.



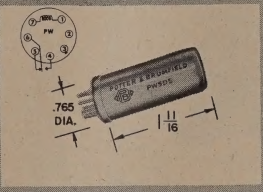
B SERIES Designed for top performance, ng life at an unusually low cost. Each coil wound with a given coil resistance and facry adjusted to operate on minimum current equirements. Mounting: Two 3/16" dia. holes n 27/32" centers. Contacts: ⅛" dia. silver. Veight: Approximately 2 ozs.



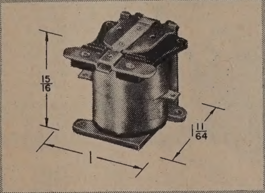
M SERIES (See KL for similar voltage ctuated relays.) Sensitivity 100 milliwatts or single pole and 200 milliwatts for double ole. Medium cost, high quality relay with 32" dia. silver contacts. Pull-in adjustable y tail spring adjusting screw. Mounting: wo No. 6-32 tapped holes on 1 13/16" centers. Veight: Approximately 5 ozs. DC Coils only.



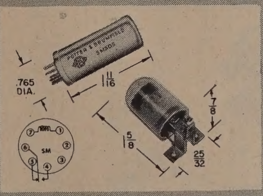
W SERIES (In both voltage and current ctuated models.) Sensitivity 40 mw for curent actuated models. 180 mw for voltage ctuated models. Precision, light weight, herneticaly sealed relay for aircraft and missile pplications. Will withstand 10G vibration to 00 cps. Mounting: Standard 7-pin miniature ube base. Weight: Approx. 1 oz.



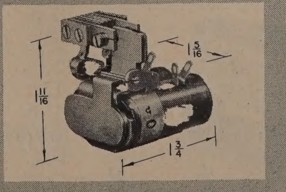
RS SERIES (In both voltage and current ctuated models.) 60 mw. sensitivity. Lowost, small, light weight, sensitive relay for adio-sonde, light dimmer and model appliations. Mounting: Two No. 4-40 tapped oles on diagonal ¾" x ⅝" centers. Contacts: ar palladium. Weight: 1½ ozs.



SM SERIES (In both voltage and current actuated models.) Sensitivity 75 mw for current actuated models. Medium cost, light weight, dust covered (right) or hermetically sealed (left) relay for light contact loads found in computers, model airplanes and similar applications. Extremely long mechanical life because of reed armature. Mounting: Sealed, standard 7-pin miniature tube socket; dust cover, two 3/32" dia. holes on 17/32" centers. Contacts: Stationary silver; movable rhodium. Weight: 1 oz. max.



SS SERIES Ultra sensitive precision relay. 10 mw sensitivity. Dual series-connected coils with balanced armature on needle-point bearings for all low energy circuits such as instruments and bridge balancing. May also be used as a differential relay by connecting the two coils in separate circuits. Mounting: Two No. 6-32 tapped holes on 23/32" centers. Contacts: ⅛" dia. silver. Weight: Approx. 3½ ozs.



TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KCP5§	**7.2MA**	**2,500**	**125MW**	**SPDT**	**2**	**$ 5.90**
KCP5§	5MA	5,000	125MW	SPDT	2	6.00
KCP5§	3.6MA	10,000	125MW	SPDT	2	6.40
KCP11§	10MA	2,500	250MW	DPDT	2	6.30
KCP11§	7.2MA	5,000	250MW	DPDT	2	6.40
KCP11§	5MA	10,000	250MW	DPDT	2	6.80
KCP14§	12.3MA	2,500	375MW	3PDT	2	7.75
KCP14§	8.7MA	5,000	375MW	3PDT	2	7.85
KCP14§	6.1MA	10,000	375MW	3PDT	2	8.25
LB5	**9MA**	**2,500**	**200MW**	**SPDT**	**5**	**2.45**
LB5	6.3MA	5,000	200MW	SPDT	5	2.65
LB5	4.5MA	10,000	200MW	SPDT	5	2.85
LM5	**6.3MA**	**2,500**	**100MW**	**SPDT**	**5**	**3.90**
LM5	4.5MA	5,000	100MW	SPDT	5	4.10
LM5	3.2MA	10,000	100MW	SPDT	5	4.40
LM11	9MA	2,500	200MW	DPDT	5	5.55
LM11	6.3MA	5,000	200MW	DPDT	5	5.75
LM11	4.5MA	10,000	200MW	DPDT	5	6.30
PW5DS†	**6V**	**202**	**180MW**	**SPDT**	**2**	**10.25**
PW5DS†	12V	810	180MW	SPDT	2	10.25
PW5DS†	24V	3,240	180MW	SPDT	2	10.25
PW5LS†	2.8MA	5,000	40MW	SPDT	2	10.60
PW5LS†	2.0MA	10,000	40MW	SPDT	2	11.00
RS5D	**6V**	**335**	**110MW**	**SPDT**	**2**	**2.60**
RS5D	12V	1,350	110MW	SPDT	2	2.75
RS5D	5MA	2,500	60MW	SPDT	2	2.85
RS5D	3.5MA	5,000	60MW	SPDT	2	3.15
RS5D	2.5MA	10,000	60MW	SPDT	2	3.60
SM5D§	**6V**	**80**	**500MW**	**SPDT**	**.25**	**5.10**
SM5D§	12V	360	500MW	SPDT	.25	5.10
SM5D§	24V	900	500MW	SPDT	.25	5.10
SM5DS†	6V	80	500MW	SPDT	.25	6.25
SM5DS†	12V	360	500MW	SPDT	.25	6.25
SM5DS†	24V	900	500MW	SPDT	.25	6.25
SM5L§	3.9MA	5,000	75MW	SPDT	.25	5.40
SM5L§	2.7MA	10,000	75MW	SPDT	.25	5.95
SM5LS†	3.9MA	5,000	75MW	SPDT	.25	6.55
SM5LS†	2.7MA	10,000	75MW	SPDT	.25	7.00
SS5D	**1MA**	**10,000**	**10MW**	**SPDT**	**2**	**12.60**

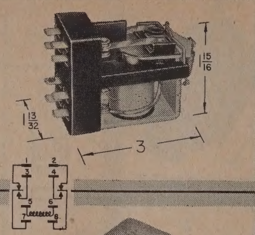
SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

†Sealed Relay
§Enclosed Relay

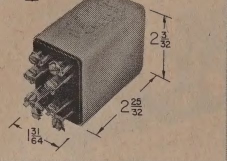
See ordering information on P. & B. page 7.

Potter & Brumfield Relays

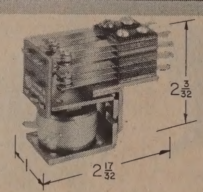
AB SERIES For appliance and general purpose applications where rugged construction, long life and quiet operation are required. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: Two No. 8-32 tapped holes, on 1¼″ centers. Weight: Approx. 5 ozs. Silver contacts.



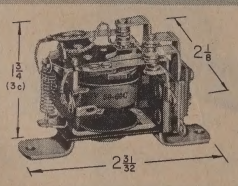
ABC SERIES Medium duty power relay with dust cover. For small motors, industrial control and similar applications. All equipped with terminals to fit snap-on connectors and may also be applied to printed circuits using dip soldering. Snap-on screw adaptors packed with each relay. All AC models carry U/L and CSA* labels. Mounting: One No. 8-32 threaded stud ⅜″ long and locating tab on 9/16″ centers. Contacts: ¼″ dia. silver. Weight: Approx. 7 ozs.



GF SERIES Medium duty power relay for industrial control applications. Long contact arms have ¼″ dia. silver contacts rated at 15 amps at 115V AC or 28V DC resistive. Contacts have excellent wipe or self-cleaning action. Tinned, pierced solder terminals. Mounting: 8-32 tapped core with locating boss. Weight: 4.75 ozs. (See GA series for similar voltage actuated relays.)



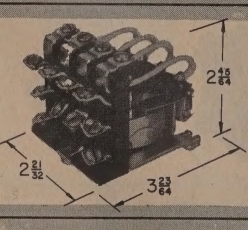
MR SERIES A medium duty power relay that can handle small motors, transmitters, and general purpose applications. Mounting: Two 5/32″ dia. holes on 2¼″ centers for MR3 and 11, 2⅝″ centers for MR2, 5 and 14. Contacts: 7/32″ dia. silver. Weight: 4 ozs. Enclosure: See MS/MR dust cover.



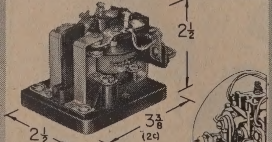
PM SERIES A compact heavy duty 4PDT power relay for polyphase and heavy duty switching applications. Screw terminals. Has ¼″ silver-cadmium-oxide contacts rated at 25 amps at 115V., 25 amps at 230V. 50/60 cycle resistive AC, 1 HP per movable arm at 120V or 240V. AC single phase, U/L listed. Mounts by one front key-hole and two rear channel slots for 8-32 screws on 2″ x 2½″ triangular centers. Weight: 14 ozs.

9PM1 Adapter plates for mounting PM on PR mounting holes. Box of 10 Net $1.50

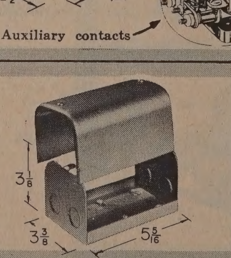
9PM2 Heavy-duty molded dust covers for PM. Box of 4 Net $1.60



PR SERIES Heavy duty relay for industrial control applications requiring long life and fast action. Heavy duty screw type terminals. All AC and DC models except PR11AL5 carry U/L labels. Only AC models except PR11AL5 carry CSA* labels also. Mounting: Two 3/16″ dia. holes on 1⅞″ centers. Weight: 11 ozs. max. Contacts: 5/16″ dia. silver. Enclosure: See "PR" cover. The PR11AL5 relay is equipped with 3/16″ dia. silver SPDT auxiliary contacts rated at 5 amps.



PR DUST COVER This dust cover has a sheet steel base with knockouts for ½″ dia. conduit and an aluminum cover fitted with two screws. The cover fits tightly in place to provide maximum protection against dust, dirt and other foreign matter. Cover can be easily removed for relay maintenance. Fits all PR relays. Finished in gray baked enamel. Mounting: Three No. 10 holes on 1⅞″ x 4⅛″ centers. Weight: 1 lb.
35D013 NET $3.00



POWER TYPE RELAYS

TYPE	COILS			CONTACTS		NE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
AB11AY	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**$5**
AB11AY	24V	23	6.4VA	DPDT	10	5
AB11AY	115V	510	6.4VA	DPDT	10	5
AB11AY	230V	2,050	6.4VA	DPDT	5	5
AB11D	12V	72	2.0W	DPDT	10	5
AB11D	24V	288	2.0W	DPDT	10	5.
AB11D	110V	6,050	2.0W	DPDT	10	5.
ABC11AY§	**6V**	**1.3**	**6.4VA**	**DPDT**	**10**	**6**
ABC11AY§	24V	23	6.4VA	DPDT	10	6
ABC11AY§	115V	510	6.4VA	DPDT	10	6
ABC11AY§	230V	2,050	6.4VA	DPDT	5	6
ABC11D§	6V	18	2.0W	DPDT	10	6
ABC11D§	12V	72	2.0W	DPDT	10	6
ABC11D§	24V	288	2.0W	DPDT	10	6
ABC11D§	110V	6,050	2.0W	DPDT	10	6
GF5A	**6V**	**1.7**	**6VA**	**SPDT**	**15**	**3**
GF5A	12V	6.8	6VA	SPDT	15	3
GF5A	24V	24	6VA	SPDT	15	3
GF5A	115V	725	6VA	SPDT	15	3
GF5D	6V	18	2.0W	SPDT	15	3
GF5D	12V	72	2.0W	SPDT	15	3
GF5D	24V	288	2.0W	SPDT	15	3
GF5D	110V	6,050	2.0W	SPDT	15	3
GF11A	6V	1.7	6VA	DPDT	15	4
GF11A	12V	6.8	6VA	DPDT	15	4
GF11A	24V	24	6VA	DPDT	15	4
GF11A	115V	725	6VA	DPDT	15	4
GF11D	6V	18	2.0W	DPDT	15	4
GF11D	12V	72	2.0W	DPDT	15	4.
GF11D	24V	288	2.0W	DPDT	15	4.
GF11D	110V	6.050	2.0W	DPDT	15	4.
GF17A	6V	1.7	6VA	4PDT	15	6
GF17A	12V	6.8	6VA	4PDT	15	6
GF17A	24V	24	6VA	4PDT	15	6
GF17A	115V	725	6VA	4PDT	15	6
GF17A	230V	2,950	6VA	4PDT	15	7.
GF17D	6V	18	2.0W	4PDT	15	6.
GF17D	12V	72	2.0W	4PDT	15	6.
GF17D	24V	288	2.0W	4PDT	15	6.
GF17D	110V	6,050	2.0W	4PDT	15	7.
MR2A	**24V**	**50**	**3.25VA**	**SPST-NC**	**8**	**3**
MR3A	6V	2.75	3.25VA	SPST-NO-DB	10	3
MR3A	24V	50	3.25VA	SPST-NO-DB	10	3.
MR3A	115V	1,250	3.25VA	SPST-NO-DB	10	3.
MR3D	6V	24	1.6W	SPST-NO-DB	10	3.
MR3D	12V	96	1.6W	SPST-NO-DB	10	3.
MR3D	24V	360	1.6W	SPST-NO-DB	10	3.
MR5A	6V	2.75	3.25VA	SPDT	8	3.
MR5A	12V	13.25	3.25VA	SPDT	8	3.
MR5A	24V	50	3.25VA	SPDT	8	3.
MR5A	115V	1,250	3.25VA	SPDT	8	3.
MR5A	230V	4,600	3.25VA	SPDT	8	3.
MR5D	6V	24	1.6W	SPDT	8	3.
MR5D	12V	96	1.6W	SPDT	8	3.
MR5D	24V	360	1.6W	SPDT	8	3.
MR5D	110V	8,000	1.6W	SPDT	8	3.
MR11A	6V	2.75	3.25VA	DPDT	8	4.
MR11A	12V	13.25	3.25VA	DPDT	8	4.
MR11A	24V	50	3.25VA	DPDT	8	4.
MR11A	115V	1,250	3.25VA	DPDT	8	4.
MR11A	230V	4,600	3.25VA	DPDT	8	5.
MR11D	6V	24	1.6W	DPDT	8	4.
MR11D	12V	96	1.6W	DPDT	8	4.
MR11D	24V	360	1.6W	DPDT	8	4.
MR11D	110V	8,000	1.6W	DPDT	8	5.
MR14A	6V	2.75	3.25VA	3PDT	8	5.
MR14A	12V	13.25	3.25VA	3PDT	8	5.
MR14A	24V	50	3.25VA	3PDT	8	5.
MR14A	115V	1,250	3.25VA	3PDT	8	5.
MR14A	230V	4,600	3.25VA	3PDT	8	6.
MR14D	6V	24	1.6W	3PDT	8	5.
MR14D	12V	96	1.6W	3PDT	8	5.
MR14D	24V	360	1.6W	3PDT	8	5.
MR14D	110V	8,000	1.6W	3PDT	8	5.
PM17AY	**6V**	**.423**	**14 VA**	**4PDT**	**25**	**12.**
PM17AY	12V	1.6	14 VA	4PDT	25	12.
PM17AY	24V	6.3	14 VA	4PDT	25	12.
PM17AY	115V	120	14 VA	4PDT	25	12.
PM17AY	230V	587	14 VA	4PDT	25	12.
PR1AY	**24V**	**12**	**9.8VA**	**SPST-NO**	**25**	**4.**
PR3AY	6V	0.86	9.8VA	SPST-NO-DB	25	4.
PR3AY	12V	3.2	9.8VA	SPST-NO-DB	25	4.
PR3AY	24V	12	9.8VA	SPST-NO-DB	25	4.
PR3AY	115V	290	9.8VA	SPST-NO-DB	25	4.
PR3AY	230V	1,200	9.8VA	SPST-NO-DB	25	4.
PR3DY	6V	18	2.0W	SPST-NO-DB	25	4.
PR3DY	12V	71	2.0W	SPST-NO-DB	25	4.
PR3DY	24V	288	2.0W	SPST-NO-DB	25	4.
PR3DY	110V	6,050	2.0W	SPST-NO-DB	25	4.
PR5AY	6V	0.86	9.8VA	SPDT	25	4.
PR5AY	12V	3.2	9.8VA	SPDT	25	4.
PR5AY	24V	12	9.8VA	SPDT	25	4.
PR5AY	115V	290	9.8VA	SPDT	25	4.
PR5AY	230V	1,200	9.8VA	SPDT	25	4.
PR5DY	6V	18	2.0W	SPDT	25	4.
PR5DY	12V	71	2.0W	SPDT	25	4.
PR5DY	24V	288	2.0W	SPDT	25	4.
PR5DY	110V	6,050	2.0W	SPDT	25	4.
PR7AY	6V	0.86	9.8VA	DPST	25	4.
PR7AY	12V	3.2	9.8VA	DPST	25	4.
PR7AY	24V	12	9.8VA	DPST	25	4.
PR7AY	115V	290	9.8VA	DPST	25	4.
PR7AY	230V	1,200	9.8VA	DPST	25	5.
PR7DY	6V	18	2.0W	DPST	25	4.
PR7DY	12V	71	2.0W	DPST	25	4.
PR7DY	24V	288	2.0W	DPST	25	4.
PR7DY	110V	6,050	2.0W	DPST	25	5.
PR11AY	6V	0.86	9.8VA	DPDT	25	6.
PR11AY	12V	3.2	9.8VA	DPDT	25	6.
PR11AY	24V	12	9.8VA	DPDT	25	6.
PR11AY	115V	290	9.8VA	DPDT	25	6.
PR11AY	230V	1,200	9.8VA	DPDT	25	6.
PR11AL5	6V	0.86	9.8VA	DPDT	20	8.
PR11AL5	12V	3.2	9.8VA	DPDT	20	8.
PR11AL5	24V	12	9.8VA	DPDT	20	8.
PR11AL5	115V	290	9.8VA	DPDT	20	8.
PR11AL5	230V	1,200	9.8VA	DPDT	20	8.
PR11DY	6V	18	2.0W	DPDT	25	6.
PR11DY	12V	71	2.0W	DPDT	25	6.
PR11DY	24V	288	2.0W	DPDT	25	6.
PR11DY	110V	6,050	2.0W	DPDT	25	7.

§Enclosed Relay

See ordering information on P. & B. page 7

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*Canadian Standards Association

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New FROM P&B

POTTER & BRUMFIELD
Mercury Wetted Contact
RELAY
JM1 119 11
MADE IN U.S.A

Mercury-Wetted Contact Relays

DEPENDABILITY

Rare long life, high speed, and versatile application with unvarying dependability—all are the result of an unusual combination of advantages found only in mercury-wetted contact relays. The basic component of these relays is a glass capsule containing the contact arrangement. In it two sets of fixed contacts, a single movable reed armature (SPDT—Form D), and a small reservoir of mercury are hermetically sealed under high pressure hydrogen atmosphere. This arrangement does away with contact bounce, chatter, pits and welds. Make or break is positive—every time.

LONG LIFE

The use of mercury assures renewal of a film of mercury on all contact surfaces for every operation—the major reason why you can think in terms of billions of operations when you consider JM relays. Proper application, of course, is a requisite.

HIGH SPEED

Operate time for single capsule relays is just less than 3 milliseconds using 2 watts of power. Release time is about 3.2 milliseconds. Thus relays can be driven 100 times per second.

NOW AVAILABLE FROM STOCK FOR FAST DELIVERY

SERIES			COIL CHARACTERISTICS			NET PRICE
Capsule	Coil	Terminal Fig .No.*	RESISTANCE (Ohms ± 10%)	MUST OPERATE (Milliamps)	MAX. VOLTAGE (at 35°C.)	
SPDT Single Coil						
JM1	109	12	130	38.8	16.1	$15.10
JM1	112	11	500	20.1	31.6	15.10
JM1	114	11	700	20.0	37.4	15.10
JM1	114	12	700	20.0	37.4	15.10
JM1	118	11	2500	10.1	70.7	15.40
JM1	119	11	4000	8.1	89.5	15.10
JM1	120	11	7000	6.0	117.0	15.85
JM1	121	11	11000	5.0	148.0	15.85
JM1	123	11	25000	3.6	224.0	15.85
SPDT Dual Coil						
JM1	405	51	(1) 700 (2) 3300	(1) 32.0 (2) 12.3	(1) 37.4 (2) 81.0	17.60
DPDT Single Coil						
JM2	111	22	700	30.5	45.8	24.60
JM2	115	22	5000	11.3	122.0	24.65
4PDT Single Coil						
JM4	114	41	1400	23.0	70.0	41.05
JM4	114	42	1400	23.0	70.0	41.65
JM4	118	41	6500	10.5	151.0	41.60
JM4	119	42	10000	8.6	187.0	42.30

Use these 3 columns when ordering. Example: JM1109 12

* Octal style plugs, except fig. 42 (Hook Solder), fig. 41 (14-Pin).

PLEASE SEE OTHER SIDE FOR ENGINEERING DATA

ENGINEERING DATA

CONTACT RATING:

500 volts, and 5 amps, not to exceed 250 voltamperes with contact protection*. Available in Form D in SPDT single capsule, DPDT in two capsule, and 4PDT in four capsule construction.

TIMING:

100 operations per sec. for single capsule relays. 60 operations per sec. for 2 and 4 capsule relays. Operating time is as short as 3 milliseconds for JM1, 4 milliseconds for JM2, and 5 milliseconds for JM4. Repetitive accuracy within 1% of its "must operate" current.

DIELECTRIC:

1000 volts rms 60 cycles for single-wound coils, 500 volts rms 60 cycles for double-wound coils, and 200 volts rms 60 cycles for bifiliar coils.

* Simple circuit for resistor and capacitor in series is required unless low level current is applied. Details of contact protection are packed with each relay.

RESISTANCE:

Contact resistance is 25 to 50 milliohms, constant within 1 or 2 milliohms for relay life. Coil: 2 to 25000 ohms.

SHOCK RESISTANCE:

Non-operating: 30 G's for 11 milliseconds. Vibrations up to 10 G's, 10-500 cps.

TEMPERATURES:

—39°C. (mercury freezes), 107°C. internal (potting compound softens).

TERMINATIONS:

Octal style plugs, except figure 42 (Hook Solder), figure 41 (14-Pin).

ENCLOSURES:

Three steel case sizes, one for single capsule, one for 2 and one for 4 capsules. Required mounting position: Vertical.

TERMINATIONS

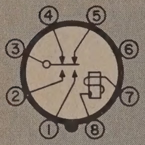


FIG.11

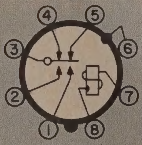


FIG.12

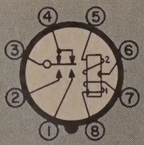


FIG.51

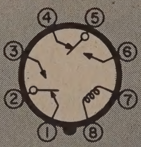


FIG.22

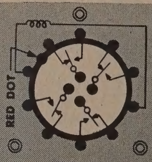


FIG.41

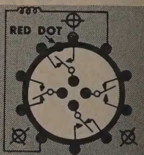
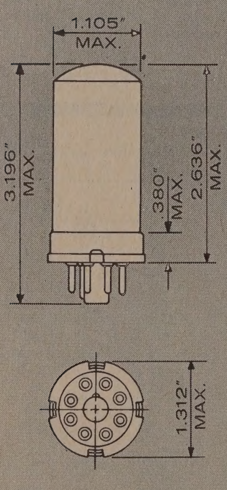


FIG.42

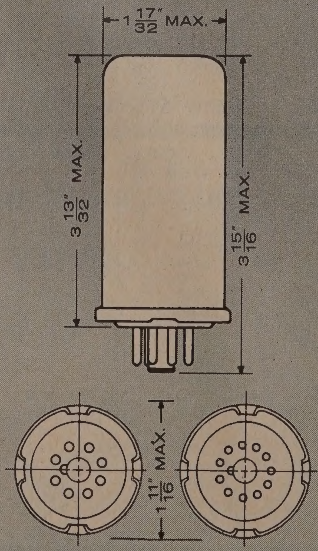
OUTLINE DIMENSIONS

JM 1

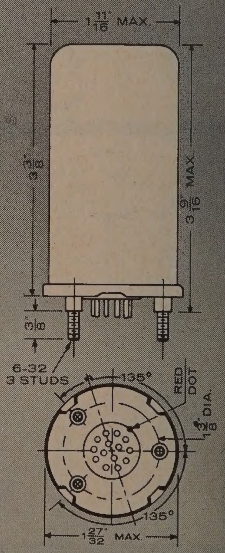

1.105" MAX.
3.196" MAX.
.380" MAX.
2.636" MAX.
1.312" MAX.

WEIGHT: 4 Ounces Net

JM 2


1 17/32" MAX.
3 13/32" MAX.
3 15/16" MAX.
1 11/16" MAX.

JM 4


1 11/16" MAX.
3 3/8"
3 9/16" MAX.
3/8"
6-32
3 STUDS
135°
RED DOT
1/8 DIA.
135°
1 27/32 MAX.

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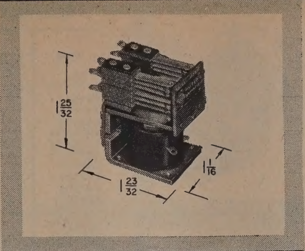
Potter & Brumfield Relays

A SERIES Low cost, all purpose, mul-
le contact, voltage switching relay. Used
many industrial control applications.
nned, pierced solder type terminals. Con-
ts: 3/16" dia. silver, designed for maximum
f-cleaning action. Mounting: No. 8-32
pped core with locating boss. Weight:
2 ozs.

e GF series for similar relays having 15
p ratings.

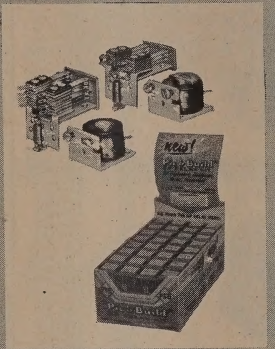


SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

P SERIES Separate AC and DC coils
match with 2PDT or 4PDT switches. AC
ils (GPA) available in 6, 12, 24, 115 and
0 volts. DC coils (GPD) available in 6,
, 24 and 110 volts; current coils: 2,500,
000 and 10,000 ohms. Contacts: 3/16" dia.
lver.

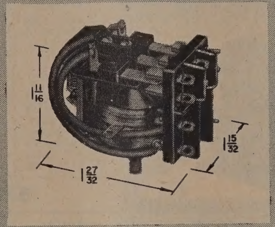
P-100 A complete kit of GP Series
ils and switches consisting of the following:
coils: Two 6 V., two 12 V., four 24 V.,
115 V., two 230 V. DC coils: Two 6 V.,
o 12 V., two 24 V., four 110 V. Also two
500 and four 10.000 ohm coils; eighteen
PDT switch assemblies. Fourteen 4PDT
itch assemblies. The complete kit is ideal
r experimenters, school and industrial lab-
atories.

NET $133.65



A SERIES A small, low cost, highly
ficient general purpose relay for handling
ght power loads such as small motors, sole-
ids and other relays, and general automa-
n work. All AC models carry U/L labels;
C coil-operated models as listed. Only
C models are CSA* listed. Mounting: One
o. 6-32 threaded stud and locating tab. Con-
cts: Movable, 1/8" dia. gold-flashed silver;
ationary, 5/32" dia. wide silver overlay.
eight 2 ozs.

"G" suffix indicates silver-cadmium-oxide
ntacts on movables rated 10 amps.



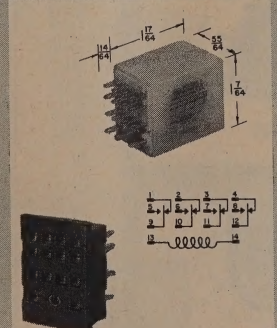
KHP SERIES Small, rugged, 4PDT re-
ay designed to meet the exacting require-
nents of data processing, computer and proc-
ss control applications. All have a nylon
ust cover. 3/32" dia. silver contacts are rated
t 3 amps at 30V DC or 115V AC resistive
or 100,000 operations. Mounting: Solder
erminals with a 3-48 stud 23/64" long. Can be
dapted to sockets below for plug-in or
rinted circuit applications. Weight: 2¼ ozs.

KH1 Solder terminal sockets and retainers. Box of 10

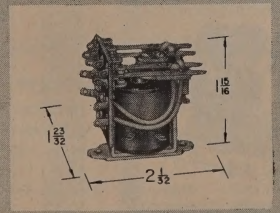
KH2 Printed circuit terminal sockets. Box of 10

Weight per box: 4 ozs.

Net per box (either type) $6.00



KL SERIES Multiple contact relay.
Varied contact combinations and high dielec-
ric phenolic insulation affords extreme ver-
atility and utility. Widely used in such ap-
plications as industrial controls, elevator con-
rols, communications equipment and elec-
ronic measuring devices. Mounting: All
models—Two No. 6-32 tapped holes on 1 7/16"
centers. Contacts: 1/8" dia. gold-flashed silver.
Weight: 5 ozs.



GENERAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
GA11A	**6V**	**1.7**	**6VA**	**DPDT**	**5**	**$ 3.35**
GA11A	12V	6.8	6VA	DPDT	5	3.35
GA11A	24V	24	6VA	DPDT	5	3.35
GA11A	115V	725	6VA	DPDT	5	3.35
GA11D	6V	18	2.0W	DPDT	5	3.35
GA11D	12V	72	2.0W	DPDT	5	3.35
GA11D	24V	288	2.0W	DPDT	5	3.35
GA11D	110V	6,050	2.0W	DPDT	5	3.80
GA14A	6V	1.7	6VA	3PDT	5	4.05
GA14A	12V	6.8	6VA	3PDT	5	4.05
GA14A	24V	24	6VA	3PDT	5	4.05
GA14A	115V	725	6VA	3PDT	5	4.05
GA14D	12V	72	2.0W	3PDT	5	4.05
GA14D	24V	288	2.0W	3PDT	5	4.05
GA17A	6V	1.7	6VA	4PDT	5	4.85
GA17A	12V	6.8	6VA	4PDT	5	4.85
GA17A	24V	24	6VA	4PDT	5	4.85
GA17A	115V	725	6VA	4PDT	5	4.85
GA17A	230V	2,950	6VA	4PDT	5	5.25
GA17D	6V	18	2.0W	4PDT	5	4.85
GA17D	12V	72	2.0W	4PDT	5	4.85
GA17D	24V	288	2.0W	4PDT	5	4.85
GA17D	110V	6,050	2.0W	4PDT	5	5.30
GPA	**6V**	**1.7**	**6VA**	**None**	**-**	**1.65**
GPA	12V	6.8	6VA	None	-	1.65
GPA	24V	24	6VA	None	-	1.65
GPA	115V	725	6VA	None	-	1.65
GPA	230V	2,950	6VA	None	-	2.10
GPD	**—**	**2,500**	**—**	**None**	**-**	**1.50**
GPD	—	5,000	—	None	-	1.75
GPD	—	10,000	—	None	-	2.10
GPD	6V	18	2.0W	None	-	2.10
GPD	12V	72	2.0W	None	-	2.10
GPD	24V	288	2.0W	None	-	2.10
GPD	110V	6,050	2.0W	None	-	3.15
GP11	**Switch Assembly**			**DPDT**	**5**	**1.70**
GP17	Switch Assembly			4PDT	5	2.95
KA5AY	**6V**	**5.1**	**2VA**	**SPDT**	**5**	**3.20**
KA5AY	12V	21	2VA	SPDT	5	3.20
KA5AY	24V	75	2VA	SPDT	5	3.20
KA5AY	115V	2,250	2VA	SPDT	5	3.20
KA5AY	230V	9,110	2VA	SPDT	5	3.60
KA5AG	6V	5.1	2VA	SPDT	10	3.25
KA5AG	12V	21	2VA	SPDT	10	3.25
KA5AG	24V	75	2VA	SPDT	10	3.25
KA5AG	115V	2,250	2VA	SPDT	10	3.25
KA5AG	230V	9,110	2VA	SPDT	10	3.65
KA5DY	6V	32.1	1.2W	SPDT	5	3.05
KA5DY	12V	120	1.2W	SPDT	5	3.05
KA5DY	24V	472	1.2W	SPDT	5	3.05
KA5DY	110V	10,000	1.2W	SPDT	5	3.65
KA5DG	6V	32.1	1.2W	SPDT	10	3.10
KA5DG	12V	120	1.2W	SPDT	10	3.10
KA5DG	24V	472	1.2W	SPDT	10	3.10
KA5DG	110V	10,000	1.2W	SPDT	10	3.70
KA11AY	6V	5.1	2VA	DPDT	5	3.85
KA11AY	12V	21	2VA	DPDT	5	3.85
KA11AY	24V	75	2VA	DPDT	5	3.85
KA11AY	115V	2,250	2VA	DPDT	5	3.85
KA11AY	230V	9,110	2VA	DPDT	5	4.25
KA11AG	6V	5.1	2VA	DPDT	10	3.95
KA11AG	12V	21	2VA	DPDT	10	3.95
KA11AG	24V	75	2VA	DPDT	10	3.95
KA11AG	115V	2,250	2VA	DPDT	10	3.95
KA11AG	230V	9,110	2VA	DPDT	10	4.35
KA11DY	6V	32.1	1.2W	DPDT	5	3.40
KA11DY	12V	120	1.2W	DPDT	5	3.40
KA11DY	24V	472	1.2W	DPDT	5	3.40
KA11DY	110V	10,000	1.2W	DPDT	5	4.00
KA11DG	6V	32.1	1.2W	DPDT	10	3.50
KA11DG	12V	120	1.2W	DPDT	10	3.50
KA11DG	24V	472	1.2W	DPDT	10	3.50
KA11DG	110V	10,000	1.2W	DPDT	10	4.10
KA14AY	6V	5.1	2VA	3PDT	5	4.25
KA14AY	12V	21	2VA	3PDT	5	4.25
KA14AY	24V	75	2VA	3PDT	5	4.25
KA14AY	115V	2,250	2VA	3PDT	5	4.25
KA14AY	230V	9,110	2VA	3PDT	5	4.65
KA14AG	6V	5.1	2VA	3PDT	10	4.40
KA14AG	12V	21	2VA	3PDT	10	4.40
KA14AG	24V	75	2VA	3PDT	10	4.40
KA14AG	115V	2,250	2VA	3PDT	10	4.40
KA14AG	230V	9,110	2VA	3PDT	10	4.80
KA14DY	6V	32.1	1.2W	3PDT	5	3.85
KA14DY	12V	120	1.2W	3PDT	5	3.85
KA14DY	24V	472	1.2W	3PDT	5	3.85
KA14DY	110V	10,000	1.2W	3PDT	5	4.45
KA14DG	6V	32.1	1.2W	3PDT	10	4.00
KA14DG	12V	120	1.2W	3PDT	10	4.00
KA14DG	24V	472	1.2W	3PDT	10	4.00
KA14DG	110V	10,000	1.2W	3PDT	10	4.60
KHP17D11	**6V**	**40**	**900MW**	**4PDT**	**3**	**4.80**
KHP17D11	12V	160	900MW	4PDT	3	4.80
KHP17D11	24V	650	900MW	4PDT	3	4.80
KHP17D11	48V	2,600	900MW	4PDT	3	5.00
KHP17D11	90V	9,000	900MW	4PDT	3	5.60
KHP17D11	110V	11,000	900MW	4PDT	3	5.60
KL5A	**6V**	**2.25**	**2.9VA**	**SPDT**	**5**	**3.85**
KL5A	115V	760	2.9VA	SPDT	5	3.85
KL5D	6V	36	1.1W	SPDT	5	3.60
KL5D	12V	140	1.1W	SPDT	5	3.60
KL5D	24V	600	1.1W	SPDT	5	3.60
KL11A	6V	2.25	2.9VA	DPDT	5	4.80
KL11A	12V	7.8	2.9VA	DPDT	5	4.80
KL11A	24V	33	2.9VA	DPDT	5	4.80
KL11A	115V	760	2.9VA	DPDT	5	4.80
KL11D	6V	36	1.1W	DPDT	5	4.60
KL11D	12V	140	1.1W	DPDT	5	4.60
KL14A	6V	2.25	2.9VA	3PDT	5	5.35
KL14A	24V	33	2.9VA	3PDT	5	5.35
KL14A	115V	760	2.9VA	3PDT	5	5.35
KL14D	6V	36	1.1W	3PDT	5	5.15
KL14D	24V	600	1.1W	3PDT	5	5.15
KL14D	110V	10,000	1.1W	3PDT	5	5.75
KL17A	6V	2.25	2.9VA	4PDT	5	6.30
KL17A	24V	33	2.9VA	4PDT	5	6.30
KL17A	115V	760	2.9VA	4PDT	5	6.30
KL17D	6V	36	1.1W	4PDT	5	6.00
KL17D	12V	140	1.1W	4PDT	5	6.00
KL17D	24V	600	1.1W	4PDT	5	6.00
KL17D	110V	10,000	1.1W	4PDT	5	6.60

See ordering information on P. & B. page 7.

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*Canadian Standards Association

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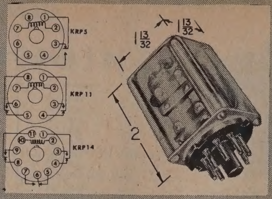
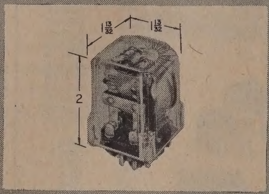
Potter & Brumfield Relays

KRP SERIES Versatile, multi-contact arrangement. Enclosed in a clear cellulose acetate dust cover. Standard 8-pin octal-type plug for KRP5 and KRP11, 11-pin for KRP14. Weight: Approx. 3 ozs. Contacts: 5 amp, 3/16" dia. gold-flashed silver. 10 amp 3/16" dia. silver cadmium-oxide. See KCP-KRP hold down spring for special mounting applications. See KRP indicator lamp relay for current monitoring applications.

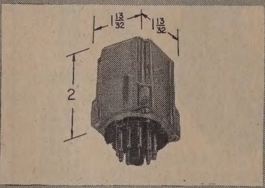


KRP-N INDICATOR LAMP RELAY A general purpose relay incorporating a lamp to indicate current or voltage availability in power circuit. Contacts: 3/16" dia. silver cadmium-oxide. Enclosure: Clear cellulose acetate dust cover. Mounting: Standard octal plug. Weight: Approx. 3 ozs. See KCP-KRP Hold Down Spring for special mountings.



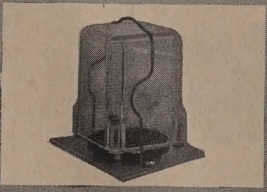
"P"— CASE A clear cellulose acetate case for mounting rectifiers, capacitors, resistors or a combination of these. Available with octal-type plug with 8 or 11-pins. Comes complete with four screws. Weight: .5 ozs. each. See KCP-KRP Hold Down Spring for special mounting applications.

35DO70 Case (8-pin plug)	NET $.55
35DO72 Case (11-pin plug)	NET $.70

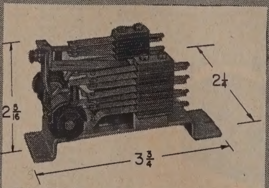


KCP-KRP HOLD DOWN SPRING Designed to insure secure mounting of relay in any position. Fits all KCP or KRP plug-in relays. Durable stainless steel spring can be moved aside for relay removal or installation. Mounting: Two 5/32" dia. holes on 1 5/16" centers; will accommodate machine screws or rivets. Available in quantities of 50 per box. Weight: 3 ozs. per box.

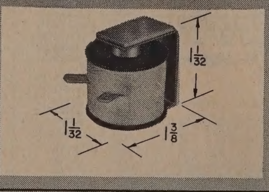
9-KR-15	NET $5.00



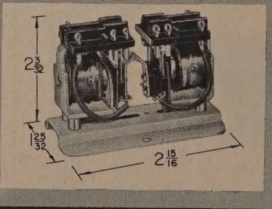
AP SERIES RATCHET, IMPULSE A reliable compact unit for applications requiring on-off or reversing action on alternate operations. Positive ratchet operation at all speeds on impulses as short as 60 ms. Intermittent operation only. Mounting: Three 5/32" dia. holes on 3 3/8" x 7/8" triangular centers. Contacts: 3/16" dia. silver. Weight: 7 ozs.



BU BUZZER AC operated coil with a spring steel armature which buzzes when coil is energized. Used extensively in test equipment, laboratories and a host of other applications where a small light weight, dependable buzzer is required. Weight: 1 5/8 ozs. Mounting: No. 6-32 tapped core



KB SERIES LATCHING RELAY Both release and trip coils must be for the same voltage. One coil operates relay to set latch and other coil releases it. Ideal for memory work and overload applications. Operates on momentary impulse to either coil. Mounting: Two 5/32" dia. holes on 1 3/8" centers. Weight: 6 ozs. Contacts: 1/8" dia. silver rated 5 amps; "G" suffix indicates silver cadmium-oxide contacts on movables rated 10 amps. AC relays with 5 amp. contacts carry U/L and CSA* labels.



GENERAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		NE
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KRP5A§	**6V**	**5.1**	**2VA**	**SPDT**	**5**	$ 5.
KRP5A§	24V	75	2VA	SPDT	5	5.
KRP5A§	115V	2,250	2VA	SPDT	5	5.
KRP5AG§	6V	5.1	2VA	SPDT	10	5.
KRP5AG§	24V	75	2VA	SPDT	10	5.
KRP5AG§	115V	2,250	2VA	SPDT	10	5.
KRP5D§	6V	32.1	1.2W	SPDT	5	5.
KRP5D§	12V	120	1.2W	SPDT	5	5.
KRP5D§	24V	472	1.2W	SPDT	5	5.
KRP5D§	110V	10,000	1.2W	SPDT	5	6.
KRP5DG§	6V	32.1	1.2W	SPDT	10	5.
KRP5DG§	12V	120	1.2W	SPDT	10	5.
KRP5DG§	24V	472	1.2W	SPDT	10	5.
KRP5DG§	110V	10,000	1.2W	SPDT	10	6.
KRP11A§	6V	5.1	2VA	DPDT	5	6.
KRP11A§	12V	21	2VA	DPDT	5	6.
KRP11A§	24V	75	2VA	DPDT	5	6.
KRP11A§	115V	2,250	2VA	DPDT	5	6.
KRP11A§	230V	9,110	2VA	DPDT	5	6.
KRP11AG§	6V	5.1	2VA	DPDT	10	6.
KRP11AG§	12V	21	2VA	DPDT	10	6.
KRP11AG§	24V	75	2VA	DPDT	10	6.
KRP11AG§	115V	2,250	2VA	DPDT	10	6.
KRP11AG§	230V	9,100	2VA	DPDT	10	6.
KRP11D§	6V	32.1	1.2W	DPDT	5	6.
KRP11D§	12V	120	1.2W	DPDT	5	6.
KRP11D§	24V	472	1.2W	DPDT	5	6.
KRP11D§	110V	10,000	1.2W	DPDT	5	6.
KRP11DG§	6V	32.1	1.2W	DPDT	10	6.
KRP11DG§	12V	120	1.2W	DPDT	10	6.
KRP11DG§	24V	472	1.2W	DPDT	10	6.
KRP11DG§	110V	10,000	1.2W	DPDT	10	6.
KRP14A§	6V	5.1	2VA	3PDT	5	7.
KRP14A§	12V	21	2VA	3PDT	5	7.
KRP14A§	24V	75	2VA	3PDT	5	7.
KRP14A§	115V	2,250	2VA	3PDT	5	7.
KRP14A§	230V	9,110	2VA	3PDT	5	7.
KRP14AG§	6V	5.1	2VA	3PDT	10	7.
KRP14AG§	12V	21	2VA	3PDT	10	7.
KRP14AG§	24V	75	2VA	3PDT	10	7.
KRP14AG§	115V	2,250	2VA	3PDT	10	7.
KRP14AG§	230V	9,100	2VA	3PDT	10	8.
KRP14D§	6V	32.1	1.2W	3PDT	5	7.
KRP14D§	12V	120	1.2W	3PDT	5	7.
KRP14D§	24V	472	1.2W	3PDT	5	7.
KRP14D§	110V	10,000	1.2W	3PDT	5	8.
KRP14DG§	6V	32.1	1.2W	3PDT	10	7.
KRP14DG§	12V	120	1.2W	3PDT	10	7.
KRP14DG§	24V	472	1.2W	3PDT	10	7.
KRP14DG§	110V	10,000	1.2W	3PDT	10	8.
KRP11AN§	**6V**	**5.1**	**2VA**	**DPDT**	**10**	7.
KRP11AN§	12V	21	2VA	DPDT	10	7.
KRP11AN§	24V	75	2VA	DPDT	10	7.
KRP11AN§	115V	2,250	2VA	DPDT	10	7.
KRP11AN§	230V	9,110	2VA	DPDT	10	7.
KRP11DN§	6V		1.2W	DPDT	10	7.
KRP11DN§	12V	120	1.2W	DPDT	10	7.
KRP11DN§	24V	420	1.2W	DPDT	10	7.
KRP11DN§	110V	10,000	1.2W	DPDT	10	7.
KRP14AN§	6V	5.1	2VA	3PDT	10	8.
KRP14AN§	12V	21	2VA	3PDT	10	8.
KRP14AN§	24V	75	2VA	3PDT	10	8.
KRP14AN§	115V	2,250	2VA	3PDT	10	8.
KRP14AN§	230V	9,110	2VA	3PDT	10	9.

SPECIAL PURPOSE RELAYS

TYPE	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	NE
AP11A	**6V**	**0.6**	**18.5VA**	**DPDT**	**5**	**8.7**
AP11A	12V	2.28	18.5VA	DPDT	5	8.7
AP11A	24V	8.8	18.5VA	DPDT	5	8.7
AP11A	115V	240	18.5VA	DPDT	5	8.7
AP11A	230V	900	18.5VA	DPDT	5	9.
AP11D	6V	4.0	9.0W	DPDT	5	8.
AP11D	24V	65	9.0W	DPDT	5	8.
AP11D	110V	1,350	9.0W	DPDT	5	9.
AP17A	6V	0.6	18.5VA	4PDT	5	10.
AP17A	24V	8.8	18.5VA	4PDT	5	10.
AP17A	115V	240	18.5VA	4PDT	5	10.
AP17A	230V	900	18.5VA	4PDT	5	10.
AP17D	6V	4.0	9.0W	4PDT	5	10.
AP17D	12V	15.5	9.0W	4PDT	5	10.
AP17D	24V	65	9.0W	4PDT	5	10.
AP17D	110V	1,350	9.0W	4PDT	5	11.1
BU	**6V**	**2.75**	**4.6VA**	-	-	**1.**
BU	12V	13.25	4.6VA	-	-	1.
BU	24V	50	4.6VA	-	-	1.
BU	115V	1,250	4.6VA	-	-	1.
KB17AY	**6V**	**2.3**	**5VA**	**4PDT**	**5**	**10.**
KB17AY	12V	10	5VA	4PDT	5	10.
KB17AY	24V	42	5VA	4PDT	5	10.
KB17AY	115V	1,030	5VA	4PDT	5	10.
KB17AY	230V	4,100	5VA	4PDT	5	11.
KB17AG	6V	2.3	5VA	4PDT	10	10.
KB17AG	12V	10	5VA	4PDT	10	10.
KB17AG	24V	42	5VA	4PDT	10	10.
KB17AG	115V	1,030	5VA	4PDT	10	10.
KB17AG	230V	4,100	5VA	4PDT	10	11.4
KB17D	6V	13.1	2.7W	4PDT	5	9.4
KB17D	12V	52.0	2.7W	4PDT	5	9.4
KB17D	24V	230	2.7W	4PDT	5	9.4
KB17D	110V	4,560	2.7W	4PDT	5	10.6
KB17DG	6V	13.1	2.7W	4PDT	10	9.6
KB17DG	12V	52.0	2.7W	4PDT	10	9.6
KB17DG	24V	230	2.7W	4PDT	10	9.6
KB17DG	110V	4,560	2.7W	4PDT	10	10.8
KB23AY	6V	1.8	7.8VA	6PDT	5	12.6
KB23AY	24V	27	7.8VA	6PDT	5	12.6
KB23AY	115V	700	7.8VA	6PDT	5	12.6
KB23AY	230V	2,750	7.8VA	6PDT	5	13.4
KB23AG	6V	1.8	7.8VA	6PDT	10	12.8
KB23AG	12V	7.2	7.8VA	6PDT	10	12.8
KB23AG	24V	27	7.8VA	6PDT	10	12.8
KB23AG	115V	700	7.8VA	6PDT	10	12.8
KB23AG	230V	2,750	7.8VA	6PDT	10	13.6
KB23D	6V	13.1	2.7W	6PDT	5	11.4
KB23D	12V	52.0	2.7W	6PDT	5	11.4
KB23D	24V	230	2.7W	6PDT	5	11.4
KB23D	110V	4,560	2.7W	6PDT	5	12.6
KB23DG	6V	13.1	2.7W	6PDT	10	11.7
KB23DG	12V	52.0	2.7W	6PDT	10	11.7
KB23DG	24V	230	2.7W	6PDT	10	11.7
KB23DG	110V	4,560	2.7W	6PDT	10	12.9

§Enclosed Relay

See ordering information on P. & B. page

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*Canadian Standards Association

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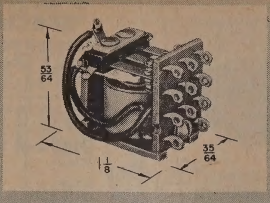
Potter & Brumfield Relays

SPECIAL PURPOSE RELAYS

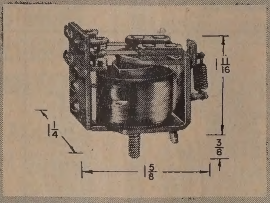
TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
KM5D	6V	36	1.1W	SPDT	2	$ 3.35
KM5D	12V	144	1.1W	SPDT	2	3.35
KM5D	24V	500	1.1W	SPDT	2	3.35
KM11D	6V	36	1.1W	DPDT	2	3.70
KM11D	12V	144	1.1W	DPDT	2	3.70
KM11D	24V	500	1.1W	DPDT	2	3.70
KM14D	6V	36	1.1W	3PDT	2	4.25
KM14D	12V	144	1.1W	3PDT	2	4.25
KM14D	24V	500	1.1W	3PDT	2	4.25
KT11A	6V	5.1	2VA	DPDT	5	3.70
KT11A	115V	2,250	2VA	DPDT	5	3.70
KT11D	6V	32.1	1.2W	DPDT	5	3.70
KT11D	12V	120	1.2W	DPDT	5	3.70
PC11A	6V	0.6	18.5VA	DPDT	7.5	5.50
PC11A	12V	2.28	18.5VA	DPDT	7.5	5.50
PC11A	24V	8.8	18.5VA	DPDT	7.5	5.50
PC11A	115V	240	18.5VA	DPDT	7.5	5.50
PC11A	230V	900	18.5VA	DPDT	7.5	5.90
PC11D	6V	4.0	9.0W	DPDT	7.5	5.35
PC11D	12V	15.5	9.0W	DPDT	7.5	5.35
PC11D	24V	65.0	9.0W	DPDT	7.5	5.35
PC11D	110V	1,350	9.0W	DPDT	7.5	5.85
PC17A	12V	2.28	18.5VA	4PDT	7.5	7.60
PC17A	24V	8.8	18.5VA	4PDT	7.5	7.60
PC17A	115V	240	18.5VA	4PDT	7.5	7.60
PC17A	230V	900	18.5VA	4PDT	7.5	8.00
PC17D	24V	65	9.0W	4PDT	7.5	7.45
MS2AY	115V	530	5.9VA	SPST-NC	3/4HP	3.55
MS2AY	230V	2,100	5.9VA	SPST-NC	3/4HP	3.95
MS4AY	115V	530	5.9VA	SPST-NC-DB	3HP	4.15
MS4AY	230V	2,100	5.9VA	SPST-NC-DB	3HP	4.55
SA-1N-12A	**115V**	**140**	**20VA**	**12-steps**	**.25**	**6.60**

SPECIFY COIL VOLTAGE OR RESISTANCE WHEN ORDERING

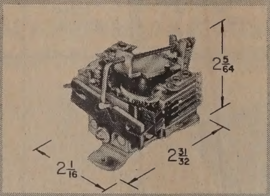
KM SERIES Subminiature relay for applications requiring unusually small relays ith up to 3-poles. 3/32" dia. silver contacts. Withstands 30g mechanical shock and .06" xcursion 10 to 55 cps mechanical vibration. Used extensively in small business machines, larm systems, automatic toys and communiations systems. Mounting: One 2-56 tapped ore and locating half-punch. Solder termials. Weight: .58 ozs.



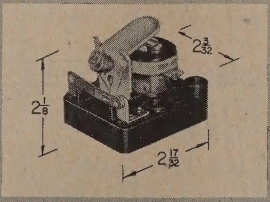
KT SERIES ANTENNA SWITCHING RELAY Glass base insulation for ninimum RF loss to switch 300 ohm line. Mounting: One No. 6-32 threaded stud. Contacts: 1/8" dia. gold-flashed silver. Weight: 1½" ozs.



PC SERIES Single coil impulse latching elay for on-off and current reversal switchng on alternate pulses. Operates on 30 millisecond pulses to the coil. Mounting: Two 32" dia. holes on 2⅝" centers. Weight: 5 ozs. Contacts: ⅛" dia. gold-flashed silver cadmium oxide .

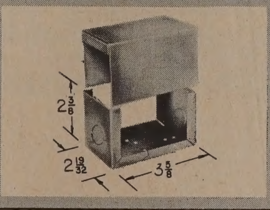


MS SERIES MOTOR STARTING RELAYS For starting capacitor start, induction-run motors. Operates on back EMF f start winding. Armature gap can be ltered to change pull-in. Meets all U/L pacing requirements. Mounting: Two 5/32" ia. holes on 1 9/16" centers. Contacts: ¾ HP, 32" dia. fine silver. 3 HP, 7/32" dia. silver admium. Weight: 5 ozs. max. Enclosure: ee "MS/MR" cover.



"MS/MR" COVER Provides neater nstallation, easier maintenance; minimizes roken leads, protects against dust, dirt, soler shorts and accidental jars. Sealed knockut holes for standard conduit fittings. Relay nounts on pre-drilled base. Fits MS and MR relays. Weight: 7.5 ozs.

5D130 NET $1.90

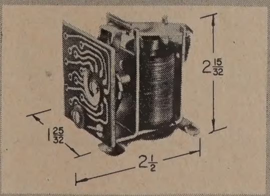


POTTER & BRUMFIELD

IS A MEMBER OF THE

NATIONAL ASSOCIATION OF RELAY MANUFACTURERS

A SERIES STEPPING SWITCH twelve position stepping relay with rinted circuit strips to switch currents up 250 milliamps. Armature-driven pawl operates a ratchet wheel to drive the movable ontact in steps of 30 degrees over 12 positions. Used widely for audio-level switching n TV remote control units, scoreboards and rocess controls. Mounting: Two 6-32 holes n 1 13/16" centers. Weight: 4 ozs.



ORDERING INSTRUCTIONS —— File-O-Matic Sec. 23

All relay contacts are rated at 115 volt-60 cycle, non inductive load.

When ordering specify relay type and coil voltage or resistance.

Example: PR5AY, 115 Volts AC, 60 cycles or LB5, 2500 ohms resistance.

To operate 110V DC relays on 220V DC use a 5 watt wire-wound resistor of a value approximately the relay coil resistance in series with the relay coil.

CONTACT LEGEND: S-Single; D-Double; P-Pole; T-Throw; N-Normally; O-Open; C-Closed; B-Break; M-Make.

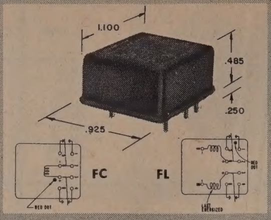
Prices and Specifications subject to change without notice. For latest prices refer to United Pricing Service.

U.C.P., Inc.

Potter & Brumfield Relays

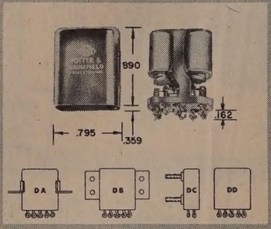
FC SERIES Conventional micro-miniature relay lies flat on printed circuit board. Withstands 100g shock, 400g linear acceleration, 30g vibration to 2000 cps. Ambient temperature range: −65° to +125°C. Hermetically sealed. Bifurcated contacts. Plugs in on .2″ grid. Meets applicable sect. MIL-R-5757D, and ABMA #PD-R-187. Weight: .75 ozs.

FL SERIES Dual-coil latching relay has same specs as above, except operates by pulsing each coil alternately (observing coil polarity); or connecting the coils in series from a reversing (polarized) source. Remains latched without coil power.



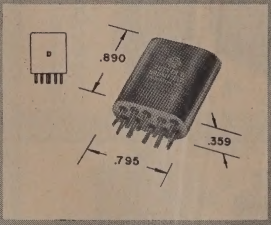
SC SERIES Micro-miniature permanent magnet relay for low power, high shock/vibration applications. 100g shock, 30g vibration to 2000cps with no contact openings. Ambient temperature range: −65°C. to +125°C. Features single coil action and conforms to standard micro-miniature coil operation except polarized connections because of magnetic circuit. Positive terminal marked with red dot. Mounting: SC11D**, SCG11D —DA, —DB, DC and DD correspond to similarly designed SL mountings. Weight: ¾ oz.

**Cinch No. 54A20730 and Armel No. HRK-1, 8-pin receptacles available from distributors for plug-in applications.



SL SERIES Dual coil micro-miniature magnetic latching relay with same shock/vibration, resistance and ambient temperature range as SC. Coils may be connected in series for polar operation. Mounting: SL11D* for plug-in applications: —DA has shoulder flangers with two .104″ x .136″ holes on a 1.062″ center; —DB has a welded bracket with four .125″ dia. holes on 1.062″ x .281″ centers; —DC has two No. 4-40 NC 2A threaded studs on .488″ x .220″ diagonal centers; —DD has plain case with hook end solder terminals. SCG-SLG11D have plug-in terminals on .2″ grid.

*Viking No. P/N VB10/3DV 1 10-pin receptacles available from distributors for plug-in applications.



SPECIAL PURPOSE RELAYS

TYPE	COILS			CONTACTS		NET
	Voltage or Current	Resistance in Ohms	Nominal Power	Arrangement	Rate in Amps	
FC11D†	**6V**	**60**	**.5W**	**DPDT**	**3***	**$ 16.00**
FC11D†	12V	210	.5W	DPDT	3	16.00
FC11D†	24V	900	.5W	DPDT	3	16.00
FL11D†	**6V**	**67.5**	**.5W**	**DPDT**	**3***	**18.00**
FL11D†	12V	230	.5W	DPDT	3	18.00
FL11D†	24V	1,000	.5W	DPDT	3	18.00
SC11D†	**6V**	**35**	**1W**	**DPDT**	**2***	**15.75**
SC11D†	12V	135	1W	DPDT	2	15.75
SC11D†	24V	550	1W	DPDT	2	15.75
SC11DA†	6V	35	1W	DPDT	2	15.75
SC11DA†	12V	135	1W	DPDT	2	15.75
SC11DA†	24V	550	1W	DPDT	2	15.75
SC11DB†	6V	35	1W	DPDT	2	15.75
SC11DB†	12V	135	1W	DPDT	2	15.75
SC11DB†	24V	550	1W	DPDT	2	15.75
SC11DC†	24V	550	1W	DPDT	2	15.75
SC11DD†	24V	550	1W	DPDT	2	15.75
SCG11D†	**24V**	**550**	**1W**	**DPDT**	**2**	**15.75**
SL11D†	**6V**	**40**	**1W**	**DPDT**	**2***	**17.25**
SL11D†	12V	160	1W	DPDT	2	17.25
SL11D†	24V	630	1W	DPDT	2	17.25
SL11DA†	6V	40	1W	DPDT	2	17.25
SL11DA†	12V	160	1W	DPDT	2	17.25
SL11DA†	24V	630	1W	DPDT	2	17.25
SL11DB†	6V	40	1W	DPDT	2	17.25
SL11DB†	12V	160	1W	DPDT	2	17.25
SL11DB†	24V	630	1W	DPDT	2	17.25
SL11DC†	24V	630	1W	DPDT	2	17.25
SL11DD†	24V	630	1W	DPDT	2	17.25
SLG11D†	**24V**	**630**	**1W**	**DPDT**	**2**	**17.25**

†Sealed Relay   * @28VDC

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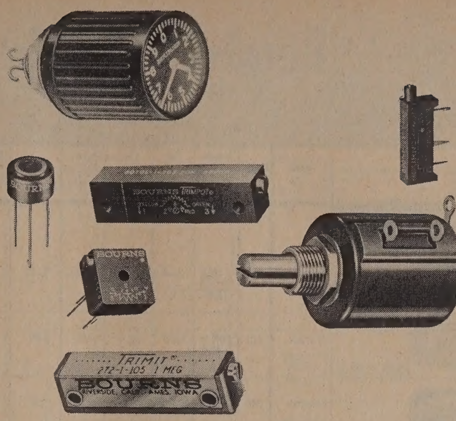
BOURNS TRIMPOT® POTENTIOMETERS

THE INDUSTRY'S LARGEST SELECTION OF ADJUSTMENT AND PRECISION POTENTIOMETERS

32 Standard Models
4 Terminal Types
3 Mounting Styles



ILITARY ■ INDUSTRIAL ■ COMMERCIAL ■ WIREWOUND ■ RESISTON® CARBON ■ RECTANGULAR ■ SQUARE ■ PRECISION ROTARY ■ HUMIDITY-PROOF ■ HIGH-TEMPERATURE ■ SPECIAL-PURPOSE

Only Bourns Trimpot Potentiometers Give You All Of These Outstanding Features

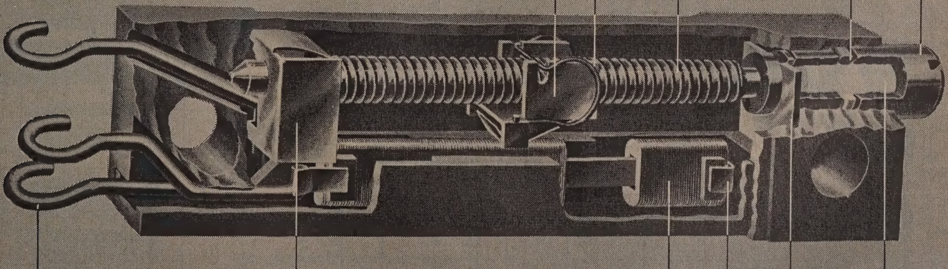
SPRING—Carriage spring provides positive no-slip performance during rotation plus a reliable idling feature at mechanical limits of travel.

LEADSCREW—Stainless steel leadscrew is corrosion-resistant, withstands salt spray.

O-RING—Silcone rubber O-ring seals potentiometer against humidity, withstands high temperature.

SHAFT HEAD—Stainless steel with machined slot for screwdriver adjustment. Meets military salt spray requirements.

WIPER CARRIAGE—Gold-plated carriage is welded to precious metal wiper for low noise.



OLDER TERMINALS—Tinned erminals are compact, yet arge enough for easy soldering. Teflon-insulated leads and rinted circuit pins are also vailable.

SILVERWELD® TERMINATION—This exclusive Bourns feature is unequalled in ruggedness. There is a metal-to-metal bond from the terminal to the resistance wire.

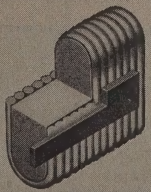
PICK-OFF—Gold-plated beryllium copper pick-off maintains constant pressure on leadscrew.

ELEMENT—Special ceramic element card for maximum reliability is precision wound with low-temperature-coefficient resistance wire.

SHAFT RETAINER—Shaft is locked in place for top performance under extreme shock, vibration and acceleration.

SHAFT INSULATOR—High-dielectric-strength, ceramic insulator isolates shaft head from internal circuits.

his cutaway of Model 224 shows the typical high quality to be found in all Bourns Trimpot potentiometers, although some features may vary from model to model.

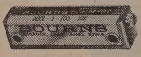
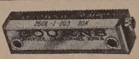
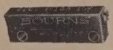
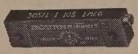
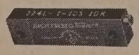
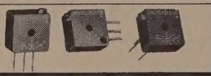


Indestructible Termination

The exclusive Bourns Silverweld® termination, alloyed with multiple turns of the resistance element, is indestructible under thermal or mechanical stress. It eliminates termination breakage, a major cause of potentiometer failure.

Turn Page for Complete Listing →

BOURNS TRIMPOT® POTENTIOMETERS –

DESCRIPTION		Name	Model	Resistances (Ohms) ③	Terminals ①	End Settings (%)	Tolerance (%) ⑥	Power Rating (Watts)	Max. Oper. Temp. (°C)	Adjustment Turns	Humidity Proof (Mil Specs) ⑦	Size (Inches)			Standard Resist. (Ohms)	Price②		
												H	W	L		1–9	10–24	25–49
TRIMPOT MULTI-TURN POTENTIOMETERS, UNSEALED																		
General-Purpose Wirewound		Trimpot ⑨	200	10Ω to 50K 100K	L,S,P L	0-0.7④ 0-5	±10	0.25	105	25	No	5/16	1/4	1-1/4	10 to 10K 20K - 25K 50K 100K	$4.86 6.48 7.56 9.18	$4.50 6.00 7.00 8.50	$4.05 5.40 6.30 7.65
General-Purpose Resiston ⑨ Carbon		Trimpot	215	20K to 1 Meg	L,S,P	0-1.0	±20	0.25	125	22	No	5/16	1/4	1-1/4	20K to 1 Meg	4.86	4.50	4.05
High-Temperature Wirewound		Trimpot	260	10Ω to 50K 100K	L,S,P L	0-0.2④ 0-5	±10	1.0	175	25	No	5/16	1/4	1-1/4	10 to 10K 20K - 25K 50K 100K	5.94 7.56 8.10 9.72	5.50 7.00 7.50 9.00	4.95 6.30 6.75 8.10
TRIMPOT HUMIDITY-PROOF POTENTIOMETERS																		
Sub-Miniature High-Temperature Humidity-Proof Wirewound		Trimpot	220	100Ω to 30K	L,W	0-0.1⑤	±10	1.0	175	15	Yes	5/16	3/16	1	100 to 10K 20K - 30K	8.64 10.26	8.00 9.50	7.20 8.55
Micro-Miniature High-Temperature Humidity-Proof Wirewound		Trimpot	3000	50Ω to 20K	P	0-0.1⑤	±10	0.5	175	15	Yes	5/16	5/32	3/4	50 - 10K 20K	9.72 10.80	9.00 10.00	8.10 9.00
High-Temperature Humidity-Proof Resiston Carbon		Trimpot	3051	20K to 1 Meg	L,S,P	0-1.0	±20	0.25	150	22	Yes	5/16	3/16	1-1/4	20K to 1 Meg	7.02	6.50	5.85
Sub-Miniature High-Temperature Humidity-Proof Wirewound		Trimpot	3250	100Ω to 50K	L P,W	0-0.1⑤	±5	1.0	175	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	100 to 10K 20K - 25K 50K 100 to 10K 20K - 25K 50K	6.71 7.56 10.01 7.23 7.97 10.53	6.22 7.00 9.27 6.69 7.38 9.75	5.60 6.30 8.34 6.02 6.64 8.78
Resiston—Carbon High-Temperature		Trimpot	3001	20K to 1 Meg	P	0-1.0	±20	0.20	150	15	Yes	5/16	5/32	3/4	20K to 1 Meg	9.18	8.50	7.65
High-Temperature Humidity-Proof Wirewound		Trimpot	3010	10Ω to 50K 100K	L,P L,P	0-0.2⑤ 0-5	±5	1.0	175	25	Yes	5/16	9/32	1-1/4	10 to 10K 20K - 25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.85 7.2 7.65 9.4
Square Resiston Carbon High-Temperature		Trimpot	3251	20K to 1 Meg	L P,W	1.0	±20	0.50	150	25	Yes	3/16 7/32	1/2 1/2	1/2 1/2	20K to 1 Meg	7.83	7.25	6.5
High-Temperature Humidity-Proof Wirewound		Trimpot	224	10Ω to 50K 100K	L,S P L,S,P	0-0.1④ 0-5	±5	1.0	175	22	Yes	5/16	3/16	1-1/4	10Ω to 10K 20K - 25K 50K 100K	7.02 8.64 9.18 11.34	6.50 8.00 8.50 10.50	5.8 7.2 7.6 9.4
High-Temperature Humidity-Proof Resiston Carbon		Trimpot	3011	20K to 1 Meg	L,P	0-1.0	±20	0.25	150	22	Yes	5/16	9/32	1-1/4	20K to 1 Meg	7.02	6.50	5.8
Micro-Miniature Humidity-Proof Wirewound		Trimpot	3280	100Ω to 50K	L,P,W	0-0.1⑤	±5	1.0	175	25	Yes	3/8	3/8	13/64	100Ω - 10K 20K - 25K 50K	7.56 9.18 9.12	7 00 8.50 9.00	6.3 7.6 8.1

Panel Mounting: All models (except 3000, 3067, 3068 and 3250) are available with the added convenience of panel mounting. Unique design permits quick factory conversion of "off-the-shelf" units.

① Key to terminal types:
L = Insulated stranded leads
S = Solder lugs (includes 3367S & 3300S, panel mounting bushing only)
P = Printed circuit pins
W = Uninsulated wires (side mounting 3250, 3251, 3280)

② Franchised local ditributors quote factory prices through 500 pieces. Contact factory for prices in higher quantities.

③ The following resistances are standard if they fall within the limits listed: 10, 20, 50, 100, 200, 500, 1K, 2K, 5K, 10K, 20K, 25K (wirewound only), 50K, 100K, 200K, 500K, 750K, 1 Meg. Other resistances available on special order.

④ Or 0 to 0.5 ohms, whichever is greater.

⑤ Or 0 to 1.0 ohms, whichever is greater.

⑥ Closer tolerances available on request, except commercial models.

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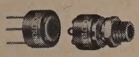
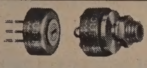
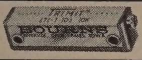
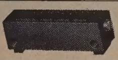
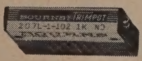
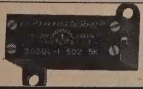
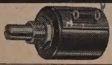
ARGEST SELECTION, LONGEST RECORD OF RELIABILITY

DESCRIPTION		Name	Model	Resistances (Ohms) ③	Terminals ①	End Settings (%)	Tolerance (%) ⑥	Power Rating (Watts)	Max. Oper. Temp. (°C)	Adjustment Turns	Humidity Proof (Mil Specs) ⑦	Size (Inches) H	Size (Inches) W	Size (Inches) L	Standard Resist. (Ohms)	Price② 1–9	Price② 10–24	Price② 25–49
RIMPOT SINGLE-TURN OTENTIOMETERS																		
umidity-Proof irewound igh-emperature icrominiature		Trimpot	3300	50Ω to 20K	S P	0-1.0	±5	0.5	175	1	Yes	5/16 dia. x 7/32 5/16 dia. x 3/16			50-10K 20K	5.94 7.56	5.50 7.00	4.95 6.30
ub-Miniature ingle-Turn irewound		Trimpot	3367	100Ω to 20K	P S	0-1.0	±5	0.5	105	1	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 17/64			100-20K	4.86 5.67	4.50 5.25	4.05 4.73
ub-Miniature ingle-Turn esiston—® arbon		Trimpot	3368	20K to 1 Meg	P S	0-1.0	±20	0.25	105	1	Steady State Only	1/2 dia. x 15/64 1/2 dia. x 17/64			20K - 1 Meg (P) 20K - 1 Meg (S)	5.94 6.75	5.50 6.25	4.95 5.63
OMMERCIAL POTENTIOMETERS																		
ommercial irewound		Trimit⑨	271 273 275	100Ω to 10K	L S P	0-2.0	±10	0.25	85	25	No	5/16	1/4	1-1/4	100 to 10K	3.18	2.95	2.65
ommercial esiston arbon		Trimit	272 274 276	20K to 1 Meg	L S P	0-7.5	±20	0.2	85	25	No	5/16	1/4	1-1/4	20K to 1 Meg	3.78	3.50	3.15
ommercial irewound		E-Z-Trim ⑨	3067	100Ω to 20K	S,P	0-1.0	±10	0.5	85	15	Steady State Only	23/64	9/32	1	100-20K	1.65	1.53	1.37
ommercial esiston arbon		E-Z-Trim	3068	20K to 1 Meg	S,P	0-5.0	±20	0.2	85	15	Steady State Only	23/64	9/32	1	20K to 1 Meg	1.65	1.53	1.37
PECIAL-PURPOSE POTENTIOMETERS																		
igh-Power igh-emperature -Watt) irewound		Trimpot	207	100Ω to 100K	L	0-0.2⑤	±10	2.0	175	25	No⑧	13/16	9/32	1-1/4	100 to 50K 100K	10.26 11.88	9.50 11.00	8.55 9.90
igh-Power umidity-Proof irewound		Trimpot	3020		L	0-0.1⑤	±5	3.75	200	25	Yes	21/64	1/4	1-1/4	—	⑪	⑪	⑪
ual-ement irewound		Twinpot⑨	209	10Ω to 50K	L	0-0.2④	±10	0.25 (each element)	105	25	No⑧	5/16	1/2	1-1/4	10 to 10K 20K - 25K 50K	12.96 14.58 16.20	12.00 13.50 15.00	10.80 12.15 13.50
igh-Power igh-emperature 5-Watt) irewound		Trimpot	3030	10Ω to 10K	L	0-5.0	±10	15	265	25	No	1 5/64	33/64	1 17/64	10-10K	12.96	12.00	10.80
RIMPOT PRECISION OTENTIOMETERS																		
ushing Mount irewound		— —	3500	500Ω to 125K	S	1.0-5.0 ohms	±3	2	125	10	Yes⑩	7/8 dia.		1	500Ω to 125K	11.99	11.39	10.79
ad Out, irewound		Knobpot⑨	3600	1KΩ 100KΩ	S	0 to 0.1	±5	1.5	85	10	Steady State	3/4 dia.		1	—	⑪	⑪	⑪

⑦ All models are sealed against sand and dust.

⑧ Humidity-proof version available on special order. Contact factory for part number, price and delivery.

⑨ TRIMPOT, TWINPOT, TRIMIT, and E-Z-TRIM are registered trademarks of Bourns, Inc. Other products made by Bourns, Inc., are identified by trademarks which include BOURNS, TRIMISTOR®, TRIMM®, KNOBPOT®, SILVERWELD®, RESISTON®, PALIRIUM®, and RESISTALOY®.

⑩ (A) To order units that meet steady-state humidity, specify standard part number 3500S-1-(RC) (RC—Resistance Code).
(B) To order units that meet cycling humidity, specify the special part number 3500S-20-(RC).

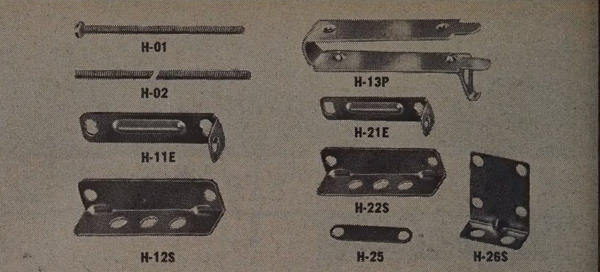
⑪ Contact factory or nearest representative for prices.

BOURNS

BOURNS, INC., TRIMPOT DIVISION
RIVERSIDE, CALIF.

TRIMPOT®—THE ORIGINAL LEADSCREW-ACTUATED POTENTIOMETER

The Bourns Trimpot® is the **original** adjustment potentiometer. It was developed in 1952 to meet the need of the aircraft/missile industry for a rugged, high-performance miniature potentiometer. The Trimpot® pioneered such potentiometer qualities as small size, accurate adjustment, stable settings, and reliability.

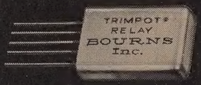


TRIMPOT® POTENTIOMETER MOUNTING HARDWARE

Mounting screws, mounting brackets, and clip brackets are available from factory or local distributor stock to adapt Bourns potentiometers to virtually any mounting situation. H-01 Screw • H-02 Rod Stock • H-11E End Bracket, 1″ Centers • H-12S Side Bracket, 1″ Centers • H-13P Clip in Bracket • H-21E End Bracket, ¾″ Centers • H-22S Side Bracket, ¾″ Centers • H-25 Stacking Straps/Sq. Units, .520 Centers • H-26S Side Bracket/Sq. Units, .520 Centers.

Panel Mounts. All models except 3250 are available with the added convenience of panel mounting.

TRIMPOT® RELAYS

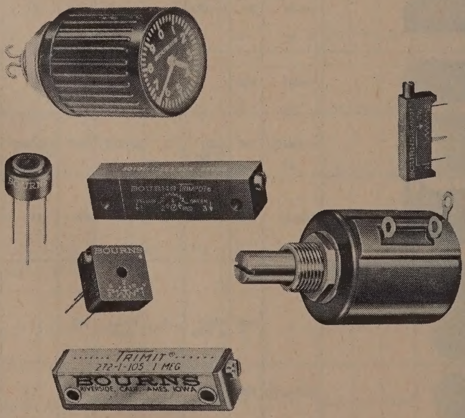


RELIABLE BOURNS RELAY — MODEL 3100

Size	Contacts	Contact Rating	Pick-up Sensitivity	Coil Resistances	Nominal Voltages DC	Environmental Specifications	Terminal Styles
.2 x .4 x .6″	SPDT	0.25 amp. resistive, 26.5 VDC	100mw	50 to 2000	4.2-26.5	MIL-R-5757D	plug-in pins, solder hook, 1½″ straight leads

Now Bourns offers you Trimpot reliability in relays that are so small that they fit into a transistor case. Efficient single coil design and packaging mean improved sensitivity. Other features include rotary balanced armature, hermetically sealed case, and self-cleaning long-life contacts. To ensure consistent quality, Bourns subjects every unit to a 5000-operation run-in plus 100% final inspection—including mass spectrometer leak testing—for all important relay characteristics.

CHOOSE BOURNS TRIMPOT® POTENTIOMETERS



THE INDUSTRY'S LARGEST SELECTION OF ADJUSTMENT AND PRECISION POTENTIOMETERS

32 Standard Models
4 Terminal Types
3 Mounting Styles

MILITARY ■ INDUSTRIAL ■ COMMERCIAL ■ WIREWOUND ■ RESISTON® CARBON ■ RECTANGULAR ■ SQUARE ■ PRECISI
ROTARY ■ HUMIDITY-PROOF ■ HIGH-TEMPERATURE ■ SPECIAL-PURPOSE

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AEROVOX *Resistors*

±1% PRECISION ®CARBOFILM AND ®CARBOMOLD RESISTORS

CARBOFILM PRECISION RESISTORS

Precision deposited carbon resistors designed for circuits calling for the accuracy and stability of wire-wound resistors with the marked economy of carbon resistors. The exclusive Aeroglaze conformal coating offers mechanical protection superior to any other coating eliminating the need for special tubes, sleeves and jackets. Aeroglaze coating will meet all moisture requirements of MIL-R-10509B. Carbofilm resistors offer outstanding stability, low voltage coefficient, low capacitance and inductance in high frequency applications.

CARBOFILM CHARACTERISTICS

TESTING: All Tests conducted in accordance with MIL-R-10509B requirements.

TEMPERATURE COEFFICIENT: Approximately 200 ppm per degree C in the lower resistance ranges and not exceeding 500 ppm per degree C in the highest values specified by MIL-R-10509B.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509B.

LOAD LIFE: When tested for more than 1,000 hours at full load operation in 40°C ambient temperature, maximum changes are less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is an average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated working voltage, but not exceeding 2 times the maximum rated voltage for 5 seconds, changes are less than 0.25% with an average change of 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%.

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C. (77°F.)

AGING: Due to manufacturing process and control, changes attributed to aging are negligible. The average change in resistance for self-aging is approximately 0.2% per year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOMOLD PRECISION RESISTORS

A superior molded carbon-deposited resistor manufactured under the most exacting quality control standards and specifications assuring excellent performance under the most adverse operating conditions. Resistors are encapsulated in a strong reinforced moisture and heat resistant plastic for added stability, precision and reliability. Rated for full load operation at 70°C and linearly derated to zero load at 150°C. Will meet or exceed insulation resistance requirements of MIL-R-10509D.

CARBOMOLD CHARACTERISTICS

TESTING: All tests conducted in accordance with MIL-R-10509C requirements.

TEMPERATURE COEFFICIENT: Extends from approximately 200 ppm per degree C in the lower resistance ranges to and not exceeding 500 ppm per degree C at the highest values specified by MIL-R-10509D.

MOISTURE RESISTANCE: Will meet or surpass the requirements of MIL-R-10509D.

LOAD LIFE: When tested for more than 1000 hours at full load operation in 70°C ambient temperature, maximum changes less than 1% with an average change of less than 0.5%.

TEMPERATURE CYCLING: After 5 complete temperature cycles there is a average change of 0.21% with a maximum change of less than 0.5%.

SHORT TIME OVERLOAD: When subjected to 2.5 times the rated workin voltage, but not exceeding 2 times the maximum rated voltage for seconds, changes are less than 0.25% with an average change o 0.13%.

LOW TEMPERATURE OPERATION: Maximum changes are less than 1%

ACCURACY: Guaranteed tolerance of plus/minus 1% at 25°C.

AGING: Average change in resistance for self-aging, approximately 0.2% in a year.

VOLTAGE COEFFICIENT: Does not exceed .002% per volt.

CARBOFILM

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	Availability		MIL-R-10509B Max DC Voltage	Equiv. to MIL-R-10509B			MARKING
				Comm. Value	MIL-BELL Value		Type	Char.	Tol.	
CPSX½	.203 x 19/32	10	2.2	✓	✓	350	RN20	X	1%	RN20 Number
CPX½	.260 x 23/32	2,210,000	5.0	✓		350	- - - -	- -	- - -	Type, Value, Tolerance
CPLX½	.260 x 1	5,100,000	7.5	✓		500	- - - -	- -	- - -	Type, Value, Tolerance
*CPX 1	.328 x 15/16	10	15	✓	✓	500	RN25	X	1%	Type, Value, Tolerance and RN25 Number
**CPX 2	.328 x 2 1/16	50	100†	✓		750	RN30	X	1%	Type, Value, Tolerance and RN30 Number

† Only stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
* Values from 10.1 meg to 15 meg will be furnished at ±2% only.
** Values from 30.1 meg to 100 meg will be furnished at ±2% only. vailability.

CARBOMOLD

Carbomold Stocked In Mil-Bell Values Only

TYPE	SIZES	STD. MIN. OHMS	STD. MAX. MEGOHMS	MIL-R-10509D Max. DC Volt.	Equiv. to MIL-R-10509D			MARKING
					Type	Char.	Tol.	
CPM-⅛	.140 x .395	10	1.0	250	RN60	B	F	RN60 Number
CPM-¼	.220 x .590	10	2.0	300	RN65	B	F	RN65 Number
CPM½	.250 x .745	10	2.49	350	RN70	B	F	Type, Value, Tolerance, RN70 Number
CPM-1	.375 x 1 7/64	10	5.11	500	RN75	B	F	Type, Value, Tolerance, RN75 Number
CPM-2	.375 x 2 7/32	30	10.0	750	RN80	B	F	Type, Value, Tolerance, RN80 Number

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AEROVOX Resistors

±1% PRECISION ® CARBOFILM AND ® CARBOMOLD RESISTORS

COMMERCIAL STOCK VALUES ±1% TOLERANCE

MS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
.0	36	82	300	820	2950	7000	20,000	62,000	220,000	650,000	2.0	6.2	27.0
.0	39	85	330	850	3000	7450	22,000	65,000	225,000	680,000	2.2	6.5	30.0
.0	40	89.5	350	900	3300	7500	22,500	68,000	240,000	700,000	2.225	6.8	33.0
.5	43	90	360	910	3500	8000	24,000	70,000	250,000	750,000	2.4	7.0	36.0
.0	44.5	91	390	1000	3600	8200	25,000	75,000	270,000	800,000	2.5	7.5	39.0
.5	45	99.5	400	1100	3900	8500	27,000	80,000	300,000	820,000	2.7	8.0	43.0
.0	47	100	430	1200	4000	8950	30,000	82,000	330,000	850,000	3.0	8.2	47.0
0	50	110	450	1250	4300	9000	33,000	85,000	350,000	900,000	3.3	8.5	50.0
5	51	120	470	1300	4450	9100	35,000	90,000	360,000	910,000	3.5	9.0	100.0†
0	55	130	500	1450	4500	9950	36,000	91,000	390,000		3.6	9.1	
0	56	150	510	1500	4700	10,000	39,000	100,000	400,000	MEGOHMS	3.9	10.0	
0	59.5	160	550	1600	5000	11,000	40,000	110,000	430,000		4.0	12.0	
5	60	175	560	1750	5100	12,000	43,000	120,000	450,000	1.0	4.3	12.5	
0	62	180	600	1800	5500	12,500	45,000	125,000	470,000	1.1	4.5	13.0	
0	65	200	620	2000	5600	13,000	47,000	130,000	500,000	1.2	4.7	15.0	
0	68	220	650	2200	5950	13,500	50,000	150,000	510,000	1.25	5.0	16.0	
5	70	225	680	2250	6000	15,000	51,000	160,000	550,000	1.3	5.1	18.0	
0	74.5	240	700	2400	6200	16,000	55,000	175,000	560,000	1.5	5.5	20.0	
0	75	250	750	2500	6500	17,500	56,000	180,000	600,000	1.6	5.6	22.0	
	80	270	800	2700	6800	18,000	60,000	200,000	620,000	1.8	6.0	25.0	

nly stock value above 50 megohms is 100 megohms furnished in ±2% tolerance.
values from 3 to 10 ohms in CPX½ check factory for price and availability.

AEROGLAZE® CARBOFILM ± 1% RESISTORS MIL-BELL VALUES**

	Net Price
CPSX½ (RN20X)	
10 ohms to 49.9 ohms	.64
50 ohms to 2.2 meg	.54
CPX½	
2.21 meg to 5.0 meg	.83
CPLX½	
5.1 meg to 7.5 meg	.90
CPX-1 (RN25X)	
10 ohms to 99.9 ohms	.94
100 ohms to 5.0 meg	.81
5.01 meg to 10.0 meg	.89
10.1 meg to 15.0 meg*	1.03
CPX-2 (RN30X)	
50 ohms to 199 ohms	1.20
200 ohms to 10.0 meg	.97
10.1 meg to 30.0 meg	1.13
30.1 meg to 50.0 meg*	1.25
100 meg*	1.62

*All new production will be furnished at ± 2% only for values in these ranges.

MIL-BELL STOCK VALUES ±1% TOLERANCE

OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	OHMS	MEG-OHMS	MEG-OHMS	MEG-OHMS
23.2	53.6	124	287	665	1540	3570	8250	19100	44200	102000	237000	549000	1.13	2.61	6.04
23.7	54.9	127	294	681	1580	3650	8450	19600	45300	105000	243000	562000	1.15	2.67	6.19
24.3	56.2	130	301	698	1620	3740	8660	20000	46400	107000	249000	576000	1.18	2.74	6.34
24.9	57.6	133	309	715	1650	3830	8870	20500	47500	110000	255000	590000	1.21	2.80	6.49
25.5	59.0	137	316	732	1690	3920	9090	21000	48700	113000	261000	604000	1.24	2.87	6.65
26.1	60.4	140	324	750	1740	4020	9310	21500	49900	115000	267000	619000	1.27	2.94	6.81
26.7	61.9	143	332	768	1780	4120	9530	22100	51100	118000	274000	634000	1.30	3.01	6.98
27.4	63.4	147	340	787	1820	4220	9760	22600	52300	121000	280000	649000	1.33	3.09	7.15
28.0	64.9	150	348	806	1870	4320	10000	23200	53600	124000	287000	665000	1.37	3.16	7.32
28.7	66.5	154	357	825	1910	4420	10200	23700	54900	127000	294000	681000	1.40	3.24	7.50
29.4	68.1	158	365	845	1960	4530	10500	24300	56200	130000	301000	698000	1.43	3.32	7.68
30.1	69.8	162	374	866	2000	4640	10700	24900	57600	133000	309000	715000	1.47	3.40	7.87
30.9	71.5	165	383	887	2050	4750	11000	25500	59000	137000	316000	732000	1.50	3.48	8.06
31.6	73.2	169	392	909	2100	4870	11300	26100	60400	140000	324000	750000	1.54	3.57	8.25
32.4	75.0	174	402	931	2150	4990	11500	26700	61900	143000	332000	768000	1.58	3.65	8.45
33.2	76.8	178	412	953	2210	5110	11800	27400	63400	147000	340000	787000	1.62	3.74	8.66
34.0	78.7	182	422	976	2260	5230	12100	28000	64900	150000	348000	806000	1.65	3.83	8.87
34.8	80.6	187	432	1000	2320	5360	12400	28700	66500	154000	357000	825000	1.69	3.92	9.09
35.7	82.5	191	442	1020	2370	5490	12700	29400	68100	158000	365000	845000	1.74	4.02	9.31
36.5	84.5	196	453	1050	2430	5620	13000	30100	69800	162000	374000	866000	1.78	4.12	9.53
37.4	86.6	200	464	1070	2490	5760	13300	30900	71500	165000	383000	887000	1.82	4.22	9.76
38.3	88.7	205	475	1100	2550	5900	13700	31600	73200	169000	392000	909000	1.87	4.32	10.0
39.2	90.9	210	487	1130	2610	6040	14000	32400	75000	174000	402000	931000	1.91	4.42	
40.2	93.1	215	499	1150	2670	6190	14300	33200	76800	178000	412000	953000	1.96	4.53	
41.2	95.3	221	511	1180	2740	6340	14700	34000	78700	182000	422000	976000	2.00	4.64	
42.2	97.6	226	523	1210	2800	6490	15000	34800	80600	187000	432000		2.05	4.75	
43.2	100	232	536	1240	2870	6650	15400	35700	82500	191000	442000		2.10	4.87	
44.2	102	237	549	1270	2940	6810	15800	36500	84500	196000	453000	MEGOHMS	2.15	4.99	
45.3	105	243	562	1300	3010	6980	16200	37400	86600	200000	464000		2.21	5.11	
46.4	107	249	576	1330	3090	7150	16500	38300	88700	205000	475000		2.26	5.23	
47.5	110	255	590	1370	3160	7320	16900	39200	90900	210000	487000	1.00	2.32	5.36	
48.7	113	261	604	1400	3240	7500	17400	40200	93100	215000	499000	1.02	2.37	5.49	
49.9	115	267	619	1430	3320	7680	17800	41200	95300	221000	511000	1.05	2.43	5.62	
51.1	118	274	634	1470	3400	7870	18200	42200	97600	226000	523000	1.07	2.49	5.76	
52.3	121	280	649	1500	3480	8060	18700	43200	100000	232000	536000	1.10	2.55	5.90	

CARBOMOLD ± 1% RESISTORS MIL-BELL VALUES**

	Net Price
CPM ⅛ (RN60B)	
10 ohms to 24.9 ohms	1.78
25 ohms to 49.9 ohms	1.18
50 ohms to 500 ohms	1.02
501 ohms to 500 K ohms	.96
501 K ohms to 1 meg	1.02
CPM ¼ (RN65B)	
10 ohms to 49.9 ohms	.99
50 ohms to 500 K ohms	.94
501 K ohms to 1.0 meg	.99
1.01 meg to 2.0 meg	1.08
CPM ½ (RN70B)	
10 ohms to 49.9 ohms	.91
50 ohms to 2.2 meg	.85
2.21 meg to 2.49 meg	1.03
CPM 1 (RN75B)	
10 ohms to 99.9 ohms	1.36
100 ohms to 5.0 meg	1.28
5.01 meg to 5.11 meg	1.42
CPM 2 (RN80B)	
30 ohms to 199 ohms	1.99
200 ohms to 10 meg	1.65

**Prices listed are for MIL-BELL values only. For commercial standard values listed in catalog IDC 561 add 10% to the above prices in the appropriate columns. For prices on any values other than MIL-BELL or catalog commercial standard values contact your authorized Aerovox Industrial Distributor.

P KAGING:

Commercial Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities, protected by paper sleeves and packed in bulk.

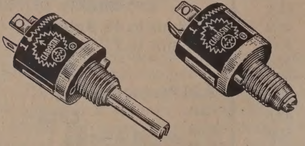
Mil Bell Stock Values—Small quantities packaged individually in sealed plastic tubes. Also available in larger quantities packed in bulk.

★Request OEM Price in quantities of 25-49, 50 to 99, 100 to 249, 250-499 and 500 and up.

PRODUCTS OF
THE HOUSE OF RESISTORS®
CLAROSTAT®
RESISTORS · CONTROLS
RESISTANCE DEVICES

SERIES 57M & 57EJ

½" Single Turn Potentiometers

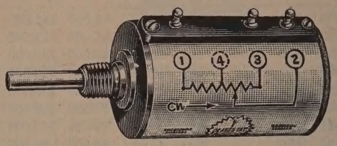


High performance potentiometer packaged in a ½" diameter housing. Quality construction throughout. Available in two models; Series 57M rated at 1.5 watts at 40°C and Series 57EJ rated at 2 watts at 70°C. The high-temperature Series 57EJ features glass-sealed terminals. Both units are corrosion resistant.

SERIES 57M & 57M9 Stock Values	SERIES 57EJA & 57EJB Stock Values	Resistance Ohms	Resolution 100/Total Turns
50 Ω	50 Ω	50,000	0.16%
100 Ω	100 Ω	20,000	0.19%
200 Ω	200 Ω	10,000	0.26%
500 Ω	500 Ω	5,000	0.30%
1000 Ω	1000 Ω	1,000	0.35%
5000 Ω	5000 Ω	500	0.45%
10,000 Ω	10,000 Ω	200	0.58%
20,000 Ω	20,000 Ω	100	0.70%
50,000 Ω	50,000 Ω	50	0.91%

SERIES 59-14JA

10-Turn Precision Potentiometers

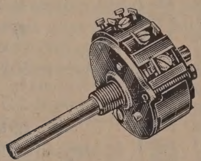


An advanced multi-turn potentiometer offering greater winding length and resolution for its diameter. Fits all standard multi-turn read-out indicators. Extra-long bushing to meet all mounting needs. Extra precise mechanical design and construction combined with tight electrical tolerances provides high degree of accuracy in quantitative functions.

SERIES 59-14JA Stock Values	Resistance Ohms	Resolutions 100/Total Turns
500 Ω	100,000	.009%
1000 Ω	50,000	.010%
2000 Ω	30,000	.014%
5000 Ω	20,000	.015%
10,000 Ω	10,000	.018%
20,000 Ω	5,000	.025%
30,000 Ω	2,000	.023%
50,000 Ω	1,000	.029%
100,000 Ω	500	.024%

SERIES 42-900

High Versatility Single-Turn Potentiometer



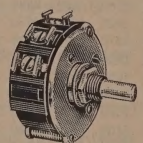
Used and approved by the millions in all types of applications ranging from ultra-critical military systems to ultra-dependable hard-working industrial equipment. Extra tap affords greater electrical versatility. Shaft extension through rear of unit permits addition of switching or other functions actuated by single shaft.

Stock Values	***Terminal Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	± 0.25%	.053%	± .00002 Ω/Ω/°C
50,000	± 0.25%	.056%	± .00002 Ω/Ω/°C
20,000	± 0.25%	.105%	± .00002 Ω/Ω/°C
10,000	± 0.25%	.125%	± .00002 Ω/Ω/°C
5,000	± 0.25%	.167%	± .00002 Ω/Ω/°C
2,500	± 0.25%	.148%	± .00002 Ω/Ω/°C
1,000	± 0.25%	.191%	± .00002 Ω/Ω/°C
500	± 0.50%	.174%	.00017 Ω/Ω/°C
100	± 0.50%	.351%	.00017 Ω/Ω/°C
50	± 0.50%	.435%	.00017 Ω/Ω/°C

***Terminal Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the actual effective rotation.

SERIES 42JA

Single Turn Potentiometer



All the same fine qualities and performance tolerances of the Series 42-900, with the exception of the additional tap, and shaft extension. The ideal unit for extra-dependable potentiometer requirments.

Stock Values	***Absolute Linearity	Resolution 100/Total Turns	Temp. Coefficient of Wire
100,000	± 0.5%	.051%	± .00002 Ω/Ω/°C
50,000	± 0.5%	.074%	± .00002 Ω/Ω/°C
20,000	± 0.5%	.10%	± .00002 Ω/Ω/°C
10,000	± 0.5%	.12%	± .00002 Ω/Ω/°C
5,000	± 0.5%	.17%	± .00002 Ω/Ω/°C
2,500	± 0.5%	.14%	± .00002 Ω/Ω/°C
1,000	± 0.5%	.19%	± .00002 Ω/Ω/°C
500	± 0.5%	.18%	.00017 Ω/Ω/°C
100	± 1.0%	.28%	.00017 Ω/Ω/°C
50	± 1.0%	.35%	.00017 Ω/Ω/°C

***Absolute Linearity: The maximum deviation of the actual output characteristic from a straight reference line extending between zero and the total applied voltage over the theoretical effective rotation.

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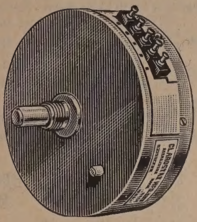
SERIES 54-48JA

3″ Dia. Vari/Phase Single Turn Potentiometer

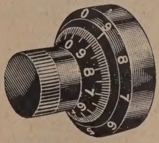


Permits external phasing of electrical rotation to mechanical rotation. Ultra precise unit for professional use. Exclusive Clarostat design eliminates bulky, hard-to-adjust clamping rings. Anodized aluminum housings for minimum weight. Widely used in aircraft instrumentation.

Stock Values	Resolution 100/Total Turns
250,000	.023%
100,000	.031%
50,000	.040%
10,000	.061%
1,000	.083%

CLARODIALS

Ten-Turn Concentric Scale Dials

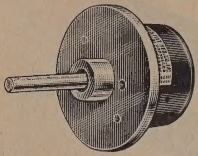


Calibrated dials designed for multi-turn potentiometers up to 10 turns or other rotary devices. CLARODIALS require only one inch of panel space. The knob attaches directly to the shaft, and the body of the dial is mounted rigidly to the panel. As a result, accurate readings with a ratio 1000:1 for ten turns are provided with zero backlash and no reading error. CLARODIALS are made of anodized aluminum for years of attractive use. Mounting requirements are ¼″ shaft and ⅜″-32 NEF-2A bushing. Adapters for ⅛″ dia. shafts are available.

Cat. No.	Description
411	Commercial 10 turn, black anodize ¼″ shaft, no lock
412	Commercial 10 turn, black anodize ¼″ shaft, with lock
461	Commercial 10 turn, clear anodize ¼″ shaft, no lock
462	Commercial 10 turn, clear anodize ¼″ shaft, with lock

SERIES SC42-970 SINE-COSINE

Single-Turn Potentiometer



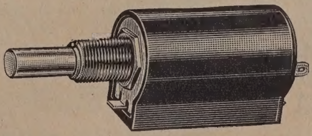
Used in radar, computer and servomechanisms, or any application requiring two output voltages accurately proportioned to the sine and cosine rotation angle. Due to functional use, units are designed and built for exceptionally long rotational life.

SPECIFICATIONS

FUNCTION: Sine-Cosine.
TOTAL RESISTANCE: 16,000 Ω ± 10%.
POWER RATING: 2.46 watts @ 40°C.
(198 volts R.M.S.)
ROTATION: (Eff., Elec., Mech) 360° (Cont.)
MAXIMUM SPEED
RECOMMENDED: 30 RPM (20 gm. contact pressure)
EXPECTED LIFE: 500,000 Cycles.
RESOLUTION: 0.14% maximum of peak to peak voltage.
CONFORMITY: Standard, ± 1% peak to peak voltage.
(Available, ± ½% peak to peak voltage.
Not stocked — must be ordered special price and information on request.)
SHAFT TORQUE: 1 oz. in.
WEIGHT: 6 oz.

SERIES 62JA

Commercial Multi-turn Potentiometer



A 10-turn potentiometer offering electrical operating characteristics comparable to units costing far more. Designed specifically for the industrial instrumentation market, the Series 62JA has the inherent advantages of far greater resolution in trimming, better instrument control and settings for all types of electronic equipment. Brief specifications include: ⅞″ diameter, 1 5/16″ deep behind panel, bushing and shaft or split-locking bushing with screwdriver slot, 2 watts @ 25°C, derated to zero @ 85°C, 1000 to 100K ohms standard — others available, absolute linearity of ±0.25% standard, closer on order.

Stock Values	Resolution %	Stock Values	Resolution %
100,000	.012	10,000	.024
50,000	.013	5,000	.026
30,000	.016	2,000	.029
20,000	.019	1,000	.030

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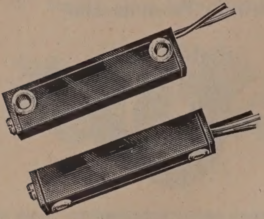
SERIES 56 "PADOHM" TRIMMING POTENTIOMETER



A precision potentiometer for pad or trim resistance functions. The "Padohm" is especially intended for extreme ambient conditions of temperature, moisture, shock and vibration. The body material provides for high insulation as well as high temperature operation. The Series also features precision-metal contacts and welded single-turn end connections. A positive clutching and de-clutching mechanism insures release of wiper at end of rotation.

SPECIFICATIONS

Power Rating 0.8 watts @70°C. Derated linearly to zero power @150°C.

Working Voltage 200 volts, maximum.

Resistance Range 100 to 20,000 Ω, higher or low values available. Specify.

Resistance Tolerance ±10% or closer, specify.

Temperature Coefficient of Wire ±0.00002 Ω/Ω/°C.

Independent Linearity ±2% of the total resistance.

Minimum Resistance 1% of the total resistance or 1 Ω whichever is greater.

Effective Travel 95% minimum of the mechanical travel.

Mechanical Travel 25 turns ±2 turns with slip-drive mechanism at extreme ends of mechanical rotation.

Shaft Backlash ¼ turn maximum.

Torque 0.2 to 8.0 oz. in.

Lead or Terminal Strength 1 lb. pull in all three planes.

Lead Wires Teflon leads, MIL-W-16878, Type E.

Weight .010 lb.

TERMINAL CODE

Wire Leads-1	Solder Lug-2	Printed Circuit-3	
56JA-1	56JA-2	56JA-3	Low Temp 105°C
56JB-1	56JB-2	56JB-3	Hi Temp 150°C Not Sealed

EXAMPLE

Catalog No. 56JA-2-100: Indicates Series 56 with Solder Lug Terminals 100 Ω.

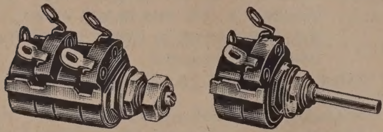
STOCK VALUES
56JA-56JB

10	200	5K
20	500	10K
50	1K	20K
100	2K	25K
		50K

MINIATURIZED POTENTIOMETERS

Consistent with miniaturization in Military and Commercial equipment, such as; Guided Missiles, Aircraft Electronics, Mobile Radio and Radar, Computers, Range Finders, Pocket Radios and Hearing Aids; Clarostat offers miniaturized composition element Series 48M and wire-wound Series 49M Potentiometers, and a Rotary Selector Switch designated as Series BHM to meet the switching requirements of the above mentioned and other applications.

SERIES 48M — 0.2 WATT COMPOSITION ELEMENT



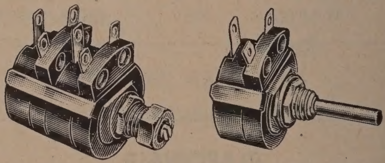
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft.

All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lockwasher. Potentiometers with split locking bushings furnished with jam nut also.

Insulation:	Breakdown test between terminals and ground for 1 minute 1000v.a.c.; 350v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 200 to 5 Meg. Tapered 1500 to 2.5 Meg.
Resistance Tolerance:	Linear ±10%. Above 100,000 ohms ±20%. Tapered ±20% all values.
Tapers:	Linear Left hand — 10% resistance at 50% rotation. "Z"
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.5 to 6
Dual Construction:	Available

SERIES 49M — 1.5 WATT WIRE-WOUND



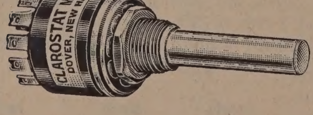
Available in single or dual, standard or shaft locking bushing. Standard bushing potentiometers have ¼" x 32 NEF-2A x ¼" long bushing and ⅛" dia. x ½" long shaft beyond bushing.

Shaft locking bushing potentiometers have ¼" x 32 NEF-2A x ⅜" long bushing and ⅛" dia. x 1/16" long screwdriver slotted shaft. All potentiometers furnished with mounting nut 1/16" thick x 5/16" across flats, and one internal tooth lock-washer. Potentiometers with shaft locking bushings furnished with jam nut also.

Fabricated in accordance with MIL-R-19

Insulation:	Breakdown test between terminals and ground for 1 minute. 1000v.a.c.; 500v.a.c. @ 3.4" Hg.
Resistance Range (Ohms):	Linear 1 to 20,000
Resistance Tolerance:	Linear ±5% Tapered Linear only
Mechanical and Electrical Rotation:	300° ±3°
Effective Rotation:	300° ±3°
Torque (oz.-in.):	0.3 to 6
Dual Construction:	Available

SERIES BHM ROTARY SWITCHES



Series BHM switches are rated at 50 ma. at 300 V. a.c. or d.c., and 500 ma. at 30 V. a.c. or d.c. All moving parts and contact mechanism are totally enclosed, and the switch assembly is sealed for protection from dust and atmospheric conditions. They are particularly adapted to portable radios, receivers and transmitters, X-ray and medical instruments, calculating machines and computers.

Current:	50 Milliamps. at 300 volts a.c. or d.c.
Rating:	500 Milliamps. at 30 volts a.c. or d.c.
Protection:	All moving parts and contact mechanisms are totally enclosed and switch is sealed, which protects it from dust and atmospheric conditions.
Shaft:	¼" diameter round 1" beyond bushing.
Finish:	Nickel Plating.
Bushing:	⅜" x 32 NEF-2 Thread. ⅜" Long.
Torque:	30 to 50 oz. in.

BHM-SP12P-S	Single Pole 12 Positions — Shorting
BHM-SP12P-NS	Single Pole 12 Positions — Non Shorting
BHM-2P6P-S	2 Pole 6 Positions — Shorting
BHM-2P6P-NS	2 Pole 6 Positions — Non-Shorting
BHM-3P4P-S	3 Pole 4 Positions — Shorting
BHM-3P4P-NS	3 Pole 4 Positions — Non-Shorting
BHM-4P3P-S	4 Pole 3 Positions — Shorting
BHM-4P3P-NS	4 Pole 3 Positions — Non-Shorting

Meets or exceeds test paragraph 4.5.3 thru 4.5.13 of MIL-S-3786.

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MILITARY POTENTIOMETERS

ITEMS IN STOCK FOR IMMEDIATE DELIVERY

RA10 per MIL-R-19 1 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 49M

RA10NASD150A
RA10NASD250A
RA10NASD500A
RA10NASD750A
RA10NASD101A
RA10NASD151A
RA10NASD201A
RA10NASD251A
RA10NASD351A
RA10NASD501A
RA10NASD751A
RA10NASD102A

RA10NASD152A
RA10NASD202A
RA10NASD252A
RA10NASL150A
RA10NASL250A
RA10NASL500A
RA10NASL750A
RA10NASL101A
RA10NASL151A
RA10NASL201A
RA10NASL251A
RA10NASL351A

RA10NASL501A
RA10NASL751A
RA10NASL102A
RA10NASL152A
RA10NASL202A
RA10NASL252A
RA10LASD150A
RA10LASD250A
RA10LASD500A
RA10LASD750A
RA10LASD101A
RA10LASD151A

RA10LASD201A
RA10LASD251A
RA10LASD351A
RA10LASD501A
RA10LASD751A
RA10LASD102A
RA10LASD152A
RA10LASD202A
RA10LASD252A
RA10LASM150A
RA10LASM250A
RA10LASM500A

RA10LASM750A
RA10LASM101A
RA10LASM151A
RA10LASM201A
RA10LASM251A
RA10LASM351A
RA10LASM501A
RA10LASM751A
RA10LASM102A
RA10LASM152A
RA10LASM202A
RA10LASM252A

RA20 per MIL-R-19 2 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 43M

RA20NASA3R0A
RA20NASA6R0A
RA20NASA8R0A
RA20NASA100A
RA20NASA150A
RA20NASA200A
RA20NASA250A
RA20NASA350A
RA20NASA500A
RA20NASA750A
RA20NASA101A
RA20NASA151A
RA20NASA201A
RA20NASA251A
RA20NASA351A
RA20NASA501A
RA20NASA751A
RA20NASA102A
RA20NASA152A
RA20NASA202A
RA20NASA252A

RA20NASA352A
RA20NASA502A
RA20NASA752A
RA20NASA103A
RA20NASA153A
RA20NASD3R0A
RA20NASD6R0A
RA20NASD8R0A
RA20NASD100A
RA20NASD150A
RA20NASD200A
RA20NASD250A
RA20NASD350A
RA20NASD500A
RA20NASD750A
RA20NASD101A
RA20NASD151A
RA20NASD201A
RA20NASD251A
RA20NASD351A
RA20NASD501A

RA20NASD751A
RA20NASD102A
RA20NASD152A
RA20NASD202A
RA20NASD252A
RA20NASD352A
RA20NASD502A
RA20NASD752A
RA20NASD103A
RA20NASD153A
RA20LASB3R0A
RA20LASB6R0A
RA20LASB8R0A
RA20LASB100A
RA20LASB150A
RA20LASB200A
RA20LASB250A
RA20LASB350A
RA20LASB500A
RA20LASB750A
RA20LASB101A

RA20LASB151A
RA20LASB201A
RA20LASB251A
RA20LASB351A
RA20LASB501A
RA20LASB751A
RA20LASB102A
RA20LASB152A
RA20LASB202A
RA20LASB252A
RA20LASB352A
RA20LASB502A
RA20LASB752A
RA20LASB103A
RA20LASB153A
RA20LASD3R0A
RA20LASD6R0A
RA20LASD8R0A
RA20LASD100A
RA20LASD150A
RA20LASD200A

RA20LASD250A
RA20LASD350A
RA20LASD500A
RA20LASD750A
RA20LASD101A
RA20LASD151A
RA20LASD201A
RA20LASD251A
RA20LASD351A
RA20LASD501A
RA20LASD751A
RA20LASD102A
RA20LASD152A
RA20LASD202A
RA20LASD352A
RA20LASD502A
RA20LASD752A
RA20LASD103A
RA20LASD153A

RA30 per MIL-R-19 4 WATT WIRE-WOUND POTENTIOMETERS — Commercial Equivalent — Series 58M

RA30NASA3R0A
RA30NASA6R0A
RA30NASA8R0A
RA30NASA100A
RA30NASA150A
RA30NASA200A
RA30NASA250A
RA30NASA350A
RA30NASA500A
RA30NASA750A
RA30NASA101A
RA30NASA151A
RA30NASA201A
RA30NASA251A
RA30NASA351A
RA30NASA501A
RA30NASA751A

RA30NASA102A
RA30NASA152A
RA30NASA202A
RA30NASA252A
RA30NASA352A
RA30NASA502A
RA30NASA752A
RA30NASA103A
RA30NASA153A
RA30NASA203A
RA30NASA253A
RA30NASD3R0A
RA30NASD6R0A
RA30NASD8R0A
RA30NASD100A
RA30NASD150A
RA30NASD200A

RA30NASD250A
RA30NASD350A
RA30NASD500A
RA30NASD750A
RA30NASD101A
RA30NASD151A
RA30NASD201A
RA30NASD251A
RA30NASD351A
RA30NASD501A
RA30NASD751A
RA30NASD102A
RA30NASD152A
RA30NASD202A
RA30NASD252A
RA30NASD352A
RA30NASD502A

RA30NASD752A
RA30NASD103A
RA30NASD153A
RA30NASD203A
RA30NASD253A
RA30LASB3R0A
RA30LASB6R0A
RA30LASB8R0A
RA30LASB100A
RA30LASB150A
RA30LASB200A
RA30LASB250A
RA30LASB350A
RA30LASB500A
RA30LASB750A
RA30LASB101A
RA30LASB151A

RA30LASB201A
RA30LASB251A
RA30LASB351A
RA30LASB501A
RA30LASB751A
RA30LASB102A
RA30LASB152A
RA30LASB202A
RA30LASB252A
RA30LASB352A
RA30LASB502A
RA30LASB752A
RA30LASB103A
RA30LASB153A
RA30LASB203A
RA30LASB253A

RV4 per MIL-R-94 2 WATT CARBON POTENTIOMETERS — Commercial Equivalent — Series 53M

RV4NAYSB101A
RV4NAYSB251A
RV4NAYSB501A
RV4NAYSB102A
RV4NAYSB252A
RV4NAYSB502A
RV4NAYSB103A
RV4NAYSB253A
RV4NAYSB503A
RV4NAYSB104A
RV4NAYSB254A
RV4NAYSB504A
RV4NAYSB105A

RV4NAYSB255B
RV4NAYSB505B
RV4NAYSD101A
RV4NAYSD251A
RV4NAYSD501A
RV4NAYSD102A
RV4NAYSD252A
RV4NAYSD502A
RV4NAYSD103A
RV4NAYSD253A
RV4NAYSD503A
RV4NAYSD104A
RV4NAYSD254A

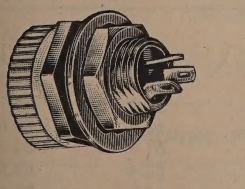
RV4NAYSD504A
RV4NAYSD105A
RV4NAYSD255B
RV4NAYSD505B
RV4NAYSK101A
RV4NAYSK251A
RV4NAYSK501A
RV4NAYSK102A
RV4NAYSK252A
RV4NAYSK502A
RV4NAYSK103A
RV4NAYSK253A
RV4NAYSK503A

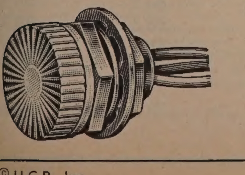
RV4NAYSK104A
RV4NAYSK254A
RV4NAYSK504A
RV4NAYSK105A
RV4NAYSK255B
RV4NAYSK505B
RV4LAYSA101A
RV4LAYSA251A
RV4LAYSA501A
RV4LAYSA102A
RV4LAYSA252A
RV4LAYSA502A
RV4LAYSA103A

RV4LAYSA253A
RV4LAYSA503A
RV4LAYSA104A
RV4LAYSA254A
RV4LAYSA504A
RV4LAYSA105A
RV4LAYSA255B
RV4LAYSA505B
RV4LAYSD101A
RV4LAYSD251A
RV4LAYSD501A
RV4LAYSD102A
RV4LAYSD252A

RV4LAYSD502A
RV4LAYSD103A
RV4LAYSD253A
RV4LAYSD503A
RV4LAYSD104A
RV4LAYSD254A
RV4LAYSD504A
RV4LAYSD105A
RV4LAYSD255A
RV4LAYSD505B

SERIES 60 MJA AND 60 MJB





A unique potentiometer design. The CapPot is a sealed unit that mounts on the operating side of the mounting surface. It is ideal for use in applications requiring a waterproof, explosion-proof, quality component. It may be used in pressurized equipment without the need of expensive bellows or other pressure-sealing devices.

STOCK VALUES (ohms)

Type 60MJA — Solder lug

Type 60MJB — Wire lug

10	250	2.5K
25	500	5K
50	1K	10K
100		

SPECIFICATIONS

Power Rating 0.8 watts @ 40°C, derated linearly to zero power @ 105°C.
Resistance Range Linear functions, 5 Ω min. to 10,000 Ω max. employing temperature coefficient wire of ± .002%/°C.
Resistance Tolerance ± 10% or closer, specify.
Absolute Minimum Resistance 1% of total or 5 Ω, whichever is greater, (Resistance measured between contact arm terminal and end terminal with the contact arm positioned so as to give a minimum value.)
Effective Rotation 300° ± 5°.
Mechanical & Electrical Rotation 310° ± 5°.
Dielectric Strength 900V RMS at sea level for 1 minute. 450V RMS at 3.4 in-Hg. (50,000 ft.) for 1 minute.
Torque 0 2 to 8.0 oz-in.
Stop Strength 32 oz-in.
Typical Weight 0.20 oz.
Buishing Flatted bushing is standard unless otherwise specified. Flat relationship to contact in extreme CCW position shall be shown.
Hardware Internal tooth lockwasher, and hex nut supplied.
Knob Color Options Black is standard. (Other colors available.)

PRODUCTS OF
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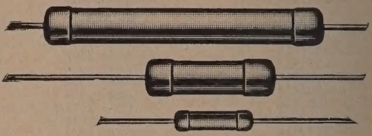
RESISTANCE DEVICES

"FIXTOHM*" PRECISION RESISTORS



± 1% TOLERANCE

SERIES CVF **MIL Style RN20X** **½ WATT**	50 ohms to 2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVC **MIL Style RN25X** **1 WATT**	100 ohms to 4.99 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CVD **MIL Style RN30X** **2 WATT**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CML **MIL Style RN60B** **⅛ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMH **MIL Style RN65B** **¼ WATT** **(MOLDED BODY)**	50 ohms to 5 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMF **MIL Style RN70B** **½ WATT** **(MOLDED BODY)**	50 ohms to 2.2 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.
SERIES CMD **MIL Style RN80B** **2 WATT** **(MOLDED BODY)**	200 ohms to 10 megohms. Values other than military decade values on page at right add 10% to List Price. *Values outside the above range price and delivery information on request.

Resistance tolerances available from ½ to 10%.
Hermetically sealed resistors available on special order.
Also available—Series CEL ⅛ watt and Series CEH ¼ watt.
Prices and information on request.

MILITARY DECADE VALUES

10.0
10.2
10.5
10.7
11.0
11.3
11.5
11.8
12.1
12.4
12.7
13.0
13.3
13.7
14.0
14.3
14.7
15.0
15.4
15.8
16.2
16.5
16.9
17.4
17.8
18.2
18.7
19.1
19.6
20.0
20.5
21.0
21.5
22.1
22.5
23.2
23.7
24.3
24.9
25.5
26.1
26.7
27.4
28.0
28.7
29.4
30.1
30.9
31.6
32.4
33.2
34.0
34.8
35.7
36.5
37.4
38.3
39.2
40.2
41.2
42.2
43.2
44.2
45.3
46.4
47.5
48.7
49.9
51.1
52.3
53.6
54.9
56.2
57.6
59.0
60.4
61.9
63.4
64.9
66.5
68.1
69.8
71.5
73.2
75.0
76.8
78.7
80.6
82.5
84.5
86.6
88.7
90.9
93.1
95.3
97.6

Other values may be found by using proper decade multiplier.

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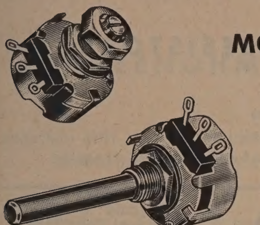
RESISTANCE DEVICES



MOLDED COMPOSITION-ELEMENT POTENTIOMETERS

A 2-watt Molded Composition Element Potentiometer totally enclosed and sealed against moisture and other environmentals. Meets the need for a high quality resistance device incorporating high-stability under extreme climatic and operational conditions. For use in critical applications, such as, test equipment, military requirements, computers, servo systems and industrial metering devices.

1-1/16" diameter and 9/16" deep, wiper assembly of one piece construction. Carbon to carbon contact insures exceptionally low noise level. Stainless steel shaft. Gold plated terminals.

Electrical tolerances are plus/minus 10% for all values up to 1 meg. 1 meg. and above plus/minus 20%.

Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper	Cat. No. 53C1	Cat. No. 53C2	Res. Ohms	Taper
53C1-50-S	53C2-50-S	50	S	53C1-75K-S	53C2-75K-S	75K	S
53C1- 00-S	53C2-100-S	100	S	53C1-100K-S	53C2-100K-S	100K	S
5 C1 250-S	53C2-250-S	250	S	53C1-150K-S	53C2-150K-S	150K	S
53C1 500-S	53C2-500-S	500	S	53C1-200K-S	53C2-200K-S	200K	S
53C1-750-S	53C2-750-S	750	S	53C1-250K-S	53C2-250K-S	250K	S
53C1-1000-S	53C2-1000-S	1000	S	53C1-500K-S	53C2-500K-S	500K	S
53C1-1500-S	53C2-1500-S	1500	S	53C1-750K-S	53C2-750K-S	750K	S
53C1-2000-S	53C2-2000-S	2000	S	53C1-1 Meg-S	53C2-1 Meg-S	1 Meg	S
53C2-2500-S	53C2-2500-S	2500	S	53C1-1.5 Meg-S	53C2-1.5 Meg-S	1.5 Meg	S
53C1-5000-S	53C2-5000-S	5000	S	53C1-2 Meg-S	53C2-2 Meg-S	2 Meg	S
53C1-7500-S	53C2-7500-S	7500	S	53C1-2.5 Meg-S	53C2-2.5 Meg-S	2.5 Meg	S
53C1-10K-S	53C2-10K-S	10K	S	53C1-3 Meg-S	53C2-3 Meg-S	3 Meg	S
53C1-15K-S	53C2-15K-S	15K	S	53C1-4 Meg-S	53C2-4 Meg-S	4 Meg	S
53C1-20K-S	53C2-20K-S	20K	S	53C1-5 Meg-S	53C2-5 Meg-S	5 Meg	S
53C1 25K-S	53C2-25K-S	25K	S	53C1-10 Meg-S	53C2-10 Meg-S	10 Meg	S
53C1-50K-S	53C2-50K-S	50K	S				

53C1 NET PRICE $2.01 53C2 NET PRICE $2.55

Standard Packing — Individual Carton.

"Z" TAPER

53C1-100K-Z	100K
53C1-250K-Z	250K
53C1-500K-Z	500K
53C1-1 Meg-Z	1 Meg-Z
53C1-2.5 Meg-Z	2.5 Meg-Z

NET PRICE $2.25

REVERSED "Z" TAPER

53C1-10K-RZ	10K
53C1-25K-RZ	25K
53C1-50K-RZ	50K

NET PRICE $2.25

DUAL POTENTIOMETERS

D53C1 10K-S D53C1 250K-S
D53C1 25K-S D53C1 500K-S
D53C1 50K-S D53C1 1 Meg-S
D53C1 100K-S

NET PRICE $5.85

Standard Packing—Ind. Carton.

Items not listed are special. Prices and information supplied upon request.

SERIES "43C1" and "43C2" 2-WATT CONTROLS

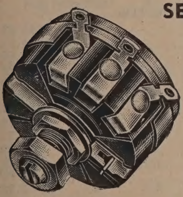
Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 2%. All controls rated 2 watts.

43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms	43C1 Cat. No.	43C2 Cat. No.	Res. Ohms			
43C1-5	43C2-5	5	43C1-100	43C2-100	100	43C1-1500	43C2-1500	1500	43C1-15K	43C2-15K	15K
43C1-10	43C2-10	10	43C1-150	43C2-150	150	43C1-2000	43C2-2000	2000	43C1-20K	43C2-20K	20K
43C1-20	43C2-20	20	43C1-200	43C2-200	200	43C1-2500	43C2-2500	2500	43C1-25K	43C2-25K	25K
43C1-25	43C2-25	25	43C1-300	43C2-300	300	43C1-3000	43C2-3000	3000	43C1-30K	43C2-30K	30K
43C1-30	43C2-30	30	43C1-400	43C2-400	400	43C1-4000	43C2-4000	4000	43C1-40K	43C2-40K	40K
43C1-40	43C2-40	40	43C1-500	43C2-500	500	43C1-5000	43C2-5000	5000	43C1-50K	43C2-50K	50K
43C1-50	43C2-50	50	43C1-750	43C2-750	750	43C1-7500	43C2-7500	7500			
43C1-75	43C2-75	75	43C1-1000	43C2-1000	1000	43C1-10K	43C2-10K	10K			

NET PRICES

43C1-5 to 43C1-10K	$1.85	43C1-30K to 43C1-50K	$2.01	43C2-15K to 43C2-25K	$2.55
43C1-15K to 43C1-25K	1.80	43C2-5 to 43C2-10K	2.25	43C2-30K to 43C2-50K	3.00

SERIES 58C1 AND 58C2 3-WATT CONTROLS



Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity is to plus/minus 1%. All controls rated 3 watts.

58C1 Cat. No.	58C2 Cat. No.	Res. Ohms	58C1 Cat. No.	58C2 Cat. No.	Res. Ohms
58C1-1	58C2-1	1	58C1-500	58C2-500	500
58C1-2	58C2-2	2	58C1-750	58C2-750	750
58C1-4	58C2-4	4	58C1-1000	58C2-1000	1000
58C1-6	58C2-6	6	58C1-1500	58C2-1500	1500
58C1-10	58C2-10	10	58C1-2000	58C2-2000	2000
58C1-15	58C2-15	15	58C1-2500	58C2-2500	2500
58C1-20	58C2-20	20	58C1-3000	58C2-3000	3000
58C1-25	58C2-25	25	58C1-5000	58C2-5000	5000
58C1-30	58C2-30	30	58C1-7500	58C2-7500	7500
58C1-40	58C2-40	40	58C1-10K	58C2-10K	10K
58C1-50	58C2-50	50	58C1-15K	58C2-15K	15K
58C1-60	58C2-60	60	58C1-20K	58C2-20K	20K
58C1-75	58C2-75	75	58C1-25K	58C2-25K	25K
58C1-100	58C2-100	100	58C1-30K	58C2-30K	30K
58C1-200	58C2-200	200	58C1-40K	58C2-40K	40K
58C1-300	58C2-300	300	58C1-50K	58C2-50K	50K
58C1-400	58C2-400	400			

NET PRICES

58C1-1 to 58C1-10K	$1.35	58C2-1 to 58C2-10K	$2.25
58C1-15K to 58C1-25K	1.80	58C2-15K to 58C2-25K	2.55
58C1-30K to 58C1-50K	2.01	58C2-30K to 58C2-50K	3.00

SERIES "10C1" and "10C2" 4-WATT CONTROLS

Electrical tolerance is plus/minus 5% for all ohmages. Independent linearity to plus/minus 1%. All controls rated 4 watts.

1 to 50K ohms available on special order. Prices and information on request.

10C1 Cat. No.	10C2 Cat. No.	Res. Ohms
10C1-75K	10C2-75K	75K
10C1-100K	10C2-100K	100K

Net Prices

10C1	2.75	10C2	3.60

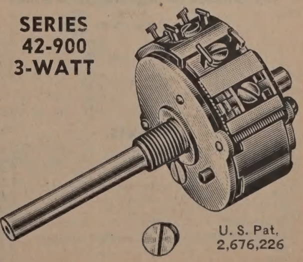
WIRE-WOUND PRECISION POTENTIOMETERS

Series 42-900 is a superlative-grade precision potentiometer with such features as selection of either limited or continuous rotation by simple manipulation; gold-plated bushings, terminals, screws; front and rear plates of green anodized aluminum; rear shaft extension for coupling to other potentiometers, switch, servos, etc. Wiring diagram on rear plate indicates terminal connections. Especially intended to meet the needs of your prototypes, laboratory testing, instrument-grade assemblies, etc.

Exceeds MIL-R-19 specifications where applicable.

42-900—100K ohms
42-900— 50K ohms
42-900— 20K ohms
42-900— 10K ohms
42-900—5000 ohms
42-900—2500 ohms
42-900—1000 ohms
42-900— 500 ohms
42-900— 100 ohms
42-900— 50 ohms

SERIES 42-900 3-WATT



U. S. Pat. 2,676,226

PRODUCTS OF
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CLAROSTAT®
RESISTORS • CONTROLS
RESISTANCE DEVICES

"GREENOHM V"™ VITREOUS-ENAMEL RESISTORS

Based on years of research and engineering development, these vitreous-enamel wire-wound power resistors offer superlative performance and life as proved by countless tests. "Greenohm V" resistors provide all the outstanding quality which made Clarostat "Greenohm" cement-coated units famous, *plus* a glass-smooth vitreous-enamel coating in a handsome bluish-green for maximum eye appeal. Made to MIL-R-26C specifications.

- Fixed and adjustable
- 5-watt to 200 watt sizes
- ± 5% tolerance, 50 ohms and over. ± 10% tolerance, 49.9 ohms and under. ± 10% for adjustable.

"GREENOHM V"™ FIXED RESISTORS (VITREOUS ENAMEL)

5-WATT SERIES VPR-5-F

Core: 1" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

1	30	350	1250	7000
1.5	35	400	1500	7500
2	40	450	1750	8000
3	50	500	2000	9000
4	75	600	2250	10K
5	100	700	2500	12.5K
7.5	125	750	3000	15K
10	150	800	3500	17.5K
12	200	900	4000	20K
15	225	1000	4500	22.5K
20	250	1100	5000	25K
25	300	1200	6000	

NET PRICES:

1 to 1K	$0.51
1100 to 5K	.54
6K to 10K	.57
12.5K to 15K	.60
17.5K to 20K	.63
22.5K to 25K	.66

10-WATT SERIES VPR-10-F

Core: 1¾" x 5/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	30	500	3000	13.5K
1	35	600	3500	14.3K
1.2	40	700	4000	15K
1.3	50	750	4500	16K
1.5	75	800	5000	17.5K
2	100	900	6000	18K
3	125	1000	7000	20K
4	150	1100	7500	22.5K
5	200	1200	8000	25K
7.5	225	1250	8500	30K
10	250	1500	9000	35K
12	300	1750	10K	40K
15	350	2000	11K	45K
20	400	2250	12K	50K
25	450	2500	12.5K	

Standard Packaging — 10 per Carton

NET PRICES:

0.4 to 1K	$0.57
1100 to 5K	.60
6K to 10K	.69
11K to 20K	.78
22.5K to 25K	.81
30K to 50K	.90

100-WATT SERIES VK-100-N

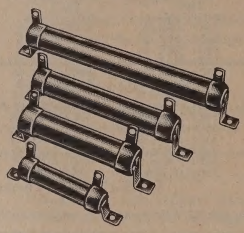
Core: 6½" x ¾"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 3	$2.22
4 to 1K	1.59
1500 to 5K	1.68
7500 to 10K	1.80
15K to 20K	1.98
25K to 40K	2.13
50K to 60K	2.22
75K	2.43
100K	2.73



20-WATT SERIES VPR-20-H

Core: 2" x 7/16"
Terminals, wire lead and lug

Resistance Ohms

0.4	350	1850	7500	55K
0.6	400	2000	8000	60K
0.8	500	2250	9000	65K
5	650	2400	10K	70K
10	700	2500	12.5K	75K
25	750	2750	15K	80K
50	800	3000	20K	85K
75	850	3500	25K	90K
100	1000	4000	30K	95K
150	1200	4500	35K	100K
200	1250	5000	40K	
250	1500	6000	45K	
300	1750	7000	50K	

Standard Packing — 5 per Carton

NET PRICES:

0.4 to 1K	$0.66
1200 to 5K	.69
6K to 10K	.81
12.5K to 20K	.84
25K to 40K	.99
45K to 60K	1.14
65K to 80K	1.35
85K to 100K	1.56

160-WATT SERIES VK-160-W

Core: 8½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	750	7500	50K
2	75	1000	10K	60K
3	100	1500	15K	75K
4	125	2000	20K	100K
5	150	2500	25K	
10	250	3000	30K	
25	500	5000	40K	

NET PRICES:

1 to 5	$3.18
10 to 1K	2.28
1500 to 5K	2.31
7500 to 10K	2.52
15K to 20K	2.70
25K to 40K	2.79
50K to 60K	2.88
75K	3.06
100K	3.24

25-WATT SERIES VP-25-K

Core: 2" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	800	5000	30K
2	75	1000	6000	35K
3	100	1500	7500	40K
4	150	2000	10K	50K
5	200	2500	12K	60K
10	250	3000	15K	70K
15	500	3500	20K	80K
25	750	4000	25K	100K

Standard Packing — Individually Boxed

NET PRICES:

1 to 1K	$0.72
1500 to 10K	.75
6K to 10K	.84
12K to 20K	.90
25K to 40K	1.02
50K to 60K	1.20
70K to 80K	1.41
100K	1.62

50-WATT SERIES VP-50-K

Core: 4" x 9/16"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	75	1000	8000	75K
2	100	1500	10K	100K
3	150	2000	12K	125K
4	200	2500	15K	150K
5	250	3000	20K	175K
10	500	4000	25K	200K
25	750	5000	35K	225K
50	800	7500	50K	250K

Standard Packing — Individually Boxed

NET PRICES:

1	$1.53
2 to 1K	1.11
1500 to 5K	1.14
7500 to 10K	1.26
12K to 20K	1.38
25K to 35K	1.53
50K	1.71
75K	1.95
100K	2.13
125K	2.55
150K	2.70
175K	2.79
200K	2.88
225K	3.24
250K	3.24

200-WATT SERIES VK-200-W

Core: 10½" x 1⅛"
Lug terminals — Mtg. bracket furnished

Resistance Ohms

1	50	1000	10K	60K
2	75	1500	15K	75K
3	100	2000	20K	100K
4	150	2500	25K	
5	250	3000	30K	
10	500	5000	40K	
25	750	7500	50K	

NET PRICES:

1 to 5	$3.42
10 to 1K	2.46
1500 to 5K	2.52
7500 to 10K	2.70
15K to 20K	2.88
25K to 40K	2.97
50K to 60K	3.06
75K	3.24
100K	3.45

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PRODUCTS OF THE HOUSE OF RESISTORS® CLAROSTAT® RESISTORS · CONTROLS RESISTANCE DEVICES

"GREENOHM V"™ ADJUSTABLE RESISTORS (VITREOUS ENAMEL)

10-WATT SERIES VP-10-FA

Core: 1¾" x 5/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	25	350	1500	5000
2	50	400	2000	6000
3	75	500	2250	7000
5	100	600	2500	7500
7.5	150	750	3000	8000
10	200	800	3500	8500
15	250	1000	4000	9000
20	300	1250	4500	10K

NET PRICES:

1 to 1K	$1.14
1250 to 5K	1.17
6000 to 10K	1.26

Standard Packing — 10 per Carton

25-WATT SERIES VP-25-KA

Core: 2" x 9/16"

Lug terminals — Mtg. brackets furnished

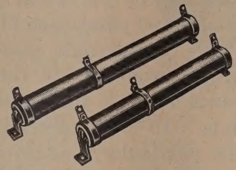
Resistance Ohms

1	50	750	3500	9000
2	75	800	4000	10K
3	100	1000	4500	12K
5	150	1250	5000	15K
7.5	200	1500	6000	20K
10	250	2000	7000	25K
15	300	2250	7200	
20	400	2500	7500	
25	500	3000	8000	

NET PRICES:

1 to 1K	$1.29
1250 to 5K	1.32
6K to 10K	1.41
12K to 20K	1.47
25K	1.59

Standard Packing — Individually Boxed



50-WATT SERIES VP-50-KA

Core: 4" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	150	1500	7000	30K
2	200	2000	7200	40K
3	250	2250	7500	50K
4	300	2500	8000	60K
5	400	3000	9000	80K
10	500	3500	10K	100K
25	750	4000	12K	
50	800	4500	15K	
75	1000	5000	20K	
100	1250	6000	25K	

NET PRICES:

1 ohm	$2.10
2 to 1K	1.68
1250 to 5K	1.71
6K to 10K	1.80
12K to 20K	1.92
25K to 40K	2.10
50K to 60K	2.28
80K	2.52
100K	2.70

Standard Packing — Individually Boxed

75-WATT SERIES VP-75-KA

Core: 6" x 9/16"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	200	2000	7200	35K
2	250	2250	7500	40K
3	300	2500	8000	45K
4	400	3000	9000	50K
5	500	3500	10K	60K
10	750	4000	12K	80K
15	800	4500	15K	100K
25	1000	5000	20K	
50	1250	6000	25K	
100	1500	7000	30K	

NET PRICES

1 to 2	$2.37
3 to 1K	1.86
1250 to 5K	1.92
6000 to 10K	2.01
12K to 20K	2.13
25K to 40K	2.31
45K to 60K	2.52
80K	2.76
100K	2.91

Standard Packaging — Individually Boxed

100-WATT SERIES VK-100-NA

Core: 6½" x ¾"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 3	$3.00
4 to 1K	2.37
1500 to 5K	2.43
10K	2.55
15K to 20K	2.70
25K to 40K	2.88
50K	3.00
75K	3.12
100K	3.27

Standard Packing — Individually Boxed

160-WATT SERIES VK-160-WA

Core: 8½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

1 to 5	$4.05
10 to 1K	3.15
1500 to 5K	3.18
10K	3.39
15K to 20K	3.57
25K to 40K	3.66
60K	3.75
75K	3.93
100K	4.14

Standard Packing — Individually Boxed

200-WATT SERIES VK-200-WA

Core: 10½" x 1⅛"

Lug terminals — Mtg. brackets furnished

Resistance Ohms

1	10	500	10K	40K
2	25	1000	15K	50K
3	50	1500	20K	75K
4	100	2500	25K	100K
5	250	5000	30K	

NET PRICES:

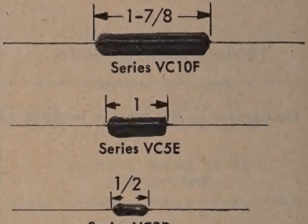
1 to 5	$4.32
10 to 1K	3.33
1500 to 5K	3.42
10K	3.57
15K to 20K	3.75
25K to 40K	3.84
50K	3.96
75K	4.14
100K	4.32

Standard Packing — Individually Boxed

PRODUCTS OF
THE HOUSE OF RESISTORS® CLAROSTAT® RESISTORS • CONTROLS
RESISTANCE DEVICES

AXIAL LEAD VITREOUS RESISTORS

Available in three sizes 3, 5 and 10 watts, Series VC3D, VC5E and VC10F. Axial lead resistors are particularly adapted to printed circuit, terminal board, and point-to-point wiring applications. These resistors save considerable space because of the elimination of mounting brackets and terminal lugs. Standard resistance tolerance is ± 5% for 1 ohm and higher and tolerance below 1 ohm is ± 10%. Attractively packaged in a newly designed carton particularly adapted to this new axial lead resistor, beautifully finished with Clarostat's new vitreous shade of teal green.



Series VC10F
Series VC5E
Series VC3D

Lead Length: 1½″ Lead Diameter: .032

SERIES VC3D

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	K
4	40	350	1.1K	4K	K
5	50	400	1.2K	4.5K	K
7.5	75	450	1.25K	5K	K
10	100	500	1.5K	6K	K
12	125	600	1.75K	7K	K
15	150	700	2K	7.5K	K

Net Prices

1	to 1K	$ .51
1.1K	to 5K	.54
6K	to 10K	.95

Standard Packing—10 per Carton.

SERIES VC5E

RESISTANCE OHMS

1	20	200	750	2.25K	8K
1.5	25	225	800	2.5K	9K
2	30	250	900	3K	10K
3	35	300	1K	3.5K	12.5K
4	40	350	1.1K	4K	15K
5	50	400	1.2K	4.5K	17.5K
7.5	75	450	1.25K	5K	18K
10	100	500	1.5K	6K	20K
12	125	600	1.75K	7K	22.5K
15	150	700	2K	7.5K	25K

Net Prices

1	to 1K	$ .54
1.1K	to 5K	.57
6K	to 10K	.60
12.5K	to 20K	.72
22.5K	to 25K	.75

Standard Packing—10 per Carton.

SERIES VC10F

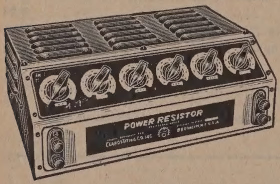
RESISTANCE OHMS

1	20	200	750	2.25K	8K	17.5K
1.5	25	225	800	2.5K	8.5K	18K
2	30	250	900	3K	9K	20K
3	35	300	1K	3.5K	10K	22.5K
4	40	350	1.1K	4K	11K	25K
5	50	400	1.2K	4.5K	12K	30K
7.5	75	450	1.25K	5K	12.5K	35K
10	100	500	1.3K	6K	13.5K	40K
12	125	600	1.75K	7K	15K	45K
15	150	700	2K	7.5K	16K	50K

Net Prices

1	to 1K	$ .60
1.1K	to 5K	.63
6K	to 10K	.72
11K	to 20K	.81
22.5K	to 40K	.84
45K	to 50K	.96

Standard Packing—10 per Carton.



POWER RESISTANCE DECADE
CLAROSTAT

POWER RESISTOR DECADE BOX

The Resistance Decade Box, Model 240-C for bench use — Model 250 for rack mounting, provides any resistance from 1 to 999,999 ohms for working circuits at the flip of a switch. Six front-panel dials enable selection in 1 ohm increments, the total value being read directly from the dial. Each decade has a power rating of 225 watts maximum, 1,000 VDC or 660 VAC maximum.

Resistance changing switches are of the type that prevent a resistance breakdown between steps, thus protecting delicate meters and measuring instruments in the circuit. Knobs indicate the resistance value being used at a glance.

Clarostat GREENOHM Power Resistors are used throughout. These components are wire-wound power resistors on ceramic tubes and coated with an exclusive Clarostat inorganic cold-setting cement, providing the most rugged, long-lasting, trouble-free power resistor available. The resistors are mounted in rigid metal supports.

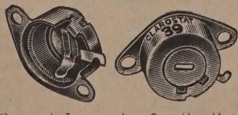
Overall length: 240C: 13″ long x 8½″ deep x 5¾″ high, weight 11½ lbs. 250: 19″ long x 13¾″ deep x 7″ high (fits in standard 19″ relay rack), weight 18½ lbs.

SUGGESTED USES: Resistance determination, Load Resistance, Meter Multiplier, Calibrating Meters, Providing any desired ohmage as a universal power resistor.

Decade No.	1	2	3	4	5	6
Max. Current Rating (amps)	5	1.5	.5	.15	0.5	.005
Resistance Tolerance	5%	2%	2%	2%	2%	2%

NET PRICE: Model 240C $110.00, Model 250 $150.00

SERIES 39 "HUMDINGER"* WIRE-WOUND CONTROLS



Compact. Inexpensive. 2-watt rating. Screwdriver adjusted by slot in drive plate. Mounting ears. For hum balance, centering, hold and locking, linearity, AGC sensitivity, etc.

NET PRICE $0.42

Standard Packing: 10 per Carton.

Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min. Res. Ohms	Cat. No.	Total Res. Ohms	Min Res. Ohms
39-5	5	——	39-500	500	——	39-1000-100	1,000	100
39-8	8	——	39-500-100	500	100	39-1500	1,500	——
39-50	50	——	39-600	600	——	39-2000	2,000	——
39-75	75	——	39-650	650	——	39-2000-100	2,000	100
39-100	100	——	39-700	700	——	39-3000	3,000	——
39-125	125	——	39-700-200	700	200	39-3000-700	3,000	700
39-150	150	——	39-800	800	——	39-4000	4,000	——
39-200	200	——	39-800-50	800	50	39-4000-350	4,000	350
39-300	300	——	39-1000	1,000	——	39-4000-1000	4,000	1,000
						39-5000	5,000	——

*Reg. U. S. Pat. Off.

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PRODUCTS OF
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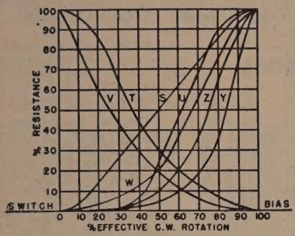
RESISTANCE DEVICES

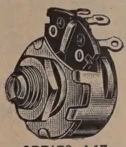
COMPOSITION-ELEMENT CONTROLS



Graph Explanation:
Taper S—Straight or uniform resistance change with rotation.
Taper T — Right-hand 30% resistance at 50% of C.C.W. rotation.
Taper U — Left-hand 1% resistance at 33⅓% of C.W. rotation.
Taper V — Right-hand 20% resistance at 50% of C.C.W. rotation.
Taper W—Left-hand 20% resistance at 50% of C.W. rotation.
Taper Z—Left-hand (Log. audio) 10% resistance at 50% of C.W. rotation.
Taper Y — Left-hand 5% resistance at 50% of C.W. rotation.

SERIES "A47" ½-WATT CONTROLS

Composition-element controls in the popular 15/16" dia. size. Series "A47" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type shaft desired when ordering. Example: 47-100K-S with FKS-¼ shaft.



SERIES A47
(INDUSTRIAL)
SERIES 47

CAT No.	OHMS	TAPER	CAT No.	OHMS	TAPER
A47-500-S	500	S	A47-75K-V	75K	V
A47-750-S	750	S	A47-100K-S	100K	S
A47-1000-S	1000	S	A47-100K-Z	100K	Z
A47-1500-S	1500	S	A47-150K-S	150K	S
A47-2000-S	2000	S	A47-200K-S	200K	S
A47-2500-S	2500	S	A47-250K-S	250K	S
A47-3000-S	3000	S	A47-250K-Z	250K	Z
A47-4000-S	4000	S	A47-300K-S	300K	S
A47-5000-S	5000	S	A47-500K-S	500K	S
A47-7500-S	7500	S	A47-500K-Z	500K	Z
A47-10K-S	10K	S	A47-750K-S	750K	S
A47-10K-V	10K	V	A47-750K-Z	750K	Z
A47-10K-W	10K	W	A47-1 Meg-S	1 Meg.	S
A47-10K-Z	10K	Z	A47-1 Meg-Z	1 Meg.	Z
A47-15K-S	15K	S	A47-1.5 Meg-S	1.5 Meg.	S
A47-15K-V	15K	V	A47-2 Meg-Z	2 Meg.	Z
A47-15K-W	15K	W	A47-2 Meg-S	2 Meg.	S
A47-20K-S	20K	S	A47-2.5 Meg-S	2.5 Meg.	S
A47-25K-S	25K	S	A47-3 Meg-S	3 Meg.	S
A47-25K-W	25K	W	A47-3-Meg.-Z	3 Meg.	Z
A47-25K-V	25K	V	A47-4 Meg-S	4 Meg.	S
A47-30K-S	30K	S	A47-4 Meg-Z	4 Meg.	Z
A47-40K-S	40K	S	A47-5 Meg-Z	5 Meg.	Z
A47-50K-S	50K	S	A47-5 Meg-S	5 Meg.	S
A47-50K-W	50K	W	A47-7.5 Meg-S	7.5 Meg.	S
A47-50K-Z	50K	Z	A47-10 Meg-S	10 Meg.	S
A47-75K-S	75K	S			

NET PRICE $.93 Standard Packing—10 per Carton.

SERIES "AD47" ½-WATT DUAL CONTROLS

These are the same as "A47" except that they are dual controls.

Cat. No.	Panel	Taper	Rear	Taper
AD47-50-S	50K	S	50K	S
AD47-100K-S	100K	S	100K	S
AD47-250K-S	250K	S	250K	S
AD47-250K-Z	250K	Z	250K	Z
AD47-500K-Z	500K	Z	500K	Z
AD47-1 Meg.-S	1 Meg.	S	1 Meg.	S
AD47-1 Meg.-Z	1 Meg.	Z	1 Meg.	Z
AD47-2 Meg.-S	2 Meg.	S	2 Meg.	S
AD47-2 Meg.-V	2 Meg.	V	2 Meg.	V
AD47-5 Meg.-S	5 Meg.	S	5 Meg.	S

NET PRICE $2.25 Standard Packing — Individual Carton.

SERIES "C47S" ½-WATT CONTROLS WITH PUSH-PULL SWITCH

Cat. No.	Cat. No.
C47S-250K-S	C47S-750K-Z
C47S-250K-Z	C47S-1 Meg.-S
C47S-500K-S	C47S-1 Meg.-Z
C47S-500K-Z	C47S-2 Meg.-S
C47S-750K-S	C47S-2 Meg.-Z

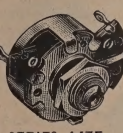
Net Price $1.53 Standard Packing—10 per Carton.

SERIES "C47SF" (TAPPED)

Cat. No.	
C47SF-500K	Tap 250K
C47SF1-500K	Tap 150K
C47SF-1 Meg.	Tap 500K
C47SF1-1 Meg.	Tap 250K

Net Price $1.95 Standard Packing—10 per Carton.

SERIES "A47F"



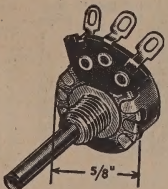
SERIES A47F
(INDUSTRIAL)
SERIES 47F

Series "A47F" controls are field-assembled with the selected "Pick-A-Shaft"* and "Ad-A-Switch"*. "A47F" controls have taps 1, 2, 3 located at 40%, 50% and 60% of rotation, double taps at 35 and 65% of electrical position. These controls are also available with factory-assembled shafts at no extra charge, by omitting prefix "A" from catalog number and designating the type of shaft desired when ordering. Example: 47F-200K with FS-3 shaft.

Cat. No.	Res. Ohms.	Tap No. 1 30%	Tap No. 2 50%	Tap No. 3 70%
A47F-15K	15K	5K		10K
A47F-50K	50K		25K	
A47F-200K	200K			100K
A47F-250K	250K			50K
A47F1-250K	250K		125K	
A47F2-250K	250K	60K		125K
A47F-350K	350K	75K		
A47F1-350K	350K		75K	
A47F-500K	500K			100K
A47F1-500K	500K	25K		
A47F2-500K	500K			200K
A47F3-500K	500K		100K	
A47F4-500K	500K		50K	
A47F5-500K	500K		250K	
A47F6-500K	500K	100K		300K
A47F-1 Meg.	1 Meg.	250K		
A47F1-1 Meg.	1 Meg.			200K
A47F2-1 Meg.	1 Meg.		50K	
A47F3-1 Meg.	1 Meg.		100K	
A47F4-1 Meg.	1 Meg.		225K	
A47F5-1 Meg.	1 Meg.		500K	
A47F-1.5 Meg.	1.5 Meg.	250K		500K
A47F-2 Meg.	2 Meg.	20K		
A47F1-2 Meg.	2 Meg.	5000		
A47F2-2 Meg.	2 Meg.	15K		
A47F3-2 Meg.	2 Meg.		1 Meg.	
A47F4-2 Meg.	2 Meg.		200K	
A47F5-2 Meg.	2 Meg.		400K	
A47F6-2 Meg.	2 Meg.		500K	
A47F7-2 Meg.	2 Meg.	250K		1 Meg.
A47F-2.5 Meg.	2.5 Meg.	250K		500K
A47F-3 Meg.	3 Meg.		250K	

NET PRICE $1.35. Standard Packing—10 per Carton. *Reg. U.S. Pat. Off.

SERIES 44—0.02 WATT CONTROLS



Composition Element Controls rated at 0.2 watt, designed specifically for miniaturized applications such as transistorized circuits, pocket radios, hearing aids, etc. Stocked controls have Clarostat "W" taper (20% log audio). Other tapers available on special order. Series 44 is without switch, while Series 44S has factory-attached 0.5 am. 25 v.d.c. DPST switch. Other ohmages available on special order. 200 ohms to 5 meg. linear; 1500 to 2.5 meg. tapered. Also available on special order, controls with 0.5 a. 25 v.d.c. SPST switch. Items not listed are special. Prices and information on request.

Without Switch Cat No.

44-5K-W	44-100K-W
44-10K-W	44-250K-W
44-25K-W	44-500K-W

NET PRICE $.93

With DPST Switch Cat. No.

44S-5K-W	44S-100K-W
44S-10K-W	44S-250K-W
44S-25K-W	44S-500K-W

NET PRICE $1.35
Standard Packing — 10 Per Carton

SERIES B47 ½-WATT TAB-MOUNT

Composition element controls designed for radio and TV applications, where bushingless controls are required. Phenolic shaft insures insulation if control is used on a "hot" chassis. Items not listed are special, for which information and prices will be supplied on request.

Cat. No.	Cat. No.	Cat. No.	Cat. No.
B47-500-S	B47-10K-S	B47-250K-S	B47-1.5 Meg-S
B47-750-S	B47-25K-S	B47-330K-Z	B47-2 Meg-S
B47-1500-S	B47-50K-S	B47-500K-S	B47-2.5 Meg-S
B47-2500-S	B47-100K-S	B47-500K-Z	B47-3 Meg-S
B47-3000-S	B47-150K-S	B47-1 Meg-S	B47-5 Meg-S
B47-5000-S	B47-200K-S	B47-1 Meg-Z	B47-5 Meg-Z
			B47-7.5 Meg-S

NET PRICE $.60
Standard Packing—10 per Carton.

SERIES B47S ½-WATT TAB MOUNT WITH SWITCH

Cat. No.	Cat. No.
B47S-250K-S	B47S-1 Meg-S
B47S-250K-Z	B47S-1 Meg-Z
B47S-500K-S	B47S-2 Meg-S
B47S-500K-Z	B47S-2 Meg-Z

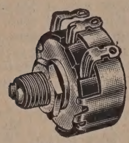
Net Price $1.20
Standard Packing—10 per Carton.

PRODUCTS OF
THE HOUSE OF RESISTORS®
CLAROSTAT ®
RESISTORS • CONTROLS
RESISTANCE DEVICES

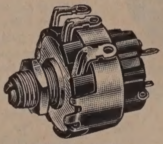
WIRE-WOUND CONTROLS

These are "Pick-A-Shaft"* controls which take any one of 12 shafts listed on page R-24 including High Voltage Coupler and insulated shaft. Your choice of any one of the 12 shafts listed (this does not include insulated shaft) with each control. Tolerances of these controls are in accordance with EIA standards. Overall resistance tolerance of plus/minus 10% for all values. All controls are linear. Available with factory-assembled shafts at no extra charge, by omitting the prefix "A" from the catalog number and designating the type of shaft desired when ordering. Example: 43-500 with FKS-¼ shaft, or 43S-10K with FS-3 shaft and SPST switch.

SERIES "A43" and "A43S" 2-WATT CONTROLS



SERIES A43
(INDUSTRIAL)
SERIES 43



SERIES A43S
(INDUSTRIAL)
SERIES 43S

"A43" is without switch, while "A43S" has factory-attached SPST switch. When ordering "A43S" controls, specify type of switch. Controls with other than SPST switch are special. Prices and information on request.

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms	Without Switch Cat. No	With SPST Switch Cat. No.	Res. Ohms
A43-5	A43S-5	5	A43-1,000	A43S-1,000	1,000
A43-10	A43S-10	10	A43-1,500	A43S-1,500	1,500
A43-20	A43S-20	20	A43-2,000	A43S-2,000	2,000
A43-25	A43S-25	25	A43-2,500	A43S-2,500	2,500
A43-30	A43S-30	30	A43-3,000	A43S-3,000	3,000
A43-40	A43S-40	40	A43-4,000	A43S-4,000	4,000
A43-50	A43S-50	50	A43-5,000	A43S-5,000	5,000
A43-75	A43S-75	75	A43-7,500	A43S-7,500	7,500
A43-100	A43S-100	100	A43-10K	A43S-10K	10K
A43-150	A43S-150	150	A43-15K		
A43-200	A43S-200	200	A43-20K		
A43-300	A43S-300	300	A43-25K		
A43-400	A43S-400	400	A43-30K		
A43-500	A43S-500	500	A43-40K		
A43-750	A43S-750	750	A43-50K		

Standard Packing: 10 per Carton.

NET PRICES: (Without Switch)
5 to 10KΩ .... $ .93
15K to 25KΩ 1.20
30K to 50KΩ 1.62
(With Switch)
5 to 10KΩ $1.47

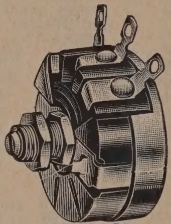
SERIES "A58" and "A58S" 3- WATT CONTROLS

"A58" is without switch, while "A58S" has factory-attached SPST switch. Available with factory-assembled shafts, at no extra charge, by omitting prefix "A" from catalog number, and designating type of shaft desired when ordering. Example: 58-50K with KSS-3 shaft, or 58S-25K with RS-3 shaft and SPST switch. Controls with other than SPST switch are special. Prices and information on request.

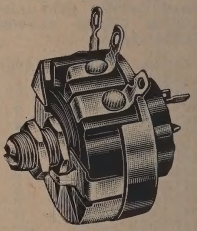
Without Switch Cat. No.	Res. Ohms
A58-1	1
A58-2	2
A58-4	4
A58-6	6
A58-10	10
A58-15	15
A58-20	20
A58-25	25
A58-30	30
A58-40	40
A58-50	50
A58-60	60
A58-75	75
A58-100	100
A58-200	200
A58-300	300
A58-400	400
A58-500	500
A58-750	750
A58-1,000	1,000
A58-1,500	1,500
A58-2,000	2,000
A58-2,500	2,500
A58-3,000	3,000
A58-4000	4,000
A58-5,000	5,000
A58-7,500	7,500
A58-10K	10K
A58-15K	15K
A58-20K	20K
A58-25K	25K
A58-30K	30K
A58-40K	40K
A58-50K	50K

Standard Packing: 10 per Carton.

NET PRICES:
1 to 10KΩ .... $ .93
15K to 25KΩ 1.20
30K to 50KΩ 1.62



SERIES A58
(INDUSTRIAL)
SERIES 58



SERIES A58S
(INDUSTRIAL)
SERIES 58S

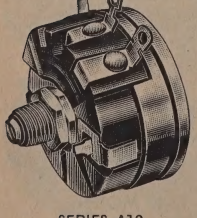
With SPST Switch Cat. No.	Res. Ohms
A58S-1	1
A58S-2	2
A58S-4	4
A58S-6	6
A58S-10	10
A58S-15	15
A58S-20	20
A58S-25	25
A58S-30	30
A58S-40	40
A58S-50	50
A58S-60	60
A58S-75	75
A58S-100	100
A58S-200	200
A58S-300	300
A58S-400	400
A58S-500	500
A58S-750	750
A58S-1,000	1,000
A58S-1,500	1,500
A58S-30K	30K
A58S-40K	40K
A58S-50K	50K
A58S-2,000	2,000
A58S-2,500	2,500
A58S-3,000	3,000
A58S-4,000	4.000
A58S-5,000	5,000
A58S-7,500	7,500
A58S-10K	10K
A58S-15K	15K
A58S-20K..	20K
A58S-25K	25K

Standard Packing: 10 per Carton.

NET PRICES:
1 to 10KΩ $1.47
15K to 25KΩ 1.71
30K to 50KΩ 2.16

SERIES "A10" and "A10S" 4-WATT CONTROLS

"A10" is without switch, while "A10S" has factory-attached SPST switch. Also available with factory-assembled shaft at no extra charge, by omitting prefix "A" from catalog number. See above for examples. Controls with other than SPST switch are special. Price and information on request.



SERIES A10
(INDUSTRIAL)
SERIES 10

Without Switch Cat. No.	With SPST Switch Cat. No.	Res. Ohms
A10-1	A10S-1	1
A10-2	A10S-2	2
A10-4	A10S-4	4
A10-6	A10S-6	6
A10-10	A10S-10	10
A10-15	A10S-15	15
A10-20	A10S-20	20
A10-25	A10S-25	25
A10-30	A10S-30	30
A10-40	A10S-40	40
A10-50	A10S-50	50
A10-60	A10S-60	60
A10-75	A10S-75	75
A10-100	A10S-100	100
A10-200	A10S-200	200
A10-300	A10S-300	300
A10-400	A10S-400	400
A10-500	A10S-500	500
A10-750	A10S-750	750
A10-1,000	A10S-1,000	1,000
A10-1,500	A10S-1,500	1,500
A10-2,000	A10S-2,000	2,000
A10-2,250		2,250
A10-2,500	A10S-2,500	2,500
A10-3,000	A10S-3,000	3,000
A10-4,000	A10S-4,000	4,000
A10-5,000	A10S-5,000	5,000
A10-7,500	A10S-7,500	7,000
A10-10K	A10S-10K	10K
A10-15K	A10S-15K	15K
A10-20K	A10S-20K	20K
A10-25K	A10S-25K	25K
A10-30K	A10S-30K	30K
A10-40K	A10S-40K	40K
A10-50K	A10S-50K	50K
A10-75K	A10S-75K	75K
A10-100K	A10S-100K	100K

Standard Packing: 10 per Carton.

NET PRICES

(Without Switch)
1 to 10KΩ $1.35
15K to 25KΩ 1.59
30K to 50KΩ 2.01
75K to 100KΩ 2.46

(With SPST Switch)
1 to 10KΩ $1.89
15K to 25KΩ 2.10
30K to 50KΩ 2.55
75K to 100KΩ 2.97

*Reg. U. S. Pat. Off.

PRODUCTS OF
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CLAROSTAT®
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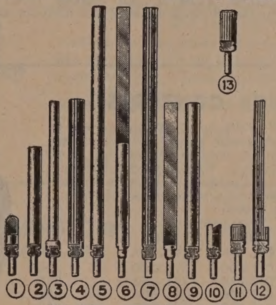
RESISTANCE DEVICES

SHAFTS FOR "PICK-A-SHAFT"* CONTROLS

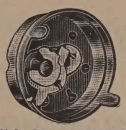
For use with all Clarostat "Pick-A-Shaft"* controls, either carbon or wire-wound. Your choice of shaft furnish with each control.



Net Price, Each Shaft $0.33

(1) SS-⅜" length—(Male) to take female fitting.
(2) RS-2 — Round shaft, 2" long.
(3) RS-3⁄16 — Round shaft 3⁄16" dia., 3" long.
(4) KSS-3—Knurled, split shaft, 3" long.
(5) RS-5—Round shaft, 5" long.
(6) FS-5—Flatted, 5" long.
(7) KSS-5—Knurled, split shaft, 5" long.
(8) FS-3 — Flatted shaft, 3" long.
(9) RS-3 — Round shaft, 3" long.
(10) DFS-½—Double flatted Philco Type, ½" long.
(11) FKS-¼—Fine knurled slotted shaft, ¼" long.
(12) KFS-3—Knurled flatted shaft, 3" long.
(13) FKS-½—Fine knurled slotted shaft, ½" long.

SERIES "SWE" SWITCHES FOR "AD-A-SWITCH"* CONTROLS



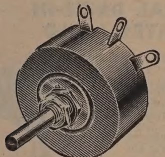
U.S. PAT. 2,642,506

For use with "A47" and "A47F" controls. Underwriters' Laboratories Inc. approved.

Cat. No.	Wiring	Net Price
SWE-12	S.P.S.T. — Single Pole Single Throw, 5A.-125V. A.C.	$0.45
SWE-13	S.P.S.T. — Single Pole Single Throw, 15A.-10V. D.C.	.66
SWE-20	D.P.S.T. — Double Pole Single Throw, 3A.-125V. A.C.	.51
SWE-21	Mod. D.P.S.T. one pole on, one off or with Jumper S.P.D.T., 3A.-125V. A.C.-D.C.	.51
SWE-23	D.P.S.T., 15A.-10V. D.C.	.66

(Mod. DPST has one pole "on', one pole "off" or with Jumper it is SPDT.)

Standard Packing: 10 per Carton.



POWER RHEOSTATS

Clarostat Power Rheostats maintain their full power rating at settings as low as one-third rotation without excessive temperature rise. Standard overall resistance tolerance plus/minus 10%. Closer tolerances are available upon special order.

AN Types (aircraft type) are basically the same units mechanically and electrically except that they are encased in a metal housing (versus ceramic). Terminals are screw type lugs to prevent corrosion. Approved under MIL-R-6749.

Units mount through a single hole, a locking pin is provided for rear panel mounting.

SERIES 25 — 25-WATT

Cat. No.	Total Res. Ohms	Net Price
25-1	1	$3.87
25-2	2	3.42
25-3	3	3.42
25-6	6	3.42
25-8	8	3.42
25-10	10	3.42
25-15	15	3.42
25-25	25	3.42
25-35	35	3.42
25-50	50	3.42
25-75	75	3.42
25-100	100	3.42
25-125	125	3.42
25-175	175	3.42
25-250	250	3.42
25-350	350	3.42
25-500	500	3.42
25-750	750	3.42
25-1,000	1,000	3.87
25-1,500	1,500	3.87
25-2,500	2,500	3.87
25-3,500	3,500	4.08
25-5,000	5,000	4.29

SERIES 50 — 50-WATT

Cat. No.	Total Res. Ohms	Net Price
50-0.5	0.5	$4.25
50-1	1	4.25
50-2	2	4.25
50-4	4	3.87
50-6	6	3.87
50-8	8	3.87
50-12	12	3.87
50-16	16	3.87
50-22	22	3.87
50-35	35	3.87
50-50	50	3.87
50-80	80	3.87
50-125	125	3.87
50-150	150	3.87
50-225	225	3.87
50-300	300	3.87
50-500	500	3.87
50-800	800	4.08
50-1,000	1,000	4.08
50-1,600	1,600	4.08
50-2,500	2,500	4.08
50-3,500	3,500	4.29
50-5,000	5,000	4.29
50-8,000	8,000	5.16
50-10K	10K	5.16

AN-3155-25** — 25 WATTS

Cat. No.	Total Res. Ohms	Net Price
AN-3155-25-10	10	$4.80
AN-3155-25-11	11	4.80
AN-3155-25-15	15	4.80
AN-3155-25-25	25	4.80
AN-3155-25-50	50	4.80
AN-3155-25-75	75	4.80
AN-3155-25-100	100	4.80
AN-3155-25-200	200	5.61

AN-3155-50** — 50 WATTS

AN-3155-50-5	5	5.61
AN-3155-50-8	8	5.61
AN-3155-50-10	10	5.61
AN-3155-50-25	25	5.46
AN-3155-50-30	30	5.46
AN-3155-50-50	50	5.46
AN-3155-50-75	75	5.46
AN-3155-50-100	100	5.46
AN-3155-50-150	150	6.12
AN-3155-50-200	200	6.12

Prices include AN-3220 — 2 knob

Standard Packing: Individual Carton.

**25 and 50 watt Power Rheostats when encased in metal housing are derated 50%

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PRODUCTS OF
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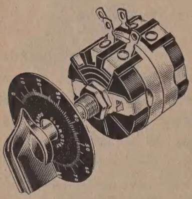
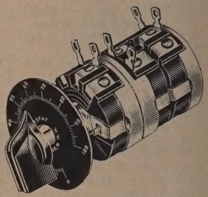
SOUND-SYSTEM CONTROLS

For proper control of volume and tone alike, Clarostat offers a choice of several controls, such as L- and T-pads, output attenuators, and individual-speaker volume controls as used for drive-in theatre installations. These are not ordinary radio controls but rather sound-system controls designed and built for critical requirements.



CONSTANT-IMPEDANCE CONTROLS

Self-compensating volume controls known as L-pads and T-pads for use in sound systems. Rated at 2½ watts DC, but will handle up to 10 watts audio. Continuous range from 0.5 to 30 decibels attenuation in 90% rotation. Last 10% affords infinite attenuation. With Clarostat constant-impedance L-pads and T-pads the input and output impedances of associated circuits can be kept within the limits of a constant required value. Knob and dial plate furnished with each control.



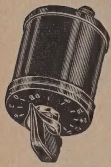
U. S. Pat. 2,434,248

CIT Cat. No.	CIL Cat. No.	Res. Ohms
CIT-4	CIL-4	4
CIT-6	CIL-6	6
CIT-8	CIL-8	8
CIT-15	CIL-15	15
CIT-50	CIL-50	50
CIT-100	CIL-100	100
CIT-200	CIL-200	200
CIT-250	CIL-250	250
CIT-500	CIL-500	500
CIT-600	CIL-600	600
CIT-1,000	CIL-1,000	1,000
CIT-2,000	CIL-2,000	2,000

CIT—NET PRICE $3.13 **CIL—NET PRICE $2.79**

Standard Packing: Individual Carton.

CONSTANT IMPEDANCE OUTPUT ATTENUATORS



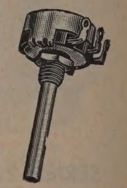
Series "CIB" rated at 10 watts, but will handle up to 30 watts in audio circuit. Linear attenuation provided in 3 decibel steps up to 24db, then 30db followed by infinity. Equipped with dial plate and bar knob. One-hole mounting, ⅜" bushing diameter. 1" shaft. This control has been developed to meet the need for a constant-impedance attenuator capable of handling considerable power without measurable insertion loss. Recommended as an output level control for power amplifiers, or as an input attenuator for individual or for a group of speakers in a public address system.

Cat. No.	Res. Ohms
CIB-6	6
CIB-8	8
CIB-15	15
CIB-50	50
CIB-200	200
CIB-250	250
CIB-500	500
CIB-600	600

NET PRICE $7.70

Standard Packing: Individual Carton.

SPECIAL DRIVE-IN THEATRE L-PAD



To meet the needs of theater sound systems, more especially those of drive-in theaters, a special 8 ohm L-Pad is now available, containing two separate windings of 5 ohms and 40 ohms. Also 50 ohm linear rheostat and 35 ohm tapered rheostat, as listed. Units have ⅜-32 bushing ⅜" long, and 1½" round shaft.

Cat. No. CM8727-1 8 ohm L-Pad
Net Price $1.80

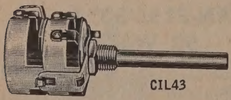
Cat. No. CM17083 50 ohm linear rheostat **Price $1.32**

Cat. No. CM17084 35 ohm tapered rheostat **Net Price $1.32**

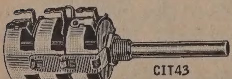
SPACE-SAVER CONSTANT-IMPEDANCE ATTENUATORS

Characterized by reduced depth and diameter, these attenuators are ideal for use in remote control of speakers since they are small enough to be installed in standard electrical boxes in the home, office, stockroom, etc.

These controls are rated 2 watts D.C., but will handle up to 4 watts of audio, depending upon the type signal being handled. (As the frequency becomes constant, wattage reduces to 2 watts or the same as the D.C. rating).



CIL43



CIT43

CIBT43

Cat. No. CIL43 (L-Pad)	Cat. No. CIT43 (T-Pad)	Cat. No. CIBT43 (Bridged T-Pad)	Impedance
CIL43-4	CIT43-4	CIBT43-4	4 ohms
CIL43-6	CIT43-6	CIBT43-6	6 ohms
CIL43-8	CIT43-8	CIBT43-8	8 ohms
CIL43-15	CIT43-15	CIBT43-15	15 ohms
CIL43-50	CIT43-50	CIBT43-50	50 ohms
CIL43-100	CIT43-100	CIBT43-100	100 ohms
CIL43-200	CIT43-200	CIBT43-200	200 ohms
CIL43-250	CIT43-250	CIBT43-250	250 ohms
CIL43-500	CIT43-500	CIBT43-500	500 ohms

NET PRICE CIL43 $2.79 **NET PRICE CIT43 $3.13**

NET PRICE CIBT43 $3.63

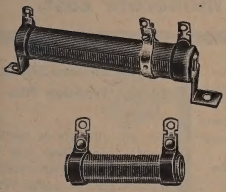
Standard Packing — Individual Carton

- Attenuation range of 0 to 30 db over 90% of rotation, 60 db in remaining 10% of rotation. Attenuation will increase approximately linearly to 30 db with counter-clockwise rotation.
- Insertion loss less than 0.5 db.
- Input impedance within plus/ minus 20%.
- The CIT43 and CIBT43 (Bridged T Pad) have constant input and output impedances, while the CIL43 has constant impedance in the input only.
- Shafts and bushings are insulated from the circuit elements.
- Pads have ⅜-32 x ⅜" long bushing.
- ¼" dia. round shafts 1½" long beyond bushing.
- All pads supplied with bar knob and dial plates, as shown above.
- Dia. 1⅛". Depth of body from mounting surface: CIL43 — 1 5/32"; CIT43 — 1¾"; CIBT43 — 1½".

© U.C.P.,

PRODUCTS OF
THE HOUSE OF RESISTORS®
CLAROSTAT®
RESISTORS • CONTROLS
RESISTANCE DEVICES

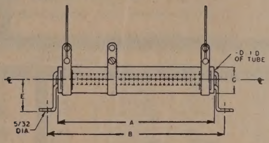
"GREENOHM"* WIRE-WOUND RESISTORS



FIXED TYPES Wire-wound resistors for most rugged applications. Will withstand tremendous overloads and temperature changes without alterating resistance values or appearance. Wire windings on high grade ceramic tubing and coated with special inorganic cement. In accordance with EIA standards, overall tolerances are ± 5% for resistors of 50 ohms and higher. For resistors of 49.9 ohms and lower, overall tolerances are ± 10%.

ADJUSTABLE TYPES Same electrically and mechanically as Fixed types, but incorporating sliding band or bands for tapping any desired resistance values. Slider band tightened by means of screw. In accordance with EIA standards, overall tolerances are ± 10%.

DIMENSIONS BY TYPES



SERIES	WATTS	A	B	C	D	E
PR-5-F	5	1	1-7/16	5/16	3/16	7/16
PR-10-F	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-10-FA	10	1-3/4	2-3/16	5/16	3/16	7/16
PR-20-K	20	2	2-1/2	9/16	3/8	9/16
P-25-K	25	2-1/2	3	9/16	3/8	9/16
P-25-KA	25	2-1/2	3	9/16	3/8	9/16

FIXED RESISTORS

5-WATT SERIES PR-5-F

These resistors conform to E1A specification for type RRW-125 and 128.

Ohms	Ohms	Ohms	Ohms
1	75	800	5,000
2	100	900	6,000
3	125	1,000	7,000
4	150	1,100	7,500
5	200	1,200	8,000
7.5	225	1,250	8,500
10	250	1,500	9,000
12	300	1,750	10K
15	350	2,000	
20	400	2,250	
25	450	2,500	
30	500	3,000	
35	600	3,500	
40	700	4,000	
50	750	4,500	

NET PRICE $0.33
Standard Packing — 10 per Carton.
Mounting brackets supplied at extra cost.

25-WATT SERIES P-25-K

Ohms	Ohms	Ohms	Ohms
1	750	10K	
2	800	12K	
3	1,000	15K	
5	1,250	20K	
7.5	1,500	25K	
10	2,000	30K	
15	2,250	35K	
20	2,500	40K	
25	3,000	45K	
50	3,500	50K	
75	4,000	60K	
100	4,500	70K	
150	5,000	75K	
200	6,000	80K	
250	7,000	85K	
300	7,500	90K	
400	8,000	100K	
500	9,000		

NET PRICES:

1 ohm to 5,000	$0.51
6,000 to 15K ohms	.57
20K to 50K ohms	.66
60K ohms	.75
70K ohms	.84
75K ohms	.87
80K ohms	.90
85K ohms	.99
90K ohms	1.05
100K ohms	1.17

Mounting brackets at no extra cost.
Standard Packing — Individually Boxed.

10-WATT SERIES PR-10-F

These resistors conform to military specifications for type RW29, and E1A type RRW-126 and 129.

Ohms	Ohms	Ohms	Ohms
1	200	2,000	14.5K
2	225	2,250	15K
3	250	2,500	16K
4	300	3,000	17.5K
5	350	3,500	18K
7.5	400	4,000	20K
10	450	4,500	22.5K
12	500	5,000	25K
15	600	6,000	30K
20	700	7,000	35K
25	750	7,500	40K
30	800	8,000	50K
35	900	8,500	
40	1,000	9,000	
50	1,100	10K	
75	1,200	11K	
100	1,250	12K	
125	1,500	12.5K	
150	1,750	13.5K	

NET PRICE $0.36

Mounting brackets supplied at extra cost.
Standard Packing — 10 per Carton.

20-WATT SERIES PR-20-K

These resistors conform to E1A specifications for type RRW-127.

Ohms	Ohms	Ohms	Ohms
5	850	7,000	70K
10	1,000	7,500	75K
25	1,200	8,000	80K
50	1,250	9,000	85K
75	1,500	10K	90K
100	1,750	12.5K	95K
150	1,850	15K	100K
200	2,000	20K	
250	2,250	25K	
300	2,500	30K	
350	2,750	35K	
400	3,000	40K	
500	3,500	45K	
650	4,000	50K	
700	4,500	55K	
750	5,000	60K	
800	6,000	65K	

NET PRICES:

5 ohms to 15K ohms	$0.42
20K to 50K ohms	.57
55K to 100K ohms	.72

Mounting brackets supplied at extra cost.
Standard Packing — 5 per Carton.

ADJUSTABLE RESISTORS

These resistors conform to military specification for type RW-29 and E1A specification for type RRW-226.

10-WATT SERIES PR-10-FA

Res.	Res.	Res.	Res.
1	75	750	4,000
2	100	800	4,500
3	150	1,000	5,000
5	200	1,250	6,000
7.5	250	1,500	7,000
10	300	2,000	7,500
15	350	2,250	8,000
20	400	2,500	8,500
25	500	3,000	9,000
50	600	3,500	10K

NET PRICE $0.57

25-WATT SERIES P-25-KA

Res.	Res.	Res.	Res.
1	75	1,000	5,000
2	100	1,250	6,000
3	150	1,500	7,000
5	200	2,000	7,500
7.5	250	2,250	8,000
10	300	2,500	9,000
15	400	3,000	10K
20	500	3,500	12K
25	750	4,000	15K
50	800	4,500	20K
			25K
			50K

NET PRICES:

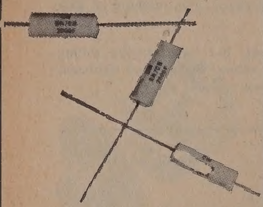
1 ohm to 5,000 ohms	$0.63
6,000 to 15K ohms	.72
20K to 25K ohms	.84
50K ohms	.99

Above adjustable resistors supplied with mounting brackets at no extra cost. Extra slider bands — 30¢ each. Standard Packing — individually boxed.

CONTINENTAL WIRT

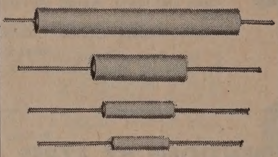
Precision Film Resistors, Potentiometers, Wire Wound Resistors, Spark Suppressors, Carbon Resistors and Specialties.

There's long life and superior performance behind every C-W component — meeting highest quality and reliability standards at a moderate cost.



Molded Deposited Carbon Precision Film Resistors

C-W molded carbon film resistors are designed and manufactured to meet or exceed performance requirements of MIL-R-10509D. Available: ⅛ W. thru 1 W.; 10 ohms thru 50 megohms. Request Bulletin 2023-61.

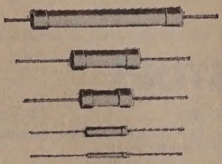


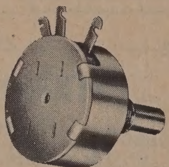
Ceramic Encased Deposited Carbon Precision Film Resistors.

For the ultimate in environmental protection, C-W deposited carbon film resistors are encased in a non-hydroscopic ceramic tube, and sealed with high temperature solder. Available: ¼ W. thru 2 W.; 10 ohms thru 50 megohms. Request Bulletin 307-A-60.

Coated Deposited Carbon Precision Film Resistors

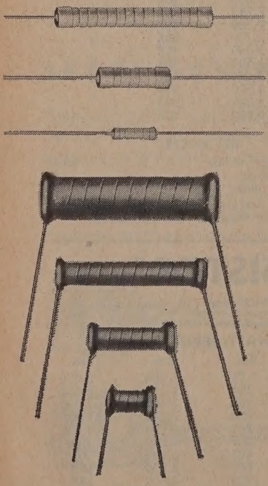
C-W coated deposited carbon film resistors — while being designed and manufactured to meet or exceed characteristic "X" requirements of MIL-R-10509, are more modestly priced than molded resistors. Available: ¼ W. thru 2 W; 10 ohms thru 50 megohms. Request Bulletin 307-A-60.





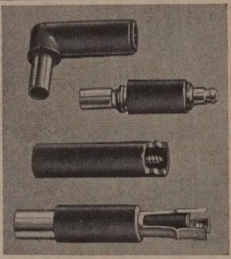
Wire-Wound Potentiometers

Available in wattage ratings from 2 thru 5, with conventional single element or dual element for "L" pad and similar applications. Shafts, bushings, mounting hardware, and other features available to meet your specific requirements. Request Bulletin 2009 and Drawing F-889.



Nobeloy and Nobelette Metal Film Precision Resistors

For applications where fine precision and good stability must be complemented with low extremes in resistance range, or, low noise characteristics, at a moderate cost. Metallic resistance element deposited on low loss ceramic core, is protected by rugged vitreous enamel coating. Available: ½ W. thru 5 W.; less than 1 ohm thru 15 megohms. Request Bulletin 302-60.

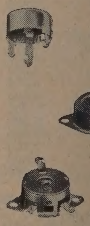


Automotive and Oil Burner Spark Suppressors

For suppression of radio and television noise interference due to ignition spark discharge at plugs and high tension distributor; and due to ignition discharge action of oil burner igniting coil. Complete line of resistive type suppressors. Request Bulletin 125-61.

Trimmer Controls

Two Watt with screwdriver slot for convenient adjustment in trimming and balancing circuits. Insulated or ground rotor; printed circuit board snap-to-chassis or rivet-to-chassis mounting. Moderately priced. Resistance range to 10,000 ohms. Request Bulletin 2009, and Drawings E-850, E-860, E-870, and E-818.



Your C-W distributor can supply prices, and bulletins mentioned above — also details on the convenient RESIST-O-FILE stocking plan for composition resistors.

CONTINENTAL WIRT

CONTINENTAL WIRT-ELECTRONICS CORP.
Philadelphia, Pa.

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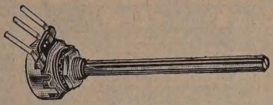
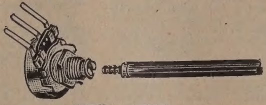
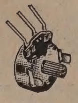
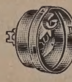
Centralab. Controls and Accessories

UNIVERSAL SHAFT AND ADASHAFT® CONTROLS


"B" Control


"AB" and Shaft


"TT"


"KR"

MODELS "B" AND "AB" CONTROLS

Model B and AB controls are rated at ½ watt. **Size:** 15/16" diameter, 7/16" deep. **Breakdown:** 900 v. AC rms to ground. **Mounting:** ⅜" long ⅜"-32 thread bushing; equipped with mounting nut. Any model converts easily to switch type by merely snapping on "KR" switch. **Model B Shaft:** ¼" diam. x 3⅜" long from mtg. surface. Universal fluted knurled type; fits split knurl, shallow flat, deep flat, slotted, or round applications. **Model AB Shaft:** Patented stub, screwdriver slot shaft 5/16" long from mtg. surface. Use as is, or extended, using AK shafts.

CRL Type "B" Plain Control—Any model. Net Each.... **$1.02**

CRL Type "AB" Plain Control—Any model. Net Each..... **84c**

PLAIN "B" AND "AB" CONTROLS

Ohms	Taper	Specify No. B- or AB-	Ohms	Taper	Specify No. B- or AB-
100	C-1	**1**	100,000	C-1	**40**
200	C-1	**2**	100,000	C-2	**41**
500	C-1	**4**	150,000	C-1	**43**
750	C-5	**415**	150,000	C-2	**44**
1,000	C-1	**5**	200,000	C-1	**46**
1,000	C-5	**505**	250,000	C-1	**50**
1,500	C-5	**515**	250,000	C-2	**51**
2,000	C-1	**6**	250,000	C-5	**52**
2,500	C-1	**7**	500,000	C-1	**59**
2,500	C-2	**702**	500,000	C-2	**60**
2,500	C-5	**705**	500,000	C-3	**613**
3,000	C-1	**8**	500,000	C-4	**58**
4,000	C-1	**9**	500,000	C-5	**61**
5,000	C-1	**10**	500,000	C-6	**616**
5,000	C-2	**11**	500,000	C-7	**617**
5,000	C-5	**12**	750,000	C-1	**66**
7,500	C-1	**13**	1 meg.	C-1	**69**
10,000	C-1	**14**	1 meg.	C-2	**70**
10,000	C-2	**15**	1 meg.	C-4	**744**
10,000	C-4	**18**	1 meg.	C-5	**68**
10,000	C-5	**17**	1 meg.	C-7	**697**
10,000	C-6	**16**	1.5 meg.	C-1	**742**
15,000	C-5	**19**	2 meg.	C-1	**75**
15,000	C-6	**20**	2 meg.	C-2	**76**
20,000	C-1	**22**	2 meg.	C-5	**77**
20,000	C-5	**23**	2.5 meg.	C-1	**83**
20,000	C-6	**24**	3 meg.	C-1	**84**
25,000	C-1	**26**	3 meg.	C-2	**85**
25,000	C-2	**25**	3 meg.	C-5	**855**
25,000	C-4	**29**	4 meg.	C-1	**86**
25,000	C-5	**27**	4 meg.	C-2	**862**
25,000	C-6	**28**	5 meg.	C-1	**87**
50,000	C-1	**31**	5 meg.	C-2	**88**
50,000	C-2	**32**	7 meg.	C-7	**89**
50,000	C-5	**34**	7.5 meg.	C-1	**90**
75,000	C-1	**35**	10 meg.	C-1	**98**
75,000	C-5	**36**			

MODEL "B" SWITCH-TYPE CONTROLS

Universal DPST switch type units.

CRL No.	Max. Ohms	Taper	Use For	Net Ea.
B-60-S	½ Meg.	C2	SPST, DPST or 3-wire	**$1.44**
B-70-S	1 Meg.	C2	SPST, DPST or 3-wire	**1.44**

SINGLE TAPPED "B" CONTROLS

Ohms	Taper	Tap	CRL No.	Net Each
50,000	C-11	25K	**BT-33**	**$1.35**
100,000	C-11	50K	**BT-39**	**1.35**
200,000	C-11	100K	**BT-47**	**1.35**
250,000	C-11	125K	**BT-53**	**1.35**
250,000	C-12	50K	**BT-54**	**1.35**
250,000	C-13	75K	**BT-55**	**1.35**
250,000	C-16	125K*	**BT-56**	**1.35**
350,000	C-12	70K	**BT-57**	**1.35**
½ meg.	C-11	250K	**BT-65**	**1.35**
½ meg.	C-12	100K	**BT-66**	**1.35**
½ meg.	C-13	150K	**BT-67**	**1.35**
½ meg.	C-15	50K†	**BT-63**	**1.35**
½ meg.	C-16	250K*	**BT-64**	**1.35**
½ meg.	C-17	50K‡	**BT-62**	**1.35**
1 meg.	C-11	500K	**BT-71**	**1.35**
1 meg.	C-12	200K	**BT-72**	**1.35**
1 meg.	C-13	300K	**BT-73**	**1.35**
1 meg.	C-16	500K*	**BT-74**	**1.35**
1 meg.	C-17	100K	**BT-7417**	**1.35**
2 meg.	C-11	1 meg.	**BT-78**	**1.35**
2 meg.	C-12	400K	**BT-79**	**1.35**
2 meg.	C-13	600K	**BT-80**	**1.35**
2 meg.	C-15	200K	**BT-81**	**1.35**
2 meg.	C-16	1 meg.*	**BT-82**	**1.35**
3 meg.	C-15	300K†	**BT-8515**	**1.35**
3 meg.	C-17	300K‡	**BT-8517**	**1.35**

*62½% rotation. †50% rotation. ‡37½% rotation.

SINGLE TAPPED "AB" CONTROLS

Ohms	Taper	Tap	CRL No	Net Each
50,000	C-11	25K	**ABT-33**	**$1.26**
100,000	C-11	50K	**ABT-39**	**1.26**
200,000	C-11	100K	**ABT-47**	**1.26**
250,000	C-11	125K	**ABT-53**	**1.26**
250,000	C-12	50K	**ABT-54**	**1.26**
250,000	C-13	75K	**ABT-55**	**1.26**
250,000	C-16	125K*	**ABT-56**	**1.26**
350,000	C-12	70K	**ABT-57**	**1.26**
½ meg.	C-11	250K	**ABT-65**	**1.26**
½ meg.	C-12	100K	**ABT-66**	**1.26**
½ meg.	C-13	150K	**ABT-67**	**1.26**
½ meg.	C-15	50K†	**ABT-63**	**1.26**
½ meg.	C-16	250K*	**ABT-64**	**1.26**
½ meg.	C-17	50K‡	**ABT-62**	**1.26**
1 meg.	C-11	500K	**ABT-71**	**1.26**
1 meg.	C-12	200K	**ABT-72**	**1.26**
1 meg.	C-13	300K	**ABT-73**	**1.26**
1 meg.	C-16	500K*	**ABT-74**	**1.26**
1 meg.	C-17	100K	**ABT-7417**	**1.26**
2 meg.	C-11	1 meg.	**ABT-78**	**1.26**
2 meg.	C-12	400K	**ABT-79**	**1.26**
2 meg.	C-13	600K	**ABT-80**	**1.26**
2 meg.	C-15	200K	**ABT-81**	**1.26**
2 meg.	C-16	1 meg.*	**ABT-82**	**1.26**
3 meg.	C-15	300K†	**ABT-8515**	**1.26**
3 meg.	C-17	300K‡	**ABT-8517**	**1.26**

*62½% rotation. †50% rotation. ‡37½% rotation.

DUAL TAPPED "B" AND "AB" CONTROLS

Ohms	Taps	Type B		Type AB	
		CRL No.	Net Ea.	CRL No.	Net Ea.
15,000	Taps 5K and 10K	**BT-154**	**$1.35**	**ABT-154**	**$1.26**
250,000	Taps 50K and 125K	**BT-155**	**1.35**	**ABT-155**	**1.26**
250,000	Taps 41K and 82K	**BT-156**	**1.35**	**ABT-156**	**1.26**
½ Meg.	Taps .82K and 165K	**BT-159**	**1.35**	**ABT-159**	**1.26**
½ Meg.	Taps 100K and 250K	**BT-160**	**1.35**	**ABT-160**	**1.26**
1 Meg.	Taps 165K and 330K	**BT-164**	**1.35**	**ABT-164**	**1.26**
1 Meg.	Taps 200K and 500K	**BT-165**	**1.35**	**ABT-165**	**1.26**
1.5 Meg.	Taps 250K and 500K	**BT-167**	**1.35**	**ABT-167**	**1.26**
2 Meg.	Taps 250K and 500K	**BT-174**	**1.35**	**ABT-174**	**1.26**
2 Meg.	Taps 400K and 1 Meg.	**BT-175**	**1.35**	**ABT-175**	**1.26**
2.5 Meg.	Taps 300K and 625K	**BT-176**	**1.35**	**ABT-176**	**1.26**
3.3 Meg.	Taps 330K and 1650K	**BT-180**	**1.35**	**ABT-180**	**1.26**

MODEL "TT" TWIST TAB* CONTROLS

Ideal for rear service adjust TV controls and other shock hazard uses. Features U/L Approved phenolic shaft, ⅜" long from mtg. surface, knurled full length; screwdriver slotted end. Composition element rated ½ watt; 15/16" dia. x 7/16" d. Breakdown, 900 v. AC rms to ground. Includes 2" polyethylene shaft extension. Shipping Weight, 2 oz.

*Trademark

CRL No.	Ohms	Taper	Net Each	CRL No.	Ohms	Taper	Net Each
TT-2	200	C-1	**60c**	**TT-59**	500K	C-1	**60c**
TT-4	500	C-1	**60c**	**TT-60**	500K	C-2	**60c**
TT-411	750	C-1	**60c**	**TT-66**	750K	C-1	**60c**
TT-511	1500	C-1	**60c**	**TT-69**	1 meg.	C-1	**60c**
TT-8	3000	C-1	**60c**	**TT-70**	1 meg.	C-2	**60c**
TT-10	5000	C-1	**60c**	**TT-742**	1.5 meg.	C-1	**60c**
TT-14	10K	C-1	**60c**	**TT-75**	2 meg.	C-1	**60c**
TT-26	25K	C-1	**60c**	**TT-83**	2.5 meg.	C-1	**60c**
TT-31	50K	C-1	**60c**	**TT-84**	3 meg.	C-1	**60c**
TT-35	75K	C-1	**60c**	**TT-86**	4 meg.	C-1	**60c**
TT-40	100K	C-1	**60c**	**TT-87**	5 meg.	C-1	**60c**
TT-46	200K	C-1	**60c**	**TT-90**	7.5 meg.	C-1	**60c**
TT-50	250K	C-1	**60c**				

TYPE "KR" FASTATCH® SWITCHES

For use with Models A, AB and SR controls.

125 v. AC Switches				10 v. DC Switches			
CRL No.	Use	Amps	Net Ea.	CRL No.	Use	Amps	Net Ea.
KR-1	SPST	5	**42c**	**KR-4**	SPST	15	**66c**
KR-2	DPST	3	**51c**	**KR-6†**	SPST	15	**66c**
KR-3	DP*	3	**51c**	**KR-7**	DPST	15	**66c**

*One pole "off", one "on"; jumper for SPDT. †With dummy lug.

REPLACEMENT AC LINE SWITCHES

Used primarily as replacement switches for factory assembled switch type controls, not of Centralab manufacture. Rated 3 amps, 125 v. AC.

CRL No.	Switching	Net Each	CRL No.	Switching	Net Each
SP-2	DPST	**90c**	**SP-3**	SPST	**60c**

SWITCH SHIELDS

For use with switch type units only where AC shielding is needed or specified by Underwriter's Lab.

CRL No. KR-5—Net Package of 5...................... **72c**

Centralab Controls and Accessories

FASTATCH® II PLAIN TYPE CONTROLS

Complete exact replacement control coverage for dual concentric single or tandem twins. Snap together assembly, with snap in, permanent locking shafts. Controls are carbon, ½ watt, 15/16″ dia. Rear control ⅞″ deep. Front control 7/16″ deep, bushing mtd. ¼″ l. x .32 thd. Supplied with mtg. nut and universal terminals replacing printed circuit, wire-wrap and hole type terminals. Shafts and switches not included. Anti-backlash construction on duals and twins.

CRL Fastatch® II Dual Controls—Front or rear unit plain. Net Each........**90c**

Number preceding dash (-) indicates taper (see next page for description of tapers). Number after dash (-) indicates number of ohms in resistance.

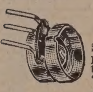
CRL No.		CRL No.		CRL No.	
Front Unit	Rear Unit	Front Unit	Rear Unit	Front Unit	Rear Unit
F1-100	R1-100	F5-10K	R5-10K	F1-1MEG	R1-1MEG
F1-200	....	F1-15K	....	F2-1MEG	R2-1MEG
F1-300	....	F1-25K	R1-25K	F3-1MEG	R3-1MEG
F1-500	R1-500	F2-25K	R2-25K	F7-1MEG	R7-1MEG
F4-500	....	F1-50K	R1-50K	F1-1.5MEG	R1-1.5MEG
F5-500	....	F2-50K	R2-50K	F1-2MEG	R1-2MEG
F1-750	....	F3-50K	R3-50K	F2-2MEG	R2-2MEG
F5-750	R5-750	F1-75K	R1-75K	F3-2MEG	R3-2MEG
F1-1000	R1-1000	F1-100K	R1-100K	F7-2MEG	R7-2MEG
F5-1000	R5-1000	F2-100K	R2-100K	F1-2.5MEG	R1-2.5MEG
F1-1500	R1-1500	F3-100K	R3-100K	F1-3MEG	R1-3MEG
F5-1500	R5-1500	F1-150K	R1-150K	F2-3MEG	R2-3MEG
F1-2500	R1-2500	F1-200K	R1-200K	F3-3MEG	R3-3MEG
F2-2500	....	F1-250K	R1-250K	F1-4MEG	....
F5-2500	R5-2500	F2-250K	R2-250K	F1-5MEG	R1-5MEG
F1-5000	R1-5000	F3-250K	R3-250K	F2-5MEG	R2-5MEG
F2-5000	R2-5000	F1-500K	R1-500K	F3-5MEG	R3-5MEG
F5-5000	....	F2-500K	R2-500K	F7-5MEG	R7-5MEG
F1-7500	R1-7500	F3-500K	R3-500K	F1-7.5MEG	R1-7.5MEG
F1-10K	R1-10K	F7-500K	R7-500K	F1-10MEG	R1-10MEG
F2-10K	R2-10K	F1-750K	R1-750K	....	....

CRL Fastatch® II Single Tap Controls—Net Each.....**$1.26**

CRL No.			CRL No.		
Front Unit	Rear Unit	Tap	Front Unit	Rear Unit	Tap
F51-750	....	500	F11-1MEG	R11-1MEG	500K
F51-2000	....	1500	F12-1MEG	R12-1MEG	200K
F52-2500	....	625	F14-1MEG	R14-1MEG	300K
F51-30K	....	20K	F16-1MEG	R16-1MEG	500K
F53-30K	....	10K	F17-1MEG	R17-1MEG	100K
F11-250K	R11-250K	125K	F11-2MEG	R11-2MEG	1 meg.
F14-250K	R14-250K	75K	F12-2MEG	R12-2MEG	400K
F16-250K	R16-250K	125K	F14-2MEG	R14-2MEG	600K
F11-500K	R11-500K	250K	F16-2MEG	R16-2MEG	1 meg.
F12-500K	R12-500K	100K	F17-2MEG	R17-2MEG	200K
F14-500K	R14-500K	150K	F16-3MEG	R16-3MEG	1.5 meg.
F16-500K	R16-500K	250K	F54-3MEG	R54-3MEG	900K
F17-500K	R17-500K	50K	....	....	....

CRL Fastatch® II Dual Tap Controls—Net Each......**$1.26**

Front Unit	Rear Unit	Taps, Ohms
F55-15K	....	5K and 10K
F56-500K	R56-500K	100K and 250K
F55-1MEG	R55-1MEG	350K and 620K
F56-1MEG	R56-1MEG	200K and 500K
F57-1.5MEG	R57-1.5MEG	250K and 500K
F56-2MEG	R56-2MEG	400K and 1 meg.
F58-2MEG	R58-2MEG	250K and 500K
F59-3.3MEG	R59-3.3MEG	330K and 1650K



MODELS "SR" AND "STR" ADD-ON CONTROLS

Snap-on rear units added to "B" or "AB" controls provide ganged twin controls for stereo applications. Convert to switch type by using snap-on "KR" Fastatch switches.

MODEL STR TAPPED CONTROLS

CRL No.	Ohms	Taper, Tap	CRL No.	Ohms	Taper, Tap	Net Each
STR-53	250K	C-11, 125K	STR-82	2 meg.	C-16, 1 meg.	$1.14
STR-56	250K	C-16, 125K	STR-159	500K	82K & 165K	1.14
STR-65	500K	C-11, 250K	STR-160	500K	100K & 250K	1.14
STR-66	500K	C-12, 100K	STR-167	1.5 meg.	250K & 500K	1.14
STR-64	500K	C-16, 250K	STR-174	2 meg.	250K & 500K	1.14
STR-71	1 meg.	C-11, 500K	STR-175	2 meg.	400K & 1 meg.	1.14
STR-74	1 meg.	C-16, 500K	STR-180	3.3 meg.	330K & 1650K	1.14

MODEL SR PLAIN CONTROLS

CRL No.	Ohms	Taper	Net Each	CRL No.	Ohms	Taper	Net Each
SR-4	500	C-1	$1.14	SR-59	500K	C-1	$1.14
SR-6	2000	C-1	1.14	SR-60	500K	C-2	1.14
SR-13	7500	C-1	1.14	SR-613	500K	C-3	1.14
SR-26	25K	C-1	1.14	SR-58	500K	C-4	1.14
SR-25	25K	C-2	1.14	SR-617	500K	C-7	1.14
SR-31	50K	C-1	1.14	SR-69	1 meg.	C-1	1.14
SR-32	50K	C-2	1.14	SR-70	1 meg.	C-2	1.14
SR-323	50K	C-3	1.14	SR-68	1 meg.	C-5	1.14
SR-40	100K	C-1	1.14	SR-75	2 meg.	C-1	1.14
SR-41	100K	C-2	1.14	SR-76	2 meg.	C-2	1.14
SR-42	100K	C-3	1.14	SR-84	3 meg.	C-1	1.14
SR-50	250K	C-1	1.14	SR-85	3 meg.	C-2	1.14
SR-51	250K	C-2	1.14	SR-87	5 meg.	C-1	1.14
SR-513	250K	C-3	1.14	SR-88	5 meg.	C-2	1.14

FASTATCH® II SHAFTS

Front (sleeve): FFS—Flatted and slotted; **FS**—Double slot; **FK**—Knurled; **FU**—Universal, flatted and slotted.

Any Model—Net Each........**27c**

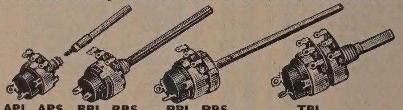
CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
FFS008	.5	FFS106	1.375	FFS204	2.250	FFS304	3.250	FS109	1.562
FFS009	.562	FFS107	1.437	FFS205	2.312	FFS306	3.375	FS113	1.812
FFS010	.625	FFS108	1.5	FFS206	2.375	FFS308	3.500	FS200	2.000
FFS011	.687	FFS109	1.562	FFS207	2.437	FFS310	3.625	FS204	2.250
FFS012	.750	FFS110	1.625	FFS208	2.500	FFS312	3.750	FS212	2.750
FFS013	.812	FFS111	1.687	FFS209	2.562	FFS314	3.875	FK008	.500
FFS014	.875	FFS112	1.75	FFS210	2.625	FFS400	4.000	FK010	.625
FFS015	.937	FFS113	1.812	FFS211	2.687	FFS402	4.125	FK013	.812
FFS100	1.000	FFS114	1.875	FFS212	2.750	FFS404	4.250	FK101	1.062
FFS101	1.062	FFS115	1.937	FFS213	2.812	FS006	.375	FK105	1.312
FFS102	1.125	FFS200	2.000	FFS214	2.875	FS010	.625	FK112	1.750
FFS103	1.187	FFS201	2.062	FFS215	2.937	FS015	.937	FU404	4.250
FFS104	1.250	FFS202	2.125	FFS300	3.000	FS101	1.062		
FFS105	1.312	FFS203	2.187	FFS302	3.125	FS107	1.437		

Rear (inner shaft): RFS—Flatted and slotted; **RK**—Knurled; **RU**—Universal. Single Controls (solid shaft): **SS**—Slotted, .25″ dia., steel; **SN**—Same as SS, nylon; **SK**—Slotted and knurled, .25″ dia., steel; **SFS**—Flatted and slotted, .187″ dia., steel; **SU**—Universal, steel. Tandem Twin (solid shaft, .187″ dia.): **TU**—Universal, steel; **TFS**—Flatted and slotted.

Any Model—Net Each........**27c**

No. RFS	Lgth. In.	No. RFS	Lgth. In.	No. RFS	Lgth. In.	CRL No.	Lgth. In.	CRL No.	Lgth. In.
014	.875	112	1.750	210	2.625	RFS311	3.687	RK203	2.187
015	.937	113	1.812	211	2.687	RFS314	3.875	RK205	2.312
100	1.000	114	1.875	212	2.750	RFS400	4.000	RK206	2.375
101	1.062	115	1.937	213	2.812	RFS404	4.250	RK207	2.437
102	1.125	200	2.000	214	2.875	RFS407	4.437	RU413	4.812
103	1.187	201	2.062	215	2.937	RFS413	4.812	SFS212	2.75
104	1.250	202	2.125	300	3.000	RK012	.750	SK010	.625
105	1.312	203	2.187	301	3.062	RK014	.875	SN010	.625
106	1.375	204	2.250	302	3.125	RK100	1.000	SS006	.375
107	1.437	205	2.312	303	3.187	RK104	1.250	SS008	.500
108	1.500	206	2.375	304	3.250	RK106	1.375	SU204	2.250
109	1.562	207	2.437	306	3.375	RK109	1.562	SU500	5.000
110	1.625	208	2.500	307	3.437	RK110	1.625	TU304	3.250
111	1.687	209	2.562	309	3.562	RK114	1.875	TFS212	2.750

PUSH-PULL, PUSH-PUSH SWITCH CONTROLS



Switch type controls for radio, TV and hi-fi applications. Rated ½ watt; breakdown 900 v. AC rms to ground. Switch rated 3 amps, 125 v. AC; SPST type. Size: 15/16″ dia. x 19/32″ deep, push-push type; 13/16″ deep, push-pull type. Mount using ⅜″ lg. x ⅜″-32 threaded bushing with mounting nut except Fastatch types RPL and RPS.

ADASHAFT® TYPE

Any Model..........**$1.44**

Resis., Ohms	Taper	CRL Number	
		Push-Pull	Push-Push
2500	C2	APL-702	....
250K	C2	....	APS-51
500K	C1	APL-59	....
500K	C2	APL-60	....
500K	*	APL-91	....
500K	†	APL-64	....
500K	‡	APL-159	....
1 meg.	C2	APL-70	....
1 meg.	C7	APL-697	APS-697
1 meg.	*	APL-72	....
1 meg.	§	APL-74	....
2 meg.	C2	APL-76	APS-76
2 meg.	#	APL-82	....

UNIVERSAL SHAFT

Any Model—Net Each.**$1.53**

Resis., Ohms	Taper	CRL Number	
		Push-Pull	Push-Push
2500	C2	BPL-702	....
250K	C2	....	BPS-51
500K	C1	BPL-59	....
500K	C2	BPL-60	....
500K	*	BPL-91	....
500K	†	BPL-64	....
500K	‡	BPL-159	....
1 meg.	C2	BPL-70	....
1 meg.	C7	BPL-697	BPS-697
1 meg.	*	BPL-72	....
1 meg.	§	BPL-74	....
2 meg.	C2	BPL-76	BPS-76
2 meg.	#	BPL-82	....

*37% tap, 200K. †62% tap, 250K. ‡37% tap, 82K; 62% tap, 165K. §62% tap, 500K. #62% tap, 1 meg.

FASTATCH® TYPE

Any Model—Net Each.**$1.74**

Resis., Ohms	Taper	CRL Number	
		Push-Pull	Push-Push
500K	C2	RPL-41	....
500K	†	RPL-44	....
500K	‡	RPL-46	....
1 meg.	C2	RPL-52	RPS-52
1 meg.	§	RPL-57	RPS-57
2 meg.	C1	RPL-67	RPS-67
2 meg.	C2	RPL-68	RPS-68
2 meg.	#	RPL-75	RPS-75
3 meg.	•	RPL-80	....

TWIN TYPE

Any Model—Net Each.**$2.67**

Resis., Ohms	Taper	Taps	CRL No. Push-Pull
250K	...	88K, 155K	TPL-101
500K	C1	....	TPL-102
500K	...	82K, 165K	TPL-103
1 meg.	C1	....	TPL-104
1 meg.	C2	....	TPL-105
5 meg.	C2	....	TPL-106
500K	*	....	TPL-107

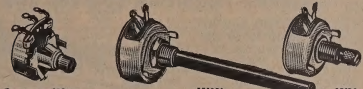
*Front, C2; rear, C3. †37% tap, 100K. ‡62% tap, 250K. §37% tap, 200K. #62% tap, 1 meg. •62% tap, 1.5 meg.

5-WATT WIRE-WOUND FRONT SECTION CONTROLS

5-Watt WW Fastatch Front Units—Taper, C-1, 1⅜″ diameter. Net Each.......... **$\$1^{35}$**

CRL No.	Max. Ohms	CRL No.	Max. Ohms	CRL No.	Max. Ohms
F7-50	250	F7-68	1000	F7-82	2500
F7-53	300	F7-72	1500	F7-85	3000
F7-59	500	F7-75	2000	F7-90	5000
F7-65	750	F7-78	2250	F7-96	10000

Centralab. Controls and Accessories



Composition WW WN

SNAP-TITE* COMPOSITION CONTROLS

For hidden or rear TV controls, rated ½ watt. Installs simply: Push into mounting hole, turn until locating lugs fit in holes provided; may be used where no locating lugs are needed. Size: ⁵⁄₁₆" diam. x ⁷⁄₁₆" deep. ¼" diam. molded plastic shaft ½" long, knurled and slotted. *Trade Mark.

CRL No.	Max. Ohms	Taper	Net Each	CRL No·	Max. Ohms	Taper	Net Each
BX-10	5,000	C1	**51c**	**BX-69**	1 meg.	C1	**51c**
BX-31	50K	C1	**51c**	**BX-742**	1.5 meg.	C1	**51c**
BX-40	100K	C1	**51c**	**BX-75**	2 meg.	C1	**51c**
BX-46	200K	C1	**51c**	**BX-83**	2.5 meg.	C1	**51c**
BX-59	500K	C1	**51c**	**BX-84**	3 meg.	C1	**51c**

5-WATT WIRE-WOUND CONTROLS

New design packs 5-watt capacity into a 2-watt size unit: 1³⁄₃₂" dia. x ⁹⁄₁₆" deep. Model WW has full round aluminum shaft ¼" dia. x 3" long. Model WN has fingertip knurled, slotted shaft ¼" dia. x ¾" long. Specify by using WN or WW as prefix.

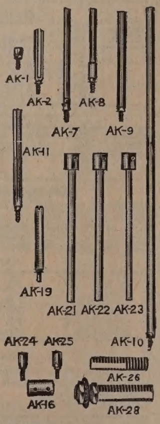
CRL Type WW or WN—1 through 15K ohms. Net Each. . **$1.14**
CRL Type WW or WN—20K through 30K ohms. Net. . . **1.50**
CRL Type WW or WN—40K or 50K ohms. Net Each. . . **1.80**
CRL Type WW or WN—75K or 100K ohms. Net Each. . **2.46**

Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-	Ohms	CRL No. WW- or WN-
1	**010**	25	**250**	400	**401**	7500	**752**
2	**020**	30	**300**	500	**501**	10K	**103**
3	**030**	40	**400**	750	**751**	15K	**153**
4	**040**	50	**500**	1000	**102**	20K	**203**
5	**050**	60	**600**	1500	**152**	25K	**253**
6	**060**	75	**750**	2000	**202**	30K	**303**
8	**080**	100	**101**	2500	**252**	40K	**403**
10	**100**	200	**201**	3000	**302**	50K	**503**
15	**150**	250	**251**	4000	**402**	75K	**753**
20	**200**	300	**301**	5000	**502**	100K	**104**

ADASHAFT® SHAFTS, COUPLERS, EXTENSIONS

CRL No.	Description	Net Pkg. 5
AK-1	⅜" L., screw slot	**$0.90**
AK-2	1⁹⁄₁₆" L., slot .078" W.	**.90**
AK-7	3" L., flat side .156"	**.90**
AK-8	2⅛" L. x ³⁄₁₆" round	**.90**
AK-9	3¼" L. x ¼" round	**.90**
AK-10	10" L., flat mill .216" x 4⁵⁄₁₆" long	**.90**
AK-11	Universal, 4" long; slot, knurl and flat side	**.90**
AK-16	¼" to ¼" or ³⁄₁₆" shaft coupler	**.90**
AK-19	Insul. nylon 2¹⁄₁₆" L.	**.90**
AK-21	4" x ¼" Dia. Exten., flat .218" wide	**.90**
AK-22	4" x ¼" Dia. Exten., flat .154" wide	**.90**
AK-23	4" x ³⁄₁₆" Dia. Exten., flat .172" wide	**.90**
AK-24	⅜" L. x ¼" full round	**.90**
AK-25	⅜" L. x ¼", flat .218"	**.90**
AK-26	Auto adapt bush, ⅜"-⁷⁄₁₆"	**.45***
AK-28	Auto bush., ⅜"-½"	**.45***
AK-29	2⁹⁄₁₆" L. x .235" full rd.	**.90**
AK-30	Ground Lug	**.45†**
AK-31	⅜"-32 bush. adj. to 1"	**.45***
AK-33	.187" dia. alum. double-grooved shaft.	**.90**
AK-37	⅜"-32 phenolic bushing adjusts to 1".	**.45***

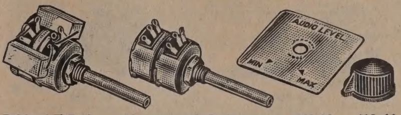
*Net Each. †Net per dozen.



DESCRIPTION OF TAPERS

C-1—Linear; uniform resistance change from either end. **C-2**—Semi-log, (audio) 10% center. **C-3**—Right hand semi-log. Reversed C-2. **C-4**—Modified log, 20% center. **C-5**—Right hand mod. log, 20% center. **C-6**—Mod. log., 40% center. **C-7**—Symet. straight line; slow change. **C-11**—Tapped 50% rotation, 50% resis. **C-12**—Tapped 37½% rotation, 20% resis. **C-13**—Tapped 50% rotation, 30% resistance. **C-14**—Tapped 62% rotation, 30% resistance. **C-15**—Tapped 50% rotation, 10% resistance. **C-16**—Tapped 62% rotation, 50% resistance. **C-17**—Tapped 37½% rotation, 10% resis. **C-51**—Left hand linear, tapped at 62%, CW, 66⅔% resis. **C-52**—Rt. hand semi-linear, tapped at 37%, CCW, 25% resis. **C-53**—Rt. hand linear, tapped at 37%, CCW, 33⅓% resis. **C-54**—Left hand semi-linear, tapped at 37%, CW, 30% resis. **C-55**—Left-hand linear, tapped at 37% and 62% CW, 35% and 62% resis. **C-56**—Left hand semi-log, tapped at 37% and 62%, CW, 20% and 50% resis. **C-57**—Left-hand semi-log, tapped at 37% and 62%, CW, 16½% and 33% resis. **C-58**—Left-hand semi-log, tapped at 37% and 62%, CW, 12½% and 25% resis. **C-59**—Left-hand semi-log, tapped at 37% and 62%, CW, 10% and 50% resis.

L-PAD, T-PAD, AND STEREO ATTENUATORS



Bridged T-Pad **L-Pad** **AK-36** **KC-10**

Constant impedance L-pads and bridged T-pads provide optimum sound reproduction quality without altering frequency response. Rated 20 watts, audio; 5 watts DC and sine-wave. Breakdown, 900 volts AC rms to ground. Anti-backlash construction features force-fit shaft interlock; prevents relative motion between contact springs of front and rear units; assures smooth attenuation in either direction without deterioration. Full round brass shaft, ¼" dia. x 1⅞" long from mounting surface. Bushing ⅜" long x ⅜-32 thread with nut and lockwasher; can be extended up to 1" by adding AK-31 or AK-37 adapter bushing. Control size only 1⁵⁄₁₆" case dia. x 1⁵⁄₁₆" deep. Comes complete with AK-36 brushed gold-anodized dial plate and KC-10 black pointer knob with set screw.

L-PAD ATTENUATORS

Controls audio level of speakers in PA, intercom and hi-fi sound system. Net Each, Any Model. **$2.97**

Number after dash (-) indicates resistance in ohms.

CRL No.	CRL No.	CRL No.	CRL No.	CRL No.
WL-4	**WL-16**	**WL-600**	**WL-1250**	**WL-2500**
WL-8	**WL-500**	**WL-1000**	**WL-2000**	

BRIDGED T-PAD ATTENUATORS

Speaker audio level control and sound mixer control for mikes and other circuits where constant impedance between input and output circuits must be maintained. Net Each, Any Model. **$3.57**

Number after dash (-) indicates resistance in ohms.

CRL No.	CRL No.	CRL No.	CRL No.	CRL No.
WDT-4	**WDT-8**	**WDT-16**	**WDT-500**	**WDT-600**

STEREO ATTENUATORS

Designed for installation in standard junction or switch boxes where a conventional four-section L-Pad will not fit. Rated at 10 watts audio, 5 watts DC. Same basic construction and appearance as L-Pads. Shipping Wt., 5 oz.

CRL No. WST-200 (for 4-ohm speakers), **WST-400** (for 8-ohm speakers), **WST-800** (for 16-ohm speakers). Net Each. . . . **$2.97**

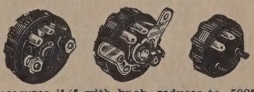
Note: Above three models can be used as conventional twin wire-wound controls, linear taper, 10% tolerance, 20, 40, and 80-ohms respectively.

ACCESSORIES

CRL No.	Description	Net Each
KC-10	Black set screw pointer knobs	**$0.90***
AK-34	4½" x 2¾" brushed gold wall-plate	**.90**
AK-35	4½" x 2¾" brushed aluminum wall-plate	**.90**
AK-36	2" x 2" brushed gold dial plate	**1.44***

*Pkg. 5.

1/10 WATT CONTROLS



Model B16 can be reduced to ⅝" diam. by removing knob; with knob is ³³⁄₆₄". Plain type is stud mounted, using two 1-72NF-2 thd. x .140" on .427" centers. Switch type is bracket mounted. **Model SM** measures ¹⁹⁄₃₂" with knob, reduces to .502" without knob. Mount is standard 0-80NF-2A thd. x .134" long brass studs on .285" centers. Switch type only.

CRL Model B16 Plain—Net Each. **$1.50**
CRL Model B16 Switch—Net Each. **$2.40**

TYPE B16 SERIES

CRL No. Plain	CRL No. Switch	Max. Ohms	Taper	CRL No. Plain	CRL No. Switch	Max. Ohms	Taper
B16-107	. . . .	500	C1	**B16-119**	. . . .	50K	C1
B16-109	. . . . . .	1000	C1	**B16-121**	. . . .	100K	C1
B16-111	. . . .	2500	C1	**B16-123**	. . . .	250K	C1
B16-112	**B16-212**	2500	C2	**B16-118**	**B16-218**	½ Meg.	C2
B16-113	. . . .	5000	C1	**B16-120**	**B16-220**	1 Meg.	C2
B16-114	**B16-214**	5000	C2	**B16-122**	**B16-222**	2 Meg.	C2
B16-115	. . . .	10000	C1	**B16-124**	**B16-224**	3 Meg.	C2
B16-116	**B16-216**	10000	C2	**B16-127**	. . . .	5 Meg.	C1
B16-117	**B16-217**	25000	C2	**B16-128**	**B16-228**	5 Meg.	C2
B16-125	. . . .	25000	C1				

TYPE SM SERIES

CRL No.	Max. Ohms	Taper	CRL No.	Max. Ohms	Taper	Net Each
SM2-252-S	2500	C2	**SM2-103-S**	10000	C2	**$3.75**
SM2-502-S	5000	C2	**SM2-253-S**	25000	C2	**3.75**

WALL PLATES

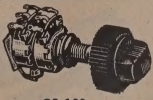
Satin chrome; for mounting speaker controls. Complete with mounting screws. Size, 2¾" x 4½".

CRL No. P-223 (⅜" center hole) **or P-224** (Blank plate)—Net Each. **63c**

Centralab. Controls, Switches, Kits

CENTRALAB COMPENTROLS®

C1-70-S


C2-100

JUNIOR COMPENTROLS

Volume control and special Packaged Electronic Circuit network improves apparent bass and treble of amplifiers, radios, etc., when volume is at a low level. Does not introduce noticeable signal loss. Switched units have SPST switch with insulated shield to prevent hum. Universal shaft 3″ long. Control, 15/16″ dia. Shipping Weight, 5 oz.
CRL No. C1-60 (½ Meg.) or **C1-70** (1 Meg.)—Plain. Net. **$2.40**
CRL No. C1-60-S (½ Meg.) or **C1-70-S** (1 Meg.)—Switched. Net Each..**$2.85**

SENIOR COMPENTROLS

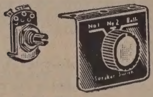
Dual concentric; incorporates level set to adjust amount of compensation. Universal replacement for any value. Dual knobs supplied. Shipping Weight, 6 oz.
CRL No. C2-100—Net Each.......................... **$3.30**
CRL No. C2-200—Same but Fastatch design with separate front and rear units. Includes special boost plates. Net Each...**$3.30**

STEREO-TWIN COMPENTROLS

Twin compensated volume control provides synchronized compensation for dual-channel stereo systems. Shipping Wt., 6 oz.
CRL No. C2-60 (½-meg) or **C2-70** (1 meg)—Without switch. Net Each.................................. **$3.30**

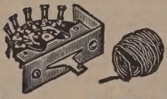
COMPENSATED TONE CONTROL

A compensated tone control as used in Baxandall circuit—not to be confused with two other Senior Compentrols above, which are compensated volume controls. Shipping Weight, 5 oz.
CRL No. C3-300—Net Each.......................... **$3.30**



PK-300

No.1
No.2
No.3
No.4
Antenna Switch
PK-400


PK-500

WK-300

DUAL SPEAKER SWITCH KIT

Primarily designed for rear seat auto radio speaker applications. It is adaptable, however, to many commercial applications. Contains: 1484 switch, P-216 bracket-dial plate, P-401 knob, two self-tapping screws and instruction sheet.
CRL No. PK-300—Net Each.......................... **$1.05**

ANTENNA SWITCH KIT

Ceramic section rotary switch for UHF-VHF antenna switching. Rated at 2.75 amps. for 15 v. DC; 230 milliamps. at 115 v. AC. Contains: PA-2050 switch, P-218 bracket-dial plate, P-401 knob, two self-tapping wood screws.
CRL No. PK-400—Net Each.......................... **$1.98**

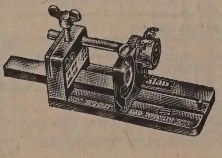
INTERCOM SWITCH KIT

Intercom cord-operated switch kit designed for use in public address and intercom systems where low cost dependable service is desired
CRL No. PK-500—Net Each.......................... **$1.80**

DUAL SPEAKER CONTROL KIT

Primarily designed for rear seat radio speaker uses. Provides for gradual reduction of volume of one speaker while increasing volume of the other; or, balances both speakers. Includes 5-watt control, combination mounting bracket and dial plate, black and chrome knob, mounting screws and installation instructions. Shipping Weight, 5 oz.
CRL No. WK-300 Kit—Net Each.......................... **$1.80**

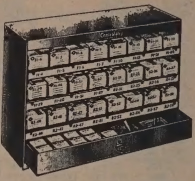
MODEL SK-2 SHAFT-KUT TOOL



Precision instrument makes cutting shafts to exact size a simple job. Cuts any standard solid or hollow shaft accurately to 1/64″. Constructed of case hardened steel; designed to last a lifetime. Complete with mounting screws and operating instructions.
CRL No. SK-2—Net Each......... **$4.95**

SERVICE TECHNICIAN CONTROL KITS

WWK-100 5-WATT WIRE-WOUND KIT



Contains 24 controls in 14 best selling 5-watt wire-wound line. Sturdy, steel shelf type cabinet, labeled and set up, ready for use. Extra drawer space for expansion.
Contains: One each WW-100, WW-500, WW-201, WW-501, WW-751, WW-202, WW-302, WW-153; two each WW-152, WW-252; three each WW-101, WW-102, WW-502, WW-103.
CRL No. WWK-100—**$27.86**
Net Each...........

BK-100 UNIVERSAL SHAFT CONTROL KIT

Contains 24 type "B" controls in the 12 fastest moving values. Controls plus 10 "KR" Fastatch switches for all service needs. Sturdy steel cabinet, labeled, ready for use.
CRL No. BK-100 Kit—Net Each.................. **$29.54**

CONTENTS: CONTROLS

Quan. Each	CRL No.	Ohms	Taper	Quan. Each	CRL No.	Ohms	Taper
1	**B-5**	1,000	C1	6	**B-60**	500K	C2
1	**B-10**	5,000	C1	2	**B-69**	1 Meg.	C1
1	**B-14**	10,000	C1	4	**B-70**	1 Meg.	C2
2	**B-31**	50,000	C1	1	**B-75**	2 Meg.	C1
2	**B-40**	100K	C1	1	**B-76**	2 Meg.	C2
2	**B-59**	500K	C1	1	**B-87**	5 Meg.	C1

TYPE KR FASTATCH® SWITCHES

Quan. Each	CRL No.	Amps at 125 v. AC	Type	Quan. Each	CRL No.	Amps at 125 v. AC	Type
6	**KR-1**	5	SPST	1	**KR-3**	3	DP
3	**KR-2**	3	DPST		1 pole "on", 1 "off"		

ABK-100 ADASHAFT® CONTROL KIT

Contains 24 type "AB" Adashaft controls in 10 popular values. Combined with Fastatch switches and assorted shafts, kit provides flexible stock of replacement controls. Sturdy, steel shelf cabinet, labeled and ready for use.
CRL No. ABK-100 Kit—Contents as listed, plus 21 assorted shafts and couplers. Net Each.............. **$28.07**

CONTENTS: CONTROLS

Quan. Each	CRL No.	Ohms	Taper	Quan. Each	CRL No.	Ohms	Taper
1	**AB-5**	1000	C1	6	**AB-60**	500K	C2
2	**AB-10**	5000	C1	2	**AB-69**	1 Meg.	C1
2	**AB-31**	50K	C1	4	**AB-70**	1 Meg.	C2
2	**AB-40**	100K	C1	1	**AB-75**	2 Meg.	C1
2	**AB-59**	500K	C1	2	**AB-87**	5 Meg.	C1

TYPE KR FASTATCH® SWITCHES

Quan. Each	CRL No.	Amps at 125 v. AC	Type	Quan. Each	CRL No.	Amps at 125 v. AC	Type
5	**KR-1**	5	SPST	1	**KR-3**	3	DP
2	**KR-2**	3	DPST		1 pole "on", 1 "off"		

ACK-100 AUTO RADIO CONTROL KIT

Handy kit contains the 24 most popular auto radio control replacements. Covers 90% of your replacement requirements for standard U.S. automobiles and some foreign cars. Packed in heavy steel cabinet and clearly labeled for easy selection.
CRL No. ACK-100 Kit—Net Each.................. **$49.95**

QUANTITY: 1 EACH

A/U-1
A/U-2
CD-51-A
CD-53/4-A
CD-55/6-B
CD-57-B
CD-58-B
CD-59/0-A
FB-51
FB-52/3
FB-54
FB-55
FB-56
FB-57
FB-58
FB-59
FM-52/3
FM-54
FM-56
M/U-4
M/U-8
PP-57
PP-58
PP-59

TTK-100 CONTROL KIT

Contains 24 type TT controls in 13 fastest moving values. Sturdy steel shelf cabinet, labeled and set up ready for use. Extra drawer space for expansion.
CRL No. TTK-100—Net Each..................... **$14.90**

Qty.	No.	Ohms	Qty.	No.	Ohms	Qty.	No.	Ohms
1	**TT-411**	750	1	**TT-59**	500K	3	**TT-83**	2.5 meg
2	**TT-10**	5K	2	**TT-69**	1 meg	2	**TT-84**	3 meg
1	**TT-31**	50K	1	**TT-742**	1.5 meg	4	**TT-87**	5 meg
2	**TT-40**	100K	2	**TT-75**	2 meg	2	**TT-90**	7.5 meg
1	**TT-46**	200K						

AUTO RADIO ON/OFF SWITCH REPLACEMENTS

CRL No. SP-1 Switch—Replacement for 1951-1954 Plymouth, Dodge, DeSoto and Chrysler. Net Each.................**60c**

CRL No. SP-4 Switch—Replacement for 1946-1956 Ford, Lincoln, Mercury, Plymouth, Dodge, DeSoto and Chrysler auto radios. Net Each.......................................**60c**

CRL No. SP-6 Switch—Replacement for 1955-56 Lincoln & Mercury, 1956-57 Ford Thunderbird, 1957-58 Ford and 1958 Mercury auto radios. Net Each.......................................**60c**

CRL No. SP-8 Switch—Replacement for 1956-57 Mercury and 1957 Lincoln auto radios. Net Each.....................**60c**

Centralab.

Auto Radio Controls

CONTROL REPLACEMENTS FOR BUICK AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	46-53	Motorola	BK2A, BK3A6	18B512084	**$2.13**
BD-50/3	50-53	Delco	980868, 980899, 980847, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119	**2.52**
BD-54/5	54	Delco	981550, 981551	7264309	**2.52**
BD-54/5	55	Delco	981651, 981652	7265742	**2.52**
BD-56	56	Delco	981707, 981708	7266996	**2.52**
BD-57	57	Delco	981813, 981814	7268944	**2.52**
BD-58	58	Delco	981902, 981903	7271329	**2.52**
BD-59	59	Delco	981968	7273993	**2.52**
BD-60	60	Delco	980051, 980052	7275219	**2.52**
BD-61-A	61	Delco	980132	7276561	**1.95**
BD-61-B	61	Delco	980134, 980135	7277155	**1.95**

FOR CHEVROLET AUTO AND TRUCK RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
CD-49/0-A	49-50	Delco	986389, 986241	1218641	**$2.52**
CD-51-A	51-52	Delco	986516	1219708	**2.52**
M/U-3	51-52	Motorola	CT2A, CT2M, CT2A6, CT52M6	18B512084	**2.13**
CD-53/4-A	53-54	Delco	986669, 986771*	7264211	**2.52**
CD-55	55	Delco	987087	7265265	**2.52**
CD-55/6-B	55-56	Delco	987088, 987366	7265220	**2.52**
CD-55/6-A	55-56	Delco	987086, 987364, 3725156 (Corvette)	7265302 1220909	**2.52**
CD-56	56	Delco	987368	7266842	**2.52**
CD-57-A	57	Delco	987577	7269211 1220961	**2.52**
CD-57-C	57	Delco	987575, 987693	7269199 1220963	**2.52**
CD-57-B	57	Delco	987573	7269186 1220962	**2.52**
M/U-6	57	Motorola	CTA7X, CTM7X	18K541128	**2.13**
CD-58-B	58	Delco	987724	7270450	**2.52**
CD-58-A	58	Delco	987727	7270479 1221118	**2.52**
M/U-7	58	Motorola	CTA8X, CTM8X	18B542657	**2.13**
CD-59-B	59	Delco	987891	7273367	**2.52**
M/U-9	59	Motorola	CTA9X, CTM9X	18C543337	**2.13**
CD-59/0-A	59-60	Delco	987888, 988275	7273302 1221260	**2.52**
CD-60-A	60	Delco	988276	7275710	**2.52**
CD-60-B	60	Delco	988062 (Corvair)	7274920	**2.52**
CD-61-A	61	Delco	988413	7277329	**1.95**
CD-61-B	61	Delco	988414	7276939	**1.95**
CD-61-C	61	Delco	988460	7278058	**1.95**
CD-61-D	61	Delco	988468	7278296	**1.95**
M/U-7	60	Motorola	CRA60X, CRM60X (Corvair)	18K544235	**2.13**
M/U-3	48-53	Motorola	GMT2A*,-2M*, -3A6*	18B512084	**2.13**
CD-60-T	60	Delco	988080*	7275629	**2.52**
CD-61-T	61	Delco	2233944*, 985036	7278528	**1.95**

FOR DESOTO AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
DEM-57/8	57-58	Motorola	MOPAR 846,919, 919HR, 923	18B539819	**$2.13**
DEM-59	59	Motorola	MOPAR 857	18K561733	**2.13**

FOR DODGE AUTO AND TRUCK RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
DOM-57	57	Motorola	MOPAR 845,918	18K539820	**$2.13**
DOM-58	58	Motorola	MOPAR 852	18K560417	**2.13**
DOM-59	59	Motorola	MOPAR 856	18B561732	**2.13**
DOM-60	60	Motorola	MOPAR 102	18C563115	**2.13**
M/U-1	53	Motorola	610T*	18K512740	**2.13**

FOR EDSEL AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
FB-59	59	Bendix	94BE	2090035-3	**$2.13**

FOR FORD AUTO AND TRUCK RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
FB-49/0	49-50	Bendix	M1, M1A, M1A1	L222808	**$2.13**
FM-50	50	Motorola	OMF	18B591266	**2.13**
FB-51	51	Bendix	M2	L219586-2	**2.13**
FM-51	51	Motorola	1MF	18B501153	**2.13**
FB-52/3	52-53	Bendix	M4, M4A	L219586-3	**2.13**
FM-52/3	52-53	Motorola	2MF, 3MF	18B511635	**2.13**
FB-54	54	Bendix	M4B, M4BA, M4BP	L219586-7	**2.13**
FM-54	54	Motorola	4MF	18B530018	**2.13**
FB-55	55	Bendix	5BF	L219656-1	**1.41**
FM-55	55	Motorola	5MF, 5MF8	18B531299	**1.41**
FB-56	56	Bendix	6BF	L219681-1	**2.13**
FM-56	56	Motorola	66MF, 66MFP, 69MF	18B534483	**2.13**
A/U-3	57	Automat.	FT-227, FTP-37	80A618C	**2.52**
FB-57	57	Bendix	75BF	2090035-1	**2.13**
FM-57	57	Motorola	75MF	18K539059	**2.13**
FB-58	57-58	Bendix	74BF, 84BF	2090035-2	**2.13**
FM-57/8	57-58	Motorola	74MF,84MF,84MFM	18B541819	**2.13**
A/U-3	58	Automat.	F-128, -C, FP-238, -C	80A618C	**2.52**
FB-59	59	Bendix	94BF	2090035-3	**2.13**
FM-59	59	Motorola	94MF, 94MFM	18B561597	**2.13**
A/U-3	59	Automat.	F-139, FP-249	80A618C	**2.52**
FB-60/1	60-61	Bendix	04BF, 14BF, 14BM	2090405-1, 2090405-8	**1.95**
FM-60/1	60-61	Motorola	04MD,04MF,04MFM 14MD,14MF,14MFM	18C562768	**1.95**
A/U-3	59	Automat.	F-139*, FP-249*	80A618C	**2.52**
FB-57/8-T	57-58	Bendix	74BT*, 84BT*	2090253-1	**1.41**
FB-59-T	59	Bendix	94BT*	2090253-2	**1.41**
FB-60-T	60	Bendix	O4BT*	2090253-3	**1.41**
FB-61-T	61	Motorola	12BT, 12BU*	2091466-1	**1.41**

FOR GMC TRUCK RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	48-53	Motorola	GMT2A, -2M, -3A6	18B512084	**$2.13**
CD-53/4-A	54-59	Delco	2233396, 2233398	7264211	**2.52**
CD-58-B	58	Delco	2233745	7270450 1223113	**2.52**
CD-60-T	60	Delco	2233850	7275629	**2.52**

*Truck Radio.

FOR HENRY J AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-1	51-53	Motorola	HJ2A, HJ2M, HJ3A6	18K512740	**$2.13**
CD-53/4-A	56	Delco	694866	7264211	**2.52**

FOR HUDSON AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	51-53	Motorola	HT3A6	18B512084	**$2.13**

FOR KAISER AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	51-53	Motorola	KR2A, KR2M, KR3A6	18B512084	**$2.13**

FOR OLDSMOBILE AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
OD-51-A	51	Delco	982700	7260294	**$2.52**
M/U-3	51-52	Motorola	OE2A, OE2M, OE2A6	18B512084	**2.13**
OD-53-A	53	Delco	983004	7263540	**2.52**
OD-54/6	54-56	Delco	983091, 983205, 983336	7264128	**2.52**
OD-57-B	57	Delco	989002	7268847	**2.52**
OD-57-A	57	Delco	989001	7269055	**2.52**
OD-58	58	Delco	989127, 989129	7270679	**2.52**
OD-59	59	Delco	989170, 989171	7272855	**2.52**
OD-60	60	Delco	989276, 989277	7275269	**2.52**
OD-61-A	61	Delco	989387	7276521	**1.95**
OD-61-B	61	Delco	989392, 989393	7276997	**1.95**

FOR PACKARD AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-3	51-53	Motorola	PD2A, PD2M, -3A6	18B512084	**$2.13**

FOR PLYMOUTH AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
PM-56	56	Motorola	MOPAR 916, 916HR	18B536704	**$2.13**
PM-57	57	Motorola	MOPAR 849	18B540376	**1.41**
PP-57	57	Philco	P5701, MOPAR 848	33-5580-12	**1.41**
PM-58	58	Motorola	MOPAR 854	18B560415	**1.41**
PP-58	58	Philco	P-5801, MOPAR 848	33-5580-21	**1.41**
PP-59	59	Philco	P-5901, MOPAR 855	33-5580-27	**2.13**

FOR PONTIAC AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-1	46-52	Motorola	PC2A, PC2A6, PC2M	18K512740	**$2.13**
POD-56	56	Delco	988623	7268308	**2.52**
A/U-1	57	Automat.	CTR-6A	80-69	**2.52**
POD-57	57	Delco	988671	7270189	**2.52**
POD-58-A	58	Delco	988823	7270939	**2.52**
POD-58-B	58	Delco	988822	7271446	**2.52**
POD-59	59	Delco	988976, 988977	7273623	**2.52**
POD-60	60	Delco	989614, 989615	7275708	**2.52**
POD-61-A	61	Delco	988692, 988693	7277542	**1.95**
POD-61-B	61	Delco	989792	7277112	**1.95**
POD-61-C	61	Delco	989831	7278930	**1.95**

FOR RAMBLER AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
A/U-1	58-59	Automat.	RAP-89, RP-519	80-69	**$2.52**
RM-58/59	58-59	Motorola	83MR (8990543), 93MR (8990582)	18B560804	**2.13**
RM-59	59	Motorola	94MA (8990576)	18B561728	**2.13**
RM-60-A	60	Motorola	8990811	18B564229	**2.13**
RM-60/1-B	60-61	Motorola	14MR, 04MA 8990833, 8990706	18K563154	**1.95**

FOR RIVERSIDE AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
A/U-3	58-59	Automat.	FJB-6679A, FJB-6684, FJB-6687	80A618C	**$2.52**

FOR STUDEBAKER AUTO RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
M/U-1	50-52	Motorola	SR2A, SR2A6, SR2M	18K512740	**$2.13**
M/U-3	53	Motorola	SR3A6	18B512084	**2.13**
M/U-7	59	Motorola	AC2971 (SM9T)	17B542657	**2.13**

FOR WILLYS JEEP RADIOS

Centralab Number	Year Auto	Radio Mfr.	Radio Model No.	Original Part No.	Net Each
CD-53/4-A	56-58	Delco	694866, 815395	7264211	**$2.52**

FOR MOTOROLA UNIVERSAL RADIOS

Used in many autos and trucks.

Centralab Number	Year Auto	Radio Model Number	Original Part No.	Net Each
M/U-2	55-57	395, -12; 396, -12; 397; 404	18B531560	**$1.41**
M/U-4	55-58	5M, 5M-12, 6M, 6M-12, 7M, 8M	18K533457	**2.13**
M/U-5	57	7MX	18B540768	**2.13**
M/U-8	58,60	8MX, 600X, 10M, 10MX	18K542446	**2.13**
M/U-10	61	Motorola 11MX	18K544522	**1.95**

FOR AUTOMATIC UNIVERSAL AUTO RADIOS
AMERICAN-MADE AUTOMOBILES

CRL No.	Radio Model, Year and Auto Model	Net
A/U-1*	**MP-69, MP-126** 42, 46-58 Buick; 49-59 Cadillac; 53-54 Chevrolet & Chev. Truck; 49-54, 56 Chrys.; 49-56 DeSoto; 42, 46-54 Ford; 42, 46-58 Ford Tr.; 48-59 GMC Truck; 42, 46-58 Mercury; 49-58 Olds; 51-54 Plymouth	**$2.52**
A/U-2†	**MU-34, R-54, RT-7** for 42, 46-59 Buick; 49-59 Cadillac; 51-59 Chevrolet; 48-59 Chev. Truck; 49-59 Chrysler, DeSoto & Dodge; 58-59 Edsel; 42, 46-59 Ford, Ford Truck & Mercury; 48-59 GMC Truck; 59 Lark; 49-58 Olds; 56-59 Plymouth; 57-59 Pontiac; 58-59 Rambler	**1.41**

FOREIGN-MADE AUTOMOBILES

CRL No.	Radio Model, Year and Auto Model	Net
A/U-1‡	**VP-12** Alfa-Romeo; **MP-126** Austin-Healy, Austin "A-40", Jaguar "XK-120", MG "Magnette", Triumph "TR-2", Vauxhall; **W-716** Opel, Porsche "1600", Taunus, Volkswagen, Volvo; **MP-69** Porsche; **W-76** Volkswagen	**$2.52**
A/U-2†	**R-54** Alfa-Romeo, Austin-Healy, Austin "A-40", English Ford, Fiat, Hillman, Jaguar "XK-140", Mercedes-Benz, MG, Morris, Renault, Riley "1.5", Saab, Simca, Triumph "TR-2", Vauxhall; **MU-34** Borgward, Citroen, DKW, Karmann Ghia, Lloyd, Opel, Porsche "Speedster", Renault "4CV" & Dauphine, Volkswagen; **RT-7** Fiat	**1.41**

Original Part Number: *80-69, RV-69; †80-57D; ‡80-69.

DALE

RESISTORS

WIRE WOUND—METAL FILM—
DEPOSITED CARBON

Dale resistors—available in a wide selection of types, sizes and terminations—have established a solid reputation for inherent stability.

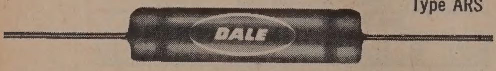
Dale's inherent stability has been established and maintained through advanced design and stringently controlled methods of manufacture—methods which constantly are reaching new levels of achievement as part of Dale's super-high reliability development program.

Wire Wound Resistors

Ultra-High Reliability Type ARS

Manufactured to have a failure rate of less than .001% per thousand hours of operation at 50% of rated power at 25° C. Environmental tests conducted on each production lot, and test data furnished with each order for more than 300 pieces. Resistance range from 0.1 ohm to 16K ohms, depending on type. Tolerance 1%. Three wattages—2, 5, 10; three sizes.

Type ARS



Ask for Bulletin R-66

TYPES RS and RLS; HS (High Temperature); NS and NLS (Non-Inductive)

(Available with weldable leads)

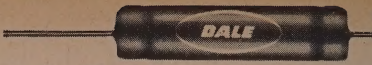
TYPES RS, RLS, HS resistance range from 0.05 ohm to 175K ohms, depending on type; TYPES NS, NLS from 1 ohm to 37K ohms. Tolerance range from 0.05% to 3%. TYPES RS, NS, NLS meet functional requirements of MIL-R-26C. TYPE RLS meets applicable paragraphs of MIL-R-26C, characteristic G. TYPE HS meets applicable paragraphs of MIL-R-26C, characteristic V.

TYPE RS with axial leads in eight wattages—0.5, 1, 2, 2.5, 3, 5, 7, 10; ten sizes.

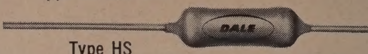
TYPE RLS with radial leads in seven wattages—1, 2, 2.5, 3, 5, 7, 10; nine sizes.

TYPE HS with axial leads in eight wattages—1.25, 3, 3.25, 3.75, 4.25, 6.75, 9, 13; nine sizes.

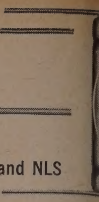
TYPE NS (axial leads) and NLS (radial leads) in six wattages—2, 2.5, 3, 5, 7, 10; seven sizes.



Type RS and NS



Type HS



Type RLS and NLS

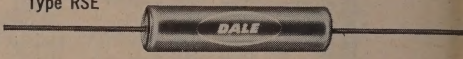
Ask for Catalog A

Clip Mounted Type RSE

(Available with weldable leads)

Complete insulation and protection afforded by suspending precision resistance unit in special shock absorbing material and then inserting in metal tube which can be clip mounted. Resistance range from 0.5 ohm to 175K ohms, depending on type; tolerance range 0.05% to 3%. Meets functional requirements of MIL-R-26C. Five wattages—2, 3, 5, 7, 10; seven sizes.

Type RSE



Ask for Catalog A

TYPES RH, NH (Non-Inductive) RHM, PH

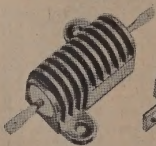
Resistance unit in TYPES RH, NH, PH silicone sealed and inserted in radiator finned housing; in TYPE RHM molded with high temperature material into radiator finned housing. Mount on or through chassis for maximum heat dissipation. TYPES RH and RHM meet all requirements of MIL-R-18546C; TYPE PH meets functional requirements of MIL-R-18546C.

TYPE RH resistance range from 0.1 ohm to 175K ohms, depending on type; tolerance range 0.05% to 3%; six wattages and sizes—5, 10, 25, 50, 100, 250.

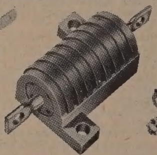
TYPE RHM resistance range from 0.1 ohm to 60K ohms, depending on type; tolerance range from 0.5% to 3%; two wattages and sizes—10, 25.

TYPE NH resistance range from 1 ohm to 37K ohms, depending on type; tolerance range 0.05% to 3%; five wattages and sizes—10, 25, 50, 100, 250.

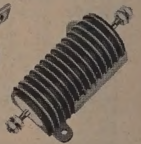
TYPE PH resistance range from 0.1 ohm to 60K ohms, depending on type; tolerance range 0.05% to 3%; three wattages and sizes—10, 25, 100.



Type RH



Type RHM



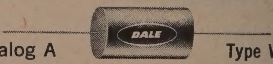
Type NH

Type PH

Ask for Catalog A

Bobbin TYPE WW (Available with weldable leads)

Non-inductive; encapsulated in material with very high dielectric strength. Unique Dale design and manufacture involving new winding and termination methods assure long-lasting stability. Meets requirements of MIL-R-93C, characteristic C. Resistance range from 10 ohms to 1.5 megohms, depending on type; standard tolerance 1%. Rated at 0.1 watt to 0.4 watt; eight sizes.



Ask for Catalog A

Type WW

DALE ELECTRONICS, INC.

DALE

Columbus, Nebraska

A subsidiary of **The Lionel Corp.**

© U.C.P., I

DALE Deposited Carbon Resistors

(Available with weldable leads)

Designed for inherent stability, long load life and excellent protection against environmental factors in a wide range of applications. Made of pure crystalline carbon film bonded to selected ceramic cores. Excellent high frequency characteristics.

Type DC

Miniature size, protection against moisture at low cost. Resistance range from 1 ohm to 200 megohms; tolerance 1%. Seven wattages—1/10, 1/8, 1/4, 1/2, 1, 2, 5; ten sizes.

Type DC

Ask for Catalog A

Types MC - DCF - DCH

(Insulated—Meet functional requirements of MIL-R-10509D)

TYPE MC is completely insulated and protected from environmental and mechanical damage by molded housing; resistance range from 1 ohm to 50 megohms. Available in five wattages—1/8, 1/4, 1/2, 1, 2; five sizes in standard tolerance of 1%.

TYPE DCF has a new coating material which provides a completely insulated resistor, yet maintains miniature size. Resistance range from 1 ohm to 50 megohms; six wattages—1/10, 1/8, 1/4, 1/2, 1, 2; nine sizes in standard tolerance of 1%.

TYPE DCH hermetically sealed in non-hygroscopic ceramic envelope. Resistance range from 1 ohm to 50 megohms; seven wattages—1/10, 1/8, 1/4, 1/2, 1, 2, 5; ten sizes in standard tolerance of 1%.

Type MC

Type DCF

Type DCH

Ask for Catalog A

DALE Metal Film Resistors

(Available with weldable leads)

Type MF

Inherently good R.F. characteristics and low noise levels. Completely insulated and protected against moisture and other severe environmental factors. Resistance range from 100 ohms to 4 megohms, depending on size; tolerance 1%. Five wattages—1/8, 1/4, 1/2, 1, 2; five sizes. Temperature coefficient ±50 and ±100 P.P.M.

Type MF

Ask for Catalog A

DALE Trimmer Potentiometers

WIRE WOUND

Series 1200 - 900 - 600 - 1500 - 5000

Produced under stringently controlled "white room" conditions to assure highest quality and reliability. Welded construction throughout; sealed to protect against moisture and potting compounds.

SERIES 1200—Humidity proof; three terminal configurations for standard or printed circuit mounting; 10 to 50K ohms; 5% tolerance; 1 watt.

SERIES 900—Humidity proof, three terminal configurations for standard or printed circuit mounting; 10 to 30K ohms; 5% tolerance; 1 watt.

SERIES 600—Humidity proof; eight terminal configurations for standard, panel or printed circuit mounting; 10 to 30K ohms; 5% tolerance; 1 watt.

SERIES 1500—Humidity proof; nine terminal configurations for standard, panel or printed circuit mounting; 10 to 50K ohms; 5% tolerance, 1 watt.

SERIES 5000—Humidity proof; space saving, square configuration; 100 to 50K ohms; 5% tolerance; 1 watt.

Ask for Catalog B

Series 100 - 200 - 300 - 1100

Designed to give excellent performance for normal circuit problems where economy is of prime importance, yet dependable performance is a necessity.

SERIES 100—Five terminal configurations; 10 to 50K ohms; 5% tolerance; 0.8 watt.

SERIES 200—Five terminal configurations; 10 to 50K ohms; 10% tolerance; 0.5 watt.

SERIES 300—Two terminal configurations; 100 to 20K ohms; 15% tolerance; 0.25 watt.

SERIES 1100—High temperature; three terminal configurations for standard or printed circuit mounting; 10 to 50K ohms; 10% tolerance; 1 watt.

Ask for Catalog B

Special Problems?

When your requirements are for special resistance components and networks, please send us an outline of your problems.

Our standard line can be modified and special resistors can be produced to meet the toughest requirements.

Other products made by Dale are lightning arrestors; surge arrestors, RF and IF transformers; custom coils, chokes, toroidal inductors, ferrite antennas; precision potentiometers and tube shields.

DALE ELECTRONICS, INC.

DALE

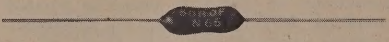
Columbus, Nebraska

A subsidiary of The Lionel Corp.

CORNING ELECTRONIC COMPONENTS

GLASS/METAL OXIDE RESISTORS

Fuse a tin oxide coating into glass, cut a helix in the coating, attach leads and you have a simple, rugged, exceptionally reliable Corning resistor. Its temperature coefficient runs from ±0.015% to ±0.05%/°C.; overload change is less than 1%; noise level less than 0.1 uv/v. It is non-inductive above 280 ohms. Standard values from 1.00 to 9.76, except for C resistors whos values run from 10 to 91 on standard decade tables are the same as standard decade values in applicabl military specifications. Our distributors across th nation can give you fast delivery at factory prices o top reliability Corning resistors.

TYPE AND MIL SPEC	MODEL/ MIL MODEL	RESISTANCE (ohms)	WATTAGE	TOLERANCE
NF Glass encapsulation is fusion sealed. MIL-R-10509D, Char. B and G.	NF60/RN60B	100 to 100K	⅛ @ 70°C	1%
	NF65/RN65B	100 to 348K	¼ @ 70°C	1%
N-20 SERIES Derating to 140°C. Uninsulated. MIL-R-10509B, Char. X.	N12	100 to 133K	¼ @ 40°C	1, 2, and 5%
	N20/RN20	10 to 500K	½ @ 40°C	1, 2, and 5%
	N25/RN25	10 to 1.5 meg.	1 @ 40°C	1, 2, and 5%
	N30/RN30	30 to 4.12 meg.	2 @ 40°C	1, 2, and 5%
N Insulation coating. Total load-life resistance change less than 3%. MIL-R-10509D, Char. B. 	N60/RN60B	10 to 133K	⅛ @ 70°C	1%
	N65/RN65B	10 to 499K	¼ @ 70°C	1%
	N70/RN70B	10 to 1 meg.	½ @ 70°C	1%
C General purpose, low-cost film type. Prices and sizes comparable to carbon composition type, but with film resistor performance characteristics. MIL-R-22684 (Navy)	C07/RL07	51 to 150K	¼ @ 70°C	2%, 5%
	C20/RL20	51 to 150K	½ @ 70°C	2%, 5%
	C32/RL32	51 to 470K	1 @ 70°C	2%, 5%
	C42S/RL42	10 to 1.3 meg.	2 @ 70°C	2%, 5%
LPI Designed for radio, television, and allied industries. Silicone insulation. Give excellent frequency characteristics at low cost.	LPI-3	10 to 40K	3 @ 40°C	10%
	LPI-4	16 to 90K	4 @ 40°C	10%
	LPI-5	20 to 110K	5 @ 40°C	10%
	LPI-7	24 to 90K	7 @ 25°C	10%
	LPI-10	180 to 70K	10 @ 25°C	10%
R Power type, essentially noninductive in high-frequency operations. MIL-R-11804C	R31/RD31P	10 to 70K	7 @ 25°C	2, 5, 10%
	R33/RD33P	19.6 to 150K	13 @ 25°C	2, 5, 10%
	R35/RD35P	19.6 to 301K	25 @ 25°C	2, 5, 10%
	R37/RD37P	19.6 to 500K	55 @ 25°C	2, 5, 10%
	R39/RD39P	30.1 to 1 meg.	115 @ 25°C	2, 5, 10%
S Fixed-film type for high-temperature operation. Silicone baked lacquer. MIL-R-11804C, Char. P.			**130°C 25°C**	
	S20/RD60P	10 to 500K	½ 1	1, 2, 5, 10%
	S25/RD65P	10 to 1.54 meg.	1 2	1, 2, 5, 10%
	S30/RD70P	30.1 to 4.22 meg	2 4	1, 2, 5, 10%
H For dummy antennas, circuit loading, damping, and terminating. Also ideal for circuits subject to steep surges and sawtooth patterns.			**DC AC** @ 40°C	
	H31	10 to 70K	5 7	2% (striped or spiraled) 10% (continuous conductor)
	H33	20 to 150K	10 15	2% (striped or spiraled) 10% (continuous conductor)
	H35	20 to 300K	20 30	2% (striped or spiraled) 10% (continuous conductor)
	H37	20 to 500K	50 70	2% (striped or spiraled) 10% (continuous conductor)
	H39	30 to 1 meg.	100 140	2% (striped or spiraled) 10% (continuous conductor)
HL For high power applications as dummy antennas, circuit loading and terminating. Rated for natural air cooling at 25°C., its power ratings can be tripled by adequate forced air cooling.	HL250	20 to 40K	250 @ 25°C	5, 10%
	HL500	20 to 600K	500 @ 25°C	5, 10%
	HL1000	20 to 1 M	1000 @ 25°C	5, 10%
	HL3000	30 to 2 M	3000 @ 25°C	5, 10%
	HL6000	30 to 2.4 M	6000 @ 25°C	5, 10%

See our capacitors ad in Section 1500 for fixed glass capacitors and a rundown on our other top-reliability components.
For more information on our resistors, write:

CORNING
Electronic Components
CORNING GLASS WORKS, RALEIGH, N. C.

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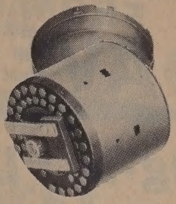
DAVEN / GENERAL MILLS

ecision Wire Wound Resistors • Precision Rotary Switches • Precision Attenuators • Precision Laboratory Equipment • Precision Metal Film Resistors •

DAVEN ATTENUATORS and Attenuator Networks



Over 25 years ago, Daven introduced the first attenuators as gain controls in audio program circuits. Since then, Daven has pioneered every important development in attenuators. Daven has produced more attenuators than all other manufacturers combined. Many of the first Daven attenuators are, in fact, still working perfectly **without one minute of service down-time!**

Today, Daven attenuators are accepted as standard in a wide range of other applications because of their extremely low switch noise level (below circuit noises), velvet-smooth control and wide range of attenuation. In broadcasting, recording and sound motion picture control installations there is still only one name synonomous with the finest: Daven!

Unbalanced Ladder Networks
20 or 30 steps, 1.5 and 2 db per step.

Unbalanced Ladder Networks and Potentiometers
20 steps, 2 db per step.

Balanced Ladder Networks
20 and 30 steps, 1.5 and 2 db per step.

Slide Attenuators
20 and 30 steps, 1.5 and 2 db per step.

"T" Attenuators
20, 30 and 45 steps, .1, .5, .75, 1, 1.5 and 2 db per step.

Precision "T" Networks ±1%
20 and 30 steps, .1, .5, 1, 1.5 and 2 db per step.

Balanced "H" Networks
20 and 30 steps, .5, 1, 1.5 and 2 db per step.

Precision Balanced "H" Networks ±1%
20 steps, .1, .5, 1, 1.5 and 2 db per step.

Potentiometers
Carbon Resistor/Single Units: 20 and 30 steps, 1.5, 2, 3 and 5 db per step.

Carbon Resistor/Dual Units Single Deck: 20 and 30 steps, 1.5 and 2 db per step.

Carbon Resistor/Dual Units in Tandem: 20 and 30 steps, 1.5, 2 and 3 db per step.

Wire Wound/Single Units: 20 and 30 steps, 1.5, 2 and 3 db per step.

Wire Wound/Dual Units Single Deck: 30 steps, 1.5, 2 and 3 db per step.

Wire Wound/Dual Units: 20 steps, 1.5, 2 and 3 db per step.

VU Meter Multiplier Networks

Decade Attenuators
"T" Networks or Balanced "H" Networks. 0-50 KC, Resistor accuracy ±1%.

Impedance Matching Networks
Two types: (1) db loss is constant and (2) db loss is the next highest multiple of 5 db above the minimum possible loss.

Video Variable Attenuators
10, 20 and 45 steps, .1, .2, .5, 1 and 2 db per step.

Decade Attenuator Units — Video
10 steps, .1, 1 and 10 db per step. "T" and balanced "H" circuits available.

Fixed Attenuators
Pads stocked in multiples of 5 db up to 50 db, vis. 5 db, 10 db, 15 db, etc.

Tapped Fixed Networks
0 to 40 db in 1 db steps as follows: 1, 2, 3, 4, 10 and 20 db fixed loss networks.

Multiple Input & Output Networks
Available with single input and multiple output, or a multiple input and single output.

Write today for a new 52-page specification catalog on Daven attenuators and networks!

DAVEN
Division of General Mills, Inc.

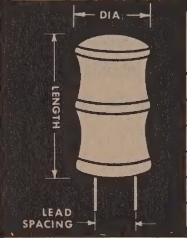
General Mills

LIVINGSTON,
NEW JERSEY

FROM DAVEN The most complete line of Military and Commercial Wire Wound Resistors

Plug-In "Lollypop" Resistors

Daven has kept pace with the increased use of printed circuit subassemblies by providing a variety of precision wire wound resistor types for use in this type of construction. The most popular sizes of Daven printed circuit "plug-in" resistors are listed below Special designs to satisfy individual customer specifications can be furnished on special order.



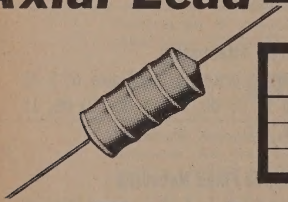
Daven Type	Mil Type	Dia. (± 1/64)	Length (± 1/32)	Max. Res.	AWG	Wattage	Standard Lead Spacing (± .015)
1350*	RB-71	1/4	5/16	68 K	#22	.250	.200
1351		1/4	3/8	93 K	#22	.250	.200
1352		1/4	7/16	1.1 Meg.	#20	.250	.200
1355	RB-70	3/8	1/2	2.88 Meg.	#20	.333	.200
1358		7/16	1/2	3.6 Meg.	#20	.400	.300
1359		1/2	1/2	3.6 Meg.	#20	.500	.300

*formerly 1273

Miniature Axial Lead — Typical Types

Type	Mil R-93C	Diameter Inches	Length Inches	Maximum Watts*	Maximum Volts	Max. Res.	Non Inductive	Lead Length 2″ ± 1/8″
1274		3/16	3/8	.125	200	418 K	No***	#22AWG
1283	RB-56	1/4	5/16	0.25	200	71 K	No***	#20AWG
1250	RB-55	1/4	1/2	0.33	400	1.4 Meg.	Yes	#20AWG

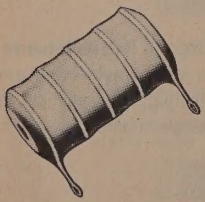
Axial Lead — Typical Types



Lead Length: 2″ ± 1/8″ #20AWG, Non-Inductive Winding

Type	Mil R-93C	Diameter Inches	Length Inches	Maximum Watts	Maximum Volts	Max. Res.
1195	RB-54	1/4	3/4	0.50	400	2.2 Meg.
1252	RB-52	3/8	1	1.00	800	6.4 Meg.
1172	RB-57	1/2	1	1.25	800	10 Meg.

Lug Terminal — Typical Types



Non-Inductive Winding

Type	Mil R-93C	Diameter Inches	Length Inches	Maximum Watts	Maximum Volts	Max. Res.
1173	RB-08	1/2	1/2	0.50	400	4 Meg.
1174		1/2	5/8	0.60	400	6 Meg.
1269	RB-16	5/8	5/8	0.75	400	6.6 Meg.
1270	RB-17	5/8	1	1.25	800	13.2 Meg.

DAVEN
Division of General Mills, Inc.
General Mills
LIVINGSTON,
NEW JERSEY

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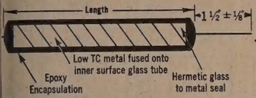
Only DAVEN offers the most important features in Metal Film Resistors!


Length
1½" ± ⅛"
Low TC metal fused onto inner surface glass tube
Epoxy Encapsulation
Hermetic glass to metal seal

True hermetic glass-to-metal seal plus Epoxy Encapsulation—a double seal that is standard on all units at no extra cost!

SPECIFICATIONS AT A GLANCE

TYPE	TEMP. CHAR.	WATTAGE AT 125°C	MAX. VOLTS	MIL-R-10509D DESIGNATION	LEAD DIAM. ± .002	OHMIC VALUE MIN.	OHMIC VALUE MAX.	LENGTH	DIAM.
DA-2	T_2, T_9	1/2	350	RN70C	.032	24.9Ω	1.5M	.850 ± .020	.265 ± .020
DA-4	T_2, T_9	1/4	300	RN65C	.025	49.9Ω	1M	.640 ± .020	.200 ± .020
DA-8	T_2, T_9	1/8	250	RN60C	.025	49.9Ω	499K	.460 ± .015	.130 ± .010
DA-0	T_2, T_9	1/10	200	RN55C	.025	49.9Ω	100K	.345 ± .015	.130 ± .010

Far exceeds all electrical and mechanical requirements of MIL-R-10509D, Characteristic C.

TYPICAL DAVEN DA SERIES PERFORMANCE

TEST	LOW	AVERAGE	HIGH	ALLOWABLE UNDER MIL-R-10509D
Temp. Cycling MIL-STD-202	0	.01%	.04%	.25%
Low Temp. Oper.	0	0	.01	.25
Short Time Overload	0	0	.01	.25
Terminal Strength	0	0	.01	.20
Dielectric Withstanding Voltage	0	.01	.02	.25
Effect of Soldering	0	0	.01	.10
Moisture	0	.03	.20	.50
Load Life	0	.10	.40	.50

3 Unique temperature characteristics.

- Over a temperature range of −65° C to +175° C, all Daven Metal Film Resistors show 50% less resistance change than allowed in the MIL-R-10509D Specifications for Characteristic C (50ppm).
- Over a temperature range of −65° C to +175° C, **selected** Daven Metal Film Resistors show the **same** resistance change as allowed in the MIL-R-10509D Specifications for Characteristic E (25ppm).

ALLOWABLE UNDER MIL-R-10509D		PERFORMANCE OF DAVEN TYPE DA RESISTORS
−65°C to +175°C		
±50 ppm	1.15%	0.75% (All Daven MF resistors)
±25 ppm	0.58%	0.58% (Selected Daven MF resistors)
0°C to +80°C		
±30 ppm	———	0.21% (All Daven resistors)
±20 ppm	———	0.13% (Selected Daven resistors)

The only metal film resistor with "current noise" factor as low as wire wounds.

Comparative "Current Noise" (Bureau of Standards Method) microvolts per volt per frequency octave (0 Db ref. = 1 MV/V/frequency octave)

RESISTOR MATERIAL	"NOISE" FACTOR
Composition Carbon	−10 Db to −20 Db
Deposited Carbon	−20 Db
Tin Oxide	−25 Db
Evaporated Metal Film	−30 Db to −34 Db
DAVEN DA Series & DAVEN Wire Wound	Below −35 Db to −40 Db approaches signal level of test.

5 Weldable leads, which are readily solderable, are standard on all units at no surcharge.

6 Off-the-shelf delivery from your Daven distributor.

Write for full details on Types DA 2, DA 4, DA 8 and DA 10

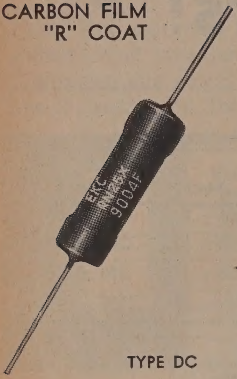
DAVEN
Division of General Mills, Inc.
General Mills
LIVINGSTON, NEW JERSEY

NOW...ONE SOURCE...

precision carbon and metal film

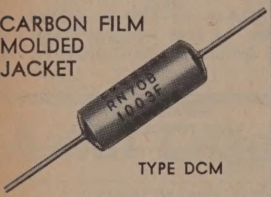
2 WATT MIL SIZE TO

CARBON FILM
"R" COAT



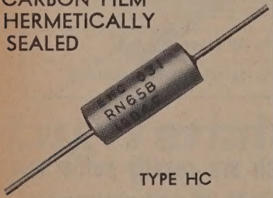
TYPE DC

CARBON FILM
MOLDED
JACKET



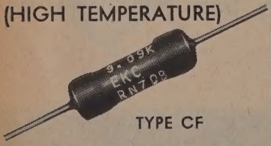
TYPE DCM

CARBON FILM
HERMETICALLY
SEALED



TYPE HC

CARBON FILM
"R-5" COAT
(HIGH TEMPERATURE)



TYPE CF

Electra Part No.	MIL Style	Wattage Temperature	Mil Resistance Range	Commercial Resistance Range	Maximum Rated Voltage	LENGTH—A Min / Max	LENGTH—A Production Average	DIAMETER—B Min / Max	DIAMETER—B Production Average	Lead Size AWG#
DC 1/10X		1/10/ 70°C		1 Ohm To 301K	200	.155 .175	.165	.073 .083	.078	26
DC 1/10		1/10/125°C		1 Ohm To 301K	250	.240 .260	.250	.083 .103	.093	22
DC 1/8		1/8 / 70°C		1.5 Ohms To 270K	250	.281 .343	.312	.060 .090	.075	26
DC 1/8X		1/8 / 70°C		301K Ohms To 1 Meg	250	.281 .343	.312	.062 .124	.093	22
DC 1/4A	* RN 10X	1/4 / 70°C		2.5 Ohms To 820K	300	.437 .499	.468	.062 .124	.093	22
DC 1/4X		1/4 / 70°C		820K Ohms To 2 Meg	300	.406 .468	.437	.094 .156	.125	22
DC 1/2C	* RN 15X	1/2 / 70°C		1.5 Ohms To 1.7 Meg	350	.469 .531	.500	.140 .202	.171	20
DC 1/2A	* RN 20X	1/2 / 70°C		2 Ohms To 2.6 Meg	350	.594 .656	.625	.140 .202	.171	20
DC 1/2B		1/2 / 70°C		1.5 Ohms To 2.8 Meg	500	.687 .749	.718	.187 .249	.218	20
DC 1/2		1/2 / 70°C		3 Ohms To 3.7 Meg	500	.781 .843	.812	.141 .202	.171	20
DC 1	* RN 25X	1/ 70°C		1.5 Ohms To 6.5 Meg	500	.875 .999	.937	.266 .328	.297	20
DC 2	* RN 30X	2/ 70°C		5 Ohms To 17 Meg	1000	2.025 2.165	2.095	.266 .328	.297	20
* MIL Styles Obsoleted by Military Aug. 1, 1961										
DCM 1/10	RN 55D	1/10/125°C	10 Ohms To 301K	1 Ohm To 301K	250	.250 .270	.260	.115 .135	.125	22
DCM 1/8	RN 60B/D	1/8 / 70°C	10 Ohms To 1 Meg	2 Ohms To 1 Meg	250	.385 .415	.400	.125 .145	.135	22
DCM 1/4	RN 65B/D	1/4 / 70°C	10 Ohms To 2 Meg	2 Ohms To 2.1 Meg	300	.580 .610	.595	.205 .225	.215	22
DCM 1/2	RN 70B/D	1/2 / 70°C	10 Ohms To 2.49 Meg	2 Ohms To 2.6 Meg	350	.740 .770	.755	.250 .270	.260	20
DCM 1	RN 75B	1/ 70°C	10 Ohms To 5.11 Meg	1.5 Ohms To 6.5 Meg	500	1.095 1.125	1.110	.380 .400	.390	20
DCM 2	RN 80B	2/ 70°C	30.1 Ohms To 10 Meg	5 Ohms To 17 Meg	750	2.225 2.255	2.240	.390 .410	.400	20
HC 30		1/8 / 70°C		1 Ohm To 301K	250	.195 .225	.210	.099 .115	.107	26
HC 40		1/8 / 70°C		1.5 Ohms To 301K	250	.250 .312	.281	.150 .170	.160	22
HC 10	RN 60B/G	1/8 / 70°C	10 Ohms To 1 Meg	2.5 Ohms To 1 Meg	250	.428 .438	.433	.148 .168	.158	22
HC 8	RN 65B/G	1/4 / 70°C	10 Ohms To 2 Meg	2 Ohms To 2.6 Meg	300	.625 .655	.640	.233 .253	.243	22
HC 12	RN 70B/G	1/2 / 70°C	10 Ohms To 2.49 Meg	3 Ohms To 3.7 Meg	500	.823 .843	.833	.240 .260	.250	20
HC 6	RN 75B/G	1/ 70°C	10 Ohms To 5.11 Meg	1.5 Ohms To 6.5 Meg	500	1.105 1.125	1.115	.390 .410	.400	20
HC 7	RN 80B/G	2/ 70°C	30.1 Ohms To 10 Meg	5 Ohms To 17 Meg	1000	2.230 2.250	2.240	.390 .410	.400	20
CF 1/10	RN 55D	1/10/125°C	10 Ohms To 301K	1 Ohm To 301K	250	.219 .281	.250	.083 .103	.093	22
CF 1/8	RN 60B/D	1/8 /125°C	10 Ohms To 1 Meg	2 Ohms To 1 Meg	250	.313 .437	.375	.085 .165	.125	22
CF 1/8A	RN 60B/D	1/8 /125°C	10 Ohms To 1 Meg	2 Ohms To 1.1 Meg	250	.344 .437	.375	.115 .165	.125	22
CF 1/4	RN 65B/D	1/4 /125°C	10 Ohms To 2 Meg	2 Ohms To 2 Meg	300	.532 .656	.625	.156 .249	.187	22
CF 1/2	RN 70B/D	1/2 /125°C	10 Ohms To 2.49 Meg	1.5 Ohms To 3.8 Meg	350	.688 .875	.750	.219 .281	.250	20
CF 1/2C		1/2 / 70°C		1.5 Ohms To 1.7 Meg	350	.500 .562	.531	.140 .202	.171	20

ELECTRA MANUFACTURING COMPANY

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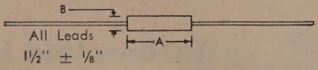
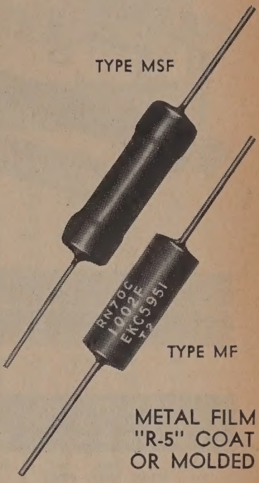
esistors from ELECTRA

/20 WATT MICRO-MINIATURE



Electra Part No.	MIL Style	Wattage Temperature	Mil Resistance Range	Commercial Resistance Range	Maximum Rated Voltage	LENGTH—A		DIAMETER—B		Lead Size AWG #
						Min Max	Production Average	Min Max	Production Average	
MFS 1/20		1/20/125°C		30 Ohms To 100K	200	.115 .145	.130	.038 .058	.048	26
MFS 1/10		1/10/125°C		30 Ohms To 300K	250	.250 .280	.265	.075 .095	.085	22
MFS 1/8		1/8 /125°C		30.1 Ohms To 499K	250	.320 .380	.350	.080 .110	.095	22
MFS 1/4		1/4 /125°C		49.9 Ohms To 1 Meg	300	.460 .540	.500	.110 .140	.125	22
MFS 1/2		1/2 /125°C		49.9 Ohms To 1.5 Meg	350	.600 .670	.635	.126 .156	.141	20
MFS 1		1/125°C		49.9 Ohms To 4 Meg	500	.853 1.053	.953	.255 .285	.270	20
MFS 2		2/125°C		100 Ohms To 10 Meg	750	1.990 2.150	2.070	.245 .295	.270	20
MF 1/10	RN 55C/E	1/10/125°C	49.9 Ohms To 100K	30 Ohms To 300K	200	.250 .270	.260	.115 .135	.125	22
MF 1/8	RN 60C/E	1/8 /125°C	49.9 Ohms To 499K	30 Ohms To 500K	250	.391 .421	.406	.125 .145	.135	22
MF 1/4	RN 65C/E	1/4 /125°C	49.9 Ohms To 1 Meg	49.9 Ohms To 1 Meg	300	.582 .612	.597	.195 .225	.210	22
MF 1/2	RN 70C/E	1/2 /125°C	24.9 Ohms To 1 Meg	49.9 Ohms To 1.5 Meg	350	.730 .770	.750	.250 .280	.265	20
MF 1	RN 75C/E	1/125°C	49.9 Ohms To 2 Meg	49.9 Ohms To 4 Meg	500	1.085 1.125	1.105	.375 .415	.395	20
MF 2		2/100°C		100 Ohms To 9.31 Meg	750	2.219 2.259	2.239	.375 .415	.395	20

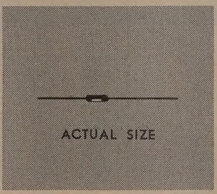


TYPE MSF

TYPE MF

METAL FILM
"R-5" COAT
OR MOLDED

C 1/10X-CARBON ILM RESISTOR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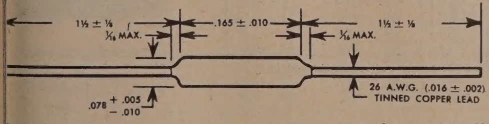
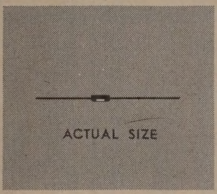


Resistance Range: ....10 ohms to 301 K
Tolerance: ....±1%
Dissipation at 70° C:...............................1/10 Watt
Temp. Coefficient: ....Max. .05%/°C
Encapsulation: ....Electra's R-5 Coating
Marking: ....Tag or Color Band

MFS 1/20 METAL FILM RESISTOR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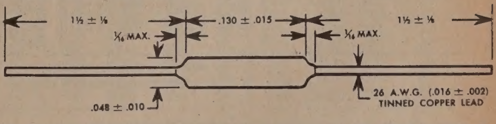


Resistance Range:........................30 ohms to 100 K
Tolerance: ....±1%
Dissipation at 125° C:..............................1/20 Watt
Temperature Coefficient: ....T-0: ± 150 PPM/°C
T-2: ± 50 PPM/°C
Encapsulation: ....Electra's R-5 Coating
Marking: ....Tag

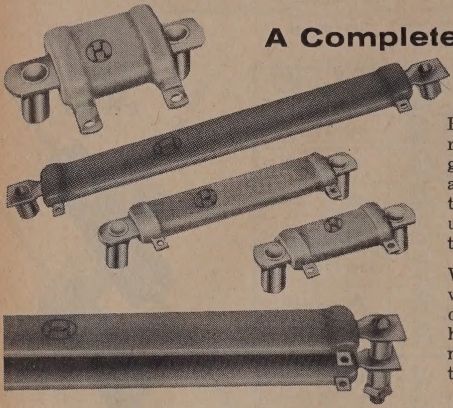
All precision carbon and metal film resistors are designed by Electra to meet or exceed MIL-R-10509D. Specification sheets are available detailing each type. For complete engineering data on our full line, write or call Electra Manufacturing Company requesting technical literature.

Electra precision products

INDEPENDENCE, KANSAS

"Gray Line"

HARDWICK, HINDLE · INC
BLUE RIBBON RESISTORS



A Complete Line of Flat and Stack Mounting Power Resistors

Blue Ribbon wire-wound power resistors are made of quality materials with matched coefficients of expansion and are covered by H-H gray vitreous enamel for complete protection against environment and overload. The aluminum through bracket improves heat dissipation, minimizes hot spots, and allows a higher wattage rating per unit of space. Bracket construction facilitates stacking and adds additional space saving.

When BR resistors are stack mounted they must be derated to keep within rated operating temperatures. Watt ratings shown are based on the use of a steel panel 10 inches square x .040 thick supported horizontally. For non-metallic panels reduce rating 15%. When mounted as described in an ambient temperature not exceeding 40°C the maximum temperature rise of the resistor will not exceed 300°C.

10 WATT
Type ¾ BRS-53B
Mounting Centers 1"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B350	5	1.41	$ .92
B351	10	1.00	.92
B352	15	.82	.92
B353	25	.63	.92
B354	50	.45	.92
B355	100	.32	.92
B356	150	.26	.92
B357	250	.20	.92
B358	500	.14	.92
B359	1000	.10	.92
B360	1500	.081	.92
B361	2500	.063	.92
B362	5000	.045	.98
B363	10000	.032	1.03
B364	15000	.026	1.05

15 WATT
Type 1 BRS-53B
Mounting Centers 1¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B401	5	1.73	$ .97
B402	10	1.22	.97
B403	15	1.00	.97
B404	25	.78	.97
B405	50	.55	.97
B406	100	.39	.97
B407	150	.32	.97
B408	250	.25	.97
B409	500	.17	.97
B410	1000	.12	.97
B411	1500	.10	.97
B412	2500	.078	.97
B413	5000	.055	1.00
B414	10000	.039	1.04
B415	15000	.032	1.11
B416	20000	.027	1.15
B417	25000	.025	1.20

20 WATT
Type 2 BRS-53B
Mounting Centers 2⁵⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B450	5	2.00	$ .99
B451	10	1.41	.99
B452	15	1.16	.99
B453	25	.89	.99
B454	50	.63	.99
B455	100	.45	.99
B456	150	.36	.99
B457	250	.28	.99
B458	500	.20	.99
B459	1000	.14	.99
B460	1500	.12	.99
B461	2500	.089	.99
B462	5000	.063	1.04
B463	10000	.045	1.16
B464	15000	.036	1.20
B465	20000	.032	1.26
B466	25000	.028	1.33
B467	50000	.020	1.44

20 WATT
Type BRM-37
Mounting Center 1⁵⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B501	5	2.00	$ .96
B502	10	1.41	.96
B503	15	1.16	.96
B504	25	.89	.96
B505	50	.63	.96
B506	100	.45	.96
B507	150	.36	.96
B508	250	.28	.96
B509	500	.20	.96
B510	1000	.14	.96
B511	1500	.12	.96
B512	2500	.089	.96
B513	5000	.063	.98
B514	8000	.050	1.04

30 WATT
Type 1½ BRM-37
Mounting Centers 1¹³⁄₁₆"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B550	5	2.46	$ .98
B551	10	1.73	.98
B552	15	1.42	.98
B553	25	1.10	.98
B554	50	.77	.98
B555	100	.55	.98
B556	150	.45	.98
B557	250	.35	.98
B558	500	.25	.98
B559	1000	.17	.98
B560	1500	.14	.98
B561	2500	.11	.98
B562	5000	.076	1.04
B563	10000	.049	1.15
B564	15000	.045	1.19

When Resistors are mounted on a non-metallic base the nominal watt rating should be reduced by approximately 15%.

30 WATT
Type 1¼" BR-37
Mounting Centers 2"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B101	5	2.46	$1.28
B102	10	1.73	1.28
B103	15	1.42	1.28
B104	25	1.10	1.28
B105	50	.77	1.28
B106	100	.55	1.28
B107	150	.45	1.28
B108	250	.35	1.28
B109	500	.25	1.28
B110	1000	.17	1.28
B111	1500	.14	1.28
B112	2500	.11	1.28
B113	5000	.076	1.37
B114	10000	.049	1.48

40 WATT
Type 2" BR-37
Mounting Centers 2¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B201	5	2.83	$1.32
B202	10	2.00	1.32
B203	15	1.63	1.32
B204	25	1.26	1.32
B205	50	.89	1.32
B206	100	.63	1.32
B207	150	.52	1.32
B208	250	.40	1.32
B209	500	.28	1.32
B210	1000	.20	1.32
B211	1500	.16	1.32
B212	2500	.13	1.32
B213	5000	.089	1.43
B214	10000	.063	1.60
B215	15000	.045	1.67

55 WATT
Type 3½" BR-37
Mounting Centers 4¼"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B301	5	3.32	$1.53
B302	10	2.34	1.53
B303	15	1.92	1.53
B304	25	1.48	1.53
B305	50	1.05	1.53
B306	100	.74	1.53
B307	150	.61	1.53
B308	250	.47	1.53
B309	500	.33	1.53
B310	1000	.23	1.53
B311	1500	.19	1.53
B312	2500	.15	1.53
B313	5000	.10	1.63
B314	10000	.074	1.79
B315	15000	.061	1.87
B316	25000	.047	2.05

75 WATT
Type 6" BR-37
Mounting Centers 6¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
B601	5	3.87	$1.93
B602	10	2.74	1.93
B603	15	2.24	1.93
B604	25	1.73	1.93
B605	50	1.22	1.93
B606	100	.86	1.93
B607	150	.71	1.93
B608	250	.55	1.93
B609	500	.39	1.93
B610	1000	.27	1.93
B611	1500	.22	1.93
B612	2500	.17	1.93
B613	5000	.12	2.00
B614	10000	.086	2.16
B615	15000	.070	2.24
B616	25000	.054	2.43
B617	50000	.033	2.60

Adjustable resistors with a bare edge can be furnished for obtaining intermediate resistance values. Standard tolerance ±5% on all stock units. Tapped units and closer tolerances to 1% available.

Specify short stud on BRS for unit mounting if height is at a premium.

Packaged one unit per box. Made in accordance with MIL-R-26C.

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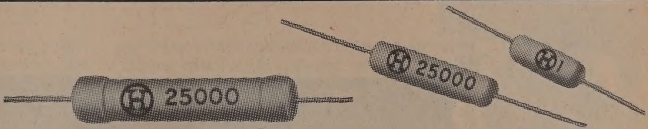
HARDWICK, HINDLE · INC
AXIAL-LEAD RESISTORS

The Quality
INDUSTRIAL LINE
since 1924



The "free air" wattage ratings of these axial lead resistors are based on a hot spot temperature rise of 300°C. (540°F.) in an ambient temperature not exceeding 40°C. (104°F.). These are the finest quality vitreous enameled wire-wound resistors made with application-tested parts and employing precision assembly. Since parts have matched heat expansion, crazing and cracks are eliminated. All welded construction.

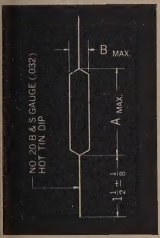
Standard Sizes:

Resistor Type	Tube Dimensions A	Tube Dimensions B	Watt Rating Nominal	Recommended Resist. Range Min. ohms	Recommended Resist. Range Max. ohms
9/16 GA	9/16"	1/4"	3 Watts	1	10,000
1 WA	1"	11/32"	5 Watts	1	25,000
1¾ ZA	1¾"	13/32"	10 Watts	1	50,000

Standard tolerance is ±5% for all stock units.

3 WATT SIZE — Type 9/16 EA — 9/16" long x 1/4" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
701	1.0	1.73	$ .59	719	125	.155	$ .59	737	1250	.049	$ .62
702	1.5	1.41	.59	720	150	.141	.59	738	1500	.045	.62
703	2.0	1.22	.59	721	200	.122	.59	739	1750	.041	.62
704	3.0	1.00	.59	722	225	.115	.59	740	2000	.039	.62
705	4.0	.86	.59	723	250	.109	.59	741	2250	.036	.62
706	5.0	.78	.59	724	300	.1	.59	742	2500	.035	.62
707	7.5	.63	.59	725	350	.093	.59	743	3000	.032	.62
708	10	.55	.59	726	400	.087	.59	744	3500	.029	.62
709	12	.50	.59	727	450	.082	.59	745	4000	.027	.62
710	15	.45	.59	728	500	.078	.59	746	4500	.026	.62
711	20	.39	.59	729	600	.071	.59	747	5000	.025	.62
712	25	.35	.59	730	700	.065	.59	748	6000	.022	.66
713	30	.32	.59	731	750	.063	.59	749	7000	.020	.66
714	35	.285	.59	732	800	.061	.59	750	7500	.020	.66
715	40	.274	.59	733	900	.058	.59	751	8000	.019	.66
716	50	.245	.59	734	1000	.055	.59	752	9000	.018	.66
717	75	.200	.59	735	1100	.052	.62	753	10000	.017	.66
718	100	.173	.59	736	1200	.050	.62				



Made in accordance with MIL-R-26. Packaged 10 units per box.

5 WATT SIZE — Type 1 WA — 1" long x 11/32" o.d.

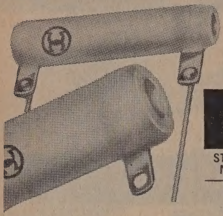
STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
801	1.0	2.23	$ .62	816	50	.316	$ .62	831	750	.081	$ .62	846	4500	.033	$ .66
802	1.5	1.82	.62	817	75	.258	.62	832	800	.079	.62	847	5000	.032	.66
803	2.0	1.58	.62	818	100	.224	.62	833	900	.074	.62	848	6000	.029	.70
804	3.0	1.29	.62	819	125	.200	.62	834	1000	.070	.62	849	7000	.027	.70
805	4.0	1.12	.62	820	150	.182	.62	835	1100	.067	.66	850	7500	.026	.70
806	5.0	1.0	.62	821	200	.158	.62	836	1200	.064	.66	851	8000	.025	.70
807	7.5	.818	.62	822	225	.149	.62	837	1250	.063	.66	852	9000	.024	.70
808	10	.7	.62	823	250	.141	.62	838	1500	.057	.66	853	10000	.022	.70
809	12	.645	.62	824	300	.129	.62	839	1750	.053	.66	854	12500	.020	.78
810	15	.575	.62	825	350	.120	.62	840	2000	.050	.66	855	15000	.018	.78
811	20	.500	.62	826	400	.112	.62	841	2250	.047	.66	856	17500	.017	.78
812	25	.447	.62	827	450	.105	.62	842	2500	.045	.66	857	18000	.017	.78
813	30	.408	.62	828	500	.100	.62	843	3000	.041	.66	858	20000	.016	.78
814	35	.378	.62	829	600	.091	.62	844	3500	.037	.66	859	22500	.015	.82
815	40	.353	.62	830	700	.084	.62	845	4000	.035	.66	860	25000	.014	.82

10 WATT SIZE — Type 1¾ ZA — 1¾" long x 13/32" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE	STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
901	1.0	3.16	$ .95	915	40	.5	$ .68	929	600	.129	$ .68	943	3000	.057	$ .73	957	12500	.028	$ .95
902	1.5	2.58	.95	916	50	.447	.68	930	700	.119	.68	944	3500	.053	.73	958	13500	.027	.95
903	2.0	2.235	.95	917	75	.365	.68	931	750	.115	.68	945	4000	.050	.73	959	15000	.026	.95
904	3.0	1.825	.68	918	100	.316	.68	932	800	.111	.68	946	4500	.047	.73	960	16000	.025	.95
905	4.0	1.58	.68	919	125	.283	.68	933	900	.105	.68	947	5000	.045	.73	961	17500	.024	.95
906	5.0	1.414	.68	920	150	.258	.68	934	1000	.100	.68	948	6000	.041	.84	962	18000	.023	.95
907	7.5	1.155	.68	921	200	.223	.68	935	1100	.095	.73	949	7000	.038	.84	963	20000	.022	.95
908	10	1	.68	922	225	.217	.68	936	1200	.091	.73	950	7500	.036	.84	964	22500	.021	1.00
909	12	.910	.68	923	250	.200	.68	937	1250	.089	.73	951	8000	.035	.84	965	25000	.020	1.00
910	15	.816	.68	924	300	.182	.68	938	1500	.081	.73	952	8500	.034	.84	966	30000	.018	1.00
911	20	.707	.68	925	350	.169	.68	939	1750	.075	.73	953	9000	.033	.84	967	35000	.017	1.00
912	25	.632	.68	926	400	.158	.68	940	2000	.071	.73	954	10000	.032	.84	968	40000	.016	1.00
913	30	.575	.68	927	450	.149	.68	941	2250	.066	.73	955	11000	.030	.95	969	45000	.015	1.12
914	35	.535	.68	928	500	.141	.68	942	2500	.063	.73	956	12000	.029	.95	970	50000	.014	1.12

"Gray Line"

HARDWICK, HINDLE · INC FIXED RESISTORS



Vitreous Enameled Construction

Eight stock sizes of Hardwick, Hindle fixed resistors provide an exceptionally wide choice of resistance values to meet varied applications. Ratings are in accordance with NEMA standards, being based on a temperature rise of 300°C in free air. Data on types, sizes and values not included here, and on fixed resistors with intermediate taps, special mountings, modified terminals, etc. will be furnished on request. All stock sizes are supplied complete with mounting brackets.

5 WATT
Type 1Z-34
1" long x ⁵⁄₁₆" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A1	1	2.23	$ .57
A2	3	1.29	.57
A3	5	1.00	.57
A4	7.5	.81	.57
A5	10	.71	.57
A6	15	.58	.57
A7	25	.45	.57
A8	50	.32	.57
A9	75	.26	.57
A10	100	.22	.57
A11	150	.18	.57
A12	200	.16	.57
A13	250	.14	.57
A14	400	.11	.57
A15	500	.10	.57
A16	750	.082	.57
A17	1000	.070	.57
A18	1250	.063	.61
A19	1500	.057	.61
A20	2000	.050	.61
A21	2500	.045	.61
A22	3000	.041	.61
A23	4000	.035	.61
A24	5000	.032	.61
A25	7500	.026	.58
A26	10000	.022	.58
A27	12500	.020	.65
A28	15000	.018	.65
A29	20000	.016	.65
A30	25000	.013	.68

10 WATT
Type 1¾Z-34
1¾" long x ⁵⁄₁₆" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A101	1	3.16	$ .57
A102	3	1.83	.57
A103	5	1.41	.57
A104	7.5	1.16	.57
A105	10	1.00	.57
A106	15	.82	.57
A107	25	.63	.57
A108	50	.45	.57
A109	75	.37	.57
A110	100	.32	.57
A111	150	.26	.57
A112	200	.22	.57
A113	250	.20	.57
A114	400	.16	.57
A115	500	.14	.57
A116	750	.12	.57
A117	1000	.10	.57
A118	1250	.089	.61
A119	1500	.081	.61
A120	2000	.071	.61
A121	2500	.063	.61
A122	3000	.057	.61
A123	4000	.050	.61
A124	5000	.045	.61
A125	7500	.036	.70
A126	10000	.032	.70
A127	12500	.028	.79
A128	15000	.026	.79
A129	20000	.022	.79
A130	25000	.020	.83

20 WATT
Type 2H-34
2" long x ⁷⁄₁₆" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
A201	5	2.00	$ .68
A202	10	1.41	.68
A203	25	.89	.68
A204	50	.63	.68
A205	75	.52	.68
A206	100	.45	.68
A207	150	.36	.68
A208	200	.32	.68
A209	250	.28	.68
A210	400	.22	.68
A211	500	.20	.68
A212	750	.16	.68
A213	1000	.14	.68
A214	1250	.13	.70
A215	1500	.12	.70
A216	2000	.10	.70
A217	2500	.089	.70
A218	3000	.081	.70
A219	4000	.070	.70
A220	5000	.063	.70
A221	6000	.057	.83
A222	7500	.051	.83
A223	10000	.043	.83
A224	12500	.035	.85
A225	15000	.032	.85
A226	25000	.024	.99
A227	35000	.021	.99
A228	40000	.019	.99
A229	50000	.017	1.15

25 WATT
Type 2JX-35
2" long x ⁹⁄₁₆" o.d.

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
1001	5	2.24	$ .72
1002	10	1.58	.72
1003	25	1.00	.72
1004	50	.71	.72
1005	75	.58	.72
1006	100	.50	.72
1007	150	.41	.72
1008	200	.35	.72
1009	250	.32	.72
1010	500	.22	.72
1011	750	.18	.72
1012	1000	.16	.72
1013	1500	.13	.75
1014	2000	.12	.75
1015	2500	.10	.75
1016	3000	.091	.75
1017	3500	.084	.75
1018	4000	.079	.75
1019	5000	.070	.75
1020	6000	.064	.85
1021	7500	.057	.85
1022	10000	.050	.85
1023	12000	.042	.90
1024	15000	.036	.90
1025	20000	.031	.90
1026	25000	.028	1.04

Standard tolerance is ±5% for all stock units.

5, 10 and 20 watts sizes packaged 10 units per box;
25 through 200 watt sizes packaged one unit per box.

50 WATT
Type 4JX-35
4" long x ⁹⁄₁₆" o.d.
Mounting Centers 4¾"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
2000	1	7.07	$1.55
2001	5	3.16	1.11
2002	10	2.23	1.11
2003	25	1.41	1.11
2004	50	1.00	1.11
2005	75	.82	1.11
2006	100	.71	1.11
2007	150	.58	1.11
2008	200	.50	1.11
2009	250	.45	1.11
2010	500	.32	1.11
2011	750	.26	1.11
2012	1000	.22	1.11
2013	1500	.18	1.14
2014	2000	.16	1.14
2015	2500	.14	1.14
2016	3000	.13	1.14
2017	4000	.11	1.14
2018	5000	.10	1.14
2019	7500	.081	1.23
2020	10000	.071	1.23
2021	12000	.064	1.35
2022	15000	.057	1.35
2023	20000	.050	1.35
2024	25000	.045	1.54
2025	35000	.032	1.54
2026	50000	.026	1.72

100 WATT
Type 6½L-35
6½" long x ¾" o.d.
Mounting Centers 7⅜"

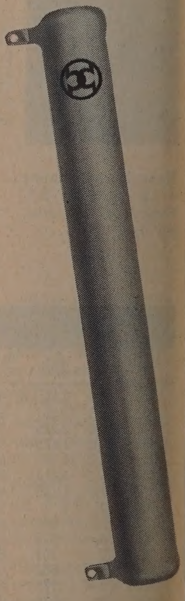
STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
3000	1	10.00	$2.16
3001	3	5.77	2.16
3002	5	4.47	1.54
3003	10	3.16	1.54
3004	25	2.00	1.54
3005	50	1.41	1.54
3006	75	1.15	1.54
3007	100	1.00	1.54
3008	250	.63	1.54
3009	500	.45	1.54
3010	1000	.32	1.54
3011	1500	.26	1.60
3012	2000	.22	1.60
3013	2500	.20	1.60
3014	3000	.18	1.60
3015	4000	.16	1.60
3016	5000	.14	1.60
3017	7500	.12	1.73
3018	10000	.10	1.73
3019	15000	.081	1.87
3020	20000	.071	1.87
3021	25000	.063	2.13
3022	30000	.058	2.13
3023	35000	.054	2.13
3024	40000	.050	2.13
3025	50000	.045	2.21
3026	60000	.041	2.21
3027	75000	.032	2.45

160 WATT
Type 8½FX-57
8½" long x 1⅛" o.d.
Mounting Centers 9⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
4001	5	5.66	$3.19
4002	10	4.00	2.28
4003	25	2.53	2.28
4004	50	1.79	2.28
4005	75	1.46	2.28
4006	100	1.26	2.28
4007	150	1.03	2.28
4008	250	.80	2.28
4009	500	.57	2.28
4010	750	.46	2.28
4011	1000	.40	2.28
4012	1500	.33	2.32
4013	2000	.28	2.32
4014	2500	.25	2.32
4015	3000	.23	2.32
4016	5000	.18	2.32
4017	7500	.15	2.53
4018	10000	.13	2.53
4019	15000	.10	2.71
4020	20000	.089	2.71
4021	25000	.080	2.80
4022	30000	.073	2.80
4023	40000	.063	2.80
4024	50000	.057	2.89
4025	75000	.046	3.08
4026	100000	.040	3.26

200 WATT
Type 10½FX-57
10½" long x 1⅛" o.d.
Mounting Centers 11⅜"

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
5001	5	6.32	$3.44
5002	10	4.47	2.46
5003	25	2.83	2.46
5004	50	2.00	2.46
5005	75	1.64	2.46
5006	100	1.41	2.46
5007	150	1.15	2.46
5008	250	.89	2.46
5009	500	.63	2.46
5010	750	.52	2.46
5011	1000	.45	2.46
5012	1500	.37	2.53
5013	2000	.32	2.53
5014	2500	.28	2.53
5015	3000	.26	2.53
5016	5000	.20	2.53
5017	7500	.16	2.71
5018	10000	.14	2.71
5019	15000	.12	2.89
5020	20000	.10	2.89
5021	25000	.089	2.98
5022	30000	.082	2.98
5023	40000	.071	2.98
5024	50000	.063	3.08
5025	75000	.052	3.26
5026	100000	.045	3.46



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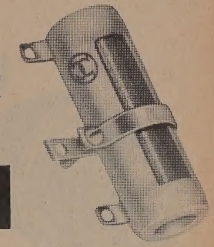
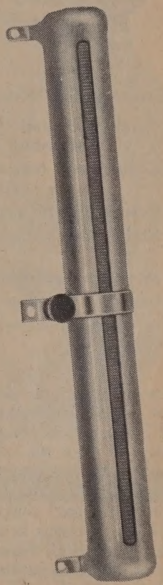
HARDWICK, HINDLE • INC ADJUSTABLE RESISTORS

The Quality
INDUSTRIAL LINE
since 1924

This resistor, embodying features originated by Hardwick, Hindle possesses the many advantages of Vitreous Enamel Construction, plus an adjustable feature. The winding is closely and evenly spaced, assuring ample insulation between turns. Where winding is exposed in the track, its underside is tightly embedded in the enamel, the upper surface only being exposed for contact with adjustable band.





10 WATT—Type K-10
1¾" long x 5/16" o.d.
Mounting Centers 2 3/16"
Terminal 37

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
C10	1	3.16	$1.14
C11	3	1.83	1.14
C12	5	1.41	1.14
C13	7.5	1.16	1.14
C14	10	1.00	1.14
C15	25	.82	1.14
C16	50	.63	1.14
C17	75	.45	1.14
C18	100	.32	1.14
C19	150	.26	1.14
C20	200	.22	1.14
C21	250	.20	1.14
C22	400	.16	1.14
C23	500	.14	1.14
C24	750	.12	1.14
C25	1000	.10	1.14
C26	1250	.089	1.18
C27	1500	.081	1.18
C28	2000	.071	1.18
C29	2500	.063	1.18
C30	3000	.057	1.18
C31	4000	.050	1.18
C32	5000	.045	1.18
C33	7500	.036	1.27
C34	10000	.032	1.27

25 WATT—Type K-25
2" long x 9/16" o.d.
Mounting Center 2¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
6001	1	5.00	$1.29
6002	2	3.54	1.29
6003	3	2.88	1.29
6004	5	2.24	1.29
6005	10	1.58	1.29
6006	20	1.12	1.29
6007	25	1.00	1.29
6008	50	.71	1.29
6009	75	.58	1.29
6010	100	.50	1.29
6011	200	.35	1.29
6012	300	.29	1.29
6013	400	.25	1.29
6014	500	.22	1.29
6015	750	.18	1.29
6016	800	.17	1.29
6017	1000	.16	1.29
6018	1250	.14	1.32
6019	1500	.13	1.32
6020	2000	.12	1.32
6021	2500	.10	1.32
6022	3000	.091	1.32
6023	3500	.084	1.32
6024	4000	.079	1.32
6025	5000	.070	1.32
6026	6000	.064	1.42
6027	7000	.060	1.42
6028	8000	.055	1.42
6029	10000	.050	1.42
6030	15000	.036	1.47
6031	20000	.031	1.47
6032	25000	.028	1.61

50 WATT—Type K-50
4" long x 9/16" o.d.
Mounting Center 4¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
7001	5	3.16	$1.68
7002	10	2.23	1.68
7003	25	1.41	1.68
7004	50	1.00	1.68
7005	75	.82	1.68
7006	100	.71	1.68
7007	200	.50	1.68
7008	250	.45	1.68
7009	300	.41	1.68
7010	400	.35	1.68
7011	500	.32	1.68
7012	750	.26	1.68
7013	800	.25	1.68
7014	1000	.22	1.68
7015	1500	.18	1.71
7016	2000	.16	1.71
7017	2500	.14	1.71
7018	3000	.13	1.71
7019	4000	.11	1.71
7020	5000	.10	1.71
7021	6000	.091	1.80
7022	7000	.084	1.80
7023	7500	.081	1.80
7024	8000	.079	1.80
7025	9000	.074	1.80
7026	10000	.071	1.80
7027	12000	.064	1.92
7028	15000	.057	1.92
7029	20000	.050	1.92
7030	25000	.045	2.11
7031	30000	.036	2.11
7032	40000	.029	2.11
7033	50000	.026	2.29

75 WATT—Type K-75
6" long x 9/16" o.d.
Mounting Centers 6¾"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
8001	5	3.87	$1.87
8002	10	2.74	1.87
8003	15	2.24	1.87
8004	25	1.73	1.87
8005	50	1.22	1.87
8006	100	.86	1.87
8007	200	.61	1.87
8008	300	.50	1.87
8009	400	.43	1.87
8010	500	.39	1.87
8011	750	.32	1.87
8012	1000	.27	1.87
8013	1500	.22	1.92
8014	2000	.19	1.92
8015	2500	.17	1.92
8016	3000	.16	1.92
8017	4000	.14	1.92
8018	5000	.12	1.92
8019	6000	.11	2.01
8020	7000	.10	2.01
8021	7500	.10	2.01
8022	10000	.086	2.01
8023	15000	.070	2.13
8024	20000	.061	2.13
8025	25000	.054	2.32
8026	30000	.050	2.32
8027	40000	.043	2.32
8028	50000	.033	2.52
8029	60000	.030	2.52
8030	80000	.026	2.78
8031	100000	.023	2.93

100 WATT—Type K-100
6½" long x ¾" o.d.
Mounting Centers 7⅜"
Terminal 35

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9001	5	4.47	$2.11
9002	10	3.16	2.11
9003	25	2.00	2.11
9004	50	1.41	2.11
9005	100	1.00	2.11
9006	250	.63	2.11
9007	500	.45	2.11
9008	1000	.32	2.11
9009	1500	.26	2.17
9010	2500	.20	2.17
9011	5000	.14	2.17
9012	10000	.10	2.30
9013	15000	.081	2.44
9014	20000	.071	2.44
9015	25000	.063	2.70
9016	30000	.058	2.70
9017	40000	.050	2.70
9018	50000	.045	2.78
9019	75000	.032	3.02
9020	100000	.028	3.32

160 WATT—Type K-160
8½" long x 1⅛" o.d.
Mounting Centers 9⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9030	5	5.66	$4.07
9031	10	4.00	3.16
9032	25	2.53	3.16
9033	50	1.79	3.16
9034	100	1.26	3.16
9035	250	.80	3.16
9036	500	.57	3.16
9037	1000	.40	3.16
9038	1500	.33	3.20
9039	2500	.25	3.20
9040	5000	.18	3.20
9041	10000	.13	3.41
9042	15000	.10	3.59
9043	20000	.089	3.59
9044	25000	.080	3.68
9045	30000	.073	3.68
9046	40000	.063	3.68
9047	50000	.057	3.77
9048	75000	.046	3.96
9049	100000	.040	4.14

200 WATT—Type K-200
10½" long x 1⅛" o.d.
Mounting Centers 11⅜"
Terminal 57

STOCK NO.	OHMS	MAX. AMPS.	NET PRICE
9060	5	6.32	$4.32
9061	10	4.47	3.34
9062	25	2.83	3.34
9063	50	2.00	3.34
9064	100	1.41	3.34
9065	250	.89	3.34
9066	500	.63	3.34
9067	1000	.45	3.34
9068	2500	.28	3.41
9069	5000	.20	3.41
9070	10000	.14	3.59
9071	15000	.12	3.77
9072	20000	.10	3.77
9073	25000	.089	3.77
9074	30000	.082	3.77
9075	40000	.071	3.77
9076	50000	.063	3.96
9077	75000	.052	4.14
9078	100000	.045	4.34

All sizes of Adjustable Resistors listed are furnished complete with mounting brackets and one adjustable contact band.

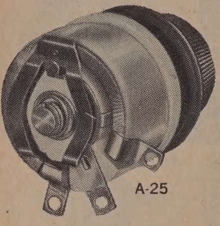
Tolerance of ±10% measured without the adjustable band.

Adjustable Contact Bands

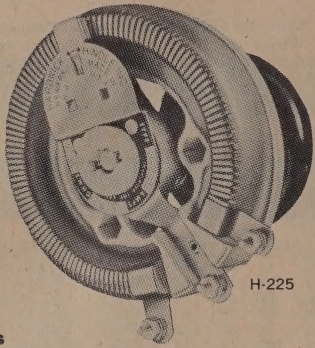
RESISTOR O.D.	TERMINAL TYPE	STOCK NO.	
		SCREW DRIVER	BAKELITE-KNOB*
5/16"	K	1791-2	1791-2-X
9/16"	K	1791-8	1791-8-X
3/4"	341	1793-2	1793-2-X
1-1/8"	341	1793-4	1793-4-X

*Available on request at extra cost.

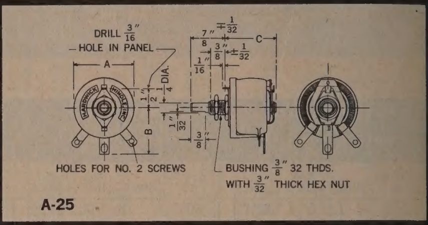
"Gray Line" HARDWICK, HINDLE · INC RHEOSTATS—



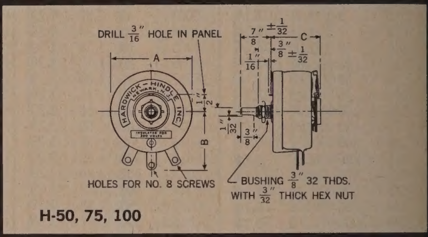
A-25



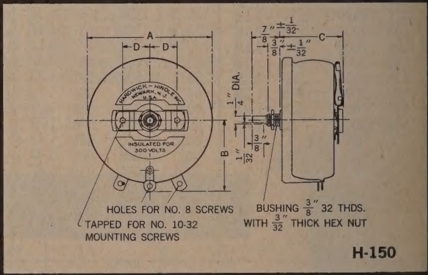
H-225


DRILL $\frac{3}{16}$" HOLE IN PANEL
A
B
C
$\frac{1}{4}$" DIA.
$\frac{7}{8}$" ± $\frac{1}{32}$
$\frac{3}{8}$" ± $\frac{1}{32}$
$\frac{1}{16}$"
$\frac{1}{32}$"
$\frac{3}{8}$"
HOLES FOR NO. 2 SCREWS
BUSHING $\frac{3}{8}$" 32 THDS. WITH $\frac{3}{32}$" THICK HEX NUT

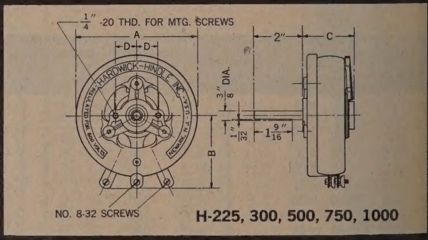
A-25


DRILL $\frac{3}{16}$" HOLE IN PANEL
A
B
C
$\frac{1}{4}$"
$\frac{7}{8}$" ± $\frac{1}{32}$
$\frac{3}{8}$" ± $\frac{1}{32}$
$\frac{1}{16}$"
$\frac{1}{32}$"
$\frac{3}{8}$"
HARDWICK-HINDLE INC
INSULATED FOR 300 VOLTS
HOLES FOR NO. 8 SCREWS
BUSHING $\frac{3}{8}$" 32 THDS. WITH $\frac{3}{32}$" THICK HEX NUT

H-50, 75, 100


A
D
D
B
C
$\frac{1}{4}$" DIA.
$\frac{7}{8}$" ± $\frac{1}{32}$
$\frac{3}{8}$" ± $\frac{1}{32}$
$\frac{3}{8}$"
$\frac{1}{32}$"
HARDWICK-HINDLE INC NEWARK, N.J. U.S.A.
INSULATED FOR 300 VOLTS
HOLES FOR NO. 8 SCREWS
TAPPED FOR NO. 10-32 MOUNTING SCREWS
BUSHING $\frac{3}{8}$" 32 THDS. WITH $\frac{3}{32}$" THICK HEX NUT

H-150


$\frac{1}{4}$" -20 THD. FOR MTG. SCREWS
A
D
D
B
C
2"
$\frac{3}{8}$" DIA.
$\frac{1}{32}$"
$1\frac{9}{16}$"
HARDWICK-HINDLE INC
NO. 8-32 SCREWS

H-225, 300, 500, 750, 1000

Outstanding Features

- **Highly perfected "bus bar" brush construction—affording minimum resistance to collector ring.**
- **Contact arm tension automatically adjusting for continuous pressure over winding surface.**
- **Greater safety factor due to high temperature enamel.**
- **Higher terminal strength with strong corrosion resistant alloy.**
- **Minimum number of parts in new trouble free design.**
- **Designed to comply with current standards of:**
  - (a) Military Specifications MIL-R-22
  - (b) E.I.A.
  - (c) N.E.M.A.
  - (d) Listed by Underwriters Laboratories, Inc. (Types H-50 through and including H-150)

Hardwick, Hindle rheostats are exceptionally rugged without being over-designed or dependent on untried principles of construction. They exhibit "market quality" characteristics to meet the most exacting specifications, and special design features assure long life and protection under extremes of humidity and abnormal atmospheric conditions. The "buss bar" contact arm automatically adjusts for complete, continuous contact, and smooth, flexible control. Our blue-gray, high temperature enamel—thermo shock proof—gives increased service life with an extreme factor of safety.

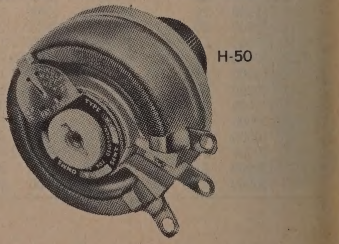
In addition to the complete standard line of rheostats listed at the right, Hardwick, Hindle, Inc. welcomes the opportunity to work with you in the development of rheostats or potentiometers to your specifications. Tapered windings, tandem assemblies, special resistances, and many other electrical or mechanical modifications can be supplied.

Hardwick, Hindle rheostats are packaged one unit per box.

Sizes and Ratings

TYPE & WATTAGE	OHM RANGE		MAX AMPS.		DIMENSIONS (INCHES)				
	MIN.	MAX.	MIN. OHMS	MAX. OHMS	A	B	C	D	ROTATION
A–25	0.50	5000	7.06	.07	1 9/16	1	1 11/32	—	285°
H–50	0.50	10000	10.00	.07	2 3/8	1 9/16	1 7/16	—	300°
H–75	0.50	10000	12.30	.09	2 3/4	1 3/4	1 21/32	—	300°
H–100	0.50	10000	14.20	0.10	3 1/8	1 29/32	1 23/32	—	300°
H–150	0.50	10000	17.30	0.12	4	2 7/16	1 31/32	7/8	300°
H–225	1.0	2500	15.00	0.30	5	2 15/16	2 3/32	7/8	310 ± 5°
H–300	1.0	2500	17.25	0.35	6	3 13/32	2 1/4	1 3/16	315 ± 5°
H–500	1.0	2500	22.30	0.45	8	4 9/32	2 3/32	1 1/2	325 ± 3°
H–750	1.0	2500	27.40	0.55	10	5 1/2	2 23/32	1 7/8	330 ± 3°
H–1000	1.0	2500	31.60	0.63	12	6 5/16	2 3/4	3	335 ± 3°

*Free air ratings thru all or any part of winding; reduce by 50% for enclosed units.



H-50

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25 WATTS TO 1000 WATTS

The Quality
INDUSTRIAL LINE
since 1924

TYPE A-25
25 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0201	0.50	7.06	17	$4.63
0202	0.75	5.77	17	4.63
0203	1.0	5.00	17	4.63
0204	1.5	4.08	34	4.63
0205	2.5	3.16	34	4.11
0206	5.0	2.22	34	4.11
0207	7.5	1.82	34	4.11
0208	10	1.58	90	4.11
0209	15	1.29	90	4.11
0210	25	1.00	100	4.11
0211	50	.706	100	4.11
0212	75	.577	135	4.11
0213	100	.500	112	4.11
0214	150	.408	146	4.11
0215	250	.316	146	4.11
0216	500	.222	180	4.11
0217	750	.182	214	4.11
0218	1000	.158	248	4.63
0219	1500	.129	292	4.63
0220	2500	.100	303	4.99
0221	3500	.084	336	4.99
0222	5000	.070	387	4.99

TYPE H-50
50 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0301	0.50	10.0	25	$5.15
0302	0.75	8.16	25	5.15
0303	1.0	7.06	52	5.15
0304	1.5	5.77	52	5.15
0305	2.5	4.48	52	5.15
0306	5.0	3.16	52	5.15
0307	7.5	2.58	52	5.15
0308	10	2.22	98	4.63
0309	15	1.82	98	4.63
0310	25	1.41	98	4.63
0311	50	1.00	129	4.63
0312	75	.816	153	4.63
0313	100	.706	157	4.63
0314	150	.577	187	4.63
0315	250	.448	258	4.63
0316	500	.316	308	4.63
0317	750	.258	294	4.90
0318	1000	.222	390	4.90
0319	1500	.182	364	4.90
0320	2500	.141	485	4.90
0321	5000	.100	590	5.15
0322	7500	.082	714	5.15
0323	10000	.070	750	5.15

TYPE H-100
100 Watt Rheostat

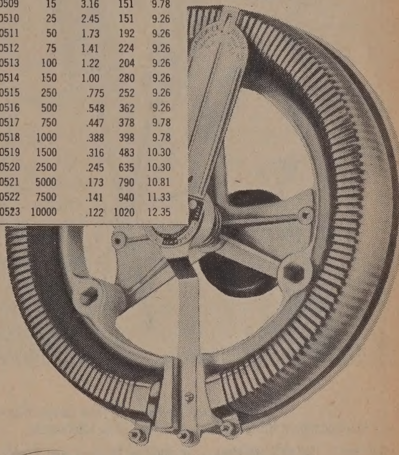
STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0401	0.50	14.2	30	$7.72
0402	0.75	11.6	30	7.72
0403	1.0	10.0	30	7.72
0404	1.5	8.16	30	7.72
0405	2.5	6.34	54	7.72
0406	5.0	4.48	54	7.72
0407	7.5	3.66	54	7.72
0408	10	3.16	54	7.72
0409	15	2.58	112	7.72
0410	25	2.00	108	7.21
0411	50	1.42	127	7.21
0412	75	1.16	151	7.21
0413	100	1.00	160	7.21
0414	150	.816	190	7.21
0415	250	.634	250	7.21
0416	500	.448	302	7.21
0417	750	.366	303	7.21
0418	1000	.316	317	7.72
0419	1500	.258	375	7.72
0420	2500	.200	494	7.72
0421	5000	.141	640	8.24
0422	7500	.115	760	8.76
0423	10000	.100	740	9.26

TYPE H-150
150 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0501	0.50	17.30	26	$9.78
0502	0.75	14.10	30	9.78
0503	1.00	12.25	40	9.78
0504	1.5	10.00	37	9.78
0505	2.5	7.75	39	9.78
0506	5.0	5.48	79	9.78
0507	7.5	4.47	75	9.78
0508	10	3.88	77	9.78
0509	15	3.16	151	9.78
0510	25	2.45	151	9.26
0511	50	1.73	192	9.26
0512	75	1.41	224	9.26
0513	100	1.22	204	9.26
0514	150	1.00	280	9.26
0515	250	.775	252	9.26
0516	500	.548	362	9.26
0517	750	.447	378	9.78
0518	1000	.388	398	9.78
0519	1500	.316	483	10.30
0520	2500	.245	635	10.30
0521	5000	.173	790	10.81
0522	7500	.141	940	11.33
0523	10000	.122	1020	12.35

Note: Knobs supplied on stock units upon request at extra charge. Tolerance ±10% on all stock units.

H-1000



H-H RESISTORS, RHEOSTATS and POTENTIOMETERS

MEMBER
EIA
PACE PRODUCERS OF ASSOCIATED COMPONENTS FOR ELECTRONICS, INC.

—the Reliable Line!

HARDWICK, HINDLE • INC

NEWARK 5, NEW JERSEY

TYPE H-225
225 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0530	1	15.00	55	$14.11
0531	1.5	12.30	55	14.11
0532	2	10.60	55	14.11
0533	2.5	9.50	55	14.11
0534	3	8.66	55	14.11
0535	4	7.50	55	14.11
0536	5	6.71	55	14.11
0537	7.5	5.49	115	14.11
0538	10	4.74	115	14.11
0539	15	3.87	115	14.11
0540	25	3.00	115	14.11
0541	50	2.12	256	14.11
0542	75	1.73	306	14.11
0543	100	1.50	315	14.11
0544	150	1.22	385	14.11
0545	200	1.06	357	14.11
0546	250	.950	350	14.11
0547	300	.866	335	14.11
0548	400	.750	448	14.11
0549	500	.671	450	14.11
0550	700	.567	495	14.11
0551	750	.549	533	14.11
0552	900	.500	500	14.11
0553	1000	.474	555	14.11
0554	1200	.433	526	14.11
0555	1500	.387	630	14.11
0556	1750	.358	620	14.11
0557	2500	.300	670	14.11

TYPE H-300
300 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0601	1	17.25	49	$15.29
0602	1.5	14.15	47	15.29
0603	2	12.24	49	15.29
0604	2.5	10.95	70	15.29
0605	3	10.00	73	15.29
0606	4	8.66	70	15.29
0607	5	7.75	66	15.29
0608	7.5	6.32	71	15.29
0609	10	5.48	136	15.29
0610	15	4.47	144	15.29
0611	25	3.46	145	15.29
0612	50	2.45	245	15.29
0613	75	2.00	260	15.29
0614	100	1.73	327	15.29
0615	150	1.41	394	15.29
0616	200	1.22	420	15.29
0617	250	1.09	525	15.29
0618	300	1.00	420	15.29
0619	400	.866	440	15.29
0620	500	.775	440	15.29
0621	700	.655	502	15.29
0622	750	.633	540	15.29
0623	900	.578	521	15.29
0624	1000	.548	580	15.29
0625	1200	.500	690	15.29
0626	1500	.449	680	15.29
0627	1750	.414	790	15.29
0628	2500	.346	862	15:29

TYPE H-500
500 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0701	1	22.3	70	$22.09
0702	1.5	18.2	64	22.09
0703	2	15.8	68	22.09
0704	2.5	14.1	67	22.09
0705	3	12.9	65	22.09
0706	4	11.2	96	22.09
0707	5	10.0	96	22.09
0708	7.5	8.17	98	22.09
0709	8	7.90	97	22.09
0710	10	7.07	105	22.09
0711	12.5	6.30	103	22.09
0712	15	5.77	202	22.09
0713	16	5.60	192	22.09
0714	25	4.47	195	22.09
0715	40	3.54	205	22.09
0716	50	3.16	200	22.09
0717	75	2.58	395	22.09
0718	80	2.52	382	22.09
0719	100	2.23	450	22.09
0720	125	2.00	505	22.09
0721	150	1.82	544	22.09
0722	175	1.69	500	22.09
0723	250	1.41	570	22.09
0724	325	1.24	515	22.09
0725	500	1.00	620	22.09
0726	750	.817	740	22.09
0727	1000	.707	780	22.09
0728	1500	.577	940	22.09
0729	2000	.500	986	22.09
0730	2500	.447	940	22.09

TYPE H-750
750 Watt Rheostat

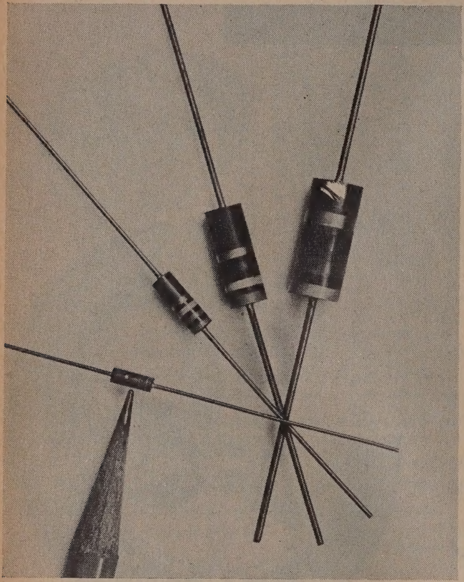
STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0801	1	27.4	85	$31.20
0802	1.5	22.3	85	31.20
0803	2	19.4	81	31.20
0804	2.5	17.3	87	31.20
0805	3	15.8	83	31.20
0806	4	13.6	87	31.20
0807	5	12.2	122	31.20
0808	7.5	10.0	129	31.20
0809	8	9.65	122	31.20
0810	10	8.65	121	31.20
0811	12.5	7.75	120	31.20
0812	15	7.07	127	31.20
0813	16	6.82	120	31.20
0814	25	5.47	240	31.20
0815	50	3.87	238	31.20
0816	75	3.19	250	31.20
0817	80	3.06	266	31.20
0818	100	2.74	265	31.20
0818	150	2.23	500	31.20
0820	160	2.17	485	31.20
0821	200	1.94	472	31.20
0822	250	1.73	470	31.20
0823	300	1.58	500	31.20
0824	400	1.37	472	31.20
0825	500	1.22	565	31.20
0826	600	1.12	677	31.20
0827	750	1.00	670	31.20
0828	1000	.865	715	31.20
0829	1200	.791	860	31.20
0830	1500	.707	840	31.20
0831	1800	.646	1020	31.20
0832	2500	.547	1085	31.20

TYPE H-1000
1000 Watt Rheostat

STOCK NO.	OHMS	MAX. AMPS.	APPROX. NO. STEPS	NET PRICE
0901	1	31.60	81	$36.45
0902	1.5	25.80	84	36.45
0903	2	22.40	109	36.45
0904	2.5	20.00	105	36.45
0905	3	18.30	113	36.45
0906	4	15.80	106	36.45
0907	5	14.10	105	36.45
0908	7.5	11.50	158	36.45
0909	8	11.20	168	36.45
0910	10	10.00	166	36.45
0911	12.5	8.95	165	36.45
0912	15	8.16	156	36.45
0913	16	7.90	166	36.45
0914	25	6.33	160	36.45
0915	50	4.47	331	36.45
0916	75	3.65	303	36.45
0917	100	3.16	320	36.45
0918	150	2.58	306	36.45
0919	175	2.39	645	36.45
0920	225	2.11	585	36.45
0921	250	2.00	640	36.45
0922	300	1.83	605	36.45
0923	400	1.58	640	36.45
0924	500	1.41	635	36.45
0925	750	1.15	820	36.45
0926	1000	1.00	862	36.45
0927	1500	.816	1030	36.45
0928	2500	.633	1300	36.45

Note: Knobs supplied on stock units upon request at extra charge.

FIXED COMPOSITION RESISTORS

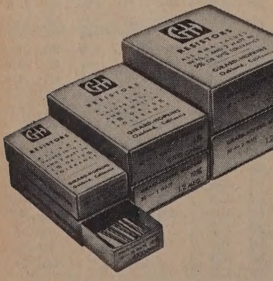


...for immediate delivery...fixed composition resistors in all standard RETMA values, 5% and 10% tolerances.

And now...¼ **watt resistors**...in addition to ½, 1 and 2 watt sizes.

These fine G-H resistors offer the jobber a product of highest quality... **conservative** in ratings...**permanent** in electrical characteristics... **uniform** in physical size and shape. Resistor bodies are molded brown bakelite, have great mechanical strength, are coded in brilliant lasting colors. Differentially tempered leads allow normal lead shaping for best circuit arrangement yet avoid too-sharp bends near resistor body.

G-H resistor packaging is modern...colorful...functional. Four convenient container sizes hold standard quantities of ¼, ½, 1 and 2 watt resistors...have pull-out inner sections for easy access to contents without removing container from shelf. Gold and silver ends on these pull-out sections give immediate identification of 5% and 10% tolerance units. Quantity, wattage and resistance values are clearly printed on container ends. These stackable containers combine to make up an attractive, space-saving stock shelf display.



CONVENIENT
ATTRACTIVE
PACKAGING

5% and 10% tolerance

¼, ½, 1 and 2 watt ratings

¼, ½, 1 and 2 watt ratings

10	82	680	5600	47,000	390,000	3.3 meg.
11	91	750	6200	51,000	430,000	3.6 ''
12	100	820	6800	56,000	470,000	3.9 ''
13	110	910	7500	62,000	510,000	4.3 ''
15	120	1000	8200	68,000	560,000	4.7 ''
16	130	1100	9100	75,000	620,000	5.1 ''
18	150	1200	10,000	82,000	680,000	5.6 ''
20	160	1300	11,000	91,000	750,000	6.2 ''
22	180	1500	12,000	100,000	820,000	6.8 ''
24	200	1600	13,000	110,000	910,000	7.5 ''
27	220	1800	15,000	120,000	1.0 meg.	8.2 ''
30	240	2000	16,000	130,000	1.1 ''	9.1 ''
33	270	2200	18,000	150,000	1.2 ''	10.0 ''
36	300	2400	20,000	160,000	1.3 ''	11.0 ''
39	330	2700	22,000	180,000	1.5 ''	12.0 ''
43	360	3000	24,000	200,000	1.6 ''	13.0 ''
47	390	3300	27,000	220,000	1.8 ''	15.0 ''
51	430	3600	30,000	240,000	2.0 ''	16.0 ''
56	470	3900	33,000	270,000	2.2 ''	18.0 ''
62	510	4300	36,000	300,000	2.4 ''	20.0 ''
68	560	4700	39,000	330,000	2.7 ''	22.0 ''
75	620	5100	43,000	360,000	3.0 ''	

Standard packages, 50 resistors.

5% Tolerance

FOLLOWING
VALUES
AVAILABLE
ONLY IN 1/4,
1/2 and 1
WATT
RATINGS

2.7 ohms
3.0 ohms
3.3 ohms
3.6 ohms
3.9 ohms
4.3 ohms
4.7 ohms
5.1 ohms
5.6 ohms
6.2 ohms
6.8 ohms
7.5 ohms
8.2 ohms
9.1 ohms

All Standard RETMA Values

¼, ½, 1 and 2 watt ratings

10	120	1500	18,000	220,000	2.7 meg.
12	150	1800	22,000	270,000	3.3 ''
15	180	2200	27,000	330,000	3.9 ''
18	220	2700	33,000	390,000	4.7 ''
22	270	3300	39,000	470,000	5.6 ''
27	330	3900	47,000	560,000	6.8 ''
33	390	4700	56,000	680,000	8.2 ''
39	470	5600	68,000	820,000	10.0 ''
47	560	6800	82,000	1.0 meg.	12.0 ''
56	680	8200	100,000	1.2 ''	15.0 ''
68	820	10,000	120,000	1.5 ''	18.0 ''
82	1000	12,000	150,000	1.8 ''	22.0 ''
100	1200	15,000	180,000	2.2 ''	

Standard packages, 50 resistors

10% Tolerance

FOLLOWING
VALUES
AVAILABLE
ONLY IN 1/4,
1/2 and 1
WATT
RATINGS

2.7 ohms
3.3 ohms
3.9 ohms
4.7 ohms
5.6 ohms
6.8 ohms
8.2 ohms

GIRARD - HOPKINS

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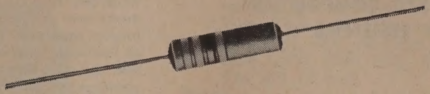
IRC MOLDED WIRE WOUND RESISTORS

TYPE BWH MOLDED WIRE WOUND RESISTOR



IRC's new BWH molded wire wound resistor can be used in most applications normally filled by the lower values of composition resistors. The BWH exhibits inherent stability, reliability, and long-term life characteristics of a wire wound unit. It also provides low resistances unattainable in composition resistors.

Exceptionally stable, small and completely insulated the BWH meets or exceeds all MIL-R-11C performance requirements. Because it is the RC-32 size it will fit any 1 watt composition resistor processing equipment.

BWH resistors are packaged by BODY TAPE or the exclusive IRC GRIP STRIP, GRIP REEL or ORIENTED BULK.

The rating of this resistor is:

- ½ **watt** at 137°C. ambient
- **1 watt** at 115°C. ambient
- **2 watts** at 70°C. ambient

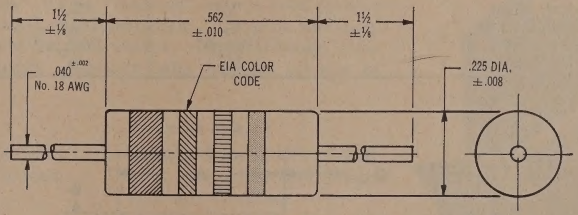
INSULATION. A plastic housing molded with IRC manufactured thermosetting materials at high pressure and temperature results in a high insulation resistance. This protects the element from effects of extreme climatic conditions. Type BWH resistors are brown in color.

NOISE. Negligible.

SHELF DRIFT. Negligible.

TOLERANCES & RESISTANCE VALUES. Available in ±5% and ±10% tolerances in accordance with standard EIA resistance ranges. Minimum resistance: 0.24 ohm, maximum: 1000 ohms.

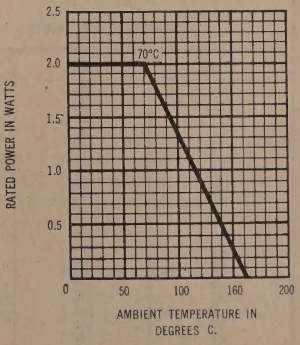
COLOR CODING. Resistance values are indicated by standard EIA Color Code bands, and are distinguished from composition resistors by a wide band for the first significant figure.



STANDARD STOCK VALUES (±5% and ±10% tolerance)
(±10% tolerance in bold type. All values available in ±5%)

OHMS	OHMS	OHMS	OHMS	OHMS
—	**1.0**	**10**	**100**	**1,000**
—	1.1	11	110	—
—	**1.2**	**12**	**120**	—
—	1.3	13	130	—
—	**1.5**	**15**	**150**	—
—	1.6	16	160	—
—	**1.8**	**18**	**180**	—
—	2.0	20	200	—
—	**2.2**	**22**	**220**	—
0.24	2.4	24	240	—
0.27	**2.7**	**27**	**270**	—
0.30	3.0	30	300	—
0.33	**3.3**	**33**	**330**	—
0.36	3.6	36	360	—
0.39	**3.9**	**39**	**390**	—
0.43	4.3	43	430	—
0.47	**4.7**	**47**	**470**	—
0.51	5.1	51	510	—
0.56	**5.6**	**56**	**560**	—
0.62	6.2	62	620	—
0.68	**6.8**	**68**	**680**	—
0.75	7.5	75	750	—
0.82	**8.2**	**82**	**820**	—
0.91	9.1	91	910	—

DERATING CURVE



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INSULATED RESISTORS

TYPE GBT-SR FIXED COMPOSITION CARBON RESISTORS

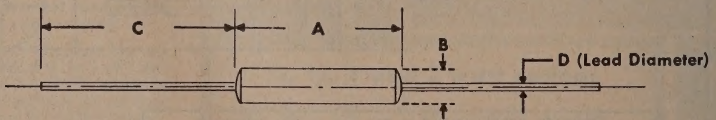
More IRC Type GBT-SR Resistors are used in the electronic industry than any other brand of fixed composition resistors. For original equipment, IRC GBT-SR's are by far the leading choice of Electronic Engineers—particularly since the new GBT-½ ½ watt and GBT-1 1 watt give new appearance, new sizes . . . IRC's unsurpassed solderability has been maintained and no wax coating to gum up end equipment. For replacement, Service Technicians favor IRC GBT-SR's over all other brands combined.

IRC's exclusive filament-type resistance element is combined with superior construction features to provide a stable resistor of extremely low operating temperature and excellent power dissipation in a compact, light weight, fully insulated unit.

IRC TYPE NUMBER	GBT-½	GBT-1	SR-2
Element Style	Carbon Filament	Carbon Filament	Carbon Filament
Equivalent MIL TYPE	RC20	RC32	RC42
MIL CHARACTERISTICS	GF	GF	GF
Rating in Watts 70° Ambient — GBT-SR 40° Ambient — BW	½	1	2
Minimum Resistance	10 Ohms	10 Ohms	10 Ohms
Maximum Resistance	22 Meg.	22 Meg.	22 Meg.
Rated Voltage	350V	500V	500V
Dimensions (Fig. 1) A—Body Length B—Body Diameter C—Lead Length D—Lead Diameter	 25/64" 9/64" 1½±⅛" 1/32"	 9/16" 7/32" 1½±⅛" 1/32"	 11/16" 5/16" 1½±⅛" 3/64"

Figure 1

Dimensions



STANDARD STOCK VALUES— ±5% and ±10% tolerance (±10% tolerance in bold type. All values available in ±5%).

OHMS	OHMS	OHMS	OHMS	OHMS	MEGS	MEGS
10	**100**	**1,000**	**10K**	**100K**	**1.0**	**10**
11	110	1,100	11K	110K	1.1	11
12	**120**	**1,200**	**12K**	**120K**	**1.2**	**12**
13	130	1,300	13K	130K	1.3	13
15	**150**	**1,500**	**15K**	**150K**	**1.5**	**15**
16	160	1,600	16K	160K	1.6	16
18	**180**	**1,800**	**18K**	**180K**	**1.8**	**18**
20	200	2,000	20K	200K	2.0	20
22	**220**	**2,200**	**22K**	**220K**	**2.2**	**22**
24	240	2,400	24K	240K	2.4	—
27	**270**	**2,700**	**27K**	**270K**	**2.7**	—
30	300	3,000	30K	300K	3.0	—
33	**330**	**3,300**	**33K**	**330K**	**3.3**	—
36	360	3,600	36K	360K	3.6	—
39	**390**	**3,900**	**39K**	**390K**	**3.9**	—
43	430	4,300	43K	430K	4.3	—
47	**470**	**4,700**	**47K**	**470K**	**4.7**	—
51	510	5,100	51K	510K	5.1	—
56	**560**	**5,600**	**56K**	**560K**	**5.6**	—
62	620	6,200	62K	620K	6.2	—
68	**680**	**6,800**	**68K**	**680K**	**6.8**	—
75	750	7,500	75K	750K	7.5	—
82	**820**	**8,200**	**82K**	**820K**	**8.2**	—
91	910	9,100	91K	910K	9.1	—

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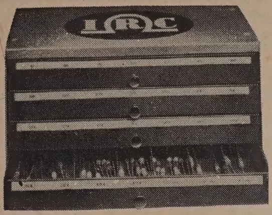
IRC®

RESIST-O-CABINETS

RESIST-O-CABINETS



IRC RESIST-O-CABINETS are practical assortments of most frequently used IRC Resistors contained in sturdy all-metal cabinets. 4 non-spill drawers—28 compartments. Measure 5⅜″ x 5¹⁵⁄₁₆″ x 10⅞″.

RESIST-O-CABINETS

2 WATT ASSORTMENT #3A

Contains 120 IRC 2 Watt Resistors as follows:

7 ea. 8200, 10K, 22K, 47K; 5 ea. 1K, 6800, 15K, 0.1 meg.; 4 ea. 100, 330, 470, 1500, 2200, 3300, 4700, 27K, 1.0 meg.; 3 ea. 47, 82, 150, 220, 270, 3900, .22 meg., .47 meg.; 2 ea. 4.7, 10, 22, 68; 1 ea. 15, 27, 33, 39.

½ WATT ASSORTMENT #4A

Contains 150 IRC ½ Watt Resistors as follows: 8 ea. 1K, 47K, 0.1 meg., 27 meg., 470K, 1.0 meg.; 7 ea. 3700, 10K, .22 meg., 2.2 meg.; 5 ea. 3300, 22K, 27K, 33K, .33 meg., 4.7 meg.; 4 ea. 100, 470, 1500, 2200, 2700, 56K, 68K, 3.3 meg.; 3 ea. 47, 220, 270, 10 meg.

1 WATT ASSORTMENT #5A

Contains 125 IRC 1 Watt Resistors as follows: 7 ea. 1K, 10K, 27K, 47K, 0.1 meg., 0.27 meg., 0.47 meg., 1.0 meg.; 5 ea. 2200, 4700, 22K; 4 ea. 33K, 39K, 68K; 3 ea. 47, 100, 150, 220, 270, 470, 1500, 2700, 3300, 15K, .15 meg., .22 meg., 2.2 meg., 4.7 meg.

COMBINATION ASSORTMENT #6A

Contains 139 IRC Insulated Resistors and Type DCF as follows:

½ Watt. 4 ea. 1000, 47K, 100K, 270K, 470K, 1.0 meg.; 3 ea. 4700, 10K, 220K, 2.2 meg.; 2 ea. 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 3300, 15K, 22K, 27K, 33K, 39K, 68K, 150K, 4.7 meg.

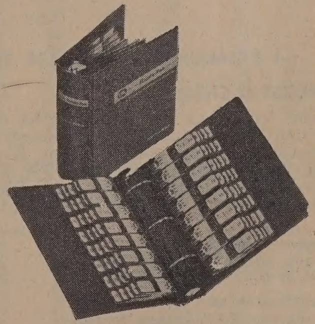
1 Watt. 4 ea. 1000, 10K, 27K, 100K, 1.0 meg.; 3 ea. 47K, 470K, 2.2 meg.; 2 ea. 3300, 15K, 22K, 68K, 150K, 270K; 1 ea. 47, 100, 150, 220, 270, 470, 1500, 2200, 2700, 4700, 33K, 39K, 220K, 4.7 meg.

2 Watt. 1 ea. 47, 100, 470, 4700, 10K, 22K, 47K.

DCF. 1 ea. 1000, 10K, 100K, 1.0 meg., 5 meg.

RESIST-O-PEDIA

For technicians, here's a unique convenience for stocking carbon composition resistors. Attractive blue and yellow hardback binder measures 9 x 8¼ x 2⅞″. 3-ring "fingered" inserts hold resistor Handy-Paks. Indexed stock saves searching . . . speeds servicing. Complete resistor identification always visible. Choose from these popular assortments (Resist-O-Pedia included in cost of assortments.)



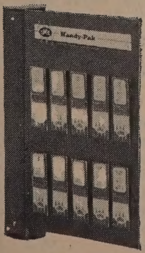
Assortment #44

6 each, Type GBT½ ½-watt (10% tolerance) 462 ½-watt resistors, 77 values

Assortment #48

4 each, Type GBT1 1-watt (10% tolerance) 308 1-watt resistors, 77 values

ohms:	10	47	220	1000	4700	22K	100K	470K	2.2 meg	10 meg
	12	56	270	1200	5600	27K	120K	560K	2.7 meg	12 meg
	15	68	330	1500	6800	33K	150K	680K	3.3 meg	15 meg
	18	82	390	1800	8200	39K	180K	820K	3.9 meg	18 meg
	22	100	470	2200	10K	47K	220K	1.0 meg	4.7 meg	22 meg
	27	120	560	2700	12K	56K	270K	1.2 meg	5.6 meg	
	33	150	680	3300	15K	68K	330K	1.5 meg	6.8 meg	
	39	180	820	3900	18K		390K	1.8 meg	8.2 meg	



RESIST-O-PANEL

Swing panel is all-metal 7″ wide x 12¼″ high, slotted to accommodate Handy-Paks. Wall brackets are supplied. Can be used singly or in sets to provide a visible resistor stock that saves bench space. IRC Resist-O-Panel included with any of 4 popular assortments (at regular price of Assortments)

Assortment #64

6 each, Type GBT½ ½-watt (10% tolerance) 60 ½-watt resistors, 10 values

Assortment #68

4 each, Type GBT1 1-watt (10% tolerance) 40 1-watt resistors, 10 values

Assortment #80

3 each, Type SR2 2-watt (10% tolerance) 30 2-watt resistors, 10 values

1000 1500 10K 22K 47K 100K 220K 470K 1 meg 2.2 meg

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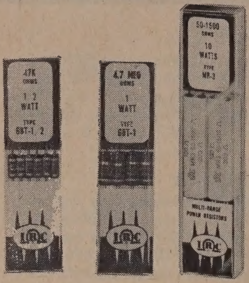
IRC HANDY-PAKS and extra value premium kits



Each IRC Handy-Pak* contains several carbon composition resistors of one type and resistance value . . . to save you unnecessary shopping.

Three types include: 6 ½-watt resistors; 4 1-watt resistors; and 3 2-watt resistors.
*Patent Pending

EASIER TO CHECK INVENTORY!

The actual resistors are clearly visible. You always know what you have. Identification tab tears off conveniently for reordering reminder.

EASIER TO IDENTIFY!

In clear, large letters the type, resistance value and power rating are printed on every Handy-Pak. Correct identification is fast and certain with Handy-Paks.

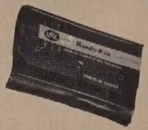
QUICKER TO FIND!

In any stocking arrangement, Handy-Paks can be quickly indexed by power rating and resistance. Your resistor stock remains orderly from the time you buy it until you use it.

HANDIER TO USE!

IRC Handy-Paks open at both ends. The package slides out of the slimline plastic sleeve. Simply withdraw one or more resistors and slide the package back into the protective shield. Leads are kept straight, and resistors are always factory-clean.

RESIST-O-CADDY



Ideal for in-home servicing. Pliable plastic pouch folds to 6⅝ x 3⅞ x 1½" . . . fits easily in tube caddy or tool chest. Individual pockets hold resistor Handy-Paks secure and orderly. Accurate inventory always visible. RESIST-O-CADDY included with these "best-seller" assortments (at regular price of assortments)

Assortment #45 6 each, Type GBT½ ½-watt (10% tolerance) 120 ½-watt resistors, 20 values

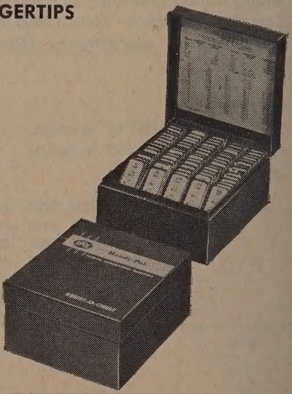
Assortment #41 4 each, Type GBT1 1 watt (10% tolerance) 80 1-watt resistors, 20 values

ohms: 47, 100, 150, 470, 1000, 1500, 2200, 4700, 10K, 22K, 27K, 47K, 100K, 220K, 270K, 470K, 1.0 meg, 2.2 meg, 4.7 meg, 10 meg

4 PREMIUM KITS TO KEEP THE HANDY-PAKS AT YOUR FINGERTIPS

RESIST-O-CHEST

End "cigar box confusion." Select from 10 popular carbon composition resistor stocks, all in sturdy metal chests. Hinged lid and metal separators keep resistor Handy-Paks in order . . . right at your fingertips. Compact 5⅝ x 3⅜ x 6¼" size takes little bench space. Identification data clearly visible. Included at regular price of these 10 fast-moving assortments —



Assortment No. 42
6 each, Type GBT½ ½-watt (10% tolerance) 204 ½-watt resistors, 34 values

Assortment No. 46
4 each, Type GBT1 1-watt (10% tolerance) 136 1-watt resistors, 34 values

Assortment No. 49A
3 each, Type SR-2 2-watt (10% tolerance) 102 2-watt resistors, 34 values

ohms: 47, 100, 150, 220, 470, 1000, 1500, 2200, 2700, 3300, 4700, 6800, 8200, 10K, 15K, 22K, 27K, 33K, 39K, 47K, 56K, 68K, 100K, 150K, 220K, 270K, 330K, 470K, 1.0 meg, 1.5 meg, 2.2 meg, 3.3 meg, 4.7 meg, 10 meg

Assortment No. 43
6 each, Type GBT½ ½-watt (10% tolerance) 462 ½-watt resistors, 77 values

Assortment No. 47
4 each, Type GBT1 1-watt (10% tolerance) 308 1-watt resistors, 77 values

Assortment No. 50A
3 each, Type SR-2 2-watt (10% tolerance 231 2-watt resistors, 77 values

ohms: 10, 12, 15, 18, 22, 27, 33, 39, 47, 56, 68, 82, 100, 120, 150, 180, 220, 270, 330, 390, 470, 560, 680, 820, 1000, 1200, 1500, 1800, 2200, 2700, 3300, 3900, 4700, 5600, 6800, 8200, 10K, 12K, 15K, 18K, 22K, 27K, 33K, 39K, 47K, 56K, 68K, 82K, 100K, 120K, 150K, 180K, 220K, 270K, 330K, 390K, 470K, 560K, 680K, 820K, 1.0 meg, 1.2 meg, 1.5 meg, 1.8 meg, 2.2 meg, 2.7 meg, 3.3 meg, 3.9 meg, 4.7 meg, 5.6 meg, 6.8 meg, 8.2 meg, 10 meg, 12 meg, 15 meg, 18 meg, 22 meg

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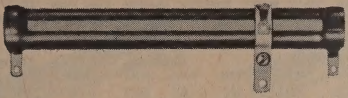
RESISTEG COATED ADJUSTABLE POWER WIRE WOUND RESISTORS



The adjustable feature of these IRC resistors provides an ideal solution to odd resistance values and to handling a variety of line voltages. For voltage divider applications, one or more adjustable bands may be used.

IRC adjustable power resistors are standard Resisteg coated tubular units with a track of exposed wire to allow for adjustment. Adjustable resistor wattage ratings apply only when all the resistance is in the circuit. Resistor should not be adjusted with voltage applied.

TYPE 2DA 25 watts. Core size: 2" long x 9/16" dia. Terminals: 12A. One adjustable band: type X-2. Resistance tolerance: ±10%. Mounting hardware included: Z-1 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	5000	5.00	1250	141	176
2	3450	7.07	1500	129	193
3	2880	8.66	2000	111	223
5	2236	11.1	2250	105	237
7.5	1825	13.7	2500	100	250
10	1580	15.8	3000	91	274
15	1290	19.4	3500	84	296
20	1118	22.3	4000	79	316
25	1000	25.0	4500	74	335
50	707	35.4	5000	70	353
75	577	43.3	6000	64	387
100	500	50.0	7000	59	418
150	408	61.2	7500	57	434
200	353	70.0	8000	55	447
250	316	79.0	9000	52	474
300	288	86.0	10K	50	500
400	250	100	12K	45	548
500	223	111	15K	40	612
750	185	137	20K	35	707
800	176	141	25K	31	790
1000	158	158			

TYPE 5EA 75 watts. Core size: 5" long x ¾" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	8660	8.6	1500	223	335
2	6120	12.2	2500	173	432
3	5000	15.0	5000	122	611
4	4330	17.3	10K	86	866
5	3870	19.3	15K	70	1060
10	2740	27.4	20K	61	1224
25	1730	43.2	25K	54	1370
50	1225	61.1	30K	50	1500
100	866	86.6	40K	43	1732
250	548	137	50K	38	1936
500	387	193	75K	31	2370
1000	274	274	100K	27	2740

TYPE 8½HA 160-175 watts. Core size: 8½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	13228	13.2	1500	341	512
2	9350	18.7	2500	264	661
3	7640	22.9	5000	187	935
4	6620	26.4	10K	132	1322
5	5920	29.7	15K	108	1620
10	4180	41.8	20K	93	1870
25	2640	66.1	25K	83	2090
50	1870	93.5	30K	76	2291
100	1322	132	40K	66	2645
250	837	209	50K	59	2960
500	592	296	75K	48	3620
1000	418	418	100K	41	4180

TYPE 1¾AA 10-12 watts. Core size: 1¾" long by 5/16" dia. Terminals: 12A. One adjustable band: type A. Resistance tolerance: ±10%. Standard package: 1. Mounting hardware included: Z-0 brackets.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	3470	3.47	750	126	99.8
2	2450	4.90	800	122	97.9
3	2000	6.00	1000	109	109
5	1550	7.75	1250	98	122
7.5	1266	9.49	1500	89	134
10	1095	10.9	2000	77	155
15	895	13.4	2250	73	164
20	775	15.5	2500	69	173
25	693	17.3	3000	63	189
50	490	24.5	3500	58	204
75	400	30.0	4000	54	219
100	346	34.6	4500	51	232
150	283	42.4	5000	49	245
200	245	49.0	6000	44	268
250	219	54.7	7000	41	290
300	200	60.0	7500	40	300
350	185	64.8	8000	38	310
400	173	69.2	8500	37	319
500	155	77.5	9000	36	328
600	141	84.8	10K	34	346

TYPE 4DA 50 watts. Core size: 4" long x 9/16" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	7070	7.07	2500	141	353
2	5000	10.00	3000	129	387
3	4080	12.20	3500	119	417
4	3540	14.10	4000	112	447
5	3160	15.80	4500	105	474
10	2236	22.3	5000	100	500
25	1415	35.3	6000	91	547
50	1000	50.0	7000	84	591
75	816	61.2	7500	81	612
100	707	70.7	8000	79	632
150	578	86.6	9000	74	670
200	500	100	10K	70	707
250	448	111	12K	64	775
300	408	122	15K	57	866
400	353	141	20K	50	1000
500	316	158	25K	44	1118
750	258	193	30K	40	1224
800	250	200	40K	35	1414
1000	224	223	50K	31	1580
1250	200	249	60K	28	1732
1500	182	273	80K	25	2000
2000	158	316	100K	22	2230
2250	149	334			

TYPE 6½EA 100 watts. Core size: 6½" long x ¾" dia. Terminals: 12A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-2 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	10000	10.0	1500	258	387
2	7070	14.1	2500	200	500
3	5770	17.3	5000	141	707
4	5000	20.0	10K	100	1000
5	4470	22.4	15K	81	1224
10	3160	31.6	20K	70	1414
25	2000	50.0	25K	63	1581
50	1414	70.7	30K	57	1732
100	1000	100	40K	50	2000
250	632	158	50K	44	2236
500	447	224	75K	36	2738
1000	316	316	100K	31	3160

TYPE 10½HA 200-225 watts. Core size: 10½" long x 1⅛" dia. Terminals: 4A. One adjustable band. Resistance tolerance: ±10%. Mounting hardware included: Z-3 brackets. Standard package: 1.

	Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts
1	15000	15.0	1500	387	580
2	10600	21.2	2500	300	750
3	8660	25.9	5000	212	1060
4	7500	30.0	10K	150	1500
5	6708	33.5	15K	122	1830
10	4750	47.4	20K	106	2120
25	3000	75.0	25K	95	2370
50	2120	106	30K	86	2600
100	1500	150	40K	75	3000
250	950	237	50K	67	3350
500	670	335	75K	54	4100
1000	475	474	100K	47	4750

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RESISTEG COATED FIXED POWER WIRE WOUND RESISTORS

TYPE 1A—5-8 watts. Resisteg coating. Core size: 1″ long x 5/16″ dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	2830	2.83	200	200	40.0	2250	59	134
1.5	2310	3.47	225	188	42.4	2500	56	141
2	2000	4.00	250	179	44.7	3000	51	155
3	1632	4.90	300	163	49.0	3500	47	167
4	1414	5.66	350	151	52.9	4000	44	179
5	1265	6.32	400	141	56.6	4500	42	189
7.5	1032	7.75	450	133	60.0	5000	40	200
10	894	8.94	500	126	62.2	6000	36	219
12	817	9.80	600	115	69.3	7000	33	236
15	731	10.9	700	107	75.0	7500	32	245
20	633	12.6	750	103	77.5	8000	31	253
25	566	14.1	800	100	80.0	9000	29	268
30	517	15.5	900	94	85.0	10K	28	283
35	478	16.7	1000	89	89.5	12.5K	25	316
40	447	17.9	1100	85	94.0	15K	23	346
50	400	20.0	1200	81	98.0	17.5K*	21	374
75	327	24.5	1250	80	100	20K*	20	400
100	283	28.3	1500	73	109	22.5K*	18	424
125	253	31.6	1750	67	118	25K*	17	447
150	231	34.6	2000	63	126			

*No. 1 Terminal

TYPE 2C 20 watts. Resisteg coating. Core size: 2″ long x 7/16″ dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	4470	4.47	900	149	134	12.5K	40	500
2	3160	6.32	1000	141	141	15K	36	547
3	2580	7.74	1200	129	155	20K	31	632
4	2236	8.94	1250	126	158	25K	28	707
5	2000	10.0	1500	115	173	30K	25	775
10	1415	14.1	1750	107	187	35K	23	836
25	894	22.3	2000	100	200	40K	22	894
50	633	31.6	2250	94	211	45K	21	948
75	517	38.7	2500	89	222	50K	20	1000
100	447	44.7	2750	85	234	55K	19	1048
150	365	54.8	3000	81	245	60K	18	1095
200	316	63.2	3500	75	264	65K	17	1140
250	282	70.7	4000	70	283	70K	16	1180
300	258	77.4	4500	66	300	75K	16	1224
350	238	83.7	5000	63	316	80K	15	1264
400	223	89.5	6000	57	346	85K*	15	1303
500	200	100	7000	53	374	90K*	14	1340
650	175	114	7500	51	387	95K*	14	1378
700	169	118	8000	50	400	100K*	14	1414
750	163	122	9000	47	424			
800	158	126	10K	44	447			

*No. 1 Terminal

TYPE 4D 50 watts. Resisteg coating. Core size, 4″ long x 9/16″ dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package—1.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	7070	7.07	750	258	193	20K	50	1000
2	5000	10.00	800	250	200	25K	44	1118
3	4080	12.20	1000	224	223	35K	38	1322
4	3540	14.10	1500	182	273	50K	31	1580
5	3160	15.80	2000	158	316	75K	25	1936
10	2236	22.3	2500	141	353	100K	22	2230
25	1415	35.3	3000	129	387	125K	20	2500
50	1000	50.0	4000	112	447	150K	18	2738
75	816	61.2	5000	100	500	175K	16	2958
100	707	70.7	7500	81	612	200K	15	3160
150	578	86.6	8000	79	632	250K	14	3530
200	500	100	10K	70	707			
250	448	111	12K	64	775			
500	316	158	15K	57	866			

TYPE 8½H 160-175 watts. Resisteg coating. Core size: 8½″ long x 1⅛″ dia. Terminals: 4A. Resistance tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package—1.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	13228	13.2	150	1080	162	10K	132	1322
2	9350	18.7	250	837	209	15K	108	1620
3	7640	22.9	500	592	296	20K	93	1870
4	6620	26.4	750	483	362	25K	83	2090
5	5920	29.7	1000	418	418	30K	76	2291
10	4180	41.8	1500	341	512	40K	66	2645
25	2640	66.1	2000	296	591	50K	59	2960
50	1870	93.5	2500	264	661	60K	54	3240
75	1525	114	3000	241	724	75K	48	3620
100	1322	132	5000	187	935	100K	41	4180
125	1180	148	7500	152	1145			

TYPE 1¾A 10-12 watts. Resisteg coating. Core size: 1¾″ long x 5/16″ dia. Terminals: 13A. Resistance tolerance: ±5%. Mounting hardware included: none. Standard package—5.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	3470	3.47	350	185	64.7	7000	41	287
1.5	2830	4.24	400	173	69.2	7500	40	300
2	2450	4.90	450	163	73.3	8000	38	304
3	2000	6.00	500	155	77.5	8500	37	319
4	1732	6.93	600	141	84.6	9000	36	328
5	1550	7.75	700	131	91.7	10K	34	340
7.5	1266	9.49	750	126	94.5	11K	33	363
10	1095	10.9	800	122	97.6	12K	31	372
12	1000	12.0	900	115	103	12.5K	31	387
15	895	13.4	1000	109	109	13.5K	29	391
20	775	15.5	1100	104	114	15K	28	420
25	693	17.3	1200	100	120	16K	27	432
30	633	19.0	1250	98	122	17.5K	26	458
35	586	20.5	1500	89	133	18K	25	464
40	548	21.9	1750	83	145	20K	24	480
50	490	24.5	2000	77	154	22.5K	23	517
75	400	30.0	2250	73	164	25K	21	525
100	346	34.6	2500	69	172	30K	20	600
125	310	38.7	3000	63	189	35K	18	630
150	283	42.4	3500	58	199	40K	17	680
200	245	49.0	4000	54	216	45K	16	720
225	231	51.9	4500	51	229	50K	15	750
250	219	54.7	5000	49	245			
300	200	60.0	6000	44	264			

TYPE 2D 25 watts. Resisteg coating. Core size: 2″ long x 9/16″ dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-1 brackets. Standard package—1.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	5000	5.00	500	223	111	12K	45	548
2	3540	7.07	750	185	137	15K	40	612
3	2880	8.66	800	176	141	20K	35	707
4	2500	10.0	1000	158	158	25K	31	790
5	2236	11.1	1500	129	193	30K	28	866
10	1580	15.8	2000	111	223	35K	26	935
15	1290	19.4	2500	100	250	40K	25	1000
25	1000	25.0	3000	91	274	50K	22	1118
50	707	35.4	3500	84	296	60K	20	1224
75	577	43.3	4000	79	316	70K	18	1320
100	500	50.0	5000	70	353	80K	17	1414
150	408	61.2	6000	64	387	100K	15	1580
200	353	70.7	7500	57	434			
250	316	79.0	10K	50	500			

TYPE: 6½E 100 watts. Resisteg coating. Core size: 6½″ long x ¾″ dia. Terminals: 12A. Resistance tolerance: ±5%. Mounting hardware included: Z-2 brackets. Standard package—1.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	10000	10.0	150	818	122	10K	100	1000
2	7070	14.1	250	632	158	15K	81	1224
3	5770	17.3	500	447	224	20K	70	1414
4	5000	20.0	750	365	274	25K	63	1581
5	4470	22.4	1000	316	316	30K	57	1732
10	3160	31.6	1500	258	387	40K	50	2000
25	2000	50.0	2000	223	447	50K	44	2236
50	1414	70.7	2500	200	500	60K	40	2449
75	1155	86.6	3000	182	547	75K	36	2738
100	1000	100	5000	141	707	100K	31	3160
125	895	111	7500	115	865			

TYPE 10½H 200-225 watts. Resisteg coating. Core size: 10½″ long x 1⅛″ dia. Terminals: 4A Resistance tolerance: ±5%. Mounting hardware included: Z-3 brackets. Standard package—1.

	Maximum			Maximum			Maximum	
Ohms	Mils	Volts	Ohms	Mils	Volts	Ohms	Mils	Volts
1	15000	15.0	250	950	237	15K	122	1830
2	10600	21.2	500	670	335	20K	106	2120
3	8660	25.9	750	548	410	25K	95	2370
4	7500	30.0	1000	475	474	30K	86	2600
5	6708	33.5	1500	387	580	40K	75	3000
10	4750	47.4	2000	335	670	50K	67	3350
25	3000	75.0	2500	300	750	60K	61	3675
50	2120	106	3000	274	820	75K	54	4100
75	1730	129	5000	212	1060	100K	47	4750
100	1500	150	7500	173	1300			
150	1225	183	10K	150	1500			

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RESISTEG COATED FIXED POWER WIRE WOUND RESISTORS

MILITARY STYLE POWER RESISTORS

IRC's exclusive Resisteg Coating accounts directly for the superior stability of IRC power resistors. This coating is cured at temperatures below 205°F.—1000° less than required for other type coats. With low temperature curing, winding turns do not shift together. The wire is not "work-hardened" since excessive tension is not needed to prevent shifting. There are no failures from arc-over. And, RESISTEG COATED POWER RESISTORS NEED NO DERATING—even at high resistance values they operate at FULL RATED POWER! Low-temperature cured. Resisteg is an exclusive IRC feature.

RW29V 11 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.5	20	90	400	1800
1.1	5.0	22	100	450	2000
1.2	5.6	25	110	500	2200
1.4	6.3	28	120	560	2500
1.6	7.1	31	140	630	2800
1.8	8.0	35	160	710	3100
2.0	9.0	40	180	800	3500
2.2	10	45	200	900	4000
2.5	11	50	220	1000	4500
2.8	12	56	250	1100	5000
3.1	14	63	280	1200	5600
3.5	16	71	310	1400	
4.0	18	80	350	1600	

RW30V 11 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.0	16	63	250	1000
1.1	4.5	18	71	280	1100
1.2	5.0	20	80	310	1200
1.4	5.6	22	90	350	1400
1.6	6.3	25	100	400	1600
1.8	7.1	28	110	450	1800
2.0	8.0	31	120	500	2000
2.2	9.0	35	140	560	2200
2.5	10	40	160	630	2500
2.8	11	45	180	710	
3.1	12	50	200	800	
3.5	14	56	220	900	

RW31V 14 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	4.5	20	90	400	1800
1.1	5.0	22	100	450	2000
1.2	5.6	25	110	500	2200
1.4	6.3	28	120	560	2500
1.6	7.1	31	140	630	2800
1.8	8.0	35	160	710	3100
2.0	9.0	40	180	800	3500
2.2	10	45	200	900	4000
2.5	11	50	220	1000	4500
2.8	12	56	250	1100	5000
3.1	14	63	280	1200	5600
3.5	16	71	310	1400	6300
4.0	18	80	350	1600	

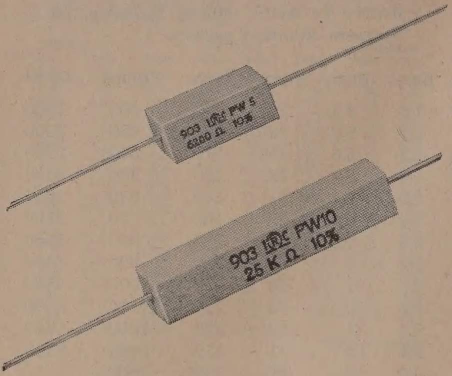
RW32V 17 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	5.0	25	120	630	3100
1.1	5.6	28	140	710	3500
1.2	6.3	31	160	800	4000
1.4	7.1	35	180	900	4500
1.6	8.0	40	200	1000	5000
1.8	9.0	45	220	1100	5600
2.0	10	50	250	1200	6300
2.2	11	56	280	1400	7100
2.5	12	63	310	1600	8000
2.8	14	71	350	1800	9000
3.1	16	80	400	2000	10K
3.5	18	90	450	2200	
4.0	20	100	500	2500	
4.5	22	110	560	2800	

RW33V 26 watts, military stamping, no hardware. Standard package: 1.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1.0	5.6	31	180	1000	5600
1.1	6.3	35	200	1100	6300
1.2	7.1	40	220	1200	7100
1.4	8.0	45	250	1400	8000
1.6	9.0	50	280	1600	9000
1.8	10	56	310	1800	10K
2.0	11	63	350	2000	11K
2.2	12	71	400	2200	12K
2.5	14	80	450	2500	14K
2.8	16	90	500	2800	16K
3.1	18	100	560	3100	18K
3.5	20	110	630	3500	
4.0	22	120	710	4000	
4.5	25	140	800	4500	
5.0	28	160	900	5000	

AXIAL LEAD POWER WIRE WOUND RESISTORS


903 IRC PW 5
6200 Ω 10%
903 IRC PW10
25 K Ω 10%

These popular axial lead power resistors are the industry favorites for 5 and 10 watt applications. The compact shape fits among other components more easily. The axial lead design speeds installation. And, the superior solderability of the terminals assures sound connections every time.

A precisely wound element is sealed in a ceramic case—fully protected and insulated. Conservative rating permits continuous operation at full power. Resistance, wattage and tolerance are permanently marked on resistor body. Standard tolerance is 10%.

Popular Assortment of 20 PW10 resistors is available for handy bench stock. The values are selected on the basis of 10 watt usage. Resistors are mounted on plastic covered card with hole for hanging. Assortment 20A.

STANDARD STOCK VALUES

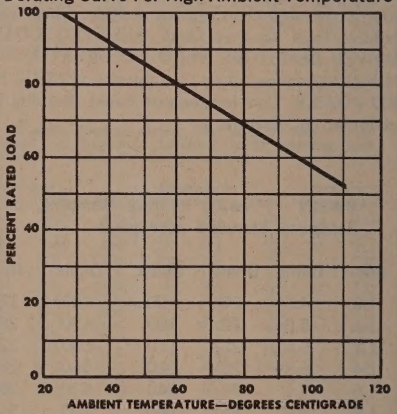
PW5

Ohms:			
1	50	600	2250
2	75	700	2500
3	100	750	3000
4	120	800	3300
5	125	820	3500
7.5	150	900	3900
10	200	1000	4000
15	250	1200	4500
20	300	1250	5000
25	350	1500	6000
30	400	1750	
40	500	2000	

PW10

Ohms:			
1	120	1000	6000
2	125	1200	7000
3	150	1250	7500
4	200	1500	8000
5	250	1750	8200
7.5	300	2000	8500
10	350	2250	9000
15	400	2500	10,000
20	500	3000	12,000
25	600	3300	12,500
30	700	3500	15,000
40	750	3900	20,000
50	800	4000	25,000
75	820	4500	
100	900	5000	

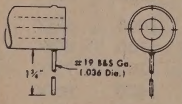
IRC PW5 and PW10
Derating Curve For High Ambient Temperature



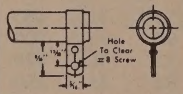
POWER WIRE WOUND RESISTOR HARDWARE

TERMINALS

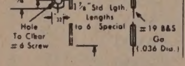
Type 1
Available for some value in Type 1A and 2C


1¾"
#19 B&S Ga.
(.036 Dia.)

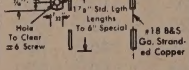
Type 4A
For 8½H, 8½HA, 10½H and 10½HA


⁵⁄₁₆"
¹³⁄₃₂"
Hole
To Clear
#8 Screw
⁵⁄₁₆"

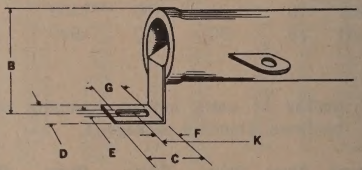
Type 12A
For 1¾AA, 2D, 2DA, 4D 4DA, 5EA, 6½E and 6½EA


⁵⁄₁₆"
1⅞" Std Lgth.
Lengths
to 6 Special
⁷⁄₃₂"
Hole
To Clear
#6 Screw
#19 B&S
Ga
(.036 Dia.)

Type 13A
For 1A, 1¾A and 2C


⁵⁄₁₆"
1⅞" Std. Lgth
Lengths
To 6" Special
⁷⁄₃₂"
Hole
To Clear
#6 Screw
#18 B&S
Ga. Stranded Copper

BRACKETS



BRACKET TYPE	USE WITH O.D.	RESISTOR TYPE	B	C	D	E	F	G	K
Z-0	⁵⁄₁₆"	A	¹⁹⁄₃₂"	½"	⁵⁄₁₆"	¹¹⁄₆₄"	¹⁵⁄₆₄"	¹⁷⁄₆₄"	Core Length + ¹⁵⁄₃₂"
Z-1	⁹⁄₁₆"	D	1¼"	⁹⁄₁₆"	⁵⁄₁₆"	¹¹⁄₆₄"	⁵⁄₁₆"	¹⁹⁄₆₄"	Core Length + ⅝"
Z-2	¾"	E	1⁷⁄₁₆"	⅝"	⅜"	¹¹⁄₆₄"	¹¹⁄₃₂"	²³⁄₆₄"	Core Length + ¹¹⁄₁₆"
Z-3	1⅛"	H	2¹⁄₁₆"	¹¹⁄₁₆"	½"	³⁄₁₆"	¹³⁄₃₂"	¼"	Core Length + ¹³⁄₁₆"
Z-4	⁷⁄₁₆"	C	⅝"	²⁹⁄₆₄"	¼"	⁹⁄₆₄"	¼"	⁹⁄₆₄"	Core Length + ½"

ADJUSTABLE BANDS

Resistor	Band	Resistor	Band
1¾AA	A	5EA, 6½EA	E
2DA, 4DA	D	8½HA, 10½HA	H

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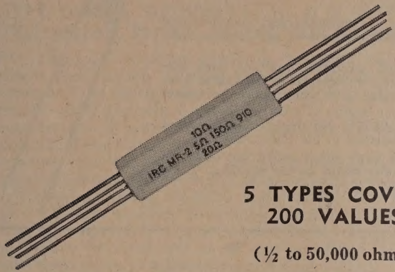
IRC MULTI-RANGE POWER RESISTORS



5 TYPES COVER 200 VALUES

(½ to 50,000 ohms)

COMPLETE 10-WATT COVERAGE

This sensational resistor means that never again will technicians or servicemen need to be delayed to order an odd resistance value. 5 Multi-Range Resistors cover all 10-watt needs . . . 200 values, 0.5 to 50,000 ohms! This unit consists of four ten-watt resistance elements sealed in a special steatite housing. Various interconnections of the elements provide replacement for 47 different values, except for the MR5 Multi-Range Resistor. Axial leads speed serving . . . Conservatively rated—10 watts or more.

IRC TYPE MR1 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 0.5 ohm and 15 ohms. The MR1 Multi-Range Resistor has elements of 1, 2, 4, and 8 ohms.

ohms:	0.5	0.91	2.2	3.0	4.8	9.1
	0.56	1.0	2.4	3.3	5.0	10
	0.62	1.1	2.5	3.6	5.6	11
	0.68	1.2	2.6	3.9	6.0	12
	0.75	1.3	2.7	4.0	7.0	13
	0.8	1.5	2.75	4.5	8.0	14
	0.82	1.6	2.8	4.6	8.2	15
	0.9	2.0	2.9	4.7	9.0	

IRC TYPE MR2 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 5 ohms and 150 ohms. The MR2 Multi-Range Resistor has elements of 10, 20, 40 and 80 ohms.

ohms:	5.0	9.1	22	30	48	91
	5.6	10	24	33	50	100
	6.2	11	25	36	56	110
	6.8	12	26	39	60	120
	7.5	13	27	40	70	130
	8.0	15	27.5	45	80	140
	8.2	16	28	46	82	150
	9.0	20	29	47	90	

IRC TYPE MR3 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 50 ohms and 1500 ohms. The MR3 Multi-Range Resistor has elements of 100, 200, 400, and 800 ohms.

ohms.	50	91	220	300	480	910
	56	100	240	330	500	1000
	62	110	250	360	560	1100
	68	120	260	390	600	1200
	75	130	270	400	700	1300
	80	150	275	450	800	1400
	82	160	280	460	820	1500
	90	200	290	470	900	

IRC TYPE MR4 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 500 ohms and 15K ohms. The MR4 Multi-Range Resistor has elements of 1K, 2K, 4K, and 8K ohms.

ohms:	500	910	2.2K	3K	4.8K	9.1K
	560	1K	2.4K	3.3K	5K	10K
	620	1.1K	2.5K	3.6K	5.6K	11K
	680	1.2K	2.6K	3.9K	6K	12K
	750	1.3K	2.7K	4K	7K	13K
	800	1.5K	2.75K	4.5K	8K	14K
	820	1.6K	2.8K	4.6K	8.2K	15K
	900	2K	2.9K	4.7K	9K	

IRC TYPE MR5 MULTI-RANGE RESISTOR

Provides exceptionally broad coverage of ten-watt resistors between 3K and 50K. The MR5 Multi-Range Resistor has elements of 10K, 10K, 15K, and 15K ohms.

ohms:	3K	7.5K	15K	30K
	5K	10K	20K	40K
	6K	12.5K	25K	50K

ANOTHER MULTI-RANGE FEATURE . . . EXCLUSIVE IRC HANDY-PAKS!

For greater convenience and ease of stocking and handling, Multi-Range Resistors are supplied in Handy-Paks only . . . 2 of a type to a Pak. Slimline plastic sleeve protects modern, reusable package which opens at both ends.

MULTI-RANGE KIT #55 ASSORTMENT

Complete 10-watt power resistor coverage at your fingertips. Your stock is always visible. Identification of type, value, etc. shows through the plastic case. You always know what you have, and have what is needed with an IRC Multi-Range Resistor Kit.

Kit gives complete 10-watt coverage of 200 values. Contains 5 Handy-Paks — 2 of each Type MR resistor . . . 10 Multi-Range units. Rigid, clear-plastic box with hinged lid. Measures only 5¼" x 3½" x 1¼".

---

903 IRC FR
7.5Ω 10%

NEW

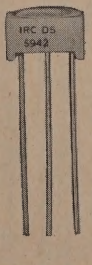
FUSE RESISTOR IRC TYPE FR

New IRC Fuse-Resistor. Modern design in rectangular ceramic shell. Equipped with plug-in terminals. Available in three popular resistance values. Attractively packaged.

FR5 —Fuse-Resistor 5.0 ohms

FR5.6—Fuse-Resistor 5.6 ohms

FR7.5—Fuse-Resistor 7.5 ohms



IRC DUAL DIODES

New IRC Universal Selenium Dual Diodes for horizontal phase detectors and remote control in TV Receivers. Also used in radio control devices for model planes, and other circuits. Two basic types: (1) common cathode; (2) series diodes. Sealed in plastic housing. Attractively packaged.

D4 (replaces former D1 and D2). Common cathode dual diode to replace the following Mfrs.' Parts: G.E. K115J510-1, -2; Hallicrafter 027-300-226, 27C226; Hoffman 10031, 744002; Motorola 48K741255; Philco 34-8037, -1, -2, -3; Muntz (2)SR-0004. SR-0006.

D5 (replaces former D3). Series connected dual diode to replace the following Mfrs.' Parts: Admiral 93A5-2, 93B5-3, -4, -5; Citizenship Radio 34-8037; Emerson 817062; Magnavox 530045-1, -2; Motorola 48K741752, 48B742698; Silvertone B48-110; Webcor 65P124; Zenith 63-3977.

D6 Common anode dual diode, universal replacement for Mfrs. parts. G.E. 66X1—118J966—2; Motorola 48K751724, Packard Bell 72036; R.C.A. 107628. D7 Common anode six cell dual diode, replacement for Motorola Part No. 48C65831A02.

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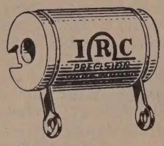
IRC PRECISION WIRE WOUND RESISTORS



IRC Precision Wire Wound Resistors are designed and manufactured to exacting standards necessary to insure consistent accuracy in critical applications.

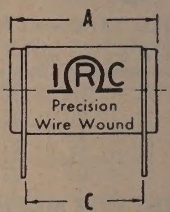
The ceramic winding forms have high insulating qualities, high mechanical strength and low coefficient of expansion. Insulation provides greater humidity protection and also contributes to longer trouble-free service.

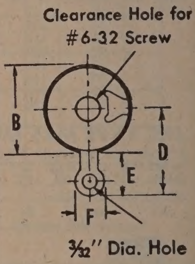
Maximum temperature coefficient of .0027% per degree C is standard on all IRC Precision Wire Wound Resistors at no added cost.

IRC Precision Wire Wound Resistors have either radial lug or radial lead terminal, designed to eliminate any strain on the winding. These terminals offer excellent solderability.

RADIAL LUG TYPE

IRC Type No.	WW2J	WW3J	WW4J	WW5J
Rating in Watts				
65° C. Ambient	2	.50	1	1
Former MIL Rating	1	.35	.50	.50
Maximum Volts	2000	400	700	1000
Dimensions (inches)				
A Dimension	2 1/8	9/16	1	1 1/4
B Dimension	29/32	19/32	19/32	25/32
C Dimension	1 25/32	3/8	25/32	31/32
D Dimension	25/32	5/8	5/8	23/32
E Dimension	5/16	5/16	5/16	5/16
F Dimension	3/16	3/16	3/16	3/16





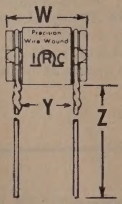
STANDARD STOCK VALUES: 1% Tolerance (Lugs Only)

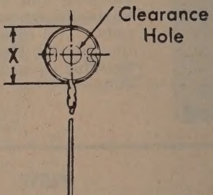
Type WW2J	Type WW3J			Type WW4J			Type WW5J
Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
600K	0.1	1,500	30K	0.1	2,000	40K	600K
750K	0.2	2,000	35K	0.2	2,500	50K	750K
900K	0.5	2,500	40K	0.5	3,000	60K	900K
1.0 Meg.	1.0	3,000	50K	1.0	3,500	75K	1.0 Meg.
1.5 Meg.	5	3,500	60K	5	4,000	100K	
2.0 Meg.	10	4,000	75K	10	5,000	125K	
2.5 Meg.	25	5,000	100K	25	7,500	150K	
	50	7,500	125K	50	10K	175K	
	100	10K	150K	100	12.5K	200K	
	200	12.5K	175K	200	15K	225K	
	250	15K	200K	250	20K	250K	
	300	20K	225K	300	22.5K	300K	
	500	22.5K		500	25K	400K	
	1,000	25K		1,000	30K	500K	
				1,500	35K		

RADIAL LEAD TYPE

IRC TYPE No.	WW10J
Rating in Watts	
65°C. Ambient	.25
Former MIL Rating	.15
Maximum Volts	150
Dimensions	
Lead Diameter (AWG)	#22
W Dimension	13/32"
X Dimension	9/32"
Y Dimension	9/32"
Z Dimension	2*
Clearance hole to fit	#2 Screw

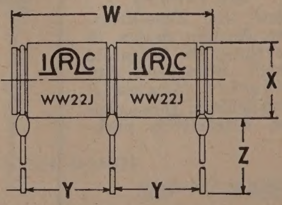
*Lengths shown are standard. 2", 3" and 4" also available upon request.

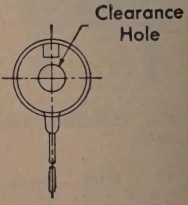




STANDARD STOCK VALUES: 1% Tolerance (Leads Only)

Type WW10J		
Ohms	Ohms	Ohms
10	2,000	20K
25	2,500	25K
50	3,000	30K
100	3,500	40K
200	4,000	50K
250	5,000	60K
300	7,500	75K
500	10K	100K
1,000	12.5K	
1,500	15K	





Special non-stock types, tolerances and values available on request.

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IRC CLOSE TOLERANCE PRESISTORS

UNMOLDED DEPOSITED CARBON

TYPE DC 1% ACCURACY. ½, & 2 WATTS
STYLE RN20X, RN25X, RN30X (MIL-R-10509B)

IRC Deposited Carbon Precision Resistors offer a unique combination of close tolerance, stability and economy. Pure crystalline carbon is bonded to selected ceramic cores to produce a resistor ideally suited to the requirements of instrumentation, advanced electronics and critical television circuits.

Deposited Carbon Presistors provide a combination of characteristics not found in any other resistor type. The wide range of values, accuracy, high stability, low voltage coefficient, excellent frequency characteristics, predictable temperature characteristics, high voltage rating, low noise level and small size of PRESISTORS make them superior to many popular applications.

IRC Type DC Deposited Carbon Presistors are available in three sizes: ½ watt (body size 9/16″ x 5/32″) M-Coat 1 watt (body size 15/16″ x 9/32″), and 2 watts (body size 2 1/16″ x 9/32″). Accuracy ±1% (25°C).

MOLDED DEPOSITED CARBON

TYPE MDC 1% ACCURACY. ½ WATT
STYLE RN70B (MIL-R-10509C)

IRC's Molded Deposited Carbon Presistor is a precision film type resistor that incorporates the added advantages of a fully insulated unit. The molded insulation provides improved load life characteristics, better insulation resistance and greater resistance to moisture effects. The Molded Deposited Carbon Presistor provides all the advantages of the ceramic solder sealed types without the hazards of seal leakage, breakage and low dielectric strength.

Type MDC Molded Deposited Carbon Presistors are particularly suited for applications where an unmolded deposited carbon unit cannot be used due to the risk of mechanical damage to its coating, insulation breakdown and excessive moisture conditions.

Wattage Rating: ½ watt at 70°C. ambient (per MIL-R-10509B) derated to 0 at 165°C. Dimensions: 23/32″ x ¼″ (body size).

MILITARY VALUES

TYPE DCC—all values from 10 ohms to 2.0 meg.

TYPE DCF—all values from 27.4 ohms to 4.99 meg.

TYPE DCH—all values from 46.4 ohms to 4.99 meg.

Type MDC—all values from 10 ohms to 2.49 meg.

STANDARD STOCK VALUES

TYPE DCC — DEPOSITED CARBON PRESISTORS — ½ WATT — M COAT — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
51.1	100	196	383	750	1470	2870	5620	11K	21.5K	42.2K	82.5K	162K	316K	619K	1.21 meg.
56.2	110	215	422	825	1620	3160	6190	12.1K	23.7K	46.4K	90.9K	178K	348K	681K	1.33 meg.
61.9	121	237	464	909	1780	3480	6810	13.3K	26.1K	51.1K	100K	196K	383K	750K	1.47 meg.
68.1	133	261	511	1000	1960	3830	7500	14.7K	28.7K	56.2K	110K	215K	422K	825K	1.62 meg.
75.0	147	287	562	1100	2150	4220	8250	16.2K	31.6K	61.9K	121K	237K	464K	909K	1.78 meg.
82.5	162	316	619	1210	2370	4640	9090	17.8K	34.8K	68.1	133K	261K	511K	1.0 meg.	1.96 meg.
90.9	178	348	681	1330	2610	5110	10K	19.6K	38.3K	75.0K	147K	287K	562K	1.1 meg.	

TYPE DCF — DEPOSITED CARBON PRESISTORS — 1 WATT — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
100	215	464	1000	2150	4640	10K	21.5K	46.4K	100K	215K	464K	1.0 meg.	2.15 meg.	4.64 meg.
110	237	511	1100	2370	5110	11K	23.7K	51.1K	110K	237K	511K	1.1 meg.	2.37 meg.	5.11 meg.
121	261	562	1210	2610	5620	12.1K	26.1K	56.2K	121K	261K	562K	1.21 meg.	2.61 meg.	5.62 meg.
133	287	619	1330	2870	6190	13.3K	28.7K	61.9K	133K	287K	619K	1.33 meg.	2.87 meg.	6.19 meg.
147	316	681	1470	3160	6810	14.7K	31.6K	68.1K	147K	316K	681K	1.47 meg.	3.16 meg.	6.81 meg.
162	348	750	1620	3480	7500	16.2K	34.8K	75.0K	162K	348K	750K	1.62 meg.	3.48 meg.	7.50 meg.
178	383	825	1780	3830	8250	17.8K	38.3K	82.5K	178K	383K	825K	1.78 meg.	3.83 meg.	8.25 meg.
196	422	909	1960	4220	9090	19.6K	42.2K	90.9K	196K	422K	909K	1.96 meg.	4.22 meg.	9.09 meg.
														10.0 meg.

TYPE DCH — DEPOSITED CARBON PRESISTORS — 2 WATTS — 1% TOLERANCE

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
196	619	1960	6190	19.6K	61.9K	196K	619K	1.96 meg.	6.19 meg.
215	681	2150	6810	21.5K	68.1K	215K	681K	2.15 meg.	6.81 meg.
237	750	2370	7500	23.7K	75.0K	237K	750K	2.17 meg.	7.50 meg.
261	825	2610	8250	26.1K	82.5K	261K	825K	2.61 meg.	8.25 meg.
287	909	2870	9090	28.7K	90.9K	287K	909K	2.87 meg.	9.09 meg.
316	1000	3160	10K	31.6K	100K	316K	1.0 meg.	3.16 meg.	10.0 meg.
348	1100	3480	11K	34.8K	110K	348K	1.1 meg.	3.48 meg.	
383	1210	3830	12.1K	38.3K	121K	383K	1.21 meg.	3.83 meg.	
422	1330	4220	13.3K	42.2K	133K	422K	1.33 meg.	4.22 meg.	
464	1470	4640	14.7K	46.4K	147K	464K	1.47 meg	4.64 meg.	
511	1620	5110	16.2K	51.1K	162K	511K	1.62 meg.	5.11 meg.	
562	1780	5620	17.8K	56.2K	178K	562K	1.78 meg.	5.62 meg.	

TYPE MDC — MOLDED DEPOSITED CARBON PRESISTORS — ½ WATT — 1% TOLERANCE

100	191	365	698	1330	2550	4870	9090	17.4K	33.2K	63.4K	121K	232K	442K	845K	1.62 meg.
102	196	374	715	1370	2610	4990	9310	17.8K	34.0K	64.9K	124K	237K	453K	866K	1.65 meg.
105	200	383	732	1400	2670	5110	9530	18.2K	34.8K	66.5K	127K	243K	464K	887K	1.69 meg.
107	205	392	750	1430	2740	5230	9760	18.7K	35.7K	68.1K	130K	249K	475K	909K	1.74 meg.
110	210	402	768	1470	2800	5360	10.0K	19.1K	36.5K	69.8K	133K	255K	487K	931K	1.78 meg.
113	215	412	787	1500	2870	5490	10.2K	19.6K	37.4K	71.5K	137K	261K	499K	953K	1.82 meg.
115	221	422	806	1540	2940	5620	10.5K	20.0K	38.3K	73.2K	140K	267K	511K	976K	1.87 meg.
118	226	432	825	1580	3010	5760	10.7K	20.5K	39.2K	75.0K	143K	274K	523K	1.00 meg.	1.91 meg.
121	232	442	845	1620	3090	5900	11.0K	21.0K	40.2K	76.8K	147K	280K	536K	1.02 meg.	1.96 meg.
124	237	453	866	1650	3160	6040	11.3K	21.5K	41.2K	78.7K	150K	287K	549K	1.05 meg.	2.00 meg.
127	243	464	887	1690	3240	6190	11.5K	22.1K	42.2K	80.6	154K	294K	562K	1.07 meg.	2.05 meg.
130	249	475	909	1740	3320	6340	11.8K	22.6K	43.2K	82.5K	158K	301K	576K	1.10 meg.	2.10 meg.
133	255	487	931	1780	3400	6490	12.1K	23.2K	44.2K	84.5K	162K	309K	590K	1.13 meg.	2.15 meg.
137	261	499	953	1820	3480	6650	12.4K	23.7K	45.3K	86.6K	165K	316K	604K	1.15 meg.	2.21 meg.
140	267	511	976	1870	3570	6810	12.7K	24.3K	46.4K	88.7K	169K	324K	619K	1.18 meg.	2.26 meg.
143	274	523	1000	1910	3650	6980	13.0K	24.9K	47.5K	90.9K	174K	332K	634K	1.21 meg.	2.32 meg.
147	280	536	1020	1960	3740	7150	13.3K	25.5K	48.7K	93.1K	178K	340K	649K	1.24 meg.	2.37 meg.
150	287	549	1050	2000	3830	7320	13.7K	26.1K	49.9K	95.3K	182K	348K	665K	1.27 meg.	2.43 meg.
154	294	562	1070	2050	3920	7500	14.0K	26.7K	51.1K	97.6K	187K	357K	681K	1.30 meg.	2.49 meg.
158	301	576	1100	2100	4020	7680	14.3K	27.4K	52.3K	100K	191K	365K	698K	1.33 meg.	
162	309	590	1130	2150	4120	7870	14.7K	28.0K	53.6K	102K	196K	374K	715K	1.37 meg.	
165	316	604	1150	2210	4220	8060	15.0K	28.7K	54.9K	105K	200K	383K	732K	1.40 meg.	
169	324	619	1180	2260	4320		15.4K	29.4K	56.2K	107K	205K	392K	750K	1.43 meg.	
174	332	634	1210	2320	4420	8250	15.8K	30.1K	57.6K	110K	210K	402K	768K	1.47 meg.	
178	340	649	1240	2370	4530	8450	16.2K	30.9K	59.0K	113K	215K	412K	787K	1.50 meg.	
182	348	665	1270	2430	4640	8660	16.5K	31.6K	60.4K	115K	221K	422K	806K	1.54 meg.	
187	357	681	1300	2490	4750	8870	16.9K	32.4K	61.9K	118K	226K	432K	825K	1.58 meg.	

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CTS IRC INDUSTRIAL CONTROLS

IRC Distributor Controls for Industry offer commercial users a wide selection of resistance values and two industrial shaft types. Shafts are fixed. This combination of wide selection of values and speedy Distributor delivery holds many advantages for industrial purchasers. These Industrial Controls are adaptations of the new, compact 15/16″ Q Control. Power rating is ½ watt, 500 volts maximum. Electrical rotation is the same with or without switch. ⅜″ bushing is brass and held to close tolerance for snug shaft fit.

Terminals are heavily tinned for easy soldering, and may be bent without becoming noisy. Two locating lugs are provided, either or both of which may be bent down if not needed. Molded base. Both Types PQ and RQ are supplied in standard tapers.

SINGLE CONTROLS

TYPE PQ

TYPE PQ. Full round ¼″ shaft, approximately 3″ from mounting face, with ⅜″ long bushing. Available in 33 stock values as shown. Regular IRC stock numbers are used with prefix **PQ.**

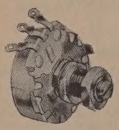
TYPE RQ. Very short screw-driver slot shaft, ¼″ diameter and approximately ½″ long from mounting face with ⅜″ long bushing. Available in 33 values as shown. Regular IRC stock numbers are used with prefix **RQ.**

TYPE RQ

TYPE RQL

TYPE RQL. IRC's new line of 10% tolerance Locking Type Bushing Controls. Screw-driver slot shaft ¼″ diameter and approximately ½″ long from mounting face, with a ⅜″ split type bushing, and locking nut.

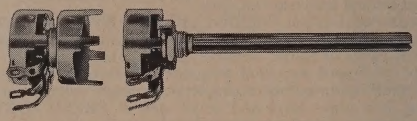
2 WATT INDUSTRIAL COMPOSITION MILITARY GRADE VARIABLE RESISTOR



Resistance	Resistance
100 ± 10%	50,000 ± 10%
250 ± 10%	100,000 ± 10%
500 ± 10%	250,000 ± 10%
1,000 ± 10%	500,000 ± 10%
2,500 ± 10%	1.0 Meg ± 20%
5,000 ± 10%	2.5 Meg ± 20%
10,000 ± 10%	5.0 Meg ± 20%
25,000 ± 10%	

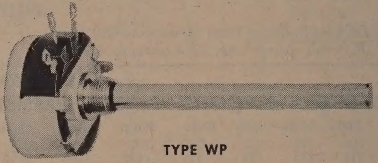
MULTISECTIONS

IRC MULTISECTIONS are complete control sections that can be added like a switch to any Q, PQ, RQ or RQL Control. With these units, the Radio Technician or Engineer is provided with an endless variety of dual, triple or even quadruple controls. Duals assembled from IRC MULTISECTIONS will accommodate Type 76 switches. Available in a selection of 25 values, as shown in following table. Each MULTISECTION adds 13/32″ to basic control.

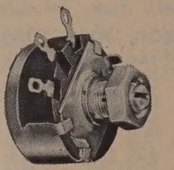


DUALS AND TRIPLES

IRC Type PQ, RQ and RQL Industrial Controls are supplied as single controls. Duel Control and Triple Control combinations are available by adding IRC MULTISECTIONS.


TYPE WP

Constructed with ⅜-32 x ⅜″ bushing and ¼″ diameter, full round shaft 3″ long from mounting face.



TYPE WPRL

A new line of IRC distributor industrial controls with short screw-driver slot shaft ¼″ diameter and approximately ½″ long from mounting face, with ⅜″ locking type bushing and locking nut. 10% resistance tolerance. Linear taper.

STOCK VALUES OF TYPES PQ, RQ, RQL CONTROLS AND MULTISECTIONS

OHMS	TAPER	TYPE PQ	TYPE RQ	TYPE RQL	MULTISECTIONS
500	A	PQ11-103	RQ11-103	RQL11-103	M11-103
1,000	A	PQ11-108	RQ11-108	RQL11-108	M11-108
2,000	A	PQ11-110	RQ11-110	RQL11-110	M11-110
3,000	A	PQ11-112	RQ11-112	RQL11-112	M11-112
5,000	A	PQ11-114	RQ11-114	RQL11-114	M11-114
7,500	A	PQ11-115	RQ11-115	—	—
10K	A	PQ11-116	RQ11-116	RQL11-116	M11-116
10K	C	PQ13-116	RQ13-116	—	—
10K	D	PQ14-116	RQ14-116	—	—
10K	Q	—	—	—	M17-116
20K	A	PQ11-119	RQ11-119	RQL11-119	—
25K	A	PQ11-120	RQ11-120	RQL11-120	M11-120
25K	D	PQ14-120	RQ14-120	—	—
30K	A	PQ11-121	RQ11-121	RQL11-121	M11-121
50K	A	PQ11-123	RQ11-123	RQL11-123	M11-123
50K	C	PQ13-123	RQ13-123	RQL13-123	—
50K	D	PQ14-123	RQ14-123	—	—
100K	A	PQ11-128	RQ11-128	RQL11-128	M11-128
100K	C	PQ13-128	RQ13-128	—	M13-128
200K	A	PQ11-129	RQ11-129	RQL11-129	—
250K	A	PQ11-130	RQ11-130	RQL11-130	M11-130
250K	C	PQ13-130	RQ13-130	RQL13-130	M13-130
500K	A	PQ11-133	RQ11-133	RQL11-133	M11-133
500K	C	PQ13-133	RQ13-133	RQL13-133	M13-133
1.0 Meg.	A	PQ11-137	RQ11-137	RQL11-137	M11-137
1.0 Meg.	C	PQ13-137	RQ13-137	RQL13-137	M13-137
1.5 Meg.	A	PQ11-138	RQ11-138	RQL11-138	—
1.5 Meg.	C	—	—	—	M13-138
2.0 Meg.	A	PQ11-139	RQ11-139	RQL11-139	M11-139
2.0 Meg.	C	PQ13-139	RQ13-139	RQL13-139	M13-139
2.5 Meg.	A	PQ11-239	RQ11-239	RQL11-239	—
3.0 Meg.	A	PQ11-140	RQ11-140	RQL11-140	—
3.0 Meg.	C	PQ13-140	RQ13-140	—	M13-140
3.0 Meg.	Q	—	—	—	M17-140
5.0 Meg.	A	PQ11-141	RQ11-141	RQL11-141	M11-141
10.0 Meg.	A	PQ11-143	RQ11-143	RQL11-143	M11-143

STOCK VALUES OF TYPE WP AND WPRL CONTROLS AND MULTISECTIONS

Ohms	Taper	*MAX. Current in Amps	Type WP	Type WPRL	Multi-sections
2	U (Lin.)	1.414	WP2	WPRL2	—
3	U	1.152	WP3	WPRL3	—
5	U	.895	WP5	WPRL5	—
6	U	.817	WP6	WPRL6	—
8	U	.707	WP8	WPRL8	—
10	U	.633	WP10	WPRL10	—
15	U	.517	WP15	WPRL15	—
20	U	.447	WP20	WPRL20	—
25	U	.400	WP25	WPRL25	—
30	U	.365	WP30	WPRL30	—
40	U	.316	WP40	WPRL40	—
50	U	.285	WP50	WPRL50	WM50
60	U	.258	WP60	WPRL60	—
75	U	.231	WP75	WPRL75	—
100	U	.200	WP100	WPRL100	WM100
200	U	.141	WP200	WPRL200	WM200
250	U	.126	WP250	WPRL250	WM250
300	U	.115	WP300	WPRL300	—
400	U	.100	WP400	WPRL400	—
500	U	.090	WP500	WPRL500	WM500
750	U	.073	WP750	WPRL750	—
1,000	U	.063	WP1000	WPRL1000	WM1000
1,500	U	.052	WP1500	WPRL1500	WM1500
2,000	U	.045	WP2000	WPRL2000	WM2000
2,500	U	.040	WP2500	WPRL2500	WM2500
3,000	U	.036	WP3000	WPRL3000	WM3000
4,000	U	.031	WP4000	WPRL4000	—
5,000	U	.028	WP5000	WPRL5000	WM5000
7,500	U	.023	WP7500	WPRL7500	—
7,500	L (L.H.Log.)	.016	—	—	WM7500L
10,000	U	.020	WP10000	WPRL10000	WM10000
15,000	U	.0163	WP15000	WPRL15000	—
20,000	U	.014	WP20000	WPRL20000	—
25,000	U	.0126	WP25000	WPRL25000	—
30,000	U	.0115	WP30000	WPRL30000	—
40,000	U	.010	WP40000	WPRL40000	—
50,000	U	.0089	WP50000	WPRL50000	—

* Maximum current is given for a single control operating at an ambient temperature of 40°C and mounted on a metal chassis. Multiple controls must be so derated that hot spot temperature (ambient plus temperature rise) will not exceed 110°C on any winding.

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PRINTED CIRCUIT REPLACEMENT CONTROL KIT

For the First Time... A LOW COST PRINTED CIRCUIT CONTROL KIT PLUS SNAPTROL SELECTION SYSTEM CONVENIENCE

IRC
SNAPTROL
PRINTED CIRCUIT
REPLACEMENT CONTROL KIT
FOR REPLACEMENTS CALL YOUR IRC DISTRIBUTOR
GC
DC1
SS1

Only IRC offers printed circuit control coverage in fast-selling kit form. Handsome 6-drawer stock cabinet of high impact plastic is included free to servicemen.

Ebony-black cabinet has an area for Distributor identification to build repeat sales.

Assortment No. 82 illustrated provides coverage of 175 manufacturers' model numbers, and 52 parts numbers. All major trade names are included.

IRC-CTS SNAPTROL SECTION SYSTEM
PRINTED CIRCUIT CONTROL KIT CONTENTS

8 Type BU-12 printed circuit brackets, with nuts
3 Type CF-25 Snaptrol front sections, 500K
3 Type CF-26 Snaptrol front sections, 1.0 meg.
2 Type CF-27 Snaptrol front sections, 2.0 meg.
6 Type GC rotary power switches, S.P.S.T.
8 Type SS1 Knobmaster shafts
6 Type DC1 dust covers
1 Instruction sheet

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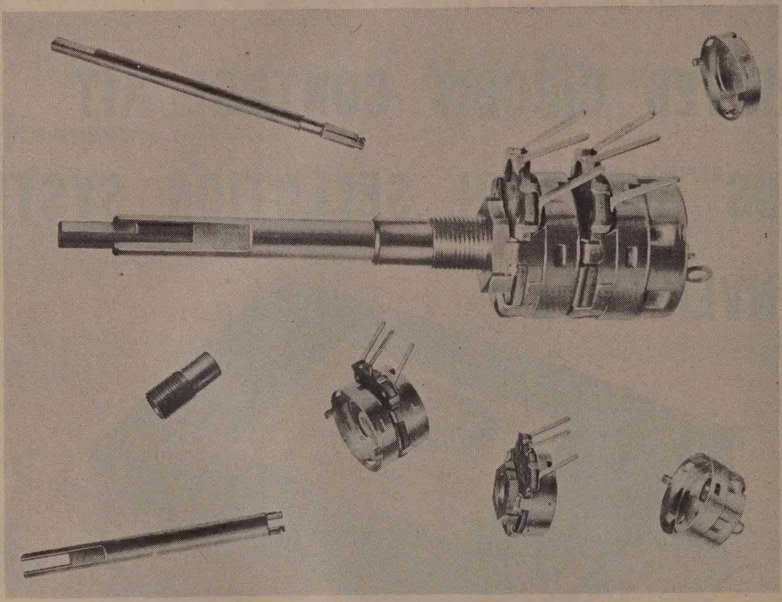
IRC ®

SNAPTROL
REPLACEMENT CONTROL SYSTEM

SNAPTROL PROVIDES VERSATILITY AND EASE OF ASSEMBLY



EASY TO USE. Parts assemble into exact duplicate control in 15 to 30 seconds. Sections completely factory assembled. No shaft cutting or modification needed.

GREATER VERSATILITY. SNAPTROL provides new and unique designs which provide for better utility and adaptability of component parts:

1—**Interchangeable Control Mountings.** 3/8", 7/16" and 1/2" diameter bushings or varying lengths and bores, quickly thread into front control sections. Accommodates thick panel requirements **without** extra bushing or adjuster. Specially designed tab mounting plates or printed circuit brackets easily attached in place of bushings. This exclusive new design feature reduces the number of front sections needed and extends their use in a greater variety of replacement needs.

2—**Printed Circuit Terminals.** All control sections are equipped with terminals that will handle both conventional and printed circuit wiring. This exclusive CTS-IRC terminal design doubles the adaptability of control sections.

3—**Rotary or Pull-Push Power Switches.** Either type of power switch snaps onto rear section in field. Another exclusive CTS-IRC design feature which very considerably increases the utility of control components. Three different rotary power switches snap onto front sections for single control needs!

4—**Uniform Diameter Rear Section Shafts.** New design of rear section (inner) shafts provide uniform diameter—permits use of heavy-walled front section (outer) shaft contributing better concentric shaft operation and superior knob retention. Simple compression type adapter fits rear section shaft to knobs normally requiring larger diameter. No drilling or modification of knobs needed. Shafts are flatted or slotted as required—no shaft insert or tine needed! This new design reduces the number of exact length shafts required for broad replacement coverage.

5—**Front Sections Serve for Single Controls.** Without modification or adapters, all SNAPTROL front sections may be used for single control replacements. Provides practical use of single front section for special bushings, tab mountings, printed circuits, special shaft needs and a variety of power switches. No other section-type control system provides such broad versatility.

FEWER COMPONENTS PARTS. Because of the realistic design features provided. SNAPTROL requires far fewer items of components than any other section-type exact duplicate control system which offers so broad a replacement coverage. (Nearly 1000 exact duplicate concentric dual controls and many thousands of single controls.)

BEST SELLING CONTROLS. SNAPTROL is a special replacement design of the world's most frequently specified and most widely sold CTS Series 45 control. Over 300,000,000 in current use—a strong testimony to the quality and performance of these outstanding controls.

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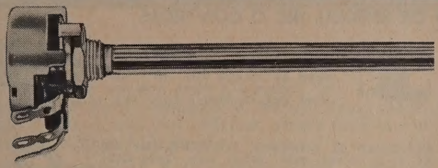
RADIO-TV TECHNICIANS' TYPE Q VOLUME CONTROLS



IRC's Type Q Control is the basic control for servicing all sets, It is carefully engineered to meet most replacement requirements with a minimum stock. The quality appearance and "cushioned turn" of the Q Control assure customer satisfaction. Easier installation and dependable performance provide more profitable servicing.

KNOB MASTER STANDARD FIXED SHAFT

Standard shaft is knurled, flatted and slotted and fits most knobs without alteration. For knurled or spring type push-on knobs, cut to length. For over-size, worn or web type knobs, split shaft slot lengthwise and spread ends. For positioned knobs, bend down control locating pins and rotate control base for correct knob position.

¼" LONG BUSHING

Shorter bushing and compact 15/16" design suit Q Controls to all small sets, yet handle large set needs as well.

Ohms	Taps	Type Q Control	Type Q Base-Element	Taper
250	—	Q11-201	B11-201	A
500	—	Q11-103	B11-103	A
750	—	Q11-105	B11-105	A
750	—	Q17-105	B17-105	P
750	250	Q17-105X	B17-105X	S
1000	—	Q11-108	B11-108	A
1000	—	Q17-108	B17-108	P
1500	—	Q11-109	B11-109	A
1500	—	Q17-109	B17-109	Q
2000	—	Q11-110	B11-110	A
2000	—	Q17-110	B17-110	Q
2000	250 & 500	Q17-110XX	B17-110XX	S
2500	—	Q13-111	B13-111	C
2500	—	Q17-111	B17-111	Q
3000	—	Q11-112	B11-112	A
3000	—	Q17-112	B17-112	Q
5000	—	Q11-114	B11-114	A
5000	—	Q13-114	B13-114	C
5000	—	Q17-114	B17-114	Q
7500	—	Q11-115	B11-115	A
10K	—	Q11-116	B11-116	A
10K	—	Q13-116	B13-116	C
10K	—	Q14-116	B14-116	D
10K	—	Q17-116	B17-116	Q
15K	10K	Q13-118X	B13-118X	S
15K	5000 & 10K	Q13-118XX	B13-118XX	S
15K	5000	Q17-118X	B17-118X	S
15K	5000 & 10K	Q17-118XX	B17-118XX	S
20K	—	Q11-119	B11-119	A
20K	—	Q16-119	B16-119	S
25K	—	Q11-120	B11-120	A
25K	—	Q13-120	B13-120	C
25K	—	Q14-120	B14-120	D
30K	—	Q11-121	B11-121	A
35K	—	Q11-122	B11-122	A
50K	—	Q11-123	B11-123	A
50K	—	Q13-123	B13-123	C
50K	—	Q14-123	B14-123	D
75K	—	Q11-125	B11-125	A
100K	—	Q11-128	B11-128	A
100K	—	Q13-128	B13-128	C
125K	—	Q11-228	B11-228	A
150K	—	Q11-328	B11-328	A
150K	—	Q13-328	B13-328	C
150K	19K & 38K	Q17-328XX	B17-328XX	S
200K	—	Q11-129	B11-129	A
250K	—	Q11-130	B11-130	A
250K	—	Q13-130	B13-130	C
250K	60K	Q18-130X	B18-130X	H
250K	125K	Q13-130X	B13-130X	S

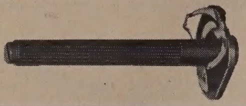
Ohms	Taps	Type Q Control	Base-Element	Taper
250K	60K & 12K	Q18-130XX	B18-130XX	S
300K	—	Q11-131	B11-131	A
350K	—	Q11-132	B11-132	A
350K	—	Q13-132	B13-132	C
350K	35K	Q17-132X	B17-132X	S
350K	75K	Q18-132X	B18-132X	H
500K	—	Q11-133	B11-133	A
500K	—	Q13-133	B13-133	C
500K	—	Q14-133	B14-133	D
500K	—	Q17-133	B17-133	Q
500K	25K	Q17-133X	B17-133X	S
500K	50K	Q18-133X	B18-133X	S
500K	125K	Q13-133X	B13-133X	H
500K	250K	Q19-133X	B19-133X	S
500K	100K & 200K	Q18-133XX	B18-133XX	S
600K	—	Q11-134	B11-134	A
750K	—	Q11-136	B11-136	A
1.0 Meg.	—	Q11-137	B11-137	A
1.0 Meg.	—	Q13-137	B13-137	C
1.0 Meg.	—	Q14-137	B14-137	D
1.0 Meg.	—	Q17-137	B17-137	Q
1.0 Meg.	35K	Q17-137X	B17-137X	S
1.0 Meg.	100K	Q18-137X	B18-137X	S
1.0 Meg.	250K	Q13-137X	B13-137X	H
1.0 Meg.	500K	Q19-137X	B19-137X	S
1.0 Meg.	500K	QVC-539X	BVC-539X	S
1.0 Meg.	50K & 100K	Q17-137XX	B17-137XX	S
1.0 Meg.	250K & 500K	Q18-137XX	B18-137XX	S
1.5 Meg.	—	Q11-138	B11-138	A
1.5 Meg.	250K	Q13-138X	B13-138X	S
2.0 Meg.	—	Q11-139	B11-139	A
2.0 Meg.	—	Q13-139	B13-139	C
2.0 Meg.	—	Q17-139	B17-139	Q
2.0 Meg.	50K	Q19-139X	B19-139X	S
2.0 Meg.	150K	Q17-139X	B17-139X	S
2.0 Meg.	500K	Q13-139X	B13-139X	H
2.0 Meg.	1.0 Meg.	Q18-139X	B18-139X	S
2.0 Meg.	250K & 500K	Q18-139XX	B18-139XX	S
2.0 Meg.	500K & 1 Meg.	Q13-139XX	B13-139XX	S
2.5 Meg.	—	Q11-239	B11-239	A
3.0 Meg.	—	Q11-140	B11-140	A
3.0 Meg.	—	Q13-140	B13-140	C
3.0 Meg.	—	Q17-140	B17-140	Q
3.0 Meg.	900K	Q13-140X	B13-140X	S
3.0 Meg.	1.5 Meg.	Q18-140X	B18-140X	S
5.0 Meg.	—	Q11-141	B11-141	A
5.0 Meg.	—	Q12-141	B12-141	S
5.0 Meg.	—	Q13-141	B13-141	C
5.0 Meg.	—	Q17-141	B17-141	Q
7.5 Meg.	—	Q11-142	B11-142	A
10.0 Meg.	—	Q11-143	B11-143	A

Q CONTROL ACCESSORIES

ASSEMBLE YOUR OWN STANDARD OR SPECIAL IRC Q CONTROLS

For those who would like to use their IRC Base-Element stock for assembly of standard controls, the component parts are available. Plain Q Control assemblies with 1-Base-Element, 1-Interchangeable Fixed Shaft, 1-QCB Bushing and 1-QCC Cover. Switch type Q control assembles with 1-Base-Element, 1-Interchangeable Fixed Shaft, 1-QCB Bushing and 1 of either 76-1 or 76-2 Switch.

QCC-COVER—For plain or tapped controls. Pkg. of 5.



QCB-BUSHING — ⅜-32 thread, ¼″ long. Pkg. of 5.

IRC VOLUME CONTROL GROUNDING LUG—Same as supplied with IRC Type Q Controls. Fits ⅜″ bushing. Lug length from hole center—1-3/16″. Type QCL Grounding Lugs. Pkg. of 5.

STANDARD Q CONTROL LOCKNUT—Hex nut for ⅜-32 thread, 9/16″ across flats. Type QCN. Pkg. of 10.

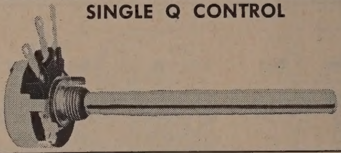
New SK1 (QPK) Kit assembles above standard Q control parts with IRC base elements. Contents: AQ Knob Master Shaft, QCB Ground Plate/Bushing, QCC Universal Cover, R-1 Resilient Retainer Ring, QCN Mounting Nut.

Q CONTROL PARTS KIT

Package of parts for assembly of specific Q Control types. Includes shaft, bushing and cover. Add desired Base-Element.

SK1—Formerly QPK, Includes AQ shaft for Q Control assembly.
SK2—Includes RQ shaft for RQ Control assembly.
SK3—Includes SQ shaft for SQ Control assembly.
SK7—Knob Master Shaft Kit for Pull-Push Switch Assembly
SK8—Same as SK7 except shaft is similar to NQ shaft with 3½″ A dimension

SINGLE Q CONTROL



IRC TAB-MOUNT KITS

Since assembly of Tab-Mount Controls is so simple, IRC supplies four 3-Part Tab-Mount Kits which will assemble with any standard plain or tapped IRC Base-Element to provide satisfactory Tab-Mount Controls. Each TM Kit includes a Tab-type Ground Plate, a control cover and a finger-knurled and screw-driver slotted shaft of appropriate length for universal replacement. Packaged with instruction sheet but without necessary Base-Element.

TM-3—IRC Tab-Mount Kit—Shaft 1″ long.

TM-4—IRC Tab-Mount Kit—Shaft 1½″ long.

TM-1—IRC Tab-Mount Kit ¼″ long.

TM-2—IRC Tab-Mount Kit—Shaft ⅝″ long.

¼″ diameter Knob-Master Shaft

Ohms	Stock No.
500	PPQ 11-103-7
200K	PPQ 11-129-7
1.0 Meg.	PPQ 11-137-7
250K	PPQ 13-130-7
500K	PPQ 13-133-7
1.0 Meg.	PPQ 13-137-7
1.0 Meg.	PPQ 13-137X-7
2.0 Meg.	PPQ 18-139X-7

Can be also made up from Base Element and SK7 Parts Kit.

³⁄₁₆″ diameter shaft flatted and slotted

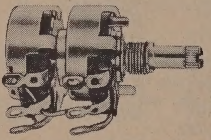
Ohms	Stock No.
1.0 Meg.	PPQ 11-137-8
1.0 Meg.	PPQ 13-137-8
2.0 Meg	PPQ 13-139-8
500K	PPQ 19-133X-8
1.0 Meg.	PPQ 13-137X-8
1.0 Meg.	PPQ 18-137X-8
1.0 Meg.	PPQ 19-137X-8
2.0 Meg.	PPQ 18-139X-8
3.0 Meg.	PPQ 18-140X-8

Can be also made up from Base Element and SK8 Parts Kit.

SWITCHES FOR TYPE Q CONTROLS

Easily attached power switches for Type Q Controls. Attractively finished to match control.
76-1—Single pole, single throw.
76-2—Double pole, single throw
76-4—Single pole, double throw or Make one - Break one Spot Killer Switch

SPECIAL PURPOSE CONTROLS

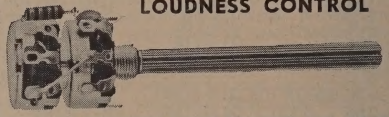


Type QJ-3 TV ATTENUATOR

- Reduces overloading effects on TV sets in strong signal areas.
- Diminishes interstation interference caused by nearby or powerful stations.
- Minimizes buzz due to high signal level in intercarrier systems.
- Permits easy adjustment of signal RIGHT AT SET.
- Frequently prevents mismatch of antenna load to set.

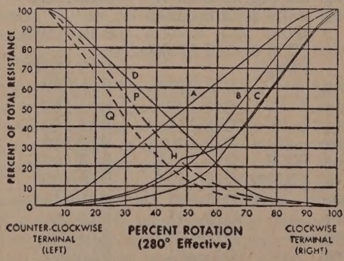
IRC's QJ-3 TV Attenuator permits ready adjustment of signal input to TV sets. In most cases, it corrects or substantially reduces such conditions as:—Adjacent channel interference, background picture on weaker stations, poor definition, picture and sound breakover. Also useful in service work—duplicating fringe area signals when shop is near strong local station.

Type LC-2 LOUDNESS CONTROL



A continuously compensated control that boosts lows and highs as volume is decreased—maintains depth and brilliance even at whisper level. Type LC-2 replaces makeshift compensating units—tapped volume controls, stepped-type loudness controls, bass and treble boost circuits. Automatically maintains proper balance of all frequencies in the audio spectrum at any listening level. Simplicity itself—as easy to wire into an audio circuit as any standard three-terminal volume control. Complete instructions included, showing applications. Type 76-1, 76-2 or 76-4 switch can be added to this control.

STANDARD TAPERS FOR Q CONTROLS



A—For potentiometer or rheostat where uniform resistance change is required.

B—Semi-logarithmic curve for tone control or audio circuit control.

C—Logarithmic curve for audio circuit control or antenna shunt control.

D—Tapered at both ends to provide control of grid bias and antenna circuit. Used where control of grid bias is important in controlling volume.

H—Tapped logarithmic curve for audio level control for automatic bass compensation.

P—Semi-logarithmic curve—reverse taper for use in contrast and picture control circuits in television.

Q—Semi-logarithmic curve—reverse taper for use in contrast and picture control circuits in television.

S—Special taper—based on specific specifications.

TV HEIGHT CONTROLS

Type HLC. Provided for reliable operation in TV—and other B+ applications such as AGC, noise gate, focus, fringe lock and sync. Type HLC is a premium quality television height control with a 1 watt rating and small 1⁵⁄₁₆″ diameter size. Slotted and knurled shaft is nylon, and can be easily shortened, if required. Control has tab mount design with rear adjustment. Supplied in six high range types with ±30% tolerance.

HLC-1	2.0 megohms	HLC-3	3.0 megohms	HLC-5	5.0 megohms
HLC-2	2.5 megohms	HLC-4	4.0 megohms	HLC-6	7.5 megohms

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TELEVISION AND AUTO SET CONTROL ACCESSORIES

IRC offers parts for Volume Controls in a variety of standard assortments to cover a wide range of controls.

#21 Assortment Coverage of 226 QJ Exact Duplicate Controls and 243 different single carbon controls—in 2 Master Stockers.

#21S Assortment A Conversion Unit — changes #21 Parts Stock to #22 (below.) Covers 741 additional manufacturers' part numbers, 194 additional Exact Duplicate Controls, 13 additional values of Q Controls and 195 more variations of single carbon control values; plus 11 Wire-Wound Control values in 39 different items. In 2 Master Stockers.

#22 Assortment Basic Stock Parts for assembling any of 325 Type QJ Exact Duplicate Controls, 445 standard single carbon controls, and 30 standard Wire-Wound Controls. 4 Master Stockers hold parts for complete coverage of 809 different controls.

#22S Assortment Pull-Push Parts Stock. Converts #22 to include pull-push control parts. Includes 17 inner shafts, 10 base elements, 4 K-16 Concentrikits, 2 K-17 Concentrikits, 2 K-18 Concentrikits and 1 TM-4 Tab-Mount Control Kit.

#2A Assortment Contains the 19 best selling Q control elements and in addition gives coverage for 94% of the single carbon push-pull controls.

For those who prefer factory-assembled special controls, IRC provides an exceptionally broad line of over 1250 Exact Duplicate Controls.

The IRC Exact Duplicate Line now includes over 240 concentric dual controls for auto radios. Modern in design, these new controls bring many unique and desirable features to provide convenience, economy and long life. The new IRC Printed-Silver Tone Switch eliminates contact fatigue—assures positive, no bump contact. Simple detent assures positive positioning independent of switch action. Control position feature of 7/16″ and ½″ bushings permits exact duplication of original. Short control depth fits most crowded locations. Power switches amply rated for both TV and Auto Radios. Consult Howard A. Sams Replacement Manual (RGC-2 or later) or S020F Numerical Listing for needed controls.

IRC CONCENTRIKIT ASSEMBLES EXACT DUPLICATE CONTROLS

features quick assembly—no modification of parts.

17 Basic CONCENTRIKITS

IRC Concentrikits are the common parts to various types of Exact Duplicate Controls. When assembled with parts shown in Howard A. Sams Replacement Manual (RGC-2 or later), they will produce any IRC Exact Duplicate TV or Auto Radio Controls. No cutting or filing of shafts or bushings—one minute assembly.

Concentrikit	Control Depth	Panel Section	Rear Section	Bushing	Use
K-2	*	C	C	⅜″ x ⅜″	TV & Auto
K-3	*	W	C	⅜″ x ⅜″	TV
K-4	*	C	C	⅜″ x ¾″	TV (Motorola)
K-5	*	C	C	⅜″ x ¼″	TV (Hallicrafters)
K-6	**	C	C	⅜″ x ⅜″	TV & Auto
K-7	**	C	C	⅜″ x ¾″	TV
K-8	**	C	C	none	Auto
K-9	**	TS	C	none	Auto
K-10	**	W	W	⅜″ x ⅜″	TV
K-11	**	W	C	⅜″ x ¼″	TV
K-12	**	C	W	⅜″ x ⅜″	TV
K-13	**	W	W	⅜″ x ¼″	TV
K-14	**	W	W	⅜″ x ¾″	TV
K-15	**	C	C	⅜″ x ¼″	TV
K-16	**	C	C	⅜″ x ⅜″	Pull-Push
K-17	**	C	C	⅜″ x ¾″	Pull-Push
K-18	**	C	C	⅜″ x ¼″	Pull-Push

*—Standard **—Short C—Carbon W—Wire TS—Tone Switch

IRC Printed-Silver Tone Switch Elements

Sensational new development in concentric tone switch permits assembly of special Exact Duplicate Auto Radio Controls in field. Assemblies like standard IRC Base Elements—no loose parts. Packed with detent-type panel cover.

Stock No.	Description
BS1	4 Position Tone Switch Element for Ford
BS2	4 Position Tone Switch Element for Delco
BS3	3 Position Tone Switch Element for Philco
BS4	4 Position Tone Switch Element for Delco
BS5	4 Position Tone Switch Element for Lincoln and Mercury

IRC EXACT DUPLICATE BUSHINGS
featuring Adjustable Positioning

A wide assortment of Exact Duplicate Bushings provide easy, quick assembly of Auto Radio Controls without cutting, filing or modication. New adjustable ground plate permits positioning of flats or notched mounting face to duplicate original control positioning. Individually packaged.

IRC EXACT DUPLICATE BUSHINGS

Stock No.	Dimensions	Type
S6	7/16″ x 15/16″	Double-flat
S7	7/16″ x 1 1/32″	Double-flat
S8	7/16″ x 1⅝″	Double-flat
S9	7/16″ x 1⅞″	Double-flat
S10	½″ x 0.2″	Single-flat
S11	½″ x 9/16″	Single-flat
S12	½″ x 15/16″	Single-flat
S13	½″ x 1″	Single-flat
S14	½″ x 1¼″	Single-flat
S15	½″ x 1 1/2″	Single-flat
S16	½″ x 1⅝″	Single-flat
S17	½″ x 1⅞″	Single-flat
S18	½″ x 2″	Single-flat
S19	½″ x 2⅛″	Single-flat
S20	½″ x 2¼″	Single-flat
S21	½″ x 1⅛″	Notched
S22	½″ x 1 3/16″	Notched
S23	½″ x 1 9/32″	Notched
S24	½″ x 1⅜″	Notched
S25	½″ x 1 7/16″	Notched
S26	½″ x 1 17/32″	Notched
S27	½″ x 1 21/32″	Notched
S28	½″ x 1¾″	Notched
S29	½″ x 1 13/16″	Notched
S30	½″ x 1⅞″	Notched
S31	½″ x 2″	Notched
S32	½″ x 2⅛″	Notched
S33	⅜″ x ¼″	——
S34	⅜″ x ⅜″	——
S35	½″ x 13/32″	Single-flat
S36	½″ x ⅝″	Single-flat
S37	½″ x 1/2″	Single-flat
S38	½″ x 27/32″	Single-flat
S39	½″ x ¾″	Single-flat
S40	½″ x 11/16″	Single-flat
S41	½″ x 13/16″	Notched
S42	½″ x 1 9/16″	Single-flat
S43	½″ x 1⅛″	Single-flat
S44	⅜″ x .590″	——
S45	⅜″ x 13/16″	——
S46	7/16″ x ⅝″	Double-flat
S47	7/16″ x 13/32″	Double-flat
S48	½″ x 5/16″	Single-flat
S49	½″ x 1″	Notched
S50	½″ x 1 11/16″	Single-flat
S51	7/16″x1¼″	Double-flat
S52	⅜″x⅞″	—

N1	Mounting Nut for 7/16″ Bushings—Pkg. of 10
N2	Mounting Nut for ½″ Bushings—Pkg. of 10
N3	Mounting Nut for ½″ (9/16″ across flats) Bushings—Pkg. of 10

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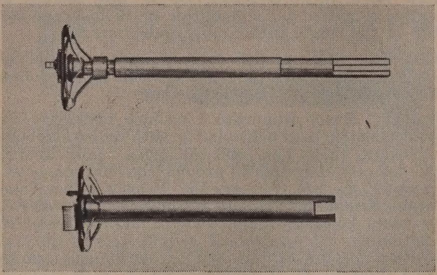
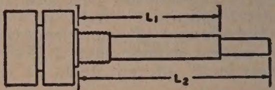
CTS IRC

CONCENTRIKIT EXACT DUPLICATE SHAFTS

DEPENDABLE MECHANICAL FIT FOR YOUR TV REPLACEMENTS



Save time—be assured of accurate fit! IRC now provides a complete line of Exact Duplicate Shafts for CONCENTRIKIT—factory-tailored for dependable mechanical fit. No filing, slotting, soldering or cutting required! Many shafts are flatted as well as slotted to provide wider replacement coverage. Each shaft is a complete assembly, including contactor. Factory-lubricated, packaged in cellophane and in individual carton.



Exact Duplicate Shaft Stock Numbers indicate shaft length measured from mounting face when installed in control (L_1 is Outer Shaft length; L_2 is Inner Shaft length). First digit is number of whole inches in shaft length; remaining two digits indicate number of additional 32nds of an inch. Thus, P1-210 has shaft lengths of 2-10/32″ or 2-5/16″. Exception is Inner Shafts when used with K-3 CONCENTRIKIT where 3/32″ should be subtracted to determine shaft length.

EXACT DUPLICATE OUTER SHAFTS

Shaft Type	Slot Width-Depth	Flat Length	Round Knurled Band	Type Base Element	Concentrikit
P1	1/8″ x 3/8″	17/32″	—	Q	K-2, -4, -5
P2	1/16″ x 1/2″	17/32″	—	Q	K-2, -4, -5
P3	1/8″ x 3/8″	17/32″	—	W	K-3, -10, -11, -13, -14
P4	1/8″ x 3/8″	3/4″	—	W	K-3, -10, -11, -13, -14
P5	1/16″ x 3/8″	17/32″	—	W	K-3, -10, -11, -13, -14
P6	1/8″ x 3/8″	11/16″	—	Q	K-2, -4, -5
P7	.120″ x 3/8″	17/32″	—	Q	K-2, -4, -5
P8	—	—	1/8″ wide	W	K-3, -10, -11, -13, -14
P9	—	—	1/8″ wide	Q	K-2, -4, -5
P10	1/8″ x 7/16″	17/32″	—	Q	K-2, -4, -5
P11	3/64″ x 1/16″	—	—	Q	K-2, -4, -5
P12	1/8″ x 3/16″	—	—	Q	K-2, -4, -5
P13	1/8″ x 1/4″	—	—	Q	K-6, -7, -8, -12, -15
P14	1/8″ x 3/16″	—	—	Q	K-6, -7, -8, -12, -15
P15	1/8″ x 1/4″	—	—	Tone SW.	K-9
P16	.132″ x 3/16″	—	—	Q	K-6, -7, -8, -12, -15
P17	1/8″ x 3/8″	5/8″	—	Q	K-6, -7, -8, -12, -15
P18	3/64″ x 1/16″	—	—	W	K-3, -10, -11, -13, -14
P19	3/64″ x 1/16″	—	—	Q	K-6, -7, -8, -12, -15
P20	—	—	1/8″ wide	Q	K-6, -7, -8, -12, -15
P21	1/8″ x 7/16″	5/8″	—	Q	K-6, -7, -8, -12, -15

EXACT DUPLICATE INNER SHAFTS

Shaft Type	Diam.	Slot Width - Depth	Flat Length	Round Knurled Band	Type Base Element	Concentrikit
R1	.187″	1/16″ x 1/2″	1/2″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R2	.202″	1/16″ x 1/2″	1/2″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R3	.190″	20 Tooth Split Knurl (Zenith)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R4	.180″	Round and Slotted (Motorola)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R5	.187″	Rear Extension Type (RCA)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R6	.202″	Rear Extension Type (Dumont)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R7	.189″	18 Tooth Split Knurl (Zenith)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R8	.187″	1/16″ x 1/2″	1/2″	—	W	K-10, -12, -13, -14 only
R9	.187″	1/16″ x 1/2″	5/8″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R10	.187″	—	—	1/8″ wide	W	K-10, -12, -13, -14 only
R11	.187″	—	—	1/8″ wide	Q	All but K-10, -12, -13, -14, -16, -17, -18
R12	.202″	—	—	7/32″	Q	All but K-10, -12, -13, -14, -16, -17, -18
R13	.180″	Round with 5/8″ deep slot (Motorola)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R14	.202″	1/16″ x 1/2″	5/8″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R15	.202″	3/64″ x 1/16″	—	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R16	.187″	1/16″ x 1/2″	25/32″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R17	.202″	1/16″ x 1/2″	11/16″	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R18	.202″	1/16″ x 1/2″	1/2″	—	W	K-10, -12, -13, -14 only
R19	.202″	3/64″ x 1/16″	—	—	W	K-10, -12, -13, -14 only
R20	.187″	3/64″ x 1/16″	—	—	Q	All but K-10, -12, -13, -14, -16, -17, -18
R21	.180″	1/16″ x 5/8″ (Motorola)			Q	All but K-10, -12, -13, -14, -16, -17, -18
R22	.202″	Rear Extension Type (G.E., Hotpoint)			Q	K13
R23	.187″	.156″ x ½″ (Pull-Push Type)			Q	K-16, -17, -18
R24	.187″	1⁄16″ x ½″ (Pull-Push Type)			Q	K-16

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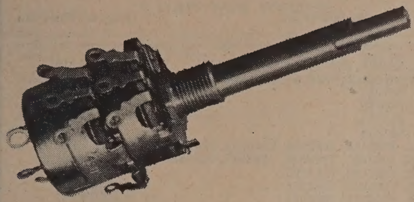
AUTO RADIO CONTROLS



113 CONTROLS FOR 248 DIFFERENT MAKES AND MODELS OF AUTOMOBILES

The finest line of exact replacement auto radio controls . . . 113 controls for 248 different makes and models of automobiles . . . A greater, up-to-date selection for a greater number of applications. All of these factors are yours with the IRC line of Auto Radio Controls.

CTS-IRC Part No.	Car Mfg.	Year	Radio Mfg.	Radio Model No.	Original Part No.
5308	Ford	1948-50	Bendix	M1, M1A, M1A1	L222808
5309	Ford	1950	Motorola	OMF	18B591266
5310	Ford	1951	Bendix	M2	L219586-2
5311	Ford	1951	Motorola	1MF	18B501153
5312	Ford	1952-53	Bendix	M4, M4A	L219586-3
5313	Ford	1952-53	Motorola	2MF, 3MF	18K511635
5314	Ford	1954	Bendix	M4B, M4BA, M4BP	L219586-7
5315	Ford	1954	Motorola	4MF	18B530018
5316	Ford	1955	Bendix	5BF, R5BF	L219656-1
5317	Ford	1955	Motorola	5MF, 5MF8	18B531299
5318	Ford	1956	Bendix	R6BF	L219681-1
5319	Ford	1956	Motorola	66MF, 66MFP, 69MF	18B534483
5320	Ford	1957	Bendix	R75BF	2090035-1
5321	Ford	1957	Motorola	75MF	18K539059
5322	Ford	1957	Motorola	78MF	18B539379
5323	Ford	1957-58	Bendix	R74BF, R84BF	2090035-2
5324	Ford	1957-58	Motorola	74MF, 84MF	18B541819
5325	Ford	1957-58	Motorola	76MF(SR), 86MF	18B542373
5342	Chevrolet	1949-50	Delco	986240, 986388	7258084
5343	Chevrolet	1950	Delco	986389	1218641
5344	Chevrolet	1951-52	Delco	986516	1219708
5345	Chevrolet	1951-52	Delco	986515	7261385
5346	Oldsmobile	1951-52	Motorola	OE2A, OE2M	18B512084
	Buick	1946-53		BK2A, BK3A6	
	Chevrolet	1951-52		CT2A, CT2M	
	GMC & Chevy Truck	1948-53		GMT2A, GMT2M	
	Kaiser	1951-53		KR2A, KR2M	
	Packard	1951-53		PD2A, PD2M	
5347	Chevrolet	1953-54	Delco	986669	7262941
5348	Chevrolet	1953-54	Delco	986669, 986771	7264211
	GMC Truck	1954-58		2233396, 2233398	
	Willys	1956		694866	
5349	Chevrolet	1953-54	Delco	986668	7264210
5350	Universal	1954-56	Motorola	5M, 5M-12	18K33457
	Chevrolet	1953-56		6M	
	Pontiac	1955-56		6M-12	
	Olds & Buick	1954-56		6M-12	
	Volkswagen	1953-56		6M	
	Studebaker	1953-56		6M, 6M-12	
5351	Chevrolet	1955	Delco	987087	7265265
5352	Chevrolet	1955-56	Delco	987088, 987366	7265220
5353	Chevrolet	1955-57	Delco	987086, 987364, 3725156	7265302
5354	Chevrolet	1955-58	Delco	987187	7266193
	GMC Truck	1955-56		2233478, 2233480	
5355	Chevrolet	1956	Delco	987368	7266842
5356	Chevrolet	1957	Delco	987577	7269211
5357	Chevrolet	1957	Delco	987575, 987693	7269199
5358	Chevrolet	1957	Delco	987573	7269186
5359	Chevrolet	1957	Motorola	7MX	18B540768
	Pontiac	1957		7MX	
	Buick	1957		7MX	
	Studebaker	1957		7MX	
5360	Chevrolet	1957	Motorola	CTA7X, CTM7X	18K541128
5361	GMC Truck	1947-52	Delco	2233029, 2233297	7256188
	Chevy Truck	1950-52		986067, 986443	
5362	Chevrolet	1957	Delco		7270202
5373	Plymouth	1952	Motorola	Mopar 606	18A501616
5374	Plymouth	1953	Motorola	Mopar 608	18B521635
5375	Plymouth	1953	Philco	P-5206 Mopar 819	33-5557-11
5376	Plymouth	1954-55	Motorola	Mopar 836	18A533014
5377	Plymouth	1955	Motorola	Mopar 613	18K532909
5378	Plymouth	1955	Philco	P-5506 Mopar 832	33-5557-15
	Chrysler	1955	Philco	C-5509 Mopar 835, C-5609	
5379	Plymouth	1956	Motorola	Mopar 841	18K536152
5380	Plymouth	1956	Motorola	Mopar 916	18B536704
5381	Plymouth	1956	Philco	P-5606 Mopar 840	33-5580-4
5382	Plymouth	1957	Motorola	Mopar 849	18B540376
5383	Plymouth	1957	Philco	P-5701 Mopar 848	33-5580-12
				P-5702 Mopar 848	
5384	Plymouth	1958	Motorola	Mopar 854	18B560415
5385	Plymouth	1958	Philco	P-5801 Mopar 848	33-5580-21
5386	Plymouth	1955	Philco	P-5506	33-5557-14
5398	Mercury	1955-56	Bendix	R6BM	L219660-2
	Lincoln	1955-56		R6BM	
	Continental	1956		6BC	
5399	Mercury	1957	Philco	M-5841, M-5741	33-5570-2
5400	Mercury	1958	Bendix	R84BM, R85BM-5	N219689-4

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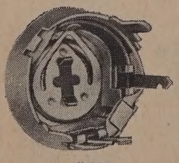
AUTO RADIO CONTROLS

CTS-IRC Part No.	Car Mfg.	Year	Radio Mfg.	Radio Model No.	Original Part No.
5411	Buick	1950-53	Delco	980868, 980899, 980979, 980980, 981111, 981320, 981321, 981322, 981323	7263119
5412	Buick	1954	Delco	981550, 981551	7264309
5413	Buick	1955	Delco	981651, 981652	7265742
5414	Buick	1956	Delco	981707, 981708	7266996
5415	Buick	1957	Delco	981813, 981814	7268944
5423	Cadillac	1950-52	Delco	7258865, 7260405, 7259825, 7260905, 7260705	7259240
5424	Cadillac	1953	Delco	7262645, 7262695, 7263525, 7263545, 7263835	7263321
5425	Cadillac	1954-55	Delco	7264165, 7264185, 7264195, 7265825, 7265845, 7265855	7264638
5426	Cadillac	1956	Delco	7266505, 7266535, 7266565	7266982
5427	Cadillac	1957	Delco	7268005, 7268035, 7268065	7269443
5435	Chrysler	1953	Philco	C-5109 Mopar 812, C-5209 Mopar 817 C-5110 Mopar 813, C-5211 C-5111 Mopar 815, C-5212 C-5112 Mopar 816	83-5557-10
5436	Chrysler	1953-54	Philco	C-5409 Mopar 824, C-5410 Mopar 830, C-5411	33-5557-13
5437	Chrysler	1955	Philco	C-5595 Mopar 902, C-5596 Mopar 903,	33-5557-16
	Chrysler	1956		C-5696 Mopar 912	
5438	Chrysler	1957	Philco	C-5705 Mopar 847	33-5580-16
5439	Chrysler	1957	Philco	C-5707	33-5580-13
5449	DeSoto	1954	Motorola	Mopar 829	18A530623
5450	DeSoto	1955-56	Motorola	Mopar 901, 911	18B532633
5451	DeSoto	1957	Motorola	Mopar 846, 919, 919 HR	18B539819
	DeSoto	1958		Mopar 923	
5459	Dodge	1953	Motorola	Mopar 609	18B521099
5460	Dodge	1954-55	Motorola	Mopar 833	18K533013
5461	Dodge	1955	Motorola	Mopar 614, 621	18B532519
5462	Dodge	1955-56	Motorola	Mopar 900, 901, 910	18K532955
5463	Dodge	1957	Motorola	Mopar 845, 918	18K539820
5464	Dodge	1958	Motorola	Mopar 502	18B561317
5473	Oldsmobile	1949	Delco	982420	1219582
5474	Oldsmobile	1951	Delco	982700	7260294
5475	Oldsmobile	1953	Delco	983004	7263540
5476	Oldsmobile	1954-55	Delco	983090, 983204	7264242
5477	Oldsmobile	1954-56	Delco	983091, 983205, 983336	7264128
5478	Oldsmobile	1956	Delco	983334	7266887
5479	Oldsmobile	1957	Delco	989002	7268847
5480	Oldsmobile	1957	Delco	989001	7269055
5494	Packard	1956	Delco	480487, 6480487	7267632
5501	Pontiac	1949-50	Delco	984296, 984570	7257708
5502	Pontiac	1951-52	Delco	984592, 984688	7260043
5503	Pontiac	1953-54	Delco	984817	7262482
5504	Pontiac	1955-56	Delco	984961, 988568	7265495
5505	Pontiac	1956	Delco	988623	7268308
5506	Pontiac	1957	Delco	988672	7269149
5507	Pontiac	1957	Delco		7269638
5517	Studebaker	1953	Philco	S-5327-AC-2300, S-5523 S-5323-AC-2301, S-5527 S-5524, S-5528, S-5529	33-5570
5522	Universal	1954	Motorola	397,404	18B531560
	Universal	1955		395,395-12	
	Universal	1956		396,396-12	
5550	Chevrolet	1958	Delco	987724	7270450
5551	Chevrolet	1958	Delco	987727	7270479
5552	Oldsmobile	1958	Delco	989127, 989129	7270679
5553	Buick	1958	Delco	981902	7271329
5554	Pontiac	1958	Delco	988822	7271446
5555	Chevrolet	1959	Delco	987888	7273302
5556	Chevrolet	1959	Delco	987891	7273367
5557	Pontiac	1959	Delco	988976	7273623
5558	Buick	1959	Delco	981968	7273993
5559	Plymouth	1959	Motorola	Mopar 860	
	Chrysler	1959	Motorola	Mopar 861	18B561364
5560	Ford	1959	Motorola	94MF, 94MFM	18B561597
5561	Ford	1959	Motorola	95MF	18B561599
5562	Ford	1959	Bendix	94BF	
	Edsel	1959	Bendix	94BE	2090035-3
5563	American Motors	1959	Motorola	94MA	18B561728
5564	Dodge	1959	Motorola	Mopar 856	18B561732

CTS-IRC BUZZ & BIAS SENSITIVITY CONTROLS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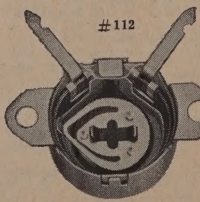
#112

Two new miniature controls for hum balance, centering, hold, locking, etc. Designed for screw driver adjustment. Type 110 available in 5 values; Type 112 available in 21 values.

Type 110

Stock No.	Value
110-60	60 ohms
110-100	100 ohms
110-600	600 ohms
110-1000	1000 ohms
110-3000	3000 ohms

Type 112

Stock No.	Value
112-50	50 ohms
112-100	100 ohms
112-150	150 ohms
112-200	200 ohms
112-300	300 ohms
112-500	500 ohms
112-500-100	500 ohms fixed min. 100 ohms
112-600	600 ohms
112-650	650 ohms

Type 112 (cont'd)

Stock No.	Value
112-800	800 ohms
112-800-50	800 ohms fixed min. 50 ohms
112-1000	1000 ohms
112-1000-100	1000 ohms fixed min. 100 ohms
112-1500	1500 ohms
112-2000	2000 ohms
112-2000-100	2000 ohms fixed min. 100 ohms
112-3000	3000 ohms
112-4000	4000 ohms
112-4000-350	4000 ohms fixed min. 350 ohms
112-4000-1000	4000 ohms fixed min. 1000 ohms
112-5000	5000 ohms

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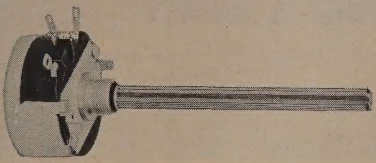
UNIVERSAL WIRE WOUND CONTROLS

4 WATT WIRE WOUNDS

International Resistance Company's new Universal Wire Wound Control, engineered to handle all 2-watt and 4-watt requirements, may be used as a replacement for former types W, WK, 4WK, and 4WS.

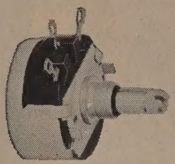
Dimensions: 1¼″ in diameter, 45/64″ deep behind mounting face without switch; 1-7/32″ with switch.

Available in the following types:



TYPE WPK

⅜-32 x ¼″ long bushing with popular Q Type Knob Master Shaft 3″ long from mounting face.



TYPE WPS

⅜-32 x ¼″ long bushing with combination finger knurl and screwdriver slot shaft ¾″ long from mounting face.

Switches are available for use with types WPK and WPS. Windings are not compensated and the resistance in approximately 15% rotation will be lost.

Switch type 76-11 SPST

Switch type 76-12 DPST

PARTS KIT FOR WPK-WPS

Package of parts which, with addition of desired WP Base-Element, will assemble WPK or WPS Controls. Includes shaft, bushing, cover and coupling plate.

SK4—Parts kit for WPK Control
SK5—Parts kit for WPS Control

STOCK VALUES OF TYPE WPK AND WPS CONTROLS

Ohms	Tap	Taper	Type WPK Control	Type WPS Control	Base Elements
10	—	U	WPK10	—	W11-010
10	5.	U	—	WPS10X5	W11-010X
15	7.5	U	—	WPS15X7.5	W11-015X
20	—	U	WPK20	—	W11-020
20	10	U	—	WPS20X10	W11-020X
25	—	U	—	WPS25	W11-025
25	12.5	U	—	WPS25X12.5	W11-025X
30	—	U	WPK30	—	W11-030
30	15	U	—	WPS30X15	W11-030X
40	—	U	—	WPS40	W11-040
40	20	U	—	WPS40X20	W11-040X
50	—	U	WPK50	—	W11-050
50	25	U	—	WPS50X25	W11-050X
60	—	U	—	WPS60	W11-060
80	40	U	—	WPS80X40	W11-080X
100	—	U	WPK100	—	W11-084
100	50	U	—	WPS100X50	W11-084X
140	70	U	—	WPS140X70	W11-092X
150	75	U	—	WPS150X75	W11-094X
200	—	U	WPK200	—	W11-100
200	100	U	—	WPS200X100	W11-100X
250	—	U	WPK250	WPS250	W11-201
300	—	U	WPK300	—	W11-102
400	—	U	WPK400	—	W11-202
500	—	U	WPK500	WPS500	W11-103
500	—	L	—	WPS500L	W13-103
600	—	U	WPK600	—	W11-104
650	—	U	WPK650	—	W11-204
750	—	U	WPK750	—	W11-105
750	—	L	WPK750L	—	W13-105
750	—	R	WPK750R	—	W17-105
750	250	S	—	—	W17-105X
1000	—	U	WPK1000	WPS1000	W11-108
1350	—	U	WPK1350	—	W11-308
1350	—	R	WPK1350R	—	W17-308
1500	—	U	WPK1500	WPS1500	W11-109
1500	—	L	WPK1500L	—	W13-109
1500	500	S	—	—	W17-109X
2000	—	U	WPK2000	WPS2000	W11-110
2000	—	L	WPK2000I	—	W13-110
2250	—	U	—	WPS2250	W11-210
2250	—	L	WPK2250L	WPS2250L	W13-210
2500	—	U	WPK2500	WPS2500	W11-111
2500	—	R	WPK2500R	—	W17-111
3000	—	U	WPK3000	WPS3000	W11-112
3000	—	R	—	—	W17-112
3300	—	L	—	—	W13-212
4000	—	U	—	WPS4000	W11-113
4000	—	L	WPK4000L	WPS4000L	W13-113
5000	—	U	WPK5000	WPS5000	W11-114
5000	—	L	WPK5000L	—	W13-114
5000	—	R	—	—	W17-114
6000	—	U	WPK6000	—	W11-214
6000	—	L	WPK6000L	—	W13-214
7500	—	U	WPK7500	—	W13-115
7500	—	L	WPK7500L	—	W11-115
10000	—	U	WPK10000	WPS10000L	W11-116
12500	—	U	WPK12500	—	W11-217
15000	—	U	WPK15000	—	W11-118
20000	—	U	WPK20000	—	W11-119
25000	—	U	WPK25000	—	W11-120
30000	—	U	WPK30000	—	W11-121
40000	—	U	WPK40000	—	W11-222
50000	—	U	WPK50000	—	W11-123

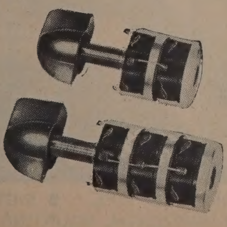
STANDARD TAPERS

R Taper—Right Hand Taper with approximately 50% rotation when measured from Right Terminal to Center Terminal facing shaft end of control with terminals down.

U Taper—Standard Linear Taper.

L Taper—Left Hand Taper with approximately 15% of total resistance at 50% rotation when measured from Left Terminal to Center Terminal facing shaft end of control with terminals down.

L AND T PAD CONSTANT IMPEDANCE CONTROLS



For use in sound systems and for speaker control. Handle up to 10 watts of audio power (3 watts D.C.) L Pad provides constant input impedance; T Pad provides constant input and output impedances.

IRC L and T Pads provide unusual convenience features small size: Diameter—1¼″; depth behind panel—1⁹⁄₃₂″ (L Pad) and 1²⁷⁄₃₂″ (T Pad). ⅞″ bushing mounts Pad on panels up to ¾″ thick. Interchangeable bushing available for metal panels. Shaft length is correct for knob supplied—no shaft cutting necessary.

Each IRC Pad is individually boxed and includes knob and dial plate.

L PADS

Stock No.	Impedance
LP4	4 ohms
LP8	8 ohms
LP15	15 ohms
LP500	500 ohms

T PADS

Stock No.	Impedance
TP4	4 ohms
TP8	8 ohms
TP15	15 ohms
TP500	500 ohms

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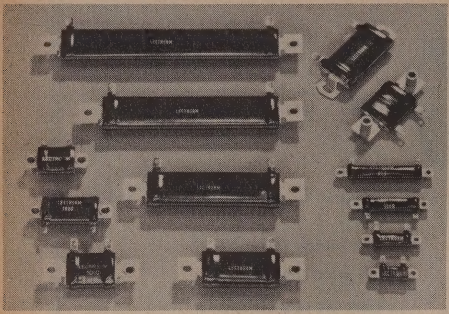
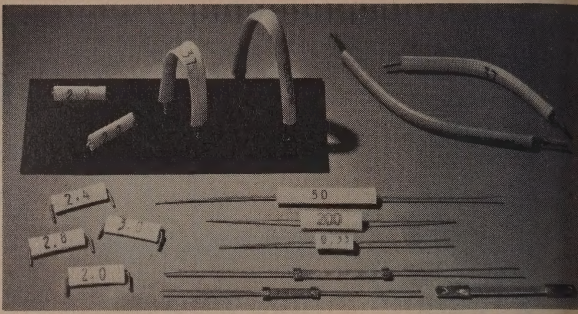
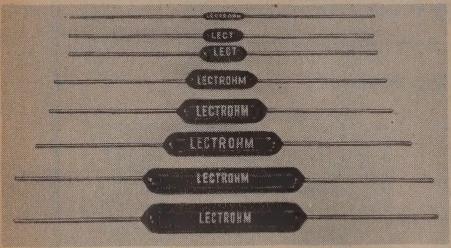


OVALS

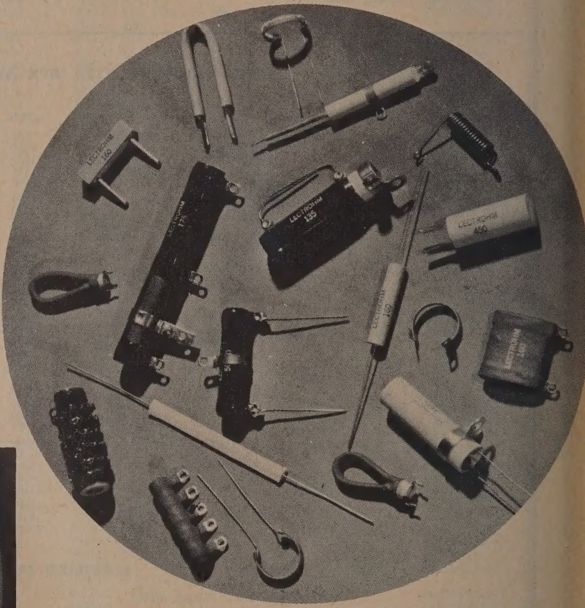

2.4
2.8
3.0
2.0
50
200

FLEXIBLES

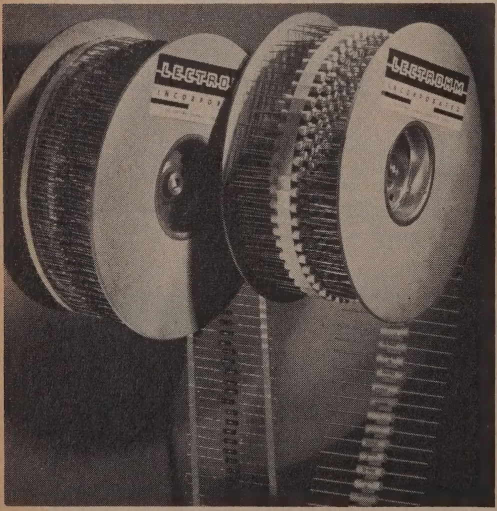

LECT
LECT
LECTROHM

AXIALS

LECTROHM, while manufacturing the standard vitreous line, is also producing whole new groups of types, each designed to solve a special problem. Miniaturization and printed circuit restrictions in space and ventilation no longer are complicated by conventional power resistor size standards. New coating materials and winding methods developed by LECTROHM permit an infinite variety of configurations yet retain operating and life characteristics expected of the finest grade vitreous enameled types. LECTROHM engineers will fit the resistor size and shape to your design.


LECTROHM 160
LECTROHM 175
LECTROHM 135
LECTROHM 450
LECTROHM 160

Some of the many "Special" LECTROHM Resistors


LECTROHM
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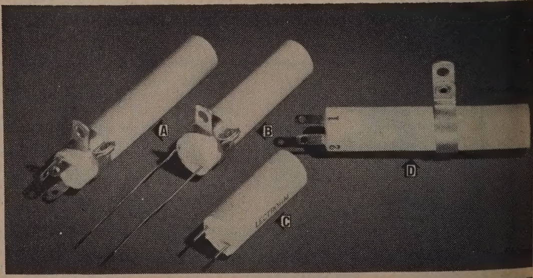
TAPED RESISTORS FOR AUTOMATION



UPRIGHTS A SOLDER LUG TYPE. B PIGTAIL TYPE
C PRINTED CIRCUIT. D HORIZONTAL MOUNTING BRACKET

LECTROHM

INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

Fixed Wire-Wound Types

C5 SERIES — 5 WATT

DIMENSIONS .... 5/16 x 3/16 x 1″
TERMINALS .... Pigtail type leads 1½″
MAXIMUM RESISTANCE .... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	2240	$ .45	600	91	$ .45
2	1580	.45	700	84	.45
3	1290	.45	750	81	.45
4	1110	.45	800	79	.45
5	1000	.45	900	74	.45
10	707	.45	1000	70	.48
15	575	.45	1100	67	.48
20	500	.45	1200	64	.48
25	447	.45	1250	63	.48
30	408	.45	1500	57	.48
35	374	.45	1750	53	.48
40	346	.45	2000	50	.48
50	316	.45	2250	47	.48
75	258	.45	2500	44	.48
100	222	.45	3000	41	.48
125	200	.45	4000	35	.48
150	182	.45	4500	33	.48
200	158	.45	5000	31	.48
225	149	.45	6000	29	.51
250	141	.45	7000	27	.51
300	129	.45	7500	26	.51
350	119	.45	8000	25	.51
400	111	.45	9000	23	.51
500	100	.45	10000	22	.51

C10 SERIES — 10 WATT

DIMENSIONS .... 5/16 x 3/16 x 1¾″
TERMINALS .... Pigtail type leads 1½″
MAXIMUM RESISTANCE .... 50,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .48	1500	79	$ .54
2	2230	.48	1750	74	.54
3	1825	.48	2000	69	.54
5	1415	.48	2250	64	.54
7.5	1155	.48	2500	61	.54
10	1000	.48	3000	58	.54
15	815	.48	3500	53	.54
20	707	.48	4000	50	.54
25	630	.48	4500	47	.54
50	447	.48	5000	44	.54
75	365	.48	6000	41	.60
100	315	.48	7000	38	.60
150	258	.48	7500	36	.60
200	223	.48	8000	35	.60
225	212	.48	8500	34	.60
250	200	.48	9000	33	.60
300	182	.48	10000	32	.60
350	169	.48	12000	29	.66
400	158	.48	12500	28	.66
450	150	.48	13500	27	.66
500	141	.48	15000	25	.66
600	129	.48	16000	25	.66
700	119	.48	17500	24	.66
750	115	.48	18000	23	.66
800	111	.48	20000	22	.66
900	105	.48	22500	21	.72
1000	100	.48	25000	20	.72
1100	95	.54	30000	18	.81
1200	91	.54	40000	15	.81
1250	89	.54	45000	15	.81
			50000	14	.81

C20 or E20 SERIES — 20 WATT

DIMENSIONS .... 7/16 x 5/16 x 2″
TERMINALS .... Pigtail type leads 1½″
(C20)
Solder lug type terminal;
hole diameter .1718″
(E20)
MOUNTING BRACKET .... B-33; Centers 2¾″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	2000	$ .63	2500	89	$ .66
10	1414	.63	3000	81	.66
15	1153	.63	4000	70	.66
20	1000	.63	5000	63	.66
25	894	.63	6000	57	.72
40	707	.63	7000	53	.72
50	633	.63	7500	51	.72
60	574	.63	8000	50	.72
75	517	.63	10000	45	.72
100	448	.63	12500	40	.78
125	400	.63	15000	36	.78
150	365	.63	20000	32	.78
200	316	.63	25000	28	.90
250	283	.63	30000	26	.90
300	258	.63	35000	24	.90
350	238	.63	40000	22	.90
400	223	.63	45000	21	1.05
500	200	.63	50000	20	1.05
600	182	.63	55000	18	1.05
700	169	.63	60000	16	1.05
750	163	.63	65000	15	1.20
800	158	.63	70000	14	1.20
1000	141	.63	75000	13	1.20
1100	134	.66	80000	12	1.20
1250	126	66	90000	11	1.38
1500	115	.66	95000	10.5	1.38
2000	100	.66	100000	10	1.38

E25 SERIES — 25 WATT

DIMENSIONS .... 9/16 x 5/16 x 2″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-33; Centers 2¾″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$ .66	2500	100	$ .75
3	2890	.66	3000	91	.75
5	2240	.66	3500	84	.75
10	1580	.66	4000	79	.75
15	1290	.66	5000	71	.75
25	1000	.66	6000	64	.75
50	707	.66	7500	57	.75
75	575	.66	10000	50	.75
100	500	.66	12000	46	.75
150	400	.66	15000	41	.78
200	353	.66	20000	35	.78
250	316	.66	25000	32	.90
300	288	.66	30000	29	.90
400	250	.66	35000	27	1.02
500	224	.66	40000	25	1.02
750	182	.66	50000	20	1.20
1000	158	.66	60000	16	1.20
1250	141	.69	70000	14	1.38
1500	129	.69	80000	12	1.38
2000	112	.69	100000	10	1.38

E50 SERIES — 50 WATT

DIMENSIONS .... 9/16 x 5/16 x 4″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 250,000 ohms
MOUNTING BRACKET .... B-33; Centers 4¾″

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3165	$1.08	8000	79	$1.26
10	2230	1.08	10000	71	1.26
25	1414	1.08	12000	65	1.38
50	1000	1.08	12500	63	1.38
100	707	1.08	15000	57	1.38
200	500	1.08	20000	50	1.38
250	440	1.08	25000	45	1.53
500	300	1.08	30000	41	1.53
750	250	1.08	40000	35	1.53
1000	215	1.08	50000	32	1.71
1500	180	1.14	60000	29	1.71
2000	155	1.14	75000	26	1.92
2500	140	1.14	100000	19	2.10
3000	125	1.14	125000	15	2.22
4000	110	1.14	150000	13	2.31
5000	100	1.14	175000	11	2.40
6000	90	1.26	200000	9	2.49
7000	85	1.26	225000	8	2.79
7500	80	1.26	250000	7	2.79

E75 SERIES — 75 WATT

DIMENSIONS .... 9/16 x 5/16 x 6″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms
MOUNTING BRACKET .... B-33; Centers 6¾″

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	8650	$1.32	2500	171	$1.38
2	6120	1.32	3000	160	1.38
3	5010	1.32	4000	135	1.38
4	4340	1.32	5000	121	1.38
5	3870	1.32	6000	111	1.50
10	2740	1.32	7500	100	1.50
25	1730	1.32	8000	96	1.50
50	1220	1.32	10000	86	1.50
100	865	1.32	12000	80	1.62
150	705	1.32	12500	78	1.62
200	610	1.32	15000	70	1.62
250	550	1.32	20000	61	1.62
300	500	1.32	25000	55	1.83
400	430	1.32	30000	50	1.83
500	385	1.32	35000	46	1.83
750	318	1.32	40000	43	1.83
800	305	1.32	45000	41	1.95
1000	270	1.32	50000	39	1.95
1500	225	1.38	75000	31	2.13
2000	192	1.38	100000	27	2.37

E100 SERIES — 100 WATT

DIMENSIONS .... ¾ x ½ x 6½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-34; Centers 7⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	10000	$1.59	2000	222	$1.68
2	7070	1.59	2500	200	1.68
3	5770	1.59	3000	181	1.68
4	5000	1.59	5000	141	1.68
5	4470	1.59	7500	114	1.80
10	3160	1.59	10000	100	1.80
25	2000	1.59	15000	81	1.98
50	1414	1.59	20000	70	1.98
75	1153	1.59	25000	63	2.10
100	1000	1.59	30000	58	2.10
150	816	1.59	40000	50	2.10
250	632	1.59	50000	45	2.22
500	447	1.59	60000	41	2.22
750	365	1.59	75000	36	2.37
1000	316	1.59	100000	32	2.52
1500	257	1.68			

E160 SERIES — 160 WATT

DIMENSIONS .... 1⅛ x ¾ x 8½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-35; Centers 9⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	12650	$2.75	3500	215	$2.01
2	8940	2.75	4000	200	2.01
3	7300	2.75	4500	185	2.01
4	6320	2.75	5000	180	2.01
5	5660	2.75	7500	145	2.16
10	4000	1.98	10000	125	2.16
25	2530	1.98	15000	105	2.34
50	1788	1.98	20000	90	2.34
75	1460	1.98	25000	80	2.40
100	1260	1.98	30000	73	2.40
200	900	1.98	35000	68	2.40
500	570	1.98	40000	64	2.40
1000	400	1.98	50000	57	2.49
1500	330	2.01	60000	52	2.49
2000	280	2.01	70000	48	2.64
2500	250	2.01	80000	45	2.82
3000	230	2.01	100000	40	2.82

E200 SERIES — 200 WATT

DIMENSIONS .... 1⅛ x ¾ x 10½″
TERMINALS .... Solder lug type
MOUNTING BRACKET .... B-35; Centers 11⅜″
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	14140	$3.00	3500	240	$2.16
2	10000	3.00	4000	225	2.16
3	8160	3.00	4500	210	2.34
4	7070	3.00	5000	200	2.34
5	6310	3.00			
10	4470	2.13	7500	165	2.34
25	2830	2.13	10000	140	2.34
50	2000	2.13	15000	115	2.49
75	1635	2.13	20000	100	2.49
100	1400	2.13	25000	90	2.58
250	900	2.13	30000	82	2.58
500	630	2.13	35000	76	2.58
1000	450	2.13	40000	71	2.58
1500	365	2.16	50000	63	2.64
2000	315	2.16	60000	58	2.64
2500	280	2.16	75000	52	2.82
3000	260	2.16	100000	45	3.00

ORDER BY SERIES NUMBER AND RESISTANCE REQUIRED.

LECTROHM

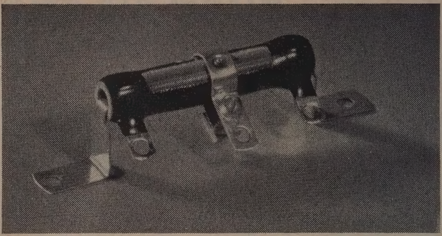
INCORPORATED • CHICAGO, ILLINOIS

VITREOUS ENAMELED RESISTORS

FIXED AND ADJUSTABLE WIRE-WOUND TYPES

Years ahead in manufacturing techniques, LECTROHM Resistors offer absolutely top quality at consistently lower prices. New winding methods and improved enameling processes are the result of continuing research.

Your wire-wound resistor requirements, whether in small or large quantities, are given immediate attention. Large factory stocks of standard types are maintained for your convenience. Special types to fit particular applications are provided quickly and at low cost.



Adjustable Wire-Wound Types

D10 SERIES — 10 WATT

DIMENSIONS .... 5/16 x 3/16 x 1¾″
MOUNTING BRACKET .... B-32; Centers 2¼″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 10,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	3150	$ .96	750	115	$ .96
2	2230	.96	800	111	.96
3	1825	.96	1000	100	.96
5	1415	.96	1250	89	1.02
7.5	1155	.96	1500	79	1.02
10	1000	.96	2000	69	1.02
15	815	.96	2250	64	1.02
20	707	.96	2500	61	1.02
25	630	.96	3000	58	1.02
50	447	.96	3500	53	1.02
75	365	.96	4000	50	1.02
100	315	.96	4500	47	1.02
150	258	.96	5000	45	1.02
200	223	.96	6000	41	1.08
250	200	.96	7000	38	1.08
300	182	.96	7500	36	1.08
350	169	.96	8000	35	1.08
400	158	.96	8500	34	1.08
500	141	.96	9000	33	1.08
600	129	.96	10000	31	1.08

D25 SERIES — 25 WATT

DIMENSIONS .... 1/16 x 5/16 x 2″
MOUNTING BRACKET.......... B-33; Centers 2¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 25,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
1	5000	$1.23	1250	141	$1.26
2	3535	1.23	1500	129	1.26
3	2890	1.23	2000	112	1.26
5	2240	1.23	2500	100	1.26
7.5	1825	1.23	3000	91	1.26
10	1580	1.23	3500	84	1.26
15	1290	1.23	4000	79	1.26
20	1117	1.23	4500	74	1.26
25	1000	1.23	5000	71	1.26
50	707	1.23	6000	64	1.32
75	575	1.23	7000	60	1.32
100	500	1.23	7500	57	1.32
150	400	1.23	8000	55	1.32
200	353	1.23	8500	54	1.32
250	316	1.23	9000	52	1.32
300	288	1.23	10000	50	1.32
400	250	1.23	12000	46	1.38
500	224	1.23	15000	41	1.38
750	182	1.23	20000	35	1.38
300	177	1.23	25000	32	1.50
1000	158	1.23			

D50 SERIES — 50 WATT

DIMENSIONS .... 9/16 x 5/16 x 4″
MOUNTING BRACKET .... B-33; Centers 4¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3160	$1.56	3000	129	$1.62
10	2230	1.56	4000	112	1.62
25	1410	1.56	5000	100	1.62
50	1000	1.56	7500	81	1.74
75	816	1.56	10000	70	1.74
100	707	1.56	12000	64	1.86
150	577	1.56	15000	57	1.86
200	500	1.56	20000	50	1.86
250	447	1.56	25000	44	2.04
300	408	1.56	30000	41	2.04
400	354	1.56	40000	35	2.04
500	316	1.56	50000	32	2.16
750	258	1.56	60000	29	2.16
1000	224	1.56	75000	26	2.43
1500	182	1.62	80000	24	2.43
2000	158	1.62	100000	19	2.58
2500	141	1.62			

D75 SERIES — 75 WATT

DIMENSIONS .... 9/16 x 5/16 x 6″
MOUNTING BRACKET .... B-33; Centers 6¾″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	3870	$1.80	3500	146	$1.86
10	2740	1.80	5000	121	1.86
15	2236	1.80	7500	100	1.98
25	1730	1.80	10000	86	1.98
50	1220	1.80	15000	70	2.10
100	865	1.80	20000	61	2.34
250	550	1.80	25000	55	2.34
300	500	1.80	30000	50	2.34
400	430	1.80	40000	43	2.34
500	385	1.80	50000	39	2.40
750	318	1.80	60000	35	2.40
1000	270	1.80	75000	31	2.64
1500	225	1.86	80000	30	2.64
2000	192	1.86	100000	27	2.85
2500	171	1.86			

D100 SERIES — 100 WATT

DIMENSIONS .... ¾ x ½ x 6½″
MOUNTING BRACKET .... B-34; Centers 7⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	4470	$2.37	2500	200	$2.43
10	3162	2.37	3000	180	2.43
25	2000	2.37	5000	140	2.43
50	1414	2.37	7500	115	2.55
75	1155	2.37	10000	100	2.55
100	1000	2.37	15000	80	2.70
150	815	2.37	20000	70	2.70
250	632	2.37	25000	63	2.88
500	447	2.37	30000	58	2.88
750	365	2.37	40000	50	2.88
1000	315	2.37	50000	45	3.00
1250	280	2.43	60000	41	3.00
1500	250	2.43	75000	36	3.12
2000	220	2.43	100000	32	3.27

D160 SERIES — 160 WATT

DIMENSIONS .... 1⅛ x ¾ x 8½″
MOUNTING BRACKET .... B-35; Centers 9⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	5660	$3.51	4500	185	$2.76
10	4000	2.73	5000	180	2.76
25	2530	2.73	7500	145	2.94
50	1788	2.73	10000	125	2.94
75	1460	2.73	15000	105	3.09
100	1260	2.73	20000	90	3.09
200	900	2.73	25000	80	3.18
500	570	2.73	30000	73	3.18
1000	400	2.73	35000	68	3.18
1500	330	2.76	40000	64	3.18
2000	280	2.76	50000	57	3.24
2500	250	2.76	60000	52	3.24
3000	230	2.76	70000	48	3.42
3500	215	2.76	80000	45	3.60
4000	200	2.76	100000	40	3.60

D200 SERIES — 200 WATT

DIMENSIONS .... 1⅛ x ¾ x 10½″
MOUNTING BRACKET .... B-35; Centers 11⅜″
TERMINALS .... Solder lug type
MAXIMUM RESISTANCE .... 100,000 ohms

Res. Ohms	Max. M.A.	Net Price	Res. Ohms	Max. M.A.	Net Price
5	6310	$3.75	4500	210	$2.94
10	4470	2.88	5000	200	2.94
25	2830	2.88	7500	165	3.12
50	2000	2.88	10000	140	3.12
75	1635	2.88	15000	115	3.24
100	1400	2.88	20000	100	3.24
250	900	2.88	25000	90	3.30
500	630	2.88	30000	82	3.30
1000	450	2.88	35000	76	3.30
1500	365	2.94	40000	71	3.30
2000	315	2.94	50000	63	3.42
2500	280	2.94	60000	58	3.57
3000	260	2.94	75000	52	3.57
3500	240	2.94	100000	45	3.75
4000	225	2.94			

Order by series number and resistance required.

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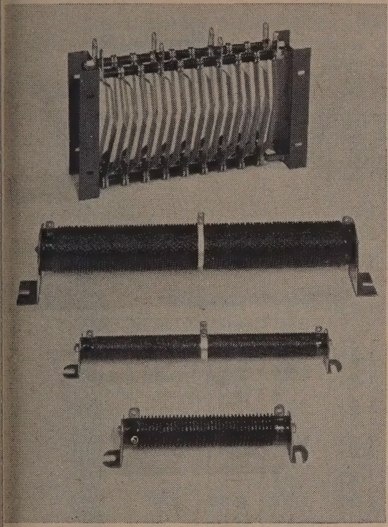
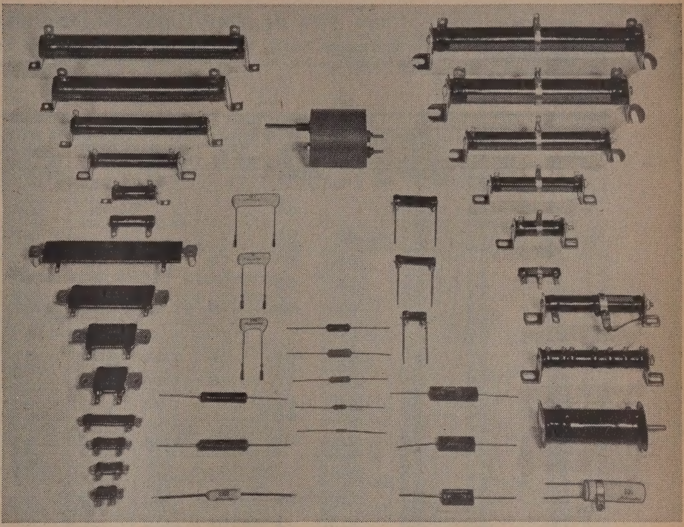
MILWAUKEE "Fire-tested" RESISTORS





TYPES	Fixed and Adjustable	Vitreous Enamel Coating	Taps Available	Non-inductive Winding Available	Standard Wattages
Tubular—Round Wire	Yes	Yes	Yes	Yes	5-1500
Tubular—Ribwound	Yes	Yes	Yes	Yes	35-2000
Oval	Yes	Yes	Yes	Yes	10-250
Axial Lead	fixed only	Yes	No	Yes	1-30
"W" Series	fixed only	No	Yes	Yes	5-30
"Bathtub"	fixed only	No	No	No	4-20
Strip	fixed only	No	Yes	No	2-30
"Topside"	fixed only	No	Yes	No	10-25
Encapsulated	fixed only	No	No	No	5-100
Power-Fin	fixed only	No	Yes	Yes	1000-2500
Rheostat	adj. only	No	Yes	No	50-1000

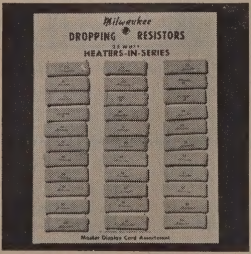
TERMINALS:	Tab Type, Wire Lead, Quick-connect, Wire Wrap, Plug-in and Ferrule.
COATINGS:	Top quality, high temperature vitreous enamel; B-13 Silicone; Economy Cement and Sand.
MILITARY TYPES:	MIL-R-26C and MIL-R-15109A (Naval Shipboard Use).
MOUNTING BRACKETS:	Spring Clip Type; Single and Multiple "L" Type Thrubolt.
GRID RESISTORS:	Series-Parallel Stacked Units up to 300 Ampere Capacity per Stacked Unit.
FUSE RESISTORS:	Manufactured with our patented no-flame construction—4.6 to 150 ohms.

MILWAUKEE
T-V FUSE
RESISTORS

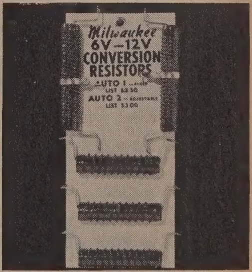
FUSE RESISTORS

REPLACEMENT STOCK
MILWAUKEE
'W' RESISTORS
5, 10, 15 WATTS

"W" CARDS


Milwaukee
DROPPING RESISTORS
25 Watt
HEATERS-IN-SERIES
Master Display Card Assortment

HEATER-IN-SERIES


Milwaukee
6V—12V
CONVERSION
RESISTORS
AUTO 1 — FIXED
LIST $2.50
AUTO 2 — ADJUSTABLE
LIST $3.00

AUTO-CONVERSION

MILWAUKEE RESISTOR COMPANY

Milwaukee, Wisconsin

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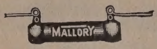
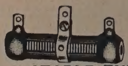
P. R. MALLORY & CO. Inc.
MALLORY

Wire-Wound Resistors

TYPE HJ (FIXED) AND AV (ADJUSTABLE)


FIXED TYPE

Vitreous enamel coated. Adjustable units come with two mtg. feet and clip. **To Order:** Use type No. from top of column followed by resistance value.


ADJUSTABLE TYPE

Ohms	Fixed Vitreous Types 5 Watt HHJ Net Ea.	10 Watt 1HJ Net Ea.	20 Watt 2HJ Net Ea.	25 Watt 2.5HJ Net Ea.	50 Watt 5HJ Net Ea.	100 Watt 10HJ Net Ea.	200 Watt 20HJ Net Ea.	Adjustable Vitreous Types 10 Watt 1AV Net Ea.	25 Watt 2AV Net Ea.	50 Watt 5AV Net Ea.	100 Watt 10AV Net Ea.	200 Watt 20AV Net Ea.	Ohms
1	$0.44*	$0.50*		$0.68				$0.97	$1.21				1
1.5	.44*												1.5
2	.44*	.50*		.68				.97					2
3	.44*	.50*		.68				.97	1.21				3
4	.44*	.50*											4
5	.44*	.50*	$0.63	.68				.97	1.21	$1.57			5
7.5	.44*	.50*		.68				.97					7.5
10	.44*	.50*	.63	.68	$1.16			.97	1.21	1.57			10
12	.44	.50											12
15	.44	.50	.63	.68				.97	1.21				15
20	.44	.50						.97					20
25	.44	.50	.63	.68	1.16	$1.64	$2.17	.97	1.21	1.57			25
30	.44	.50											30
35	.44	.50											35
40	.44	.50											40
50	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57	$2.35	$2.89	50
75	.44	.50	.63	.68			2.17	.97	1.21	1.57			75
100	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89	100
125	.44	.50											125
150	.44	.50	.63	.68		1.64		.97	1.21	1.57			150
200	.44	.50	.63	.68				.97	1.21	1.57			200
225	.44	.50											225
250	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57			250
300	.44	.50	.63					.97	1.21				300
350	.44	.50						.97					350
400	.44	.50	.63					.97	1.21	1.57			400
450	.44	.50											450
500	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89	500
600	.44	.50						.97					600
700	.44	.50											700
750	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57			750
800	.44	.50						.97					800
900	.44	.50											900
1,000	.44	.50	.63	.68	1.16	1.64	2.17	.97	1.21	1.57	2.35	2.89	1,000
1,100	.50	.53											1,100
1,200	.50	.53											1,200
1,250	.50	.53	.64					1.01	1.24				1,250
1,500	.50	.53	.64	.71	1.16	1.67	2.20	1.01	1.24	1.63		2.94	1,500
1,750	.50	.53	.64										1,750
2,000	.50	.53	.64	.71	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94	2,000
2,250	.50	.53	.64					1.01					2,250
2,500	.50	.53	.64	.71	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94	2,500
2,750			.64										2,750
3,000	.50	.53	.64	.71			2.20	1.01	1.24	1.63	2.42		3,000
3,500	.50	.53	.64	.71				1.01	1.24				3,500
4,000	.50	.53	.64	.71				1.01	1.24	1.63	2.42		4,000
4,500	.50	.53	.64					1.01					4,500
5,000	.50	.53	.64	.71	1.16	1.67	2.20	1.01	1.24	1.63	2.42	2.94	5,000
5,600													5,600
6,000	.55	.61	.71	.81				1.07	1.34				6,000
7,000	.55	.61						1.07					7,000
7,500	.55	.61	.71	.81	1.27	1.78	2.33	1.07	1.34	1.73	2.56		7,500
8,000	.55	.61						1.07					8,000
8,200		.61											8,200
8,500		.61						1.07					8,500
9,000	.55	.61						1.07					9,000
10,000	.55	.61	.71	.81	1.27	1.78	2.33	1.07	1.34	1.73	2.56	3.10	10,000
11,000		.68											11,000
12,000		.68							1.37				12,000
12,500	.62	.68	.79	.86	1.40								12,500
13,500		.68											13,500
14,300		.68											14,300
15,000	.62	.68	.79	.86	1.40	1.96			1.37	1.87	2.72		15,000
16,000		.68											16,000
17,500		.68											17,500
18,000		.68											18,000
20,000	.62	.68	.79	.86	1.40	1.96	2.48		1.37	1.87	2.72	3.25	20,000
22,500		.72											22,500
25,000	.66	.72	.91	.99	1.54	2.15			1.51	2.03	2.89	3.32	25,000
30,000		.72†	.91	.99	1.54	2.15	2.57			2.03	2.89	3.32	30,000
35,000		.72†	.91								2.89		35,000
40,000		.72†	.91†	.99	1.54	2.15	2.57			2.03	2.89		40,000
45,000		.72†											45,000
50,000		.72†	.99†	1.15	1.70	2.23	2.66			2.18	3.02	3.41	50,000
75,000			1.16†	1.35	1.93	2.36	2.81				3.14	3.58	75,000
100,000			1.16†	1.56	2.11	2.51	2.99						100,000

*Tol., ±10%; all others ±5%. †Stocked only in low temperature enamel coating; operating voltage normally encountered rarely exceed values listed.

TUBE SIZES FOR ABOVE RESISTORS

Fixed Types: HHJ—5/16" x 1". **1HJ**—5/16" x 1¾". **2HJ**—7/16" x 2". **2.5HJ**—7/16" x 2". **5HJ**—9/16" x 4". **10HJ**—¾" x 6½". **20HJ**—1⅛" x 10½". **Adjustable Types: 1AV**—5/16" x 1¾". **2AV**—9/16" x 2". **5AV**—9/16" x 4". **10AV**—¾" x 6½". **20AV**—1⅛" x 10½".

EXTRA MOUNTING FEET

Number	For Resistor Type	Ea.
30V	HHJ, 1HJ, and 1AV	6c
31V	2AV, 5AV and 5HJ	7c
32V	20HJ and 20AV	7c
33V	10HJ and 10AV	7c

EXTRA ADJUSTABLE CLIPS

Number	For Resistor Type	Ea.
1V	10-watt Variohms*	25c
3V	25 and 50-watt Variohms*	25c
4V	10AV 100-watt Variohms*	25c
6V	200-watt, 1⅛" Variohms*	31c

*Registered Trade Mark.

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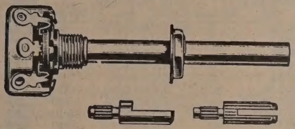
P. R. MALLORY & CO. Inc.
MALLORY

Controls

METAL SHAFT MIDGETROLS®

A high quality round shaft carbon control 15/16" in dia., designed to fit all applications. Special resistance element has ample safety factor for current-carrying ability. New type contact makes control smooth and quiet. New round shaft is easily cut to any required length. Shaft is machined to exact dimensions to meet replacement requirements. Two steel shaft and knob adapters for knurled or push-on knobs and one hex nut are included. Shipping Weight, 3 oz. Net Each.................. **93c**



Mall. No.	Resis. Ohms	Taper	Mall. No.	Resis. Ohms	Taper
U-1	100	4	**U-35**	50K	4
U-2	500	4	**U-36**	75K	1
U-52R	500	2	**U-39**	100K	1
U-751R	750	2	**U-40**	100K	2
U-3	1K	2	**U-41**	100K	4
U-4	1K	4	**U-415**	125K	4
U-5	1500	2	**U-42**	150K	1
U-5L	1500	4	**U-43**	200K	4
U-6	2K	4	**U-44**	250K	1
U-7	2500	2	**U-45**	250K	2
U-8	3K	4	**U-46**	250K	4
U-9	3K	2	**U-48**	500K	1
U-12	5K	1	**U-50**	500K	4
U-14	5K	4	**U-51**	750K	1
U-18	10K	1	**U-52**	1 meg.	2
U-19	10K	2	**U-53**	1 meg.	1
U-20	10K	4	**U-54**	1 meg.	4
U-21	15K	1	**U-155**	1.5 meg.	4
U-22	15K	2	**U-55**	2 meg.	1
U-24	20K	1	**U-56**	2 meg.	4
U-26	20K	4	**U-255**	2.5 meg.	4
U-28	25K	2	**U-57**	3 meg.	1
U-28A	25K	1	**U-59**	3 meg.	4
U-29	25K	4	**U-63**	5 meg.	2
U-30	30K	4	**U-65**	5 meg.	1
U-33	50K	1	**U-67**	5 meg.	4
U-34	50K	2	**U-82**	10 meg.	4

TAPPED MIDGETROLS®

Same as above, but tapped to provide tone compensation where required. Net Each........................ **$1.35**

TYPE UT SINGLE TAPPED

No. UT-	Resis. Ohms	Tap At	No. UT-	Resis. Ohms	Tap At
153	15K	10K	**440**	1 meg.	200K
415	30K	25K	**443**	1 meg.	450K
420	250K	50K	**450**	2 meg.	125K
421	250K	150K	**448**	2 meg.	250K
425	350K	70K	**449**	2 meg.	600K
427	500K	100K	**454**	2 meg.	400K
429	500K	50K	**451**	2 meg.	900K
430	500K	150K	**457**	3 meg.	900K
431	500K	225K	**461**	3¼ meg.	300K
438	1 meg.	300K			

TYPE UDT DOUBLE TAPPED

Mallory No.	Overall Resistance	Tap Resistance	
		Tap 1	Tap 2
UDT-283	500K	100K	200K
UDT-289	1 meg.	250K	500K
UDT-291	1.5 meg.	225K	500K
UDT-295	2.25 meg.	250K	500K
UDT-296	2.25 meg.	500K	1 meg.
UDT-303	3.3 meg.	300K	1.5 meg.

MIDGETROL® SWITCHES

Use with U, UT, UDT or TA controls.

Mallory No.	Description	Net Each
US-26	SPST Switch	**42c**
US-26T	SPST Switch with Dummy Term.	**54c**
US-27	DPST Switch	**42c**
US-28	SPDT Switch	**54c**

EXPLANATION OF TAPERS

Taper No. 1—A modified logarithmic left hand taper. For use in audio or antenna shunt circuits or where only the center and left hand terminals are used.

Taper No. 2—A right hand logarithmic taper. Used in series circuits as in cathode voltage controls or where only the center and right hand terminals are used.

Taper No. 4—A linear taper.

TV AND SPECIAL MIDGETROLS®

For use as exact replacements. Except for the shaft, these Midgetrols are of the same basic construction as the standard. A fixed, knurled, and slotted bakelite shaft protrudes ¼" beyond the bushing. Net Each........................ **93c**

Mallory No.	Ohms	Taper	Mallory No.	Ohms	Taper
SU-6	1500	4	**SU-50**	500K	4
SU-8	3K	4	**SU-54**	1 meg.	4
SU-14	5K	4	**SU-56**	2 meg.	4
SU-20	10K	4	**SU-565**	2.5 meg.	4
SU-29	25K	4	**SU-59**	3 meg.	4
SU-35	50K	4	**SU-67**	5 meg.	4
SU-41	100K	4	**SU-69**	7.5 meg.	4
SU-46	250K	4			

PHENOLIC SHAFT CONTROLS

For use as hidden or rear panel controls on monochrome and color TV sets where a bushingless control is needed. Ideal for "hot" chassis where shaft must be insulated. Tab mounting; tabs insert in slots provided in chassis; lock in place with twisting action. Phenolic hex shaft 1" long with screwdriver slot; control 15/16" dia.

Phenolic Shaft Tab Control—Any model. Net Each.................. **60c**

Mallory No. PTA-	Resis. Ohms	Taper	Mallory No. PTA-	Resis. Ohms	Taper
52L	500	4	**1254L**	1.25 meg.	4
751L	750	4	**26L**	2 meg.	4
152L	1500	4	**355L**	3.5 meg.	4
252L	2500	4	**46A**	4 meg.	1
53L	5000	4	**56R**	5 meg.	2
352L	3500	4	**755L**	7.5 meg.	4
54L	50K	4	**855L**	8.5 meg.	4
15L	100K	4	**754L**	750K	4
35L	300K	4	**55L**	500K	4
55R	500K	2	**56L**	5 meg.	4

METAL SHAFT CONTROLS

Same as phenolic shaft types except round tubular brass shaft (2" x ¼" dia.) that can be cut to size. For use as front panel, rear panel or hidden controls. Tab mounting. Three shaft ends supplied; one knurled, one flatted, and one finger knurled.

Metal Shaft Tab Control—Any model. Net Each.................. **75c**

Mallory No. TA-	Resis. Ohms	Taper	Mallory No. TA-	Resis. Ohms	Taper
52L	500	4	**334A**	330K	1
751L	750	4	**55R**	500K	2
13L	1000	4	**55A**	500K	1
152L	1500	4	**55L**	500K	4
352L	3500	4	**16A**	1 meg.	1
53L	5000	4	**16L**	1 meg.	4
14L	10K	4	**155L**	1.5 meg.	4
153L	15K	4	**26A**	2 meg.	1
253L	25K	4	**26L**	2 meg.	4
54A	50K	1	**26T16**	2 meg.*	4
54L	50K	4	**255L**	2.5 meg.	4
15L	100K	4	**36L**	3 meg.	4
184L	180K	4	**56R**	5 meg.	2
254L	250K	4	**56L**	5 meg.	4

*Tap at 1 meg.

TYPE FL SENSITIVITY CONTROLS

Replace sensitivity controls in radios and TV for hum, balance, linearity, AGC, hold, etc. Screwdriver slot for adjustment—no shaft. Rated 2 watts, control is insulated to withstand more than 500 v. AC from terminal to case. Mounting holes in ears take ⅛" bolts or rivets. Single axial terminal can be bent to radial position if required.

FLANGE MOUNT RHEOSTATS

Mallory No. FL-	Resis. Ohms	Net Ea.	Mallory No. FL-	Resis. Ohms	Net Ea.
6	6	**42c**	**600S***	600	**42c**
15	15	**36c**	**750**	750	**42c**
75	75	**42c**	**1K**	1K	**42c**
100	100	**42c**	**2K**	2K	**42c**
150	150	**42c**	**2KS***	2K	**42c**
200	200	**42c**	**3K**	3K	**42c**
250	250	**42c**	**4K**	4K	**42c**
500	500	**42c**	**5K**	5K	**42c**
600	600	**42c**			

*Stops at 100 ohms.

FLANGE MOUNT POTENTIOMETERS

40P	40	**42c**	**200P**	200	**42c**
100P	100	**42c**	**250P**	250	**42c**

PRINTED CIRCUIT RHEOSTATS

New tab mount version of FL rheostats.

Mallory No. PFL-	Resis. Ohms	Net Ea.	Mallory No. PFL-	Resis. Ohms	Net Ea.
1.5	1.5	**60c**	**3K**	3K	**60c**
15	15	**60c**	**4K**	4K	**60c**
100	100	**60c**	**5K**	5K	**60c**
600	600	**60c**	**60A***	60	**60c**
1K	1K	**60c**	**100A***	100	**60c**
1.5K	1.5K	**60c**			

*Has polyethylene knob.

TYPE PP PUSH-PULL CONTROLS

Carbon element controls with a push-pull type SPST switch permanently attached.

Mallory Number	Resis. Ohms	Tap, Ohms	Taper	Net Each
PP13R	1K	....	2	**$1.35**
PP15A	100K	....	1	**1.35**
PP16A	1 meg.	....	1	**1.35**
PP16L	1 meg.	....	4	**1.35**
PP16T15	1 meg.	100K	1	**1.35**
PP16T25	1 meg.	200K	1	**1.77**
PP16T55	1 meg.	500K	2	**1.77**
PP16DT55	1 meg.	250K-500K	4	**1.77**
PP25L	200K	....	4	**1.35**
PP254A	250K	....	1	**1.35**
PP254DT154	250K	100K-150K	4	**1.77**
PP26A	2 meg.	....	1	**1.35**
PP26T16	2 meg.	1 meg.	4	**1.77**
PP26DT16	2 meg.	500K-1 meg.	1	**1.77**
PP36DT26	3 meg.	1 meg.-2 meg.	4	**1.77**
PP55T25	500K	200K	4	**1.77**
PP46T26	4 meg.	2 meg.	4	**1.77**
PP55A	500K	....	1	**1.35**
PP55DT1683	500K	48K-168K	4	**1.77**
PP55L	500K	....	4	**1.35**
PP55T254	500K	250K	1	**1.77**
PP56L	5 meg.	....	4	**1.35**
PP155L	1.5 meg.	....	4	**1.35**

P2 PRINTED CIRCUIT CARBON CONTROLS

Recommended as original or replacement control in printed circuit applications. 15/16" dia. with special mounting tabs and with a ¼" x 3½" universal shaft.

Without Switch—Net Each........ **99c**
With Switch—Net Each......... **$1.41**

Mallory No.	Ohms Resis.	Tap #1	Tap #2	Taper	Sw.
P2-14A-D	10K	.....	.....	1	DPST
P2-16A	1 meg.	.....	.....	1	......
P2-16T35	1 meg.	300K	.....	...	......
P2-16A-D	1 meg.	.....	.....	1	DPST
P2-16A-S	1 meg.	.....	.....	1	SPST
P2-16L-D	1 meg.	.....	.....	4	DPST
P2-26A	2 meg.	.....	.....	1	......
P2-26A-S	2 meg.	.....	.....	1	SPST
P2-26DT65	2 meg.	300K	600K	1	......
P2-36L	3 meg.	.....	.....	4	......
P2-53L-S	5K	.....	.....	4	SPST
P2-55A	500K	.....	.....	1	......
P2-55A-S	500K	.....	.....	1	SPST
P2-55L-S	500K	.....	.....	4	SPST
P2-55T254	500K	250K	.....	1	......
P2-153A-D	15K	.....	.....	1	DPST
P2-252A-S	2.5K	.....	.....	1	SPST

THEATER SPEAKER CONTROLS

For use with Motiograph, Simplex, International and other outdoor theater motion picture equipment. Pigtail rotor connections. Corrosion-resistant finish for long, noise-free life. Metal case 1 1/16" dia. Mechanical rotation 280° (±3°); 255° (±5°), electrical. With mounting nut.

Mallory Number	Description	Net Each
TSA-10	4-ohm L-pad	**$1.35**
TSA-35	35-ohm potentiometer	**1.35**
TSA-6	6-ohm potentiometer	**1.14**

TV FOCUS CONTROLS

Replacements for TV focus controls, units are 4-watt wire-wound with special taper. Voltage breakdown, 1000 v. DC; mechanical rotation 294°, ±2°; electrical rotation 275°, ±5°. Have 2" round shaft with screwdriver slot; 1⅝" dia.

Mallory No. TVF140—Max. 1500 ohms resistance. Net Each....... **$1.35**

Mallory No. TVF143—Max. 2500 ohms Resistance. Net Each........... **$1.35**

SHAFT EXTENSIONS

Mallory No. DS-36—Extension shaft, ¼" x 3", for U, UT, UDT, TA, R and M controls. Also couples front to rear section for single shaft, dual control. With 1 knurled and slotted and 1 flatted shaft end knob adapters. Net Each................ **33c**

Mallory No. DS-37—3/16" dia. shaft for use with U, UT, UDT, TA, R and M controls. Net Each........................... **33c**

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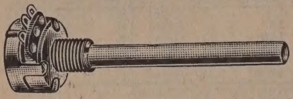
MALLORY

Controls, Hardware

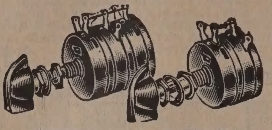
SUB-MINIATURE WIRE-WOUND CONTROLS



Rated at full 5 watts at 35° C. Only ¾" in diameter. Linear Taper; mechanical rotation 305° ±5°; electrical rotation 275° ±5°. Resistance tolerance, ±10%; voltage breakdown, 900 v. AC rms at sea level. Standard ⅜"-32 x ⅜" bushing with locating lug. Shaft, ¼" dia. x 2" F.M.S. Furnished with mounting nut and washer.

Mallory Number	Resistance, Ohms	Net Each
VW1	1	$1.35
VW2	2	1.35
VW3	3	1.35
VW5	5	1.35
VW6	6	1.35
VW8	8	1.35
VW10	10	1.35
VW15	15	1.35
VW20	20	1.35
VW25	25	1.35
VW30	30	1.35
VW40	40	1.35
VW50	50	1.35
VW60	60	1.35
VW75	75	1.35
VW100	100	1.35
VW200	200	1.35
VW250	250	1.35
VW300	300	1.35
VW400	400	1.35
VW500	500	1.35
VW600	600	1.35
VW750	750	1.35
VW1K	1000	1.38
VW1P5K	1500	1.44
VW2K	2000	1.44
VW2P5K	2500	1.44
VW3K	3000	1.44
VW4K	4000	1.44
VW5K	5000	1.44
VW7P5K	7500	1.50
VW10K	10000	1.50
VW15K	15000	1.56
VW20K	20000	1.56
VW25K	25000	1.65

T AND L PAD ATTENUATORS



"T" PAD "L" PAD

For controlling level of low impedance audio circuits and for volume controls. May be used with audio amplifiers having peak audio rating of 15 watts. Have continuous DC dissipation rating of 4 watts. Bushing, ⅜" dia. x ⅜" long. Shaft, 2", grooved at popular lengths for easy cutting. With bar knob, dial plate with matched rotation, nut and washer.

"T" Pad Attenuators—Net Each.......................... **$3.09**

Mallory No.	Ohms Imped.	Mallory No.	Ohms Imped.
T2	2	T200	200
T4	4	T250	250
T6	6	T500	500
T8	8	T600	600
T15	15	T1000	1000
T50	50	T2000	2000
T100	100	T3000	3000

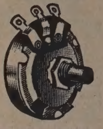
"L" Pad Attenuators—Net Each.......................... **$2.73**

L2	2	L250	250
L4	4	L500	500
L6	6	L600	600
L8	8	L1000	1000
L15	15	L2000	2000
L50	50	L3000	3000
L100	100	L4000	4000
L200	200		

Tandem LL Pads or LA pads for Hi-Fi.

Mall. No.	Type	Resis. Ohms	Case Size	Net Each
LL8	LL	8	1⅝" x 2⁵⁄₁₆"	$5.97
LL16	LL	16	1⅝" x 2⁵⁄₁₆"	5.97
LL50	LL	50	1⅝" x 2⁵⁄₁₆"	5.97
L8A	LA	8	1⅝" x 1⅛"	2.85
L16A	LA	16	1⅝" x 1⅛"	2.85

TYPE R WIRE-WOUND POTS



For replacement of TV controls requiring 2 watt unit. Also for V-divider and bias applications. High quality, dust-proof, 1⅛" overall dia. 900 v. insulation. No. 4 taper. Thumb knurled, screwdriver slotted stub shaft. Bushing, ⅜".One Pal-nut with each control.

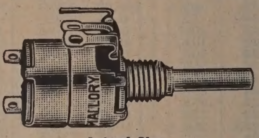
Mallory No.	Ohms	Net Each	Mallory No.	Ohms	Net Each
R2L	2	$0.93	R50CT†	50	$1.32
R3L	3	.93	R100L	100	.93
R5L	5	.93	R250L	250	.93
R6L	6	.93	R500L	500	.93
R8L	8	.93	R750L	750	.93
R10L	10	.93	R1000L	1000	.93
R10CT†	10	1.32	R1500L	1500	.93
R15L	15	.93	R2500L	2500	.93
R20L	20	.93	R3000L	3000	.93
R20CT†	20	1.32	R5000L	5000	.93
R25L	25	.93	R7500L	7500	1.08
R30L	30	.93	R10ML	10000	1.08
R30CT†	30	1.32	R15ML	15000	1.08
R50L	50	.93	R20ML	20000	1.08

†Center-tapped Controls

SWITCHES FOR TYPE R POTS

Mall. No.	Description	Net
US30	Single Pole, Single Throw	42c
US32	Double Pole, Single Throw	54c

MLC CARBON CONTROLS



Actual Size

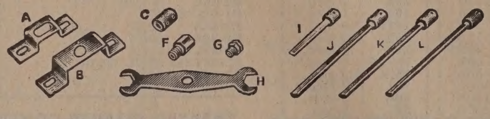
Only ½" diameter, these controls are ideal for most popular transistor radios. Universal ⅛" dia. steel shaft. MLCN types have nylon shaft.

MLC Carbon Controls—Without switch. Net Each................. **$1.35**

With Switch—Net Each......... **$2.25**

Mallory No.	Ohms	Taper	Switch
MLC13L	1000	4	....
MLC222L-S	2200	4	SPST
MLC252A	2500	1	....
MLC252A-S	2500	1	SPST
MLC53A	5000	1	....
MLC53A-S	5000	1	SPST
MLC53L	5000	4	....
MLC53L-S	5000	4	SPST
MLC14A-S	10K	1	SPST
MLC14L	10K	4	....
MLC54L	50K	4	....
MLC15A	100K	1	....
MLC15L	100K	4	....
MLC25L	200K	4	....
MLC254L	250K	4	....
MLC55A-S	500K	1	SPST
MLC55L-S	500K	4	SPST
MLCN55L	500K	4	....
MLC16A-S	1 meg.	1	SPST
MLC16L-S	1 meg.	4	SPST
MLCN16A	1 meg.	1	....
MLCN16L	1 meg.	4	....

CONTROL HARDWARE



VOLUME CONTROL NUT WRENCH

Mal. No.	Fig.	Description	Net Ea.
178	H	For ½" and ⁹⁄₁₆" hex nuts	51c

COUPLERS, BUSHINGS

EC240	C	Univ. coupling and reducer	60c
EB247	F	Univ. extension bushing	42c
UB241	G	Univ. bushing and nut	9c
EB158	...	⅜" dble. flat. bushg.	51c
EB214	...	⅜" flatted bushing	54c

ADJUSTABLE MOUNTING BRACKETS

Mal. No.	Fig.	Description	Net Ea.
RB248	A	1¾" mounting centers	21c
RB249	B	2½" mounting centers	24c
RB254	...	Universal	15c

UNIVERSAL EXTENSION SHAFTS

Mal. No.	Fig.	Description	Net Ea.
RS242	J	4" long, ¼" dia., ¹⁄₃₂" flat	57c
RS243	K	4" long, ¼" dia., ³⁄₃₂" flat	57c
RS244	L	4" long, ³⁄₁₆" dia., ¹⁄₆₄" flat	57c
RS245	I	2" long, ¼" dia., ³⁄₃₂" slot	81c

HEX SHOULDER NUTS (NOT ILLUS.)

Mallory No.	Description	Net
255	For ¼" panels	12c
A11260-12	For ½" panels	15c
A11260-2	For ¾" panels	18c

TYPE "K" RHEOSTAT ACCESSORIES
(Not Illustrated)

Mal. No.	Description	Dia.	Net Ea.
365-1	Bar knob	2¼"	$0.21
366-1	Bar knob	1¼"	.18
367-1	Knurled rd. knob	1½"	.21
368-1	Knurled rd. knob	1⅛"	.15
364	368 w/pointer	¹¹⁄₁₆"	.09
363-1†	Handwheel*	3½"	2.49
363-2†	Handwheel**	3¼"	1.93
362-1	Handwheel*	3½"	2.03
362-2	Handwheel**	3¼"	2.03
361	Finger Grip*	1⅜"	.70
361-1	Finger Grip**	1⅜"	.55
360	Finger Grip*	1⅝"	.99
360-1	Finger Grip**	1⅝"	.89
359†	Finger Grip*	2⅜"	.64
359-1†	Finger Grip**	2⅜"	.50

*With Pointer. **Without Pointer.
†⅜" hole dia., others, ¼".

CONTROL AND SWITCH WASHERS
(Not Illustrated)

Mall. No.	Description	Net Pkg. 10
203	Extruded fiber; ¾" O.D., ⅜" I.D.	18c
212	Flat phenolic; ¾" O.D., ⅜" I.D.	12c
225	Nickel finish metal, ⅜" I.D.*	12c
226	Nickel finish metal, ⁷⁄₁₆" I.D.*	12c
227	Cadmium plated lock washer‡	12c

*⅝" O.D. ‡¹¹⁄₁₆" O.D. ²⁵⁄₆₄" I.D.

DIAL PLATES FOR RHEOSTATS AND POTENTIOMETERS (NOT ILLUS.)

(No. 391—1½" diameter; 370—5½" diameter—all others—2¼" diameter).

Mall. No.	Marking	Control Type For	Net Each
369	0 to 100	All rheostats and potentiometers	21c
370	0 to 100	"K" type rheostats and potentiometers	85c
391	Increase Volume	All rheostats and potentiometers	21c
393	0 to 10	"C" types	21c
395	0 to 10	"M" type; Wire-wounds with plain covers	21c
396	0 to 10	Wire-wounds with switch covers	21c
397	0 to 10	Carbon with plain covers	21c
398	0 to 10	Carbon with switch covers	21c
399	0 to 10	"E" type pot's.	21c

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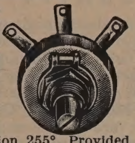
P.R. MALLORY & CO. Inc.
MALLORY

Industrial Controls

TWO-WATT WIRE-WOUND POTENTIOMETERS



1 1/16″ diameter variable resistor that will dissipate 2 watts over the entire element for continuous operation. For use in test and special instruments, bias control and bridge circuits. Linear taper only. Contact arm is grounded. Total rotation 280°; effective electrical rotation 255°. Provided with short shaft, milled screwdriver slot. Will take standard knobs. Furnished with hex. nut. Shipping Weight, 4 ozs.

POTENTIOMETERS

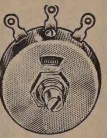
Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6P	6	.58	$1.08
C10P	10	.45	1.08
C15P	15	.37	1.08
C20P	20	.32	1.08
C30P	30	.26	1.08
C40P	40	.22	1.08
C50P	50	.2	1.08
C100P	100	.14	1.08
C200P	200	.1	1.08
C400P	400	.07	1.08
C1MP	1K	.045	1.20
C3MP	3K	.025	1.20
C5MP	5K	.02	1.47
C6MP	6K	.018	1.47
C10MP	10K	.014	1.47
C15MP	15K	.011	1.47

RHEOSTATS*

Mallory No.	Ohms Resis.	Carrying Capacity in Amps	Net Each
C6R	6	.58	93c
C10R	10	.45	93c
C15R	15	.37	93c
C20R	20	.32	93c
C30R	30	.26	93c
C40R	40	.22	93c
C50R	50	.2	93c
C100R	100	.14	93c

*"Open" or "off" position counter-clockwise.

FOUR-WATT WIRE-WOUND POTENTIOMETERS, RHEOSTATS



Used on bias control and voltage dividers; also for replacement of positioning, hold, focus and other controls of TV sets. Rugged. Rheostats feature "off" position (no connection) type of construction. Insulated contact arm. Pots have three, rheostats have two terminals. Total rotation 294°; effective electrical rotation 275° ±5%. **No. 4 linear taper.** Voltage breakdown 1000 v. DC.
One control (with hex nut) to carton.

POTENTIOMETERS

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M1PK	1	2.00	$1.35
M3PK	3	1.15	1.35
M6PK	6	.82	1.35
M10PK	10	.63	1.35
M15PK	15	.52	1.35
M20PK	20	.45	1.35
M25PK	25	.40	1.35
M30PK	30	.37	1.35
M40PK	40	.32	1.35
M50PK	50	.28	1.35
M60PK	60	.26	1.35
M75PK	75	.23	1.35
M100PK	100	.20	1.35
M200PK	200	.14	1.35
M300PK	300	.116	1.35
M400PK	400	.10	1.35
M500PK	500	.09	1.35
M600PK	600	.082	1.35
M1MPK	1K	.063	1.35
M1.5MPK	1.5K	.052	1.35
M2MPK	2K	.045	1.35
M2.5MPK	2.5K	.04	1.35
M3MPK	3K	.037	1.35
M4MPK	4K	.032	1.35
M5MPK	5K	.028	1.35
M10MPK	10K	.02	1.35
M15MPK	15K	.016	1.47
M20MPK	20K	.014	1.47
M25MPK	25K	.013	1.47

FOUR-WATT POTENTIOMETERS (CONTINUED)

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M50MPK	50K	.009	$1.74
M70MPK	70K	.0075	1.74
M75MPK	75K	.0073	2.46
M100MPK	100K	.0063	2.46

CENTER-TAPPED POTENTIOMETERS

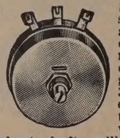
Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
MT10PK	10	.63	$1.32
MT20PK	20	.45	1.32
MT30PK	30	.37	1.32

RHEOSTATS*

Mallory Number	Ohms Resis.	Capacity in Amps	Net Each
M05RK	0.5	2.80	93c
M1RK	1	2.00	93c
M2RK	2	1.40	93c
M3RK	3	1.15	93c
M4RK	4	1.00	93c
M6RK	6	.82	93c
M10RK	10	.63	93c
M15RK	15	.52	93c
M20RK	20	.45	93c
M25RK	25	.40	93c
M30RK	30	.37	93c
M40RK	40	.32	93c
M50RK	50	.28	93c
M60RK	60	.26	93c
M75RK	75	.23	93c
M100RK	100	.20	93c

*"Open" or "Off" position counter-clockwise

SEVEN-WATT WIRE-WOUND POTENTIOMETERS



Suitable for precision instruments such as resistance bridges and where a control of medium currents or voltages is required. Supplied with grounded contact arm. 307° total rotation; 295° effective electrical rotation. Will dissipate 7 watts. Provided with short shaft, milled screw-driver slot for easy adjustment. Will take standard knobs. Hex. nut furnished. No. 4 taper.

Mallory No.	Ohms Resistance	Carrying Capacity in Amps	Net Each
E5MP	5K	.042	$2.76
E10MP	10K	.03	2.94
E20MP	20K	.021	3.00
E25MP	25K	.019	3.09
E50MP	50K	.0135	3.15
E75MP	75K	.011	3.24
E100MP	100K	.0095	3.30
E125MP	125K	.0085	3.30
E150MP	150K	.0078	3.36

TYPE "K" VITREOUS WIRE-WOUND POWER RHEOSTATS

Outstanding features are: Hinged-spring contact arm; low contact resistance; low wear; easy cleaning and brush replacement and anti-backlash characteristic. Each rheostat is of porcelain vitreous enamel construction, designed to give adequate ventilation. Precise uniform winding is permanently sealed into position around a high quality ceramic core. All current-carrying parts electrically insulated by dimensionally stable ceramic parts. Values shown below are for continuous operation in free air. **75, 225 and 500-watt "K" Rheostats available in many values.**
A knob and dial plate are supplied with each Type K rheostat.

TYPE 25K 25 WATTS

1 9/16″ O.D. 295° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
25K1P	1	5.000	28	$4.62
25K2P	2	3.540	28	4.08
25K3P	3	2.880	53	4.08
25K6P	6	2.040	51	4.08
25K8P	8	1.770	56	4.08
25K10P	10	1.580	54	4.08
25K15P	15	1.290	88	4.08
25K25P	25	1.000	117	4.08
25K35P	35	.845	129	4.08
25K50P	50	.707	149	4.08
25K75P	75	.575	174	4.08
25K100P	100	.500	184	4.08
25K125P	125	.447	187	4.08
25K175P	175	.378	178	4.08
25K250P	250	.316	200	4.08
25K350P	350	.267	227	4.08
25K500P	500	.222	256	4.08
25K750P	750	.182	303	4.08
25K1000P	1000	.155	318	4.62
25K1500P	1500	.129	310	4.62
25K2500P	2500	.100	405	4.62
25K3500P	3500	.084	432	4.89
25K5000P	5000	.070	471	4.89

TYPE 50K 50 WATTS

2 13/32″ O.D. 300° angle of rotation.

Mallory No.	Ohms	Max. Amps	Steps	Net Each
50K.5P	.5	10.00	25	$5.16
50K1P	1	7.07	37	5.16
50K2P	2	5.00	42	5.16
50K4P	4	3.54	66	4.62
50K6P	6	2.89	79	4.62
50K8P	8	2.50	84	4.62
50K12P	12	2.04	100	4.62
50K16P	16	1.76	106	4.62
50K22P	22	1.50	145	4.62
50K35P	35	1.19	145	4.62
50K50P	50	1.00	163	4.62
50K80P	80	.79	210	4.62
50K125P	125	.63	204	4.62
50K150P	150	.58	244	4.62
50K225P	225	.47	298	4.62
50K300P	300	.41	268	4.62
50K500P	500	.32	205	4.62
50K800P	800	.25	363	4.89
50K1000P	1000	.22	354	4.89
50K1600P	1600	.176	449	4.89
50K2500P	2500	.14	455	4.89
50K3500P	3500	.12	500	5.16
50K5000P	5000	.10	550	5.16
50K8000P	8000	.08	690	5.16

TYPE 100K 100 WATTS

3 1/8″ O.D. 300° angle of rotation.

100K.5P	.5	14.20	30	$7.71
100K1P	1	10.00	40	7.71
100K2P	2	7.07	42	7.71
100K3P	3	5.77	56	7.71
100K5P	5	4.47	59	7.71
100K7.5P	7.5	3.65	96	7.23
100K10P	10	3.16	101	7.23
100K16P	16	2.50	128	7.23
100K25P	25	2.00	160	7.23
100K50P	50	1.41	200	7.23
100K75P	75	1.15	240	7.23
100K100P	100	1.00	250	7.23
100K200P	200	.71	315	7.23
100K300P	300	.58	302	7.23
100K400P	400	.50	316	7.23
100K500P	500	.45	342	7.23
100K750P	750	.37	406	7.23
100K1000P	1000	.32	435	7.71
100K1500P	1500	.26	520	7.71
100K2000P	2000	.22	544	7.71
100K2500P	2500	.20	535	7.71
100K5000P	5000	.14	692	8.22
100K7500P	7500	.12	820	8.76
100K10000P	10000	.10	840	9.24

TYPE 150K 150 WATTS

4 1/32″ O.D. 305° angle of rotation.

150K.5P	.5	17.30	31	$9.81
150K1P	1	12.30	38	9.81
150K2P	2	8.66	51	9.81
150K3P	3	7.07	73	9.81
150K5P	5	5.48	77	9.81
150K7.5P	7.5	4.47	70	9.81
150K10P	10	3.87	145	9.24
150K15P	15	3.16	138	9.24
150K25P	25	2.45	142	9.24
150K35P	35	2.07	198	9.24
150K50P	50	1.73	182	9.24
150K75P	75	1.41	218	9.24
150K100P	100	1.22	229	9.24
150K150P	150	1.00	276	9.24
150K200P	200	.87	289	9.24
150K250P	250	.77	360	9.24
150K350P	350	.66	350	9.24
150K500P	500	.55	400	9.24
150K750P	750	.45	460	9.81
150K1250P	1250	.35	490	9.81
150K1800P	1800	.290	555	10.30
150K2250P	2250	.26	547	10.30
150K3000P	3000	.22	729	10.30
150K4500P	4500	.18	689	10.80
150K7500P	7500	.14	930	11.31
150K10000P	10000	.12	980	12.33

TYPE 300K 300 WATTS

6 1/16″ O.D. 315° angle of rotation.

300K1P	1	17.30	48	13.89
300K2P	2	12.25	60	13.89
300K3P	3	10.00	64	13.89
300K4P	4	8.66	80	13.89
300K5P	5	7.75	80	13.89
300K7.5P	7.5	6.32	100	13.89
300K10P	10	5.48	139	13.89
300K15P	15	4.47	128	13.89
300K25P	25	3.46	182	13.89
300K50P	50	2.45	228	13.89
300K75P	75	2.00	271	13.89
300K100P	100	1.73	287	13.89
300K150P	150	1.41	338	13.89
300K200P	200	1.22	361	13.89
300K300P	300	1.00	427	13.89
300K400P	400	.87	460	13.89
300K700P	700	.66	555	13.89
300K900P	900	.58	564	13.89
300K1200P	1200	.50	605	13.89
300K1500P	1500	.45	755	13.89
300K1750P	1750	.41	691	13.89
300K2500P	2500	.35	785	13.89

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OHMITE

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VITREOUS ENAMELED RHEOSTATS

Eleven sizes in wirewound, vitreous enameled rheostats are stocked by Ohmite distributors all over the country and at the Ohmite factory. This selection, the most extensive available to industry, covers a range from 12½ to 1000 watts, in ratings that meet the major portion of design, production and emergency needs. Ratings of 12½, 25, 50, 75, 100, 150, 225, 300, 500, 750 and 1000 watts are standard.

FEATURES OF CONSTRUCTION: Ohmite rheostats are designed to produce permanently smooth, close control. The construction is all ceramic and metal; there is nothing to smoke, char, shrink, or shift. All models have insulated shafts with provision to keep the rheostat from turning on the panel. The resistance wire is wound over a solid ceramic core. Each turn is a separate resistance step and is locked against shifting by vitreous enamel. The core and base are also bonded by vitreous enamel.

MODEL "E" — 12.5 WATT*

Unenclosed and Enclosed

Diameter ⅞″—Depth behind panel 11/16″—Shaft ⅛″ Diameter. Rotation 300°—Mounting for panels up to ⅛″ by means of ¼″-32 Bushing and Hex. Nut—Non-turn lug requires ⅛″ hole ¼″ below center of shaft—Stock No. 5151 Knob Recommended.

Enclosure including terminals 1 7/32″ long by 1 3/64″ diameter.

Total Ohms	Max. Amps.	Unenclosed Stock No.	Unenclosed Net 1-4	Enclosed Stock No.	Enclosed Net 1-4
1	3.53	0101	**$4.63**	W0101	**$6.31**
2	2.50	0102	**4.63**	W0102	**6.31**
3	2.04	0103	**4.63**	W0103	**6.31**
6	1.44	0104	**4.63**	W0104	**6.31**
8	1.25	0105	**4.63**	W0105	**6.31**
10	1.12	0106	**4.63**	W0106	**6.31**
15	.91	0107	**4.11**	W0107	**5.79**
25	.71	0108	**4.11**	W0108	**5.79**
35	.60	0109	**4.11**	W0109	**5.79**
50	.50	0110	**4.11**	W0110	**5.79**
75	.41	0111	**4.11**	W0111	**5.79**
100	.35	0112	**4.11**	W0112	**5.79**
125	.32	0113	**4.11**	W0113	**5.79**
175	.27	0114	**4.11**	W0114	**5.79**
250	.22	0115	**4.11**	W0115	**5.79**
350	.19	0116	**4.11**	W0116	**5.79**
500	.16	0117	**4.11**	W0117	**5.79**
750	.13	0118	**4.11**	W0118	**5.79**
1,000	.11	0119	**4.63**	W0119	**6.31**
1,500	.091	0120	**4.63**	W0120	**6.31**
2,500	.071	0121	**4.63**	W0121	**6.31**
3,500	.060	0122	**4.90**	W0122	**6.58**
5,000	.050	0123	**4.90**	W0123	**6.58**
7,500	.041	4190†	**5.06**	W4190†	**6.74**
10,000	.035	4191†	**5.06**	W4191†	**6.74**
12,500	.028	4192†	**5.50**	W4192†	**7.18**
15,000	.023	4193†	**5.50**	W4193†	**7.18**

†Silicone-ceramic coating. *Rating on metal panel.

MODEL "H", Series A — 25 WATT

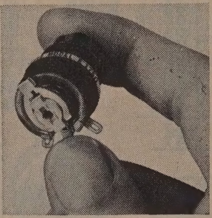
Diameter 1 9/16″—Depth behind panel 1⅜″—Shaft ¼″ diameter. Rotation 300°—Mounting for panels up to ¼″ by means of ⅜″-32 Bushing and Hex. Nut—Non-turn lug requires 3/16″ hole ½″ below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0140	1	5.000	**$4.63**	0154	250	.316	**$4.11**
0141	2	3.540	**4.63**	0155	350	.267	**4.11**
0142	3	2.880	**4.63**	0156	500	.222	**4.11**
0143	6	2.040	**4.63**	0157	750	.182	**4.11**
0144	8	1.770	**4.63**	0158	1,000	.155	**4.63**
0145	10	1.580	**4.63**	0159	1,500	.129	**4.63**
0146	15	1.290	**4.11**	0160	2,500	.100	**4.63**
0147	25	1.000	**4.11**	0161	3,500	.084	**4.90**
0148	35	.845	**4.11**	0162	5,000	.070	**4.90**
0149	50	.707	**4.11**	4200†	7,500	.050	**5.06**
0150	75	.575	**4.11**	4201†	10,000	.041	**5.06**
0151	100	.500	**4.11**	4202†	15,000	.031	**5.50**
0152	125	.445	**4.11**	4203†	20,000	.025	**6.16**
0153	175	.375	**4.11**	4204†	25,000	.020	**6.82**

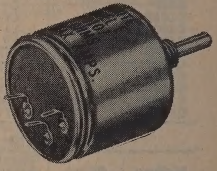
†Silicone-ceramic coating. Not listed UL Ser. A.

The pivoted universal-action-mounted contact brush is of copper-graphite or silver-graphite on the heavier current rheostats. It rides upon a large flat surface and assures perfect contact without wear on the wire. Pressure at the contact and at the center lead are independent. Ohmite Rheostat Models H, J, G, K, L, P, and N, all marked Series A, are listed under the Underwriters' Laboratories Reexamination Service.

RATING: The current carrying capacities shown in the tables are for use in *free air;* when units are enclosed, these currents should be reduced possibly as much as 30% to 50%, depending upon the degree of ventilation. The rated current will cause the rheostat to dissipate its rated wattage when the full resistance is in the circuit.



Model "E"



Enclosed Model "E"

MODEL "J", Series A — 50 WATT

Diameter 2 5/16″—Depth behind panel 1⅜″—Shaft ¼″ Diameter. Rotation 300°—Mounting for panels up to ¼″ by means of ⅜″-32 Bushing and Hex Nut—Non-turn lug requires 3/16″ hole ½″ below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0308	0.5	10.000	**$5.15**	0324	500	.316	**$4.63**
0309	1	7.070	**5.15**	0325	800	.250	**4.90**
0310	2	5.000	**5.15**	0326	1,000	.224	**4.90**
0311	4	3.530	**5.15**	0327	1,600	.176	**4.90**
0312	6	2.880	**5.15**	0328	2,500	.141	**4.90**
0313	8	2.500	**4.63**	0329	3,500	.119	**5.15**
0314	12	2.040	**4.63**	0330	5,000	.100	**5.15**
0315	16	1.760	**4.63**	0331	8,000	.079	**5.15**
0316	22	1.500	**4.63**	0332	10,000	.070	**5.15**
0317	35	1.190	**4.63**	4210†	15,000	.046	**5.83**
0318	50	1.000	**4.63**	4211†	20,000	.034	**6.60**
0319	80	.790	**4.63**	4212†	25,000	.028	**7.26**
0320	125	.630	**4.63**	4213†	30,000	.023	**8.03**
0321	150	.575	**4.63**	4214†	40,000	.018	**9.35**
0322	225	.470	**4.63**	4215†	50,000	.015	**10.23**
0323	300	.408	**4.63**				

†Silicone-ceramic coating. Not listed UL Ser. A.

MODEL "G" — 75 WATT

Diameter 2¾″—Depth behind panel 1¾″—Shaft ¼″ Diameter. Rotation 300°—Mounting for panels up to ¼″ by means of ⅜″-32 Bushing and Hex. Nut—Non-turn lug requires 3/16″ hole ½″ below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
1100	0.5	12.300	**$6.97**	1112	200	.612	**$6.41**
1101	1	8.660	**6.97**	1113	300	.500	**6.41**
1102	2	6.120	**6.97**	1114	400	.433	**6.41**
1103	3	5.000	**6.97**	1115	500	.388	**6.41**
1104	5	3.880	**6.97**	1116	750	.316	**6.97**
1105	7.5	3.160	**6.97**	1117	1,000	.274	**6.97**
1106	10	2.740	**6.97**	1118	1,500	.224	**6.97**
1107	16	2.170	**6.41**	1119	2,000	.194	**6.97**
1108	25	1.730	**6.41**	1120	2,500	.173	**6.97**
1109	50	1.230	**6.41**	1121	5,000	.123	**7.45**
1110	75	1.000	**6.41**	1122	7,500	.100	**8.00**
1111	100	.866	**6.41**	1123	10,000	.087	**8.00**

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VITREOUS ENAMELED RHEOSTATS

MODEL "K", Series A — 100 WATT

Diameter 3⅛″—Depth behind panel 1¾″—Shaft ¼″ Diameter. Rotation 300°—Mounting for panels up to ¼″ by means of ⅜″-32 Bushing and Hex. Nut—Non-turn lug requires $\frac{3}{16}$″ hole ½″ below center of shaft—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0440	0.5	14.100	$7.72	0452	200	.707	$7.21
0441	1	10.000	7.72	0453	300	.575	7.21
0442	2	7.070	7.72	0454	400	.500	7.21
0443	3	5.750	7.72	0455	500	.447	7.21
0444	5	4.470	7.72	0456	750	.365	7.21
0445	7.5	3.650	7.72	0457	1,000	.316	7.72
0446	10	3.160	7.72	0458	1,500	.258	7.72
0447	16	2.500	7.21	0459	2,000	.224	7.72
0448	25	2.000	7.21	0460	2,500	.200	7.72
0449	50	1.410	7.21	0461	5,000	.141	8.24
0450	75	1.150	7.21	0462	7,500	.115	8.76
0451	100	1.000	7.21	0463	10,000	.100	9.26

MODEL "L", Series A — 150 WATT

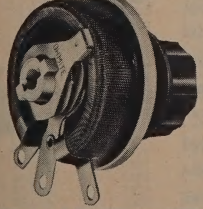
Diameter 4″—Depth behind panel 2″—Shaft ¼″ Diameter. Rotation 300°—Mounting for panels up to ¼″, ⅜″-32 Bushing and Hex. Nut or two 10-32 x ¾″ flat head screws, mounting centers ⅞″ each side of center of shaft on line perpendicular to center terminal.—Stock No. 5150 Knob Recommended.

Stock No.	Total Ohms	Max. Amps.	Net 1-4	Stock No.	Total Ohms	Max. Amps.	Net 1-4
0524	0.5	17.300	$9.78	0537	150	1.000	$ 9.26
0525	1	12.300	9.78	0538	200	.865	9.26
0526	2	8.650	9.78	0539	250	.775	9.26
0527	3	7.070	9.78	0540	350	.655	9.26
0528	5	5.480	9.78	0541	500	.548	9.26
0529	7.5	4.470	9.78	0542	750	.447	9.78
0530	10	3.880	9.78	0543	1,250	.346	9.78
0531	15	3.613	9.78	0544	1,800	.288	10.30
0532	25	2.450	9.26	0545	2,250	.259	10.30
0533	35	2.070	9.26	0546	3,000	.224	10.30
0534	50	1.735	9.26	0547	4,500	.182	10.81
0535	75	1.415	9.26	0548	7,500	.141	11.33
0536	100	1.225	9.26	0549	10,000	.122	12.35

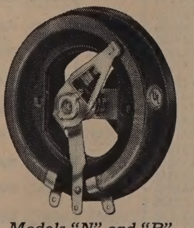
MODEL "P" — 225 WATT

Diameter 5″—Depth behind panel 2⅛″—Shaft ⅜″ Diameter. Rotation 310°—Mounting for panels up to 1¼″, two ¼″-20 x 1½″ flat head screws, mounting centers ⅞″ each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1250	1	15.000	$14.11	1261	100	1.500	$14.11
1251	2	10.600	14.11	1262	150	1.220	14.11
1252	3	8.660	14.11	1263	200	1.060	14.11
1253	4	7.500	14.11	1264	300	.866	14.11
1254	5	6.710	14.11	1265	400	.750	14.11
1255	7.5	5.490	14.11	1266	700	.567	14.11
1256	10	4.740	14.11	1267	900	.500	14.11
1257	15	3.870	14.11	1268	1,200	.433	14.11
1258	25	3.000	14.11	1269	1,500	.387	14.11
1259	50	2.120	14.11	1270	1,750	.358	14.11
1260	75	1.730	14.11	1271	2,500	.300	14.11



Models "J", "G" and "K"



Models "N" and "R"
("P", "T" and "U" Similar)

MODEL "N", Series A — 300 WATT

Diameter 6″—Depth behind panel 2⅜″—Shaft ⅜″ Diameter. Rotation 320°—Mounting for panels up to 1¼″, two ¼″-20 x 1½″ flat head screws, mounting centers 1$\frac{3}{16}$″ each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0650	1	17.320	$15.29	0661	100	1.730	$15.29
0651	2	12.240	15.29	0662	150	1.410	15.29
0652	3	10.000	15.29	0663	200	1.220	15.29
0653	4	8.660	15.29	0664	300	1.000	15.29
0654	5	7.750	15.29	0665	400	.866	15.29
0655	7.5	6.320	15.29	0666	700	.655	15.29
0656	10	5.480	15.29	0667	900	.578	15.29
0657	15	4.470	15.29	0668	1,200	.500	15.29
0658	25	3.460	15.29	0669	1,500	.447	15.29
0659	50	2.450	15.29	0670	1,750	.414	15.29
0660	75	2.000	15.29	0671	2,500	.346	15.29

MODEL "R" — 500 WATT

Diameter 8″—Depth behind panel 2⅛″—Shaft ⅜″ Diameter. Rotation 325°—Mounting for panels up to 1¼″, two ¼″-20 x 1½″ flat head screws, mounting centers 1½″ each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
0849	1.0	22.300	$22.09	0872	50	3.160	$22.09
0850	1.5	18.200	22.09	0861	80	2.520	22.09
0851	2	15.800	22.09	0862	125	2.000	22.09
0852	2.5	14.100	22.09	0863	175	1.690	22.09
0853	3	12.900	22.09	0864	250	1.410	22.09
0854	4	11.200	22.09	0865	325	1.240	22.09
0855	5	10.000	22.09	0866	500	1.000	22.09
0856	8	7.900	22.09	0867	750	.817	22.09
0857	12.5	6.300	22.09	0868	1,000	.707	22.09
0858	16	5.600	22.09	0869	1,500	.577	22.09
0859	25	4.470	22.09	0870	2,000	.500	22.09
0860	40	3.540	22.09	0871	2,500	.447	22.09

MODEL "T" — 750 WATT

Diameter 10″—Depth behind panel 3″—Shaft ⅜″ Diameter. Rotation 330°—Mounting for panels up to 1¼″, two ¼″-20 x 1½″ flat head screws, mounting centers 1⅞″ each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1300	1	27.400	$31.20	1312	50	3.870	$31.20
1301	1.5	22.300	31.20	1313	80	3.060	31.20
1302	2	19.400	31.20	1314	100	2.740	31.20
1303	2.5	17.300	31.20	1315	160	2.170	31.20
1304	3	15.800	31.20	1316	200	1.940	31.20
1305	4	13.600	31.20	1317	300	1.580	31.20
1306	5	12.200	31.20	1318	400	1.370	31.20
1307	8	9.650	31.20	1319	600	1.117	31.20
1308	10	8.650	31.20	1320	750	1.000	31.20
1309	12.5	7.750	31.20	1321	1,200	.791	31.20
1310	16	6.820	31.20	1322	1,800	.646	31.20
1311	25	5.470	31.20	1323	2,500	.547	31.20

MODEL "U" — 1000 WATT

Diameter 12″ — Depth behind panel 3″ — Shaft ⅜″ Diameter. Rotation 335°—Mounting for panels up to 1¼″, two ¼″-20 x 1½″ flat head screws, mounting centers 3″ each side of center of shaft on center line of cross-bar.—Stock No. 5105 Knob Recom'd. Three 8-32 Terminal Screws, Nuts and Washers are supplied.

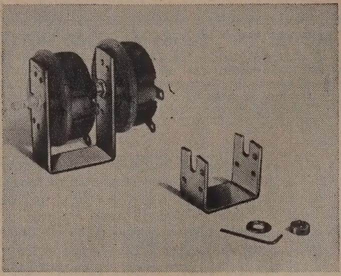
Stock No.	Total Ohms	Max. Amps.	Net 1-2	Stock No.	Total Ohms	Max. Amps.	Net 1-2
1450	1	31.600	$36.45	1462	50	4.470	$36.45
1451	1.5	25.800	36.45	1463	75	3.650	36.45
1452	2	22.400	36.45	1464	100	3.160	36.45
1453	2.5	20.000	36.45	1465	175	2.390	36.45
1454	3	18.300	36.45	1466	225	2.110	36.45
1455	4	15.800	36.45	1467	300	1.830	36.45
1456	5	14.100	36.45	1468	400	1.580	36.45
1457	8	11.200	36.45	1469	500	1.410	36.45
1458	10	10.000	36.45	1470	750	1.150	36.45
1459	12.5	8.950	36.45	1471	1,000	1.000	36.45
1460	16	7.900	36.45	1472	1,500	.816	36.45
1461	25	6.330	36.45	1473	2,500	.633	36.45

CATALOG 50 LISTS ALL RHEOSTATS TO MEET MILITARY SPECIFICATION MIL-R-22B

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
germanium diodes • r.f. chokes

RHEOSTAT TANDEM COUPLING KITS



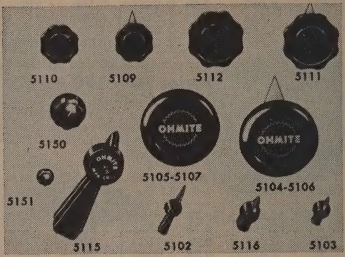
Inexpensive kits assemble standard Ohmite Model G, H, J, K, L or E (miniature) rheostats. Each kit consists of a steel "U" frame, a coupling with set screw, mica washer, Allen wrench and assembly instructions. Rheostat shafts are joined by the coupling which is fastened to the shaft of the rear unit. Projections on the coupling fit a recess in the rear hub of the front unit. Stock No. 6533 kit, mounts Model G, K or L units but accommodates Models H or J in the rear position. Stock No. 6532 unit mounts Models H or J but accommodates Models G, K or L in the rear position. Stock No. 6591 kit assembles only Model E (miniature) rheostats.

Stock No. 6532 — Max Panel 1/8"........Net Each (1-4) $2.01
Stock No. 6533 — Max Panel 5/32"........Net Each (1-4) 2.51
Stock No. 6591 — Max Panel 1/16"........Net Each (1-4) 2.01

BLACK BAKELITE KNOBS

Stock No.	Description	Knob Dia.	Hole Dia.	Net Ea. 1-2
5102	Bar Knob, 2¼" long		¼"	$ .50
5103	Bar Knob, 1¼" long		¼"	.21
5104	Handwheel with Pointer	3¼"	⅜"	1.38
5105	Handwheel without Pointer	3¼"	⅜"	1.16
5106	Handwheel with Pointer	3¼"	¼"	1.38
5107	Handwheel without Pointer	3¼"	¼"	1.16
5109	Finger-Grip with Pointer	1⅝"	¼"	.89
5110	Finger-Grip without Pointer	1⅝"	¼"	.82
5111	Finger-Grip with Pointer	2⅜"	¼"	1.32
5112	Finger-Grip without Pointer	2⅜"	¼"	1.21
*5115	Bar Knob, 4¾" long		⅜"	3.00
5116	Bar Knob, 1½" long		¼"	.50
5150	Skirted Finger-Grip	1½"	¼"	.29
5151	Finger-Grip	¾"	⅛"	.29
5152A	Like 5104 but shorter pointer	3¼"	¼"	1.60

*Requires pin and tapped hole in shaft.



MOLDED COMPOSITION POTENTIOMETERS, ½ and 2 WATTS

Used in commercial and military electronic applications where high quality and dependable performance are important. Type AB, 1⁵⁄₃₂" dia., is rated 2 watts at 70°C ambient and is available with ⅞" slotted shaft (CMU), 2" unslotted shaft (CU, CA, CB, CCU dual unit) and locking type slotted shaft (CLU). Type AS, a miniature unit ½" dia. rated ½ watt, is available only with locking type shaft.

Because of their molded composition elements, these units outlast and outperform film type units. Noise level is exceedingly low. Single control Type AB units extend ⅝" behind panel; dual control 1¹⁷⁄₆₄". Type AS miniature unit ex tends ¹¹⁄₁₆" behind panel. An SPST switc for single Type AB units is availabl Units are dust and splash proof, fungu and corrosion resistant and meet the lates requirements of MIL-R-94. Styles CMU CLU and Type AS conform respectivel to MIL-R-94 Styles RV4N, RV4L, RV6I

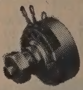
STOCK "POTS"—MIL Units are Stamped with MIL and Commercial Designations

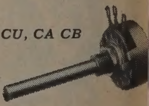
	TYPE AB (1⁵⁄₃₂" Dia.)								TYPE AS (½" Dia.)	
	Single Unit ⅞" Slotted Shaft		Single Unit 2" Shaft			Locking		Dual	Miniature Locking	
Resistance Ohms Except As Noted Tol. ±10% except * ±20%	Style CMU Linear	MIL Designation	Style CU Linear	Style CA CW log	Style CB CCW log	Style CLU Linear	MIL Designation	Style CCU Linear	Linear	MIL Designation
50	CMU5001	RV4NAYSD500A	CU5001			CLU5001	RV4LAYSA500A			
100	CMU1011	RV4NAYSD101A	CU1011			CLU1011	RV4LAYSA101A		AS3601	RV6LAYSA101A
150	CMU1511	RV4NAYSD151A	CU1511			CLU1511	RV4LAYSA151A	Resistance Shown is for Each Unit		
250	CMU2511	RV4NAYSD251A	CU2511			CLU2511	RV4LAYSA251A		AS3602	RV6LAYSA251A
350	CMU3511	RV4NAYSD351A	CU3511			CLU3511	RV4LAYSA351A			
500	CMU5011	RV4NAYSD501A	CU5011			CLU5011	RV4LAYSA501A		AS3603	RV6LAYSA501A
750	CMU7511	RV4NAYSD751A	CU7511			CLU7511	RV4LAYSA751A			
1,000	CMU1021	RV4NAYSD102A	CU1021			CLU1021	RV4LAYSA102A		AS3604	RV6LAYSA102A
1,500	CMU1521	RV4NAYSD152A	CU1521			CLU1521	RV4LAYSA152A			
2,500	CMU2521	RV4NAYSD252A	CU2521			CLU2521	RV4LAYSA252A		AS3605	RV6LAYSA252A
3,500	CMU3521	RV4NAYSD352A	CU3521			CLU3521	RV4LAYSA352A			
5,000	CMU5021	RV4NAYSD502A	CU5021			CLU5021	RV4LAYSA502A		AS3606	RV6LAYSA502A
7,500	CMU7521	RV4NAYSD752A	CU7521			CLU7521	RV4LAYSA752A			
10,000	CMU1031	RV4NAYSD103A	CU1031		CB1031	CLU1031	RV4LAYSA103A	CCU1031	AS3607	RV6LAYSA103A
15,000	CMU1531	RV4NAYSD153A	CU1531			CLU1531	RV4LAYSA153A			
25,000	CMU2531	RV4NAYSD253A	CU2531		CB2531	CLU2531	RV4LAYSA253A	CCU2531	AS3608	RV6LAYSA253A
35.000	CMU3531	RV4NAYSD353A	CU3531			CLU3531	RV4LAYSA353A			
50,000	CMU5031	RV4NAYSD503A	CU5031		CB5031	CLU5031	RV4LAYSA503A	CCU5031	AS3609	RV6LAYSA503A
75,000	CMU7531	RV4NAYSD753A	CU7531			CLU7531	RV4LAYSA753A			
.1 meg.	CMU1041	RV4NAYSD104A	CU1041	CA1041		CLU1041	RV4LAYSA104A	CCU1041	AS3610	RV6LAYSA104A
.15 meg.	CMU1541	RV4NAYSD154A	CU1541			CLU1541	RV4LAYSA154A			
.25 meg.	CMU2541	RV4NAYSD254A	CU2541	CA2541		CLU2541	RV4LAYSA254A	CCU2541	AS3611	RV6LAYSA254A
.35 meg.	CMU3541	RV4NAYSD354A	CU3541			CLU3541	RV4LAYSA354A			
.5 meg.	CMU5041	RV4NAYSD504A	CU5041	CA5041		CLU5041	RV4LAYSA504A	CCU5041	AS3612	RV6LAYSA504A
.75 meg.*	CMU7542	RV4NAYSD754B	CU7542			CLU7542	RV4LAYSA754B			
1.0 meg.*	CMU1052	RV4NAYSD105B	CU1052	CA1052		CLU1052	RV4LAYSA105B	CCU1052	AS3613	RV6LAYSA105B
1.5 meg.*	CMU1552	RV4NAYSD155B	CU1552			CLU1552	RV4LAYSA155B			
2.0 meg.*	CMU2052	RV4NAYSD205B	CU2052			CLU2052	RV4LAYSA205B		AS3684	RV6LAYSA205B
2.5 meg.*	CMU2552	RV4NAYSD255B	CU2552	CA2552		CLU2552	RV4LAYSA255B		AS3614	RV6LAYSA255B
3.5 meg.*	CMU3552	RV4NAYSD355B	CU3552			CLU3552	RV4LAYSA355B			
5.0 meg.*	CMU5052	RV4NAYSD505B	CU5052			CLU5052	RV4LAYSA505B		AS3615	RV6LAYSA505B
Weight	.064 lb.		.084 lb.			.070 lb.		.123 lb.	.017 lb.	
Net Price	$1.95		$1.95	$2.25	$2.25	$2.55		$5.85	$5.10	

Switch CS-1 (Unmounted) for CMU, CU, CA, CB, CLU..................................Net $.66

Type AS
MIL Style RV6I

Style CMU
MIL Style RV4N


Style CLU
MIL Style RV4I


Styles CU, CA CB

Style CCU

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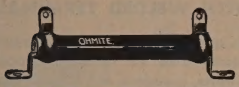
OHMITE VITREOUS ENAMELED FIXED AND DIVIDOHM® RESISTORS



25 WATT FIXED RESISTOR

Core: 2″ x 9/16″ — Mounting Centers 2¾″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
1	5.00	0200J	$0.72	0360	$1.29
2	3.54	0200K	.72	0360B	1.29
3	2.88	0200L	.72	0361	1.29
5	2.24	0200A	.72	0362	1.29
7.5	1.82			0362B	1.29
10	1.58	0200B	.72	0363	1.29
15	1.29	0200R	.72	0364	1.29
20	1.12			0364B	1.29
25	1.00	0200C	.72	0365	1.29
50	.71	0200D	.72	0366	1.29
75	.58	0200E	.72	0367	1.29
100	.50	0200F	.72	0368	1.29
150	.41	0200G	.72	0369	1.29
200	.35	0200H	.72	0370	1.29
250	.32	0201	.72	0371	1.29
300	.29			0371B	1.29
400	.25			0371C	1.29
500	.22	0202	.72	0372	1.29
750	.18	0203	.72	0373	1.29
800	.17	0204	.72	0374	1.29
1,000	.16	0205	.72	0375	1.29
1,250	.14			0375B	1.32
1,500	.13	0206	.75	0376	1.32
2,000	.12	0207	.75	0377	1.32
2,250	.11			0377B	1.32
2,500	.10	0208	.75	0378	1.32
3,000	.091	0209	.75	0379	1.32
3,500	.084	0210	.75	0380	1.32
4,000	.079	0211	.75	0381	1.32
4,500	.074			0381B	1.32
5,000	.070	0212	.75	0382	1.32
6,000	.064	0213	.85	0383	1.42
7,000	.060			0383B	1.42
7,500	.057	0214	.85	0384	1.42
8,000	.055			0384B	1.42
9,000	.052			0384C	1.42
10,000	.050	0215	.85	0385	1.42
12,000	.042	0216	.90	0386	1.47
15,000	.036	0217	.90	0387	1.47
20,000	.031	0218	.90	0388	1.47
25,000	.028	0219	1.04	0389	1.61
40,000	.022	0222	1.04		
50,000	.020	0224	1.21		
100,000	.010	0229	1.64		

100 WATT FIXED RESISTOR

Core: 6½″ x ¾″ — Mounting Centers 7⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	4.47	0600A	$1.54	0956	$2.11
10	3.16	0600B	1.54	0957	2.11
25	2.00	0601	1.54	0958	2.11
50	1.41	0602	1.54	0959	2.11
75	1.15	0603	1.54		
100	1.00	0604	1.54	0960	2.11
150	.816	0605	1.54		
250	.63	0606	1.54	0960B	2.11
500	.45	0607	1.54	0961	2.11
750	.365	0608	1.54		
1,000	.32	0609	1.54	0962	2.11
1,500	.26	0610	1.60	0962B	2.17
2,000	.223	0611	1.60		
2,500	.20	0612	1.60	0963	2.17
3,000	.18	0613	1.60		
5,000	.14	0614	1.60	0964	2.17
7,500	.115	0615	1.73		
10,000	.10	0616	1.73	0965	2.30
15,000	.081	0617	1.87	0966	2.44
20,000	.071	0618	1.87	0967	2.44
25,000	.063	0619	2.13	0968	2.70
30,000	.058	0620	2.13	0969	2.70
40,000	.050	0621	2.13	0970	2.70
50,000	.045	0622	2.21	0971	2.78
60,000	.041	0623	2.21		
75,000	.032	0624	2.45	0972	3.02
100,000	.028	0625	2.75	0973	3.32

50 WATT FIXED RESISTOR

Core: 4″ x 9/16″ — Mounting Centers 4¾″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	3.16	0400A	$1.11	0560	$1.68
10	2.23	0400B	1.11	0561	1.68
25	1.41	0400C	1.11	0562	1.68
50	1.00	0400D	1.11	0563	1.68
75	.82	0400E	1.11	0564	1.68
100	.71	0400F	1.11	0565	1.68
150	.58	0400G	1.11	0566	1.68
200	.50	0400H	1.11	0567	1.68
250	.45	0401	1.11	0568	1.68
300	.41			0568B	1.68
400	.35			0568C	1.68
500	.32	0402	1.11	0569	1.68
750	.26	0403	1.11	0570	1.68
1,000	.22	0405	1.11	0572	1.68
1,250	.20			0572B	1.71
1,500	.18	0406	1.14	0573	1.71
2,000	.16	0407	1.14	0574	1.71
2,500	.14	0408	1.14	0575	1.71
3,000	.13	0409	1.14	0576	1.71
3,500	.12			0576B	1.71
4,000	.11	0410	1.14	0577	1.71
4,500	.10			0577B	1.71
5,000	.10	0411	1.14	0578	1.71
6,000	.091			0578B	1.80
7,000	.084			0578C	1.80
7,500	.081	0412	1.23	0579	1.80
8,000	.079	0413	1.23	0580	1.80
9,000	.074			0580B	1.80
10,000	.071	0414	1.23	0581	1.80
12,000	.064	0415	1.35	0582	1.92
15,000	.057	0416	1.35	0583	1.92
20,000	.050	0417	1.35	0584	1.92
25,000	.045	0418	1.54	0585	2.11
30,000	.036			0586	2.11
35,000	.032	0419	1.54		
40,000	.029			0587	2.11
50,000	.026	0420	1.72	0588	2.29
60,000	.024			0589	2.29
75,000	.021	0421	1.97		
80,000	.021			0590	2.54
100,000	.018	0422	2.13	0591	2.70

160 WATT FIXED RESISTOR

Core: 8½″ x 1⅛″ — Mounting Centers 9⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	5.66	0700A	$3.19	1156	$4.07
10	4.00	0700B	2.28	1157	3.16
25	2.53	0701	2.28	1158	3.16
50	1.79	0702	2.28	1159	3.16
75	1.46	0703	2.28		
100	1.26	0704	2.28	1160	3.16
150	1.03	0705	2.28		
250	.80	0706	2.28	1160B	3.16
500	.57	0707	2.28	1161	3.16
750	.46	0708	2.28		
1,000	.40	0709	2.28	1162	3.16
1,500	.33	0710	2.32	1162B	3.20
2,000	.28	0711	2.32		
2,500	.25	0712	2.32	1163	3.20
3,000	.23	0713	2.32		
5,000	.18	0714	2.32	1164	3.20
7,500	.15	0715	2.53		
10,000	.13	0716	2.53	1165	3.41
15,000	.10	0717	2.71	1166	3.59
20,000	.089	0718	2.71	1167	3.59
25,000	.080	0719	2.80	1168	3.68
30,000	.073	0720	2.80	1169	3.68
40,000	.063	0721	2.80	1170	3.68
50,000	.057	0722	2.89	1171	3.77
60,000	.051	0723	2.89		
75,000	.046	0724	3.08	1172	3.96
100,000	.040	0725	3.26	1173	4.14

These all-welded construction resistors have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. Units are wire-wound on ceramic cores and protected by Ohmite Vitreous Enamel. Furnished with mounting brackets and on DIVIDOHM with one adjustable lug.

75 WATT SIZE — Dividohm

Core: 6″ x 9/16″ — Mounting Centers 6¾″

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps.	Stock No.	Res. Ohms	Max. Amps.	Stock No.
5	3.87	0769	5,000	.12	0783
10	2.74	0770	6,000	.11	0783B
15	2.24	0771	7,000	.10	0783C
25	1.73	0772	7,500	.10	0784
50	1.22	0773	8,000	.096	0784B
100	.86	0774	9,000	.091	0784C
200	.61	0774B	10,000	.086	0785
250	.55	0775	12,000	.079	0785B
300	.50	0775B	15,000	.070	0786
400	.43	0775C	20,000	.061	0787
500	.39	0776	25,000	.054	0788
750	.32	0777	30,000	.050	0789
1,000	.27	0778	35,000	.046	0790
1,250	.24	0778B	40,000	.043	0791
1,500	.22	0779	45,000	.035	0792
2,000	.19	0780	50,000	.033	0793
2,500	.17	0781	60,000	.030	0794
3,000	.16	0781B	80,000	.026	0795
3,500	.15	0782	100,000	.023	0796
4,000	.14	0782B			

Net (1-9), 5 thru 1,000 ohms	$1.87
Net (1-9), 1,250 thru 5,000 ohms	1.92
Net (1-9), 6,000 thru 10,000 ohms	2.01
Net (1-9), 12,000 thru 20,000 ohms	2.13
Net (1-9), 25,000 thru 40,000 ohms	2.32
Net (1-9), 45,000 thru 60,000 ohms	2.52
Net (1-9), 80,000 ohms	2.78
Net (1-9), 100,000 ohms	2.93

200 WATT FIXED RESISTOR

Core: 10½″ x 1⅛″—Mounting Centers 11⅜″

		Fixed Resist.		Adj. Resist.	
Res. Ohms	Max. Amps.	Stock No.	Net 1-9	Stock No.	Net 1-9
5	6.32	0900A	$3.44	1356	$4.32
10	4.47	0900B	2.46	1357	3.34
25	2.83	0901	2.46	1358	3.34
50	2.00	0902	2.46	1359	3.34
75	1.64	0903	2.46		
100	1.41	0904	2.46	1360	3.34
150	1.15	0905	2.46		
250	.89	0906	2.46	1360B	3.34
500	.63	0907	2.46	1361	3.34
750	.52	0908	2.46		
1,000	.45	0909	2.46	1362	3.34
1,500	.37	0910	2.53	1362B	3.41
2,000	.32	0911	2.53		
2,500	.28	0912	2.53	1363	3.41
3,000	.258	0913	2.53		
5,000	.20	0914	2.53	1364	3.41
7,500	.16	0915	2.71		
10,000	.14	0916	2.71	1365	3.59
15,000	.12	0917	2.89	1366	3.77
20,000	.10	0918	2.89	1367	3.77
25,000	.089	0919	2.98	1368	3.86
30,000	.082	0920	2.98	1369	3.86
40,000	.071	0921	2.98	1370	3.86
50,000	.063	0922	3.08	1371	3.96
60,000	.058	0923	3.08		
75,000	.052	0924	3.26	1372	4.14
100,000	.045	0925	3.46	1373	4.34

ADJUSTABLE LUGS

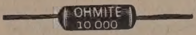
Bakelite Knob			Screw Driver Type		
Res. Dia.	Stock No.	Net 1-9	Res. Dia.	Stock No.	Net 1-9
9/16″	0359	$0.31	5/16″	1058	$0.14
¾″	1959	.31	9/16″	0358	.14
1⅛″	2159	.40	¾″	1958	.14
			1⅛″	2158	.23

CATALOG 50 LISTS ALL RESISTORS TO MEET MILITARY SPECIFICATIONS MIL-R-26C AND MIL-R-19365C

OHMITE

resistors • rheostats • tap switches • relays
variable transformers • tantalum capacitors
germanium diodes • r.f. chokes

OHMITE® STOCK AXIAL-LEAD RESISTORS



Ohmite axial-lead, vitreous-enameled resistors are compact, wire-wound units available in *four stock sizes:* 1-Watt ($\frac{9}{16}$″ x ⅛″), 3-Watt ($\frac{9}{16}$″ x ¼″), 5-Watt (1$\frac{1}{16}$″ x $\frac{11}{32}$″), and 10-Watt (1$\frac{15}{16}$″ x $\frac{13}{32}$″) . . . The resistance wire and terminal lead are both welded to the end cap, utilizing the patented Ohmite welding technique. All have 1½″ tinned wire leads, are simple to mount, and occupy small space.

Axial-lead resistors are especially suited for printed circuits, terminal board, and point-to-point wiring applications.

The standard resistance tolerance is ±5%. Resistance range for each size shown in price tables below.

Ohms	Ohms	Ohms	Ohms
1.0	56	700	6,800
1.5	68	750	7,000
2.0	75	800	7,500
3.0	82	820	8,000
4.0	100	900	8,200
5.0	120	1,000	9,000
7.5	150	1,200	10,000
10	180	1,500	12,000
12	200	1,800	15,000
15	220	2,000	18,000
18	250	2,200	20,000
20	270	2,500	22,000
22	300	2,700	25,000
25	330	3,000	27,000
27	390	3,300	30,000
30	400	3,900	33,000
33	470	4,000	39,000
39	500	4,700	40,000
40	560	5,000	47,000
47	600	5,600	50,000
50	680	6,000	

1 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .62
Net (1-9), 1,200 thru 5,000 ohms	.66
Net (1-9), 5,600 and 6,000 ohms	.70

3 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .59
Net (1-9), 1,200 thru 5,000 ohms	.62
Net (1-9), 5,600 thru 10,000 ohms	.66

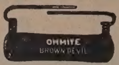
5 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .62
Net (1-9), 1,200 thru 5,000 ohms	.66
Net (1-9), 5,600 thru 10,000 ohms	.70
Net (1-9), 12,000 thru 20,000 ohms	.78
Net (1-9), 22,000 and 25,000 ohms	.82

10 WATT SIZE

Net (1-9), 1 thru 1,000 ohms	$ .68
Net (1-9), 1,200 thru 5,000 ohms	.73
Net (1-9), 5,600 thru 10,000 ohms	.84
Net (1-9), 12,000 thru 20,000 ohms	.95
Net (1-9), 22,000 thru 40,000 ohms	1.00
Net (1-9), 47,000 and 50,000 ohms	1.12

Popular OHMITE "BROWN DEVIL"® RESISTORS



5 Watt—1″ x 5/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
1	2.23	200	.160	2,250	.047
1.5	1.82	225	.150	2,500	.045
2	1.58	250	.140	3,000	.041
3	1.29	300	.130	3,500	.037
4	1.12	350	.120	4,000	.035
5	1.00	400	.110	4,500	.033
7.5	.810	450	.100	5,000	.032
10	.710	500	.100	6,000	.029
12	.640	600	.091	7,000	.027
15	.580	700	.084	7,500	.026
20	.500	750	.082	8,000	.025
25	.450	800	.079	9,000	.024
30	.410	900	.074	10,000	.022
35	.380	1,000	.070	12,500	.020
40	.350	1,100	.067	15,000	.018
50	.320	1,200	.064	17,500	.017
75	.260	1,250	.063	20,000	.016
100	.220	1,500	.057	22,500	.014
125	.200	1,750	.053	25,000	.013
150	.180	2,000	.050		

Net (1-9), 1 thru 1,000 ohms	**$0.52**
Net (1-9), 1,100 thru 5,000 ohms	**.55**
Net (1-9), 6,000 thru 10,000 ohms	**.58**
Net (1-9), 12,500 thru 20,000 ohms	**.65**
Net (1-9), 22,500 and 25,000 ohms	**.68**

10 Watt—1¾″ x 5/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	4.47	300	.18	5,000	.045
1	3.16	350	.17	6,000	.041
2	2.24	400	.16	7,000	.038
3	1.83	450	.15	7,500	.036
4	1.58	500	.14	8,000	.035
5	1.41	600	.13	8,500	.034
7.5	1.16	700	.12	10,000	.032
10	1.00	750	.12	11,000	.030
12	.91	800	.11	12,000	.029
15	.82	900	.11	12,500	.028
20	.71	1,000	.10	13,500	.027
25	.63	1,100	.095	15,000	.026
30	.58	1,200	.091	16,000	.025
35	.53	1,250	.089	17,500	.024
40	.50	1,500	.081	18,000	.023
50	.45	1,750	.075	20,000	.022
75	.37	2,000	.071	22,500	.021
100	.32	2,250	.066	25,000	.020
125	.28	2,500	.063	30,000	.018
150	.26	3,000	.057	35,000	.017
200	.22	3,500	.053	40,000	.016
225	.21	4,000	.050	45,000	.015
250	.20	4,500	.047	50,000	.014

Net (1-9), 0.5 thru 1,000 ohms	**$0.57**
Net (1-9), 1,100 thru 5,000 ohms	**.61**
Net (1-9), 6,000 thru 10,000 ohms	**.70**
Net (1-9), 11,000 thru 20,000 ohms	**.79**
Net (1-9), 22,500 thru 40,000 ohms	**.83**
Net (1-9), 45,000 and 50,000 ohms	**.93**

WITH WELDED TERMINALS

High quality, small size, wire-wound resistors ideal for voltage dropping, bias units, bleeders, etc. They're extra-sturdy, all-ceramic, vitreous enameled. These all-welded construction units have welded high-strength alloy terminals. For perfect electrical connection, the resistance wire is welded to the terminal. They give time-proved protection against shock, vibration, heat and humidity. Their long record of continuous trouble-free service—their wide use in all climates of the world—prove their complete reliability and economy. All units can be conveniently mounted by means of their 1½″ tinned wire leads. Standard resistance tolerance is ±5%.

20 Watt—2″ x 7/16″ Core Size

Ohms	Amps	Ohms	Amps	Ohms	Amps
0.5	6.32	800	.15	10,000	.043
1.0	4.47	850	.15	12,500	.035
2.0	3.16	1,000	.14	15,000	.032
3.0	2.58	1,200	.13	20,000	.027
4.0	2.24	1,250	.12	25,000	.024
5	2.00	1,500	.12	30,000	.022
10	1.41	1,750	.11	35,000	.021
25	.89	2,000	.10	40,000	.019
50	.63	2,250	.094	45,000	.018
75	.52	2,500	.089	50,000	.017
100	.45	2,750	.085	55,000	.016
150	.36	3,000	.081	60,000	.016
200	.32	3,500	.075	65,000	.015
250	.28	4,000	.070	70,000	.014
300	.26	4,500	.066	75,000	.013
350	.24	5,000	.063	80,000	.012
400	.22	6,000	.057	85,000	.012
500	.20	7,000	.053	90,000	.011
650	.18	7,500	.051	95,000	.010
700	.17	8,000	.050	100,000	.010
750	.16	9,000	.047		

Net (1-9), 0.5 ohms	**$0.95**
Net (1-9), 1.0 thru 1,000 ohms	**.68**
Net (1-9), 1,200 thru 5,000 ohms	**.70**
Net (1-9), 6,000 thru 10,000 ohms	**.83**
Net (1-9), 12,500 thru 20,000 ohms	**.85**
Net (1-9), 25,000 thru 40,000 ohms	**.99**
Net (1-9), 45,000 thru 60,000 ohms	**1.15**
Net (1-9), 65,000 thru 80,000 ohms	**1.37**
Net (1-9), 85,000 thru 100,000 ohms	**1.57**

10 WATT DIVIDOHM® ADJUSTABLE RESISTORS

Core: 1¾″ x $\frac{5}{16}$″ — Mounting Centers 2¼″

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.
1	3.16	1001	75	.37	1011
2	2.24	1002	100	.32	1012
3	1.83	1003	150	.26	1013
5	1.41	1004	200	.22	1014
7.5	1.16	1005	250	.20	1015
10	1.00	1006	300	.18	1016
15	.82	1007	350	.17	1017
20	.71	1008	400	.16	1018
25	.63	1009	500	.14	1019
50	.45	1010	600	.13	1020

Adjustable Res.			Adjustable Res.		
Res. Ohms	Max. Amps	Stock No.	Res. Ohms	Max. Amps	Stock No.
750	.12	1021	4,000	.050	1031
800	.11	1022	4,500	.047	1032
1,000	.10	1023	5,000	.045	1033
1,250	.089	1024	6,000	.041	1034
1,500	.081	1025	7,000	.038	1035
2,000	.071	1026	7,500	.036	1036
2,250	.066	1027	8,000	.035	1037
2,500	.063	1028	8,500	.034	1038
3,000	.057	1029	9,000	.033	1039
3,500	.053	1030	10,000	.032	1040

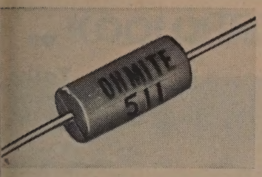
Net (1-9), 1 thru 1,000 ohms	**$1.14**
Net (1-9), 1,250 thru 5,000 ohms	**1.18**
Net (1-9), 6,000 thru 10,000 ohms	**1.27**

CATALOG 50 LISTS ALL RESISTORS TO MEET MILITARY SPECIFICATION MIL-R-26C

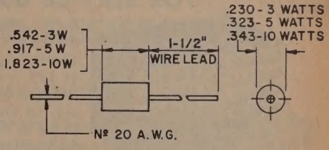
OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

RITEOHM® TYPE 884 MOLDED WIREWOUND RESISTORS ± 1% TOLERANCE



These precision power resistors are furnished from stock in power ratings of 3, 5 and 10 watts depending upon resistance. Single layer wound on ceramic core, Type 884 units feature a pressure-molded jacket of tough, resilient, silicone-ceramic material. Negligible inductance at audio frequencies. Temperature coefficient of resistance is 0±20ppm/°C. Values shown are selected from MIL Standard MS90169, MIL-R-10509 and Bell Tel. Labs.



TYPE 884 MOLDED WIREWOUND

Ohms 3 WATT	Max. Volts
1.00	1.73
1.02	1.75
1.05	1.77
1.07	1.79
1.10	1.82
1.13	1.84
1.15	1.86
1.18	1.88
1.21	1.91
1.24	1.93
1.27	1.95
1.30	1.97
1.33	2.00
1.37	2.03
1.40	2.05
1.43	2.07
1.47	2.10
1.50	2.12
1.54	2.15
1.58	2.18
1.62	2.20
1.65	2.22
1.69	2.25
1.74	2.28
1.78	2.31
1.82	2.34
1.87	2.37
1.91	2.39
1.96	2.42
2.00	2.45
2.05	2.48
2.10	2.51
2.15	2.54
2.21	2.57
2.26	2.60
2.32	2.64
2.37	2.67
2.43	2.70
2.49	2.73
2.55	2.77
2.61	2.80
2.67	2.83
2.74	2.87
2.80	2.90
2.87	2.93
2.94	2.97
3.01	3.00
3.09	3.04
3.16	3.08
3.24	3.12
3.32	3.16
3.40	3.19
3.48	3.23
3.57	3.27
3.65	3.31
3.74	3.35
3.83	3.39
3.92	3.43
4.02	3.47
4.12	3.51
4.22	3.56
4.32	3.60
4.42	3.64
4.53	3.69
4.64	3.73
4.75	3.77
4.87	3.82
4.99	3.87
5.11	3.91
5.23	3.96

Ohms 3 WATT (Cont.)	Max. Volts
5.36	4.01
5.49	4.06
5.62	4.10
5.76	4.16
5.90	4.20
6.04	4.25
6.19	4.31
6.34	4.36
6.49	4.41
6.65	4.46
6.81	4.52
6.98	4.57
7.15	4.63
7.32	4.68
7.50	4.74
7.68	4.80
7.87	4.86
8.06	4.92
8.25	4.97
8.45	5.04
8.66	5.10
8.87	5.16
9.09	5.22
9.31	5.28
9.53	5.34
9.76	5.41
10.0	5.47
10.2	5.53
10.5	5.61
10.7	5.66
11.0	5.74
11.3	5.82
11.5	5.87
11.8	5.95
12.1	6.02
12.4	6.10
12.7	6.17
13.0	6.24
13.3	6.32
13.7	6.41
14.0	6.48
14.3	6.55
14.7	6.64
15.0	6.70
15.4	6.80
15.8	6.88
16.2	6.97
16.5	7.03
16.9	7.12
17.4	7.22
17.8	7.30
18.2	7.39
18.7	7.49
19.1	7.57
19.6	7.66
20.0	7.74
20.5	7.84
21.0	7.94
21.5	8.03
22.1	8.14
22.6	8.23
23.2	8.34
23.7	8.43
24.3	8.54
24.9	8.64
25.5	8.74
26.1	8.84
26.7	8.95
27.4	9.06
28.0	9.16

Ohms 3 WATT (Cont.)	Max. Volts
28.7	9.28
29.4	9.39
30.1	9.50
30.9	9.62
31.6	9.74
32.4	9.86
33.2	9.98
34.0	10.1
34.8	10.2
35.7	10.3
36.5	10.5
37.4	10.6
38.3	10.7
39.2	10.8
40.2	11.0
41.2	11.1
42.2	11.2
43.2	11.4
44.2	11.5
45.3	11.7
46.4	11.8
47.5	11.9
48.7	12.1
49.9	12.2
51.1	12.4
52.3	12.5
53.6	12.7
54.9	12.8
56.2	13.0
57.6	13.1
59.0	13.3
60.4	13.4
61.9	13.6
63.4	13.8
64.9	13.9
66.5	14.1
68.1	14.3
69.8	14.5
71.5	14.6
73.2	14.8
75.0	15.0
76.8	15.2
78.7	15.4
80.6	15.5
82.5	15.7
84.5	15.9
86.6	16.1
88.7	16.3
90.9	16.5
93.1	16.7
95.3	16.9
97.6	17.1
100	17.3
102	17.5
105	17.7
107	17.9
110	18.2
113	18.4
115	18.6
118	18.8
121	19.1
124	19.3
127	19.5
130	19.7
133	20.0
137	20.3
140	20.5
143	20.7
147	21.0
150	21.2

Ohms 3 WATT (Cont.)	Max. Volts
154	21.5
158	21.8
162	22.0
165	22.2
169	22.5
174	22.8
178	23.1
182	23.4
187	23.7
191	23.9
196	24.2
200	24.5
205	24.8
210	25.1
215	25.4
221	25.7
226	26.0
232	26.4
237	26.7
243	27.0
249	27.3
255	27.7
261	28.0
267	28.3
274	28.7
280	29.0
287	29.3
294	29.7
301	30.0
309	30.4
316	30.8
324	31.2
332	31.6
340	31.9
348	32.3
357	32.7
365	33.1
374	33.5
383	33.9
392	34.3
402	34.7
412	35.1
422	35.6
432	36.1
442	36.4
453	36.9
464	37.3
475	37.7
487	38.2
499	38.7
511	39.1
523	39.6
536	40.1
549	40.6
562	41.0
576	41.6
590	42.0
604	42.5
619	43.1
634	43.6
649	44.1
665	44.6
681	45.2
698	45.7
715	46.3
732	46.8
750	47.4
768	48.0
787	48.6
806	49.2

Ohms 3 WATT (Cont.)	Max. Volts
825	49.7
845	50.4
866	51.0
887	51.6
909	52.2
931	52.8
953	53.4
976	54.1
1000	54.7
1020	55.3
1050	56.1
1070	56.6
1100	57.4
1130	58.2
1150	58.7
1180	59.5
1210	60.2
1240	61.0
1270	61.7
1300	62.4
1330	63.2
1370	64.1
1400	64.8
1430	65.5
1470	66.4
1500	67.0
1540	68.0
1580	68.8
1620	69.7
1650	70.3
1690	71.2
1740	72.2
1780	73.0
1820	73.9
1870	74.9
1910	75.7
1960	76.6
2000	77.4
2050	78.4
2100	79.4
2150	80.3
2210	81.4
2260	82.3
2320	83.4
2370	84.3
2430	85.4
2490	86.4
2550	87.4
2610	88.4
2670	89.5
2740	90.6
2800	91.6
2870	92.8
2940	93.9
3010	95.0
3090	96.2
3160	97.4
3240	98.6
3320	99.8
3400	101
3480	102
3570	103
3650	105
3740	106
3830	107
3920	108
4020	110
4120	111
4220	112
4320	114

Ohms 3 WATT (Cont.)	Max. Volts
4420	115
4530	117
4640	118
4750	119
4870	121
4990	122
5110	124
5230	125
5360	127
5490	128
5620	130
5760	131
5900	133
6040	134
6190	136
6340	138
6490	140
6650	141
6810	143
6980	145
7,150	146
7,320	148
7,500	150
7,680	152
7,870	154
8,060	155
8,250	157
8 450	159
8,660	161
8,870	163
9,090	165
9,310	167
9,530	169
9,760*	170
10 000*	170
10,200*	170
10,500*	170
10,700*	170
11,000*	170
11,300*	170
11,500*	170
11,800*	170
12,100*	170
12,400*	170
12,700*	170
13,000*	170
13,300*	170
13,700*	170
14,000*	170
14,300*	170
14,700*	170
15,000*	170
15,400*	170

Ohms 3 WATT (Cont.)	Max. Volts
15,800*	170
16,200*	170
16,500*	170
16,900*	170
17,400*	170
17,800*	170
18,200*	170
18,700*	170
19,100*	170
19,600*	170
20,000*	170
5 WATT	
20,500	320
21,000	324
21,500	328
22,100	335
22,600	337
23,200	341
23,700	344
24,300	347
24,900	353
25,500	357
26,100	361
26,700	365
27,400	370
28,000	374
28,700	379
29,400	383
30,100	388
30,900	393
31,600	397
32,400	402
33,200	407
34,000	412
34,800	417
35,700	422
36,500	427
37.400	432
38,300	437
39,200	442
40,200	448
41,200*	450
42,200*	450
43,200*	450
44,200*	450
45,300*	450
46,400*	450
47,500*	450
48,700*	450
49,900*	450
51,100*	450
52 300*	450

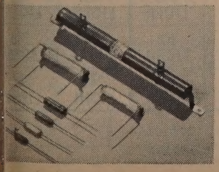
Ohms 5 WATT (Cont.)	Max. Volts
53.600*	450
54,900*	450
56.200*	450
57 600*	450
59,000*	450
60,400*	450
10 WATT	
61,900	786
63.400	796
64,900	805
66,500	815
68.100	825
69,800	836
71,500	846
73,200	856
75,000	864
76,800	876
78,700	887
80 600	898
82,500	908
84,500	919
86.600	930
88,700	942
90,900	952
93,100	965
95,300	976
97,600	988
100,000	1000
102,000*	1000
105.000*	1000
107,000*	1000
110,000*	1000
113,000*	1000
115,000*	1000
118,000*	1000
121,000*	1000
124,000*	1000
127,000*	1000
130.000*	1000
133 000*	1000
137,000*	1000
140,000*	1000
143,000*	1000
147,000*	1000
150,000*	1000
154.000*	1000
158,000*	1000
162,000*	1000
165,000*	1000
169,000*	1000
174.000*	1000
178,000*	1000

istance values marked * are derated in wattage because of maximum voltage gradient
siderations. Even with these voltage limitations, however, the wattage ratings are still
quate for most precision applications. However, where wattage requirements dictate,
same value shown in a derated area for either the 3 or 5 watt sizes can be supplied
he next higher wattage as the case may be.

TYPE 884 NET PRICES

1.0 thru 3.0 ohms	Net 1-24	$ .94
3.1 thru 1K ohms	Net 1-24	.68
1,001 thru 5K ohns	Net 1-24	.75
5,001 thru 10K ohms	Net 1-24	.78
10,001 thru 15K ohms	Net 1-24	.80
15,001 thru 20K ohms	Net 1-24	.84
20,001 thru 40K ohms	Net 1-24	.89
40,001 thru 55K ohms	Net 1-24	.96
55,001 thru 75K ohms	Net 1-24	1.05
75,001 thru 100K ohms	Net 1-24	1.16
100,001 thru 125K ohms	Net 1-24	1.27
125,001 thru 150K ohms	Net 1-24	1.39
150,001 thru 175K ohms	Net 1-24	1.52
175,001 thru 178K ohms	Net 1-24	1.66

OHMITE R.F. PLATE CHOKES



This series of seven Ohmite single layer wound solenoid radio frequency plate chokes covers the entire frequency range of 3 to 520 megacycles. The four highest frequency chokes are wound on low power factor plastic cores while the other three units are wound on steatite tubes. The single layer winding is designed to avoid adverse harmonic effects within the recommended operating range and also prevents breakdown from high r.f. potentials.

Stock Number	Operating Range Megacycles	Micro-henries	Core Dimensions	Net Each 1-9
Z-7	3 to 20 Mc.	84.0	6″ x 9⁄16″	$1.37
Z-14	7 to 35 Mc.	44.0	2″ x 7⁄16″	.68
Z-28	20 to 60 Mc.	21.0	1¾″ x 5⁄16″	.57
Z-50	35 to 110 Mc.	7.0	⅞″ x 9⁄32″	.46
Z-144	80 to 200 Mc.	1.8	¾″ x 3⁄16″	.43
Z-235	160 to 350 Mc.	0.84	¾″ x 3⁄16″	.43
Z-460	320 to 520 Mc.	0.20	½″ x 5⁄32″	.43

Non-magnetic Brackets Furnished with Z-7. The Z-14 and Z-28 are rated at 600 ma. All others 1000 ma.

OHMITE

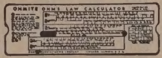
resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

LITTLE DEVIL® RESISTOR ASSORTMENTS FOR SERVICE USE

Serviceman's assortments of 150 Ohmite "Little Devil," ¼-watt or ½-watt, or 125, 1-watt or 2-watt insulated composition resistors, in the 40 values (10 ohms to 10 megohms) most frequently used by servicemen. CAB-4 has 37 resistance values. The assortment is offered at the price of the resistors alone—the cabinet is furnished without extra cost! Cabinet is only 9″ long, 4¾″ high, and 5¼″ deep.

Assortment	Stock No.	Quantity of Resistors	Wattages	Net Price
SERVICE ±10% tolerance (40 resistance values)	**CAB-4**	150	¼ watt	$19.50
	CAB-10	150	½ watt	18.00
	CAB-2	125	1 watt	22.50
	CAB-3	125	2 watt	30.00

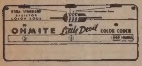
NEW OHM'S LAW CALCULATOR



Redesigned! This new, improved version of the famous Ohmite Ohm's Law Calculator — popular the world over with servicemen, engineers and students — now has scales for solving parallel resistance problems, AND a standard slide rule. More useful than ever! With one setting of the slide the calculator gives the answer to any Ohm's Law problem—reading directly in ohms, volts, amperes, and watts. Three of the new scales on the back provide a quick, one-setting means of solving parallel resistance problems. The slide rule scales will multiply, divide, find squares, and square roots.

Ohm's Law Calculator (Cardboard) ....**Net Price $0.25**
Ohm's Law Calculator (Plastic) ....**Net Price 1.50**

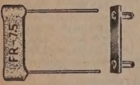
LITTLE DEVIL COLOR CODER



Here is a handy little device that makes it easy to determine the resistance and tolerance values of EIA color coded composition resistors. Just turn the color wheels until the color corresponds to the color band on the resistor and read the resistance value directly in ohms in the windows.

Little Devil Color Coder................Net Price $ .10

OHMITE FUSE RESISTOR

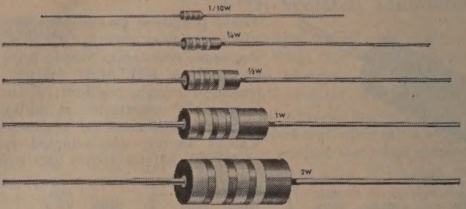


FR-7.5
Net Price $0.45
Each

Designed for replacement in all television receivers, the FR-7.5 Fuse Resistor is provided with 1½″ tinned lead wires for easy installation directly in the TV circuit. May also be soldered to the plug-in terminal strip which is provided. 7.5 ohms.

OHMITE LITTLE DEVIL RESISTORS

MOLDED COMPOSITION TYPE



on Tally Tape (see below)

Now Includes MIL-R-11 Types

Ohmite's famous molded composition resistors. The ¼, ½, 1 an 2-watt sizes, conform respectively to Styles RC07, RC20, RC32 an RC42 of MIL-R-11C and meet all the requirements of this militar specification.

Little Devils have molded insulation except for the 1/10 watt siz which is coated with insulating material. Features: Great stabilit low noise level, low voltage coefficient, high insulation breakdow voltage and rapid heat dissipation. They may be used at full rate wattage at 70°C (158°F) ambient temperature.

Available from stock in the standard EIA resistance values in th tolerances and resistance ranges shown in the price table belov Ratings for maximum continuous RMS voltage drop are high: 15 volts for 1/10 watt units, 250 volts for ¼ watt, 350 volts for ½ wat 500 volts for 1 watt and 750 volts for 2 watt units.

STANDARD EIA VALUES

Figures in large, bold type are ±10% EIA values. *All* values listed are ±5 values. Price table lists the various "Little Devil" sizes and indicates the tole ances and resistance ranges in which they are supplied.

Ohms	Ohms	Ohms	Ohms	Ohms	Megs.	Megs.	Megs.
2.7	**22**	**180**	**1500**	**12000**	**0.1**	**0.82**	**6.8**
3.0	24	200	1600	13000	0.11	0.91	7.5
3.3	**27**	**220**	**1800**	**15000**	**0.12**	**1.0**	**8.2**
3.6	30	240	2000	16000	0.13	1.1	9.1
3.9	**33**	**270**	**2200**	**18000**	**0.15**	**1.2**	**10.0**
4.3	36	300	2400	20000	0.16	1.3	11.0
4.7	**39**	**330**	**2700**	**22000**	**0.18**	**1.5**	**12.0**
5.1	43	360	3000	24000	0.20	1.6	13.0
5.6	**47**	**390**	**3300**	**27000**	**0.22**	**1.8**	**15.0**
6.2	51	430	3600	30000	0.24	2.0	16.0
6.8	**56**	**470**	**3900**	**33000**	**0.27**	**2.2**	**18.0**
7.5	62	510	4300	36000	0.30	2.4	20.0
8.2	**68**	**560**	**4700**	**39000**	**0.33**	**2.7**	**22.0**
9.1	75	620	5100	43000	0.36	3.0	...
10	**82**	**680**	**5600**	**47000**	**0.39**	**3.3**	...
11	91	750	6200	51000	0.43	3.6	...
12	**100**	**820**	**6800**	**56000**	**0.47**	**3.9**	...
13	110	910	7500	62000	0.51	4.3	...
15	**120**	**1000**	**8200**	**68000**	**0.56**	**4.7**	...
16	130	1100	9100	75000	0.62	5.1	...
18	**150**	**1200**	**10000**	**82000**	**0.68**	**5.6**	...
20	160	1300	11000	91000	0.75	6.2	...

PRICES, RESISTANCE RANGES, DIMENSIONS

Size Watts	Size		Resistance Range		MIL Type	±5%		±10%	
	Lgth.	Dia.	From	Thru		Net 1-4	Net 5-49	Net 1-4	Net 5-49
1/10	.140″	.067″	10 ohms	1.0 meg	—	—	—	24c LIDVS	20c LIDVS
1/4	¼″	.090″	2.7 ohms	24 ohms	RC 07*	40c LIDED	34c LIDED	20c LIDSM	17c LIDSM
			27 ohms	22 megs	RC 07	26c LIDED	22c LIDED	13c LIDSM	11c LIDSM
1/2	⅜″	$\frac{9}{64}$″	2.7 ohms	22 megs	RC 20*	24c LIDFA	20c LIDFA	12c LIDLO	10c LIDLO
1	$\frac{9}{16}$″	$\frac{7}{32}$″	2.7 ohms	22 megs	RC 32	36c LIDBU	30c LIDBU	18c LIDME	15c LIDME
2	$\frac{11}{16}$″	$\frac{5}{16}$″	10 ohms	22 megs	RC 42	48c LIDOC	40c LIDOC	24c LIDHI	20c LIDHI

*Minimum resistance under MIL-R-11C is 10 ohms.

"Tally Tape", Ohmite's wonderfully convenient packaging presently provided for ¼, ½, 1 and 2-watt resistors. Each perforated segment holds 5 resistors—prevents spilling or tangling—simplifies counting—is printed for quick identification—guarantees original, factory-fresh stock.

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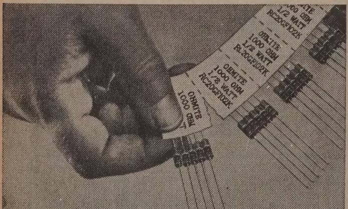

For more complete information on OHMITE PRODUCTS, ask for Ohmite Stock Catalog.

SPRAGUE RESISTORS

KOOLOHM® AXIAL-LEAD WIREWOUND RESISTORS

SPRAGUE
KOOLOHM®

Types 450E, 452E, 454E, 456E and 458E are Standard Resistors. Types 451E, 453E, 455E, 457E and 459E are Non-Inductive Resistors

- **Insulated-Shell Design for Easy Mounting**
- **Feature Improved Internal Construction in Which Windings and Leads are Welded to End-Cap for Superior Mechanical Strength**
- **Ceramic-Insulated Wire is Space Wound and Cemented, to Prevent Turn-to-Turn Shorting. Permits Higher Resistance Values in a Given Size Than in Conventional Resistors**
- **Non-Porous Tubular Ceramic Shells Sealed With High Temperature Silicone Cement**
- **Unexcelled Insulation and Mechanical Protection. Can Be Mounted in Direct Contact With Chassis**
- **For Prices on Quantities From 25 to 249, See Your Sprague Industrial Distributor**
- **For Complete Technical Details, Refer to Latest Issue of Sprague Engineering Bulletin 7300**

	Type 450E 3 WATTS ¼″ x 9/16″		Type 452E 5 WATTS ¼″ x 1″		Type 454E 7 WATTS 15/32″ x 1 5/16″		Type 456E 10 WATTS 15/32″ x 1 29/32″		Type 458E 14 WATTS 15/32″ x 1 29/32″	
Ohms	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
1	450E1R05	$.354	452E1R05	$.366	454E1R05	$.420	456E1R05	$.440	458E1R05	$.484
1.5	450E1R55	.354	452E1R55	.366	454E1R55	.420	456E1R55	.440	458E1R55	.484
2	450E2R05	.354	452E2R05	.366	454E2R05	.420	456E2R05	.440	458E2R05	.484
3	450E3R05	.354	452E3R05	.366	454E3R05	.420	456E3R05	.440	458E3R05	.484
4	450E4R05	.354	452E4R05	.366	454E4R05	.420	456E4R05	.440	458E4R05	.484
5	450E5R05	.354	452E5R05	.366	454E5R05	.420	456E5R05	.440	458E5R05	.484
7.5	450E7R55	.354	452E7R55	.366	454E7R55	.420	456E7R55	.440	458E7R55	.484
10	450E1005	.354	452E1005	.366	454E1005	.420	456E1005	.440	458E1005	.484
12	450E1205	.354	452E1205	.366	454E1205	.420	456E1205	.440	458E1205	.484
15	450E1505	.354	452E1505	.366	454E1505	.420	456E1505	.440	458E1505	.484
18	450E1805	.354	———	.366	———	.420	———	.440	———	.484
20	450E2005	.354	452E2005	.366	454E2005	.420	456E2005	.440	458E2005	.484
22	450E2205	.354	———	.366	———	.420	———	.440	———	.484
25	450E2505	.354	452E2505	.366	454E2505	.420	456E2505	.440	458E2505	.484
27	450E2705	.354	———	.366	———	.420	———	.440	———	.484
30	450E3005	.354	452E3005	.366	454E3005	.420	456E3005	.440	458E3005	.484
33	450E3305	.354	———	.366	———	.420	———	.440	———	.484
35	———	.354	452E3505	.366	454E3505	.420	456E3505	.440	458E3505	.484
39	450E3905	.354	———	.366	———	.420	———	.440	———	.484
40	450E4005	.354	452E4005	.366	454E4005	.420	456E4005	.440	458E4005	.484
47	450E4705	.354	———	.366	———	.420	———	.440	———	.484
50	450E5005	.354	452E5005	.366	454E5005	.420	456E5005	.440	458E5005	.484
56	450E5605	.354	———	.366	———	.420	———	.440	———	.484
68	450E6805	.354	———	.366	———	.420	———	.440	———	.484
75	450E7505	.354	452E7505	.366	454E7505	.420	456E7505	.440	458E7505	.484
82	450E8205	.354	———	.366	———	.420	———	.440	———	.484
100	450E1015	.354	452E1015	.366	454E1015	.420	456E1015	.440	458E1015	.484
120	450E1215	.354	452E1215	.366	454E1215	.420	456E1215	.440	458E1215	.484
150	450E1515	.354	452E1515	.366	454E1515	.420	456E1515	.440	458E1515	.484
180	450E1815	.354	———	.366	———	.420	———	.440	———	.484

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JIND-56-6240

All prices and sizes subject to change without notice.

SPRAGUE RESISTORS

KOOLOHM AXIAL-LEAD WIREWOUND RESISTORS, continued

	Type 450E 3 WATTS ¼″ x 9⁄16″		Type 452E 5 WATTS ¼″ x 1″		Type 454E 7 WATTS 15⁄32″ x 15⁄16″		Type 456E 10 WATTS 15⁄32″ x 129⁄32″		Type 458E 14 WATTS 15⁄32″ x 129⁄32″	
Ohms	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
200	450E2015	$.354	452E2015	$.366	454E2015	$.420	456E2015	$.440	458E2015	$.484
220	450E2215	.354	452E2215	.366	454E2215	.420	456E2215	.440	458E2215	.484
250	450E2515	.354	452E2515	.366	454E2515	.420	456E2515	.440	458E2515	.484
270	450E2715	.354	———	.366	———	.420	———	.440	———	.484
300	450E3015	.354	452E3015	.366	454E3015	.420	456E3015	.440	458E3015	.484
330	450E3315	.354	———	.366	———	.420	———	.440	———	.444
350	———	.354	452E3515	.366	454E3515	.420	456E3515	.440	458E3515	.484
390	450E3915	.354	———	.366	———	.420	———	.440	———	.484
400	450E4015	.354	452E4015	.366	454E4015	.420	456E4015	.440	458E4015	.484
450	———	.354	452E4515	.366	———	.420	———	.440	———	.484
470	450E4715	.354	———	.366	———	.420	———	.440	———	.484
500	450E5015	.354	452E5015	.366	454E5015	.420	456E5015	.440	458E5015	.484
560	450E5615	.354	———	.366	———	.420	———	.440	———	.484
600	450E6015	.354	452E6015	.366	454E6015	.420	456E6015	.440	458E6015	.484
680	450E6815	.354	———	.366	———	.420	———	.440	———	.484
700	450E7015	.354	452E7015	.366	454E7015	.420	456E7515	.440	458E7015	.484
750	———	.354	452E7515	.366	454E7515	.420	———	.440	458E7515	.484
800	450E8015	.354	452E8015	.366	454E8015	.420	456E8015	.440	458E8015	.484
820	450E8215	.354	———	.366	———	.420	———	.440	———	.484
900	450E9015	.354	452E9015	.366	454E9015	.420	456E9015	.440	458E9015	.484
1000	450E1025	.354	452E1025	.366	454E1025	.420	456E1025	.440	458E1025	.484
1100	———	.354	452E1125	.378	454E1125	.432	456E1125	.458	458E1125	.504
1200	450E1225	.380	452E1225	.378	454E1225	.432	456E1225	.458	458E1225	.504
1400	450E1425	.380	452E1425	.378	454E1425	.432	456E1425	.458	458E1425	.504
1500	450E1525	.380	452E1525	.378	454E1525	.432	456E1525	.458	458E1525	.504
1800	450E1825	.380	452E1825	.378	454E1825	.432	456E1825	.458	458E1825	.504
2000	450E2025	.380	452E2025	.378	454E2025	.432	456E2025	.458	458E2025	.504
2200	450E2225	.394	452E2225	.388	454E2225	.432	465E2225	.470	458E2225	.518
2500	450E2525	.394	452E2525	.388	454E2525	.432	456E2525	.470	458E2525	.518
2700	450E2725	.394	———		———		———		———	
3000	450E3025	.394	452E3025	.388	454E3025	.432	456E3025	.470	458E3025	.518
3300	450E3325	.410	———		454E3325	.462	456E3325	.484	458E3325	.532
3500	———		452E3525	.396	454E3525	.462	456E3525	.484	458E3525	.532
3900	450E3925	.410	———		454E3925	.462	456E3925	.484	458E3925	.532
4000	450E4025	.410	452E4025	.396	454E4025	.462	456E4025	.484	458E4025	.532
4500	———		452E4525	.408	454E4525	.478	456E4525	.498	458E4525	.548
4700	450E4725	426	———		———		———		———	
5000	450E5025	.426	452E5025	.408	454E5025	.478	456E5025	.498	458E5025	.548
5600	450E5625	.438	———		———		———		———	
6000	450E6025	.438	452E6025	.418	454E6025	.488	456E6025	.510	458E6025	.562
6800	450E6825	.454	———		———		———		———	
7000	———		452E7025	.432	454E7025	.504	456E7025	.510	458E7025	.576
7500	450E7525	.466	452E7525	.442	454E7525	.518	456E7525	.534	458E7525	.588
8000	450E8025	.466	452E8025	.442	454E8025	.518	456E8025	.534	458E8025	.588
8200	450E8225	.482	———		———		———		———	
9000	450E9025	.482	452E9025	.458	454E9025	.532	456E9025	.552	458E9025	.608
10000	450E1035	.489	452E1035	.476	454E1025	.548	456E1035	.562	458E1035	.618
11000	———		———		454E1135	.548	456E1135	.582	458E1135	.640
12000	———		452E1235	.506	454E1235	.574	456E1235	.594	458E1125	.654
14000	———		452E1435	.534	454E1435	.600	456E1435	.618	458E1435	.680
15000	———		452E1535	.552	454E1535	.620	456E1535	.632	458E1535	.696
16000	———		———		454E1635	.630	456E1635	.650	458E1635	.716
18000	———		452E1835	.614	454E1835	.654	456E1835	.676	458E1835	.744
20000	———		452E2035	.668	454E2035	.678	456E2035	.702	458E2035	.772
22000	———		———		454E2235	.706	456E2235	.726	———	
25000	———		———		454E2535	.754	456E2535	.727	———	
30000	———		———		454E3035	.826	456E3035	.838	———	
35000	———		———		454E3535	.896	456E3535	.904	———	
40000	———		———		454E4035	.966	456E4035	.974	———	
45000	———		———		———		456E4535	1.042	———	
50000	———		———		———		456E5035	1.114	———	
60000	———		———		———		456E6035	1.252	———	
70000	———		———		———		456E7035	1.402	———	

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SPRAGUE RESISTORS

KOOLOHM NON-INDUCTIVE AXIAL-LEAD WIREWOUND RESISTORS

	Type 451E 3 WATTS ¼″ x 1⁄16″		Type 453E 5 WATTS ¼″ x 1″		Type 455E 7 WATTS 15⁄32″ x 15⁄16″		Type 457E 10 WATTS 15⁄32″ x 129⁄32″		Type 459E 14 WATTS 15⁄32″ x 129⁄32″	
Ohms	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)	Cat. No.	Net (1-24)
1	451E1R05	$.468	453E1R05	$.542	455E1R05	$.574	457E1R05	$.630	459E1R05	$.694
1.5	451E1R55	.468	453E1R55	.542	455E1R55	.574	457E1R55	.630	459E1R55	.694
2	451E2R05	.468	453E2R05	.542	455E2R05	.574	457E2R05	.630	459E2R05	.694
3	451E3R05	.468	453E3R05	.542	455E3R05	.574	457E3R05	.630	459E3R05	.694
4	451E4R05	.468	453E4R05	.542	455E4R05	.574	457E4R05	.630	459E4R05	.694
5	451E5R05	.468	453E5R05	.542	455E5R05	.574	457E5R05	.630	459E5R05	.694
7.5	451E7R55	.468	453E7R55	.542	455E7R55	.574	457E7R55	.630	459E7R55	.694
10	451E1005	.468	453E1005	.542	455E1005	.574	457E1005	.630	459E1005	.694
12	451E1205	.468	453E1205	.542	455E1205	.574	457E1205	.630	459E1205	.694
15	451E1505	.468	453E1505	.542	455E1505	.574	457E1505	.630	459E1505	.694
18	451E1805		———		———		———		———	
20	451E2005	.468	453E2005	.542	455E2005	.574	457E2005	.630	459E2005	.694
22	451E2205	.468	———		———		———		———	
25	451E2505	.468	453E2505	.542	455E2505	.574	457E2505	.630	459E2505	.694
27	451E2705	.468	———		———		———		———	
30	451E3005	.468	453E3005	.542	455E3005	.574	457E3005	.630	459E3005	.694
33	451E3305	.468	———		———		———		———	
35	451E3505	.468	453E3505	.542	455E3505	.574	457E3505	.630	459E3505	.694
39	451E3905	.468	———		———		———		———	
40	451E4005	.468	453E4005	.542	455E4005	.574	457E4005	.630	459E4005	.694
47	451E4705	.468	———		———		———		———	
50	451E5005	.468	453E5005	.542	455E5005	.574	457E5005	.630	459E5005	.694
56	451E5605	.468	———		———		———		———	
68	451E6805	.468	———		———		———		———	
75	451E7505	.468	453E7505	.542	455E7505	.574	457E7505	.630	459E7505	.694
82	451E8205	.468	———		———		———		———	
100	451E1015	.468	453E1015	.542	455E1015	.574	457E1015	.630	459E1015	.694
120	451E1215	.468	453E1215	.542	455E1215	.574	457E1215	.630	459E1215	.694
150	451E1515	.468	453E1515	.542	455E1515	.574	457E1515	.630	459E1515	.694
180	451E1815	.468	———		———		———		———	
200	451E2015	.468	453E2015	.542	455E2015	.574	457E2015	.630	459E2015	.694
220	451E2215	.468	453E2215	.542	455E2215	.574	457E2215	.630	459E2215	.694
250	451E2515	.468	453E2515	.542	455E2515	.574	457E2515	.630	459E2515	.694
270	451E2715	.468	———		———		———		———	
300	451E3015	.468	453E3015	.542	455E3015	.574	457E3015	.630	459E3015	.694
330	451E3315	.468	———		———		———		———	
350	451E3515	.468	453E3515	.542	455E3515	.547	457E3515	.630	459E3515	.694
390	451E3915	.468	———		———		———		———	
400	451E4015	.468	453E4015	.542	455E4015	.574	457E4015	.630	459E4015	.696
450	451E4515	.468	453E4515	.542	———		———		———	
470	451E4715	.468	———		———		———		———	
500	451E5015	.468	453E5015	.542	455E5015	.574	457E5015	.630	459E5015	.694
560	451E5615	.468	———		———		———		———	
600	451E6015	.468	453E6015	.542	455E6015	.574	457E6015	.630	459E6015	.694
680	451E6815	.468	———		———		———		———	
700	451E7015	.468	453E7015	.542	455E7015	.574	457E7015	.630	459E7015	.694
750	451E7515	.468	453E7515	.542	455E7515	.574	457E7515	.630	459E7515	.694
800	451E8015	.468	453E8015	.542	455E8015	.574	457E8015	.630	459E8015	.694
820	451E8215	.468	———		———		———		———	
900	451E9015	.468	453E9015	.542	455E9015	.574	457E9015	.630	459E9015	.694
1000	451E1025	.468	453E1025	.542	455E1025	.574	457E1025	.630	459E1025	.694
1100	———		453E1125	.576	455E1125	.600	457E1125	.666	459E1125	.732
1200	451E1225	.532	453E1225	.576	455E1225	.600	457E1225	.666	459E1225	.732
1400	451E1425	.532	453E1425	.576	455E1425	.600	457E1425	.666	459E1425	.732
1500	451E1525	.532	453E1525	.576	455E1525	.600	457E1525	.666	459E1525	.732
1800	451E1825	.532	453E1825	.576	455E1825	.600	457E1825	.666	459E1825	.732
2000	451E2025	.532	453E2025	.576	455E2025	.600	457E2025	.666	459E2025	.732
2200	———		453E2225	.612	455E2225	.620	457E2225	.700	459E2225	.770
2500	———		453E2525	.612	455E2525	.620	457E2525	.700	459E2525	.770
3000	———		453E3025	.612	455E3025	.620	457E3025	.700	459E3025	.770
3300	———		———		455E3325	.658	457E3325	.728	459E3325	.800
3500	———		453E3525	.684	455E3525	.658	457E3525	.728	459E3525	.800
3900	———		———		455E3925	.658	457E3925	.728	459E3925	.800
4000	———		453E4025	.684	455E4025	.658	457E4025	.728	459E4025	.800
4500	———		———		455E4525	.658	457E4525	.774	459E4525	.852
5000	———		———		455E5025	.774	457E5025	.774	459E5025	.852
6000	———		———		———		457E6025	.798	459E6025	.878
7000	———		———		———		457E7025	.846	459E7025	.930
7500	———		———		———		457E7525	.896	459E7525	.986
8000	———		———		———		457E8025	.896	459E8025	.986
9000	———		———		———		457E9025	.968	459E9025	1.064
10000	———		———		———		457E1035	1.074	459E1035	1.182

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REM-58-6128

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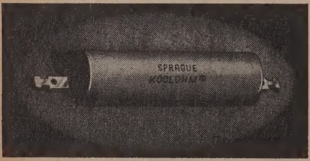
SPRAGUE RESISTORS

TYPE RW55, RW56 KOOLOHM® RESISTORS

- Axial-Lead Koolohm Resistors to Military Specification MIL-R-26C, Characteristic V
- For Prices on Quantities From 10 to 249, See Your Sprague Industrial Distributor

Ohms	Type RW55 7 WATTS 15/32" x 1 7/8"		Type RW56 14 WATTS 15/32" x 2"	
	Cat. No.	Net(1-9)	Cat. No.	Net(1-9)
1.0	RW55V1R0	$1.48	RW56V1R0	$1.59
1.1	RW55V1R1	1.48	RW56V1R1	1.59
1.2	RW55V1R2	1.48	RW56V1R2	1.59
1.4	RW55V1R4	1.48	RW56V1R4	1.59
1.6	RW55V1R6	1.48	RW56V1R6	1.59
1.8	RW55V1R8	1.48	RW56V1R8	1.59
2.0	RW55V2R0	1.48	RW56V2R0	1.59
2.2	RW55V2R2	1.43	RW56V2R2	1.59
2.5	RW55V2R5	1.43	RW56V2R5	1.59
2.8	RW55V2R8	1.43	RW56V2R8	1.59
3.1	RW55V3R1	1.06	RW56V3R1	1.13
3.5	RW55V3R5	1.06	RW56V3R5	1.13
4.0	RW55V4R0	1.06	RW56V4R0	1.13
4.5	RW55V4R5	1.06	RW56V4R5	1.13
5.0	RW55V5R0	1.06	RW56V5R0	1.13
5.6	RW55V5R6	1.06	RW56V5R6	1.13
6.3	RW55V6R3	1.06	RW56V6R3	1.13
7.1	RW55V7R1	1.06	RW56V7R1	1.13
8.0	RW55V8R0	1.06	RW56V8R0	1.13
9.0	RW55V9R0	1.06	RW56V9R0	1.13
10	RW55V100	1.06	RW56V100	1.13
11	RW55V110	1.06	RW56V110	1.13
12	RW55V120	1.06	RW56V120	1.13
14	RW55V140	1.06	RW56V140	1.13
16	RW55V160	1.06	RW56V160	1.13
18	RW55V180	1.06	RW56V180	1.13
20	RW55V200	1.06	RW56V200	1.13
22	RW55V220	1.06	RW56V220	1.13
25	RW55V250	1.06	RW56V250	1.13
28	RW55V280	1.06	RW56V280	1.13
31	RW55V310	$1.06	RW56V310	$1.13
35	RW55V350	1.06	RW56V350	1.13
40	RW55V400	1.06	RW56V400	1.13
45	RW55V450	1.06	RW56V450	1.13
50	RW55V500	1.06	RW56V500	1.13
56	RW55V560	1.06	RW56V560	1.13
63	RW55V630	1.06	RW56V630	1.13
71	RW55V710	1.06	RW56V710	1.13
80	RW55V800	1.06	RW56V800	1.13
90	RW55V900	1.06	RW56V900	1.13
100	RW55V101	1.06	RW56V101	1.13
110	RW55V111	1.06	RW56V111	1.13
120	RW55V121	1.06	RW56V121	1.13
140	RW55V141	1.06	RW56V141	1.13
160	RW55V161	1.06	RW56V161	1.13
180	RW55V181	1.06	RW56V181	1.13
200	RW55V201	1.06	RW56V201	1.13
220	RW55V221	1.06	RW56V221	1.13
250	RW55V251	1.06	RW56V251	1.13
280	RW55V281	1.06	RW56V281	1.13
310	RW55V311	1.06	RW56V311	1.13
350	RW55V351	1.06	RW56V351	1.13
400	RW55V401	1.06	RW56V401	1.13
450	RW55V451	1.06	RW56V451	1.13
500	RW55V501	1.06	RW56V501	1.13
560	RW55V561	1.06	RW56V561	1.13
630	RW55V631	1.06	RW56V631	1.13
710	RW55V711	$1.06	RW56V711	$1.13
800	RW55V801	1.06	RW56V801	1.13
900	RW55V901	1.06	RW56V901	1.13
1000	RW55V102	1.06	RW56V102	1.13
1100	RW55V112	1.13	RW56V112	1.21
1200	RW55V122	1.13	RW56V122	1.21
1400	RW55V142	1.13	RW56V142	1.21
1600	RW55V162	1.13	RW56V162	1.21
1800	RW55V182	1.13	RW56V182	1.21
2000	RW55V202	1.13	RW56V202	1.21
2200	RW55V222	1.13	RW56V222	1.21
2500	RW55V252	1.13	RW56V252	1.21
2800	RW55V282	1.13	RW56V282	1.21
3100	RW55V312	1.13	RW56V312	1.21
3500	RW55V352	1.13	RW56V352	1.21
4000	RW55V402	1.13	RW56V402	1.21
4500	RW55V452	1.13	RW56V452	1.21
5000	RW55V502	1.13	RW56V502	1.21
5600	RW55V562	1.38	RW56V562	1.30
6300	RW55V632	1.38	RW56V632	1.30
7100	RW55V712	1.38	RW56V712	1.30
8000	RW55V802	1.38	RW56V802	1.30
9000	RW55V902	1.38	RW56V902	1.30
10000	—	—	RW56V103	1.30
11000	—	—	RW56V113	1.63
12000	—	—	RW56V123	1.63
14000	—	—	RW56V143	1.63
16000	—	—	RW56V163	1.63

Commercial Tab-Terminal KOOLOHM® Wirewound Resistors



- These Resistors Are Also Available in 5 and 10 Watt Ratings, Axial-Lead Style. See Latest Issue of Sprague Catalog C-614

Ohms	Type 25KT 25 Watts		Type 50KT 50 Watts		Type 120KT 120 Watts	
	Cat. No.	Net	Cat. No.	Net	Cat. No.	Net
TYPE KT STANDARD RESISTORS						
5	25KT5R05	$ .87	50KT5R05	$1.17	120KT5R05	$4.65
10	25KT1005	.78	50KT1005	1.17	120KT1005	4.65
25	25KT2505	.78	50KT2505	1.17	120KT2505	4.65
50	25KT5005	.78	50KT5005	1.17	120KT5005	4.65
75	25KT7505	.78	50KT7505	1.17	120KT7505	4.65
100	25KT1015	.78	50KT1015	1.17	120KT1015	4.65
150	25KT1515	.78	50KT1515	1.17	120KT1515	4.65
200	25KT2015	.78	50KT2015	1.17	120KT2015	4.65
250	25KT2515	.78	50KT2515	1.17	120KT2515	4.65
390	—	—	—	—	120KT3915	4.65
500	25KT5015	.78	50KT5015	1.17	120KT5015	4.65
600	25KT6015	.81	50KT6015	1.17	120KT6015	4.65
750	25KT7515	.81	50KT7515	1.17	120KT7515	4.65
1000	25KT1025	.81	50KT1025	1.17	120KT1025	4.65
1500	25KT1525	.81	50KT1525	1.26	120KT1525	4.65
2000	25KT2025	.81	50KT2025	1.26	120KT2025	4.65
2500	25KT2525	.81	50KT2525	1.26	120KT2525	4.65
3000	25KT3025	.87	50KT3025	1.38	120KT3025	4.65
4000	25KT4025	.87	50KT4025	1.38	—	—
5000	25KT5025	.87	50KT5025	1.38	120KT5025	4.65
7500	25KT7525	.87	50KT7525	1.44	120KT7525	4.80
10000	25KT1035	.90	50KT1035	1.71	120KT1035	4.80
12000	25KT1235	.93	50KT1235	1.71	120KT1235	4.80
15000	25KT1535	.93	50KT1535	1.71	120KT1535	4.80
20000	25KT2035	.99	50KT2035	1.74	120KT2035	4.80

Ohms	Type 25NIT 25NIT Watts		Type 50NIT 50NIT Watts		Type 120NIT 120NIT Watts	
	Cat. No.	Net	Cat. No.	Net	Cat. No.	Net
TYPE KT STANDARD RESISTORS, continued						
25000	25KT2535	1.08	50KT2535	1.74	120KT2535	4.80
40000	25KT4035	1.20	—	—	—	—
50000	25KT5035	1.32	50KT5035	1.80	120KT5035	4.80
75000	25KT7535	1.71	50KT7535	1.86	120KT7535	4.80
100000	25KT1045	2.13	50KT1045	2.10	120KT1045	4.80
TYPE NIT NON-INDUCTIVE RESISTORS						
5	25NIT5R05	$1.11	50NIT5R05	$1.26	120NIT5R05	$5.64
10	25NIT1005	1.11	50NIT1005	1.86	120NIT1005	5.64
25	25NIT2505	1.11	50NIT2505	1.86	120NIT2505	5.64
50	25NIT5005	1.11	50NIT5005	1.86	120NIT5005	5.64
75	25NIT7505	1.11	50NIT7505	1.86	120NIT7505	5.64
100	25NIT1015	1.11	50NIT1015	1.86	120NIT1015	5.64
150	25NIT1515	1.11	50NIT1515	1.86	120NIT1515	5.64
200	25NIT2015	1.11	50NIT2015	1.86	120NIT2015	5.64
250	25NIT2515	1.11	50NIT2515	1.86	120NIT2515	5.64
390	—	—	—	—	120NIT3915	5.64
500	25NIT5015	1.11	50NIT5015	1.86	120NIT5015	5.64
600	25NIT6015	1.11	50NIT6015	1.86	120NIT6015	5.64
750	25NIT7515	1.11	50NIT7515	1.86	120NIT7515	5.64
1000	25NIT1025	1.11	50NIT1025	1.86	120NIT1025	5.64
1500	25NIT1525	1.20	50NIT1525	1.86	120NIT1525	5.64
2000	25NIT2025	1.20	50NIT2025	1.86	120NIT2025	5.64
2500	25NIT2525	1.20	50NIT2525	1.86	120NIT2525	5.64
3000	25NIT3025	1.44	50NIT3025	1.86	120NIT3025	5.64
4000	25NIT4025	1.44	50NIT4025	1.86	—	—
5000	25NIT5025	1.44	50NIT5025	1.86	120NIT5025	5.64
7500	25NIT7525	1.44	50NIT7525	1.86	120NIT7525	6.00
10000	25NIT1035	1.65	50NIT1035	1.86	120NIT1035	6.00
12000	25NIT1235	1.65	50NIT1235	1.86	—	—
15000	25NIT1535	1.65	50NIT1535	1.86	120NIT1535	6.00
20000	25NIT2035	1.65	50NIT2035	1.98	120NIT2035	6.00
25000	25NIT2535	1.86	50NIT2535	1.98	120NIT2535	6.00
50000	—	—	50NIT5035	3.45	120NIT5045	6.00

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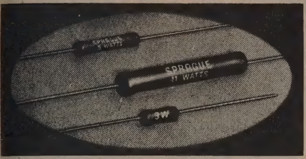
All prices and sizes subject to change without notice.

SPRAGUE RESISTORS

BLUE JACKET® INDUSTRIAL WIREWOUND RESISTORS



- Improved Minified Resistors Designed for Thorough Reliability and Stability Under Extreme Operating Conditions
- Matched Coefficient of Expansion Allows Uniform Expansion of Vitreous Enamel Coating, Ceramic Base, and End Caps, Eliminating Crazing, Cracks, and Protects From Fumes and Humidity
- Windings and Leads Welded to End-Caps for Superior Mechanical Strength
- For 2BJ, 3BJ, 5BJ and 10BJ Commercial or Service Equivalents to These Resistors, Refer to the Latest Issue of Sprague Catalog C-614
- For Prices on Quantities of 10 to 999 See Your Sprague Industrial Distributor

	Type 239E, 1 WATT 1/8" x 3/8"		Type 240E, 2 WATTS 3/16" x 3/8"		Type 242E, 3 WATTS 13/64" x 17/32"		Type 243E, 5 WATTS 13/64" x 15/16"		Type 244E, 7 WATTS 5/16" x 1 1/8"		Type 247E, 10 WATTS 5/16" x 1 3/4"	
Ohms	Cat. No.	Net Ea. (1-9)	Cat. No	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)	Cat. No.	Net Ea. (1-9)
1	239E1R05	$.520	240E1R05	$.591	242E1R05	$.591	243E1R05	$.622	244E1R05	$.641	247E1R05	$.681
1.2	239E1R25	.520	—	—	—	—	—	—	—	—	—	—
1.5	239E1R55	.520	240E1R55	.591	242E1R55	.591	243E1R55	.622	244E1R55	.641	247E1R55	.681
1.8	239E1R85	.520	—	—	—	—	—	—	—	—	—	—
2	239E2R05	.520	240E2R05	.591	242E2R05	.591	243E2R05	.622	244E2R05	.641	247E2R05	.681
2.2	239E2R25	.520	—	—	—	—	—	—	—	—	—	—
2.7	239E2R27	.520	—	—	—	—	—	—	—	—	—	—
3	239E3R05	.520	240E3R05	.591	242E3R05	.591	243E3R05	.622	244E3R05	.641	247E3R05	.681
3.3	239E3R35	.520	—	—	—	—	—	—	—	—	—	—
3.9	239E3R95	.520	—	—	—	—	—	—	—	—	—	—
4	239E4R05	.520	240E4R05	.591	242E4R05	.591	243E4R05	.622	244E4R05	.641	247E4R05	.681
4.7	239E4R75	.520	—	—	—	—	—	—	—	—	—	—
5	239E5R05	.520	240E5R05	.591	242E5R05	.591	243E5R05	.622	244E5R05	.641	247E5R05	.681
5.6	239E5R65	.520	—	—	—	—	—	—	—	—	—	—
6.8	239E6R85	.520	—	—	—	—	—	—	—	—	—	—
7.5	239E7R55	.520	240E7R55	.591	242E7R55	.591	243E7R55	.622	244E7R55	.641	247E7R55	.681
8.2	239E8R25	.520	—	—	—	—	—	—	—	—	—	—
10	239E1005	.520	240E1005	.591	242E1005	.591	243E1005	.622	244E1005	.641	247E1005	.681
12	239E1205	.520	240E1205	.591	242E1205	.591	243E1205	.622	244E1205	.641	247E1205	.681
15	239E1505	.520	240E1505	.591	242E1505	.591	243E1505	.622	244E1505	.641	247E1505	.681
18	239E1805	.520	240E1805	.591	242E1805	.591	—	—	—	—	—	—
20	239E2005	.520	240E2005	.591	242E2005	.591	243E2005	.622	244E2005	.641	247E2005	.681
22	239E2205	.520	240E2205	.591	242E2205	.591	—	—	—	—	—	—
25	239E2505	.520	240E2505	.591	242E2505	.591	243E2505	.622	244E2505	.641	247E2505	.681
27	239E2705	.520	240E2705	.591	242E2705	.591	—	—	—	—	—	—
30	239E3005	.520	240E3005	.591	242E3005	.591	243E3005	.622	244E3005	.641	247E3005	.681
33	239E3305	.520	240E3305	.591	242E3305	.591	—	—	—	—	—	—
35	—	—	—	—	—	—	243E3505	.622	244E3505	.641	247E3505	.681
39	239E3905	.520	240E3905	.591	242E3905	.591	—	—	—	—	—	—
40	239E4005	.520	240E4005	.591	242E4005	.591	243E4005	.622	244E4005	.641	247E4005	.681
47	239E4705	.520	240E4705	.591	242E4705	.591	—	—	—	—	—	—
50	239E5005	.520	240E5005	.591	242E5005	.591	243E5005	.622	244E5005	.641	247E5005	.681
56	239E5605	.520	240E5605	.591	242E5605	.591	—	—	—	—	—	—
68	239E6805	.520	240E6805	.591	242E6805	.591	—	—	—	—	—	—
75	239E7505	.520	240E7505	.591	242E7505	.591	243E7505	.622	244E7505	.641	247E7505	.681
82	239E8205	.520	240E8205	.591	242E8205	.591	—	—	—	—	—	.681
100	239E1015	.520	240E1015	.591	242E1015	.591	243E1015	.622	244E1015	.641	247E1015	.681
120	239E1215	.520	240E1215	.591	242E1215	.591	243E1215	.622	244E1215	.641	247E1215	.681
150	239E1515	.520	240E1515	.591	242E1515	.591	243E1515	.622	244E1515	.641	247E1515	.681
180	239E1815	.520	240E1815	.591	242E1815	.591	—	—	—	—	—	—
200	239E2015	.520	240E2015	.591	242E2015	.591	243E2015	.622	244E2015	.641	247E2015	.681
220	239E2215	.520	240E2215	.591	242E2215	.591	243E2215	.622	244E2215	.641	247E2215	.681
250	239E2515	.520	240E2515	.591	242E2515	.591	243E2515	.622	244E2515	.641	247E2515	.681
270	239E2715	.520	240E2715	.591	242E2715	.591	—	—	—	—	—	—
300	239E3015	.520	240E3015	.591	242E3015	.591	243E3015	.622	244E3015	.641	247E3015	.681
330	239E3315	.520	240E3315	.591	242E3315	.591	—	—	—	—	—	—
350	—	—	—	—	—	—	243E3515	.622	244E3515	.641	247E3515	.681
390	239E3915	.520	240E3915	.591	242E3915	.591	—	—	—	—	—	—
400	239E4015	.520	240E4015	.591	242E4015	.591	243E4015	.622	244E4015	.641	247E4015	.681
450	—	—	—	—	—	—	243E4515	.622	—	—	—	—
470	239E4715	.520	240E4715	.591	242E4715	.591	—	—	—	—	—	—
500	239E5015	.520	240E5015	.591	242E5015	.591	243E5015	.622	244E5015	.641	247E5015	.681
560	239E5615	.520	240E5615	.591	242E5615	.591	—	—	—	—	—	—
600	239E6015	.520	240E6015	.591	242E6015	.591	243E6015	.622	244E6015	.641	247E6015	.681
680	239E6815	.520	240E6815	.591	242E6815	.591	—	—	—	—	—	—
700	239E7015	.520	240E7015	.591	242E7015	.591	243E7015	.622	244E7015	.641	247E7015	.681
750	—	—	—	—	—	—	243E7515	.622	244E7515	.641	247E7515	.681
800	239E8015	.520	240E8015	.591	242E8015	.591	243E8015	.622	244E8015	.641	247E8015	.681
820	239E8215	.520	240E8215	.591	242E8215	.591	—	—	—	—	—	—
900	239E9015	.520	240E9015	.591	242E9015	.591	243E9015	.622	244E9015	.641	247E9015	.681
1000	239E1025	.520	240E1025	.591	242E1025	.591	243E1025	.622	244E1025	.641	247E1025	.681
1100	—	—	—	—	—	—	243E1125	.659	244E1125	.702	247E1125	.732
1200	239E1225	.550	240E1225	.622	242E1225	.622	243E1225	.659	244E1225	.702	247E1225	.732
1400	239E1425	.550	240E1425	.622	242E1425	.622	243E1425	.659	244E1425	.702	247E1425	.732
1500	239E1525	.550	240E1525	.622	242E1525	.622	243E1525	.659	244E1525	.702	247E1525	.732
1800	239E1825	.550	240E1825	.622	242E1825	.622	243E1825	.659	244E1825	.702	247E1825	.732
2000	239E2025	.550	240E2025	.622	242E2025	.622	243E2025	.659	244E2025	.702	247E2025	.732
2200	239E2225	.550	240E2225	.622	242E2225	.622	243E2225	.659	244E2225	.702	247E2225	.732
2500	239E2525	.550	240E2525	.622	242E2525	.622	243E2525	.659	244E2525	.702	247E2525	.732
2700	—	—	240E2725	.622	242E2725	.622	—	—	—	—	—	—
3000	—	—	240E3025	.622	242E3025	.622	243E3025	.659	244E3025	.702	247E3025	.732
3300	—	—	240E3325	.622	242E3325	.622	—	—	244E3325	.702	247E3325	.732
3500	—	—	240E3525	.622	—	—	243E3525	.659	244E3525	.702	247E3525	.732
3900	—	—	—	—	242E3925	.622	—	—	244E3925	.702	247E3925	.732
4000	—	—	—	—	242E4025	.622	243E4025	.659	244E4025	.702	247E4025	.732
4500	—	—	—	—	—	—	243E4525	.659	244E4525	.702	247E4525	.732
4700	—	—	—	—	242E4725	.622	—	—	—	—	—	—
5000	—	—	—	—	242E5025	.622	243E5025	.659	244E5025	.782	247E5025	.732
5600	—	—	—	—	242E5625	.659	—	—	—	—	—	—
6000	—	—	—	—	242E6025	.659	243E6025	.701	244E6025	.782	247E6025	.839
6800	—	—	—	—	242E6825	.659	—	—	—	—	—	—
7000	—	—	—	—	—	—	243E7025	.701	244E7025	.782	247E7025	.839
7500	—	—	—	—	242E7525	.659	243E7525	.701	244E7525	.782	247E7525	.839
8000	—	—	—	—	242E8025	.659	243E8025	.701	244E8025	.782	247E8025	.839
8200	—	—	—	—	242E8225	.659	—	—	—	—	—	—

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SPRAGUE RESISTORS

BLUE JACKET INDUSTRIAL WIREWOUND RESISTORS, continued

Ohms	Type 239E, 1 WATT 1/8" x 3/8" Cat. No.	Net Ea. (1-9)	Type 240E, 2 WATTS 3/16" x 3/8" Cat. No.	Net Ea. (1-9)	Type 242E, 3 WATTS 13/64" x 17/32" Cat. No.	Net Ea. (1-9)	Type 243E, 5 WATTS 13/64" x 15/16" Cat. No.	Net Ea. (1-9)	Type 244E, 7 WATTS 5/16" x 1 1/8" Cat. No.	Net Ea. (1-9)	Type 247E, 10 WATTS 5/16" x 1 3/4" Cat. No.	Net Ea. (1-9)
9000	—	—	—	—	242E9025	$.659	243E9025	$.701	244E9025	$.782	247E9025	$.839
10000	—	—	—	—	242E1035	.659	243E1035	.701	244E1035	.782	247E1035	.839
11000	—	—	—	—	—	—	—	—	244E1135	.782	247E1135	.949
12000	—	—	—	—	—	—	243E1235	.782	244E1235	.782	247E1235	.949
14000	—	—	—	—	—	—	243E1435	.782	244E1435	.782	247E1435	.949
15000	—	—	—	—	—	—	243E1535	.782	244E1535	.782	247E1535	.949
16000	—	—	—	—	—	—	—	—	244E1635	.782	247E1635	.949
17000	—	—	—	—	—	—	—	—	244E1735	.782	—	—
18000	—	—	—	—	—	—	243E1835	.782	244E1835	.782	247E1835	.949
20000	—	—	—	—	—	—	243E2035	.782	244E2035	.782	247E2035	.949
22000	—	—	—	—	—	—	243E2235	.821	244E2235	.913	247E2235	1.001
25000	—	—	—	—	—	—	243E2535	.821	244E2535	.913	247E2535	1.001
30000	—	—	—	—	—	—	243E3035	.821	244E3035	.913	247E3035	1.001
35000	—	—	—	—	—	—	—	—	—	—	247E3535	1.001
40000	—	—	—	—	—	—	—	—	—	—	247E4035	1.001
45000	—	—	—	—	—	—	—	—	—	—	247E4535	1.122
50000	—	—	—	—	—	—	—	—	—	—	247E5035	1.122

TYPE RW57, RW58, RW59 BLUE JACKET® WIREWOUND RESISTORS

- This Series of Blue Jacket Wirewound Resistors Meet All Performance Characteristics of Military Specification MIL R-26C, Characteristic V
- For Prices on Quantities of 10 to 249 Contact Your Sprague Industrial Distributor

Ohms	Type RW59 3 WATTS 1/4" x 1/2" Cat. No.	Net Ea. (1-9)	Type RW57 6.5 WATTS 3/8" x 1" Cat. No.	Net Ea. (1-9)	Type RW58 11 WATTS 7/16" x 1 7/8" Cat. No.	Net Ea. (1-9)
1.0	RW59V1R0	$1.281	RW57V1R0	$1.302	RW58V1R0	$1.462
1.1	RW59V1R1	1.281	RW57V1R1	1.302	RW58V1R1	1.462
1.2	RW59V1R2	1.281	RW57V1R2	1.302	RW58V1R2	1.462
1.4	RW59V1R4	1.281	RW57V1R4	1.302	RW58V1R4	1.462
1.6	RW59V1R6	1.281	RW57V1R6	1.302	RW58V1R6	1.462
1.8	RW59V1R8	1.281	RW57V1R8	1.302	RW58V1R8	1.462
2.0	RW59V2R0	1.281	RW57V2R0	1.302	RW58V2R0	1.462
2.2	RW59V2R2	1.281	RW57V2R2	1.302	RW58V2R2	1.462
2.5	RW59V2R5	1.281	RW57V2R5	1.302	RW58V2R5	1.462
2.8	RW59V2R8	1.281	RW57V2R8	1.302	RW58V2R8	1.462
3.1	RW59V3R1	.891	RW57V3R1	.919	RW58V3R1	1.028
3.5	RW59V3R5	.891	RW57V3R5	.919	RW58V3R5	1.028
4.0	RW59V4R0	.891	RW57V4R0	.919	RW58V4R0	1.028
4.5	RW59V4R5	.891	RW57V4R5	.919	RW58V4R5	1.028
5.0	RW59V5R0	.891	RW57V5R0	.919	RW58V5R0	1.028
5.6	RW59V5R6	.891	RW57V5R6	.919	RW58V5R6	1.028
6.3	RW59V6R3	.891	RW57V6R3	.919	RW58V6R3	1.028
7.1	RW59V7R1	.891	RW57V7R1	.919	RW58V7R1	1.028
8.0	RW59V8R0	.891	RW57V8R0	.919	RW58V8R0	1.028
9.0	RW59V9R0	.891	RW57V9R0	.919	RW58V9R0	1.028
10	RW59V100	.891	RW57V100	.919	RW58V100	1.028
11	RW59V110	.891	RW57V110	.919	RW58V110	1.028
12	RW59V120	.891	RW57V120	.919	RW58V120	1.028
14	RW59V140	.891	RW57V140	.919	RW58V140	1.028
16	RW59V160	.891	RW57V160	.919	RW58V160	1.028
18	RW59V180	.891	RW57V180	.919	RW58V180	1.028
20	RW59V200	.891	RW57V200	.919	RW58V200	1.028
22	RW59V220	.891	RW57V220	.919	RW58V220	1.028
25	RW59V250	.891	RW57V250	.919	RW58V250	1.028
28	RW59V280	.891	RW57V280	.919	RW58V280	1.028
31	RW59V310	.891	RW57V310	.919	RW58V310	1.028
35	RW59V350	.891	RW57V350	.919	RW58V350	1.028
40	RW59V400	.891	RW57V400	.919	RW58V400	1.028
45	RW59V450	.891	RW57V450	.919	RW58V450	1.028
50	RW59V500	.891	RW57V500	.919	RW58V500	1.028
56	RW59V560	.891	RW57V560	.919	RW58V560	1.028
63	RW59V630	.891	RW57V630	.919	RW58V630	1.028
71	RW59V710	.891	RW57V710	.919	RW58V710	1.028
80	RW59V800	.891	RW57V800	.919	RW58V800	1.028
90	RW59V900	.891	RW57V900	.919	RW58V900	1.028
100	RW59V101	.891	RW57V101	.919	RW58V101	1.028
110	RW59V111	.891	RW57V111	.919	RW58V111	1.028
120	RW59V121	.891	RW57V121	.919	RW58V121	1.028
140	RW59V141	.891	RW57V141	.919	RW58V141	1.028

Ohms	Type RW59 3 WATTS 1/4" x 1/2" Cat. No.	Net Ea. (1-9)	Type RW57 6.5 WATTS 3/8" x 1" Cat. No.	Net Ea. (1-9)	Type RW58 11 WATTS 7/16" x 1 7/8" Cat. No.	Net Ea. (1-9)
160	RW59V161	$ .891	RW57V161	$ .919	RW58V161	$1.028
180	RW59V181	.891	RW57V181	.919	RW58V181	1.028
200	RW59V201	.891	RW57V201	.919	RW58V201	1.028
220	RW59V221	.891	RW57V221	.919	RW58V221	1.028
250	RW59V251	.891	RW57V251	.919	RW58V251	1.028
280	RW59V281	.891	RW57V281	.919	RW58V281	1.028
310	RW59V311	.891	RW57V311	.919	RW58V311	1.028
350	RW59V351	.891	RW57V351	.919	RW58V351	1.028
400	RW59V401	.891	RW57V401	.919	RW58V401	1.028
450	RW59V451	.891	RW57V451	.919	RW58V451	1.028
500	RW59V501	.891	RW57V501	.919	RW58V501	1.028
560	RW59V561	.891	RW57V561	.919	RW58V561	1.028
630	RW59V631	.891	RW57V631	.919	RW58V631	1.028
710	RW59V711	.891	RW57V711	.919	RW58V711	1.028
800	RW59V801	.891	RW57V801	.919	RW58V801	1.028
900	RW59V901	.891	RW57V901	.919	RW58V901	1.028
1000	RW59V102	.891	RW57V102	.919	RW58V102	1.028
1100	RW59V112	1.101	RW57V112	1.011	RW58V112	1.111
1200	RW59V122	1.101	RW57V122	1.011	RW58V122	1.111
1400	RW59V142	1.101	RW57V142	1.011	RW58V142	1.111
1600	RW59V162	1.101	RW57V162	1.011	RW58V162	1.111
1800	RW59V182	1.101	RW57V182	1.011	RW58V182	1.111
2000	RW59V202	1.101	RW57V202	1.011	RW58V202	1.111
2200	—	—	RW57V222	1.011	RW58V222	1.111
2500	—	—	RW57V252	1.011	RW58V252	1.111
2800	—	—	RW57V282	1.011	RW58V282	1.111
3100	—	—	RW57V312	1.011	RW58V312	1.111
3500	—	—	RW57V352	1.011	RW58V352	1.111
4000	—	—	—	—	RW58V402	1.111
4500	—	—	—	—	RW58V452	1.111
5000	—	—	—	—	RW58V502	1.111
5600	—	—	—	—	RW58V562	1.259
6300	—	—	—	—	RW58V632	1.259
7100	—	—	—	—	RW58V712	1.259
8000	—	—	—	—	RW58V802	1.259
9000	—	—	—	—	RW58V902	1.259
10000	—	—	—	—	RW58V103	1.259
11000	—	—	—	—	RW58V113	1.749
12000	—	—	—	—	RW58V123	1.749
14000	—	—	—	—	RW58V143	1.749
16000	—	—	—	—	RW58V163	1.749
18000	—	—	—	—	RW58V183	1.749
20000	—	—	—	—	RW58V203	1.749

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REM-61-6226

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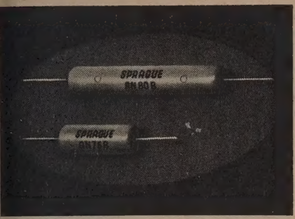
SPRAGUE RESISTORS

FILMISTOR® 'B' MOLDED-CASE DEPOSITED-CARBON RESISTORS



- Ideal for Circuits Requiring High Accuracy, Reliability, and Stability with Low Temperature Coefficient
- Low Self-inductance, Low Distributed Capacitance
- Designed to Meet the Stringent Performance Requirements of Spec. MIL-R-10509C, Characteristic B.
- Tough Molded Shell Provides Protection Against Mechanical Damage as Well as Catastrophic Failures from Electrolysis Caused by Moisture Penetration.
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7000
- For Prices on Quantities from 25 to 999 Pieces See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

.0	26.7	71.5	191	511	1.37 K	3.65 K	9.76 K	26.1 K	69.8 K	187 K	499 K	1.37 meg.	3.74 meg.
.2	27.4	73.2	196	523	1.40 K	3.74 K	10.00 K	26.7 K	71.5 K	191 K	511 K	1.40 meg.	3.83 meg.
.5	28.0	75.0	200	536	1.43 K	3.83 K	10.2 K	27.4 K	73.2 K	196 K	523 K	1.43 meg.	3.92 meg.
.7	28.7	76.8	205	549	1.47 K	3.92 K	10.5 K	28.0 K	75.0 K	200 K	536 K	1.47 meg.	4.02 meg.
.0	29.4	78.7	210	562	1.50 K	4.02 K	10.7 K	28.7 K	76.8 K	205 K	549 K	1.50 meg.	4.12 meg.
.3	30.1	80.6	215	576	1.54 K	4.12 K	11.0 K	29.4 K	78.7 K	210 K	562 K	1.54 meg.	4.22 meg.
.5	30.9	82.5	221	590	1.58 K	4.22 K	11.3 K	30.1 K	80.6 K	215 K	576 K	1.58 meg.	4.32 meg.
.8	31.6	84.5	226	604	1.62 K	4.32 K	11.5 K	30.9 K	82.5 K	221 K	590 K	1.62 meg.	4.42 meg.
.1	32.4	86.6	232	619	1.65 K	4.42 K	11.8 K	31.6 K	84.5 K	226 K	604 K	1.65 meg.	4.53 meg.
.4	33.2	88.7	237	634	1.69 K	4.53 K	12.1 K	32.4 K	86.6 K	232 K	619 K	1.69 meg.	4.64 meg.
.7	34.0	90.9	243	649	1.74 K	4.64 K	12.4 K	33.2 K	88.7 K	237 K	634 K	1.74 meg.	4.75 meg.
.0	34.8	93.1	249	665	1.78 K	4.75 K	12.7 K	34.0 K	90.9 K	243 K	649 K	1.78 meg.	4.87 meg.
.3	35.7	95.3	255	681	1.82 K	4.87 K	13.0 K	34.8 K	93.1 K	249 K	665 K	1.82 meg.	4.99 meg.
.7	36.5	97.6	261	698	1.87 K	4.99 K	13.3 K	35.7 K	95.3 K	255 K	681 K	1.87 meg.	5.11 meg.
.0	37.4	100	267	715	1.91 K	5.11 K	13.7 K	36.5 K	97.6 K	261 K	698 K	1.91 meg.	5.23 meg.
.3	38.3	102	274	732	1.96 K	5.23 K	14.0 K	37.4 K	100 K	267 K	715 K	1.96 meg.	5.36 meg.
.7	39.2	105	280	750	2.00 K	5.36 K	14.3 K	38.3 K	102 K	274 K	732 K	2.00 meg.	5.49 meg.
.0	40.2	107	287	768	2.05 K	5.49 K	14.7 K	39.2 K	105 K	280 K	750 K	2.05 meg.	5.62 meg.
.4	41.2	110	294	787	2.10 K	5.62 K	15.0 K	40.2 K	107 K	287 K	768 K	2.10 meg.	5.76 meg.
.8	42.2	113	301	806	2.15 K	5.76 K	15.4 K	41.2 K	110 K	294 K	787 K	2.15 meg.	5.90 meg.
.2	43.2	115	309	825	2.21 K	5.90 K	15.8 K	42.2 K	113 K	301 K	806 K	2.21 meg.	6.04 meg.
.5	44.2	118	316	845	2.26 K	6.04 K	16.2 K	43.2 K	115 K	309 K	825 K	2.26 meg.	6.19 meg.
.9	45.3	121	324	866	2.32 K	6.19 K	16.5 K	44.2 K	118 K	316 K	845 K	2.32 meg.	6.34 meg.
.4	46.4	124	332	887	2.37 K	6.34 K	16.9 K	45.3 K	121 K	324 K	866 K	2.37 meg.	6.49 meg.
.8	47.5	127	340	909	2.43 K	6.49 K	17.4 K	46.4 K	124 K	332 K	887 K	2.43 meg.	6.65 meg.
.2	48.7	130	348	931	2.49 K	6.65 K	17.8 K	47.5 K	127 K	340 K	909 K	2.49 meg.	6.81 meg.
.7	49.9	133	357	953	2.55 K	6.81 K	18.2 K	48.7 K	130 K	348 K	931 K	2.55 meg.	6.98 meg.
.1	51.1	137	365	976	2.61 K	6.98 K	18.7 K	49.9 K	133 K	357 K	953 K	2.61 meg.	7.15 meg.
.6	52.3	140	374	1.0 K	2.67 K	7.15 K	19.1 K	51.1 K	137 K	365 K	976 K	2.67 meg.	7.32 meg.
.0	53.6	143	383	1.02 K	2.74 K	7.32 K	19.6 K	52.3 K	140 K	374 K	1.00 meg.	2.74 meg.	7.50 meg.
.5	54.9	147	392	1.05 K	2.80 K	7.50 K	20.0 K	53.6 K	143 K	383 K	1.02 meg.	2.80 meg.	7.68 meg.
.0	56.2	150	402	1.07 K	2.87 K	7.68 K	20.5 K	54.9 K	147 K	392 K	1.05 meg.	2.87 meg.	7.87 meg.
.5	57.6	154	412	1.10 K	2.94 K	7.87 K	21.0 K	56.2 K	150 K	402 K	1.07 meg.	2.94 meg.	8.06 meg.
.1	59.0	158	422	1.13 K	3.01 K	8.06 K	21.5 K	57.6 K	154 K	412 K	1.10 meg.	3.01 meg.	8.25 meg.
.6	60.4	162	432	1.15 K	3.09 K	8.25 K	22.1 K	59.0 K	158 K	422 K	1.13 meg.	3.09 meg.	8.45 meg.
.2	61.9	165	442	1.18 K	3.16 K	8.45 K	22.6 K	60.4 K	162 K	432 K	1.15 meg.	3.16 meg.	8.66 meg.
.7	63.4	169	453	1.21 K	3.24 K	8.66 K	23.2 K	61.9 K	165 K	442 K	1.18 meg.	3.24 meg.	8.87 meg.
.3	64.9	174	464	1.24 K	3.32 K	8.87 K	23.7 K	63.4 K	169 K	453 K	1.21 meg.	3.32 meg.	9.09 meg.
.9	66.5	178	475	1.27 K	3.40 K	9.09 K	24.3 K	64.9 K	174 K	464 K	1.24 meg.	3.40 meg.	9.31 meg.
.5	68.1	182	487	1.30 K	3.48 K	9.31 K	24.9 K	66.5 K	178 K	475 K	1.27 meg.	3.48 meg.	9.53 meg.
.1	69.8	187	499	1.33 K	3.57 K	9.53 K	25.5 K	68.1 K	182 K	487 K	1.30 meg.	3.57 meg.	9.76 meg.
											1.33 meg.	3.65 meg.	10 meg.

⅛ WATT
TYPE 405E/RN60B

.135″ Dia. x .400″ Long

Ohms	Net, each (1-24)
) thru 24.9	$1.79
5.5 thru 49.9	1.19
1.1 thru 499	1.03
11 thru 499 K	.97
11 K thru 1.00 meg.	1.03

¼ WATT
TYPE 406E/RN65B

.200″ Dia. x .600″ Long

Ohms	Net, each (1-24)
10 thru 49.9	$1.00
51.1 thru 499 K	.94
511 K thru 1.00 meg.	1.00
1.02 meg. thru 2.00 meg.	1.08

½ WATT
TYPE 407E/RN70B

.250″ Dia. x .750″ Long

Ohms	Net, each (1-24)
10 thru 49.9	$ .91
51.1 thru 2.15 meg.	.86
2.21 thru 3.16 meg.	1.03

1 WATT
TYPE 408E/RN75B

.375″ Dia. x 1.062″ Long

Ohms	Net, each (1-24)
) thru 97.6	$1.37
)0 thru 4.99 meg.	1.28
11 meg.	1.43

2 WATT
TYPE 409E/RN80B

.375″ Dia. x 2.220″ Long

Ohms	Net, each (1-24)
30.1 thru 196	$2.00
200 thru 10 meg.	1.57

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REM-62-6128

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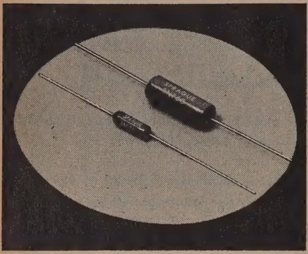
SPRAGUE RESISTORS

FILMISTOR® 'C' MOLDED-CASE METAL-FILM RESISTORS



- Key Performance Characteristics Include High Accuracy, Reliability, Stability, Combined with Low Temperature Coefficients
- Equal or Surpass the Characteristics of Precision Wirewound Resistors, Yet Are Smaller in Size
- Low Inherent Noise Level, Negligible Voltage Coefficient of Resistance
- Excellent Stability Under Rated Load and Under Severe Conditions of Humidity
- Designed to Meet Stringent Performance Characteristics of Spec. MIL-R-10509C, Characteristic C
- Tough Molded Shell Provides Protection Agains Mechanical Damage as Well as Catastrophic Failures From Electrolysis Caused by Moistur Penetration
- Metallic Resistive Film is Firmly Bonded t Special Ceramic Core, Automatically Spirallec to Desired Resistance Values
- Standard Resistance Tolerance, ±1%
- For Complete Technical Data, Refer to Lates Issue of Engineering Bulletin 7025
- For Prices on Quantities from 25 to 999 Pieces See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

100	210	442	931	1.96 K	4.12 K	8.87 K	19.1 K	41.2 K	88.7 K	191 K	412 K	887 K	1.91 meg.
102	215	453	953	2.00 K	4.22 K	9.09 K	19.6 K	42.2 K	90.9 K	196 K	422 K	909 K	1.96 meg.
105	221	464	976	2.05 K	4.32 K	9.31 K	20.0 K	43.2 K	93.1 K	200 K	432 K	931 K	2.00 meg.
107	226	475	1.0 K	2.10 K	4.42 K	9.53 K	20.5 K	44.2 K	95.3 K	205 K	442 K	953 K	2.05 meg.
110	232	487	1.02 K	2.15 K	4.53 K	9.76 K	21.0 K	45.3 K	97.6 K	210 K	453 K	976 K	2.10 meg.
113	237	499	1.05 K	2.21 K	4.64 K	10.00 K	21.5 K	46.4 K	100 K	215 K	464 K	1.00 meg.	2.15 meg.
115	243	511	1.07 K	2.26 K	4.75 K	10.2 K	22.1 K	47.5 K	102 K	221 K	475 K	1.02 meg.	2.21 meg.
118	249	523	1.10 K	2.32 K	4.87 K	10.5 K	22.6 K	48.7 K	105 K	226 K	487 K	1.05 meg.	2.26 meg.
121	255	536	1.13 K	2.37 K	4.99 K	10.7 K	23.2 K	49.9 K	107 K	232 K	499 K	1.07 meg.	2.32 meg.
124	261	549	1.15 K	2.43 K	5.11 K	11.0 K	23.7 K	51.1 K	110 K	237 K	511 K	1.10 meg.	2.37 meg.
127	267	562	1.18 K	2.49 K	5.23 K	11.3 K	24.3 K	52.3 K	113 K	243 K	523 K	1.13 meg.	2.43 meg.
130	274	576	1.21 K	2.55 K	5.36 K	11.5 K	24.9 K	53.6 K	115 K	249 K	536 K	1.15 meg.	2.49 meg.
133	280	590	1.24 K	2.61 K	5.49 K	11.8 K	25.5 K	54.9 K	118 K	255 K	549 K	1.18 meg.	2.55 meg.
137	287	604	1.27 K	2.67 K	5.62 K	12.1 K	26.1 K	56.2 K	121 K	261 K	562 K	1.21 meg.	2.61 meg.
140	294	619	1.30 K	2.74 K	5.76 K	12.4 K	26.7 K	57.6 K	124 K	267 K	576 K	1.24 meg.	2.67 meg.
143	301	634	1.33 K	2.80 K	5.90 K	12.7 K	27.4 K	59.0 K	127 K	274 K	590 K	1.27 meg.	2.74 meg.
147	309	649	1.37 K	2.87 K	6.04 K	13.0 K	28.0 K	60.4 K	130 K	280 K	604 K	1.30 meg.	2.80 meg.
150	316	665	1.40 K	2.94 K	6.19 K	13.3 K	28.7 K	61.9 K	133 K	287 K	619 K	1.33 meg.	2.87 meg.
154	324	681	1.43 K	3.01 K	6.34 K	13.7 K	29.4 K	63.4 K	137 K	294 K	634 K	1.37 meg.	2.94 meg.
158	332	698	1.47 K	3.09 K	6.49 K	14.0 K	30.1 K	64.9 K	140 K	301 K	649 K	1.40 meg.	3.01 meg.
162	340	715	1.50 K	3.16 K	6.65 K	14.3 K	30.9 K	66.5 K	143 K	309 K	665 K	1.43 meg.	3.09 meg.
165	348	732	1.54 K	3.24 K	6.81 K	14.7 K	31.6 K	68.1 K	147 K	316 K	681 K	1.47 meg.	3.16 meg.
169	357	750	1.58 K	3.32 K	6.98 K	15.0 K	32.4 K	69.8 K	150 K	324 K	698 K	1.50 meg.	3.24 meg.
174	365	768	1.62 K	3.40 K	7.15 K	15.4 K	33.2 K	71.5 K	154 K	332 K	715 K	1.54 meg.	3.32 meg.
178	374	787	1.65 K	3.48 K	7.32 K	15.8 K	34.0 K	73.2 K	158 K	340 K	732 K	1.58 meg.	3.40 meg.
182	383	806	1.69 K	3.57 K	7.50 K	16.2 K	34.8 K	75.0 K	162 K	348 K	750 K	1.62 meg.	3.48 meg.
187	392	825	1.74 K	3.65 K	7.68 K	16.5 K	35.7 K	76.8 K	165 K	357 K	768 K	1.65 meg.	3.57 meg.
191	402	845	1.78 K	3.74 K	7.87 K	16.9 K	36.5 K	78.7 K	169 K	365 K	787 K	1.69 meg.	3.65 meg.
196	412	866	1.82 K	3.83 K	8.06 K	17.4 K	37.4 K	80.6 K	174 K	374 K	806 K	1.74 meg.	3.74 meg.
200	422	887	1.87 K	3.92 K	8.25 K	17.8 K	38.3 K	82.5 K	178 K	383 K	825 K	1.78 meg.	3.83 meg.
205	432	909	1.91 K	4.02 K	8.45 K	18.2 K	39.2 K	84.5 K	182 K	392 K	845 K	1.82 meg.	3.92 meg.
					8.66 K	18.7 K	40.2 K	86.6 K	187 K	402 K	866 K	1.87 meg.	4.00 meg.

⅛ WATT
TYPE 418E/RN60C

.135″ Dia. x .400″ Long

Ohms	Net, each (1-24)
100 thru 200 K	$2.06
201 K thru 500 K	2.24

¼ WATT
TYPE 419E/RN65C

.200″ Dia. x .600″ Long

Ohms	Net, each (1-2
100 thru 200 K	$1.9
201 K thru 1 meg.	2.1

½ WATT
TYPE 420E/RN70C

.250″ Dia. x .750″ Long

Ohms	Net, each (1-24)
100 thru 500 K	$1.79
501 K thru 2 meg.	1.97

1 WATT
TYPE 421E/RN75C

.375″ Dia. x 1.062″ Long

Ohms	Net, each (1-2
100 thru 500 K	$2.0
501 K thru 4 meg.	2.2

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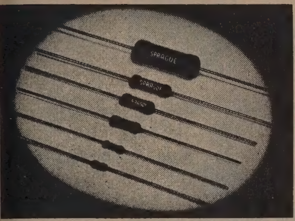
SPRAGUE RESISTORS

ILMISTOR® 'X-70' ENCAPSULATED Deposited-Carbon Resistors



- Ideal for Use in Industrial Electronic Equipment, Commercial Computer Circuitry, Packaged Circuit Modules, etc., Wherever Small Size, Close Tolerance Resistors are Required
- Standard Resistance Tolerance, ±1%
- Will Operate at Full Rated Wattage at Temperatures to 70C — No Derating Required
- Have Special End Terminations and End Caps for Low Contact Resistance and Low Inherent Noise Level
- Special Encapsulating Material Will Withstand 10 Cycles of Standard Military Humidity Cycling Test
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 7005
- For Prices on Quantities from 25 to 999 Pieces, See Your Sprague Industrial Distributor

STANDARD RESISTANCE VALUES (Ohms)

0.0	24.3	59.0	143	357	887	2.21 K	5.49 K	13.7 K	34.0 K	84.5 K	210 K	523 K	1.30 meg.
0.2	24.9	60.4	147	365	909	2.26 K	5.62 K	14.0 K	34.8 K	86.6 K	215 K	536 K	1.33 meg.
0.5	25.5	61.9	150	374	931	2.32 K	5.76 K	14.3 K	35.7 K	88.7 K	221 K	549 K	1.37 meg.
0.7	26.1	63.4	154	383	953	2.37 K	5.90 K	14.7 K	36.5 K	90.9 K	226 K	562 K	1.40 meg.
1.0	26.7	64.9	158	392	976	2.43 K	6.04 K	15.0 K	37.4 K	93.1 K	232 K	576 K	1.43 meg.
1.3	27.4	66.5	162	402	1.0 K	2.49 K	6.19 K	15.4 K	38.3 K	95.3 K	237 K	590 K	1.47 meg.
1.5	28.0	68.1	165	412	1.02 K	2.55 K	6.34 K	15.8 K	39.2 K	97.6 K	243 K	604 K	1.50 meg.
1.8	28.7	69.8	169	422	1.05 K	2.61 K	6.49 K	16.2 K	40.2 K	100 K	249 K	619 K	1.54 meg.
2.1	29.4	71.5	174	432	1.07 K	2.67 K	6.65 K	16.5 K	41.2 K	102 K	255 K	634 K	1.58 meg.
2.4	30.1	73.2	178	442	1.10 K	2.74 K	6.81 K	16.9 K	42.2 K	105 K	261 K	649 K	1.62 meg.
2.7	30.9	75.0	182	453	1.13 K	2.80 K	6.98 K	17.4 K	43.2 K	107 K	267 K	665 K	1.65 meg.
3.0	31.6	76.8	187	464	1.15 K	2.87 K	7.15 K	17.8 K	44.2 K	110 K	274 K	681 K	1.69 meg.
3.3	32.4	78.7	191	475	1.18 K	2.94 K	7.32 K	18.2 K	45.3 K	113 K	280 K	698 K	1.74 meg.
3.7	33.2	80.6	196	487	1.21 K	3.01 K	7.50 K	18.7 K	46.4 K	115 K	287 K	715 K	1.78 meg.
4.0	34.0	82.5	200	499	1.24 K	3.09 K	7.68 K	19.1 K	47.5 K	118 K	294 K	732 K	1.82 meg.
4.3	34.8	84.5	205	511	1.27 K	3.16 K	7.87 K	19.6 K	48.7 K	121 K	301 K	750 K	1.87 meg.
4.7	35.7	86.6	210	523	1.30 K	3.24 K	8.06 K	20.0 K	49.9 K	124 K	309 K	768 K	1.91 meg.
5.0	36.5	88.7	215	536	1.33 K	3.32 K	8.25 K	20.5 K	51.1 K	127 K	316 K	787 K	1.96 meg.
5.4	37.4	90.9	221	549	1.37 K	3.40 K	8.45 K	21.0 K	52.3 K	130 K	324 K	806 K	2.00 meg.
5.8	38.3	93.1	226	562	1.40 K	3.48 K	8.66 K	21.5 K	53.6 K	133 K	332 K	825 K	2.05 meg.
6.2	39.2	95.3	232	576	1.43 K	3.57 K	8.87 K	22.1 K	54.9 K	137 K	340 K	845 K	2.10 meg.
6.5	40.2	97.6	237	590	1.47 K	3.65 K	9.09 K	22.6 K	56.2 K	140 K	348 K	866 K	2.15 meg.
6.9	41.2	100	243	604	1.50 K	3.74 K	9.31 K	23.2 K	57.6 K	143 K	357 K	887 K	2.21 meg.
7.4	42.2	102	249	619	1.54 K	3.83 K	9.53 K	23.7 K	59.0 K	147 K	365 K	909 K	2.26 meg.
7.8	43.2	105	255	634	1.58 K	3.92 K	9.76 K	24.3 K	60.4 K	150 K	374 K	931 K	2.32 meg.
8.2	44.2	107	261	649	1.62 K	4.02 K	10.00 K	24.9 K	61.9 K	154 K	383 K	953 K	2.37 meg.
8.7	45.3	110	267	665	1.65 K	4.12 K	10.2 K	25.5 K	63.4 K	158 K	392 K	976 K	2.43 meg.
9.1	46.4	113	274	681	1.69 K	4.22 K	10.5 K	26.1 K	64.9 K	162 K	402 K	1.00 meg.	2.49 meg.
9.6	47.5	115	280	698	1.74 K	4.32 K	10.7 K	26.7 K	66.5 K	165 K	412 K	1.02 meg.	2.55 meg.
0.0	48.7	118	287	715	1.78 K	4.42 K	11.0 K	27.4 K	68.1 K	169 K	422 K	1.05 meg.	2.61 meg.
0.5	49.9	121	294	732	1.82 K	4.53 K	11.3 K	28.0 K	69.8 K	174 K	432 K	1.07 meg.	2.67 meg.
1.0	51.1	124	301	750	1.87 K	4.64 K	11.5 K	28.7 K	71.5 K	178 K	442 K	1.10 meg.	2.74 meg.
1.5	52.3	127	309	768	1.91 K	4.75 K	11.8 K	29.4 K	73.2 K	182 K	453 K	1.13 meg.	2.80 meg.
2.1	53.6	130	316	787	1.96 K	4.87 K	12.1 K	30.1 K	75.0 K	187 K	464 K	1.15 meg.	2.87 meg.
2.6	54.9	133	324	806	2.00 K	4.99 K	12.4 K	30.9 K	76.8 K	191 K	475 K	1.18 meg.	2.94 meg.
3.2	56.2	137	332	825	2.05 K	5.11 K	12.7 K	31.6 K	78.7 K	196 K	487 K	1.21 meg.	3.01 meg.
3.7	57.6	140	340	845	2.10 K	5.23 K	13.0 K	32.4 K	80.6 K	200 K	499 K	1.24 meg.	3.09 meg.
			348	866	2.15 K	5.36 K	13.3 K	33.2 K	82.5 K	205 K	511 K	1.27 meg.	3.16 meg.

1/8 WATT
TYPE 425E

3/32" Dia. x 5/16" Long

Ohms	Net, each (1-24)
0 thru 49.9	$1.25
1.1 thru 1 meg.	.94

1/4 WATT
TYPE 426E

1/8" Dia. x 7/16" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.80
51.1 thru 2 meg.	.61

1/4 WATT
TYPE 427E

3/32" Dia. x 15/32" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.80
51.1 thru 2 meg.	.61

1/2 WATT
TYPE 428E

11/64" Dia. x 1/2" Long

Ohms	Net, each (1-24)
0 thru 49.9	$.65
1.1 thru 2 meg.	.54

1/2 WATT
TYPE 429E

11/64" Dia. x 5/8" Long

Ohms	Net, each (1-24)
10 thru 49.9	$.65
51.1 thru 2 meg.	.54
2.05 meg. thru 3.16 meg.	.75

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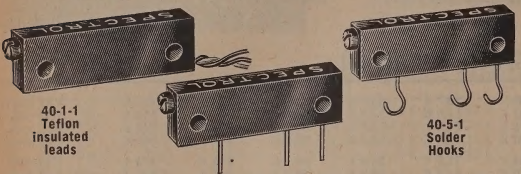
SPECTROL TRIMMING POTENTIOMETERS

Stocked at your local distributors for immediate off-the-shelf delivery

MODEL 40 Rectangular

Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	15
Operating Temperature Range	−55°C to +175°C
Case Dimensions	.180 x .315 x 1.000
Weight	1.5 grams
Base price in 1-9 quantities	$8.55



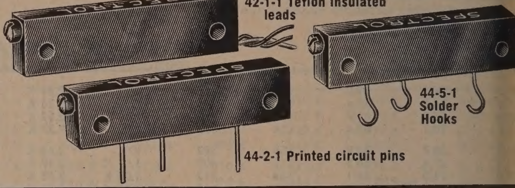
40-1-1 Teflon insulated leads

40-5-1 Solder Hooks

40-2-1 Printed circuit pins

MODELS 42 and 44 Rectangulars

Electrical Specifications	
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0%
Power Rating	1.0 watt at 70°C
Mechanical Specifications	
Number of Turns	25
Operating Temperature Range	−55°C to +175°C
Case Dimensions	.280 x .315 x 1.250 (.180 x .315 x 1.250 for Model 42)
Weight	2.5 grams
Base price in 1-9 quantities	$6.95



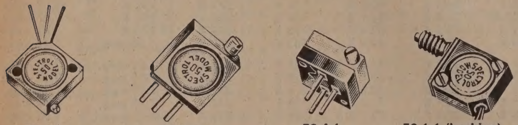
42-1-1 Teflon insulated leads

44-5-1 Solder Hooks

44-2-1 Printed circuit pins

MODEL 50 Square

Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.0 watt at 50°C
Mechanical Specifications	
Number of Turns	25 (nominal)
Rotation	Continuous
Operating Temperature Range	−55°C to +150°C
Case Dimensions	⅜" x ⅜" x 3/16"
Weight	1 gram
Base price in 1-9 quantities	$7.50



50-1-1 Teflon insulated leads

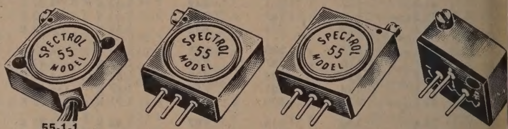
50-3-1 Printed circuit pins, 180°

50-4-1 Printed circuit pins, base

50-1-1 (bushing) Teflon insulated leads

MODEL 55 Square

Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	1.0 watt at 50°C
Mechanical Specifications	
Number of Turns	42 (nominal)
Rotation	Stops, clutch standard (continuous rotation available)
Operating Temperature Range	−55°C to +175°C
Case Dimensions	½" x ½" x 3/16"
Weight	2 grams
Base price in 1-9 quantities	$6.00



55-1-1 Teflon insulated leads

55-2-1 PC pins, 90°

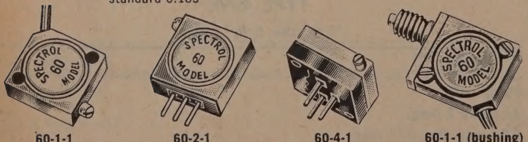
55-3-1 PC pins, 180°

55-4-1 PC pins, base

MODEL 60 Square

Electrical Specifications	
Standard Resistance Range	50Ω to 100K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating	2.0 watts at 50°C
Mechanical Specifications	
Number of Turns	25 (nominal)
Rotation	Continuous
Operating Temperature Range	−55°C to +150°C
Case Dimensions	½" x ½" x 3/16"*
Weight	2 grams
Base price in 1-9 quantities	$6.50

*The case depth for 100K resistance is 0.218" instead of the standard 0.185"



60-1-1 Teflon insulated leads

60-2-1 PC pins, 90°

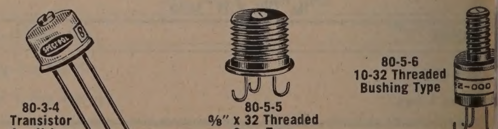
60-4-1 PC pins, base

60-1-1 (bushing) Teflon insulated leads

MODELS 80 and 82 Round

Electrical Specifications	
Standard Resistance Range	50Ω to 50K
Resistance Tolerance	±5.0% (±1.0% available)
Power Rating (Model 80)	1.0 watt at 50°C
Power Rating (Model 82)	0.5 watt at 50°C
Mechanical Specifications	
Number of Turns	1
Rotation	End stops, standard (continuous rotation available)
Operating Temp. Range (Model 80)	−55°C to +150°C
Operating Temp. Range (Model 82)	−55°C to +105°C

Case Dimen.—Vary with mounting type (⅜" Dia. x 9/32" body ht.)
Model 80 base price in 1-9 quantities—$6.00
Model 82 base price in 1-9 quantities—$3.85



80-3-4 Transistor circuit type

80-5-5 ⅜" x 32 Threaded Case Type

80-5-6 10-32 Threaded Bushing Type

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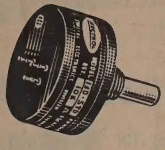
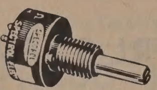
SPECTROL

PRECISION POTENTIOMETERS

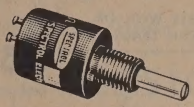
Call Your Nearest Spectrol Distributor for Off-The-Shelf Delivery



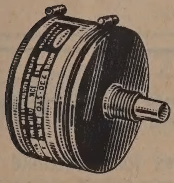
MODEL 130
$1\frac{5}{16}$" Diam.



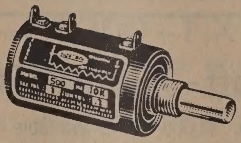
MODEL 140
$\frac{1}{2}$" Diam.



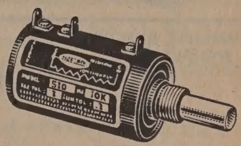
MODEL 150
$\frac{1}{2}$" Diam.



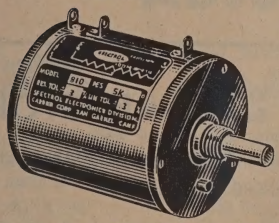
MODEL 230
$1\frac{3}{4}$" Diam.



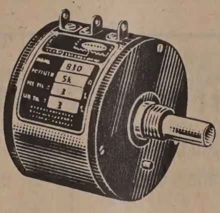
MODEL 500
$\frac{7}{8}$" Diam.



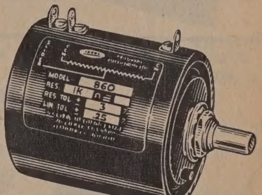
MODEL 510
$\frac{7}{8}$" Diam.



MODEL 810
$1\frac{13}{16}$" Diam.



MODEL 830
$1\frac{13}{16}$" Diam.



MODEL 860
$1\frac{13}{16}$" Diam.

Model	Diameter (inches)	Turns	Standard Resistance Range (ohms)	Standard Linearity Tolerance (%)	Standard Electrical Rotation (degrees)	Power Rating (watts)	Max. Starting Torque (in./oz.)	Max. Weight (oz.)	Max. Sec-tions (ganged)	Standard Operating Temperature (degrees C)	Approx. Base Price (each)
130	1.312	1	10-30K	0.5	352	2.75	1.0	1.5	1	−55 to +105	$ 8.50
140	0.500	1	50-10K	1.0	325	2.0	2.0	0.15	1	−55 to +105	$18.00
150	0.500	1	20-70K	1.0	325	2.0	1.0	0.25	1	−55 to +105	$10.00
230	1.750	1	5-65K	0.3	354	2.5	0.7	3.0	1	−55 to +105	$15.00
500	0.875	10	25-120K	0.25	3600	3.0	0.4	1.0	2	−55 to +105	$15.00
510	0.875	10	25-120K	0.25	3600	3.0	0.5	1.5	1	−55 to +105	$10.00
810	1.812	10	50-400K	0.25	3600	8.0	1.75	4.5	1	−55 to +105	$12.00
830	1.812	3	20-120K	0.25	1080	4.75	1.75	3.0	1	−55 to +105	$10.00
860	1.812	10	50-400K	0.25	3600	3.0	1.75	4.5	1	−55 to +105	$10.00

SPECTROL ELECTRONICS CORPORATION

SAN GABRIEL, CALIFORNIA
PLAINVIEW, L.I., NEW YORK
BRAMPTON (TORONTO), ONTARIO, CANADA

TRU-OHM **VITREOUS ENAMELED**

POWER RESISTORS

- FIXED
- ADJUSTABLE
- TRU-RIB
- AXIAL LEAD

Our new, modern plant occupies 80,000 square feet devoted to producing the finest power rheostats and wire wound resistors available. If you need a rheostat or resistor, whether it be right from stock or to your specifications, we assure you of courteous service, prompt delivery and quality merchandise.

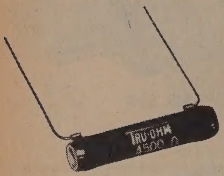
AVAILABLE WITH OR WITHOUT LEADS

5 Watt—FRL-5—FIXED Vitreous Enameled RESISTORS

1 ohm thru 10,000 ohms available in 53 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

Core: 5/16″ x 3/16″ x 1″

AVAILABLE WITH OR WITHOUT LEADS

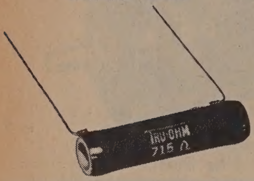


10 Watt—FRL-10—FIXED Vitreous Enameled RESISTORS

1 ohm thru 50,000 ohms available in 71 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

Core: 5/16″ x 3/16″ x 1¾″

AVAILABLE WITH OR WITHOUT LEADS



20 Watt—FRL-20—FIXED Vitreous Enameled RESISTORS

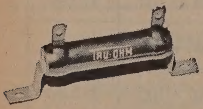
1 ohm thru 100,000 ohms available in 60 stock values for immediate shipment. Special resistance values made on order. All Welded Construction.

Core: 7/16″ x 1/4″ x 2″

25 Watt—FR-25—FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms in 45 stock values available for immediate shipment. Special resistance values made to order.

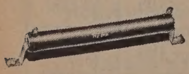
Core: 9/16″ x 5/16″ x 2″ Mounting Centers 2¾″ With Bracket #P-3747 Standard Lug #12



50 Watt—FR-50—FIXED Vitreous Enameled RESISTORS

1 ohm thru 250,000 ohms in 46 stock values available for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16″ x 5/16″ x 4″ Mounting Centers 4¾″ With Bracket #P-3747 Standard Lug #12



75 Watt—FR-75—FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms in 40 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 9/16″ x 5/16″ x 6″ Mounting Centers 6¾″ With Bracket #P-3747 Standard Lug #12

You are guaranteed to receive 24 hour delivery as we maintain jobber stock items!

TRU-OHM RESISTORS are made to meet and exceed MIL-R-26C Specifications!

TRU-OHM

Mfd. by TRU-OHM PRODUCTS DIVISION OF MODEL ENG. & MFG. INC.
General Sales Office: Chicago, Ill.

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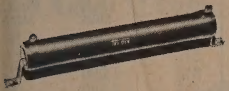
VITREOUS ENAMELED RESISTORS



100 Watt – FR-100 – FIXED Vitreous Enameled RESISTORS

1 ohm thru 100,000 ohms in 38 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: ¾″ x ½″ x 6½″ Mounting Centers 7⅜″ With Bracket #P-3689 Standard Lug #12

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160 Watt – FR-160 – FIXED Vitreous Enameled RESISTORS

1 ohm thru 10,000 ohms in 38 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 8½″ Mounting Centers 9⅜″ With Bracket #P-4898 Standard Lug #14

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200 Watt – FR-200 – FIXED Vitreous Enameled RESISTORS

1 ohm thru 150,000 ohms in 37 stock values available for immediate delivery. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 10½″ Mounting Centers 11⅜″ With Bracket #P-4898 Standard Lug #14

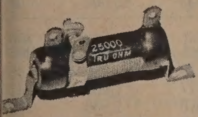
ADJUSTABLE RESISTORS

10 Watt — AR-10

Adjustable Vitreous Enameled Resistors

ohm thru 10,000 ohms in 40 stock values available from ock for immediate shipment. Special resistance values and lerances made to order.

ore: 5/16″ x 3/16″ x 1¾″ With Bracket #P-4989
ounting Centers 2 3/16″ Standard Lug #10

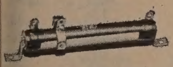


25 Watt — AR-25

Adjustable Vitreous Enameled Resistors

ohm thru 25,000 ohms in 43 stock values available from ock for immediate shipment. Special resistance values and lerances made to order.

ore: 9/16″ x 5/16″ x 2″ With Bracket #P-3747
ounting Centers 2¾″ Standard Lug #12

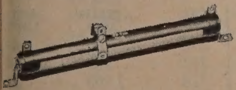


50 Watt — AR-50

Adjustable Vitreous Enameled Resistors

ohm thru 100,000 ohms in 47 stock values available from ock for immediate shipment. Special resistance values and lerances made to order.

ore: 9/16″ x 5/16″ x 4″ With Bracket #P-3747
ounting Centers 4¾″ Standard Lug #12

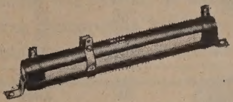


75 Watt — AR-75

Adjustable Vitreous Enameled Resistors

ohm thru 100,000 ohms in 48 stock values available from tock for immediate shipment. Special resistance values and lerances made to order.

ore: 9/16″ x 5/16″ x 6″ With Brackets #P-3747
lounting Centers 6¾″ Standard Lug #12

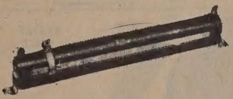


100 Watt — AR-100

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 33 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: ¾″ x ½″ x 6½″ With Brackets #P-3689
Mounting Centers 7⅜″ Standard Lug #12



160 Watt — AR-160

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 34 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 8½″ With Brackets #P-4898
Mounting Centers 9⅜″ Standard Lug #14

200 Watt — AR-200

Adjustable Vitreous Enameled Resistors

1 ohm thru 100,000 ohms in 31 stock values available from stock for immediate shipment. Special resistance values and tolerances made to order.

Core: 1⅛″ x ¾″ x 10½″ With Brackets #P-4898
Mounting Centers 11⅜″ Standard Lug #14

TRU-OHM

Mfd. by TRU-OHM PRODUCTS
DIVISION OF MODEL ENG. & MFG. INC.
General Sales Office: Chicago, Ill.

TRU-OHM

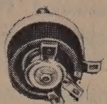
POWER RHEOSTATS

VITREOUS ENAMELED

Manufactured to meet and exceed MIL-R-22 Specifications

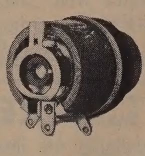
AVAILABLE FROM STOCK

R-12½
12½ Watts —
Dia. — ⅞″
Back of panel dim.
1 1/16″
Approx. 300° Rotat'n
Panel mtg. to ⅛″
by ¼″ — 32 bushing



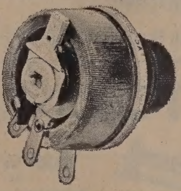
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
600	1	3.53	608	35	.60	616	500	.16
601	2	2.50	609	50	.50	617	750	.13
602	3	2.04	610	75	.41	618	1,000	.11
603	6	1.44	611	100	.35	619	1,500	.091
604	8	1.25	612	125	.32	620	2,500	.071
605	10	1.12	613	175	.27	621	3,500	.060
606	15	.91	614	250	.22	622	5,000	.050
607	25	.71	615	350	.19			

R-25
25 Watts —
Dia. — 1 9/16″
Back of panel dim.
1 5/16″
Shaft Dia. ¼″
Approx. 295° Rotat'n
Panel mtg. to ¼″
by ⅜″—32 bushing



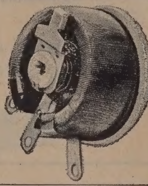
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
100	1	5.000	108	35	.845	116	500	.222
101	2	3.540	109	50	.707	117	750	.182
102	3	2.880	110	75	.575	118	1,000	.155
103	6	2.040	111	100	.500	119	1,500	.129
104	8	1.770	112	125	.445	120	2,500	.100
105	10	1.580	113	175	.375	121	3,500	.084
106	15	1.290	114	250	.316	122	5,000	.070
107	25	1.000	115	350	.267			

R-50
50 Watts
Dia. — 2 5/16
Back of panel dim.
1 7/16″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″
by ⅜″—32 bushing



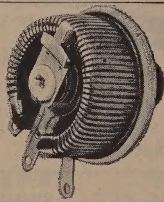
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
200	0.5	10.000	209	35	1.190	218	1,000	.223
201	1	7.070	210	50	1.000	219	1,600	.176
202	2	5.000	211	80	.790	220	2,500	.141
203	4	3.540	212	125	.630	221	3,500	.119
204	6	2.880	213	150	.574	222	5,000	.100
205	8	2.500	214	225	.470	223	8,000	.079
206	12	2.040	215	300	.408	224	10,000	.070
207	16	1.760	216	500	.316			
208	22	1.500	217	800	.250			

R-75
75 Watts
Dia.—2¾″
Back of panel dim.
1¾″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″
by ⅜—32 bushing



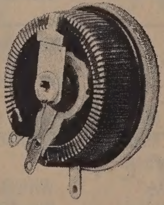
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
300	0.5	12.300	308	25	1.730	316	750	.316
301	1	8.660	309	50	1.230	317	1,000	.274
302	2	6.120	310	75	1.000	318	1,500	.224
303	3	5.000	311	100	.866	319	2,000	.194
304	5	3.880	312	200	.612	320	2,500	.173
305	7.5	3.160	313	300	.500	321	5,000	.123
306	10	2.740	314	400	.433	322	7,500	.100
307	16	2.170	315	500	.388	323	10,000	.087

R-100
100 Watts
Dia. 3⅛″
Back of panel dim.
1¾″
Shaft—Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″
by ⅜—32 bushing



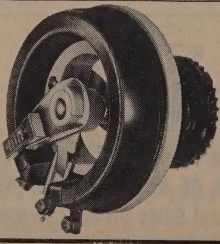
CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
400	0.5	14.100	408	25	2.000	416	750	.365
401	1	10.000	409	50	1.410	417	1,000	.316
402	2	7.070	410	75	1.150	418	1,500	.258
403	3	5.750	411	100	1.000	419	2,000	.224
404	5	4.470	412	200	.707	420	2,500	.200
405	7.5	3.650	413	300	.575	421	5,000	.141
406	10	3.160	414	400	.500	422	7,500	.115
407	16	2.500	415	500	.447	423	10,000	.100

R-150
150 Watts
Dia.—4″
Back of panel Dim. 2″
Shaft Dia. ¼″
Approx. rotat'n 300°
Panel mtg. to ¼″
by ⅜—32 bushing or
two 10-32 Flat Head
Screws — mtg. centers
⅞″ each side from
shaft center.



CAT NO.	RESIST-ANCE	MAX. AMPS.	CAT NO.	RESIST-ANCE	MAX. AMPS.	CAT NO.	RESIST-ANCE	MAX. AMPS.
500	0.5	17.300	509	35	2.070	518	750	.447
501	1	12.300	510	50	1.735	519	1,250	.346
502	2	8.650	511	75	1.415	520	1,800	.288
503	3	7.070	512	100	1.225	521	2,250	.259
504	5	5.480	513	150	1.000	522	3,000	.224
505	7.5	4.470	514	200	.865	523	4,500	.182
506	10	3.880	515	250	.775	524	7,500	.141
507	15	3.163	516	350	.655	525	10,000	.122
508	25	2.450	517	500	.548			

R-300
300 Watts
Dia. 6″
Back of panel dim.
2¼″
Shaft Dia. ⅜″
Approx. rotat'n 315°
Panel mtg. to 1¼″
by two ¼ — 20 by
1½ Flat Head mtg.
Screws



CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.	CAT. NO.	RESIST-ANCE	MAX. AMPS.
700	1	17.32	708	25	3.46	716	700	.66
701	2	12.24	710	75	2.00	717	900	.58
702	3	10.00	709	50	2.45	718	1,200	.50
703	4	8.66	711	100	1.73	719	1,500	.45
704	5	7.75	712	150	1.41	720	1,750	.41
705	7.5	6.32	713	200	1.22	721	2,500	.35
706	10	5.48	714	300	1.00			
707	15	4.47	715	400	.87			

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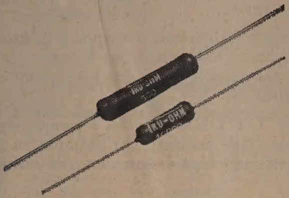
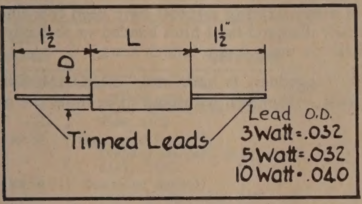
AXIAL LEAD Vitreous Enamel RESISTOR • TYPE VAL



TRU-OHM Vitreous enameled wire wound resistors with axial leads are available in a wide range of resistance values and wattage ratings.



WATTAGE	RESISTANCE RANGES	CORE DIA.	CORE LENGTH	LEAD DIA.	LEAD LENGTH
3	1-10000	¼	9/16"	.032	1½"
5	1-25000	11/32	1 1/16"	.032	1½"
10	1-50000	27/64	1 15/16"	.040	1½"
20	1-100000	½	2⅛"	.040	1½"

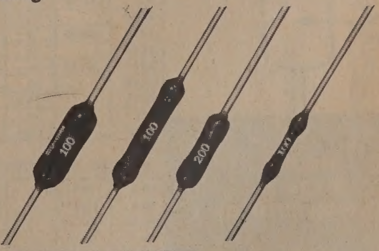
STANDARD RESISTANCE TOLERANCE ±5%

All welded construction, resistant to thermal shock and humidity are assured by thermally matching the expansion rates of core, enamel and end cad. Continuous operating temperature 340°C. Max. 40°C. ambient. These commercial units are engineered to meet and exceed the rigid requirements of the MIL-R-26-C specifications.

AXIAL LEAD PRECISION WIRE WOUND RESISTORS

With Exclusive Silicone Coating

TYPE S•AL Series



Miniature size — all welded construction — precision tolerances ±5% is standard for all types. ±2%, ±1% and ±½% tolerances are available at additional cost. Maximum power in minimum space.

STANDARD TYPES

TYPE	WATTAGE	LEAD SIZE Lgth.	LEAD SIZE Dia.	DIMENSIONS Lgth.	DIMENSIONS Dia.	CORE SIZE Lgth.	CORE SIZE Dia.	RESISTANCE Min.	RESISTANCE Max.
S • AL-1	1	1½	.032	5/32	⅜	⅛	5/16	1 Ω	3000 Ω
S • AL-3	3	1½	.032	7/32	½	5/32	7/16	1 Ω	10,000 Ω
S • AL-5	5	1½	.032	5/16	29/32	¼	⅞	1 Ω	25000 Ω
S • AL-7	7	1½	.032	⅜	1 1/32	5/16	1	1 Ω	35000 Ω
S • AL-10	10	1½	.032	⅜	1 25/32	5/16	1¾	1 Ω	50000 Ω
S • AL-15	15	1½	.040	½	1 11/16	7/16	1½	1 Ω	75000 Ω
S • AL-20	20	1½	.040	½	2 3/16	7/16	2	1 Ω	125000 Ω

NOTE 1:

All S • AL Resistors are made to order.

Materials for Standard Types are Stock items.

Materials for Special Types must be purchased to order.

SPECIAL TYPES

TYPE	WATTAGE	LEAD SIZE Lgth.	LEAD SIZE Dia.	DIMENSIONS Lgth.	DIMENSIONS Dia.	CORE SIZE Lgth.	CORE SIZE Dia.	RESISTANCE Min.	RESISTANCE Max.
S • AL-1A	1	1½	.025	3/32	13/32	1/16	⅜	1 Ω	1800 Ω
S • AL-1B	1	1½	.025	3/32	17/32	1/16	½	1 Ω	3500 Ω
S • AL-2	2	1½	.032	3/16	13/16	⅛	¾	1 Ω	12000 Ω
S • AL-3A	3	1½	.032	3/16	9/16	⅛	9/16	1 Ω	7500 Ω
S • AL-3B	3	1½	.032	¼	⅝	3/16	⅝	1 Ω	11000 Ω
S • AL-7A	7	1½	.032	5/16	1 7/32	¼	1 3/16	1 Ω	40000 Ω

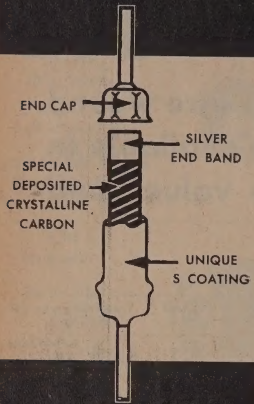
NOTE 2:

Overall Dimension Tolerances are ±1/32 on Diameter and ±1/16 on Length. (Tolerance on Length of 1 Watt Size is ±1/32.)

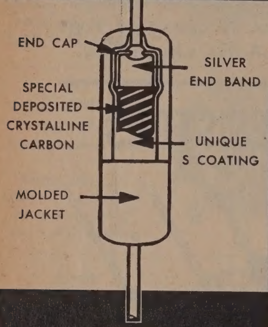
Mfd. by TRU-OHM PRODUCTS DIVISION OF MODEL ENG. & MFG. INC.

General Sales Office: Chicago, Ill.

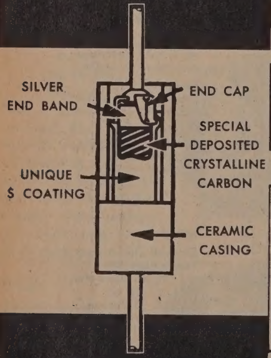
TRU-OHM



STANDARD DEPOSITED CARBON RESISTORS



MOLDED DEPOSITED CARBON RESISTORS



HERMETICALLY SEALED DEPOSITED CARBON RESISTORS

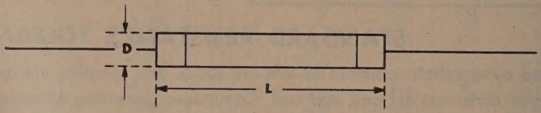
GOLD SEAL CARBON FILM RESISTORS

are manufactured to exacting standards in a clinically-clean atmosphere in humidity controlled, air conditioned rooms. Reliability tested individually, each and every resistor must withstand up to twenty-five times the rated wattage for 1 sec. duration to pass exacting TRU-OHM final inspection standards.

The continuous process method employed by TRU-OHM provides a **completely uniform carbon coating** applied to special ceramic core material. For example, in applications where these resistors are subject to extremely high frequencies, the uniformity of the film element is of utmost importance.

Years of accumulated experience in manufacturing resistors have been coordinated to bring about the development of nearly diamond-hard films bonded so perfectly to the ceramic core that it is impervious to the most severe scratch tests.

Despite their sub-miniature size — ruggedness is built into TRU-OHM Gold Seal Resistors — try the twist test on leads — they will withstand three times the military spec required.



STANDARD DEPOSITED CARBON RESISTORS (40°C. AMBIENT TEMP. AT FULL LOAD)

TYPE	MIL-R 10509-B	RATING WATT	CONT. VDC MAX.	RESISTANCE RANGE								L	D	LEADS (1.5") AWG.	*CAPACITY IN μμF
				½%		1%		2%		5%					
				MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX				
S-2	RN-30	2	750	15 Ω	10 Meg.	15 Ω	50 Meg.	15 Ω	60 Meg.	15 Ω	100 Meg.	2.049"	.288"	20	
S-1	RN-25	1	500	10 Ω	5 Meg.	10 Ω	20 Meg.	10 Ω	30 Meg.	10 Ω	60 Meg.	.923"	.288"	20	
SX-12		½	350	10 Ω	3.9 Meg.	10 Ω	10 Meg.	10 Ω	15 Meg.	10 Ω	20 Meg.	.736"	.156"	20	
S-12	RN-20	½	350	5 Ω	2 Meg.	2 Ω	5 Meg.	2 Ω	10 Meg.	2 Ω	10 Meg.	.575"	.156"	20	
SX-14		¼	300	5 Ω	1 Meg.	2 Ω	2.5 Meg.	2 Ω	5 Meg.	2 Ω	10 Meg.	.535"	.130"	22	
S-14	RN-10	¼	300	5 Ω	1 Meg.	5 Ω	2.5 Meg.	5 Ω	5 Meg.	5 Ω	10 Meg.	.503"	.105"	22/26	
S-14A		¼	300	5 Ω	1 Meg.	5 Ω	2.5 Meg.	5 Ω	5 Meg.	5 Ω	10 Meg.	.421"	.105"	22/26	
SX-18		⅛	250	2 Ω	500K	2 Ω	1 Meg.	2 Ω	2 Meg.	2 Ω	3 Meg.	.350"	.105"	22/26	
S-18		⅛	250	2 Ω	500K	2 Ω	1 Meg.	2 Ω	2 Meg.	2 Ω	3 Meg.	.295"	.105"	22/26	
S-110		1/10	150	20 Ω	250K	20 Ω	250K	20 Ω	500K	20 Ω	500K	.285"	.069"	26	

MOLDED DEPOSITED CARBON RESISTORS (70°C. AMBIENT TEMP AT FULL LOAD)

SM-2	RN-80	2	750	15 Ω	10 Meg.	15 Ω	50 Meg.	15 Ω	60 Meg.	15 Ω	100 Meg.	2.250"	.400"	20	
SM-1	RN-75	1	500	10 Ω	5 Meg.	10 Ω	20 Meg.	10 Ω	30 Meg.	10 Ω	60 Meg.	1.115"	.400"	20	
SM-12	RN-70	½	350	10 Ω	2 Meg.	10 Ω	5 Meg.	10 Ω	10 Meg.	10 Ω	10 Meg.	.750"	.270"	20	
SM-14	RN-65	¼	300	10 Ω	1 Meg.	10 Ω	2.5 Meg.	10 Ω	5 Meg.	10 Ω	10 Meg.	.640"	.220"	22	
SM-18	RN-60	⅛	250	10 Ω	500K	10 Ω	1 Meg.	10 Ω	2 Meg.	10 Ω	2 Meg.	.406"	.150"	22	

HERMETICALLY SEALED DEPOSITED CARBON RESISTORS (70°C. AMBIENT TEMP. AT FULL LOAD)

SH-2	RN-80	2	750			50 Ω	20 Meg.	50 Ω	20 Meg.	50 Ω	20 Meg.	2.250"	.395"	20	
SH-1	RN-75	1	500			10 Ω	10 Meg.	10 Ω	10 Meg.	10 Ω	10 Meg.	1.093"	.395"	20	
SH-12	RN-70	½	350			10 Ω	5 Meg.	10 Ω	5 Meg.	10 Ω	5 Meg.	.830"	.250"	20	
SH-14	RN-65	¼	300			10 Ω	2.5 Meg.	10 Ω	2.5 Meg.	10 Ω	2.5 Meg.	.640"	.244"	22	
SH-18	RN-60	⅛	250			10 Ω	1 Meg.	10 Ω	1 Meg.	10 Ω	1 Meg.	.437"	.160"	22	

NON-INDUCTIVE DEPOSITED CARBON RESISTORS (40°C. AMBIENT TEMP. AT FULL LOAD)

NS-2		2	750	15 Ω	10K	15 Ω	20K	15 Ω	30K	15 Ω	50K	2.049"	.288"	20	.034
NS-1		1	500	10 Ω	5K	10 Ω	7.5K	10 Ω	15K	10 Ω	20K	.923"	.288"	20	.119
NSX-12		½	350	10 Ω	3K	10 Ω	10K	10 Ω	15K	10 Ω	20K	.736"	.156"	20	
NS-12		½	350	5 Ω	2K	5 Ω	5K	5 Ω	10K	5 Ω	15K	.575"	.156"	20	.088
NSX-14		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.535"	.130"	22	.066
NS-14		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.503"	.105"	22/26	.055
NS-14A		¼	300	5 Ω	2K	5 Ω	4K	5 Ω	6K	5 Ω	10K	.421"	.105"	22/26	.065
NSX-18		⅛	250	2 Ω	2K	2 Ω	4K	2 Ω	6K	2 Ω	10K	.350"	.105"	22/26	.082
NS-18		⅛	250	2 Ω	2K	2 Ω	4K	2 Ω	6K	2 Ω	10K	.295"	.105"	22/26	.095
NS-110		1/10	150	20 Ω	1K	20 Ω	2K	20 Ω	2K	20 Ω	3K	.285"	.069"	26	.059

For this true non-inductive type the inductance is negligible; i.e., the same as for a straight rod with the same dimensions of the resistor. The capacity * listed was measured in identical configuration 1½" over ground plane, terminals 2" apart.

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VECO
T M

DESIGNERS' and EXPERIMENTORS' KITS

will help you in circuit design and experimental work

Creative personnel, designers and experimentors find these kits invaluable in the solution of circuitry problems and the preparation of prototype models, as well as in experimentation with a wide variety of thermistor and varistor applications.

VECO DESIGNERS' KITS

Each kit includes units covering a wide resistance range and physical size. VECO Designers' Kits are furnished with technical characteristics, curves and schematics to assist in the solution of circuitry designs and problems concerning the use and application of VECO thermistors and varistors.

VECO Number	Description	Net Price (Postpaid)
KD 25	Designers' Disc Kit Contains one each: 11E2, 12E2, 15D1, 18E2, 21E21, 22E6, 23D34, 25D4, 31E2, 32D12, 33D10, 35D6, 41D2	$10.50
KP 50	Designers' Probe Kit Contains one each: 21A3, 31A11, 41A11, 51A11, 61A11, 71A11	14.50
KR 75	Designers' Rod Kit Contains one each: 33S1, 36S1, 41R1, 41S2, 43R1, 45R1, 51R1, 51R2	8.75
KTB1	Designers' Bead Kit Contains one each: 21A2, 31A2, 32A48, 41A2, 43A2, 51A2, 51A30, 61A2. Complete with tweezers	19.50
KW 125	Designers' Washer Kit Contains 2 each: 11X1, 12X15, 14X4, 21W1, 22W6, 24W6. A828 (1 only)	13.50
KV 100	Designers' Varistor Kit Contains one each: 023L4, 023W1, 063L4, 114L1, 124W1, 143W1, 155L2, 165W2, A818	14.50
KV 1001	Designers' Varistor Kit Contains one each: 023L9, 063L9, 114L2, 124L1, 124L2, 134L1, 155L3, 175L1, 195L1	7.50

VECO EXPERIMENTORS' KITS

- Each kit includes forms showing typical circuitry and specific characteristics of units in kit.

M-168 Experimentors' Kit, 7 assorted units for $ 5.00 net, ppd.
M-168A Experimentors' Kit, 10 assorted units for $10.00 net, ppd.

VECO THERMISTORS & VARISTORS

VECO Number	Resistance @ 25°C (ohms)	List Price
SMALL BEAD THERMISTORS .014" Dia.		
32A5	2 000 ±25%	$3.00
32A48	2,000 ±25%	2.60
34A2	3,500 ±15%	4.30
38C2	8,000 ±25%	3.30
43A1	30,000 ±25%	3.60
43A2	30,000 ±25%	3.40
51A30	100,000 ±25%	3.40
MEDIUM & LARGE BEADS .043" to .088" Dia.		
21A2	100 ±20%	$3.30
25A2	500 ±20%	3.40
31A2	1,000 ±20%	2.50
32A12	2,000 ±20%	2.60
32A13	2,000 ±20%	2.30
35A1	5,000 ±20%	2.50
41A2	10,000 ±20%	2.50
43A4	30,000 ±20%	2.50
45A2	50,000 ±20%	2.50
51A2	100,000 ±15%	2.30
55A2	500,000 ±20%	2.80
61A2	1 meg ±20%	2.90
GLASS THERMISTOR PROBES ½" Long		
21A3	100 ±20%	$3.30
31A11	1,000 ±20%	2.30
32A11	2,000 ±20%	2.10
35A11	5,000 ±20%	2.30
41A11	10,000 ±20%	2.30
43A11	30,000 ±20%	2.30
51A11	100,000 ±15%	2.30
55A11	500,000 ±20%	2.80
61A11	1 meg ±20%	2.80
71A11	10 meg ±20%	3.40

VECO Number	Resistance @ 25°C (ohms)	List Price
GLASS THERMISTOR PROBES 2" Long		
32A1	2,000 ±20%	$2.40
34A3	3,500 ±30%	2.40
41A1	10,000 ±20%	3.20
45A1	50,000 ±20%	3.20
51A1	100,000 ±15%	2.60
61A1	1 meg ±20%	3.70
GLASS THERMISTOR RODS & BULBS		
32A3	2,000 ±25%	$4.60
37A1	7.000 ±20%	3.60
44A1	35,000 ±25%	1.90
45B2	50,000 ±40%	2.60
46A2	60,500 ±29%	2.60
49A1	85,000 ±25%	1.90
65A1	5.4 meg ±32%	6.00
71A2	12 meg ±20%	5.00
MATCHED PAIR OF THERMISTOR BEADS ON HERMETIC SEALS		
A33	2,000 ±25%	$15.00
DISC THERMISTORS .1" to 1.0" Dia.		
11E2	10 ±10%	$ .85
12E2	20 ±10%	.85
15D1	50 ±10%	1.30
18E2	75 ±10%	.85
21D2	100 ±10%	.85
21E2	100 ±10%	.85
21E21	100 ±10%	.85
22E6	200 ±10%	.85
23D7	295 ±10%	.85
23D34	300 ±10%	.85
23E3	— 310 ±10%	1.05
25D4	500 ±10%	.85
25E2	500 ±10%	.85

VECO Number	Resistance @ 25°C (ohms)	List Price
27D1	725 ± 5%	$2.90
28D1	760 ± 5%	2.90
31D4	1,000 ±10%	.85
31D7	1,200 ±10%	1.05
31E2	1,000 ±10%	.85
32D12	2,000 ±10%	.85
33D2	3,000 ±10%	.85
33D10	3,000 ±10%	.85
35D2	5,000 ±10%	.85
35D6	5,000 ±10%	.85
41D2	10,000 ±10%	.85
WASHER THERMISTORS .2" to .770" Dia.		
11X1	10 ±10%	$1.15
12X15	20 ±10%	1.15
14X2	38 ±10%	1.30
14X4	40 ±10%	1.15
21W1	100 ±10%	1.15
21W4	130 ±10%	1.30
22X1	150 ±10%	1.15
22W2	180 ±10%	1.30
22W6	200 ±10%	1.15
23W1	315 ±10%	1.30
24W6	400 ±10%	1.15
24W1	415 ±10%	1.30
ROD THERMISTORS .5" to 1.6" Long		
33S1	3,150 ±10%	$1.10
36S1	6,300 ±10%	1.10
38S1	8,000 ±10%	1.10
41R1	10,000 ±10%	1.10
41S1	10,000 ±10%	1.10
41S2	10,000 ±10%	1.35
43R1	31,500 ±10%	1.10
45R1	50,000 ±10%	1.10

VECO Number	Resistance @ 25°C (ohms)	List Price
51R1	100,000 ±10%	$1.10
51R2	100,000 ±10%	1.35
VARISTORS		
023L4	1.5V min. @ 1 ma.	$ .80
023L9	6V @ 5 ma. DC	1.00
023W1	9.09V to 12.3V @ 25 ma.	1.80
063L4	4.6V min @ 1 ma.	.55
063L9	10V @ 5 ma. DC	1.00
114L1	16V to 24V @ 15 ma.	1.40
114L2	15V @ 5 ma. DC	1.00
124L1	25V @ 5 ma. DC	1.00
124L2	35V @ 5 ma. DC	1.00
124W1	26.8V to 32.2 V @15 ma.	3.00
134L1	50V @ 5 ma. DC	1.00
143W1	13.2V to 20.3V @ 50 μa	2.00
155L2	40.8V to 55.2V @ 1 ma.	4.20
155L3	75V @ 5 ma. DC	1.00
165W2	95V to 120V @ 10 ma.	5.00
175L1	100V @ 5 ma. DC	1.00
195L1	120V @ 5 ma. DC	1.00
MOUNTING ACCESSORIES		
A815	Mounting Kit for 1 washer	$1.00
A816	Mounting Kit for 3 washers	1.25
A818	Mounting Kit w/Bracket for 1 washer	1.50
A828	Mounting Kit w/Bracket for 3 washers	1.75
A819	Packing Gland—Probe	4.00

TECHNICAL LITERATURE

VECO THERMISTOR AND VARISTOR DATA BOOK containing historical background, technical data, typical circuitry, curves and other valuable information. $1.00

Literature covering technical data pertaining to VECO products available FREE. The new Technical Catalog of VECO products appears in **section 4700 of Electronic Engineers Master** or may be obtained through your local jobber.

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

VECO
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Victory ENGINEERING CORPORATION

SPRINGFIELD, NEW JERSEY

Manufacturers of Thermistors - Varistors - Combustion Analyzers - Thermistor Catheters and Needles - Matched Thermistors - Thermal Conductivity Cells - Thermistor Kits - Varistor Kits - Hypsometers - LOX Thermistors - Constant Temperature Baths - Temperature Monitors and Controllers - Solid-State Voltage Regulators

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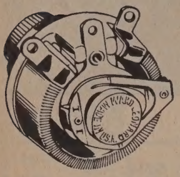
Vitrohm®

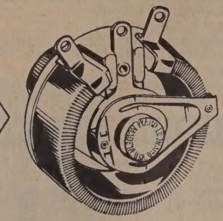
RING RHEOSTATS

WARD LEONARD

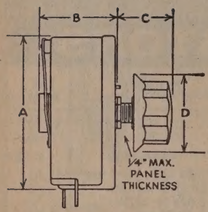
25-Watt — 50-Watt



TYPE 25R



TYPE 50R



DIMENSION SKETCH

SEE DIMENSIONS HEADING EACH TABLE

The Ward Leonard 25-watt (Type 25R) and 50-watt (Type 50R) Ring Rheostats are especially suited for use in electronic and electrical circuits where gradual and positive resistance change is essential. Balanced contact arms, self-lubricating metal graphite contact shoes, and no backlash in the drive shaft combine to assure uniform contact pressure and smooth operation.

Standard shaft length for back-of-board mounting on ¼" panel.

Standard Resistance Tolerance ±10%.

25 WATTS **TYPE 25R**
Dimensions: A-1⁵⁄₁₆" B-1⅛" C-1" D-1½"

50 WATTS **TYPE 50R**
Dimensions: A-2⁵⁄₁₆" B-1⅛" C-1" D-1½"

Current M.A. (25R)	Approx. No. of Steps (25R)	Price Net 1-4 Less Knob† (25R)	Ohms	Current M.A. (50R)	Approx. No. of Steps (50R)	Price Net 1-4 Less Knob† (50R)
5000	32	$4.63	1	7070	45	$5.15
3540	32	4.63	2	5000	56	5.15
2880	51	4.63	3	*	*	*
*	*	*	4	3540	56	5.15
2040	85	4.63	6	2880	94	5.15
1770	95	4.63	8	2500	94	4.63
1580	95	4.63	10	2230	94	4.63
1280	102	4.11	15	1810	113	4.63
1000	102	4.11	25	1415	144	4.63
840	102	4.11	35	1190	144	4.63
707	97	4.11	50	1000	180	4.63
574	129	4.11	75	812	144	4.63
500	162	4.11	100	707	216	4.63
407	190	4.11	150	574	252	4.63
316	200	4.11	250	447	245	4.63
267	220	4.11	350	374	288	4.63
223	245	4.11	500	316	324	4.63
181	292	4.11	750	256	373	4.90
158	315	4.63	1000	223	390	4.90
128	369	4.63	1500	181	396	4.90
100	388	4.63	2500	141	547	4.90
84	388	4.90	3500	119	547	5.15
70	595	4.90	5000	100	786	5.15
*	*	*	7500	81	905	5.15
*	*	*	10000	70	947	5.15

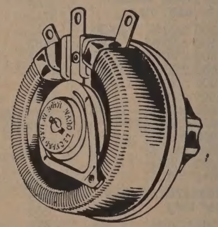
†Price with Knob add $.29.

100-Watt—150-Watt—300-Watt

Ward Leonard 100, 150 and 300 watt Ring Type Rheostats are for higher current electronic, industrial and allied applications where smooth, gradual resistance change is needed. Employing Vitrohm construction, all types provide "twin-shoe" contacts and minimum size for full watt rating. Standard values listed are carried in stock at the factory or by our Distributors. Data on special types available on request.

Standard resistance tolerance ±10%

TYPE 100R



100 WATTS **TYPE 100R**
Dimensions: A-3⁵⁄₃₂" B-1½" C-1" D-1½"

150 WATTS **TYPE 150R**
Dimensions: A-4" B-1¾" C-1" D-1½"

Current M.A. (100R)	Approx No. of Steps (100R)	Price Net 1-4 Less Knob† (100R)	Ohms	Current M.A. (150R)	Approx. No. of Steps (150R)	Price Net 1-4 Less Knob† (150R)
10000	30	$7.72	1	12240	39	$9.78
7070	56	7.72	2	8660	39	9.78
5740	66	7.72	3	7070	70	9.78
4470	56	7.72	5	5470	73	9.78
3640	66	7.72	7.5	4470	70	9.78
3160	104	7.72	10	3870	70	9.78
2560	113	7.72	15	3160	120	9.78
2000	144	7.21	25	2440	152	9.26
1415	180	7.21	50	1730	190	9.26
1150	180	7.21	75	1415	228	9.26
1000	216	7.21	100	1224	228	9.26
707	252	7.21	200	866	265	9.26
574	252	7.21	300	707	303	9.26
500	252	7.21	400	612	342	9.26
447	324	7.21	500	547	342	9.26
364	396	7.21	750	447	418	9.78
316	410	7.72	1000	387	432	9.78
223	410	7.72	2000	273	575	10.30
200	410	7.72	2500	244	456	10.30
141	685	8.24	5000	173	865	11.33
115	820	8.76	7500	141	1000	11.33
100	820	9.26	10000	122	1000	12.35

†Price with Knob add $.29.

300 WATTS **TYPE 300R**
Dimensions A-6" B-2³⁄₁₆"
Shaft ⅜" x 2"

Ohms	Current m.a.	Approx. No. of Steps	Price Net 1-2 Less Knob*
1	17.320	40	$15.20
1.5	14.142	58	15.29
2	12.247	78	15.29
2.5	10.954	78	15.29
3	10.000	73	15.29
4	8.660	78	15.29
5	7.745	78	15.29
7.5	6.324	148	15.29
10	5.477	154	15.29
15	4.472	147	15.29
25	3.464	155	15.29
35	2.927	231	15.29
50	2.449	267	15.29
75	2.000	308	15.29
100	1.732	326	15.29
150	1.414	270	15.29
200	1.224	308	15.29
300	1.000	340	15.29
500	.774	455	15.29
750	.632	514	15.29
1000	.547	578	15.29
1500	.447	675	15.29
2500	.346	720	15.29

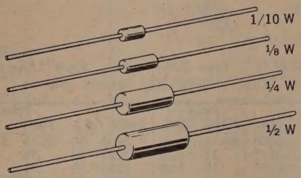
*Price with Knob add $1.16.

WARD LEONARD

METOHM METAL FILM PRECISION RESISTORS

STOCK METOHM FEATURES

- 4 sizes — 1/10 W, 1/8 W, 1/4 W and 1/2 W
- Types RN55, RN60, RN65 and RN70
- Designed to exceed MIL-R-10509D spec. Characteristic C
- 1% Resistance tolerance (accuracy)
- TC code T2 ±50 PPM/°C



In critical space-age electronic circuitry, METOHM metal film precision resistors guarantee high reliability, high stability, close accuracy, low TC and miniature size. Characteristic C, TC code T2 (±50 PPM) METOHMS are stocked in MIL standard values listed. Other tolerances, TC's and characteristics available in production order quantities.

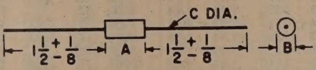
METOHM SIZES AND RATINGS

TOLERANCE ±1%

METOHM Type	MIL Equivalent	Rated Watts*	Ohmic Values†		Max. Voltages Rating (Continuous)	DIMENSIONS (in inches)		
			Min.	Max.		A	B dia	C dia
WL55	RN-55	1/10	100	100K	200V	.260 ±.010	.120 +.005 −.015	.025 ±.002
WL60	RN-60	1/8	30	500K	250V	.406 ±.015	.130 ±.015	.025 ±.002
WL65	RN-65	1/4	50	1 Meg.	300V	.594 ±.015	.203 ±.015	.025 ±.002
WL70	RN-70	1/2	50	1.5 Meg.	350V	.719 ±.020	.261 ±.020	.032 ±.002

*Based on 125°C Ambient. Max. operating temperature 175°C.
†Standard ±1%; lower tolerances to order.

T. C. Code	T. C./°C	Temp. Range
T-0	±150 PPM	−55° to +175°C
T-1	±100 PPM	−55° to +175°C
T-2	± 50 PPM	−55° to +175°C
T-9	± 25 PPM	−55° to +175°C


C DIA.
$1\frac{1}{2}\,{}^{+}_{-}\,\frac{1}{8}$
A
$1\frac{1}{2}\,{}^{+}_{-}\,\frac{1}{8}$
B

MIL STANDARD RESISTANCE VALUES FOR METOHM RESISTORS

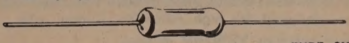
100	205	422	866	1780	3650	7500	15.4K	31.6K	64.9K	133K	274K	511K
102	210	432	887	1820	3740	7680	15.8K	32.4K	66.5K	137K	280K	523K
105	215	442	909	1870	3830	7870	16.2K	33.2K	68.1K	140K	287K	536K
107	221	453	931	1910	3920	8060	16.5K	34.0K	69.8K	143K	294K	549K
110	226	464	953	1960	4020	8250	16.9K	34.8K	71.5K	147K	301K	562K
113	232	475	976	2000	4120	8450	17.4K	35.7K	73.2K	150K	309K	576K
115	237	487	1000	2050	4220	8660	17.8K	36.5K	75.0K	154K	316K	590K
118	243	499	1020	2100	4320	8870	18.2K	37.4K	76.8K	158K	324K	604K
121	249	511	1050	2150	4420	9090	18.7K	38.3K	78.7K	162K	332K	619K
124	255	523	1070	2210	4530	9310	19.1K	39.2K	80.6K	165K	340K	634K
127	261	536	1100	2260	4640	9530	19.6K	40.2K	82.5K	169K	348K	649K
130	267	549	1130	2320	4750	9760	20.0K	41.2K	84.5K	174K	357K	665K
133	274	562	1150	2370	4870	10.0K	20.5K	42.2K	86.6K	178K	365K	681K
137	280	576	1180	2430	4990	10.2K	21.0K	43.2K	88.7K	182K	374K	698K
140	287	590	1210	2490	5110	10.5K	21.5K	44.2K	90.9K	187K	383K	715K
143	294	604	1240	2550	5230	10.7K	22.1K	45.3K	93.1K	191K	392K	732K
147	301	619	1270	2610	5360	11.0K	22.6K	46.4K	95.3K	196K	402K	750K
150	309	634	1300	2670	5490	11.3K	23.2K	47.5K	97.6K	200K	412K	768K
154	316	649	1330	2740	5620	11.5K	23.7K	48.7K	100K	205K	422K	787K
158	324	665	1370	2800	5760	11.8K	24.3K	49.9K	102K	210K	432K	806K
162	332	681	1400	2870	5900	12.1K	24.9K	51.1K	105K	215K	442K	825K
165	340	698	1430	2940	6040	12.4K	25.5K	52.3K	107K	221K	453K	845K
169	348	715	1470	3010	6190	12.7K	26.1K	53.6K	110K	226K	464K	866K
174	357	732	1500	3090	6340	13.0K	26.7K	54.9K	113K	232K	475K	887K
178	365	750	1540	3160	6490	13.3K	27.4K	56.2K	115K	237K	487K	909K
182	374	768	1580	3240	6650	13.7K	28.0K	57.6K	118K	243K	499K	931K
187	383	787	1620	3320	6810	14.0K	28.7K	59.0K	121K	249K	←	953K
191	392	806	1650	3400	6980	14.3K	29.4K	60.4K	124K	255K		976K
196	402	825	1690	3480	7150	14.7K	30.1K	61.9K	127K	261K		1M
200	412	845	1740	3570	7320	15.0K	30.9K	63.4K	130K	267K		

(RN 60 C MIL Values end here)

AXIOHMS

Vitreous enameled wire-wound resistors, 1½" leads, featuring space-saving design, high stability and overload capacity.

Order by Type Number and Resistance Value.



2 WATTS Size—⅜" x 3/16" TYPE 2X

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	1414	$0.57	51	198	.57	510	63	$0.57
1.5	1155	.57	56	189	$0.57	560	60	.57
2	1000	.57	62	179	.57	620	57	.57
3	816	.57	68	172	.57	680	54	.57
4	707	.57	75	163	.57	750	52	.57
5	632	.57	82	156	.57	820	49	.57
7.5	517	.57	91	148	.57	910	47	.57
10	447	.57	100	141	.57	1000	45	.57
11	426	.57	110	135	.57	1100	43	.60
12	408	.57	120	129	.57	1200	41	.60
13	392	.57	130	124	.57	1300	39	.60
15	365	.57	150	116	.57	1500	37	.60
16	354	.57	160	112	.57	1600	35	.60
18	333	.57	180	105	.57	1800	33	.60
20	316	.57	200	100	.57	2000	32	.60
22	302	.57	220	95	.57	2200	30	.60
24	289	.57	240	91	.57	2400	29	.60
27	272	.57	250	89	.57	2500	28	.60
30	258	.57	270	86	.57	2700	27	.60
33	246	.57	300	82	.57	3000	26	.60
36	235	.57	330	78	.57	3300	25	.60
39	228	.57	360	75	.57	3900	23	.60
43	216	.57	390	72	.57	4300	22	.60
47	206	.57	430	68	.57	4700	21	.60
			470	65	.57	5100	20	.60

3 WATTS Size—½" x 3/16" TYPE 3X

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	1732	$0.59	125	155	.59	1250	49	.62
1.5	1414	.59	150	141	.59	1500	45	.62
2	1225	.59	180	129	.59	1750	41	.62
3	1000	.59	200	122	.59	1800	40	.62
4	866	.59	220	117	.59	2000	39	.62
5	775	.59	225	115	.59	2200	37	.62
7.5	632	.59	250	110	.59	2250	37	.62
10	548	.59	270	105	.59	2500	35	.62
12	500	.59	300	100	.59	2700	33	.62
15	447	.59	330	95	.59	3000	32	.62
18	408	.59	350	93	.59	3300	30	.62
20	387	.59	400	87	.59	3500	29	.62
22	369	.59	450	82	.59	4000	27	.62
25	346	.59	470	80	.59	4500	26	.62
27	333	.59	500	77	.59	4700	25	.62
30	316	.59	560	73	.59	5000	25	.62
33	301	.59	600	71	.59	5600	23	.66
35	293	.59	680	66	.59	6000	22	.66
40	274	.59	700	66	.59	6500	21	.66
47	252	.59	750	63	.59	6800	21	.66
50	245	.59	800	61	.59	7000	21	.66
56	231	.59	820	60	.59	7500	20	.66
68	210	.59	900	58	.59	8000	20	.66
75	200	.59	1000	55	.59	8200	19	.66
82	191	.59	1100	52	.62	9000	18	.66
100	173	.59	1200	50	.62	10000	17	.66

5 WATTS Size—15/16" x 3/16" TYPE 5XM

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	2230	$0.61	225	148	.61	3000	40	.67
1.5	1820	.61	250	141	.61	3500	37	.67
2	1580	.61	300	129	.61	4000	35	.67
3	1290	.61	350	119	.61	4500	33	.67
4	1117	.61	400	112	.61	5000	31	.67
5	1000	.61	450	105	.61	6000	28	.70
7.5	811	.61	500	100	.61	7000	26	.70
10	707	.61	600	91	.61	7500	25	.70
12	644	.61	700	84	.61	8000	25	.70
15	577	.61	750	81	.61	9000	23	.70
20	500	.61	800	79	.61	10000	22	.70
25	450	.61	900	74	.61	11000	21	.79
30	408	.61	1000	70	.61	12000	20	.79
35	378	.61	1100	67	.67	12500	20	.79
40	353	.61	1200	64	.67	13500	19	.79
50	316	.61	1250	63	.67	15000	18	.79
75	257	.61	1500	57	.67	16000	18	.79
100	223	.61	1750	53	.67	17500	17	.79
125	200	.61	2000	50	.67	18000	17	.79
150	182	.61	2250	47	.67	20000	16	.79
200	158	.61	2500	45	.67			

10 WATTS Size—1¾" x 5/16" TYPE 10XM

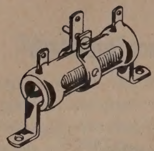
Ohms	Current m.a.	Price	Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	3160	$0.68	300	182	$0.68	6000	41	$0.84
1.5	2580	.68	350	169	.68	7000	38	.84
2	2235	.68	400	158	.68	7500	36	.84
3	1825	.68	450	149	.68	8000	35	.84
4	1580	.68	500	142	.68	8500	34	.84
5	1415	.68	600	129	.68	9000	33	.84
7.5	1155	.68	700	120	.68	10000	32	.84
10	1000	.68	750	115	.68	11000	30	.94
12	913	.68	800	112	.68	12000	29	.94
15	815	.68	900	105	.68	12500	28	.94
20	707	.68	1000	100	.68	13500	27	.94
25	630	.68	1100	95	.74	15000	25.5	.94
30	577	.68	1200	91	.74	16000	25	.94
35	534	.68	1250	89	.74	17500	24	.94
40	500	.68	1500	81	.74	18000	23	.94
50	450	.68	1750	75	.74	20000	22	.94
75	365	.68	2000	70	.74	22500	21	.99
100	316	.68	2250	66	.74	25000	20	.99
125	283	.68	2500	63	.74	30000	18	.99
150	258	.68	3000	58	.74	35000	17	.99
200	224	.68	3500	53	.74	40000	16	.99
225	211	.68	4000	50	.74	45000	15	1.11
250	200	.68	4500	47	.74	50000	14	1.11
			5000	45	.74			

Vitrohm® RESISTORS

Wire-wound, power type, vitreous enamel resistors designed for high reliability. Coated with famous crazeless VITROHM enamel.

Types 5F, 10F, and 20F. Furnished with wire terminal leads. Brackets supplied on request.

WARD LEONARD



Types 10A, 25A, 50A, 80A, 100A, 160A, 200A. Furnished with mounting brackets and one adjustable band.

5 WATTS Size—1" x 5⁄16" TYPE 5F

Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	2230	$0.52	100	223	$0.52	1200	64	$0.56
1.5	1820	.52	125	200	.52	1250	63	.56
2	1580	.52	150	182	.52	1500	57	.56
3	1290	.52	200	158	.52	1750	53	.56
4	1117	.52	225	148	.52	2000	50	.56
5	1000	.52	250	141	.52	2250	47	.56
7.5	811	.52	300	129	.52	2500	45	.56
10	707	.52	350	119	.52	3000	40	.56
12	644	.52	400	112	.52	3500	37	.56
15	577	.52	450	105	.52	4000	35	.56
20	500	.52	500	100	.52	4500	33	.56
25	450	.52	600	91	.52	5000	31	.56
30	408	.52	700	84	.52	6000	28	.58
35	378	.52	750	81	.52	7000	26	.58
40	353	.52	800	79	.52	7500	25	.58
50	316	.52	900	74	.52	8000	25	.58
75	257	.52	1000	70	.52	9008	23	.58
			1100	67	.56	10000	22	.58

10 WATTS Type 10F—Fixed Type 10A—Adj.

Size—1¾" x 5⁄16" Mtg. Centers—2⅛"

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	3160	$0.57	$1.14	1200	91	$0.61	*
1.5	2580	.57	*	1250	89	.61	$1.18
2	2235	.57	1.14	1500	81	.61	1.18
3	1825	.57	1.14	1750	75	.61	*
4	1580	.57	*	2000	70	.61	1.18
5	1415	.57	1.14	2250	66	.61	*
7.5	1155	.57	1.14	2500	63	.61	1.18
10	1000	.57	1.14	3000	58	.61	1.18
12	913	.57	*	3500	53	.61	1.18
15	815	.57	1.14	4000	50	.61	1.18
20	707	.57	1.14	4500	47	.61	1.18
25	630	.57	1.14	5000	45	.61	1.18
30	577	.57	*	6000	41	.70	1.27
35	534	.57	*	7000	38	.70	1.27
40	500	.57	*	7500	36	.70	1.27
50	450	.57	1.14	8000	35	.70	1.27
75	365	.57	1.14	8500	34	.70	1.27
100	316	.57	1.14	9000	33	.70	1.27
125	283	.57	*	10000	32	.70	1.27
150	258	.57	1.14	11000	30	.77	
200	224	.57	1.14	12000	29	.77	
225	211	.57	*	12500	28	.77	
250	200	.57	1.14	13500	27	.77	
300	182	.57	1.14	15000	25.5	.77	
350	169	.57	1.14	16000	25	.77	
400	158	.57	1.14	17500	24	.77	
450	149	.57	*	18000	23	.77	
500	142	.57	1.14	20000	22	.77	
600	129	.57	1.14	22500	21	.83	
700	120	.57	*	25000	20	.83	
750	115	.57	1.14	30000	18	.83	
800	112	.57	1.14	35000	17	.83	
900	105	.57	*	40000	16	.83	
1000	100	.57	1.14	45000	15	.92	
1100	95	.61	*	50000	14	.92	

20 WATTS • TYPE 20F

Size—2" x 9⁄16" Mtg. Centers—2⅝"

	Current			Current			Current	
Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	4480	$0.68	850	153	$0.68	10000	45	$0.83
3	2580	.68	1000	141	.68	12500	40	.85
5	2000	.68	1200	130	.70	15000	36	.85
10	1410	.68	1250	125	.70	20000	32	.85
15	1150	.68	1500	115	.70	25000	28	.99
25	900	.68	1750	107	.70	30000	26	.99
50	630	.68	1850	104	.70	35000	24	.99
75	517	.68	2000	100	.70	40000	22	.99
100	450	.68	2250	94	.70	45000	21	1.15
150	365	.68	2400	91	.70	50000	20	1.15
175	340	.68	2500	90	.70	55000	18	1.15
200	320	.68	2750	85	.70	60000	16	1.15
250	285	.68	3000	81	.70	65000	15	1.37
300	258	.68	3500	76	.70	70000	14	1.37
350	240	.68	4000	70	.70	75000	13	1.37
400	224	.68	4500	67	.70	80000	12	1.37
500	200	.68	5000	63	.70	85000	11.5	1.57
650	175	.68	6000	57	.83	90000	11	1.57
700	169	.68	7000	53	.83	95000	10.5	1.57
750	163	.68	7500	51	.83	100000	10	1.57
800	155	.68	8000	50	.83			

25 WATTS Type 25F—Fixed Type 25A—Adj.

Size—2" x ⅝" Mtg. Centers—2⅝"

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	5000	$0.72	$1.29	2500	100	$0.75	$1.32
2	3535	.72	1.29	3000	90	.75	1.32
3	2890	.72	1.29	3500	85	.75	1.32
4	2500	.72	*	4000	80	.75	1.32
5	2230	.72	1.29	4500	74	*	1.32
7.5	1825	*	1.29	5000	70	.75	1.32
10	1580	.72	1.29	6000	65	.85	1.42
15	1290	.72	1.29	7000	60	*	1.42
20	1115	*	1.29	7500	58	.85	1.42
25	1000	.72	1.29	8000	56	*	1.42
50	710	.72	1.29	8500	54	.85	1.42
75	580	.72	1.29	9000	52	*	1.42
100	500	.72	1.29	10000	50	.85	1.42
150	410	.72	1.29	12000	46	.90	1.47
200	354	.72	1.29	15000	41	.90	1.47
250	315	.72	1.29	20000	34	.90	1.47
300	289	.72	1.29	25000	32	1.04	1.61
400	250	.72	1.29	30000	29	1.04	
500	224	.72	1.29	35000	27	1.04	
750	182	.72	1.29	40000	25	1.04	
800	177	.72	1.29	50000	20	1.21	
850	170	.72	1.29	60000	17	1.21	
1000	158	.72	1.29	70000	14	1.42	
1250	140	.75	1.32	75000	13	1.42	
1500	129	.75	1.32	80000	12	1.42	
2000	112	.75	1.32	100000	10	1.64	
2250	105	*	1.32				

50 WATTS Type 50F—Fixed Type 50A—Adj.

Size—4½" x ¾" Mtg. Centers—5¼"

		Price				Price	
Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	7070	$1.11	$1.68	5000	100	$1.14	$1.71
2	5000	1.11	1.68	6000	91	1.23	1.80
3	4080	1.11	1.68	7000	85	*	1.80
4	3535	1.11	1.68	7500	82	1.23	1.80
5	3160	1.11	1.68	8000	79	1.23	1.80
10	2235	1.11	1.68	9000	75	*	1.80
25	1415	1.11	1.68	10000	71	1.23	1.80
50	1000	1.11	1.68	12000	65	1.34	1.92
75	815	1.11	1.68	12500	63	1.34	*
100	707	1.11	1.68	15000	58	1.34	1.92
150	575	1.11	1.68	20000	50	1.34	1.92
200	500	1.11	1.68	25000	45	1.54	2.11
250	445	1.11	1.68	30000	41	1.54	2.11
300	408	1.11	1.68	35000	38	1.54	*
400	353	1.11	1.68	40000	35	1.54	2.11
500	316	1.11	1.68	45000	33	1.72	*
750	258	1.11	1.68	50000	32	1.72	2.29
800	250	1.11	1.68	60000	29	*	2.29
1000	224	1.11	1.68	75000	23	1.97	2.54
1250	200	*	1.71	80000	21	*	2.54
1500	180	1.14	1.71	100000	17	2.13	2.70
2000	160	1.14	1.71	125000	14	2.57	
2250	150	*	1.71	150000	12	2.70	
2500	141	1.14	1.71	175000	10	2.79	
3000	130	1.14	1.71	200000	9	2.89	
3500	120	*	1.71	225000	8	3.24	
4000	110	1.14	1.71	250000	7	3.24	
4500	105	*	1.71				

80 WATTS • TYPE 80A

Size—6½" x ¾"
Mtg. Centers—7¼"

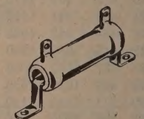
	Current			Current			Current	
Ohms	m.a.	Price	Ohms	m.a.	Price	Ohms	m.a.	Price
1	8940	$1.87	750	325	1.87	7500	103	2.01
2	6320	1.87	800	316	1.87	8000	100	2.01
3	5160	1.87	1000	282	1.87	9000	94	2.01
4	4470	1.87	1250	253	1.91	10000	89	2.01
5	4000	1.87	1500	231	1.91	15000	73	2.13
10	2830	1.87	2000	200	1.91	20000	63	2.13
15	2310	1.87	2250	188	1.91	25000	57	2.32
25	1790	1.87	2500	178	1.91	30000	51	2.32
50	1260	1.87	3000	161	1.91	35000	48	2.32
75	1030	1.87	3500	151	1.91	40000	45	2.32
100	894	1.87	4000	141	1.91	45000	41	2.52
200	632	1.87	4500	133	1.91	50000	40	2.52
250	565	1.87	5000	126	1.91	60000	36	2.52
300	515	1.87	6000	115	2.01	70000	33	2.76
400	447	1.87	7000	107	2.01	80000	31	2.76
500	400	1.87				100000	28	2.93

100 WATTS

Type 100F—Fixed
Type 100A—Adj.

Size—6½" x 1⅛"
Mtg. Centers—7¼"

		Price	
Ohms	m.a.	Fixed	Adj.
1	10000	$1.54	$2.11
2	7070	1.54	2.11
3	5770	1.54	2.11
4	5000	1.54	2.11
5	4470	1.54	2.11
10	3160	1.54	2.11
25	2000	1.54	2.11
50	1410	1.54	2.11
75	1150	1.54	*
100	1000	1.54	2.11
125	895	1.54	*
150	815	1.54	*
200	707	*	2.11
250	630	1.54	2.11
400	500	*	2.11
500	447	1.54	2.11
750	365	1.54	2.11
1000	316	1.54	2.11
1250	285	1.60	*
1500	260	1.60	2.17
2000	225	1.60	2.17
2500	200	1.60	2.17
3000	180	1.60	2.17
3500	170	1.60	*
4000	158	1.60	2.17
4500	150	1.60	2.17
5000	141	1.60	2.17
6000	130	*	2.30
7500	115	1.73	2.30
10000	100	1.73	2.30
15000	80	1.87	2.44
20000	70	1.87	2.44
25000	63	2.13	2.70
30000	58	2.13	2.70
35000	54	2.13	*
40000	50	2.13	2.70
50000	45	2.21	2.78
60000	41	2.21	2.78
70000	38	2.46	*
75000	36	2.46	3.02
100000	32	2.75	3.32



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

Order by Type Number and Resistance Value.

Asterisks (*) in Tables Indicate that Resistors are not Stock Items.

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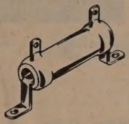
Vitrohm RESISTORS

Order by Type Number and Resistance Value. Asterisks (*) in Table indicate that Resistors are not Stock items.



HEAVY DUTY RESISTORS

Types 25F, 50F, 100F, 160F, 200F Furnished with lug terminals and mounting brackets.

160 WATTS Type 160F—Fixed Type 160A—Adj.
Size—8½" x 1⅛" Mtg. Centers—9¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	12650	$2.28	$3.16	2500	252	$2.32	$3.20
2	8940	2.28	3.16	3000	230	2.32	3.20
3	7300	2.28	3.16	3500	215	2.32	3.20
4	6320	2.28	3.16	4000	200	2.32	3.20
5	5650	2.28	3.16	4500	185	2.32	3.20
10	4000	2.28	3.16	5000	178	2.32	3.20
15	3265	2.28	3.16	7500	146	2.53	3.41
25	2525	2.28	3.16	10000	126	2.53	3.41
50	1785	2.28	3.16	15000	105	2.71	3.59
75	1460	2.28	*	20000	90	2.71	3.59
100	1265	2.28	3.16	25000	80	2.80	3.68
150	1035	2.28	*	30000	73	2.80	3.68
200	894	2.28	3.16	35000	68	2.80	*
250	800	2.28	3.16	40000	64	2.80	3.68
500	565	2.28	3.16	50000	57	2.89	3.77
750	460	2.28	*	60000	52	2.89	3.77
1000	400	2.28	3.16	75000	46	3.08	3.96
1500	326	2.32	3.20	80000	45	3.08	3.96
2000	280	2.32	3.20	100000	40	3.26	4.14

200 WATTS Type 200F—Fixed Type 200A—Adj.
Size—10½" x 1⅛" Mtg. Centers—11¼"

Ohms	m.a.	Fixed	Adj.	Ohms	m.a.	Fixed	Adj.
1	14140	$2.46	$3.34	3500	240	$2.53	$3.41
2	10000	2.46	3.34	4000	225	2.53	3.41
3	8162	2.46	3.34	4500	210	2.53	3.41
4	7070	2.46	3.34	5000	200	2.53	3.41
5	6320	2.46	3.34	7500	163	2.71	3.59
10	4470	2.46	3.34	10000	141	2.71	3.59
25	2825	2.46	3.34	15000	115	2.89	3.77
50	2000	2.46	3.34	20000	100	2.89	3.77
75	1630	2.46	*	25000	90	2.98	3.86
100	1414	2.46	3.34	30000	82	2.98	3.86
150	1150	2.46	*	35000	76	2.98	*
250	900	2.46	3.34	40000	71	2.98	3.86
500	632	2.46	3.34	50000	63	3.08	3.96
750	515	2.46	*	60000	58	3.08	3.96
1000	447	2.46	3.34	75000	52	3.26	4.14
1500	365	2.53	3.41	100000	45	3.46	4.34
2000	315	2.53	3.41	125000	40	*	4.57
2500	282	2.53	3.41	150000	35	*	4.83
3000	260	2.53	3.41				

ADJUSTABLE BANDS

Screw Driver Type

Size of Resistor	Cat. No.	Price
10 Watts	609Z	$0.26
25 Watts	612A	.26
50 Watts	612B	.26
80 Watts	612B	.26
100 Watts	615D	.26
160 Watts	615D	.26
200 Watts	615D	.26

Bakelite Knob Type

25 Watts	610A	$0.40
50 Watts	610B	.40
80 Watts	610B	.40
100 Watts	619D	.40
160 Watts	619D	.40
200 Watts	619D	.40

STRIPOHMS

Order by Type Number and Resistance Value

20 WATTS • TYPE 20S

2" Long—Mtg. Centers 2⁵⁄₁₆"
Width ⁷⁄₁₆"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	4480	$0.99	1500	115	$0.99
3	2580	.99	2000	100	.99
5	2000	.99	2500	90	.99
10	1410	.99	3000	81	1.04
15	1150	.99	3500	76	1.04
25	900	.99	4000	70	1.04
50	630	.99	5000	63	1.04
100	450	.99	7500	51	1.10
150	365	.99	10000	45	1.16
200	320	.99	15000	36	1.20
250	285	.99	20000	32	1.26
400	224	.99	25000	28	1.33
500	200	.99	30000	26	1.38
750	163	.99	35000	24	1.38
1000	141	.99	40000	22	1.44
1250	125	.99	50000	20	1.44

30 WATTS • TYPE 30S

1¼" Long—Mtg. Centers 2"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	5480	$1.42	500	244	$1.42
3	3160	1.42	750	200	1.42
5	2450	1.42	1000	173	1.42
10	1730	1.42	1250	154	1.42
15	1420	1.42	1500	142	1.42
25	1095	1.42	2000	122	1.42
50	774	1.42	2500	109	1.42
100	547	1.42	3000	100	1.52
150	447	1.42	3500	92	1.52
200	387	1.42	4000	86	1.52
250	346	1.42	5000	77	1.52
400	273	1.42			

40 WATTS • TYPE 40S

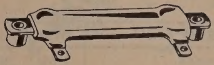
2" Long—Mtg. Centers 2¾"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	6320	$1.47	750	230	$1.47
3	3650	1.47	1000	200	1.47
5	2830	1.47	1250	180	1.47
10	2000	1.47	1500	163	1.47
15	1630	1.47	2000	141	1.47
25	1270	1.47	2500	126	1.47
50	894	1.47	3000	114	1.59
100	632	1.47	3500	106	1.59
150	510	1.47	4000	100	1.59
200	447	1.47	5000	88	1.59
250	400	1.47	7500	73	1.65
400	315	1.47	10000	63	1.77
500	283	1.47	15000	51	1.86

55 WATTS • TYPE 55S

3½" Long—Mtg. Centers 4¼"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	7420	$1.70	1250	209	$1.70
3	4280	1.70	1500	191	1.70
5	3320	1.70	2000	165	1.70
10	2350	1.70	2500	148	1.70
15	1910	1.70	3000	135	1.81
25	1480	1.70	3500	129	1.81
50	1050	1.70	4000	117	1.81
100	741	1.70	5000	104	1.81
150	604	1.70	7500	84	1.87
200	522	1.70	10000	74	1.99
250	469	1.70	15000	60	2.08
400	370	1.70	20000	52	2.15
500	331	1.70	25000	47	2.28
750	270	1.70	30000	42	2.39
1000	234	1.70			



Vitreous enameled wire-wound resistors built on a strong refractory core, and provided with low mounting brackets. Particularly suited for applications where space is limited. Specially adapted to stacking for networks.

The 20 watt Ministrip resistor is smaller in size than the standard Stripohms. They may be stacked by using 1/32" washers.

65 WATTS • TYPE 65S

4¾" Long—Mtg. Centers 5½"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8060	$1.95	1500	208	$1.95
3	4650	1.95	2000	180	1.95
5	3610	1.95	2500	161	1.95
10	2550	1.95	3000	146	2.04
15	2080	1.95	3500	136	2.04
25	1610	1.95	4000	127	2.04
50	1140	1.95	5000	114	2.04
100	806	1.95	7500	92	2.12
150	658	1.95	10000	80	2.23
200	570	1.95	15000	65	2.31
250	509	1.95	20000	57	2.40
400	403	1.95	25000	51	2.53
500	360	1.95	30000	46	2.62
750	294	1.95	35000	43	2.62
1000	254	1.95	40000	40	2.73
1250	228	1.95	50000	36	2.73

75 WATTS TYPE 75S

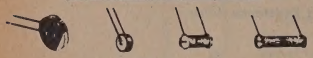
6" Long—Mtg. Centers 6¾"

Ohms	Current m.a.	Price	Ohms	Current m.a.	Price
1	8660	$2.12	2500	173	$2.12
3	5000	2.12	3000	158	2.22
5	3870	2.12	3500	146	2.22
10	2740	2.12	4000	137	2.22
15	2235	2.12	5000	122	2.22
25	1730	2.12	7500	100	2.28
50	1220	2.12	10000	87	2.40
100	866	2.12	15000	71	2.48
150	707	2.12	20000	61	2.57
200	612	2.12	25000	55	2.70
250	550	2.12	30000	50	2.80
400	433	2.12	35000	46	2.80
500	387	2.12	40000	43	2.89
750	315	2.12	50000	37	2.89
1000	274	2.12	60000	35	3.03
1250	245	2.12	65000	33	3.03
1500	224	2.12			
2000	193	2.12			

REPLACEMENT COMPONENTS

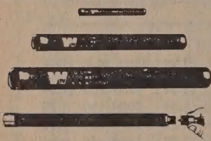
WORKMAN Electronic PRODUCTS, INC.
SARASOTA, FLORIDA

GLOBAR RESISTORS



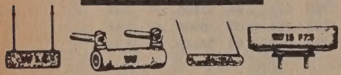
MODEL	DESCRIPTION	List	Dealer
FR.49	.49Ω at 3 amps.	1.60	.96
FR2	Replaces filament resistors	3.00	1.80
FR5-8	5-8Ω at 450ma	1.65	.99
FR6	6Ω Hot - 600ma	1.65	.99
FR9	9Ω Hot - 600ma	1.65	.99
FR11	11Ω Hot - 600ma	2.50	1.50
FR11P	11Ω-450 ma 9.2Ω-600 ma	1.65	.99
FR19	19Ω Hot - 600ma	1.50	.90
FR19A	19Ω Hot - 600ma	2.20	1.32
FR31	31Ω Hot - 300ma	1.90	1.14
FR35	35Ω Hot - 600ma	1.90	1.14
FR43	43Ω Hot - 600ma	2.50	1.50
FR50	50Ω Hot - 150ma	1.60	.96.
FR041	75Ω Hot - 300ma	2.20	1.32
FR051	20Ω Hot - 600ma	1.50	.90
FR052	10.5KΩ at 125 volts	3.20	1.92
FR054	35Ω Hot - 600ma	3.20	1.92
FR088	14KΩ at 140 volts	3.20	1.92
FR100	50Ω Hot - 150ma	1.60	.96
FR191	120Ω cold	1.20	.72
FR291	79Ω cold - .47Ω Hot	1.60	.96
FR5K	500KΩ at 25° C	1.50	.90
FRT1	100Ω Hot to 20Ω Hot	1.85	1.11
GM	1/5 Watt ± 20% 40 values	.65	.39

NON INDUCTIVE DUMMY LOADS



MODEL	DESCRIPTION	Users' Net
DL10W	10 Watt	3.50
DL25W	25 Watt	4.35
DL75W	75 Watt	8.85
DL100W	100 Watt	12.45
DL500W	500 Watt	42.00
DLSP-50	150 Watt	23.75

FUSED RESISTORS



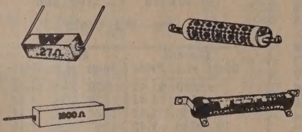
MODEL	DESCRIPTION	List	Dealer
F4.7	4.7Ω - 5 Watts	.65	.39
F5	5Ω - 5 Watts	.65	.39
F5.6	5.6Ω - 5 Watts	.65	.39
F6	6Ω - 5 Watts	.65	.39
F7	7.5Ω - 3 amperes	.72	.43
F80	7.5Ω - 3 amperes	.65	.39
F9	9Ω - 5 Watts	.65	.39
F10	10Ω - 5 Watts	.65	.39
F18	18Ω - 5 Watts	.65	.39
F22	22Ω - 5 Watts	.65	.39
F47	47Ω - 5 Watts	.65	.39
F100	100Ω - 5 Watts	.65	.39
F150	150Ω - 5 Watts	.65	.39
F12A	150Ω - 0.12 amperes	.65	.39
FRK	Kit of 10 resistors	5.76	3.46
FZ4.7	4.7Ω - 3 amperes	.36	.22
FZ5.6	5.6Ω - 3 amperes	.36	.22
FZ7.5	7.5Ω - 3 amperes	.36	.22
FZ9	9Ω - 3 amperes	.36	.22
FZ	Pack of 10 resistors	3.60	1.80
FB1	Universal replacement	2.00	1.20
F28	No. AWG 28 Wire 5 pcs.	.25	.15
F15-7.5	7.5Ω - 15 Watts	.96	.58
F7-5	5Ω - 7 Watts	.72	.43
F2A	Reset thermal switch	1.20	.72

CHEMICAL FUSES

BY BEL FUSE, INC.

MODEL	DESCRIPTION	List	Dealer
200-10	RCA 945309-1	.82	.49
KF-200	RCA 105041	1.00	.60
LC-200	For "C" type (Limited current)	1.00	.60
500-1	RCA, Emerson, Olympic	.75	.45
400-1	RCA 945392-2	.80	.48
3-1	RCA 045392-3	.58	.35
BL-5	Pack of 5 Chemical Fuses	3.95	2.37

AUTO RADIO RESISTORS

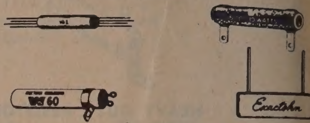


MODEL	DESCRIPTION	List	Dealer
WT22	0.22Ω - 5 Watt	.48	.29
WT27	0.27Ω - 5 Watt	.48	.29
WT33	0.33Ω - 5 Watt	.48	.29
WT47	0.47Ω - 5 Watt	.48	.29
WT56	5.6Ω - 5 Watt	.48	.29
WT68	0.68Ω - 5 Watt	.48	.29
WT82	0.82Ω - 5 Watt	.48	.29
7W	1800Ω - 7 Watt	.38	.23
FT2.8	2.8Ω cold	.65	.39
FT3.3	3.3Ω cold	.65	.39
FT4.5	4.5Ω cold	.65	.39
FT7.5	7.5Ω cold	.65	.39
FT10	10Ω cold	.65	.39
FT28	28Ω cold	.65	.39
FT35	35Ω cold	.65	.39
FT150	150Ω cold	1.30	.78
GD1	For 6 V. in 12 V. systems	5.50	3.30
GD2	2, 4, or 6 amp. loads	3.30	1.98
GD3	5 to 6 amp. loads	2.50	1.50
GD4	7 to 8 amp. loads	2.50	1.50

SQUARE OHMS

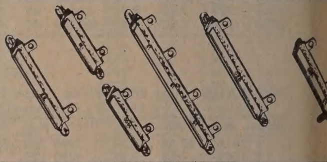
MODEL	DESCRIPTION	List	Dealer
5W-SQ	5W 69 Values 1-6KΩ	.36	.22
7W-SQ	7W 77 Values 1-10KΩ	.38	.23
10W-SQ	10W 85 Values 1-25KΩ	.40	.24
15W-SQ	15W 87 Values 1-35KΩ	.50	.30
20W-SQ	20W 87 Values 1-35KΩ	.65	.39
25W-SQ	25W 121 Values 1-50KΩ	.75	.45

WIREWOUND RESISTORS



MODEL	DESCRIPTION	List	D
10W	10W 48 Values	.65	.
148	41Ω - 25 Watt	.85	.
151	51Ω - 30 Watt	.95	.
M01	59Ω - 25 Watt	.85	.
E10	10W - 8 Values	1.40	.
30W	30W - 18 Values	1.60	.
25W	31Ω or 2250Ω - 25 Watt	.85	.
25W-DR	25W - 31 Values	1.10	.
VR1	10W 48 Values - .5 to 15Ω	1.10	.
VR2	10W 48 Values - 5 to 150Ω	1.10	.
VR3	10W 48 Values - 50 to 1500Ω	1.10	.
VR4	10W 48 Values - 500 to 15,000	1.10	.
VR5	10W 12 Values - 3000-50,000Ω	1.10	.
WR-50	5-15W 50 Values — Each	.55	.
WR-50	Card of 50 Values	27.50	16

CANDOHM WIREWOUND RESISTORS



MODEL	DESCRIPTION	List	De
C1	28Ω Tap 24Ω	1.60	.
C2	17Ω Tap 13Ω	1.20	.
C3	2760Ω Tap 1380Ω	2.00	1.
C4	5375Ω Tap 2650Ω	2.00	1.
C5	54Ω	2.00	1.
C6	50Ω	2.00	1.
C7	44Ω	2.00	1.
C8	3000Ω	2.00	1.
C9	2250Ω Tap 750Ω	1.60	.
C10	2200Ω Tap 1100Ω	2.00	1.
C11	4000Ω	1.60	.
C12	2300Ω	1.60	.
C13	6Ω	1.60	.
C14	1300Ω	1.60	.
C15	2600Ω Tap 1300Ω	2.00	1.
C16	1300Ω Tap 650Ω	4.00	2.
C17	2650Ω	2.00	1.
C18	9325Ω Tap 8200Ω	4.80	2.
C19	130Ω	1.40	.
C20	2175Ω Tap 75Ω	1.60	.
C21	1975Ω Tap 75Ω	1.60	.
C22	2000Ω	1.40	.
C23	135Ω	1.20	.
C24	47Ω Tap 14Ω Tap 32Ω	2.40	1.
C25	1550Ω	2.00	1.
C26	33Ω	1.60	.
C27	1800Ω	1.60	.
C28	2000Ω	1.60	.
C29	180Ω	1.22	.
C30	1180Ω Tap 180Ω	1.59	.
C31	2820Ω Tap 2000Ω	2.40	1.
C32	2000Ω	1.40	.
C33	2000Ω Tap 1000Ω	1.59	.
C34	61Ω	2.00	1.
C35	4520Ω Tap 120, 1120, 2320Ω	3.00	1.
C36	56Ω	1.60	.
C37	2070Ω Tap 720Ω	1.60	.
C38	1900Ω Tap 950Ω	1.59	.
C39	459Ω Tap 200Ω	2.80	1.
C40	9562Ω Tap 2500Ω	3.40	2.
C41	1280Ω	3.90	2.

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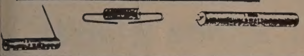
WORKMAN *Electronic* PRODUCTS, INC.
SARASOTA, FLORIDA

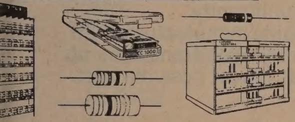
REPLACEMENT COMPONENTS

CARBON BAR RESISTORS



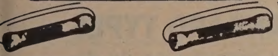
EL	DESCRIPTION	List	Dealer
	1 meg - 4 watts	.95	.57
	1.5 meg - 4 watts	.95	.57
	2 meg - 4 watts	.95	.57
	2.5 meg - 4 watts	.95	.57
	1 meg - 4 watts	1.25	.75
	1.5 meg - 4 watts	1.25	.75
	2 meg - 4 watts	1.25	.75
	2.5 meg - 4 watts	1.25	.75
	2.2Ω,3.3Ω,4.4Ω,5.5Ω kit	1.10	.66
	2.2Ω 4 resistors 1 watt	1.10	.66
	3.3Ω 4 resistors 1 watt	1.10	.66
	4.4Ω 4 resistors 1 watt	1.10	.66
	5.5Ω 4 resistors 1 watt	1.10	.66
	4 Watts - 5600Ω	.95	.57
	4 Watts - 6800Ω	.95	.57

CARBON RESISTORS



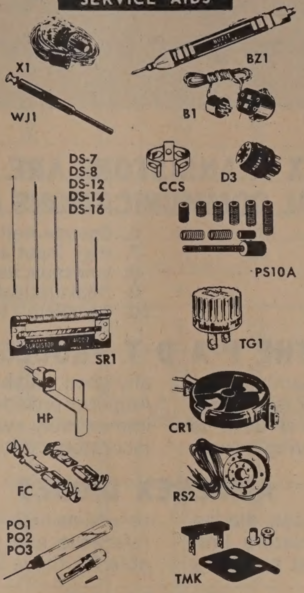
EL	DESCRIPTION	List	Dealer
	½ W ± 10% 77 values Bulk	.20	.12
	1 W ± 10% 77 values Bulk	.30	.18
	2 W ± 10% 77 values Bulk	.40	.24
	½ W ± 5% 153 values Bulk	.40	.24
	½ W ± 10% 77 values 6 Pk.	1.20	.72
	1 W ± 10% 77 values 4 Pk.	1.20	.72
	2 W ± 10% 77 values 3 Pk.	1.20	.72
	Rack of 624 Resistors	172.80	95.00
	Cabinet of 438 Resistors	129.60	77.76

GLASS RESISTORS



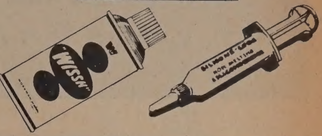
EL	DESCRIPTION	List	Dealer
0	3 Watt 470Ω	.65	.37
0	3 Watt 560Ω	.65	.37
00	3 Watt 1000Ω	.65	.37
00	3 Watt 2700Ω	.65	.37
00	3 Watt 3300Ω	.65	.37
00	3 Watt 4700Ω	.65	.37
00	3 Watt 5000Ω	.65	.37
00	3 Watt 5600Ω	.65	.37
00	3 Watt 6800Ω	.65	.37
00	3 Watt 8200Ω	.65	.37
K	3 Watt 10,000Ω	.65	.37
K	3 Watt 12,000Ω	.65	.37
K	3 Watt 15,000Ω	.65	.37
K	3 Watt 22,000Ω	.65	.37
00	4 Watt 3600Ω	.70	.42
00	4 Watt 4100Ω	.70	.42
00	4 Watt 4700Ω	.70	.42
00	4 Watt 5600Ω	.70	.42
00	4 Watt 7500Ω	.70	.42
K	4 Watt 12,000Ω	.70	.42
K	4 Watt 27,000Ω	.70	.42
00	5 Watt 1000Ω	.75	.45
00	5 Watt 5600Ω	.75	.45
00	5 Watt 6800Ω	.75	.45
00	5 Watt 7500Ω	.75	.45
00	5 Watt 8200Ω	.75	.45
K	5 Watt 33,000Ω	.75	.45
00	7 Watt 3300Ω	.80	.48
00	7 Watt 4700Ω	.80	.48
00	7 Watt 5100Ω	.80	.48
00	7 Watt 5600Ω	.80	.48
00	7 Watt 7000Ω	.80	.48
K	7 Watt 16,000Ω	.80	.48

SERVICE AIDS



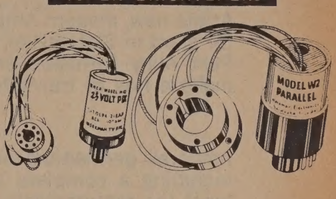
MODEL	DESCRIPTION	List	Dealer
X1	Extends Button Base	2.15	1.29
X2	Extends Shell Base	2.15	1.29
X3	Extends Std. Duo-Decal	2.15	1.29
X9	Xtend-Shaft	.30	.18
D1	Conv. Stand to Button	2.63	1.58
D2	Conv. Stand to Shell	2.63	1.58
D3	Conv. Shell to Button	2.63	1.58
D4	Conv. Button to Shell	2.63	1.58
D5	Conv. 23EP4 to Sylv. 8YP4	2.63	1.58
DS-7	Align. Tool 7"x 1/8"	1.25	.75
DS-8	Align. Tool 8"x 3/16"	1.25	.75
DS-12	Align. Tool 12"x 1/8"	1.40	.85
DS-14	Align. Tool 14"x 3/16"	1.65	1.00
DS-16	Align. Tool 16"x 1/8"	1.65	1.00
TG1	Tube Guard	2.00	1.20
SR1	Surgistor, 300 Watt	1.95	1.17
SR2	Surgistor, 250-400W-50Ω	2.95	1.77
10V	Boost-A-Volt	9.00	5.40
WJ1	Wissh Jet	6.25	3.75
NT	Hypodermic Needle	.70	.42
B1	Bosipt	4.90	2.95
FC	Faston Connectors	.75	.45
TMK	Power Trans. Mtg. Kit	.95	.57
TMS	Dia. Base Trans. Socket	.48	.28
GE12	G.E. No. 12 Lamp	.25	.15
PS10A	Powdered Iron Cores Kit	1.60	.96
RS1	110° Button Socket	1.00	.60
RS2	110° Shell Socket	1.00	.60
RS3	Standard Socket	1.00	.60
BZ1	Buzit	13.50	8.10
HP	Handi Plug	.25	.15
CCS	Mounting Clips	.45	.27
CCL	Mounting Clips	.45	.27
SMA	Speed-Mo Applicator	4.25	2.55
PO1	Precision Oiler	1.10	.66
PO2	Precision Graphiter	1.10	.66
PO3	Precision Greaser	1.10	.66
PF	Perma Flo Filter	1.60	.96
TH4	Touch 'n' Hold	3.25	1.95
484	Tuner Shaft	1.00	.60
CR1	Reel-It Cheater Cord	1.95	1.17
CR2	Reel-It Cheater Cord Ext.	1.95	1.17
CR3	Reel-It A.C. Ext. Cord	1.95	1.17
SO1	Printed Circuit Solder	.56	.34
SO2	Silver Solder	.56	.34
SO3	Ribbon Silver	.42	.25

CHEMICALS



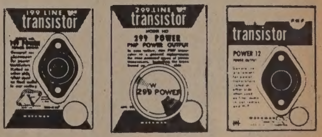
MODEL	DESCRIPTION	List	Deale
H6	"Wissh" 6 oz. Cleaner	1.65	.99
H6A	"Wissh" Aerosol	2.05	1.23
H14	"Wissh" 16 oz. Cleaner	3.25	1.95
H32	"Wissh" Cleaner Kit	5.42	3.25
S6	Super "Wissh"	3.50	2.10
ET1	Ease-It	1.65	.99
SG6	Silicone-Lube	1.25	.75
HC	Speaker Conditioner	.95	.57

SUPER BRIGHTENERS



MODEL	DESCRIPTION	List	Deale
W2	Standard Parallel	2.65	1.59
W3	Standard Series	2.09	1.74
W4	Standard Isolation	3.70	2.22
W5	110° Button Parallel	3.90	2.34
W6	110° Button Series	3.90	2.34
W7	110° Shell Parallel	3.90	2.34
W8	110° Shell Series	3.90	2.34
W9	Universal Standard	4.15	2.49
W10	110° Button Series 3½ V	3.50	2.10
W11	110° Shell Series	3.50	2.10
W12	110° Button Universal	4.50	2.70
P5	Standard Parallel	1.25	.75
P7	Standard Universal	2.40	1.44

POWER TRANSISTORS



MODEL	DESCRIPTION	List	Deale
99 Power	PNP Output	1.65	.99
199 Power	PNP Output	2.32	1.99
299 Power	PNP Output	4.98	2.99
Power 12	PNP Output	5.30	3.18
Power 25	PNP Output	6.40	3.84
Power 40	PNP Output	8.75	5.22
Power 60	PNP Output	7.50	4.50
Power 80	PNP Output	10.00	6.00
2N278	PNP Output	8.20	4.92
2N277	PNP Output	5.85	3.50
2N176	PNP Output	4.00	2.40
2N235	PNP Output	4.50	2.70
2N155	PNP Output	2.50	1.50

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FOR A COMPLETE LISTING OF EXACT REPLACEMENT COILS ASK YOUR JOBBER FOR OUR COIL CROSS REFERENCE.

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semiconductors by Amperex®

Universal Communications Transistors Now Available from the Amperex plant in Slatersville, Rhode Island.

WHY AMPEREX TRANSISTORS ARE OUTSTANDING FOR UNIVERSAL COMMUNICATIONS APPLICATIONS:

1. High current gain
2. Low leakage
3. High and uniform f_T
4. Low r-f noise figure
5. High collector voltage rating
6. Operate well at low voltages
7. High input and output impedances
8. Low capacitance
9. High dissipation ratings
10. Completely specified

THE P·A·D·T PROCESS

At the new, modern Amperex semiconductor plant in Slatersville, Rhode Island, the Post Alloy Diffusion process is used to make a line of transistors having unusually good reliability and uniformity. Amperex provides the quality manufacturer with immediately available production transistors of laboratory caliber—and at lowest possible cost.

AMPEREX DIODES

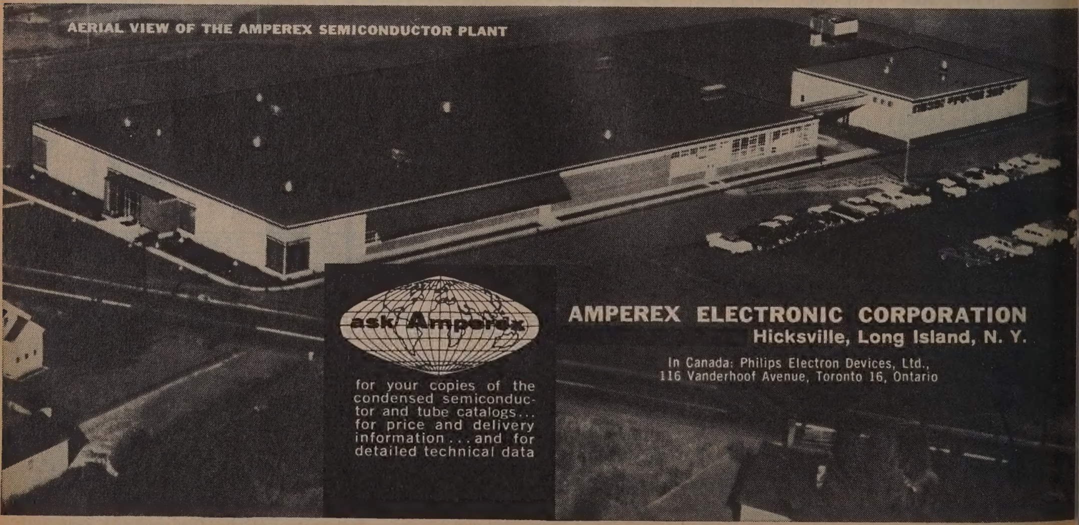
Amperex germanium and silicon diodes, including a complete subminiature line, meet the requirements for fast switching as well as high inductance applications. Voltage reference and power rectifier types are available for those who demand optimum stability.

THE PLANT

The Amperex plant in Slatersville, Rhode Island, is one of the world's most modern plants devoted exclusively to the manufacture of semiconductors for industrial, communications and entertainment applications. The exclusive "self-jigging" techniques employed by Amperex, as well as specially developed tooling methods and fully automatic high-volume equipment, are the user's lasting guarantee of complete satisfaction.

APPLICATIONS ASSISTANCE FOR CUSTOM AND STANDARD TYPES

The modern Amperex applications laboratory, located in Hicksville, L. I., is available to Amperex customers for consultation on design of circuitry and applications problems.



AERIAL VIEW OF THE AMPEREX SEMICONDUCTOR PLANT

ask Amperex

for your copies of the condensed semiconductor and tube catalogs... for price and delivery information... and for detailed technical data

AMPEREX ELECTRONIC CORPORATION
Hicksville, Long Island, N. Y.

In Canada: Philips Electron Devices, Ltd.,
116 Vanderhoof Avenue, Toronto 16, Ontario

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semiconductors by Amperex®

...mass-produced for specific applications at the Amperex plant in Slatersville, Rhode Island

transistors *representative of the* **Amperex** *line*

	MAXIMUM RATINGS				TYPICAL CHARACTERISTICS (25°C)					
	V_{CE} Volts	I_C MA	P_C MW	V_{EB} Volts	f_T MC	hfe (1 KC)	I_{CBO} µA	Gain db at	Freq. MC	Case
COMMUNICATION AND INSTRUMENTS										
2N987	40	10	85	1.0	100	100	1.2	14	100	TO-18
2N1225	40	10	120	0.5	100	60	50	18	50	TO-33
2N1226	60	10	120	0.5	30	60	50	22	12.5	TO-33
2N1395	40	10	120	0.5	30	90	50	45	1.5	TO-33
2N1396	40	10	120	0.5	100	90	50	20	30	TO-33
2N1397	40	10	120	0.5	120	90	50	21	50	TO-33
2N2084	40	10	125	1.0	100	100	1.2	14	100	TO-33
AM RECEIVERS										
2N993	20	10	85	1.5	70	140	1.5	42	0.455	TO-18
2N2093	25	10	100	1.5	70	150	1.5	30	1.4	TO-7
FM RECEIVERS										
2N990	20	10	85	1.5	70	140	1.5	14	100	TO-18
2N2089	20	10	100	1.5	70	140	1.5	14	100	TO-7
VHF RECEIVERS										
PADT-28	25	10	83	0.5	180	120	5	14	200	TO-7
MED. POWER RF & VIDEO										
2N2207	50	30	200	0.5	175 (I_E= 10 MA)	200	5 (max.)			TO-7
RF POWER AMPLIFIERS										
PADT-50	75	750	16 W (T_C= 25°C)	1.5	60		I_{CEO} = 10			TO-3
GENERAL PURPOSE RF										
2N1515 (osc.)	20	10	83	0.5	70	100	1.5	61	0.455	TO-7
2N1516 (conv.)	20	10	83	0.5	70	100	1.5	18 (Gc)	30	TO-7
2N1517 (RF)	20	10	83	0.5	70	100	1.5	10	100	TO-7
FAST SWITCHING										
PADT-40	20	30	94	2.5	600	30	V_{CE}(sat.)=0.3 V @ 50 MA, t_t=130 ns			TO-18
2N705	15		300	3.5	300	40	3.0			TO-18
2N710	15		300	2.0	300	40	3.0			TO-18
2N711	12		150	1.0	V_{CE} (sat.)<.5 V @ I_C=10 MA, I_B=.5 MA					TO-18
PADT-51 (Avalanche)	V_{CO}<2 V	75	83		V_{CB} at I_{CO}	tr=1 ns.				TO-7
					=1 MA, 25 V	(I_C= 12 MA)				TO-3
MEDIUM SPEED SWITCHING										
ASY-26	25	100	125	20	4	50	3			TO-5
ASY-27	20	100	125	20	6	75	3			TO-5
ASY-28 (NPN)	25	100	125	20	4	50	3			TO-5
ASY-29 (NPN)	20	100	125	20	6	75	3			TO-5
(ASY-28 and ASY-29 are complements of ASY-26 and ASY-27)										
2N404	25	100	150	12	4		5 (max.)			TO-5
2N1302	25	300	150	25	3.0	50	6.0			TO-5
2N1303	25	300	150	25	3.0	50	6.0			TO-5
AUDIO AMPLIFIERS										
AC-125	32	30		10	1.5	125	10			TO-1
AC-126	32	30		10	1.5		10			TO-1
AC-128	32	150		150	1.7	100	10			
BCY-12 (Si)	32		315	12	2.0	40	0.1			TO-1
BCZ-12 (Si)	60		250	30	1.0	15	0.1			TO-1
SILICON MESA										
2N332	45	25	150	1.0	4.0	15	2.0	31		TO-5
2N334	45	25	150	1.0	8.0	54	10	35		TO-5
2N335	45	25	150	1.0	6.0	63	2.0	37		TO-5
2N337	45	20	125	1.0	20	22				TO-5
2N338	45	20	125		30					TO-5
SILICON ALLOY										
2N329 A	50	50	250	20	0.40	50	0.1			TO-5
2N1024	15	100	250	15	1.0	15	.02			TO-5
2N1469	35	100	250	40	2.0	60	.025			TO-5
2N1477	100	100	250	100	1.0	45	0.2			TO-5
FOUR-LAYER SWITCH										
PADT-60	35 (V_{CB}=12 V)	25	50	V_{CE} (sat.)=0.6 V			10			TO-1

diodes *representative of the* **Amperex** *line*

	MAX. RATINGS (25°C)		TYPICAL CHARACTERISTICS				
	V_R Volts	I_F MA	I_F MA at	V_F Volts	I_R µA at	V_R Volts	Case
COMPUTER TYPES							
1N191	90	35	5	1.0	25	10	submin.
1N192	70	35	5	1.0	20	10	submin.
1N270	80		200	1.0	100	50	submin.
1N277	100		100	1.0	250	50 (75°C)	submin.
1N690	36	400	400	1.0	.25	30	submin.
1N3121	50		150	0.74	30	50	submin.
1N3122	20		10	0.34	3	10	submin.
1N3483 (low Q)	8		10	0.5	10	3.0	submin.
1N3484 (low Zc)	80		250	0.7	10	80	submin.
DETECTORS							
A112 (Video)	60	30	5	1.0	10	10	submin.
1N60 (Video)	30	50			67	10	solder-in
1N87 (Video)	25	45	0.1	0.25	30	1.5	solder-in
1N87A (Video)	25	45	0.1	0.25	30	1.5	submin.
1N295	40				200	10	submin.
1N541 (AM)	30	10	1.5	1.0	18	10	solder-in
1N542 (FM)	Matched pair of 1N541						
VOLTAGE VARIABLE CAPACITANCE DIODE							
1N3182	20	C_D= 33 P_F at –4V., f = 500 KC, Q = 55					submin.
SILICON VOLTAGE REFERENCE DIODES							
OAZ-200 to OAZ-207	40 MA 300 MW diodes; 4.7 to 0.1 V at 10 MA						(single end)
OAZ-208 to OAZ-213	50 MA 300 MW diodes; 4.3 to 12.1 V at 1 MA						(single end)
BZZ-10 to BZZ-13	25 MA 300 MW diodes; 6.0 to 8.0 V at 15 MA						DO-7
BZZ-14 to BZZ-19	500 MA 1.8 W diodes; 5.6 to 9.1 V at 20 MA						DO-4
SILICON GENERAL PURPOSE DIODES							
1N456	25	90	40	1.0	.025	25	submin.
1N457	60	75	20	1.0	.025	60	submin.
1N458	125	55	7	1.0	.025	125	submin.
1N459	175	40	3	1.0	.025	175	submin.
1N461	25	60	15	1.0	0.5	25	submin.
1N462	60	50	5	1.0	0.5	60	submin.
1N463	175	30	1.0	1.0	0.5	175	submin.
1N464	125	40	3	1.0	0.5	125	submin.
HIGH VOLTAGE SILICON RECTIFIERS							
BY-100	800	550	5 A	1.5	.01	1250	
HIGH CURRENT SILICON RECTIFIERS							
BYY-22	200	10 A	50 A	1.7	2 MA	200	
BYZ-14	200	20 A	100 A	1.85	2	200	DO-8
BYZ-15	(Same as BYZ-14, except for reversed polarity)						
GERMANIUM GENERAL PURPOSE DIODES							
1N34	60	40	5	1.0	30	10	solder-in
1N38	100	50	4	1.0	5	3	solder-in
1N58	100	50	4	1.0	50	10	solder-in
1N67A	80	30	4	1.0	50	50	submin.
1N90	60	30	5	1.0	500	50	submin.
1N126	60	30	5	1.0	50	10	submin.
1N128	40	30	3	1.0	10	10	submin.
1N198	80	30	5	1.0	75	10	submin.
1N478	90	50	5	1.0	30	3	solder-in
1N618	90	50	5	1.0	7	10	submin.

ALCO SEMICONDUCTORS

- AMERICAN MADE AT ECONOMY PRICES
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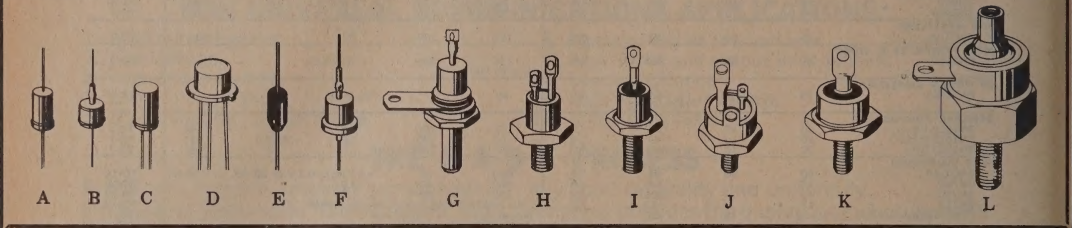
- NEWEST TYPES STOCKED



ZENER DIODES

A ZENER VOLTAGE REGULATORS

¾ watt

		20%	10%
DK-750-4.3	(4.3V)	Net $1.15	$1.45
DK-750-6.2	(6.2V)	Net 1.15	1.45
DK-750-8.5	(8.5V)	Net 1.15	1.45
DK-750-15	(15. V)	Net 1.15	1.45
DK-750-22	(22. V)	Net 1.15	1.45

B ZENER VOLTAGE REGULATORS

1 watt

		20%	10%
DK-1000-4.3	(4.3V)	Net $1.35	$1.70
DK-1000-6.2	(6.2V)	Net 1.35	1.70
DK-1000-8.5	(8.5V)	Net 1.35	1.70
DK-1000-15	(15. V)	Net 1.35	1.70
DK-1000-22	(22. V)	Net 1.35	1.70

C DOUBLE ANODE ZENERS

Temperature Compensated

DZ-26 6.3V, ±20% .... Net $0.50

TRANSISTORS

D PNP TRANSISTOR RADIO KITS

Direct replacement for transistor radios.

DT-304	For 4-transistor radios	Net $2.10
DT-305	For 5-transistor radios	Net 2.45
DT-306	For 6-transistor radios	Net 2.75

RECTIFIERS

E 500MA EPOXY RECTIFIERS

DE-200	Similar to 1N2069	(200PIV)	Net $0.30
DE-400	Similar to 1N2070	(400PIV)	Net .40
DE-600	Similar to 1N2071	(600PIV)	Net .70

RECTIFIERS

F 750MA TOP HAT RECTIFIERS

DL-150	Replaces 1N599	(50PIV)	Net $0.11
DL-201	Replaces 1N600	(100PIV)	Net .20
DL-202	Replaces 1N602	(200PIV)	Net .33
DL-203	Replaces 1N603	(300PIV)	Net .39
DL-204	Replaces 1N604	(400PIV)	Net .48
DL-205	Replaces 1N605	(500PIV)	Net .60
DL-206	Replaces 1N606	(600PIV)	Net .75
DL-207		(700PIV)	Net .95
DL-208		(800PIV)	Net 1.25
DL-209		(900PIV)	Net 1.50
DL-210		(1000PIV)	Net 1.95
DL-211		(1500PIV)	Net 3.25
DL-212		(2000PIV)	Net 4.15

G 2A CONTROLLED RECTIFIER

DCR-20 Similar to 2N1600 .... Net $3.50

H 2A SILICON RECTIFIERS*

DM-205	Replaces 1N2026	(50PIV)	Net $0.17
DM-210	Replaces 1N347	(100PIV)	Net .30
DM-220	Replaces 1N2027	(200PIV)	Net .45
DM-240	Replaces 1N2029	(400PIV)	Net .90
DM-260	Replaces 1N2031	(600PIV)	Net 1.35
DM-280	Replaces 1N1236	(800PIV)	Net 1.75
DM-291	Replaces 1N3366	(1000PIV)	Net 2.90
DM-292	Replaces 1N3371	(1500PIV)	Net 4.70
DM-293		(2000PIV)	Net 6.50

* Available in reverse polarity. 7/16″ hex.
(G) Available in ceramic base at 10% higher price.

RECTIFIERS

I 12A RECTIFIERS*

Ideal for battery charges, medium power supplies, etc.

DI-1199	Replaces 1N1199	(50PIV)	Net $0.75
DI-1200	Replaces 1N1200	(100PIV)	Net 1.20
DI-1202	Replaces 1N1202	(200PIV)	Net 1.75
DI-1204	Replaces 1N1204	(400PIV)	Net 2.60
DI-1206	Replaces 1N1206	(600PIV)	Net 3.75
DI-1208		(800PIV)	Net 6.90
DI-1210		(1000PIV)	Net 9.50

* Available in reverse polarity.
(G) Available in ceramic base at 10% higher price.

J 20A CONTROLLED RECTIFIER

Voltage to 400V. 11/16″ hex.
DCR-200 .... Net $14.00

K 25A SILICON RECTIFIERS*

Ideal for high power rectification. 11/16″ hex.

DH-305A	Replaces 1N248A	(50PIV)	Net $1.5
DH-310A	Replaces 1N249A	(100PIV)	Net 2.5
DH-320A	Replaces 1N250A	(200PIV)	Net 3.7
DH-340A	Replaces 1N2136A	(400PIV)	Net 4.7
DH-360A	Replaces 1N2138A	(600PIV)	Net 7.7
DH-380A		(800PIV)	Net 10.0

* Available in reverse polarity.
(G) Available in ceramic base at 10% higher price

L 50A SILICON RECTIFIERS

Excellent for high power use. 1-1/16″ hex

DH-502		(25PIV)	Net $ 2.7
DH-505	Similar to 1N411B	(50PIV)	Net 3.9
DH-510	Similar to 1N412B	(100PIV)	Net 5.9
DH-520	Similar to 1N413B	(200PIV)	Net 6.5
DH-540		(400PIV)	Net 9.7
DH-560		(600PIV)	Net 16.0

NEW TYPES STOCKED BY YOUR DISTRIBUTOR AS SOON AS ANNOUNCED

ALCO

SPECIALISTS IN MINIATURIZATION

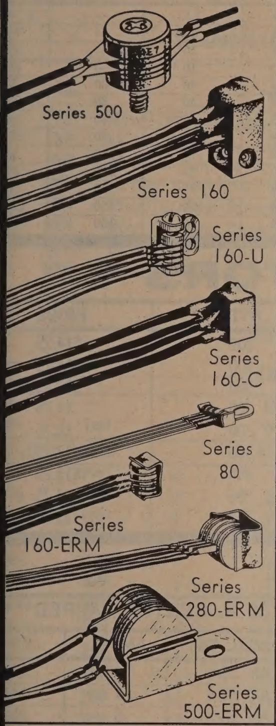
ELECTRONIC PRODUCTS, INC.

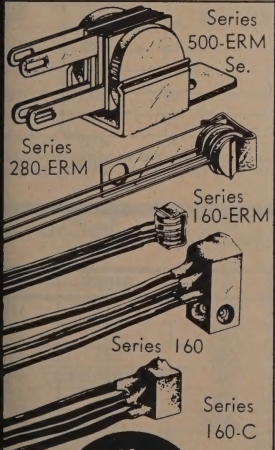
Lawrence, Mass.

CONANT *Miniature Metallic Rectifiers*

STANDARD SINCE 1933

Illustrations approx. actual size





CONANT MINIATURE METALLIC RECTIFIERS

All Conant rectifiers are manufactured to the highest quality standards from individually tested and graded cells. Copper oxide cells are produced by the exclusive Conant Process and have 24K gold contacts applied in high vacuum.

The Conant Complete Color Code permits identification of rectifier type by color and physical form.

Only basic standard rectifier types are listed below. Many other standard catalog items are available and we are prepared to produce special items to meet customers' special requirements.

COPPER OXIDE TYPES WITH INSULATED LEAD WIRES

TYPE		CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
M		1	.500″	.125 sq. in.	5V	100 ma.	6-32 stud	Lacquer	$2.10
TH	Series	2	"	" "	"	75 ma.	" "	"	1.86
HS	500	3	"	" "	"	50 ma.	" "	"	1.53
T		4	"	" "	"	100 ma.	" "	"	1.53
H		5	"	" "	"	50 ma.	" "	"	1.20
B		1	.166″	.012 sq. in.	"	10 ma.	#2 screw	Solid fill	2.10
BTH	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS	160	3	"	" "	"	5 ma.	" "	"	1.53
BT		4	"	" "	"	10 ma.	" "	"	1.53
BH		5	"	" "	"	5 ma.	" "	"	1.20
B-U		1	"	" "	"	10 ma.	#2 screw	"	1.98
BTH-U		2	"	" "	"	7 "	" "	"	1.74
BHS-U	Series	3	"	" "	"	5 "	" "	"	1.41
BT-U	160-U	4	"	" "	"	10 "	" "	"	1.41
BH-U		5	"	" "	"	5 "	" "	"	1.08
B-C		1	"	" "	"	10 ma.	Fuse clip	"	2.10
BTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.86
BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.53
BT-C		4	"	" "	"	10 ma.	" "	"	1.53
BH-C		5	"	" "	"	5 ma.	" "	"	1.20
A		1	.080″	.0012 sq. in.	5V	1 ma.	#2 screw	Bonded vinyl	2.10
ATH	Series	2	.080″	.0012 sq. in.	"	1 ma.	#2 screw	Bonded vinyl	1.86
AHS	80	3	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AT		4	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.53
AH		5	.080″	.0012 sq. in.	"	500 ua.	#2 screw	Bonded vinyl	1.20
B-ERM*		1	"	" "	"	10 ma.	Leads	Lacquer	1.59
BTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	1.35
BHS-ERM*	160-	3	"	" "	"	5 ma.	" "	"	1.05
BT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	1.05
BH-ERM*		5	"	" "	"	5 ma.	" "	"	.75
I-ERM*		1	.280″	.035 sq. in.	"	30 ma.	" "	"	1.59
ITH-ERM*	Series	2	"	" "	"	20 ma.	" "	"	1.35
IHS-ERM*	280	3	"	" "	"	15 ma.	" "	"	1.05
IT-ERM*	ERM	4	"	" "	"	30 ma.	" "	"	1.05
IH-ERM*		5	"	" "	"	15 ma.	" "	"	.75
M-ERM*		1	.500″	.123 sq. in.	"	100 ma.	#6 screw	"	1.59
TH-ERM*	Series	2	"	" "	"	75 ma.	" "	"	1.35
HS-ERM*	500	3	"	" "	"	50 ma.	" "	"	1.05
T-ERM*	ERM	4	"	" "	"	100 ma.	" "	"	1.05
H-ERM*		5	"	" "	"	50 ma.	" "	"	.75

SELENIUM TYPES, wire leads or lugs as shown

TYPE		CIRCUIT	CELL SIZE	ACTIVE AREA	INPUT	OUTPUT	MOUNTING	FINISH	PRICE
SeM-ERM*	Series	1	.500″	.15 sq. in.	25V	60 ma.	#6 screw	Lacquer	$1.23
SeTH-ERM*	500	2	"	" "	"	40 ma.	" "	"	1.08
SeHS-ERM*	ERM	3	"	" "	"	30 ma.	" "	"	.87
SeT-ERM*	Se.	4	"	" "	"	60 ma.	" "	"	.87
SeH-ERM*		5	"	" "	"	30 ma.	" "	"	.66
SeI*		1	.280″	.06 sq. in.	"	20 ma.	Bracketerminal	"	.66
SeITH*	Series	2	"	" "	"	15 ma.	" "	"	.60
SeIHS*	280	3	"	" "	"	10 ma.	" "	"	.51
SeIT*	ERM	4	"	" "	"	20 ma.	" "	"	.51
SeIH*		5	"	" "	"	10 ma.	" "	"	.42
SeB-ERM*		1	.166″	.02 sq. in.	"	10 ma.	Leads	"	.87
SeBTH-ERM*	Series	2	"	" "	"	7 ma.	" "	"	.81
SeBHS-ERM*	160	3	"	" "	"	5 ma.	" "	"	.69
SeBT-ERM*	ERM	4	"	" "	"	10 ma.	" "	"	.69
SeBH-ERM*		5	"	" "	"	5 ma.	" "	"	.57
SeB		1	"	" "	"	10 ma.	#2 screw	Solid fill	1.38
SeBTH	Series	2	"	" "	"	7 ma.	" "	"	1.32
SeBHS	160	3	"	" "	"	5 ma.	" "	"	1.17
SeBT		4	"	" "	"	10 ma.	" "	"	1.17
SeBH		5	"	" "	"	5 ma.	" "	"	1.02
SeB-C		1	"	" "	"	10 ma.	Fuse clip	"	1.38
SeBTH-C	Series	2	"	" "	"	7 ma.	" "	"	1.32
Se-BHS-C	160-C	3	"	" "	"	5 ma.	" "	"	1.17
SeBT-C		4	"	" "	"	10 ma.	" "	"	1.17
SeBH-C		5	"	" "	"	5 ma.	" "	"	1.02

*Resilient structure (U. S. Pat No. 2,656,493) maintains optimum stack pressure independent of temperature changes, as well as providing the lowest price and smallest size.

CONANT LABORATORIES **Lincoln, Nebraska**

GATES

RECTIFIERS
CAPACITORS
TRANSFORMERS
CHOKES

SELENIUM RECTIFIERS

MAX. AMPS	0-26 VAC 0-20 VDC	0-52 VAC 20-40 VDC	0-78 VAC 40-60 VDC	0-130 VAC 60-100 VDC	0-156 VAC 100-120 VDC
0.6	1.50	2.50	3.25	4.50	6.25
1.5	2.30	3.25	4.75	8.25	10.00
2.2	3.20	5.00	5.75	11.25	13.25
3.4	4.15	6.00	8.25	14.00	16.50
4	7.00	11.00	15.00	24.00	27.00
6.6	8.00	12.00	18.00	32.00	35.00
10	12.00	19.00	25.00	41.00	48.00
12	15.00	21.00	29.00	44.00	51.00
15	18.00	28.00	38.00	53.00	63.00
20	22.00	35.00	46.00	75.00	88.00
24	30.00	42.00	53.00	83.00	93.00
30	34.00	53.00	70.00	115.00	133.00
36	45.00	65.00	84.00	140.00	185.00

SILICON RECTIFIERS

STOCK No.	A.C. INPUT UP TO	D.C. OUTPUT UP TO	MAX. AMPS SELF COOLED	MAX. AMPS FAN COOLED	NET PRICE
G6S6	420	390	1.5	—	$ 4.66
G1-32-3	36	32	10	—	19.00
G2-125-3	140	125	10	—	28.00
G3-250-3	280	250	10	—	40.00
G1-32-5	36	32	40	80	30.00
G2-64-5	72	64	40	80	45.00
G3-95-5	105	95	40	80	85.00
G4-125-5	140	125	40	80	100.00
G1-32-5	36	32	50	100	32.00
G2-250-5	280	250	50	100	85.00
G1-32-6	36	32	75	100	58.00
G2-64-7	72	64	150	150	133.00
G3-95-6	105	95	75	150	155.00

DURALYTIC CAPACITORS

MFD.	WVDC	PRICE
2,000	50	$ 3.75
4,000	50	4.68
10,000	50	12.44
1,000	75	$ 9.80
2,000	75	10.50
7,000	75	16.25
2,000	100	$12.90
4,000	100	15.50

MFD.	WVDC	PRICE
1,000	200	$14.25
2,000	200	18.75
250	300	$12.25
500	300	14.75
750	300	16.75
1,000	300	17.75
250	350	$13.25
500	350	14.75
1,000	350	19.00

TRANSFORMERS

36, 38 and 40 VOLTS*

MODEL NO.	AMPS	PRICE
GT 36-2	2	6.00
GT 36-5	5	7.60
GT 36-8	8	13.00
GT 36-10	10	14.75
GT 36-12	12	15.00
GT 36-15	15	21.50
GT 36-20	20	28.50
GT 36-30	30	41.00
GT 36-50	50	55.00

36 V. CENTER TAPPED**

MODEL NO.	AMPS	PRICE
XF 36-1	1	4.75
XF 36-2	2	6.45
XF 36-4	4	7.75
XF 36-8	8	14.10
XF 36-12	12	15.50
XF 36-24	24	34.05
XF 36-30	30	42.50
XF 36-50	50	56.75

56 V. CENTER TAPPED***

MODEL NO.	AMPS	PRICE
AH 56-2	2	7.50
AH 56-4	4	11.50
AH 56-6	6	21.50
AH 56-12	12	29.00

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings. Secondaries connected in series gives 36 V rated; in parallel gives 18 V at twice rated current (taps 9, 18, 27, 36 V.) Primary is tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 an models. ***Center tapped secondary.

CHOKES

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-1	1	.1	1.5	4.75
GH-2	2	.04	.9	5.50
GH-4	4	.07	.6	6.45
GH-5	5	.03	.02	6.60
GH-8	8	.03	.3	11.00
GH-10	10	.015	.05	12.50
GH-12	12	.01	.1	14.20

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-15	15	.006	.01	14.75
GH-20	20	.004	.05	15.00
GH-24	24	.004	.025	25.00
GH-30	30	.003	.01	35.00
GH-50	50	.001	.001	43.00
GH-100	100	.0005	.005	53.00

POWER SUPPLIES

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ENTERTAINMENT SEMICONDUCTORS

ELECTRONICS

TRANSISTORS • RECTIFIERS • DIODES

UNIVERSAL REPLACEMENTS

A FEW WILL DO

TRANSISTORS

atalog No.	Use	Application	Sugg. Resale
GE-1	PNP	Mixer/Oscillator Converter • RF and IF Amplifier....	$1.30
GE-2	PNP	AF Amplifier	1.20
GE-3	PNP	AF Power Amplifier	2.25
GE-4	PNP	AF High Power Amplifier	4.90
GE-5	NPN	Mixer/Oscillator Converter • RF and AF Amplifier..	1.75
GE-6	NPN	Mixer/Oscillator Converter • RF Amplifier	1.75
GE-7	NPN	IF Amplifier	1.58
GE-8	NPN	AF Amplifier	1.26

SILICON RECTIFIER

Catalog No.	Div.	Max. IDC	Max. Current Surge Rating	Sugg. Resale
GE-504	400	750	*45 AMPS	$1.00

*Because of the 45 AMP. Surge Rating, the G.E.-504 is recommended as a replacement for all Selenium and Silicon Rectifiers used in TV Receivers. No current limiting resistor is necessary when replacing other rectifiers with the G.E. 504.

REGISTERED ENTERTAINMENT JEDEC TYPES

TRANSISTORS

JEDEC No.	Type	Use	Sugg. Resale
GE-M-100	NPN	....	$1.50
2N107	PNP	AF	.55
2N135	PNP	IF	2.15
2N136	PNP	IF	2.55
2N137	PNP	IF	6.20
2N169	NPN	IF	1.57
2N169A	NPN	AF	2.40
2N170	NPN	IF	.75
2N186A	PNP	AF OUT	1.95
2N187A	PNP	AF OUT	1.50
2N188A	PNP	AF OUT	1.64
2N189	PNP	AF	.70
2N190	PNP	AF	.75
2N191	PNP	AF	.83
2N192	PNP	AF	1.57
2N241A	PNP	AF OUT	.92
2N265	PNP	AF	1.87
2N292	NPN	IF	.75
2N293	NPN	IF	.83
2N319	PNP	AF	.44

JEDEC No.	Type	Use	Sugg. Resale
2N320	PNP	AF	$ .59
2N321	PNP	AF	.68
2N322	PNP	AF	.48
2N323	PNP	AF	.60
2N324	PNP	AF	.75
2N404	PNP	SW	.63
2N448	NPN	IF	.83
2N449	NPN	IF	1.57
2N450	PNP	SW	2.10
2N508	PNP	AF OUT	.83
2N1086	NPN	OSC	.83
2N1086A	NPN	OSC	1.57
2N1087	NPN	OSC	1.82
2N1097	PNP	AF OUT	.47
2N1098	PNP	AF OUT	.42
2N1121	NPN	IF	1.57
2N1144	PNP	AF OUT	.68
2N1145	PNP	AF OUT	.68
2N1415	PNP	AF-SW	.99
2N1694	NPN	SW	.99
2N2160	PNP	SW	1.49

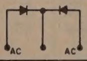
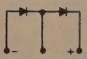
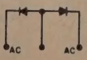
RECTIFIERS

Type	PIV	Max. I_{DC}	Sugg. Resale
1N91	100	150	$ .85
1N576A	380	400	1.50
1N584	380	400	1.97
1N1008	380	400	1.50
1N1016	380	400	3.00
1N1024	380	400	1.50
1N1692	100	600	.59
1N1693	200	600	.63
1N1694	300	600	.78
1N1695	400	600	.96
1N1696	500	600	.96
1N1697	600	600	1.41

CRYSTAL DIODES

Type	Description	AVG Forward Current (MA)	Sugg. Resale
1N34AS	General Purposes	50	$ .32
1N60	Video Detector	50	.48
1N82A	Silicon UHF Mixer	—	.91
1N295	50 MC Detector	30	.35

Vac-u-Sel SELENIUM DUAL-DIODE RECTIFIERS

Catalog No.	Type		Sugg. Resale
6GC1	COMMON CATHODE		$ .54
6GD1	SERIES CONNECTED		.54
6GX1	COMMON ANODE		.54

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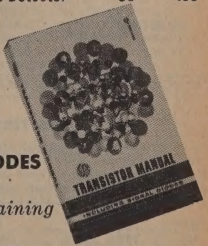

22 fact filled chapters containing

- **Transistor Theory**
- **Characteristics**
- **Specifications**
- **Applications**

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SEMICONDUCTORS

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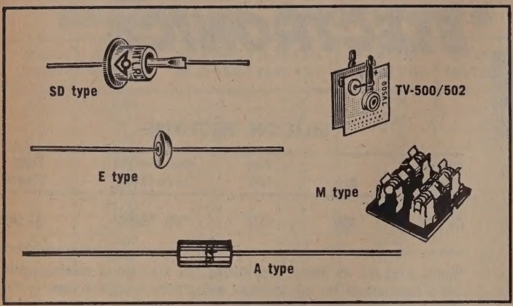


SILICON REPLACEMENT RECTIFIERS FOR TV, RADIO AUDIO AND SIMILAR APPLICATIONS

The most complete line of industrial and replacement silicon rectifiers. Type E are small, economy diodes. Type A is the new, all insulated miniature Mark VII, very high rated for its size. Type SD 500 is the most popular, hermetically sealed "Top-Hat." TV 500 and TV 502 are top-hats, mounted on heat-sinks as direct replacement for selenium stacks. Type M are "plug-ins."

RATINGS (Into Capacitive Load)

Type	Peak Rev. Volt	RMS Input	DC Output (Ma)	Max. Surge, Amp.
5A4	400	140	750	50
2E4	400	140	250	2
5E4	400	140	450	5
1M4	400	140	250	2
5M4	400	140	750	50
SD 500	400	140	650	5
TV 500	400	140	750	5
TV 502	800	280	750	5

PACKAGING ON ABOVE RECTIFIERS

Int'l No.	Packaging	Net
5A4	Indiv. Packaged	$1.35
5A4-BU	Bulk — 10 to pkg.	1.07*
5A4-95**	Plastic box of 5	5.60
2E4	Indiv. Boxes	.70
2E4-BU	Bulk — 10 to a pkg.	.68*
5E4	Indiv. Boxes	.90
5E4-BU	Bulk — 10 to a pkg.	.72*
5E4-95*	Plastic Box of 5	3.95
1M4	Indiv. Boxed	.95
1M4-BU	Bulk — 10 to a pkg.	.85*
1M4-K	Kit, includ. rectif. holder, hdwe and resistor	1.00
5M4	Indiv. Boxed	1.40
5M4-95**	Plastic box of 5	6.75
5M4-BU	Bulk — 10 to a pkg.	1.30*
5M4-K	Kit of 2 rect. with holder	2.80
43-1803	SNAP-IN Holder only (single	.12
43-1804	SNAP-IN Holder only (dual)	.25
43-1805	SNAP-IN Holder only (quadruple)	.90
SD 500	Indiv. boxes, no hardware	1.05
SD 500-BU	Bulk, no hardware, 10 to pkg.	.92
SD 500-92**	Popular Kit of 2 rectifiers incl. conversion hardware and compl. instructions	2.30
SD 500-95**	Same as above but kit of 5	5.50
TV 500	Universal, 750 mil rectifier	1.86
TV 502	Dual rectifier for voltage doubler circuits and color TV	3.30

*In lots of 10 **order per kit

SELENIUM BATTERY CHARGER REPLACEMENTS

Type JD-4346B: Universal unit for commercial "fast" chargers; fits many brands without circuit or mechanical modifications. Single-Plate Rectifiers: Replace low current types in "trickle" type battery chargers. Can be assembled for any function (center tap, bridge, etc.).

Int'l No.	Output DC Volts	Output DC Amps	Max. AC Volts	Circuit Diag.	Dimensions, Inches H.	W.	D.	Stud	Net Each
JD-4346B	6-12	30-100*	16.5-0-16.5	1A	6	5	4⅛	⅜-16	$16.75
JD-4346D	6-12	30-100*	16.5-0-16.5	1	6	5	4⅛	⅜-16	16.75
JD-116K	6-12	2†	16.5-0-16.5		3	3	½	....	1.20
JD-117K	6-12	3†	16.5-0-16.5		4	4	½	....	1.80
JD-241K	6-12	6†	16.5-0-16.5		6	5	½	....	2.46
JD-240K	6-12	9†	16.5-0-16.5		7½	6½	½	....	3.40

*30 amps without fan; 100, with fan rated 800 LFM. †Ratings shown are for half wave; two plates in center-tap circuit have twice this rating.

SELENIUM RECTIFIERS

RADIO-TV REPLACEMENT TYPES

Compact, high density types for economy with reliability; for radio, TV and audio replacement. Feature negligible leakage and aging; stable characteristics. Supplied with mounting bracket and hardware. Type QM50 is encapsulated.

Int'l No.	Output DC MA	Max. RMS Volts	Plate Size, Iin.	Mtg. Size Max., In.	Net Each
T065/075	To 75	130	.067 sq.	9/16	$0.48
T075/150	75-150	130	1 sq.	¾	.69
T200/300	150-300	130	1¼ sq.	¾	1.08
T350/400	300-400	130	1½ sq.	1 5/16	1.25
T450/500	400-500	130	1½ sq.	1 5/16	1.32
T550/650	500-650	130	2 sq.	2	1.74
QM50	To 50	130	⅞ sq.	½	.64

FULL WAVE BRIDGE RECTIFIERS

Int'l No.	Max. DC Ma	Max. RMS Volts	Dimensions Inches H.	W.	D.	Net Each
Q1B	100	25	.67	.67	¾	$0.84
Q4B	100	130	.67	.67	1 5/16	1.56
A1B	180	25	1.0	1.0	¾	1.22
B1B	300	25	1.2	1.2	¾	1.28
C1B	600	25	1.5	1.5	¾	1.46
M1B	1200	25	2.0	2.0	¾	1.72

SINGLE PLATE HALF WAVE RECTIFIERS

Int'l No.	Max. DC Ma	Max. RMS Volts	Min. Series Rstr. Ohms	Dimensions, Inches H.	W.	D.	Net Each
Q1H	65	25	47	.67	.67	7/16	$0.36
A1H	100	25	22	1.0	1.0	7/16	.38
B1H	150	25	15	1.2	1.2	7/16	.40
C1H	250	25	5	1.5	1.5	7/16	.42
M1H	500	25	5	2.0	2.0	7/16	.56

MINIATURE BRIDGE RECTIFIERS

D3575F	100	130	....	21/32	21/32	1¼	$1.56
60-9150*	100	260	....	21/32	21/32	1¼	1.56
61-4037	100	260	....	21/32	21/32	1⅞	3.10

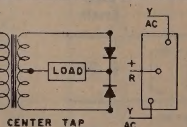
*Doubler stack; ratings for two stacks connected as full wave bridge; half-wave and doubler ratings are half of those shown.

INDUSTRIAL SELENIUM RECTIFIERS

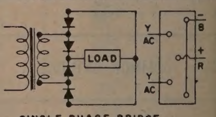
NEW HIGH DENSITY TYPES

Ideal for limited space and weight applications; delivers approximately twice the rectified DC output of standard units. Save 50% in volume for a given rating. Low fwd v. drop; high inverse voltage. Circuit diagram 1, all units rated 0-14 v. DC; circuit diagram 2, all others (see below).

Int'l No.	DC Output Volts	DC Output Amps	Input AC Volts	Size, Inches H. x W. x D.	Stud	Net Each
J14C04	0-14	0.4	36	1 x 1 x 1⅛	8-32	$ 0.95
J14C1	0-14	1.5	36	1½ x 1½ x 1⅛	8-32	1.39
J14C5	0-14	4.8	36	3 x 3 x 1⅛	⅜-16	3.48
J14C8	0-14	8.4	36	4 x 4 x 1⅞	⅜-16	4.89
J14C17	0-14	17.4	36	6 x 5 x 2⅛	⅜-16	7.55
J29B04	0-29	0.4	36	1 x 1 x 1½	8-32	1.57
J29B1	0-29	1.5	36	1½ x 1½ x 1½	8-32	2.28
J29B5	0-29	4.8	36	3 x 3 x 2⅝	⅜-16	6.43
J29B8	0-29	8.4	36	4 x 4 x 2⅝	⅜-16	8.93
J29B17	0-29	17.0	36	6 x 5 x 3¼	⅜-16	13.27
J58B04	0-58	0.4	72	1 x 1 x 2¼	8-32	3.11
J58B1	0-58	1.5	72	1½ x 1½ x 2¼	8-32	4.49
J58B5	0-58	4.8	72	3 x 3 x 4 3/16	⅜-16	12.08
J58B8	0-58	8.4	72	4 x 4 x 4 3/16	⅜-16	16.75
J58B17	0-58	17.0	72	6 x 5 x 5⅝	⅜-16	26.52
J116B04	0-116	0.4	144	1 x 1 x 3 13/16	8-32	5.56
J116B1	0-116	1.5	144	1½ x 1½ x 3 13/16	8-32	8.15
J116B5	0-116	4.8	144	3 x 3 x 7 3/16	⅜-16	22.91
J115B8	0-116	8.4	144	4 x 4 x 7 3/16	⅜-16	32.09
J116B17	0-116	17.0	144	6 x 5 x 10¼	3/16-16	50.45
J135B04	0-135	0.4	180	1 x 1 x 4 9/16	8-32	6.77
J135B1	0-135	1.5	180	1½ x 1½ x 4 9/16	8-32	9.93
J135B5	0-135	4.8	180	3 x 3 x 8 11/16	⅜-16	28.29
J135B8	0-135	8.4	180	4 x 4 x 8 11/16	⅜-16	39.71
J135B17	0-135	17.0	180	6 x 5 x 12 9/16	3/10-16	62.43



CENTER TAP
Fig.1



SINGLE PHASE BRIDGE
Fig.2

CIRCUIT DIAGRAMS

FIG 1A
Same as Fig. 1 Except
Center Terminal (Red)
Is Negative

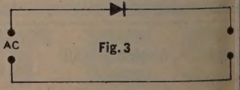


Fig.3

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SEMICONDUCTORS

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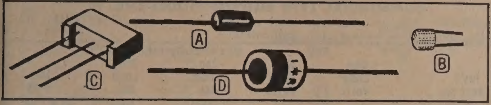


GERMANIUM DIODES (FIG. A)

Int'l No.	Min. Fwd. Cur., Ma*	Max. Inv. Current		Mav. DC Inv. V.	Net Each
		Ma	At V.		
1N34A	5.0	0.500	—50	60	$0.40
1N48	4.0	0.833	—50	70	.34
1N60	6.0	0.800	—30	40	.29
1N64	5.0	0.200	—10	25	.38
1N82A	....	0.030 @ —1.5V	—	25	.91
1N67A	5.0	0.005 @ — 5V	0.050 @ —50	80	.40
1N87A	4.0	0.100	—25	30	.35
1N294	5.0	0.800	—50	70	.52
1N295	....	0.200	—10	50	.35
1N541	....	Matched pair 1N541's		45	.40
1N542	....	0.350	—45		.90
1N636	2.5	0.010	—10	60	.38

*At inverse voltage.

SELENIUM DIODES (FIG. B)

Int'l No.	JEDEC No.	Input Volts, RMS		Out.,* DC Ma	PRV Volts	Net Each
		Resis.	Capac.			
1T1	1N1625A	33	20	0.5	48	$0.37
2T1	1N1626A	66	40	0.5	96	.41
1U1	1N1627	33	20	3.75	48	.37
2U1	1N1628	66	40	3.75	96	.41
3U1	1N1629	99	60	3.75	144	.45
4U1	1N1630	132	80	3.75	192	.48
6U1	1N1632	198	120	3.75	288	.56
1V1	1N1635	33	20	12.5	48	.37
2V1	1N1636	66	40	12.5	96	.41
5V1	1N1639	165	100	12.5	240	.52
3Y1	1N1642	99	60	28	144	.45

SELENIUM DUAL DIODES (FIG. C)

Quality replacements for TV phase detector circuits. Superior quality design. Come complete with connecting diagram and interchangeability table.

Int'l No.	Description	Equivalent to			Net Each
		G.E.	IRC	ITT	
DD04	Common cathode	6GC1	D4	K1615	$0.54
DD05	Series connected	6GD1	D5	K1616	.54
DD06	Common anode	6GX1	D6	K1617	.54
DD07	Common anode	—	D7	—	1.25

SELENIUM CONTACT PROTECTORS (FIG. D)

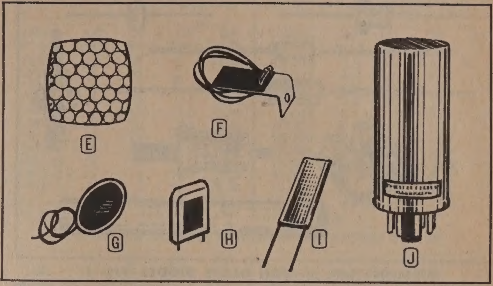
Make circuits safe against arcing, flashover and erosion acress relay, switch or other contacts. Low cost, high efficiency. Miniature design with pigtail leads for fast installation. When ordering, make sure that maximum voltage rating of the protector exceeds the maximum value of the supply voltage. Size: Indicated by center letter of number (S1V1P, S1Y1P, etc.) V—.380" dia. Y—.500" dia. All units .620" long except S6V6P and S6Y6P which are .990" long.

DC TYPES					AC TYPES			
Int'l No.	WVDC		Max. Amps	Net Each	Int'l No.	Max. WVAC	Max. Amps	Net Each
	Min.	Max.						
S1V1P	15	22	.25	$0.89	S1V1P	26	.20	$ .89
S2V1P	23	44	.25	.90	S2V2P	52	.20	1.07
S3V2P	45	66	.25	1.07	S3V3P	78	.20	1.08
S4V2P	67	88	.25	1.08	S4V4P	104	.20	1.26
S5V2P	89	110	.25	1.24	S5V5P	130	.20	1.40
S6V2P	111	132	.25	1.25	S6V6P	156	.20	1.42
S7V2P	133	154	.25	1.26	S1Y1P	26	.40	.94
S1Y1P	15	22	.60	.94	S2Y2P	52	.40	1.13
S2Y1P	23	44	.60	.94	S3Y3P	78	.40	1.14
S3Y2P	45	66	.60	1.14	S4Y4P	104	.40	1.38
S4Y2P	67	88	.60	1.14	S5Y5P	130	.40	1.56
S5Y2P	89	110	.60	1.36	S6Y6P	156	.40	1.58
S6Y2P	111	132	.60	1.37				
S7Y2P	133	154	.60	1.38				

SILICON HIGH VOLTAGE TUBE REPLACEMENT RECTIFIERS (FIG. J)

Designed to replace vacuum tube and mercury vapor tube rectifiers; long life, high temp. operation, no warm up time. Equipped with tube bases to allow direct replacement.

Int'l No.	JEDEC No.	PRV Volts	Max. Inp. Volts	Max. MaDC 75° C	Replaces Tube Type	Net Each
ST-1	1N2630	1500	1050	85	6X4, 12X4	$13.00
ST-1A	1N570	1500	1050	75	MIL 6X4 and 12X4	30.00
ST-2	1N2631	1600	1130	600	5AW4, 5AX4, 5AZ4, 5AU4, 5W4, 5Y3, 5U4, 5T4, 5Z4, 6004	13.00
ST-2A	1N2632	2800	1950	250	5R4, 5R4W	20.45
ST-3	1N2633	1600	1130	600	6AX5, 6W5, 6X5, 6ZY5, OZ4, 5839, 5852, 5X4	13.00
ST-4	1N2634	1600	1130	600	5Z3, 80, 82, 83, 83V	13.00
ST-5	1N2635	1500	1050	85	Hi. alt. 6X4, 12X4	14.40
ST-6	1N2636	1500	1050	85	84/6Z4	14.40
ST-7A	....	10500	7500	250	866A	28.25
ST-8	....	1250	880	80	OZ4, 6X5	9.00
ST-9	....	10000	7000	1250	8008	137.50
ST-10	....	10000	7000	1250	872A	137.50
ST-13	....	1275	900	130	6BW4, 12BW4	13.00



PHOTOCELLS, SUN BATTERIES AND PHOTO-CONDUCTIVE CELLS

EXPERIMENTER'S TYPES

Specially selected, low priced, efficient units for the experimenter and hobbyist. Many applications in transistorized radios, light meters, powering small motors, etc. Rugged selenium types have spectral response similar to the human eye; often used in light meters. Silicon cells have higher light conversion efficiency. Types "S" are the same as used for battery charging in space vehicles. All units supplied with pigtail leads. Outputs, shown, is in full sunlight, using conventional volt and ma meters.

Int'l No.	Fig.	Description	Output		Case Size, In.	Net Each
			Volts	Ma		
B2M	F	Selenium*	0.3-.4	2	1½ x ¾†	$1.50
B3M	E	Selenium	0.3-.4	1½-2½	1⅛ sq. x 3⁄16	1.75
S1M	E	Silicon	0.3-.5	10-16	1⅛ sq. x 3⁄16	2.25
S3M	E	Silicon	0.6-.9	10-16	1⅛ sq. x 3⁄16	3.95
S5M	E	Silicon	0.6-.9	18-25	1⅛ sq. x 3⁄16	4.95

*With mounting bracket; all others have plastic case.

INDUSTRIAL SELENIUM TYPES

Widely used in photography and other optical applications. Spectral response similar to human eye. Output: Rated at 100 foot-candles into 100-ohm load. Suffix PL: (Example, A5PL) Indicates 6" flexible leads. Suffix M: Stud terminal types. Type DP3: Plug-in pin type. Type DP5: Solder terminal type.

Int'l No.	Fig.	Description	Output μa	Net Each
A5PL	G	Unmounted, 1⅛" round	250	$ 2.50
A10PL	G	Unmounted, 1¾" round	600	5.00
A15PL	G	Unmounted, 2" round	770	6.50
A5M	......	Molded case, 1¼" dia. x 0.3" thick	220	7.00
A15M	......	Molded case, 2⅛" dia. x 0.3" thick	700	11.00
B2PL	......	Unmounted, .72" x .44"	77	1.50
B10PL	......	Unmounted, 1.69" x 0.88"	380	3.00
B10M	......	Molded case, 2.2" x 1.1" x 0.4"	320	7.00
B15PL	......	Unmounted, 1.69" souare	640	6.50
DP3	H	Herm. sealed case, ¾" x .35" x .36"	66	10.00
DP5	H	Herm. sealed case, 2" sq. x 29⁄64" thick	600	14.00

INDUSTRIAL SILICON SOLAR CELLS (FIG. I)

Higher efficiency than selenium cells; principally used to convert solar energy directly into electricity. Operate portable radios, charge batteries, etc. Output: Rated in full sunlight using conventional meters. Type S: Supplied with flexible pigtail leads. Type SM: Five S1020E6 cells in series. Turret terminals on back.

Int'l No.	Description	Output		Size. In.	Net Each
		Volts	Ma		
S1020E4-PL	Unmounted	0.40	18	0.4 x 0.8	$ 1.95
S1020E6-PL	Unmounted	0.40	27	0.4 x 0.8	2.50
S1020E8-PL	Unmounted	0.40	36	0.4 x 0.8	3.85
5SM1020E6	Mounted	1.85	29	2½ x ⅞	13.20

IR LIGHT SENSITIVE PHOTO CELL (CADMIUM SULPHIDE CELL) Fig. E

Extremely sensitive device. Activates relays for use in door-openers, burglar alarms, traffic and industrial counters, turning lights on in evening for store windows, signs, parking lots, etc. These cells are "light sensitive resistors" with resistance varying from a few hundred Ohms or less to bright light, to Megohms in darkness. A 24 page Experimenter's Handbook supplied free with each cell. Max. voltage 120 AC or DC, 0.2 Watt Max. Power dissipation.

Int'l No.	Max. Volts	Max. Pwr. Dissip.	Approx. Resis., Ohms			Net Each
			Dark	10FC	100FC	
CS-120-M6	120	.2 watt	1.5 meg	10K	2000	2.35

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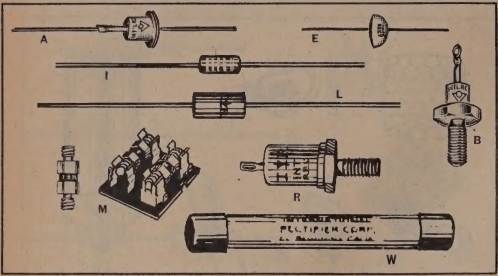

SUBMINIATURE SILICON GLASS DIODES (FIG. I)

Silicon diffused-junction glass diodes assure high conductance with exceptional forward and reverse characteristics.

GENERAL PURPOSE TYPES

JEDEC Part No.*	PRV, Volts	Max. Rect. Current Ma @ 25°C	Max. Rect. Current Ma @ 150°C	Net 1-99	JEDEC Part No.*	PRV, Volts	Max. Rect. Current Ma @ 25°C	Max. Rect. Current Ma @ 150°C	Net 1-99
1N456	25	90	25	$ .62	1N461	25	60	25	$ .62
1N457	60	75	25	.74	1N462	60	50	25	.74
1N458	125	55	25	.86	1N463	175	30	15	.86
1N459	175	40	25	1.12	1N464	125	40	20	1.12

*Add suffix "A" to JEDEC part No. for 5% tolerance units.

MINIATURE SILICON POWER RECTIFIERS (FIG. A)

Highly reliable silicon power diodes provide optimum power dissipation with miniaturized hermetically sealed packaging. This diode is smaller than conventional top-hat diodes. Case size is .025" diam. x 0.275" length. Ratings for 60 cps resistive or inductive loads.

JEDEC Part No.	PRV, Volts	Max. Rect. Current Ma @ 50°C	Max. Rect. Current Ma @ 100°C	Net 1-99	JEDEC Part No.	PRV, Volts	Max. Rect. Current Ma @ 50°C	Max. Rect. Current Ma @ 100°C	Net 1-99
1N1701	50	300	150	$ .75	1N1704	300	300	150	.75
1N1702	100	300	150	.87	1N1705	400	300	150	.87
1N1703	200	300	150	1.01	1N1706	500	300	150	1.01

High Temperature Diodes (Fig. A)

Optimum reliability, high efficiency and reduced space requirements. Provide maximum forward conductance under elevated temperature without additional heat sink; saving space and assembly time and cost. Max. voltage drop: 0.5 v; max. leakage current: 0.4 ma (1N536 and 1N537), 0.3 ma all other types; all at 150°C. Ratings are absolute maximum, 60 cps resistive or inductive loads.

JEDEC Part No.	PRV Volts	Max Rectified DC Output, Ma @ 50°C	Max Rectified DC Output, Ma @ 150°C	Max Input RMS Volts*	Net 1-99
1N536	50	750	250	35	$ .66
1N537	100	750	250	70	.74
1N538	200	750	250	140	.76
1N539	300	750	250	210	.91
1N540	400	750	250	280	107
1N547	600	750	250	420	1.65
1N1095	500	750	250	350	1.07
1N1096	600	750	250	420	1.65

SILICON GENERAL PURPOSE RECTIFIERS (FIG. A)

Hermetically sealed to assure long, trouble-free life. Manufactured to the same rigid requirements specified for critical military and industrial applications.

Int'l No.	Peak Inv. Volts	Max Rect Current Ma @ 50°C	Max Rect Current Ma @ 100°C	Max RMS Volts	Net 1-99
SD-91	100	550	300	70	$ .59
SD-92	200	550	300	140	.68
SD-93	300	550	300	210	.86
SD-94	400	550	300	280	.96
SD-95	500	550	300	350	1.06
SD-91A	100	750	500	70	.62
SD-92A	200	750	500	140	.72
SD-93A	300	750	500	210	.90
SD-94A	400	750	500	280	1.01
SD-95A	500	750	500	350	1.12

1.8 AMP SILICON RECTIFIER CELLS (FIG. A)

Silicon diffused-junction rectifier cells provide forward currents up to 1.8 amps (when mounted on 1½ x 1½" heat sink), 1.3 amps in free air; well suited for all applications where a very small, high power rectifier is desired, including magnetic amplifiers and other devices where low leakage is also important. Ratings at 40°C into resistive or inductive load.

Int'l Part No.	PRV Volts	Max Rect Current Amps	Max RMS Input Volts	Net 1-99
10B1	100	1.8	70	$ .86
10B2	200	1.8	140	1.24
10B3	300	1.8	210	1.75
10B4	400	1.8	280	2.46
10B5	500	1.8	350	3.46
10B6	600	1.8	420	4.89

COMMERCIAL TYPE SILICON DIODES (FIG. E)

Specifically designed for low cost, miniaturized use such as radio, TV, audio, and other commercial applications.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current @ 70°C Cap. Load Ma	Max Rect Current @ 70°C Res. Load Ma	Net 1-99
2E4	400	400	200	300	$ .70
5E4	400	400	350	500	.90
5E5	500	500	350	500	1.15
5E6	600	600	350	500	1.20

MINIATURE 1-AMP SILICON RECTIFIER CELLS STANDARD TYPES (FIG. L)

Miniature diffused-junction fully insulated silicon rectifier cells in encapsulated package provide high current handling capacities with low forward voltage drop over entire −65°C to +130°C.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current Cap. Load @ 25°C Amp	Max Rect Current Cap. Load @ 100°C Amp	Max Rect Current Res. Load @ 25°C Amp	Max Rect Current Res. Load @ 100°C Amp	Net 1-99
5A2	200	200	.75	.5	1	.625	$ .90
5A4	400	400	.75	.5	1	.625	1.35
5A5	500	500	.75	.5	1	.625	1.30
5A6	600	600	.75	.5	1	.625	1.45

MINIATURE 1-AMP SILICON RECTIFIERS (FIG. L)

Oper. Temp. Range: −20 to +130°C. Max. DC output (@ 25°C) and reverse current rating (@ 100°C) are full cycle average values. Case dimensions are 0.375" x 0.200" dia. approx.

JEDEC Type No.	PRV Volts	Max. DC Output (Amps)	Max. Rev. Current ma	Net Each 1-99	Net Each 100-999
IN2069A	200	.750	0.2	$0.68	$0.51
IN2070A	400	.750	0.2	0.83	0.62
IN2071A	600	.750	0.2	1.07	0.80

SILICON PLUG-IN RECTIFIER CELLS (FIG. M)

Silicon diffused-junction plug-in rectifier cells can be snapped into clip-type holders. For TV, audio, industrial power supply, etc.

Int'l Part No.	PRV Cap. Load Volts	PRV Res. Load Volts	Max Rect Current Cap. Load @ 50°C Ma	Max Rect Current Cap. Load @ 100°C Ma	Max Rect Current Res. Load @ 50°C Ma	Max Rect Current Res. Load @ 100°C Ma	Net 1-99
5MA2	200	200	750	500	850	625	$ .85
5MA4	400	400	750	500	850	625	1.40
5MA5	500	500	750	500	850	625	1.25
5MA6	600	600	750	500	850	625	1.70

HOLDERS FOR SNAP-IN RECTIFIERS

Int'l No.	Description	Net Each
43-1803	SNAP-IN holder only (single)	$ .12
43-1804	SNAP-IN holder only (dual)	.25
43-1805	SNAP-IN holder only (quadruple)	.90

SILICON POWER RECTIFIERS CELLS (FIG. B)

Stud-mounted silicon power diodes are designed specifically for high temperature, high reliability applications; provide 800 ma @ 100°C over 50 to 600 PRV range. Max operating temperature: 150°C; derate output current 2%/°C above 100°.

JEDEC Type No.	PRV Volts	Max Contin. DC Current* Ma	Max Rect. Current* Ma	Max RMS Input Volts	Net 1-99
1N607	50	1,000	800	35	$1.32
1N608	100	1,000	800	70	1.38
1N609	150	1,000	800	105	1.43
1N610	200	1,000	800	140	1.53
1N611	300	1,000	800	210	1.95
1N612	400	1,000	800	280	2.67
1N613	500	1,000	800	350	3.17
1N614	600	1,000	800	420	4.55

*On 2" x 2" x 0.025 heat sink operating into resistive or inductive load at 100°C.

SELENIUM HIGH VOLTAGE CARTRIDGE RECTIFIERS (FIG. W)

These cartridge rectifiers deliver high efficiency rectification over −65°C to 100°C temperature range.

Int'l	PRV* Volts	Max AC Input Volts RMS Res.	Max AC Input Volts RMS Cap.	Norm. DC Output Volts Res.	Norm. DC Output Volts Cap.	O.D. In.	Lth. In.	Net 1-9
V50HF	2400	1650	1000	650	1000	9/16	2 5/16	$3.43
V75HF	3600	2475	1500	975	1500	9/16	3	4.60
V100HF	4800	3300	2000	1300	2000	9/16	4	5.50
V125HF	6000	4125	2500	1675	2500	9/16	4¾	6.85
V150HF	7200	4950	3000	1950	3000	9/16	5½	7.75
V175HF	8400	5775	3500	2275	3500	9/16	6	9.10

*Also available in other values to 14,400 PRV.

HIGH VOLTAGE SILICON RECTIFIERS (FIG. R)

Designed especially for high voltage/high temperature applications where stability under environmental extremes is necessary.

JEDEC Part No.	PRV Volts	Max Rect Current* @ 25°C Ma	Max Rect Current* @ 100°C Ma	Stud Polarity	Net 1-99
1N1130	1500	300	230	Cathode	$11.20
1N1131	1500	300	230	Anode	11.20

*Rectifier mtd. on 2 x 2 x 1/16" heat sink.

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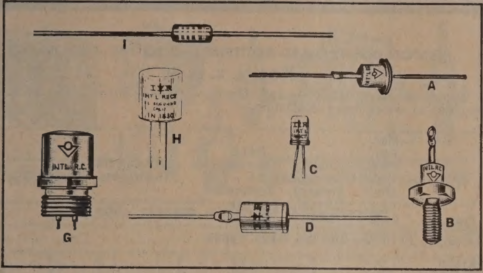

SILICON ZENER VOLTAGE REFERENCE ELEMENTS (FIGS. C, G, H, I)

Type	Voltage Range (V)	Bias Current (MA @ 25°C)	Temp. Coeff. (%/°C)	Temp. Range	Max. Dynam. Imped.	Net 1-99	Fig.
1N429	5.9-6.5	7.5	±.01	—55 to +150°C	20	$5.00	C
USN-1N430	8.0-8.8	10	±.002	—55 to +100°C	15	27.00	G
1N430	8.0-8.8	10	±.002	—55 to +100°C	15	18.00	G
1N430A	8.0-8.8	10	±.001	—55 to +100°C	15	27.00	G
1N430B	8.0-8.8	10	±.001	—55 to +150°C	15	36.00	G
1N1530	8.0-8.8	10	±.002	—55 to +100°C	15	18.00	H
1N1530A	8.0-8.8	10	±.001	—55 to +100°C	15	27.00	H
1N821	5.9-6.5	7.5	±.01	—55 to +100°C	15	5.05	I
1N821A	5.9-6.5	7.5	±.01	—55 to +100°C	15	5.60	I
1N823	5.9-6.5	7.5	±.005	—55 to +100°C	15	7.90	I
1N823A	5.9-6.5	7.5	±.005	—55 to +100°C	15	8.70	I
1N825	5.9-6.5	7.5	±.002	—55 to +100°C	15	10.85	I
1N825A	5.9-6.5	7.5	±.002	—55 to +100°C	15	11.90	I
1N827	5.9-6.5	7.5	±.001	—55 to +100°C	15	26.30	I
1N827A	5.9-6.5	7.5	±.001	—55 to +100°C	15	28.95	I
1N3154	8.0-8.8	10	±.01	—55 to +100°C	15	7.20	I
1N3154A	8.0-8.8	10	±.01	—55 to +150°C	15	8.10	I
1N3155	8.0-8.8	10	±.005	—55 to +100°C	15	11.30	I
1N3155A	8.0-8.8	10	±.005	—55 to +150°C	15	12.25	I
1N3156	8.0-8.8	10	±.002	—55 to +100°C	15	16.80	I
1N3156A	8.0-8.8	10	±.002	—55 to +150°C	15	18.10	I
1N3157	8.0-8.8	10	±.001	—55 to +100°C	15	25.30	I

250 MW SILICON GLASS ZENER DIODES (FIG. I)

Body size: 0.265 x 0.110″ diameter.

JEDEC Part No.*	VzT	ZzT	IzT	Net 1-99
	Volts	Ohms	Ma	•
1N702	2.6	60		$2.50
1N703	3.4	55	10	2.50
1N704	4.1	45	10	2.50
1N705	4.8	35	10	2.50
1N706	5.8	20	10	2.50
1N707	7.1	10	10	2.50
1N708	5.6	3.6	25	2.50
1N709	6.2	4.1	25	2.50
1N710	6.8	4.7	25	2.50
1N711	7.5	5.3	25	2.50
1N712	8.2	6.0	25	2.50
1N713	9.1	7.0	12	2.50
1N714	10.0	8.0	12	2.50
1N715	11.0	9.0	12	2.50
1N716	12.0	10.0	12	2.50

*Add suffix "A" to JEDEC part no. for 5% tolerance.

Type	VzT	ZzT	IzT	Net 1-99
	Volts	Ohms	Ma	
1N761	4.8	10	55	$2.10
1N762	5.8	10	20	2.10
1N763	7.1	10	10	2.10
1N764	8.7	10	15	2.10
1N765	10.5	5	50	2.10
1N766	12.7	5	70	2.10
1N1929	5.6	5	8	1.93
1N1930	6.8	5	7	1.93
1N1931	8.3	5	15	1.93
1N1932	10.0	5	22	1.93
1N1933	12.0	1	30	4.25
1N1934	14.5	1	50	4.25
1N1935	18.0	1	70	4.25
1N1936	22.0	1	100	4.25
1N1937	27.0	1	200	4.25

Types listed are ±10% voltage tolerance. To order ±5% tolerance types, add 'A' to end of JEDEC part number — e.g. — '1N1927A'.

400 MW SILICON GLASS ZENER DIODES (FIG. I)

Body size: 0.265 x 0.110″ diameter.

JEDEC Part No.*	VzT	ZzT	IzT	Net 1-99
	Volts	Ohms	Ma	
1N746	3.3	28	20	$2.60
1N747	3.6	24	20	2.60
1N748	3.9	23	20	2.60
1N749	4.3	22	20	2.60
1N750	4.7	19	20	2.60
1N751	5.1	17	20	2.60
1N752	5.6	11	20	2.60
1N753	6.2	7	20	2.60
1N754	6.8	5	20	2.60
1N755	7.5	6	20	2.60
1N756	8.2	8	20	2.60
1N757	9.1	10	20	2.60
1N758	10.0	17	20	2.60
1N759	12.0	30	20	2.60

*Add suffix "A" to JEDEC part no. for 5% tolerance.

Type	VzT	ZzT	IzT	1-99 Net
	Volts	Ohms	Ma	
1N957	6.8	20	5	2.20
1N958	7.5	20	6	2.20
1N959	8.2	20	8	2.20
1N960	9.1	20	10	2.20
1N961	10	20	17	2.20
1N962	11	11.5	9.5	2.20
1N963	12	10.5	11.5	2.20
1N964	13	9.5	13	2.20
1N965	15	8.5	16	2.20
1N966	16	7.8	17	2.20
1N967	18	7.0	21	2.20
1N968	20	6.2	25	2.20
1N969	22	5.6	29	2.20
1N970	24	5.2	33	2.20
1N971	27	4.6	41	2.20
1N972	30	4.2	49	2.20
1N973	33	3.8	58	2.20

Types listed are ±20% voltage tolerance. To order ±10% tolerance add 'A' to end of JEDEC Part No. — e.g. — '1N957A'. For ±5% tolerance add 'B' to end of JEDEC number.

750MW SILICON ZONER DIODES (FIG. A)

Size: .185″ diam. x .220″ body length with 1¼″ leads. Ratings and characteristics at 25°C.

JEDEC Part No.*	VzT Volts	IzT MA	Zzt Ohms	Net 1-99
1N1507	3.9	35	14	$4.35
1N1508	4.7	30	12	4.35
1N1509	5.6	26	5.2	3.30
1N1510	6.8	22	1.5	3.30
1N1511	8.2	18	1.5	3.30
1N1512	10	15	1.8	3.30
1N1513	12	12	2.8	3.30
1N1514	15	10	5	3.30
1N1515	18	8	9	3.30
1N1516	22	6	19	3.30
1N1517	27	5	50	3.30

*Add suffix "A" to JEDEC part no. for 5% tolerance.

1-WATT SILICON ZENER DIODES (FIG. A)

Size: 0.375″ O.D. with 1¼″ leads. Ratings and characteristics at 25°C.

JEDEC Part No.*	VzT Volts	IzT MA	ZzT Ohms	Net 1-99
1N1518	3.9	50	9	$6.20
1N1519	4.7	40	8.5	6.20
1N1520	5.6	35	5.5	3.50
1N1521	6.8	30	1.6	3.50
1N1522	8.2	25	1.1	3.50
1N1523	10	20	1.5	3.50
1N1524	12	15	2.4	3.50
1N1525	15	13	5.4	3.50
1N1526	18	10	11	3.50
1N1527	22	9	18	3.50
1N1528	27	7	28	3.50

*Add suffix "A" to JEDEC part no. for 5% tolerance.

1 WATT FLANGELESS SILICON ZENER DIODES (FIG. D)

Type	VzT Volts	IzT MA	Zzt Ohms	Net 1-99
1N1768	7.5	100	2.1	$4.60
1N1769	8.2	100	2.4	4.60
1N1770	9.1	90	3.0	4.60
1N1771	10	50	3.5	4.60
1N1772	11	50	4.2	4.60
1N1773	12	50	5.0	4.60
1N1774	13	50	5.8	4.60
1N1775	15	50	7.6	4.60
1N1776	16	50	8.6	4.60
1N1777	18	50	11	4.60
1N1778	20	15	13	4.60
1N1779	22	15	16	4.60
1N1780	24	15	18	4.60
1N1781	27	15	23	4.60
1N1782	30	15	28	4.60
1N1783	33	15	33	5.25
1N1784	36	15	39	5.25
1N1785	39	15	45	5.25
1N1786	43	15	54	5.25
1N1787	47	15	64	5.25
1N1788	51	15	74	5.25
1N1789	56	15	88	5.25
1N1790	62	5	105	5.25
1N1791	68	5	125	5.25
1N1792	75	5	150	5.25
1N1793	82	5	175	5.25
1N1794	91	5	220	5.25
1N1795	100	5	260	5.25
1N1796	110	5	320	5.25
1N1797	120	5	390	5.25
1N1798	130	5	450	5.25
1N1799	150	5	600	5.25
1N1800	100	5	700	5.25
1N1801	100	5	900	5.25
1N1802	200	5	1100	5.25

NOTE: JEDEC types listed above are 10% voltage tolerance types. To specify 5% tolerance types, add "A" to JEDEC part no. (e.g. IN1770A).

Type	VzT Volts	IzT MA	Zzt Ohms	Net 1-99
1N3016	6.8	37	3.5	$3.50
1N3017	7.5	34	4.0	3.50
1N3018	8.2	31	4.5	3.50
1N3019	9.1	32	5.0	3.50
1N3020	10	25	7	3.50
1N3021	11	23	8	3.50
1N3022	12	21	9	3.50
1N3023	13	19	10	3.50
1N3024	15	17	14	3.50
1N3025	16	15.5	16	3.50
1N3026	18	14	20	3.50
1N3027	20	12.5	22	3.50
1N3028	22	11.5	23	3.50
1N3029	24	10.5	26	3.50
1N3030	27	9.5	35	3.50
1N3031	30	8.5	40	3.25
1N3032	33	7.5	45	3.25
1N3033	36	7.0	50	3.25
1N3034	39	6.5	60	3.25
1N3035	43	6.0	70	3.25
1N3036	47	5.5	80	3.25
1N3037	51	5.0	95	3.25
1N3038	56	4.5	110	3.25
1N3039	62	4.0	125	3.25
1N3040	68	3.7	150	3.25
1N3041	75	3.3	175	3.25
1N3042	82	3.0	200	3.25
1N3043	91	2.8	250	3.25
1N3044	100	2.5	350	3.25
1N3045	110	2.3	450	3.55
1N3046	120	2.0	550	3.55
1N3047	130	1.0	700	3.55
1N3048	150	1.7	1000	3.55
1N3049	160	1.6	1100	3.55
1N3050	180	1.4	1200	3.55
1N3051	200	1.2	1500	3.55

NOTE: JEDEC Types listed above are 20% voltage tolerance types. To specify 10% tolerance types, add "A" to JEDEC part no. (e.g.—1N3016A). To specify 5% tolerance types, add "B" to JEDEC part no. (e.g.—1N3016B).

3.5 WATT SILICON ZENER DIODES (FIG. B)

Size: 1.222″ overall L. x 7/16″ across the flats, 10-32 stud mounting with washer and nut.

JEDEC Type*	VzT Volts	Izt MA	Zzt Ohms	Net 1-99
1N1588	3.9	150	2.6	$7.50
1N1589	4.7	125	2.3	7.50
1N1590	5.6	110	1.4	6.00
1N1591	6.8	100	.58	6.00
1N1592	8.2	80	.5	6.00
1N1593	10	70	.7	6.00
1N1594	12	50	1.4	6.00
1N1595	15	40	3.4	6.00
1N1596	18	35	6	6.00
1N1597	22	30	9	6.00
1N1598	27	25	13	6.00

*Add suffix "A" to JEDEC part no. for 5% tolerance.

10-WATT SILICON ZENER DIODES (FIG. B)

Size: 1.323″ overall L. 7/16″ across hex flats, 10-32 stud mounting with washer and nut.

JEDEC Type*	VzT Volts	IzT MA	Zzt Ohms	Net 1-99
1N1599	3.9	500	.84	$8.50
1N1600	4.7	400	.68	8.50
1N1601	5.6	350	.3	6.75
1N1602	6.8	300	.2	6.75
1N1603	8.2	250	.25	6.75
1N1604	10	200	.55	6.75
1N1605	12	170	.95	6.75
1N1606	15	140	1.5	6.75
1N1607	18	110	2	6.75
1N1608	22	90	3	6.75
1N1609	27	70	4.5	6.75

Note: Z is measured at standard test current of I.
*Add suffix "A" to JEDEC part no. for 5% tolerance.

10-WATT DIFFUSED ZENER DIODES (FIG. B)

Type	VzT Volts	IzT MA	ZzT Ohms	Net 1-99
1N1351	10	500	2	$6.95
1N1352	11	500	2	6.95
1N1353	12	500	2	6.95
1N1354	13	500	2	6.95
1N1355	15	500	2	6.95
1N1356	16	500	3	6.95
1N1357	18	150	3	6.95
1N1358	20	150	3	6.95
1N1359	22	150	3	6.95
1N1360	24	150	3	6.95
1N1361	27	150	3	6.95
1N1362	30	150	4	6.95
1N1363	33	150	4	6.56

Type	VzT Volts	Izt MA	Zzt Ohms	Net 1-99
1N1364	36	150	5	$6.56
1N1365	39	150	5	6.56
1N1366	43	150	6	6.56
1N1367	47	150	8	6.56
1N1368	51	150	8	6.56
1N1369	56	150	9	6.56
1N1370	62	50	12	6.56
1N1371	68	50	14	6.56
1N1372	75	50	20	6.56
1N1373	82	50	22	6.56
1N1374	91	50	35	6.56
1N1375	100	50	40	6.56

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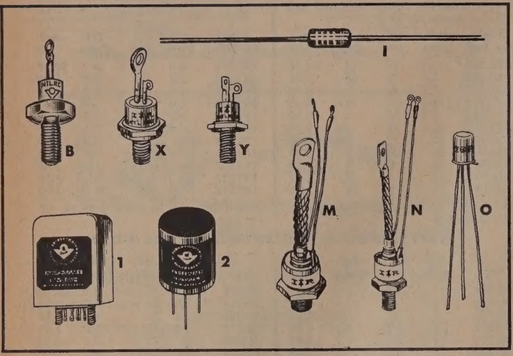

SILICON CONTROLLED RECTIFIERS—3 TO 150 AMP. RATED (FIGS. Y, X, M, N)

3 Junction, Hermetically-sealed Devices. *Gate current values shown required to assure firing of all units.

Type	Max. Rep. PRV and Min. V_{BO} Volts	Nom. Average Forward Current, Amps	Max. Forward & Reverse Leakage, FCA, ma	Gate Current To Fire, ma		Fig.	Net 1-99
				Typ.	Max.*		
3 Ampere 2N1600—2N1604 JEDEC Types							
2N1600	50	3	0.25	4	6	Y	$7.50
2N1601	100	3	0.25	4	6	Y	10.50
2N1602	200	3	0.25	4	6	Y	14.60
2N1603	300	3	0.25	4	6	Y	20.75
2N1604	400	3	0.25	4	6	Y	29.00
5 Ampere 2N1770—2N1777 JEDEC Types							
2N1770	25	4.7	4.5	4	8	Y	6.15
2N1771	50	4.7	4.5	4	8	Y	7.65
2N1772	100	4.7	4.5	4	8	Y	10.70
2N1773	150	4.7	4.0	4	8	Y	13.20
2N1774	200	4.7	3.0	4	8	Y	15.00
2N1775	250	4.7	2.5	4	8	Y	18.00
2N1776	300	4.7	2.0	4	8	Y	22.00
2N1777	400	4.7	1.0	4	8	Y	31.00
10 Ampere 2N1842—2N1849 JEDEC Types							
2N1842	25	10	6.5	10	25	X	9.80
2N1843	50	10	6.5	10	25	X	10.40
2N1844	100	10	6.5	10	25	X	11.90
2N1845	150	10	6.5	10	25	X	14.10
2N1846	200	10	6.0	10	25	X	15.40
2N1847	250	10	5.5	10	25	X	20.85
2N1848	300	10	5.0	10	25	X	24.75
2N1849	400	10	4.0	10	25	X	33.00
16 Ampere 2N681—2N688 JEDEC Types							
2N681	25	16	6.5	7	25	X	13.10
2N682	50	16	6.5	7	25	X	13.90
2N683	100	16	6.5	7	25	X	15.75
2N684	150	16	6.5	7	25	X	18.75
2N685	200	16	6.0	7	25	X	22.50
2N686	250	16	5.5	7	25	X	27.75
2N687	300	16	5.0	7	25	X	33.00
2N688	400	16	4.0	7	25	X	43.50
70 Ampere 2N1909—2N1916, 70RC50A Types							
2N1909	25	70	6.5	25	40	N	28.70
2N1910	50	70	6.5	25	40	N	40.00
2N1911	100	70	6.5	25	40	N	50.00
2N1912	150	70	6.5	25	40	N	65.00
2N1913	200	70	6.0	25	40	N	70.00
2N1914	250	70	5.5	25	40	N	88.00
2N1915	300	70	5.0	25	40	N	105.00
2N1916	400	70	4.0	25	40	N	145.00
70RC50A	500	70	3.0	25	40	N	170.00
150 Ampere 150RC5—150RC50 Types							
150RC5	50	150	10	35	50	M	99.50
150RC10	100	150	10	35	50	M	123.00
150RC20	200	150	10	35	50	M	202.00
150RC30	300	150	10	35	50	M	317.00
150RC40	400	150	8	35	50	M	440.00
150RC50	500	150	6	35	50	M	528.00
QT1-SCR Trigger MODIFIED TO-18 PACKAGE						O	3.00

10-WATT DIFFUSED ZENER DIODES (FIG. B)

Type	VzT Volts	IzT MA	ZzT Ohms	Net 1-99	Type	VzT Volts	IzT MA	ZzT Ohms	Net 1-99
1N1806	7.5	1000	1	$5.60	1N2988	27	95	7	$5.50
1N1807	8.2	1000	1	5.60	1N2989	30	85	8	5.50
1N1808	9.1	500	1	5.60	1N2990	33	75	9	5.50
1N1809	110	50	47	9.20	1N2991	36	70	10	5.50
1N1810	120	50	56	9.20	1N2992	39	65	11	5.50
1N1811	130	50	65	9.20	1N2993	43	60	12	5.50
1N1812	150	50	82	9.20	1N2994	45	55	13	5.50
1N1813	160	50	93	9.20	1N2995	47	55	14	5.50
1N1814	180	50	115	9.20	1N2996	50	50	15	5.50
1N1815	200	50	140	9.20	1N2997	51	50	15	5.50
1N2970	6.8	370	1.2	5.50	1N2998	52	50	15	5.50
1N2971	7.5	335	1.3	5.50	1N2999	56	45	16	5.50
1N2972	8.2	305	1.5	5.50	1N3000	62	40	17	5.50
1N2973	9.1	275	2.0	5.50	1N3001	68	37	18	5.50
1N2974	10	250	3	5.50	1N3002	75	33	22	5.50
1N2975	11	230	3	5.50	1N3003	82	30	25	5.50
1N2976	12	210	3	5.50	1N3004	91	28	35	5.50
1N2977	13	190	3	5.50	1N3005	100	25	40	5.50
1N2978	14	180	3	5.50	1N3006	105	25	45	6.05
1N2979	15	170	3	5.50	1N3007	110	23	55	6.05
1N2980	16	155	4	5.50	1N3008	120	20	75	6.05
1N2981	17	145	4	5.50	1N3009	130	19	100	6.05
1N2982	18	140	4	5.50	1N3010	140	18	125	6.05
1N2983	19	130	4	5.50	1N3011	150	17	175	6.05
1N2984	20	125	4	5.50	1N3012	160	16	200	6.05
1N2985	22	115	5	5.50	1N3013	175	14	250	6.05
1N2986	24	105	5	5.50	1N3014	180	14	260	6.05
1N2987	25	100	6	5.50	1N3015	200	12	300	6.05

"HIGH SPEC" GLASS ZENER DIODES (FIG. I)

250 MW TYPES					400 MW TYPES				
Type	VzT Volts	IzT MA	ZzT Ohms	Net 1-99	Type	VzT Volts	IzT MA	ZzT Ohms	Net 1-99
QZ3.3T5	3.3	20	22	$2.75	FZ3.3T5	3.3	20	22	$3.60
QZ3.6T5	3.6	20	19	2.75	FZ3.6T5	3.6	20	19	3.60
QZ3.9T5	3.9	20	18	2.75	FZ3.9T5	3.9	20	18	3.60
QZ4.3T5	4.3	20	16	2.75	FZ4.3T5	4.3	20	16	3.60
QZ4.7T5	4.7	20	14	2.75	FZ4.7T5	4.7	20	14	3.60
QZ5-1T5	5.1	20	10	2.75	FZ5.1T5	5.1	20	10	3.60
QZ5.6T5	5.6	20	7	2.75	FZ5.6T5	5.6	20	7	3.60
QZ6.2T5	6.2	20	4	2.75	FZ6.2T5	6.2	20	4	3.60
QZ6.8T5	6.8	20	4	2.75	FZ6.8T5	6.8	20	4	3.60
QZ7.5T5	7.5	20	5	2.75	FZ7.5T5	7.5	20	5	3.60
QZ8.2T5	8.2	20	6	2.75	FZ8.2T5	8.2	20	6	3.60
QZ9.1T5	9.1	20	7	2.75	FZ9.1T5	9.1	20	7	3.60
QZ10T5	10	20	8	2.75	FZ10T5	10	20	8	3.60
QZ11T5	11	5	10	2.75	FZ11T5	11	5	10	3.60
QZ12T5	12	5	11	2.75	FZ12T5	12	5	11	3.60
QZ13T5	13	5	13	2.75	FZ13T5	13	5	13	3.60
QZ14T5	14	5	15	2.75	FZ14T5	14	5	15	3.60
QZ15T5	15	5	17	2.75	FZ15T5	15	5	17	3.60
QZ16T5	16	5	19	2.75	FZ16T5	16	5	19	3.60
QZ17T5	17	5	21	2.75	FZ17T5	17	5	21	3.60
QZ18T5	18	5	25	2.75	FZ18T5	18	5	25	3.60
QZ19T5	19	5	28	2.75	FZ19T5	19	5	28	3.60
QZ20T5	20	5	32	2.75	FZ20T5	20	5	32	3.60
QZ22T5	22	5	35	2.75	FZ22T5	22	5	35	3.60
QZ24T5	24	5	37	2.75	FZ24T5	24	5	37	3.60
QZ25T5	25	5	39	2.75	FZ25T5	25	5	39	3.60
QZ27T5	27	5	40	2.75	FZ27T5	27	5	40	3.60
QZ30T5	30	5	45	2.75	FZ30T5	30	5	45	3.60

Types listed are ±5% voltage tolerance. For ±10% tolerance types, substitute "T10" in place of "T5" in part number.

HIGH STABILITY VOLTAGE REFERENCE PACKS (FIGS. 1 AND 2)

Operate directly from an unregulated power source. Output voltages of either 8.4 or 16.8 volts dc. Typical Regulation ±0.01%.

Model No.	Input	Frequency	Output Voltage, Volts DC (±5%)	Dimensions (Inches)	Net
RV8*	28V ±10%	D.C.	8.4	1 x 1 x 1⅜**	$52.00
RV8-A	0.84W	D.C.	8.4	(See Fig. 1)	57.00
4RV8*	115V ±10%	400~	8.4	1⁵⁄₁₆ x 1⁵⁄₁₆ x 1¾**	75.00
4RV8-A	1.25W	400~	8.4	(See Fig. 1)	81.00
6RV8*	115V ±10%	60~	8.4	1⅝ x 1⅝ x 2⅜	63.00
6RV8-A	1.25W	60~	8.4	(See Fig. 1)	69.00
4RV16*	115V ±10%	400~	16.8	1⅝ x 1⅝ x 2⅜**	100.00
4RV16-A	2.5W	400~	16.8	(See Fig. 1)	107.00
6RV16*	115V ±10%	60~	16.8	1⅝ x 1⅝ x 2⅜	98.00
6RV16-A	2.5W	60~	16.8	(See Fig. 1)	105.00
RV8-PC*	28V ±10%	D.C.	8.4	1 (dia.) x 1¼**	45.00
RV8PC-A	0.84W	D.C.	8.4	(See Fig. 2)	49.00

NOTE: Types with * have thermal stability of ±0.002%/°C. All others are ±0.001%/°C. Types with ** have temp. range of —55 to +125°C. All others are —55 to +75°C.

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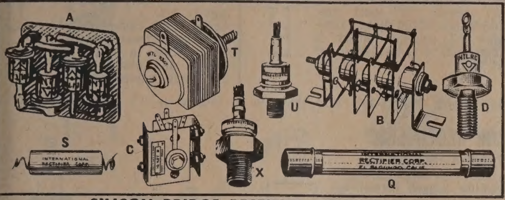
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SILICON BRIDGE RECTIFIER ASSEMBLIES

Pre-engineered and completely assembled single phase bridge rectifier stacks. The ½ and 1.2 amp series are sub-miniature assemblies of diodes on glass melamine board. All others are fin mounted assemblies. All diodes and rectifiers used are hermetically sealed and withstand extremes of temperature and humidity. Dual amp. ratings on B12 and B25 types are without and with fan cooling.

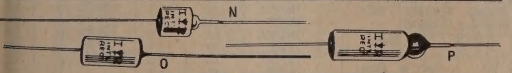
Part No.	Fig	Input RMS Volt	OUTPUT (DC) Volt*	Amps @ 50°C	Approx. Dim. (inch)	Net 1-99
SMB5L	A	35	30	1/2	⅞ x 23/36 x ¾	$3.50
SMB10L	A	70	62	1/2	⅞ x 23/36 x ¾	3.98
SMB20L	A	140	125	1/2	⅞ x 23/36 x ¾	4.54
2MB10L	A	70	62	1.2	1¼ x 1 x 13/16	3.18
2MB20L	A	140	125	1.2	1¼ x 1 x 13/16	3.94
N2725	B	70	62	2.5	2½ x 1 9/16 x 3½	6.01
N2728	B	140	125	2.5	2½ x 1 9/16 x 3½	6.01
N2731	B	210	188	2.5	2½ x 1 9/16 x 3½	7.31
12F5	C	14	9.5	14/30	3 x 3¾ x 2⅝	12.52
12F10	C	25	.20	14/30	3 x 3¾ x 2⅝	13.40
12F20	C	60	43	14/30	3 x 3¾ x 2⅝	18.56
12F40	C	120	87	14/30	3 x 3¾ x 2⅝	23.20
25H5	C	14	9.5	18/42	3 x 3¾ x 2⅝	15.00
25H10	C	25	20	18/42	3 x 3¾ x 2⅝	16.60
25H20	C	60	43	18/42	3 x 3¾ x 2⅝	22.60
25H40	C	120	87	18/42	3 x 3¾ x 2⅝	39.80

Into resistive or inductive load. Add 10-30% for capacitive load.

KLIP-SEL VOLTAGE SURGE PROTECTORS (FIGS. S & T)

For protection of silicon power rectifiers and silicon controlled rectifiers against voltage transients. Preferred non-polarized types listed.

Mfr's Type	RMS Oper. Volts (Max.)	Typ. Clamp. Volts	Current at Clamp. Volts (Amp. Peak)	Fig.	Net Each 1-9
KV1DPF	26	63	0.25	S	$1.31
KV2DPF	52	125	0.25	S	1.46
KV5DPF	130	310	0.25	S	1.85
KV6DPF	156	375	0.25	S	1.96
KV10DPF	260	625	0.25	S	2.52
KZ1DPF	26	63	1.0	S	1.70
KZ2DPF	52	125	1.0	S	1.91
KZ5DPF	130	310	1.0	S	2.41
KZ6DPF	156	375	1.0	S	2.55
KZ9DPF	234	565	1.0	S	3.06
KZ10DPF	260	625	1.0	S	3.26
KZ14DPF	364	890	1.0	S	4.07
KA1DAF	26	63	3.0	T	2.21
KA2DAF	52	125	3.0	T	2.46
KA5DAF	130	310	3.0	T	3.14
KA6DBF	156	375	3.0	T	3.90
KA8DBF	208	500	3.0	T	4.40
KA9DBF	234	565	3.0	T	4.70
KA10DBF	260	625	3.0	T	5.00
KA14DAF	364	890	3.0	T	5.34
KL1DAF	26	63	15.0	T	5.52
KL2DAF	52	125	15.0	T	6.17
KL5DAF	130	310	15.0	T	7.87
KL6DBF	156	375	15.0	T	8.30
KL8DBF	208	500	15.0	T	9.35
KL10DBF	260	625	15.0	T	10.62



HIGH VOLTAGE SILICON RECTIFIERS

Hermetically sealed for optimum reliability at elevated and sub-zero temperatures. Ideally suited for radar power supplies, high voltage bias supplies, and airborne or guided missile instrumentation.

JEDEC Type	Fig	PRV Volts	Max. Input Volts RMS	Max. Rect. DC Output, Ma*	Net 1-99
IN596	N	600	420	125	$ 5.00
IN597	N	800	560	125	6.00
IN598	N	1000	700	125	8.50
IN1406	O	600	420	100	5.00
IN1407	O	800	560	100	5.50
IN1408	O	1000	700	100	8.00
IN1409	P	1200	840	100	8.00
IN1410	P	1500	1050	100	9.00
IN1411	P	1800	1260	100	11.00
IN1412	P	2000	1400	100	13.50
IN1413	P	2400	1680	100	15.50

Ratings at 75°C into inductive or resistive load. Derate 25% for capacitive load.

HIGH VOLTAGE CARTRIDGE TYPE SILICON RECTIFIERS (FIG. Q)

Provide high temperature, high efficiency operation to a wide range of high voltage applications; optimum reliability over −55°C to +150°C temperature range. Standard types listed are normal convection cooling. Ratings are absolute maximum at 75°C ambient. Horizontal mounting. Half wave resistive load 60 cps. Hermetically sealed ceramic housing fits 30-amp fuse clips. Ferrule diameter 35/64".

JEDEC Type	PRV Volts	Max. Rect. DC Output Ma	Fwd. DC Volt Drop*	Lgth., In.	Net 1-99
IN1133	1500	75	15.0	2½	$ 7.40
IN1134	1500	100	7.5	1 13/16	8.10
IN1135	1800	65	18.0	2½	9.45
IN1136	1800	85	9.0	1 13/16	9.90
IN1137	2400	50	24.0	2½	12.85
IN1138	2400	60	12.0	1 13/16	13.95
IN1139	3600	65	27.0	4 5/16	20.65
IN1140	3600	65	18.0	2½	23.55
IN1141	4800	60	36.0	4 5/16	28.50
1N1142	4800	50	24.0	2½	30.75
IN1143	6000	50	45.0	4 5/16	34.30
IN1143A	6000	65	30.0	4 5/16	39.20
IN1144	7200	50	54.0	6 1/16	40.80
IN1145	7200	60	36.0	4 5/16	43.10
IN1146	8000	45	60.0	6 1/16	45.40
IN1147	12000	45	60.0	6 1/16	64.40
IN1148	14000	50	52.0	6 1/16	74.75
IN1149	16000	45	60.0	6 1/16	78.20

*At rated DC current.

6 and 12 AMP SILICON RECTIFIERS (FIG. D)

High Reliability Series **Commercial Types**
Oper. Range −65° to +80°C **Temp. Range −20° to +150°C**

6-AMP SERIES

JEDEC* Part Number	PRV Volts	Net 1-99	INT'L† Part No.	PRV Volts	Net 1-99
IN1341	50	$2.75	6F5	50	$2.23
IN1342	100	3.00	6F10	100	2.60
IN1343	150	3.75	6F15	150	3.05
IN1344	200	4.75	6F20	200	3.60
IN1345	300	6.15	6F30	300	4.29
IN1346	400	8.25	6F40	400	6.06
IN1347	500	9.75	6F50	500	8.67

12-AMP SERIES

JEDEC* Part Number	PRV Volts	Net 1-99	INT'L† Part No.	PRV Volts	Net 1-99
IN1199	50	$2.80	12F5	50	$ 2.47
IN1200	100	3.25	12F10	100	2.74
IN1201	150	4.45	12F15	150	3.62
IN1202	200	5.25	12F20	200	4.32
IN1203	300	7.50	12F30	300	6.35
IN1204	400	10.30	12F40	400	8.34
IN1205	500	13.85	12F50	500	12.75

25 TO 45 AMP* SILICON POWER RECTIFIERS (FIG. U)

JEDEC Part Number	PRV Volts	RMS Max Volts	Recommended RMS Volts	Net 1-99
IN2128A	50	35	12	$ 4.25
IN2129A	100	70	24	5.05
IN2130A	150	105	36	6.05
IN2131A	200	140	48	7.10
IN2132A	250	175	60	8.50
IN2133A	300	210	72	9.90
IN2134A	350	245	84	11.80
IN2135A	400	280	96	13.95
IN2136A	450	310	108	15.00
IN2137A	500	350	120	19.25

To order reverse polarity types, add the letter "R" to the basic part number (IN2128RA, etc.).

45 TO 150 AMP* SILICON POWER RECTIFIERS (FIG. X)

JEDEC Part Number	Int'l Part Number	PRV Volts	RATED VOLTAGE Max RMS Volts	Recommended .RMS Volts	Net 1-99
	45L5	50	35	12	$ 7.75
IN3085	45L10	100	70	24	9.55
	45L15	150	105	36	11.70
IN3086	45L20	200	140	48	14.20
	45L25	250	175	60	16.50
IN3087	45L30	300	210	72	20.80
	45L35	350	245	84	24.00
IN3088	45L40	400	280	96	29.80
	45L45	450	310	108	33.50
IN3089	45L50	500	350	120	37.80
IN3090	45L60	600	420	144	47.75

TO ORDER REVERSE POLARITY TYPES add the letter "R" to the basic part number. For example: 45LR5, 45PR5, etc.

*Current rating depends on circuit, heat sink and whether or not fan cooled.

ITT Silicon Devices

We reserve the right to change specifications without notice.

ZENER VOLTAGE REGULATOR DIODES

¾ Watt Power Dissipation:

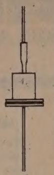
Jedec Types IN1507 thru IN1517 inclusive-10% tolerance • IN1507A thru IN1517A inclusive-5% tolerance

In addition ITT offers 33 voltage ranges in their series "B" Zener Diodes. ITT part numbers ZB3.9 thru ZB100 in tolerances 5%, 10%, and 20%.

1 Watt Power Dissipation:

Jedec Types IN1518 thru IN1528 inclusive • IN1765 thru IN1795 inclusive

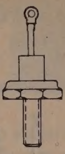
Standard tolerance 10%-Add "A" suffix to Jedec No. for 5% tolerance. ITT part nos. ZT3.9 to ZT100 complements the Jedec series with 33 voltage ranges and three tolerances:



3.5 Watt Power Dissipation:

Jedec Types IN1588 thru IN1598 inclusive-10% tolerance • IN1588A thru IN1598A inclusive-5% tolerance

ITT series "G" part nos. ZG3.9 thru ZG100 makes available 33 voltage ranges in tolerances of 5%, 10%, and 20%.



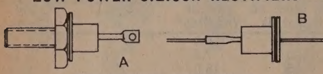
10 Watt Power Dissipation:

Jedec types IN1351R thru IN1375R • IN1599 thru IN1609 • IN1803R thru IN1808R • IN1816R thru IN1836R • IN2041 thru IN2049

All available in standard tolerance of 10% or in 5% tolerances — Add suffix "A" to part number to signify 5%.
Series "K" completes ITT 10 watt zener line—part nos. ZK3.9 to ZK100 includes 33 voltage ranges and three tolerances:

Ratings and characteristics are @ 25°C. For complete zener diode information request catalog 900025-361. Also available on request is ITT Zener Regulator Cross Reference Guide listing current zeners by Jedec and non-Jedec designations.

LOW POWER SILICON RECTIFIERS



STUD MOUNTED SERIES (FIG. A)

Superior design meets exacting systems and testing controls. Ratings are conservative. Stud 10-32 threaded.

JEDEC No.	PIV	Max. DC Amps At 150° C	1-Cycle Surge Amps	Fwd. Drop At 25° C Volts	@ Ma
1N254	200	.4†	10	2.0	800
1N255	400	.4†	10	2.0	400
1N256	600	.2†	5	2.0	400
1N332	400	.4	10	2.0	800
1N333	400	.2	5	2.0	400
1N334	300	.4	10	2.0	800
1N335	300	.2	5	2.0	400
1N336	200	.4	10	2.0	800
1N337	200	.2	5	2.0	400
1N339	100	.4	10	2.0	800
1N340	100	.2	5	2.0	400
1N341	400	.4	10	2.0	800
1N342	400	.2	5	2.0	400
1N343	300	.4	10	2.0	800
1N344	300	.2	5	2.0	400
1N345	200	.4	10	2.0	800
1N346	200	.2	5	2.0	400
1N348	100	.4	10	2.0	800
1N349	100	.2	5	2.0	400
1N550	100	.5‡	4	1.5	500
1N551	200	.5‡	4	1.5	500
1N552	300	.5‡	4	1.5	500
1N553	400	.5‡	4	1.5	500
1N554	500	.5‡	4	1.5	500
1N555	600	.5‡	4	1.5	600
1N562	800	.4‡	15	1.75	400
1N563	1000	.4‡	15	1.75	400

AXIAL LEAD "TOP HAT" SERIES (FIG. B)

JEDEC No.	PIV	Max. DC Amps At 25° C	150° C	Fwd. Drop At 25° C Volts	@ Ma
1N440	100	.3	.3†	1.5	300
1N440B	100	.75*	.25	1.5	750
1N441	200	.3	.3†	1.5	300
1N441B	200	.75*	.25	1.5	750
1N442	300	.3	.3†	1.5	300
1N442B	300	.75*	.25	1.5	750
1N443	400	.3	.3†	1.5	300
1N443B	400	.75*	.25	1.5	750
1N444	500	.3	.3†	1.5	300
1N444B	500	.75*	.25	1.5	750
1N445	600	.3	.3†	1.5	300
1N445B	600	.75*	.25	1.5	750
1N530	100	.3	......	2.0	300
1N531	200	.3	......	2.0	300
1N532	300	.3	......	2.0	300
1N533	400	.3	......	2.0	300
1N534	500	.3	......	2.0	300
1N535	600	.3	......	2.0	300
1N537	100	.75*	.25	1.1	500
1N538	200	.75*	.25	1.1	500
1N539	300	.75*	.25	1.1	500
1N540	400	.75*	.25	1.1	500
1N547	600	.75*	.25	1.2	500
1N560	800	.5*	.25†	1.3	250
1N561	1000	.5*	.25†	1.3	250
1N599	50	.4	.3†	1.5	200
1N600	100	.4	.3†	1.5	200
1N600A	100	.4	.3†	1.5	400
1N601	150	.4	.3†	1.5	200
1N602	200	.4	.3†	1.5	200
1N602A	200	.4	.3†	1.5	400
1N603	300	.4	.3†	1.5	200
1N604	400	.4	.3†	1.5	200
1N604A	400	.4	.3†	1.5	400
1N605	500	.4	.3†	1.5	200
1N605A	500	.4	.3†	1.5	400
1N606	600	.4	.3†	1.5	200
1N1095	500	.05*	.25‡	1.1	500
1N1096	600	.6*	......	1.1	500

†At 135° C. ‡At 100° C.

1At 50° C. †At 100° C. ‡At 135° C. §Max. Inv. Current (FCA) at 125° C.

MEDIUM POWER SILICON RECTIFIERS

10-32 STUD-MOUNTED SERIES (FIG. C)

Feature low forward voltage drop, high surge current and low reverse current capabilities. Rugged, hermetically sealed package.

JEDEC No.	PIV	Max. DC Amps 25° C	1-Cycle Surge Amps.	Fwd. Drop At 25° C Volts	@ Amps
1N253	100	1.0*	20	1.5	1.0
1N338	100	1.0†	20	2.0	2.0
1N347	100	1.0†	20	2.0	2.0
1N607	50	1.0†	10	1.5	0.2
1N607A	50	1.0‡	10	1.5	0.2
1N608	100	1.0‡	10	1.5	0.2
1N608A	100	1.0‡	10	1.5	0.2
1N609	150	1.0‡	10	1.5	0.2
1N609A	150	1.0‡	10	1.5	0.2
1N610	200	1.0‡	10	1.5	0.2
1N610A	200	1.0‡	10	1.5	0.2
1N611	300	1.0‡	10	1.5	0.2
1N611A	300	1.0‡	10	1.5	0.2
1N612	400	1.0‡	10	1.5	0.2
1N612A	400	1.0‡	10	1.5	0.2
1N613	500	1.0‡	10	1.5	0.2
1N613A	500	1.0‡	10	1.5	0.2
1N614	600	1.0‡	10	1.5	0.2
1N614A	600	1.0‡	10	1.5	0.2
1N1124	200	3	10	1.1	1
1N1125	300	3	10	1.1	1
1N1126	400	3	10	1.1	1
1N2226	1200	1.0	20	1.2	1.0
1N2226A	1200	1.0	20	1.2	1.0
1N2228	50	5.0	100	1.2	5.0
1N2228A	50	5.0	100	1.2	5.0
1N2230	200	5.0	100	1.2	5.0
1N2230A	200	5.0	100	1.2	5.0
1N2232	300	5.0	100	1.2	5.0
1N2232A	300	5.0	100	1.2	5.0
1N2234	400	5.0	100	1.2	5.0
1N2234A	400	5.0	100	1.2	5.0
1N2236	500	5.0	100	1.2	5.0
1N2236A	500	5.0	100	1.2	5.0
1N2238	600	5.0	100	1.2	5.0
1N2238A	600	5.0	100	1.2	5.0
1N2240	800	5.0	100	1.2	5.0
1N2240A	800	5.0	100	1.2	5.0
1N2242	1000	5.0	100	1.2	5.0
1N2242A	1000	5.0	100	1.2	5.0
1N2244	1200	5.0	100	1.2	5.0
1N2244A	1200	5.0	100	1.2	5.0
1N2246	50	10.0	200	1.2	10.0
1N2246A	50	10.0	200	1.2	10.0
1N2248	100	10.0	200	1.2	10.0
1N2248A	100	10.0	200	1.2	10.0
1N2250	200	10.0	200	1.2	10.0
1N2250A	200	10.0	200	1.2	10.0
1N2252	300	10.0	200	1.2	10.0
1N2252A	300	10.0	200	1.2	10.0
1N2254	400	10.0	200	1.2	10.0
1N2254A	400	10.0	200	1.2	10.0
1N2256	500	10.0	200	1.2	10.0
1N2256A	500	10.0	200	1.2	10.0
1N2258	600	10.0	200	1.2	10.0
1N2258A	600	10.0	200	1.2	10.0
1N2260	800	10.0	200	1.2	10.0

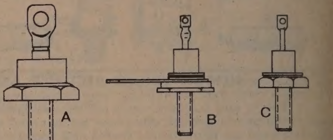
*At 135° C. †At 150° C. ‡At 100° C. §At 140° C. =Max. inv. cur., Ma (FCA) at 125°.

SERIES "K" STUD-MOUNTED TYPES (FIG. C)

Rated 6 amps DC max. at 150° C. Max. single-cycle surge, 75 amps KS602AA through KS602RA; 1N1341 thru 1N1342A, 160 amps; 10-32 stud threaded.

JEDEC No.	ITT No.	PIV	Fwd. Drop At 25° C Volts	@ Amps
1N2491	KS602AA	50	1.1	6
1N2492	KS602BA	100	1.1	6
....	KS602CA	150	1.1	6
1N2493	KS602DA	200	1.1	6
....	KS602EA	250	1.1	6
1N2494	KS602FA	300	1.1	6
....	KS602GA	350	1.1	6
1N2495	KS602HA	400	1.1	6
1N2496	KS602KA	500	1.1	6
1N2497	KS602MA	600	1.1	6
....	KS602PA	700	1.1	6
....	KS602RA	800	1.1	6
1N1341	....	50	1.1	6
1N1341A	....	50	.64	6*
1N1342	....	100	1.1	6
1N1342A	....	100	.64	6*

* Full cycle average, 150° C, stud at full.



SERIES "U" STUD-MOUNTED TYPE (FIG. C)

Rated 12 amps DC max. at 150° C. Max. 1-cycle surge. 200 amps 1N1199 thru 1N1205; 240 amps, 1N1199A thru 1N1204A. Stud, 10-32 threaded.

JEDEC No.	ITT No.	PIV	Fwd. Drop At 25° C Volts	@ Amps
IN1199	US123AA	50	1.2	12
IN1199A	....	50	.55	12*
1N1200	US123BA	100	1.2	12
1N1200A	....	100	.55	12*
1N1201	US123CA	150	1.2	12
1N1201A	....	150	.55	12*
1N1201	US123DA	200	1.2	12
1N1201A	....	200	.55	12*
....	US123EA	250	1.2	12
1N1203	US123FA	300	1.2	12
1N1203A	....	300	.55	12*
....	US123GA	350	1.2	12
1N1204	US123HA	400	1.2	12
1N1204A	....	400	.55	12*
1N1205	US123KA	500	1.2	12

*Full cycle average, 150° C, stud at full load.

¼-28 STUD MOUNT SERIES (FIG. A)

Types IN248, IN249, and IN250 rated 10 amps @ 150°C: All others rated 20 amps 150°C: Max Inv. current-FCA @ 150°C, 5 ma.: Polarity, cathode to stud-For reverse polarity add suffix "R" to Jedec No. (IN248R).

JEDEC No.	ITT No.	PIV	1-Cycle Surge Amps	Fwd. Drop At 25° C Volts	@ Amps
1N248	....	50	80	1.5	25
1N248A	....	50	180	1.5	50
1N249	....	100	80	1.5	25
1N249A	....	100	180	1.5	50
1N249B	....	110	180	1.5	50
1N250	....	200	80	1.5	25
1N250A	....	200	180	1.5	50
1N250B	....	220	180	1.5	50

INSULATED STUD MOUNTED TYPES (FIG. B)

JEDEC No.	PIV	Max. DC Amps at 25° C	150° C	1-Cycle Surge Amps	Rev. Cur., μa*
1N2247A	50	10.0	3.0	200	3.0
1N2249	100	10.0	3.0	200	5.0
1N2249A	100	10.0	3.0	200	3.0
1N2251	200	10.0	3.0	200	5.0
1N2251A	200	10.0	3.0	200	3.0
1N2253	300	10.0	3.0	200	5.0
1N2253A	300	10.0	3.0	200	3.0
1N2259	600	10.0	3.0	200	5.0
1N2259A	600	10.0	3.0	200	3.0
1N2261	800	10.0	3.0	200	10.0
1N2261A	800	10.0	3.0	200	5.0
1N2263	1000	10.0	3.0	200	10.0
1N2263A	1000	10.0	3.0	200	5.0
1N2265	1200	10.0	3.0	200	10.0
1N2290A	100	5.0	1.0	100	3.0
1N2291	200	1.5	.4	20	3.0
1N2233A	400	1.5	.4	20	3.0
1N2363	1400	1.0	....	15	1.0
1N2363A	1400	5.0	....	20	1.0
1N2363B	1400	10.0	....	25	1.0
1N2365	1500	1.0	....	15	1.0
1N2365A	1500	5.0	....	20	1.0
1N2365B	1500	10.0	....	25	1.0
1N2367	1600	1.0	....	15	1.0
1N2367A	1600	5.0	....	20	1.0
1N2367B	1600	10.0	....	25	1.0
1N2369	1800	1.0	....	15	1.0
1N2369A	1800	5.0	....	20	1.0
1N2369B	1800	10.0	....	25	1.0

* At 25° C.

Items listed represent a sampling of silicon devices available. For complete information on low medium or high power silicon devices, request individual specification sheets Nos. 900022-361, 900023-361, or 900024-361 respectively.

ITT DISTRIBUTOR PRODUCTS DIVISION
INTERNATIONAL TELEPHONE & TELEGRAPH CORPORATION

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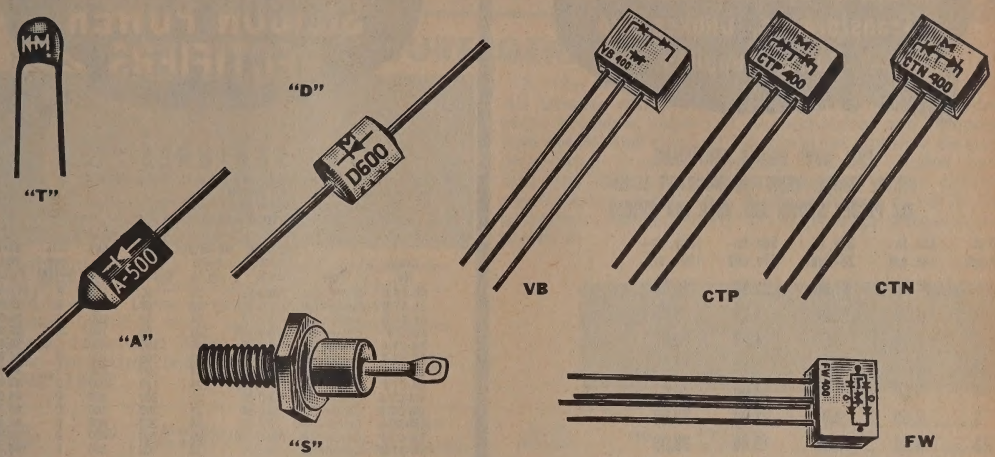
P. R. MALLORY & CO. Inc.
MALLORY

Semiconductors



DIFFUSED JUNCTION SILICON RECTIFIERS

Mallory silicon rectifiers are manufactured to the most exacting standards and are conservatively rated to provide maximum performance. All Mallory semiconductors are 100% inspected to all specifications. Packaged in bulk or five per plastic box; Type "S" is packaged 10 per carton.

TYPE "T" SILICON RECTIFIERS

Parallel leads for printed circuit applications. "Malloseal" encapsulation. Leads: .032" diameter x 1½" long; .375" spacing. Body Size: 7/16" diameter x ¼" thick (maximum).

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 85° C DC Load	Recur. Peak	4MS Surge	Net Each
1N2090	1N2090	50	35	.500	5	35	$0.618
1N2091	1N2091	100	70	.500	5	35	.712
1N2092	1N2092	200	140	.500	5	35	.779
1N2093	1N2093	300	210	.500	5	35	.826
1N2094	1N2094	400	280	.500	5	35	.865
1N2095	1N2095	500	350	.500	5	35	1.03
1N2096	1N2096	600	420	.500	5	35	1.11

TYPE "A" SILICON RECTIFIERS

Axial leads, expoxy case. Case Size: .220" dia. x ⅜" (max.)

A50	....	50	35	500	5	35	$0.618
A100	....	100	70	500	5	35	.712
A200	1N2069*	200	140	500	5	35	.779
A300	....	300	210	500	5	35	.826
A400	1N2070*	400	280	500	5	35	.865
A500	....	500	350	500	5	35	1.03
A600	1N2071*	600	420	500	5	35	1.11

*Reference only—"A" type exceeds requirements.

TYPE "D" SILICON RECTIFIERS

Axial leads; hermetically sealed metal case. Case Size: .240" diameter x .405" (maximum).

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 125° C DC Load	Recur. Peak	4MS Surge	Net Each
D50	*	50	35	.500	5	35	$0.704
D100	*	100	70	.500	5	35	.738
D200	*	200	140	.500	5	35	.774
D300	*	300	210	.500	5	35	.855
D400	*	400	280	.500	5	35	.952
D500	*	500	350	.500	5	35	1.02
D600	*	600	420	.500	5	35	1.10

*Not assigned.

TYPE "S" SILICON RECTIFIERS

Stud mount; hermetically sealed metal case. Case Size: .270" diameter x 23/64" (overall); 7/16" across flats. #10-32 x 7/16" stud; total height, 1 3/16" (maximum).

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 150° C DC Load	Recur. Peak	4MS Surge	Net Each
S50	....	50	35	1	25	100	$1.80
S100	....	100	70	1	25	100	2.20
S200	1N1124	200	140	1	25	100	2.73
S300	1N1125	300	210	1	25	100	3.76
S400	1N1126	400	280	1	25	100	4.75
S500	1N1127	500	350	1	25	100	6.60
S600	1N1128	600	420	1	25	100	8.36

PRE-PACKAGED SILICON RECTIFIER CIRCUITS

Mallory pre-packaged silicon rectifier circuits are ideal for replacing multi-rectifier circuits. The circuits are made from 100% inspected rectifiers, carefully pre-matched for optimum performance. Reduce inventory, handling costs and installation time. All cases are 15/32" high x 11/16" long x ¼" thick. All units are sealed in pre-molded expoxy filled cases. Packaged in bulk or one per plastic box.

TYPE "VB" VOLTAGE DOUBLER

Three parallel leads: Two silicon rectifiers in series.

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 100° C DC Load	Recur. Peak	4MS Surge	Net Each
VB50	*	50	18	.5	5	35	$1.34
VB100	*	100	35	.5	5	35	1.39
VB200	*	200	70	.5	5	35	1.48
VB300	*	300	105	.5	5	35	1.65
VB400	*	400	140	.5	5	35	1.67
VB500	*	500	180	.5	5	35	1.87
VB600	*	600	210	.5	5	35	2.01

*Not assigned

TYPE "CTN" FULL-WAVE RECTIFIERS

Three parallel leads: Center tap—negative.

CTN50	*	50	18	.5	5	35	$1.34
CTN100	*	100	35	.5	5	35	1.39
CTN200	*	200	70	.5	5	35	1.48
CTN300	*	300	105	.5	5	35	1.65
CTN400	*	400	140	.5	5	35	1.67
CTN500	*	500	180	.5	5	35	1.87
CTN600	*	600	210	.5	5	35	2.01

*Not assigned.

TYPE "CTP" FULL-WAVE RECTIFIERS

Three parallel leads: Center tap—positive.

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 100° C DC Load	Recur. Peak	4MS Surge	Net Each
CTP50	*	50	18	.5	5	35	$1.34
CTP100	*	100	35	.5	5	35	1.39
CTP200	*	200	70	.5	5	35	1.48
CTP300	*	300	105	.5	5	35	1.65
CTP400	*	400	140	.5	5	35	1.67
CTP500	*	500	180	.5	5	35	1.87
CTP600	*	600	210	.5	5	35	2.01

*Not assigned.

TYPE "FW" FULL-WAVE BRIDGE RECTIFIERS

Four parallel leads: Four silicon rectifiers, encapsulated in bridge form.

Mallory Number	JEDEC No.	Max. PRV	Max. RMS Volts	Max. Current, Amps at 100° C DC Load	Recur. Peak	4MS Surge	Net Each
FW50	*	50	35	1.0	5	35	$2.52
FW100	*	100	70	1.0	5	35	2.55
FW200	*	200	140	1.0	5	35	2.84
FW300	*	300	210	1.0	5	35	3.11
FW400	*	400	280	1.0	5	35	3.25
FW500	*	500	350	1.0	5	35	3.51
FW600	*	600	420	1.0	5	35	3.66

*Not assigned.

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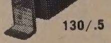
DIRECTRON

Industrial Selenium Rectifiers, Transformers, Chokes and Power Supplies

FULL WAVE BRIDGE RECTIFIERS, SINGLE PHASE, RESISTIVE-INDUCTIVE LOADS ALL PRICES SHOWN ARE USER NET PRICES

Max. Amps.	18v. in— 14v. out	36v. in— 28v. out	54v. in— 42v. out	130v. in— 100v. out
½	$1.05	$1.50	$2.50	$5.00
1	1.20	2.20	3.20	8.00
2	2.10	3.00	4.50	10.00
3	2.70	4.00	6.00	14.00
4	3.60	7.50	10.00	24.00
6	4.50	9.00	12.00	32.00
10	6.60	12.00	18.00	39.00
12	8.20	16.00	22.00	44.00
15	10.50	20.00	27.00	54.00
20	12.50	25.00	36.00	77.00
24	15.00	30.00	42.00	82.00
30	19.10	37.00	55.00	
36	24.00	48.00		



130/.5

SELENIUM RECTIFIER TRANSFORMERS

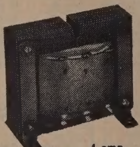
Transformers are with 2 — 18 volt center-tapped windings. Connected in series delivers 36 volts as rated. Connected in parallel — delivers 18 volts at twice rated current. (Taps 9, 18, 27, 36 V.)

	User's Net Price		User's Net Price
1 Amp	$ 5.25	12 Amps	$16.75
2 Amps	7.20	24 Amps	35.75
4 Amps	8.75	30 Amps	45.00
8 Amps	15.00	50 Amps	59.75

Primary taps at 100, 105, 110 and 115 volts now available on 12 amp, 24 amp, 30 amp and 50 amp transformers. No extra charge. Custom built transformers — 48 hour service.

With Two 28V Center Tapped Windings—56 Volt:

2 Amps	$ 8.50
4 Amps	12.50
6 Amps	22.50
12 Amps	30.00

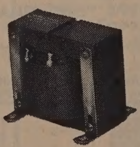


4 amp. Transformer

HIGH CURRENT CHOKES

			User's Net Price
1 Amp	.1 hy	1.5 ohm	$ 4.95
2 Amps	.04 hy	.9 ohm	6.00
4 Amps	.07 hy	.6 ohm	7.95
8 Amps	.03 hy	.3 ohm	12.00
12 Amps	.01 hy	.1 ohm	14.95
20 Amps	.004 hy	.05 ohm	15.00
24 Amps	.004 hy	.025 ohm	27.00
30 Amps	.003 hy	.01 ohm	36.00
50 Amps	.001 hy	.001 ohm	45.00
100 Amps	.0005 hy	.005 ohm	54.00

User's Net Price

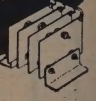


4 amp. Choke

HY-A-SIL

High - Ampere - Silicon

SILICON POWER RECTIFIERS



FEATURES

- High operating temperature, 190°C (Up to 120°C ambient)
- High operating voltage (Up to 600 p.i.v.)
- High efficiency (99% compared to about 75% for selenium)
- Excellent regulation (4% compared to about 15% for selenium)

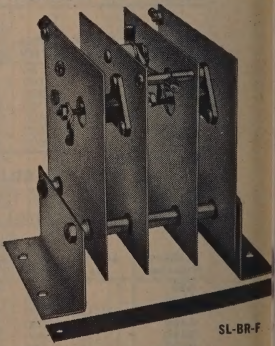
Stock No.	Type	AC Input Volts up to	DC Output Volts up to	Max. Amps Self Cooled	Max. Amps fan Cooled	Size and Weight	User Net Price
SL-CT-A	Center-Tap	18-0-18	16	50	100	B	$17.50
SL-CT-B	Center-Tap	36-0-36	32	50	100	B	22.50
SL-CT-D	Center-Tap	72-0-72	64	50	100	B	36.00
SL-CT-F	Center-Tap	140-0-140	125	50	100	B	44.00
SK-CT-A	Center-Tap	18-0-18	16	100	200	C	30.00
SK-CT-B	Center-Tap	36-0-36	32	100	200	C	34.00
SK-CT-D	Center-Tap	72-0-72	64	100	200	C	37.00
SK-CT-F	Center-Tap	140-0-140	125	100	200	C	48.00
SM-CT-A	Center-Tap	18-0-18	16	200	400	D	45.00
SM-CT-B	Center-Tap	36-0-36	32	200	400	D	60.00
SM-CT-D	Center-Tap	72-0-72	64	200	400	D	62.00
SM-CT-F	Center-Tap	140-0-140	125	200	400	D	76.00
SO-CT-B	Center-Tap	36-0-36	32	400	800	E	100.00
SA-BR-D	1φ Bridge	140	125	1	*	—	9.00
SA-BR-F	1φ Bridge	280	250	1	*	—	10.50
SC-BR-D	1φ Bridge	140	125	2	*	—	10.50
SC-BR-F	1φ Bridge	280	250	2	*	—	12.00
SD-BR-A	1φ Bridge	36	32	6	12	F	18.00
SD-BR-D	1φ Bridge	140	125	6	12	F	30.00
SD-BR-F	1φ Bridge	280	250	6	12	F	39.00
SE-BR-A	1φ Bridge	36	32	10	20	G	21.00
SE-BR-D	1φ Bridge	140	125	10	20	G	36.00
SE-BR-F	1φ Bridge	280	250	10	20	G	44.00
SF-BR-A	1φ Bridge	36	32	20	40	H	24.00
SF-BR-D	1φ Bridge	140	125	20	40	H	40.00
SF-BR-F	1φ Bridge	280	250	20	40	H	48.00
SL-BR-A	1φ Bridge	32	32	50	100	J	33.00
SL-BR-B	1φ Bridge	72	64	50	100	J	39.00
SL-BR-D	1φ Bridge	140	125	50	100	J	70.00
SL-BR-F	1φ Bridge	280	250	50	100	J	110.00
SG-BR-A	1φ Bridge	36	32	70	140	J	40.00
SG-BR-B	1φ Bridge	72	64	70	140	J	50.00
SG-BR-D	1φ Bridge	140	125	70	140	J	80.00
SG-BR-F	1φ Bridge	280	250	70	140	J	130.00
SK-BR-A	1φ Bridge	36	32	100	200	K	60.00
SK-BR-B	1φ Bridge	72	64	100	200	K	68.00
SK-BR-D	1φ Bridge	140	125	100	200	K	90.00
SK-BR-F	1φ Bridge	280	250	100	200	K	150.00
SM-BR-A	1φ Bridge	36	32	200	400	L	100.00
SM-BR-B	1φ Bridge	72	64	200	400	L	120.00
SM-BR-D	1φ Bridge	140	125	200	400	L	180.00
SM-BR-F	1φ Bridge	280	250	200	400	L	260.00
SO-BR-B	1φ Bridge	72	64	400	800	M	270.00
SO-BR-F	1φ Bridge	280	250	400	800	M	570.00
SL-PH-A	3φ Bridge	36	48	75	150	N	60.00
SL-PH-B	3φ Bridge	72	96	75	150	N	85.00
SL-PH-C	3φ Bridge	105	144	75	150	N	120.00
SL-PH-D	3φ Bridge	140	188	75	150	N	180.00

All above ratings based on 30°C ambient. Fan-cooled ratings based on air velocity of 1000 linear ft/minute. For resistive or inductive loads, as rated. Fo capacitive or battery loads, derate amperage 20%. Doublers, triplers, 3 phase hal wave and 3 phase center-tap also available. Custom-built stacks, 24 hour service

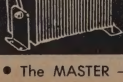
DIMENSIONS WITH BRACKETS

Size	Length	Height	Width	Weight
B	3″	6″	5″	12 oz.
C	3″	6″	6″	1 lb.
D	4″	8″	7″	2 lbs.
E	4″	9″	8″	6 lbs.
F	6″	5″	5″	1¼ lbs.
G	6″	6″	5″	1½ lbs.
H	6″	6″	6″	2 lbs.
J	6″	6″	5″	1½ lbs.
K	7″	8″	7″	4 lbs.
L	8″	9″	8″	6 lbs.
M	8″	11″	10″	6 lbs.
N	8″	6″	5″	4 lbs.

*Not suitable for fan-cooling



SL-BR-F



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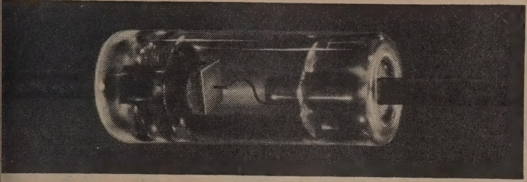
OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

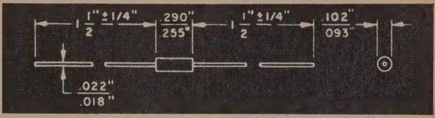
STOCK SUBMINIATURE GERMANIUM DIODES



hmite subminiature, gold bonded (gold whisker wire elded to germanium) germanium diodes are hermetic-lly sealed in glass. These advanced diodes feature:

1. Unusual stability built in through temperature cycling, aging, and 100% shock test.
2. Wide operating temperature range: −85°F. through 194°F.
3. The absolute in moisture and gas resistance.

All Ohmite diodes are leak tested at 100 psi hydrostatic pressure, subjected to mechanical and temperature shock, and checked for vibration stability through production random sampling. Ohmite diodes have standard EIA color coding, beginning at the cathode (germanium pellet) end. Rating: 80 mw at 68°F. Capacitance: approximately .5 μμf. Storage temperature: to 248°F.



Stock Number	PIV	Max. Rev. μa at 25°C	Min. Fwd. ma at 1 V	Mfrs. Net 1/99	Mfrs. Net 100/999
1N34	75	500 @ 50V	5	$ .27	$ .19
1N34A	75	500 @ 50V	5	.27	.19
1N35⑦	75	500 @ 50V	5	1.30	.94
1N38	125	500 @ 100V	5	.35	.25
1N38A	125	500 @ 100V	5	.35	.25
1N38B	125	500 @ 100V	5	.35	.25
1N39	220	600 @ 200V	5	1.40	1.01
1N39A	250	65 @ 100V	5	1.65	1.19
1N39B	200	600 @ 200V	5	1.40	1.01
1N43	75	800 @ 50V	5	.34	.24
1N44	145	1000 @ 50V	5	.30	.22
1N47	145	500 @ 100V	5	.33	.24
1N48	85	800 @ 50V	5	.27	.19
1N51	75	1500 @ 50V	5	.26	.19
1N54	75	100 @ 50V	5	.29	.21
1N54A	75	100 @ 50V	5	.29	.21
1N55	170	500 @ 150V	5	.57	.41
1N55A	170	500 @ 150V	5	.57	.41
1N56	50	300 @ 30V	15	.25	.18
1N56A	50	300 @ 30V	15	.25	.18
1N58	125	600 @ 100V	5	.28	.20
1N58A	125	600 @ 100V	5	.28	.20
1N60①	25	20 @ 10V	5	.25	.18
1N60A①	25	20 @ 10V	5	.25	.18
1N63	125	50 @ 50V	5	.35	.25
1N63A	125	50 @ 50V	5	.35	.25
1N64①	25	25 @ 10V	50	.25	.18
1N64A①	25	25 @ 10V	50	.25	.18
1N65	110	200 @ 50V	5	.29	.21
1N66	75	800 @ 50V	5	.22	.16
1N67	100	50 @ 50V	5	.33	.24
1N67A	100	50 @ 50V	5	.33	.24
1N68	130	625 @ 100V	5	.45	.32
1N68A	130	625 @ 100V	5	.45	.32
1N69	75	500 @ 50V	5	.27	.19
1N69A	75	500 @ 50V	5	.27	.19
1N70	125	300 @ 50V	5	.30	.22
1N70A	125	300 @ 50V	5	.30	.22
1N87	25	30 @ 1.5V	.1*	.39	.28
1N87A	25	30 @ 1.5V	.1*	.39	.28
1N90	75	500 @ 50V	5	.27	.19
1N95	75	500 @ 50V	5	.27	.19
1N96	75	500 @ 50V	40	.28	.20
1N96A	75	500 @ 50V	40	.28	.20
1N97	100	100 @ 50V	20	.33	.24
1N97A	100	100 @ 50V	20	.33	.24
1N98	100	100 @ 50V	40	.33	.24
1N98A	100	100 @ 50V	40	.33	.24
1N99	100	50 @ 50V	20	.35	.25
1N99A	100	50 @ 50V	20	.35	.25
1N100	100	50 @ 50V	40	.36	.26
1N100A	100	50 @ 50V	40	.36	.26
1N116	75	100 @ 50V	5	.29	.21
1N116A	75	100 @ 50V	5	.29	.21
1N118	75	100 @ 50V	40	.33	.24
1N118A	75	100 @ 50V	40	$ .33	$ .24
1N126	75	300 @ 50V	5	.26	.19
1N126A	75	300 @ 50V	5	.26	.19
JAN-1N126A	75	750 @ 50V	5	.30	.22
1N127A	125	200 @ 50V	5	.32	.23
JAN-1N127A	125	200 @ 50V	5	.36	.26
1N128	50	10 @ 10V	3	.35	.25
JAN-1N128	50	10 @ 10V	3	.40	.29
1N135	75	850 @ 50V	5	.25	.18
1N144	50	200 @ 20V	100	.30	.22
1N191③	90	25 @ 10V⑨	5	.40	.29
1N192③	90	250 @ 50V⑨	5	.40	.29
1N198	100	250 @ 50V⑥	5	.50	.36
JAN-1N198	100	250 @ 50V⑥	5	.50	.36
1N270	100	100 @ 50V	200⑧	.34	.24
JAN-1N270	100	100 @ 50V	200⑧	.43	.31
1N273	40	20 @ 20V	100	.46	.33
1N276	100	100 @ 50V	40	.37	.27
JAN-1N276⑤	100	100 @ 50V	40	.46	.33
1N277	125	250 @ 50V⑥	100	.34	.24
JAN-1N277	125	250 @ 50V⑥	100	.46	.33
1N279	50	200 @ 20V	100	.30	.22
1N281	75	500 @ 50V	100	.30	.22
JAN-1N281	75	500 @ 50V	100	.30	.22
1N294	75	10 @ 10V	5	.34	.24
1N295①	25	200 @ 10V	5	.22	.16
1N295A①	25	200 @ 10V	5	.22	.16
1N298	90	200 @ 40V	40	.28	.20
1N298A	90	200 @ 40V	40	.28	.20
1N497	30	20 @ 20V	120†	.30	.22
1N498	50	25 @ 40V	120†	.59	.42
1N616	40	150 @ 30V	10	.22	.16
1N695⑤	35	20 @ 10V⑥	100	.34	.24
1N695A⑤	35	20 @ 10V⑥	100	.34	.24
1N774	75	150 @ 50V	100	.37	.27
OMC15	20	10 @ 10V	100	.34	.24
OMC26	50	150 @ 50V	200⑧	.31	.22
OMC28	50	25 @ 50V	200⑧	.37	.27
OMC37	150	200 @ 10V	200⑧	.42	.30
OMC47	75	150 @ 50V	30	.30	.22
OMC55	150	25 @ 50V	30	.48	.35
OMC550	30	100 @ 10V	500⑧	.25	.18
OMC635	75	4 @ 10V	100	.38	.27
OMC646	150	4 @ 10V	200⑧	.82	.59
OMC678	75	75 @ 50V	50	.32	.23
OMC688	100	75 @ 50V	100	.36	.26
OMC691	100	25 @ 50V	100	.40	.29
OMC743	150	25 @ 50V	200⑧	.62	.45
OMC756⑩	50	75 @ 50V	100	.43	.31
OMC769④	50	25 @ 50V	200⑧	.64	.46
OMC1038②	75	10 @ 10V	100	.46	.33
OMC1133④	150	25 @ 50V	100	.89	.64
OMC1137②	75	150 @ 50V	200⑧	.47	.34
OMC1158②	100	25 @ 50V	200⑧	.61	.44

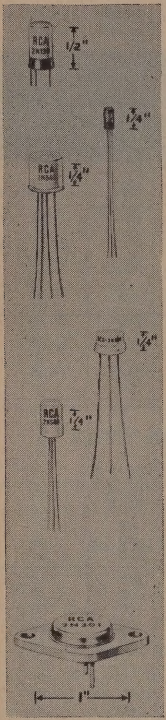
Video Detector Test ②0.2 μsec. ③0.5 μsec. ④0.4 μsec. ⑤0.3μsec. ⑥75°C ⑦Consists of two matched diodes shipped as a pair with the forward current at 1 lt of the lower resistance diode within 10% of the current of the higher resistance diode. ⑧Duty cycle must be adjusted in testing at these high forward currents so at average power dissipated does not exceed 80 mw. ⑨55°C ⑩0.6 μsec. *At 0.25 volts †At 0.8 volts

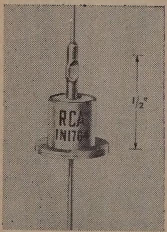
RCA TRANSISTORS AND SILICON RECTIFIERS

June 29, 1962

RCA TRANSISTORS

TRANSISTORS • THYRISTORS • GERMANIUM DIODES • TUNNEL DIODES





TRANSISTORS, THYRISTORS, GERMANIUM DIODES & TUNNEL DIODES

RCA Type	Optional Distributor Resale Price 1-99	Optional Distributor Resale Price 100-999
1N2326	.50	.33
1N3128	14.26	9.50
1N3129	13.79	9.20
1N3130	13.37	8.91
1N3138	36.30	24.20
2DG001	1.62	1.08
3DG001	2.34	1.56
2N104	1.65	1.10
2N105	2.97	1.98
2N109	.91	.61
2N139	1.16	.77
2N140	1.24	.83
2N173	4.21	2.80
2N174	4.50	3.00
JAN2N174	10.05	6.70
2N175	1.63	1.09
2N176	1.88	1.25
2N215	1.73	1.16
2N217	.86	.57
2N218	1.16	.77
2N219	1.24	.83
2N220	1.55	1.03
JAN2N220	4.54	3.03
2N247	3.14	2.09
(For New Equip. Design, Use Type 2N274)		
2N269	1.98	1.32
2N270	1.02	.68
2N274	1.49	.99
USA2N274	3.30	2.20
2N277	3.38	2.25
2N278	4.87	3.25
2N301	1.52	1.01
2N301A	3.71	2.48
2N307	1.49	.99
2N331	2.06	1.38
2N351	2.03	1.35
2N356	5.20	3.47
2N357	6.53	4.36
2N370	1.16	.77
2N371	1.12	.75
2N372	1.12	.75
2N373	1.24	.83
(For New Equip. Design, Use Type 2N1633 or 2N1634)		
2N374	1.32	.88
(For New Equip. Design, Use Type 2N1635 or 2N1636)		
2N376	2.10	1.40
2N384	2.06	1.38
USA2N384	4.54	3.03
JAN2N384	3.71	2.48
2N388	1.50	1.00
2N388A	2.57	1.72
2N395	.66	.44
2N396	.84	.56
2N396A	.84	.56
2N397	1.34	.89
2N398	1.30	.87
2N398A	1.30	.87
2N398B	1.62	1.08
2N404	.63	.42
USAF2N404	.63	.42
2N404A	.84	.56
3907/2N404	1.24	.83
2N405	.46	.31
2N406	.46	.31
2N407	.56	.37
2N408	.56	.37
2N409	.68	.45
2N410	.68	.45
2N411	.71	.47
2N412	.71	.47
2N414	.83	.55
2N441	2.72	1.82
2N442	4.42	2.95
2N443	4.42	2.95
2N456	3.63	2.42
2N457	5.78	3.85
2N497	4.13	2.75
2N578	.99	.66
2N579	1.57	1.05
2N580	2.06	1.38
2N581	.63	.42
2N582	.99	.66
2N583	.83	.55
2N584	3.22	2.15
2N585	.99	.66
2N586	1.73	1.16
2N591	.66	.44
2N640	1.44	.96
(For New Equip. Design, Use Type 2N1637)		
2N641	1.37	.91
(For New Equip. Design, Use Type 2N1638)		
2N642	1.40	.94
(For New Equip. Design, Use Type 2N1639)		
2N643	1.40	.94
2N644	1.65	1.10
2N645	2.64	1.76
2N646	1.82	1.21
2N647	1.16	.77
2N649	.86	.57
2N656	4.95	3.30
2N696	1.57	1.05
2N696 (USA)	1.98	1.32
2N697	2.06	1.38
2N697 (USA)	2.48	1.65
2N699	4.95	3.30
2N705	1.98	1.32
2N706	1.57	1.05
USA2N706	2.23	1.49
2N706A	1.82	1.21
2N708	2.89	1.93
2N710	1.73	1.16
2N711	1.16	.77
2N794	1.49	.99
2N795	1.98	1.32
2N796	2.89	1.93
2N828	3.30	2.20
2N834	6.19	4.13
2N914	5.78	3.85
2N934	6.60	4.40
2N955	4.79	3.19
2N955A	5.36	3.58
2N1010	2.89	1.93
2N1023	2.89	1.93
2N1066	2.89	1.93
2N1067	20.95	13.95
2N1068	21.95	14.65
2N1069	49.90	33.30
2N1070	64.95	43.30
2N1090	1.24	.83
2N1091	1.57	1.05
2N1092	10.75	7.15
2N1099	6.83	4.55
2N1100	9.82	6.55
2N1169	1.98	1.32
2N1170	3.71	2.48
2N1177	1.20	.80
2N1178	1.16	.77
2N1179	1.16	.77
2N1180	.84	.56
2N1183	1.82	1.21
USA2N1183	2.64	1.76
2N1183A	2.31	1.54
USA2N1183A	3.30	2.20
2N1183B	2.89	1.93
USA2N1183B	3.88	2.59
2N1184	3.71	2.48
USA2N1184	4.95	3.30
2N1184A	4.54	3.03
USA2N1184A	5.78	3.85
2N1184B	6.19	4.13
USA2N1184B	7.43	4.95
2N1213	4.54	3.03
2N1214	4.54	3.03
2N1215	4.54	3.03
2N1216	2.97	1.98
2N1224	1.49	.99
2N1225	1.65	1.10
2N1226	2.06	1.38
2N1300	1.16	.77
2N1301	1.65	1.10
2N1302	.58	.39
2N1303	.58	.39
2N1304	.76	.51
2N1305	.76	.51
2N1306	1.11	.74
2N1307	1.11	.74
2N1308	1.57	1.04
2N1309	1.57	1.04
2N1319	1.65	1.10
2N1358	9.16	6.10
USA2N1358	9.16	6.10
2N1384	2.06	1.38
2N1395	1.73	1.16
2N1396	2.15	1.43

Prices shown do not include any state or local taxes. All prices are subject to change or withdrawal without notice.

TRANSISTORS AND SILICON RECTIFIERS

June 29, 1962

RCA TRANSISTORS

TRANSISTORS • THYRISTORS • GERMANIUM DIODES • TUNNEL DIODES

RCA Type	Optional Distributor Resale Price 1-99	100-999
2N1397	3.14	2.09
2N1412	8.48	5.65
2N1425	.86	.57
2N1426	.89	.59
2N1450	2.06	1.38
2N1479	4.62	3.08
2N1480	5.78	3.85
2N1481	6.93	4.62
2N1482	8.25	5.50
2N1483	8.25	5.50
2N1484	9.90	6.60
2N1485	12.38	8.25
2N1486	19.80	13.20
2N1487	12.38	8.25
2N1488	14.03	9.35
2N1489	17.33	11.55
2N1490	33.00	22.00
2N1491	6.60	4.40
2N1492	9.90	6.60
2N1493	14.85	9.90
2N1511	12.38	8.25
2N1512	14.03	9.35
2N1513	17.33	11.55
2N1514	36.30	24.20
2N1524	.68	.45
2N1525	.68	.45
2N1526	.71	.47
2N1527	.71	.47
2N1605	1.24	.83
2N1605A	1.50	1.00
2N1613	7.01	4.68
2N1631	.74	.50
2N1632	.74	.50
2N1633	1.24	.83
2N1634	1.24	.83
2N1635	1.32	.88
2N1636	1.32	.88
2N1637	.88	.57
2N1638	.76	.51
2N1639	.81	.54
2N1683	2.06	1.38
2N1700	4.13	2.75
2N1701	7.01	4.68
2N1702	10.73	7.15
2N1703	11.14	7.43
2N1708	4.79	3.19
2N1711	8.25	5.50
2N1768	12.38	8.25
2N1769	19.80	13.20
2N1853	1.49	.99
2N1853 USN	1.65	1.10
2N1854	1.98	1.32
2N1854 USN	2.15	1.43
2N1905	4.13	2.75
2N1906	6.60	4.40
2N2015	37.95	25.30
2N2016	46.20	30.80
2N2102	8.25	5.50
2N2147	2.39	1.60
2N2148	1.90	1.27

RCA Type	Optional Distributor Resale Price 1-99	100-999
2N2205	4.95	3.30
2N2206	5.78	3.85
2N2208	3.88	2.59
2N2210	10.13	6.75
2N2270	3.71	2.48
2N2304	7.01	4.68
2N2305	11.14	7.43
2N2338	24.75	16.50
2N2339	7.01	4.68
3907/2N404	(Prices listed below type 2N404A)	

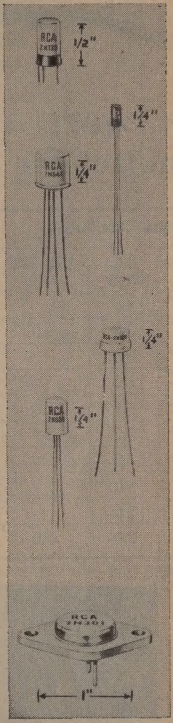
SILICON RECTIFIERS

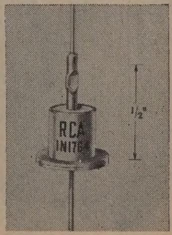
RCA Type	1-99	100-999
1N248C	3.63	2.42
1N248RC	3.63	2.42
USA1N249B	8.17	5.45
1N249C	4.46	2.97
1N249RC	4.46	2.97
USA1N250B	10.31	6.88
1N250C	6.60	4.40
1N250RC	6.60	4.40
1N440B	.73	.48
1N441B	.76	.51
1N442B	.87	.58
1N443B	1.09	.73
1N444B	1.24	.83
1N445B	1.60	1.07
1N536	.59	.40
1N537	.61	.41
1N538	.64	.43
JAN1N538	.78	.52
1N539	.86	.57
1N540	.99	.66
JAN1N540	1.14	.76
1N547	1.57	1.05
JAN1N547	1.82	1.21
1N1095	1.24	.83
1N1183A	4.50	3.00
1N1183RA	4.50	3.00
1N1184A	5.10	3.40
1N1184RA	5.10	3.40
1N1186A	7.34	4.90
1N1186RA	7.34	4.90
1N1187	10.20	6.80
1N1187R	10.20	6.80
1N1188	13.79	9.20
1N1188R	13.79	9.20
1N1189	20.54	13.70
1N1189R	20.54	13.70
1N1190	24.37	16.25
1N1190R	24.37	16.25
1N1195A	9.21	6.14
1N1195RA	9.21	6.14
1N1196A	12.38	8.25
1N1196RA	12.38	8.25
1N1197A	16.09	10.73
1N1197RA	16.09	10.73
1N1198A	20.39	13.60
1N1198RA	20.39	13.60
1N1199A	2.64	1.76
1N1199RA	2.64	1.76
1N1200A	3.30	2.20
1N1200RA	3.30	2.20

RCA Type	Optional Distributor Resale Price 1-99	100-999
1N1202A	5.86	3.90
1N1202RA	5.86	3.90
1N1203A	8.55	5.70
1N1203RA	8.55	5.70
1N1204A	10.20	6.80
1N1204RA	10.20	6.80
1N1205A	14.55	9.70
1N1205RA	14.55	9.70
1N1206A	17.24	11.50
1N1206RA	17.24	11.50
1N1612	2.31	1.54
1N1612R	2.31	1.54
1N1613	3.15	2.10
1N1613R	3.15	2.10
1N1614	4.57	3.05
1N1614R	4.57	3.05
1N1615	8.10	5.40
1N1615R	8.10	5.40
1N1616	12.46	8.30
1N1616R	12.46	8.30
1N1763	.83	.55
1N1764	.94	.63
USA1N2135A	13.61	9.08
1N2858	.58	.39
1N2859	.59	.40
1N2860	.63	.42
1N2861	.79	.53
1N2862	.91	.61
1N2863	1.09	.73
1N2864	1.57	1.05
1N3193	.69	.46
1N3194	.87	.58
1N3195	1.39	.92
1N3196	1.82	1.21
1N3253	.73	.48
1N3254	.91	.61
1N3255	1.42	.95
1N3256	1.85	1.23
1N3563	2.15	1.43
1N3754	.36	.24
1N3755	.41	.28
1N3756	.46	.31

SILICON RECTIFIER ASSEMBLIES

RCA Type	Optional Distributor Resale Price 1-29	30 & up
CR-101	9.00	8.25
CR-102	10.80	9.90
CR-103	12.60	11.55
CR-104	15.60	14.30
CR-105	19.20	17.60
CR-106	22.20	20.35
CR-107	25.80	23.65
CR-108	29.40	26.95
CR-109	33.00	30.25
CR-110	37.20	34.10
CR-201	6.00	5.50
CR-203	9.60	8.80
CR-204	13.20	12.10
CR-206	18.00	16.50
CR-208	24.00	22.00
CR-210	26.40	24.20
CR-212	28.80	26.40





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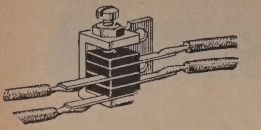
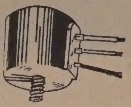
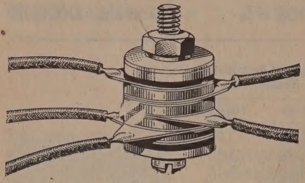
SCHAUER INSTRUMENT RECTIFIERS





TYPE BP2B



TYPE C4A

Schauer copper oxide rectifiers for instrument and other uses are processed and individually tested to meet the requirements of the user. Versatile processing techniques make possible variations in characteristics for special or unusual applications. Each rectifier is rated conservatively for long life and dependable operation. Lead lengths to customer specifications.

"A" SIZE CELLS have good frequency response above the audio range and can be used at higher frequencies. Recommended for meter applications needing 1MA or less for operation. Can be used for other applications requiring up to 5MA.

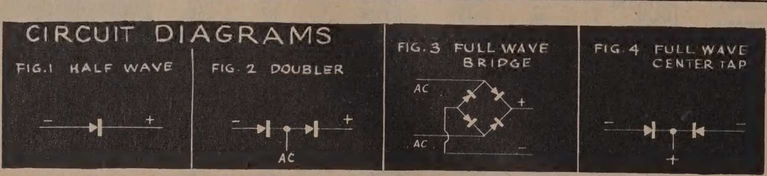
"B" SIZE CELLS (encapsulated) are fo meter, relay and other applications requiring 1MA up to their maximum rating Recommended for commercial and low audio frequency operation.

"C" SIZE CELLS are for general applications requiring larger output currents, and operation of meters, relays and other apparatus. Special process cells for varistor applications.

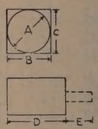
Write, wire or telephone for complete information. We welcome your inquiries concerning any special rectification problem. Schauer has been manufacturing high quality, dry-disc rectifiers since 1930.

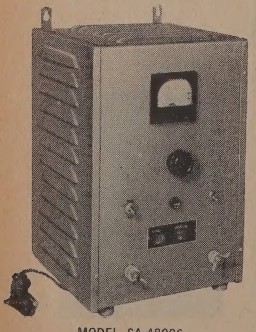
NOTE: The Schauer Manufacturing Corp. is the exclusive manufacturer of replacement Westinghouse copper oxide rectifiers

Max. Cont. Rating			Circuit Diagram Fig.	Cell Dia. Inches	No. of Cells	Leads	Mounting Screw Size	DIMENSIONS*					Type
D.C. M.A.	D.C. Volts	Max. RMS Volts						(Dia.) A	B	C	D	E	
3	6.0		2	3/16 sq.	2	3	Hole for 2-56		3/8	1/4	9/16		A2C
5	3.0	5.0	3	3/16 sq.	4	4	Hole for 2-56		3/8	1/4	9/16		A4A
13	3.0		1	7/16	1	2	6-32	9/16			7/16	9/32	BP1C
13	6.0		2	7/16	2	3	6-32	9/16			1/2	5/16	BP2B
26	1.5	2.5	4	7/16	2	3	6-32	9/16			1/2	5/16	BP2C
26	3.0	5.0	3	7/16	4	5	6-32	9/16			23/32	5/16	BP4A
32	3.0		1	3/4	1	0	10-32	3/4			11/16	5/16	C1C
32	6.0		2	3/4	2	0	10-32	3/4			3/4	5/16	C2C
32	9.0		1	3/4	3	0	10-32	3/4			7/8	1/4	C3C
64	3.0	5.0	3	3/4	4	5	10-32	3/4			31/32	5/16	C4A



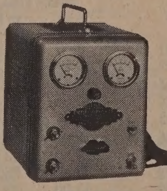
*Dimensions





MODEL SA-48006

SCHAUER ADJUSTABLE 6 VOLT and 12 VOLT BATTERY ELIMINATORS



MODEL AR 5612

MODEL SA-48006 — 6 volt and 12 volt adjustable battery eliminator for AM and FM 2-way and marine radios. A.C. input: 115 volts, 60 cycle, single-phase. D.C. output either 6 volts D.C. up to a maximum of 48 amperes; or 12 volts D.C. up to a maximum of 24 amperes. To maintain required voltage output under various load conditions, a dial-type tap switch provides adjustment from less than 1 ampere up to maximum rated output. Case is 10" wide x 9½" deep x 15" high, arranged for either bench or wall mounting.

MODEL AR 5612 — 6 volt and 12 volt adjustable battery eliminator for servicing auto radios. Output adjustable by rugged, silver contact tap switch. Low range output: 7½ volts at 12 amps., continuous; 20 amps., intermittent. High range: 15 volts at 6 amps. continuous; 11 amps., intermittent. Housed in sturdy steel case 7½" wide x 9½" deep x 9" high.

Semiconductor Division

SCHAUER MANUFACTURING CORP. • Cincinnati, Ohio

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SCHAUER SEMICONDUCTORS

HEAVY DUTY ½ WATT ZENER DIODES

A 10 watt Silicon Junction in a ½ watt package for maximum surge capacity and stability. 25 watt-ms surge from 1.0 to 10ms.

Cool operation for maximum reliability and freedom from temperature drift and thermal fatigue. (Rated for a 100°C. junction temperature at maximum current.)

Mass-produced on automatic equipment for lowest cost and maximum similarity.

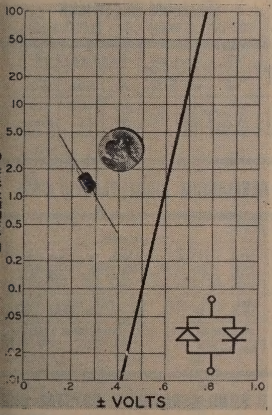
ELECTRICAL CHARACTERISTICS

Schauer Type No. 10% Tolerance (Note 1)	Nominal Zener Voltage V_Z @ I_{ZT} = 20 ma T_A = 25°C.	Dynamic Impedence Z_D @ I_{ZT} = 20 ma		Maximum Recommended Zener Current I_{ZM}	Typical Temperature Coefficient of Voltage %/°C.
		Max.	Typical		
SZ 2.4	2.4 Volts	50 Ohms	40 Ohms	210 ma	—.08
SZ 2.7	2.7	50	35	185	—.07
SZ 3.0	3.0	40	32	170	—.07
SZ 3.3	3.3	40	28	150	—.06
SZ 3.6	3.6	40	25	140	—.06
SZ 3.9	3.9	40	22	130	—.05
SZ 4.3	4.3	30	20	120	—.04
SZ 4.7	4.7	30	15	110	—.01
SZ 5.1	5.1	20	10	100	.01
SZ 5.6	5.6	20	4	90	.02
SZ 6.2	6.2	10	1.0	80	.03
SZ 6.8	6.8	10	0.6	75	.04
SZ 7.5	7.5	10	0.9	70	.04
SZ 8.2	8.2	10	2	60	.05
SZ 9.1	9.1	10	4	55	.06
SZ 10.00	10.00	10	6	50	.06

NOTE 1. Add suffix "A" for 5% tolerance (i.e., SZ4.7A) for 4.7 ±5% volts.

NOTE 2. Lower voltages available from factory.

NOTE 3. Temperature compensated high voltage assemblies available.



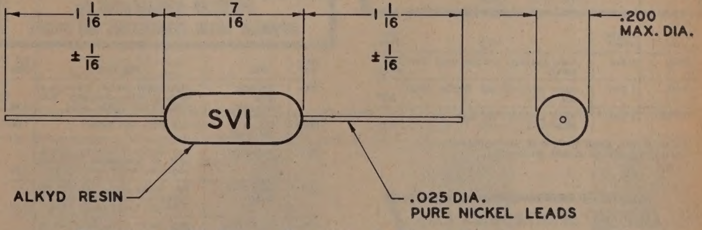
SV1 Silicon Varistor as compared in ize to 25¢ piece. Chart shows its vs E characteristics over four decades.

SCHAUER SV1 SILICON VARISTOR

SV1 Varistor consists of matched silicon junctions connected in parallel and oppositely poled. This voltage variable resistance goes through four decades of current for a half volt change in signal and makes possible its use as a single component to convert linear AC or DC information into logarithmic information following the curve $I_{ma} = e^{26(E-.59)}$ between the range I = .02 ma to 200 ma.

ELECTRICAL CHARACTERISTICS — Test limits: 50 microamperes max. at .2V D.C., 225 milliamperes min. at 1.0V D.C. Dissipation: ¾ watt at 25°C, ¼ watt at 100°C. Maximum ½ cycle surge current, 25 amps. peak.

SV1 is encapsulated with an alkyd molding compound. An inner epoxy seal, long leakage paths, and high pressure molding assure reliable performance in all environments.



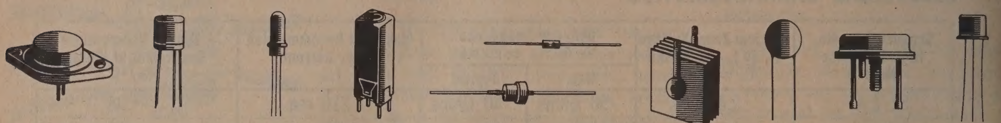
Dimensions of SV1 Varistor. Also applies to Schauer ½ watt Zener Diodes. Zener cathode terminal is marked by red dot.

Semiconductor Division

SCHAUER MANUFACTURING CORP. • Cincinnati, Ohio

SEMITRON

• *Semiconductor Products* • *Germanium* • *Silicon* • *Selenium* *Transistors* • *Rectifiers* • *Diodes*
• *IF Transformers* • *Ceramic Capacitors*



POWER TRANSISTORS
TYPE TO-3 CASE

Semi-tron	PNP REPLACEMENT*	Net Price
PT40	HIGH WATTAGE — 2N155, 2N156, 2N157, 2N157A, 2N176, 2N176B, 2N176G, 2N176W, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N235B, 2N236, 2N236A, 2N236B, 2N242, 2N250, 2N255, 2N256, 2N257, 2N285, 2N285A, 2N301, 2N301A, 2N307, 2N307A, 2N350, 2N351, 2N352, 2N353, 2N376, 2N378, 2N399, 2N400, 2N401, 2N419, 2N456, 2N554, 2N555, 2N637, 2N638, 2N639, AR5, AR6, AR7, AR8A, AR9, AR10, AR11, AR12, AR13, B1017, CTP1104, CTP1108, CTP1109, CTP1117, CTP1137, TS176, DS503	$1.59
PT25	MEDIUM WATTAGE—2N155, 2N156, 2N176, 2N178, 2N234, 2N234A, 2N235, 2N235A, 2N242, 2N250, 2N255, 2N256, 2N257, 2N301, 2N301A, 2N307, 2N307A, 2N378, 2N401, 2N554, 2N555, 2N638, 2N639, AR5, B1017, CTP1104, CTP1108, CTP1109, TS176	1.40
PT12	NORMAL WATTAGE — 2N234, 2N234A, 2N255, 2N256, 2N307, 2N554, B1017, CTP1104, CTP1108, CTP1109	1.17
PT6	EXPERIMENTER HOBBYIST — 2N255, 2N256, B1017, CTP1108, CTP1109	1.05

HIGH WATTAGE POWER TRANSISTORS
STUD TYPE TO-36 CASE

Semi-tron	PNP REPLACEMENT*	Net Price
PT501	HIGH WATTAGE — 2N173, 2N174, 2N277, 2N278, 2N441, 2N442, 2N443, DS501, DS504	$3.57
PT515	High Current Transistor for Replacement in Auto Radios, Amplifiers, and Electronic Converters	5.37

"POPULAR" POWER TRANSISTORS
TYPE TO-3 CASE

Semitron	Replacement	Net Price	Semitron	Replacement	Net Price
PT155	2N155	$1.77	PT285A	2N285A	$2.37
PT176	2N176	1.77	PT301	2N301	1.77
PT234	2N234	1.40	PT301A	2N301A	2.37
PT235A	2N235A	1.77	PT307	2N307	1.17
PT242	2N242	1.77	PT307A	2N307A	1.40
PT255	2N255	1.17	PT554	2N554	1.17
PT256	2N256	1.40	PT555	2N555	1.40

HIGH CURRENT POWER TRANSISTORS
TYPE TO-3 CASE

Semi-tron	Collector Current	USE	Net Price
PT30	3 Amp	Audio Amplifiers and Low Power Applications	$1.59
PT50	5 Amp	Audio Amplifiers and Medium Power Applications	2.37
PT150	15 Amp	Audio Amplifiers and High Power Applications	4.17

* Equivalent units shown have similar electrical characteristics. However they may vary in some specifications.

SEMITRON SEMITRONICS Corp.

NEW YORK, N. Y.

AUDIO TRANSISTORS

Semi-tron		PNP TYPE	Net Price
AT 30H AT 30M AT 30N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output Transistors having similar or lower rating.	$1.77 1.65 1.50
AT 20H AT 20M AT 20N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Output or Driver Transistors having similar or lower rating.	1.35 1.17 1.05
AT 10H AT 10M AT 10N	High Gain Medium Gain Normal Gain	High quality Audio Transistors for design or replacement of Driver or Detector Transistors having similar or lower rating.	.90 .75 .59
AT GP	General Purpose	General Purpose Transistor suitable for Audio Amplifiers, Code Oscillators, and numerous other experimental circuits.	.47

R.F. TRANSISTORS

Semi-tron		PNP TYPE	Net Price
HF 20H HF 20M	High Gain Medium Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	$2.37 2.25
HF 12H HF 12M	High Gain Medium Gain	High quality R.F. unit for design or replacement of Radio Frequency Transistors having similar or lower rating.	1.77 1.65
HF 6H HF 6M	High Gain Medium Gain	High quality I.F. unit for design or replacement of Intermediate Frequency Transistors having similar or lower rating.	1.47 1.17
HF 3H HF 3M	High Gain Medium Gain	High quality I.F. unit for design or replacement of Intermediate Frequency Transistors having similar or lower rating.	1.05 .87

NPN TYPE TRANSISTORS

Semi-tron		RECOMMENDED USE	Price
NR 10	Osc	NPN Type of Transistor for use in oscillator or RF circuit	$1.47
NR 5	I. F.	NPN Type of Transistor for use in intermediate frequency amplifier	1.37
NA 20	Det. Driver	NPN Type of Transistor for use in Audio Driver or Detector stage	1.17
NA 30	Output	NPN Type of Transistor for use in Audio amplifier or output stage	1.37

AMERICAN REPLACEMENT for JAPANESE RADIO TRANSISTORS and DIODES

Semi-tron	Use	PNP TYPE	Net Price
JR30	Oscillator Mixer Converter	High quality RF unit for replacement of Radio Frequency Transistors having similar rating	$1.47
JR30X	Osc., Con. Mixer	In 2 and 3 Band Radios	1.65
JR10	IF Amplifier	High quality IF unit for replacement of Intermediate Frequency Transistors having similar rating	1.35
JR5	Audio Driver Detector	High Quality Audio Transistor for replacement of Driver or Detector Transistors having similar rating	1.17
JR15	Audio Output	High quality Audio Transistor for replacement of Output Transistor having similar rating	1.47
JD1	Detector Diode	For replacement as Diode Detector	.30
JD2	AVC Diode	For replacement as AVC Diode	.30
JP40	Audio Power	For replacement of Power Transsistor in Audio application	1.77

SILICON POWER RECTIFIERS
TOP HAT AXIAL LEADS

Type	P. I. V.	RMS*	Forward Current MA	Net Price
SR60	600	420	750	$1.40
SR50	500	350	750	1.08
SR40	400	280	750	.90
SR30	300	210	750	.75
SR20	200	140	750	.60
SR10	100	70	750	.51
SR5	50	35	750	.42
SR605	600	420	500	1.35
SR405	400	280	500	.84
SR205	200	140	500	.51
SR105	100	70	500	.42

* Inductive or Resistive Load

EPOXY TYPE SILICON RECTIFIERS
750 MA. 100 to 1000 P.I.V.

Semi-tron	P. I. V.	RMS*	Forward Current	Net Price
ER 101	100	70	750 MA.	$ .42
ER 201	200	140	750 MA.	.51
ER 301	300	210	750 MA.	.60
ER 401	400	280	750 MA.	.75
ER 501	500	350	750 MA.	.90
ER 601	600	420	750 MA.	1.08
ER 801	800	560	750 MA.	1.35
ER 1001	1000	700	750 MA.	1.77

* Inductive or Resistive Load

SELENIUM RECTIFIERS
FOR USE IN RADIO - TV - ELECTRONICS

Semitron Type No.	Max. D. C. Output MA.	Max. A. C. Input Volts	Min. Series Resistor (Ohms)	DIMENSIONS			Net Price
				A Inches	B Inches	C Inches	
RS-151	50-75	130	22	11/16	11/16	11/16	$.47
RS-152	100-150	130	15	1	1	1	.66
RS-153	200-250	130	5	1.3	1.3	1-1/4	.87
RS-154	300-500	130	5	1.5	1.5	1-3/8	.99

GERMANIUM DIODE PLASTIC CASE

Type	SIMILAR TYPES	Net Price
1N34 1N34A	1N34A, 1N43, 1N46, 1N49, 1N60, 1N51, 1N66, 1N69, 1N294, 1N295, 1N126, CK705, 1N109, 1N125, 1N267, 1N268, GICA, NU34, TP34, TP34A, 400A, 400C, M34, M34A, M95, MN34A, OA71, OA71C, X16	$.33
1N60	1N64, 1N69, 1N295, 1N132, 1N87, 1N87G, 1N296, 1N105, 1N125, CK706, C60, G7F, G7G, CV442, GINA,	
1N64	1N69, 1N109, 1N125, 1N132, 1N148, 1N64A, 1N135	.33
1N51	M51, MN51	.33

GOLD BOND GERMANIUM CRYSTAL DIODE

Type	SIMILAR TYPES	Net Price
1N34 1N34A Black Band	1N34A, 1N43, 1N46, 1N49, 1N60, 1N51, 1N66, 1N69, 1N294, 1N295, 1N126, CK705, 1N109, 1N125, 1N267, 1N268, GICA, NU34, TP34, TP34A, 400A, 400C, M34, M34A, M95, MN34A, OA71, OA71C, X16	$.27
1N60 Blue Band	1N64, 1N69, 1N295, 1N132, 1N87, 1N87G, 1N296, 1N105, 1N125, CK706, C60, G7F, G7G, CV442, GINA, M60, MN60, OA73, OA73C	.27
1N64 Red Band	1N69, 1N109, 1N125, 1N132, 1N148, 1N64A, 1N135	.27
1N51 White Band	M51, MN51	.27

Color Band Denotes Cathode.

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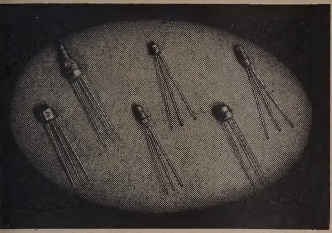
SPRAGUE TRANSISTORS



GERMANIUM AND SILICON TRANSISTORS

- Sprague Transistors are Produced by Advanced Equipment and the Latest Manufacturing Techniques.
- Excellent Design Flexibility and Electrical Properties Meet Rigid Performance and Reliability Standards.
- Highest Quality and Outstanding Economy.
- For Complete Technical Data, Write for Applicable Engineering Bulletin.

GERMANIUM ELECTRO-CHEMICAL DIFFUSED COLLECTOR TRANSISTORS (ECDC†)

Type No.	Case	-Vce (volts)	-Ic (mA)	Pd @ 25C (mW)	Description	1-99 (ea.)
2N2096	TO-31	20	500	750	High Current Core Driver	$ 8.85
2N2097	TO-31	35	500	750	High Current Core Driver	12.75
2N2099	TO-9	20	500	250	High Current Core Driver	7.50
2N2100	TO-9	35	500	250	High Current Core Driver	11.40

GERMANIUM MICRO-ALLOY TRANSISTORS (MAT®)

Type No.	Case	-Vce (volts)	-Ic (mA)	Pd @ 25C (mW)	Description	1-99 (ea.)
2N393	TO-24	6	50	25*	High Speed, High-Gain Switch	4.35
JAN2N393	TO-24	6	50	25*	High-Speed, High-Gain Switch to MIL-S-19500/77A	4.70
2N1122	TO-24	11	50	25*	High Speed, High-Gain Switch	5.45
2N1122A	TO-24	14	50	25*	High Speed, High-Gain Switch	6.75
USA2N1411	TO-24	5	50	25*	High Speed, High-Gain Switch to MIL-S-19500/133 (Sig. C.)	3.70
2N1427	TO-24	6	50	25*	High Speed, High-Gain Switch	4.55

GERMANIUM MICRO-ALLOY DIFFUSED BASE TRANSISTORS (MADT®)

Type No.	Case	-Vce (volts)	-Ic (mA)	Pd @ 25C (mW)	Description	1-99 (ea.)
2N499	TO-1	18	50	30*	Power Oscillator, Power Amplifier	3.95
2N501	TO-1	—	50	60	Ultra-High-Speed Switch	6.35
2N501A	TO-1	—	50	60	Ultra-High-Speed Switch	7.35
JAN2N501A	TO-1	—	50	60	Ultra-High-Speed Switch to MIL-T-19500/62A	7.35
2N504	TO-1	25	50	30*	455-KC i-f Amplifier	3.45
2N588	TO-1	15	50	30*	Oscillator, Amplifier	1.40
2N768	TO-18	—	100	35	High-Speed Low Level Switch	5.85
2N769	TO-18	7	100	35	Ultra-High-Speed Switch	6.75
2N779A	TO-18	—	100	60	High-Speed Switch	5.60
2N846A	TO-18	—	100	60	High-Speed Switch	5.40
2N979	TO-18	—	100	60	High-Speed Switch	1.40
2N982	TO-18	15	100	60	High-Speed Switch	5.60
2N983	TO-18	15	100	60	High-Speed Switch	4.15
2N984	TO-18	15	100	60	High-Speed Switch	2.35
2N1499A	TO-9	—	100	60	High-Speed Switch	1.40
2N1500	TO-9	—	50	60	High-Speed Switch	6.35
USA2N1500	TO-9	—	50	60	High-Speed Switch to MIL-S-19500/125	7.35
2N1754	TO-9	—	100	50	High-Speed Switch	1.35
2N2168	TO-9	15	100	60	High-Speed Switch	5.60
2N2169	TO-9	15	100	60	High-Speed Switch	4.15
2N2170	TO-9	15	100	60	High-Speed Switch	2.35

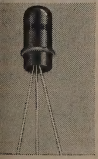
GERMANIUM SURFACE BARRIER TRANSISTORS (SBT)

Type No.	Case	-Vce (volts)	-Ic (mA)	Pd @ 25C (mW)	Description	1-99 (ea.)
2N128	TO-24	4.5	5	25	High-Speed, High-Gain Communications Type	6.30
AN2N128	TO-24	4.5	5	25	High-Speed, High-Gain Communications Type to MIL-T-19500/9A	6.65
2N240	TO-24	6	15	30	High-Speed Switch	5.60
MIL2N240	TO-24	6	15	30	High-Speed Switch to MIL-S-19500/25A (Sig. C.)	5.90
2N344	TO-24	5	5	20**	Medium-Beta, General Purpose	3.45
2N345	TO-24	5	5	20**	High-Beta, General Purpose	4.35
2N346	TO-24	5	5	20**	High-Frequency Oscillator	5.85
SO-1	TO-24	5	5	20	Oscillator Amplifier	1.12

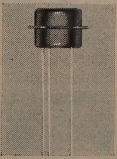
SILICON SURFACE PRECISION ALLOY TRANSISTORS (SPAT®)

Type No.	Case	-Vce (volts)	-Ic (mA)	Pd @ 25C (mW)	Description	1-99 (ea.)
2N1118	TO-5	25	50	150	Amplifier and Switching Service	11.60
2N1118A	TO-5	25	50	150	Amplifier and Oscillator	15.75
MIL2N1118	TO-5	25	50	150	Amplifier and Oscillator to MIL-S-19500/138A (Sig. C.)	11.60
2N1119	TO-5	10	50	150	High-Speed Switch	11.60
USA2N1119	TO-5	10	50	150	High-Speed Switch to MIL-S-19500/139 (Sig. C.)	11.60
2N1429	TO-5	6	50	150	General Purpose H-F Amplifier and Switch	8.75
2N1676	TO-5	4.5	50	100	Low Level Chopper	11.70
2N1677	TO-5	4.5	50	100	Low Level Chopper	8.85
2N2162	TO-5	30	50	150	Low Level Chopper	13.55
2N2163	TO-5	15	50	150	Low Level Chopper	11.50
2N2164	TO-5	8	50	150	Low Level Chopper	12.20
2N2165	TO-5	30	50	150	Low Level Chopper	11.50
2N2166	TO-5	15	50	150	Low Level Chopper	9.45
2N2167	TO-5	8	50	150	Low Level Chopper	10.15

Sprague Preferred Type * @ 45C ** @ 40C † Trademark of Sprague Electric Company ® Trademark of Philco Corp.



TO-1



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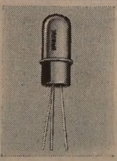
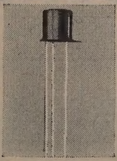


TO-24

TO-31



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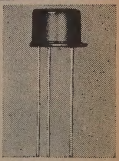

TO-5

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TUNG-SOL® GERMANIUM TRANSISTORS

HIGH POWER TYPES—JEDEC TO-36 OUTLINE

	Max Ratings			h_{FE}				Typical f_{hfe}			Max I_{CBO}	
Type	V_{CBO} V	V_{CES} V	V_{CEO} V	I_C A	V_{CE} V	Min	Max	I_C A	V_{CE} V	K_C	V_{CB} V	mA
2N 173	−60	−50		5	−2	35	70	5	−6	10	−60	8
2N 174	−80	−70	−55	5	−2	25	50	5	−6	10	−80	8
JAN 2N 174*	−80		−40	1.2	−2	40	80	5	−6	10	−80	15
2N 174 A*	−80	−70	−40	1.2	−2	40	80	5	−6	10	−80	8
2N 277	−40	−40		5	−2	35	70	5	−6	10	−40	8
2N 278	−50	−45		5	−2	35	70	5	−6	10	−50	8
2N 441	−40	−40		5	−2	20	40	5	−6	10	−40	8
2N 442	−50	−45		5	−2	20	40	5	−6	10	−50	8
2N 443	−60	−50		5	−2	20	40	5	−6	10	−60	8
2N 1099	−80	−70		5	−2	35	70	5	−6	10	−80	8
2N 1100	−100	−80	−65	5	−2	25	50	5	−6	10	−100	8
2N 1358	−80	−70	−40	1.2	−2	40	80	5	−6	10	−80	8
USA 2N 1358	−80	−70	−40	5	−2	25	50	5	−6	10	−80	8
2N 1412	−100		−65	5	−2	25	50	5	−4	10	−100	8
2N 1970	−100		−50	5	−2	17	40	5	−4	5 min	−100	4
2N 1980	−50		−30	5	−2	50	100	2	−5	3 min	−50	6
2N 1981	−70		−40	5	−2	50	100	2	−5	3 min	−70	6
2N 1982	−90		−50	5	−2	50	100	2	−5	3 min	−90	6

*JEDEC TO-6 Outline

POWER TYPES—JEDEC TO-3 OUTLINE

	Max Ratings				h_{FE}				Minimum f_{hfe}			Max I_{CBO}	
Type	V_{CBO} V	V_{CES} V	V_{CER} V	V_{CEO} V	I_C A	V_{CE} V	Min	Max	I_C A	V_{CE} V	K_C	V_{CB}	mA
2N 242	−45		−45		0.5*				0.5	−12	5	−45	5
2N 301	−40	−32			0.7	−1.5	47†	120†				−40	5
2N 301 A	−60	−32			0.7	−1.5	47†	120†				−60	5
2N 307	−35		−35		0.2	−1.5	20	——	0.5	−14	3	−25	5
2N 307 A	−35		−35		0.2	−1.5	30	——	0.5	−14	3.5	−25	2
2N 378	−40			−20	2	−2	15	40	1	−2	5	−25	0.5
2N 379	−80			−40	2	−2	20	70	1	−2	5	−25	0.5
2N 380	−60			−30	2	−2	30	70	1	−2	8	−25	0.5
2N 459	−105			−60	2	−2	20	70	1	−2	5	−25	0.5
2N 1182	−90			−60	0.5	−12	35	85	0.5	−12	5	−50	0.5

* Power Gain: R_S = 10 Ω, V_{CC} = −14 V, R_L = 30 Ω, 30 db min.
† h_{fe} @ 1 Kc

MEDIUM POWER AUDIO AND LOW SPEED COMPUTER TYPES—JEDEC TO-5 OUTLINE

	Max Ratings			h_{FE}				Typical f_{hfb}			Max I_{CBO}	
Type	V_{CBO} V	V_{CER} V	I_C mA	I_C mA	V_{CE} V	Min	Max	I_C mA	V_{CB} V	M_C	V_{CB} V	µA
2N 381	−50	−25	400	20	−1	35	65	1	−6	3	−25	10
2N 382	−50	−25	400	20	−1	60	95	1	−6	4	−25	10
2N 383	−50	−25	400	20	−1	75	120	1	−6	5	−25	10
2N 460	−45	−35	400	1	−6	15†	35†	1	−5	1.2	−45	15
2N 461	−45	−35	400	1	−6	30†	200†	1	−5	4	−45	15
USAF 2N 461	−45	−35	400	1	−6	30†	65†	1	−6	2	−45	10
2N 526	−45	−30	500	20	−1	53	90	1	−5	3	−30	10
JAN 2N 526	−30	−30	400	20	−1	53	90	1	−5	3	−30	10
2N 527	−45	−30	500	20	−1	72	121	1	−5	3.3	−30	10
2N 1705	−18	−12	400	1	−6	70†	150†	1	−6	4	−10	10
2N 1706	−25	−18	400	20	−1	60	120	1	−6	3	−10	10
2N 1707	−30	−25	400	10	−5	40†	150†	1	−6	3	−25	15
2N 2171	−50	−25	400	20	−1	110	250	1	−6	7.5	−25	10
TS 601	−12	−9	400	10	−1	15	70				−9	20
TS 602	−12	−9	400	10	−1	60					−9	20
TS 603	−20	−18	400	10	−1	15	70				−9	20
TS 604	−20	−18	400	10	−1	60					−9	20

† h_{fe} @ 1Kc

MEDIUM POWER RF AND COMPUTER TYPES—JEDEC TO-5 OUTLINE

	Max Ratings					h_{FE}				Typical f_{hfb}			Max I_{CBO}	
Type	V_{CBO} V	V_{CER} V	V_{CEO} V	I_C mA	P_C mW	I_C mA	V_{CE} V	Min	Max	I_C mA	V_{CB} V	M_C	V_{CB} V	µA
2N 396	−30			200	180	10	−1	30	150	1	−5	10	−20	6
2N 396 A	−30		−20	200	200	10	−1	30	150	1	−5	10	−20	6
2N 413	−30		−18	400	180	1	−6	20†	80†	1	−6	5	−12	5
2N 414	−30		−15	400	180	1	−6	30†	120†	1	−6	10	−12	5
2N 416	−30		−12	400	180	1	−6	50†	200†	1	−6	15	−12	5
2N 417	−30		−10	400	180	1	−6	70†	250†	1	−6	20	−12	5
2N 425	−30		−20	400	180	I_B = 1	−0.25	20	40	1	−5	4	−1.5	4
2N 426	−30		−18	400	180	I_B = 1	−0.25	30	60	1	−5	6	−1.5	4
2N 427	−30		−15	400	180	I_B = 1	−0.25	40	80	1	−5	11	−1.5	4
2N 428	−30		−12	400	180	I_B = 1	−0.25	60		1	−5	17	−1.5	4
JAN 2N 428	−30		−12	200	150	60	−0.25	60		1	−5	17	−1.5	4
2N 1313	−30		−15	400	180	I_B = 1	−0.25	40	125	1	−6	15	−30	25
2N 1681	−30		−15	200	180	10	−0.25	30	120	1	−5	10	−30	25
TS 605	−12	−9		400	180	I_B = 0.25	−1	15					−9	10
TS 606	−20	−18		400	180	I_B = 0.25	−1	15					−9	10

† h_{fe} @ 1Kc

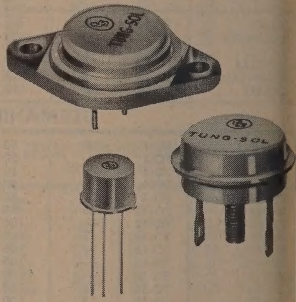
DYNAQUAD™ —JEDEC TO-5 OUTLINE

	Max Ratings			Turn-on Gate Current			Turn-off Gate Current			Sustaining Current		Max I_{CGO}	
										R_{GE} = IK			
Type	V_{CGO} V	V_{CES} V	V_{CER} V	I_C mA	R_{GE} KΩ	Max mA	I_C mA	R_{GE} KΩ	mA	Min mA	Max mA	V_{CG} V	µA
2N 1966	−35	−35	−15†	50	1	0.5	20	10	Max 12		20	−12	15
2N 1967	−35	−35	−15†	100	1	0.5				20	80	−12	15
2N 1968	−35	−35	−18††	20	1	0.3	20	1	Min 2.5		5	−12	15
2N 2260	−30	−30	−30†††	10	1*	1.25	10	1*	Max 5		5*	−12	5
2N 2261	−30	−30	−30†††	20	1*	1.5	20	1*	Max 10	4.5*	10*	−12	5
2N 2262	−30	−30	−30†††	100	1*	5.0	100	1*	Max 50	9.5*	50*	−12	5

† V_{CER}, R_{GE} = 10K
†† V_{CER}, R_{GE} = 1K
††† V_{CEX}, R_{GE} = 1K, V_{CG} = +1V

* V_{GG} = +1V

Tung-Sol germanium transistor have been designed to meet th reliability and performanc standards of critical commercia and military applications. Performance capabilities ar evaluated under the severes environmental conditions an electrical limits.



HIGH POWER TYPES
Maximum Collector Dissipation 170 watts
Derating factor 0.5°C/W
T_J max = +110°C
I_C max = 15A

POWER TYPES
Maximum Collector Dissipation 106 watts
Derating Factor 0.8°C/W
T_J max = +110°C
I_C max = 5A

MEDIUM POWER AUDIO AND LOW SPEED COMPUTER TYPES
Maximum Collector Dissipation = 225 mW
T_J max = +100°C

MEDIUM POWER RF AND COMPUTER TYPES
T_J max = +100°C

DYNAQUAD™
Maximum Collector Dissipation = 150 mW
T_J max = +100°C
I_C max = 200 mA

ts TUNG-SOL

TUNG-SOL ELECTRIC INC., NEWARK 4, N. J

Full field technical consultation or complete up-to-date listings on all Tung-Sc products are available through: Atlanta Ga.; Columbus, Ohio; Culver City, Calif. Dallas, Texas; Denver, Colo., Detroit, Mich. Irvington, N.J.; Melrose Park, Ill.; Newark N.J.; Seattle, Wash. In CANADA: Abbe Electronics, Toronto, Ont.

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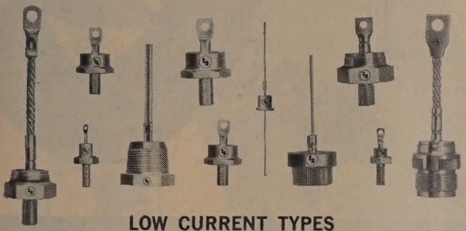
TUNG-SOL® SILICON POWER RECTIFIERS

Tung-Sol silicon power rectifiers offer distinct advantages over similar competitive types. Exclusive design features combine with Tung-Sol's historically rigid quality control to assure designers unmatched operational reliability. Wide interchangeability permits specification of these outstanding components for most commercial and military applications.



LOW CURRENT TYPES

JEDEC DO-1 OUTLINE

Type	PRV V	I_o @ 50°C. amb. mA	LI_b μa	LI_o μa	iS A
1N440B	100	750	0.3		15
1N441B	200	750	0.75		15
1N442B	300	750	1.0		15
1N443B	400	750	1.5		15
1N444B	500	650	1.75		15
1N445B	600	650	2.0		15
1N536	50	750		400	15
1N537	100	750		400	15
1N538	200	750		300	15
1N539	300	750		300	15
1N540	400	750		300	15
1N547	600	750		350	15
1N560	800	500	15.0		15
1N561	1000	500	20.0		15
1N1692	100	600		500	20
1N1693	200	600		500	20
1N1694	300	600		500	20
1N1695	400	600		500	20
1N1696	500	600		500	20
1N1697	600	600		500	20
1N1763	400	500		1000	20
1N1764	500	500		1000	20

LOW CURRENT TYPES

COLD-WELDED, SUBMINIATURE CASE CONSTRUCTION

Type	PRV V	I_o @ 50°C. amb. mA	LI_o μa	iS A
1N3473	200	750	500	20
1N3474	400	750	500	20
1N3475	600	750	500	20
1N3476	800	500	500	20

MEDIUM CURRENT TYPES

JEDEC DO-5 OUTLINE

Type	PRV V	I_o@140°C. case A	LI_o mA	iS A
1N1183	50	35	10	500
1N1184	100	35	10	500
1N1185	150	35	10	500
1N1186	200	35	10	500
1N1187	300	35	10	500
1N1188	400	35	10	500
1N1189	500	35	10	500
1N1190	600	35	10	500

MEDIUM CURRENT TYPES

JEDEC DO-5 OUTLINE

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N1191	50	20	5	250
1N1192	100	20	5	250
1N1193	150	20	5	250
1N1194	200	20	5	250
1N1195	300	20	5	250
1N1196	400	20	5	250
1N1197	500	20	5	250
1N1198	600	20	5	250
1N2154	50	25	5.0	350
1N2155	100	25	4.5	350
1N2156	200	25	4.0	350
1N2157	300	25	3.5	350
1N2158	400	25	3.0	350
1N2159	500	25	2.5	350
1N2160	600	25	2.0	350
1N3208	50	15	10	250
1N3209	100	15	10	250
1N3210	200	15	10	250
1N3211	300	15	10	250
1N3212	400	15	10	250

MEDIUM CURRENT TYPES

PRESS-FIT CONSTRUCTION

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N3491 - 1N3491R	50	18	10	300
1N3492 - 1N3492R	100	18	10	300
1N3493 - 1N3493R	200	18	8	300
1N3494 - 1N3494R	300	18	6	300
1N3495 - 1N3495R	400	18	4	300
1N3659 - 1N3659R	50	25	5	400
1N3660 - 1N3660R	100	25	4.5	400
1N3661 - 1N3661R	200	25	4.0	400
1N3662 - 1N3662R	300	25	3.5	400
1N3663 - 1N3663R	400	25	3.0	400
1N3664 - 1N3664R	500	25	2.5	400
1N3665 - 1N3665R	600	25	2.0	400

HIGH CURRENT TYPES

DO-8 OUTLINE

Type	PRV V	I_o@150°C. case A	LI_o mA	iS A
1N1396	50	70	15	1500
1N1397	100	70	15	1500
1N1398	150	70	15	1500
1N1399	200	70	15	1500
1N1400	300	70	15	1500
1N1401	400	70	15	1500
1N1402	500	70	15	1500

iS—Peak one-cycle surge current, under same conditions as I_o rating. (μA=Microamperes)

I_o—Max. rectified avg. DC output current, resistive or inductive load, 60 cps sine wave input.

LI_b—Max. reverse current with voltage equal to PRV applied in reverse direction, 25°C. ambient.

LI_o—Max. avg. reverse current measured over full sine wave cycle with max. rated reverse voltage and forward current applied.

TUNG-SOL®

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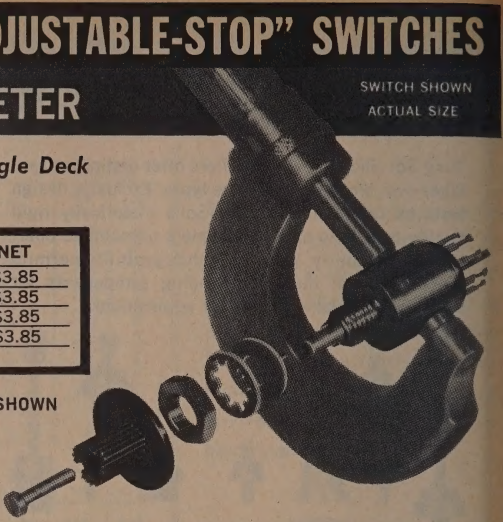
TUNG-SOL ELECTRIC INC., NEWARK 4, N. J.

New ULTRA-MINIATURE "ADJUSTABLE-STOP" SWITCHES
ONLY ½" DIAMETER



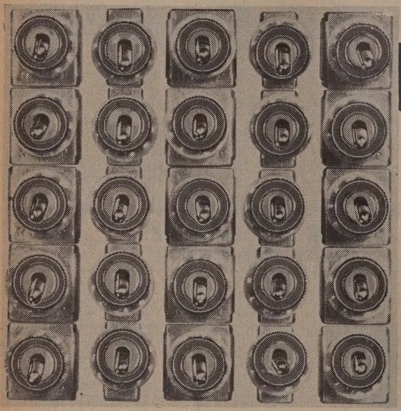
★ *Non-Shorting* ★ *36° Spacing* ★ *Single Deck*
★ *⅛" Diameter Shaft* ★ *Fully Enclosed*

MODEL	POLES	USEABLE	MAX. POS.	NET
MRA-1-10*	One	2-10 Pos.	10	$3.85
MRA-2-5	Two	2-5 Pos.	5	$3.85
MRA-3-3	Three	2-3 Pos.	3	$3.85
MRA-4-2	Four	2 Pos.	2	$3.85

*Also usable as continuous rotation

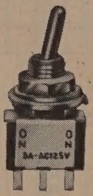
ALL ROTARY SWITCHES ABOVE ARE EQUIPPED WITH KNOB AS SHOWN

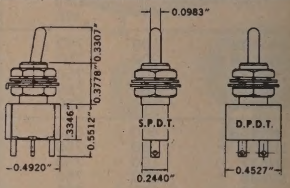
FIRST MINIATURE ***ADJUSTABLE*** STOP SWITCH AVAILABLE



ULTRA-MINIATURE TOGGLE SWITCHES

25 ALCO SWITCHES MOUNTED HERE ACTUAL SIZE





5 AMPS @ 115 VAC — and capable of carrying a 100% overload!

MICRO-MINIATURE — (see right) S.P.D.T. is sub-miniaturized to only ½" x ⅜" x ¼"! Extremely compact!

simultaneous action on D.P.D.T.

SOLID SILVER — contacts, terminals and moving parts! Not just plated!

LONG LIFE RATINGS — over 80,000 operations for this tiny switch!

QUANTITY PRICES AVAILABLE ON REQUEST

MST	105D	205N
Quantity	S.P.D.T.	D.P.D.T.
1-24	$1.65	$2.15
25-99	1.12	1.43
100-499	.99	1.29
500 over	.83	1.08

PHYSICAL SPECIFICATIONS

Insulating Resistance:	Over 1000 megohms @ 500 VDC.
Voltage Breakdown:	Over 1000 volts @ 60 cycles.
Moisture Resistance:	Over 8 megohms after 48 hours at temperatures of 40°C and humidity of 95%.
Heat Resistance:	One hour @ 140°C.
Life Cycle:	Well over 80,000 on-off actions.
Case Material:	Black phenol resin.

NEW FROM ALCO! MOMENTARY & CENTER-OFF TYPES*

MODEL	TYPE	UP-Position	Center Position	DOWN-Position	NET
MST-105 E	S.P.D.T.	ON	OFF	ON	$1.95
MST-105 F	S.P.D.T.	ON	NONE	Momentary ON	$1.95
MST-105 G	S.P.D.T.	Momentary ON	OFF	Momentary ON	$1.95
MST-105 H	S.P.D.T.	ON	OFF	Momentary ON	$1.95
MST-205 P	D.P.D.T.	ON	OFF	ON	$2.55
MST-205 R	D.P.D.T.	ON	NONE	Momentary ON	$2.55
MST-205 S	D.P.D.T.	Momentary ON	OFF	Momentary ON	$2.55
MST-205 T	D.P.D.T.	ON	OFF	Momentary ON	$2.55

ALCO

SPECIALISTS IN MINIATURIZATION

ELECTRONIC PRODUCTS, INC.

Lawrence, Mass.

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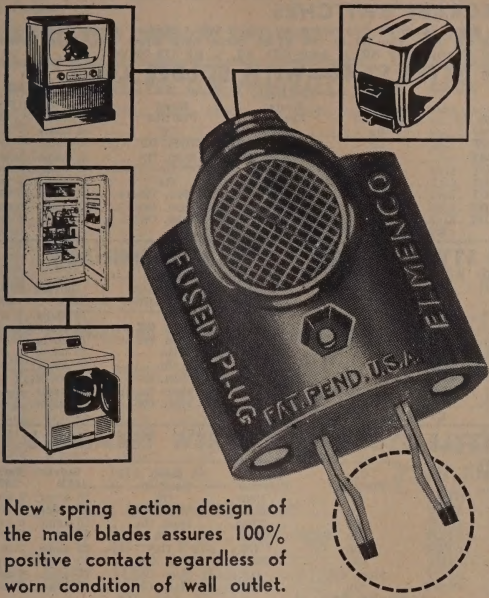
Announcing an important NEW Feature

OF THE ELMENCO Fused Plug

Spring Action


FUSED PLUG
ELMENCO
PAT. PEND. U.S.A.

New spring action design of the male blades assures 100% positive contact regardless of worn condition of wall outlet.

For
POSITIVE CONTACT
plus
Impact Resistant Cover

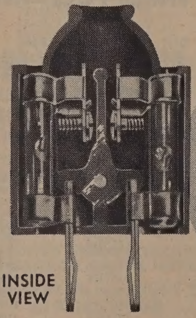
LIST PRICE **75¢** LESS FUSES

OFFERS COMPLETE PROTECTION AGAINST CURRENT SURGES & SHORT CIRCUITS PROTECTS ELECTRICAL APPLIANCES!

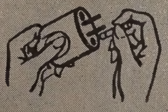
ELMENCO
fused plug
with IMPACT RESISTANT COVER
and
"SPRING ACTION" for Perfect Contact
OFFERS COMPLETE PROTECTION AGAINST CURRENT SURGES
ELMENCO FUSED PLUGS
REPLACE FUSE INSTANTLY!

Conveniently Packed 10 to a Box In Colorful Self-merchandising displays. Easy to handle for resale

The Elmenco Fused Plug is like any standard plug, is light in weight, but easier to handle because of finger grips. However, it contains 2 small fuses which provide complete protection against damage to the appliance and to the main line. The blown fuse is easy to remove and simple to replace. Fits any standard wall outlet.


INSIDE VIEW

REPLACE FUSE Instantly!



Fuses are replaced instantly without need of opening plug. Can be used with standard 3AG and 3AB glass tubular fuses up to 20 amps.

ARCO *electronics inc.* NEW YORK, N. Y.
BRANCHES: Dallas 7, Texas, Los Angeles 35, California

Birnbach CUTLER-HAMMER SWITCHES

Complete Switch Brochure includes up-to-date "MS" specificatons, including sealed levers and environment sealed switches.

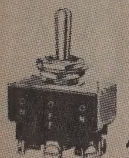
AIRCRAFT SWITCHES

Made to joint Army and Navy specifications. Spec. Jan-S-23 Superseded by Mil-S-3950. Binding Screw Terminals (ST-40 Series and ST-50 series) Per Spec. AN-3021 and AN 3027. The ST-42 and ST-52 Series have solder lugs. These switches are heavy duty; rugged design; bakelite housing; rated 10 amps-250V AC, 15 amps-125V AC, ¾ HP 115-230VAC.

1

2

3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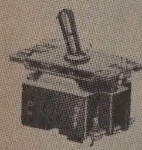
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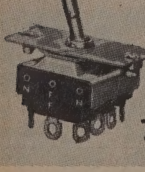
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1

SINGLE POLE STYLE ST-42—WITH SOLDER LUGS

Cat. No.	C-H No.	Jan-S-23 No.	Type	Circuit			Current Rating	
				Up Position	Center Position	Down Position	125V	250V
5370	8803K6	ST-42A	SPST	On	None	Off	15 amps	6 amps
5371	8819K5	ST-42B	SPST	On	None	Mom. Off	15 amps	6 amps
5372	8817K5	ST-42C	SPST	Off	None	Mom. On	15 amps	6 amps
5373	8816K5	ST-42D	SPDT	On	None	On	15 amps	6 amps
5374	8802K6	ST-42E	SPDT	On	Off	On	15 amps	6 amps
5375	8805K5	ST-42F	SPDT	On	None	Mom. On	15 amps	6 amps
5376	8818K5	ST-42G	SPDT	Mom. On	Off	Mom. On	15 amps	6 amps
5377	8815K6	ST-42H	SPDT	On	Off	Mom. On	15 amps	6 amps

STANDARD PKG. 25

2

SINGLE POLE STYLE 40—WITH SCREW TERMINALS

Cat. No.	C-H No.	Jan-S-23 No.	MIL-S-6745 (AN-S-20A) No.	Type	Circuit			Current Rating	
					Up Position	Center Position	Down Position	125V	250V
5360	8801K13	ST-40A	AN 3021-2	SPST	On	None	Off	15 amps	6 amps
5361	8813K12	ST-40B	AN 3021-9	SPST	On	None	Mom. Off	15 amps	6 amps
5362	8811K12	ST-40C	AN 3021-8	SPST	Off	None	Mom. On	15 amps	6 amps
5363	8810K12	ST-40D	AN 3021-3	SPDT	On	None	On	15 amps	6 amps
5364	8800K13	ST-40E	AN 3021-1	SPDT	On	Off	On	15 amps	6 amps
5365	8804K12	ST-40F	AN 3021-6	SPDT	On	None	Mom. On	15 amps	6 amps
5366	8812K13	ST-40G	AN 3021-7	SPDT	Mom. On	Off	Mom. On	15 amps	6 amps
5367	8809K13	ST-40H	AN 3021-5	SPDT	On	Off	Mom. On	15 amps	6 amps

STANDARD PKG. 25

3

DOUBLE POLE STYLE ST-50—WITH SCREW TERMINALS

Cat. No.	C-H No.	Jan-S-23 No.	Mil-S-6745 (AN-S-20A) No.	Type	Circuit			Current Rating	
					Up Position	Center Position	Down Position	125V	250V
5380	8822K8	ST-50K	AN-3027-2	DPST	On	None	Off	25 amps	9 amps
5381	8828K5	ST-50L	AN-3027-4	DPST	On	None	Mom. Off	15 amps	6 amps
5382	8826K5	ST-50M	AN-3027-5	DPST	Off	None	Mom. On	15 amps	6 amps
5383	8824K8	ST-50N	AN-3027-3	DPDT	On	None	On	25 amps	9 amps
5384	8820K10	ST-50P	AN-3027-1	DPDT	On	Off	On	25 amps	9 amps
5385	8830K5	ST-50R	AN-3027-6	DPDT	On	None	Mom. On	15 amps	6 amps
5386	8834K4	ST-50S	AN-3027-7	DPDT	Mom. On	Off	Mom. On	15 amps	6 amps
5387	8832K4	ST-50T	AN-3027-8	DPDT	On	Off	Mom. On	15 amps	6 amps

STANDARD PKG. 25

4

DOUBLE POLE STYLE ST-52—WITH SOLDER LUGS

Cat. No.	C-H No.	Jan-S-23 No.	Type	Circuit			Current Rating	
				Up Position	Center Position	Down Position	125 V	250 V
5390	8823K5	ST-52K	DPST	On	None	Off	25 amps	9 amps
5391	8829K5	ST-52L	DPST	On	None	Mom. Off	15 amps	6 amps
5391A	8827K5	ST-52M	DPST	Off	None	Mom. On	15 amps	6 amps
5392	8825K5	ST-52N	DPDT	On	None	On	25 amps	9 amps
5393	8821K5	ST-52P	DPDT	On	Off	On	25 amps	9 amps
5394	8831K5	ST-52R	DPDT	On	None	Mom. On	15 amps	6 amps
5395	8835K3	ST-52S	DPDT	Mom. On	Off	Mom. On	15 amps	6 amps
5396	8833K3	ST-52T	DPDT	On	Off	Mom. On	15 amps	6 amps

STANDARD PKG. 25

5

THREE POLE—WITH SCREW TERMINALS FLUSH MOUNTING

Cat. No.	C-H No.	Spec.	Type	Circuit		
				Up Position	Center Position	Down Position
5400	8740K9	MIL-S-6745	3PST	On	None	Off
5401	8744K9	MIL-S-6745	3PDT	On	None	On
5402	8742K9	MIL-S-6745	3PDT	On	Off	On

CURRENT RATING: 125 VAC 20 AMPS. 30 VDC 25 AMPS. STANDARD PKG. 12

6

FOUR POLE—ONE HOLE MOUNTING

The four pole switches are designed to meet the rigid specifications and requirements of JAN-S-23 and MIL-S-6745 Specs.

Cat. No.	C-H. No.	Type	Circuit			Terminals
			Up Position	Center Position	Down Position	
5420	7660K8	4PST	On	None	Off	Screw
5421	7661K6	4PST	On	None	Off	Lug
5422	7662K5	4PDT	On	Off	On	Screw
5423	7663K5	4PDT	On	Off	On	Lug
5424	7664K3	4PDT	On	None	On	Screw
5425	7665K4	4PDT	On	None	On	Lug
5426	7666K6	4PST	Off	None	Mom. on	Screw
5427	7667K6	4PST	Off	None	Mom. on	Lug
5428	7668K4	4PST	On	None	Mom. off	Screw
5429	7669K4	4PST	On	None	Mom. off	Lug
5430	7670K4	4PDT	On	Off	Mom. on	Screw
5431	7671K4	4PDT	On	Off	Mom. on	Lug
5432	7672K4	4PDT	Mom. on	Off	Mom. on	Screw
5433	7673K4	4PDT	Mom. on	Off	Mom. on	Lug
5434	7674K4	4PDT	On	None	Mom. on	Screw
5435	7675K4	4PDT	On	None	Mom. on	Lug

CURRENT RATING: 125 VAC 10 AMPS. 30 VDC 20 AMPS. STD. PKG. 12

7

FOUR POLE—FLUSH MOUNTING

Cat. No.	C-H No.	Spec.	Type	Circuit			Terminals
				Up Position	Center Position	Down Position	
5410	8882K5	MIL-S-6745.	4PST	On	None	Off	Screw
5411	8883K5	MIL-S-6745.	4PST	On	None	On	Lug
5412	8886K5	MIL-S-6745.	4PST	On	Off	On	Screw
5413	8884K5	MIL-S-6745.	4PDT	On	None	On	Screw
5414	8885K5		4PDT	On	None	On	Lug
5415	8880K5	MIL-S-6745.	4PDT	On	Off	On	Screw
5416	8881K5		4PDT	On	Off	On	Lug
5417	8888K5	MIL-S-6745.	4PDT	Mom. on	Off	Mom. on	Screw
5418	8887K5	MIL-S-6745.	4PDT	On	Off	Mom. on	Screw

CURRENT RATING: 125 VAC 10 AMPS. 30 VDC 20 AMPS. STD. PKG. 12

See Pages 1620-1625 for Birnbach Prices for Above Items

© U.C.P., Inc.

Birnbach CUTLER-HAMMER SWITCHES

Complete line of Cutler-Hammer quality switches available from our warehouse stocks. Includes commercial, industrial, aircraft and Gov't spec.

LIGHT DUTY TOGGLE SWITCHES

1 BACK CONNECTED LUG TERMINALS

Quick make-break; bakelite; small, compact size AC-DC UL approved

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5300	8280K16	SPST	15/32"		3 amps
5301	8381K8	SPST	15/32"	6 amps	3 amps
5302	8282K14	SPDT	15/32"	3 amps	1 amp
5303	8284K14	2 circ	15/32"	3 amps	1 amp
5304	8360K7	DPST	15/32"		3 amps
5305	8370K7	DPST	15/32"	6 amps	3 amps
5306	8363K7	DPDT	15/32"		3 amps
5307	8373K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

2 SIDE CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5308	8295K8	SPST	15/32"		3 amps
5309	8396K8	SPST	15/32"	6 amps	3 amps
5310	8297K8	SPDT	15/32"	3 amps	1 amp
5311	8372K7	DPST	15/32"	6 amps	3 amps
5312	8365K7	DPDT	15/32"		3 amps
5313	8375K7	DPDT	15/32"	6 amps	3 amps

STD. PKG. 25

3 SIX INCH LONG WIRE LEADS

Cat. No.	C-H No.	Descrip.	Shank	Current Rating 125V	Current Rating 250V
5335	8290K16	SPST	15/32"		3 amps
5336	8391K8	SPST	15/32"	6 amps	3 amps

STD. PKG. 25

1 PUSH BUTTON MOMENTARY SWITCHES

Door operated switches, used wherever it is desired to control current by opening or closing of refrigerated doors, telephone booths, closets, vaults, etc. AC-DC. UL approved; 15/32" shank; rated at .75 AMF., 125 volts—.75 AMPS, 250 volts.

Cat. No.	C-H No.	Description	Terminals
5337	8411K4	SP norm. open	lug
5338	8411K3	SP norm. open	screw
5339	8411K8	SP norm. closed	lug
5340	8411K7	SP norm. closed	screw

STD. PKG. 25

8, 9 HEAVY DUTY TOGGLE SWITCHES

Quick make—quick break; 15/32" shank (No. 8680 11/32" shank); AC-DC, UL approved; bakelite case; screw terminals.

Cat. No.	C-H No.	Descrip.	Current Rating 125V	Current Rating 250V
5341	@7321K3	SPST	12 amps	6 amps
5342	@7320K3	DPST	12 amps	6 amps
5343	*7361K5	SPST	15 amps	10 amps
5344	*7360K8	DPST	15 amps	10 amps
5345	**7402K4	DPST		20 amps
5346	8680K1	DPDT	10 amps	5 amps
5347	8690K2	DPDT	15 amps	10 amps

@ 1 HP—125/250V * 1½ HP—125/250V
**1½ HP—125V, 2 HP—250V

STD. PKG. 12

A MULTI-POLE, MULTI-POSITION, ROTARY SWITCHES

Nos. 7260 thru 7266 and Nos. 7271 thru 7276

B PUSHBUTTON OPERATED AIRCRAFT SWITCHES

Nos. 8911K525, 8874, 8875

STANDARD DUTY TOGGLE SWITCHES

5 BACK CONNECTED LUG TERMINALS

Slow make and break; bakelite; AC rated for longer life, greater capacity. 15 amps. 125 volts—10 amps. 250 volts.

Cat. No.	C-H No.	Description	Shank
5314	7501K13	SPST	15/32"
5315	7505K4	SPDT	15/32"
5316	7561K4	DPST	15/32"
5317	7565K5	DPDT	15/32"
5318	7611K2	3PST	15/32"
5319	7615K2	3PDT	15/32"

STD. PKG. 25

6 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5320	7500K14	SPST	15/32"
5321	7504K4	SPDT	15/32"
5322	7560K5	DPST	15/32"
5323	7564K6	DPDT	15/32"
5324	7610K2	3PST	15/32"
5325	7614K2	3PDT	15/32"

STD. PKG. 25

4 PUSH BUTTON SWITCHES PUSH TO MAKE—PUSH TO BREAK

Push-push switches; AC-DC. UL approved, bakelite case; rated 6 amps. 125V—3 amps. 250V. Pushing the button once closes the contacts; pushing it again opens the contacts. 11/16" shank.

Cat. No.	C-H No.	Description	Terminals
5326	7206K4	SPST	lug
5327	7208K4	SPST	screw
5328	7207K4	SPST	wire

STD. PKG. 25

5 CENTER OFF STANDARD DUTY TOGGLE SWITCHES

BACK CONNECTED LUG TERMINALS

Cat. No.	C-H No.	Description	Shank
5329	7503K13	SPDT	15/32"
5330	7563K4	DPDT	15/32"
5331	7613K2	3PDT	15/32"

STD. PKG. 25

7 BACK CONNECTED SCREW TERMINALS

Cat. No.	C-H No.	Description	Shank
5332	7502K13	SPDT	15/32"
5333	7562K4	DPDT	15/32"
5334	7612K2	3PDT	15/32"

STD. PKG. 12

C MISCELLANEOUS AIRCRAFT SWITCHES

Pistol grip trigger movement switches Nos. 8895, 8896, 8897

D LEVER EXTENSIONS and ATTACHABLE TIPS

To meet requirements for luminous identification on switches and circuit breakers these tips snap over the standard levers and are held in place by a cup shaped spring member.
Nos. 24-1939, 24-1939-2, 24-1997, 24-1997-2, 24-1164, 24-1164-2, 24-1164-3.

E AIRCRAFT SWITCH GUARDS

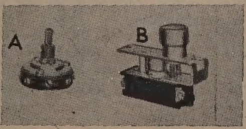
IT IS USED TO PREVENT INADVERTENT OPERATION OF THE LEVER

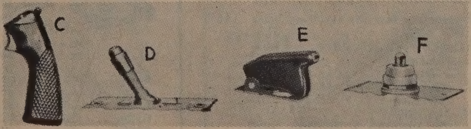
BOOTS FOR WATER and DUST RESISTANT APPLICATIONS

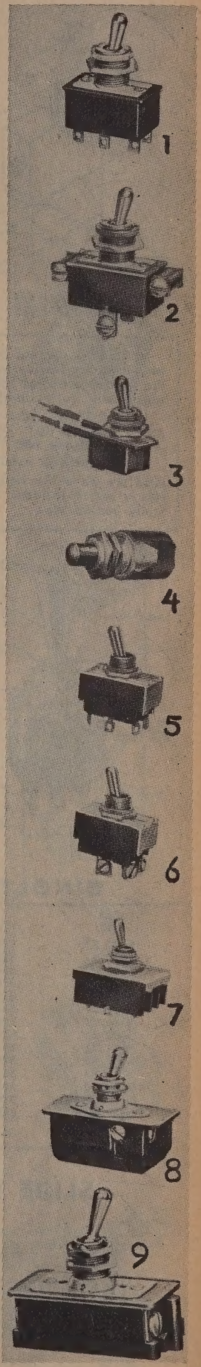
Gray silastic flexible designed to obstruct water and dust from entering switch interior. Remains flexible at minus 67°F. with stand exposure to sunlight without deterioration. For all applications. Advise which Specific Switch guard is to be used.

F BUSHING SEAL No. 32-341

ADDITIONAL CUTLER-HAMMER EQUIPMENT AVAILABLE





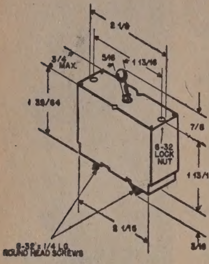


All Prices Subject to Change or Withdrawal without Notice.

Birnbach

CUTLER-HAMMER SWITCHES
MISCELLANEOUS SWITCHES

MANUAL TYPE CIRCUIT BREAKERS



OVERRIDE TYPE
NON-TRIP FREE

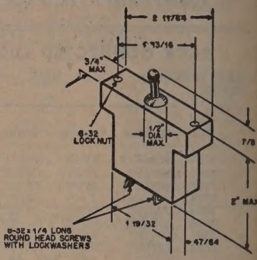
Both types combine, in one unit, a standard aircraft type SPST switch and a positive protection device. Molded case, metal strap with locking type mounting nuts.

NON-TRIP FREE

CAT. NO.	C-H NO.	SPEC.	TYPE	RATING 24 VOLTS
5460	8750 K11	AN-3160- 5	SPST	5 AMPS
5461	8751 K 8	AN-3160-10	SPST	10 AMPS
5462	8752 K 8	AN-3160-15	SPST	15 AMPS
5463	8753 K 8	AN-3160-20	SPST	20 AMPS
5464	8754 K 8	AN-3160-25	SPST	25 AMPS
5465	8755 K 8	AN-3160-35	SPST	35 AMPS
5466	8756 K 8	AN-3160-50	SPST	50 AMPS
TRIP FREE				
5470	8730 K3	E-1441- 5	SPST	5 AMPS
5471	8731 K3	E-1441-10	SPST	10 AMPS
5472	8732 K3	E-1441-15	SPST	15 AMPS
5473	8733 K3	E-1441-20	SPST	20 AMPS
5474	8734 K1	E-1441-25	SPST	25 AMPS
5475	8735 K3	E-1441-35	SPST	35 AMPS
5476	8736 K1	E-1441-50	SPST	50 AMPS

Std. Pkg. 5

Complete Switch Brochure includes up-to-date "MS" specifications, including sealed levers and environment sealed switches.



NON-OVERRIDE TYPE
TRIP FREE

In addition to our large inventory listed above we have in stock the special switches manufactured specifically for aircraft—such as:

DOUGLAS DC-8
BOEING 707
CONVAIR 888
LOCKHEED ELECTRA

Also we have the regular aircraft relays which includes the hermetically sealed type.

POSITIVE ACTION MINIATURE MILITARY SWITCHES

"AS SMALL AS A DIME"

Especially designed for aircraft, missile and electronic applications.

BUILT TO MIL-S-8834 SPECS.

EXTREMELY COMPACT — highly reliable power or dry circuit switch, usable as a pre-set switch in aircraft recognition systems, for walkie-talkies, electronic instruments and communication systems.

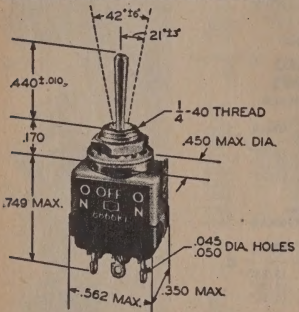
NEW DESIGN — Toggle is linked directly with movable contact member, insuring positive make and break.

NEW TOGGLE LEVER SEAL — Protects switch enclosure under adverse environmental conditions; includes panel bushing seal.

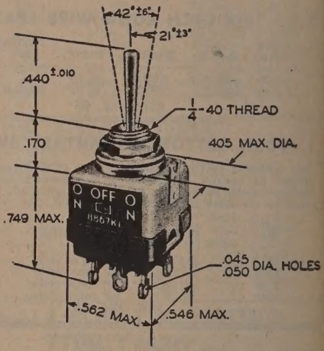
NEW GOLD PLATED CONTACTS — Open and close with wiping action, for good contact even on low energy circuits. Contact bounce is extremely low.

NEW SUPERIOR MATERIAL — In molded parts, provides higher arc-tracking resistance and excellent recovery voltage.

NEW POSITIVE DETENT ACTION — For improved operator "feel."



SINGLE POLE



DOUBLE POLE

			CIRCUIT			CURRENT RATING		
CAT. NO.	C-H NO.	TYPE	UP POSITION	CENTER POSITION	DOWN POSITION	28 VOLTS DC	50 VOLTS DC	115 VOLTS AC
5480 K1	8866 K1	SPDT	ON	OFF	ON	4 AMPS	1 AMP	3 AMPS
5480 K2	8866 K2	SPDT	MOM-ON	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5480 K3	8866 K3	SPDT	ON	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5480 K4	8866 K4	SPDT	ON	NONE	ON	4 AMPS	1 AMP	3 AMPS
5480 K5	8866 K5	SPST	ON	OFF	NONE	4 AMPS	1 AMP	3 AMPS
5480 K6	8866 K6	SPST	NONE	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5480 K7	8866 K7	SPST	ON	NONE	OFF	4 AMPS	1 AMP	3 AMPS
5481 K1	8867 K1	DPDT	ON	OFF	ON	4 AMPS	1 AMP	3 AMPS
5481 K2	8867 K2	DPDT	MOM-ON	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5481 K3	8867 K3	DPDT	ON	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5481 K4	8867 K4	DPDT	ON	NONE	ON	4 AMPS	1 AMP	3 AMPS
5481 K5	8867 K5	DPST	ON	OFF	NONE	4 AMPS	1 AMP	3 AMPS
5481 K6	8867 K6	DPST	NONE	OFF	MOM-ON	4 AMPS	1 AMP	3 AMPS
5481 K7	8867 K7	DPST	ON	NONE	OFF	4 AMPS	1 AMP	3 AMPS

Std. Pkg. 5

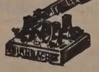
SLIDE LEVER SWITCHES

UL APPROVED

Ideal for phonographs, test instruments, electrical equipment, appliances, etc.
1⅜″ x ½″ with 1⅛″ mounting centers; mounting holes .140″.

CAT. NO.	DESCRIPTION	CURRENT RATING	STD. PKGE.
6245	SPST	4 Amps-125 V AC	25
6246	SPDT	4 Amps-125 V AC	25
6247	DPST	.50 Amp-125 V AC-DC	25
6248	DPDT	.50 Amp-125 V AC-DC	25
SPRING RETURN			
6245S	SPST	.75 Amp-125 V AC-DC	25
6246S	SPDT	.75 Amp-125 V AC-DC	25
6239		Slide Switch Shield	25

BIRNBACH KNIFE SWITCHES



Made of special nickel plated spring brass on a rugged base. Screw terminals located conveniently for easy connections in circuit. Two mounting holes.

Cat. No.	Descrip.	Base	Std. Pkg.
6100	SPST	Por.	25
6102	SPDT	Bake.	20
6103	DPST	Por.	10
6104	DPDT	Bake.	10
6105	TPDT	Por.	10

See Pages 1620-1625 for Birnbach Prices for Above Items

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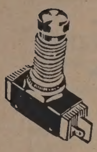
Birnbach ARROW H&H SWITCHES

TOGGLE • PUSH BUTTON • ROTARY • KNIFE • POWER • SLIDE

BIRNBACH

1



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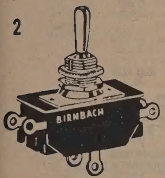

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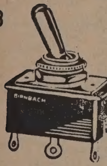

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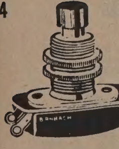

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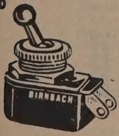

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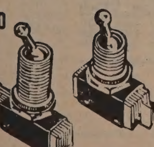


1 MOMENTARY CONTACT PUSH BUTTON

Solder lugs; laminated type. Has 9/16″ slotted sleeve, 15/32-32 TPI Complete with hex and knurled nut; nickel plated; all accept snap on button. Supplied less insulating button.

QUICK MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 250 V
6184	.SPST	.Normally Closed (On)	.3 amps
6184A	SPST	.Normally Open (Off)	.3 amps
6185A	SPDT	.Normally Closed (On)	.1 amp
6185	.SPDT	.Normally Open (Off)	.1 amp
6186	.2 Circ	.Normally Closed (On)	.1 amp
6231A	DPST	.Normally Closed (On)	.1 amp
6231	.DPST	.Normally Open (Off)	.1 amp
6231B	DPDT	.Normally Closed (On)	.1 amp - 207
6232	..Button only, red or black		

Std. Pkg. 25

SLOW MAKE AND BREAK

Cat. No.	Descrip.	Type	Current Rating 125 V
6180	..SPST..	Normally Closed (On)	.1 amp
6230	..SPST..	Normally Open (Off)	..1 amp
6224	..2 Circ..	Normally Closed (On)	.1 amp

Std. Pkg. 25

3 INTERMEDIATE SIZE TOGGLE-BAT

Molded phenolic base; back connected silver plated solder lug contacts; supplied with hex nut and knurled nut. SPDT rated at 1 amp.-250V, 6 amps.-125 volts AC-DC; others rated at 3 amps-250V, 6 amps.- 125V AC-DC.

Std. Pkg. 25

Cat. No.	Description	Type Action
6280	... SPST ...	POSITIVE
6280A	... SPST ...	MOM.—NORM. OFF
6281	... SPDT ...	POSITIVE
6281A	... SPDT ...	MOMENTARY
6284	...2 CIRC...	POSITIVE
6282	... DPST ...	POSITIVE
6282A	... DPST ...	MOM.—NORM. OFF
6283	... DPDT ...	POSITIVE
6283A	... DPDT ...	MOMENTARY

2 THREE POSITION—CENTER OFF

Rated 3 amps-250 V, 6 amps-125 V AC-DC

Cat. No.	
6261	SPDT
6262	2 CIRC
6263	DPDT

Std. Pkg. 25

2 BAKELITE MOLDED MOMENTARY CONTACT SWITCHES

Same as above except momentary. SPST Normally Off. 3 A., 250 V. UL approved. Rated 6 A., 125 V.

Cat. No.	Description	Shank Length
6241	SPST	$\frac{15}{32}$″
6240	SPDT	$\frac{15}{32}$″
6242	DPDT	$\frac{15}{32}$″

Std. Pkg. 25

4 MOMENTARY PUSH BUTTON

Molded momentary, solder lugs. Rated 1 A., 125 V. With 9/16″ shank, normally OFF—push to make. Nickel plated. UL approved.

Cat. No.	Descrip.	Std. Pkg.
6233	SPST	25
6234	SPDT	25
6235	DPST	25
6236	DPDT	25 –

6 MIDGET SIZE TOGGLE POS. ACTION

SPST Rated 3 Amps—250 Volts, 6 amps—125 Volts. Others Rated 1 Amp—250 Volts, 6 amps—125 Volts. Molded Phenolic base. 15/32—32 x 15/32″ long slotted sleeve, Nickel finish; solder lugs.

Cat. No.	Description	Type
6244	SPST	Ball Handle
6244A	SPST	Bat Handle
6244B	SPDT	Ball Handle
6244C	SPDT	Bat Handle
6244D	2 circ.	Ball Handle
6244E	2 circ.	Bat Handle

Std. Pkg. 25

16 ROTARY SWITCHES CANOPY TYPE—ROTO LOCK

Laminated phenolic sections—solder lugs; sleeve 11/32″ diam. 32 threads per inch; nickel finish; Rotary switches supplied with two hex nuts; roto lock key types have 15/32″ diam. 32 threads per inch; key removable in off position only on SPST and DPST—key removable in both positions on all others.

SPST rated at 3 amps-250 V AC-DC, others rated at 1 amp-250 V, 3 amps-125 volts AC-DC.

Roto Lock (Key Type)

Cat. No.	Description	Std. Pkg.
6110	SPST	12
6111	SPDT	12
6112	DPST	12
6113	DPDT	12
6114	Key—Rem. Off Pos.	100
6115	Key—Rem. Both Pos.	100

Canopy type rotary

6210	SPST	⅜″	1½″
6211	SPST	1″	2½″
6212	SPDT	⅜″	1½″
6213	SPDT	1″	2½″
6214	DPST	⅜″	1½″
6215	DPST	1″	2½″
6216	DPDT	⅜″	1½″
6217	DPDT	1″	2½″

BALL HANDLE TOGGLE SWITCHES 10 POSITIVE ACTION

UL approved. Ball lever switches nickel plated; laminated type; ring and mounting nuts.

Std. Pkg. 25

Cat. No.	Descrip.	Shank Length	Current Rating 125 V.	250 V
6200	SPST	15/32″		3 amps
6201	SPST	3/4″		3 amps
6202	SPDT	15/32″	3 amps	1 amp
6202A	2 Cir.	15/32″	3 amps	1 amp
6203	SPDT	3/4″	3 amps	1 amp
6204	DPST	15/32″	3 amps	1 amp
6205	DPST	3/4″	3 amps	1 amp
6206	DPDT	15/32″	3 amps	1 amp
6207	DPDT	3/4″	3 amps	1 amp

NAME PLATE ......Std. Pkg. 100

6208 —On-Off—Fits 15/32″ Sleeves
6208A—Hi-Low—Fits 15/32″ Sleeves

BAT HANDLE TOGGLE SWITCHES 11 POSITIVE ACTION

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts. 15/32″ shank.

Std. Pkg. 25

Cat. No.	Descrip.	Current Rating 125 V	250 V
6220	SPST		3 amps
6221	SPDT	3 amps	1 amp
6221A	2 Cir.	3 amps	1 amp
6222	DPST	3 amps	1 amp
6223	DPDT	3 amps	1 amp

BAT HANDLE MOMENTARY ACTION 11

UL approved. Laminated type. Nickel plated finish; supplied with ring and mounting nuts; 15/32″ shank; solder terminals; SPST rated at 3 amps 250V AC-DC, others rated at 1 amp 250V, 3 amps 125V AC-DC. Std. Pkg. 25.

Cat. No.	Descrip.	Type
6190	SPST	Normally Closed (On)
6191	SPST	Normally Open(Off)
6192	SPDT	Normally Closed (On)
6193	DPST	Normally Closed (On)
6194	DPST	Normally Open (Off)
6195	DPDT	Normally Closed (On)

ST TYPE PER SPEC. JAN-S-23 12

Std. Pkg. 25

Bat handle, back connected, silver plated solder lug contacts; slotted sleeve. Supplied with two hex nuts. Molded phenolic base; 15/32-32 x 15/32″ long, nickel finish. They meet, where applicable. All Jan-S-23 and Mil-S-6745 Specs.

Cat. No.	Aws No.	Description
6250	ST-12A	SPST
6251	ST-12D	SPDT
6251C	ST-12C	SPST
6251V	ST-12V	2 Circ.
6252	ST-22K	DPST
6252M	ST-22M	DPST
6253	ST-22N	DPDT

Cur. rate 125~~V 6~~A, 250V 3A, Std. Pkg. 25.

Cat. No.	Aws No.	Description
6270*	ST-42A	SPST
6271*	ST-42D	SPDT
6249*	ST-42E	SPDT
6272**	ST-52K	DPST
6273**	ST-52N	DPDT
6274**	ST-52P	DPDT

*Cur. rate 125V 15A, 250V 6A.
**Cur. rate 125V 25A, 250V 9A.
Std. Pkg. 25.

STANDARD DUTY MOM. PUSH BUTTON 13

Molded phenolic base; 15/32-32x7/16″ long slotted sleeve; nickel finish; screw terminals; complete with two hex nuts. All accept snap on button; supplied less insulating button. Cur. rate 125V 12A, 250V 6A,

Std. Pkg. 10

Cat. No.	Description	Type
6238	SPST	Normally Closed
6238B	SPDT	Normally Closed (on)
6238C	2 Circ.**	Normally Closed (on)
6226	DPST*	Normally Open (off) —
6238D	DPST*	Normally Closed (on)

*1 H.P. 250 V.A.C.-D.C.
**Cur. rating ½.

STANDARD DUTY TOGGLE SWITCHES 14

Molded phenolic base; 15/32-32 x 7/16″ long slotted sleeve; nickel finish; screw terminals; complete with one hex nut, one knurled nut.

QUICK MAKE AND BREAK BAT

Cat. No.	Descrip.	Current Rating AC-DC 125 V	250 V
6225A	SPST	12 amps	6 amps
6225B	SPDT	12 amps	6 amps
6225C	2 Circ.	6 amps	3 amps
6225	DPST*	12 amps	6 amps

*1 HP 250 V. Std. Pkg. 10.

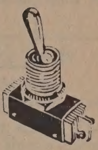
EXTRA HEAVY DUTY POWER SWITCHES 15 3 POSITION—POSITIVE CENTER OFF

Molded phenolic base; screw terminals; slotted sleeve ¾-32; nickel finish; with two hex nuts. Rated at 5 Amps—250 V, 10 Amps—125 V.

Cat. No.	Description	Circuit
6227	DPDT	¾ H.P. 250 V.A.C.-D.C.
6228	3PDT	½ H.P. 115/230 V.A.C. 3 phase
6229	4PDT	½ H.P. 115/230 V.A.C. 2 phase

Std. Pkg. 10.

11



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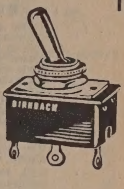

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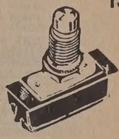

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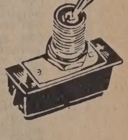

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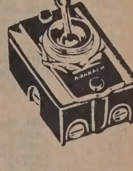

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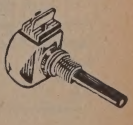
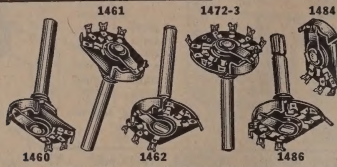
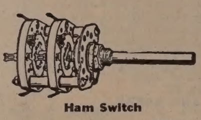
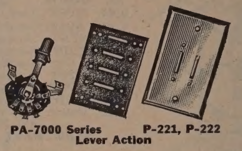


Centralab. Special Switches







GENERAL PURPOSE AND TONE SWITCHES

These switches are widely used in radio-phonos PA channel selectors, intercoms, momentary line or remote speaker returns, and in dual speaker controls. Insulation is of high quality laminated phenolic. Voltage breakdown, 1000 v. AC rms. All metal parts except clips and contacts are cadmium plated steel. Mounting is single-hole, ⅜"-32 threaded bushing ⅜" lg. except No. 1484, ¼" lg. Units are rated 1.75 amps at 24 v. DC; 230 ma at 115 v. AC. (Make and break resistive load.) Switches are packaged individually with one mounting nut and lockwasher. No. 1484 also includes one P-401 15/16" split knurled knob.

CRL No. 1460—Single-pole, two-position, shorting contacts, positive index. May be used as SPST or SPDT. For radio-phono, tone or sensitivity control. Net Each........... $\$1^{08}$

CRL No. 1461—Single-pole, three-position, shorting contacts, positive index. Useful as miniature band change switch, step-type tone control, and PA channel selectors. Size, 1⅜" w. x 1¼" back of panel x 1⅞" shaft length. Net Each........... $\$1^{08}$

CRL No. 1462—Two-pole, two-position, shorting contacts, positive index. May be used as SPST, SPDT, DPST or DPDT. For meter reversing, PA channel, or switching both lines on phono-radio control. Size, 1⅞" w. x 1 1/16" back of panel x 1⅞" shaft length. Net Each........... $\$1^{08}$

CRL No. 1463—Single-pole, two-position, non-shorting contacts, spring-return index. Useful for meter reversing or inexpensive momentary-talk switch on intercom systems. Net Each........... $\$1^{08}$

CRL No. 1464—Two-pole two-position, non-shorting contacts, spring-return index. Use as a meter switch and momentary line or remote speaker return on intercoms. Size, 1⅞" w. x 1 1/16" back of panel x 1⅞" shaft length. Net Each........... $\$1^{08}$

CRL No. 1465—Single-pole, four-position (three active) with AC DPST line switch, shorting contacts, positive index. Used as replacement for on-off switch, three-step tone control switch in many AM and FM receivers. Size, 1¼" w. x 1¼" back of panel x 2½" shaft length. Net Each........... $\$1^{80}$

CRL No. 1472—Two-pole, three-position, non-shorting contacts, positive index. An economical change switch for AM, FM, phono selector to amplifier in custom installations. Size, 1⅞" w. x 1⅜" d. x 1⅞" shaft length. Net Each........... $\$1^{08}$

CRL No. 1473—Two-pole, three-position, shorting contacts, positive index. Use as change switch for AM, FM, phono selector to amplifier in custom installations. Net Each........... $\$1^{08}$

CRL No. 1483—Single-pole, three-position, shorting contacts, positive index. Remote speaker switch, or use with dual or auxiliary rear-seat auto radio speakers or monitor-remote speaker switches. Permits operation of either speaker separately or both simultaneously. Size, 1 1/16" w. x 1 5/16" back of panel x 1⅞" lg. shaft. Net Each........... 75^{c}

CRL No. 1484—Single-pole, three-position remote speaker switch almost the same as above unit except with ¼" bushing and ⅜" split shaft. Split knurled knob supplied (15/16"); black with chrome center. Size, 1 1/16" w. x 1 5/16" back of panel x ⅜" lg. shaft. Net Each........... 90^{c}

CRL No. 1486—Stereo remote speaker switch; two-pole, three-position, shorting contacts. Switches one pair of speakers to a remote pair, or all four speakers. Shaft 1½" lg. with ½" split knurl end. With black and chrome push-on knob and instructions. Net Each........... $\$1^{08}$

SEPARATE SECTIONS

60° SEPARATE SECTION

CRL No. ZZD—Separate section for use with P-273, P-274, P-275 index assemblies. Units are 1-pole, two to six position, non-shorting. Net Each........... $\$1^{20}$

90° SEPARATE SECTION

CRL No. XXD—Separate section for use with P-278, P-279, P-280 index assemblies. Units are 1-pole, two to four position, non-shorting. Net Each........... $\$1^{20}$

SEPARATE INDEX ASSEMBLIES

60° SEPARATE INDEX ASSEMBLIES

CRL No. P-273—Index assembly containing P-273 index, P-120 pointer knob, P-139 tie rods (2½"), P-147 nuts, P-148 lockwashers, P-189 steatite spacers (½"), P-192 spacers (1"), P-177 phenolic spacer washers, and P-404 dial plate. Rear shaft is 2" lg. Net Each........... $\$1^{38}$

CRL No. P-274—Index assembly containing P-274 index, P-120 pointer knob, P-143 tie rods (5"), P-189 steatite spacers (½"), P-192 steatite spacers (1"), P-147 nuts, P-148 lockwashers, P-177 phenolic spacer washers and P-404 dial plate. Rear shaft is 4¼" lg. Net Each........... $\$1^{74}$

CRL No. P-275—Index assembly containing P-275 index, P-120 pointer knob, P-145 tie rods (7"), P-147 nuts, P-148 lockwashers, P-187 steatite spacers (¼"), P-189 steatite spacers (½"), P-192 steatite spacers (1"), P-177 phenolic spacer washers, P-404 dial plate. Rear shaft is 7" lg. Net Each........... $\$2^{16}$

INDEX ASSEMBLIES (CONT'D)

90° SEPARATE INDEX ASSEMBLIES

Ham type, two piece shaft extension, phenolic rear, metal front. Use with No. XXD Deluxe ham type section. For high voltage operation, will pass 2000 v. AC breakdown to ground test.

CRL No. P-278—Index assembly containing P-278 index, P-120 pointer knob, P-139 tie rods (2½"), P-147 nuts, P-148 lockwashers, P-189 steatite spacers (½"), P-192 steatite spacers (1"), P-177 phenolic spacer washers, and P-163 dial plate. Rear shaft is 2" lg. Net Each........... $\$1^{38}$

CRL No. P-279—Index assembly containing P-279 index, P-120 pointer knob, P143 tie rods (5"), P-189 steatite spacers (½"), P-192 steatite spacers (1"), P-147 nuts, P-148 lockwashers, P-177 phenolic spacer washers, P-163 dial plate. Rear shaft, 4¼" lg. Net Each........... $\$1^{74}$

CRL No. P-280—Index assembly containing P-280 index, P-120 pointer knob, P-145 tie rods (7"), P-147 nuts, P-148 lockwashers, P-187 steatite spacers (¼"), P-189 steatite spacers (½"), P-192 steatite spacers (1"), P-177 phenolic spacer washers, P-163 stal plate. Rear shaft, 7". Net Each........... $\$2^{16}$

60° AND 90° INDEXING HAM SWITCHES

Heavy-duty, deluxe ceramic construction; designed for higher breakdown to ground needed for ham applications. Switch can operate effectively in five bands. Insulation is Centralab Grade L-533 steatite, Dow-Corning 200 Silicone treated to prevent surface moisture. Breakdown between critical parts, 2000 v. AC rms. All metal parts except clips and contacts are cadmium-plated steel. Switches have phenolic shaft through switch sections which provides high voltage breakdown to ground. Rating (make and break), 250 ma at 115 v. AC; 5 ma at 1500 v. AC; 1.75 amps at 24 v. DC. For use with tubes operating at voltages up to 1 kv and inputs up to 150 watts. Index is positive action type; adjustable stop. 60° switches have two to six active positions. 90° switches have two to four active positions. Size, 1⅞" w. x 1⅞" lg. shaft. Single-hole mounting; ⅜"-32 threaded bushing; ⅜" lg. Shaft, ¼" dia. full round, 2¼" lg. from mounting surface. Packaged singly, including mounting nut, lockwasher, pointer knob and dial plate (P-404) for 60° switches (or P-163 dial plate for 90° switches).

NON-SHORTING HAM SWITCHES

CRL No. 90°	CRL No. 60°	Poles to Section	No. Sections	No. Poles	Net Each
2542	2550	1	1	1	$2.37
2543	2551	1	2	2	3.36
2544	2552	1	3	3	4.32
2545	2553	1	4	4	5.34
2546	2554	1	5	5	6.30

LEVER ACTION SWITCHES

Low capacity, coil spring index design switches for use singly or in groups. Cadmium plated steel parts except clips and contacts. Laminated phenolic insulation. Rated 2.75 a., 15 v. DC, 230 ma, 115 v. AC. Size: 7/16" w. x 1⅞" h. x 1½" d. behind panel. Wt., 4 oz. Supplied with knob and mounting hardware.

CRL No.		No. Poles	Positions	Index	Net Each
Shorting	Non-Short.				
1452	1454	2	3	Positive	$1.26
1453	1455	2	3	Spring Return	1.26
1466	1467	2	3	Pos. & Spr. Ret.	1.26
1456	1457	4	2	Spring Return	1.44
1459	1458	4	2	Positive	1.44
....	1475*	1	3	Positive	1.26

*Tube tester replacement switch.

ECONOMY LEVER ACTION SWITCHES

Simplified version of above. Size: 5/16" w. x 2" h. x 1⅜" d. behind panel. Other specifications similar to above.

PA-7000	PA-7001	2	3	Positive	$1.05
PA-7002	PA-7003	2	3	Spring Return	1.26
PA-7004	PA-7005	2	3	Pos. & Spr. Ret.	1.26
PA-7006*	PA-7007*	2	4	Positive	1.05
PA-7008	PA-7009	4	2	Spring Return	1.26
PA-7010	PA-7011	4	2	Positive	1.05

*4-pos. sw., requires offset mtg. holes in panel.

LEVER SWITCH MOUNTING PLATES

For vertical mtg. of single and multiple switch groups. Spacing between switches, ¾". Black wrinkle finish. P-221, P-222 satin chrome, for mtg. on electrical outlet boxes. Shipping Wt., 4 oz.

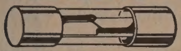
CRL No.	No. Sw.	Size, Inches	Net Each	CRL No.	No. Sw.	Size, Inches	Net Each
P-1755	1	¾ x 2⅝	30c	P-1759	5	3¾ x 2⅝	30c
P-1756	2	1½ x 2⅝	30c	P-221	1	2¾ x 4½	63c
P-1757	3	2¼ x 2⅝	30c	P-222	2	2¾ x 4½	63c
P-1758	4	3 x 2⅝	30c				

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FAST ACTING FUSES for PROTECTION OF INSTRUMENTS, Etc.

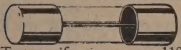


Formerly called 8AG.
Dimension 1/4 x 1 inch, Glass tube.

Provide high speed action necessary to protect sensitive instruments.

Listed by Underwriters' Laboratories Inc.
Test specification—carry 100%, open at 200% in 5 seconds.

Voltage	Symbol	Amperes	List Price
250 or less	**AGX**	1/500	$1.39
"	**AGX**	1/200	.58
"	**AGX**	1/100	.52
"	**AGX**	1/32	.45
250 or less	**AGX**	1/16	.28
"	**AGX**	1/10, 1/8, 3/16, 2/10	.21
"	**AGX**	1/4, 3/8, 4/10, 1/2 or 3/4	.14
"	**AGX**	1	.084
"	**MKB**	1/16 or 1/8	.45
125 or less	**AGX**	1 1/2 or 2	.084



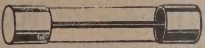
Formerly called 8AG
Dimension 1/4 x 1 inch, Glass tube.

Test specification—carry 110%, open at 135% within 1 hour.
125 volt sizes are listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
125 or less	**AGX**	3, or 4	$0.084
"	**AGX**	5	.053
32 or less	**AGX**	8, 10, 15 or 20	.053
"	**AGX**	25 or 30	.063

MJB & MJW FUSES NOW CALLED AGX

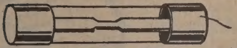
BUSS GLASS TUBE FUSES, 1/4 x 1 1/4 inch



Formerly called 3AG

Test specification—carry 110%, open at 135% within 1 hour.
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price	Voltage	Symbol	Amperes	List Price
250 or less	**AGC**	1/500	$1.39	250 or less	**AGC**	175/1000	$0.21
"	**AGC**	1/200	.58	"	**AGC**	3/16, 2/10	.21
"	**AGC**	1/100	.52	"	**AGC**	1/4, 3/10, 3/8	.14
"	**AGC**	1/32	.45	"	**AGC**	45/100, 1/2, 3/4	.14
"	**AGC**	1/16	.21	"	**AGC**	1, 1 1/4, 1 1/2, 2	.084
"	**AGC**	1/8	.21	"	**MGB**	1/16 or 1/8	.45
"	**AGC**	15/100	.21	"	**AGC**	3	.074
				"	**MTH**	4, 5 or 6	.105



Formerly called 3AG

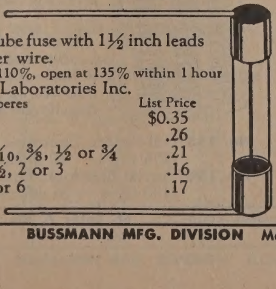
Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	List Price
125 or less	**GLH**	8 or 10	$0.16
32 or less	**AGC**	4	.074
"	**AGC**	5, 6, 7 1/2, 8, 10 or 15	.053
"	**AGC**	20	.047
"	**AGC**	25 or 30	.063

20 ampere size is an SFE 20 fuse.
Sizes larger than 30 ampere are not recommended as clips or fuse holders would not permit fuse to carry such high currents. If surges or starting currents make heavier fuse necessary, use MDL Fusetron dual-element fuses.

MBW & MBB FUSES NOW CALLED AGC

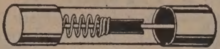
BUSS PIG-TAIL FUSES



1/4 x 1 1/4 inch Glass tube fuse with 1 1/2 inch leads of No. 20 tinned copper wire.
Test specifications—carry 110%, open at 135% within 1 hour
Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**GJV**	1/16	$0.35
"	**GJV**	1/8	.26
"	**GJV**	1/4, 3/10, 3/8, 1/2 or 3/4	.21
"	**GJV**	1, 1 1/2, 2 or 3	.16
"	**GJV**	4, 5 or 6	.17

FUSETRON FUSES, 1/4 x 1 1/4 inch



DUAL-ELEMENT
SLOW BLOWING TYPE

Stop needless blows from starting currents or surges. Fuse link operates only on very high overloads or short-circuits. Thermal cutout functions on low overloads — cannot operate quickly at any load, so long time-lag is obtained. Yet protection is afforded against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.

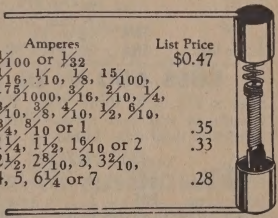
Approximate blowing time:				
at 200% load	**MDL**	25 sec.	**MDX**	12 sec.
at 300% "	"	8 "	"	3 "
at 500% "	"	3 "	"	1/2 "

125 and 250 volt sizes listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**MDL**	1/100 or 1/32	$0.39
250 or less	**MDL**	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10 or 1	.28
"	**MDX**	1 1/4. 1 1/2, 1 6/10 or 2	.32
125 or less	**MDL**	1 2/10, 1 1/4, 1 1/2, 1 6/10 or 2	.26
"	**MDL**	2 1/2 or 2 8/10	.21
"	**MDX**	3, 3 2/10, 4 or 5	.21
"	**MDX**	6 1/4 or 7	.24
32 or less	**MDL**	3, 3 2/10, 4, 5, 6 1/4, 8, 10, 15, 20, 25 or 30	.21

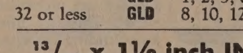
FUSETRON PIG-TAIL FUSES

Leads are No. 20 tinned wire 1 1/2 inch long. Listed by Underwriters' Laboratories Inc. Test specifications and performance, MDV 1/100 to 2 8/10 amps. same as MDL fuses. 3 to 7 amps. same as MDX fuses.



Voltage	Symbol	Amperes	List Price
250 or less	**MDV**	1/100 or 1/32	$0.47
"	**MDV**	1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 3/4, 8/10 or 1	.35
125 or less	**MDV**	1 1/4, 1 1/2, 1 6/10 or 2	.33
"	**MDV**	2 1/2, 2 8/10, 3, 3 2/10, 4, 5, 6 1/4 or 7	.28

BUSS INDICATING FUSES, 1/4 x 1 1/4 inch



Fibre Tube. Silverplated indicating pin extends from end of fuse when fuse is blown. This pin can also be used to actuate a signal by using fuses in BUSS HKA Fuseholders or BUSS Signal Fuse Blocks. GLD fuses in sizes larger than 5 amperes have dual tube construction. They can be used in BUSS Signal Fuse Blocks but not in HKA Fuseholders.

125 volt sizes listed by Underwriters' Laboratories Inc.
Test specifications—carry 110%, open at 135% in one hour or less.

Voltage	Symbol	Amperes	List Price
125 or less	**GLD**	3/4	$0.66
"	**GLD**	1, 2, 3, or 5	.50
32 or less	**GLD**	8, 10, 12 or 15	.70

13/32 x 1 1/2 inch INDICATING FUSES

250 or less	**MIC**	1, 2, 3, 5, 10 or 15	.58
32 or less	**MIC**	20, 25 or 30	.58

250 volt sizes listed by Underwriters' Laboratories Inc.

Fuses made in accordance with Military Specifications.

			List Price
250 or less	**MIN**	1, 2, 3, 5, 10 or 15	$0.51
125 or less	**MIN**	20, 25 or 30	.51

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis', Mo.**

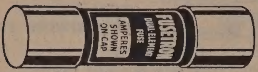
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

FUSETRON FIBRE TUBE FUSES

13/32 x 1 1/2 inch



Dual-Element — Slow Blowing Type. Avoid needless blows from starting currents or surges. Have fuse link that operates only on very high overloads or short-circuits, and thermal cutout on low overloads. Thermal cutout cannot operate quickly at any load, hence long time-lag is obtained. Yet protection is provided against short-circuits or continued overloads.

Test specification—carry 110%, open at 135% within 1 hour.
Approximate blowing time: at 200% load 25 seconds.
at 300% load 8 seconds.
at 500% load 5 seconds.

125 and 250 volt sizes listed by Underwriters' Labs., Inc.

Voltage	Symbol	Amperes	List Price
250 or less	**FNM**	1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10, 1, 1 1/8, 1 1/4, 1 4/10, 1 6/10, 1 8/10, 2, 2 1/4, 2 1/2, 2 8/10, 3 2/10, 3 1/2, 4, 4 1/2, 5, 5 6/10, 6 1/4, 7, 8, 9 or 10	$0.35
125 or less	**FNM**	12 or 15	.35
32 or less	**FNM**	20, 25 or 30	.35

SIGNAL OR VISUAL INDICATING TYPE

FNA are FNM Fusetron fuses with silverplated indicating pin that extends from fuse when fuse blows. Pin can also be used to actuate a signal by using fuse in BUSS Signal Fuse Block. Fuses in sizes larger than 10 ampere have a dual tube construction. They can be used in BUSS Signal fuse blocks but not in the HPC-C fuseholder.

Voltage	Symbol	Amperes	List Price
250 or less	**FNA**	1/10, 15/100, 2/10, 3/10, 4/10, 1/2, 6/10, 8/10	$0.656
125 or less	**FNA**	1, 1 1/8, 1 1/4, 1 4/10, 1 6/10, 1 8/10, 2, 2 1/4, 2 1/2, 2 8/10, 3, 3 2/10, 3 1/2, 4, 4 1/2, 5, 5 6/10, 6, 6 1/4, 7, 8, 10	.656
"	**FNA**	12 or 15	.722
32 or less	**FNA**	20, 25 or 30	.722

BUSS 600 V. UL Listed FUSES

1 3/32 x 1 3/8 inch. Fibre tube. For protection of control circuits or wherever a fuse with" quick-blowing" characteristics is desirable. Listed by Underwriters' Laboratories Inc.

Voltage	Symbol	Amperes	List Price
600 or less	**BBS**	4/10, 3/4 or 8/10	$0.23
600 or less	**BBS**	1, 2, 3, 4 or 5	0.21

Fuseholder for BBS fuses. Use HPC-L fuseholder or No. 3845 single pole, side barrier porcelain fuse block. Only BBS fuses (or others with exact same dimensions) will fit these holders. This assures replacement of proper size fuse.

Buss LIMITRON Fuses

For Protection of Semi-Conductor Rectifiers

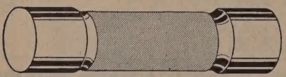
These fuses furnished with type of terminals needed to meet requirements for easy mounting.

Available in three voltage ranges. Type KAA and type KAH for 130 volts or less. Type KAB for 250 volts or less. Type KAC and type KAJ for 600 volts or less.

Tell us your requirements.

HIGH INTERRUPTING CAPACITY FUSES

13/32 x 1 1/2 inch



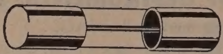
Glass fibre melamine tube with sand filler surrounding a silver fuse element. For use on circuits capable of delivering currents as high as 68,000 amperes at voltages of 500 or less AC or DC.

Test specification—carry 110%, open at 135% in 1 hour or less.

Voltage	Symbol	Amperes	List Price
500 or less	**KTK**	1/10, 1/8, 2/10, 1/4, 3/10, 1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, 6, 8, 10, 15, 20, 25 or 30	$1.33

BUSS GLASS TUBE FUSES

9/32 x 1 1/4 inch

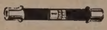


Formerly called 4 AG.

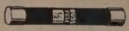
Test specifications — carry 110%, open at 135% within 1 hour except 35 and 40 ampere which open at 300% in 2 to 4 seconds when tested in a standard 30 ampere test circuit.

Voltage	Symbol	Amperes	List Price
250 or less	**AGS**	1/16	$0.44
	AGS	1/8	.30
	AGS	1/4, or 1/2	.15
	AGS	1, 2, 2 1/2 or 3	.14
32 or less	**AGS**	5, 10, 15, 20, 25, 30	.12
	AGS	35, 40 or 50	.14

BUSS HIGH VOLTAGE FUSES



HVA and HVB



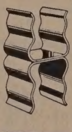
HVJ and HVL

Designed for protection of circuits up to 20 KW on DC and 30 KVA on AC.

Test specification—carry 110%, open at 135% within 1 hour.

Voltage	Symbol	Amperes	Diameter of caps	Length inches	List Price
1000 or less	**HVA**	3/8, 1/2, 3/4, 1, 1 1/2, 2	13/32	3	$0.29
2500 or less	**HVB**	1/2, 3/4, 1, 1 1/2 or 2	13/32	4 1/2	0.38
5000 or less	**HVJ**	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2 or 2	13/16	5	0.70
10000 or less	**HVL**	1/16, 1/8, 1/4, 3/8, 1/2, 3/4, 1, 1 1/2 or 2	13/16	10	1.40

BUSS TWIN-CLIPS for 1/4" FUSES



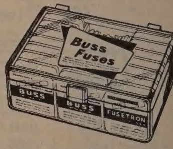
Make it easy to replace blown pigtail fuses without cutting or unsoldering pigtails.

Just snap Twin-Clips on blown fuse and insert ordinary or Fusetron fuse of same amperage as blown fuse.

Strong spring clip pressure assures good contact.

	List Price
No. 4121 BUSS Twin Clips One pair	$0.20

BUSS FUSE TV Service Kit Assortment

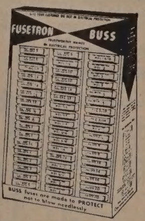


Contains 101 of the most popular fuses — 20 slide-cover metal boxes — and five pair of BUSS No. 4121 Twin Clips for use in replacing blown pigtail fuses. All packed in a clear plastic box.

Symbol, **TV-STD** List Price $19.25

BUSS ELECTRONIC FUSE ASSORTMENTS

. . . with handy inventory feature


FUSETRON
BUSS
BUSS fuses are made to PROTECT not to blow needlessly

Helps serviceman have fuse he needs right in front of him . . . no delay in work to find a fuse. Keeps all the fuse stock normally needed for complete servicing of TV sets in smallest possible space.

Each 5-in metal box has its own shelf . . . Size and type of fuse shown on label at back of shelf . . . when shelf is empty label shows what fuses need to be immediately reordered.

		List Price
No. 255	Full-Service Electronic Fuse Assortment (255 fuses — 30 different sizes)	$38.74
No. 130	Special Electronic Fuse Assortment (130 fuses — 26 different sizes)	$19.67

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

© U.C.P., Inc.

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

GMW Fuse and HWA Fuseholder

Sub-miniature fuse-holder combination

Body size only .270 x .250 inches

Offering a light weight, space-saving protective device for space-tight applications in multiple circuit apparatus. GMW fuse has transparent window for visual inspection of element. Fuse may be used alone for mounting into printed circuit boards.

HWA holder can be panel mounted easily — or soldered on printed circuit boards.

AF knob for holder makes holder water-proof from front of panel.

Test specifications — carry 100%, open at 200% within 10 seconds or less.

Interrupting rating — 300 ampere at 125 volts

Symbol	Ampere	List Price
GMW	1/200, 1/100, 1/64, 1/32 and 1/16	$1.05
GMW	1/10, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 3/4, 1, 1½, 2, 3, 4, and 5	.81
HWA	fuseholder takes all sizes of GMW fuses	
AF	knob for HWA fuseholder	

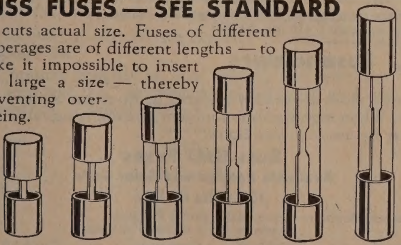
BUSS GRASSHOPPER FUSES

Give a visible signal or activate an alarm circuit when blown. Color coded to indicate type and amperage.

Symbol	Amps	Volts	Color Code	List Price
35A	1⅓	90 or less	White	$0.34
35B	1⅓	90 or less	White	.34
35B	2	90 or less	Orange	.34
35C	2	90 or less	Orange	.34
35D	1⅓	90 or less	White	.69
35E	3	90 or less	White	.38
35F	½	90 or less	Red	.34
35G	3	90 or less	Blue	.34
35H	5	90 or less	Green	.34
35R	18/100	90 or less	Yellow	.44
35T	65/100	90 or less	Tan	.50
35J	½	160 or less	Red	.50
35K	1⅓	160 or less	White	.69
35L	2	160 or less	Orange	.69
35M	3	160 or less	Blue	.63
35N	5	160 or less	Green	.63
35P	¾	160 or less	Tan	.44
35S	¼	160 or less	Pink	.50

BUSS FUSES — SFE STANDARD

All cuts actual size. Fuses of different amperages are of different lengths — to make it impossible to insert too large a size — thereby preventing over-fuseing.



Glass tube — diameter ¼ inch. Length as per table below

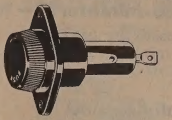
Test specification—carry 100%, open at 125% within 1/2 hour.

Listed by Underwriters' Laboratories Inc.

Made according to specifications of Society of Automotive Engineers.

Voltage	Symbol & Amperes	Length Inches	Pounds per 100	List Price
32 or less	**SFE4**	⅝	.73	$0.058
"	**SFE6**	¾	.75	.058
"	**SFE7½**	⅞	.80	.053
"	**SFE9**	⅞	.80	.053
"	**SFE14**	1 1/16	.82	.047
"	**SFE20**	1¼	.87	.047
"	**SFE30**	1 7/16	1.60	.063

PANEL MOUNTED HOLDERS for 13/32 x 1½ inch Fuses



Screw type knob. Molded phenolic body. Holder attached to panel by screws or rivets. Strong coil spring provides contact pressure on ends of fuse. Normal current carrying capacity 30 amperes. Listed by Underwriters' Laboratories for 15 ampere rating for any voltage up to 250.

HPC (for FNM and KTK fuses) .... List Price $0.80

HPC-C (Same as above, but has transparent knob) .... List Price $1.00

HPC-L Holder for 13/32 x 1⅜ inch Fuses.

Like **HPC** Holder. Has Underwriters' Laboratories approved listing for 5 ampere rating and any voltage up to 600.

HPC-L (for BBS fuses) .... List Price $0.80

PANEL MOUNTED HOLDERS for ¼ inch Fuses

Can be used on panels up to 5/16 inch thick.

Bayonet type knob. No screw driver is needed.

Side terminal is held mechanically as well as by solder. Heat of soldering wire to it will not cause it to loosen.

Vibration will not cause failure of terminals as they are designed to stand severe service.

Neoprene washer and steel locking nut furnished with each holder.

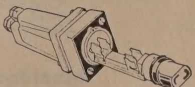
Wire hole in terminals; .115 inch.

Normal current carrying capacity; 30 amperes.

Listed by Underwriters' Laboratories Inc.

		List Price
HJM	for ¼ x 1 inch fuses (AGX, SFE 14)	$0.52
HJM-CC	(Same as HJM but projects shorter distance behind panel)	.52
HKP	for ¼ x 1¼ inch fuses (ABC, AGC, SFE20, MDL, MDX, MTH)	.52
HKP-CC	(Same as HKP but projects shorter distance behind panel)	.52

PANEL MOUNTED, LAMP INDICATING FUSEHOLDERS for ¼ x 1¼ and 13/32 x 1½ inch fuses

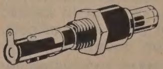


Made to Military Specifications.

Available as single or two pole units. Transparent knob permits neon indicating light to be readily seen. Body of molded alkyd.

Type	Pole	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	List Prices
HGB-C	Single	¼ x 1¼	100 to 250	30	Prices
HGA-C	Two	¼ x 1¼	100 to 250	30	on
HGC	Single	13/32 x 1½	200 to 500	30	Request

LAMP INDICATING FUSEHOLDERS



For panel mounting ¼ x 1 and ¼ x 1¼ inch fuses. Bayonet type knob. Molded phenolic body. Strong coil spring provides contact pressure at ends of fuse. Transparent knob permits indicating light to be readily seen.

Type	Fuse Size Inches	Circuit Voltage	Max. Amp. Rating	Type Lamp	List Price
HKL	¼ x 1¼	100 to 250	20	Neon	$2.15
HKL-X	¼ x 1¼	100 to 250	20	Neon	2.15
HKR	¼ x 1¼	24 to 32	20	Incand.	3.50
HKX	¼ x 1¼	24 to 32	20	Incand.	3.50
HKT	¼ x 1¼	10 to 14	20	Incand.	3.50
HKU	¼ x 1¼	4 to 6	20	Incand.	3.50
HJL	¼ x 1	100 to 250	20	Neon	2.15

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis 7, Mo.**

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

TRON PIGTAIL FUSES

Sub-miniature — hermetically sealed

Tron fuses are so small they can easily be used as an integral part of circuit — to protect miniaturized devices — or gigantic multi-circuit electronic devices — without sacrifice of space.

Fuse element hermetically sealed

Tron fuses may be potted or encapsulated without danger of sealing material affecting operation. Not affected by atmospheric or surrounding conditions. Designed for installation in high shock and vibration ambients.

They are self-protecting and operate without exterior flash or venting, so they can be installed anywhere in the circuit. Likewise, they may be teamed in one capsule or replaceable unit with such components as resistors or condensers.

Available in ratings from 1/20 to 5 amperes — for use on circuits of 125 volts or less where available fault current is not over 50 amperes.

Color coding indicates ampere rating and assists in final inspection of fused circuits.

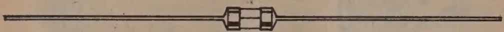
Made with 1½ inch axial pigtails that are adapted to feed through automatic wire forming machines — or with 1 inch right angle pigtails conveniently spaced for assembly on printed circuit chassis. Leads are of No. 24 tinned copper wire.

Test specifications —

Characteristic A — Carry 100% load, open within 10 seconds at 200% load.

Characteristic B — Carry 100% load, open within 10 seconds at 150% load.

GFA TRON Fuses

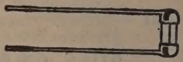


Body size only .145 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End - Other End	*Approximate Resistance in Ohms
GFA 1/20	A	Yellow - Yellow	20.0
GFA 1/16	A	Brown - Brown	9.0
GFA 1/10	A	Red - Red	4.0
GFA 1/8	A	Orange - Orange	3.0
GFA 15/100	B	Red - Yellow	2.1
GFA 2/10	B	Red - Blue	1.8
GFA 1/4	B	Red - Purple	0.9
GFA 3/10	A	Green - Green	0.7
GFA 4/10	A	Blue - Blue	0.48
GFA 1/2	B	Orange - Green	0.35
GFA 6/10	B	Orange - Blue	0.25
GFA 3/4	B	Orange - Purple	0.22
GFA 1	B	Yellow - Green	0.17
GFA 1½	B	Yellow - Purple	0.12
GFA 2	B	Green - Blue	0.07
GFA 3	B	Blue - Purple	0.05
GFA 4	B	Purple - Brown	0.040
GFA 5	B	Brown - Black	0.035

Prices on Request

GLN and GLX TRON Fuses



Body size only .140 x .300 inches

Symbol & Amperes	Test Specification	Color Code One End - Other End	*Approximate Resistance in Ohms
GLN 1/20	A	Yellow - Yellow	20.0
GLN 1/16	A	Brown - Brown	9.0
GLN 1/10	A	Red - Red	4.0
GLN 1/8	A	Orange - Orange	3.0
GLN 3/10	A	Green - Green	0.7
GLN 4/10	A	Blue - Blue	0.48
GLX 15/100	B	Red - Yellow	2.1
GLX 2/10	B	Red - Blue	1.8
GLX 1/4	B	Red - Purple	0.9
GLX 1/2	B	Orange - Green	0.35
GLX 6/10	B	Orange - Blue	0.25
GLX 3/4	B	Orange - Purple	0.22
GLX 1	B	Yellow - Green	0.17
GLX 1½	B	Yellow - Purple	0.12
GLX 2	B	Green - Blue	0.07
GLX 3	B	Blue - Purple	0.05
GLX 4	B	Purple - Brown	0.040
GLX 5	B	Brown - Black	0.035

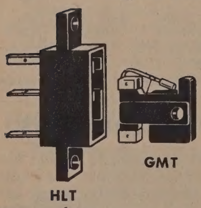
Prices on Request

*Cold resistance obtained on Wheatstone Bridge. Other ratings are available with a nominal test charge.
Approximate Unit weight 0.33 grams. Shipping weight 0.116 lbs. per 100.

BUSS GMT Fuses — HLT Fuseholders

Signal Indicating

Alarm Activating



For multiple circuit apparatus where space is at a premium

GMT fuses and HLT fuseholders permit multiple mounting of fuses in limited space, for protection of communication equipment, business machines, computers, control circuits or any equipment operating at 300 volts or less.

Holders take panel mounting space of only ¼ inch horizontal by 1 15/32 inches vertical.

Fuses give visual indication when blown by release of a spring indicator. The spring carries a colored plastic flag, in a different color for each fuse ampere rating.

The indicator spring when released makes contact with an alarm terminal in the fuseholder, which can be connected to activate a signal circuit.

Blown fuses are readily replaced without use of insulated tools. When mounted on minimum centers, removal of fuse is easy by use of a wire hook.

Buss GMT Fuses

Available Ratings and Color Code

300 volts or less

Test specification — carry 100% for 10 minutes; open at 150% within 5 minutes.

Symbol & Amperes	Color of Indicator	Symbol & Amperes	Color of Indicator
GMT 18/100	YELLOW	**GMT** 1⅓	WHITE
GMT 1/4	VIOLET	**GMT** 2	ORANGE
GMT 1/2	RED	**GMT** 3	BLUE
GMT 65/100	BLACK	**GMT** 5	GREEN
GMT 3/4	BROWN	**GMT** 7½	BLACK-WHITE
GMT 1	GRAY	**GMT** 10	RED-WHITE

Symbol	List Price
GMT (All Sizes)	$0.62

Buss HLT Fuseholders

Buss HLT fuseholders take all sizes of GMT fuses.

HLT	List Price $0.66

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS MINIATURE GLASS TUBE FUSES

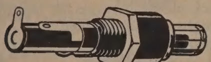
5 mm x 20 mm (.197 x .769 inches)

Made to International Standards for Electrical Equipment. Designed for protection of miniaturized circuits or equipment.

Test specifications — Carry 100% load indefinitely.
Open at 150% load within 10 seconds.

Voltage	Symbol	Amperes	List Price
125 volts or less if available fault current is not over 50 amps.	**GMA**	1/8	$0.43
	GMA	1/4, 1/2, or 7/10	.32
	GMA	1, 1 2/10, 1 1/2, or 2	.26
	GMA	3, 4, 5, 6, or 10	.27

GJU fuses now called GMA.



HKA SERIES

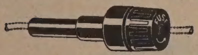
Lamp Indicating, Signal Activating holders for 1/4 x 1 1/4 inch BUSS type GLD fuses

Used on circuits of 125 volts or less. Flashes a light, rings a bell, trips a relay or gives other signals to tell you when and where a fuse blows.

Symbol		List Price
HKA	for 1/4 x 1 1/4 inch GLD fuses, 3/4 to 5 amps. .	$4.70

GLD fuses listed under Indicating fuses.

IN-THE-LINE HOLDERS for 1/4 inch fuses



For mounting fuse in wire. Holders consist of body and bayonet type knob — two contacts ready to be staked on ends of wire — and a contact pressure spring.

Holders can also be mounted in panel up to 5/16 inch thick by means of a No. 9969 Spring nut (Nut not furnished). Flat area on holder permits locking against rotation.

Normal current carrying capacity: 15 amperes. Maximum Voltage: 250.

Contacts designed to take different size wire. For 18 to 22 wire add "-A" to symbol. For 14 to 16 wire add "-B" to symbol. (Example HHJ-A).

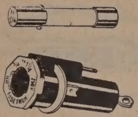
Symbol	Fuse Size Inches	List Price
HHJ	1/4 x 1 1/4	$0.25
HHI	1/4 x 1 or 1 1/16	.25
HHH	1/4 x 7/8	.25
HIG	1/4 x 3/4	.25
HIF	1/4 x 5/8	.25

SERIES HD and HA

These holders are the same in all details and dimensions as the HH and HI series — EXCEPT that the holding ears in the bayonet knob are of molded phenolic instead of being of metal.

Symbol	Fuse Size Inches	List Price
HDJ	1/4 x 1 1/4	$0.20
HDI	1/4 x 1 or 1 1/16	.20
HDH	1/4 x 7/8	.20
HAG	1/4 x 3/4	.20
HAF	1/4 x 5/8	.20
No. 9969	Spring nut for panel mounting above holders	.033

FUSETRON and BUSS MATCHED FUSES and FUSEHOLDERS



Safeguard against use of wrong size and type of fuse. FUSETRON Type N are "slow-blowing" fuses for use where harmless surges or starting currents might cause ordinary fuses to open needlessly. Use in Type HN fuseholder.

BUSS Type C are "quick-blowing" fuses for fast interruption of fault current. Use in Type HC fuseholder.
Listed by Underwriters' Laboratories Inc.

FUSETRON FUSE		FUSEHOLDER	
Symbol & Amperes	**List Price**	**Symbol & Range**	**List Price**
N 1/100	$0.41	**HN 0 to 3/10**	$0.21
N 1/32	.41		
N 1/16	.295		
N 1/10	.295		
N 15/100	.295		
N 2/10	.295		
N 1/4	.295		
N 3/10	.295		
N 4/10	.295	**HN 3/10 to 1/2**	.21
N 1/2	.295		
N 6/10	.295	**HN 1/2 to 3/4**	.21
N 7/10	.295		
N 3/4	.295		
N 8/10	.295	**HN 3/4 to 1 1/4**	.21
N 1	.295		
N 1 1/4	.27		
N 1 6/10	.27	**HN 1 3/10 to 1 3/4**	.21
N 1 3/4	.27		
N 2	.27	**HN 1 3/4 to 2 1/2**	.21
N 2 1/2	.25		
N 2 8/10	.25	**HN 2 1/2 to 3 1/2**	.21
N 3 2/10	.25		
N 3 1/2	.25		
N 4	.25	**HN 3 1/2 to 5**	.21
N 5	.25		
N 6 1/4	.25	**HN 5 to 7**	.21
N 7	.25		

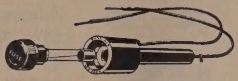
BUSS FUSE		FUSEHOLDER	
Symbol & Amperes	**List Price**	**Symbol & Range**	**List Price**
C 1/32	$0.44	**HC 0 to 3/10**	$0.21
C 1/16	.28		
C 1/8	.22		
C 3/16	.22		
C 1/4	.17		
C 3/10	.17		
C 3/8	.17	**HC 3/10 to 1/2**	.21
C 1/2	.17		
C 3/4	.17	**HC 1/2 to 3/4**	.21
C 1	.095	**HC 3/4 to 1 1/4**	.21
C 1 1/4	.095		
C 1 1/2	.095	**HC 1 1/4 to 1 3/4**	.21
C 1 3/4	.095		
C 2	.095	**HC 1 3/4 to 2 1/2**	.21
C 2 1/2	.095		
C 3	.095	**HC 2 1/2 to 3 1/2**	.21
C 3 1/2	.125		
C 4	.125	**HC 3 6/10 to 5**	.21
C 5	.125		
C 6	.125	**HC 5 to 7**	.21
C 7	.125		
C 8	.18	**HC 7 to 10**	.21
C 10	.19		

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

BUSS Fuses
FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS In-the-Line or Panel Mounted FUSE & HOLDER COMBINATIONS



Non-Indicating
For voltages up to 300

In these two fuse and holder combinations the fuse and knob of fuseholder are in one piece. When fuse blows, the entire fuse-knob assembly is replaced.

This gives added safety to the circuit because neither the HLR or the HLQ holder will take an ordinary type fuse. Thus a blown fuse must be replaced with the type of fuse originally installed.

Fuseholders can be mounted in-the-line — or panel mounted.

For panel mounting a snap-in steel clip is available that makes it easy to mount fuseholders.

Test specifications for GLR, GLQ, GMF, GMQ fuses

Carry 110%; open at 135% within one hour.
Listed by Underwriters' Laboratories, Inc.

Shipping wt. per 100: GLR and GLQ 1.5 lbs.,
GMF and GMQ 1.4 lbs.

HLR and HLQ Fuseholders

Recognized under the components program of Underwriters' Laboratories, Inc.
Shipping wt. HLR and HLQ holders 3.13 lbs. per 100.

Lead-in-Wires — Unless otherwise specified, HLR and HLQ holders are furnished with 6 inch leads of No. 18 solid copper wire with high temperature insulation. The bottom wire carries a clip to prevent it from sliding into holder. Leads of other types of wire can be furnished to your specification at slight additional cost.

Mounting Clip No. 6374 — BUSS Snap-in Steel Clip is available for mounting HLR and HLQ holders on any panel 1/32 to 1/16 inch thick. To mount holder, insert clip into mounting hole BEFORE INSERTING HOLDER. Then push holder into position in panel.

Packing — Fuses and holders are normally packed separately. Carton quantity: Fuses 5, Holders 10.

For production use, holders and fuses can be obtained packed separately, 100 to a carton.

Fuses assembled in holders also are available for a small additional charge.

HLR HOLDER SAFEGUARDS AGAINST USE OF WRONG TYPE OF FUSE

HLR fuseholders make it simple to protect a wide variety of devices or equipment from damaging fault currents because it is designed to take only GLR or GMF fuses.

HLR Fuseholder

Symbol		List Price
HLR	takes all sizes GLR and GMF Fuses	$0.22

GLR Buss Glass Tube Fuses

Single-Element
Quick-Blowing Type

GLR BUSS fuses are "quick-blowing" type for use where delay in the fuse opening might cause damage.

Voltage	Symbol	Amperes	List Price
300 or less	**GLR**	1, 1½, 1 6/10, 2, 2½, 3, 4, 5, or 6	$0.12
300 or less	**GLR**	7, 8, 9, or 10	.13

GMF Fusetron Glass Tube Fuses

Dual-Element
Time-Delay Type

GMF FUSETRON fuses are "slow-blowing" type for use where harmless surges or starting currents might cause ordinary fuses to open needlessly.

Voltage	Symbol	Amperes	List Price
300 or less	**GMF**	{½, 6/10, 8/10, 1, 1¼ 1 6/10, 2, 2½, or 2 8/10}	$0.36
300 or less	**GMF**	3 2/10, 4, 5, or 6¼	.36

HLQ HOLDER PREVENTS TOO LARGE A FUSE BEING USED

GLQ BUSS fuses or GMQ FUSETRON fuses used in HLQ fuseholders give a size limiting combination.

Each type of fuse is available in 13 ampere sizes, for voltages of 300 or less.

Over-fuseing is prevented because ears on fuses match slots in holder. This prevents use of a fuse of larger ampere size than marked in holder.

This stops anyone from heedlessly replacing a blown fuse with one of a size too large to protect the circuit or equipment.

GLQ Buss Glass Tube Fuses

Single-Element
Quick-Blowing Type

GLQ BUSS fuses are "quick-blowing" type for use where delay in the fuse opening might cause damage.

Symbol	Amperes	List Price
GLQ	1, 1½, 1 6/10, 2, 2½, 3, 4, 5, or 6	$0.12
GLQ	7, 8, 9, 10	.13

Carry 110%; open at 135% within one hour. Listed by Underwriters' Laboratories, Inc.

GMQ Fusetron Glass Tube Fuses

Dual-Element
Time-Delay Type

GMQ FUSETRON fuses are "slow-burning" type for use where harmless surges or starting currents might cause ordinary fuses to open needlessly.

Symbol	Amperes	List Price
GMQ	½, 6/10, 8/10, 1, 1¼, 1 6/10, 2, 2½, 2 8/10 3 2/10, 4, 5, 6¼	$0.36

Carry 110%; open at 135% within one hour. Listed by Underwriters' Laboratories, Inc.

HLQ Fuseholders

HLQ fuseholders take either GLQ or GMQ fuses up to the largest ampere size marked in the holder. They are made in 6 fuse ranges. The top figure of the range indicates the largest fuse that the holder will accept.

Symbol		List Price
HLQ	takes all sizes GLQ and GMQ Fuses	$0.25

BUSS GLQ Fuses	**FUSETRON GMQ Fuses**	**HLQ Fuseholders**	
Symbol & Amperes	Symbol & Amperes	Catalog Symbol	Fuse Range
	GMQ ½	HLQ ½	0 to ½
GLQ 1 GLQ 1½ GLQ 1 6/10	GMQ 6/10 GMQ 8/10 GMQ 1 GMQ 1¼ GMQ 1 6/10	HLQ 1 6/10	0 to 1 6/10
GLQ 2 GLQ 2½ GLQ 3	GMQ 2 GMQ 2½ GMQ 2 8/10 GMQ 3 2/10	HLQ 3 2/10	0 to 3 2/10
GLQ 4 GLQ 5	GMQ 4 GMQ 5	HLQ 5	0 to 5
GLQ 6 GLQ 7 GLQ 8	GMQ 6¼	HLQ 8	0 to 8
GLQ 9 GLQ 10		HLQ 10	0 to 10

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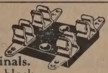
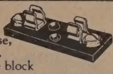
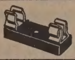
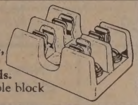
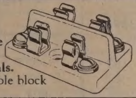
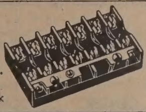
BUSS Fuses

FUSETRON DUAL-ELEMENT Fuses and Fuse Holders

for Protection of TV, Radios, Instruments and Electronic Equipment

BUSS FUSE and BUSS SILICON RECTIFIER BLOCKS

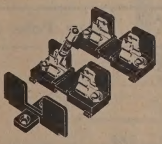
Type of Block	Poles	For ¼ x 1 inch Fuses		For ¼ x 1¼ inch Fuses		For ¼ x 1-7/16 inch Fuses		For 9/32 x 1¼ inch Fuses		For 13/32 x 1½ inch Fuses	
		No.	List Price	No.	List Price	No.	List Price	No.	List Price	No.	List Price
Small bakelite base, solder terminals. Cut shows 1 pole block	1 Pole	4520	$0.22	4405	$0.22			4413	$0.36	4421	$0.54
	2 Pole	4485	.44	4408	.44			4416	.72	4424	1.08
	3 Pole	4403	.66	4411	.66			4419	1.08	4428	1.62
Small bakelite base, screw terminals. Cut shows 1 pole block	1 Pole	4399	$0.36	4407	$0.36			4415	$0.59	4423	$0.59
	2 Pole	4402	.72	4410	.72			4418	1.18	4427	1.18
	3 Pole	4404	1.08	4412	1.08			4420	1.77	4429	1.77
 **Small bakelite base, solder side terminals.** Cut shows 2 pole block	1 Pole	4398	$0.22	4406	$0.22			4414	$0.36	4422	$0.54
	2 Pole	4401	.44	4409	.44			4417	.72	4426	1.08
 **Full bakelite base, screw terminals.** Cut shows 1 pole block	1 Pole	4514	$0.47	4512	$0.47	4513	$0.59	4481	$0.59	4515	$0.68
	2 Pole	4524	.94	4522	.94	4523	1.18	4482	1.18	4525	1.37
	3 Pole	4534	1.41	4532	1.41	4533	1.77	4483	1.77	4535	2.05
 **Spare fuse block. Bakelite base.**	1 Pole	4393	$0.22	4574	$0.22						
 **Porcelain base, side barrier, screw terminals.** Cut shows 2 pole block	1 Pole			4396	$0.53					3792	$0.79
	2 Pole			4161	1.05						
	3 Pole									4439	2.36
 **Porcelain base center barrier screw terminals.** Cut shows 2 pole block	2 Pole									4575	$1.47
Porcelain base, side barrier, screw terminals. Cut shows 1 pole block	1 Pole	3845	For 13/32 x 1⅜ inch Fuses (BUSS BBS) — Price Each $0.79								
 **Signal Fuse block.** Cut shows 7 pole block	4 Pole	3839	For 13/32 x 1½ inch BUSS FNA fuses—Prices on request								
	7 Pole	4178	For ¼ x 1¼ BUSS GLD fuses—Prices on request								
BUSS SILICON RECTIFIER BLOCKS											
Silicon rectifier block. Solder terminals. Cut shows 1 pole block	1 Pole	3794	$0.22								
	2 Pole	3795	.44								

BUSS Add-On Fuse Blocks for 13/32 x 1½ inch Fuses

Single-pole fuse blocks and separate end barrier assemble into a unit block of one or more poles. Units lock in position. Assembled block becomes a single unit.

Each fuse can be used as a disconnect. See illustration. Raised fuse identifies open circuit and prevents confusion in getting right fuse back in circuit.

Marking strips so each circuit can be identified available.



No.		
3949	Assembly consisting of one No. **3742** End Barrier —plus specified number of No. **3743** One-Pole Blocks	
3742	End-Barrier Only	$ .30
3743	One-Pole Block Only	1.50
	Marking Strip in 50 inch lengths	$0.55 per length

When ordering, be sure to specify number of End Barriers and number of One-Pole Blocks desired. Only ONE End Barrier is required for each assembled fuse block of any number of poles.

Other standard and special fuses, fuse blocks, fuse clips and fuse holders

If the fuses, fuse blocks, fuse clips and holders shown do not fit your requirements ask for information on other types.

Fuses and fuse mountings to meet JAN and Military specifications also are available.

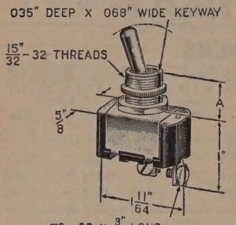
If you have a special problem in protection send description or sketch giving number of circuits, type of fuse, terminals, etc., desired. We welcome such inquiries.

BUSSMANN MFG. DIVISION McGraw-Edison Co. **St. Louis, Mo.**

SWITCHES - TOGGLE

*For COLORED PLASTIC Toggles—Inquire

Heavier Duty Types of these Switches Available — Inquire

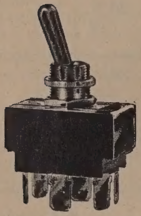

035" DEEP X 068" WIDE KEYWAY
$\frac{15}{32}$"-32 THREADS
$\frac{5}{8}$"
A
1"
$1\frac{11}{64}$"
#6-32 X $\frac{3}{16}$" LONG
BINDING HEAD SCREWS

"F" Series

Single Pole ("F" Series)

CATALOG NUMBERS NOMINAL RATINGS 15 Amp—125 V. A.C. 10 Amp—250 V. A.C. ¾ H.P.—115-230 V. A.C.		6 Amp—125 V. A.C. 3 Amp—250 V. A.C. ¼ H.P.—115-230 V. A.C.		ELECTRICAL CIRCUIT CHARACTERISTICS (NOTE—Keyway Indicates "Down" Position)		
SOLDER LUGS	SCREW TERMINALS	SOLDER LUGS	SCREW TERMINALS	UP POSITION	CENTER POSITION	DOWN POSITION
*2FA53	*2FA54	2FA63	2FA64	On	None	Off
6FA57	6FA58	6FA67	6FA68	On	None	Momentarily Off
6FA53	6FA54	6FA63	6FA64	Off	None	Momentarily On
2FB53	2FB54	2FB63	2FB64	On	None	On
2FC53	2FC64	2FC63	2FC64	On	Off	On
6FB53	6FB54	6FB63	6FB64	On	None	Momentarily On
6FC53	6FC54	6FC63	6FC64	Momentarily On	Off	Momentarily On
6FC57	6FC58	6FC67	6FC68	On	Off	Momentarily On

Note: For Cross Connected Reversing, Progressive Circuits, and other multiple circuit applications—Inquire.



For TAB Terminals as above Add Suffix — "TABS"

Double Pole ("G" Series)

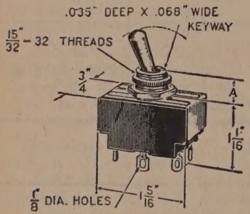
CATALOG NUMBERS NOMINAL RATINGS 15 Amp—125 V. A.C. 10 Amp—250 V. A.C. ¾ H.P.—115-230 V. A.C.		6 Amp—125 V. A.C. 3 Amp—250 V. A.C. ¼ H.P.—115-230 V. A.C.		ELECTRICAL CIRCUIT CHARACTERISTICS (NOTE—Keyway Indicates "Down" Position)		
SOLDER LUGS	SCREW TERMINALS	SOLDER LUGS	SCREW TERMINALS	UP POSITION	CENTER POSITION	DOWN POSITION
2GK53	2GK54	2GK63	2GK64	On	None	Off
6GK57	6GK58	6GK67	6GK68	On	None	Momentarily Off
6GK53	6GK54	6GK63	6GK64	Off	None	Momentarily On
2GL53	2GL54	2GL63	2GL64	On	None	On
2GM53	2GM54	2GM63	2GM64	On	Off	On
6GL53	6GL54	6GL63	6GL64	On	None	Momentarily On
6GM53	6GM54	6GM63	6GM64	Momentarily On	Off	Momentarily On
6GM57	6GM58	6GM67	6GM68	On	Off	Momentarily On

CATALOG NUMBER SUFFIX
FOR TOGGLE and STEM LENGTHS
(Bat Toggle Only)

TOGGLE LENGTH	STEM LENGTH	SUFFIX NO.	TOGGLE LENGTH	STEM	SUFFIX NO.
$\frac{13}{32}$"	$\frac{11}{32}$"	—52	1"	$\frac{11}{32}$"	—A2
$\frac{9}{16}$"	$\frac{11}{32}$"	—62	1"	$\frac{15}{32}$"	—A3
$\frac{9}{16}$"	$\frac{15}{32}$"	—63	1¼"	$\frac{15}{32}$"	—B3
$\frac{11}{16}$"	$\frac{11}{32}$"	—72	3"	$\frac{15}{32}$"	—I3
$\frac{11}{16}$"	$\frac{15}{32}$"	—73			

*Note: #2FA53 and #2FA54 have a higher rating of 1 H.P.

RATING:
13 Amp.—125 V. A.C.
10 Amp.—250 V. A.C.
1 H.P.—1, 2, 3 Phase
120-240 V. A.C.

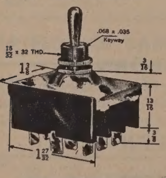


"G" Series (above)

Three Pole ("H" Series)

CATALOG NUMBERS TERMINALS LUG	SCREW	TAB	CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE UP	CENTER	DOWN
HK233	HK234	HK23A	On	None	Off
HK633	HK634	HK63A	Off	None	Momentarily On
HK637	HK638	HK63B	On	None	Momentarily Off
HL233	HL234	HL23A	On	None	On
HL633	HL634	HL63A	On	None	Momentarily On
HM233	HM234	HM23A	On	Off	On
HM633	HM634	HM63A	Momentarily On	Off	Momentarily On
HM637	HM638	HM63B	On	Off	Momentarily On

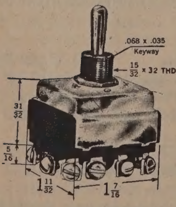
RATING: 15 Amp.—125 V. A.C.
10 Amp.—250 V. A.C.



"H" SERIES
Illustration is with
Tab type terminals

Four Pole ("I" Series)

CATALOG NUMBERS TERMINALS LUG	SCREW	TAB	CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE UP	CENTER	DOWN
IK253	IK254	IK25A	On	None	Off
IK653	IK654	IK65A	Off	None	Momentarily On
IK657	IK658	IK65B	On	None	Momentarily Off
IL253	IL254	IL25A	On	None	On
IL653	IL654	IL65A	On	None	Momentarily On
IM253	IM254	IM25A	On	Off	On
IM653	IM654	IM65A	Momentarily On	Off	Momentarily On
IM657	IM658	IM65B	On	Off	Momentarily On



"I" SERIES
Illustration above
shows Screw Terminals

Note: Keyway is in down position on all switches shown.

CARLING ELECTRIC, INC. — West Hartford, Conn.

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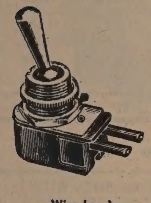
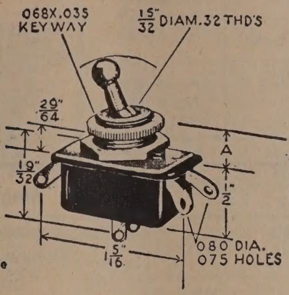
SINGLE POLE DOUBLE POLE SWITCHES—TOGGLE

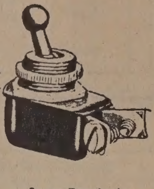
Maintained (Locking) and Momentary (Non-Locking) Types



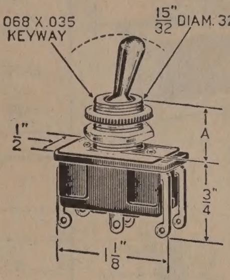
Wire Leads
Single Pole or Double Pole



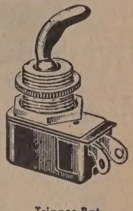
End Lugs—Double Poles
Bottom Lugs—Single Pole



Screw Terminals
Single Pole Only



Bottom Lugs—Double Poles



Trigger Bat
Momentary Only

End Lugs
Single Pole
Switches

IMPORTANT—ADD correct SUFFIX NUMBER to CATALOG NUMBER to receive type TOGGLE and STEM wanted.

MAINTAINED CONTACTS

CATALOG NUMBER	TYPES OF TERMINALS	POLES-CIRCUIT	NOMINAL RATING AC or DC
T-110 **T-110-B** **T-110-S** **T-111-16**	Lugs—End Lugs—Bottom Screw Wire	S.P.—S.T.	3 Amp—250 V. 6 Amp—125 V.T. (T Rated)
110 **110-B** **110-D** **110-S** **111-16** **111-D**	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire—2 Ends	S.P.—S.T.	3 Amp—250 V. 6 Amp—125 V.
112 **112-A**	Lugs—End Wire	S.P.—D.T.	1 Amp—250 V. 3 Amp—125 V.
216 **216-A** **216-B**	Lugs—End Wire Lugs—Bottom	D.P.—S.T.	
316 **316-A** **316-B**	Lugs Wire Lugs—Bottom	D.P.—D.T.	
516 **516-A** **516-B**	Lugs—End Wire Lugs—Bottom	Two Circuit	
2BB62	Lugs—End	S.P.—D.T.	3 Amp—250 V. 6 Amp—125 V.
2BK62	Lugs—End	D.P.—S.T.	
2BL62 **2BL63**	Lugs—End Lugs—Bottom	D.P.—D.T.	
160 **160-A** **160-B** **160-S**	Lugs—End Wire Lugs—Bottom Screw	S.P.—S.T.	10 Amp—125 V. 5 Amp—250 V.

MOMENTARY TYPES — Stem Length 15/32" ONLY

NOMINAL RATING AC or DC	POLES-CIRCUIT	TYPES OF TERMINALS	CATALOG NUMBER
6 Amp—125 V. 3 Amp—250 V.	S.P.—S.T. Normally Open (Off) (Momentarily On)	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire—2 Ends	**110-M-NO** **110-BM-NO** **110-M-DNO** **110-SM-NO** **111-16M-NO** **111-16M-DNO**
	S.P.—S.T. Normally Closed (On) (Momentarily Off)	Lugs—End Lugs—Bottom Lugs—2 Ends Screw Wire Wire-2 Ends	**110-M-NC** **110-BM-NC** **110-M-DNC** **110-SM-NC** **111-16M-NC** **111-16M-DNC**
3 Amp—125 V. 1 Amp—250 V.	S.P.—D.T.	Lugs—End Wire	**112-M** **112-M-A**
	D.P.—S.T. Normally Open (Off) (Momentarily On)	Lugs—End Wire	**216-M-NO** **216-M-ANO**
	D.P.—S.T. Normally Closed (On) (Momentarily Off)	Lugs—End Wire	**216-M-NC** **216-M-ANC**
	D.P.—D.T.	Lugs Lugs—Bottom	**316-M** **316-BM**
	Two Circuit (1 On—1 Off)	Lugs—End Wire Lugs—Bottom Screw	**516-M** **516-AM** **516-BM** **516-SM**

TOGGLE TYPE & LENGTH	BALL 3/8"	BAT 1/2"	BAT 11/16"	TRIGGER BAT
SUFFIX NO.	**—23**	**—63**	**—73**	**—93**

TOGGLE TYPE & LENGTH	**BALL 5/16**	**BALL—3/8" LONG**				**BAT—1/2"**		**BAT—11/16"**	**SLOTTED**
STEM LENGTH (A)	1/4"	1/4"	11/32"	15/32"	7/8"	11/32"	15/32"	15/32"	11/32"
Std. **SUFFIX NOS.**	**—11**	**—21**	**—22**	**—23**	**—25**	**—62**	**—63**	**—73**	
*With Neoprene Seal			**—57**			**—67**	**—68**		
& Toggle Type & Length			**BAT 3/8**			**BAT 1/2**	**BAT 9/16**		

***DUSTPROOF SEAL (Also RAIN RESISTANT)**

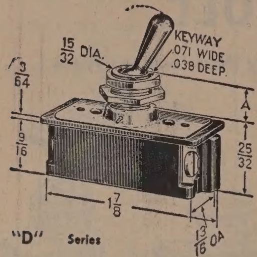
MARINE APPLICATIONS
USE PREFIX M-

Note: Solderless quick disconnect terminals are available on #110 switch above

(See Picture on Cover) Use Addt'l Suffix No. — "TABS"

CARLING ELECTRIC, INC. — West Hartford, Conn.

SWITCHES - TOGGLE - PUSH - SLIDE



"D" Series

CATALOG NUMBER	TYPE OF TERMINALS	POLES OR CIRCUIT	NOMINAL RATING A.C. OR D.C.
2DA25	Screw	S.P.—S.T.	12 Amps—125 V. 6 Amps—250 V. 1 H.P. 125—250 V.
2DK25	Screw	D.P.—S.T.	
EA255	Screw	S.P.—S.T.	15 Amps—125 V. 10 Amps—250 V. 1½ H.P. 125—250 V.
EK255	Screw	D.P.—S.T.	

CATALOG NUMBER SUFFIX FOR TOGGLE & STEM LENGTHS

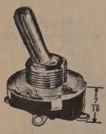
Toggle Length 11/16"

TOGGLE TYPE	STEM LENGTH	SUFFIX NO.
Bat	11/32"	—72
Ball	11/32"	—32
Bat	15/32"	—73
Ball	15/32"	—33

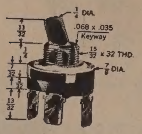
Note: Dimensions of "E" Series Switches are 2⅛" lg x 1" w x 23/32" high.

RATING: 15 Amp — 125 V. A-C
7½ Amp. — 250 V. A-C
½ H.P. 115-23 V. A-C

Single Pole



"A" Series Illustrated Above with Solder Lugs and Metal Toggle 11/16" Long

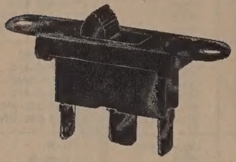


"A" Series Illustrated Above with Tab Terminals and Plastic Toggle

CATALOG NUMBERS			CIRCUIT CHARACTERISTICS WITH POSITION OF TOGGLE		
TERMINALS					
LUG	SCREW	TAB	UP	CENTER	DOWN
AA252	AA254	AA25A	On	None	Off
AB252	AB254	AB25A	On	None	On
AC252	AC254	AC25A	On	Off	On
RATING: 3 Amp. — 125 V. A-C (Below)					
AA232	AA234	AA23A	On	None	Off

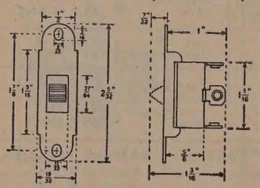
Add: Following Suffixes to ABOVE CATALOG NOS.

Metal Toggle Type	Colored Plastic Toggle Types:			
	Black	Brown	—WH	—RD
—71	—BL	—BR	Red	White



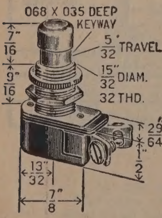
"L" Series

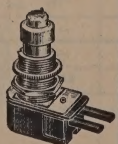
(**Also available with ON-OFF Stamped on Slide or Case on Special Order**)



CATALOG NUMBERS						ELECTRICAL CIRCUIT CHARACTERISTICS		
NOMINAL RATINGS						UP POSITION	CENTER POSITION	DOWN POSITION
15 Amp—125 V. A.C. 10 Amp—250 V. A.C. ½ H.P.—115-230 V. A.C.			3 Amp—250 V. A.C. 6 Amp—125 V. A.C. ¼ H.P.			Single Pole—Single Throw & Single Pole—Double Throw		
Solder Lugs	Screw Term.	Tab Term.	Solder Lugs	Screw Term.	Tab Term.			
LA453	LA454	LA45A	LA463	LA464	LA46A	On	None	Off
LB453	LB454	LB45A	LB463	LB464	LB46A	On	None	On
LC453	LC454	LC45A	LC463	LC464	LC46A	On	Off	On

For Slide COLOR Add SUFFIX	BLACK	RED	GRAY
	—BL	—RD	—GY





MAINTAINED CONTACTS OR MOMENTARY CONTACTS AC—DC

CATALOG NUMBERS			Type Terminals	Poles Or Circuit	Nominal Rating
Maintained Contacts	MOMENTARY CONTACTS Normally Open	MOMENTARY CONTACTS Normally Closed			
110—P 110—BP 110—SP 111—16P	110—PM—OFF 110—PBM—OFF 110—SPM—OFF 111—PM—OFF	110—PM—ON 110—PBM—ON 110—SPM—ON 111—PM—ON	Lug Lug (Bottom) Screw Wire	S.P.—S.T.	6 Amp—125 V. 3 Amp—250 V. A.C.—D.C.
160—P 160—BP 160—SP 160—AP	None	None	Lug Lug (Bottom) Screw Wire	S.P.—S.T.	10 Amp—125 V. 5 Amp—250 V. A.C.—D.C.
216—PP 216—PPA	216—PM—OFF 216—PAM—OFF	216—PM—ON 216—PAM—ON	Lug Wire	D.P.—S.T.	3 Amp—125 V. 1 Amp—250 V. A.C.—D.C.
112—P 112—PA	112—PM 112—PAM		Lug Wire	S.P.—**D.T.**	
316—PP 316—PPA	316—PM 316—PAM		Lug Wire	D.P.—D.T.	
516—PP 516—PPA	516—PM 516—PAM		Lug Wire	2 circuit	

Overtravel available for Momentary Switches only)—Add CATALOG SUFFIX NO. **—OV**

TAB (Quick Disconnect) Terminals available on above Switches

CARLING ELECTRIC, INC. — West Hartford, Conn.

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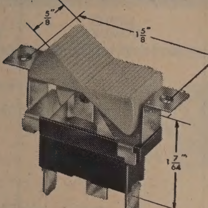
SWITCHES-TIPPETTE*-TRIGGER

*Tippette is a Carling Trademark

TIL SERIES

✻ TIPPETTE



1⅝" Distance Between Mounting Hole Centers. Mounting Holes Tapped 6-32 NC2. Width of "Tippette" Actuators .660. Length of "Tippette" Actuators 1.230.

Note: For purposes of terminology "OFF" indicates open circuit, "ON" indicates closed circuit, MOM. ON indicates Momentary Normally OPEN circuit and MOM. OFF indicates Momentary Normally Closed Circuit.

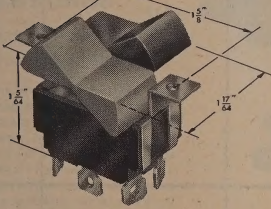
TIL Series

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA60	TILA61	TILA62	TILA63	TILA64	TILA65	On	None	Off
TILA6A	TILA6B	TILA6C	TILA6D	TILA6E	TILA6F	Off	None	Mom. On
TILA6L	TILA6M	TILA6Q	TILA6R	TILA6S	TILA6T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB60	TILB61	TILB62	TILB63	TILB64	TILB65	On	None	On
TILB6A	TILB6B	TILB6C	TILB6D	TILB6E	TILB6F	On	None	Mom. On
TILC60	TILC61	TILC62	TILC63	TILC64	TILC65	On	Off	On
TILC6A	TILC6B	TILC6C	TILC6D	TILC6E	TILC6F	On	Off	Mom. On
TILC6L	TILC6M	TILC6Q	TILC6R	TILC6S	TILC6T	Mom. On	Off	Mom. On

RATING 15 AMP—125V A.C. 10 AMP—250V A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						SINGLE POLE SINGLE THROW		
TILA50	TILA51	TILA52	TILA53	TILA54	TILA55	On	None	Off
TILA5A	TILA5B	TILA5C	TILA5D	TILA5E	TILA5F	Off	None	Mom. On
TILA5L	TILA5M	TILA5Q	TILA5R	TILA5S	TILA5T	On	None	Mom. Off
						SINGLE POLE DOUBLE THROW		
TILB50	TILB51	TILB52	TILB53	TILB54	TILB55	On	None	On
TILB5A	TILB5B	TILB5C	TILB5D	TILB5E	TILB5F	On	None	Mom. On
TILC50	TILC51	TILC52	TILC53	TILC54	TILC55	On	Off	On
TILC5A	TILC5B	TILC5C	TILC5D	TILC5E	TILC5F	On	Off	Mom. On
TILC5L	TILC5M	TILC5Q	TILC5R	TILC5S	TILC5T	Mom. On	Off	Mom. On

TIG SERIES

✻ TIPPETTE



Also this switch can be provided with two "Tippette" levers (see illustration) to operate as two single pole switches in any circuit combination desired and rating shown under our "TIL" Series switches. Specify "TIG" switch and combination desired.

Note: For purposes of terminology "OFF" indicates open circuit, "ON" indicates closed circuit, MOM. ON indicates Momentary Normally OPEN circuit and MOM. OFF indicates Momentary Normally Closed Circuit.

TIG Series (With *ONE* Tippette Lever)

CATALOG NUMBERS NOMINAL RATINGS RATING 6 AMP—125V A.C. 3 AMP—250V A.C. ¼ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK60	TIGK61	TIGK62	TIGK63	TIGK64	TIGK65	On	None	Off
TIGK6A	TIGK6B	TIGK6C	TIGK6D	TIGK6E	TIGK6F	Off	None	Mom. On
TIGK6L	TIGK6M	TIGK6Q	TIGK6R	TIGK6S	TIGK6T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL60	TIGL61	TIGL62	TIGL63	TIGL64	TIGL65	On	None	On
TIGL6A	TIGL6B	TIGL6C	TIGL6D	TIGL6E	TIGL6F	On	None	Mom. On
TIGM60	TIGM61	TIGM62	TIGM63	TIGM64	TIGM65	On	Off	On
TIGM6A	TIGM6B	TIGM6C	TIGM6D	TIGM6E	TIGM6F	On	Off	Mom. On
TIGM6L	TIGM6M	TIGM6Q	TIGM6R	TIGM6S	TIGM6T	Mom. On	Off	Mom. On

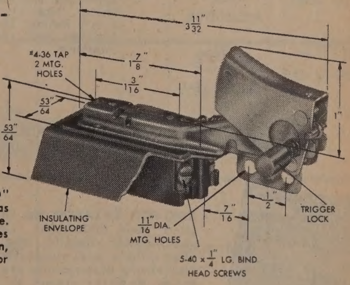
RATING 15 AMP—125V A.C. 10 AMP—250 V.A.C. ¾ H.P. 125-250V. A.C.						OPERATION AND CIRCUIT CHARACTERISTICS		
SOLDER LUGS	.250 SPADE TERM.	.205 SPADE TERM.	.187 SPADE TERM.	SCREW TERM.	WIRE LEADS	Position #1	Position #2 (CENTER)	Position #3
						DOUBLE POLE SINGLE THROW		
TIGK50	TIGK51	TIGK52	TIGK53	TIGK54	TIGK55	On	None	Off
TIGK5A	TIGK5B	TIGK5C	TIGK5D	TIGK5E	TIGK5F	Off	None	Mom. On
TIGK5L	TIGK5M	TIGK5Q	TIGK5R	TIGK5S	TIGK5T	On	None	Mom. Off
						DOUBLE POLE DOUBLE THROW		
TIGL50	TIGL51	TIGL52	TIGL53	TIGL54	TIGL55	On	None	On
TIGL5A	TIGL5B	TIGL5C	TIGL5D	TIGL5E	TIGL5F	On	None	Mom. On
TIGM50	TIGM51	TIGM52	TIGM53	TIGM54	TIGM55	On	Off	On
TIGM5A	TIGM5B	TIGM5C	TIGM5D	TIGM5E	TIGM5F	On	Off	Mom. On
TIGM5L	TIGM5M	TIGM5Q	TIGM5R	TIGM5S	TIGM5T	Mom. On	Off	Mom. On

"TRD" Series Rated 12A @ 125V 6A @ 250V
½ H.P. 125-250V A.C. ¾ H.P. 125-250V D.C.

CATALOG NO.	CIRCUIT	HAS LOCK	HAS ENVELOPE
TRDA-00	SPST	No	No
TRDA-01	SPST	No	Yes
TRDA-05	SPST	Yes	No
TRDA-06	SPST	Yes	Yes
TRDK-00	DPST	No	No
TRDK-01	DPST	No	Yes
TRDK-05	DPST	Yes	No
TRDK-06	DPST	Yes	Yes
"TRE" Series Rated 15A @ 125V 10A @ 250V 1 H.P. 125V A.C. 1½ H.P. 125V D.C.			
TREA-00	SPST	No	No
TREA-01	SPST	No	Yes
TREA-05	SPST	Yes	No
TREA-06	SPST	Yes	Yes
TREK-00	DPST	No	No
TREK-01	DPST	No	Yes
TREK-05	DPST	Yes	No
TREK-06	DPST	Yes	Yes

*TRD SERIES-TRE SERIES

TRIGGER



*Note: Illustration shows "TRD" Series dimensions. "TRE" Series has same dimensions except for base. For base dimensions of "TRE" Series substitute 15/16" for 53/64 height shown, 1" for 53/64 width shown, and 5/16 for 7/16" dimension shown.

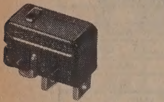
CARLING ELECTRIC, INC. — West Hartford, Conn.

OVER 60,000 OFF-THE-SHELF ANSWERS

ALWAYS AVAILABLE FOR IMMEDIATE DELIVERY

Basic Switches

SUB-SUBMINIATURE T type



Exceptionally high current capacity in tiny case. Only ½″ x ¼″ x ⅜″ yet UL listed at 7.5 amps. 125/250 VAC. Also rated at 7.5 amps, 30 VDC resistive, 3 amps. 30 VDC inductive. Mounts side-by-side, four switches to the inch.

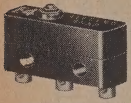
ACTUATORS

ROLLER LEAF

LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT solder terminals	T3	2.00
SPDT solder terminals, U.L.	T12	2.00
leaf actuator	A5-71**	.20
roller leaf actuator	A5-73**	.50

SUBMINIATURE E4 type

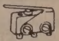


Ideal for compact electrical and electronic equipment. Low movement differential and operating force gives precision control in critical applications. Can be stacked and gang mounted. Meets MIL Specs. MS-25085 and is UL listed at 5 amps, 125/250 VAC. Also handles 4 amps, 30 VDC resistive, 2.5 amps, 30 VDC inductive. Size: 25/32″ x ¼″ x 23/64″.

ACTUATORS

TOGGLE

PUSHBUTTON

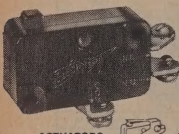


LEAF

ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT, solder terminals	E4-103	1.50
SPDT, turret terminals	E4-110	1.50
DPDT maintained toggle switch, 15/32″ bushing	A3-32-103*	5.70
TPDT maintained toggle switch, 15/32″ bushing	A3-33-103*	7.80
DPDT maintained toggle switch, ¼″ bushing	A3-41-103*	5.70
SPDT maintained toggle switch, ¼″ bushing	A3-42-103*	3.49
DPDT momentary push-button switch, 15/32″ bushing	A4-86-103*	6.10
DPDT push-on, push-off, push-button switch, 15/32″ bushing	A4-87-103*	7.40
leaf actuator	A5-9**	.20
roller leaf actuator	A5-10**	.50

MINIATURE F type



Low cost precision switch that meets military specs and is UL listed. Rugged design—positive over-travel stop protects mechanism from damaging over-actuation. Easy to mount. Size: 1 3/32″ x 13/32″ x ⅝″. Rating: 10 amps 125/250 VAC / 28 VDC resistive, 6 amps, 30 VDC inductive.

ACTUATORS

LEAF

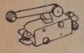
ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT basic switch, screw terminals, U.L. MS-15253-1	F2-13	1.00
roller leaf actuator	A5-47**	.40
leaf actuator	A5-49**	.20

2-CIRCUIT S type

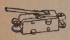
Combines high capacity, small size and long life with extreme precision. Rated at 10,000,000 operations at full load, tested to 30,000,000. Good for power circuits as well as precision control applications. Meets military specs. Several models UL listed. Reset model maintains circuit until reset button actuated; can be used as inexpensive two-way limit switch. Size: 1¼″ x ½″ x ½″. Rating: 10 amps, 125/250 VAC. 30 VDC inductive.

ACTUATORS

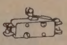


ROLLER LEVER

PUSHBUTTON



EXTENDED LEAF



ROLLER LEAF

DESCRIPTION	MODEL NUMBER	LIST PRICES 1-9
SPDT, end solder terminals	S1-4	1.40
SPDT, (reset) end solder terminals	S1-304	1.65
SPDT, end screw terminals	S2-4	1.50
SPDT, (reset) end screw terminals	S2-304	1.75
SPDT, side solder terminals	S3-4	1.47
roller lever actuator	A2-2**	.80
push-button switch, solder terminals 15/32″ bushing	A4-1/S1-4* N.P.	2.40
push-button switch, detachable plastic button	A4-25-1/S1-4*	3.32
red plastic button for A4-25-1	1109-SA11-1*	.60
black plastic button for A4-25-1	1109-SA11-2	.60
1″ dia. push-button actuator	A4-102**	3.50
roller leaf actuator	A5-5**	.40
extended leaf actuator	A5-7**	.50

*Designates actuator assembled with switch. **Order these actuators separately. Assemble on switch when mounting.

NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

condensed catalog
CONTROL SWITCH

ASK FOR CATALOG No. 100 from your distributor. Contains short-form specification details, engineering drawings, descriptions and suggested application data. The above illustrations are only a few of the more popular items in the over 60,000 switches and indicators manufactured by Control Switch Division. For facts on the many others available, ask for Catalog 100.

CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

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to your switching problems . . .

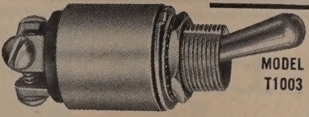
CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

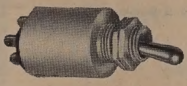
AT YOUR CONTROL SWITCH DISTRIBUTOR

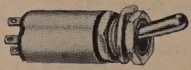
Toggle Switches

Space-Saving Cylindrical Types

Exceptionally rugged, cam-roller Hetherington Toggle Switches positively cannot be teased off contact. Cylindrical anodized aluminum cases reduce size by 25% over conventional rectangular switches. Firmly anchored terminals separated by heavy insulation barrier. All are 2-position, snap-action.







	CIRCUIT	RATINGS (Resistive Loads) 28v. dc.	RATINGS (Resistive Loads) 115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
MODEL T1003	SPDT	20 amps.	10 amps.	15/32"	Designed to MIL-S-6745 specs.	3.22
MODEL T2104	2-circuit	10 amps.	5 amps.	1/4"	Designed to JAN-S-23, Amend. 3.	3.94
MODEL T2150	DPDT	1 amp.	1 amp.	1/4"	Miniaturized	5.32
MODEL T3103	SPDT	5 amps.	2½ amps.	1/4"	Anodized aluminum case	4.06

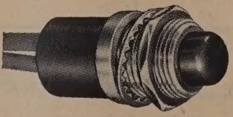
Pushbutton Switches

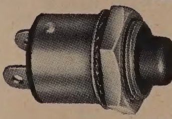
Snap-Action, Momentary Contact

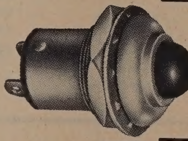
The exclusive Hetherington snap-action mechanism reduces arcing and contact wear...provides far greater current capacity than the small sizes of these switches would indicate. Mechanism enclosed in dust and moisture-resistant anodized aluminum housings (phenolic in B2001 & B2002). 1-piece terminals and contacts firmly anchored to bases. Many types meet JAN and MIL Specs for aviation and military requirements.

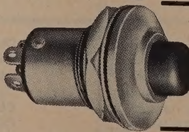
Features and dimensions are subject to change based on engineering refinements. If dimensions or specifications are critical, obtain drawings from Control Switch engineering department.

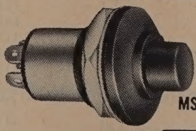
*Inspected by Underwriters' Laboratories, Inc.

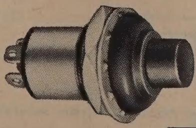












	CIRCUIT	28v. dc.	115v. ac.	MTG. HOLE DIA.	SPECIAL FEATURES	LIST PRICES
MODEL B2001	SPST (N.O.)	——	8 amps.*	1/2"	Phenolic body	2.09
MODEL B2002	SPST (N.C.)					
MODEL C1006	SPST (N.O.)	17 amps.	15 amps.*	1/2"	Anodized aluminum cases	3.01
MODEL C2006	2-circuit	10 amps.				3.61
MODEL C100U4	SPST (N.O.)	17 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	3.76
MODEL C200P3	2-circuit	10 amps.	15 amps.*	5/8"	Anodized aluminum cases & mounting flanges	4.36
MODEL MS25089-3C	2-circuit	10 amps.	——	5/8"	Conforms to MS25089-3C (MIL-S-6743). Black flange.	3.80
MODEL W103UB6	2-circuit	10 amps.	——	5/8"	Black flange.	5.43

More Switches on the Next Page

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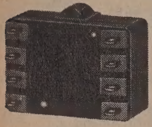
CONTROLS COMPANY OF AMERICA
CONTROL SWITCH DIVISION
Folcroft, Pa.

MORE PRECISION SNAP-ACTION SWITCHES

BASIC SWITCH SERIES	DESCRIPTION	MODEL NUMBER	LIST PRICES	

DOUBLE POLE D type

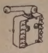


Multi-Circuit

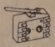
High capacity basic switches permit simultaneous switching of multiple circuits and precision control of three phase motors. Military and UL listed models available. Reset model maintains circuit until reset button is actuated. Can be used as inexpensive two-way limit switches. Sizes: D type, 1¼″ x ½″ x ⅞″—K type, 1¼″ x .491″ x 1 5/16″.

TRIPLE POLE K type

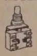
ACTUATORS



ROLLER LEVER



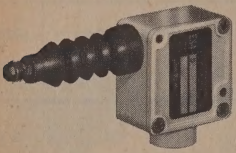
EXTENDED LEAF



PUSHBUTTON

DESCRIPTION	MODEL NUMBER	1-9
DPDT, side solder terminals	**4-Circuit**	
DPDT, (reset) side solder terminals	D8-4	6.25
	D8-304 N.P.	6.75
TPDT, side solder terminals	**6-Circuit**	
Actuators for Type D & K Basic Switches	K3-4	7.45
Roller lever		
Push-button, 15/32″ bushing	A2-5**	1.05
Push-button, w/o detachable plastic button, 15/32″ bushing	A4-2**	2.00
Red plastic button for A4-24-1	A4-24-1**	1.71
Black plastic button for A4-24-1	1109-SA11-1	.60
1″ dia. push-button	1109-SA11-2	.60
Extended leaf	A4-102**	3.50
	A5-18**	.75

LIMIT SWITCHES ES4 type

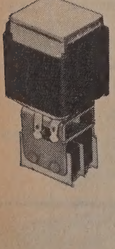


Especially designed for machine control, automation circuitry and sequencing operation. Aluminum diecast housing protects switch from damage, dirt and corrosion, simplifies mounting on equipment. Some models available with neoprene boot on plunger for protection from dirt, oil and metal chips. Impulse models eliminate need for one-way dogs, complicated relays and timers. As plunger is depressed, switch completes electrical circuit during pre-set section of travel ("ON" period), but does not make circuit on return stroke. Case size: 2″ (plus plunger length) x 1 1/32″ x 2 3/16″. Rating: 10 amps, 125/250 VAC. Circuit: SPNO.

DESCRIPTION	MODEL NUMBER	OVER-TRAVEL	"ON" PERIOD	1-19
STANDARD ACTION				
	ES4-N	5/16″		8.50
Red 1¾″ push-button	ES4-J	5/16″		9.80
Neoprene boot plunger	ES4-K	7/16″		9.50
IMPULSE ACTION				
	ES4-NM1	¼″	1/16″	9.50
	ES4-NM2	3/16″	⅛″	9.50
	ES4-NM3	⅛″	3/16″	9.50
	ES4-NM4	1/16″	¼″	9.50
Red 1¾″ push-button	ES4-JM3	⅛″	3/16″	10.80
Neoprene boot plunger	ES4-KM1	⅜″	1/16″	10.50
" " "	ES4-KM2	5/16″	⅛″	10.50
" " "	ES4-KM3	¼″	3/16″	10.50
" " "	ES4-KM4	3/16″	¼″	10.50
" " "	ES4-KM6	1/16″	⅜″	10.50
Replacement basic switch for ES4 Series	S1-25			1.75

LIGHTED PUSH-BUTTON PANEL SWITCHES

C6 type



Combine lighting, legend, and electrical control in one compact unit. Save panel space, simplify operation. Units can be stacked or mounted individually on control panels or consoles. Plastic push-button is available in colors, can be hot-stamped with words or symbols, button size ¾″ x 1″. Light is provided by two separate 6- or 28-volt lamps wired in parallel. Switching component is DPDT, rated at 5 amps, 125 VAC or 4 amps, 30 VDC, resistive each pole. Either alternate action (push-on, push-off) or momentary action is available. Unit is also available without switch for use as pilot light. Two lamps included with each unit. Solid plastic or two-piece plastic button with clear slip-in insert for legend.

DESCRIPTION	MODEL NUMBER	1-24
Momentary, w/2 clear 6V lamps	C6-52-22	9.60
Momentary, w/2 clear 28V lamps	C6-56-22	10.40
Push-push, w/2 clear 6V lamps	C6-53-22	11.70
Push-push, w/2 clear 28V lamps	C6-57-22	12.50
Pilot light, w/2 clear 6V lamps	C6-50-22	5.25
Pilot light, w/2 clear 28V lamps	C6-54-22	6.05
Solid blue button	1117-229-BB	.50
2/pc. blue button	1117-SA19-11-B	.50
Solid green button	1117-229-GG	.50
2/pc. green button	1117-SA19-11-G	.50
Solid red button	1117-229-RR	.50
2/pc. red button	1117-SA19-11-R	.50
Solid white button	1117-229-WW	.50
2/pc. white button	1117-SA19-11-W	.50
Solid yellow button	1117-229-YY	.50
2/pc. yellow button	1117-SA19-11-Y	.50
Mounting barrier (use one more barrier than number of units ganged)	1117-SA-19-4	.75

NOTE: Order buttons and mounting barriers separately

**Order these actuators separately. Assemble on switch when mounting.
NOTE: ALL SWITCHES MOMENTARY CONTACT UNLESS OTHERWISE NOTED

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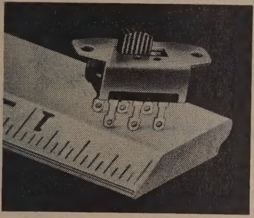
CONTINENTAL WIRT

Slide Switches

There's long life and superior performance behind every C-W Slide Switch —meeting highest quality and reliability standards at a moderate cost.

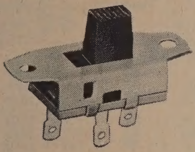


NEW!

C-W MINATURE SWIDGET type 126

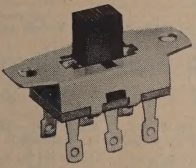
Ideal for all types of "compact" uses—particularly on portable equipment. Occupies ⅓ cubic content of conventional DPDT Switch; requires ½ of the usual mounting area; clearance (mounting plane to terminal tip) ⅓ less.

U. L. Listed at .5 amp. AC-DC.



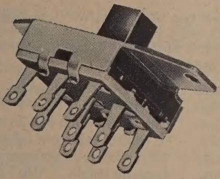
G—24 and G—32

SPDT with detent or spring return — Available also as G-23-ST with detent — with extreme right terminal omitted. (Available also with leads)



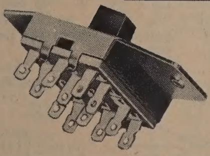
G—26 and G—36

Conventional DPDT with detent or DPDT "Center off."



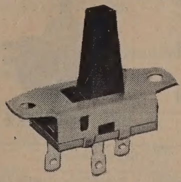
G—69

3 PDT with detent.



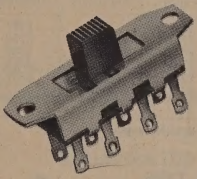
G—42

4 PDT with detent.



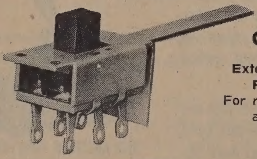
"BAT" KNOB — (¾")

Available for selected types —recommended when housing or cover on device is thick.



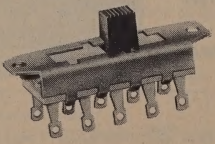
G—28

DP3T 3 position, with detent.



G—26X

Extension Plunger Frame Type For remote push-pull applications.



G—38

DP4T 4 position, with detent.

Your C-W Distributor Can Supply All Your Slide Switch Requirements

- **Basic Types — 14.**
- **Poles Available — 1 to 4.**
- **Positions Available — 2 to 4.**
- **Action — Detent and spring return.**
- **Ratings — .5 amp. AC-DC to 6 amps. AC-UL or Factory tested.**
- **Knob Heights — 11/32" - 29/64" - 3/16" - ¾" (bat).**
- **Available — Printed circuit terminals — remote actuating level — wire leads on terminals — short terminals.**
- **Ext. or Tapped Mounting Holes — 6-32 and 4-40 on most types.**

ASK FOR C-W BULLETIN 2039

CONTINENTAL WIRT

CONTINENTAL-WIRT
ELECTRONICS CORP.
PHILADELPHIA, PA.

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Commercial Application"

ONE HOLE MOUNTING
QUICK MAKE, QUICK BREAK A-C, D-C SWITCHES

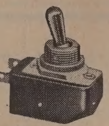
UTILITY TYPE

This line of C-H small motor switches have been designed for convenient installation on panels, housings, and other flat surfaces. Superior design, quality materials and workmanship, and careful inspection assure long life and reliable performance.

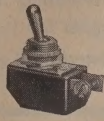
They have a quick make and quick break over center arrangement on the movable contact which permits exceptionally fast contact action minimizing pitting and erosion of the contact surfaces.

Available with screw terminals, solder lug terminals or with 6″ lead wires stripped ¾″. Also available with bushing lengths (Dim. A) of ¼″, $^{11}/_{32}$″, $^{15}/_{32}$″, ¾″ and 1″ — ¾″ and 1″ bushings furnished with ball type lever only.

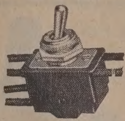
Parts visable when switch is mounted are bright nickel plated.



Cat. No. 8383



Cat. No. 8396



Cat. Nos. 8364, 8374

Nominal Ratings (Amps.)		Poles and Throws	Catalog Numbers		
250 V. A-c, D-c	125 V. A-c, D-c		Screw Terminals	Solder Lug Terminals	Wire Lead Terminals
1	3	SPDT (3 Way)	8297	8282	8292
3	....	SPST	8295	8280	8290
3	....	DPST	8362	8360	8361
3	....	DPDT	8365	8363	8364
3	6	SPST	8396	8381	8391
3	6	DPST	8372	8370	8371
3	6	DPDT	8375	8373	8374

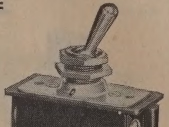
When ordering, specify (1) catalog number and (2) bushing length.

HEAVY DUTY TYPE

This line of C-H switches have all of the features found in the utility type listed above plus extra heavy contacts for high current applications.

Screw terminals or plug-in terminals (connection made by plugging wire into switch body) are available. Plug-in type switches have $^{3}/_{32}$″ square hole to accept #14, 16 or 18 ga., stranded, tin dipped wire leads skinned $^{7}/_{32}$″.

Available with $^{11}/_{32}$″ or $^{15}/_{32}$″ bushing length (Dim. "A").



Cat. Nos. 7320, 7321, 7322

Rear view of 7343 showing holes for plug-in wire leads.

Nominal Ratings (Amperes)		Max Hp Ratings (250 V.)		Poles and Throws	Catalog Numbers	
250 V. A-c, D-c	125 V. A-c, D-c	A-c	D-c		Screw Terminals	Plug-in Terminals
5	....	....	....	DPDT w/o Center Off	8680	......
5	10	½	½	SPST	....	7347
5	10	½	½	DPST	....	7343
8	16	1	1	SPST	7321	....
8	16	1	1	DPST	7320	7443
10	15	1	½	DPST	....	7354
10	15	1	1½	SPST	7361	....
10	15	1	1½	DPST	7360	....
10	15	....	....	DPDT w/o Center Off	8690	....
20	..	2	2	SPST	7403	....
20	....	2	2	DPST	7402	....

When ordering, specify (1) catalog number and (2) bushing length.

SLOW MAKE, SLOW BREAK A-C ONLY SWITCHES

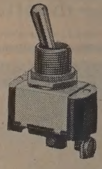
3-6, 10-15 AMP. A-c LINE

Low arcing properties of a-c make possible a simpler contact construction, lighter weight and more compact switch than is possible for d-c power. These advantages along with lower cost have been incorporated in C-H a-c only switches.

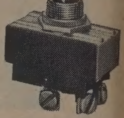
Features include: heavy duty independent springs for positive contact pressure, solid silver to silver contacts and strong substantial terminal construction.

Bushing length $^{15}/_{32}$″ on all single pole switches Double pole switches available with $^{11}/_{32}$″ or $^{15}/_{32}$″ bushings.

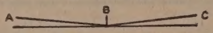
Available with screw, solder lug or spade type terminals.



Cat. No. 7500



Cat. No. 7560

Circuit Arrangement  Keyway on "C" Side of Switch			Throws	Catalog Number	
				Single Pole	Double Pole
3 AMP. — 250 V. A-C, 6 AMP. — 125 V. A-C					
ON	OFF	ON	DT	7581	7591
ON	OFF	ON*	DT	7586	7596
ON*	OFF	ON*	DT	7587	7597
ON	NONE	ON	DT	7582	7592
ON	NONE	ON*	DT	7585	7595
ON	NONE	OFF	ST	7580	7590
ON	NONE	OFF*	ST	7584	7594
OFF	NONE	ON*	ST	7583	7593
10 AMP. — 250 V. A-C, ½ MAX. H.P. — 250 V. A-C					
ON	OFF	ON*	DT	7508	7568
ON*	OFF	ON*	DT	7509	7569
ON	NONE	ON*	DT	7510	7570
ON	NONE	OFF*	ST	7507	7567
OFF	NONE	ON*	ST	7506	7566
10 AMP. — 250 V. A-C, 15 AMP. — 125 V. A-C, ¾ MAX. H.P. — 250 V. A-C					
ON	OFF	ON	DT	7502†	7562†
ON	NONE	ON	DT	7504†	7564†
ON	NONE	OFF	ST	7500†	7560†

*Momentary contact

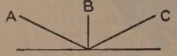
†Screw terminals. For solder lug or spade type terminals add one (1) to model number. Example: 7502 is screw type — for same switch with solder lugs or spades order 7503.

When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

PROJECTOR TYPE

These switches are the same as those listed above except the internal circuit is designed for a-c projector, air conditioning and room heater applications. They have a special contactor which provides for a full "off" position, then one circuit is made, then the second circuit is made while the first is maintained. In a projector circuit the switch will function as follows: (A) off, (B) fan on, and (C) fan and lamp on.

The 7575 switch has an extra circuit to control the room lighting in addition to the functions mentioned above. Bushing length — $^{11}/_{32}$″ on 7511 and 7575, $^{15}/_{32}$″ on 7573 and 7574, and $^{11}/_{32}$″ or $^{15}/_{32}$″ on 7571 and 7572. All switches DPDT except 7511 which is SPDT.

Nominal Ratings		Circuit Arrangement  Keyway on "C" Side of Switch			Catalog Number		
Max. H.P. 250 V. A-c	Watt Lamp Load (Heavy Duty Pole)				Screw Terminals	Solder Lug Terminals	Spade Terminals
3 AMP. — 250 V. A-C, 6 AMP. — 125 V. A-C							
......	300	2 ON	1 ON	OFF	....	7574	....
10 AMP. — 250 V. A-C, 15 AMP. — 125 V. A-C							
△	....	ON	OFF	ON	7620	....	....
......	1000	1 ON	1 & 2 ON	2 & 3 ON	7575	....	....
¼ - ¾ ‡	500	2 ON	1 ON	OFF	7571	7571	7571
¼ - ¾ ‡	1000	2 ON	1 ON	OFF	7572	7572	....
¼ - 1½ ‡	....	2 ON	1 ON	OFF	....	....	7573
......	1000	OFF	1 ON	2 ON	7511	7511	7511

△1 Hp — 115 V. — 575 V. A-c.

‡Dual rated switches for projector circuits.

When ordering, specify (1) catalog number, (2) bushing length if applicable and (3) terminal type if applicable.

CUTLER-HAMMER, Inc.,
Milwaukee, Wis.

Most C-H switches are available with optional features for special applications. See your local Sales Office or Distributor for complete accessory and optional feature listings.

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See your local C-H representative for prices and accessory information.

CUTLER-HAMMER SWITCHES

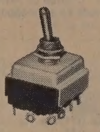
"Commercial Application"

ONE HOLE MOUNTING — Cont'd

SLOW MAKE, SLOW BREAK—A-C ONLY SWITCHES

10-15 AMP, LINE — THREE OR FOUR POLE

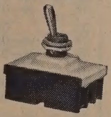
All of the quality features from the a-c only switches listed on the previous page have been built into this line plus extra heavy contact construction for high current applications.



Cat. Nos. 7693, 7695

Bushing length — 15/32″ (7610 and 7615 also available with 11/32″ bushing).

Ratings — Three pole switches — 10 amp. — 250 V. A-c, 15 Amp. — 125 V. A-c, 1 hp polyphase — 115-575 V. A-c. Four pole switches — 10 Amp. — 250 V. A-c, ½ hp — 230 V. A-c.



Cat. Nos. 7610, 7616

Circuit Arrangement A B C Keyway on "C" Side of Switch			Throws	Catalog Number				
				Three Pole			Four Pole	
				Screw Terminals	Solder Lug Terminals	Spade Terminals	Screw Terminals	Solder Lug Terminals
ON	OFF	ON	DT	7612	7613	7613	7692	7693
ON*	OFF	ON	DT	7617	....	7617	....	....
ON	NONE	ON	DT	7614	7615	7615	7694	7695
ON*	NONE	ON	DT	7618	....	7618	....	....
ON	NONE	OFF	ST	7610	7611	7611	7690	7691
ON*	NONE	OFF	ST	7616	....	7616	....	....
OFF	NONE	ON*	ST	....	....	....	7696	7697

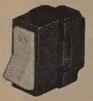
*Momentary contact.

When ordering, specify (1) catalog number, (2) type of terminals and (3) bushing length.

ROCKETTE SWITCHES — AC- ONLY

3-6, 10-15 AMP., A-C LINE

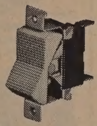
Styled for application on modern appliances. Rockers can be furnished on special order in any color to harmonize with the appliance color. Standard color of rocker is white.



Cat. No's. 8134 & 8144

All switches except 8326 and 8329 are 2 screw lush mounting.

Spade terminals available in sizes .250″, .205″ and .187″.



Cat. No's. 8326, 8329

Circuit Arrangement A B C			Poles and Throws	Number of Rockers	Catalog Numbers	
					3 Amp. 250 V. A-c 6 Amp. 125 V. A-c	10 Amp. 250 V. A-c 15 Amp. 125 V. A-c ¾ Hp. 250 V. A-c
ON	OFF	ON	SPDT	One	8134	8144
ON*	OFF	ON*	SPDT	One	8136	8146
ON	NONE	OFF	SPST	One	8134	8144
ON	NONE	OFF	SPST	One	8326	8329△
ON*	NONE	OFF	SPST	One	8135	8145
ON	OFF	ON	DPDT	One	8132	8142
ON	OFF	ON	DPDT	Two	8133	8143
ON*	OFF	ON*	DPDT	One	8138	8148
ON	NONE	OFF	DPST	One	8132	8132
ON	NONE	OFF	DPST	Two	8133	8133
ON*	NONE	OFF	DPST	One	8137	8147
ON	OFF	ON	4PDT	Two	8130	8140
ON	OFF	ON	4PDT	Three	8131	8141
ON	NONE	OFF	4PST	Two	8130	8140
ON	NONE	OFF	4PST	Three	8131	8141

*Momentary contact.

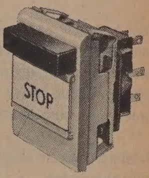
△Rated ½ hp — 250 V. A-c. Both 8326 and 8329 are nest mounted.

When ordering, specify (1) catalog number, (2) width of spade terminals and (3) poles and throws.

PUSHBUTTON SWITCHES

ILLUMINATED COMPUTER TYPE

The latest in stylized switches for wet and dry circuit applications. Illuminated face panel and elongated bar type actuator will enhance any control panel.



Cat. Nos. 8455 & 8456K2

Switches are of the snap in variety requiring a panel opening of 1⅝″ high by 1 29/64″ wide (add 1½″ to width per switch for ganged installation). Standard colors are black for the operator bar and gun metal gray for the shroud. Other color combinations available on special order.

Indicating lamp unit (8457K2) is a 10 V. bulb. Other voltage bulbs on special order.

Tap type (.110″) terminals for solder or spade connection.

MEMORY TEST
ERROR RESET
MEMORY TEST
DISPLAY
◆START PROGRAM STOP◆

Nominal Ratings (Amperes)		Poles and Throws	Operation	Catalog Number	
250 V. A-c, D-c	125 V. A-c, D-c			Silver Contacts	Gold Pltd. Silver Contacts
3	5	DPDT	Maintained Contact—N.O.	8455K2	8456K2*
3	5	DPDT	Momentary Contact—N.O.	8455K3	8456K3*
....	....	......	Lamp unit only	8457K2	......

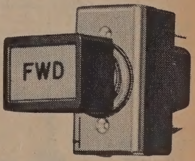
*Switches having gold plated silver contacts are rated at 5 millivolts — 25 microamps on dry circuit applications.

When ordering, specify (1) catalog number.

ILLUMINATED PUSHBUTTON TYPE

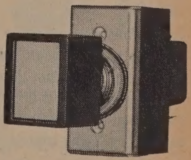
MOMENTARY OPERATION

Extremely attractive SPST momentary action switch with illuminated face panel.



Available with removable lamp or with an integral non-removable type lamp. Removable lamp types supplied with 14 V. bulbs. Integral lamp types furnished with 28 V. bulbs. Different voltage bulbs are available on special order.

Furnished with black cap and milk white legend plate. Plate can be hot stamped on special order.



Units with Legend Plate and Cap Assembly.

Tap type (.110″) terminals for solder or spade connection.

One hole mounting — ¼″ bushing. Rated 3 Amp. — 250 V. A-c, 6 Amp. — 125 V. A-c.

Contacts	Removable Lamp Type	Integral Lamp Type	Terminals
N. O.	8452K6	8452K4	.110 tab or solder lug
N. C.	8453K6	8453K5	.110 tab or solder lug
Lamp Only	8454K7	8454K5	.110 tab or solder lug

When ordering, specify (1) catalog number.

CUTLER-HAMMER SWITCHES

See your local C-H representative for prices and accessory information.

"Military Application"

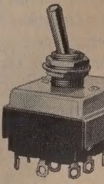
ONE HOLE MOUNTING

SEALED LEVER

Built to satisfy and exceed military specifications, these switches feature a silicone rubber seal between bushing and lever for sand and dust protection, heavy gauge silver to silver contacts and extra strong terminal construction.

Cat. Nos. 8800, 8804, 8808, 8809, 8810, 8812

Metal parts visible when switch is mounted are dull nickel plated.


Cat. Nos. 7663, 7665, 7671, 7673, 7675

Switch guards and attachable tips are available as accessory items.

Rated — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. Max. weight 0.081 to 0.14 lb.

Circuit Arrangement A B C Keyway on "C" Side of Switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number					
				Single Pole		Double Pole		Four Pole	
				Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal	Screw Terminal	Solder Lug Terminal
ON	ON	ON	DT	....	....	8860	....	....	....
ON	ON	ON∗	DT	....	....	8860	....	....	....
ON∗	ON	ON∗	DT	....	....	8860	....	....	....
ON	ON∗	NONE	DT	....	....	†8830	†8831	....	....
ON	OFF	ON	DT	8800	8802	8820	8821	7662	7663
ON	OFF	ON∗	DT	•8809	8815	8832	8833	7670	7671
ON∗	OFF	ON∗	DT	8812	8818	8834	8835	7672	7673
△ON	OFF	NONE	ST	8801	8803	8822	8823	7660	7661
△ON	OFF∗	NONE	ST	8813	8819	†8828	†8829	7668	7669
ON	NONE	ON	DT	8810	8816	8824	8825	7664	7665
ON	NONE	ON∗	DT	8804	8805	†8830	†8831	7674	7675
ON	NONE	OFF	ST	8801	8803	8822	8823	7660	7661
ON	NONE	OFF∗	ST	8813	8819	†8828	†8829	7668	7669
OFF	NONE	ON∗	ST	8811	8817	†8826	†8827	7666	7667
NONE	OFF	△ON∗	ST	8811	8817	†8826	†8827	7666	7667

∗Momentary contact.

△Indicates location where terminals are omitted.

•Available with jumper across outside terminals, order Cat. No. 8808.

†Not lever sealed.

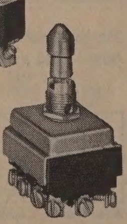
When ordering, specify (1) catalog number and (2) circuit arrangement.

LEVER LOCK TYPE

These switches feature the same rugged construction as the standard switches listed above except that in addition they have a lever lock feature which permits the lever to be locked in the desired position. This feature prevents the switch from being tripped accidentally.

Cat. No. 8857

In order to operate the lever from a locked position, an upward pull must be exerted on the operating lever to disengage the lever from the milled slot.


Cat. No. 8859

Rated 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c.

LEVER LOCK TYPE (Cont'd)

Circuit Arrangement A B C Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Number					
			Single Pole	MS No.	Double Pole	MS No.	Four Pole	MS No.
			8857-	**25125-**	**8858-**	**25126-**	**8859-**	**25127-**
ON	OFF	←ON	K-41	-3	K-40	-3	K-41	-3
ON	←OFF	ON	K-42	-5	K-42	-5	K-42	-5
ON→	OFF	←ON	K-43	-7	K-43	-7	K-43	-7
ON	←OFF→	ON	K-40	-2	K-40	-2	K-40	-2
ON→	←OFF→	←ON	K-39	-1	K-39	-1	K-39	-1
ON	←OFF	ON∗	K-46	-6	K-46	-6	K-46	-6
ON	OFF→	ON∗	K-51	...	K-51	...	K-51	...
ON∗	←OFF	ON∗	K-52	...	K-52	...	K-52	...
ON→	←OFF	ON∗	K-55	...	K-55	...	K-55	...
ON	←OFF→	ON∗	K-56	...	K-56	...	K-56	...
ON∗	←OFF→	ON∗	K-50	...	K-50	...	K-50	...
ON	←OFF	NONE	K-54	...	K-54	...	K-54	...
ON→	←OFF	NONE	K-49	-9	K-49	-9	K-49	-9
ON	NONE	←ON	K-45	-4	K-45	-4	K-45	-4
ON→	NONE	←ON	K-44	-8	K-44	-8	K-44	-8
ON	NONE	←OFF	K-47	...	K-47	...	K-47	...
ON→	NONE	←OFF	K-48	...	K-48	...	K-48	...
NONE	OFF→	ON∗	K-53	...	K-53	...	K-53	...

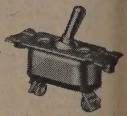
→ Indicates direction of movement against which lever is locked.

∗Momentary contact.

When ordering, specify (1) catalog number and (2) circuit arrangement.

FLUSH MOUNTING

Two screw, flush mounting switches manufactured to meet current military specifications.


Cat. Nos. 8201, 8211, 8213

All switches have a formed steel support plate with integral 6-32 lock nuts, silver inlay or movable contact, fixed contacts of coin silver and extra heavy operating spring to insure positive contact pressure.

Attachable tips and switch guards, available as accessory items.

Cat. No. 8791

Metal parts visible when switch is mounted are dull nickel plated.

Max. weight — 0.10 - 0.19 lb.

Circuit Arrangement A B C C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.			Throws	Catalog Number			
				Nominal Ratings (per pole)			
				Single Pole			Double Pole
				15 Amp. 125 V. A-c 25 Amp. 28 V. D-c	60 Amp. 28 V. D-c ‡	55 Amp. 115 V. A-c 175 Amp. 28 V. D-c	20 Amp. 115 V. A-c 30 Amp. 28 V. D-c
ON	OFF	ON	DT	8200	8783	8780	8700
ON	OFF	ON∗	DT	8209	8787	....	8709
ON∗	OFF	ON∗	DT	8212	8786	....	8712
△ON	OFF	NONE	ST	....	....	....	8716
△ON	OFF∗	NONE	ST	....	....	....	8717
ON	NONE	ON	DT	8210	8785	8782	8710
ON	NONE	ON∗	DT	8215	....	....	8715
ON	NONE	OFF	ST	8201	8784	8781	8701
ON∗	NONE	OFF	ST	8211	....	....	....
ON	NONE	OFF∗	ST	8213	8789	....	8713
OFF	NONE	ON	ST	....	....	....	8711
OFF	NONE	ON∗	ST	....	8788	....	....
NONE	OFF	△ON∗	ST	....	....	....	8718
				Three Pole		Four Pole	Six Pole
				20 Amp. 115 V. A-c 25 Amp. 28 V. D-c	15 Amp. 240 V. A-c 80 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c	10 Amp. 115 V. A-c 20 Amp. 28 V. D-c
							8862-
ON	OFF	ON	DT	8742	8790	8880	K-3
ON	OFF	ON∗	DT	....	....	8887	....
ON∗	OFF	ON∗	DT	....	....	8888	....
ON	OFF	NONE	ST	....	....	....	K-2
△ON	OFF	NONE	ST	8740	....	8882	....
ON	NONE	ON	DT	8744	8792	8884	K-4
ON	NONE	OFF	ST	8740	8791	8882	K-1
OFF	NONE	ON∗	ST	....	....	8886	....
NONE	OFF	△ON∗	ST	....	....	8886	....

∗Momentary contact.

△Indicates location where terminals are omitted.

‡Momentary rating. Non-momentary rating — 80 amp. — 28 V. D-c.

When ordering, specify (1) catalog number and (2) circuit arrangement.

CUTLER-HAMMER, Inc.,
Milwaukee, Wis.

For your switching needs, ask for a specialist . . . C-H who has designed more switches for more applications than any other manufacturer.

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See your local C-H representative for prices and accessory information.

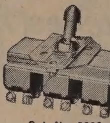
CUTLER-HAMMER SWITCHES

"Military Application"

FLUSH MOUNTING—Cont'd

LEVER LOCK TYPE

Cat. No. 8271


Cat. No. 8863

This line of switches is identical to the standard flush mounting types as listed on the previous page except that they have, in addition to the standard features, a lever lock design which permits the lever to be locked into position. The operating lever must be pulled upward before it can be moved from a locked position.

All switches have screw type terminals.

Rated — 10 Amp. — 115 V. A-c, 20 Amp. — 28 V. D-c. Max weight 0.14 - 0.24 lb.

Circuit Arrangement A—B—C C-H Insignia on "A" side of switch. Circuit is made on side opposite throw of lever.			Throw	Catalog Numbers		
				Single Pole	Double Pole	Six Pole
ON	←OFF	ON	DT	8272	8772	**8863-** K-3
ON	OFF	←ON	DT	8276	8776	K-7
ON	←OFF	ON*	DT	8273	8773	....
ON	←OFF→	ON	DT	8270	8770	K-1
ON→	←OFF→	←ON	DT	....	8778	K-9
ON→	NONE	←ON	DT	8275	8775	K-6
ON	NONE	←OFF	ST	8271	8771	K-2
ON	NONE	OFF	ST	8277	8777	K-8
ON→	NONE	←OFF	ST	8274	8774	K-5
NONE	OFF→	ON△	ST	....	8771	....

*Momentary contact. △Indicates location where terminals are omitted.
→Indicates direction of movement against which lever is locked.
Vhen ordering, specify (1) catalog number.

ROTARY SELECTOR SWITCH

Cat. No. 7271

Cat. No. 53-635

Cat. No. 7266

'he C-H single or multi wafer selector switch s designed for applications where a large numer of circuits must be controlled in consecutive teps. Switches have an indexing action which ives a positive "feel" as the shaft is rotated. witches can be furnished with from 1 to 6 vafers with each wafer having 8 positions — 7 on" and 1 "off". A total of 42 circuits can be ontrolled by one 6 wafer switch.

ated — 5 Amp. — 28 V. D-c, 115 V. A-c One ole mounting. Bushing length — 15/32". Flatted aaft has ½" extension.

Number of Wafers	Catalog Number			
	Screw Terminals	Max. Wt.—Lbs.	Solder Lug Terminals	Max. Wt.—Lbs.
One	7260	0.28	....	....
One	7261	0.16	7271	0.16
Two	7262	0.26	7272	0.21
Three	7263	0.32	7273	0.26
Four	7264	0.38	7274	0.31
Five	7265	0.45	7275	0.36
Six	7266	0.51	7276	0.41

hen ordering, specify (1) catalog number.

POSITIVE ACTION

ONE HOLE MOUNTING

Cat. No. 8836, 8840

Cat. No. 8844, 8847

ne operating mechanism employed in the C-H ne of "positive action" switches has a direct upling arrangement between the operating ver and moving contacts which permits posie breaking action and still allows the contacts move independently of the operating lever. e switching action takes place in less than of movement on the operating lever. Once e contact movement is started, the motion nnot be stopped until the switching is cometed.

vitches are available with either the lever al or environment seal. Both feature a silicone bber seal bonded to the bushing and operat- lever. They also are available in standard lever models or lever lock types. The lever lock switches have an integral bushing design which permits the operating lever to be locked into position. In order to move the lever from a locked position it must be pulled upward.

Rated — 25 Amp. — 28 V. D-c, 115 V. A-c on resistive loads. Max. weight 0.1 - 0.2 lb. Bushing length 15/32".

CURRENT RATINGS FOR ALL SWITCHES (Amperes per pole)								
28 Volts D-c			115 V. 400 Cy. A-c			115 V. 60 Cy. A-c		
Lamp Load 7	Resis-tive 25	Induc-tive 15	Lamp Load 7	Resis-tive 25	Induc-tive 15	Lamp Load 7	Resis-tive 20	Induc-tive 15

Circuit Arrangement A—B—C Keyway on "C" side of switch. Circuit is ma de on side opposite throw of lever.			Catalog Number					
			Environment Sealed			Lever Sealed		
			Single Pole	Double Pole	Four Pole	Single Pole	Double Pole	Four Pole
ON	OFF	ON	**8836-** K-1	**8837-** K-1	**8838-** K-1	**8840-** K-1	**8841-** K-1	**8842-** K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-6	K-6	K-6	K-6	K-6	K-6
ON	OFF*	NONE	K-8	K-8	K-8	K-8	K-8	K-8
ON	NONE	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	NONE	ON*	K-5	K-5	K-5	K-5	K-5	K-5
ON	NONE	OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON	NONE	OFF*	K-10	K-10	K-10	K-10	K-10	K-10
OFF	NONE	ON*	K-11	K-11	K-11	K-11	K-11	K-11
NONE	OFF	ON*	K-7	K-7	K-7	K-7	K-7	K-7
LEVER LOCK TYPE								
ON→	←OFF→	←ON	**8843-** K-1	**8844-** K-1	**8845-** K-1	**8846-** K-1	**8847-** K-1	**8848-** K-1
ON	OFF	←ON	K-3	K-3	K-3	K-3	K-3	K-3
ON	←OFF	ON	K-4	K-4	K-4	K-4	K-4	K-4
ON	←OFF	ON*	K-8	K-8	K-8	K-8	K-8	K-8
ON	OFF→	ON*	K-13	K-13	K-13	K-13	K-13	K-13
ON*	←OFF	ON*	K-14	K-14	K-14	K-14	K-14	K-14
ON	←OFF→	ON	K-2	K-2	K-2	K-2	K-2	K-2
ON	←OFF→	ON*	K-18	K-18	K-18	K-18	K-18	K-18
ON*	←OFF→	ON*	K-12	K-12	K-12	K-12	K-12	K-12
ON→	←OFF	ON*	K-17	K-17	K-17	K-17	K-17	K-17
ON→	OFF	←ON	K-5	K-5	K-5	K-5	K-5	K-5
ON	←OFF	NONE	K-16	K-16	K-16	K-16	K-16	K-16
ON→	OFF*	NONE	K-22	K-22	K-22	K-22	K-22	K-22
ON→	←OFF	NONE	K-11	K-11	K-11	K-11	K-11	K-11
ON	NONE	←ON	K-7	K-7	K-7	K-7	K-7	K-7
ON→	NONE	ON*	K-20	K-20	K-20	K-20	K-20	K-20
ON→	NONE	←ON	K-6	K-6	K-6	K-6	K-6	K-6
ON	NONE	←OFF	K-9	K-9	K-9	K-9	K-9	K-9
ON→	NONE	OFF*	K-21	K-21	K-21	K-21	K-21	K-21
ON→	NONE	←OFF	K-10	K-10	K-10	K-10	K-10	K-10
OFF→	NONE	ON*	K-19	K-19	K-19	K-19	K-19	K-19
NONE	OFF→	ON*	K-15	K-15	K-15	K-15	K-15	K-15

*Momentary contact. **When ordering,** specify (1) catalog number.
→Indicates direction of movement against which lever is locked.

MINIATURE

Cat. No. 8866

Cat. No. 8868

The switches combine all of the construction and operating features of the standard size positive action switches plus ultra miniature size and light weight.

Rating — Wet Circuit, 4 Amp — 28 V. D-c, Dry Circuit, 25 Micro Amp. — 5 Milli V. or less. Total weight — 5.0 - 6.5 grams.

Gold plated solder lug terminals.

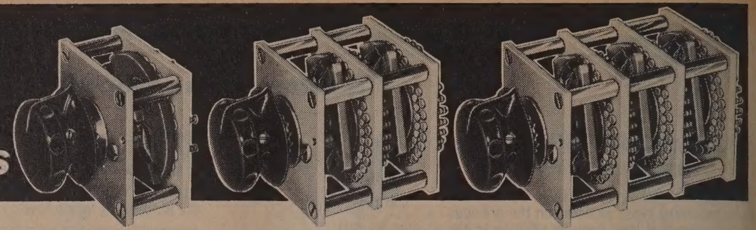
Circuit Arrangement A—B—C Keyway on "C" side of switch. Circuit is made on side opposite throw of lever.			Catalog Numbers			
			Single Pole		Double Pole	
			.440" Lever	.687" Lever	.440" Lever	.687" Lever
ON	OFF	ON	**8866-** K-1	**8868-** K-1	**8867-** K-1	**8869-** K-1
ON	OFF	ON*	K-3	K-3	K-3	K-3
ON*	OFF	ON*	K-2	K-2	K-2	K-2
ON	OFF	NONE	K-5	K-5	K-5	K-5
ON	NONE	ON	K-4	K-4	K-4	K-4
ON	NONE	OFF	K-7	K-7	K-7	K-7
NONE	ON	ON*	K-8	K-8	K-8	K-8
NONE	OFF	ON*	K-6	K-6	K-6	K-6

*Momentary contact. **When ordering,** specify (1) catalog number.

e switches listed on these pages represent only a small fraction of the total mber of small motor and appliance switches manufactured by C-H. Contact ur local Sales Office or Distributor for more complete listings.

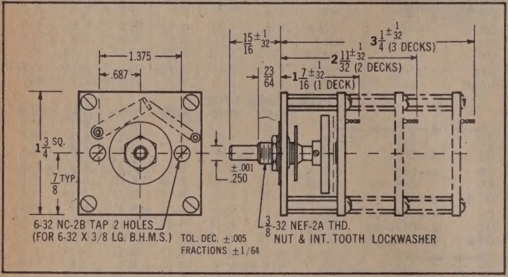
CUTLER-HAMMER, Inc.,
Milwaukee, Wis.

DAVEN Adjustable Stop Switches



*Now, these **87** adjustable stop switches replace **2,001** standard types—and all are available for **off-the-shelf** delivery from your local **DAVEN** distributor!*

For maximum flexibility in all types of standard switch applications, circuit experimentation, laboratory work, breadboard setups and in circuitry where the exact number of switch positions might be changed at a later date, Daven has designed 87 adjustable stop switches which meet the same electrical, mechanical and environmental requirements that apply to all Daven standard rotary type switches. As a result, the equivalent of 2001 standard Daven rotary type switches are stocked by local Daven distributors and available for immediate off-the-shelf delivery. In addition, the cost of the equivalent adjustable stop switch is equal to, or less than, its standard counterpart.


1.375
.687
1 3/4 SQ.
7/8 TYP.
15/16 ±1/32
23/64
1 7/16 ±1/32 (1 DECK)
2 11/32 ±1/32 (2 DECKS)
3 1/4 ±1/32 (3 DECKS)
±.001 .250
6-32 NC-2B TAP 2 HOLES (FOR 6-32 X 3/8 LG. B.H.M.S.)
TOL. DEC. ±.005 FRACTIONS ±1/64
3/8-32 NEF-2A THD. NUT & INT. TOOTH LOCKWASHER

1¾″ square

Shorting 15° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
111-CM-24A	211-CM-24A	311-CM-24A	1 Pole	24 Pos.
121-CM-11A	221-CM-11A	321-CM-11A	2 Poles	11 Pos.
131-CM-7A	231-CM-7A	331-CM-7A	3 Poles	7 Pos.
141-CM-5A	241-CM-5A	341-CM-5A	4 Poles	5 Pos.

Non-Shorting 30° Between Positions

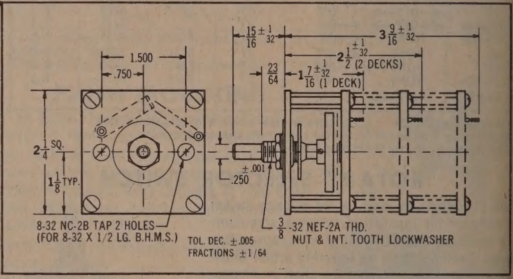
1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
111-CB-12A	211-CB-12A	311-CB-12A	1 Pole	12 Pos.
121-CB-6A	221-CB-6A	321-CB-6A	2 Poles	6 Pos.
131-CB-4A	231-CB-4A	331-CB-4A	3 Poles	4 Pos.
141-CB-3A	241-CB-3A	341-CB-3A	4 Poles	3 Pos.

Shorting 11¼° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
112-CM-32A	212-CM-32A	312-CM-32A	1 Pole	32 Pos.
122-CM-15A	222-CM-15A	322-CM-15A	2 Poles	15 Pos.
132-CM-10A	232-CM-10A	332-CM-10A	3 Poles	10 Pos.
142-CM-7A	242-CM-7A	342-CM-7A	4 Poles	7 Pos.

Non-Shorting 22½° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
112-CB-16A	212-CB-16A	312-CB-16A	1 Pole	16 Pos.
122-CB-8A	222-CB-8A	322-CB-8A	2 Poles	8 Pos.
132-CB-5A	232-CB-5A	332-CB-5A	3 Poles	5 Pos.
142-CB-4A	242-CB-4A	342-CB-4A	4 Poles	4 Pos.


1.500
.750
2 1/4 SQ.
1 1/8 TYP.
15/16 ±1/32
23/64
1 7/16 ±1/32 (1 DECK)
2 1/2 ±1/32 (2 DECKS)
3 9/16 ±1/32
±.001 .250
8-32 NC-2B TAP 2 HOLES (FOR 8-32 X 1/2 LG. B.H.M.S.)
TOL. DEC. ±.005 FRACTIONS ±1/64
3/8-32 NEF-2A THD. NUT & INT. TOOTH LOCKWASHER

2¼″ square

Shorting 15° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
121-DM-24A	221-DM-24A	321-DM-24A	2 Poles	24 Pos.
131-DM-11A	231-DM-11A	331-DM-11A	3 Poles	11 Pos.
141-DM-11A	241-DM-11A	341-DM-11A	4 Poles	11 Pos.

Non-Shorting 15° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
113-DB-24A	213-DB-24A	313-DB-24A	1 Pole	24 Pos.

Non-Shorting 30° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
121-DB-12A	221-DB-12A	321-DB-12A	2 Poles	12 Pos.
131-DB-6A	231-DB-6A	331-DB-6A	3 Poles	6 Pos.
141-DB-6A	241-DB-6A	341-DB-6A	4 Poles	6 Pos.

Shorting 11¼° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
122-DM-32A	222-DM-32A	322-DM-32A	2 Poles	32 Pos.
132-DM-15A	232-DM-15A	332-DM-15A	3 Poles	15 Pos.
142-DM-15A	242-DM-15A	342-DM-15A	4 Poles	15 Pos.

Non-Shorting 22½° Between Positions

1 Deck	2 Decks	3 Decks	Poles/ Deck	Max Pos/ Pole
122-DB-16A	222-DB-16A	322-DB-16A	2 Poles	16 Pos.
132-DB-8A	232-DB-8A	332-DB-8A	3 Poles	8 Pos.
142-DB-8A	242-DB-8A	342-DB-8A	4 Poles	8 Pos.

DAVEN
Division of General Mills, Inc.

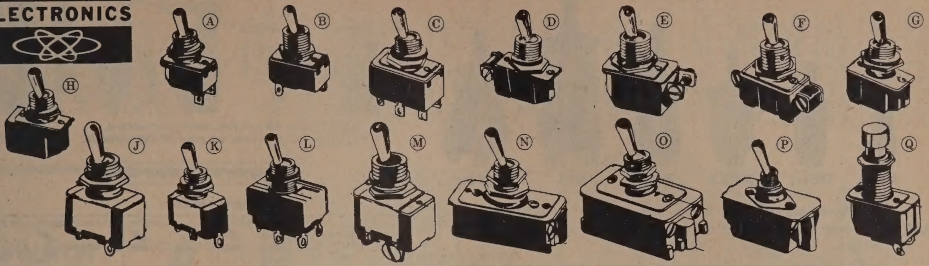
General Mills

LIVINGSTON,
NEW JERSEY

© U.C.P., Inc

ELECTROCRAFT COMPONENTS SWITCHES · CABLE CLAMPS

GC ELECTRONICS



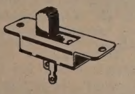
These switches, made by Cutler Hammer Inc., for GC-Electrocraft, are all single hole mounting, UL Approved and supplied with threaded shank ¹⁵⁄₃₂″ long. Shanks are milled with keway to prevent any possible turning when used with a keyed hole in the panel.

(A) LIGHT DUTY, SMALL SIZE TOGGLE SWITCH—rating 3 amps, 250/V.
Cat. No. 34-180 SPST Net **$ .72**
Cat. No. 34-182 DPST Net **1.28**
Cat. No. 34-184 DPDT Net **1.47**

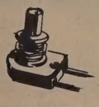
(B) "THREE WAY" AND "TWO CIRCUIT" SWITCH—Three way switch handles 2 circuits with common line; 3 terminals, with one terminal "common". Two circuit model 4 terminals, with no connections between circuits.
Cat. No. 34-186 SPDT (3-way) Net **$ .90**
Cat. No. 34-188 DPST (2-circuit) Net **$1.10**

MISCELLANEOUS SMALL SWITCHES

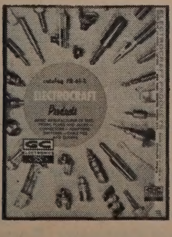
The switches listed below are widely used on electronic equipment, automotive applications and small electrical appliances.



SLIDE SWITCHES—UL approved for 1, ½ amp, 125/V. Mount with 2 screws #6 or rivets ⅛″ with 1⅛″ spacing.
1 amp.
Cat. No. 34-160 SPDT Net **$ .17**
½ amp.
Cat. No. 34-162 DPDT Net **$ .20**



ROTARY CANOPY SWITCH—With wire leads and ¹³⁄₃₂″ shank length. Rating 3 amps, 125/V, 1 amp, 250/V. Mounts in ⅜″ hole.
Cat. No. 34-166 Net **$ .30**



CUTLER HAMMER SWITCHES

(C) MEDIUM DUTY TOGGLE SWITCH—solder lug connections; 3 amp, 250/V; 6 amp, 125/V, AC-DC.
Cat. No. 34-190 DPST Net **$1.42**
Cat. No. 34-192 DPDT Net **$1.58**

(D) LIGHT DUTY TOGGLE SWITCH—screw terminals, rating 3 amp, 250/V AC-DC.
Cat. No. 34-194 SPST Net **$ .87**
Cat. No. 34-196 DPST (2 pos. no "off") Net **$1.68**
Cat. No. 34-198 DPDT (2 pos. w/ off) Net **$2.03**

(E) MEDIUM DUTY TOGGGLE SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.
Cat. No. 34-200 SPST Net **$ .98**
Cat. No. 34-202 DPDT (2 pos. w/ "off") Net **$1.92**

(F) LIGHT DUTY, 3-WAY SWITCH—rating 1 amp, 250/V; 3 amps, 125/V.
Cat. No. 34-204 SPDT Net **$1.13**

(G) LIGHT DUTY, WIRE LEAD SWITCH—rating 3 amps, 250/V, AC-DC.
Cat. No. 34-206 SPST **87**

(H) MEDIUM DUTY WIRE LEAD SWITCH—rating 6 amp, 125/V; 3 amp, 250/V.
Cat. No. 34-208 SPST Net **$ .98**

(J) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V, 15 amp, 125/V and ¾ HP.
Cat. No. 34-210 SPST Net **$ .72**
Cat. No. 34-212 DPST (2 pos. on-off) Net **$1.12**

(K) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V and 1 HP.
Cat. No. 34-214 SPDT (2 pos. no "off") Net **$ .83**
Cat. No. 34-216 3 PST (2 pos. on-off) Net **$2.22**
Cat. No. 34-218 3 PDT (no "off" pos.) Net **$2.73**

(L) MEDIUM-STD DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.
Cat. No. 34-220 DPDT lug (2 pos. w/ "off") Net **$1.28**
Cat. No. 34-222 DPST screw (2 pos. on-off) Net **$1.28**
Cat. No. 34-224 DPDT screw (2 pos. w/ "off") Net **$1.58**
Cat. No. 34-226 DPDT lug (3 pos. center off) Net **$1.28**

(M) MEDIUM-HEAVY DUTY TOGGLE SWITCH—Designed for applications where rugged bat handle switch is required.
Cat. No. 34-228 SPST screw (on-~~off)~~ Net **$ .83**
Cat. No. 34-230 SPDT screw (no "off pos.) Net **$ .98**
Cat. No. 34-232 3 PST screw (2 pos. on-off) Net **$2.58**
Cat. No. 34-234 3 PDT screw (2 pos. w/ "off") Net **$3.27**
Cat. No. 34-236 SPDT (3 pos. center off) Net **$ .83**
Cat. No. 34-238 3 PDT (3 pos. center off) Net **$2.73**
Cat. No. 34-240 3 PDT (3 pos. center. off) Net **$3.27**

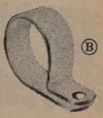
(N) MEDIUM-HEAVY DUTY TOGGLE SWITCH—rating 6 amp, 250/V; 12 amp, 125/V, 1 HP.
Cat. No. 34-242 SPST Net **$1.35**
Cat. No. 34-244 DPST Net **$1.35**

(O) HEAVY DUTY TOGGLE SWITCH—rating 10 amp, 250/V; 15 amp, 125/V, 1½ HP.
Cat. No. 34-246 SPST Net **$2.33**
Cat. No. 34-248 DPST Net **$2.33**

(P) EXTRA-HEAVY DUTY TOGGLE SWITCH—rating 20 amps, 250/V, 1½ HP, 125/250 V.
Cat. No. 34-250 DPST Net **$3.27**

(Q) PUSH BUTTON, ON-PUSH-OFF SWITCHES—rating 3 amp, 250/V; 6 amp, 125/V; ¹¹⁄₁₆″ shank length, single pole, single throw type.
Cat. No. 34-252 SPST with lug terminal Net **$ .98**
Cat. No. 34-254 SPST with screw terminal Net **$1.12**
Cat. No. 34-256 SPST with wire leads Net **$1.12**

PLASTIC CABLE CLAMPS



Electrocraft Cable Clamps are excellent for fastening cables, harnesses, tubing, etc. The Ethyl Cellulose clamps are designed for normal industrial and commercial application. They are tough, have good electrical properties and may be used where temperatures do not exceed 185°F. They have a low temperature limit of —40°F. The Nylon (Zytel) clamps are specifically designed for application where extreme durability and high resistance to temperature (—60 to 300°F) is required. They are also resistant to most chemicals.

(A) ETHYL CELLULOSE CABLE CLAMPS—made of transparent (light yellowish cast) plastic.

Cat. No. 34-300C	⅛″ O.D.	Net **$2.33**
Cat. No. 34-304C	³⁄₁₆″ O.D.	Net **$2.40**
Cat. No. 34-308C	¼″ O.D.	Net **$2.58**
Cat. No. 34-312C	⁵⁄₁₆″ O.D.	Net **$2.85**
Cat. No. 34-316C	⅜″ O.D.	Net **$3.00**
Cat. No. 34-320C	⁷⁄₁₆″ O.D.	Net **$3.30**
Cat. No. 34-324C	½″ O.D.	Net **$3.60**
Cat. No. 34-328C	⁹⁄₁₆″ O.D.	Net **$4.20**

ETHYL CELLULOSE CABLE CLAMP:

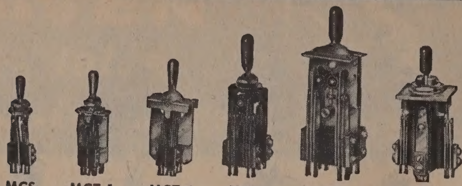
Cat. No. 34-332C	¹⁹⁄₃₂″ O.D.	Net **$4.50**
Cat. No. 34-336C	⅝″ O.D.	Net **$4.80**
Cat. No. 34-340C	¹¹⁄₁₆″ O.D.	Net **$5.10**
Cat. No. 34-344C	¾″ O.D.	Net **$5.40**
Cat. No. 34-348C	⅞″ O.D.	Net **$5.70**
Cat. No. 34-352C	1″ O.D.	Net **$6.00**
Cat. No. 34-356C	1⅛″ O.D.	Net **$6.30**

(B) NYLON (ZYTEL) CABLE CLAMPS—Made of natural color (translucent white) Nylon.

Cat. No. 34-370C	⅛″ O.D.	Net **$ 3.60**
Cat. No. 34-374C	³⁄₁₆″ O.D.	Net **$ 3.93**
Cat. No. 34-378C	¼″ O.D.	Net **$ 4.17**
Cat. No. 34-382C	⁵⁄₁₆″ O.D.	Net **$ 4.68**
Cat. No. 34-386C	⅜″ O.D.	Net **$ 4.83**
Cat. No. 34-390C	⁷⁄₁₆″ O.D.	Net **$ 5.13**
Cat. No. 34-394C	½″ O.D.	Net **$ 5.47**
Cat. No. 34-398C	⁹⁄₁₆″ O.D.	Net **$ 6.72**
Cat. No. 34-402C	⅝″ O.D.	Net **$ 7.50**
Cat. No. 34-406C	¹¹⁄₁₆″ O.D.	Net **$ 7.80**
Cat. No. 34-410C	¾″ O.D.	Net **$ 8.40**
Cat. No. 34-414C	⅞″ O.D.	Net **$ 9.00**
Cat. No. 34-418C	1″ O.D.	Net **$10.50**

SEND FOR FREE 400-PAGE CATALOG ON ALL GC ELECTRONICS PRODUCTS TODAY!

A complete line of LEVER SWITCHES by GENERAL CONTROL COMPANY



RATINGS

Type	*Amps.**	*High*	*Wide*	*Long***
MCS	1 or 3	⅞"	⅞"	2-1/16"
MCT-1	1 or 3	1¼"	¾"	2-5/16"
MCT-4	1 or 3	1½"	¾"	2-17/32"
MCM	5	1¼"	1¼"	2-25/32"
MCL	10	1¾"	1⅜"	3-15/16"
MFM	5	1¾"	1¾"	3"

**125 volts, 60 cycles, non-inductive.*
***From back panel to end of terminals.*

Write for data Sheet CLRM

MCS Light-weight, miniature switch. Two contact sections. Single-hole mounting. Especially suited for Instruments and communications systems.

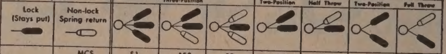
MCT Small switch for multiple-circuit control. Four contact sections. Frames available for either single-hole or four-hole screw type mounting.

MCM Widely used switch with multiple-position, ball-bearing detents. Four contact sections. Contact assemblies easily removed for wiring. Single-hole mounting.

MCL Heavy-duty switch for constant use in electrical control. Rugged cam. Four contact sections; easily removed contact assembly. Four-hole mounting.

MFM Versatile five-position switch with four contact sections—one neutral and four switch positions. Single-hole mounting.

LEVER OPERATION

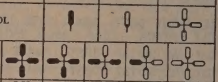


Symbol		Three-Position			Two-Position Half Throw		Two-Position Full Throw	
Lock (Stays put)	Non-lock Spring return							
Designation	MCS	S1	*S2	S3	*S4	*S5		
	MCT	T1	*T2	T3	*T4	*T5		
	MCM	M1	*M2	M3	*M4	*M5	M6	*M7
	MCL	L1	*L2	L3	*L4	*L5		

*Lock and non-lock positions may be reversed. To reverse designate as RS2, RM4, RL5, etc.

SPECIAL MCM LEVER
(A) waterproof lever $4.05 EACH, LIST

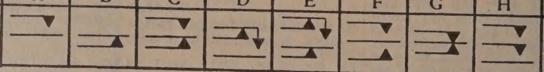
MFM



DESCRIPTION	LOCK	NON-LOCK	FOUR-POSITION		
SYMBOL					
OPERATION					
OPERATION No.	M8	M9	M10	M11	M12

CONTACTS

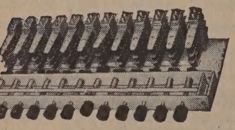
To obtain list price:— add contact prices to frame price.



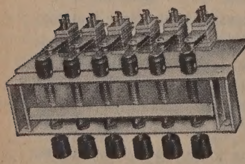
FRAME TYPES AND PRICES	Contact Forms		A	B	C	D	E	F	G	H	O
	CIRCUIT										No Contacts
MCS $ 1.65	MCS	1 amp.	0.50	0.50	0.60	—	—	0.60	—	0.60	—
	MCS	3 amp.	.60	.60	.72	—	—	.72	—	.72	—
MCT-4 $ 1.95	MCT-4	1 amp.	.50	.50	.60	0.75	0.85	.60	—	.60	—
	MCT-4	3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCT-1 $ 2.45	MCT-1	1 amp.	.50	.50	.60	.75	.85	.60	—	.60	—
	MCT-1	3 amp.	.60	.60	.72	.90	1.02	.72	—	.72	—
MCM $ 3.65	MCM	5 amp.	.75	.75	.90	1.15	1.45	.90	0.90	.90	—
MFM $16.80	MFM	5 amp.	.75	.75	.90	1.15	1.45	.90	.90	.90	—
MCL $ 4.90	MCL	10 amp.	1.15	1.15	1.30	1.60	2.45	1.30	1.30	1.30	—

PUSH-BUTTON SWITCHES by GENERAL CONTROL COMPANY

A complete heavy duty push button switch with either 1 amp. or 5 amp. ratings at 110/60 a.c. is available from two to sixteen positions. A right-angle MPB is also available where back-of-panel depth is limited, incorporating all of the operating features of the standard MPB. Three amp. switches are also available. It is possible to obtain the standard MPB switch stacked and/or intercoupled, providing all of the features of a single switch. Other variations of the standard MPB switch are also obtainable. Contact the factory with your requirements.



STANDARD MPB SWITCH



RIGHT-ANGLE MPB SWITCH

STANDARD and RIGHT-ANGLE FRAME PRICES

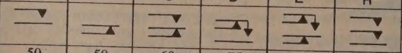
① FRAME TYPES		MPB-2	MPB-3	MPB-4	MPB-5	MPB-6	MPB-7	MPB-8	MPB-9	MPB-10	MPB-11	MPB-12
CONTACT POSITIONS		2	3	4	5	6	7	8	9	10	11	12
*Accumulative Lock	B-13	See note	8.15	10.55	12.95	15.30	17.70	20.05	22.45	24.85	27.20	30.30
No Two Interlock	B-14	6.70	7.25	9.05	10.80	12.60	14.35	16.10	17.90	19.65	21.45	23.90
Lock Release	B-15	6.10	6.35	7.80	9.25	10.75	12.20	13.65	15.15	16.60	18.05	20.25
Non-Lock	B-16	6.10	6.35	7.80	9.25	10.75	12.20	13.65	15.15	16.60	18.05	20.25

*Reset button requires one position in addition to standard contact positions. Reset button is on right-hand side unless otherwise specified.

*Reset button normally actuates no contacts but **can** be used to actuate **momentary** contacts if required.

*For applications over 12 positions, contact the factory.

CONTACTS



CONTACT FORMS		A	B	C	D	E	H	O
② Circuit								No Contacts
Price	1 amp.	.50	.50	.60	.75	.85	.60	—
	3 amp.	.60	.60	.72	.90	1.02	.72	—
	5 amp.	.75	.75	.90	1.15	1.45	.90	—

*Ratings at 125 volts A-C, N.I.

PUSH BUTTON OPERATION

③ OPERATION	ACCUMULATIVE LOCK	NO TWO INTERLOCK	LOCK RELEASE	NON-LOCK
Description	Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
Designation	B-13	B-14	B-15	B-16

Write for data sheet PBRM

ORDERING INFORMATION

When ordering, specify:
① Frame Type Standard MPB-6 Price: $10.75
② Push Button Operation B-15 —
③ Contacts C1, C2, C3, etc A-A-A-B-B-C +.75+.75+.75+.75+.75+.90
④ Contact Rating 5-amperes —
⑤ Panel Thickness ⅛" panel —
= $15.40

NOTICE: All prices and specifications subject to change without prior notice. **General Control Company, Boston, Mass.**

Trade Discount Applies To List Prices Only

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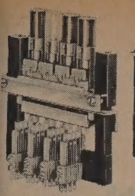
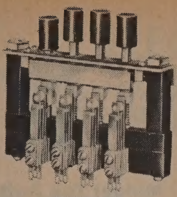


LIGHTED



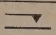
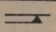
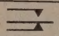
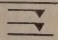
STANDARD

NEW Standard and Lighted Push Button Switches

FRAME PRICES

BUTTONS		2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
B13	SPS	9.35	10.00	12.80	15.80	18.50	21.40	24.10	27.10	29.75	32.70	36.30	40.15	43.75	47.60	51.20
	LPS	16.80	21.65	27.15	31.55	39.35	45.95	52.75	59.60	66.20	73.05	75.90	87.65	95.50	103.55	111.35
B14	SPS	8.40	9.10	11.30	13.55	15.75	17.95	20.15	22.40	24.60	26.80	29.90	33.00	36.10	39.25	42.35
	LPS	15.85	20.75	25.65	30.50	36.60	42.70	48.80	54.90	61.00	67.10	73.20	80.55	87.85	95.20	102.50
B15	SPS	7.65	7.95	9.75	11.60	13.40	15.25	17.10	18.90	20.75	22.60	25.30	28.05	30.80	33.55	36.30
	LPS	14.65	19.55	24.40	29.30	35.40	41.50	47.60	53.70	59.80	65.90	72.00	79.30	86.65	93.95	101.30
B16	SPS	7.00	7.32	9.15	11.00	12.80	14.65	16.45	18.30	20.15	21.95	24.70	27.45	30.20	32.95	35.70
	LPS	14.05	18.90	23.80	28.70	34.80	40.25	46.35	52.45	57.95	64.05	70.15	77.50	84.80	92.15	99.45

CONTACTS

CONTACT FORMS	A	B	C	H
1 amp silver	.60	.60	.80	.80
3 amps paladium alloy	.75	.75	.90	.90
↑ Direction of Throw				

Ratings at 125 volts A.C. n.i.

OPERATION

Operation	Accumulative Lock	No Two Interlock	Lock Release	Non-Lock
Description	Buttons pushed in remain locked in position until released by pushing reset button.	Only one button can be pushed in at one time, and releases any other button.	Any button pushed in releases any previously pushed in button.	Has no locking action; returns to normal position on release of finger pressure.
Designation	B-13	B-14	B-15	B-16

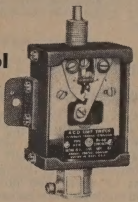
WRITE FOR DATA SHEET SLRM

ORDERING INFORMATION

1. Frame Type	2. Operation	3. Contacts	4. Rating	5. Panel Thickness	
SPS4	B14	A-C-2A-2C	3 amps	⅛″	
$11.30	—	.75+.90+1.50+1.80	—	—	= $16.25

A.C.O. LIMIT SWITCH

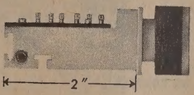
A General Control FIRST



- Alternate Contact Operating Switch
- Industrial on-off switch
- Machine tool dependability

Patent No. 2,610,274

- Single ⅝″ hole, or bracket mounting
- Overtravel
- Contacts—Gcco du. op switch
- Dimensions: Width: 3½″ with mounting brackets
- 2⅝″ with ⅝″ hole
- Length: 4²⁷⁄₃₂″
- Depth: 1½″



UNDER DEVELOPMENT

Advanced Push Button Switch • Printed Circuit • Modular and tandem design • Same features as LPS/SPS • Unusual flexibility • Illuminated and standard • 4 C contacts are standard • Rated at 10 amps., 110 volts a.c.

"Footrol" FOOT SWITCHES by GENERAL CONTROL COMPANY

FOOTROL®
GENERAL CONTROL

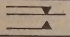
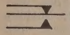
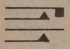
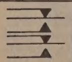
YPE MA A new light eight foot switch with an ctuating treadle built into s top to permit operation ith unusually light foot essure. A completely enclosed limit switch rms the internal switch action. Especially commended for fast operation where miniim fatigue is important. Access to the inrnal limit switch terminals is greatly facilied by simply removing the front end of the sting.

Since 1934, General Control Company has been a foremost manufacturer of Foot Switches. These are products of the highest quality; built for rugged industrial and commercial applications such as: bowling alleys, packaging machinery, super-market conveyor belts, drill presses, indexing machines, etc.

Write for data sheet FSRM

YPE MI An ideal eadle-type foot itch, especially conient for many apications. Inclined, n-slip tread has an justable throw and cludes a heel rest. vo operating pressures; 5 lbs. and 10 lbs. ounting ears are provided on each side. A connector is mounted in the base, and minal access is by a removable base plate.

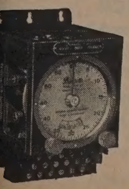
YPE MC Especially apted for unusual applicans and hard use. Easily erated for foot, knee, nd, or elbow. Non-slipad top may be operated any point of its surface.

TYPES			CONTACT TYPES	CONTACT OPERATION	RATING	WEIGHT (LBS)		
MA-3 $5.60	MC-13 $7.95	MI-23 $11.95		Double throw Spring return (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	20 amps	1½	2½	4½
— —	— —	MI-25 $13.75		First press transfers switch contacts Second press restores switch contacts (ONE NORMALLY OPEN, ONE NORMALLY CLOSED)	12 amps	4½		
— —	— —	MI-26 $16.65		1st half-throw closes 1st switch 2nd half-throw closes 2nd switch Spring Return	20 amps	4½		
— —	— —	MI-27 $13.90		Double pole Double throw Spring return (TWO NORMALLY OPEN, TWO NORMALLY CLOSED)	20 amps	4½		

*Available with heavy duty 20 amps rating at 250 V

Standard Foot Switches are available with mounting holes to accommodate special connectors used on shielded cable.

"Promatic" CONTROLS by GENERAL CONTROL COMPANY



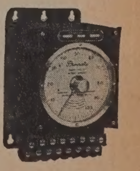
SYNCHRONOUS-MOTOR TIMERS

The Series II, Type SY, Synchronous-motor Timers has time ranges from 1 second up to 24 hours, available to match the Type ET Timer. Redesigned to incorporate the latest production and quality improvements. A new patented O-Ring clutch eliminates gears and costly maintenance problems. Time period easily adjusted and continuously indicated on large dial. Prices from $55.00 each, list.

ELECTRONIC TIMERS

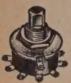
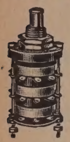
Type ET, Electronic Timers with ranges from .060 seconds to 60 seconds, are available in a variety of frame types, terminal arrangements, and mountings. The enclosed type or chassis model have back plates punched with universal mounting holes. Double pole, double throw auxiliary load contacts are rated at 10 amps., 125 volts a-c, n.i. Prices from $35.00 each, list.

Write for data sheets SERM



Grayhill INC.
LA GRANGE, ILLINOIS

MINIATURE ROTARY TAP SWITCHES

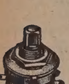
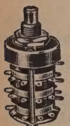



SERIES 5000

Miniature Tap Switches

Series 5000 serves wide range of applications from automotive, to missile and navigation equipment. 36° indexing. 1 to 10 decks, 2 to 10 positions per deck. Conservatively rated to break 1 ampere, at 115 VAC, resistive, or carry 5 amperes. Life expectancy 100,000 operations.

Also available — Series 12 same as above except terminal soldered to contact rivet for improved contact resistance in corrosive atmospheres.

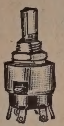



SERIES 24 and 24800

For Precision Requirements

Series 24 designed for high reliability military and commercial applications. Positive detent action. 36° indexing. One pole per deck with shorting or non-shorting contacts — 1 to 10 decks, 2 to 9 positions with built-in stop, or 10 positions continuous rotation unless otherwise specified. Two poles per deck (non-shorting contacts only) also available. Rating: break 1 ampere, 115 VAC, resistive, or carry 5 amperes.

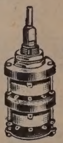
Series 24800, similar to Series 24, designed and tested to MIL-S-3786A (SR04E36B3HP) and MS16109B.



SERIES 45

Midget Tap Switch

For high reliability military and commercial applications demanding small size. Single deck, single pole only. 2 to 6 positions with stops standard on 2 to 5 positions. 6 positions continuous rotation unless otherwise specified. 60° indexing. Shorting and non-shorting base is molded melamine thermosetting plastic per MIL-M-14, Type CFG. Terminals are solder type brass, lead tin plate and fused. Conservatively rated to break 1 ampere at 115 VAC resistive circuit and to carry 5 amperes. Supplied with mounting nut.

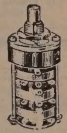


SERIES 36 and 6

Miniature Concentric Shaft Switch

Series 36 fully enclosed tap switch with precision detent, permitting new flexibility, and allowing 2 switches to be mounted in space normally occupied by one. Each shaft controls one or two decks, with two to ten shorting, or non-shorting, positions per deck. Can be furnished in over 6500 combinations of decks and positions. Only 1" in diameter including solder lugs. Two poles per deck also available.

Series 6 similar to Series 36 except commercial detent and one pole per deck only.

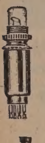


Spring Return Rotary Switch

Same as Series #24 except momentary contact, spring return to either side of center position. Available 1 to 3 decks (incl.), one pole per deck, shorting or non-shorting contacts. Also available with up to 4 detent positions plus spring return position to either right or left of detent position.

PRICES ON REQUEST

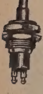
PUSH BUTTON SWITCHES



LIGHTED PUSH BUTTON SWITCH

Equipped with a NE2 neon bulb, with light circuit independent of switch circuit. Switch rated at 1 amp. 115 VAC with approximate life of 500,000 operations. Normally open. Momentary contact. 3/8-32 threaded bushing, 7/16" max. dia., 1 1/4" behind panel length. Fine silver contacts. Solder type terminals.

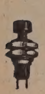
No. 40-1—Normally open	**$2.00 ea.**



MINIATURE PUSH-PULL SWITCH

No. 30-16. Push-on, pull-off action, SPST. Normally Open. Rating: 1 ampere, 115 VAC resistive. Life expectancy 100,000 operations. 15/32-32 threaded bushing, 1/2" O.D. 1 1/2" overall length including terminals.

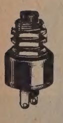
No. 30-16 (Red Button)	**$1.15 ea.**



MINIATURE PUSH BUTTON SWITCH

No. 30-17. Positive-feel, momentary contact, SPST. Normally Open only. Rating: 1 ampere, 115 VAC, resistive. Life expectancy approximately 200,000 operations. Incorporates .040" overtravel. Mounting hole 1/2" dia., 15/32-32 threaded bushing, 1.289" overall length including solder type terminals, snap-on red or black button cap, .375" dia.

No. 30-17R — Normally open (Red Button Cap)	**$1.40 ea.**
No. 30-17B — Normally open (Black Button Cap)	**$1.40 ea.**

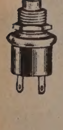


SNAP ACTION SWITCH

Series 2201 and 2202 snap action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 10 amperes, 115 VAC, resistive. Life approximately 50,000 operations. 15/32-32 threaded bushing, 7/8" O.D., 1 59/64" overall length including solder type terminals.

No. 7-21 and 7-22 same as above, except equipped with Faston terminals for solderless wiring.

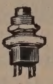
No. 2201 — Normally open (Red Button)	**$1.95 ea.**
No. 2202 — Normally closed (Black Button)	**$1.95 ea.**
No. 7-21 — Normally open (Red Button)	**$2.20 ea.**
No. 7-22 — Normally closed (Black Button)	**$2.20 ea.**



SILENT ACTION SWITCH

Silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rating: 1/2 ampere, 115 VAC, resistive, for approximately 800,000 operations, or 1 ampere for approximately 100,000 operations. 15/32-32 threaded bushing, 51/64" O.D., 1 17/32" overall length including solder type terminals.

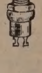
No. 4001—Normally open (Red Button)	**$0.70 ea.**
No. 4002—Normally closed (Black Button)	**$0.70 ea.**



DOUBLE POLE SWITCH

Silent action, Normally Open, momentary contact, DPST, push button switch. Rating: 1/2 ampere, 115 VAC, resistive. Life over 100,000 operations. Button and housing molded phenolic. 51/64" O.D., 1 17/64" overall length including solder terminals.

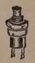
No. 35-1 (Red Button)	**$1.20 ea.**



MINIATURE PUSH BUTTON SWITCH

Silent action, momentary contact, Normally Open, SPST, switch rated at 1/4 ampere, 115 VAC, resistive. Life approximately 1/2 million operations. Button and housing molded phenolic. 5/16-32 threaded bushing, 1/2" O.D., 1 3/64" overall length including solder terminals.

No. 23-1 (Red Button)	**$0.85 ea.**

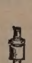


SUB-MINIATURE SWITCH

Series 30-1 silent action, momentary contact, SPST, push button switch. Normally Open or Normally Closed available. Rated at 1 ampere, 115 VAC, resistive. Life approximately 1,000,000 operations. Button and housing molded phenolic. 1/4-32 threaded bushing, 3/8" O.D., 63/64" overall length including solder terminals.

No. 30-15 same as above, except incorporates .056" overtravel with overall length of 1 1/16".

No. 30-1 — Normally open (Red Button)	**$0.95 ea.**
No. 30-2 — Normally closed (Black Button)	**$0.95 ea.**
No. 30-15 — Normally open (Red Button)	**$0.95 ea.**



ULTRA-MINIATURE SWITCH

Series 39-1 silent action, momentary contact, Normally Open, SPST, push button switch. Rated at 1/2 ampere, 115 VAC, resistive. Life over 1 million operations. Button and base molded phenolic. 1/4" O.D., 19/32" overall length including solder terminals.

No. 39-12 same as above, except with .040" overtravel and overall length of 3/4".

No. 39-1 (Red Button)	**$1.00 ea**
No. 39-12 (Red Button)	**$1.15 ea**

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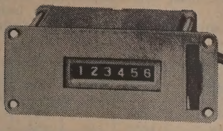
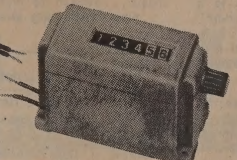
ELECTRIC COUNTERS & ACTUATORS

AUTOMATION CONTROLS DIVISION

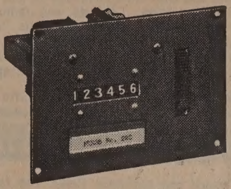
GENERAL CONTROLS CO. DES PLAINES, ILLINOIS



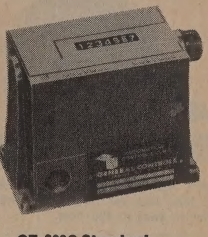
CE-600B Panelmount



CE-600A Basemount



CE-800B Panelmount



CE-800C Standard,
CE-800A Dustproof

PIC Electric Counters are actuated by electric impulses (12 to 150 AC or 12 to 220 DC) which may come from any suitable switch, relay, photoelectric unit or other circuit breaking device. Counters rated for 1000 counts per minute (cpm) require .030 second minimum closed period and .030 second minimum open period for each count. Counters rated at 600 cpm require .040 second minimum closed period and .060 second minimum open period for each count. Models are available for 12 to 230 v. AC and DC. Send for literature or write us for prices and deliveries.

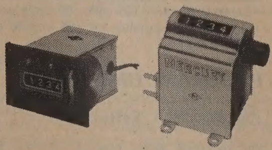
Also available in coin counting models.

CE-600 COUNTERS
TO 999,999, WITH RESET

Count life of 50 million; 1000 cpm (with suitable actuation); seven watts power consumption. Built-in rectification provides reliable operation on all AC voltages to 150 v. Quiet operation; no AC hum when energized. Continuous duty coils and balanced armature. White figures on black wheels are easy to read; die cast, dust resistant enclosure. No. CE600AS602, 1.668" w. x 3.5" d. x 2.5" h.; No. CE600BS602, 4.4375" x 1.875" panel x 2.6875" d.; No. CE600BK602, 5.5" x 2.125" panel x 2.812" d. Models listed are for 115 v. AC, 60 cps.

CE-600AS602 Basemount with knob reset. Net..... **$21.40**
CE-600BS602 Panelmount with knob reset. Net.... **22.90**
CE-600BK602 Panelmount with key reset. Net..... **33.00**

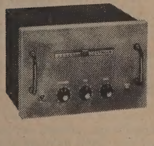
MERCURY COUNTERS
TO 9,999, WITH RESET

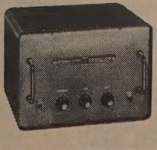


For laboratory use and industrial service where duty is moderate. Estimated life six million counts. Counting rate 600 cpm, higher with electronic actuation. Has white figures on black wheels. Coils consume three watts. Tamper-proof metal enclosure has plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 13/64" h.; panelmount model, 2 13/16" x 1 15/16" panel x 2 27/64" d. For 115 v. AC, 60 cps.

CE-40AS402—Basemount. Net.................. **$15.25**
CE-40BS402—Panelmount. Net **15.95**

CE-901 PRE-DETERMINING COUNTER





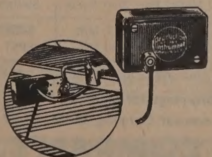
The CE901 Electromagnetic counter is a compact pre-determining counting device capable of maintaining an accurate count of 1000 counts per minute. This unit, designed for industrial applications employs the use of any remote actuator, switch, photoelectric cell, contactor or any other sensing device which operates within the actuator specifications.

Available in models of 2, 3, 4 or 5 digits as standard.

CE901AA302 3 digit desk mount
CE901BA302 3 digit rack mount
Consult Factory or your local PIC distributor for prices

Dimensions Overall:
2 & 3 digit 12" wide x 8" high x 8" deep
4 & 5 digit 19" wide x 8" high x 8" deep

SENSITIVE ACTUATOR ES-41



Widely used on folding machines. Requires only ¾ in.-oz. torque. Arm motion: 24° min., 59° max. reciprocal; 10° to 45° overthrow. Arm position adjustable, easily shortened or bent. Rated speed, 300 cpm. SPST contacts rated 2 amps; 120 v. AC. Body size, 2½" x 1⅝" x 1⅝" d. Furnished with straight spring steel arm 2 13/16" long.

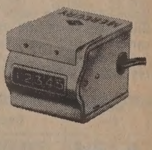
ES-41 — Actuator, Net. **$7.70**

CE-800 SUPER-WIZARD COUNTER
TO 999,999, WITH RESET

Has 200 million count life; 1000 cpm (with suitable actuation); only five watts power consumption. Built-in rectification provides top reliability from all AC voltages to 230 v. Continuous duty coils and balanced armatures for dependability. Large, white-on-black figures are easy to read. Standard enclosure has tamper-proof, die cast aluminum housing with staked window of unbreakable plastic; separate wiring compartment with independent cover is tapped for conduit. Dustproof enclosure has same housing with dustproof gasket seal and cement sealed window. Size: Standard and dustproof models, 3.12" w. x 5.94" l. x 4.69" h.; panelmount model, 5.19" x 3.50" panel x 4.39" d. Models listed are for 115 v. AC, 60 cps.

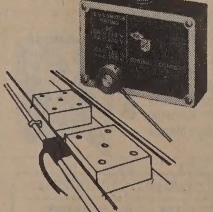
CE-800CS602 — Standard enclosure, knob reset. Net. **$43.00**
CE-800AS602 — Dustproof enclosure, knob reset. Net. **47.25**
CE-800BS602 — Panelmount, knob reset. Net. **41.50**

MERCURY COUNTERS
TO 99,999, NO RESET



Counts to 99,999 and then repeats. Widely used in vending machines and similar applications where duty is moderate. Estimated life, three million counts. Counting rate, 600 cpm. Coil consumes three watts. Has white figures on black wheels. Tamper-proof metal enclosure with plastic window. Size: Basemount model, 2¼" x 1 23/32" x 2 27/64" h.; panelmount model, 1 23/32" x 2 23/64" x 1 9/16" h. For 120 v. AC, 60 cps operation.

CE-40AN502 — Basemount. Net.................... **$5.15**
CE-40BN502 — Panelmount. Net.................. **6.40**



HEAVY DUTY ACTUATOR ES-5

Arm has spring return. For operation by boxes, cans, packages, etc. Minimum torque of 3 oz.-in. Arm motion: 31° min., 65° max., reciprocal; 10° to 42° overthrow. Arm position adjustable. Rated speed 300 cpm. SPST contacts rated 10 amps, 120 v. AC. Size: 3 9/16" x 2 9/16" x 1 17/32". Furnished with lever as shown in upper illustration.

ES-5 — Actuator. Net....**$9.35**

CE-620 ELECTRIC RESET ELECTRIC COUNTER

Developed to provide remote reset through manually, mechanically, electrically or electronically operated contacts. The CE620 includes a 6 digit CE600 electric counter with electrically operated reset mechanism mounted on a subpanel. Available with push button reset built into panel or with terminals provided for connecting remote contactor furnished by user. Also available in 7 digit and coin counting models.

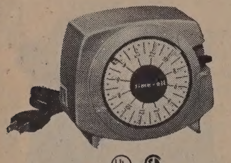
CE-620BA602 — Remote reset 120v 60 cy. Net........................... **$66.20**
CE-602BB602 — Pushbutton reset 120v 60 cy. Net.................. **71.20**

Dimensions, overall 6" wide, 4" high, by ⅛" deep.

Intermatic®

A COMPLETE LINE OF QUALITY TIME SWITCHES FOR ALL AUTOMATIC CONTROL REQUIREMENTS

PORTABLE PLUG-IN APPLIANCE TIMERS



TIME-ALL—for all-around use in the home, office or store. Converts any radio to a clock radio . . . provides automatic "on-off" operation of lamps, de-humidifiers, hi-fi, fans, tape recorders, etc. Has manual control with automatic reset. Plug-in receptacle.

TV SHOW CATCHER—Catch favorite radio and TV programs with combination electric clock and signal timer. Positive reminder—pleasant buzzer sound. Plugs in anywhere. Timing periods from 1 to 60 minutes.

TAPE RECORDER TIMER—Combination clock and appliance timer. The favorite of tape recorder owners who want to hear their favorite show, even though they're away at the time.

MUSIC MINDER—Clock-radio timer with sleep-switch. Go to sleep to music . . . awaken to music . . . all automatically. Ideal bedside clock . . . also controls any standard radio. Additional buzzer alarm.

Model No.	Description	Watts	Amps	Volts	List Price
A221-4	Standard Time-All	875	7	125	$10.95
A211-4	DeLuxe Time-All	1875	15	125	$11.95
A301-4	TV Show Catcher	....	....	125	$ 8.95*
A401-4	Tape Recorder Timer	1875	15	125	$11.95*
A501	Music Minder	1875	15	125	$11.95*

*Subject to Retail Federal Excise Tax

RADIO CLOCK TIMERS—UNMOUNTED

Model RC 5321-2

(Rear Set with Alarm)

An unmounted radio clock timer with front switch setting and rear time set. For installation in any model radio or other electrical unit. Radio can be turned "on" automatically, with or without alarm, turned "on" or "off" manually. Has 60 minute sleep switch. Complete with round bezel and crystal.

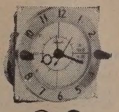
Model RC 5421-4

(Front Set with Alarm)

Same as RC 5321-2, except has front switch setting and front time set. Also complete with round bezel and crystal.

Model RC 6021-2

(Front Set without Alarm)

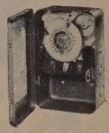


Unmounted radio clock timer with front switch setting, front time and "automatic" radio set. Radio can be turned "on" automatically, turned "on" or "off" manually. Complete with round bezel and crystal.

Model No.	Description	Watts	Amps	Volts	List Price
RC 5321-2	Rear Set w/Alarm	1875	15	125	$9.00
RC 5421-4	Front Set w/Alarm	1875	15	125	$9.70
RC 6021-2	Front Set wo/Alarm	1875	15	125	$8.00

STANDARD ON-OFF TIME SWITCHES

Century Series T100



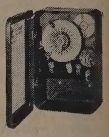
Tungsten-Rated to handle incandescent lighting loads. For ordinary automatic control requirements, with up to 12 on-off operations per day. Minimum on-off time, 1 hour; maximum 23 hours. Manual control with automatic reset.

Model No.	Switch	Amps	Voltage	List Price
T101	SPST	40	125	$11.95
T102	SPST	40	250	$12.95
T103	DPST	40	125	$13.95
T104	DPST	40	250	$14.95
T105	SPDT	40	125	$13.95
T106	SPDT	40	250	$14.95
T101B	SPST	40	125	$11.95
T102B	SPST	40	250	$12.95
P101*	SPST	10	125	$13.95

*Portable Plug-In: 125 volts, 60 cycle only.
Models also available for 125 volt 50 cycle, 125 volt 25 cycle or 250 volt 50 cycle.

Skipper SERIES TIME SWITCHES

T170—for 7-day Operation



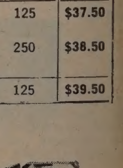
Tungsten-Rated to handle incandescent lighting loads. For use where it is desired to skip operation on selected days. SKIPPER has two dials—a 24 hour time dial and a day dial—day dial advances position one day every 24 hours.

Model No.	Switch	Amps	Voltage	List Price
T171	SPST	40	125	$17.95
T172	SPST	40	250	$18.95
T173	DPST	40	125	$19.95
T174	DPST	40	250	$20.95
T175	SPDT	40	125	$19.95
T176	SPDT	40	250	$20.95
T171B	SPST	40	125	$17.95
T172B	SPST	40	250	$18.95
P171*	SPST	10	125	$19.95

*Portable Plug-In: 125 volts, 60 cycle only.
Models also available for 125 volt-50 cycle, 125 volt-25 cycle or 250 volt-50 cycle.

PROGRAM TIME SWITCH

Supervisor Series T960



For recorded music process timings, fans, and heaters. Permits 1 to 96 on-off operations every 24 hrs. in 15 min. increments. 96 permanently attached trippers easily slide in and out for fast setting. Portable plug-in model available.

Model No.	Type	Amps per pole	Voltage 60 cycle	List Price
T965	Can be used 3 ways	20	125	$37.50
	1. SPST—Normally open			
T966	2. SPST—Normally closed	15	250	$38.50
	3. SPDT—Alternate open & close			
P961*	Single Pole, Single Throw	10	125	$39.50

*Portable Plug-In

REPEAT CYCLE TIMERS

C8301—for 12-Minute Repeat Cycle Timing

C8311—for 60-Minute Repeat Cycle Timing

Two "cycler" switches provide a wide range of fixed repeat cycle operations. The C8301 dial makes a complete revolution every 12 minutes with ON operations from 10 sec. to 11 min., 10 sec.; OFF operations from 50 sec. to 11 min., 50 sec. The C8311 dial makes a revolution every 60 minutes with ON operations from 1 to 55 min; OFF operations from 5 to 59 min.

Model No.	Dial Cycle	Switch	Amps	Volts*	List Price
C8301-S	12 Min.	SPST	15	125	$14.45
C8311-S	60 Min.	SPST	15	125	$14.45

*Not available for 250 volt operation.

for complete Time Switch information, request Catalog TS-89

for complete Radio Clock Timer information, request Catalog G-21, G-42 and G-45

INTERNATIONAL REGISTER COMPANY, CHICAGO, ILLINOIS

Jennings VACUUM SWITCHES

R5C

R1G

R6G

RH5G

RH7G

Types R and RH Vacuum Switches

VACUUM SWITCH RATINGS

For RF and DC Transfer Switching

Jennings Type	R5C	R1	R1K	R2	R8	RH7
Test Voltage (300 kc dry)—peak kv	25	50	40	60	85	100
Operating Voltage—peak kv	15	30	20	40	75	85
Continuous Current (rms amp)—dc①	50	50, 100	100, 200	50, 100	100, 200	50, 400
—300 kc	30	35	100	35	100	200
— 10 mc	25	25	50	25	50	60
— 30 mc		15	25	15	25	25
RF Interrupting Power—kilowatts	50	250	500	250	1000	1000

①DC continuous currents may be increased as shown by using special connectors.

For DC Switching Under Load or Capacitor Discharging

Jennings type	R4C	R5C	R1G	R6G③	R2G	R8G	R9G	RH1G	RH4G	RH2G	RH7G	RH5G
Test voltage (60 cycles dry)—pk kv	20	25	50	51	55	60	71	37	37	51	113	71
Max. operating voltage—pk kv	5	15	20	20	30	40	50	20	10	20	70	30
Continuous current①—DC amp	50 100	50	50 100	100 250	50 100	100 200	100 200	50 400	50 600	50 600	50 400	50 600
DC interruption②—power in kw	7.5	50	75	100	100	100	200	200	250	250	200	250
—Current in amp.	250@ 28 VDC	15	20	20	20	20	25	25	30	30	25	30
Capacitor discharge decayihg to 30% in 1 millisec. or less—												
initial amp. 10 micro sec pulse (amps)			500 1000	1000 2000	500 1000	1000 2000	1500 3000	5000 10,000	10,000 20,000	20,000 20,000	5000 10,000	20,000 20,000
peak kv			30	25	40	50	60	30	20	30	70	40

①DC continuous currents may be increased as shown by using special connectors.
②For DC interruption in continuous operation, neither power nor current rating should be exceeded.
DC current interruption capabilities will be increased beyond current shown by addition of transient suppression capacitance across switch contacts. They can be multiplied considerably by special application of capacitors after the contacts have parted.

For 60 Cycle Power Switching

Jennings type	R6G③	R8G	R9G	RH1G	RH4G	RH2G	RH5G	RH7G	RL7G	RL10G
Recommended max. load voltage for max. operating recovery voltage @ 50 amps-rms kv	27	31	35	13.5	5	13.5	31	38	35	40
Load break 70% PF to 600 amps (grounded wye) rms kv	15.5	18	24.5	8.5	3.2	8.5	18	33	29.5	37
Grounded Y capacitor switching at 50 amps-rms kv	13.5	15.5	17.5	6.75	2.5	6.75	15.5	19	17.5	20
Grounded Y capacitor switching at rated thermal current—rms kv	10.5	12.5	14.75	4.75	1.6	4.25	9	15	12	17
Thermal current (for 30° C. rise) rms amps	100, 250	200	250	400	600	600	600	400	600	600
Max. recovery voltage at rated thermal current load—rms kv	21	25.5	29.5	9.5	3.2	8.5	18	30.5	24.5	34
Overload or fault interrupter circuit breaker 3 phase simultaneous break line to line (present recommended duty) rms kv			15.5	5	5	8.5	12	21.5	15.5	34.5
Max. interrupting current (10 times) rms amps.	1500 @9kv	1500 @14kv	2000 @17.5kv	2000 @6kv	4000 @2.5kv	4000 @5kv	4000 @12kv	2000 @21.5kv	4000 @15.5kv	4000 @18kv
Withstand voltage (60 cycle 1 min. dry) rms kv	36	36	50	26	26	36	50	80	50	80
Impulse voltage (1½ x 40 micro sec. NEMA) pk kv	75	75	110	60	45	60	95	125	110	150
Short time surge currents NEMA—4 sec. rms amps.	2500	2000	2500	2500	5000	5000	5000	2500	5000	5000
NEMA—½ cy + 10 cy. @ 70% rms amps	5000	4000	5000	5000	10000	20000	20000	5000	20000	20000

③Type R9A and R6A modification is available with longer life bellows and lower continuous current ratings of 50, 100 amps.

Relays using Vacuum Switches

Type R and RH Vacuum Switches are available from Jennings mounted as relays for indoor use. They may be mounted with contacts normally open or normally closed or two switches may be mounted in a single pole double throw arrangement. Either ac or dc solenoids may be used. Insulation between the switch and its actuating solenoid is provided by a 2 to 12 inch puller rod providing 40 to 140 kv insulation. CE grade phenolic laminate is recommended for dc or 60 cycle use. Grade G7 silicone glass laminate is recommended for radio frequency applications.

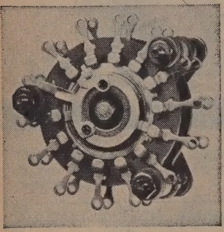
JENNINGS RADIO MANUFACTURING CORPORATION • SAN JOSE, CALIF.

LAMINATED SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

INSTRUMENT AND TESTER-TYPE ROTARY SWITCHES

14- and 20-Position — Single and Multi-Gang — Shorting and Non-Shorting

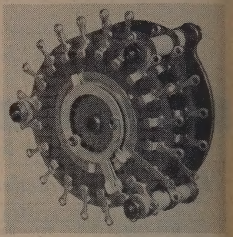


SS-14-2 Laminated

- **USES** — J-B-T Instrument-type Rotary Selector Switches are extensively used in quality test equipment, portable instruments, inspection setups, military or civilian avionics wherever trouble-free, dependable performance is of major importance. Available as a 14- or 20-position in laminated construction shown here or molded types described on opposite page—the design gives extra contacts in minimum space. One to six decks.

- **FEATURES**

Reliability — Rigid, 3-post deck suspension, instead of the usual 2; all current carrying parts are brass or phosphor bronze, silver flashed and then heavily plated with fine silver to meet 100 hour salt spray test; ball bearing action, beryllium-copper balanced spring (SS-14); leaf type (SS-20), and sharp detent assure positive indexing. Springs are replaceable without disturbing soldered connections. Laminated plastic decks and rotors are selected for maximum mechanical and dielectric strength. Insulation resistance above 50,000 megohms.



SS-20-2 Laminated

Low Contact Loss — Double-grip collector arms, and large-area contacts, silver to silver, result in an average contact resistance of .007 ohms or less during the useful life of the switch.

Ample Dielectric (Conservatively Rated) — Carries 1 amp., 125 volts VAC, inductive load; maximum momentary capacity (not make-and-break), 5 amp, AC or DC; maximum voltage between contacts 1500 volts AC, R.M.S.; between decks and ground, 2000 volts AC, R.M.S.

Military or Commercial Variations — The following are typical of switches supplied on special order at extra cost: (a) laminated plastic, Type PBE-P per Spec. MIL-P-3115B; (b) fungus-proofing by vacuum impregnation of rotors, decks, spacers, and ceramic spacers using approved fungicides; (c) hot tin dip on contact surfaces to be soldered; (d) 14 or 20 live positions, no off (add suffix F, as SS-14-2F or SS-20-1F); (e) common position in non-standard location. For description of SS-14 materials, finishes, and government-quality features, see Print SK-42, Rev. A. for SS-14, and Print SK-116 for SS-20.

BASIC 14-POSITION (SS-14): 13 circuits and "off" per deck in 2" circle for compactness, angular indexing 25°43'. **1¼" Bar Knob (KN-14)** supplied only on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 13 contacts per deck. **One to six decks;** for each additional deck (or gang) add 5/16" to depth. **Continuous rotation type** supplied unless otherwise specified. **Adjustable Stop** normally is supplied on standard cataloged switches. **Fixed Stops** can be supplied on quantity orders at moderate cost. **Panel locator** positioned as shown unless otherwise specified on bulk orders.

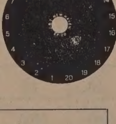
BASIC 20-POSITION (SS-20): 19 Circuits and "off" per deck in 2-23/32" circle for compactness, angular indexing 18°. **2" Bar Knob (KN-16)** supplied on individually boxed units—not on bulk orders unless specified. **Collector arm** normally placed directly opposite to flat of shaft so that knob pointer points to live contact. **Contact lugs** and common lugs positioned as shown below, 19 live positions per deck, standard. **One to six decks:** for each additional deck or gang add 5/16" to depth. **Continuous rotation** type supplied unless otherwise specified. **Panel locator** positioned as shown; can be modified on bulk orders.

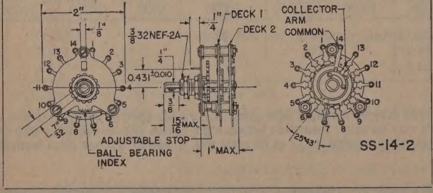
COMBINATIONS IN SS-14 and SS-20 SERIES: Besides the military and commercial variations listed above, shorting and non-shorting decks can be assembled on the same switch shaft. Reference to the sketch below will be helpful in numbering decks and contacts when ordering non-standard assemblies. Specialized requirements for stainless steel shafts, no flats or double-flats on shaft, longer projections beyond bushing, and other variations can also be supplied, with necessarily longer delivery time and additional cost.

ETCHED DIAL PLATES FOR ROTARY SWITCHES

For SS-14, MS-14, MS-14B, MAS-14, MAS-14B, SS-20, MS-20, or MS-20B Series. Dull black finish —with raised bright metal numerals, 2¾" diameter.

EP-13	off thru 13	$0.23
EP-14	1 thru 14	.23
EP-19	off thru 19	.23
EP-20	1 thru 20	.23





Non-Shorting—Break before make. **Shorting**—Make before break.

LAMINATED SWITCHES, SS-14 TYPE

14-POSITION, 25°43' INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Short Non-Short	Model	Max.§ Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	**SS-14-1**	⅞"	**$2.30**
5†	2	1	N-S	**SS-14-1A***	⅞"	**2.45**
14	1	1	S	**SS-14-1S***	⅞"	**2.35**
14	1	1	C-S	**SS-14-1CS‡***	⅞"	**2.80**
14	1	2	N-S	**SS-14-2**	1-3/16"	**2.90**
5†	2	2	N-S	**SS-14-2A***	1-3/16"	**3.20**
14	1	2	S	**SS-14-2S***	1-3/16"	**3.00**
14	1	2	C-S	**SS-14-2CS‡***	1-3/16"	**3.95**
14	1	3	N-S	**SS-14-3**	1-½"	**3.50**
14	1	3	S	**SS-14-3S***	1-½"	**3.65**
14	1	4	N-S	**SS-14-4**	1-13/16"	**4.40**
14	1	6	N-S	**SS-14-6**	2-7/16"	**6.30**

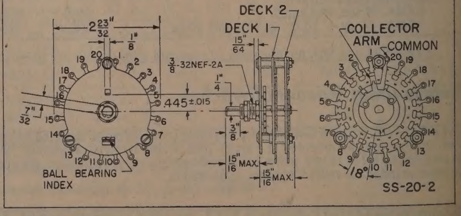
† 5 positions include 4 "live and 1 "off"
‡ Complete shorting—all contacts shorted except one in use
§ This dimension applies when adjustable stop rings are used.

LAMINATED SWITCHES, SS-20 TYPE

20-POSITION, 18° INDEXING

Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Short Non-Short	Model	Max. Depth Behind Panel	Boxed Incl. Knob
20	1	1	N-S	**SS-20-1**	11/16"	**$4.00**
6§	2	1	N-S	**SS-20-1A***	11/16"	**4.15**
20	1	1	S	**SS-20-IS***	11/16"	**4.05**
20	1	2	N-S	**SS-20-2**	1"	**4.75**
20	1	2	S	**SS-20-2S***	1"	**4.85**
20	1	3	N-S	**SS-20-3**	1-5/16"	**5.85**
20	1	4	N-S	**SS-20-4**	1-⅝"	**7.10**
20	1	6	N-S	**SS-20-6**	2-¼"	**9.40**

§ 6-positions include 5 "live" and 1 "off"
*** Standard items, but not regularly stocked; check with your electronic parts distributor.**



Net Effective Aug. 31, 1962

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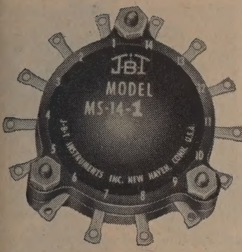
• • • • • • • • • • • • • • • • • MOLDED SWITCHES

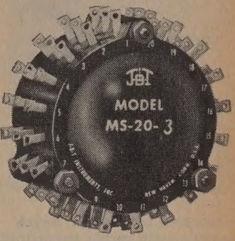
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

FULLY-ENCLOSED INSTRUMENT AND TESTER-TYPE ROTARY SWITCHES
Standard or Bonded Ruggedized Types—14- and 20-Position



MS-14-1

- **All moving contacts enclosed—minimizes dirt and corrosion; 3-post deck suspension for rigidity; double-grip collector arms for positive contact; and rectangular drive shaft for precision indexing.**
- **Interchangeable, electrically and mechanically, with SS-14 and SS-20 laminated switches.**



MS-20-3

FEATURES: See opposite page on SS types of laminated switches for current carrying capacity and voltage breakdown, also features such as heavy fine silver plating to meet 100-hour salt-spray testing; compact design; .007 ohm average contact resistance, and insulation resistance above 50,000 megohms. Besides fully enclosing all moving parts, the molded switches differ from the laminated construction in the design of the detent mechanism, but both types provide rigid 3-post construction and the positive indexing which clearly identify the quality of J-B-T switches. Test results are available on request covering certain procedures of MIL-E-5272A on insulation resistance; high and low temperature and temperature shock; humidity; altitude; salt spray; vibration; fungus resistance; rain, sand and dust; explosion; shock; and endurance values. (Ratings for MS-20-6DTS Types differ somewhat.)

BONDED RUGGEDIZED TYPES—As indicated in the tables, all molded rotary switches may be ordered with bonded construction as MS-14B or MS-20B types using cured laminations for ruggedization, shockproofing and further enclosure. The cost is 35¢ per deck to catalog price of basic switch. Thus, 2-deck switch is MS-14B-2 at $3.80. Bonding adds approximately 1/64" per deck.

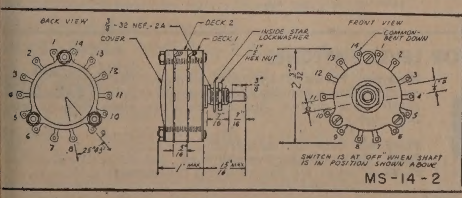
BASIC 14-POSITION MOLDED (MS-14): 13 circuits and 'off'' per deck in 2-3/32" circle for compactness. **Molded nd cover** regularly supplied. 1½" **Bar knob (KN-14)** included with individually boxed units—not on bulk orders unless specified. **Collector arm** placed directly opposite o flat of shaft, so that knob pointer points to live contact. **Common or "off"** contact lug is rounded and bent lown for ready identification. **Extra decks** add 19/64" per leck (or gang) to depth; for 7 decks and over add 1/2" depth for shaft support and 1/64" per deck for bonding; adjustable stop type also add 5/32" to length. **Continuous otation type** supplied unless adjustable stop (type MAS) s ordered or, on quantity orders, pre-set fixed stops (type MPS) are specified. **Panel locator** is available at extra ost on quantity orders when specified; on MS-14-4 and MS-14-6, extra hex nut and longer screw can be supplied or inverting supporting screw nearest common, thus converting into panel locator. **Complete dimensions:** for MS-14 switches, 1 to 6 decks, request Print SK-111, Rev. C, or 7 decks and over, SK-112, Rev. B.

ASIC 20-POSITION MOLDED (MS-20): 19 circuits and "off" er deck in 2-5/8" circle for compactness. **Molded end over** regularly supplied. **2" Bar knob (KN-16)** included with individually boxed units—not on bulk orders unless pecified. **Collector arm** placed directly opposite to flat of haft so that knob pointer points to live contact. **Common r "off" contact lug** is rounded and bent down for ready lentification. **Extra decks** add 19/64" per deck to depth nd, if 7 decks or more, 1/2" for shaft support and 1/64" er deck for bonding. **Continuous rotation type** supplied; n quantity order, pre-set fixed stops (type MPS) are available. **Panel locator** available at extra cost on quantity rders when specified; on MS-20-4 and MS-20-6, extra hex ut and longer screw can be supplied for inverting supporting screw nearest common, thus converting into panel locator. **Complete dimensions:** for MS-20 switches, 1 to 6 ecks, request Print SK-113, Rev. C; for 7 decks and over, K-114, Rev. B.

MOLDED SWITCHES, MS-14 TYPE
14-POSITION, 25° 43′ INDEXING

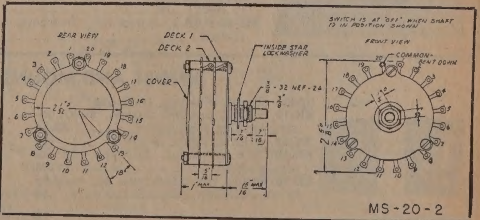
Pos. Per Circ.	Circ. (Poles) Per Deck	Decks or Gangs	Shorting Non-Shorting	STANDARD TYPE Standard Model	Depth Behind Panel	Boxed Incl. Knob	BONDED-RUGGEDIZED Bonded Model	Max. Depth Behind Panel	Boxed Incl. Knob
14	1	1	N-S	MS-14-1	13/16"	$2.45	MS-14B-1	27/32"	$2.80
14	1	1	S	MS-14-1S	13/16"	2.50	MS-14B-1S	27/32"	2.85
14	1	2	N-S	MS-14-2	1 1/8"	3.10	MS-14B-2	1 5/32"	3.80
14	1	2	S	MS-14-2S*	1 1/8"	3.20	MS-14B-2S*	1 5/32"	3.90
14	1	3	N-S	MS-14-3	1 7/16"	3.75	MS-14B-3	1 1/2"	4.80
14	1	4	N-S	MS-14-4	1 3/4"	4.85	MS-14B-4	1 13/16"	6.25
14	1	6	N-S	MS-14-6	2 3/8"	7.05	MS-14B-6	2 15/32"	9.15
MOLDED SWITCHES, MS-20 TYPE **20-POSITION, 18° INDEXING**									
20	1	1	N-S	MS-20-1	13/16"	$3.10	MS-20B-1	27/32"	3.45
2	6	1	N-S	MS-20-1-6DT	13/16"	3.90	MS-20B-1-6DT	27/32"	4.25
2	6	1	S	MS-20-1-6DTS	13/16"	4.00	MS-20B-1-6DTS	27/32"	4.35
20	1	1	S	MS-20-1S	13/16"	3.15	MS-20B-1S	27/32"	3.60
20	1	2	N-S	MS-20-2	1 1/8"	3.90	MS-20B-2	1 5/32"	4.60
2	6	2	N-S	MS-20-2-6DT	1 1/8"	5.50	MS-20B-2-6DT	1 5/32"	6.20
20	1	2	S	MS-20-2S*	1 1/8"	4.00	MS-20B-2S*	1 5/32"	4.70
20	1	3	N-S	MS-20-3	1 7/16"	5.00	MS-20B-3	1 1/2"	6.05
20	1	4	N-S	MS-20-4	1 3/4"	6.20	MS-20B-4	1 13/16"	7.60
20	1	6	N-S	MS-20-6	2 3/8"	8.60	MS-20B-6	2 15/32"	10.70
ADJUSTABLE STOP MOLDED SWITCHES, MAS-14 TYPE									
14	1	1	N-S	MAS-14-1	31/32"	$3.10	MAS-14B-1	1"	$3.45
14	1	1	S	MAS-14-1S	31/32"	3.20	MAS-14-B-1S	1"	3.55
14	1	2	N-S	MAS-14-2	1 9/32"	3.80	MAS-14B-2	1 5/16"	4.50
14	1	2	S	MAS-14-2S*	1 9/32"	3.95	MAS-14B-2S*	1 5/16"	4.65
14	1	3	N-S	MAS-14-3	1 19/32"	4.60	MAS-14B-3	1 21/32"	5.65
14	1	4	N-S	MAS-14-4	1 29/32"	5.70	MAS-14B-4	1 31/32"	7.10
14	1	6	N-S	MAS-14-6	2 17/32"	8.00	MAS-14B-6	2 5/8"	10.10

IMPORTANT: Enclosed adjustable stop mechanism increases switch length by 5/32" behind panel; decreases effective bushing length by 3/32"; and shortens shaft extending from bushing by 1/16". Rings RI-23 and RI-24 are supplied.
For more than 6 decks, request prices.
*Standard items, but not regularly stocked; check with your electronic parts distributor.
Non-Shorting—Break before make. **Shorting**—Make before break.



MS-14-2

Note:
MS Switches now manufactured with deck depth of 19/64" instead of 5/16" as shown.



MS-20-2

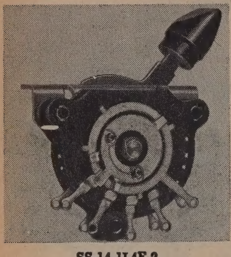
Net Effective Aug. 28, 1961

SPECIAL PURPOSE SWITCHES . . . . . .

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

LEVER ACTION SWITCHES AND UNIQUE MOLDED SWITCHES

6-, 5-, 4-, and 3-Position Lever Switches—6-Pole DT per Deck—Time Saving Ring-Contact Rotaries



SS-14-1L4F-2
Two-Deck Lever-Action Switch

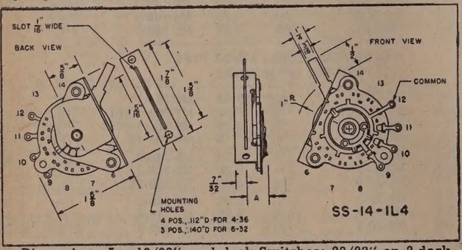
SINGLE DECK, POSITIVE INDEXING, 3- and 4-POSITION. These lever switches are derived from the J-B-T SS-14 instrument-type rotaries. Specified for tube checkers, inspection equipment, communications sytems, control consoles, and other uses where quality is important. 4-position types are interchangeable with 3-position except in length of throw, and provide for an extra circuit. Individually-boxed switches come with mounting hardware and KN-17 knob as illustrated; bulk shipments, without knobs. Spacing between centers: recommended ¾"; minimum 9/16". For dimensions, see drawing below.

Spring Return Type. Single deck, 3-position switches may also be ordered with spring return. Lever returns to position 11, giving momentary action at positions 9 and 10.

Two Deck. Same basic construction and packaging as single deck. Spacing between centers: recommended, 15/16"; minimum, 13/16". ⅜" between decks matches TV twinlead wires.

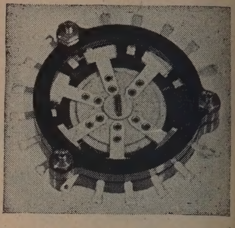
Positions Per Circuit	Circ. (Poles) Per Deck	Decks or Gangs	Short. Non-Short	Stand.* Contact Pos.	Model	Boxed Incl. Knob
3, no "off"	1	1	N-S	A	**SS-14-1L3**	**$1.00**
3, no "off"	2	1	N-S	B	**SS-14-1L3A**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S**	**1.05**
3, no "off"	1	1	N-S	A	**SS-14-1L3R†**	**1.15**
3, no "off"	1	1	S	A	**SS-14-1L3S-R†**	**1.20**
3, no "off"	1	2	N-S	A	**SS-14-1L3-2**	**1.70**
3, & "off"	1	1	N-S	C	**SS-14-1L4**	**1.10**
4, no "off"	1	1	N-S	D	**SS-14-1L4F**	**1.10**
4, no "off"	1	2	N-S	D	**SS-14-1L4F-2**	**1.90**
3, & "off"	1	1	S	C	**SS-14-1L4S**	**1.15**

*A—common at 12, contacts at 9, 10, 11; B—common at 9, 10, contacts at 6, 7, 8, 12, 13 14; C—common and off at 12, contacts at 9, 10, 11; D—common at 12, contacts at 8, 9, 10, 11.
†—Spring Return.



Dimensions A= 13/32" on 1-deck Switches; 23/32" on 2-deck.
Non-shorting type with standard lever length is shown.

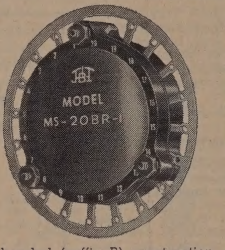
6-POLE DOUBLE-THROW PER DECK — 1 OR 2 DECKS



6-Pole Switches. Double-throw switching of 6 circuits per deck through two 18° positions (36° throw) becomes easy with this unique rotary - type molded switch. It is fully enclosed and similar in appearance to the molded MS-20 switches on page 1291. The illustration at the right shows internal construction with back protective cover cut away. Circuit arrangement is designated on the metal front of the switch. Quality features include .007 ohm average contact resistance; heavy, fine-silver plating for 100-hour salt spray test; double-grip collector arms. Now available in non-shorting (break before make) and shorting (make before break) 2⅝" maximum diameter, one deck, 13/16" behind panel; two deck, 1⅛" behind panel. DTS Shorting Types are rated 1500 volts R.M.S. between contacts and ground, 1000 volts R.M.S. between contacts.

MS-20-1-6DT, 6-pole, double-throw (1 deck), non-shorting	**$3.90**
MS-20-1-6DTS, 6-pole, double-throw (1 deck), shorting	**4.00**
MS-20-2-6DT, 6 pole, double-throw (2 decks), non-shorting	**5.50**

NEW IDEA: RING-CONTACT SWITCHES



Perfect connections between adjacent switch contacts are assured because this distinctive design needs no soldered jumpers. An integral ring which holds together all the contacts on each deck can be snipped wherever wanted—to save valuable time in development and pilot runs. For production lots, J-B-T can supply various combinations of joined and unjoined contacts to slash the user's assembly costs and build-in quality. The ring-contact adds 7/32" o.d. to the MS-14 or MS-20 types listed on page 1291 (prints SK-88 and SK-89 respectively). The MS-20BR-1 shown here also has bonded (suffix B) construction. Switches listed below are normally available. Others such as 3-decks, 6-decks, shorting, etc., require substantial lead time.

RING-TYPE MOLDED SWITCH MS-14R

(14-position; angular indexing 25° 43'; o.d. 2-5/16")

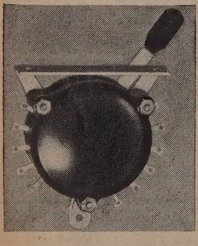
Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-14R-1	14	1	1	N-S	13/16"	**$2.75**
MS-14R-2	14	1	2	N-S	1⅛"	**3.65**
MS-14R-4	14	1	4	N-S	1¾"	**5.90**

RING-TYPE MOLDED SWITCH MS-20R

(20-positions; angular indexing, 18°; o.d. 2-27/32")

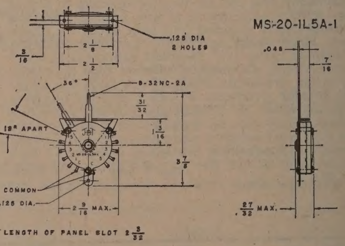
Model	Positions Per Circuit	Circuits Per Deck	Decks or Gangs	Shorting, Non-Shorting	Depth Behind Panel	Boxed Including Knob
MS-20R-1	20	1	1	N-S	13/16"	**$3.40**
MS-20R-2	20	1	2	N-S	1⅛"	**4.45**
MS-20R-4	20	1	4	N-S	1¾"	**7.25**

5-Position Lever Switch



MOLDED 5- and 6-POSITION, POSITIVE-INDEXING. Designers and servicemen now have available 5 or 6 live positions, two circuits per deck, in an enclosed lustrous black molded construction. Both switches are adapted from the MS-20 series and have similar electrical characteristics. Besides sound systems, these models can simplify circuitry for control, inspection, test, experimental, and hobby purposes. Individually-boxed switches come with mounting hardware and KN-20 threaded black molded knob; bulk shipments, without knobs. For mounting data see SK-64 on 5-position and SK-119 on 6-position.

MS-20-IL5A-1, 5-position, 2-circuit (1 deck)	**$3.25**
MS-20-IL6A-1, 6-position, 2-circuits (1-deck)	**3.50**



KNOBS AND MOUNTING PLATES FOR LEVER SWITCHES

Spare Knobs. Push-on type are:

KN-17, black, pointed design, metal insert regularly supplied	**$0.14**
KN-18, walnut, same as KN-19	**.06**
KN-19, black, round, flat-type, no insert needed	**.06**
KN-20, black, threaded type, for molded lever switches	**.14**

Mounting Plates. These .035" stamped steel plates in black crackle finish simplify alignment of standard 3-position IL3 single deck models. Spacing between slots, ¾"; all plates 2⅝" high.

PL-36, ¾" wide, for one switch	**$0.30**
PL-37, 1½" wide, for two switches	**.40**
PL-38, 3" wide, for four switches (illustrated)	**.45**

Net Effective Aug. 31, 1962

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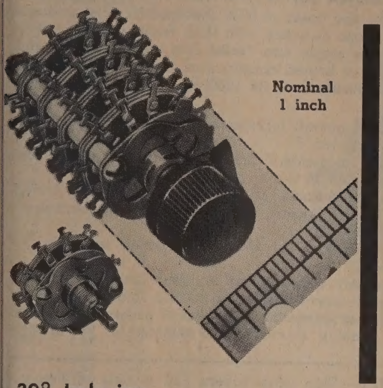
SUB-MINIATURE SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

NEW! HIGH RELIABILITY SR05 TYPES TO MIL-S-3786A — ALSO V- AND X- SERIES

Versatile 12-Position—Patented Single- and Dual-Duty Deck—Rotary and Lever Types



30° Indexing
MIL Materials and Construction
Accelerated Snap-Action Detent
Unusual Versatility — More Contacts per Deck
Precision-built for Low Current Usage where Size, Weight, Reliability Are Important.

ote: T terminals shown now superseded by terminals with hole for two 0.032" dia. wires.

SE — For test equipment, airborne and ansistorized equipment, geophysical pparatus, and other miniaturized elecical and electronic devices.

YPES — Military Styles SR05 are numered for specific characteristics stiputed in MIL-S-3786A, such as Temperare-Life C, Shock Type H or M, and ibration Grade 2. ¼" shaft and nonrn device mandatory. **V Type Switches** e similar in construction to SR05 but not undergo full military test proedures and have non-turn device opnal. **X Type Switches** use the same aterials as V type switches but have " dia. stainless steel shaft with ¼" a. bushing ¼" long; non-turn device tional.

OSITIONS — Series 7000 in Any of the bove Types: Up to 12 live switching ntacts on the rear of the deck, and all le contacts on the front of the same ck. — **Series 5000 in Any of the Above pes:** Up to 11 switching contacts and e pole contact on both front and rear the same **dual-duty** deck.

ECKS — Series 7000: 1 to 6 decks, standd. **Series 5000:** 1 to 4 decks, standard.

VER SERIES (L Types): Made as V-00 or V-5000 series, one to four decks.

NOBS — Supplied with individually xed switches on X and V types; not pplied on SR05 because separate milry specification applies.

SPECIFICATIONS & TEST DATA ON SR05 MILITARY STYLE

Current carrying capacity: 5 amps at standard ambient conditions.

Current breaking capacity: 750 MA at 30 VDC; 300 MA at 120 VDC; 1 AMP at 115 VAC Non-Inductive.

Initial Contact Resistance: .005 ohms max.

Contact Resistance: Tested in accordance with MIL-STD-202B-Method 307, which require Initial—10 milliohms; After Moisture Resistance Test—15 milliohms; After Life Test— 20 milliohms.

Materials: Terminals (double-wiping): gold plated 90% silver alloy. **Rotor Contact:** 90% Silver Alloy. **Shaft & Frame:** Stainless steel, passivated.

Insulation: Wafer, glass epoxy laminate to MIL-18177C GEB; Rotor, ceramic to MIL-I-10A.

Life Rotational: Temperature-Life Characteristic C of MIL-S-3786A, 25,000 rotational cycles at 10 per minute, Temperature range −65°C to +125°C.; 25,000 cycles at 70,000 feet altitude.

Vibration: Grade 2 of Table III MIL-S-3786A 10 to 500 cps. Tested in accordance with MIL-STD-202B, Method 204, Test Condition A.

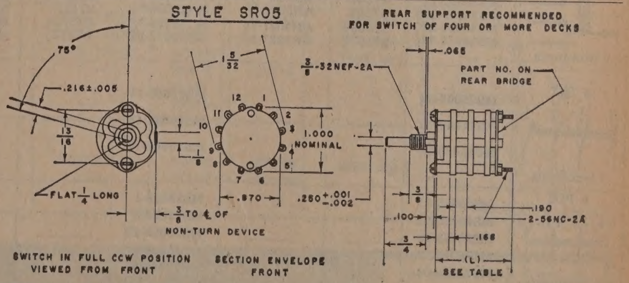
Shock: Shock type H, high impact of Table IV of MIL-S-3786A. Tested in accordance with MIL-STD-202, Method 207. Mating contacts did not open for more than 5 milliseconds. Shock type M, medium impact requires separate tests.

DECKS	Circ. (Poles) per Deck	Pos. per Pole	Shorting, Non-Shorting	SHAFT DIA.	V-TYPE OR X-TYPE		SR05-TYPE	
					Model	Price	Model	Price
ONE DECK	1	12	N-S	¼"	V-71121N	$4.90	V-71121N-SR05*	$5.25
	1	12	S	¼"	V-71121S	4.90	V-71121S-SR05*	5.25
	1	12	N-S	⅛"	X-71121N	4.70	—	—
	1	12	S	⅛"	X-71121S	4.70	—	—
	2	6	N-S	¼"	V-72061N	5.00	V-72061N-SR05*	5.35
	4	3	N-S	¼"	V-74031N	5.20	V-74031N-SR05*	5.50
ONE DUAL DUTY DECK	2	11	N-S	¼"	V-52111N	5.25	V-52111N-SR05*	5.60
	2	11	S	¼"	V-52111S	5.25	V-52111S-SR05*	5.60
	4	5	N-S	¼"	V-54051N	5.35	V-54051N-SR05*	5.70
	4	5	S	¼"	V-54051S	5.35	V-54051S-SR05*	5.70
	8	2	N-S	¼"	V-58021N	5.55	V-58021N-SR05*	5.90
TWO DECKS	1	12	N-S	¼"	V-71122N	6.75	V-71122N-SR05*	7.20
	1	12	S	¼"	V-71122S	6.75	V-71122S-SR05*	7.20
	1	12	N-S	⅛"	X-71122N	6.45	—	—
	2	6	N-S	¼"	V-72062N	6.95	V-72062N-SR05*	7.40
	4	3	N-S	¼"	V-74032N	7.40	V-74032N-SR05*	7.90
TWO DUAL DUTY DECKS	2	11	N-S	¼"	V-52112N	8.10	V-52112N-SR05*	8.65
	2	11	N-S	⅛"	X-52112N	7.75	—	—
	4	5	N-S	¼"	V-54052N	8.30	V-54052N-SR05*	8.85
THREE DECKS	1	12	N-S	¼"	V-71123N	8.85	V-71123N-SR05*	9.45
	2	6	N-S	¼"	V-72063N	9.15	V-72063N-SR05*	9.70
	4	3	N-S	¼"	V-74033N	9.85	V-74033N-SR05*	10.45
FOUR DECKS	1	12	N-S	¼"	V-71124N	11.95	V-71124N-SR05*	12.70
	1	12	N-S	⅛"	X-71124N	11.40	—	—
SIX DECKS	1	12	N-S	¼"	V-71126N	16.05	V-71126N-SR05*	17.10
ONE DECK LEVER	4	3	N-S	—	VL-74031N	$5.15	Levers not in Specs.	
	2	3	N-S	—	VL-72031N	5.05	" " "	"
	8	2	N-S	—	VL-58021N	5.35	" " "	"

* Typical MIL-S-3786-A complete number is V-71121N-SR05N30C2HP, unless specifically ordered otherwise. Temperature-Life Characteristic C also will meet Characteristic A or B requirements; Vibration Grade Symbol 2 will also meet Symbol 1 requirements. Shock Type H for High Impact does not automatically cover Type M, Medium Impact, which can be supplied when specified. For full specifications and test data, see Bulletin SM-32A, which covers many additional models.

MAXIMUM DEPTH (L) BEHIND PANEL, INCHES

	1-Deck	2-Decks	3-Decks	4-Decks	5-Decks	6-Decks
Series V-7000-SR05	0.640	0.918	1.196	1.720	2.000	2.276
Series V-5000-SR05	0.640	0.918	1.196	1.720	—	—

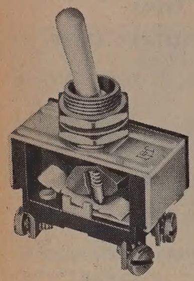

STYLE SR05

Net Effective Aug. 31, 1962

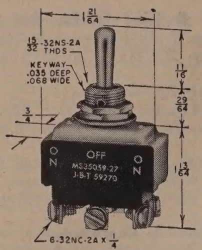
TOGGLE SWITCHES

J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

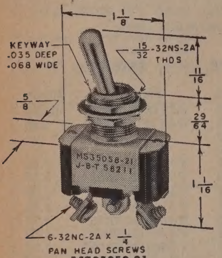
HEAVY DUTY - SINGLE POLE, DOUBLE POLE AND 4-POLE - GOVERNMENT QUALITY



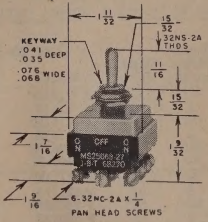
*Cut-away view showing J-B-T's use of solid coin silver rocker arms and contacts.



MS35059-26 —27, —31 (DPDT, screw terminals)



MS35058-21 SPDT



MS25068-27 4PDT

Designed for MIL-S-3950A, Series MS25068, MS35058 and MS35059, JAN-S-23, DDAX Series and MIL-S-21195A (Ships)

Overload . . . Tested to make and break at 50% overload for brief periods. To assure performance of these switches with their comparatively heavy current ratings, J-B-T features ample size ***solid coin silver contacts and rocker arms** instead of clad or brazed construction. Contact resistance is under 0.005 ohms. High dielectric exceeds 1000 volts r.m.s. at 60 cycles at sea level.

Cold and Heat . . . Specialized aircraft lubricant facilitates mechanical and electrical operation at —85°F to 185°F.

Vibration and Shock . . . No momentary make or break or mechanical damage during severe shake and 75 G's drop tests.

High Humidity . . . Materials, dull finish on outside metal parts (per Armed Services specifications) and lubricant enable switches to withstand tropical climates.

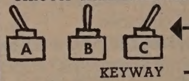
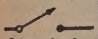
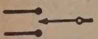
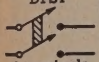
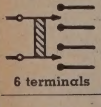
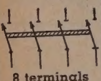
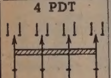
Salt . . . Meet 100 hour Salt-Spray Test QQ-M-151a which is twice the required minimum of JAN-S-23.

Rugged Service . . . Generously proportioned and substantially built for extra life. For instance, both screw-type terminals and solder lugs easily withstand a 30 pound pull test. Operating cycles far in excess of minimum specified as acceptable. Quality standards are maintained by in-plant production testing.

20 AMP — HEAVY DUTY — This page covers 130 models of heavy duty toggle switches nominally rated at 20 amp. at 125 VAC, and 10 amp., 250 VAC, and other ratings where specified in MIL-S-3950A. **6 Amp. Medium Duty** are described on next page.

4-POLE CONSTRUCTION — To exceed the rigorous electrical endurance requirements of MIL-S-3950A, J-B-T switch bodies in this MS25068-series are molded of a compound having high arc-resistance and low shrinkage. This superior material is readily identified by its light brown color, printed in silver. The 8 models in this family use single-hole mounting with single-throw or double-throw action as designated in the table below. All have silicone rubber bushing seals. Electrical Characteristics and Current Values are described in Bulletin TS-6D.

For Electrical Characteristics, Current Values, and Full Information, Ask For Bulletin TS-6D. For Typical Prices, See Next Page.

CIRCUIT DIAGRAM AND TYPE	MODEL NUMBER						CIRCUIT ARRANGEMENT		
	SCREW TERMINAL				SOLDER LUG		 KEYWAY		
	MIL-S-3950A See Notes A & B	JAN-S-23 & MIL-S-21195A	MIL-S-6745 See Note A	MIL-S-3950 See Notes A & B	JAN-S-23 & MIL-S-21195A (Ships)	MIL-S-3950 See Note A	A	B	C
SPST  2 terminals	MS35058-22	ST40A	AN3021-2	#	ST42A	MS35058-9	On	None	Off
	MS35058-29	ST40B	AN3021-9	#	ST42B	MS35058-10	On	None	Off*
	MS35058-30	ST40C	AN3021-8	#	ST42C	MS35058-11	Off	None	On*
	MS35058-24	#	AN3021-10	MS35058-1	#	MS35058-12	On	Off	None
	MS35058-28	#	AN3021-11	MS35058-2	#	MS35058-13	None	Off	On*
	MS35058-25	#	AN3021-12	MS35058-3	#	MS35058-14	On	Off*	None
SPDT  3 terminals	MS35058-23	ST40D	AN3021-3	MS35058-4	ST42D	MS35058-15	On	None	On
	MS35058-21	ST40E	AN3021-1	MS35058-5	ST42E	MS35058-16	On	Off	On
	MS35058-26	ST40F	#	MS35058-6	ST42F	MS35058-17	On	None	On*
	MS35058-27	ST40G	AN3021-7	MS35058-7	ST42G	MS35058-18	On*	Off	On*
	MS35058-31	ST40H	AN3021-5	MS35058-8	ST42H	MS35058-19	On	Off	On*
	#	#	AN3021-6†	#	#	#	On	Off	On*
DPST  4 terminals	MS35059-22	ST50K	AN3027-2	#	ST52K	MS35059-9	On	None	Off
	MS35059-29§	ST50L	AN3027-4§	#	ST52L	MS35059-10§	On	None	Off*
	MS35059-30§	ST50M	AN3027-5§	#	ST52M	MS35059-11§	Off	None	On*
	MS35059-24	#	AN3027-9	MS35059-1	#	MS35059-12	On	Off	None
	MS35059-28	#	AN3027-11	MS35059-2	#	MS35059-13	None	Off	On*
	MS35059-25§	#	AN3027-10§	MS35059-3§	#	MS35059-14§	On	Off*	None
DPDT  6 terminals	MS35059-23	ST50N	AN3027-3	MS35059-4	ST52N	MS35059-15	On	None	On
	MS35059-21	ST50P	AN3027-1	MS35059-5	ST52P	MS35059-16	On	Off	On
	MS35059-26§	ST50R	AN3027-6§	MS35059-6§	ST52R	MS35059-17§	On	None	On*
	MS35059-27§	ST50S§	AN3027-7§	MS35059-7§	ST52S§	MS35059-18§	On*	Off	On*
	MS35059-31§	ST50T§	AN3027-8§	MS35059-8§	ST52T§	MS35059-19§	On	Off	On*
4 PST  8 terminals	MS25068-24	——	——	MS25068-11	——	——	On	Off	None
	MS25068-25			MS25068-13			On	Off*	None
	MS25068-28			MS25068-12			None	Off	On*
4 PDT  12 terminals	MS25068-21	——	——	MS25068-1	——	——	On	Off	On
	MS25068-23			MS25068-3			On	None	On
	MS25068-26			MS25068-10			On	None	On*
	MS25068-27			MS25068-7			On*	Off	On*
	MS25068-31			MS25068-5			On	Off	On*

*Momentary position

#Not included in this specification

†AN3021-6 same as AN3021-5 with jumper

§Same dimensions as MS35059-26, illustrated.

NOTE A: MS and AN types use internal sand and dust toggle seal and other high performance features involving extra cost over ST types. MS types to MIL-S-3950A have internal toggle seal to meet 15 ft. water submersion test. MIL-S-3950 models are superseded by MIL-S-3950A models.

NOTE B: For heavy-duty switches in the MS25068, MS35058 and MS35059 series, MIL-S-3950A calls for SCREW TERMINALS ONLY. These terminals have SOLDERABLE FINISH and may be soldered after removal of screw. For medium-duty switches in the MS25098 and MS-25100 series on the next page, MIL-S-3950A calls for solder terminals only. Future procurement for military use is to be only to MIL-S-3950A, but many parts lists still refer to ST switches to JAN-S-23 and MIL-S-21195A (Ships).

Net Effective Aug. 31, 1962

© U.C.P., Inc

TOGGLE SWITCHES

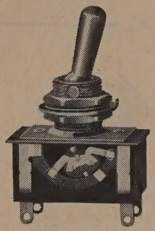
J-B-T INSTRUMENTS, INC., NEW HAVEN 8, CONN.

TYPICAL PRICES
N & MIL Types Including Unique J-B-T Reliability Features

odel	NET EACH 1	2-9	10-29
T12A	$1.45	$ .87	$ .70
T12B	1.65	.99	.79
T12C	1.65	.99	.79
T12D	1.65	.99	.79
T13A	1.45	.87	.70
T13D	1.65	.99	.79
T16A	1.45	.87	.70
T16B	1.65	.99	.79
T16C	1.65	.99	.79
T16D	1.65	.99	.79
T17A	1.45	.87	.70
T17D	1.65	.99	.79
T22K	2.06	1.24	.99
T22L	2.26	1.36	1.09
T22M	2.26	1.36	1.09
T22N	2.26	1.36	1.09
T23K	2.06	1.24	.99
T23N	2.26	1.36	1.09
T26K	2.06	1.24	.99
T26L	2.26	1.36	1.09
T26M	2.26	1.36	1.09
T26N	2.26	1.36	1.09
T27K	2.06	1.24	.99
T27N	2.26	1.36	1.09
T40A	1.68	1.34	1.01
T40B	1.84	1.47	1.10
T40C	1.84	1.47	1.10
T40D	2.02	1.62	1.21
T40E	2.02	1.62	1.21
T40F	2.18	1.74	1.31
T40G	2.18	1.74	1.31
T40H	2.18	1.74	1.31
T42A	1.58	1.26	.95
T42B	1.73	1.38	1.04
T42C	1.73	1.38	1.04
T42D	1.87	1.50	1.12
T42E	1.87	1.50	1.12
T42F	2.05	1.64	1.23
T42G	2.05	1.64	1.23
T42H	2.05	1.64	1.23
T50K	2.08	1.66	1.25
T50L	2.44	1.95	1.46
T50M	2.44	1.95	1.46
T50N	2.44	1.95	1.46
T50P	2.44	1.95	1.46
T50R	2.77	2.22	1.66
T50S	2.77	2.22	1.66
T50T	2.77	2.22	1.66
T52K	1.89	1.51	1.13
T52L	2.12	1.70	1.27
T52M	2.12	1.70	1.27
T52N	2.12	1.70	1.27
T52P	2.12	1.70	1.27
T52R	2.46	1.97	1.48
T52S	2.46	1.97	1.48
T52T	2.46	1.97	1.48
S25068-21	6.10	4.88	3.66
S25068-23	7.30	5.84	4.38
S25068-24	5.25	4.20	3.15
S25068-25	6.00	4.80	3.60
S25068-26	6.45	5.16	3.87
S25068-27	6.58	5.26	3.95
S25068-28	6.00	4.80	3.60
S25068-31	6.58	5.26	3.95
S25098-22	2.30	1.38	1.10
S25098-23	2.64	1.58	1.27
S25098-29	2.96	1.78	1.42
S25098-30	2.96	1.78	1.42
S25100-22	3.30	1.98	1.58
S25100-23	3.58	2.15	1.72
S25100-29	3.84	2.30	1.84
S25100-30	3.84	2.30	1.84
S35058-21	2.44	1.95	1.46
S35058-22	2.06	1.65	1.24
S35058-23	2.44	1.95	1.46
S35058-24	2.10	1.68	1.26
S35058-25	2.40	1.92	1.44
S35058-26	2.58	2.06	1.55
S35058-27	2.63	2.10	1.58
S35058-28	2.40	1.92	1.44
S35058-29	2.30	1.84	1.38
S35058-30	2.30	1.84	1.38
S35058-31	2.63	2.10	1.58
S35059-21	2.99	2.39	2.09
S35059-22	2.58	2.06	1.81
S35059-23	2.99	2.39	2.09
S35059-24	2.94	2.35	2.06
S35059-25	3.15	2.52	2.21
S35059-26	3.40	2.72	2.38
S35059-27	3.40	2.72	2.38
S35059-28	3.19	2.55	2.23
S35059-29	3.03	2.42	2.12
S35059-30	3.03	2.42	2.12
S35059-31	3.40	2.72	2.38

MEDIUM DUTY — SINGLE & DOUBLE POLE — GOVERNMENT QUALITY

Designed for MIL-S-3950A, Series MS25098 and MS25100; JAN-S-23, DDAX Series and MIL-S-21195A (Ships)



†Cut-away view of self-wiping construction showing outside of double-grip moving contact

Like other J-B-T Switches, this series has quality as its first objective. J-B-T builds-in quality by doing its own design and manufacture, and by a continuous program of in-plant tests of production samples for quality assurance.

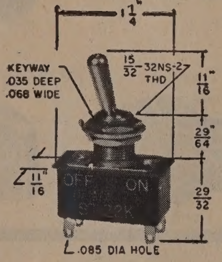
Typical Applications . . . This series is popular in communications circuits, electronic instruments, dry circuits (but with gold plated current carrying parts recommended for extremely low currents and voltages), measuring devices, miniature motor controls, and computers.

Self-Wiping Design . . . Even after long storage, a few flips of this switch bring the contact resistance well under the 0.01 ohm requirement of military specifications. As illustrated†, the double-grip moving contact of phosphor bronze heavily silver plated wipes over the stationary contacts of brass, also heavily silver plated.

Sound Electrical Values . . . Tested to meet 50% overload for brief periods. High dielectric exceeds 1000 volts r.m.s., 60 cycles at sea level.

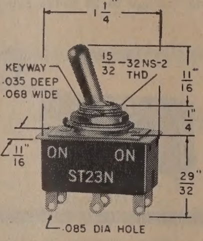
Exceptional Environmental Characteristics . . . Functions well throughout a range of —85°F to 185°F, with materials, plating, lubricant, and mechanical features to withstand tropical climates. Dull finish plating as stipulated in specificatons meets 100 hour salt-spray test QQ-M-151a (twice the required minimum). Other plating quoted on request.

Rugged Construction . . . Solder type hot tin dipped terminals as used throughout this series withstand 5 lb. pull test . . . enclosed molded body has no unused holes for side terminals . . . no momentary make or break or mechanical damage during severe shake tests and 75 G's drop test.

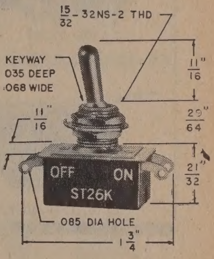


ST13A, D
ST23K, N

ST12A, B, C, D
ST22K, L, M, N

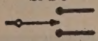
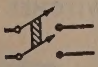
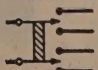


29/64" Bushing:
ST16A, B, C, D
ST26K, L, M, N



¼" Bushing:
ST17A, D
ST27K, N

For Electrical Characteristics, Current Values, and Full Information. Ask for Bulletin TS-6D

CIRCUIT DIAGRAM AND TYPE	TERMINALS SIDE	TERMINALS BOTTOM	MODEL NUMBER (Solder Lugs Only) MIL-S-3950A 29/64" Bushing See Note A & B on page 1294	JAN-S-23 and MIL-S-21195A (Ships) 29/64" Bushing	JAN-S-23 and MIL-S-21195A (Ships) ¼" Bushing	MIL-S-3950 29/64" Bushing See Notes A & B on page 1294	CIRCUIT ARRANGEMENT KEYWAY A	B	C
SPST	—	2	MS25098-22	ST12A	ST13A	MS25098-1	On	None	Off
	—	2	MS25098-29	ST12B	—	MS25098-2	On	None	Off*
	—	2	MS25098-30	ST12C	—	MS25098-3	Off	None	On*
	2	—	—	ST16A	ST17A	—	On	None	Off
	2	—	—	ST16B	—	—	On	None	Off*
	2	—	—	ST16C	—	—	Off	None	On*
SPDT 	—	3	MS25098-23	ST12D	ST13D	MS25098-4	On	None	On
	2	1	—	ST16D	ST17D	—	On	None	On
DPST 	—	4	MS25100-22	ST22K	ST23K	MS25100-1	On	None	Off
	—	4	MS25100-29	ST22L	—	MS25100-2	On	None	Off*
	—	4	MS25100-30	ST22M	—	MS25100-3	Off	None	On*
	4	—	—	ST26K	ST27K	—	On	None	Off
	4	—	—	ST26L	—	—	On	None	Off*
	4	—	—	ST26M	—	—	Off	None	On*
DPDT 	—	6	MS25100-23	ST22N	ST23N	MS25100-4	On	None	On
	4	2	—	ST26N	ST27N	—	On	None	On

*Momentary position

Net effective Aug. 31, 1962.

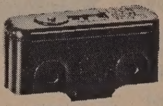
J-B-T INSTRUMENTS, INC.
NEW HAVEN 8, CONN.

Electrical Instruments, Testers and Electronic Components

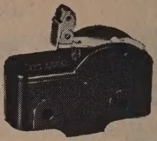
For other J-B-T Products, see Sec. 2900

LICON® Precision Switches

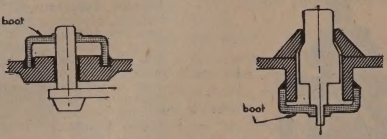
LICON TYPE 10 PRECISION BASIC SWITCHES


TYPE 10-122

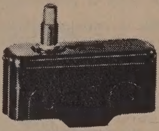
Features extremely sensitive operation plus long life and high electrical rating. Over 10,000,000 actuations by test. Movement differential of .001 on standard types. 15 amp; 125, 250, 460V A.C. Meets government specs. ½ amp; 125V D.C. U.L. Approved.

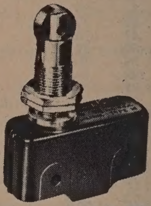

TYPE 10-72237

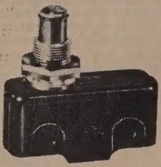
SPLASH PROOF SEAL



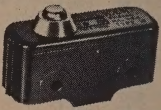
Sealing against moisture, dirt and other harmful elements can be provided by a neoprene boot for most type 10 models without altering switch characteristics. Specify by adding 301 to part number, i.e., 10-122301.

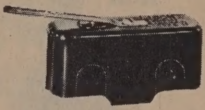

TYPE 10-222

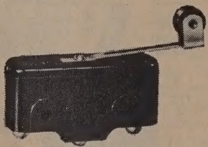

TYPE 10-922

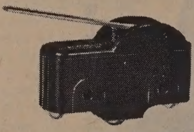

TYPE 10-322

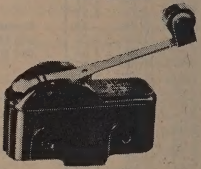
Type 10 switches shown are normally supplied with .020″ contact gaps with 15 amp rating. Gaps of .010″ to .070″ and ratings to 20 amps are also available.


TYPE 10-822


TYPE 10-422


TYPE 10-522

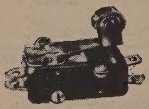

TYPE 10-622

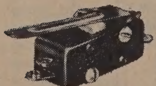

TYPE 10-722

LICON TYPE 11 PRECISION BASIC SWITCHES

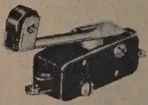
Type 11 combines small size, long life, high rating and double break in one reliable package. Government approved. Rated 10 amps, 30V D.C., 125 or 250V A.C. U.L. Approved. Tested over 20,000,000 life cycles.

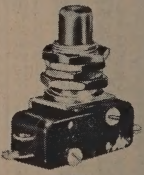
TYPE 11 ACTUATORS


70-104

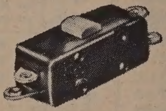

70-301

TYPE 11 ACTUATORS

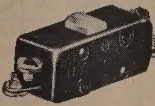

70-302


70-201

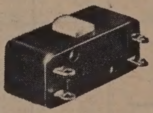
TYPE 11-104



TYPE 11-204

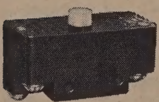


TYPE 11-304

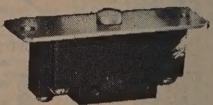


RESET MODEL AVAILABLE WITH END OR SIDE TERMINALS

LICON TYPE 14 HEAVY DUTY SNAP-ACTION SWITCHES


TYPE 14-124

Rugged, dependable Type 14 switches feature 30,000,000 life cycles by test. Rated 20 amps, 250V A.C. Normally supplied with .020″ movement differential. Available with .010″ to over .040″ movement differential, in choice of mounting means and terminal designs. Operating force normally 12 oz. but can be from 100 grams to 2 lbs. Best suited to industrial and machine tool applications.


TYPE 14-12403

BOTH SWITCH TYPES AVAILABLE IN RESET MODELS

© U.C.P., In

LICON® Precision Switches

LICON TYPE 16 SUBMINIATURE SWITCHES

TYPE 16 ACTUATORS

70-2510 OIL TIGHT PUSHBUTTON
Available in round or hex head in aluminum, Red, Yellow, Black, Green, Orange, Blue or Olive Drab. Also available in DPDT as 70-2520.

70-223 PANEL MOUNT PUSHBUTTON
15/32″ Bushing—White nylon plunger or specify color—in 2, 3 or 4 pole.

70-222 MINIATURE PUSHBUTTON
¼″-20 threaded bushing, also with 5/32″ overtravel as type 70-226.

Type 16 offers extremely long life (over 20,000,000 cycles) and big switch performance in a subminiature unit—rated 10 amps 30 VDC inductive (L/R = .026) yet measures only ¼″ thick and 25/32″ long. Offers exceptional shock and vibration resistance—meets MIL-S-6743. Wide variety of actuators and terminal types offer unusual flexibility in application.

TYPE 16-104

TYPE 16-304

TYPE 16-404

Type 104 and 304 also available in reset styles.
Type 404 also available with taper tab terminals.

Type 16 also offers wide engineered flexibility in specials — Licon engineers can adapt the type 16 to suit individual requirements. Especially adaptable to aircraft and guided missile applications where size, vibration resistance, and capacity are critical.

TYPE 16 ACTUATORS.

70-421 TOGGLE ACTUATOR
2 to 5 poles

70-120 PIVOTED ROLLER LEVER
Also available without roller as 70-121.

70-320 SPRING LEAF
Also available with roller actuator as 70-321.

LICON TYPE 30 INDUSTRIAL ENCLOSED LIMIT SWITCH

SEALED SWITCHES

- **30-200 PLUNGER SWITCH**
- **30-400 ROLLER ARM SWITCH**
- **30-600 PALM BUTTON SWITCH**
- **30-700 ROLLER PLUNGER SWITCH**

UNSEALED SWITCHES

- **30-100 OVERTRAVEL PLUNGER SWITCH**
- **30-300 ROLLER ARM SWITCH**
- **30-500 ROLLER PLUNGER SWITCH**

ACTUATORS

70-101 LEVER ACTUATOR

Used to convert 30-200, sealed plunger switch to 30-400 sealed roller arm; 30-100 plunger switch to 30-300 roller arm.

70-102 PALM BUTTON ACTUATOR

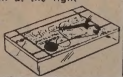
Used to convert 30-200 Sealed Plunger Switch to 30-600 Sealed Palm Button switch. Also attaches to 30-100.

Type 30 is versatile—3 actuators and 3 housings provide 16 switch types — its effective oil tight sealing is accomplished without boots. Used for industrial control, limit and safety applications. Aluminum diecast housing — adequate wiring room. ½″-14 internal tap conduit hub. Excellent mounting means — wide variety of actuators. Actuation is sensitive. Rated 15 amp 125, 250, 460V A.C. ½ amp 115V D.C. Tested life 10,000,000 cycles. Types listed are interchangeable with all 16 competitive types.

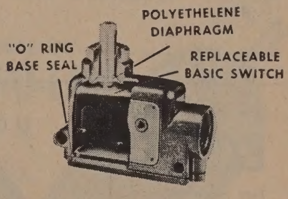
Switchpak TRADE MARK **CONTROL COMPONENTS**

Handy plastic kit contains three complete switches, two accessory actuators and optional base mounting plates. Perfect for on-the-job maintenance. Have the right switch at the right time—get Switchpak containing . . .

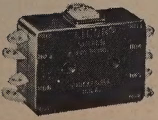
Sealed Plunger Switch • Overtravel Plunger Switch • Roller Plunger Switch • Palm Button Actuator • Lever Actuator and three optional base mounting plates



MICROMETER
SCREW
ADJUSTMENT

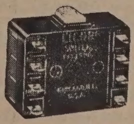


LICON TYPE 22 DOUBLE POLE DOUBLE THROW SWITCHES



TYPE 22-104
Also reset model Type 22-114

Type 22 features DPDT high current interruption, outstanding vibration resistance (over 25 G's @ 2000 cps.), long dependable life (10,000,000 cycles) and a wide variety of circuit combinations offered by four separate circuits. Switch is rated 10 amp 125/250V A.C. and 30V D.C.



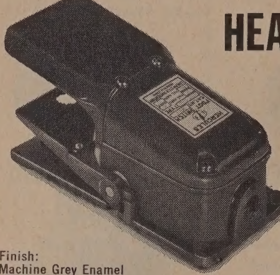
TYPE 22-304
Also reset model Type 22-314

LINEMASTER

AMERICA'S FOOT SWITCH LEADER

LINEMASTER

HERCULES



HEAVY DUTY

FOOT SWITCH LINE

- Rugged
- Cast Iron Enclosure
- Safety-Guarded

Finish:
Machine Grey Enamel
Wt.: 7 lbs. 2 oz.
Size: 8-7/16" x 4-5/16" x 4-1/2"

Interior steel parts are cadmium plated or otherwise treated to resist corrosion. All terminals face up for easy wiring upon unfastening cover guard. Casing has 3/4 inch threaded hole for conduit pipe. Pedal position trip point is minutely adjustable. Two and three stage switches have distinct "FEEL" between stages. Special circuit combinations can be supplied in addition to those listed below.

Class—Voltage Rating	Contact Type	Single Stage			2-Stage	3-Stage
		SP DT	DP DT	TP DT	SP DT	SP-DT
Water Tight NEMA Type 4	Maintained	571-DW	572-DW	573-DW	574-DW	575-DW
125-480 V. AC 20 amps	Momentary	531-SW	532-SW	533-SW	534-SW	535-SW
Explosion-Proof Class I Group C & D Class II Group E, F & G NEMA Type 7 125-480 V. AC-20 amps	Maintained	581-DX	582-DX	583-DX	584-DX	585-DX
	Momentary	541-SX	542-SX	543-SX	544-SX	545-SX

Tip-Toe Control for Tip-Top Production!

LINEMASTER, Jr.

FOOT SWITCH

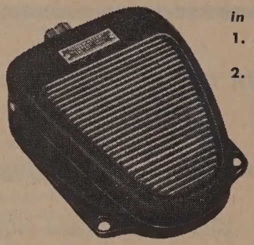
#121-S
& #122-S

Lightweight, sensitive... ideal for women workers! Needs only a touch of the toe, while heel remains comfortably on the floor.

Aluminum housing, black crackle finish. Weight 1 lb. 5½" long, 3¼" wide, 1¼" high. Rated at 15 amps., 115 volts A.C.; 15 amps., 250 volts A.C. Can be wired to operate as single pole, normally open; single pole, normally closed; or single pole double throw. Momentary Contact only.
#122-S—Rated at 20 amps., 115-250 volts A.C.

The LINEMASTER

CLIPPER SWITCH



in two models:

1. **Momentary contact** (press to start—release to stop)
2. **Maintained contact** (press to start—press to release)

Rugged Momentary Contact Clipper has proved invaluable to product engineers and machine operators. Maintained Contact Clipper is now available for heavy duty applications. Molded nylon actuating cams; rugged cast iron housings, sponge rubber skid pads. Weight: 2½ lbs. Size: 4½" x 3½" x 1½".

#632-S—AC Rating: 20-A, 125-250V, Momentary Contact, Single Pole, Double Throw.

#634-S—AC Rating: 10-A, 125-250V, Momentary Contact, Double Pole, Double Throw.

#632-D—AC Rating: 20-A, 125-250V, Maintained Contact, Single Pole, Double Throw.

#634-D—AC Rating: 10-A, 125-250V, Maintained Contact, Double Pole, Double Throw.

The LINEMASTER

EXECUTIVE

Two Switches in One • "On-Center" Mechanical Interlock!

#B-2-S
#B-4-S

This handsome switch is fool-proof and easy-to-operate! Selective circuits and guaranteed interlock eliminate possibility of accidentally tripping both circuits simultaneously, while low, wide casing saves excessive leg movement — foot pivots easily from one side to the other. Easy to wire—remove only one screw and switch is ready. Either interior (or both) may be wired as normally open or normally closed—single pole—double throw.

Heavy steel housing, baked hammertone grey finish. Wt., 14 oz., 4⅝" long, 4" wide, 1¼" high. Each interior rated at 15 amps at 125-250 volts A.C.

The B-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

The LINEMASTER

CADET

the "little giant" in foot switches that operates from *any* angle

#HB-2

Small only, 1⅛" high 3⅝" in diameter . . .
Lightweight, just 11 oz. including cordset . . .
Rugged, with heavy steel housing and unbreakable plastic actuating cap, the Cadet is an extremely compact foot switch that will give years of service in hundreds of different applications. It is well designed with an attractive grey hammertone effect casing, maroon cap and non-skid sponge rubber base for perfect positioning. The slightest pressure on the actuating cap from any angle puts the switch in operation. The operator has better control of work resulting in better production. Single pole, double throw, momentary contact only. Wired normally open. Rating 5A at 110V and 250V. Furnished with heavy duty 6 ft. 18-2SV black rubber cordset, series plug and molded strain relief grommet.

MANY OTHER STANDARD MODELS ARE AVAILABLE—WRITE FOR CATALOG

"When awkward jobs hold you up—a LINEMASTER FOOT SWITCH is your third hand!"

© U.C.P., Inc.

LINEMASTER

PRECISION-BUILT • DEPENDABLE • RUGGED • ECONOMICAL • OVER 1000 APPLICATIONS

LINEMASTER "SENIOR" 4000 SERIES

10 Maintained and Momentary Contact Models

A sturdy industrial-type switch that operates with light pressure from foot or knee, leaving both hands free for work. Economical and built to give years of trouble-free service — fully enclosed and hooded for protection against dirt and chips, with additional heavy spring and cast stop under cover casting, to relieve pressure and strain on spring inside switch proper Heavy-duty cast iron housing; black crackle enamel finish. 7" long, 4" wide, 3¼" high. Weight, 5¼ lbs.

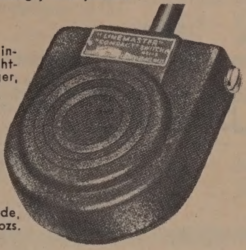
MAINTAINED CONTACT MODELS: Press to start—press to stop.
MOMENTARY CONTACT MODELS: Press to start—release to stop.

ELECTRICAL CHARACTERISTICS						MAINTAINED CONTACT	MOMENTARY CONTACT
Descrip.	Amperes AC	Amperes DC	Volts	Horse-power	Ph.	Cat. No.	Cat. No.
D-P S-T	20 20	20 20	125 250	1 1	1 1	4141-D	4141-S
D-P D-T	10 5	10 5	125 250	½ ½	1 1	4142-D	4142-S
S-P D-T	15 10	15 10	125 250	½ ½	1 1	4143-D	4143-S
D-P S-T	15 15 5		115 230 575	1 2 2	1 1 1	4151-D	4151-S
Three Pole	15 5		115-230 575	2 2	3 3	4351-D	4351-S

Safety guard available for all above models.

The LINEMASTER COMPACT

Amazingly versatile—amazingly low-priced!

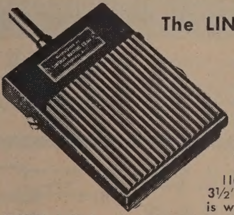


Small, lightweight — and instantly responsive to the slightest pressure of foot, finger, knee or elbow! Substantially built to insure long life, with an actuating mechanism superior to any other on the market today.

Available in a wide variety of wiring plans. Strong steel housing, black crackle finish. 2¾" long, 2½" wide, ⅞" high. Weight, 6½ ozs. Momentary contact only.

Cat. No.	DESCRIPTION	RATING
491-S	Single Pole, Double Throw A.C. only	10A at 115V 10A at 230V
491-SC	SPDT. Wired N.O. with 6 ft. cord and 2 prong series plug. A.C. only.	10A at 125V ½HP at 115V
491-S Twin	Two 491-S switches mounted on a twin base	10A at 115V ½HP at 115V
492-S	Single Pole, Double Throw A.C. only	20A at 115V 20A at 230V
493-S	Single Pole, Single Throw A.C. only, double break	10A at 115V 5A at 230V
494-S	2 interiors so arranged as to simulate D-P-D-T	10A at 115V 5A at 230V
496-S	Foto with cord & light, Single Pole, Double Throw A.C.	20A at 115V 20A at 230V

The LINEMASTER TREADLITE



Trim, small, lightweight, instantaneous!

MODEL T-51-S — Accurate control in a modern, minute, treadle switch! Single pole, double throw, momentary contact interior, that can be wired open or closed. Rubber base pad and rubber-ribbed treadle, formed steel casing with black crackle finish. Interior rated at 7 amps., 110 volts and 250 volts A.C. Weight 7 ozs.; 3½" long, 2⅝" wide, 1" high (model T-51-SC is wired with 6' cord and series plugs.)

MODEL T-51-D — Rocker type maintained contact action.

MODEL T-52-S — ONE treadle activates TWO switching operations! A partial downward stroke opens or closes one circuit, added pressure actuates the second circuit. Both interiors, as well as exterior, meet specifications for single-switching Model T-51-S.

LINEMASTER "NAUTILUS" FOOT SWITCH

waterproof • dustproof
oilproof • rustproof

A truly great development by Linemaster. The Nautilus is waterproof, dustproof, oilproof, rustproof. Rugged Aluminum casting for long life. Piston type actuator sealed with "O" ring. Electrical interior "well" sealed with "O" ring.

Size: 8" x 4" x 2¼" Wt.: 2 lbs., 8½ ozs.

Cat. No. WP541-S 20 Amp. 125-250 VAC SPDT momentary
Cat. No. WP541-D 12 Amp. 125 VAC SPDT maintained

The LINEMASTER LEKTRO-LOK SWITCH

Small, sensitive, automatically safe

Particularly ideal for transmission equipment!

Mechanical Interlock allows only one circuit to function at a time—and you can depend on it! LEKTRO-LOK operates on the teeter-totter system, with selective circuits. Pressure on one side actuates one circuit, release of pressure automatically returns switch to normal "off" position. Pressure on the other side is required before second switch is actuated, independent of first. Yet LEKTRO-LOK requires only a single cord—eliminates costly harness assemblies! Rugged stamped metal housing, black crackle finish. Weight, 10 ozs. 5" long, 2¾" wide, 1¼" high. Single pole, double throw. Rating (A.C. only) 15 amps at 125 volts, 15 amps. at 250 volts.

The L-4-S has a DPDT circuit on each side and is rated at 10 amps 125 VAC, 5 amps 250 VAC.

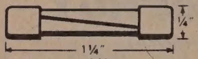
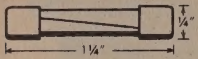
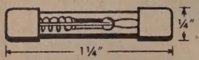
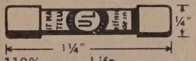
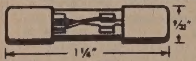
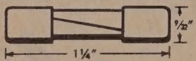
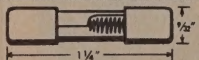
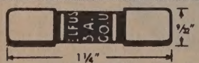
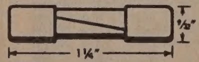
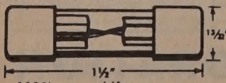
LINEMASTER SWITCH CORPORATION

WOODSTOCK, CONNECTICUT

© U.C.P., Inc.

LITTELFUSE

DES PLAINES, ILLINOIS, U.S.A.

Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price	
				Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**3AG Fuses (42 volts or less) 311(000) Series** Quick to medium blowing fuses. Designed with straight type element positioned to center of fuse.	4, 5, 7½, 10, 15 amp.	.16/5	2.65/c
			(Note: For 3AG 20 amp. now obsolete, use SFE 20A)		
			25, 30 amp.	.19/5	3.15/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**3AG Fuses (250 volts or less) 312(000)** Quick acting fuses for low time lag applications. 312(000) Series approved by Underwriters' Laboratories.	1/16, 3/16, ⅛, 15/100, 175 amp.	.63/5	10.50/c
			¼, 3/10, ⅜, ½, ¾ amp.	.42/5	7.00/c
			1, 1½, 2 amp.	.25/c	4.20/c
			3 amp.	.22/5	3.70/c
			4, 5, 6 amp.	.32/5	5.25/c
			8 amp. at 125 volts	.45/5	7.50/c
		318(000) Series Available under this series with 1½" No. 20 tinned copper leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3 amps.	1/16	1.05/c	17.50/c
			⅛ amp.	.78/5	13.00/c
			¼, ⅜, ½, ¾ amp.	.63/5	10.50/c
			1, 1½, 2, 3 amp.	.48/5	8.00/c
			4, 5, 6 amp.	.51/5	8.50/c
 110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**3AG Slo-Blo Fuses (125 volts or less) 313(000)** Slow blow fuses with high time lag to withstand heavy current surges. Blows quickly on shorts. 313(000) series approved by Underwriters' Laboratories through 5 amperes.	1/100, 1/32 amp.	1.17/5	19.50/c
			1/16, 1/10, ⅛, 15/100, .175, 3/16, 2/10, ¼, 3/10, ⅜, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1 amp.	.84/5	14.00/c
			1 2/10, 1¼, 1½, 1 6/10, 2 amp.	.78/5	13.00/c
			2½, 3, 3 2/10, 4, 5 amp.	.63/5	10.50/c
			6¼, 8, 10, 15, 20, 25, 30 amps. at 32 volts	.63/5	10.50/c
		315(000) Series Available under this series with 1½" No. 20 tinned copper wire leads in comparable amperages as shown. Series approved by Underwriters' Laboratories through 3.2 amps.	1/100, 1/32 amp.	1.41/5	23.50/c
			1/16, 1/10, 15/100, 3/16, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1 amp.	1.05/5	17.50/c
			1¼, 1½, 1 6/10, 2 amp.	.99/5	16.50/c
			2½, 3, 3 2/10, 4, 5 amp.	.84/5	14.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**3AB Fuses (250 volts or less) (steatite) 314(000) Series** Medium time lag steatite enclosed arc quenching powder filled fuses. Approved by Underwriters' Laboratories through 15 amperes.	1, 2, 3	.54/5	9.00/c
			5, 6, 8, 10	.51/5	8.50/c
			12, 15, 20 amp.	.54/5	9.00/c
			30 amp.	.63/5	10.50/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**4AG Aircraft Fuses (32 volts or less) (anti-vibration) 411(000) Series** Medium to slow fuses especially developed for aircraft use. Designed to withstand vibration, shock, fatigue and repeated off and on circuit operating conditions encountered in aircraft operation.	5 amp.		
			10, 15, 20, 25, 30 amp.	.45/5	7.50/c
			35 amp.	.45/5	7.54/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**4AG Aircraft Fuses (250 volts or less) (anti-vibration) 412(000) Series** Quick acting fuses—for low time lag applications. Developed for aircraft use. Designed to withstand shock and fatigue and afford maximum protection.	¼, ½	.45/5	7.50/c
			1	.70/5	12.00/c
			2	.75/5	12.50/c
			2½	.70/5	12.00/c
			3	.84/5	14.00/c
 110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**4AG Slo-Blo Fuses (250 volts or less) 413(000) Series** High time lag fuses for extra protection against sustained overloads. Designed to meet aircraft vibration test requirements. Spring-and-link element construction takes up thermal expansion and contraction and eliminates cyclic fatigue, crystallization and resulting fracture of link.	1/10, ⅛, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, ¾, 8/10, 1, 1¼, 1 6/10, 2, 2½, 3, 3 2/10	1.11/5	18.50/c
			4, 5, 6¼, 8, 10, 15, 20, 25, 30 at 32 volts	.84/5	14.00/c
			35, 40 at 32 volts	.84/5	14.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**4AB Fuses (250 volts or less) (steatite) 414(000) Series** Medium lag, steatite-enclosed, shatterproof fuses. Spring and link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated into ratings over 5 amperes.	1, 2, 3 amp.	.84/5	14.00/c
			5, 8, 10, 15, 20 at 125 volts	.78/5	13.00/c
			25, 30 at 32 volts	.78/5	13.00/c
			35, 40 at 32 volts	.84/5	14.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**4AG Straight-element Fuses (250 volts or less) 417(000) Series** Medium lag fuses for applications where vibration is not an important factor. Designed with diagonally aligned element and Littelfuse exclusive locked cap construction.	1, 2, 3 amp.	.42/5	7.00/c
			5, 10, 15, 20, 25, 30 amp. at 32 volts	.36/5	6.00/c
			35, 40 at 32 volts	.42/5	7.00/c
 110% 135% 200%	Life 0-1 hour 0-2 minutes	**5AG Aircraft Fuses (32 volts or less) 511(000) Series** Medium to slow fuses for general aircraft applications. Design incorporates anti-vibration type element, twisted to 90° angle and mechanically depolarized construction.	5, 10, 15, 20, 25, 30, 35, 40, 50, 60 amp.	1.53/5	25.50/c

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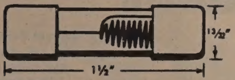
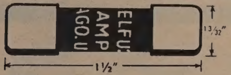
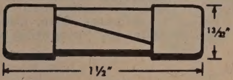
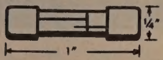
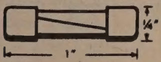
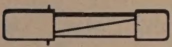
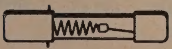
DES PLAINES, ILLINOIS, U.S.A. **LITTELFUSE**

	Percentage of rating	Blow Time	Description	Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Optional Resale Price Per 100 Fuses Std. Pkg. of 100 Fuses or More
	110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**5AG Slo-Blo Fuses (250 volts or less) 513(000) Series** High time lag fuses. Designed to withstand heavy current surges while affording maximum protection against shorts and damaging overloads.	1, 2 amp	1.41/5	23.50 c
				3 amp	1.11/5	18.50/c
				5, 10, 15, 20 amp. at 32 volts	1.11/5	18.50/c
				25, 30 amp. at 32 volts	1.26/5	21.00/c
	110% 135% 200%	Life 0-1 hour 0-2 minutes	**5AB Aircraft Fuses (250 volts or less) 514(000) Series** Medium time lag, bakelite enclosed, shatterproof fuses. Spring-link construction under 5 amperes. Mechanical depolarization, non-crystallizing features incorporated in ratings over 5 amperes. Recommended for applications where excessive shock and vibration are encountered.	1, 2, 3 amps.	.96/5	16.00/c
				5, 10, 15, 20, 25, 30 amps at 32 volts	.90/5	15.00/c
				35, 40 amp. at 32 volts	.96/5	16.00/c
	110% 135% 200%	Life 0-1 hour 0-2 minutes	**5AG Straight-element Fuses (250 volts or less) 517(000) Series** Medium time lag fuses for applications where a heavy duty fuse is desirable. Design incorporates diagonally aligned element and locked cap construction.	1, 2, 3 amp.	.51/5	8.50/c
				4 amp. at 32 volts	.51/5	8.50/c
				5, 10, 15, 20, 25, 30 amp. at 32 volts	.48/5	8.00/c
	100% 150%	Life 0-10 sec.	**8AG Instrument Fuses (250 volts or less) 361(000) Series** Designed for high speed action to insure maximum protection of delicate electrical equipment.	1/500 amp.	4.17/5	69.50/c
				1/200 amp.	1.74/5	29.00/c
				1/100 amp.	1.56/5	26.00/c
				1/32 amp.	1.35/5	22.50/c
				1/16 amp.	.84/5	14.00/c
				1/10, ⅛, 3/16, 2/10 amp.	.63/5	10.50/c
				¼, ⅜, 4/10, ½, ¾ amp.	.39/5	6.50/c
				1, 1½, 2, 3, 4, 5 20 amp. at	.30/5	5.00/c
				32 volts	.30/5	5.00/c
	110% 135% 200%	Life 0-1 hour 0-2 minutes	**8AG Fuses (250 volts or less) 362(000) Series** Medium time lag fuses for use where size is a factor because of space limitation or the need to differentiate physically between two fuses in close proximity. Designed to standard N.E.C. blowing specifications. Approved by Underwriters' Laboratories.	⅛ amp.	.48/5	8.00/c
				¼, ⅜, ½, ¾ amp.	.42/5	7.00/c
				1 amp.	.25/5	4.20/c
				1½, 2, 3 amp. at 125 volts	.25/5	4.20/c
				5 amp. at 125 volts	.16/5	2.65/c

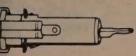
LIMITED CURRENT FUSES & HOLDERS

A new approach to circuit protection completely eliminating the possibility of overfusing circuits. This has been accomplished by a combination of three different fuse lengths and seven different widths of bayonet locking tabs on the fuse caps.

The Limited Current Fuse Holder is designed to accept only the size, amperage, range and type (regular or slo blo) in its amperage range. The fuse locks into the holder by means of a bayonet lock which permits easy and quick insertion and removal of fuses.

	110% 135% 200%	Life 0-1 hour 0-2 minutes	**Limited Current LC fuses 250V type C 332(000) Series** Quick acting—low time lag fuses, incorporating design features which adapt easily to television and similar applications.	1/32 amp.	1.32/5	22.00/c
				1/16 amp.	.84/5	14.00/c
				⅛, 3/16 amp.	.66/5	11.00/c
				¼, 3/10, ⅜, ½, ¾ amp.	.51/5	8.50/c
				1, 1¼, 1½, 1¾, 2, 2½, 3 amp.	.29/5	4.75/c
				3½, 4, 5, 6 amp.	.38/5	6.25/c
				7 amp. at 125 volts	.38/5	6.25/c
				8 amp. at 125 volts	.54/5	9.00/c
				10 amp. at 125 volts	.57/5	9.50/c
	110% 135% 200%	Life 0-1 hour 60 sec. max. 5 sec. min.	**Limited current LC Slo Blo fuses 125V type N 333(000) Series** Slo Blo fuses for high tmie lag applications. Construction incorporates design features similar to 332(000) series.	1/100, 1/32 amp.	1.23/5	20.50/c
				1/16, 1/10, 15/100, 2/10, ¼, 3/10, 4/10, ½, 6/10, 7/10, ¾, 8/10, 1 amp.	.89/5	14.75/c
				1¼, 16/10, 1¾, 2 amp.	.81/5	13.50/c
				2½, 28/10, 32/10, 3½,	.75/5	12.50/c
				4, 5, 6¼, 7 amp. at 32 volts	.75/5	12.50/c

ited Current Fuse Holders 346(000) Series)

	Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100	Catalog Number	Type	Amperage Range	Opt. Less Than Std.	Net Price Std. Pkg. of 100
	346001	Regular	(C 1/32-3/10)	$.13 ea.	$.11 ea.	346008	Slo-Blo	(N1/100-3/10)	$.13 ea.	$.11 ea.
	346002	Regular	(Over C 3/10-½)	.13	.11	346009	Slo-Blo	(Over N 3/10-½)	.13	.11
	346003	Regular	(Over C ½-¾)	.13	.11	346010	Slo-Blo	(Over N ½-¾)	.13	.11
	346004	Regular	(Over C ¾-1¼)	.13	.11	346011	Slo-Blo	(Over N ¾-1¼)	.13	.11
	346005	Regular	(Over C 1¼-1¾)	.13	.11	346016	Slo-Blo	(Over N 1¼-1¾)	.13	.11
	346006	Regular	(Over C 1¾-2½)	.13	.11	346017	Slo-Blo	(Over N 1¾-2½)	.13	.11
	346007	Regular	(Over C 2½ 3½)	.13	.11	346018	Slo-Blo	(Over N 2½-3½)	.13	.11
	346012	Regular	(Over C 3½-5)	.13	.11	346019	Slo-Blo	(Over N 3½-5)	.13	.11
	346013	Regular	(Over C 5-7)	.13	.11	346020	Slo-Blo	(Over N 5-7)	.13	.11
	346014	Regular	(Over C 7-10)	.13	.11					

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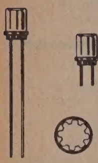
LITTELFUSE DES PLAINES, ILLINOIS, U.S.A.



MICROFUSE

A completely different development in circuit protection for subminiature applications.

The PIGTAIL VARIETY (278000 series) is especially adaptable for soldered connections in minimum space.

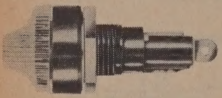
The PLUG-IN VARIETY (272000 series) is designed for use with the No. 281001 sub-miniature fuse holder which is easily mounted to chassis or printed circuit board.

The SUB-MINIATURE FUSE HOLDER #281001 allows fast simple fuse replacement, will handle continuous currents up to 5 amps at 125V or less.

Size: 13/64" Dia. x 11/32". Available from 1/500 amp. through 5 amps. Maximum voltages—125V. Blowing Specifications: Series 272000—278000. 110% Life; 200% 0-10 Seconds.

Amperes	Optional Resale Price Per Box of 5 Less than Std. Pkg.	Per 100 Fuses Std. Pkg. of 100 Fuses or More
0 through .031 amp.	5.15/5	86.00/c
.050A through 5 amp.	4.29/5	71.00/c
281001 plug-in holder	.26 each	.22 each

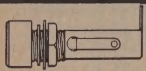
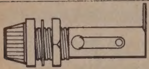
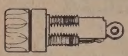
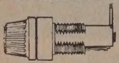
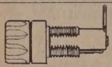
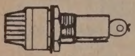
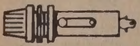
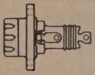
3AG INDICATING FUSE POST



Catalog Number	Voltage Range	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
344006	2½-7V	$2.21 ea.	$1.84 ea.
344012	7-16V	2.21 ea.	1.84 ea.
344024	16-32V	2.21 ea.	1.84 ea.
344125	100-125V	1.35 ea.	1.13 ea.
344250	200-250V	1.35 ea.	1.13 ea.

PHYSICAL CHARACTERISTICS

High temperature styrene knob (amber with incandescent bulbs—2½ thru 32 volts—and clear with high degree vacuum neon bulbs 90-250 volts). Maximum current rating 20 amperes. Size: Overall Length 2⅜"; front of Panel 13/16"; back of Panel 1½"; mounting hole ⅝" Dia.; flat on one side.

Style	Catalog Number	Fuse Size	Description	Physical Size fuse	Mounting Hole Dia.	Overall Length	Back of Panel	Net Resale Price Less than Std. Pkg.	Std. Pkg. of 100
	341001 371001	3AG 8AG	Screwdriver Slot Knob Screwdriver Slot Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.42 ea. .42 ea.	.35 ea. .35 ea.
	342001 372001	3AG 8AG	Finger Operated Knob Finger Operated Knob	1¼ x 1¼ Dia. 1 x ¼ Dia.	.505D .505D	2 7/32 2 7/32	1 23/32 1 23/32	.42 ea. .42 ea.	.35 ea. .35 ea.
	342014		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/64	1 11/32	.31 ea.	.26 ea.
	342022		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1 53/64	1¼	.36 ea.	.30 ea.
	342004		Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	1¾	1 1/64	.36 ea.	.30 ea.
	342012	3AG	Miniature post with finger operated knob	1¼ x 1¼ Dia.	.510D	2 5/32	1 11/32	.31 ea.	.26 ea.
	442001	4AG	Fuse extractor post	1¼ x 9/32 Dia.	.635D	2 29/32	2¼	.84 ea.	.70 ea.
	570001	5AG	Finger operated knob —flange Mount	1½ x 13/32 Dia.	.865D	2 9/32	1 15/32	1.07 ea.	.895 ea.

FUSE CADDY Part 094037

A handy fuse kit for instant accessibility—correct fuse at your fingertips every time. 18 individual compartments. Fuse caddy comes with 75 fuses, 15 different types, plus 3 spare compartments.

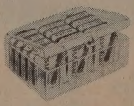
3AG ¼A
3AG ½A
3AG 1A
3AG 2A
3AG 3A

3AG 5A
3AG ¼A SB
3AG ½A SB
8AG ¼
8AG ½

N ¼ LC
N 1 LC
N 1¼ LC
C 2½ LC

Net Resale Price
$6.70 ea.

LC FUSE CADDY Part 094041

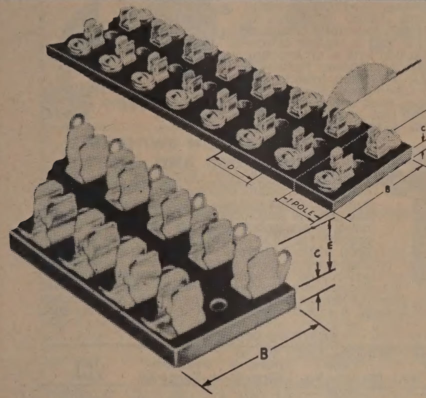


A handy all inclusive LC (Limited Current) Fuse Caddy for servicemen's tube caddy. One call is all. 18 individual compartments. LC Fuse Caddy comes with 75 fuses; 15 different types plus three spare compartments.

Net Resale Price
$9.00 ea.

DES PLAINES, ILLINOIS, U.S.A. **LITTELFUSE**

FUSE MOUNTING PANELS



IOUNTINGS WITH SOLDER TERMINALS—TYPE "S" Phos-
hor-Bronze, bright-dipped finish Lug Clips are firmly an-
hored to black Bakelite base—have non-turning anchors. For
AG (387000 series) and 3AG (357000 series) fuses.

IOUNTINGS WITH SCREW TERMINALS—TYPE "T" Spaced
U/L requirements for equipment circuit protection. Nickel
lated brass screw terminals, nickel plated fuse clips. For
AG(356000 series), 4AG(456000 series) and 5AG(556000
eries) fuses.

pen type fuse panels, stocked in 12-pole units as shown—we
ut them to 2, 3, 4 or more poles as ordered, or you may cut
nem in your plant (1/8" allowance for saw cut).

Cat. No.	Fuse Type	Mtg. Type	Dim. "B"	Dim. "C"	Dim. "D"	Dim. "E"	Each less than 100	Each over 100
387001	8AG	S	1 3/8	3/16	5/8	21/32	.13	.11
357001	3AG	S	1 5/8	3/16	5/8	21/32	.13	.11
356001	3AG	T	2 3/8	7/32	29/32	11/16	.28	.24
456001	4AG	T	2 3/8	7/32	29/32	13/16	.35	.30
556001	5AG	T	2 3/4	9/32	31/32	1 1/32	.41	.34

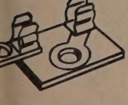
ote: Above are single pole mountings. Prices and delivery by quotation for multiple pole types.

RECTIFIER MOUNTINGS

Mountings custom designed for Sarkes Tarzian silicon rectifiers series M500 and L1250. Mountings designed to your specifications are available upon request. Let our engineers assist you.

Cat. No.		Each less than 100	Each over 100
099062	1 pole	.14 each	.12 each
099063	2 poles	.28 each	.23 each

METER BACK MOUNTING Cat. No. 383002 (1059)—



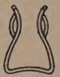
Mounts directly on meter binding post. Will not touch other posts on smallest standard meter. Linen bakelite base, 1" x 1 1/8". Length over screw terminal, 1 1/2".

Net Resale Price

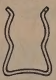
Less than Std. Pkg.	Std. Pkg. of 10
.21 ea.	.175 ea.

STANDARD FUSE CLIPS

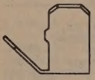
For the exacting performance often required in the electronics communications, radio, television, aircraft and marine equipment industries, we recommend our beryllium copper fuse clip. Beryllium copper clips have lower contact resistance and higher conductivity than ordinary fuse clips. They are silver plated, a finish well suited to fuse applications.



Ears



Earless



Lug

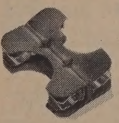
FUSE CLIPS
(Phosphor Bronze Bright Nickel Plated)

		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg. of 100 ea.
3AG Fuse Clip	101001	.017	.014
3AG Fuse Clip (Earless)	101002	.017	.014
3AG Solder Terminal Clip Bright dip	101003	.024	.02
4AG Fuse Clip	103001	.0318	.0265
4AG Fuse Clip (Earless)	104002	.0318	.0265
5AG Fuse Clip	105001	.0408	.034
5AG Fuse Clip (Earless)	105002	.0408	.034
9/16" Dia. Fuse Clip	107001	.066	.055
9/16" Dia. Fuse Clip (Earless)	107002	.066	.055
13/16" Dia Fuse Clip	109001	.15	.125
13/16" Dia. Fuse Clip (Earless)	109002	.15	.125

FUSE CLIPS
(Beryllium Copper Silver Plated)

		Net Resale Price Less than Std. Pkg. ea.	Std. Pkg. of 100 ea.
3AG Fuse Clip	121001	.0408	.034
3AG Fuse Clip (Earless)	121002	.0408	.034
3AG Solder Terminal Clip	121004	.084	.07
4AG Fuse Clip	123001	.06	.05
4AG Fuse Clip (Earless)	123002	.06	.05
5AG Fuse Clip	125001	.096	.08
5AG Fuse Clip (Earless)	125002	.096	.08
9/16" Dia. Fuse Clip	127001	.186	.155
9/16" Dia. Fuse Clip (Earless)	127002	.186	.155
13/16" Dia. Fuse Clip	129001	.462	.385
13/16" Dia. Fuse Clip (Earless)	129002	.462	.385

SNAP-ON MOUNTINGS



Time saver for pigtail replacement. Snap on blown pigtail, then use regular fuse in other side. No soldering. This Snap-On mounting has a cut out on both sides which makes the fuse accessible for replacement from both sides. They are available in bulk, on display cards of 24, or in handy merchandising plastic boxes of ten.

Net Resale Price

		Less than Std. Pkg.	Std. Pkg.
Card of 24	No. 094024	$4.32 ea.	$3.60 ea.
Box of 10	No. 094025	1.80 ea.	1.50 ea.
Bulk	No. 350130	.92/5	14.00/c

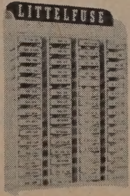
IN-LINE FUSE RETAINER Assortment 094020

EASY IN-LINE FUSE RETAINER
LITTELFUSE

comes complete with 8-inch loop of wire and fuse inserted under spring tension. Assortment consists of 6 SFE 14 units, 3 SFE 9 and 3 SFE 20.

Net Resale Price
$4.70 ea.

FUSEMASTER 094047



Versatile clear plastic fuse wall rack with 60 individual compartments for 60 different fuse types. Index inventory control card, pressure sensitive blank inventory labels for easy index adjustment; and an assortment of 100 popular fuses are furnished as a package under Fusemaster Assortment 094047.

Net Resale Price
$10.14 ea.

P. R. MALLORY & CO. Inc.
MALLORY

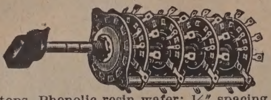
Switches

SINGLE SECTION ROTARY SWITCHES

For use in small receivers as tone controls, band selector and antennae switching; also for meter switching in test equipment and other devices where space is a factor. Two sizes available: 1¼" dia. 30° indexing and 1¹¹⁄₁₆" dia., 20° indexing. Phenolic resin wafer. Breakdown, 500 v. DC or AC. Rated .125 amp, 300 v. DC; 3 amp, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC. Non-breaking current resistive load, 5 amps max. With knob, nut and lockwasher.

Shorting Mallory No.	Non-Shorting Mallory No.	No. of Circuits	No. of Positions	Dia. of Base	Adjustable Stop	Net Each
3115J	3215J	1	5	1¼"	No	$1.02
31112J	32112J	1	12	1¼"	No	1.02
3122J	3222J	2	2	1¼"	No	1.02
3123J	3223J	2	3	1¼"	No	1.02
3126J	3226J	2	6	1¼"	No	1.02
3134J	3234J	3	4	1¼"	No	1.05
3142J	3242J	4	2	1¼"	No	1.05
3143J	3243J	4	3	1¼"	No	1.05
31117J	32117J	1	2 to 17	1¹¹⁄₁₆"	Yes	1.56
3129J	3229J	2	2 to 9	1¹¹⁄₁₆"	Yes	1.56
3136J	3236J	3	2 to 6	1¹¹⁄₁₆"	Yes	1.65
3163J	3263J	6	2 to 3	1¹¹⁄₁₆"	Yes	1.65

MULTI-SECTION ROTARY SWITCHES

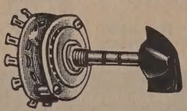


For test equipment, meter switching and low current industrial applications. All contacting members are silver plated, with self-cleaning contact wiping action. Durable alloy index spring. Adjustable stops. Phenolic resin wafer; ½" spacing except three and four-section models, 1" spacing. Indexing, 30°. Breakdown, 1000 v. AC or DC. Rated .6 amp, 300 v. DC; 8 amps, 60 v. DC; 1 amp, 300 v. AC; 10 amps, 6 v. AC. Non-breaking current, resistive load, 10 amps max. With knob, nut and lockwasher.

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	No. of Circuits Per Section	No. of Circuits Per Switch	No. of Positions	No. of Sections or Gangs	Net Each
1211L	1311L	1	1	2 to 11	1	$2.10
1215L*	1315L*	2	2	2 to 5	1	2.10
1213L*	1313L*	3	3	2 to 3	1	2.10
1212L*	1312L*	4	4	2 to 2	1	2.10
1221L	1321L	1	2	2 to 11	2	2.58
1225L*	1325L*	2	4	2 to 5	2	2.58
1223L*	1323L*	3	6	2 to 3	2	2.58
1222L*	1322L*	4	8	2 to 2	2	2.58
1231L	1331L	1	3	2 to 11	3	3.24
1235L*	1335L*	2	6	2 to 5	3	3.24
1241L	1341L	1	4	2 to 11	4	3.81
1245L*	1345L*	2	8	2 to 5	4	3.81
1251L	1351L	1	5	2 to 11	5	4.11
1256L	1356L	2	10	2 to 6	5	4.53
1261L	1361L	1	6	2 to 11	6	4.83
1266L	1366L	2	12	2 to 6	6	5.52

*These switches are provided with an "off" position which is in addition to the number of positions listed in the fifth column.

CERAMIC SECTION SELECTOR SWITCHES



Ideal for highly efficient, critical r-f circuit applications in radio receivers and low-power transmitter circuits. Ceramic insulation minimizes r-f losses and retards moisture absorption. Adjustable stop is feature of index assembly permitting choice of 2 to 11 positions. All types are non-shorting. Two-section switch has ½" spacing; three-section units, 1" spacing between sections. Brass bushing ⅜" dia. x ⅜" l.; shaft ¼" dia. x 2" l. grooved for cutting. Breakdown, 500 v. AC or DC. Rated 5 amps, 300 v. AC-DC; 6 amps, 6 v. AC-DC. Non-breaking current, resistive load, 10 amps max. With knob, nut and lockwasher.

Mallory No.	Number of Gangs	Number of Circuits Per Gang	Number of Positions	Net Each
172C	1	1	2 to 11	$2.37
173C*	1	2	2 to 5	2.37
174C*	1	3	2 to 3	2.37
176C	2	1	2 to 11	3.39
177C*	2	2	2 to 5	3.39
178C*	2	3	2 to 3	3.39
180C	3	1	2 to 11	4.32
181C*	3	2	2 to 5	4.32

*Has additional "off" switch preceding numbered positions.

CIRCUIT OPENING SWITCH

For meter switching in test sets or where multiple circuits must be opened for insertion of resistors, capacitors, etc. Phenolic resin insulation; 2 to 11 position adjustable stop. Bushing, ⅜" dia. x ⅜" long; shaft ¼" dia. x 2" long, grooved for cutting. Indexing, 30°. Rated 6 amps, 300 v. DC; 8 amps, 6 v. DC; 1 amp, 300 v. AC; 10 amps, 6 v. AC. Max. resistive load 10 amps non-breaking current. With knob, nut and lockwasher.

Mallory No. 1400L Circuit Opening Switch—Net Each. . **$4.68**

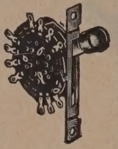
24-POSITION TAP SWITCH NO. 13124L

For test applications which cannot be met with conventional 12-point switch. Accomplished through use of two sections similar in design to 1300L switches. Indexing mechanism has no stops, and is capable of continuous rotation with a 15° indexing action between positions. Furnished with ⅜" dia. x ⅜" long bushing and 2" long, notched shaft. Electrical characteristics similar to 1200L, 1300L series. Each switch is equipped with No. 366 knob, No. 232 nut, No. 227 lock washer and No. 394 dial plate.

Mallory No. 13124L Switch—Net Each. **$2.76**

LEVER ACTION SWITCHES

TYPES 5000 AND 6000



Particularly adapted to centralized radio, sound distribution, public address equipment and intercommunicating systems. Housing and bracket are one integral part, prevents warping or mis-alignment of contacts. Terminals secured by "wrap-around" method to high grade phenolic resin. 5000 series has elongated mounting holes with 2⁹⁄₃₂" centers; 6000 series has round holes spaced 1⅝". May be mounted in multiples with ¾" between lever arm centers. Breakdown, 500 v. AC or DC. Rated .125 amp, 300 v. DC; 3 amps, 6 v. DC; .2 amp, 300 v. AC; 5 amps, 6 v. AC. With knob and two 6-32 bolts with nuts.

POSITIVE INDEXING

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	No. of Poles or Circuits	No. of Positions or Contacts	Net Each
5124	5224	2	4	$1.38
6142	6242	4	2	1.20
6143	6243	4	3	1.20

MINIATURE PUSH BUTTON SWITCHES

1011

Especially suitable for use in such applications as test panels, meter circuits and labs. Eight different circuit combinations available in non-locking type only, where contact is made when button is depressed. Alloy contact springs, fine silver contacts, cadmium plated steel switch frame, aluminum mounting bushing. Mounts in single hole, 7⁄16" min. (1011) and ⅞" max. (1018). Voltage breakdown, 500 v. DC. With mounting nut and washer.

Mallory No.	Circuit Arrangement	Net Each
1011	SPST—Make	$0.69
1012	SPST—Break	.69
1013	SPDT	.78
1014	DPST—Make 2	.87
1015	DPST—Break 2	.87
1016	DPDT	1.05
1017	DP—Make 2, Break 1	1.05
1018	DPDT—Make before break	1.44

CAPACITOR AND RESISTOR DECADE SWITCHES

Phenolic insulation. Positions adjustable for use as single decade or combined with other switches for multiple decade. Circuit requires only four resistors or capacitors for full decade. Mounting depth, 1" behind panel; lateral mounting space 2". Rated 500 v. DC or AC breakdown. Shaft, ¼" dia. x 2" long. With knob, nut and lockwasher.

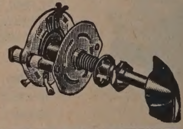
Mallory No. 153L Capacitor Decade Switch—Net Each. . **$2.70**
Mallory No. 154L Resistor Decade Switch—Net Each. . . . **$2.94**

ANTENNA SWITCH

For use where two separate antennas are used with a single TV set. Mounts on rear safety panel of cabinet with mounting bracket and two self-tapping screws, supplied. Solder terminals. Shaft 13⁄16" long from mounting surface; switch 1¼" dia. With bar knob, bracket and screws.

Mallory No. 3122TV Antenna Switch—Net Each. **$1.31**

CERAMIC SECTION RF SWITCHES



A special ceramic switch designed for transmitter circuits up to 1000 V. D. C. with power up to 100 watts. Ceramic insulation is employed in both sections and spacers. 90° indexing between positions, and capable of continuous rotation. Supplied with ⅜" dia., ⅜" long brass bushing and 2" long shaft grooved for cutting. Bar knob, locknut and washer included. All types non-shorting.

Mallory No.	No. of Sections	Circuits	Spacing Between Sections	Contacts Per Circuit	Net Each
161C	1	1	. . . .	4	$2.16
162C	2	2	1⅞"	4	3.06
163C	3	3	1"	4	3.96
164C	4	4	1"	4	4.86
165C	5	5	1"	4	5.76

FIVE-POSITION HAMSWITCH®

Provides a method of using a single meter to measure current or voltages up to five circuits of an amateur transmitter. Same basic design as Series 1200L. Has conservative rating of 1000 volts RMS AC or 1500 volts DC. Indexing 60°. Has adjustable stop feature for maximum of five positions. Bushing is ⅜" dia. x ⅜" long, shaft is ¼" dia x 2" long, grooved for easy cutting. Knob, nut and lock washer furnished.

Mallory No. 151L Hamswitch—Net Each. **$2.70**

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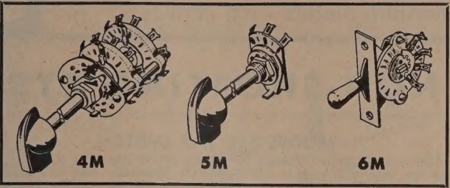
P. R. MALLORY & CO. Inc.
MALLORY

Mallory-Grigsby Switches



Features exclusive "Wedgelock" method of attaching contacts to the wafers; insures positive contact alignment; and, avoids frame and contact distortion. Radial stator arrangement provides a wide insulating path between contacts and minimum wafer size.

TYPE 4M PHENOLIC AND CERAMIC ROTARY SWITCHES

Commercial equivalents of MIL-S-3786. Phenolic types use Richardson T725 grade phenolic for stators and rotors; have common contact on the same side as the switching contacts. Ceramic types use military grade L-5 steatite treated with Dow-Corning 200; have common contact on the opposite side of the wafer from the other contacts to provide a 12-position switch. Initial contact resistance, .005 ohm, maximum. Breakdown voltage, 1,700 v. rms, 60 cycle, between contacts and contacts and frames. Contact rating, 350 ma at 500 v. rms, resistive load. Supplied with knob, adjustable stop, lockwasher, and nut.

30° INDEXING PHENOLIC WAFER

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M11111	4M21111	1	1	11	$1.80
4M1215	4M2215	2	1	5	1.80
4M11211	4M21211	1	2	11	2.58
4M1313	4M2313	3	1	3	1.80
4M11311	4M21311	1	3	11	3.24
4M1412	4M2412	4	1	2	1.80
4M1225	4M2225	2	2	5	2.58
4M11411	4M21411	1	4	11	3.81
4M11511	4M21511	1	5	11	4.47
4M1323	4M2323	3	2	3	2.58
4M1235	4M2235	2	3	5	3.24
4M11611	4M21611	1	6	11	5.04
4M1422	4M2422	4	2	2	2.58
4M1245	4M2245	2	4	5	3.81
4M1255	4M2255	2	5	5	4.47
4M1432	4M2432	4	3	2	3.24
4M1265	4M2265	2	6	5	5.04

30° INDEXING CERAMIC WAFER

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M11112C	4M21112C	1	1	12	$2.37
4M1216C	4M2216C	2	1	6	2.37
4M11212C	4M21212C	1	2	12	3.39
4M1315C	4M2315C	3	1	5	2.37
4M11312C	4M21312C	1	3	12	4.32
4M1226C	4M2226C	2	2	6	3.39
4M11412C	4M21412C	1	4	12	5.19
4M1513C	4M2513C	5	1	3	2.37
4M11512C	4M21512C	1	5	12	6.18
4M1612C	4M2612C	6	1	2	2.37
4M1325C	4M2325C	3	2	5	3.39
4M1236C	4M2236C	2	3	6	4.32
4M11612C	4M21612C	1	6	12	7.20
4M1246C	4M2246C	2	4	6	5.19
4M1335C	4M2335C	3	3	5	4.32
4M1523C	4M2523C	5	2	3	3.39

CERAMIC WAFER (CONTINUED)

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M1256C	4M2256C	2	5	6	$6.18
4M1622C	4M2622C	6	2	2	3.39
4M1266C	4M2266C	2	6	6	7.20
4M1533C	4M2533C	5	3	3	4.68
4M1632C	4M2632C	6	3	2	4.68

TYPE 4M CERAMIC ROTARY RF SWITCHES

Especially designed to be used in applications where high RF signals are to be encountered and use a phenolic shaft in the active switch segments. Suffix **H** indicates 60° indexing; suffix **N** 90° indexing. Made of military grade L-5 steatite treated with Dow-Corning 200; feature rugged contact construction. Dimensions similar to 30° indexing type except mounting plate to first section which is ¾". Complete with knob, adjustable stop, lockwasher and nut.

60° INDEXING

Non-Shorting Mallory No.	Circuits per Section	No. of Sections	No. of Positions	Net Each
4M2116H	1	1	6	$2.16
4M2126H	1	2	6	3.06
4M2136H	1	3	6	3.96
4M2146H	1	4	6	4.86
4M2156H	1	5	6	5.76

90° INDEXING

Non-Shorting Mallory No.	Circuits per Section	No. of Sections	No. of Positions	Net Each
4M2114N	1	1	4	$2.16
4M2124N	1	2	4	3.06
4M2134N	1	3	4	3.96
4M2144N	1	4	4	4.86
4M2154N	1	5	4	5.76

TYPES 4M AND 5M SINGLE SECTION PHENOLIC GENERAL PURPOSE SWITCHES

General purpose switches supplied with knob, lockwasher and nut. Type 4M switches are intended for simple switching applications or where a spring return feature is desired. Type 5M switches are small compact designs for tone control, radio-phono, etc., similar construction to Type 4M. No. 5M1113K uses knurled shaft; knob not furnished.

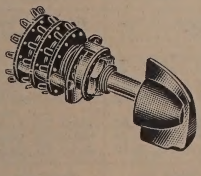
Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
4M1114D	....	1	1	4	$1.80
....	4M2412S	4	1	2	1.44
5M1112	....	1	1	2	1.08
5M1113	....	1	1	3	1.08
5M1113K	....	1	1	3	.75
5M1213	5M2213	2	1	3	1.08

TYPE 6M PHENOLIC LEVER ACTION SWITCHES

Feature the same general construction as the 4M types. Wafer diameter is basically the same and incorporates the same "Wedgelock" and radial contact features. Supplied with lever knob. Suffix **S** designates spring return; suffix **U** indicates both positive action and spring return.

Shorting Type Mallory No.	Non-Shorting Type Mallory No.	Circuits Per Section	No. of Sections	No. of Positions	Net Each
6M1213	6M2213	2	1	3	$1.26
6M1213S	6M2213S	2	1	3	1.26
6M1213U	6M2213U	2	1	3	1.26
6M1412S	6M2412S	4	1	2	1.44

MALLORY-GRIGSBY SUBMINIATURE SWITCHES



Series 12M subminiature switches are 30° indexing types with 12 positions and fixed stop. Glass-epoxy wafers, per MIL-P-18177, are only ⅞" in diameter. Spacing between wafers is 3/16"; available in up to three wafers and with four circuits per section. **Electrical Ratings** (resistive load): 150 ma at 125 volts; maximum rated voltage, 225 volts; maximum rated current, 2.5 amperes at 6 volts rms. **Bushing:** ⅜"-32 x ⅜". **Shaft:** ¼" dia. x 1¼" long. Furnished with nut, lockwasher and 366-1 bar knob.

30° INDEXING GLASS-EPOXY WAFER

Mallory Number		Circuits Per Section	Number of		Net Each
Shorting Type	Non-Shorting		Sections	Positions	
12M11111G	12M21111G	1	1	11	$4.52
12M11211G	12M21211G	1	2	11	5.58
12M1215G	12M2215G	2	1	5	4.52
12M11311G	12M21311G	1	3	11	6.64
12M1313G	12M2313G	3	1	3	4.52
12M1225G	12M2225G	2	2	5	5.58
12M1412G	12M2412G	4	1	2	4.52
12M1235G	12M2235G	2	3	5	6.64
12M1323G	12M2323G	3	2	3	5.58
12M1422G	12M2422G	4	2	2	5.58
12M1333G	12M2333G	3	3	3	6.64
12M1432G	12M2432G	4	3	2	6.64

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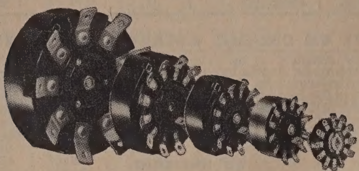
OHMITE

resistors · rheostats · tap switches · relays
variable transformers · tantalum capacitors
germanium diodes · r.f. chokes

POWER TAP SWITCHES NON-SHORTING TYPE



Each switch is a non-shorting, single pole, rotary, multi-position unit, but switches can be ordered assembled 2 or 3 in tandem (2 maximum, for Model 111) to form multipole assemblies. All ceramic insulation, large, solid silver-to-silver contacts, and "slow-break" action especially designed for alternating current use establish new standards of dependability and performance. Switch shafts are electrically "dead"—insulated by strong ceramic hubs. Contacts and mechanism are entirely enclosed and protected (except for the Model 111).

MODEL 111 TAP SWITCH

Alternating Current Rating *10 Amps. 150 Volts* — Diameter 1¼" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut.

Depth Behind Panel		Single Unit		2 in Tandem	
		1⅛"		2¾"	
No. of Taps	Total Rotation	Stock Number	*Net 1-4	Stock Number	*Net 1-2
11	300°	111-11	**$4.78**	111-11-T2	**$12.86**
10	270°	111-10	**4.66**	111-10-T2	**12.62**
9	240°	111- 9	**4.54**	111- 9-T2	**12.38**
8	210°	111- 8	**4.42**	111- 8-T2	**12.14**
7	180°	111- 7	**4.30**	111- 7-T2	**11.90**
6	150°	111- 6	**4.18**	111- 6-T2	**11.66**
5	120°	111- 5	**4.06**	111- 5-T2	**11.42**
4	90°	111- 4	**3.94**	111- 4-T2	**11.18**
3	60°	111- 3	**3.82**	111- 3-T2	**10.94**
2	30°	111- 2	**3.70**	111- 2-T2	**10.70**
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5109 or 5110	

*Without Knob.

MODEL 212 TAP SWITCH

Alternating Current Rating *15 Amps. 150 Volts* — Diameter 2¼" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, by means of ⅜"-32 threaded bushing and hex. nut. Tandem Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		1¾"		4 3/16"		6 3/16"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	212-12	**$ 9.04**	212-12-T2	**$21.38**	212-12-T3	**$32.12**
11	300°	212-11	**8.86**	212-11-T2	**21.02**	212-11-T3	**31.58**
10	270°	212-10	**8.68**	212-10-T2	**20.66**	212-10-T3	**31.04**
9	240°	212- 9	**8.50**	212- 9-T2	**20.30**	212- 9-T3	**30.50**
8	210°	212- 8	**8.32**	212- 8-T2	**19.94**	212- 8-T3	**29.96**
7	180°	212- 7	**8.14**	212- 7-T2	**19.58**	212- 7-T3	**29.42**
6	150°	212- 6	**7.96**	212- 6-T2	**19.22**	212- 6-T3	**28.88**
5	120°	212- 5	**7.78**	212- 5-T2	**18.86**	212- 5-T3	**28.34**
4	90°	212- 4	**7.60**	212- 4-T2	**18.50**	212- 4-T3	**27.80**
3	60°	212- 3	**7.42**	212- 3-T2	**18.14**	212- 3-T3	**27.26**
2	30°	212- 2	**7.24**	212- 2-T2	**17.78**	212- 2-T3	**26.72**
Recommended Knobs		Stock No. 5150 or 5116		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 312 TAP SWITCH

Alternating Current Rating *25 Amps. 300 Volts,* 150 V. A.C. between taps — Diameter 3 5/16" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum, three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		2¼"		4⅝"		7"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	312-12	**$11.62**	312-12-T2	**$27.24**	312-12-T3	**$41.46**
11	300°	312-11	**11.44**	312-11-T2	**27.28**	312-11-T3	**40.92**
10	270°	312-10	**11.26**	312-10-T2	**26.92**	312-10-T3	**40.38**
9	240°	312- 9	**11.08**	312- 9-T2	**26.56**	312- 9-T3	**39.84**
8	210°	312- 8	**10.90**	312- 8-T2	**26.20**	312- 8-T3	**39.30**
7	180°	312- 7	**10.72**	312- 7-T2	**25.84**	312- 7-T3	**38.76**
6	150°	312- 6	**10.54**	312- 6-T2	**25.48**	312- 6-T3	**38.22**
5	120°	312- 5	**10.36**	312- 5-T2	**25.12**	312- 5-T3	**37.68**
4	90°	312- 4	**10.18**	312- 4-T2	**24.76**	312- 4-T3	**37.14**
3	60°	312- 3	**10.00**	312- 3-T2	**24.40**	312- 3-T3	**36.60**
2	30°	312- 2	**9.82**	312- 2-T2	**24.04**	312- 2-T3	**36.06**
Recommended Knobs		Stock No. 5109 or 5110		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 412 TAP SWITCH

Alternating Current Rating *50 Amps. 300 Volts,* 150 V. A.C. between taps — Diameter 4 3/16" — Shaft Diameter ¼" — Standard Mounting: For ¼" panel maximum three No. 10-32 flat-head machine screws ⅜" long.

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		2 7/16"		5 1/32"		7⅝"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
12	330°	412-12	**$15.46**	412-12-T2	**$35.32**	412-12-T3	**$52.98**
11	300°	412-11	**15.20**	412-11-T2	**34.80**	412-11-T3	**52.20**
10	270°	412-10	**14.94**	412-10-T2	**34.28**	412-10-T3	**51.42**
9	240°	412- 9	**14.68**	412- 9-T2	**33.76**	412- 9-T3	**50.64**
8	210°	412- 8	**14.42**	412- 8-T2	**33.24**	412- 8-T3	**49.86**
7	180°	412- 7	**14.16**	412- 7-T2	**32.72**	412- 7-T3	**49.08**
6	150°	412- 6	**13.90**	412- 6-T2	**32.20**	412- 6-T3	**48.30**
5	120°	412- 5	**13.64**	412- 5-T2	**31.68**	412- 5-T3	**47.52**
4	90°	412- 4	**13.38**	412- 4-T2	**31.16**	412- 4-T3	**46.74**
3	60°	412- 3	**13.12**	412- 3-T2	**30.64**	412- 3-T3	**45.96**
2	30°	412- 2	**12.86**	412- 2-T2	**30.12**	412- 2-T3	**45.18**
Recommended Knobs		Stock No. 5111 or 5112		Stock No. 5111 or 5112		Stock No. 5111 or 5112	

*Without Knob.

MODEL 608 TAP SWITCH

Alternating Current Rating *100 Amps. 300 Volts* — Diameter 6" —Shaft Diameter ⅜"—Standard Mounting: For 1" panel maximum, three flat-head machine screws ¼"-20 x 1¼".

Depth Behind Panel		Single Unit		2 in Tandem		3 in Tandem	
		3 5/16"		6 13/16"		10 5/16"	
No. of Taps	Total Rotation	Stock No.	*Net 1-4	Stock No.	*Net 1-2	Stock No.	*Net Each
8	280°	608-8	**$25.54**	608-8-T2	**$57.68**	608-8-T3	**$85.42**
7	240°	608-7	**25.20**	608-7-T2	**57.00**	608-7-T3	**84.40**
6	200°	608-6	**24.86**	608-6-T2	**56.32**	608-6-T3	**83.38**
5	160°	608-5	**24.52**	608-5-T2	**55.64**	608-5-T3	**82.36**
4	120°	608-4	**24.18**	608-4-T2	**54.96**	608-4-T3	**81.34**
3	80°	608-3	**23.84**	608-3-T2	**54.28**	608-3-T3	**80.32**
2	40°	608-2	**23.50**	608-2-T2	**53.60**	608-2-T3	**79.30**
Recommended Knobs		Stock No. 5104 or 5115 or 5105		Stock No. 5104 or 5115 or 5105		Stock No. 5115	

*Without Knob.

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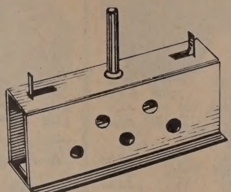
Sightmaster® CORPORATION, PROVIDENCE, R. I.

NEW THERMAL OVERLOAD SWITCH FOR TV

A simple, but unique series of thermal overload switches ideally suited for TV receivers. Other intended applications include a wide range of electrical/electronic instruments for industrial, commercial and consumer use.

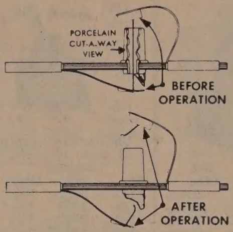
OUTSTANDING FEATURES

- SIMPLE CONSTRUCTION
- LOW COST
- DURABLE—RELIABLE
- ALL CRITICAL PARTS SILVER PLATED
- IMPOSSIBLE TO OVER-RIDE BY FASTENING RE-SET BUTTON



SERIES 35 GRASSHOPPER FUSES

(INDICATOR ALARM TYPE)

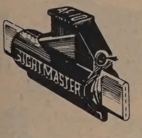


FUSE CAT. NO.	RATED CAPACITY (AMPERE)	OPERATES ON SUGGESTED PEAK VOLTAGE	AMPS.	IN LESS THAN
35A	1-1/3	90	2	1-1/2 Min.
35B	1-1/3	90	2	1-1/2 Min.
35B	2	90	3	3 Min.
35C	2	90	3	3 Min.
35D	1-1/3	90	2	1-1/2 Min
35E	3	90	4	5 Min.
35F	1/2	90	3/4	1-1/2 Min.
35G	3	90	4-1/2	5 Min.
35H	5	90	6-1/2	5 Min.
**35J	1/2	160	3/4	1-1/2 Min.
*35K	1-1/3	150	2	3 Min.
*35L	2	150	3	3 Min.
*35M	3	150	4-1/2	5 Min.
*35N	5	150	6-1/2	5 Min.
**35P	3/4	160	1-1/8	1-1/2 Min.
35R	.180	90	.270	1-1/2 Min.
**35S	1/4	160	3/8	1-1/2 Min.
35T	.65	90	1.1	3 Min

* Made with ceramic insulator to protect against arcing
** Made with glass insulator to protect against arcing

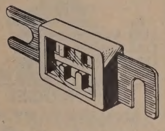
HIGH RELIABILITY AIRCRAFT LIMITERS

"AF" SERIES



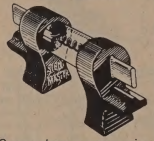
Specific use—aircraft electrical circuits. Mechanical plunger identifies blown limiter.

"AFH" SERIES



For aircraft electrical distribution up to 50v. Sizes from 35 to 400 A. Transparent window for fuse link inspection.

"AFS" SERIES



Operates same circuits as "AF" Series. Limiters made for system as well as equipment protection. Glass tube for inspection of blown link.

SERIES "70" INDICATING FUSES

Case Material: Fibre **Body Size: 9/32" x 1¼"**
Overall Size: 9/32" x 1 27/32"

Designed for use in communications equipment. Spring-loaded, color coded tip extends to give positive visual indication of blown fuse. Can be used in specially designed fuse-holder or is interchangeable with 4AG Series used in open clips. Can be wired to activate alarm system indicating blown fuse. Manufactured in the following amperages:

300V or Less
180/1000 Amp through 5 Amps

Test Specifications:
Continuous duty at 100%. Blows within 90 seconds at 150%.

"C" LIMITED CURRENT SERIES

For use when rapid interruption of fault current is required to avoid damage due to delay in opening. Length of fuse is determined by amperage and ear size. Manufactured in the following amperages:

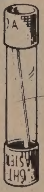
250V OR LESS
1/16 Amp through 10 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%.

CASE MATERIALS: GLASS **SIZE: ¼" DIAMETER**

	Per box of 5	Per 100 or more
1/32	$1.32/5	$22.00/C
1/16	$ .84/5	$14.00/C
1/8, 3/16	$ .66/5	$11.00/C
1/4, 3/10, 3/8, 1/2, 3/4	$ .51/5	$ 8.50/C
1, 1¼, 1½, 1¾, 2, 2½, 3	$ .29/5	$ 4.75/C
3½, 4, 5, 6, 7	$ .38/5	$ 6.25/C
8	$ .54/5	$ 9.00/C
10	$ .57/5	$ 9.50/C

"3AG" HIGH VOLTAGE SERIES



Designed for use in Radio, Television and numerous electronic devices. The 3AG High Voltage series blow quickly under overload conditions therefore providing the high speed action necessary to protect electronic apparatus. Manufactured in the following amperages:

250V OR LESS
1/16 Amp through 6 Amps
125V OR LESS: 8

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%.

CASE MATERIALS: GLASS **SIZE: ¼" x 1¼"**

	Per box of 5	Per 100 or more
1/16, 1/8, 15/100, 175/1000, 3/16	$.63/5	$10.50/C
1/4, 3/10, 3/8, 1/2, 6/10, 3/4	$.42/5	$ 7.00/C
1, 1½, 2	$.25/5	$ 4.20/C
3	$.22/5	$ 3.70/C
4, 5, 6	$.32/5	$ 5.25/C

"3AG" HIGH VOLTAGE TIME LAG SERIES

Designed for circuits with equipment having high inductive or capacitative surges and for circuits with heavy starting currents. Manufactured in the following amperages:

250 VOLTS OR LESS
1/100 Amp through 1 Amp
125 VOLTS OR LESS
1¼ Amps through 6¼ Amps
32 VOLTS OR LESS
6½ Amps through 25 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%. Blows within 1 minute, but not less than 5 seconds at 200%.

CASE MATERIALS:
GLASS **SIZE: ¼" x 1¼"**

	Per box of 5	Per 100 or more
1/100, 1/32	$1.17/5	$19.50/C
1/16, 1/10, 1/8, 15/100, 175/1000, 3/16, 2/10, 1/4, 3/10, 3/8, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1	$.84/5	$14.00/C
1¼, 1½, 1 6/10, 2	$.78/5	$13.00/C
2½, 2 8/10, 3, 3 2/10, 4, 5, 6¼, 8, 10, 15, 20, 25, 30	$.63/5	$10.50/C

THE NEW Sightmaster FUSES CATALOG 59;
covering
SMALL DIMENSION
NON-INDICATING
AND
INDICATING FUSES
for
AIRCRAFT
ELECTRONICS
INSTRUMENTS
APPLIANCES
INDUSTRIAL and
AUTOMOTIVE USE
AIRCRAFT LIMITERS
Manufactured by
Sightmaster
CORPORATION

"N" LIMITED CURRENT SERIES

Designed with time-lag characteristics to avoid unnecessary opening due to harmless surges or starting currents. Length of fuse is determined by amperage and ear size. Manufactured in the following amperages:

125V OR LESS
1/100 Amp through 7 Amps

TEST SPECIFICATIONS:
Continuous duty at 110%, Blows within 1 hour at 135%. Blows in not less than 5 seconds at 200%.

CASE MATERIALS: GLASS **SIZE: ¼" DIAMETER**

	Per box of 5	Per 100 or more
1/100, 1/32	$1.23/5	$20.50/C
1/16, 1/10, 15/100, 2/10, 1/4, 3/10, 4/10, 1/2, 6/10, 7/10, 3/4, 8/10, 1	$ .89/5	$14.75/C
1¼, 1 6/10, 1¾, 2	$ .81/5	$13.50/C
2½, 2 8/10, 3 2/10, 3½, 4, 5, 6¼, 7	$ .75/5	$12.50/C

VULCANIZED FIBRE FUSES

Manufactured with ratings from ½ Amp thru 2 Amps, for continuous duty at 110%; blow within 1 hour at 135%.

1 HV SERIES
1,000 V or less— 13/32 x 3"

2 HV SERIES
2,500 V or less—13/32" x 4½"

3 HV SERIES
5,000 V or less— 13/16" x 5"

4 HV SERIES
10,000 V or less—13/16" x 10"

PLUS... THE MOST COMPLETE LINE OF INDUSTRIAL & SERVICE FUSES IN THE INDUSTRY

© U.C.P., Inc.

SPEMCO H & H SWITCHES

BALL LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1120 and 1121.

SPEMCO
SPEMCO

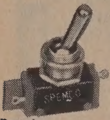
No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1120	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1122	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1124	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1126	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

BAT LEVER TOGGLE SWITCHES

3 Amp.

Underwriters' approved, 1 amp. 250 V 3 amp. 125 volts. AC/DC. Laminated bakelite base. Nickel plated finish, except 1135 and 1121B.



No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1135	SPST	15/32"	1 3/16"	1/2"	35/64"	.63 ea.
1136	SPDT	15/32"	1 9/16"	1/2"	35/64"	.81 ea.
1137	DPST	15/32"	1 9/16"	21/32"	35/64"	1.11 ea.
1138	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.29 ea.
*1121-B	SPST	1"	1 3/16"	1/2"	35/64"	.81 ea.
1123-B	SPDT	1"	1 9/16"	1/2"	35/64"	.96 ea.
1125-B	DPST	1"	1 9/16"	21/32"	35/64"	1.32 ea.
1127-B	DPDT	1"	1 9/16"	21/32"	29/32"	1.44 ea.

Sleeve Diameter—15/32"
*3 amp. 250 V AC/DC.

NEW "COMPACT" SWITCH

3 Amp.

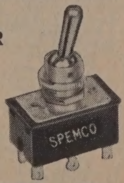
Ideal for aircraft, missile, and electronic applications. Underwriter's approved 1 amp. 250 v., 3 amp. 125 v., AC-DC. Bakelite base. Bright nickel finish.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1205	SPST	15/32"	1 1/64"	41/64"	13/16"	.84 ea.
1206	SPDT	15/32"	1 1/64"	41/64"	13/16"	.99 ea.
1207	DPST	15/32"	1 1/64"	41/64"	13/16"	1.23 ea.
1208	DPDT	15/32"	1 1/64"	41/64"	13/16"	1.41 ea.

Sleeve Diameter—15/32"

MOLDED BAKELITE SWITCH, BAT LEVER

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1143 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.



6 Amp.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1142	SPST	15/32"	1 1/4"	11/16"	15/16"	.84 ea.
*1143	SPDT	15/32"	1 1/4"	11/16"	15/16"	.99 ea.
1144	DPST	15/32"	1 1/4"	11/16"	15/16"	1.23 ea.
1145	DPDT	15/32"	1 1/4"	11/16"	15/16"	1.41 ea.

Sleeve Diameter—15/32"
*1 amp. 250 volts, 6 amp. 125 volts

UTILITY SWITCHES—Toggle Type For AC Uses

15 Amp.

1185
1186
SPEMCO

1188
1194
SPEMCO

Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1185	SPST	15/32"	1 1/8"	5/8"	15/16"	.72 ea.
1186	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1188	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.14 ea.
1194	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

MOMENTARY BAT LEVER TOGGLE SWITCHES

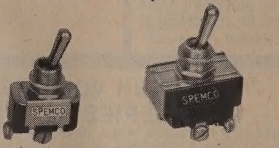
3 Amp.

Underwriters' approved, 3 amp. 125 volts, laminated bakelite base. Nickel plated finished.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1166	SPST	15/32"	1 3/16"	1/2"	35/64"	1.05 ea.
1167	SPDT	15/32"	1 9/16"	1/2"	35/64"	1.14 ea.
*1155	DPST	15/32"	1 9/16"	21/32"	35/64"	1.44 ea.
1150	DPDT	15/32"	1 9/16"	21/32"	29/32"	1.65 ea.

Sleeve Diameter—15/32"
*1166 Normally Off *1155 Normally Off
*3 Amp 250V

15 Amp.



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
*1196	SPST	15/32"	1 1/8"	5/8"	15/16"	.93 ea.
*1197	DPST	15/32"	1 5/16"	3/4"	1 1/16"	1.50 ea.

*Normally Off Sleeve Diameter—15/32"

NEUTRAL CENTER MOMENTARY BOTH ENDS

15 Amp.

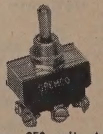
Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1193	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.80 ea.
1195	SPDT	15/32"	1 1/8"	5/8"	15/16"	1.11 ea.

Sleeve Diameter—15/32"

NEUTRAL CENTER

15 Amp.



Underwriters' approved, 10 amp. 250 volts AC, 15 amp. 125 volts AC, 3/4 H.P. 115V-230V AC.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1187	SPDT	15/32"	1 1/8"	5/8"	15/16"	.87 ea.
1189	DPDT	15/32"	1 5/16"	3/4"	1 1/16"	1.38 ea.

Sleeve Diameter—15/32"

6 Amp.

BAT LEVER TOGGLE SWITCH Neutral Center

Underwriters' approved, 6 amp. 125 volts, either AC or DC. A 3 position switch, on-off-on. Black bakelite case.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1175	SPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.53 ea.
1176	DPDT	15/32"	1 13/16"	11/16"	1 1/16"	1.83 ea.

Sleeve Diameter—15/32"

6 Amp.

PUSH BUTTON DOUBLE ACTION SWITCH

Underwriters' approved, 6 amp. 125 volts. Press lever to make contact, press lever to break contact. Nickel plated finish or snap-on plastic button, in red or black.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1156	Nickel Plated	9/16"	1 1/8"	1/2"	9/16"	.90 ea.
1156-A	Red	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.
1156-B	Black	9/16"	1 1/8"	1/2"	9/16"	1.11 ea.

Sleeve Diameter—15/32"

MIDGET MOMENTARY PUSH BUTTON SWITCHES

3 Amp.

Underwriters' approved, 3 amp. 120 volts, AC. Molded bakelite base, nickel plated finish.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1141	SP Norm. Closed	9/16"	1 1/32"	9/16"	29/64"	.54 ea.
1141-A	SP Norm. Open	9/16"	1 1/32"	9/16"	29/64"	.54 ea.

Sleeve Diameter—15/32"

3 Amp.

Underwriters' approved, 3 Amp. 120v, AC, Nickel plated finish, Molded bakelite base, Single Pole, slow make and slow break with bakelite snap-On button in red or black.

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1157-A	Open—Red	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-B	Open—Black	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-C	Closed—Red	9/16"	1 1/32"	9/16"	29/64"	.93 ea.
1157-D	Closed—Black	9/16"	1 1/32"	9/16"	29/64"	.93 ea.

Sleeve Diameter—15/32"

1 Amp.

Two circuit, slow make and slow break, momentary switch. One circuit normally on, the other off, with snap-on plastic button, in red or black. (Pushing the button reverses the contact.) 1 Amp. 125 Volts AC.

Underwriters' Approved

No.	Description	Sleeve	Base Dimensions			Net Price
			L.	W.	H.	
1158-A	Red	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.
1158-B	Black	7/16"	1 19/32"	15/32"	17/32"	1.11 ea.

Sleeve Diameter—15/32"

ROTARY CANOPY SWITCH With Fixed Plastic Handle 3 Amp.

Underwriters' approved, 3 amp. 125 volts. 1 amp. 250 volts.

No.	Stem	Wire Lead	Net Pric
1179	7/16"	6"	.42 ea.

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Net

© U.C.P., Inc.

SPEMCO H & H SWITCHES

INTERMEDIATE MOMENTARY PUSH SWITCH

U.L. approved for 6 amp. 125 volts, 3 amp. 250 volts. *Except for 1147 which is rated at 1 amp. 250 volts, 6 amp. 125 volts. All back connected, slotted sleeve.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
**1146	SPST	1/2"	1 1/4"	11/16"	15/16"	1.41 ea.
*1147	SPDT	1/2"	1 1/4"	11/16"	15/16"	1.59 ea.
**1148	DPST	1/2"	1 1/4"	11/16"	15/16"	1.83 ea.
1149	DPDT	1/2"	1 1/4"	11/16"	15/16"	2.01 ea.

*1 amp. 250 volts, 6 amp 125 volts

**1146 & 1148 Normally off. Sleeve Diameter—15/32"

POWER SWITCHES

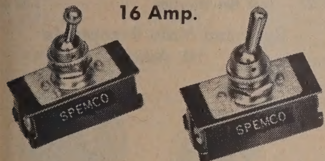
10 Amp.

Underwriters' approved, 10 amp. 125 volts. 5 amp. 250 A.C., 3/4 H.P. 250V. A.C. 1/2 H.P. 250V A.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1133	SPST	11/32"	1 5/16"	17/32"	1 5/16"	1.08 ea.
1133-B	Bakelite lever		1 5/16"	17/32"	1 5/16"	.69 ea.

*15/32" sleeve diameter

16 Amp.



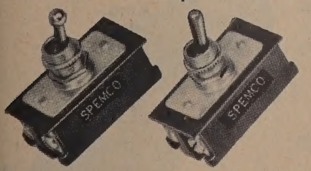
Underwriters' approved, 16 amp. 125V., 8 amp. 250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1159	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.
1159-B	DPST	15/32"	1 3/4"	13/16"	25/32"	1.23 ea.

1159—Ball Lever 1159-B—Bat Lever

Sleeve Diameter—15/32"

20 Amp.



Underwriters' aproved, 20 amp. 125V., 10 amp. 250V. .C.-D.C., 1 1/2 H.P. 125-250V. A.C.-D.C.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
134	DPST	15/32"	2"	1"	7/8"	2.07 ea.
134-B	DPST	15/32"	2"	1"	7/8"	2.07 ea.

1134—Ball Lever 1134-B—Bat Lever

Sleeve Diameter—15/32"

HARDWARE

for 15/32" diameter sleeve.

No.	Description	Price
132	On and Off Plate	.036 ea.
132-H	Hex Nut	.024 ea.
132-K	Knurled Nut	.024 ea.
210	Lockwasher	1.80C
211	Locking Ring	2.40C

POWER SWITCHES

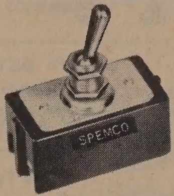
20 Amp.

Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125V., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170-S	DPST	11/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—1/2"

20 Amp.



Fully enclosed tumbler switch, 20 amp. 250V., 1 1/2 H.P. 125., 2 H.P. 250V.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1170	DPST	17/32"	2 1/4"	1 1/8"	1 5/32"	3.00 ea.

Sleeve Diameter—15/32"

MOMENTARY PUSH BUTTON SWITCH, NORMALLY OFF

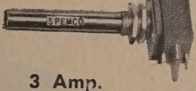
16 Amp.

Underwriters' approved, 16 amp. 125 V., 8 amp. 250 V., 1 H.P. 125-250 V. AC-DC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1160	DPST	15/32"	1 3/4"	13/16"	25/32"	1.80 ea.

Sleeve Diameter—15/32"

ROTARY SWITCHES



3 Amp.

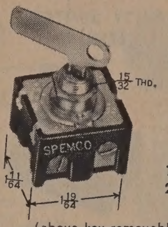
Underwriters' approved, 1 amp. 250 V., 3 amp. 125 V. AC-DC (Except #1123). Nickel plated finish. Laminated bakelite base.

No.	Description	Shaft	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1128	SPST	1 1/8"	3/8"	3/16"	3/4"	9/16"	.81 ea.
1129	SPDT	1 1/8"	3/8"	9/16"	3/4"	9/16"	.99 ea.
1130	DPST	1 1/8"	3/8"	9/16"	3/4"	11/16"	1.32 ea.
1131	DPDT	1 1/8"	3/8"	9/16"	3/4"	1 1/8"	1.62 ea.

*1128 rated 3 amp. 250 V. AC-DC. 1/32"

Sleeve Diameter—11/32"

ROTO-LOCK SWITCH



20 Amp.

Underwriters' approved. 20 amp. 120 volts, 240 volts AC.

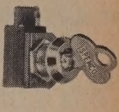
1 1/2 H.P.—120 volts AC
2 H.P.—120 volts AC

(with key)
(above key removable in off position only)

No.	Description	Sleeve	Net Price
1130-K	DPST (With Key)	9/16"	2.64 ea.
1130-KA	Key Only for above		.27 ea.

3 Amp.

ROTO-LOCK SWITCH



Underwriters' Approved, 3 amp. 250 volts. Except #1129-K & 1131-K

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1128-K	SPST (With Key) (above key removable in off position only)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
1128-KA	Key only for above					.21 ea.
1128-KE	SPST (With Key) (above key removable in either position)	15/32"	1 3/16"	3/4"	9/16"	1.44 ea.
*1129-K	SPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	1/2"	3/4"	1.56 ea.
*1131-K	DPDT (With Key) (above key removable in either position)	15/32"	1 9/16"	3/4"	3/4"	2.07 ea.
1128-KEA	Key—fits 1128-KE, 1129-K, and 1131-K					.21 ea

*1129-K & 1131-K—U.L. approved, 1 amp. 250 V., 3 amp. 125V., AC-DC. Sleeve Diameter—15/32"

BALL LEVER TOGGLE SWITCH

6 Amp.

Underwriters' approved 3A 250V, 6A 125V, molded bakelite base. Nickel plated finished. WITH 6'' WIRE LEADS

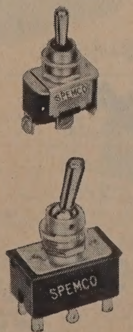
No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1154	SPST	3/8"	7/8"	1/2"	9/16"	.87 ea.

Sleeve Diameter—15/32"

MILITARY TYPE TOGGLE SWITCHES

Manufactured of materials and in accordance with specification Mil-S-3950

MS-25098 and MS-35058—Single Pole MS-25100 and MS-35059—Double Pole



MS Part No.	Up Position	Center Position	Down Position Keyway Side	Net Price
MS-25098-22	On	None	Off	$216.75C
MS-25098-23	On	None	On	233.25C
MS-25100-22	On	None	Off	266.25C
MS-25100-23	On	None	On	283.50C
MS-35058-21	On	Off	On	195.75C
MS-35058-22	On	None	Off	162.75C
MS-35058-23	On	None	On	195.75C
MS-35058-24	On	Off	None	162.75C
MS-35058-25	On	Mom. Off	None	179.25C
MS-35058-26	On	None	Mom. On	212.25C
MS-35058-27	Mom. On	Off	Mom. On	212.25C
MS-35058-28	None	Off	Mom. On	179.25C
MS-35058-29	On	None	Mom. Off	179.25C
MS-35058-30	Off	None	Mom. On	179.25C
MS-35058-31	On	Off	Mom. On	230.25C
MS-35059-21	On	Off	On	261.75C
MS-35059-22	On	None	Off	217.50C
MS-35059-23	On	None	On	261.75C
MS-35059-24	On	Off	None	217.50C
MS-35059-25	On	Mom. Off	None	261.75C
MS-35059-26	On	None	Mom. On	283.50C
MS-35059-27	Mom. On	Off	Mom. On	283.50C
MS-35059-28	None	Off	Mom. On	261.75C
MS-35059-29	On	None	Mom. Off	261.75C
MS-35059-30	Off	None	Mom. On	261.75C
MS-35059-31	On	Off	Mom. On	283.50C

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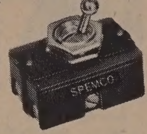
SPEMCO H & H SWITCHES

EXTRA HEAVY DUTY SWITCH NEUTRAL CENTER

10 Amp.

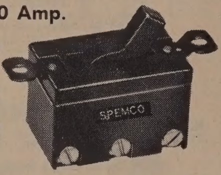


Used in heavy current circuits, such as transmitters, power amplifiers, motors, etc. Contacts have fast 'break' which reduces the tendency to arc. Rated at 10 amp. 125 volts, 5 amp. 250 volts, ¾ HP 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
*1161-A	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.
1161	DPDT	11/32"	2"	1 5/16"	1"	4.65 ea.

Straight thru, no off-center* **Sleeve Diameter—¾"**

20 Amp. & 30 Amp.



3-9/32" mounting centers

1161-B
10 Amp. 250 Volts
20 Amp. 125 Volts

*1161-C
20 Amp. 250 Volts
30 Amp. 125 Volts

Both AC-DC

No.	Description	Base Dimensions L.	W.	H.	Net Price
1161-B	DPDT	2½"	1 19/32"	1 21/32"	7.05 ea.
*1161-C	DPDT	2⅞"	1 13/16"	2"	9.45 ea.

10 Amp.

Rated 10 amp. 125 volts, ½ HP, 115-230 volts AC. 5 amp. 250 volts.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1177	3 PDT	13/32"	2 5/16"	2"	1⅛"	7.05 ea.
1178	4 PDT	13/32"	2 5/16"	2"	1⅛"	8.85 ea.

Sleeve Diameter—¾"

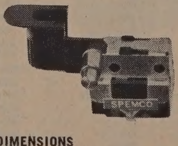
THREE & FOUR POLE AC UTILITY SWITCHES

15 amp. 125V., 10 amp. 250V. AC., except Nos. 1200 and 1201 which is 10 amp. 250V. AC.

No.	Description	Sleeve	Base Dimensions L.	W.	H.	Net Price
1198	3PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	2.40 ea.
1199	3PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	3.00 ea.
1200	4PST On-None-Off	15/32"	1 7/16"	1 5/16"	1 1/16"	3.45 ea.
1201	4PDT On-Off-On	15/32"	1 7/16"	1 5/16"	1 1/16"	4.20 ea.

Sleeve Diameter—15/32"

TOOL SWITCH



SPST Momentary Contact, Direct Pull Latch.
2 amp., 250 volts.
4 amp., 125 volts.

No.	BASE DIMENSIONS L.	W.	H.	Net Price
1169	1 5/64"	21/32"	1 5/64"	1.14 ea.

FEED THROUGH CORD SWITCH

10 Amp.

Underwriters' approved, black bakelite case sliding lever, 10 amp. 125 volts, 5 amp. 250 volts. 5/16" cord hole.

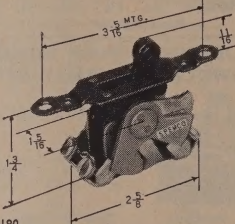
No.	Description	Net Price
1163	SP	1.29 ea.

HEAVY DUTY SWITCHES Toggle Type

Underwriters' approved, 30 amp. 250 volts, AC DC. 2 H.P., 115V-230V AC; 1 H.P., 460V AC For use on Food Machines, Grinders, Sanders, Machine Tools, Gasoline Pumps, etc.

Roller Type Lever

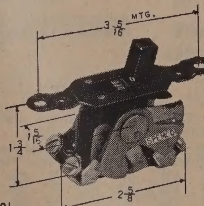
30 Amp.



1190

Square Bakelite Lever

30 Amp.

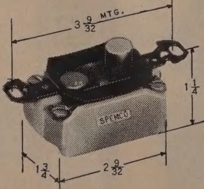


1191

No.	Description	Net Price
1190	DPST	2.85 ea.
1191	DPST	2.85 ea.

METAL PUSH BUTTON TYPE NORMALLY OPEN

20 Amp.

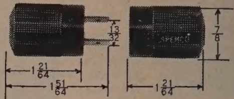


Underwriters' approved, 20 amp. 250 volts, 2 H.P. 230V AC, 2 H.P. 250V DC.
For use on Floor Sander, as a foot switch, etc.

No.	Description	Net Price
1192	DPST	2.85 ea.

CORD CONNECTORS

10 Amp.



Brown Bakelite Cord Connector Complete, ⅞" O.D. x 2½" long. 10 amps. 250 volts. End opening for wire size up to ⅜" O.D.

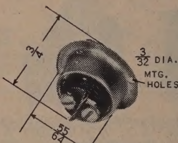
No.	Description	Net Price
1162	Complete	1.86 ea.
1162-F	Female Part	1.02 ea.
1162-M	Male Part	1.02 ea.

RECEPTACLES

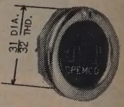
Underwriters' approved, 10 amp. 250 volts AC.

Short Female Flush Receptacle

10 Amp.



80326

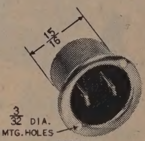


80327

No.	Description	Net Price
80326	2 Screw Mounting	1.14 ea.
80327	Lock Nut Mounting	1.86 ea.

Recessed Male Receptacle

10 Amp.



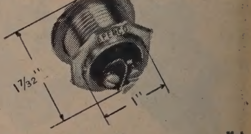
80328

80329

No.	Description	Net Price
80328	2 Screw Mounting	1.32 ea.
80329	Lock Nut Mounting	1.86 ea.

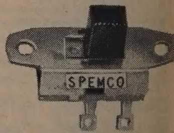
Recessed Female Receptacle

10 Amp.



No.	Description	Net Price
80331	Lock Nut Mounting	1.86 ea.

SLIDE SWITCHES



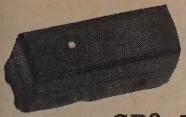
Housings are made of steel and are cadmium plated 1 13/32" long, 35/64" wide and 1⅛" mounting centers.

No.	Description		Net Price
1180	SPST	.75A-125V AC-DC	.186 ea.
1181	SPDT	.75A-125V AC-DC	.222 ea.
1182	DPST	.50A-125V AC-DC	.264 ea.
1183	DPDT	.50A-125V AC-DC	.33 ea.

SPECIALTIES MANUFACTURING CO. • Detroit, Michigan

SPEMCO

H & H PRECISION SWITCHES

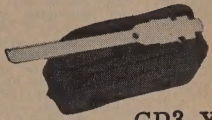

GP3-Z1

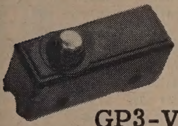
GP3-T1

GENERAL PURPOSE PRECISION SWITCHES
SPDT

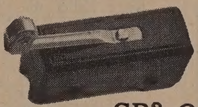
H & H General Purpose Precision Switches feature high electrical rating combined with very low operating force and long life. SPDT units may be wired normally open or normally closed. UL and CSA approved: 15 amp. 480 V AC, ½ amp. 125 V DC, ¼ amp. 250 V DC.

GP3-W1


GP3-Y1


GP3-V1

GP3-U1

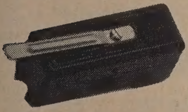

GP3-Q1

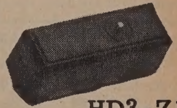
GP3-X1

SPEMCO NUMBER		*1				LIST PRICE	
Solder Lug	Screw Term.	ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	Solder Lug	Screw Term.
GP3-Z1	GP3-Z2	Pin Type	9 to 13 oz.	.015" max.	.005" min.	$155.00 C.	$165.00 C.
GP3-T1	GP3-T2	Flexible Leaf	5 oz. max.	5/32" max.	Not over 1/16"	170.00 C.	180.00 C.
GP3-Q1	GP3-Q2	Std. Roller Leaf	5 oz. max.	5/32" max.	Not over 1/16"	215.00 C.	220.00 C.
GP3-Y1	GP3-Y2	Rigid Hinge Lever	2½ oz.	3/8" max.	.219" min.	200.00 C.	205.00 C.
GP3-X1	GP3-X2	Std. Roller Lever	3½ oz. max.	9/32" max.	.156" min.	250.00 C.	260.00 C.
GP3-W1	GP3-W2	Short Roller Lever	6 oz. max.	9/64" max.	3/32" min.	250.00 C.	260.00 C.
GP3-V1	GP3-V2	Short Overtravel Button	9 to 13 oz.	1/64" max.	1/16" min.	190.00 C.	195.00 C.
GP3-U1	GP3-U2	Panel Mounted Plunger	9 to 13 oz.	1/64" max.	7/32" max.	345.00 C.	350.00 C.

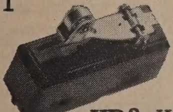
*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, non; 10-19, 10%; 20-49, 20%; 50-99, 30%.

HEAVY DUTY PRECISION SWITCHES
SPDT


HD3-T1


HD3-Z1

H & H Heavy Duty Precision Switches provide high inrush capacity and retain similar performance and actuating characteristics found in the General Purpose units. SPDT switches can be wired normally open or normally closed. UL and CSA approved: 20 amp. 480 V AC, 10 amp. 125 V AC "L" load, ½ amp. 125 V DC, ¼ amp. 250 V DC, 1 H.P. 120 V AC, 2 H.P. 240 V AC.


HD3-W1

HD3-Q1

HD3-V1

HD3-Y1

HD3-U1

HD3-X1

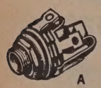
SPEMCO NUMBER		*1				LIST PRICE	
Solder Lug	Screw Term.	ACTUATOR	OPERATING FORCE	PRETRAVEL	OVERTRAVEL	Solder Lug	Screw Term.
HD3-Z1	HD3-Z2	Pin Type	14 to 22 oz.	.050" max.	.010" min.	$160.00 C.	$170.00 C.
HD3-T1	HD3-T2	Flexible Leaf	9 oz. max.	11/32" max.	Not over 1/16"	180.00 C.	185.00 C.
HD3-Q1	HD3-Q2	Std. Roller Leaf	9 oz. max.	11/32" max.	Not over 1/16"	225.00 C.	230.00 C.
HD3-Y1	HD3-Y2	Rigid Hinge Lever	2½ oz. max.	5/8" max.	.078" min.	205.00 C.	210.00 C.
HD3-X1	HD3-X2	Std. Roller Lever	2½ oz. max.	15/32" max.	1/16" min.	260.00 C.	265.00 C.
HD3-W1	HD3-W2	Short Roller Lever	6 oz. max.	1/4" max.	1/32" min.	260.00 C.	265.00 C.
HD3-V1	HD3-V2	Short Overtravel Button	14 to 22 oz.	.050" max.	.093" min.	195.00 C.	200.00 C.
HD3-U1	HD3-U2	Panel Mounted Plunger	14 to 22 oz.	.050" max.	.219" min.	355.00 C.	360.00 C.

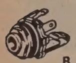
*1 Switches are mounted by two .140 inch diameter holes on one inch centers. Discount: 1-9, non; 10-19, 10%; 20-49, 20%; 50-99, 30%.

SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"LITTEL-JAX AND "TINI-JAX"


A


B

The "**Littel-Jax**" (A) features notched insulating washers mechanically interlocking springs and lugs; "V" bend in tip spring firmly "holds" mating plug; minimum space requirements, economical. Mount in single ⅜" hole, panels up to 5⁄32" thick, except L-11 and L-12A in panels up to ¼" thick.

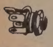
No. C-11 (JJ-034) and C-12A (JJ-089) mate with No. 440 (PJ-055B) Plug; C-12B (JJ-033), S-12B and S-13B mate with No. 480 (JAN PJ-068 or W.E. No. 309) Plug. No. C-11 and C-12B have locating pins (non-turn devices). No. S-11 similar to No. 11 except .210" I.D. sleeve to mate with S-250 and S-280 Plugs. C-11 (JJ-034), C-12B (JJ-033) and C-12A (JJ-089) per JAN-J-641. All others mate with standard ¼" dia. plugs such as our No. 40, 250, etc.

The "**Tini-Jax**" (B) a miniature 2-conductor Jack, approximately ⅓ the size of the "Littel-Jax"; otherwise similar in construction. Mounts in ¼" dia. hole; panels up to ⅛" thick. Mate with "**Tini-Plugs**" No. 750, etc. 43A has a unique spring design that requires a pear shaped tip, such as our No. 750.

"LITTEL-JAX"		"TINI-JAX"		Schematic No.
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	
11	$0.40	41	$0.40	I
C-11	$0.60			
L-11	$0.50			
S-11	$0.45			
12A	$0.45	42A	$0.45	III
C-12A	$0.75			
L-12A	$0.55			
13	$0.90			V
13A	$0.85	43A	$0.70	VI
13E	$0.90			IX
Three Conductor Types				
12B	$0.55			IV
C-12B	$0.70			
S-12B	$0.65			
13B	$0.75			VII
S-13B	$0.95			

For detailed information request Switchcraft Catalog J-101.

"MICRO-JAX"

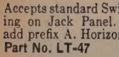


Precision manufactured jack for miniaturized applications. Two conductor, single closed circut. See Schematic Circuit III. Silver plated contacts on special tempered nickel silver springs. Internally keyed nylon insulation interlocks springs and solder lugs to eliminate shorts. Fits .190" dia. hole in panels to 3⁄32" thick. "Micro-Jax" is 1⁄25th the size of standard phone jacks. Mates with "Micro-Plug", Series 850, 880.

Part No. TR-2A **U.S.A. List Price $.45**

For detailed information request Switchcraft Catalog J-101.

"LAMP JAX"

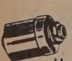


Switchboard Panel Type. Lamp completely insulated. Interchangeable with W.E. #47A & 47B. Accepts standard Switchboard Lamps. Ideal for mounting on Jack Panel. Two frame mountings—Vertical add prefix A. Horizontal prefix C.

Part No. LT-47 **U.S.A. List $2.00**

For detailed information request Switchcraft Catalog J-101.

"SHIELDED JAX"

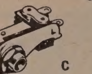

H

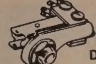
"**Shielded Jax**" (H) regular "Littel-Jax" (see separate listing) assembled into shield, ideal for high impedance circuits.

Part No.	U.S.A. List Price	DESCRIPTION
CN-11	$0.80	Open ckt. (see No. 11)
CN-12A	$0.85	Close ckt. (see No. 12A)
CN-12B	$0.95	(see No. 12B)
CN-13B	$1.15	(see No. 13B)

For detailed information request Switchcraft Catalog J-101.

"SF-JAX"


C


D

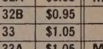
"SF-JAX", Series 20 (C) requires a minimum of panel depth, mounts in single ⅜" dia. hole, panels up to 3⁄16" thick. Series 50 (D) similar to Series 20, except solder lug location necessitates more depth but requires less panel space. Mounts in panels up to ¼" thick.

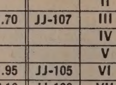
Series C-20 and C-50, MIL types with Military Insulation and finishes, otherwise similar to commercial Series 20 and 50; both will mount in panels up to ¼" thick.

Series 20 & C-20		Series 50 & C-50		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
21	$0.65	51	$0.65		I
		C-51	$1.20	JJ-096	
22	$0.80	52	$0.80		II
22A	$0.80	52A	$0.80		III
		C-52A	$1.30	JJ-097	
22B	$0.80	52B	$0.80		IV
		C-52B	$1.30	JJ-103	
23	$0.95	53	$0.95		V
C-23	$1.35			JJ-099	
23A	$0.95	53A	$0.95		VI
C-23A	$1.35			JJ-098	
		C-53A	$1.55	JJ-092	
23B	$0.95	53B	$0.95		VII
23C	$0.95	53C	$0.95		VIII
23E	$0.95	53E	$0.95		IX
C-23E	$1.35			JJ-102	
24	$1.10	54	$1.10		X
24A	$1.10	54A	$1.10		XI
		C-54A	$1.60	JJ-093	
24B	$1.10	54B	$1.10		XII
		C-54B	$1.60	JJ-101	
25	$1.30	55	$1.30		XIII
		C-55B	$1.85	JJ-095	XV
26	$1.40	56	$1.40		XIV

For detailed information request Switchcraft Catalog J-101.

"LF-JAX" AND "M-JAX"


E


F

Long Frame Jacks, the "LF-JAX", (E) Series 30, requires minimum panel space, 3" deep.

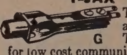
"M-JAX" (F) a heavy frame, often referred to as Navy Jack, 2 11⁄16" deep. Both types mount in single ⅜" hole, in panels up to ¼" thick.

"LF-JAX"		"M-JAX"		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
31	$0.75	M-441	$1.50		I
32	$0.95				II
32A	$0.95	M-442A	$1.70	JJ-107	III
32B	$0.95				IV
33	$1.05				V
33A	$1.05	M-443A	$1.95	JJ-105	VI
33B	$1.05	M-443B	$2.10	JJ-106	VII
33C	$1.05				VIII
33E	$1.05				IX
34	$1.20				X
34A	$1.20				XI
34B	$1.20	*M-444	$2.30	JJ-083	XII
		M-444B	$2.20	JJ-082	XII
35	$1.45	M-445	$2.75	JJ-104	XIII
36	$1.70	M-446	$3.50	JJ-079	XIV
		M-446A	$3.90	JJ-081	XVI

*Bushing .2085", to mate with plugs PJ-068 and PJ-309.

For detailed information request Switchcraft Catalog J-101 and J-102.

"T-JAX" AND "MT-JAX"


G

The "**T-JAX**" and "**MT-JAX**" are a long frame, switchboard type. The "**T-JAX**", commercial quality, for low cost communication equipment where economy is all important.

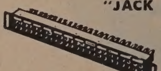
The "**MT-JAX**" is recommended for high quality communication and Military equipment, featuring welded crossbar Palladium contacts. Frame design also available with mounting ear rotated 90° from position shown in figure "G"; add prefix "C" to part number. All types listed mate with ¼" dia. plug sleeves unless otherwise indicated.

"T-JAX"		"MT-JAX"		MIL	Schematic No.
Part No.	U.S.A. List	Part No.	U.S.A. List	Type No.	
T-331	$1.05	MT-331	$1.50	JJ-086	I
		MT-332	$1.70		II
T-332A	$1.20	MT-332A	$1.70	JJ-024	III
T-332B	$1.20	MT-332B	$1.70	JJ-022	IV
		MT-332C	$1.95	JJ-016	XVIII
		MT-333	$1.95	JJ-084	V
		MT-333B	$1.95		VII
		MT-333E	$1.95		IX
T-334A	$1.50	MT-334A	$2.00		XI
T-334B	$1.60	MT-334B	$2.00	JJ-042	XII
T-334C	$1.50	MT-334C	$2.00	JJ-072	XVII
		MT-334E	$2.00	JJ-085	XXV
		MT-334F	$2.00	JJ-035	XIX
		MT-335	$2.25		XIII
		MT-335A	$2.25	JJ-017	†
		MT-336	$2.25	JJ-074	XX
		MT-336A	$2.75	JJ-075	XIV
		MT-336B	$2.75	JJ-077	XXI
		MT-336C	$2.75	JJ-073	XXII
		MT-336E	$2.75		XXIII
		CMT-336E	$2.75	JJ-019	XIII
		MT-337	$2.75	JJ-087	XXIV
		CMT-337	$2.75	JJ-015	XXIV
		*MT-342B	$1.95		IV
		*MT-344B	$2.25		XII

*Bushing .2085" to mate with PJ-068 and PJ-309.

†**For detailed information request Switchcraft Catalog J-102.**

"JACK PANELS"

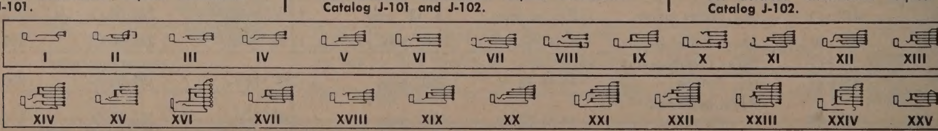


Black phenolic strip, reinforced with steel, supports Switchcraft "T-JAX" and "MT-JAX" (see separate listing). Slotted mounting brackets for standard 19" relay racks. Series 1200, single row for 24 Jacks; strip 1¾" wide. Series 2400, double row for 48 Jacks; 2⅛" wide. Series 2600, double row for 52 Jacks; 1¾" wide.

Series 2800, Aluminum Jack Panel. Clear anodized frame, extremely rugged, lightweight. Features a new narrow designation strip with individual "windows."

Part No.	U.S.A. List	DESCRIPTION
1200	$18.00	Single Row Panel, less Jacks.
1232A	$45.00	Single Row, 12 pr. closed ckt. T 332A "T-Jax".
1332A	$55.00	Single Row, 12 pr. closed ckt. MT-332A "MT-Jax".
2400	$20.00	Double Row Panel, less Jacks. 2⅛" wide (holds 48 Jacks).
2432A	$75.00	Double Row, 24 pr. closed ckt. T-332A "T-Jax". 2⅛" wide.
2532A	$95.00	Double Row, 24 pr. closed ckt. MT-332A "MT-Jax". 2⅛" wide.
2600	$25.00	Double Row Panel, less Jacks. 1¾" wide (holds 52 Jacks).
2632A	$85.00	Double Row with 52 No. T-332A "T-Jax". 1¾" wide.
2732A	$110.00	Double Row with 52 No. MT-332A "MT-Jax". 1¾" wide.
2800	$40.00	Double Row Aluminum Panel Less Jacks. 1¾" wide.

For detailed information request Switchcraft Catalog J-102.



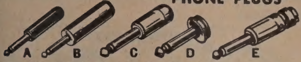
The above are strictly electrical schematics and do not necessarily indicate relative solder lug positions.

SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"PHONE PLUGS"
"MILITARY TYPE PLUGS"
"FLAT PLUGS" "TINI PLUGS"
"MICRO-PLUGS" "EXTENSION JAX"

"PHONE PLUGS"



The **"Littel-Plug"** (A), radically new, fitting standard Jacks; solder lug type features clamp terminal serving as a cable clamp and terminal—perfect for metal braid cable. Screw type terminals—no clamp. Tenite or Metal handles 1⅝" L., ½" dia. Ext. metal nickel Pl.

No.'s S-250 and S-280 have a .206 dia. sleeve; mates with S-11 and S-128 Jacks. No.'s 180 and 288 have wide insulator between sleeve and tip—makes it possible to use a 2-conductor Plug in a 3-conductor Jack.

No's. C-240, C-245 and C-270 have an integral cord clamp and screw terminals.

No's. S-260 and S-290 have a .206" dia. sleeve; mates with S-12B, S-13B Jacks.

The **Standard Plugs** (B), conventional design, available both black Bakelite or metal handles 2¹⁄₁₆" L. x ¹¹⁄₁₆" O.D., except No. 90 and No. 160 have metal handles 1" long. Exterior metal parts bright nickel Pl. No. 170 (E) is similar to No. 70, except 2 piece handle with built-in cable clamp: No. 190A similar to No. 90 except same handle as No. 170. No. 475 same as No. 170 but MIL construction for type PJ-636. No. 385 1" lg. .206" dia. sleeve and tip-mates with S-11 & S-128.

The **"Silent Plug"** No's. 49 and 169, features a circuit closing device, when removed from Jack.

The **"Lug Plug"** (C), low-cost two conductor, solder lug term. Exterior metal parts bright Nickel Pl. Red or Black Tenite Handles are 1⅝" L., ½" O.D. No. 380 has metal handle 1" L., bright Nickel Pl.

Plug Adapter (D) used with 2501 F Connector for use with standard Jacks. See separate adapter listing.

Part No.	U.S.A. List	Plug Type	Type Handle	Description
40	$0.75	Standard	Black	2-cond.*
44	$0.50	Adapter		2-cond.
45	$0.75	Standard	Red	2-cond.*
49	$1.50	Standard	Black	2-cond.*
60	$1.05	Standard	Black	3-cond.‡
70	$1.20	Standard	Metal	2-cond.*
90	$1.30	Standard	Metal	3-cond.‡
160	$0.90	Standard	Metal	2-cond.*
169	$1.75	Standard	Metal	2-cond.*
170	$1.65	Standard	Metal-2-pc	2-cond.*
180	$1.05	Standard	Metal	2-cond.*
190	$1.50	Standard	Metal	3-cond.‡
190-A	$1.95	Standard	Metal	3-cond.‡
240	$0.75	Littel-Plug	Black	2-cond.*
C-240	$0.90	Littel Plug	Black	2-cond.*
245	$0.75	Littel-Plug	Red	2-cond.*
C-245	$0.90	Littel Plug	Red	2-cond.*
250	$0.70	Littel-Plug	Black	2-cond.†
S-250	$0.75	Littel-Plug	Black	2-cond.†
255	$0.70	Littel-Plug	Red	2-cond.†
260	$1.20	Littel-Plug	Black	3-cond.*
S-260	$1.65	Littel Plug	Black	3-cond.*
267	$1.05	Littel-Plug	Black	3-cond.†
269	$1.05	Littel-Plug	Red	3-cond.†
270	$1.05	Littel-Plug	Metal	2-cond.*
C-270	$1.20	Littel Plug	Metal	2-cond.*
280	$1.00	Littel-Plug	Metal	2-cond.†
S-280	$1.00	Littel-Plug	Metal	2-cond.†
R-280	$1.25	Littel-Plug	Metal	2-cond.†
(Short sleeve for Revere Recorders, mates with No. 126 "Extension Jax")				
288	$1.05	Littel-Plug	Metal	2-cond.†
290	$1.40	Littel-Plug	Metal	3-cond.*
S-290	$1.85	Littel Plug	Metal	3-cond.*
297	$1.30	Littel-Plug	Metal	3-cond.†
350	$0.55	Lug-Plug	Black	2-cond.‡
355	$0.55	Lug-Plug	Red	2-cond.‡
380	$0.70	Lug-Plug	Metal	2-cond.‡
385	$1.00	Lug-Plug	Metal	2-cond.‡
475	$1.95	Standard	Metal	2-cond.*

*Screw Terminals. †Clamp-Lug Terminals.
‡Solder-Lug Terminals.

For detailed information request Switchcraft Catalog P-201.

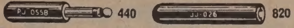
THICK PANEL JAX

Phone jack with long bushing. Mounts in single ¹⁵⁄₃₂" dia. hole in panels up to 1¼" thick. Ideal for use with microphones; extra shielding virtually eliminates audio hum. No. 151, 2-cond. mates with 240, 245, 250, 255, 270 and 280 Plugs. No. 152B, 3-cond., mates with 260, 267, 269 and 297 Plugs.

Part No.	U.S.A. List Price	DESCRIPTION
151	$1.35	2-cond. Brass Nickel Plated
152B	$1.50	3-cond. Brass Nickel Plated

For detailed information request Switchcraft Catalog J-101.

"LITTEL-PLUG" AND "EXTENSION JAX" MILITARY TYPES

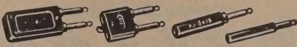


Designed to meet exacting requirements of Industry and the Armed Services. Molded construction provides complete continuity of insulation in plugs Jack per MIL-J-641A; Plugs per MIL-P-642A.

Part No.	U.S.A. List	DESCRIPTION
410	$0.60	2-cond.—Solder Cup—Type PJ-291 (Old S C. No. PL-291) Mates with No. 810 (JJ-048) Jack
*430	$1.40	2-cond.—Screw Term. Cable opening ¼"—Black handle—Type PJ-054B (Old S.C. No. PL-54).
*435	$1.40	Same as No. 430, except Red Handle—Type PJ-054R (Old S.C No. PL-354).
440	$1.40	2-cond.—Screw Term. Black Handle—Type PJ-055B. (Old S.C. No. PL-55).
445	$1.40	2-cond.—Screw Term Red Handle—Type PJ-055R.
*450	$1.40	Same as No. 430, except—Type PJ-540B—Cable Opening ⁹⁄₃₂" (¹³⁄₃₂" deep) (Old S.C. No. PL-540). Black Handle.
*455	$1.40	Same as No. 450, except—Type PJ-540R, Red Handle
470	$2.00	2-cond.—Screw Term. Shielded Handle—Type PJ-055M (Old S.C. No. PL-125).
475	$1.95	Shielded Handle. MIL Type PJ-636. Similar No. 70, except 2-pc handle, built-in Cable Clamp. Handle 1¾" long.
480	$3.60	3-cond.—Screw Term. Black Handle—Type PJ-068 (Old PL-68).
810	$0.80	2-cond.—Solder Lug—Type JJ-048 (Old S.C. No. JK-48), mates with No. 410 (PJ-291) Plug.
820	$2.00	2-cond.—Screw Term. Black Handle—Type JJ-026 (Old S.C. No. JK-26).
P-1074-1	$0.85 for Pkg. of 25	Strain Relief Clamp, Nickel Plate Brass.

*Mates with No. 820 (JJ-026) "Extension Jax".

"LITTEL-PLUGS"—"TWIN-PLUGS"



"Littel Plugs"—One piece tip rod and one piece sleeve and plug body, assembled together into a mold as inserts. Insulated. Internal interlock to prevent parts shifting in position.

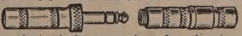
"Twin-Plugs"—Two electrically independent 2-cond. plugs, ⅝" centers, placed into handles to provide a double or "Twin-Plug". Self aligning. Made in same exacting manner as "Littel Plugs" above.

Design and material to NME Spec. MIL-P-642(A).

Part No.	U.S.A. List	DESCRIPTION
"LITTEL-PLUGS"—MILITARY TYPE		
420	$1.50	2-cond. Screw term. Black Handle. Type PJ-047B (Sim. WE 347B).
425	$1.50	2-cond. Screw term. Red Handle. Type PJ-047R (Sim. WE 347A).
482	$4.00	3-cond. Screw term. Red handle. Type PJ-051 (Sim. WE 310)
"TWIN-PLUGS"—MILITARY TYPE		
411	$4.75	Two 2-cond. plugs. Black Handle. Type PJ-327. Provision for internal cord clamp (not included).
412	$4.50	Two 2-cond. plugs. Black Handle. (Old MIL Type PJ-289) Sim. WE 289B. External Cord Anchor.
413	$4.50	Three circuit plug with 2 electrically independent tip circuits. Black Handle. Commercial version of MIL Type PJ-241. Sim. WE-241.
S-2674	$0.50 for pkg. of 10	Strain Relief Clamp, Brass. Use only with No. 411.

For detailed information request Switchcraft Catalog P-201.

"LOCK PLUG" and "LOCK-EXTENSION JAX"



Locking device locks connection after the plug fully inserted into Littel-Jax or Lock-Ext. Jax. Sold. Lug Term. Sleeve terminal has cable clamp. Shielded. Lock Ext. Jax mates standard Phone Plugs where no "lock" requirement exists.

Part No.	U.S.A. List	DESCRIPTION
282	$1.40	2-Cond. Plug Sim. No. 280
298	$1.75	3-cond. Plug Sim. No. 297
123	$1.75	2-cond. Jack Mates with No. 282.
133	$2.25	3-cond. Jack Mates with No. 298.

For detailed information request Switchcraft Catalog P-201.

"FLAT PLUGS"

A unique design, removable cover for easy access to either screw or solder terminals; 2- and 3-cond. types. Ideal for equipment where conventional long handle may interfere.

No's. S-230 and S-235 have .206" sleeve, mates with S-12B, S-13B. Sim. to MIL Type PJ-068.

PART NO.		U.S.A. List Price	DESCRIPTION
Black Handle	Red Handle		
220	225	$0.90	2-cond. Screw term.
227	229	$0.85	2-cond. Solder term.
230	235	$1.30	3-cond. Screw term.
237	239	$1.25	3-cond. Solder term.
S-230	S-235	$1.75	3-cond. Screw term.

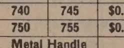
"SHIELDED FLAT PLUGS"

New shielded flat plug with bright nickel plated steel handle. Ideal for music equipment or where conventional long handled shielded plugs may interfere with equipment design. Unique body design provides built-in cable clamp.

Part No.	U.S.A. List Price	DESCRIPTION
228	$.95	2-cond. Solder term.
238	$1.40	3-cond. Solder term.

For detailed information request Switchcraft Catalog P-201.

"TINI-PLUGS"



"Tini-Plugs"—A miniature 2-conductor Phone Plug for the **"Tini-Jax"**; about ⅓ the size of Switchcraft **"Littel Plug"**; similar construction. Accepts cable up to ³⁄₁₆" diameter. Cable clamp terminals for soldering also screw terminal with no clamp.

PART NO.		U.S.A. List	DESCRIPTION
Black Handle	Red Handle		
740	745	$0.75	Screw Term.
750	755	$0.70	Clamp Term.
Metal Handle			
770		$1.05	Screw Term.
780		$1.00	Clamp Term.

MICRO-PLUG

Miniature phone plug, only 1¹⁄₆₄" long; .097" dia. finger; ¼" dia. body. Mates with "MICRO-JAX." Accepts various cable types and O.D. up to ⁷⁄₆₄". Anodized aluminum handle. Solder term., with cable clamp.

Part No.	U.S.A. List Price	DESCRIPTION
850	$0.75	2-cond. Nat. Alum. Handle
855	$0.75	2-cond. Red Handle
880	$0.75	2-cond. Black Handle

For detailed information request Switchcraft Catalog P-201.

"EXTENSION JAX"

Features a clamp type terminal providing a cable anchor. Spring tempered nickel silver springs, designed to properly "hold" mating plug. Exterior metal parts N.P.: Terminals mechanically interlock. High grade insulation. Available in 2 and 3-conductor types, solder lug or screw type terminals. Bakelite or Brightly Nickel Plated Brass handles. Mates with any ⅞ standard plug. S-128 mates with S-250 plug. S-830 and S-1230 .210 I.D. bushing to mate with PJ-068 plug. No. 125 is Ext. Jax for Tini Plug. ¹³⁄₃₂" O.D. Built-in cable clamp is cable support and sleeve terminal.

No's. 121 and 131, accepts ¼" dia. "Littel Plugs"; shell dia. same as Littel Plugs. Features cable clamp.

Part No.	U.S.A. List	Handle	Description
80	$1.15	Black	2-cond. Screw Term.
88	$1.00	Black	2-cond. Lug. Term.
120	$1.55	Shielded	2-cond. Screw Term.
121	$1.60	Shielded	2-cond. Lug Term.
125	$1.25	Shielded	2-cond. Lug. Term.
126	$1.80	Shielded	2-cond. for R-280 Plug
128	$1.40	Shielded	2-cond. Lug. Term.
131	$2.00	Shielded	3-cond..Lug Term.
830	$1.55	Black	3-cond. Screw Term.
S-830	$2.00	Black	3-cond. Screw Term.
838	$1.40	Black	3-cond. Lug. Term.
1230	$1.95	Shielded	3-cond. Screw Term.
S-1230	$2.50	Shielded	3-cond. Screw Term.
1238	$1.80	Shielded	3-cond. Lug. Term.
S-128	$1.50	Shielded	2-cond. Spec. Lug. Ter.

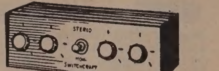
For detailed information request Switchcraft Catalog P-201.

SWITCHCRAFT INC.

CHICAGO, ILLINOIS

MICROPHONE MIXERS
"MINI-MIX" "MIX AMP"
"CONNECTORS"
"SPEAKER VOLUME CONTROLS"

MICROPHONE MIXERS



Tan finish. Brown knobs with gold metallic inserts. Rubber feet. Shielded. Input Jacks on back, with Phono Jax for output to recorder or amplifier. CAUTION: Do not use in output circuit to directly control the volume of individual speakers. Size: 2" x 3⅝" x 6".

MIXER, MONAURAL—4-channel, high imp. For mixing up to 4 signals, such as Mics., Phonos, Tuners, etc., into a single output. Inputs 2-cond. Phone Jacks. Output Phono Jax.

PART NO. 301 **U.S.A. LIST $19.50**

MIXER, STEREO-MONAURAL—Same as No. 301, except has Lev-R-Switch for use as 4-channel audio mixer for monaural, or as 2 sep. inputs for each of 2 Stereo channels. Jacks accept 2-cond. Phone Plugs; high imp. circuits. Two Phono Jax for output to Amp. or Tape Rec. When used monaurally, output Jax are common.

PART NO. 306 **U.S.A. LIST $22.50**

TRANSISTORIZED MIXER—4-channel, high imp., same design features as No. 301, except has built-in transistor amplifier for feeding up to four mics., or combinations of sound sources, into a single "input" of Recorder or Amp. Individual gain adjustment for each channel. Transistor amplifier (powered by 9 volt battery included) overcomes usual loss of resistance type mixer and actually provides a 6 db. gain; permits use up to 30 feet from Recorder or Amp. Accepts input signals up to 1.5 volts. (Use a Switchcraft Molded Cable Assembly with proper connection to fit your equipment —not included.) Low noise level; low distortion. Response 20 to 20,000 cycles.

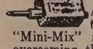
PART NO. 301TR **U.S.A. LIST $30.00**

TRANSISTORIZED STEREO-MONAURAL MIXER —Similar to the No. 306, except has built-in transistor amplifier in each of two Stereo channels. Accepts input signals up to 1.5 volts in either Stereo or Monaural position. (9 volt battery included.) ON-OFF Switch to shut-off amplifiers when not in use. Provides 6 db. gain; permits use up to 30 feet from Recorder or Amp. For Stereo, requires two cables for attachment to Recorder or Amp.

PART NO. 306TR **U.S.A. LIST $37.50**

CABLE ASSEMBLY—A 3-foot long chrome-grey shielded cable with molded Phone Plug on one end, molded Phono Plug other end. Ideal for use with above Mixers where Input of Recorder or Amplifier has a standard two-conductor Phone Jack. (For other terminations, see Cable Assemblies.)

PART NO. 05AF25 **U.S.A. LIST $1.50**



"MIX-AMP"—Miniature Transistorized Amplifier designed for use with resistance type MIXERS, such as the Switchcraft "Mini-Mix" and four-channel Microphone Mixers overcoming the usual "losses" in such mixers and actually providing a 3 db. gain. When used with a "Mini-Mix", will accept signals up to 2 volts. Has a "HI-LO" Impedance Switch; in "HI" position, when used as a straight amplifier (without mixer) has a 200,000 ohm input and provides a 6 db. gain and in "LO" position has a 25 db. gain with input impedance of 5,000 ohms. Compact, approximately size of package of cigarettes; completely portable, requires 9 volt battery (included). Has standard 2-cond. Phone Jack Input and 2-cond. Phone Plug Output. Can also be used at a microphone, using cables up to 30 feet long, without serious loss of high frequencies.

Frequency response 20 to 20,000 cycles. Also ideal for Phono Pickups (Magnetic and Crystal).

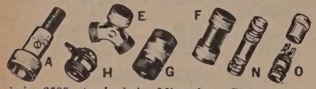
PART NO. 501 **U.S.A. LIST $20.00**

"MIX-AMP"—Same as above, but Input and Output have microphone connectors (Switchcraft Series 2500 or Amphenol Series 75).

PART NO. 502 **U.S.A. LIST $20.00**

For detailed information request Switchcraft Catalog A-401.

"MICROPHONE CONNECTORS"



Series 2500, standard size Microphone Connector, designed for use with single conductor microphone cable; panel receptacle mounts in .385" hole, Series 3500, phono connector, used for phono connections.

Series 5500, **"Mini-Con,"** a miniature MIC connector, approx. ½ the size of series 2500. Accepts cable up to 3/16" dia; panel receptacle. 5501MP mounts in 5/16" dia. hole, in panels up to ¼" thick; 5501MF mounts in ⅜" dia. hole with locknut on front of panel.

"MICROPHONE CONNECTORS"— Series 2501

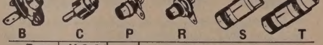
Part No.	U.S.A. List	Fig.	DESCRIPTION
2501F	$0.60	A	1-contact, female, coupling ring.
2501M	$0.45		1-contact, male.
2501MP	$0.35	H	Panel Connector, male
2501MPC	$0.45		Panel Connector, closed ckt. male.
44	$0.50		Plug Adapter.
25Y	$1.65	E	Two male to one female.
2501FT	$0.80	F	Double female, for connecting 2 cables with male Connectors.
2501MT	$0.70	G	Double male, for connecting 2 cables with female Connectors.
2501FL	$2.25	N	Straight Conn., 2 screw term., female, 2-pc. handle/built in cable clamp.
2501FS	$1.65	O	Straight Conn.; same 2501FL, except no cable clamp.

"MINI-CON" CONNECTORS—Series 5501

5501F	$0.60		1-contact, female, coupling ring.
5501M	$0.45		1-contact, male.
5501MF	$0.45		Panel Conn., male, mounts front side panel.
5501MP	$0.35		Panel Conn., male, mounts back side.
5501MPC	$0.45		Same as 5501MP, except shorting type.

For detailed information request Switchcraft Catalog C-501.

"PHONO CONNECTORS"



Part No.	U.S.A. List	Fig.	DESCRIPTION
3501F	$0.15	B	Phono Jack—2 conductor.
3501M	$0.10	C	Phono Plug—2 conductor.
3501MC	$0.15	C	Phono Plug—2 conductor (cable clamp type).
3501FP	$0.35	P	Phono Jax—7/16" O.D. for back panel mounting.
3501FR	$0.40	R	Phono Jax—⅝" O.D. for front of panel mounting.
3502	$0.50	S	Phono Plug Removable handle. Cable clamp. Shielded. N.P.
3503	$0.60	T	Phono Ext. Jax. Removable Handle. Cable clamp. Shielded. N.P.

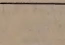
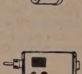
"RF-JAX" & "RF-PLUGS"

Nylon insulation. See illus. under "Phono Connectors."

Part No.	U.S.A. List	
3504M	$0.20	RF-Plug—Similar No. 3501M.
3505F	$0.60	RF-Phono Jax—Similar No. 3501FP.
3506	$2.00	Adapter-Connector—COAX Plug to Phono Jack.
3507	$0.80	RF-Plug—Similar to No. 3502.

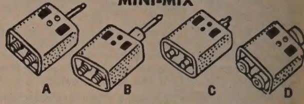
For detailed information request Switchcraft Catalog C-501.

STEREO LINE BALANCE CONTROLS

Part No.	U.S.A. List	DESCRIPTION
366	$3.95	 **"Volume Control Adapter"** Single channel, high imp. circuits only (Crystal Mic., Phono, etc.). Phono Jack Input to Phono Plug Output. Shielded. N.P. Use in unbalanced Stereo channels, or in pairs for dual Stereo channel control.
367	$7.50	 **"Dual Volume Control Adapter"**, Twin-channel, high imp. circuits only. 2 Phono Jack Inputs and 2 Phono Plug Outputs. Separate volume controls. Shielded.

For detailed information request Switchcraft Catalog A-401.

"MINI-MIX"

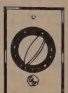


Resistance type mixer for tape recorders to mix 2 different sound sources or music with voice. Accommodates 2 high imp. inputs. Loss factor approx. 3 db. Separate volume controls recessed inside housing—in line with each input. Average size 2¼" x 1 13/16" x 11/16".

Part No.	U.S.A. List	Fig. No.	DESCRIPTION
310	$7.95	A	2-cond. Phone Jack inputs with 2-cond. Plug output (For equipment where Jack is recessed, use 8266 Cable Assembly Adapter).
311	$8.95	B	2-cond. plug output. Long plug makes suitable for recorders with Jacks recessed such as latest Wilcox Gay, Webster Electric, V.M., etc.
312	$8.95	B	Spc. size plug and jacks, for use with Am. Geloso Model G-255-S Tape Recorder.
313	$8.95		2-cond. special short plug output. Special input jacks to accept short plug as used with Revere and Wollensak recorders.
315	$7.95	D	2-cond. Phone Jack Inputs with female Mic. Conn. Output.
316	$7.95	C	2 Phono Jax Inputs to Phono Plug Output.
320	$7.95	D	Microphone Connector inputs and output mating with standard mic. connectors.
325	$9.95		For use with recorders using Jones type connectors. Fits Early Webcor Recorders.
326	$9.95	B	3-cond. Jack Inputs with long 2-cond. Plug Output. For Webcor Recorders Series 2020, 2110, and 2130.
8266	$3.75		Cable assembly for recessed Jack. Used with 310 Mini-Mix. No. 280 "Littel Plug" one end; No. 128 Ext. Jax other end.

For detailed information request Switchcraft Catalog A-401.

SPEAKER VOLUME CONTROLS



Brushed brass wall plate mounts on std. outlet box. Constant imp. T-pad volume controls. Control speaker volume of Stereo, Hi-Fi, or P.A. system from remote location. Rated at 4 Watts (15 Watt peak audio). Ivory knob, black-white lettered escutcheon. Screw term. Mounting screws and instructions furnished.

Part No.	U.S.A. List	DESCRIPTION
651	$9.95	8 ohm control for single 8 ohm speaker, or two 16 ohm speakers in parallel, or two 4 ohm speakers in series. Screw term.
651S	$9.95	Same as 651, except with brushed stainless steel wall plate.
652	$9.95	16 ohm T-pad control for single 16 ohm speaker, or two 8 ohm speakers connected in series.
652S	$9.95	Same as 652, except with brushed stainless steel wall plate.
653	$12.00	Speaker Volume Control with Jack Connection. 8 ohm control for single 8 ohm spkrs., or two 16 ohm spkrs., in parallel. Jack input permits use of ext. spkr. or headset. Jack accepts std. 2 cond. phone plug. Brushed Brass Wall Plate. As illustrated above.
654	$12.00	Same as 653, except with 16 ohm control.
655	$5.50	**"Multi-Speaker Selector Switch"** 7 position switch. Selects any of 3 speakers; all, or an 2 of 3. Also mounts on speaker cabinet. Constant imp. regardless of switch position.
655S	$5.50	Same as 655, except with brushe stainless steel wall plate.
656	$6.95	L-pad Volume Control to preven mismatch to amplifier at different volume settings When turned all the way counter-clockwise, completel shuts off the speaker. Solder lug terminals. 10 Watt Peak Audio—8 ohm.
656S	$6.95	Same as 656, except with brushe stainless steel wall plate.

For detailed information request Switchcraf Catalogs A-401.

SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"STROBOLAMP"
STEREO-MONAURAL CONTROLS
MICROPHONE CABLES
ADAPTERS — CONNECTORS

ADAPTERS — CONNECTORS

Part No.	U.S.A. List	DESCRIPTION
25Y	**$1.65**	**"Y Adapter".** Connects 2 cables (with std. mic. conn.) in parallel to 1 single conn.
44	**$0.50**	Male Mic. Input to Phone Plug Output.
49	**$1.50**	**"Silent Plug".** 2 cond. plug with circuit closing device. When removed from jack, shorts input of Amp., eliminating "squeals". Patented.
169	**$1.75**	Same as No. 49, but 1" long shielded handle.
328A	**$2.95**	To connect Ceramic Phono Cartridge to audio amplifier designed for magnetic cartridge. Phono Jack Input, Phono Plug Output.
329	**$6.95**	**"Microphone Volume Control Adapter".** For use in high imp. circuits to adjust volume. Mic. conn. input and output.
330F	**$1.75**	**"Y Adapter".** 2 Phono Jax Connectors, in parallel to a std. Phono Plug.

FLEXIBLE "Y" CONNECTORS
(Phono Jack and Plug Type)

For converting Stereo Player to Monaural. Can be used for tap-in meter monitor conn. Required on some Tape Rec. (4" long. Grey. Shielded cable.)

330F1	**$2.00**	Phono Plug connected to 2 Phono Jacks.
330F2	**$2.00**	Phono Plug connected to 1 Phono Jax and 1 Phono plug.
330F3	**$2.00**	Phono Plug connected to 2 Phono plugs.
330M	**$1.90**	**"Y Adapter".** 2 male Mic. Conn. in parallel to a std. 2-cond. Phone Plug. Shielded.
330PJ	**$1.90**	**"Y-Adapter".** 2 Phono Jax conn. in parallel to a std. Phone Plug.
331A	**$15.00**	"ADAPTER CADDY KIT." A plastic case containing one each of: 25AF25 Cable, 345A, 336B, 330F1, 332A, 334A, 336A, 25Y. Two each of: 44 and 349A.
332A	**$1.75**	2-cond. Phone Jack Input to female Mic. Output. Body ½" O.D. N.P. Shielded.
333	**$2.35**	Std. ¼" 2-cond. Jack Input to special plug that mates with jack in Am. Geloso Rec.
334A	**$1.25**	Phono Jax Input to female Mic. Conn. Output. ½" O.D. N.P. Shielded.
334B	**$1.25**	Same as 334A less ring. Phono Jax Input to male Mic. Conn. Output.
335	**$2.95**	2-cond.—Input has our 2501MP (Amphenol 75PCL1M) Output is Cannon XL-3-11. Has internal wire unsoldered at one end for connecting terminal.
336A	**$1.45**	2-cond. Phone Jack Input to Phono Plug Output. Body ½" O.D. N.P. Shielded.
338A	**$1.00**	Phono Plug one end. male Mic. Conn. at other.
338B	**$1.00**	Phono Plug one end, female Mic. Conn. at other. Body ½" O.D. N.P. Shielded.
339	**$2.95**	Same as 335, but output our 2501F (Amphenol 75-MC1-F) to input. Cannon XL-3-12.

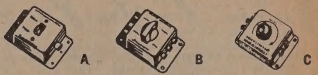
Part No.	U.S.A. List	DESCRIPTION
340	**$3.75**	**"Y Adapter"** (in case). Two 2-cond. jack inputs conn. in parallel to 2-cond. plug output.
341	**$2.95**	**"Silent Plug Adapter".** 2-cond. jack input to 2-cond. plug output, with circuit closing device, When removed Jack shorts input of Amp. eliminating "squeals". Patented.
342	**$2.60**	Dual-purpose Binding Post/Banana Jack Input to Phone Plug Output.
343	**$1.95**	**"Phono Adapter".** (Sim. No. 250 "Littel Plug" with female Phono Jack in end of handle.) Internal resistor circuit to adapt crystal Phono pickup or pickup from terminals of radio or TV set to input of Tape Rec. Use as adapter with magnetic Phono—open plug and twist together opposite leads of resistor.
345A	**$1.25**	Phone Plug Output to Phono Jack Input. Grey molded housing. Shielded.
346	**$2.15**	Tip Jack Input to Phone Plug Output.
349A	**$1.00**	**"Phono Plug Coupler".** Phono Jack at each end. Grey plastic. Shielded.
361	**$2.25**	**"Phone Plug Coupler".** 2-cond. Phone Jack in each end. Shielded. N.P.
362	**$2.75**	**"Phone Plug Coupler".** 3-cond. Phone jacks in each end.
363	**$2.00**	**"Coupler".** A 2-cond. Phone Plug at each end. Shielded.
364	**$1.45**	2-cond. Tini-Jax Input to std. size (¼" O.D. sleeve) Phone Plug Output. Body 11/16" O.D. Shielded.
365	**$1.45**	2-cond. Tini-Jax Input to a Phono Plug Output. Body 13/32" O.D. N.P. Shielded.
368	**$4.50**	**"Input Volume Control Adapter".** Phono Jax Input to 2-cond. Phone Plug Output. Built-in volume control circuit. High volume signals, phonos, tuners, etc., can be connected into high gain Input Jax of Tape Rec., without overloading recorder. N.P. Shielded.
369	**$2.00**	Ext. Jax Adapts short Revere/Wollensak Plug (R-280) to standard 2-cond. plug.
370	**$1.40**	Adapts standard phono plug to small "Tini-Plug." 2-cond. "Tini-Plug," (9/16" dia. O.D.) finger output to phono jack input.
371	**$0.95**	Thick Panel Phono Jack Adapter. Special long bushing permits mounting #3501P Phono Jax in panels up to 1¼" thick. Complete with hardware and instructions.

"PLUG-IN" MICROPHONE CABLES

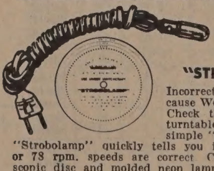
For adding extra lengths of cable to most public address, tape recorder or studio microphones. Cables can be attached to existing microphone cables or to microphones without tools, wiring or soldering.

Part No.	U.S.A. List Price	DESCRIPTION
91BU92	**$12.50**	25', 2-cond. shielded cable Cannon XL3-11 and XL3-12 Plugs.
93BU94	**$9.75**	25', 2-cond. shielded cable Amphenol MC3M and MC3F Plugs.

STEREO-MONAURAL SELECTORS
PHONO-TUNER ADAPTER
SPEAKER PHASE CONTROL



Part No.	U.S.A. List	DESCRIPTION
661 (A)	**$3.00**	**"Stereo-Monaural Selector".** Switches from monaural to stereo. Two Phono Jax Inputs and two Phono Jax Outputs. Dual channel feed-through for Stereo (Outputs connected together in monaural position). Tan finish.
662 (B)	**$3.50**	**"Stereo-Monaural Selector with Reverse".** Same as No. 661 with channel reversing feature.
663 (A)	**$2.50**	**"Phono-Tuner Adapter".** To modernize old sound equipment. Two Phono Jax Inputs, switch selects either input. Phono Jax Output for connecting to amplifier.
664 (B)	**$4.95**	**"Multiple Selector Control".** Accepts up to 5 Input circuits. Selector switch connects any one circuit to one Phono Jax Output. Inputs labeled AM, FM, PHONO, TAPE, and AUX. 5 input and one output Phono Jack. Shielded.
665 (A)	**$2.50**	**"Speaker Phase Control".** For multiple or Stereo Speaker installations for proper phasing of speakers. Screw terminals. Shielded.
666 (C)	**$6.50**	**Speaker Volume Control with L-Pad.** Quality L-Pad speaker volume control to reduce mismatch to amplifier at different volume settings. 5 watts peak—8 ohm. For mtg. on speaker cabinet or at remote spkr. Screw terminals.
667 (B)	**$4.25**	**Speaker Selector Switch.** For connecting remote speakers to Radio, T.V. or Hi-Fi set. Three position selector switch permits selection of either or both spkrs. at same time. Screw terminals. Shielded.
668 (B)	**$6.25**	**Stereo Selector Switch.** Accepts three Stereo input circuits and one output circuit for Stereo Amplifier. Allows selection of both channels of any one of three stereo sources. Phono jacks inputs and outputs. Completely wired.
669 (C)	**$6.50**	**Stereo Volume Control.** Specially matched tandem control for high impedance circuits. For use as a master volume control for ceramic stereo phono cartridges, stereo tape dealers, etc., when connecting to separate amplifiers. Also, for use as dual-volume control on 2 microphones for stereo recordings. Phono jacks inputs and outputs.
670 (B)	**$6.25**	**Stereo Speaker Selector Switch.** For connecting 2 remote pairs of Stereo speakers to a Stereo Amplifier. Three position selector switch permits you to select either or both pairs of Stereo speakers at the same time. Screw terminals.
671 (B)	**$5.50**	**Monaural Speaker Selector Switch.** Accepts up to five remote, monaural speakers. A 5 position tap switch allows you to connect any one of 5 speakers to a monaural amplifier. Inputs are labeled 1 thru 5. Five inputs and one output Phono Jax. Electrically the same as No. 664.



"STROBOLAMP"

Incorrect turntable speeds cause Wow and Distortion. Check the speed of your turntable the easy and simple "Strobolamp" way. "Strobolamp" quickly tells you if 16⅔, 33⅓, 45 or 78 rpm. speeds are correct. Consists of stroboscopic disc and molded neon lamp with 6 ft. A.C. cord.

Part No. 669 U.S.A. List Price $1.95

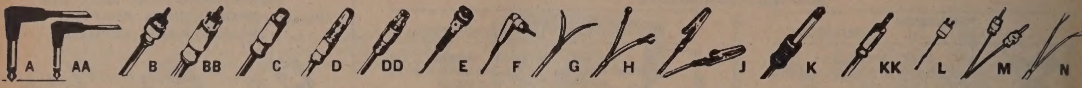
For more detailed information on these products request Switchcraft Catalog A-401.

SWITCHCRAFT INC.

CHICAGO, ILLINOIS

MOLDED CABLE ASSEMBLIES
(Audio Jumpers)
(Interconnecting Cords)

Various Molded Cable Combinations.

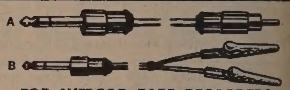


Part No.	U.S.A. List	Conn. or Term. One End	Conn. or Term. Other	Length	Cable
Straight 2 Cond. Phone Plug to Various Connections					
05AC05	$1.60	K	K	18″	Shield.
05AD05	$1.75	K	K	24″	Shield.
05AK05	$2.60	K	K	6′	Shield.
05AN05	$3.50	K	K	10′	Shield.
05AU05	$4.75	K	K	25′	Shield.
05AK15	$2.60	K	A	6′	Shield.
05AN15	$3.50	K	A	10′	Shield.
05AK25	$2.00	K	B	6′	Shield.
05AN25	$2.75	K	B	10′	Shield.
05AR25	$3.00	K	B	15′	Shield.
05AK30	$2.00	K	F	6′	Shield.
05AN30	$2.75	K	F	10′	Shield.
05AK80	$2.60	K	D	6′	Shield.
05AN80	$3.50	K	D	10′	Shield.
05AR80	$4.00	K	D	15′	Shield.
05AU80	$4.75	K	D	25′	Shield.
05AK82	$2.20	K	C	6′	Shield.
05AN82	$3.00	K	C	10′	Shield.
05AR82	$3.25	K	C	15′	Shield.
05AK87	$2.60	K	E	6′	Shield.
05AN87	$3.50	K	E	10′	Shield.
05AU87	$4.75	K	E	25′	Shield.
05AK84	$1.75	K	G	6′	Shield.
05AN84	$2.25	K	G	10′	Shield.
05AR84	$2.75	K	G	15′	Shield.
05CK84	$1.40	K	G	6′	Unshield.
05CN84	$1.90	K	G	10′	Unshield.
05CK85	$1.50	K	H	6′	Unshield.
05CN85	$2.00	K	H	10′	Unshield.
05CK86	$1.90	K	J	6′	Unshield.
05CN86	$2.40	K	J	10′	Unshield.
05CR86	$2.65	K	J	15′	Unshield.
05CT86	$3.00	K	J	20′	Unshield.
Straight 3 Cond. Phone Plug to Various Connections					
10BD10	$3.25	K	K	24′	Shield.
10BK10	$4.80	K	K	6′	Shield.
10BN10	$6.00	K	K	10′	Shield.
10BU10	$8.75	K	K	25′	Shield.
10BK81	$4.80	K	D	6′	Shield.
10BN81	$6.00	K	D	10′	Shield.
10BU81	$8.75	K	D	25′	Shield.
Right Angle 2 Cond. Phone Plug to Various Connections					
15AK15	$2.60	A	A	6′	Shield.
15AN15	$3.50	A	A	10′	Shield.
15AU15	$4.75	A	A	25′	Shield.
15AK25	$2.00	A	B	6′	Shield.
15AN25	$2.75	A	B	10′	Shield.
15AR25	$3.00	A	B	15′	Shield.
15AK30	$2.00	A	F	6′	Shield.
15AN30	$2.75	A	F	10′	Shield.
15AK80	$2.60	A	D	6′	Shield.
15AN80	$3.50	A	D	10′	Shield.
15AU80	$4.75	A	D	25′	Shield.
15AK82	$2.20	A	C	6′	Shield.
15AN82	$3.00	A	C	10′	Shield.
15AK87	$2.60	A	E	6′	Shield.
15AN87	$3.50	A	E	10′	Shield.
15AK84	$1.75	A	G	6′	Shield.
15AN84	$2.25	A	G	10′	Shield.
15AR84	$2.75	A	G	15′	Shield.
15CK85	$1.50	A	H	6′	Unshield.
15CN85	$2.00	A	H	10′	Unshield.
15CK86	$1.90	A	J	6′	Unshield.
15CN86	$2.40	A	J	10′	Unshield.
Straight Phono Plug to Various Connections					
25AC25	$1.05	B	B	18″	Shield.
25AF25	$1.20	B	B	36″	Shield.
25AH25	$1.35	B	B	4′	Shield.
25AK25	$1.50	B	B	6′	Shield.
25AN25	$2.00	B	B	10′	Shield.
25AR25	$2.50	B	B	15′	Shield.
25AT25	$3.00	B	B	20′	Shield.
25AU25	$3.50	B	B	25′	Shield.
25AC30	$1.05	B	F	18″	Shield
25AF30	$1.20	B	F	36″	Shield.
25AK30	$1.50	B	F	6′	Shield.
25AN30	$2.00	B	F	10′	Shield.
25AU30	$3.50	B	F	25′	Shield.
25AK80	$2.00	B	D	6′	Shield.
25AN80	$2.75	B	D	10′	Shield.
25AR80	$3.25	B	D	15′	Shield

Part No.	U.S.A. List	Conn. or Term. One End	Conn. or Term. Other	Length	Cable
25AC82	$1.25	B	C	18″	Shield.
25AF82	$1.35	B	C	36″	Shield.
25AH82	$1.60	B	C	4′	Shield.
25AK82	$1.75	B	C	6′	Shield.
25AN82	$2.00	B	C	10′	Shield.
25AR82	$2.50	B	C	15′	Shield.
25AT82	$3.00	B	C	20′	Shield.
25AU82	$3.50	B	C	25′	Shield.
25AK87	$2.45	B	E	6′	Shield.
25AN87	$3.35	B	E	10′	Shield.
25AU87	$4.60	B	E	25′	Shield.
25AC84	$0.80	B	G	18″	Shield.
25AF84	$0.95	B	G	36″	Shield.
25AH84	$1.00	B	G	4′	Shield.
25AK84	$1.15	B	G	6′	Shield.
25AN84	$1.65	B	G	10′	Shield.
25AR84	$2.25	B	G	15′	Shield.
25AT84	$2.75	B	G	20′	Shield.
25AU84	$3.25	B	G	25′	Shield.
25CF84	$0.75	B	G	36″	Unshield.
25CK84	$0.90	B	G	6′	Unshield.
25CN84	$1.40	B	G	10′	Unshield
25CK85	$1.00	B	H	6′	Unshield.
25CN85	$1.50	B	H	10′	Unshield.
25CK86	$1.75	B	J	6′	Unshield
25CN86	$2.25	B	J	10′	Unshield.
25CR86	$2.35	B	J	15′	Unshield.
25CT86	$2.60	B	J	20′	Unshield.
2 Straight Phono Plugs on Same End to Various Conn.					
25FF25	$3.25	M	M	36″	Shield.
25FK25	$3.75	M	M	6′	Shield.
25FN25	$4.50	M	M	10′	Shield.
25FF84	$2.90	M	N	36″	Shield.
25FK84	$3.25	M	N	6′	Shield.
25FN84	$3.75	M	N	10′	Shield.
Straight Phono Plug (Long Handle) to Various Conn.					
26AF26	$1.30	BB	BB	36″	Shield.
26AK26	$1.60	BB	BB	6′	Shield.
26AN26	$2.10	BB	BB	10′	Shield.
26AR26	$2.60	BB	BB	15′	Shield.
26AK05	$2.20	BB	K	6′	Shield.
26AN05	$2.75	BB	K	10′	Shield.
26AF82	$1.50	BB	C	36″	Shield.
26AK82	$1.95	BB	C	6′	Shield.
26AN82	$2.25	BB	C	10′	Shield.
26AR82	$2.75	BB	C	15′	Shield.
26AF84	$1.10	BB	G	36″	Shield.
26AK84	$1.30	BB	G	6′	Shield.
26AN84	$1.80	BB	G	10′	Shield.
Right Angle Phono Plug to Various Connections					
30AC30	$1.05	F	F	18″	Shield.
30AF30	$1.20	F	F	36″	Shield.
30AH30	$1.35	F	F	4′	Shield.
30AK30	$1.50	F	F	6′	Shield.
30AN30	$2.00	F	F	10′	Shield.
30AR30	$2.50	F	F	15′	Shield.
30AT30	$3.00	F	F	20′	Shield.
30AU30	$3.50	F	F	25′	Shield.
30AK80	$2.00	F	D	6′	Shield
30AN80	$2.75	F	D	10′	Shield.
30AC82	$1.25	F	C	18″	Shield.
30AF82	$1.35	F	C	36″	Shield.
30AK82	$1.75	F	C	6′	Shield.
30AN82	$2.00	F	C	10′	Shield.
30AF84	$0.95	F	G	36″	Shield.
30AK84	$1.15	F	G	6′	Shield.
30AN84	$1.65	F	G	10′	Shield.
30CF84	$0.75	F	G	36″	Unshield.
30CK84	$0.90	F	G	6′	Unshield.
30CN85	$1.50	F	H	10′	Unshield.
30CK86	$1.75	F	J	6′	Unshield.
30CN86	$2.25	F	J	10′	Unshield.
Straight Tini Plug to Various Connections					
41EF75	$2.00	KK	L	36″	2-cond. Hearing Aid
41EH75	$2.25	KK	L	4′	
45AN25	$2.75	KK	B	10′	Shield.
45AR25	$3.25	KK	B	15′	Shield.
45AU25	$4.25	KK	B	25′	Shield.
Right Angle Tini Plug to Various Connections					
50EF75	$2.25	AA	L	36″	2-cond. Hearing Aid
50EH75	$2.50	AA	L	4′	

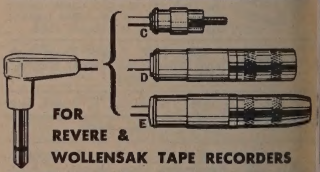
Part No.	U.S.A. List	Conn. or Term. One End	Conn. or Term. Other	Length	Cable
Extension Jax Cords					
82AC82	$1.50	C	C	18″	Shield.
82AF82	$1.65	C	C	36″	Shield.
82AK82	$1.95	C	C	6′	Shield.
83DK05	$2.75	DD	K	6′	Shield.
Cords with Spade Lugs and Alligator Clips					
85CN85	$0.90	H	H	10′	Unshield.
85CT85	$1.50	H	H	20′	Unshield.
85CU85	$1.75	H	H	25′	Unshield.
86CN86	$1.70	J	J	10′	Unshield.
86CU86	$2.55	J	J	25′	Unshield.
Microphone Connector to Various Connections					
87AF87	$2.00	E	E	36″	Shield.
87AK87	$2.50	E	E	6′	Shield.
87AP87	$3.50	E	E	12′	Shield.
87AU87	$5.00	E	E	25′	Shield.
87AK80	$2.75	E	D	6′	Shield.
87AK82	$2.00	E	C	6′	Shield.
87AN82	$2.75	E	C	10′	Shield.
87AU82	$4.75	E	C	25′	Shield.
87AF84	$1.50	E	G	36″	Shield.
87AK84	$1.75	E	G	6′	Shield.
87AN84	$2.25	E	G	10′	Shield.
87AU84	$4.25	E	G	25′	Shield.

SPECIAL PURPOSE INTERCONNECTING CORDS



FOR WEBCOR TAPE RECORDERS

Part No.	U.S.A. List Price		DESCRIPTION
11AK26	$3.25	Fig. A	3-cond. phone plug with internal resistor to phono plug. 6′ shielded cable. (Webcor No. 2925)
11AN26	$4.00	Fig. A	Same as 11AK26, except 10′.
11CN86	$3.25	Fig. B	3-cond. phone plug with internal resistor to alligator clips. 10′ unshielded cable. (Webcor No. 2934).



FOR REVERE & WOLLENSAK TAPE RECORDERS

Part No.	U.S.A. List Price		DESCRIPTION
12HK25	$2.50	Fig. C	Short right angle 2-cond. phone plug to std. 2-cond. phono plug. 6′ white shielded cable.
12HR79	$5.00	Fig. D	Short right angle 2-cond. phone plug to std. 2-cond. short ext. jack. 15′ white shielded cable.
12HU79	$5.95	Fig. D	Same as 12HR79, except 25′.
12HD80	$3.95	Fig. E	Short right angle 2-cond. phone plug to phone extension jax. 24′ white shielded cable.

For detailed information request Switchcraft Catalog A-401

Standard cable assemblies, as listed above, are available through leading electronics distributors. Should you require variations of the above cable assemblies, please request Catalog M-701, which illustrates the most commonly used Phone and Phono Plugs, Extension Jax and microphone connectors that can be molded to cables. Due to the flexibility of Switchcraft's manufacturing methods, the variety of molded cable assemblies is virtually unlimited.

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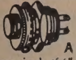
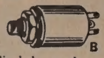
SWITCHCRAFT INC.

CHICAGO, ILLINOIS

"BUTTON SWITCHES"


A

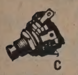

B

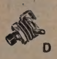
An unusually small, completely enclosed switch. Series 903 and 913 (A), behind panel mounting, requires single 15⁄32" dia. hole, panels up to 19⁄64". Series 923 and 933 (B) front of panel mounting, requires ¼" dia. hole, panels up to 5⁄32" thick. Rated 250 mils, non-inductive load. A.C. 30 watts max.

"CORD SWITCHES"—Button Switch assembled into nickel plated brass handle provides ideal switch for attachment to cable.

Part No. Red Button	Part No. Blk. Button	U.S.A. List Price	Schematic Circuit
903	913	$1.50	
903D	913D	$1.50	
923	933	$1.75	
923D	933D	$1.75	
"CORD SWITCHES"			
E-903	E-913	$2.50	
E-903D	E-913D	$2.50	

"LITTEL" AND "TINY" SWITCHES


C

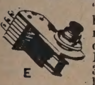

D

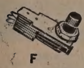
The "Littel Switch" (C) available in 3 circuits, red or black 1 pc. Plastic P.B., non-locking only. Integral contacts; recommended for low current circuits only; same switches with suffix letter "S" in part number rated at 3 amps, 300 watts A.C. non inductive load. Mounts ⅜" dia. hole in panels up to ¼".

The "Tiny-Switch" (D) similar in construction but approx. ⅓ the size of "Littel-Switch". Available integral contacts only. Mounts ¼" dia. hole in panels up to ⅛" thick. *Silver Con

Part No. Red Button	Part No. Blk. Button	U.S.A. List Price	Schematic Circuit
101	201	$0.90	I
*101-S	201-S	$1.05	
102	202	$0.90	II
*102-S	202-S	$1.05	
103	203	$1.00	III
*103-S	203-S	$1.20	
"TINY-SWITCHES"			
951	961	$0.90	I
952	962	$0.90	II
953	963	$1.00	III

"FF" AND "NF" SWITCHES


E


F

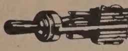
"FF-Switch" (E), Series 1000, 1-pc. black plastic push button; all common circuits. Mounts in single ⅜" dia. hole, panels up to ¼" thick. Fine silver contacts rated at 3 amp. 300 Watts max. A.C. non-inductive load. Frame ¾" wide; 1⁶¹⁄₆₄ lg. o/a.

"NF-Switch" (F) series 4000, same features and rating as "FF-Switch" but smaller. Frame ½" wide; 1⅝" long o/a. mounts in panels up to 5⁄32" thick.

FF-Switch Part No.	NF-Switch Part No.	U.S.A. List Price	Schematic Circuit
1001	4001	$1.05	I
1002	4002	$1.05	II
1003	4003	$1.20	III
1004	4004	$1.30	IV
1005	4005	$1.30	V
1006	4006	$1.55	VI
1009	4009	$2.10	VII

For detailed information request Switchcraft Catalog S-301.

"LEV-R-SWITCHES"



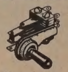
Unusually small lever action switch. Ideal for test equipment, intercom. systems, model r.r. switch panels, etc. Mount in 15⁄32" dia. hole, panels up to 5⁄64" thick for series 3000, and panels up to ¼" for series 13000. Contacts fine silver, rated at 3 amps., 300 watts max. non-inductive A.C. load. Welded cross bar Palladium contacts special.

Add suffix "L" for locking type.

TWO POSITION TYPE

Series 3000		Series 13000		Schematic CKT.
Non-Locking	U.S.A. List	Non-Locking	U.S.A. List	
3001	$1.95	13001	$2.10	XI
3002	$1.95	13002	$2.10	XII
3003	$2.25	13003	$2.40	XIII
3003D	$2.40	13003D	$2.50	XIV
3004	$2.50	13004	$2.65	XV
3005	$2.50	13005	$2.65	XVI
3006	$2.75	13006	$2.75	XVII
3006D	$2.90	13006D	$2.90	XVIII
3009	$3.40	13009	$3.75	XIX
THREE POSITION TYPE				
3033	$2.50	13033	$2.65	XX
3034	$2.60	13034	$2.75	VIII
3035	$2.60	13035	$2.75	IX
3036	$2.90	13036	$3.10	X
3036D	$3.10	13036D	$3.25	XXI
3037	$2.95	13037	$3.10	XXII
30312	$3.75	130312	$4.00	XXIII
30313	$3.75	130313	$4.00	XXIV
INTER-COMM. SWITCHES				
3033T	$2.50	13033T	$2.65	XX
3037T	$2.95	13037T	$3.10	XXII

SERIES 12000

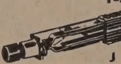


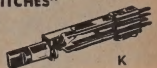
Requires minimum depth (⅞") behind panel. Single hole mounting. Springs insulated. Contacts fine silver rated at 3 amp. 120V A.C. non-inductive load, 300 Watts max. std. For detailed information regarding stack heights write for technical sheet. See basic contact forms.

Series 12000 Locking	Series 12000 Non-Locking	U.S.A. List	Schematic Circuit
TWO POSITION TYPE			
12001L	12001	$1.75	XI
12002L	12002	$1.75	XII
12003L	12003	$2.00	XIII
12003DL	12003D	$2.25	XIV
12004L	12004	$2.25	XV
12005L	12005	$2.25	XVI
12006L	12006	$2.50	XVII
12006DL	12006D	$2.75	XVIII
THREE POSITION TYPE			
12033L	12033	$2.25	XX
12034L	12034	$2.35	VIII
12035L	12035	$2.35	IX
12036L	12036	$2.65	X
12036DL	12036D	$2.85	XXI
12037L	12037	$2.75	XXII
3 POS. LOCKING ONE SIDE—NON-LOCKING OTHER SIDE			
12033T		$2.25	XX
12037T		$2.75	XXII

For detailed information request Switchcraft Catalog S-302.

"T-SWITCHES"


J


K

Long frame switches, Series 11000 (J), locking and non-locking push button design commonly used on Jack Panels, same mounting as "MT-JAX". 5⁄32" dia. mounting hole ⅜" center distance to push button. Requires 2⅞" depth behind panel. Welded cross bar Palladium contacts rated 3 amps. A.C. 300 Watts max. non-inductive load.

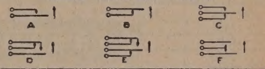
Series 11200 (K), similar to above but turn type operation, locking and non-locking.

Add suffix "L" to part number for locking type.

"PUSH BUTTONS" SERIES 11000	"TURN-BUTTONS" SERIES 11200		
Part No. Non-Locking	Part No. Non-Locking	U.S.A. List	Contact Assembly
11001	11201	$3.50	1-A
11002	11202	$3.50	1-B
11003	11203	$4.00	1-C
11003D	11203D	$4.00	1-D
11004	11204	$4.50	2-A
11005	11205	$4.50	2-B
11006	11206	$5.00	2-C
11006D	11206D	$5.00	2-D
11008	11208	$5.60	4-A
11009	11209	$6.00	3-C
11012	11212	$6.80	4-C

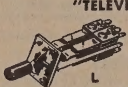
This table refers to Basic Contact Forms under the heading "Contact Assembly"

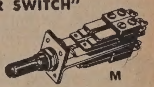
BASIC CONTACT FORMS



For detailed information on these products request Switchcraft Catalogs S-301 and S-302.

"TELEVER SWITCH"


L


M

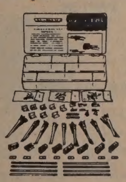
Series 6000, "Telever Switch" (L), rugged telephone type; 3" depth behind panel. Welded cross bar Palladium contacts rated at 3 amps., 300 Watts max. non-inductive A.C. load. Insulated black knob; chrome plated brass actuator. Standard mounting centers 17⁄32" x 13⁄16"; usually mounted by four No. 3-48 screws (not furnished); can be assembled to escutcheon plate.

Series 16000, "Telever Switch" (M), same design as Series 6000, except features a single hole mounting; requires 15⁄32" hole in panels up to ¼" thick. Unique feature, "non-locking" type can easily be converted to "locking" by removing "stop plate".

Add suffix "L" to part number for locking type.

6000 SERIES		16000 SERIES		Contact Assembly	
Part No. Non-Locking	U.S.A. List	Part No. Non-Locking	U.S.A. List		
TWO POSITION TYPE					
6006	$ 5.00	16006	$ 5.00	2-C	
6006D	$ 5.60	16006D	$ 5.60	2-D	
6008	$ 5.60	16008	$ 5.60	4-A	
6009	$ 6.00	16009	$ 6.00	3-C	
60012	$ 6.80	160012	$ 6.80	4-C	
60012D	$ 7.50	160012D	$ 7.50	4-D	
60024	$10.00	160024	$10.00	8-C	
THREE POSITION TYPE					
				Pos.1	Pos. 2
6036	$ 5.00	16036	$ 5.00	1-C	1-C
6036D	$ 5.60	16036D	$ 5.60	1-D	1-D
6038	$ 5.60	16038	$ 5.60	2-A	2-A
60312	$ 6.80	160312	$ 6.80	2-C	2-C
60312D	$ 7.50	160312D	$ 7.50	2-D	2-D
60316	$ 8.80	160316	$ 8.80	4-A	4-A
60324	$10.00	160324	$ 10.00	4-C	4-C
530	$ 0.60	Escutcheon plate with 4 mounting screws. For series 6000 only.			

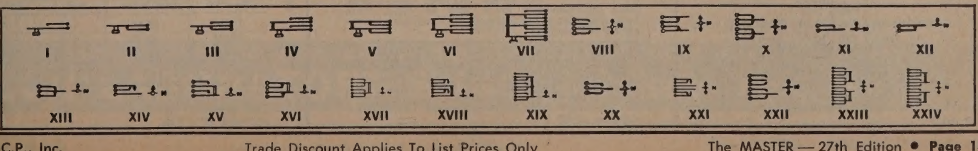
STACK SWITCH KITS



Experimental Kits consisting of the most popular springs, spacers, insulators, tubing, pins, roller assemblies and assorted contacts. Ideal for assembling design samples, field repair and replacement. Kit No. K-101, recommended for the engineer who has not decided which spring design to use. Kits No's. K-102 and K-103 contain springs of one type.

Part No.	U.S.A. List Price	Description
K-101	$16.50	Assorted ¼" and ⅜" mtg. ctr. contact springs and parts.
K-102	$16.50	Assorted ¼" mtg. ctr. contact springs and parts.
K-103	$16.50	Assorted ⅜" mtg. ctr. contact springs and parts.

For detailed information request Switchcraft Catalog S-304.

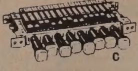


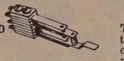
SWITCHCRAFT INC.
CHICAGO, ILLINOIS

"MULTI-SWITCH"
"PUSH-PUSH" SWITCH
"TF" SWITCH — "LK" SWITCH
JACK COVERS — TWIN JACK

A

B


C


D

E

"MULTI-SWITCHES"—Now, Choose from Six Frame Series.

Featuring:

- Illuminated or Non-Illuminated
- Choice of Functions
- Multiple Circuits Available
- Choice of 2 Plunger Centers — ⅝" and ¾"

The versatility of the "Multi-Switch" permits custom designing of push-button switches to meet any requirement. Ideal for use in all types of electronic equipment. Six Frame Series are available: Series 7000, non-illuminated, ⅝" plunger centers; Series 8000, non-illuminated, ¾" plunger centers; Series 17000, illuminated, ⅝" plunger centers. Includes 6V midget screw base lamp. Buttons have identifying discs. Series 18000, illuminated, ¾" plunger center. All features of Series 17000 are retained. New, Series 21000, illuminated, ⅝" plunger center. Featuring a new button design and two lamp voltages, 6V, 28V. The miniature lamps are purchased separately. Series 22000, illuminated, same as Series 21000, except with ¾" plunger centers.

All Series of the "Multi-Switch" may be assembled at the factory or adapted in the field to provide these functions: Interlock—pressing any button or group of buttons will release previously depressed button. Non-Locking—Momentary action (no interaction between buttons). All Lock—Pressing button does not release button previously depressed (order frame with extra button to serve as release button). Interlock and Non-Lock or All-Lock and Non-Lock combinations.

Each complete unit consists of the following components which are ordered separately: Frame with push buttons; individual switch stacks (which are to be installed on the frame): lock-out bar (optional); and Solenoid release (optional). On Series 21000 and 22000 Illuminated Multi-Switches, the lamps are also ordered separately.

For detailed engineering specifications and special functions on Multi-Switches, request Switchcraft Catalog S-306.

(A) NON-ILLUMINATED PUSH-BUTTON FRAMES

A round brown push-on button is furnished for each station and extra red button for use when switch requires a release.

Part No.*	U.S.A. List Price**	No. of Stations
7400	$12.00	4
7600	$16.00	6
7800	$20.00	8
71000	$24.00	10
71200	$28.00	12

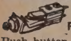
*Only popular frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering 8000 Frames with ¾" plunger centers, available up to 31 stations.

(B) SERIES 17000 ILLUMINATED PUSH-BUTTON FRAMES

Buttons light in "IN" position. If buttons are to light in "OUT" position, prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N". Supplied with white "push-on" discs; and red disc for release station.

Part No.*	U.S.A. List Price**	No. of Stations
17400	$24.50	4
17600	$34.50	6
17800	$45.00	8
171000	$55.00	10
171200	$65.00	12

*Only popular Frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering Series 18000 Frames with ¾" plunger centers; available up to 31 stations.


F

"TF" SWITCHES

Push-button "TF" tiny frame switch; (F) requires only 1¹⁹⁄₃₂" depth behind panel. Mounts in single ¼" dia. hole. Locking or non-locking action. Integral contacts. Ideal for all low level circuits where contact resistance is unimportant.

Non-Locking	U.S.A. List Price	Locking	U.S.A. List Price	Schematic Circuits
974	$1.30	974L	$1.55	2-A
975	$1.30	975L	$1.55	2-B
976	$1.30	976L	$1.55	2-C

For detailed information, request Switchcraft Catalog 102.

"HOOK SWITCH"

Hanging accessory on "hook" actuates switch. Requires minimum of depth behind panel. Soft, easy action. Fine silver contacts rated at 3 amps. 120V. A.C. Palladium contacts and special circuits available. (Refer to basic contact forms Page 2. Specify by lettering.)

Part No.	U.S.A. List	Schematic Circuit	Part No.	U.S.A. List	Schematic Circuit
14004	$2.75		14006	$3.00	
14005	$2.75		14012	$3.85	

For detailed information, request Switchcraft Catalog S-303.

"JACK COVERS"

500 Series Cover used with conventional ⅜"-32 threaded bushing type Phone Jacks. Spring loaded cover immediately snaps over Jack opening when plug is removed, providing a moisture seal.

600 Series Cover, similar to above, is used with certain type Tip Jacks. Fit Tip Jacks with ¼" mounting; height of Tip Jack head ⅛" to ³⁄₁₆".

Also can be used as covers for "Tini-Jax".

Part No.	U.S.A. List Price	Description	Part No.	U.S.A. List Price	Description
510	$1.05	Olive Drab	610	$0.75	Olive Drab
512	$1.05	Br. Nkl.	615	$0.75	Black
515	$1.05	Black	620	$0.75	Navy Grey
520	$1.05	Navy Grey			

For detailed information, request Switchcraft Catalog J-101.

(C) SERIES 21000 ILLUMINATED PUSH-BUTTON FRAMES

Buttons light in "IN" position. If buttons are to light in "OUT" position prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N". Standard buttons are supplied with white jewels and diffusers; other colors available on special order.

Part No.*	U.S.A. List Price**	No. of Stations
21400	$24.50	4
21600	$34.50	6
21800	$45.00	8
211000	$55.00	10
211200	$65.00	12

*Only popular Frames listed above, actually available from 1 to 37 stations.
**Add 10% to above List Prices when ordering Series 22000, Frames with ¾" plunger centers; available up to 31 stations.

LAMPS FOR SERIES 21000, 22000 FRAMES

Lamps are not furnished with Illuminated "Multi-Switch" Frames Series 21000, 22000. When ordering these frames determine and specify lamp voltages you will require.

Part No.	U.S.A. List Price	Description
P-1593-2	$1.20	6V Lamp, Ind. No. 328
P-1593-1	$1.50	28V Lamp, Ind. No. 327

TYPE J SOLENOIDS

Fasten to end of Frame.

Part No.	U.S.A. List Price	Function Used On	Voltage
J-1	$8.50	Interlock	115V AC
J-3	$9.50	All-Lock	115V AC

"RS-SWITCH"

The "RS-SWITCH", locking and non-locking, 2- or 3-position, all common circuits. Mounts in single ⅜" dia. hole, panels up to ¼" thick. Fine silver contacts rated 3 amperes, 120 volts A.C. (non-inductive).

Add suffix "L" to part number for locking type.

Part No. Non-Locking	U.S.A. List Price	Schematic CKT.
2001	$1.25	XI
2002	$1.25	XII
2003	$1.50	XIII
2004	$1.50	XV
2005	$1.50	XVI
2006	$1.95	XVII

THREE POSITION TYPES

2034	$1.50	VIII
2035	$1.50	IX
2036	$1.95	X

For detailed information, request Switchcraft Catalog S-303.

TWIN JACK

Twin Jack, similar to "MT-JAX," except frame is doubled. MT-388 mates with 411, 412, 413, 420 and 425 plugs. MT-389, two 3-cond. jacks interconnected, mates with 482 plug. Twin Jacks have mounting ears on 1⅜" centers; sleeves are on ⅝" centers.

Part No.	U.S.A. List Price	Mil Type	Schematic Circuit
MT-388	$5.15	JJ-088	
MT-389	$5.65		

For detailed information, request Switchcraft Catalog J-102.

LOCK-OUT BAR

Lock-out bar, Fig. E., prevents operation of more than one button at a time. Mounted at rear of "Multi-Switch."

Part No.	U.S.A. List Price	No. of Stations
K04	$3.25	4
K06	$3.50	6
K08	$3.75	8
K10	$4.25	10
K12	$4.75	12

STACK SWITCHES*

For all Multi-Switches, Fig. D.

Series 70 — Silver Contacts		Series 70P — Palladium Contacts		
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	Schematic Circuit
71	$.50	71P	$.60	
72	$.50	72P	$.60	
73	$.60	73P	$.80	
73D	$.70	73PD	$.90	

*Listed above are a few of the popular stacks, many others available from stock.

H J

PUSH-PUSH SWITCHES

Unique, new single station push-button switches featuring push-to-lock, push-to-release action. Series 5000L "Push-Push" Switch (H), rugged, non-illuminated type. Welded cross bar Palladium Contacts rated at 3 amps, 300 watts max. non-inductive A.C. load. Square brown button. ⅝" mounting centers; mounted by two 3-48 screws (not furnished). Series 5000, same design as Series 5000L, except momentary type. (Series 5000L can also be converted by user to momentary action.)

Series 15000L, "Push-Push" Switch (J), similar to Series 5000L, except illuminated. Two lamp voltages, 6V and 28V are available. Utilizes same lamps and buttons as furnished for Multi-Switches, Series 21000 and 22000. (See listing above.) Standard buttons are furnished with white jewels and diffusers, other colors are available on special order. Button lights in "IN" position. If buttons are to light in "OUT" position, prefix Part No. with "M"; or if buttons are to light in "IN" and "OUT" position, prefix Part No. with "N." **Order lamps separately.** Series 15000, similar to Series 15000L, except momentary action. (Series 15000L can also be converted by user to momentary action.)

The following numbers cover the most popular Push to Lock, Push to Release Switches, in various switching combinations. Special circuits, or special contacts, can be furnished on production orders.

Non-Illuminated		Illuminated		
Part No.	U.S.A. List Price	Part No.	U.S.A. List Price	Schematic Circuit
5003L	$6.00	15003L	$ 8.50	1-C
5004L	$6.50	15004L	$ 9.00	2-A
5006L	$6.75	15006L	$ 9.25	2-C
5008L	$7.60	15008L	$10.00	4-A
5009L	$7.75	15009L	$10.25	3-C
5012L	$9.00	15012L	$11.50	4-C

Delete suffix "L" in part number for momentary action. Order lamps separately for Series 15000 Switches. (See above listings on lamps.)

For detailed information, request Switchcraft Catalog S-306.

LK SWITCH

Rugged, lever type switch featuring new short frame design. Fine silver contacts rated at 3 amp., 300 watts max., non-inductive AC load. Locking and non-locking, 2 or 3 position action. Frame has 2 tapped 3-48 holes for easy mounting.

TWO POSITION TYPE

Part No.	U.S.A. List Price	Circuits
23201	$1.65	1-A
23203	$1.95	1-C
23206	$2.25	2-C

Additional circuits available on special order.

THREE POSITION TYPE*

Part No.	U.S.A. List Price	Circuits Pos. 1	Circuits Pos. 2
23304	$2.10	1-A	1-A
23306	$2.25	1-C	1-C
23308	$2.50	2-A	2-A

Add suffix "L" to part number for locking type.
*Also available with locking action on one side, non-locking action other side.

For detailed information, request Switchcraft Bulletin No. 115.

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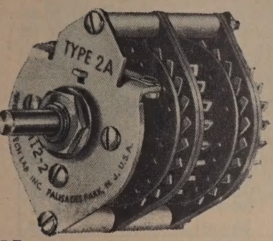
SWITCH TO TECH LABS for Precision Electrical Resistance Instruments

TECH LAB SWITCHES ARE ON THE QUALIFIED PRODUCTS LIST

TAP SWITCHES



TYPE 2A & 2M

Standard control switch with phenolic or Melamine insulation, 3-5 amp. rating.

TYPE 3A MINIATURE TAP SWITCH

$3.00 List

Molded from Diallyl Phthalate

Specifications

Size: 1" diameter. 1¼" with terminals. 1 deck, 1⁵⁄₁₆" long, ½" for each additional deck.
Weight: 1 deck, 30 grams. 10 grams for each additional deck.
Rating: 1200 volts rms, 2000 VDC, 5 amps. (carrying) 115 V.
Insulating resistance: 100 megohms minimum at 500 volts DC.
Life: 1.5 — 2 million revolutions.
Contact resistance (standard): 6-10 milliohms. (silver): 3-5 milliohms.
Temperature range: —65°C to 100°C.
Mounting: single hole.
Meets MIL-S-3786A.

The following standard switches are representative of those produced by Tech Laboratories, all of which meet government specifications. Write or teletype for further information.

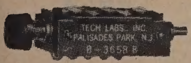
The Type 2A is the standard control switch for electronic instruments and high quality equipment. It is made in a number of combinations with as many as four poles per deck and 24 positions. Insulation is phenolic. The Type 2M is identical except for Melamine insulation. In the table, Code No. "S" stands for "shorting" and "N" for "non-shorting".

TYPE	CODE	DIA.	RATING	NO. POS.	NO. DECKS	POLD.	PRICE
2A	A1S24	1¾"	3A	24	1	1	$4.50
2A	A4S5	1¾"	3A	4	1	4	$6.00
2A	AIN10-2	1¾"	3A	10	2	1	$7.00
2M	M1S24	1¾"	3A	24	1	4	$5.50
2M	M4N3	1¾"	3A	3	1	4	$7.00

The new Type 3A molded miniature switch for use in all military and commercial applications in which a superior instrument switch is required, can be furnished with as many as eight decks and up to twelve positions per deck, single pole, or six positions double pole. It has adjustable stops for any lower number of steps.

The switch, 1¼" in diameter, carries 5 amp and is furnished "Shorting", with "non-shorting" types available on request. It can be supplied solenoid-operated and hermetically sealed. Write for details and prices.

CAM SWITCHES



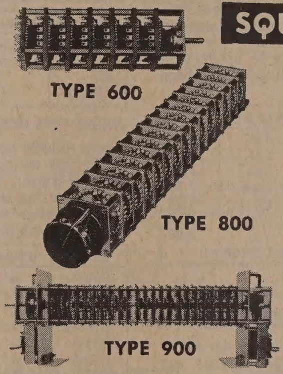
TYPE 8A CAM SWITCH

A new development of great interest. Small size, long life and great flexibility. Have been made with from one to 30 contact springs. Will carry 3 amp. Standard unit has four contact springs and 10 positions, price $12.50.

TYPE 10A TAP SWITCH

A multi-deck switch of small dimensions, 1⅜" sq. This is a precision switch designed to meet high requirements in smallest possible space. Up to 24 positions, shorting. Price approx. $10 per deck, plus frame $5.

SQUARE SWITCHES

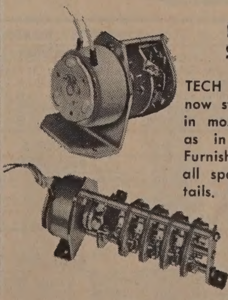


These standard rugged control switches are the standby for equipment calling for dependable switches in a hurry. Will meet all standard government specs. All parts carried in stock. An infinite number of combinations possible. Teletype your specs.

The price of the basic frame is the same for all, viz. $4.00 each. The type 600 and 800 are priced at $8.00 per deck plus frame price, and the type 900 switches are $9.50 per deck plus frame $4.00.

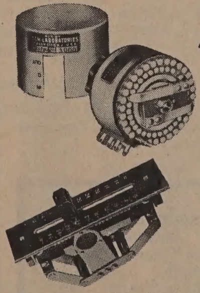
Type	Size	Rating	Max. Pos. Short.	Max. Pos. Non-Short.
600	1¾" sq.	5A.	24	12
800	2¼" sq.	5A.	32	16
900	2¾" sq.	10A.	48	24

OTHER TECH LAB SWITCHES



STEPPING SWITCHES

TECH LAB switches are now standard equipment in most missiles as well as in ground controls. Furnished sealed to meet all specs. Write for details. Prices on request.



ATTENUATORS

A complete line of audio and r.f. attenuators with both manual and REMOTE CONTROL. We will design components to meet your specific requirements, if standard units are inadequate. Please write for catalogue and send us your specs for estimate.

WRITE FOR INFORMATION ON **NEW** DIGITAL BINARY SWITCHES

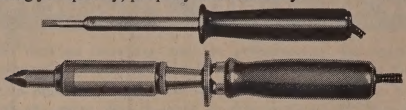
WRITE FOR NEW BULLETINS ON SWITCHES • DECADE RESISTORS • POTENTIOMETERS

TECH LABORATORIES INC. • Palisades Park, New Jersey

American Beauty ELECTRIC SOLDERING IRONS

A soldering iron for every soldering need!

American Beauty Electric Soldering Irons are made in *one* quality only—*the best*—and only *the best* gives you *the most!* No matter what the requirements—there's an American Beauty in the right model, correct tip size, proper watt input, to do any soldering job quickly, properly and efficiently.



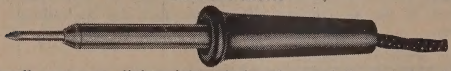
Hundreds of thousands of these devices are faithfully doing their jobs every day in the year—on production lines and work benches of industrial plants all over the world. Also widely used in telephone, telegraph, radio and television manufacturing and servicing everywhere.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3128†	¼″	60	7½ oz.	$ 7.90
3125†	¼″	60	7½ oz.	9.00
3138	⅜″	100	16 oz.	12.10
3138-X	⅜″	175	16 oz.	14.00
3138-XY	¼″	175	16 oz.	14.00
3158	⅝″	200	28 oz.	14.50
3158-X	⅝″	250	28 oz.	15.70
3178	⅞″	300	42 oz.	19.30
3198	1⅛″	550	60 oz.	24.20

(3138 is made also in 130- and 150-watt input.)

Available in standard voltages and many special voltages.
†Made also in 75-watt input.

BANTAM IRONS



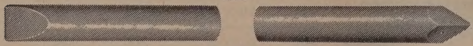
Small, compact, lightweight—designed especially for the electronic industry. They provide ample heat for fine and medium-fine soldering jobs of all kinds. Bantam "X" Series is intended for special applications on *production lines* of radio, television and electronic plants. They should be placed only on Production Lines—where high soldering rates are maintained—or where similar heat-dissipating conditions exist.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3114	¼″	60	8 oz.	$10.40
3118-SC/3118-SCP	⅛″	*30	6 oz.	7.20
3120-SC/3120-SCP	3/16″	*30	6 oz.	7.20
3118	⅛″	*30	6¼ oz.	7.20
3120	3/16″	*30	6½ oz.	7.20
3118-X/3118-XP	⅛″	50	6 oz.	8.00
3120-X/3120-XP	3/16″	50	6 oz.	8.00

(*Optional wattage (40 watts) available without extra cost. SPECIFY.)

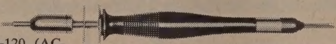
Available in standard voltages.

TIPS



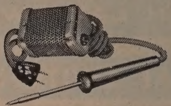
American Beauty offers a wide range of nickel-plated copper tips and in addition two lines of premium tips — "Paragon" Quality Clad and "SuperioR" Quality Clad. Specification sheets covering all lines available on request. American Beauty Tips — both standard and premium clad — fit most other makes of electric soldering irons as well.

MICROMINIATURE IRONS



Wattage: 22½. Voltage: 110-120 (AC-DC). Net Wt. Complete: 3 oz. Ship. Wt. Complete: 6 oz. Overall Length (Less Cord and Tip): 7″. Working Distance (From Hand to End of Tip): Approx. 3″. Basic Tip Diameter: ⅛″. Packaged Individually with 3 Tips as Indicated at Right: 6 to a Case. Case Weight: Approx. 3½ lbs.

TRANSFORMER TYPE IRONS

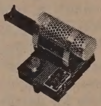


The T-12 Series is intended primarily for fine precision soldering on miniature and subminiature electronic components and similar assemblies. The T-30 Series is designed especially for *production line* use; intended for heavy duty, fine, precision soldering requiring extremely high tip-temperatures constantly maintained.

Cat. No.	Tip Diameter	Watts	Net Weight	List
T-12	1/16″	*17	1 lb., 3 oz.	$20.00
T-12	⅛″	*17	1 lb., 3 oz.	20.00
T-12	¼″	*17	1 lb., 3 oz.	20.00
T-12	3/32″	12	1 lb., 2 oz.	20.50
T-30	1/16″	*30	1 lb., 12 oz.	22.00
T-30	⅛″	*30	1 lb., 12 oz.	22.00
T-30	¼″	*30	1 lb., 12 oz.	22.00
T-30	3/32″	12	1 lb., 12 oz.	22.50

*T-12 also available in 20 watts—T-30 also available in 25 watts.

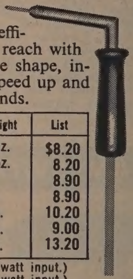
TEMPERATURE REGULATING STANDS



These automatic devices regulate and control the tip-temperature of an electric soldering iron while the iron is connected to current and at idle. The controlled soldering iron is maintained at all times at just the right heat to meet the requirements of the job or the needs of the user. Suffix "SG" after catalog number indicates stand is equipped with safety guard.

Cat. No.	Watts (Max.)	Net Weight	List
475	660	1¾ lbs.	$12.00
475-SG	660	2 lbs.	13.00
476	660	1¾ lbs.	12.00
476-SG	660	2 lbs.	13.00

ANGLE TYPE IRONS



These models are equipped with angle type casings—providing more efficient operation in places difficult to reach with straight-casing irons. Their distinctive shape, ingenious design and perfect balance speed up and simplify tough soldering jobs of all kinds.

Cat. No.	Tip Diameter	Watts	Net Weight	List
3118-A	⅛″	30*	6¼ oz.	$8.20
3120-A	3/16″	30*	6¼ oz.	8.20
3118-XA	⅛″	50	6 oz.	8.90
3120-XA	3/16″	50	6 oz.	8.90
3125-A	¼″	60**	10 oz.	10.20
3128-A	¼″	60**	10 oz.	9.00
3138-A	⅜″	100***	16 oz.	13.20

(*Nos. 3118-A and 3120-A are made also in 40-watt input.)
(**Nos. 3125-A and 3128-A are made also in 75-watt input.)
(***No. 3138-A is made also in 150-watt input.)

COMPLETELY BOXED TYPES

Catalog Numbers	Description	List Prices
B-2000-L	Contains Soldering Iron with Three (3) Assorted Tips (B-1, B-2, B-3)	$12.00
B-2000-P	Contains Soldering Iron with Three (3) B-1 Tips (⅛″ Chisel)	12.00
B-2000-PM	Contains Soldering Iron with Three (3) B-2 Tips (1/16″ Chisel)	12.00
B-2000-C	Contains Soldering Iron with Three (3) B-3 Tips (1/16″ Conical)	12.00
B-2000-B	Contains Soldering Iron with Three (3) B-4 Tips (Bean Type Conical)	12.00

PARTS

Catalog Numbers	Description	List Prices
B-218	Heating Element Assembly Complete, 110 Volts (Only). 22.5 Watts	$ 7.00
B-230	Handle Only	2.50
B-235	Plastic Box Only	.60
B-240	Cord Set Only	2.50

TIPS

Catalog Numbers	Description	List Prices
B-1	⅛″ Chisel Point "SuperioR" Quality Iron Clad .... Package of 6	$ 2.40
B-2	1/16″ Chisel Point "SuperioR" Quality Iron Clad .... Package of 6	2.40
B-3	1/16″ Conical Tip "SuperioR" Quality Iron Clad .... Package of 6	2.40
B-4	Bean Type Conical (Nickle Plate Only) .... Package of 6	1.20
B-5	⅛″ Conical, 38° Cut Off, 1/16″ x 3/32″ Oval Point .... Package of 6	2.40
B-6	⅛″ Conical — Short Taper — Sharp Point .... Package of 6	2.40

INDUSTRIAL USERS DISCOUNT

List Invoice Value	Discount
to $199.00	30%
$200.00 to 999.00	33%
Plus $1000.00	40%

Write for illustrated catalog containing full information on our complete line of electric soldering irons—including their use and care.

AMERICAN ELECTRICAL HEATER COMPANY • DETROIT, MICHIGAN

→ Also a complete line of resistance soldering units (100 to 2500 Watts) and wire strippers — write for bulletin W-50. ←

Multicore
FIVE-CORE SOLDER
World's finest!
ERSIN
Multicore
5-CORE SOLDER
ERSIN Multicore SOLDER
5 CORE-RECENTE
SERVICE PAK
Multicore
SAVBIT
Multicore
5 CORE SOLDER

MULTICORE SOLDER

Five separate cores of flux eliminate possibility of no flux in a portion of the wire, which may occur in single cored solder. Guaranteed continuity of the flux stream prevents "dry" joints, i.e., those having high electrical resistance.

Although there are five cores of flux in Multicore, the total percentage of flux to solder is less than many single cored solders. Very rapid melting results from the multiple core construction which provides thinner walls of solder than are found in the same gauge single cored solder. Multicore's unique properties make perfect joints possible on difficult metals and alloys, even if oxidized.

Ability to thin rapidly produces perfect joints with less solder. Greater coverage per pound.

ERSIN FLUX

Ersin Flux is exclusive to Multicore and will not be found in any other solder. It is a high grade, water white rosin, homogeneously activated.

Ersin Flux has a vigorous fluxing action and possesses the non-corrosive and protective features of the original rosin. Soldered joints made with Ersin Flux do not corrode even after prolonged exposure to any degree of humidity. Ersin Flux reduces the surface tension of molten solder, causing it to wet metals rapidly, increasing speed of operation with resultant production economies. Free from objectionable odor. Non-toxic in use. Leaves nothing but pure rosin on the work after soldering, and may be used wherever plain rosin is specified.

COPPER-LOADED SAVBIT ALLOY

Copper-loaded SAVBIT is one of a number of solder alloys developed for the industry by Multicore, it is entirely different—and, it is patented. SAVBIT alloy contains its own copper, and therefore will not take the copper of the soldering iron tip into the molten solution during soldering. This absorption of copper when any standard alloy is used is a basic reason for the wearing out of the expensive copper tips, and the need for constant refinishing of the tip.

Comparative tests with solders having pure tin/lead alloys and the new Ersin Multicore copper-loaded SAVBIT alloy have been made on assembly lines of electronic plants. Results of these tests have proven that startling production efficiencies and economies may be realized when the wear and corrosion of copper soldering iron tips is curbed, using SAVBIT alloy. Equally as important . . . a higher standard of soldering quality is assured for a much longer period of time.

SAVBIT alloy is available in Ersin Multicore 5-Core Solder containing non-corrosive extra fast Ersin flux in 14, 16, and 18 gauge. Its melting point is virtually the same as standard tin/lead alloys.

Alloys and Melting Points

Alloy	B. S. Grade	Multicore Color Code	Melting Temp. °C	Melting Temp. °F	Recommended Bit Temp. °C	Recommended Bit Temp. °F
60/40	K	Red	188	370	228	442
50/50	F	Yellow	212	414	252	476
45/55	(M)	Crimson/ Buff	215	419	255	491
40/60	G	Green	234	453	274	525

Approximate lengths per pound in feet

S.W.G.	Diameter	Dia. M/Ms	60/40	50/50	45/55	40/60
14	.080	2.032	65.7	62.6	61	60
16	.064	1.626	102	98	97	94.5
18	.048	1.219	182	174	172	167
20	0.36	.914	324			
22	0.28	.711	536			

New! HAND-CRAFTED *Gold Lion* Custom Tubes

Produced by General Electric Co. Ltd. of England.

Gold Lion
CUSTOM TUBE
Genalex
KT77
GOLD LION
CUSTOM TUBE
Genalex

A completely new series of plug-in replacement tubes, *hand-crafted* to give *higher power, lower distortion* and longer life.

In contrast to mass-produced tubes, which often vary widely in their characteristics, new Gold Lion tubes are made to extremely close tolerances, and individually 100% tested for major characteristics, including operation tests, noise and microphony. For the first time . . . an individual test report is packed with each tube, certifying measured production characteristics.

CROSS REFERENCE REPLACEMENT CHART

Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types	Replace These Tubes	With These Gold Lion Types
B309	B739	EZ81	U709	6BX4	U707	5721	B759	6201	B739
D77	D717	EZ90	U707	6CA4	U709	5726	D717	6202	U707
EAA91	D717	E81CC	B739	6CA7	KT77	5751	B759	6203	U707
EB91	D717	GZ30	U77	6CF8	Z729	5814	B749	6267	Z729
ECC81	B739	GZ32	U77	6CN5	KT66	5931	U52	6550	KT88
ECC82	B749	GZ33	U77	6L6	KT66	5932	KT66	6663	D717
ECC83	B759	GZ34	U77	6L6G	KT66	5881	KT66	6679	B739
EF86	Z729	U78	U707	6L6GB	KT77	5993	U707	6680	B749
EL34	KT77	5AR4	U77	6L6GC	KT88	6057	B759	6681	B759
EL35	KT66	5T4	U52	6X4	U707	6058	D717	7025	B759
EL36	KT66	5U4G	U52	12AT7	B739	6060	B739	7027	KT66
EL37	KT66	5V4	U77	12AU7	B749	6063	U707	7027A	KT88
EL39	KT66	5Z4	U77	12AX7	B759	6067	B749	7247	B759
EL84	N709	6AL5	D717	1614	KT66	6097	D717	7581	KT77
		6BQ5	N709	1622	KT66	6189	B749		

BRITISH INDUSTRIES CORPORATION - PORT WASHINGTON, N. Y.

BOKER
U.S.A.
IN-DUS-TRONIC
TOOLS
QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

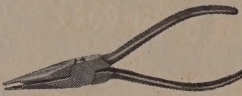
WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

H. BOKER & CO., INC. • NEW YORK, N. Y.

RADIO AND TV NOSE CUTTING PLIERS

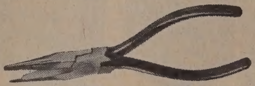
Reaches into tight spots to cut small wires, and to grip at the tips.



NO.	LIST EA.	NO.	LIST EA.
539-4½"	3.75	639-4½"	4.05
539-6"	3.75	639-6"	4.05
939-4½"	3.75	739-4½"	4.25
939-6"	3.75	739-6"	4.25

SIDE TIP NOSE CUTTING PLIERS

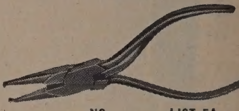
Cuts flush at left side of tips. Turn tool over to cut flush at right side.



NO.	LIST EA.	NO.	LIST EA.
S539-4½"	4.00	S639-4½"	4.30
S539-6"	4.00	S639-6"	4.30
S939-4½"	3.80	S739-4½"	4.50
S939-6"	4.00	S739-6"	4.50

TRANSVERSE END CUTTING PLIERS

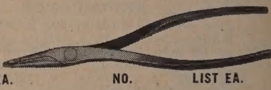
For clean, flush cutting of small wires where ordinary cutters are too bulky.



NO.	LIST EA.	NO.	LIST EA.
532-6"	3.65	632-6"	3.95
932-6"	3.65	732-6"	4.15

SHORT JAW, LONG HANDLE NOSE CUTTING PLIERS

Extra long, narrow handles provide maximum reach of the slender jaws to cut and grip.



NO.	LIST EA.	NO.	LIST EA.
579-8"	4.15	679-8"	4.45
979-8"	4.15	779-8"	4.65

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	51-6"
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	91-6"
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	61-6"
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	71-6"

SHORT CHAIN NEEDLE NOSE PLIERS

Sturdy, tapered jaws provide more positive grip. Checker-milled tips.

WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-5"	3.15	63-5"	3.45
93-5"	3.15	73-5"	3.65

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-5"	2.65	630-5"	2.95
930-5"	2.65	730-5"	3.15

LONG CHAIN NEEDLE NOSE PLIERS

Slender, checker-milled jaws taper to 1/32" at tips.

WITH SIDE CUTTERS

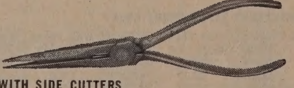
NO.	LIST EA.	NO.	LIST EA.
53-6"	3.40	63-6"	3.70
93-6"	3.40	73-6"	3.90

WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-6"	2.70	630-6"	3.00
930-6"	2.70	730-6"	3.20

EXTRA LONG CHAIN NOSE PLIERS

2¾" long jaws add extra reach to checker-milled tips.



WITH SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
53-7"	4.20	63-7"	4.50
93-7"	4.20	73-7"	4.70

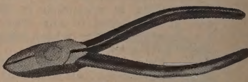
WITHOUT SIDE CUTTERS

NO.	LIST EA.	NO.	LIST EA.
530-7"	3.10	630-7"	3.40
930-7"	3.10	730-7"	3.60

HEAVY DUTY DIAGONAL CUTTING PLIERS

NO.	LIST EA.	NO.	LIST EA.
591-7"	3.50	691-7"	3.80
991-7"	3.50	791-7"	4.00

DIAGONAL CUTTING PLIERS

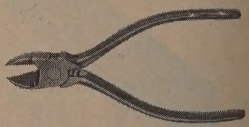


NO.	LIST EA.	NO.	LIST EA.
51-4½"	2.80	61-4½"	3.10
91-4½"	2.80	71-4½"	3.30
51-5"	3.05	61-5"	3.35
91-5"	3.05	71-5"	3.55
51-5½"	3.30	61-5½"	3.60
91-5½"	3.30	71-5½"	3.80
51-6"	3.45	61-6"	3.75
91-6"	3.45	71-6"	3.95
51-7½"	3.80	61-7½"	4.10
91-7½"	3.80	71-7½"	4.30

WIRE STRIPPING CUTTERS WITH INSULATION CRUSHER

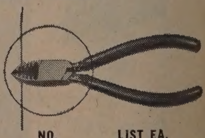
"W" notches slit acetate cellulose and other thin insulations. Notch in blades strips heavier insulation. Grooves in handles crush insulation.

NO.	LIST EA.
517-5½"	4.00
917-5½"	4.00
617-5½"	4.30
717-5½"	4.50



"THROAT-HOLD" DIAGONAL PLIERS

Plastisol inserts back of the blades tightly grip the cut-off end of wire after cut is made, preventing shorts, machine failures, and eye injuries.



NO.	LIST EA.	NO.	LIST EA.
TH51-4½"	4.40	TH91-5"	4.65
TH91-4½"	4.40	TH91-5½"	4.90
TH51-5"	4.65	TH51-7½"	5.40

SPECIAL THROAT-HOLD TYPE PLIERS

NO.	LIST EA.	
THB981-4½"	5.20	Bent (offset) Handles
THC981-4½"	5.00	Flush cutting edges

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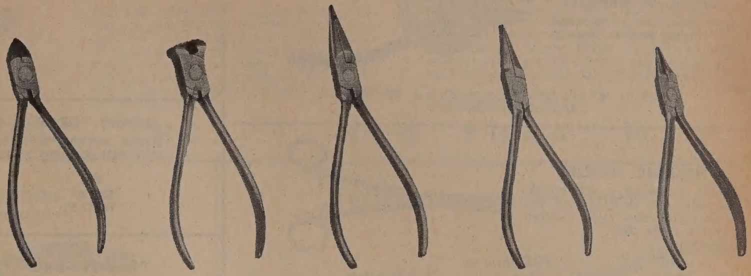
QUALITY SINCE 1837
®

JEWELERS' 4½" PRECISION PLIERS

JEWELERS' PLIERS SETS

Crystal Case, 5" x 7", lined to nest 4½" Pliers.

NO.	CONTENTS	LIST
C63	One ea. 681, 683, 684	10.95
C64	One ea. 681, 683, 684, 6517	13.25
C65	One ea. 681, 682, 683, 684, 685	18.05
C73	One ea. 781, 783, 784	11.30
C93	One ea. 981, 983, 984	10.65
C95	One ea. 981, 982, 983, 984, 985	17.55



	POLISHED HEAD, GUN METAL HANDLES		POLISHED HEAD, CUSHION-GRIP HANDLES		FULL NICKEL AND CHROME PLATED		NICKEL, CHROME-PLATED CUSHION-GRIP HANDLES	
	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.	Tool No.	List Ea.
Diagonal Cutting Pliers	**581**	3.10	**981**	3.20	**681**	3.30	**781**	3.35
End Cutting Nippers	**582**	3.60	**982**	3.80	**682**	3.90	**782**	3.95
*Needle Nose Pliers	**583**	2.90	**983**	3.10	**683**	3.20	**783**	3.35
*Flat Nose Pliers	**584**	2.90	**984**	3.10	**684**	3.20	**784**	3.35
*Round Nose Pliers	**585**	2.90	**985**	3.10	**685**	3.20	**785**	3.35

*Note: Inside jaws are smooth. Supplied with milled jaws at no extra cost.

PRECISION PLIERS WITH SPRING IN EXTENDED HANDLES

Midget jaws, extra long handles, to reach into deep areas normally inaccessible.

NO.	LIST EA.	DESCRIPTION
L903S-8"	5.95	Extra Fine Needle-Nose Pliers (as 903-4½")
L981S-8"	6.05	Diagonal Cutters
L983S-8"	5.95	Needle Nose Pliers
L984S-8"	5.95	Flat-Nose Pliers
L781S-8"	6.20	Diagonal Cutters
L783S-8"	6.20	Needle-Nose Pliers
L784S-8"	6.20	Flat-Nose Pliers
L703S-8"	6.20	Extra Fine Needle-Nose Pliers (as 703-4½")

TAPERED JAWS, FLUSH CUTTING DIAGONALS

Midget pliers with sharply tapered jaws and very fine flush cutting edges.

NO.	LIST EA.
A981-4½"	3.70

STANDARD SHAPE JAWS, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
C981-4½"	3.40

SHORT NOSE, FLUSH CUTTING DIAGONALS

NO.	LIST EA.
E981-4½"	3.60

STOCK NUMBER CODE IDENTIFICATION ON PLIERS

First Digit in Pliers Stock No.	DESCRIPTION OF FINISH	
"5"	Polished Head, Standard Gunmetal Finish Handles — i.e.	**51-6"**
"9"	Polished Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	**91-6"**
"6"	Fully Nickel and Chrome Plated Head and Handles — i.e.	**61-6"**
"7"	Nickel and Chrome Plated Head, Factory molded Red Cushion Grip Plastisol Handles — i.e.	**71-6"**

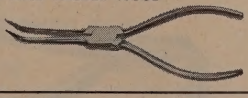
EXTRA FINE NEEDLE NOSE PLIERS WITH STABILIZED TIPS

Dowel pin in jaw engages hole in other jaw when closed, stabilizing tips and maintaining perfect alignment.

NO.	LIST EA.	NO.	LIST EA.
ST903-6"	3.50	**ST703-6"**	4.00

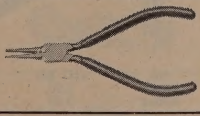
CURVED EXTRA FINE NEEDLE NOSE

NO.	LIST EA.
508-6"	3.90
908-6"	3.90
608-6"	4.20
708-6"	4.40



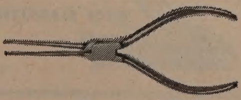
SHORT JAW, EXTRA FINE NEEDLE NOSE PLIERS

NO.	LIST EA.
503-4½"	3.10
903-4½"	3.10
603-4½"	3.40
703-4½"	3.35



EXTRA FINE NEEDLE NOSE PLIERS

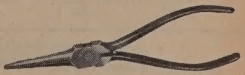
Long, very slim, spring tempered jaws for assembling miniature parts.



NO.	LIST EA.	NO.	LIST EA.
503-6"	3.10	**603-6"**	3.40
903-6"	3.10	**703-6"**	3.60

LONG NEEDLE NOSE PLIERS

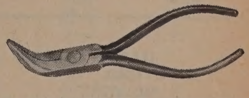
Unusual gripping ability without distortion for such long, slender jaws. Checker-milled at tips.



No.	LIST EA.	No.	LIST EA.
533-6"	3.15	**633-6"**	3.45
933-6"	3.15	**733-6"**	3.65

CURVED NEEDLE NOSE PLIERS

NO.	LIST EA.
538-6"	3.50
938-6"	3.50
638-6"	3.80
738-6"	4.00



END CUTTERS AND LEAD-IN STRIPPERS

Quickly strips TV transmission cable. Full throat for general purpose cutting.

NO.	LIST EA.	NO.	LIST EA.
902-6"	3.95	**702-6"**	4.50
602-6"	4.25		

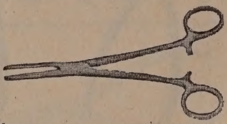
PLIERS WITH SPRING IN HANDLES

Bauer type coil spring keeps pliers in open position, ready-to-work.

Specify "S" as a Suffix to tool number (i.e., 91S-5")
Additional List Ea. .30

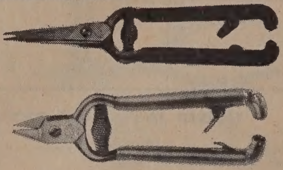
HOLDING FORCEPS

Slender, long-reaching, with ratchet type lock. Acts as third hand, and as heat sink. Box joint, polished stainless spring steel.



NO.	LIST EA.	
HF-5¼"	4.50	Straight pattern
HF-6¼"	4.35	Straight pattern
HFC-6¼"	5.00	Curved pattern

ELECTRONIC SNIPS



Pointed, serrated blades cut wire, filament, sheet metal, insulating materials, plastics, fabrics. spring keeps blades open, ready-to-work.

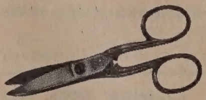
NO.	LIST EA.	
P4-7⅛"	3.60	Long Blades
P4E-6½""	4.25	Short Blades

ELECTRICIANS' SNIPS

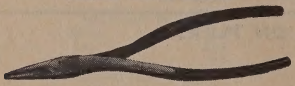
Scraper, file on back of blade.

NO.	LIST EA.
709-5"	2.75

Nickel Plated



SHORT JAW, LONG HANDLE, NEEDLE NOSE PLIERS



NO.	LIST EA.	NO.	LIST EA.
573-8"	3.20	673-8"	3.50
973-8"	3.20	773-8"	3.70

SHORT JAW, LONG HANDLE DUCKBILL PLIERS

No.	LIST EA.	No.	LIST EA.
574-8"	3.15	974-8"	3.15

ELECTRICIANS' SIDE CUTTING PLIERS

NO.	LIST EA.	NO.	LIST EA.
92-6"	3.25	62-7"	3.90
92-7"	3.65	62-8"	4.25
92-8"	4.00	72-7"	4.10

LEATHER TOOL HOLSTER

Five pockets of pliable form-fitting Russet leather. Stitched with 7-cord linen hot waxed thread, locked to solid leather back with steel rivets. Handy tape holder is of leather, not chain, an extra safety insulation feature.

NO.	LIST EA.
99	4.95

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QUALITY SINCE 1837
®

MIDGET "GROOVE-GRIP" PLIERS

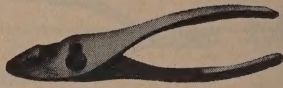
Slender and wiry, indispensable for gripping small nuts and other objects in tight spots.

NO.	LIST EA.	
6517-5"	2.25	Nickel, Chrome Plated
P6517-5"	2.35	Nickel, Chrome Plated, Cushion Grips

"GROOVE-GRIP" 5-ADJUSTMENT PLIERS

NO.	LIST EA.	
6507-6½"	2.65	Nickel and Chrome Plated
6507-8"	2.90	
6507-10"	3.25	
P5507-6½"	2.60	Polished Head Cushion-Grip Handles
P5507-8"	2.85	
P5507-10"	3.20	
P5507-14" 7 Adjustment	4.25	

COMBINATION SLIP-JOINT PLIERS

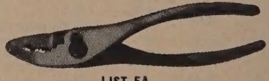


NO.	LIST EA.	
6041-6½"	1.40	Nickel and Chrome Plated
6041-8"	1.80	
6041-10"	2.60	

THIN NOSE COMBINATION PLIERS

NO.	LIST EA.	
6042-6½"	1.60	Nickel, Chromed

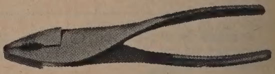
BENT THIN NOSE COMBINATION PLIERS



NO.	LIST EA.	
6043-6½"	1.85	Nickel, Chromed

PROFESSIONAL SLIP-JOINT SIDE CUTTERS

Flat, serrated nose for gripping. Curved inner section to grip round shapes. Keen-cutting knives.



NO.	LIST EA.	
6395-7½"	3.75	Nickel, Chromed

BENT EXTRA FINE NEEDLE NOSE PLIERS

NO.	LIST EA.	NO.	LIST EA.
B508-6"	3.90	B608-6"	4.20
B908-6"	3.90	B708-6"	4.40

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
STB508-6"	4.30	STB608-6"	4.60
STB908-6"	4.30	STB708-6"	4.80

H. BOKER & CO., INC. • New York, N. Y.

BOKER
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IN-DUS-TRONIC
TOOLS
QUALITY SINCE 1837 ®

DESIGN IN-DUS-TRONIC tools are more streamlined, with slender jaws and fine points, to reach into the tight spots and perform the specific work required of the electronics technician.

TEST AND INSPECTION Individually tested for hardness, each tool must maintain highest standards for handle strength and cutting ability. To assure perfect jaw alignment, pliers must cleanly cut single bond paper strips and snip cotton-covered lamp cord without fraying. Each tool is guaranteed against defects in workmanship and materials.

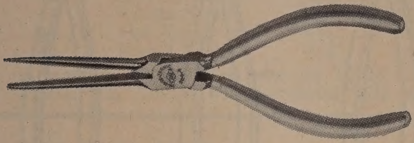
WORKMANSHIP IN-DUS-TRONIC tools are hot drop-forged from special analysis alloy steel, machined and finished with the same care and precision which have made world-famous BOKER TREE BRAND Fine Cutlery and surgical instruments for over a century. Individually fitted and adjusted, each is accurately heat-treated by HYDRIZING, which minimizes "carburization" and "decarb". Cutting blades are precision-hardened with electronic controls, and honed by hand for keen edges that retain their sharpness.

Individually Boxed

H. BOKER & CO., INC. • NEW YORK, N. Y.

EXTRA FINE FLAT NOSE PLIERS

Flat, very thin, smooth jaws, spring tempered.



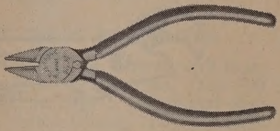
NO.	LIST EA.	NO.	LIST EA.
504-6"	3.60	604-6"	3.90
904-6"	3.60	704-6"	4.00

WITH STABILIZED TIPS

NO.	LIST EA.	NO.	LIST EA.
ST504-6"	4.00	ST604-6"	4.30
ST904-6"	4.00	ST704-6"	4.40

NEEDLE POINT DIAGONAL CUTTING PLIERS

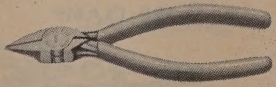
Narrow, pointed nose, semi-flush edges, for close cutting. Lightweight, easy-to-use, in electronics and light assembly. Coil spring keeps jaws open.



NO.	LIST EA.	NO.	LIST EA.
513-5½"	4.25	613-5½"	4.55
913-5½"	4.25	713-5½"	4.75

THIN, NARROW, POINTED DIAGONAL CUTTING PLIERS

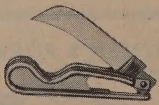
Jaws relief-ground back of blades, to cut in confined areas. Also used for removal of I. F. Cans.



NO.	LIST EA.	NO.	LIST EA.
RA51-5½"	4.50	RA61-5½"	4.80
RA91-5½"	4.50	RA71-5½"	4.90

WIRE JACK POCKET KNIFE

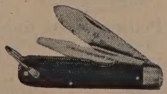
Rugged construction, unbreakable spring. Chrome Vanadium steel blade.



NO.	LIST EA.
75-3¾"	1.00

ELECTRICIANS' UTILITY KNIFE

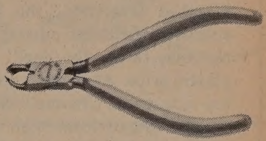
One blade and one self-locking Screwdriver and Insulation Scraper.



NO.	LIST EA.	
9229	2.75	3¾" long

ELECTRONIC DIAGONAL END NIPPERS

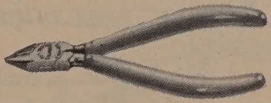
Flush-cutting blades, with extremely fine points, set at 22.5° angle. For very fine subminiature work.



NO.	LIST EA.	NO.	LIST EA.
XA582-4½"	6.00	XA682-4½"	6.30
XA982-4½"	6.00	XA782-4½"	6.50

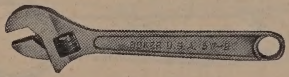
THIN HEAD, FLUSH CUTTING MIDGET DIAGONALS

Head is ground thinner, narrower. Flush edges.



NO.	LIST EA.	
XA981-4½"	4.00	Pointed jaws
XC981-4½"	3.70	Standard shape jaws, slightly shortened

THIN, ALLOY STEEL ADJUSTABLE WRENCHES



Nickel and Chrome Plated		Polished Head, Gunmetal Handles	
NO.	LIST EA.	NO.	LIST EA.
6W-4"	2.64	5W-4"	2.10
6W-6"	2.64	5W-6"	2.10
6W-8"	3.10	5W-8"	2.52
6W-10"	3.95	5W-10"	3.12
6W-12"	5.75	5W-12"	4.70
6W-15"	8.75	5W-15"	7.36
6W-18"	14.50	5W-18"	10.95

Nickel, Chrome-Plated, Cushion-Grip Handles

NO.	LIST EA.	NO.	LIST EA.
P6W-4"	2.72	P6W-10"	4.35
P6W-6"	2.72	P6W-12"	6.25
P6W-8"	3.45	P6W-15"	9.00

LOCKING ADJUSTABLE WRENCHES

Nickel and Chrome Plated		Nickel Chrome Plated Cushion-Grip Handles	
L6W-4"	$2.64	PL6W-4"	$2.72
L6W-6"	2.64	PL6W-6"	2.72
L6W-8"	3.02	PL6W-8"	3.45
L6W-10"	3.80	PL6W-10"	4.35
L6W-12"	5.60	PL6W-12"	6.25

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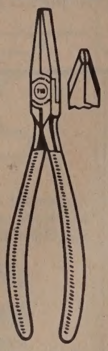
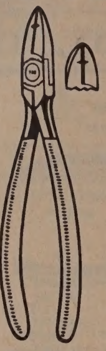
Pliers by CHANNELLOCK®

Specially Designed **ELECTRONICS PLIERS**

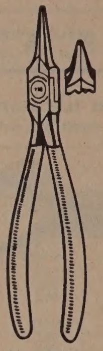
You'll do hundreds of jobs easier, faster with these Channellock Pliers because they are **specially designed** for all types of electronics work. You'll like the long reach . . . the precision-matched jaws . . . the hand-honed, specially hardened cutting edges . . . the easy-to-handle "feel" of the blue plastic grips. And you'll appreciate the top quality of Channellock Pliers . . . they're forged from high grade steel, properly heat treated. Best of all, because they are specially designed for fine electronics work, these four pliers will satisfy more than 90% of your Service and Repair needs. Ask your Electronics Equipment Supplier for Channellock Electronics Pliers by name.



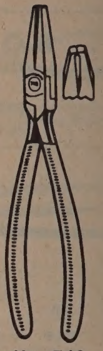
No. 718
FLAT-NOSE PLIER
Watchmaker's precision PLUS a bull-dog grip in hard-to-reach places. LIST $3.10



No. 728
DIAGONAL CUTTER
A wire-stripping notch (Patent Pending) that **really works!** LIST $3.50

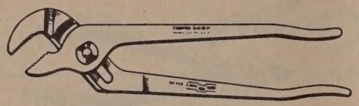


No. 738
ROUND-NOSE PLIER
You can **pick up a human hair** with these precision-machined points. LIST $3.10



No. 748
END CUTTER
Fine enough to cut a human hair—sturdy enough to cut 12 gauge copper wire. LIST $3.50

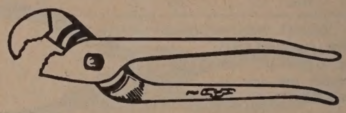
MULTI-PURPOSE PLIER



The handiest and most popular multi-purpose plier ever designed. Five patented, non-slip undercut channels. Terrific gripping power. Particularly useful on aerial construction jobs. Polished steel finish.

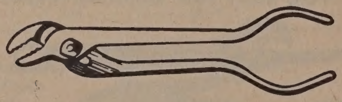
No.	Size	Capacity	List
420	9½"	1½"	$3.20
426	6½"	⅞"	$2.40

HEAVY DUTY PLIER



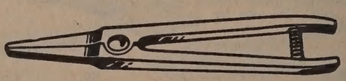
A heavy duty, self-gripping plier . . . actually a combination plier and wrench. Terrific gripping power in tight places you can't reach with a pipe wrench. Length 9½". Four adjustments. Capacity 1⅛". Polished steel finish. No. 410. . .LIST $3.40.

"MIGHTY MIDGET" PLIER



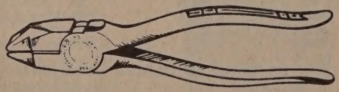
A midget plier that gives you popular Channellock gripping power for a wide number of small, hard-to-get at electronics jobs. Length 4½". Four adjustments. Capacity ½". Polished steel finish. No. 424. . .LIST $2.30

HEATSORB CLAMP



A specially designed "heat sink" that prevents heat damage to electronic components during soldering. Also a handy, self-gripping "third hand" that holds and retrieves small parts in close work. Length 5". No. 46 . . . LIST $1.50

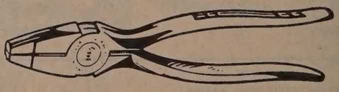
LINEMEN'S PLIER—Bevel Nose



Polished steel finish. Knurled grips. Side cutter.

No.	Size	List
3046	6"	$3.50
3047	7"	$4.00
3048½	8½"	$5.00

LINEMEN'S PLIER—Rounded Nose



Polished steel finish. Knurled grips. Side cutter.

No.	Size	List
346	6"	$3.50
347	7"	$4.00
348½	8½"	$5.00

CHANNELLOCK PLIERS Are Made Only By Champion DeArment Tool Co., Meadville, Pa.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

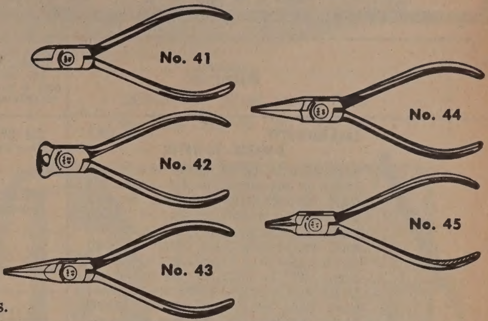
Pliers by CHANNELLOCK®

Little Champ PRECISION PLIERS

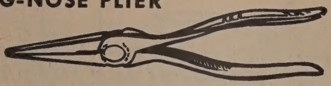
Highest quality precision pliers for fine bench work in electronics, model making, jewelry and watch repair. Polished steel finish. Also available at no extra cost with blue, dipped plastic, cushion-grip handles.

No.	Style	Size	List
41	Diagonal Cutter	4½"	$3.14
42	End Cutter	4½"	$3.60
43	Needle Nose	4½"	$2.90
44	Flat Nose	4½"	$3.00
45	Round Nose	4½"	$3.00

Attractive, Velvet-lined case for Little Champ Pliers. No charge when ordered with set of pliers.



LONG-NOSE PLIER



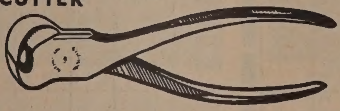
Point 3/32" round. Polished steel finish. Knurled grips.

No.	Size	Side-Cutter	List
317½	7½"	With	$4.10
3017½	7½"	Without	$3.10
326	6"	With	$3.50
3026	6"	Without	$2.76

"DIPPED" PLASTIC GRIPS FOR PLIERS

All Channellock Pliers can be ordered with blue, dipped-plastic, cushion-grip handles. Our 700 Series Pliers, shown on page 1, are offered only with dipped grips. "Little Champ" Pliers on page 2 are available either with or without dipped grips at no difference in price. On all other Channellock Pliers, dipped grips are optional at slight extra cost.

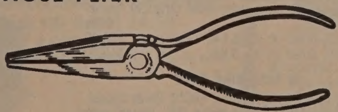
END CUTTER



Precision-honed cutting edges. Polished steel finish.

No.	Size	List
356	6"	$3.50
357	7"	$4.00

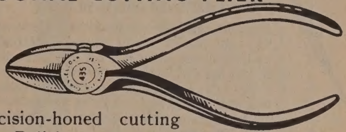
FLAT-NOSE PLIER



Precision-matched jaws. Polished steel finish.

No.	Size	Side-Cutter	List
366	6"	With	$3.70
3066	6"	Without	$2.80

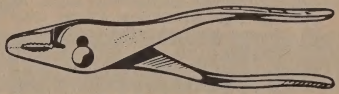
DIAGONAL CUTTING PLIER



Precision-honed cutting edges. Polished steel finish. Knurled grips.

No.	Size	List
435	5"	$3.10
436	6"	$3.50
437	7"	$3.86

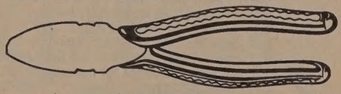
SLIP-JOINT PLIER—With Cutter



Heavy duty. Polished steel finish. Knurled grips.

No.	Size	List
546	6"	$2.30
548	8"	$2.84
5410	10"	$3.46

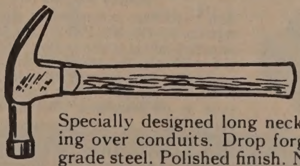
"SUPERIOR" PLASTIC GRIPS



For maximum hand comfort, durable plastic grips. Light blue color for good visibility, reduces plier loss. Easy to install. Order by desired grip size:

Plier Size	Grip Size	List	Plier Size	Grip Size	List
6"	Small	65c pr	8", 9½"		
7"	Medium	70c pr	10"	Large	75c pr.

ELECTRICIANS' HAMMER



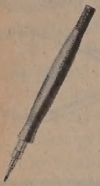
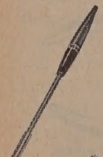
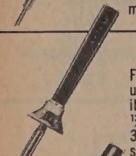
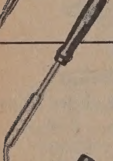
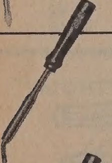
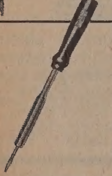
Specially designed long neck for hammering over conduits. Drop forged from high grade steel. Polished finish. NuRed enamel neck and under claw for good visibility. Best quality hickory handle. No. 88, 18 oz. LIST $3.76

CHANNELLOCK PLIERS Are Made Only By Champion DeArment Tool Co., Meadville, Pa.

CAIG LABORATORIES INC.

New Hyde Park, L. I., N. Y.

ERSA® SOLDERING TOOLS

TECHNICAL DESCRIPTION	ERSA IRON COMPLETE CAT. NO. (Add 'D' to No. for ERSADUR)	WATTAGE	PRICE WITH		SOLDERING BIT CAT. NO. (Add 'D' to No. for ERSADUR)	BIT FORM	PRICE		SPARE ELEMENT	
			COPPER BIT	ERSADUR BIT*			COPPER	ERSADUR*	CAT. NO.	PRICE
 **ERSA-MICROTYP 6 VOLT** **8 WATTS—15 WATTS** Subminiature soldering iron for pinpoint soldering on miniaturized printed circuits and other micromodulation techniques. Provided with ERSADUR long life bit. Good for 100,000 soldering operations. Built-in solid heater element. Weight under 3 ozs. Length of 8 watt unit 6.3", length of 15 watt unit 9.8". Temp. range 240°C to 380°C. For use with 6 volt transformer or battery, 5 foot cable & banana plugs. Temp. can be regulated with **Control Transformer ERSA R30**. For more details ask for Bulletin #E-500.	20L/8W (Short Heating Unit)	8		$9.50		Sloping 1/16" φ			22L/8W (Element & Bit)	$5.50
	20B/8W (Short Heating Unit)	8		$9.50		Pencil Form 1/16" φ			22B/8W (Element & Bit)	$5.50
	20K/15W (Extra Long Heating Unit)	15		$9.90		Chisel Form 3/32" Wide			22K/15W (Element & Bit)	$5.90
	20L/15W (Extra Long Heating Unit)	15		$9.90		Sloping 1/8" φ			22L/15 (Element & Bit)	$5.90
 **ERSA-MINIATURE 6 VOLT** **10 WATTS—20 WATTS—30 WATTS** Miniature soldering iron for modern electronics—exchangeable heater elements—heating up time 40 sec.—weight under 3 ozs. Length 8"—for use with 6 volt transformer or battery, 5 foot cable & banana plugs—push on copper bits, easily exchanged—soldering temperature can be regulated with the **Control Transformer ERSA R30**. Temp. range 300°C. to 480°C. For more details ask for Bulletin #E-500.	10/10W	10	$5.00	$9.85	12/10	Sloping 1/16" φ	$0.50	$4.35	11/10W	$3.60
	10/20W	20	5.00	9.85	12/20	Sloping 1/16" φ	0.50	4.35	11/20W	3.60
	10/30W	30	5.00	9.85	12/30	Sloping 1/16" φ	0.50	4.35	11/30W	3.60
 **ERSA MODEL 30** **20 WATTS—30 WATTS—40 WATTS** For radio, television and electronics—heating up time 2 min.—elements and copper bits easily exchangeable. Tip shank dia. 13/64" for all, 13/64" x 9/32" for S-bit. Bit temperatures 340°C—360°C—390°C. 5 foot cable & plug. 110 volts std. (220 volts special). Weight approx. 7¾ ozs. Length 7¾". Equipped with hex. shield. For more details ask for Bulletin #E-200.	30K/20W	20	$7.90	$12.50	32K/20		$0.50	$4.75	31/20W	$3.75
	30K/30W	30	7.90	12.50	32K/20	32K	0.50	4.75	31/30W	3.75
	30J/30W	30	7.90	12.50	32J/30		0.50	4.75	31/40W	3.75
	30S/30W	30	7.90		32S/30	32S	0.50			
	30K/40W	40	7.90	12.50	32K/40		0.50	4.75		
	30J/40W	40	7.90	12.50	32J/40	32J	0.50	4.75		
	30S/40W	40	7.90		32S/40		0.50			
 **ERSA MODEL 80A 80 WATTS** For assembly line and repair shops. Equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 5/16" O.D. Bit temperature 440°C (824°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1 lb. Length 11". For more details ask for Bulletin #E-300.	80AJ/80W	80	$11.35	$17.00	82J		$0.85	$6.45	81A/80W	$4.35
	80AK/80W	80	11.35	17.00	82K		0.85	6.45		
	80AL/80W	80	11.85		82L		1.35			
	80AH/80W	80	11.85		82H		1.35			
	80AS/80W	80	11.85		82S		1.35			
 **ERSA MODEL 150A 130 WATTS** For assembly line, repair and workshops — equipped with a **New Type Element** with high quality steel core, maximum heat transfer, longer life. Heating up time 2½ minutes. Tip 25/64" O.D. Bit temperature 470°C (878°F). 5 foot cable and plug. 110 volts standard (220 volts special). Weight approx. 1.2 lbs. Length 11". For more details ask for Bulletin #E-300.	150AJ/130W	130	$14.10	$20.00	152J		$1.10	$7.10	151A/130W	$5.70
	150AK/130W	130	14.10	20.00	152K		1.10	7.10		
	150AL/130W	130	15.40		152L		2.45			
	150AH/130W	130	15.40		152H		2.45			
	150AS/130W	130	15.40		152S		2.45			
 **ERSA ISOTYPE SPECIAL SAFETY INSULATED SOLDERING IRONS** **65 WATTS and 90 WATTS** For work on **Live** television and telecommunication installations. Element of non-corrosive special steel, not exchangeable, fixed into housing. Plastic handle. 6½ foot cable—no plug. 110 volts standard (220 volts special). Weight approx. 20 ozs. and 25 ozs. respectively. Length about 11½".	KZ/65W	65	$22.20		62KZ		$1.35			
	JZ/65W	65	22.20		62JZ		1.35			
	KZ/90W	90	23.75		82KZ		1.90			
	JZ/90W	90	23.75		82JZ		1.90			

ERSA CONTROL TRANSFORMER MODELS R30 AND R10

Both transformer models have a primary voltage regulator for 110, 125, 150, 220 and 240 volts. The secondary voltage is also variable within the range of 5 to 6.5 volts, thus making it possible to select a temperature range between 240 to 480°C. When not in use, the ERSA iron rests on a special nozzle provided on the transformer. This protects against overheating.

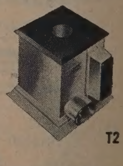
Control Transformer R10 was solely made for use with the ERSA-MINIATURE Iron Model 10W. The R30, with a greater output, permits universal use of all the various ERSA irons with their different capacities.

	Price
MODEL R30, rated 30 VA, 5.1#	$25.00
MODEL R10, rated 10 VA, 3.5#	$15.00

T2 SOLDERING BATH

Rated 240 watts, temp. approx. 600°C. Holds approx. 23 cc, internal dimen. 15/16" dia. x 1⅝". Weight with cord 3 lbs. 5 foot cord and plugs, switch. (Other solder pots available.)

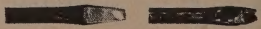
PRICE $27.00



ERSADUR DURABLE COPPER BITS

Made of pure electrolytic copper with an iron coating. Soldering surface of bit pre-tinned ready for use. Shaft is chromium plated to prevent baking in. ERSADUR bits in normal use last for more than 100,000 solderings. Ask for Bulletin #172E.

AFTER EQUAL SERVICE TIME

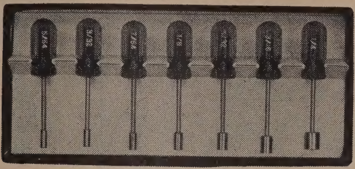


DESCO *

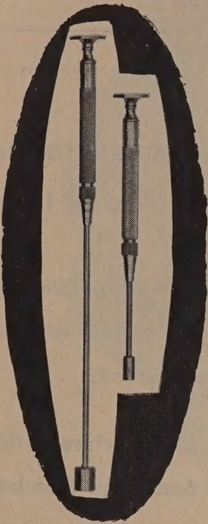
PROPERLY PROPORTIONED MINIATURE TOOLS

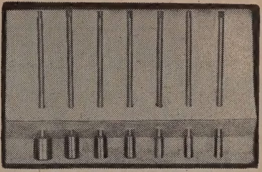
For precision instrument and model work use Desco "7" Miniature Nut Drivers. Available with Tenite handles, or for use with jewelers' screw driver handles. Also made with 5½" long shanks for those hard-to-get-to places.

DESCO "7" Sizes across flats
5/64 3/32 7/64 1/8 5/32 3/16 1/4

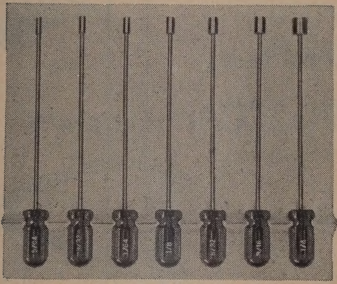


Set HS 7 List $5.95

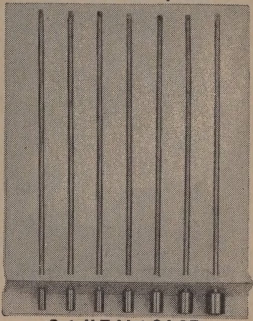




Set JS 7 List $4.95



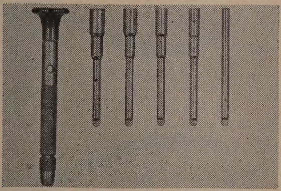
Set HL 7 List $5.95



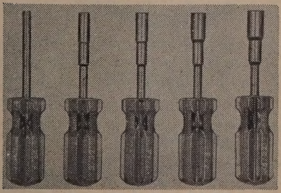
Set JL7 List $4.95

NON-MAGNETIC NUT DRIVERS available in HL7 and HS 7 series only.
Specify "No-Mag" with the code number — same prices.

INTRODUCING THE DESCO "5" Series of Miniature Tools

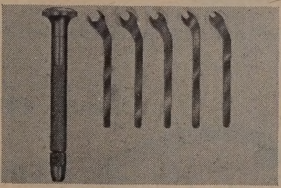


Set JD 5 List $3.50



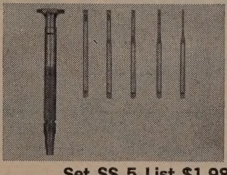
Set HD 5 List $4.50

Deeper and more rugged than the "7" Series. Made only in 5/64, 3/32, 7/64, 1/8 and 5/32.



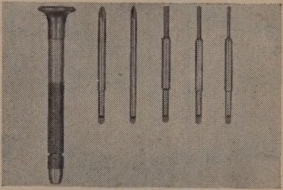
Set EW 5 Steel List $2.50
Set EWN 5 Non-Magnetic List $2.50

A practical miniature end wrench to fit the smallest nuts made 5/64 3/32 7/64 1/8 5/32.

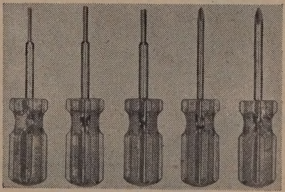


Set SS 5 List $1.98

Contains four screw driver blades and a fine scriber.



Set PA 5 List $2.50



Set PAH 5 List $3.50

Includes the two smallest Phillips drivers and the three smallest Allen wrenches.

* T. M.

All of the DESCO "5" and "7" Series are complete as shown.

DESCO MFG. CO., DESCO GLENDALE, CALIF.

It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. Manufacturer's Catalog Numbers and Page Numbers.
2. The Year and Edition of This MASTER.

This will avoid confusion and expedite delivery.

Thank you!

The
Radio-Electronic
MASTER

Insist on the Finest -- They Last Longer

"There is Nothing Finer Than a DIAMOND"

Depend On These Trade Marks of Quality

DIAMALLOY®

DIAMOND®

DIAMOND®

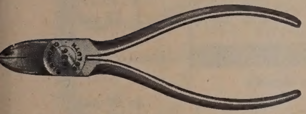
Narrow tapered nose . . . ideal for confined places

3 Sizes

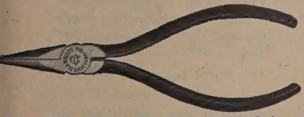
S54RG - 4 inch
S55RG - 5 inch
S56RG - 6 inch

DIAMALLOY CUTTING PLIERS

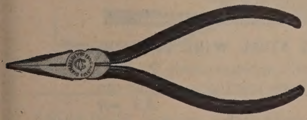
Diamalloy Electronic Pliers



Diagonal Cutting. Electronically hardened cutting edges. S54 size 4 in. S55 size 5 in. S56 size 6 in.



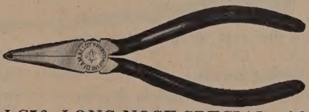
Long Nose with finely serrated jaws 1⅛ in. long. Tips 1/16". LN54 size 4 in. LN56 size 6 in. LN57 size 7 in.



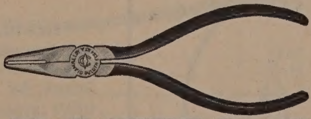
Long Nose with side cutter. Same as LN54 except has side cutter in jaw. SN54 size 4 in. SN56 size 6 in. SN57 size 7 in.

DN54—FLAT NOSE with smooth jaws. Size 4 in.

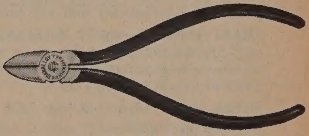
NN56—NEEDLE NOSE with long slender jaws and strong gripping ability. End of jaws diamond scored. Size 6 in. NN57—7 in.



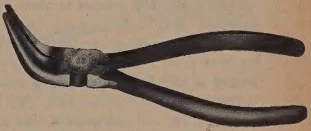
LC56—LONG NOSE SPECIAL with very fine cutter on end of nose for cutting very fine wire in confined places. Size 6 in.



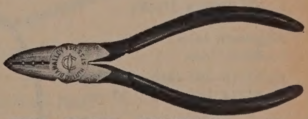
EC54—TRANSVERSE END CUTTER for cutting close to printed circuit boards. Easily resharpened. Size 4 in.



MS54—DIAGONAL CUTTER with extremely sharp cutting edges, ½" long for cutting fine wires. Size 4 in.



Curved Needle Nose. Same as LN54 except nose is bent 90°. Ideal for confined places. CN54 size 4 in. CN56 size 6 in.



ST55—WIRE STRIPPER with 3 holes accurately drilled and counterbored for 18, 20, 22 gauge wire. Size 5 in.

SOLD THROUGH LEADING ELECTRICAL SUPPLY WHOLESALERS AND INDUSTRIAL DISTRIBUTORS

DIAMOND TOOL and Horseshoe Co.

DULUTH · MINNESOTA
Established 1908
TORONTO · ONTARIO

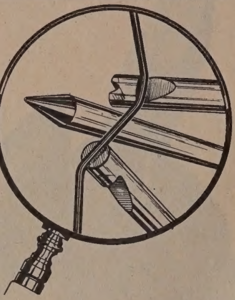
© U.C.P., Inc.

Norseman
ELECTRONIC TOOLS

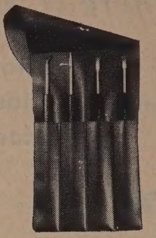
JIGGLE STICKS

Probes of Lucite, 1 end forked for pushing other end pointed for probing, notched on side for pulling wires.

PR 532-6	5/32″ dia.	.30 net
PR 316-8	3/16″ dia.	.35 net



NORSEMAN SOLDERING AID KIT



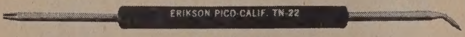
Red Vinyl plastic kit, packed with 4 Norseman Soldering Aids (TN-22, TN-33, TN-44, TN-55) as illustrated.

TNSA-4 complete kit	$4.35 net

Kit with 4 Norseman Soldering Aids with unbreakable aluminum handles (AL-22, AL-33, AL-44 & AL-55).

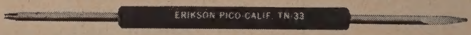
ALSA-4 complete kit	$4.35 net

NORSEMEN SOLDERING AIDS



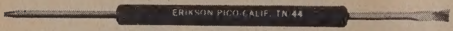
Red Handle

TN-22 Tenite II Handle	7⅝" Long	$ .75 net
M2T Tenite II Handle	5¼" Long	$ .75 net
AL-22 Aluminum Handle	7⅝" Long	$ .75 net



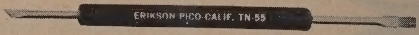
Green Handle

TN-33 Tenite II Handle	7⅝" Long	$ .75 net
M3T Tenite II Handle	5¼" Long	$ .75 net
AL-33 Aluminum Handle	7⅝" Long	$ .75 net



Black Handle

TN-44 Tenite II Handle	7½" Long	$ .90 net
AL-44 Aluminum Handle	7½" Long	$ .90 net



Blue Handle

TN-55 Tenite II Handle	6¾" Long	$ .90 net
AL-55 Aluminum Handle	6¾" Long	$ .90 net

PLASTIC HANDLES-(TN-22, TN-33, TN-44, TN-55) are of Tenite II, 4″ x ⅜″ hex and will not roll off the work bench. Shock-proof, practically unbreakable and will stand rough use on industrial production lines.

METAL HANDLES—(AL-22, AL-33, AL-44, AL-55) are aluminum alloy 4″ x ⅜″ hex and won't roll off the work bench. Being metal, are NOT SHOCK-PROOF and hence not recommended for ordinary radio-TV service work, especially on a 'live' unit. However, these handles are practically unbreakable and were designed to take rough use on industrial assembly lines and can be used as PRY BARS in lining up components.

METAL ENDS—(separated from each other) non-magnetic stainless steel, to which solder won't adhere. Are firmly seated in handles and are twist-proof.

FORKED END—straddles the wire and with a slight twist, grips it for easy unwinding and removal, or guides it into another lug for soldering. Since plastic handles act as insulation, there is no danger of shock when working on sets in operation. ⅛″ forks are made especially for use on printed circuits and transistors.

SPADE END—is a reamer to clean lug holes of solder.

CURVED END—can be used as a scriber for marking chassis. As a circuit tracer when looking for loose connections. As a dial cord stringer. Hook can be bent to a 90 degree angle if desired.

KNIFE & SCRAPER—for cutting and repairing printed circuits.

WIRE BRUSH —has approx. 200 bristles of stainless wire .0035 in dia. to which solder will not adhere. For use in cleaning connections before soldering, brushing out splattered solder and in repairing printed circuits.

STAINLESS STEEL WIRE BRUSHES

on steel shaft approximately 2″ long overall. Can be used in a regular pin vise. **.33 net**

Packed 25 or 50 per box

DIDDLE STICKS

Alignment tools —
Lucite 5/32″ dia.

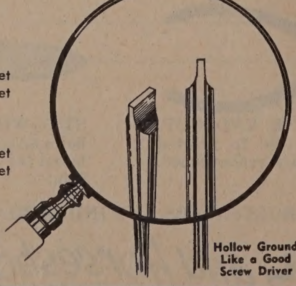
LU-53210	10″ long	.25 net
LU-53214	14″ long	.35 net

Rigid Vinyl 3/16″ dia.

RV-31610	10″ long	.25 net
RV-31614	14″ long	.35 net

Fibre Glass ⅛″ dia.

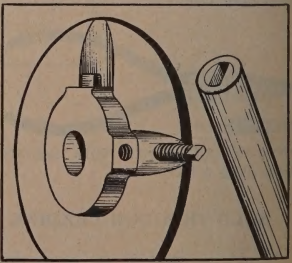
FG-1810	10″ long	.35 net
FG-1814	14″ long	.50 net
FG-1818	18″ long	.65 net



SLAB-HEAD DRIVERS

Drivers for SLAB-HEAD screws as used in Delco auto radios, Zenith & Arvin TV and 1956 models of Webcor recorders.

246-P ..... $1.80 net



Clutch Head Screw and Driver

ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

Norseman
ELECTRONIC TOOLS

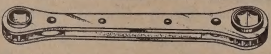
STICKLE-BACK DRILSAWS

TEC
IMPORTS
STICKLEBACK

Made in Germany, this tool will drill holes in wood, plaster board, etc. and saw in any direction.

#0–5 x 5/32" dia.	$ .98 net
#1–7 x 3/16" dia.	1.85 net
#2–10 x ¼" dia.	2.45 net
#3–13 x 5/16" dia.	2.95 net
#4–15 x ⅜" dia.	3.25 net
#5–13 x ½" dia.	(saw rasp) 2.25 net

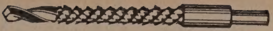
REVERSIBLE RATCHETS



A rugged ratcheting box wrench. No buttons, no levers — just turn it over to reverse the ratchet.

¼" x 5/16"	$2.35 net	⅝" x 11/16"	$3.90 net
⅜" x 7/16"	2.65 net	⅝" x ¾"	3.90 net
½" x 9/16"	3.60 net	¾" x ⅞"	4.50 net

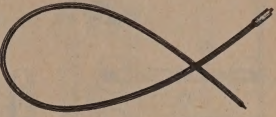
DRILL ROUTERS



Another "Stickle-back" tool, similar to the Drilsaw, but for use in electric drills.

#318-1 2⅜" x ¼" dia.	$1.40 net
#318-2 4½" x ¼" dia.	1.60 net

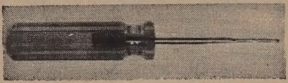
TIPPY STICKS



Flexible alignment tools of tenite II with a non-magnetic stainless steel tip. Permits snaking around obstructions and still turn screws and slugs.

ST-186 6" long	.40 net
ST-1810 10" long	.45 net
ST-1814 14" long	.50 net

TRI-TAPS

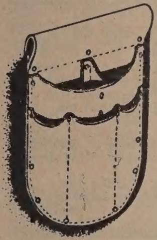


The original 3-in-1 tool with 6/32", 8/32" and 10/32" taps to clean or cut three of the most common threads used in electronic work.

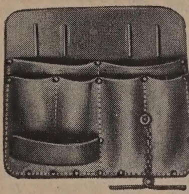
T-3 ..... $2.25 net T-4 tap only for HT-24 1.65 net

HT-24 with replaceable tap..... $2.85 net

TOOL POUCHES



#14 Telephone lineman's pouch of chrome-tanned cowhide. One large separated pocket with three smaller ones in front. Riveted and stitched with linen thread. 6" x 9¼" ..... $4.95 net



Electrician's Pouch. Bark-tanned top grain cowhide, riveted and stitched with linen thread. 7 pockets, loop for hammer, T-chain for roll of tape.

#17 10" x 9" ..... $4.95 net

12 OTHER POUCHES AVAILABLE

Berg
SWEDISH STEEL PLIERS

MADE IN ESKILSTUNA, SWEDEN, BY E. A. BERG MFG. CO. LTD. • EST. 1880

Only the best Swedish Charcoal Steel is used in the manufacture of Berg Pliers. Produced under exacting standards of control, they embody the most modern techniques of heat treatment and manufacture. Each plier is carefully engineered and designed to afford the greatest practical utility; lightness and ease of operation; and strength coupled with durability.

Special Electronic Diagonal Cutting Pliers with extra thin cutting edges, pointed nose and BOX JOINT

No. 525 - 5" 4.95

ANGLE NOSE Diagonal Cutting Pliers

No. 2528 ......6½" 4.25 7½" 4.95

PIANO WIRE Diagonal Cutting Pliers

	4½"	5½"	6½"	7½"
No. 1528	2.95	3.65	4.15	4.65

PIANO WIRE Side Cutting Nippers with replaceable blades

No. 1518	9"	6.50	10"	7.50
Extra Blades	9"	2.30	10"	2.55

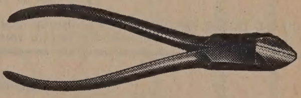
PIANO WIRE End Cutting Nippers with replaceable blades

No. 1519 - 9"	8.50
Extra Blades	2.90

PIANO WIRE End Cutting Nippers

No. 527 .....6" 3.50 7" 3.95

Straight Cutting Pliers with extended jaws

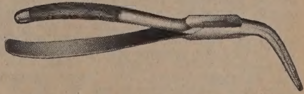


No. 1529 - 6½" 3.95

Special Bent Nose Pliers

No. 2533-B - 8" 4.95

Curved Nose Pliers

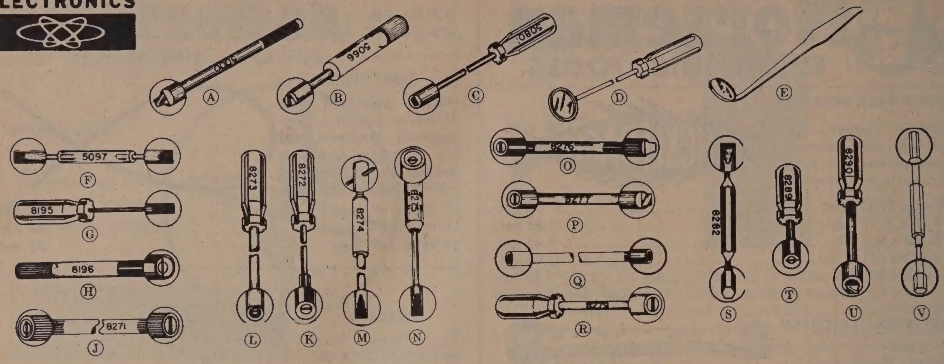


No. 1631 - 5½" 3.85

50 OTHER SIZES AND TYPES AVAILABLE

ERIKSON SPECIALIZED TOOL COMPANY, PICO RIVERA, CALIF.

GC ELECTRONICS ALIGNMENT TOOLS . . .



(A) G-C ALIGNMENT SCREWDRIVER—Low inductance metal tip screwdriver made of Butyrate material.
Cat. No. 5000 1/4″ Diameter x 6″ Tool Net $ .42

(B) G-C TV ALIGNMENT TOOL—Very short, sturdy tool with a fine metal screwdriver blade.
Cat. No. 5066 2½″ long, 3/16″ Shaft Dia. Net $ .37

(C) G-C TV ALIGNING WRENCH—New tool with 1/8″ square socket wrench, 7/32″ shaft with insulated handle.
Cat. No. 5080 Net $ .53

(D) G-C INSPECTION MIRROR—Handy inspection mirror to inspect parts, coils, wiring, etc. Made of metal shaft with glass mirror and a plastic handle.
Cat. No. 5090 7⅞″ Inspection Mirror Net $ .42

(E) G-C NEW ALL-PLASTIC INSPECTION MIRROR—Use to inspect coils, resistors, sockets, etc. while the chassis is hot. No danger of shorting.
Cat. No. 5090-P 7⅞″ Plastic Mirror Net $ .38

(F) G-C K-TRAN TOOL — Specially designed for K-tran and I.F. transformers. Butyrate material, screwdriver on both ends.
Cat. No. 5097 6″ long, 5/32″ Delrin Tip, 1/8″ metal Tip Net $ .78

(G) G-C TV CHANNEL TUNING TOOL—Completely insulated, non-metallic tool with long 1/8″ narrow blade. Made of bone fibre.
Cat. No. 8195 7¼″ long, 1/8″ shaft dia. Net $ .72

(H) G-C TV AND FM TUNING TOOL—Special short tool with fine recessed screwdriver top for Television and FM adjustments. Made of Butyrate.
Cat. No. 8196 2½″ long, 7/32″ shaft dia. Net $ .38

(J) G-C TV CORE ALIGNER—For Motorola and other sets using Stackpole or other stud type cores that are not slotted. Milled steel insert on one end, thin screwdriver blade on other end.
Cat. No. 8271 6″ long, 7/32″ shaft dia. Net $ .57

(K) G-C TV I.F. OSCILLATOR ALIGNER—Specially made for I.F. and oscillator adjustments. Will fit all makes of sets—R.C.A., G.E., Philco, Admiral and others.
Cat. No. 8272 6½″ long, 1/4″ tip dia. Net $1.12

(L) G-C TV ALL-PURPOSE ALIGNER — Specially made for TV I.F. adjustments. Very thin spring steel tip is recessed so the tool will guide itself over the screws.
Cat. No. 8273 8″ long, 7/32″ shaft dia. Net $ .68

(M) G-C TV LONG REACH ALIGNER—Specially made for Admiral, Zenith, R.C.A. and other sets for adjustments of nested iron cores that are hard to reach.
Cat. No. 8274 9″ long, 1/8″ shaft dia. Net $ .83

(N) G-C TV ZENITH UNIVERSAL ALIGNER—Specially designed for Zenith and other sets. Made of bone fibre and plastic handle.
Cat. No. 8275 5″ long, 1/8″ shaft dia., 1/4″ Net $ .52

(O) G-C TV DUPLEX ALIGNER—An all-purpose TV aligner for trimmers and I.F. transformers. Made of Butyrate material with extra thin spring steel tips.
Cat. No. 8276 6″ long, 7/32″ shaft dia. Net $ .52

(P) G-C TV "SHORTY" DUPLEX ALIGNER—Specially made for trimmer and I.F. transformers where space does not permit the use of a longer tool.
Cat. No. 8277 2½″ long, 7/32″ shaft dia. Net $ .52

(Q) G-C TV TUNING WAND—Brass insert on end reduces inductance and iron core on other end increases the inductance.
Cat. No. 8278 6″ long, 7/32″ shaft dia. Net $ .53

(R) G-C TV CORE ALIGNER—Tool has a recessed steel milled slot to fit over the Stackpole and other type stud cores that are not slotted.
Cat. No. 8279 7½″ long, 7/32″ shaft dia. Net $ .68

(S) G-C NEW ZENITH TV WRENCH & ALIGNER—New nylon plastic molded special tool made specially for Zenith TV sets.
Cat. No. 8282 5 7/16″ long, .100 Dia. Hex Wrench, .109 Screw Driver Dia. Net $ .37

(T) G-C "SHORTY" TV ALIGNMENT SCREW DRIVER—Only 2″ long overall to adjust hard-to-get-at places under TV tubes, etc.
Cat. No. 8289 2″ long, 7/32″ shaft dia. Net $ .45

(U) G-C UNIVERSAL SCREW DRIVER ALIGNER—Made of unbreakable flexible clear plastic shaft and an amber plastic handle.
Cat. No. 8290 7″ long, 7/32″ shaft dia. Net $ .63

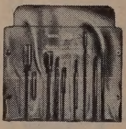
(V) G-C ZENITH-ADMIRAL NYLON HEX WRENCH—New nylon hex wrench alignment tool for Zenith, Admiral and other sets.
Cat. No. 8606 5″ wrench, 11″ long Net $ .48
8606-L 11″ wrench, 11″ long .63

GC ALIGNMENT TOOL KITS

MASTER DELUXE TOOL KIT—A super-deluxe kit in a superior leatherette roll type case. Contains 25 tools and includes all TV alignment tools except the extra long ones (over 9″) which would not fit in the case.
Cat. No. 8283 Net $14.17

DELUXE ALIGNMENT TOOL KIT—Case is made of durable leatherette that will give long service. The steel tips are all extra thin and are of the best grade hardened spring steel that will give you service. Kit contains one each of 16 tools you need.
Cat. No. 8280 Net $8.63

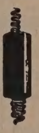
G-C ALL-PURPOSE TV ALIGNMENT KIT—A handy, all-purpose TV kit put up in a convenient plastic container. Kit contains four basic essential tools that will service the majority of TV sets.
Cat. No. 8457 Net $1.95



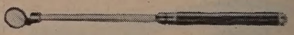
STANDARD ALIGNMENT TOOL KIT—Made to last and wear—a quality kit. Kit contains 9 essential tools in roll type case.
Cat. No. 8455 Net $4.77

G-C No. 5040 TOP 12 TOOL KIT—12 most popular TV alignment tools. Plastic roll-up case.
Cat. No. 5040 Net $7.50

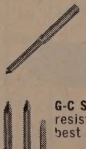
G-C CONTACT BURNISHING TOOL KIT—A complete kit for the servicing of relays, switches, etc. where critical contact points must be kept clean for ideal operation conditions.
Cat. No. 9339 Net $ .75



NEW TINNERMAN NUT REMOVER—The new G-C Tinnerman Nut Remover is a handy dual purpose tool for removing large or small tinnerman nuts with just a twist. Eliminates fumbling with hard-to-remove nuts.
Cat. No. 9355 Net $ .93



G-C ILLUMINATED INSPECTION AND SERVICE MIRROR—A hinge-mounted mirror fastens to a 6″ transparent lucite rod which transmits light from a small anodized aluminum flashlight.
Cat. No. 8725 7/8″ Mirror, frame O.D. 1 1/16″ Net $2.02

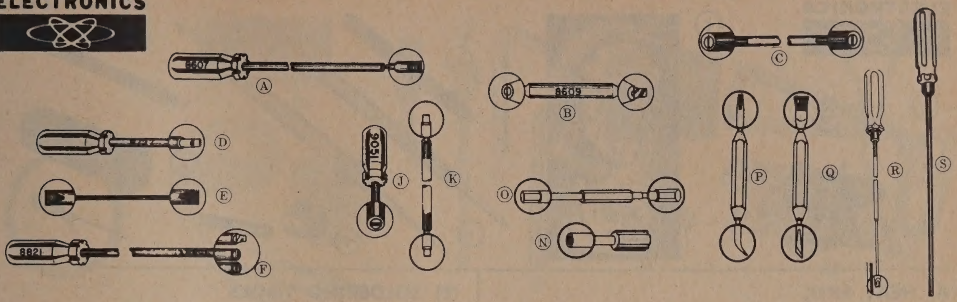


G-C SPEEDEX SLIM-TYPE SOLDER IRON TIPS—A new high-heat, turned-down tip made of one-piece copper. Will fit 3/8″ irons. Tips 4½″ long.
Cat. No. 8741 Net $ .60

G-C SOLDER IRON TIPS—Bright plated to resist corrosion. These tips are made of best grade hard-drawn copper.

	Dia. Long	
Cat. No. 724	1/4″x3″	Net $ .37
725	5/16″x4½″	.45
726	3/8″x4½″	.57

GC ELECTRONICS ALIGNMENT TOOLS . . .



(A) G-C NEW NYLON TV LONG-REACH ALIGNER—Handy new long-reach TV aligner with insulated metal shaft and nylon tip. 12¼″ long overall, .195 Shaft Dia.
Cat. No. 8607 TV Tool Net **$1.50**

(B) G-C ALIGNMENT TOOL—Handy to align and adjust TV sets, radio sets, etc. Made of clear plastic 5″ long x ⅜″ dia.
Cat. No. 8609 Net **$ .63**

(C) G-C TV 2-IN-1 LONG-REACH DUPLEX ALIGNER—Made of clear, unbreakable plastic material. Ends colored red and blue for size identification. Tips are made of spring steel recessed for easy location of stud.
Cat. No. 8721 9″ long, 7⁄32″ Shaft Dia. Net **$ .78**
8722 7″ long, 7⁄32″ Shaft Dia. Net **$ .67**

(D) NEW G-C K-TRAN TELEVISION ALIGNER—Specially made for K-Tran I.F. Transformer tuner slugs. Precision made of bone fibre.
Cat. No. 8727 6¼″ long, 5⁄32″ Tip Dia. Net **$ .60**

(E) TV LONG REACH ALIGNMENT SCREW DRIVERS—Made of bone fibre, extra thin ⅛″ diameter screw drivers for adjustment of TV receivers. Screw drivers tip on both ends—can be re-ground and used over.
Cat. No. 8728A ⅛″x7″ long Net **$ .43**
8728 ⅛″x12″ long **.53**
8729 ⅛″x16″ long **.70**

(F) G-C LONG ARM TV TOOL PLASTIC SHAFT—New, extra-long-reach alignment tool for Zenith sets and others where adjustments are had to get at. Tool is 18″ long overall. 18″ long, 7⁄32″ Shaft Dia.
Cat. No. 8821 TV Tool (Type A) Net **$ .93**
8896 TV Tool (Type B) **.93**
8897 TV Tool (Type C) **.93**

(J) NEW ZENITH-RCA ALIGNING TOOL WITH HANDLE—Handle affords a better grip and easier adjustments. Length is 2½″ with a 1½″ shaft length. 7⁄32″ diameter blade with recessed slot in blade end.
Cat. No. 9051 Net **$ .48**

(K) NEW G-C STANDARD COIL SLUG TUNER ADJUSTING TOOL—A new special slug tuning tool especially made for adjusting Standard Tuners, etc. Completely insulated. 7½″ long, ¼″ shaft diameter, shaft ends .170 diameter.
Cat. No. 9087 Net **$ .67**

(N) G-C ADJUSTABLE SHORTY—Recessed tip TV alignment tool. Adjustable from 1¼″ to 2″ in length, for those hard-to-get-at places.
Cat. No. 9090 Net **$ .58**

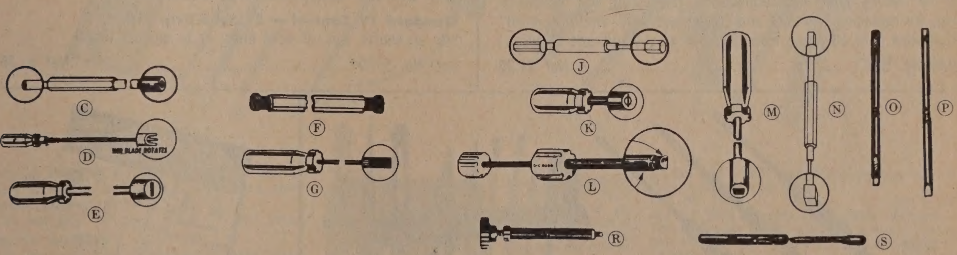
(O) G-C DOUBLE END IRON CORE TOOL—All nylon hex tool made to fit cores with .125 hex opening. One end of tool undercut so it can reach the bottom slug in coils without turning the top slug.
Cat. No. 9091 5″ long Net **$ .48**
9091-L 11″ long **.63**

(P) G-C PRINT-KOTE SOLDER AID PROBE—Handy, fine point probe specially designed to aid in probing and soldering printed circuits.
Cat. No. 9093 8″ Length Net **$1.00**

(Q) G-C PRINT-KOTE BRUSH AND SCRAPER—Fine Stainless Steel brush and hardened steel scraper are required to scrape and clean the Silicone Resin from printed circuits.
Cat. No. 9094 8″ Length Net **$ .98**

(R) G-C SLUG RETRIEVER TOOL—A precision made tool with hardened steel tips made for removing lost TV tuner slugs in Standard Coil tuners. Ends ground to fit standard coils.
Cat. No. 9096 12″ Retriever Net **$2.58**
9097 15″ Retriever **3.00**

(S) G-C MINI-HOLD SCREWDRIVERS—Speeds replacing of phono cartridges. Designed with exclusive "Wedge Action" enabling secure gripping of tiny screws. (Nos. 0, 1, 2, 3 and No. 8 set screws and smaller) Special short length (2⅞″ when in use).
Cat. No. 9346 3¼″ long, 2⅞″ in use Net **$1.72**
9347 7″ long, 6¾″ in use 2.25



(C) G-C RCA TV ALIGNMENT TOOL—Double end nylon tool with a recessed metal tip on one end and a plastic slot on the other end.
Cat. No. 9150 6″ Length Net **$ .93**

(D) G-C SCREW STARTER SCREW DRIVER—A handy screw holding screwdriver that will start screws in hard-to-get-at places. Holds the screw securely while it starts it.
Cat. No. 9148 12″ Net **$2.58**

(E) G-C TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net **$1.08**

(F) G-C DUAL NUT STARTER—New tool that holds and starts hex nuts or hex head screws in hard-to-get-at places. Fits ¼″ and 5⁄16″ hex nuts. Pat. 2664021.
Cat. No. 9147 Net **$1.65**

(G) G-C FIBREGLASS SCREWDRIVER—Gives full protection on hot chassis when adjusting high potentials. For close-up hard-to-reach places. Cat. No. 9291 7″ Net **$ .75**

(J) G-C NYLON HEX TOOLS—For the adjustment of iron cores inside mounted chassis, and the tuner adjustment of iron and brass slugs with hex heads. Has .100″ hex and 5⁄32″ handle.
Cat. No. 9295 11″x.100″ Hex Net **$ .63**
9296 11″x.075″ Hex **.63**
9297 11″x.075″ Hex **.63**

(K) G-C SHORTY ALIGNMENT TOOL—A convenient tool for hard-to-get-at places. Has 3⁄16″ shaft, 2″ length. Overall length of tool 4″.
Cat. No. 9298 Net **$ .48**

(L) G-C COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner drive penetrates to the inside slot. Cat. No. 9299 Net **$1.33**

(M) G-C RCA WRENCH FOR VHF CHANNEL SELECTOR—Tool is made to fit square headed set screws in RCA VHF Channel Selector gear assembly without removing chassis.
Cat. No. 6035 Net **$1.08**

(N) G-C NEW TRANSISTOR I.F. CORE ALIGNMENT TOOL—One end square .055, opposite end rectangle nib. .047 x .078 to reach bottom slugs in iron cores.
Cat. No. 9440 11¾″ long Net **$ .63**

(O) G-C RCA ALIGNING TOOL—Made of 7⁄32″ Butyrate rod, narrow screwdriver on one end and screw nib inserted on other end.
Cat. No. 5003 Net **$ .53**

(P) G-C NO-METAL INSULATING ADJUSTMENT SCREW DRIVER—Made of black bone fibre. Indispensable for aligning all-wave sets.
Cat. No. 5004 7″ long Net **$ .48**
LOW-LOSS POLYSTYRENE TYPE—Ideal for U.H.F. Sets.

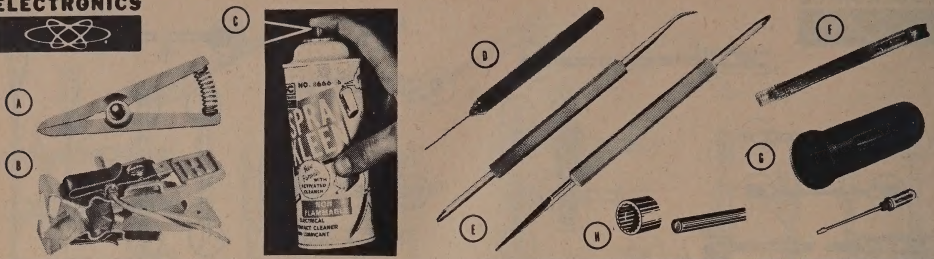
(R) G-C NEUTRALIZING TOOL—Combination screw driver and 5⁄16″ hex wrench. Approved by U. S. Army Signal Corps.
Cat. No. 5027 Net **$2.10**

(S) G-C 4-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, ¼″ hex wrench slotted and 5⁄16″ hex wrench on other end.
Cat. No. 5014 Net **$ .87**

G-C 5-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5⁄16″ hex wrench, ¼″ hex wrench slotted, with metal screw driver on one end.
Cat. No. 5015 Net **$1.17**

G-C 6-in-1 ALIGNMENT TOOL—Consists of screw driver with metal nib, 5⁄16″ hex wrench, ¼″ hex side wrench and ¼″ hex end wrench slotted.
Cat. No. 5016 Net **$1.20**

GC ELECTRONICS NEW ALIGNMENT TOOLS and Service Aids



(A) HEAT SINK

Protects Transistors and Diodes when soldering

Lightweight, first quality, firm grip. Aluminum will not stick to solder.

Cat. No. 9077 .... Net $ .36

(B) "QUICK SNAP" ANTENNA CLIP

For the Serviceman's Bench

Side clips allow fast connecting with antenna lines. A-N-P type, Pin type and Flat Terminal. Fits all leading sets.

Cat. No. 9030 .... Net $ .49

(C) NEW 16 OZ. SIZE SPRA-KLEEN

Works Up-Side Down, As Well As Right-Side Up!
Now Servicemen can Get to Those Hard-To-Reach Places.
Stops radio and TV control noise.

No need to dismantle the chassis to get at the parts when you use Spra-Kleen. Both cleans and lubricates contacts, controls, relays, switches, and other sliding contact devices in one fast operation.

Cat. No. 8666-16 .... Net $1.95

(D) "PIGTAILER"

Makes connections quickly and easily

For lengthening pigtails, repairing broken leads, connections, tuners, printed circuits, to hold a part until solder is applied, or for making solderless connections, for testing and reconnecting, for replacing resistors and condensers. Will wind a "pigtail" that slips over 18-gauge wire. (Used in most Radio and TV work.)

Cat. No. 5077 .... Net $1.20

(E) SOLDERING TOOLS

Won't Stick to Solder

Heat-treated tool steel, chrome-plated, won't stick to solder. Wraps or disconnect wire-wrapped soldered joints quickly. Double ended to ream solder from lug holes as well as for holding or prying parts to be soldered.

Cat. No. 9075 Straight .... Net $ .70
Cat. No. 9076 Angled .... Net $ .70

(F) HI-VOLTAGE GAUGE

Measures TV Voltage Pulse

No current drain during operation. Snaps directly to plate cap of any listed tubes. Push plunger in slowly till neon light glows. Voltage read on calibrated rod.

Cat. No. 8840 .... Net $1.98

(G) TWISTMASTER

Twice the Leverage of the Bare Hand

Slips easily on any standard screw driver. Insulates against shock, prevents blisters.

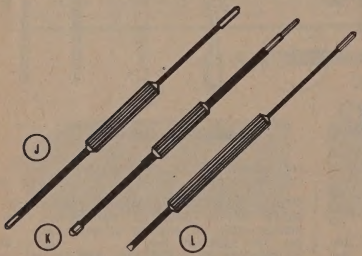
Cat. No. 9320 .... Net $ .29

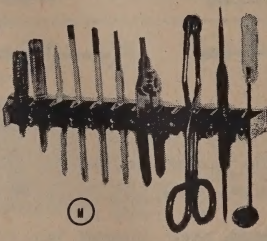
(H) SHAFT EXTENSION INSULATOR

Standard TV Control — 21 Sure-Grip Ribs

Fits all shafts. Cut off worn ends, or to desired length.

Cat. No. 5150 .... Net $ .36





ALIGNMENT TOOLS

(J) DOUBLE END HEX CORE ALIGNER

Adjusts Coil Slugs

General purpose alignment tool as well as a coil slug adjuster. Both ends are .075" Hex, with one end undercut.

Cat. No. 9300 .... Net $ .48

(K) 3 IN 1 HEX CORE ALIGNER

Adjusts Coil Slugs

For Magnavox sets and others. Hex ends, one .100" with undercut shaft; other end is .075" and .100".

Cat. No. 9302 .... Net $ .48

(L) DOUBLE END ALIGNER

Adjusts Coil Slugs

For Coil slugs on Webcor and other sets. One end .075" Hex shaped with undercut shaft; other is a handy screwdriver.

Cat. No. 9304 .... Net $ .48

(M) TOP TEN TOOL KITS

10 most often used service shop tools plus an indispensable Tool Kaddy. Tool Kaddy protects tools.

Cat. No. 9525-X .... Net $10.42

GC Electronics
CATALOG NO. FR-62

SEND FOR FREE GIANT CATALOG

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LINE OF GC TOOLS,
COMPONENTS, HARDWARE
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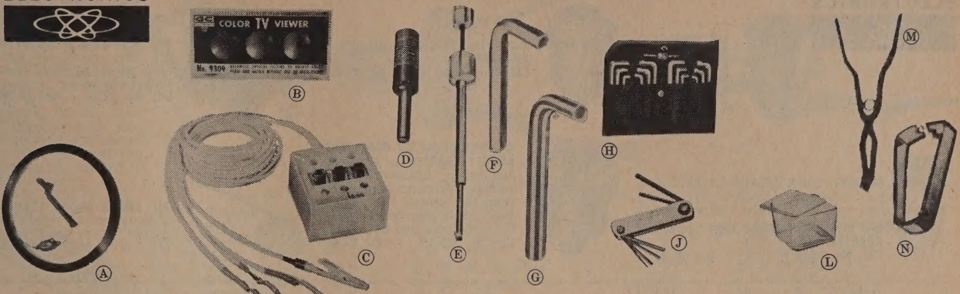


(A) DEGAUSSING COIL—For Color TV receivers. The G-C Degaussing Coil serves to demagnetize the magnetic fields set up in the color CRT due to the sensitivity of the tube.
Cat. No. 9317 Net $17.97

(B) NEW G-C COLOR TV VIEWER—Has three transparent optical filters sealed in permanent plastic. Simplifies phase and matrix adjustments on color TV sets using a saturated color for signal. Makes adjustments possible in the home.
Cat. No. 9309 Net $1.50

(C) G-C COLOR TV TEST BOX—Test color tubes with black-and-white test equipment. Extra long leads allow test box to be placed in front or rear of set.
Cat. No. 9318 Net $5.10

(D) G-C COLOR TV CHEATER—A safety device for color TV receiver work. Used when applying Hi-voltage Probe through cheater.
Cat. No. 5650 Net $ .60

(E) COLOR TV TOOL—Used on convergence controls and others in color sets. The outer sleeve fits into the O.D. adjusting slot and the inner-drive penetrates to the inside slot.
Cat. No. 9299 Net $1.33

(F) G-C HEXAGON KEY WRENCHES KITS and ASSORTMENTS

Cat. No.		
H1600-F	Plastic Box of 4	Net $ .60
5029	Kit 5 Assorted Wrenches in Leatherette Case.	$1.05

(G) SPLINE KEY WRENCHES KITS and ASSORTMENTS

Cat. No.		
H1602-F	Plastic Box of 4	Net $ .37
5070	Kit of 6 Assorted Wrenches in Leatherette Case	.80

INDIVIDUAL WRENCHES

Cat. No.		
5071	No. 4 Set Screw	Net $ .12
5071-A	No. 5 Set Screw	.12
5072	No. 6 Set Screw	.12
5073	No. 8 Set Screw, No. 4 Cap Screw	.12
5074	No. 10 Set Screw, No. 5-6 Cap Screw	.13

(H) G-C HEX-KEY AND SPLINE WRENCH KIT—A complete wrench kit for both hex and spline type screws. Twelve wrenches in an attractive leatherette case.
Cat. No. 5028 Net $1.35

(J) G-C POCKET HEX KEY WRENCH SET— Seven popular size wrenches. .050 to 3/16" fitted in a steel case-like pocket knife blades.
Cat. No. 9124 Net $1.83

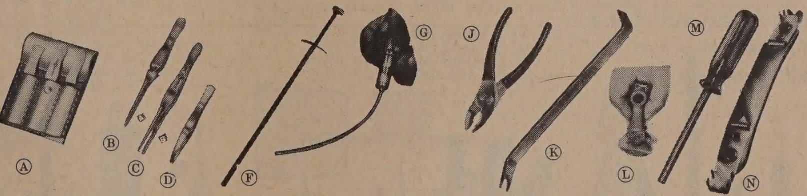
(L) G-C PLASTIC BOXES—Clear plastic boxes for stocking small parts, screws, nuts, bolts, condensers, resistors, etc.

Cat. No.		
8022	4"x4"x2½" deep	Net $ .40
8023	4"x4"x8" deep	Net $ .77

(M) G-C LONG NOSE CLAMP PLIERS—Like an extra hand. Spring tension keeps the jaws closed unless handles are squeezed.

Cat. No.		
5192	Straight Nose Pliers	Net $ .75
5193	Curved Nose Pliers	Net $ .82

(N) G-C TV-RADIO KNOB PULLER—Simply slip the G-C Puller behind the knob and pull it off. Saves time, the cabinet and the knob.
Cat. No. 23-954 Net $ .30



(A) G-C TWEEZER KIT—For the shop or laboratory to pick up and examine small parts, start screws and nuts, etc.
Cat. No. 7950 Net $2.28

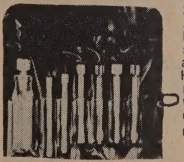
(B) G-C TWEEZERS
Cat. No. 7946 6½" Self-closing tweezer opens when squeezed; serrated, blunt points. Net $ .78

(C) G-C TWEEZERS
Cat. No. 7947 6½" Heavy-duty type, with slide lock feature; holds wires or parts tight like an extra finger; serrated, blunt points. Net $ .90

(D) G-C TWEEZERS
Cat. No. 7948 4½" Precision tweezer, narrow pointed ends for delicate work. Net $ .52

(F) G-C HANDY PICK-UP TOOL—One of the handiest tools you can have in your home, shop, office or farm. Tool is 15 inches long.
Cat. No. 5089 Net $ .98

1. G-C TV 3-WAY ANTENNA KLIP—Buy them by the bag and have clips ready to sell and ready to install on TV sets.
Cat. No. 9015-X Bag of 10 Net $1.43



2. G-C INTERCHANGEABLE HEX NUT DRIVER KIT—6 assorted nut drivers in a handy plastic case. Handle is non-inflammable amber plastic with a quick change chuck.
Cat. No. 9206 Net $3.30

(G) G-C LONG-REACH TV AND RADIO LUBRICATOR—For radio and TV controls, bearings, phono motors, etc. Buy them by the pair—one for grease and one for light oil.
Cat. No. 8690 Net $ .53

(J) G-C NO-JOLT TOOL GRIPS—Modernizes old tools with new safety grip handles. Grease and oil resistant.

Cat. No.		
5647	Small No-Jolt Plastic Tool Grips (1 pair)	Net $ .23
5648	Medium No-Jolt Plastic Tool Grips (1 pair)	.27
5649	Large No-Jolt Plastic Tool Grips (1 pair)	.33

(K) G-C PRY-UP TUBE LIFTER—Handy tool for removing tight tubes. Saves the fingers and the tubes.
Cat. No. 9213 Net $ .30

(L) G-C 4-in-1 TUBE GADGET—Four tools in one. Pure rubber, will not break.
Cat. No. 9130 Net $ .92

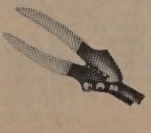
(M) G-C NEW TV AND AUTO RADIO WRENCH—Special female slotted wrench to remove screws and stud screws from auto radios and backs of TV sets, etc.
Cat. No. 9211 Net $1.08

(N) G-C NEW LOW LOSS TV LINE KLIP—A new all plastic clip with metal ends only. The best for UHF or fringe areas. Made of genuine polyethylene.

Cat. No.		
9055		Net $ .15
9055-X	Bag of 10	1.47

6. G-C DUAL SHEET METAL PUNCH—Punches holes for Tube Sockets and Condensers for hand or power operation. Two punches ⅞" and 1 5/32" for one price.
Cat. No. 9260 Net $4.93

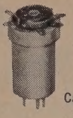
7. G-C DUAL SHEET METAL PUNCH JR.—Punch neat, clean holes in chassis for tube sockets, condensers and for mounting other components. For ½" and ¾" holes.
Cat. No. 9261 Net $3.80



8. NEW G-C PRECISION 300-OHM TOOL—This specially designed tool cuts, slots, strips and crimps. Has shockproof, oil resistant plastic grips.
Cat. No. 9220 Net $4.05

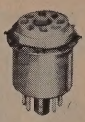
GC SERVICE AIDS

ELECTRONICS

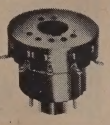


G-C 7-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9247
Net $1.65

G-C 9-PIN MINIATURE TEST SOCKET ADAPTER
Cat. No. 9249 Net $1.87



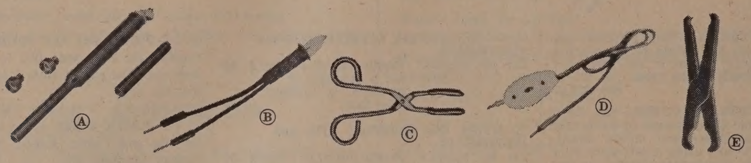
G-C 8-PIN OCTAL TEST SOCKET ADAPTER
Cat. No. 9248 Net $1.57



G-C DUO-DECAL TV TUBE TEST SOCKET ADAPTER — Designed for making measurements of voltage, resistance and video from the base of the picture tube. It is inserted between C.R. tube base and its socket.
Cat. No. 9251 Net $1.95

G-C TEST SOCKET ADAPTER KIT—This handy kit contains all 4 of G-C's Test Socket Adapters.
Cat. No. 9250 Net $6.98

G-C ANGLE ANODE LEAD—A better anode lead with special "Ozone Proof" rubber. Cat. No. 8637 Net $.42



(A) G-C CONTROL GUN KIT—Cleans and lubricates noisy volume controls. Constructed of solid aluminum—will not rust. Complete kit includes Gun, Adapter for extra long shanks, Adapter for ½-28 thread, and Auto Adapter for 7/16-28 thread.
Cat. No. 9285 Net $4.50
Uses G-Control Kleener.
Cat. No. 65-16 16 oz. Bottle Net $1.95
65-G 1 Gallon Net $9.00

G-C CONTROL GUN—Designed to clean and lubricate noisy volume controls in one sure, fast and easy operation. Gun nozzle fits over the control shaft and screws securely over the control base threads.
Cat. No. 9280 Net $3.75

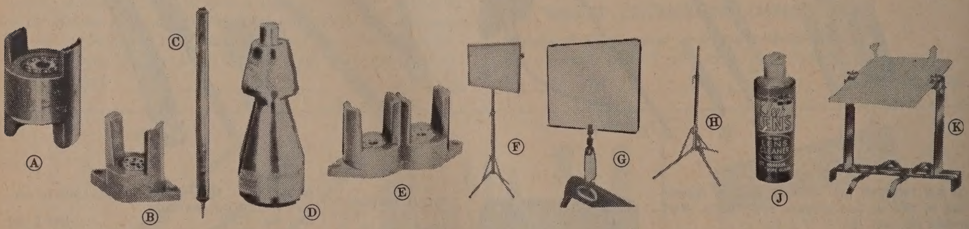
G-C CONTROL GUN ADAPTERS—Aluminum—won't rust when used with normal electronic chemicals.
Cat. No. 9281 To fit control shafts with ½-28 thread. Net $ .50
9283 To fit control shafts with 7/16-28 thread. Net $ .50
9282 For use on controls with extra long shanks Net $ .50

(B) G-C NE-O-LITE—A simple, safe, dependable electrical circuit tester—easy to use with a Neon Glow Lamp which varies in light intensity according to voltages. Traces all types of trouble, such as grounded lines, open circuits, short circuits, etc.
Cat. No. 5100 Net $ .45

(C) G-C TUBE & PARTS EXTRACTOR—Originally designed by the U. S. Signal Corps. as standard equipment. Skillfully constructed of spring steel, cadmium plated. Has rubber cushion on the prongs.
Cat. No. 5092 Net $ .98

(D) G-C DANDY LITE TESTER—Your hand touches the lead to only one side of the line for extra safety. A simple, dependable tester for tracing electrical circuits, grounded lines, shorts, etc.
Cat. No. 8585 Net $ .82

(E) G-C SPEEDEX FUSE PULLERS—Inexpensive—non-slip, fuse puller. Safe and handy for cartridge fuses.
Cat. No. 5525 Midget Size—for fuses ¼" to ½" dia. Net $ .60
5526 Pocket Size—for fuses ½" to 1½" dia. Voltages to 200 amps at 250 volts and 100 amps at 600 volts Net $1.30



(A) G-C DUAL TUBE PIN STRAIGHTENER—A handy, miniature pin straightener for 7-pin and 9-pin miniature tubes. Accurately machined metal inserts on either end of the tool body, each made of hardened metal to assure accuracy and long life.
Cat. No. 9092 Net $1.27

(B) G-C MINIATURE TUBE PIN STRAIGHTENER—Precision-constructed steel die, designed for straightening pins on fragile miniature tubes of the 1S5, 6AK5, 9002 variety.
Cat. No. 5191 For 7-pin Min. Tubes (red base) Net $ .75
8105 For 9-pin Jumbo Tubes (blue base) Net $ .75

(C) G-C TV "HIGH-VOLT" SAFETY PROBE & TESTER—A new handy tester for quickly checking TV high voltage circuits. Tester will glow when high voltage is okay.
Cat. No. 8836 Net $2.13

(D) G-C AMO MINIATURE TUBE PULLER—AMO makes it possible to easily remove or insert miniature tubes such as 6AG5, 50B5, etc. It works on the suction and vacuum principle.
Cat. No. 5093 For 7-Pin Tubes Net $1.30
8106 For 9-Pin Tubes Net $1.30

(E) G-C DUPLEX TUBE PIN STRAIGHTENER—The handiest tube pin straightener for both miniature and jumbo miniature tubes of the 7- and 9-pin types.
Cat. No. 8655 Net $1.50

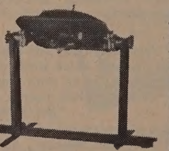
(F) G-C THIRD EYE DELUXE GLASS TV MIRROR—Here's a deluxe TV service mirror for adjusting and servicing TV sets. It is made with an adjustable and collapsible telescoping stand and 12" x 10" glass mirror that avoids distortion of the image.
Cat. No. 8390 Third Eye Mirror, Stand Net $5.25
8391 Glass Mirror Only 2.97
8199 Soft Bag for Mirror 1.05

(G) G-C TV PORTO MIRROR—TV service mirror for adjusting rear controls and settings of TV sets. Supplied with a rubber lined spring clamp.
Cat. No. 8198 TV Metal Mirror, Spring Clamp Net $2.70
8199 Soft Bag for Mirror Net $1.05

(H) G-C TELEVISION MIRROR & EXTENSION LAMP COLLAPSIBLE STAND—Handy metal collapsible and adjustable stand for No. 8391 mirror or for clamping on metal mirrors or extension lamps.
Cat. No. 8392 Net $3.30

(J) G-C KLEER LENS—A superior lens cleaning fluid packaged in a handy plastic spray type container. This cleaner will make the transparent protection shield in front of the picture tube crystal clear.
Cat. No. 9081 6-oz. Net $ .75

(K) G-C "QUICK-RIG" RADIO-PHONO CHASSIS REPAIR CRADLE—Complete 360° rotation to lock chassis at best working angle. Clamps securely, makeshift setups, all metal.
Cat. No. 5212 Net $7.50



G-C PHONO TURNTABLE STAND—Stand raises the turntable about 15 inches above the bench so you can easily look under the mechanism to check it while in operation. Easily adjusted to all sizes and types of phono turntables. Sturdily made of steel.
Cat. No. 5205 Net $4.95

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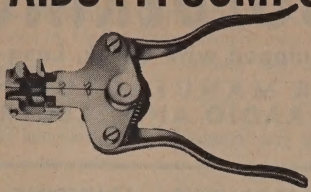
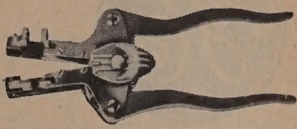
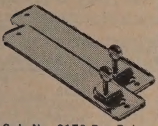




G-C TV CHASSIS SERVICE HANDLES. Here's a safe way of carrying TV Chassis. Handles made of smooth tubular steel simply lock on to chassis as chassis is lifted. Handles will not slip off until released.
Cat. No. 9023 Per Pair Net $2.13



G-C TV CHASSIS SUPPORT. Prop chassis to easy working position on your bench or in the home. Simply slip it on the flange of chassis, tighten thumb screws and tilt chassis to position desired.
Cat. No. 9176 Per Pair Net $1.80

SPEEDEX STANDARD WIRE STRIPPER. This is the popular inexpensive Speedex model that will work on 90% fo all stripping jobs. Blades are inter-changeable, hardened and precision ground to razor sharp edges.

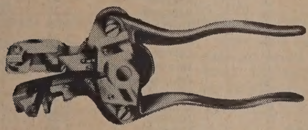
No.	For Sizes Listed Below
733	12 to 20 Wire
733-A	14 to 30 Wire
733-B	10 to 18 Wire
733-C	8 to 10 Wire
733-D	16, 18, 20, 22 Wires
733-E	14, 16, 18 Wires
733-F	10, 12, 14 Wires
733-G	For No. 18 POSJ or Parallel Wire
733-H	For 300 ohm TV and FM twin transmission line
733-I	10, 12, 14, 16, 18, 20, 22 Wire
733-M	10 to 20 Wire
733-N	Straight Cutter Blades

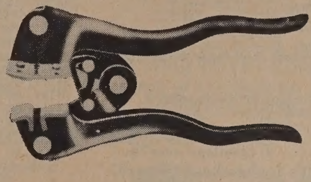
Cat. No. 733 Net $4.77

SPEEDEX AUTOMATIC WIRE STRIPPER. Equipped with "Trig-O-Matic" Stay-Open feature. Stay-Open features keeps wires from being crushed.

No.	For Sizes Listed Below
744	12 to 20 Wire
744-A	14 to 30 Wire
744-B	10 to 18 Wire
744-C	8 to 10 Wire
744D	16, 18, 20, 22 Wire
744-E	14, 16, 18 Wire
744-F	10, 12, 14 Wire
744-G	For No. 18 POSJ or Parallel Wire
744-H	For 300 ohm TV and FM twin transmission line
744-1	10, 12, 14, 16, 18, 20, 22 Wire
744-M	10 to 20 Wire
744-N	Straight Cutter Blades

Cat. No. 744 Net $5.93





SPEEDEX SPEED-O-MATIC WIRE STRIPPER. Fully automatic delayed return action to prevent crushing fine wires. The Speed-O-Matic combines the features of all Speedex Wire Strippers.

No.	For Sizes Listed Below
766	12 to 20 Wire
766-A	14 to 30 Wire
766-B	10 to 18 Wire
766-C	8 to 10 Wire
766-D	16, 18, 20, 22 Wire
766-E	14, 16, 18 Wire
766-F	10, 12, 14 Wire
766-G	For No. 18 POSJ or Parallel Wire
766-H	For 300 ohm TV and FM twin transmission line
766-I	10, 12, 14, 16, 18, 20, 22 Wire
766-M	10 to 20 Wire
766-N	Straight Cutter Blades

Cat. No. 766 Net $5.93

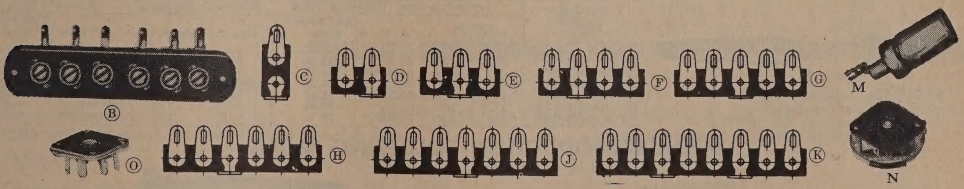
SPEEDEX WHIZ WIRE STRIPPER. All new economy model—a perfect all round general use wire stripper. Precision milled, hardened steel cutters.

Cat. No.		
788	3 Hole Blade, Gauges 12 thru 22	
788-B	3 Hole Blade, Gauges 10 thru 16	
788-D	4 Hole Blade, Gauges 14 thru 24	
788-H	300 ohm Blade forT win Lead-In	
Cat. No. 788		Net $3.97

SPEEDEX WIRE STRIPPER KITS. Kits complete with Wire Strippers and seven different size blades neatly put up in a special permanent plasitc box. Very handy kit for the tool box, home workshop, maintenance and production.

Cat. No.		
733-K	Standard Stripper Kit	Net $ 9.57
744-K	Auotmatic Stripper Kit	Net $11.97
766-K	Speed-O-Matic Stripper Kit	Net $11.97

ELECTRONIC COMPONENTS



(B) G-C SCREW TYPE TERMINAL STRIPS. Mounted on laminated bakelite strips, rigidly constructed, terminals will not turn and short.

Cat. No.	Contacts	Net $
1772	2	.08
1772-C	(100-1772)	8.10
1773	3	.12
1773-C	(100-1773)	10.05
1774	4	.15
1774-C	(100-1774)	13.20
1775	5	.17
1775-C	(100-1775)	16.05
1776	6	.22
1776-C	(100-1776)	19.05
1777	7	.25
1777-C	(100-1777)	23.85
1778	8	.30
1778-C	(100-1778)	27.00
1779	9	.33
1779-C	(100-1779)	30.00
1780	10	.37
1780-C	(100-1780)	33.45

G-C STANDARD TERMINAL STRIPS. Insulation 1/16" Thick, 3/8" Spacing.

	Cat. No.		Net $
(C)	1781	1 Lug	.03
	1781-C	100 No. 1781	2.70
(D)	1782	2 lugs	.03
	1782-C	100 No. 1782	2.70
(E)	1783	3 lugs	.05
	1783-C	100 No. 1783	2.82
(F)	1784	4 lugs	.05
	1784-C	100 No. 1784	3.90
(G)	1785	5 lugs	.07
	1785-C	100 No. 1785	4.50
(H)	1786	6 lugs	.08
	1786-C	100 No. 1786	4.80
(J)	1787	7 lugs	.13
	1787-C	100 No. 1787	$8.70
(K)	1788	8 lugs	.15
	1788-C	100 No. 1788	9.60

SPECIAL TERMINALS AVAILABLE IN QUANTITIES. SEND PRINTS FOR QUOTATIONS

(M) G-C EXTENSION JACK & CONNECTOR. Special jack used in extending radio antenna cables and phonograph attachments.
Cat. No. 1744 Net $ .10
1744-C 100 $8.93

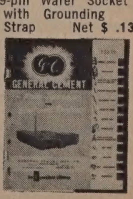
(N) G-C HIGH VOLTAGE ANTI-CORONA TV SOCKETS. Eight-prong octal and nine-pin miniature sockets for use in high voltage circuits using the 1B3, 1AX2, 1AX2A, etc.
Cat. No. 9070 8-prong octal Net $ .53
9071 9-pin miniature .53

(O) G-C 9-PIN MINIATURE WAFER SOCKET. High quality plastic wafer socket, 9-pin type with phosphor bronze contacts. Standard 1⅛" mounting centers.
Cat. No. 1543 9-pin Wafer Sockets Net $ .12
1544 9-pin Wafer Socket with Grounding Strap Net $ .13

FREE

GC 400-Page Catalog . . .

ask your jobber



SOLDERING IRONS

Equipped with Quick, Long-Life Calrod® Heaters

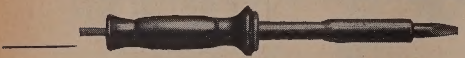
FOR MANUFACTURING AND SERVICE OF RADIO AND ELECTRONIC EQUIPMENT

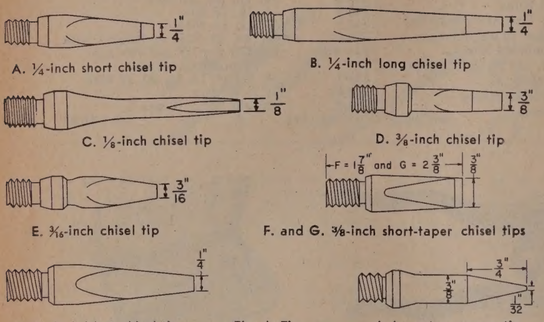
ASK YOUR GENERAL ELECTRIC DISTRIBUTOR FOR A COPY OF BULLETIN GEC-1545.

HEAVY-PRODUCTION SOLDERING IRONS

(Listed by Underwriters' Laboratories)

6A160 Series — 75 to 140 Watts





A. ¼-inch short chisel tip
B. ¼-inch long chisel tip
C. ⅛-inch chisel tip
D. ⅜-inch chisel tip
E. 3/16-inch chisel tip
F. and G. ⅜-inch short-taper chisel tips
H. ¼-inch blunt chisel tip
Fig. 1. Tips
J. Long-taper cone tip

High efficiency and reserve-heat capacity make these General Electric soldering irons well-suited for continuous-production soldering as well as intermittent duty.

Quick, dependable heating provided by General Electric Calrod cartridge heating elements.

Ironclad tips for high-speed repetitive soldering last up to ten times as long as plain copper tips. Ironclad construction combines the fast heat transfer of copper and long wearing qualities of iron.

Calorized copper tips—For ordinary soldering requirements, these tips will last much longer than plain copper tips.

All copper parts are Calorized—Calorized surfaces retard the harmful effects of high temperature on copper.

Soldering Iron, Less Tip					Renewal Heater†	
Cat. No.	Rating* Volts	Rating* Watts	List Price Each‡	Standard Package	Cat. No.	List Price Each‡
6A161	115	75	$14.95	5	6A31	$4.50
6A162	115	100	14.95	5	6A32	4.50
6A162G6	115	110	14.95	5	7C342	4.50
6A162G3	115	125	14.95	5	8A88	4.50
6A162G12	115	140	14.95	5	7C474	4.50

* Also available for 230-volt operation.

† Renewal heaters standard package is 5.

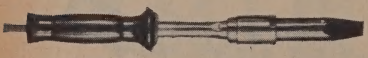
Tips

Cat. No.	Tip Width (Fig. 1)	Type	List Price Each‡	Standard Pkg. Qty.
6808345AAP2	A	Calorized	$1.05	10
6851775P21	A	Ironclad	1.85	10
6808345AAP3	B	Calorized	1.75	10
6851775P22	B	Ironclad	3.55	10
111A4195P2	C	Ironclad	1.75	10
6851732P21	D	Calorized	1.05	10
6851732P22	D	Ironclad	1.85	10
9817171P22	E	Ironclad	1.85	10
111A4196P1	F	Ironclad	2.30	10
111A4196P2	G	Ironclad	2.75	10
40A100466P2	H	Ironclad	2.20	10
125A8448P1	J	Ironclad	1.80	10

Note: All of the interchangeable tips listed above will fit any iron in the 6A161 and 6A162 series.

Pistol-grip handle for 6A160 series only. Specify Cat. No. of standard iron desired, note on order "Except pistol-grip handle, Cat. No. 125A8400." Add $1.30 List per iron. Minimum order quantity is six.

6A200 Series — 100 to 300 Watts

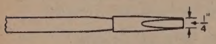


Tip Size and Type	Soldering Iron, Including Tip■ Rating Volts*	Soldering Iron, Including Tip■ Rating Watts	Cat. No.●	List Price Each, ‡	Std Pkg	Renewal Heaters▲ Cat. No.	Renewal Heaters▲ List Price	Renewal Tips Cat. No.	Renewal Tips List Price Each, ‡	Std Pkg
¾-in.—Calorized	115	100	6A200	$18.60	5	6A32	$4.50	6827994P21	$2.75	5
¾-in.—Ironclad	115	100	6A200G7	21.75	5	6A32	4.50	8381902P21	5.00	5
1-in.—Calorized	115	200	6A201	21.85	5	9A77	6.15	6827994P22	4.00	3
1-in.—Ironclad	115	200	6A201G7	24.90	5	9A77	6.15	8381902P22	5.70	3
1¼-in.—Calorized	115	300	6A202	27.09	5	9A78	7.00	6827994P23	6.00	3
1¼-in.—Ironclad	115	300	6A202G7	29.70	5	9A78	7.00	8381902P23	7.70	3

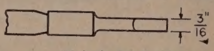
●Includes 6-foot cord.
▲Renewal heaters standard package is 5.
*Also available for 230-volt operation.
■For iron less tip, order Root Cat. No., specify G-11.

MEDIUM-PRODUCTION SOLDERING IRONS

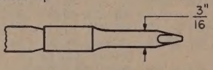
(Listed by Underwriters' Laboratories)



¼-inch chisel tip



3/16-inch chisel tip



3/16-inch pyramid tip

SOLDERING IRON (Complete)* 120 V, 60 W

Cat. No.	Tip Dia. in Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
6A273	¼ Chisel	$14.20	5
6A283	3/16 Pyramid	14.20	5
6A283G23	3/16 Chisel	14.20	5

* Lightweight industrial irons have Ironclad tips only. Price includes 6-foot Type SJ cord.

RENEWAL TIP AND HEATER

Cat. No.	Tip Dia. in Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
6A300	¼ Chisel	$6.95	5
6A301	3/16 Pyramid	6.95	5
6A301G4	3/16 Chisel	6.95	5

TIP ONLY

Cat. No.	Tip Dia. In Inches (All Ironclad Copper)	List Price Each‡	Standard Package Quantity
326A964P21	¼ Chisel	$1.80	10
326A964P22	3/16 Pyramid	1.80	10
166V707P21	3/16 Chisel	1.80	10

Solders easily in tight places because the thin, 5/16-inch diameter shank gets the ¼-inch tip into places a regular iron can't reach.

Reduces operator fatigue—Iron weighs only 8½ ounces, is well balanced and has comfortable handle.

Produces uniformly strong soldered joints because iron's quick heat recovery produces enough heat for hard, continual use.

Saves on maintenance—Fewer interruptions in production result because iron's sturdy construction and long-life ironclad tip eliminates need for frequent repairs.

Tip renewal is easy and inexpensive—Unscrew shank from handle and replace with new, low-cost assembly in seconds. New tips can be brazed to heater assembly if desired.

‡ Manufacturer's suggested resale price.

Trade Discount Applies To List Prices Only

© U.C.P., Inc.

LIGHT TO MEDIUM-PRODUCTION MIDGET SOLDERING IRONS

(Listed by Underwriters' Laboratories)

6 volts; 25 and 45 watts (nominal rating)

Improves operator efficiency—Handles like a pencil, weighs only 1¾ oz.

Cuts maintenance costs—Ironclad tips last up to ten times longer than conventional tips.

Increases production—Heater is built into tip for quick heat recovery, fast heat transfer.

Tip renewal is easy, fast—Complete tip and heater assembly can be changed in five seconds.

IRONS WITH INTEGRAL TIP AND HEATER (Ironclad Tips)

Handle and Cord Set			Tip and Heater Assemblies		
Description	Cat. No.	List Price Each‡	Description	Cat. No.	List Price Each‡
For 2- and 4-tap transformers	6D200	$3.65	¼″ chisel	6D211	$4.05
			⅛″ cone	6D213	4.05
For transformer with 3-heat switch	40B200435G2	4.15	3/16″ pyramid	6D215	4.05
			3/16″ chisel	6D217	4.05

Note: Order tip and heater assembly and handle assembly separately.

IRONS WITH THREADED TIP HOLDER AND INTERCHANGEABLE TIPS

Handle and Cord Set			Heater Assembly for threaded tips		
Description	Cat. No.	List Price Each‡	Description	Cat. No.	List Price Each‡
For 2- and 4-tap transformers	6D200	$3.65	3″ long	6D219	$3.95
			4¼″ long	6D219G2	3.95

Note: Order heater assembly and handle assembly separately.

Heater Asm for Screw-on Tips*

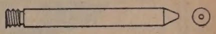
Cat No.	List Price Each
6D221	$4.05

*Uses same screw-on tips as Penline—120 heater assembly, Cat. No. 6D413. See table at bottom of page for descriptions and prices of interchangeable tips.

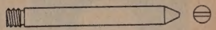
THREADED TIPS FOR 6A219 SERIES

Cat. No.	Tip Size (Inches)	List Price Each‡
40A100139P1	5/32 Cone	$0.60
40A100139P2	5/32 Chisel	.60
40A100139P3	5/32 Offset Cone	.60

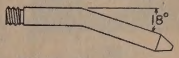
Material is nickel-plated copper 5/32-inch diameter.



5/32-inch cone tip



5/32-inch chisel tip



5/32-inch offset cone tip

45-WATT TIP AND HEATER ■

Cat. No.	Tip Size (Inches)	List Price Each‡
6A211G31	⅜ Chisel	$4.60

■ Designed especially for users of Midget Irons who have some applications which require greater heat reserve or a higher repetitive soldering rate than can be supported by the standard tip and heater assemblies. Fits standard Midget handle.

TRANSFORMERS

Three transformer types are available for use with the General Electric Midget irons. The single-heat type provides 35 watts for ordinary requirements. The four-heat type permits a range of heats from 26, 28, 32 and 35 watts by changing the tap connections. The low position on the transformer with switch provides temperature (18 watts) suitable for printed circuits and idling, while the medium and high position provide 28 and 35 watts respectively.

Description	Primary Voltage■	Cat. No.	List Price Each‡	Std Pkg Quantity
Single-heat tap	115	6A362G2	$ 6.90	5
Four-heat tap	115	6A364G2	9.20	5
Three-heat with switch●	115	6A434	17.00	5

■Single- and four-tap transformers are available with 230-volt primary in quantities of 24 or more. Specify catalog number desired and note on order "except with 230-volt primary."

●Use of this transformer requires special cord set with plug. Order catalog number 9218864G8 for handle and cord set, **List Price Each, $4.15.** In addition, order tip and heater assembly desired.

MINIATURE SOLDERING IRONS

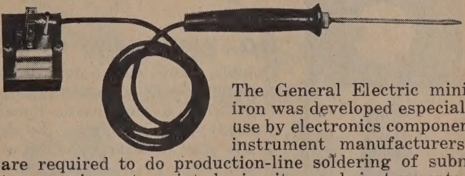
SOLDERING IRON 6 V, 12 W

Cat. No.	Description	Tip & Heater Dia. (In.)	Shank Length (In.)	List Price Each‡	Std. Pkg. Qty.
6A428G3	Complete iron including tip and heater assembly, 6-ft cord and transformer.	⅛ Chisel	3	$15	5
6A428G4		⅛ Chisel	6	15	5
6A428G7		⅛ Pyramid	3	15	5
6A428G8		⅛ Pyramid	6	15	5
6A428G5	Complete iron, less transformer (includes tip, heater assembly, and 6-ft cord set with terminals).	⅛ Chisel	3	9	5
6A428G6		⅛ Chisel	6	9	5

RENEWAL TRANSFORMERS*

Cat. No.	List Price Each‡	Std. Pkg. Qty.
6A430	$7.80	5

* Includes 6-foot integral cord set.



The General Electric miniature iron was developed especially for use by electronics component and instrument manufacturers who are required to do production-line soldering of subminiature equipment, printed circuits, and instruments.

RENEWAL TIP AND HEATER ASSEMBLY

Cat. No.	Tip Diameter (Inches)	Shank Length (Inches)	List Price Each‡	Std. Package Quantity
6A429G3	⅛ Chisel	3	$5.50	5
6A429G4	⅛ Chisel	6	5.50	5
6A429G5	⅛ Pyramid	3	5.50	5
6A429G6	⅛ Pyramid	6	5.50	5

PENLINE-120 SOLDERING IRONS

120 volts; 30, 40, and 45 watts

The rugged construction, long life, efficiency, and mobility of these irons —comparable in size to the Midget—make them ideally suited to continuous production line operation, intermittent operation, or maintenance work.

IRONS WITH INTEGRAL TIP AND HEATER (ironclad tips)

Handle and Cord Set			Tip and Heater Assemblies		
Description	Cat. No.	List Price Each‡	Description	Cat. No.	List Price Each‡
2-conductor	6D400	$3.00	30-watt 3/16″ chisel	6D410	$4.70
3-conductor with NEMA std plug	6D400G2	4.00	30-watt 9/32″ chisel	6D411	4.80
			45-watt ⅜″ chisel	6D412	4.90

Note: Order tip and heater assembly and handle assembly spearately.

IRONS WITH HEATER ASSEMBLY FOR SCREW-ON TIPS

Handle and Cord Set			Heater Assembly for Screw-on-Tips		
Description	Cat. No.	List Price Each‡	Description	Cat. No.	List Price Each‡
2-conductor	6D400	$3.00			
3-conductor with NEMA std plug	6D400G2	4.00	40-watt	6D413	$4.00

Note: Order heater assembly and handle assembly separately.

SCREW-ON TIPS FOR HEATER ASSEMBLY 6D413

Description	Cat. No.	List Price Each‡	Description	Cat. No.	List Price Each‡
Spade Tips			Long Chisel		
1/16″ copper	40A103350P1	$0.50	3/16″ copper	40A103357P1	$0.55
1/16″ ironclad	40A103350P2	1.40	3/16″ ironclad	40A103357P2	1.50
⅛″ copper	40A103352P1	.50			
⅛″ ironclad	40A103352P2	1.40	Pyramid Tips		
Chisel Tips			⅛″ copper	40A103354P1	.50
1/16″ copper	40A103351P1	.50	⅛″ ironclad	40A103354P2	1.40
1/16″ ironclad	40A103351P2	1.40	⅜″ copper	40A103359P1	.50
⅛″ copper	40A103353P1	.50	⅜″ ironclad	40A103359P2	1.40
⅛″ ironclad	40A103353P2	1.40			
3/16″ copper	40A103356P1	.50	Cone Tips		
3/16″ ironclad	40A103356P2	1.40	⅛″ copper	40A103355P1	.50
⅜″ copper	40A103358P1	.50	⅛″ ironclad	40A103355P2	1.40
⅜″ ironclad	40A103358P2	1.40			

ACCESSORIES (Minimum Order Quantity is 6)

3-Conductor Cord Set for 6A160 and 6A200—6 ft. length with NEMA standard plug. Specify Cat. No. of standard iron desired, note on order "Except with 3-cond. cord set with NEMA standard plug." Add $1.20 List per iron.

Coiled Cord Set for 6A160, 6A200 and Medium-production Irons—6 ft. extended length, 2-conductor with standard plug. Specify Cat. No. of standard iron desired, note on order "Except with coiled cord set." Add $1.35 List per iron.

‡ Manufacturer's suggested resale price.

TOOLS FOR CRAFTSMEN
GREENLEE

CHASSIS PUNCHES

ROUND, SQUARE, "KEY," AND "D" TYPES

Greenlee Tool Co., Rockford, Illinois

NO. 730 ROUND PUNCH

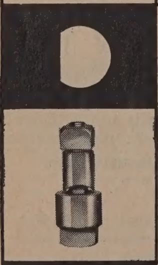
Swiftly cuts clean, accurate holes in radio chassis for sockets, switches, controls and other equipment. Operates simply with an ordinary wrench for drive power . . . just insert in a small drilled hole and turn drive screw. No reaming or filing . . . hole is smooth, perfect. 27 sizes from ½″ to 3″ diameter. New Ball-Bearing Drive available for even easier, speedier operation.

NO. 731 SQUARE PUNCH

Cuts square or oblong openings as desired. Available in five sizes for making ½″, ⅝″, ¾″, ⅞″, and 1″ square holes. Drive screw fits into ½″ hole, which can be drilled or made with ½″ No. 730 GREENLEE Round Punch. Operates with an ordinary wrench for drive power. Individually packed.

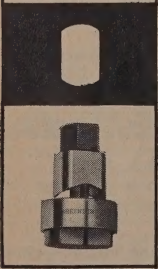
NO. 732 "KEY" PUNCH

Quickly, easily cuts holes for keyed radio sockets. Operates on same principle as other GREENLEE Radio Chassis Punches . . . an ordinary wrench supplies the drive power. In five sizes to make openings of 15/32″, 15/16″, 1 11/64″, 1 17/64″, 1 21/64″. Drive screw fits into ½″ hole. Individually packed.



NO. 733 "D" PUNCH

Simplifies and speeds the work of making "D"-shaped openings for high-frequency, miniature tube sockets and other equipment using this type opening. Available in ½″ and ⅝″ sizes. Operates on same principle as other GREENLEE Radio Chassis Punches with an ordinary wrench supplying the drive power. Drive screw fits into ⅜″ drilled hole. Individually packed.



NO. 734 DOUBLE "D" PUNCH

Quickly makes standard electrical receptacle openings. Cuts standard hole 1⅛″ dia. across parallel sides, 1⅜″ dia. across rounded ends. Simply insert into a ½″ hole and turn with an ordinary wrench. Does the work in less than five minutes . . . eliminates all tedious hand filing . . . gives a smooth, perfect opening.

PRICES . . . Nos. 730, 731, 732, 733, 734

No. 730 ROUND PUNCH

Size	Price	Size	Price
½″	$2.60	1¾″	$5.50
9/16″	2.60	1⅞″	6.85
⅝″	2.60	2″	7.40
11/16″	2.60	2⅛″	11.00
¾″	2.60	2¼″	7.95
13/16″	2.60	2½″	13.00
⅞″	2.60	2¾″	18.00
15/16″	2.85	2 25/32″	12.50
1″	2.85	3″	25.00
1 1/16″	3.00	Following sizes also available with larger drive screw for cutting thicker metals (No. 730X)	
1⅛″	3.00		
1 5/32″	3.00		
1 3/16″	3.00		
1 7/32″	5.50	1⅛″	$5.50
1¼″	3.00	1 3/16″	5.50
1⅜″	3.60	1¼″	5.50
1½″	4.10	1⅜″	6.25
1⅝″	4.85	1½″	7.25

NO. 731 SQUARE PUNCH

Size	Price	Size	Price
½″	4.85	⅞″	$6.55
⅝″	5.00	1″	6.80
¾″	5.70		

No. 732 "KEY" PUNCH

Size	Price	Size	Price
15/32″	5.00	1 17/64″	$6.55
15/16″	5.00	1 21/64″	6.90
1 11/64″	5.80		

No. 733 "D" PUNCH

Size	Price	Size	Price
½″	4.50	⅝″	$4.75

No. 734 DOUBLE "D" PUNCH

Size	Price
1⅛″ x 1⅜″	$32.00

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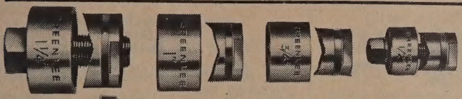
TOOLS FOR CRAFTSMEN
GREENLEE

KNOCKOUT PUNCHES AND DRIVERS

Greenlee Tool Co., Rockford, Illinois



No. 735 KNOCKOUT PUNCH SET..... $11.60

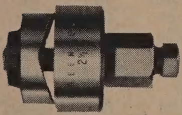
Designed primarily for the electrical trade to permit fast, easy enlarging of knockouts and cutting of holes for conduit in metal boxes and cabinets. Also excellent for automobile work where holes are needed for heater pipes and other accessories. Simply insert the tool in a knockout or small drilled hole and give the screw a few turns with an ordinary wrench. No. 735 set has four punches for cutting ⅞, 1 3/32, 1 11/32, 1 11/16-inch holes for ½, ¾, 1, 1¼-inch conduit. Set is neatly packed in leather case illustrated. Weight, 2½ lb.

Heavy-Duty Drive for ½″ punch............ $1.40

To increase length of service of the ½-inch Knockout Punch in cutting ⅞-inch holes in heavier gauge sheet metals, the No. KR5 Drive Screw with No. KR4 Drive Nut illustrated is recommended. Weight, ¼ lb.

No. 737 KNOCKOUT PUNCH SET........ $12.50

Similar to the No. 735 set, but consists of only two punches for cutting holes to accommodate 1½″ and 2″ conduit. Packed in leather case. Weight, 3½ lb.



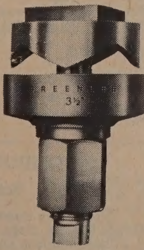
KNOCKOUT PUNCHES

No. 738 for 2½″ conduit	$16.25
No. 739 for 3″ conduit . .	$22.00

For cutting holes to accommodate 2½″ and 3″ conduit. Design is similar to that of smaller GREENLEE Knockout Punches: insert in a knockout or drilled hole and turn drive nut with an ordinary wrench. Packed and sold individually. Weight, No. 738, 4½ lb. No. 739 6½ lb.

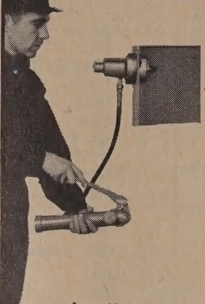
KNOCKOUT PUNCHES

No. 741 for 3½″ conduit..	$43.00
No. 742 for 4″ conduit....	$53.00
No. 743 for 5″ conduit....	$80.00

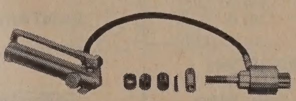


For quickly making smooth openings for 3½″, 4″ and 5″ conduit. Hole is clean, no filing of burrs necessary. Operation is similar to that of other GREENLEE Knockout Punches. Simply insert in hole for 1″ conduit and turn drive nut with an ordinary wrench. Weights, No. 741, 10⅜ lb; No. 742, 12⅛ lb; No. 743, 17⅞ lb.

HYDRAULIC PUNCH DRIVER AND SETS

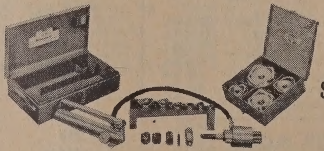


Just a few easy strokes on the handle of the GREENLEE No. 7646A Hydraulic Knockout Punch Driver and the punch slices cleanly through 10-gauge metal. Handy driver develops 11 tons of ram force. Use it with all GREENLEE Knockout Punches for conduit ½″ to 5″. Comes complete with hydraulic pump, 3-foot hose, one ram, adapter screws, die sleeves, and metal carrying box.



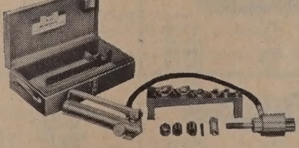
No. 7646 A

HYDRAULIC KNOCKOUT PUNCH DRIVER.... $100.00



SET No. 7310
$233.50

Hydraulic hand pump, hose, complete drive, and ten punches and dies for ½″ through 4″ conduit, plus two metal carrying cases.



SET No. 7306
$123.50

Hydraulic pump, six punches and dies for ½″ to 2″ conduit, plus metal carrying case.

SET No. 7304.... $110.00

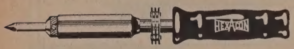
Four knockout punches and dies for 2½″, 3″, 3½″, and 4″ conduit in metal carrying case.

ELECTRIC SOLDERING IRONS

VOLTAGE RANGE: 6 to 250 OPERATES IDENTICALLY ON A.C. OR D.C., ANY CYCLE
STANDARD VOLTAGES 110/120, 121/130, 220/250 SPECIFY VOLTAGE ON ORDER

Equipped with flexible 6-ft. approved Neoprene rubber heater cord, which is water-proof, kink-free, and resistant to oil, abrasion and heat. Nickel-chromium replaceable heating elements, insulated with finest mica, protected by rugged outer housing. Replaceable tips.

PLUG-TIP IRONS



No.	Watts	Tip Dia.	Ship. Wt.
P70	80	3⁄8″	1⅛ lb.
P100	100	3⁄8″	1⅜ lb.
P125	130	5⁄8″	1⅝ lb.
P150	150	3⁄8″	1½ lb.
P153	175	3⁄8″	1½ lb.
P151	175	½″	1⅝ lb.
P200	200	5⁄8″	2⅜ lb.
P250	250	5⁄8″	2⅜ lb.

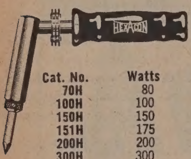
P-300	300	7⁄8″	3 LB.
P-550	550	1⅛″	4⅜ LB.

SUPER-POWERED IRONS

HIGHER SPEED SMALLER TIPS

No.	Watts	Tip Dia.	Ship. Wt.
P114	100	¼″	1⅜ lb.
P154	150	¼″	1½ lb.
P214	200	¼″	2⅛ lb.
P238	200	3⁄8″	2¼ lb.
P212	200	½″	2¼ lb.
P338	300	3⁄8″	2¾ lb.

HATCHET TYPE IRONS

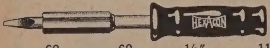


Perfect Balance
Less Fatigue
See What You Solder

Cat. No.	Watts	Tip Dia.	Ship Wt.
70H	80	3⁄8″	1⅜ lbs.
100H	100	3⁄8″	1½ lbs.
150H	150	3⁄8″	1⅝ lbs.
151H	175	½″	1⅝ lbs.
200H	200	5⁄8″	2¼ lbs.
300H	300	7⁄8″	3 lbs.

SCREW TIP IRONS

Cat. No.	Watts	Tip Dia.	Ship Wt.
50	50	1⁄16″	1 LB.



60	60	½″	1⅛ LB.
85	90	½″	1⅛ LB.
120	120	5⁄8″	1⅜ LB.
130	130	7⁄8″	1½ LB.
170	175	1″	2¼ LB.

225	250	1⅛″	2¾ LB.
350	500	1⅝″	4⅜ LB.
500	350	1⅜″	3½ LB.
700	700	1¾″	5⅝ LB.

SUPER-PENCIL IRONS

HOT TIP **COOL HANDLE**

Weighs only 2 oz.

Short Reach 3″

All the advantages of a Soldering Pencil, but a full-fledged industrial soldering iron with nickle-chromium mica-wound element. Tiny tips outperform irons with larger tips and higher wattages.

Cat. No.	Watts	Tip Dia.	Ship. Wt.
25S	25	⅛″	½ lb.
25S20	20	⅛″	½ lb.
25S30	30	⅛″	½ lb.
25S35	35	⅛″	½ lb.
25S50	50	⅛″	½ lb.
26S	30	3⁄16″	½ lb.
26S35	35	3⁄16″	½ lb.
26S40	40	3⁄16″	½ lb.
26S50	50	3⁄16″	½ lb.

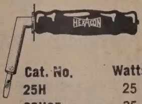
FASTEST AND MOST DURABLE PENCIL IRON. Weighs but 2 oz.

24S*	50	¼″	½ lb.
24S*	40	¼″	½ lb.
24S60*	60	¼″	½ lb.

*Standard equipment XTRADUR LONG-LIFE TIP

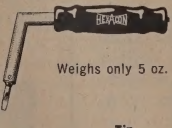
BANTAM HATCHET IRONS

PERFECT BALANCE
FOR INACCESSIBLE PLACES



Weighs only 3 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.
25H	25	⅛″	½ lb.
25H35	35	⅛″	½ lb.
25H50	50	⅛″	½ lb.
26H	30	3⁄16″	½ lb.
26H35	35	3⁄16″	½ lb.
26H50	50	3⁄16″	½ lb.
24H	50	¼″	½ lb.
24H40	40	¼″	½ lb.
24H60	60	¼″	½ lb.

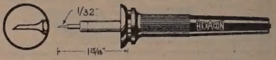


Weighs only 5 oz.

Cat. No.	Watts	Tip Dia.	Ship. Wt.
30H**	60	¼″	½ lb.
30H40**	40	¼″	½ lb.
30H50**	50	¼″	½ lb.
30H70**	70	¼″	½ lb.
30H75**	75	¼″	½ lb.

**Extra ⅛″ tip furnished with each iron.

HEXACON HORNET Model H10



WORLD'S SMALLEST INDUSTRIAL SOLDERING IRON
For Micro-Electronic Soldering

Cat. No. H10K Kit (Iron with 2 tips and TIP CLEANING SPONGE)
NOTE: The addition of Tip Cleaning Sponge is provided without any increase in cost.

Cat. No. H10 Iron less tip
Iron with 3-wire cord & NEMA plug available.

Cat. No. 91—Package of 12 Tip Cleaning Sponges in container for H10 Miniature Iron.

- Smallest Iron — Only 5⅞″
- Smallest Tip Diameter — 1⁄32″
- Shortest Distance from Work — 1 15⁄16″
- Lowest Wattage — 12 Watts
- Hot Tip Gets In and Out Fast
- No Damage To Insulation
- Fastest Working Temperature
- Lightweight

DUROTHERM
Non-Freezing Long-Life Tips
1/32″, 1/16″, 1/8″

Gets into tight places. Plastic handle, cooled thru ventilated design and concave stainless steel which reflects heat away from hand.

PINPOINT SOLDERING IRONS

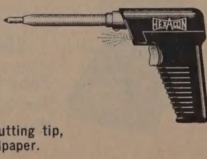
FOR PINPOINT ACCURACY
ON PRECISION SOLDERING
Long Reach 4½″ (Weigh Only 3 oz.)

Cat. No.	Watts	Tip Dia.	Ship. Wt.
P25	25	⅛″	½ lb.
P2530	30	⅛″	½ lb.
P2535	35	⅛″	½ lb.
P2550	50	⅛″	½ lb.
P26	30	3⁄16″	½ lb.
P2635	35	3⁄16″	½ lb.
P2640	40	3⁄16″	½ lb.
P2650	50	3⁄16″	½ lb.
P24	50	¼″	½ lb.
P2440	40	¼″	½ lb.
P2460	60	¼″	½ lb.
P30**	60	¼″	½ lb.
P3040**	40	¼″	½ lb.
P3050**	50	¼″	½ lb.
P3070**	70	¼″	½ lb.
P3075**	75	¼″	½ lb.

**Extra ⅛″ tip 'furnished with each iron.

INSTANT SOLDER GUNS

Solders in seconds. Weight only 8 oz., because it has no heavy, bulky transformer. Heat right in sturdy lifetime tip, which cannot bend or wear. Ideal for intermittant soldering. 120 volts, AC-DC, any cycle.



Model G14 150 watts has ¼″ tip.
Model G148 150 watts has ⅛″ tip.
Model G14K Kit has Model G14 solder gun, cutting tip, smoothing tip, core solder, sandpaper.

3-CONDUCTOR CORD (with ground wire)

Safe For Transistor Circuits

Ground wire contact screw standard equipment on all HEXACON Irons, facilitates a change-over to 3-conductor grounded cord at any time without returning irons to factory.

All irons are available factory equipped with 3-wire cord and 3-wire plug; or less plug with ends stripped ready for assembly to your own plug.

Also 3-wire cords with or without plug may be ordered separately for installation by user.

Unless otherwise specified 3-wire cord sets with moulded on plug will be furnished.

All standard 3-wire plugs available, to be attached to cord.

HEXACON ELECTRIC COMPANY • ROSELLE PARK, N. J.

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HEXACON LONG-LIFE SOLDERING TIPS
OUTLAST COPPER TIPS UP TO 20 TO 1

THE WORLD'S LEADING PRODUCER
OVER 1,000 SIZES AND SHAPES

MOST MODERN TIP COATING PLANT
400,000 TIPS CARRIED IN STOCK

ADVANTAGES No filing or costly tip changes because there is no pitting or erosion. Original shape is maintained. Tips always perform "like new"—deliver the same heat consistently for more uniform joints. Overall cost is greatly reduced.

IRON COATED

HEXCLAD—LAST UP TO 10 TIMES LONGER THAN COPPER TIPS

A heavy durable coating of Iron Alloy over copper base on all exposed surfaces. Inserted part also has a protective coating which is sufficiently thin so that good heat transfer to the tip is maintained.

IRON COATED AND IMMUNIZED

XTRADUR—LAST UP TO 20 TIMES LONGER THAN COPPER TIPS

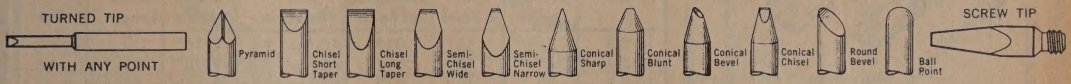
Mult-coated for extra long wear by a new exclusive process which immunizes shank of tip from solder, thus preventing adhering of solder, except on working surface at end of tip—prevents creeping of solder into tip hole and spilling of solder on components.

IRON COATED AND IMMUNIZED

DUROTHERM (PAT. PENDING) Non-Freezing Tips

For HI-TEMPERATURE Irons, Anti-corrosion design absolutely prevents tips from sticking. The most wear-resistant yet developed. No need to remove tips daily to prevent sticking. Minimum heat delivery loss. Have XTRADUR multi-coated, immunized features.

BASIC TIP SHAPES—YOUR SPECIAL TIPS QUOTED ON REQUEST—FIT ALL MAKES



HEXCLAD, XTRADUR AND DUROTHERM TIPS AVAILABLE IN ALL CATALOG NUMBERS LISTED BELOW

DIMENSIONS	STYLE OF POINT	TIP NO.
1/8" x 2¼" Fit Iron Nos. 25S, P25, 25H	Pyramid	HT248D
	Chisel, short	HT249D
	Chisel, long	HT376D
	Semi-chisel	HT560D
	Conical, blunt	HT222D
	Conical, sharp	HT331D
	Round. bevel	HT638D
	Chisel, TT 1/16"	HT361D
	R. B., TT 1/16"	HT693D
	R. B., TT 1/32	HT104D
	Conical, bent	HT221D
	RB, groove	HT555D
3/16" x 2¼" Fit Iron Nos. 26S, P26, 26H	Pyramid	HT251D
	Chisel, short	HT294D
	Chisel, long	HT195D
	Semi-chisel, N	HT207D
	Semi-chisel, W	HT190D
	Conical, blunt	HT214D
	Conical, sharp	HT281D
	Pyramid, TT ⅛"	HT288D
	Chisel, TT ⅛"	HT290D
	S-Chisel, N, TT ⅛"	HT548D
	Conical TT ⅛"	HT479D
	R.B., TT 1/16"	HT220D
¼" x 2¼" Fit Iron Nos. 24S, P24, 24H	Pyramid	HT325D
	Chisel, short	HT553D
	Semi-chisel, W	HT313D
	Semi-chisel, M	HT397D
	Semi-chisel, N	HT417D
	Conical, blunt	HT418D
	Round. bevel	HT102D
	Conical, S-chisel	HT586D
	Chisel, TT 1/16"	HT691D
	S-cnis, Lg, TT ⅛"	HT699D
	Chisel, L, TT ⅛"	HT451D
	Chisel, S, TT ⅛"	HT324D
	Conical, TT ⅛"	HT513D
	Chisel, L, TT 3/16"	HT463D
	S-chis, N, TT ⅛"	HT841D
	Chisel, L, TT ⅛"	HT692D
	S-chis, ⅜" Shank	HT552D
¼" x 2¾" Fit Iron Nos. P30, 30H	Pyramid	HT252D
	Chisel, short	HT253D
	S-chisel, Wide	HT202D
	S-chisel, N	HT426D
	Conical, sharp	HT131D
	Pyramid, TT ⅛"	HT263D
	Chisel, Sh, TT ⅛"	HT264D
	Chisel, M, TT ⅛"	HT356D
	Chisel, Lg, TT ⅛"	HT685D
	Conical, TT ⅛"	HT452D
	Conical, TT 3/16"	HT580D
	Chisel, TT 3/16"	HT473D
	Round, bevel	HT130D
¼" x 3" Extra long for P30, 30H Also for competitive makes	Chisel, long	HT468D
	Semi-chisel, W	HT299D
	Semi-chisel, N	HT328D
	S-chisel, N, Lg	HT708D
	Conical, bevel	HT453D
	Chisel, Lg, TT 5/32"	HT234D
	Chisel, Lg, TT ⅛"	HT487D
	Chisel, Lg. TT ⅛"	HT519D
	Conical groove	HT362D
¼" x 3¾" Extra long for P30, 30H; also for competitive makes	Pyramid, long	HT563D
	Chisel, long	HT188D
	Semi-chisel, W	HT382D
	Conical, blunt	HT414D
	Pyramid, TT ⅛"	HT626D
	S-chis, TT ⅛"	HT698D
	Chisel, Lg, TT ⅛"	HT603D
	Semi-chisel, N	HT391D
	Chisel, Lg, TT 3/16"	HT277D
¼" x 4" Fit Irons P114, P154, P214	Chisel, long	HT496D
	Semi-chisel, N	HT494D
	Chisel, Lg, TT 3/16"	HT495D
¼" x 4½" Fit Irons P114, P154, P214	Pyramid	HT258D
	Chisel, short	HT259D
	Semi-chisel, W	HT230D
	Conical, bevel	HT460D
⅜" x 4 9/16" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H	Pyramid	HT255D
	Chisel, short	HT493D
	Chisel, long	HT151D
	Semi-chisel, W	HT231D
	Semi-chisel, N	HT183D
	Conical, sharp	HT108D
	Conical, blunt, Sm	HT114D
	Conical, blunt, M	HT240D
	Conical, blunt, L	HT245D
	Semi-chisel, W	HT374D
	Pyramid, TT ¼"	HT265D
	Chisel, Sh, TT ¼"	HT266D
	Chisel, Lg, TT ¼"	HT335D
	S-chis, W, TT ¼"	HT177D
	S-chis, N, TT ¼"	HT577D
	Chisel, Sh, TT 3/16"	HT145D
	S-chis, N, TT 3/16"	HT475D
	Pyramid, TT ⅛"	HT289D
	S-chisel, bent	HT528D
⅜" x 4" Fit Iron Nos. P100, P150, P238, P338, 100H, 150H; Extra long for P70, 70H; Also other makes	Pyramid	HT566D
	Chisel, short	HT198D
	S-chis, Sh, M	HT918D
	Semi-chisel, thin	HT365D
	S-chis, Lg, N	HT370D
	Semi-chisel, W	HT140D
	Round, bevel	HT430D
	S-chis, N, TT ¼"	HT319D
	Chisel, N, Sh, TT ⅛"	HT481D
⅜" x 3¾" Fit Iron Nos. P70, 70H; Also fit other makes	Pyramid	HT254D
	Chisel, short	HT488D
	Semi-chisel, W	HT129D
	Conical, sharp	HT510D
	Conical, blunt	HT309D
	Conical, S-chis	HT458D
	Ball Point	HT529D
	S-chis, N, TT ¼"	HT339D
	Chisel, Sh, TT ¼"	HT581D
	Chisel, Lg, TT ¼"	HT498D
	S-chis, W, TT ¼"	HT291D
	Chisel, Lg, TT 3/16"	HT497D
½" x 4 9/16" Fit Iron Nos. P151, P212, P151H	Pyramid	HT257D
	Chisel, short	HT293D
	Chisel, short, blunt	HT323D
	Semi-chisel, N	HT163D
	Semi-chisel, thin	HT194D
	S-chis, Lg,Taper	HT444D
	Conical, blunt	HT203D
	S-chis, Lg, Taper	HT446D
	S-chis, N, TT ⅜"	HT123D
⅝" x 4" Fit Iron Nos. P125, P200, 200H, P250	Pyramid	HT256D
	Chisel, long	HT891D
	Semi-chisel, W	HT178D
⅝" x 4 9/16" Fit Iron Nos. P125, P200, 200H, P250	Pyramid	HT260D
	Chisel, long	HT499D
	Semi-chisel, N	HT371D
	Semi-chisel	HT180D
	Conical, blunt	HT209D
	S-chis, TT ⅜"	HT802D
	Chisel, TT 1/16"	HT766D
	Pyramid, TT ⅜"	HT539D
⅞" x 4¾" Fit Iron Nos. P300, 300H	Chisel, short	HT261D
	Semi-chisel, W	HT179D
1⅛" x 5¼" Fits No. 500	Chisel	HT262X
	Semi-chisel	HT229X
	Pyramid	HT233X

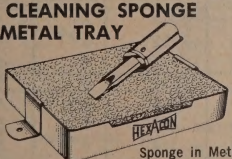
SCREW TIPS
All Conventional Semi-chisel Types

DIA.	THREAD	Fits HEXACON Iron No.	TIP NO.
7/16"	¼-20	50	HT267X
½"	5/16-18	60 and 85	HT268X
⅝"	5/16-18	120	HT269X
⅞"	½-13	130	HT270X
1"	½-13	170	HT271X
1⅛"	⅝-11	225	HT272X
1⅜"	⅝-11	350	HT273X
1⅝"	⅝-11	500	HT274X
1¾"	⅝-11	700	HT275X

CATALOG NOS. shown are for **DUROTHERM**. For **HEXCLAD** drop "D"; for **XTRADUR** substitute "X" for "D".
ABBREVIATIONS: TT, Turned to; S-chis, Semi-chisel; W, Wide; N, Narrow; Lg, Long; Sh, Short; L, Large; M, Medium; Sm, Small; RB, Round Bevel.
SAMPLE TIPS for your evaluation. Ask for new Tip Sketch Catalog with detailed sketches of 180 Standard Coated Tips.

SOLDERING ACCESSORIES

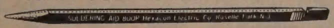
TIP CLEANING SPONGE IN METAL TRAY



Sponge in Metal Tray	#810
Sponge only	#8101
Tray only	#8102

Insures reliability of soldered joints and extends tip life. Eliminates contamination caused by wiping rags. Pure cellulose sponge contains no harmful acids.

FIBRE SOLDER AID No. 800P


SOLDERING AID 800P Hexacon Electric Co. Roselle Park N.J.

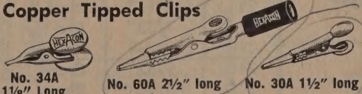
For inspecting, probing, unsoldering and assembly of printed circuits and other components. Non-conductive. Eliminates scratched circuit boards and broken wire strands.

ANTI-WICKING TWEEZERS
Copper Tipped for Wires

Gauge 17	#817	16-17-18
Gauge 21	#821	20-21-22
Gauge 25	#825	24-25-26
Gauge 30	#830	28-29-30

Prevents harmful effects of excess capillary action of solder along stranded wire beneath insulation. Order tool number by wire size being used.

HEAT SINKS
Copper Tipped Clips



No. 34A 1⅛" Long
No. 60A 2½" long
No. 30A 1½" long

Protect heat sensitive components such as transistors and diodes from thermal damage.

SCREW TIPS FOR HORNET IRON No. H10
⅝" Long

DUROTHERM TIPS

Point Style	Point	Dia.	Tip No.
Round bevel	1/32	1/32	HT866D
Ball point	1/32	1/32	HT867D
Round bevel	1/16	1/16	HT868D
Chisel	1/16 x 1/64	1/16	HT869D

XTRADUR TIPS

Point Style	Point	Dia.	Tip No.
Round bevel	⅛	⅛	HT864X
Semi-chisel	1/16 x 1/32	⅛	HT870X
Chisel	⅛ x 1/32	⅛	HT871X
Conical	1/32	⅛	HT873X

HEXACON ELECTRIC COMPANY • ROSELLE PARK, N. J.

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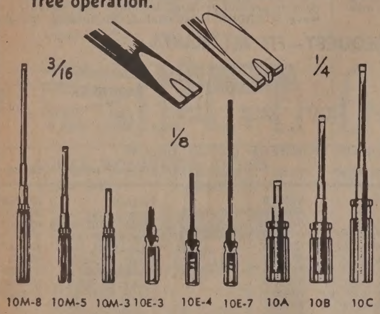
ELECTRONIC TOOLS

HUNTER TOOLS
...the name to watch

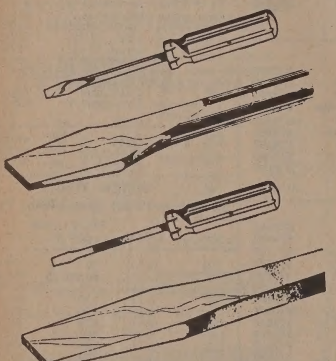
MAGIC-TIPS

One tool starts the screw and drives it. To operate one merely places the tip of the Magic-Tip in the slot of the screw and pushes gently . . . the screw becomes firmly fastened to the blade—easy to start even in places inaccessible to the fingers. No bulky claws to get in the way because the mechanism is internal and fully automatic. Hardened steel locking pin, tough chromoly steel tip, plus sturdy OVER ALL construction assures long trouble-free operation.



Stock #	Overall Length	Width of Point	Thickness of Point	Slot Fits Screw	Diam. Handle	Blade Length	List
10 E-3	2½"	⅛"	.017	#00 to #2	9/16"	1"	$2.56
10 E-4	4"	⅛"	.017	#00 to #2	9/16"	2¼"	2.56
10 E-7	7"	⅛"	.017	#00 to #2	9/16"	5¼"	2.84
10 M-3	3½"	3/16"	.030	#3 to #6	9/16"	½"	2.04
10 M-5	5¼"	3/16"	.030	#3 to #6	9/16"	2¾"	2.32
10 M-8	8¼"	3/16"	.030	#3 to #6	9/16"	4¾"	2.70
10 M-12	11¼"	3/16"	.030	#3 to #6	9/16"	7½"	3.10
10 A	4"	¼"	.038	#6 to #10	⅞"	¾"	2.29
10 B	6¼"	¼"	.040	#7 to #10	⅞"	3¼"	2.60
10 C	7½"	¼"	.040	#7 to #10	⅞"	3¾"	2.88
10 D	11¼"	¼"	.040	#7 to #10	⅞"	7"	3.16

SCREWDRIVERS



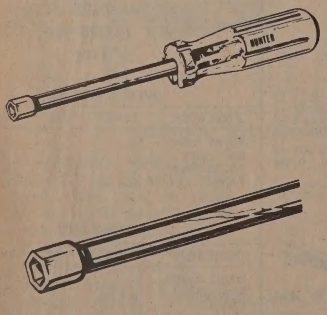
Round Blades

Stock #	Blade Size	List
14	1/8" x 2"	$ .46
14A	1/8" x 3"	.48
14B	3/16" x 4"	.92
14C	3/16" x 6"	.92
14D	3/16" x 8"	1.10
14E	3/16" x 10"	1.14
14F	1/4" x 1¼"	.84
14G	1/4" x 4"	1.04
14H	1/4" x 6"	1.12
14I	1/4" x 8"	1.20
14J	#1 Recess	1.04
14K	#2 Recess	1.10
14L	#3 Recess	1.38
14M	#0 Phillips	1.04
14N	#1 Phillips	1.10
14P	#2 Phillips	1.38

Square Blades

Stock #	Blade Size	List
15	1/8" x 2"	$ .70
15A	1/8" x 3½"	.86
15B	1/8" x 5½"	.78
15C	3/16" x 2"	1.12
15D	3/16" x 4"	1.14
15E	3/16" x 6"	1.22
15F	3/16" x 8"	1.38
15G	1/4" x 1½"	1.22
15H	1/4" x 4"	1.34
15I	1/4" x 6"	1.42
15J	1/4" x 8"	1.62
15K	1/4" x 10"	1.72
15L	5/16" x 4½"	1.72
15N	5/16" x 8½"	1.94
15P	3/8" x 6½"	2.14
15Q	3/8" x 10"	2.24
15M	5/16" x 6½"	1.84

NUTDRIVERS



Regular Shaft

Stock #	Hexagon Size	Color	List
20	3/16"	Black	$1.04
20A	7/32"	Red	1.04
20B	1/4"	Yellow	1.04
20C	9/32"	Green	1.04
20D	5/16"	Blue	1.04
20E	11/32"	Brown	1.04
20F	3/8"	Orange	1.04

Hollow Shaft

Stock #	Hexagon Size	Color	List
21	3/16"	Black	1.20
21A	7/32"	Red	1.20
21B	1/4"	Yellow	1.20
21C	9/32"	Green	1.20
21D	5/16"	Blue	1.20
21E	11/32"	Brown	1.20
21F	3/8"	Orange	1.20

Economy Champ Nut Drivers

Stock #	Hex Size	Overall	List
23	3/16"	6"	$ .90
23A	7/32"	6"	.90
23B	1/4"	6"	.90
23C	9/32"	6"	.90
23D	5/16"	6"	.90
23E	11/32"	6"	.90
23F	3/8"	6"	.90

Pocket Nut Driver

Only 3½" overall in size — fits your shirt pocket. Has handy clip.

Stock #	Size	List
22	1/4"	$ .70
22A	3/16"	.70
22B	5/32"	.70

Trade Discount Applies To List Prices Only

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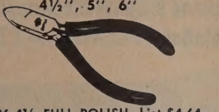
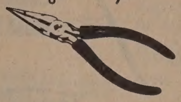
PART OF AMERICA'S MOST COMPLETE LINE

DIAGONAL CUTTING
4½", 5", 6"



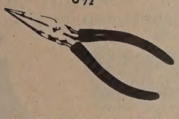
A96-4½ FULL POLISH—List $4.64
A96-5 FULL POLISH—List 4.84
A96-6 FULL POLISH—List 5.44

LONG CHAIN NOSE W/CUTTER
6" 7"



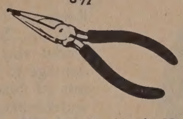
A61-6 FULL POLISH—List $5.96
A61-7 FULL POLISH—List 5.96

LONG CHAIN NOSE
6½"



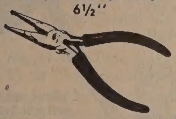
A8 FULL POLISH—List $4.60

RADIO AND IGNITION
6½"



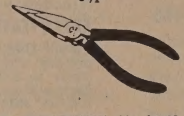
A2 FULL POLISH—List $6.32

TRANSVERSE FLUSH END-CUTTING WITH LEAF SPRING
6½"



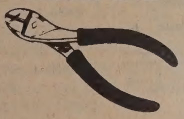
A7L FULL POLISH—List $6.32

LONG REACH FLAT NOSE
6½"



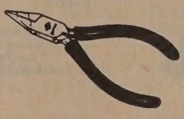
A9 FULL POLISH—List $4.48

DIAGONAL CUTTER



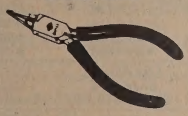
Stock #A87-4½—List $6.20

CHAIN NOSE



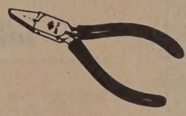
Stock #A17-4½—List $3.38

ROUND NOSE



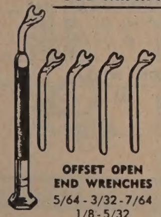
Stock #A16-4½—List $3.90

FLAT NOSE



Stock #A15-4½—List $3.38

SUB-MINIATURE TOOLS

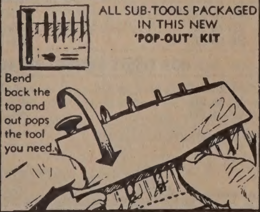


OFFSET OPEN END WRENCHES
5/64 - 3/32 - 7/64
1/8 - 5/32

In New 'Pop-Out' Kit

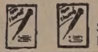
Stock #	List
K24	$2.50

ALL SUB-TOOLS PACKAGED IN THIS NEW **'POP-OUT' KIT**

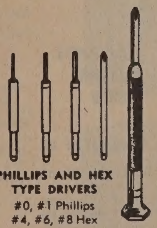


Bend back the top and out pops the tool you need.

Individual Carded Screwdrivers



	Stock #	List
SMALL	24N	$ .84
FINE	24P	.84



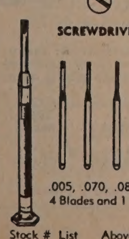
PHILLIPS AND HEX TYPE DRIVERS
#0, #1 Phillips
#4, #6, #8 Hex

⊕ ●

In New 'Pop Out' Kit

Stock #	List
K24A	$2.50

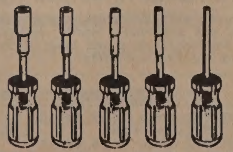
SCREWDRIVERS



.005, .070, .080, .100
4 Blades and 1 Handle

Stock #	List	
K24B	$1.98	Above in Pop-up Kits

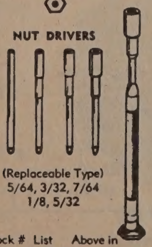
NUT DRIVERS WITH HANDLES



Stock #	Size	Stock #	Size
24C	5/64	**24F**	1/8
24D	3/32	**24G**	5/32
24E	7/64	**24H**	Set

Card of one complete set—**24H**—List $4.50

NUT DRIVERS

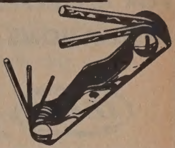


(Replaceable Type)
5/64, 3/32, 7/64
1/8, 5/32

Stock #	List	
K24I—$3.50		Pop-up Kits

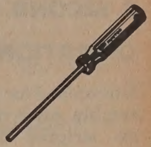
SPECIALTY NUMBERS!!!

"SMITTY" FOLDING SOCKETHEAD WRENCH SETS



IP6—Small set .050-5/32"
6 Blades, List **$1.55**
IP5—Medium Set 3/32" - 7/32"
5 Blades, List **$1.55**
1P7—List $1.60

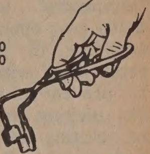
HEX DRIVERS



Stock #	Size	List
5	—.050	$ .72
5A	—1/16	.72
5B	—5/64	.76
5C	—3/32	.88
5D	—1/8	.92

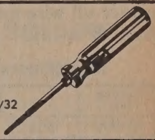
K5N—All of the above kit—$5.80

HOT TUBE PULLERS



Stock #		
57A	—90° Angle	List $2.00
57	—Straight	List 1.90

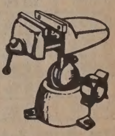
"TRI-TAP"



Three Popular Size Taps in One Tool

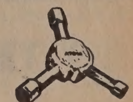
47A — List $2.50
6/32, 8/32, 10/32

PANAVISE



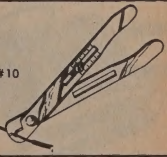
Height 6½", Width 5½", Jaw Width 2½", Opening 2"
62 —List $19.96

ATOM
3-IN-1 NUT DRIVER



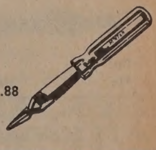
#8 (¼) - #10 (5/16) - #12 (3/8)
55 —List $1.80

"WIRE-STRIPPER"



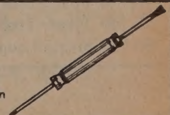
Strip-It for any size wire from #10 to #20.
55A List $1.16

TENSION-TWEEZIE



Permanent tension.
56 —Tweezie Only List $ .50
56A—Tweezie with Handle List .88

SOLDER-AID TOOLS
FORK and BRUSH



51A—List $1.20—Shown.
51 —List $1.20—Same as above only small curved hook in place of brush.

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Trade Discount Applies To List Prices Only

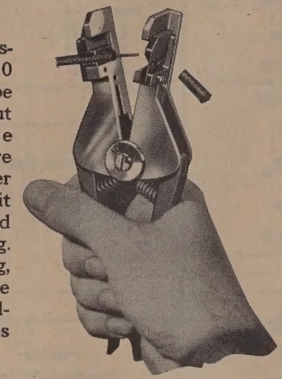
IDEAL WIRE STRIPPERS

FOR ALL TYPES OF THERMO-PLASTIC INSULATIONS . . . EVEN TOUGH TEFLON*

IDEAL Wire Strippers, both hand and production models, are engineered with unique design features that speed up and simplify the stripping of most types of insulation.

IDEAL Stripmaster®

2 SECOND "ONE SQUEEZE" OPERATION



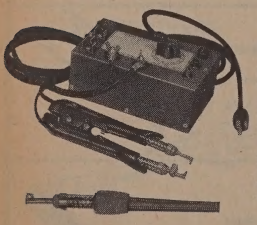
Unexcelled for fast assembly work, this 10 oz. stripper can be used all day without fatigue. Exclusive "automatic" feature holds jaws open after stripping to permit removal of wire and to prevent crushing. No nicking, fraying, or cutting of wire ends possible. 7 models for all wire gauges from 8 to 30.

MODELS FOR ALL WIRE GAUGES — FROM 8 TO 30

Catalog No.	Wire Gauge	No. of Holes	List Price◆	Suggested Resale
45-090	8 to 12	3	$9.60	$5.75
45-091	10 to 18	4	9.60	5.75
45-092	10 to 22	6	9.60	5.75
45-093	14 to 22	4	9.60	5.75
*45-095	16 or 18, and POSJ	-	9.60	5.75
45-097	16 to 26	6	9.60	5.75
45-098	20 to 30	6	9.60	5.75

***Also strips 2 and 3-conductor low-voltage wire used in G.E. and Touchplate remote control wiring systems.**

New THERMO-STRIP • CANNOT HARM WIRE



Damage-Free Removal of All Thermo-Plastic Insulation—Even Teflon*

For critical stripping where *no* wire damage is permissible. Melts and removes insulation without nicking, cutting or scraping wire. Choice of tools: plier-type Pincer Tool for all normal production use; probe-type Single Loop Tool for miniaturized or crowded assemblies. Heavy-duty power unit can be run continuously, has infinitely variable heat control, heats elements immediately.

Cat. No.	Item	List Price	Sugg. Resale
45-130	Pincer Tool & Power Unit	$112.00	$67.20
45-131	Single Loop Tool & Power Unit	93.35	56.00
45-133	Power Unit Only	75.75	45.45
45-140	Pincer Tool Only	36.15	21.70
45-141	Single Loop Tool Only	17.50	10.50

IDEAL CUSTOM Stripmaster®

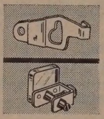
Patented No. 2,889,728

FOR PRECISION WIRE STRIPPING

Shown with optional Stop Latch (1) and Wire Stop (2)

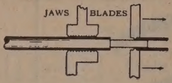
Removes Teflon* and other hard-to-strip insulation. New "concentric hole" stripping blades and special design of jaws prevent damage to insulation and wires. Matched sets of blades are precision drilled on watchmaker's equipment to exact wire sizes. Chucking action on insulation guides conductor through stripping hole, preventing nicks and scrapes. 3 models, wire sizes from 10 to 30.

EXTRA FEATURES (optional)



"SHORT-STOP" LATCH protects wire by limiting stroke to 5/32" — disengages without removal for full 7/8" strip.

"SEE-THRU" WIRE STOP assures uniform lengths by adjusting to strip length desired.



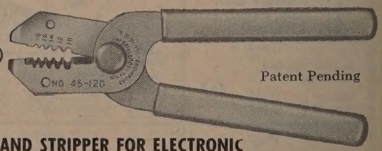
Counterbored stripping hole "chucks" insulation

FOR GENERAL PURPOSE STRIPPING OF PLASTIC, FIBRE GLASS AND OTHER HARD-TO-STRIP INSULATIONS

WIRE GAUGE	NO. OF HOLES	CATALOG NO. (without stop latch and wire-stop)	CATALOG NO. (with stop latch and wire-stop)
		List $28.25 Suggested Resale $16.95	List $34.60 Suggested Resale $20.75
10 to 14	3	45-170	45-180
16 to 26	6	45-171	45-181
26 to 30	3	45-172	45-182
FOR TYPE EE — 1000 VOLT TEFLON* WIRE			
10 to 14	3	45-173	45-183
16 to 26	6	45-174	45-184
26 to 30	3	45-175	45-185
FOR TYPE E — 600 VOLT TEFLON* WIRE			
10 to 14	3	45-176	45-186
16 to 26	6	45-177	45-187
26 to 30	3	45-178	45-188

*Reg. Trademark of DuPont

IDEAL



Patent Pending

LOW COST HAND STRIPPER FOR ELECTRONIC AND APPLIANCE PRODUCTION STRIPPING

For quick, easy, clean stripping of wires used in electronic instruments and appliances. Sturdy, compact, constructed of hardened steel for rugged duty and long service. Comfortable plastic grips for sure handling and safety.

	Cat. No.	List	Sugg. Resale
T-5 MODEL, strips 10, 12, 14, 16 and 18 gauge wires	45-120	$3.25	$1.95
T-6 MODEL, strips 16, 18, 20, 22, 24 and 26 gauge wires	45-121	$3.25	$1.95

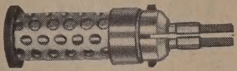
IDEAL INDUSTRIES Inc., Sycamore, Illinois

RESISTANCE SOLDERING TOOLS IDEAL

COMPLETE THERMO-TIP ATTACHMENTS AND POWER UNITS

"Pencil" Type attachment with double metal electrodes. "Feed-thru" electrodes, adjustable for length.

Cat. No. 12-167 with double metal electrodes. List Price $18.35 ◆ Suggested Resale $11.00.



DOUBLE CARBON ATTACHMENTS

Carbons provide more heat than metal tips. Available in two sizes — 1/8" for small work, 3/16" for larger work.

Cat. No. 12-166 Pencil Grip with 1/8" carbons. List Price $18.35 ◆ Suggested Resale $11.00.

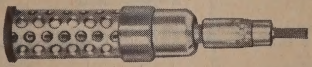
Cat. No. 12-165, Pencil Grip with 3/16" carbons. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-176 Pistol Grip with 1/8" carbons. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-175 Pistol Grip with 3/16" carbons. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. L-4866 3/16" dia. replacement carbons for **12-165** and **12-175**, six per pkg. Shipping wt., 2 oz. List Price $2.10 ◆ Suggested Resale $1.25.

Cat. No. L-4848 1/8" dia. replacement carbons for **12-166** and **12-176**, six per pkg. Shipping wt., 2 oz. List Price $1.15 ◆ Suggested Resale $.70.



SINGLE CARBON ATTACHMENTS

Collet chuck holds feed-thru carbon. Permits adjustment. Complete with ground-clamp and lead assembly for jig-soldering.

Cat. No. 12-168 Pencil grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-178 Pistol grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. L-5202 Replacement Carbons 1/8"x3" for **12-168** and **12-178**, packaged 6 per tube. Shipping wt., 2 oz. List Price $3.90 ◆ Suggested Resale $2.35.

FOOT SWITCH **Cat. No. 12-146**

List Price $11.90 ◆ Suggested Resale $7.15

Used to eliminate arcing at point of electrode contact. Also permits the use of electrodes to position or hold work after heat has been applied. Small and convenient to use (3⅝" dia. x 1⅛" high). Wired normally open (with series plug). Rated 5 amps., 115V. Shipping Wt., 12 oz.

CHISEL TIP IRONS

Cat. No. 12-151 Handle and Lead Assembly. List Price $7.75 ◆ Suggested Resale $4.65.

Cat. No. 12-144 1/4" Chisel-Tip. List Price $12.75 ◆ Suggested Resale $7.65.

Cat. No. 12-143 — 1/8" Chisel-Tip. List Price $12.75 ◆ Suggested Resale $7.65.

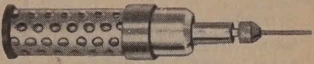
Rapid heating characteristics and corrosion-resistant special plating provide long life. Irons are locked into handle with set screws. Resistance element in the iron provides continuous, controlled heat.

NOTE: Handle assembly and Irons are sold separately.

Lightweight, Resistance Soldering Tools especially designed for faster, positive production soldering of miniature and subminiature parts. All attachments available with either "Pencil" or "Pistol-Grip" type handles. Complete with 5' cord. Soldering Irons with "Pencil" type handle only.

"Pistol-Grip" attachment. Double metal electrodes are feed-thru type, adjustable for length.

Cat. No. 12-177 with double metal electrodes. List Price $23.65 ◆ Suggested Resale $14.20.



SINGLE METAL ATTACHMENT

Collet chuck holds feed-thru electrode. For smallest work. Complete with ground clamp and lead assembly for jig-soldering.

Cat. No.12-169 Pencil grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. 12-179 Pistol grip. List Price $18.35 ◆ Suggested Resale $11.00.

Cat. No. L-5241 Replacement Electrodes for **12-169** and **12-179**, packaged 6 per tube. Shipping wt., 2 oz. List Price $.90 ◆ Suggested Resale $.55.

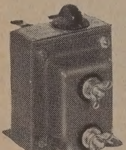
REPLACEMENT CARBON HOLDERS

Cat. No. L-5246 — 3/16" Dia. List Price $1.15 ◆ Suggested Resale $.70.

Cat. No. L-5247 — 1/8" Dia. List Price $.60 ◆ Suggested Resale $.35.

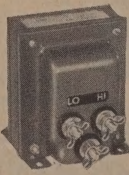
Provides easy replacement of only part attacked by corrosive fluxes. Holders can be used interchangeably with either the 12-165, 12-166, 12-175 or 12-176, depending on diameter of carbons desired.

POWER UNITS



125-Watt Power Unit. **Cat. No. 12-124**
List Price $31.85 ◆ Sug. Resale $19.10

For light production and intermittent work. Selector switch for choice of three heats. Complete with power cord and clip for holding pencil style attachments. 115V — 60 cy.



250-Watt Power Unit. **Cat. No. 12-123**
List Price $46.15 ◆ Sug. Resale $27.70

For heavier production work. Faster. Handles larger components than 12-124. Choice of two heats through "high" and "low" secondary connections. Complete wih power cord. 115V — 60 cy.

IDEAL
THERMO-TIP POWER UNIT

500-Watt Power Unit
Cat. No. 12-163
List Price $76.00
Suggested Resale $45.60

For continuous production work. Widest selection of heats — nine choices through 3-position selector switch plus "high", "medium" and "low" secondary terminals. Complete with power cord and pilot light. 115V — 60 cy.

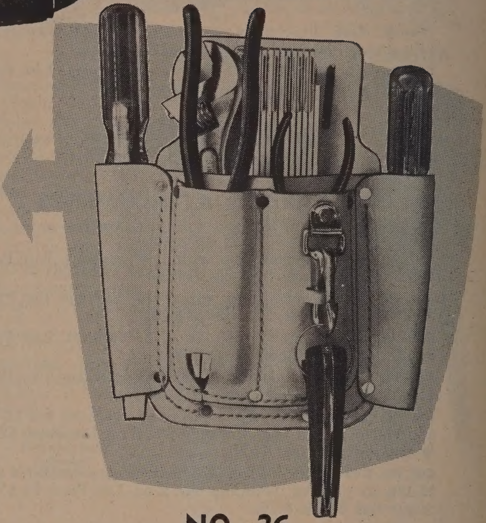
IDEAL INDUSTRIES, Inc. Sycamore, Illinois

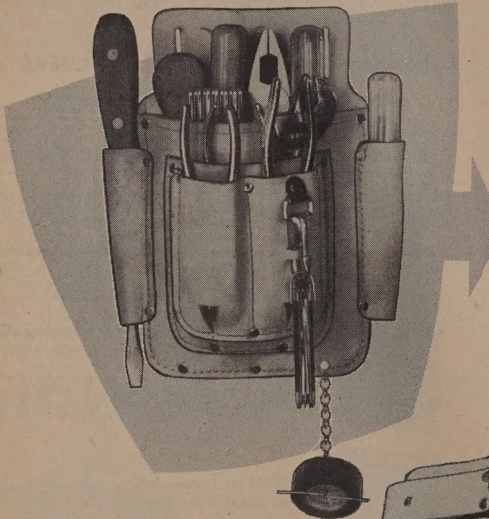
INDUSTRIAL SAFETY BELT CORPORATION

NO. 25
ELECTRICIAN HOLSTERS
5 POCKETS

Stitched with seven cord top quality linen hot wax thread, locked to solid leather back with steel rivets. Pockets made of pliable form fitting Russet Leather.
Special designed snap allows knife to be removed by use of a one hand upward motion. Overall dimensions are: 8 x 9 inches.

No. 25 (Without Tools) **List Price $5.00 each**

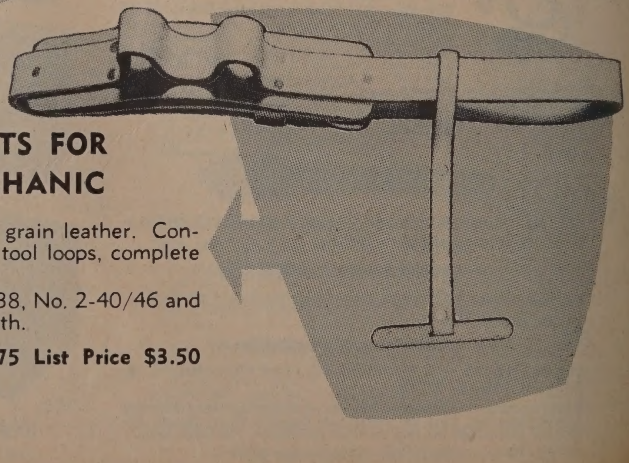




NO. 26
EXTRA LARGE TOOL HOLSTER

Carry all your tools in one . . . 6 pockets, reinforced at 20 points, with steel rivets. Specially Tanned Top Grain Russet Leather, Weighs Only 14 ounces.
Special designed knife snap. Stitched with top quality seven cord, hot wax linen lock-stitch thread. Six pockets.

No. 26 (Without Tools) **List Price $7.50 each**



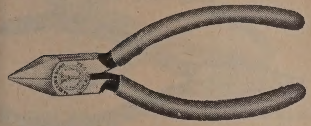
NO. 175 TOOL BELTS FOR ELECTRICIAN - MECHANIC

Made of extra heavy superb grade full grain leather. Consists of body pad for comfort, and two tool loops, complete with tape holder.
Belt available in three sizes: No. 1-30/38, No. 2-40/46 and No. 3-46/52. Body belt is 1¼" width.

No. 175 List Price $3.50

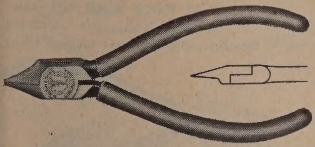
Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
INCORPORATED
CHICAGO 45, ILLINOIS

OBLIQUE CUTTING PLIER
Lightweight Pointed Nose
Flush Cutting



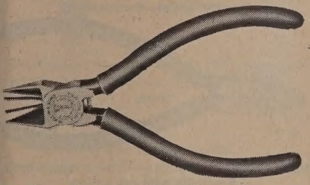
No. D209-4 Handles red plastisol covered
No. D209-4 Size 4³⁄₁₆ in.
No. 209-5 Size 5 in.
Available with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting
Handles red plastisol covered



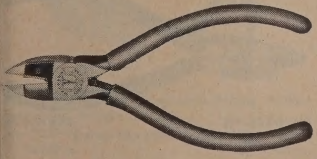
No. D219-4 Size 4³⁄₁₆ in.
No. D219-5 Size 5 in.
Available with coil spring

WIRE GRIPPING OBLIQUE CUTTER
Flush Cutting
Pat. No. 2,938,266
Handles red plastisol covered



No. D229-4C Size 4³⁄₁₆ in.
No. D229-5C Size 5 in.
Supplied with coil spring

OBLIQUE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles red plastisol covered

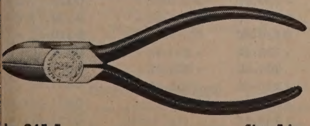


No. D207-5C Size 5½ in.
077-K Replacement Blade
Supplied with coil spring

OBLIQUE CUTTING PLIER
Flush Cutting

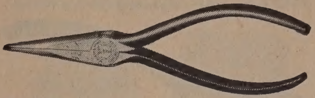
o. 210-5 Size 5½ in.
o. 210-6 Size 6¹⁄₁₆ in.
Available with coil spring

OBLIQUE CUTTING PLIER



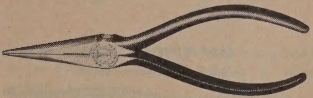
o. 245-5 Size 5 in.
Available with coil spring

LONG NOSE PLIER



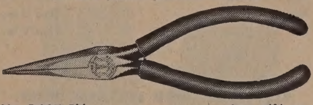
No. 301-5 Size 5⁹⁄₁₆ in.
No. 301-6 Size 6⅝ in.
No. 301-7 Size 7⅛ in.
Available with coil spring

LONG NOSE SIDE CUTTING PLIER



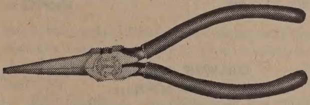
No. 203-5 Size 5⁹⁄₁₆ in.
No. 203-6 Size 6⅝ in.
No. 203-7 Size 7⅛ in.
Available with coil spring

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



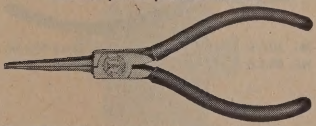
No. D307-5½ Size 5¹³⁄₁₆ in.
Available with coil spring
No. D221-5½C with side cutting knives (¹⁄₃₂″ point) Size 5¹³⁄₁₆ in.
Supplied with coil spring.

SLIM LONG NOSE PLIER
Handles yellow plastisol covered



No. D310-6 Size 6⅝ in.
Available with coil spring

LONG NEEDLE NOSE PLIER
Handles yellow plastisol covered

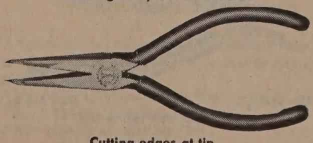


No. D318-5½ Size 5²⁵⁄₃₂ in.
Available with coil spring.

LONG NOSE PLIER, KNIFE AT POINT
Handles yellow plastisol covered

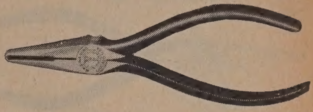
No. D301-6P Size 6⅝ in.
No. D317-6P Size 6 in.
Available with coil spring

END CUTTING TRIMMER PLIER
Handles green plastisol covered



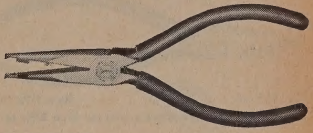
Cutting edges at tip set at 45° angle.
Supplied with coil spring
No. D211-6C Size 6½ in.

TRANSVERSE END CUTTING PLIER



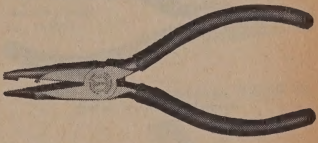
No. 204-6 Size 6¼ in.
Available with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,724
Handles yellow plastisol covered



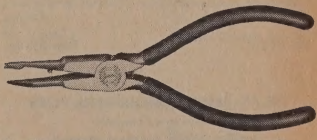
No. D208-6PC Size 6⅝ in.
Supplied with coil spring

ALL-PURPOSE ELECTRONIC PLIER
Pat. No. 2,903,790
Semi-Flush Cutting
Handles yellow plastisol covered



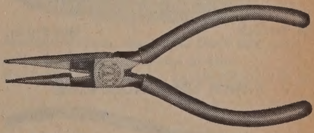
No. D260-6C Size 6⅜ in.
Supplied with coil spring

NEEDLE NOSE ELECTRONIC PLIER
Pat. No. 2,903,790
Semi-Flush Cutting
Handles yellow plastisol covered



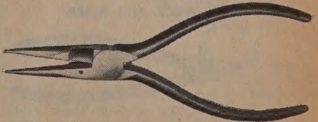
No. D261-6C Size 6¾ in.
Supplied with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,810
Handles yellow plastisol covered



No. D208-6C Size 6⅝ in.
078-K Replacement Blade
Supplied with coil spring

LONG NOSE SHEAR CUTTING PLIER
Pat. No. 2,848,724



No. 208-6NC Size 6⅝ in.
078-K Replacement Blade
Supplied with coil spring

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Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
INCORPORATED
CHICAGO 45, ILLINOIS

DUCK BILL PLIER

Inside jaws smooth

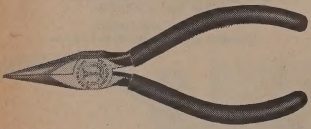
No. 304-6 Size 6½ in.
No. 205-6 with side cutting knives Size 6½ in.

CHAIN NOSE PLIER

No. 317-6 Size 5¹⁵⁄₁₆ in
No. 217-6 with side cutting knives Size 5¹⁵⁄₁₆ in.

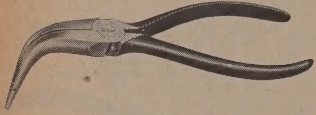
CHAIN NOSE PLIER

Handles yellow plastisol covered



No. D317-5 Size 5¼ in.
Available with coil spring

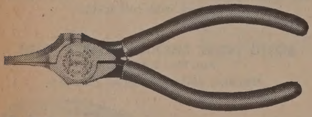
CURVED NOSE PLIER



No. 302-6 Size 6¼ in.

RELAY SPRING ADJUSTING PLIER

Inside jaws smooth
Handles yellow plastisol covered



No. D325-5 Size 5¹⁄₁₆ in.

8-INCH LONG NOSE PLIER

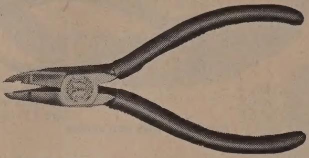
No. 314-8 with knurl Size 8 in.

8-INCH DUCK BILL PLIER

No. 315-8 with knurl Size 8 in.
No. 312-8 without knurl Size 8 in.

SPECIAL SKINNING PLIER

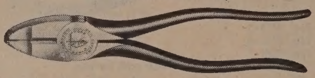
Handles red plastisol covered



No. D317-5P Size 5¼ in.

SIDE CUTTING PLIER

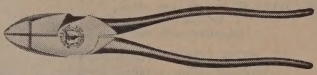
NE Type (Streamlined)



No. 201-5NE Size 5 in.
No. 201-6NE Size 6 in.
No. 201-7NE Size 7 in.
No. 201-8NE Size 8 in.
No. 201-9NE Size 9 in.

KLEIN KUT* HIGH LEVERAGE PLIER

Pat. No. 2,746,145



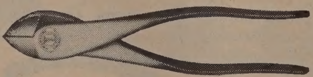
No. 213-9NE Size 9¼ in.

OBLIQUE CUTTING PLIER

Narrow Nose
Available with coil spring

No. 202-5 Size 5½ in.
No. 202-6 Size 6¹⁄₁₆ in.

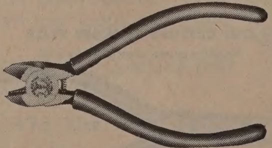
HIGH LEVERAGE OBLIQUE CUTTING PLIER



No. 228-8 Size 8 in.

PRINTED CIRCUIT PLIER

Handles red plastisol covered

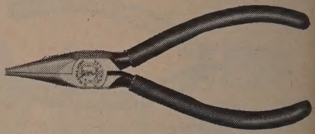


No. D052-C Size 5⅛ in.
Supplied with coil spring

*Trade-Mark

MIDGET ELECTRONIC PLIERS

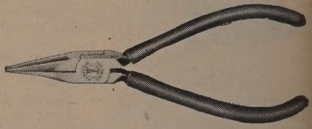
Long Nose Plier



No. D321-4½ Handles yellow plastisol covered
No. D322-4½ Handles blue plastisol covered
No. D321-4½ Size 4¾ in.
No. D322-4½ (without knurl) Size 4¾ in.
Available with coil spring

FLAT NOSE PLIER

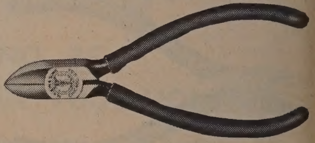
Inside jaws smooth
Handles yellow plastisol covered



No. D323-4½ Size 4¾ in.
Available with coil spring

OBLIQUE CUTTING PLIER

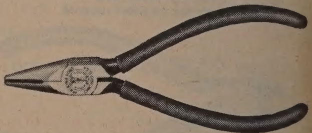
Handles red plastisol covered



No. D257-4 Size 4³⁄₁₆ in.
Available with coil spring

TRANSVERSE END CUTTING PLIER

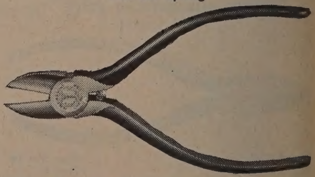
Semi-Flush Cutting
Handles green plastisol covered



No. D224-4½ Size 4⅝ in.
Available with coil spring

COIL SPRING PLIERS

Pliers listed below are supplied with coil spring



Oblique Cutters	Long Nose	
D209-4C	204-6C •	D321-4½C •
• 209-5C	D260-6C •	D322-4½C •
D219-4C	D261-6C •	D323-4½C •
D219-5C	D318-5½C •	D310-6C •
• 202-5C	• 203-5C •	D301-5C •
202-6C	• 203-6C •	D301-6C •
• 210-5C	• 203-7C •	D301-7C •
• 210-6C	D221-5½C	D301-6PC •
• 245-5C	(1/32″ point)	D317-6PC •
D257-4C	D307-5½C •	D317-5C •

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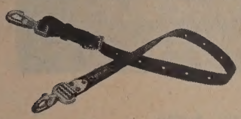
Mathias KLEIN & Sons
Established 1857
Chicago, Ill., U.S.A.
CHICAGO 45, ILLINOIS
INCORPORATED

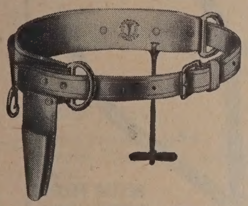
"KLEIN-KORD" NYLON SAFETY STRAP



A strong high-quality safety strap made of nylon possessing excellent dielectric characteristics. Klein Red Center for safety.

Cat. No.	Size	Av. Wgt. Per Doz.
Standard Snaps		
5294	1¾" x 5'8"	34 lb.
5294-7	1¾" x 7'	38 lb.
"Klein-Lok" Snaps		
KL-5294	1¾" x 5'8"	34 lb.
KL-5294-7	1¾" x 7'	38 lb.

LEATHER TOOL BELTS



Finest-quality harness leather "D" rings, solid drop forgings. All rivets solid copper.

Cat. No.	Width	Av. Wgt. Per Doz.
5204-DE	3½"	34 lb.

Be sure to specify size

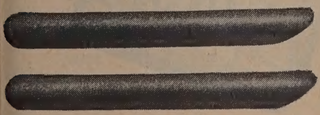
One of a complete line of Klein tool belts.

KLEIN ELECTRICIANS' WAIST BELTS

Lightweight belt of heavy web belting. Leather tool loops. Friction buckle.

No.	Size
5227-M	32 to 40 in.
5227-L	40 to 48 in.

SLIP-ON HANDLES



Plastic handles available in the following colors —Red, Yellow, Green and Blue.

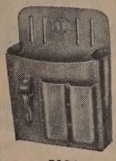
Easy to slip on to plier handles providing a comfortable grip.

No.	
34	To fit 4 in. - 4½ in. pliers
35	To fit 5 in. - 5½ in. pliers
36	To fit 6 in. - 6½ in. pliers
46	36 pr. assorted sizes and colors

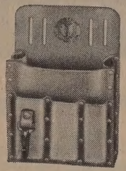
DIPPED HANDLES

Dipped plastic coating provides comfortable handles. See Klein catalog for colors and prices.

KLEIN COMBINATION TOOL POCKETS



5126



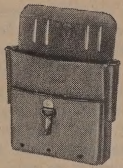
5127

Two of the many leather tool pockets available in the Klein line. See Klein catalog for other pockets.

No. 5126 Leather Size 8½ in. high, 6½ in. wide
5127 Leather 10 in. high, 7 in. wide

KLEIN UTILITY TOOL POCKETS

5190

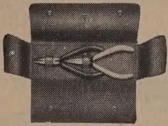


5141

No. 5190 is made of high-grade leather with ten separate compartments. No. 5141 is of polyvinyl chloride.

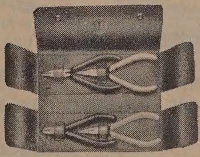
No. 5190 Size 8¾ in. x 6 in.
5141 Plastic 10 in. high, 8 in. wide

KLEIN POCKET TOOL KIT



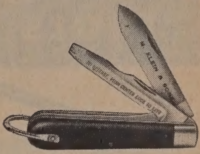
Holds two pliers.
1 D321-4½ Long Nose Plier
1 D257-4 Oblique Cutting Plier
No. 1305-5 Size 7 x 2½ x ½

KLEIN POCKET TOOL KIT



A handy kit that holds four midget pliers. Case is of top leatherette with two snaps. Contains following tools:
1 No. D257-4 Oblique Cutting Plier
1 No. D224-4½ End Cutting Plier
1 No. D321-4½ Long Nose Plier
1 No. D323-4½ Duck Bill Plier
No. 1305-4 Size 7 x 2¾ x 1

KLEIN "XELA" ELECTRICIAN'S KNIFE



Has utility blade and screwdriver blade. Made of finest cutlery steel. Handle special plastic.

No. 1550-2 Length Closed 4 in.

KLEIN "XELA" LINEMAN'S KNIFE

Single 3-in. blade of finest cutlery steel. Handle special plastic.

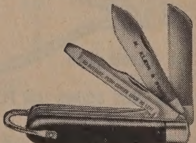
No. 1550-4 Length Closed 4 in.

KLEIN "XELA" SKINNING KNIFE

Particularly useful in telephone work. Hardwood handle.

No. 1550-5 Length Closed 3½ in.

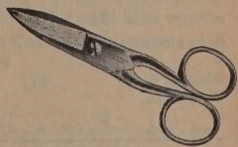
"XELA" 3-BLADE KNIFE



Spearpoint blade, sheepsfoot blade and screwdriver blade. Handle special plastic.

No. 1550-6 Length Closed 3¾ in.

"XELA" ELECTRICIAN'S SCISSORS



Made of high-grade steel carefully tempered. Screw hinge allows for adjustment.

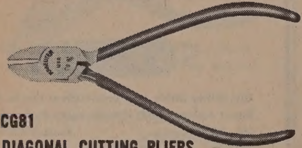
Cat. No. 2100-5 Size 5 in.

5100 Pocket for scissors, not illustrated

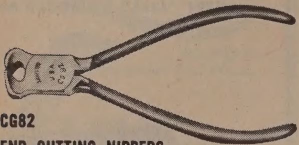
kraeuter
KRAEUTER & COMPANY, INC. Fine Tools NEWARK, NEW JERSEY, U.S.A.

TOOLS FOR TECHNICIANS

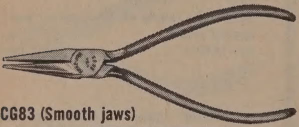
FOR 100 YEARS
THE FINEST IN
HAND TOOLS—
1860-1960



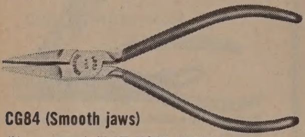
CG81
DIAGONAL CUTTING PLIERS
4½" R List ea. 3.60



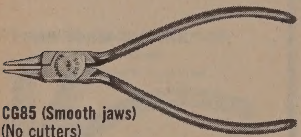
CG82
END CUTTING NIPPERS
4½" G List ea. 4.24



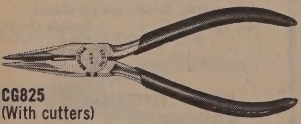
CG83 (Smooth jaws)
(No cutters) **CHAIN NOSE PLIERS**
4½" R List ea. 3.40



CG84 (Smooth jaws)
(No cutters) **FLAT NOSE PLIERS**
4½" DB List ea. 3.40



CG85 (Smooth jaws)
(No cutters)
ROUND NOSE ROUND JAW PLIERS
4½" G List ea. 3.40
No. 83-84-85 supplied with milled jaws when specified.



CG825
(With cutters)
MEDIUM NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
5" DB List ea. 4.70
CG835
(No cutters)
5" G List ea. 4.50

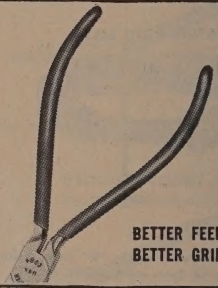
KRAEUTER PRECISION AND PROFESSIONAL PLIERS
FULL POLISHED FINISH

Extra fine pliers designed for exacting work. Drop forged from selected tool steel, accurately machined and carefully heat treated. In the hands of skilled radio and electronics technicians, these tools may be depended upon for exceptional service.

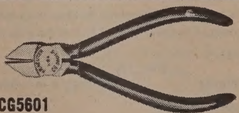
Precision and Professional Pliers illustrated show vinyl cushion grips (prefix "CG" with stock number) which are furnished at NO extra cost (factory bonded). Color: G-Green; O-Orange; R-Red; LB-Light Blue; DB-Dark Blue.

KRAEUTER VINYL
CUSHION GRIP "CG" HANDLES
AT NO EXTRA COST

All the "CG" Kraeuter tools listed on these pages have the Cushion Grips bonded on at the factory... actually become part of the tool. Won't crack, peel or chip. They're brightly colored to help you find them when you need them... easier to hold, easier to use... cushion your hand so you do the job with less effort. Cushion Grips give pliers the "feel" of comfortable, more accurate control. And they come to you at no extra cost.



BETTER FEEL!
BETTER GRIP!

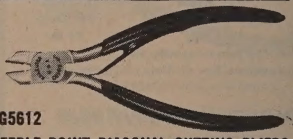


CG5601
NEEDLE POINT DIAGONAL CUTTING PLIERS

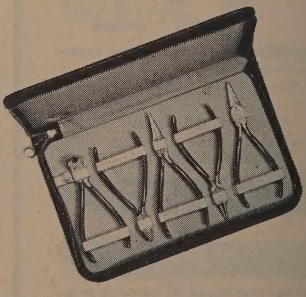
4½"	R	List ea. 4.00
5"	DB	List ea. 4.25
6"	G	List ea. 5.00

CG826
(With cutters)
LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
6" G List ea. 4.90
CG836
(No cutters)
6" O List ea. 3.84

CG827
(With cutters)
EXTRA LONG NOSE NEEDLE POINT PLIERS
Needle points 1/32" x 1/32"
7" O List ea. 5.68
CG837
(No cutters)
7" LB List ea. 4.50



CG5612
NEEDLE POINT DIAGONAL CUTTING PLIERS
Wire stripping notch, spring return handles.
6½" O List ea. 5.00



CG90
PLIER SET
Five pliers in black zipper case. Size 5-3/4" x 9-1/4" when closed. One each Nos. CG81, CG82, CG83, CG84 and CG85.
List ea. 20.00

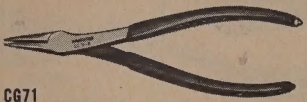
THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS... SEND FOR CATALOG

kraeuter
TOOLS FOR TECHNICIANS

FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960

KRAEUTER INDUSTRIAL PLIERS FULL POLISHED HEADS — VINYL CUSHION GRIP HANDLES

Designed for use in the Radio and Electronics fields. Hammer forged from high grade tool steel, individually fitted, tempered, adjusted and tested. Furnished with Cushion Grips (factory bonded) at no extra cost. Colors: G-Green; O-Orange; R-Red; DB-Dark Blue; LB-Light Blue.



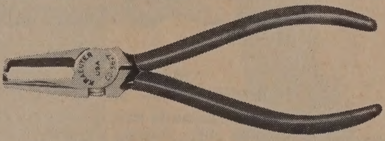
CG71

(With cutters)

SHORT JAW NOSE-CUTTING PLIERS

Extra long, narrow handles, cutters at tip of jaws.

8″ DB List ea. 4.98



CG5627

END CUTTING RESISTOR PLIERS

Resistor terminal cutters for cutting the terminal ends of packaged assembly type resistors. Pliers sever terminal wires which are inaccessible except from over the resistor.

5½″ R List ea. 4.95

CG1641

(With cutters)

SHORT CHAIN NEEDLE NOSE PLIERS

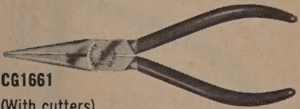
Short nose, extra leverage, for open wiring.

5″ R List ea. 3.60

CG1643

(No cutters)

5″ DB List ea. 3.58



CG1661

(With cutters)

LONG CHAIN NEEDLE NOSE PLIERS

Radio and TV's most extensively used pliers.

6″ DB List ea. 4.00

C-CG1661

(Cross Coil Spring)

6″ DB List ea. 4.30

CG1671

(No cutters)

6″ G List ea. 3.00

CG1781

(With cutters)

EXTRA LONG CHAIN NOSE PLIERS

Jaw length reaches 2-3/4″, narrow pointed nose.

7″ O List ea. 4.80

C-CG1781

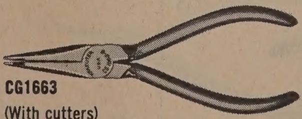
(Cross Coil Spring)

7″ O List ea. 5.10

CG1771

(No cutters)

7″ LB List ea. 3.60



CG1663

(With cutters)

RADIO AND IGNITION NOSE-CUTTING PLIERS

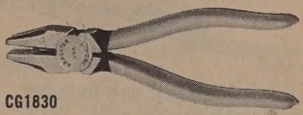
Grips at tip of nose, cutters 1/4″ back.

6″ O List ea. 4.85

C-CG1663

(Cross Coil Spring)

6″ O List ea. 5.15

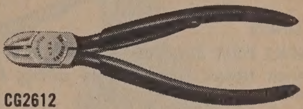


CG1830

ELECTRICIANS' SIDE CUTTING PLIERS

For electric wiring and repair work.

		List ea.
4″	R	3.00
5″	DB	3.50
6½″	O	3.50
7″	LB	4.00
8″	DB	4.50

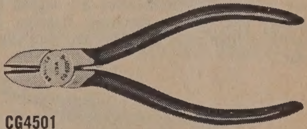


CG2612

WIRE STRIPPING DIAGONAL CUTTING PLIERS

Strips fine wire. Spring return handles.

6½″ LB List ea. 4.98



CG4501

DIAGONAL "OBLIQUE" CUTTING PLIERS

For close cutting in radio, TV, telephone work.

		List ea.
4½″	DB	3.24
5″	O	3.50
6″	R	4.00

C-CG4501

(Cross coil spring)

4½″	DB	3.54
5″	O	3.80
6″	R	4.30

CG4502

7-IN. DIAGONAL CUTTING PLIERS WITH FULL-FASHIONED HANDLES

High leverage and comfort for continuous cutting.

7″ DB List ea. 4.60

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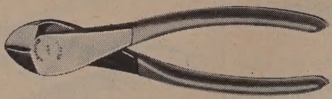
TOOLS FOR TECHNICIANS

FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960

INDUSTRIAL PLIERS

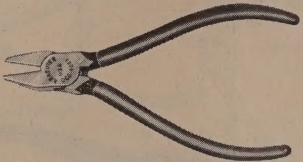


CG4610

HEAVY DUTY DIAGONAL CUTTING PLIERS

Added leverage for easier cutting.

5″ LB .... List ea. 4.00
7″ G .... List ea. 4.00



C-CG4625

NEEDLE POINT DIAGONAL CUTTING PLIERS

Narrow tapered nose for close cutting. Cross Coil Spring in handle.

5″ R .... List ea. 4.98

COMBINATION PLIERS

Drop forged from special analysis steel, KRAEUTER slip joint pliers have sharp, milled teeth and notches for better gripping and wire cutting. Knurled handles are shaped to fit the hand comfortably and provide maximum leverage. Studs and nuts are machined from solid bar steel and carefully hardened for longer wear.

KRAEUTER "BRITE" LINE

Fine quality slip joint pliers in 2 different finishes.

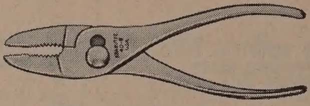
		List ea.
056—6″	Satin Chrome Plated Finish	.98
8″	Satin Chrome Plated Finish	1.24
156—6″	Chrome Plated Finish	1.40
8″	Chrome Plated Finish	1.75
10″	Chrome Plated Finish	2.15

GRIPTITE COMBINATION PLIERS

NICKEL PLATED — "CG" VINYL CUSHION GRIP HANDLES

Designed for heavy duty service.

		List ea.
CG356—5½″	2 position slip joint adjustments	2.80
CG356—6″	2 position slip joint adjustments	2.80
CG356—8″	3 position slip joint adjustments	3.59
CG356—10″	3 position slip joint adjustments	4.55



THIN NOSE COMBINATION PLIERS

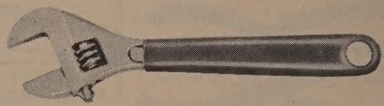
Tapered thin jaws for confined areas.

40—6″ Nickel Plated .... List ea. 2.20

TONGUE-N-GROOVE JOINT PLIERS
POLISHED FACES — "CG" VINYL CUSHION GRIP HANDLES

Parallel adjustments make these pliers extremely versatile with maximum utility, leverage and strength. Furnished with Cushion Grip handles.

			List ea.
CG707—6-1/2″	**G**	Max. Jaw Capacity 1″	3.00
CG710—10″	**R**	Max. Jaw Capacity 1-1/2″	3.74
CG714—14″	**O**	Max. Jaw Capacity 2-13/16″	4.50

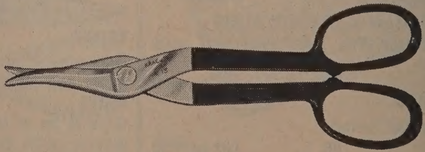


ALLOY STEEL ADJUSTABLE WRENCH

THIN PATTERN—SMOOTH ACTION—CHROME PLATED

With "CG" VINYL Cushion Grip.

		List ea.
CG31—4″	R	2.84
CG31—6″	DB	2.84
CG31—8″	O	3.70
CG31—10″	G	4.64
CG31—12″	LB	6.50
CG31—15″	R	9.50



COMBINATION PATTERN SNIP

Cuts straight, curved shapes in metal, etc. Polished Blades, Hard Black Enameled Handles.

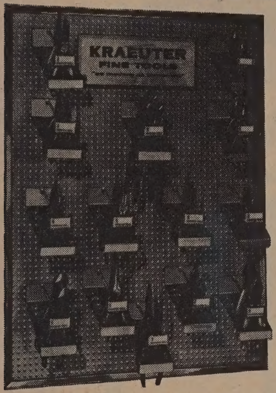
K13—7″ Pocket Size, Cut 2″ .... List ea. 2.50

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS . . . SEND FOR CATALOG

kraeuter
TOOLS FOR TECHNICIANS

FOR 100 YEARS THE FINEST IN HAND TOOLS— 1860-1960

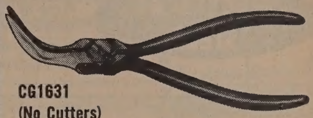
CG1650
(Electronics)
TRANSVERSE END-CUTTING PLIERS
Long jaws reach confined areas, cut wires at tips. Leaf Spring in handle.
6" 0 List ea. 5.00



RADIO AND ELECTRONIC BRACKET K1-2E ASSORTMENT
Includes 2 each of 14 popular pliers, permanent peg-board display and 14 Kraeuter metal tool brackets. Shipping weight—25 lbs.
List ea. 115.86

CG1621
(No Cutters)
LONG NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws; inside length 2-3/32" tapering to 1/16" at points.
6" LB List ea. 3.64

K-5
5-PLIER ASSORTMENT WITH FREE DISPLAY BRACKET AND GIFT BOX
Set includes:
1—CG1830-6½" Electrician's Side Cutter
1—CG4610-7" Heavy Duty Diagonal
1—CG4501-6" All Around Diagonal
1—CG1661-6" Needle Nose with Cutter
1—CG83-4½" Chain Nose "Hobby"
1 to 5-plier bracket (no charge)
Shipping weight—2 lbs. 5 oz. List ea. 18.90

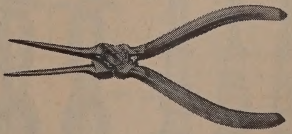


CG1631
(No Cutters)
CURVED NEEDLE OR SNIPE NOSE PLIERS
Slender milled jaws tapering to 1/16" at point, curved to reach inaccessible areas.
5-1/2" G List ea. 4.18

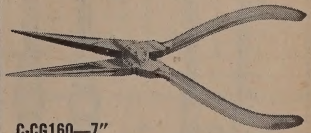
P-35
5-PLIER ASSORTMENT WITH FREE DISPLAY BRACKET AND REVERSIBLE POINT-OF-SALE DISPLAY CARD
Set includes:
1—CG81 Diagonal Cutting Pliers
1—CG82 End Cutting Nipper
1—CG83 Chain Nose Pliers
1—CG84 Flat Nose Pliers
1—CG85 Round Nose, Round Jaw Pliers
Shipping weight 1 lb. List ea. 16.96

NEW ELECTRONIC COMPONENT ASSEMBLY PLIERS

C-CG101—4-1/2"
PRECISION NEEDLE POINT DIAGONAL CUTTING PLIERS (ELECTRONICS) "FOR SOFT WIRE ONLY"
Needle point designed specifically for fine, exact tip cutting. Flush edge for close square cut. Specially designed cutting edge to facilitate re-sharpening and maintaining of tip cutting alignment. Furnished only with cross coil spring in handle.
4-1/2" LB List ea. 5.00



C-CG140—6"
LONG NOSE PLIERS 1/32" TIP
(Electronics)
Fine milled jaws, inside length 2" — tapering to 1/32" at the tip, reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
6" LB List ea. 4.50



C-CG160—7"
EXTRA FINE LONG NOSE PLIERS 1/16" POINT (Electronics)
Extra fine long nose pliers, milled jaws, inside length 2-5/8" tapering to 1/16" at the point. Fine point designed to reach areas inaccessible to other pliers. Furnished only with cross coil spring in handle.
7" LB List ea. 3.80

THIS IS ONLY A PARTIAL LISTING OF KRAEUTER TOOLS... SEND FOR CATALOG

Quick-Wedge SCREW-HOLDING Screwdrivers

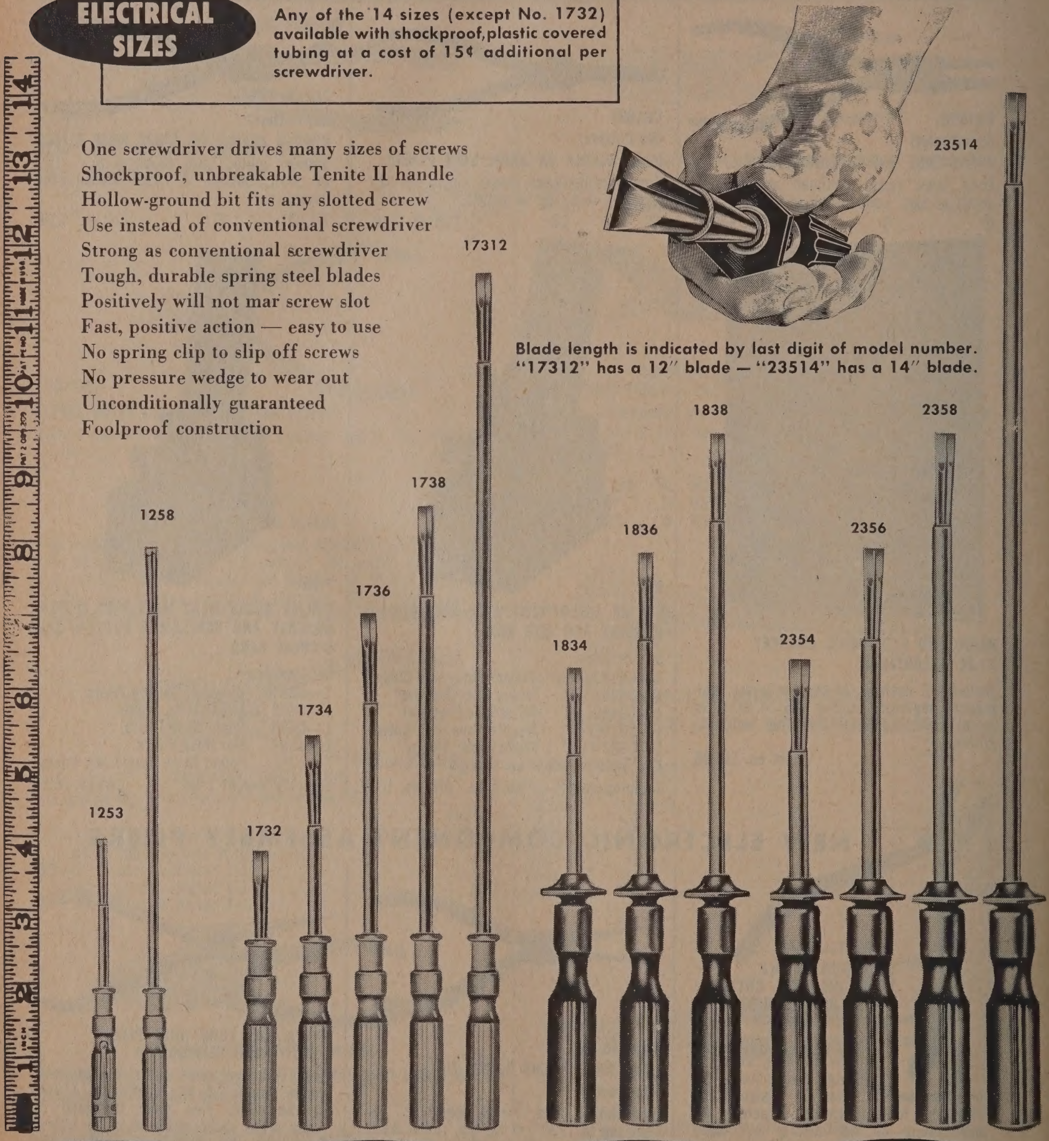
14 DIFFERENT SIZES — A SIZE FOR EVERY JOB!

Holds — Starts — Drives the Screw — America's Handiest!

ELECTRICAL SIZES

Any of the 14 sizes (except No. 1732) available with shockproof, plastic covered tubing at a cost of 15¢ additional per screwdriver.

One screwdriver drives many sizes of screws
Shockproof, unbreakable Tenite II handle
Hollow-ground bit fits any slotted screw
Use instead of conventional screwdriver
Strong as conventional screwdriver
Tough, durable spring steel blades
Positively will not mar screw slot
Fast, positive action — easy to use
No spring clip to slip off screws
No pressure wedge to wear out
Unconditionally guaranteed
Foolproof construction



Blade length is indicated by last digit of model number. "17312" has a 12" blade — "23514" has a 14" blade.

MIDGET SIZES | **SMALL SIZES** | **MEDIUM SIZES** | **HEAVY DUTY SIZES**

KEDMAN COMPANY • Salt Lake City, Utah

Other Kedman Products--The Famous Huntsman Welding Shields

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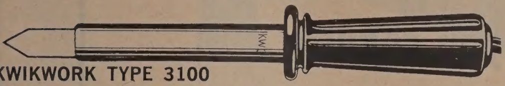
KWIKHEAT SOLDERING IRONS

TEMPERATURE CONTROLLED MODEL



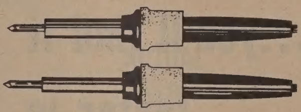
KWIKWORK TYPE 3100

A rugged, lightweight, general purpose iron for continuous production, or intermittent soldering. One piece shell and heating element are attached to air cooled plastic handle by 2 screws for fast, easy replacement. Temperature permits wattage increase as demand increases. Core made of forged tellurium copper. Screw type tips easily changed or replaced.

PENCIL MODELS

KWIKIE TYPE 4000

(Non-Thermostatic)

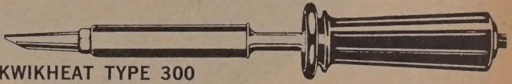


Kwikie Pencil Soldering Irons are designed for precision soldering of miniature components. Lightweight and finely balanced, their superior construction and compact heating element results in an iron small enough for work in densely packed circuits with capacity for high speed production use.

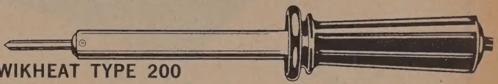
Only 7½ inches long . . . less than 3 oz. in weight . . . these small irons are ideal for general precision work. Heat insulated handles. Combination of wattage and tip size gives proper temperature for any job.

THERMOSTATIC MODELS

with built-in Vanatta Automatic Thermostat



KWIKHEAT TYPE 300



KWIKHEAT TYPE 200

DEPENDABLE PRODUCTION IRONS

Kwikheat No. 200 (lightweight) and No. 300 (heavy duty) irons dependable, rugged production tools for high speed soldering. Interchangeable tips are easily replaced.

CONTROLLED TEMPERATURE

No. 200 and No. 300 irons are preset to 700°F for intermittent standby work or 800°F for constant high speed soldering. They can be preset to any temperature between 275° and 875°F at additional charge of $1.00 for 1 to 49 irons or 50¢ each for 50 to 99. No extra charge for 100 or more. Alloys used reduce temperature creep.

CORROSION RESISTANT

Tips, core assemblies, and outer shells are made of stainless steel, or plated forged tellurium copper alloy to assure minimum corrosion and dependable long service life.

HOT IN 90 SECONDS

Very high watt density, with less heat radiation under complete control of precise built-in thermostat, gives fast heating and uniform operating temperature.

SPECIFICATIONS

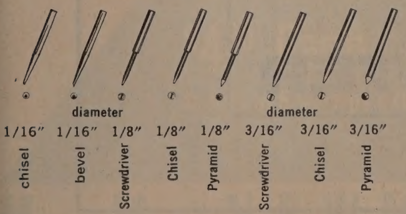
	Model 200	Model 300	Model 3100	Model 4100	Model 4150	Model 4200	Model 4250	Model 4300	Model 4350	Model 4400	Model 4450	Model 4500
Wattage	150	225	225-75	10	15	20	25	30	35	40	45	50
Voltage	115-230 AC	115-230 AC	115 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC	100-125 AC-DC
Tip Temperature (Max.)	875°F.	875°F.	850°F.	450°F.	550°F.	650°F.	750°F.	850°F.	850°F.	900°F.	950°F.	1000°F.
Heating Time (Max.)	90 sec.	90 sec.	100 sec.	70 sec.	70 sec.	70 sec.	70 sec.	70 sec.	80 sec.	80 sec	80 sec.	80 sec.
Weight (with tip)	7½ oz.	14 oz.	8 oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	1¾ oz.	2¼ oz.	2¼ oz.	2¼ oz.	2¼ oz.
Length (with tip)	12¾″	13″	12¾″	7½″	7½″	7½″	7½″	7½″	7½″	7½″	7½″	7½″
Ship. Weight	1 lb. 2 oz.	1½ lbs.	1½ lbs.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.	6 oz.
Heater Cord Length	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.	6 ft.

LIST PRICES

	Model 200	Model 300	Model 3100	Model 4100	Model 4150	Model 4200	Model 4250	Model 4300	Model 4350	Model 4400	Model 4450	Model 4500
Complete Iron with Tip	$9.95	$14.95	$8.50	$6.00	$6.00	$6.00	$6.00	$6.00	$7.00	$7.00	$7.00	$7.00
Replacement Element	6.95	10.85	4.50	3.15	3.15	3.15	3.15	3.15	3.60	3.60	3.60	3.60
3-Conductor Cord, extra	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Tips (according to style)	80¢ to $1.10	$1.80 to $2.70	$1.80 to $2.70	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢	33¢ to 65¢

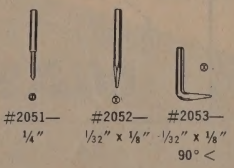
Iron Clad Tips — All Types Available — Prices on Request

Kwikie INTERCHANGEABLE TIPS

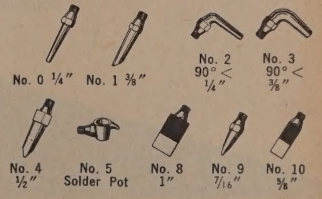


All tips available with 30°, 60° or 90° bends

TYPE 200 TIPS



TYPE 300 AND TYPE 3100 INTERCHANGEABLE SCREW TIPS



#20 ANTIFREEZE COMPOUND

A lubricant for all soldering iron tips. Prevents sticking, increases conductivity between tip and core.

PLEASE CONTACT YOUR JOBBER FOR TRADE DISCOUNTS

MANUFACTURED BY **KWIKHEAT** MANUFACTURING CO. GLENDALE, CALIF.

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you require...

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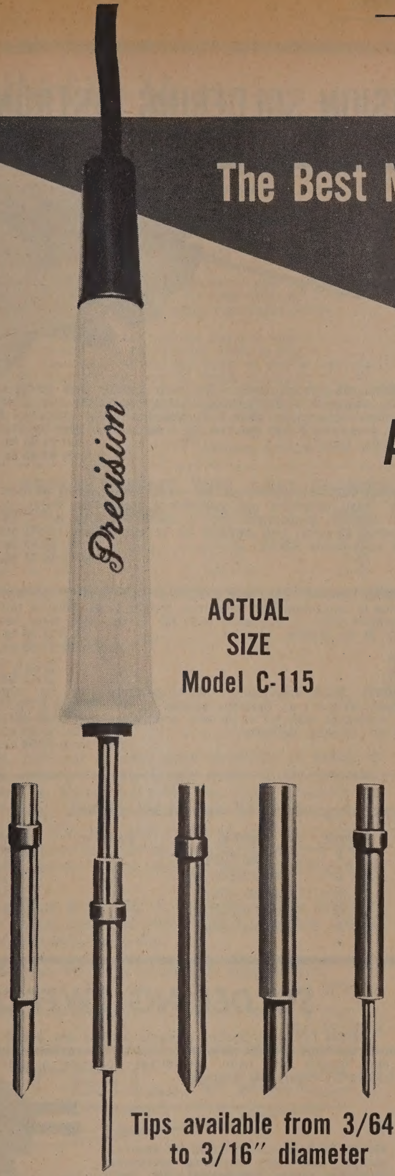
The Best Miniature Soldering Iron in the World . . .



ACTUAL SIZE
Model C-115

ANTEX-*Precision* MINIATURE SOLDERING IRON!

Weighs **one** ounce . . . operates on 110-120 volts. No transformer. Longest lasting sealed element made . . . maintains constant temperature around 626°F. without oxidation.

- Ultra-flexible 3-wire cord . . . grounded . . . 50 megohms between element and tip protects components and operator.
- Bright "safety" yellow handle remains cool — stands more than 1000°F.
- Easy slide-on tips . . . stay hot under production speeds — made of tungsten-copper alloy; nickel or iron plated.
- 45-second heat-up time — cools off in 3 minutes.

Tips available from 3/64" to 3/16" diameter

Irons furnished less plugs: heavy duty 2 or 3-pronged plugs available. All parts replaceable at low cost.

\$4.35 Each
In lots of 6 — Tips extra

M. M. NEWMAN CORPORATION

Marblehead, Massachusetts

© U.C.P., Inc.

ORYX

PRECISION SOLDERING INSTRUMENTS

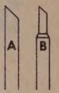
LOW-VOLTAGE PRODUCTION SOLDERING IRONS

World's smallest, lightest instruments for close-quarter precision soldering of printed circuits, miniature component parts, semiconductors, and fine assemblies. Feather weights of 1/4 to 1 ounce virtually eliminate hand fatigue. High efficiency, quick heat recovery, and cool handles are achieved by generating all heat within the tips. Manufactured by the Oryx Electrical Laboratories, Ltd. of England (protected by U.S. patents).

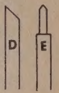
OTHER POPULAR LOW-VOLTAGE IRONS:

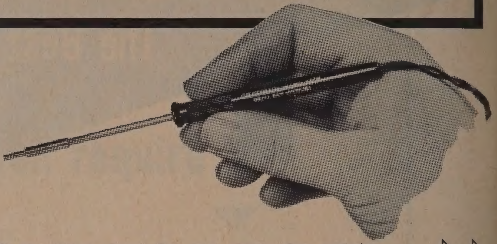
MODEL 6—The most precise Oryx soldering tool. Fixed 1/16" solid nickel tip. Solders hair-spring movements, semiconductors, rf coils, fine assemblies. Nominal temperature 625° F. Weighs only 1/4 oz. 6-volts, 6-watts .... Net **$5.45** ea.
(12 or more **$4.95** ea.)

MODEL 9-6—Similar to model 6A, but greater heat capacity. Weighs 1/4 ounce. Nominal temperature 750°F. Furnished with 5/32" A tip. Also takes B tip. 6-volts, 8.3 watts. Also available for 12 volts (model 9-12) and 24 volts (model 9-24).
Net **$5.45** ea.
(12 or more **$4.95** ea.)

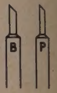


MODEL 11-6—Special model for high-temperature solders. Temperature 820° F. Weighs 1/4 oz. Furnished with 5/32" solid nickel D tip. Also takes new 3/32" E tip. Nickel tips provide long life at high temperatures. 6-volts, 10-watts .... Net **$6.95** ea.
(12 or more **$6.45** ea.)

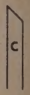




MODEL 6A—(shown above). The most popular Oryx soldering iron. Designed for printed circuit soldering. Weighs only 1/4 oz. Nominal temperature 690° F. Furnished with 3/32" removable B tip. Also takes A tip, and new 1/16" P tip (with shorter tip life). 6-volts, 6-watts .... Net **$5.45** ea.
(12 or more **$4.95** ea.)



MODEL 12-6—Standard model for production soldering of radio, TV, radar, telephone, and switchboard assemblies. Weighs 1/2 oz. Nominal temperature 700° F. Furnished with 3/16" C tip. 6-volts, 12-watts. Also available for 12 volts (model 12-12) and 24 volts (model 12-24) .... Net **$5.45** ea.
(12 or more **$4.95** ea.)



MODEL 18-6—A heavy-duty production iron equal in performance to conventional 80 watt irons. Weighs 3/4 oz. Nominal temperature 675° F. Furnished with 3/16" F. tip. Also takes new 3/32" M tip. 6-volts, 18-watts .... Net **$7.50** ea.
(12 or more **$7.05** ea.)

MODEL 25-12—Heavy-duty, high-temperature iron for large loads. Weighs 1 oz. Develops nominal tip temperature of 1000° F. Furnished with 3/16" G tip with solid nickel end. Also takes H tip. 12-volts, 25-watts .... Net **$8.00** ea.
(12 or more **$7.55** ea.)

REPLACEMENT TIPS for low-voltage soldering irons. All tips nickel plated.

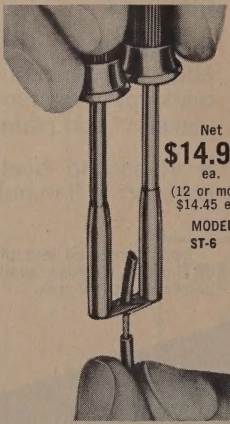
Type	Material	Diameter	Use with	Net ea.
A	Copper alloy	5/32"	9-6,6A	$ .50
B	Copper alloy	3/32"	6A, 9-6	.50
C	Copper alloy	3/16"	12-6	.50
D	Solid nickel	5/32"	11-6	1.80
E	Solid nickel	3/32"	11-6	1.80
F	Copper alloy	3/16"	18-6	$1.25
G	Solid nickel end	3/16"	25-12	1.85
H	Copper alloy	1/4"	25-12	2.35
M	Solid nickel end	3/32"	18-6	1.85
P	Copper alloy	1/16"	6A	.60

THERMAL WIRE STRIPPER

Reaches those hard-to-get-at spots. Ideal for repair and prototype work where a bench stripper is unsuitable. Miniature tweezer design.

- **STRIPS** Nylon, rubber, PVC, Kel-F, Polystyrene, and similar medium-temperature insulations to 1/8" diameter.
- **STAINLESS STEEL** stripping heads are abrasive-tumbled to eliminate sharp edges which might damage conductors. Operating temperature 400° F.
- **LOW COST**—brings thermal strippers within the reach of more employees.

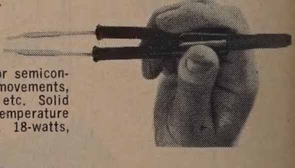
Furnished with 4½' cord. For 6-volts, AC or DC, 12-watts.



Net
$14.95
ea.
(12 or more, $14.45 ea.)
MODEL ST-6

SOLDERING TWEEZERS

Unique tools with heating elements in each arm. Speed soldering time by heating both sides of joint. Tweezer action conducts heat quickly into joint. Low-voltage operation assures safety to circuitry and to operator.



MODEL TW-6—Precision model for semiconductors, solid state, hairspring movements, miniature relays, thermostats, etc. Solid nickel 3/32" fixed tips. Nominal temperature 550° F. Weighs 1 oz. 6-volts, 18-watts, AC or DC.

MODEL TW-12
Heavy duty model for regular production-line soldering of radio, TV, radar, telephone, and switchboard assemblies. Furnished with replaceable 1/8" N tips. Nominal temperature 625° F. Weighs 2 oz. 12-volts, 25-watts, AC or DC.

Either model, complete with 4½' cord .... Net **$14.95** ea.
(12 or more **$14.45** ea.)

Spare tip N for model TW-12 .... Net **$1.25** ea.

ACCESSORIES

TW-6E REPLACEMENT ASSEMBLY—Includes element, tip, and bushing (for one TW-6 tweezer arm only) .... Net **$5.30** ea.

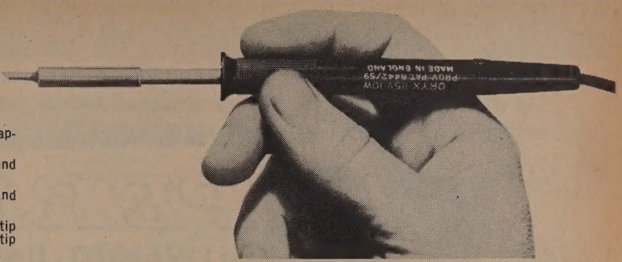
ST-6E REPLACEMENT ASSEMBLY—Includes element, blade, and bushing (for one ST-6 stripper arm only) .... Net **$5.30** ea.

S-1 SOLDERING IRON STAND .... Net **$1.50** ea.

6-VOLT TRANSFORMER—Model 54203-6V. Output 6-volts, 18-watts, For use with all 6-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set — ready to plug in. Clip-holder on top for iron .... Net **$5.50** ea.

12-VOLT TRANSFORMER—Model 5420-12V. Output 12-volts, 25-watts. For all 12-volt Oryx tools. Operates on 115 V. AC. With 4½' cord set—ready to plug in.
Net **$6.45** ea.

PLUG-IN 115 V. MINIATURE IRONS



- **NO TRANSFORMER.** Standard models furnished with U/L approved 4½' cord set. Ready to plug in!
- **COMPACT DESIGN** for light production, laboratory, and service use. Irons weigh only 1 oz., plus cord.
- **HEAT QUICKLY** (about 1 minute) to 675° F. (10 W.) and 725° F. (15 W.)
- **REPLACEABLE TIPS.** 10 W. model furnished with 3/32" J tip (also takes K tip). 15 W. model furnished with 3/16" K tip (also takes L, Q, and R tips and solder cups listed below).

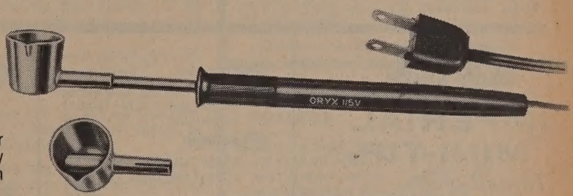
MODEL 115-10J*—Complete with J tip and cord set. Ready to plug in	**Net $6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-15K*—Complete with K tip and cord set. Ready to plug in	**Net $6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-10X (no tip)—Complete with cord set. Ready to plug in. Less tip	**Net $5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-15X (no tip)—Complete with cord set. Ready to plug in. Less tip	**Net $5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-10J-3—Complete with J tip and 3-wire grounding-type cord. Less plug	**Net $6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-15K-3—Complete with K tip and 3-wire grounding-type cord. Less plug	**Net $6.95** ea.	(12 or more **$6.45** ea.)
MODEL 115-10X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip	**Net $5.50** ea.	(12 or more **$5.00** ea.)
MODEL 115-15X-3 (no tip)—With 3-wire grounding-type cord. Less plug and tip	**Net $5.50** ea.	(12 or more **$5.00** ea.)

*Approved by Department of Building and Safety, City of Los Angeles.

REPLACEMENT TIPS AND ELEMENTS for 115 V. irons. All tips are nickel plated.

Type	Material	Diameter	Use with	Net ea.
J	Copper alloy	3/32"	115-10	**$1.55**
K	Copper alloy	3/16"	115-10, 115-15	**1.70**
L	Copper alloy	1/4"	115-15	**2.25**
Q	Solid nickel end	3/32"	115-15	**1.85**
R	Solid nickel end	1/16"	115-15	**$1.85**
115-10E	Replacement element for model		115-10	**3.60**
115-15E	Replacement element for model		115-15	**3.60**

NEW! MINIATURE SOLDER CUPS



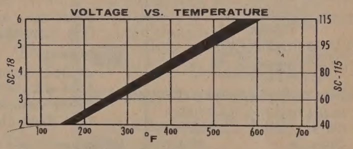
An inexpensive, fast way to melt small quantities of solder for tinning wires and component leads. Equally useful in the laboratory or on the production line. Melts a full solder load in just 5 minutes. Can also be used for heating potting compounds, waxes, and shellacs.

Cups are used with Oryx type 18-6 or 115-15 soldering irons, and can be attached or removed in a few seconds. Cup capacity is 2½ cc. Pouring lips are provided for ladling purposes (such as pouring solder into a lug).

Operating temperature is 550-600° F. By varying voltage applied to soldering iron, continuous control of temperature is available. Covered cups can be used as microminiature ovens.

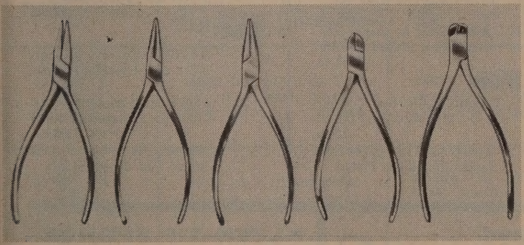
SC-18 SOLDER CUPS (use with Oryx model 18-6 soldering iron) Net **$2.25** ea.

SC-115 SOLDER CUPS (use with Oryx model 115-15 soldering iron) Net **$2.25** ea.



High-quality 60/40 solder slugs for use in Oryx cups. Weigh 1 oz. each. Sold in lots of 10 Net **$.30** ea.

TELVAC *miniature* ELECTRONIC ASSEMBLY PLIERS



Precision tools for delicate electronic work. Featuring **box joints** and unusually small, fine heads. Each pair of pliers is accurately adjusted for the most intricate assembly operations. Five styles and three finishes are available. Standard finish is overall polished tool steel. Type A is bright nickel plate. Type B has polished heads and vinyl cushion handle grips. Made in West Germany to Oryx Co. specifications. Length 4¼ to 4¾". Individually packaged in VPI envelopes to MIL-I-3420A.

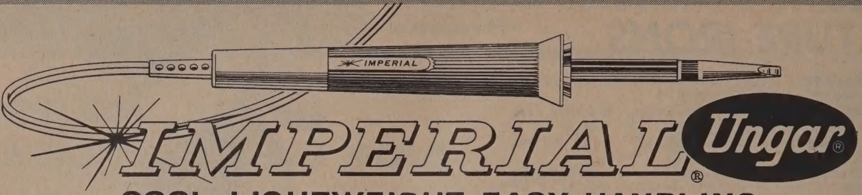
Cat. No.	Style	Finish	Net ea.	10 or More
10	Flat nose	Polished	$2.85	$2.60
10A	Flat nose	Nickel plate	3.10	2.80
10B	Flat nose	Vinyl handles	3.10	2.80
20	Round nose	Polished	2.85	2.60
20A	Round nose	Nickel plate	3.10	2.80
20B	Round nose	Vinyl handles	3.10	2.80
30	Chain nose	Polished	2.85	2.60
30A	Chain nose	Nickel plate	3.10	2.80
30B	Chain nose	Vinyl handles	3.10	2.80
40	Diagonal cutter	Polished	3.85	3.50
40A	Diagonal cutter	Nickel plate	4.18	3.80
40B	Diagonal cutter	Vinyl handles	4.18	3.80
50	Flush end cutter	Polished	3.85	3.50
50A	Flush end cutter	Nickel plate	4.18	3.80
50B	Flush end cutter	Vinyl handles	4.18	3.80

Also available in standard 5" to 5½" sizes. Information and prices furnished on request.

ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE

THE ORYX COMPANY National Sales Agency, Sherman Oaks, California

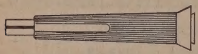
MOST VERSATILE SOLDERING IRON EVER INVENTED



COOL, LIGHTWEIGHT, EASY-HANDLING

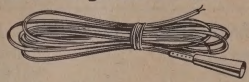
Ungar...developers of the industry's first miniature, low wattage, high temperature, pencil type iron... now brings you the ultimate in time-saving, money-saving soldering irons.

PERMA COOL COLORED HANDLES



#6100 Turquoise, Beige, Ivory* **1.28** ea.

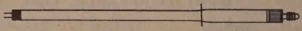
INTERCHANGEABLE CORD SETS
2-wire or grounded 3-wire



#6102 2-wire. **1.28** ea.
#6103 Grounded NEMA. **2.08** ea.
#6104 Grounded stripped ends. **1.92** ea.

*NOTE: Designate color for handles and cord sets by adding suffix (-1 for Turquoise; -2 for Beige; -3 for Ivory).

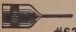
INTERCHANGEABLE "LONG LIFE" HEAT CARTRIDGES: 25, 30, 40 WATT



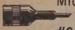
#6202 25 Watt (600-800°F Temperature range) **3.12** ea.
#6201 30 Watt (650-850°F Temperature range) **3.12** ea.
#6200 40 Watt (750-950°F Temperature range) **3.12** ea.

44
IMPERIAL MINI-TIP®
Thread-on soldering tips

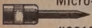
All easy-thread tips are completely interchangeable.



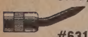
#6304 Iron Clad, Gold Plated (24 kt.) 3/64 x 1/2—Micro-Chisel. .80 ea.
#6305 Same As Above—Iron Clad, Gold Plated (24 kt.) Micro-Spade. .80 ea.



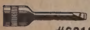
#6482 Iron Clad, Gold Plated (24 kt.) 3/64 x 1-1/16—Micro-Spade. .80 ea.



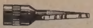
#6312 Tellurium Copper, 1/8 x 3/4—Pencil. .28 ea.
#6313 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



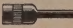
#6315 Tellurium, 1/8 x 3/4—Pencil Offset. .28 ea.
#6316 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



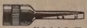
#6318 Tellurium Copper, 1/8 x 3/4—Long Taper Chisel. .28 ea.
#6319 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



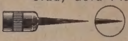
#6481 Iron Clad, Gold Plated (24 kt.) 3/4 x 3/32—Tapered Screwdriver. .80 ea.



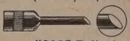
#6324 Tellurium Copper, 1/8 x 3/4—Long Taper Pyramid. .28 ea.
#6325 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



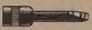
#6330 Tellurium Copper, 1/8 x 3/4—Screwdriver. .28 ea.
#6331 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



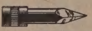
#6333 Iron Clad, Gold Plated (24 kt.)—1/8 x 3/4—Needle. .80 ea.



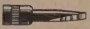
#6335 Tellurium Copper, 1/8 x 3/4—Spade. .28 ea.
#6336 Same As Above—Iron Clad, Gold Plated (24 kt.) .80 ea.



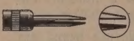
#6365 Tellurium Copper, 3/16 x 3/4—Long Taper Chisel. .28 ea.
#6366 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



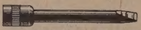
#6368 Tellurium Copper, 3/16 x 3/4—Long Taper Pyramid. .28 ea.
#6369 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



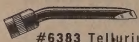
#6371 Tellurium Copper, 3/16 x 3/4—Screwdriver. .28 ea.
#6372 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



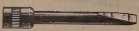
#6373 Mallory-3 Copper, 3/8x3/4—Long Taper Chisel. .28 ea.



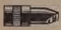
#6381 Tellurium Copper, 3/16 x 1-1/2—Long Taper Chisel. .28 ea.
#6382 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



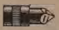
#6383 Tellurium Copper, 3/16 x 1-1/2—Long Taper Chisel Offset. .28 ea.
#6384 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



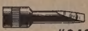
#6389 Tellurium Copper, 3/16 x 1-1/2—Screwdriver. .28 ea.
#6390 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



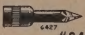
#6403 Tellurium Copper, 1/4x3/8—Short Taper Chisel. .28 ea.
#6406 Same As Above—Solid Armco Iron, Silver Plated. .80 ea.



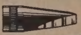
#6407 Tellurium Copper, 1/4 x 3/8—Short Taper Pyramid. .28 ea.
#6410 Same As Above—Solid Armco Iron, Silver Plated. .80 ea.



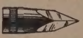
#6423 Tellurium Copper, 1/4x3/4—Long Taper Chisel. .28 ea.
#6424 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



#6427 Tellurium Copper, 1/4 x 3/4—Long Taper Pyramid. .28 ea.
#6428 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.



#6473 Tellurium Copper, 3/8x3/4—Long Taper Chisel. .28 ea.
#6474 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.
#6476 Same As Above—Solid Armco Iron, Silver Plated. .80 ea.



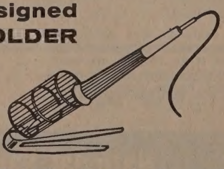
#6477 Tellurium Copper, 3/8 x 3/4—Long Taper Pyramid. .28 ea.
#6478 Same As Above—Iron Clad, Gold Plated (24 kt.) 1.00 ea.
#6480 Same As Above—Solid Armco Iron, Silver Plated. .80 ea.

HEAT SEAL

Heat Seal on threads of heat cartridges and tips assures maximum heat transfer, reduces oxidation. Convenient 3-oz. can. **#6801**, **.80** ea.

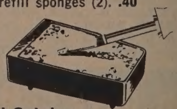
Specially Designed IMPERIAL HOLDER

Rugged holder, built especially for the IMPERIAL, protects iron, keeps it safely out of the way. Black with gold cage guard and heat sink. **#6800**, **1.60** ea.



KLEEN-TIP SPONGE

Removes oxidation, doubles life of tips.
#400 with tray. **1.00**
#455 refill sponges (2). **.40**



All Prices Shown On This Page Are USER NET • Write for Complete Imperial Catalog

Ungar® STANDARD LINE SOLDERING IRON

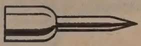
New UNGAR HEATING UNITS AND THREAD-ON TIPS for Hi-Speed Repeat Soldering

Ungar's exclusive new development provides these important advantages . . .

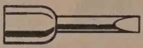
- New thread-on copper tips, iron clad, silver plated or plain copper.
- 100% increase in heat recovery rate.
- 4 times greater heat transfer.
- Positive seal between heating unit and tip.
- New passivated plating reduces barrel oxidation and surface flaking of heating units.

#4037 Hi-Speed Heating Unit—850°-900°F. 47½ Watts. $2.40
#1237 Hi-Speed Heating Unit—750°-800°F. 37½ Watts $1.20

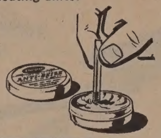
All electrical components are for use on 115 v. AC-DC.



#PL 111 PENCIL TIP. ⅛" x ¾" iron clad, Silver Plated. .60
#111 Plain Copper .20



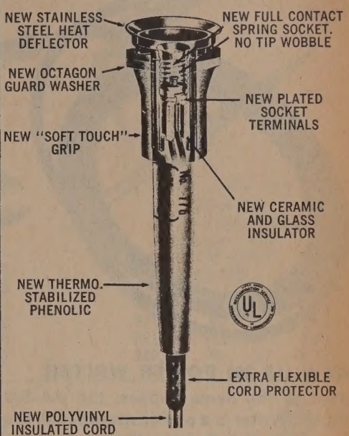
#PL 113 CHISEL TIP. ⅛" x ¾" iron clad, Silver Plated. .60
#113 Plain Copper. .20



#8001 ANTI-SEIZE. 2 oz. can .55 each

New Ungar Anti-Seize guards against "freezing," protects against corrosion and aids heat transfer to tip.

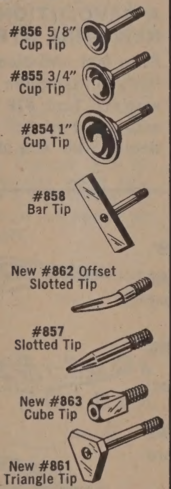
Improved #776 handle with 9 great improvements


NEW STAINLESS STEEL HEAT DEFLECTOR
NEW FULL CONTACT SPRING SOCKET. NO TIP WOBBLE
NEW OCTAGON GUARD WASHER
NEW PLATED SOCKET TERMINALS
NEW "SOFT TOUCH" GRIP
NEW CERAMIC AND GLASS INSULATOR
NEW THERMO-STABILIZED PHENOLIC
EXTRA FLEXIBLE CORD PROTECTOR
NEW POLYVINYL INSULATED CORD

All these plus features . . . still only $1.20

UNGAR fast, safe De-Soldering Tips

Helps remove components 70% faster. Melts solder on all terminals at once. For use with #4045 Heating Unit. .60 each

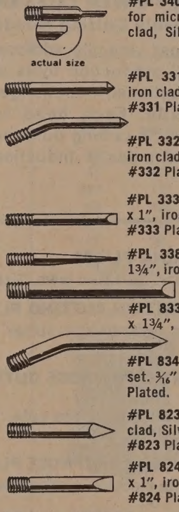

#856 5/8" Cup Tip
#855 3/4" Cup Tip
#854 1" Cup Tip
#858 Bar Tip
New #862 Offset Slotted Tip
#857 Slotted Tip
New #863 Cube Tip
New #861 Triangle Tip

For Printed Circuit Repair
DE-SOLDERING KIT

#270 UNGAR De-Soldering Kit. Complete, 7 pieces including handle, Heating Unit #4045 and five De-Soldering Tips in metal case. $5.35

UNGAR TIPLET® Soldering Tips

for Heating Units shown below


actual size

#PL 340 Micro-Needle. ³⁄₆₄"x¾", for microscopic soldering, iron clad, Silver Plated—Actual size. .48

#PL 331 Pencil Tip. ⅛" x 1", iron clad, Silver Plated. .48
#331 Plain Copper. .16

#PL 332 Pencil Offset. ⅛" x 1", iron clad, Silver Plated. .48
#332 Plain Copper. .16

#PL 333 Chisel, Long Taper. ⅛" x 1", iron clad, Silver Plated. .48
#333 Plain Copper. .16

#PL 338 Tapered Needle. ¹⁄₁₆" x 1¾", iron clad. Silver Plated. .48

#PL 833 Chisel, Long Taper. ³⁄₁₆" x 1¾", iron clad. Silver Plated. .80

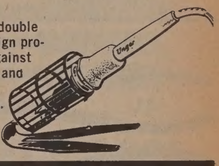
#PL 834 Chisel, Long Taper, Offset. ³⁄₁₆" x 1¾", iron clad, Silver Plated. .80

#PL 823 Pyramid, ³⁄₁₆" x 1", iron clad, Silver Plated. .48
#823 Plain Copper. .16

#PL 824 Chisel, Long Taper. ³⁄₁₆" x 1", iron clad. Silver Plated. .48
#824 Plain Copper. .16

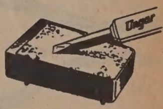
800 Series TIPLETS fits Ungar #4045 heating unit only.

#8000 Soldering Iron Holder



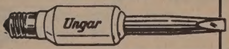
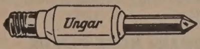
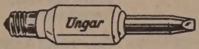
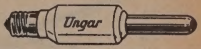
Exclusive Ungar double safety guard design protects operator against accidental burns and 2) protects iron against breakage. Individually boxed $1.60 ea.

KLEEN-TIP SPONGE



Removes oxidation, doubles life of tips.
#400 with tray. $1.00
#455 refill sponges (2). .40

Ungar Interchangeable Tips . . . the right tip at the right temperature.

TIP TEMPERATURES	CHISEL TIP LONG TAPER 	PYRAMID TIP 	CHISEL TIP SHORT TAPER 	THREAD-IN HEATING UNITS For use with Tiplets shown below 
850° to 1000° F. #4000 Super Hi-Heat Series 47-1/2 Watt	**#4033** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, iron clad, silver plated. $2.40	**#4036** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad, silver plated. $2.40	**#4039** Tip 1-1/8" long, 3/8" diameter. UC_{47} copper, iron clad, silver plated. $2.40	**#4035** Steel body, nickel plated. 1/8" tap for use with 300 Series Tiplets. **#4045** 3/16" tap for use with 800 Series Tiplets. $2.40 each
750° to 800° F. #1200 Hi-Heat Series 37-1/2 Watt	**#1233** Tip 1-5/8" long, 1/4" wide. UC_{47} copper, unplated. $1.20	**#1236** Tip 1-1/8" long, 5/16" diameter. Pure solid Armco iron, silver plated. $1.20	**#1239** Tip 1-1/8" long, 3/8" diameter. Pure solid Armco iron, silver plated. $1.20	**#1235** Steel body, nickel plated. 1/8" tap. $1.20
650° to 750° F. #500 Standard Series 23-1/2 Watt	**#533** Tip 1-5/8" long, 3/16" wide. UC_{47} copper, unplated. $1.00	**#536** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated. $1.00	**#539** Tip 1-1/8" long, 5/16" diameter. UC_{47} copper, unplated. $1.00	**#535** Steel body, nickel plated. 1/8" tap. $1.00

See UNGAR's revolutionary new IMPERIAL® soldering iron on preceding page!

All Prices Shown On This Page are USER NET

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UTICA

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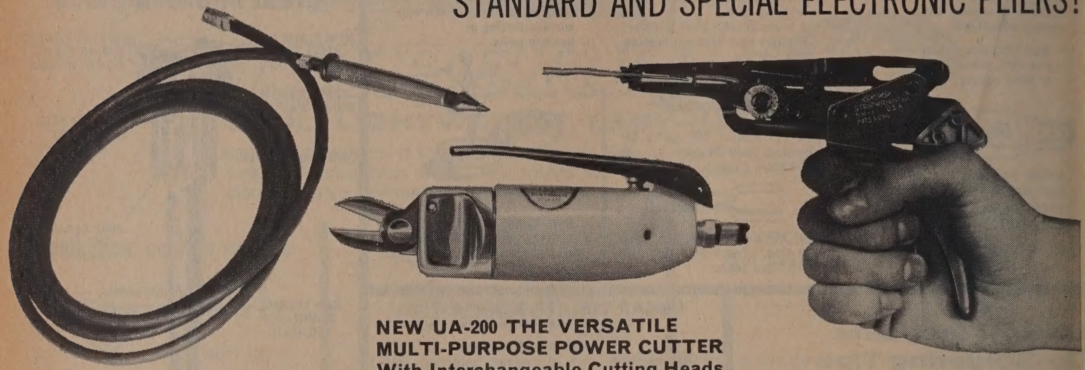
TOOL DIVISION • KELSEY-HAYES CO., UTICA NEW YORK

WORLD'S MOST COMPLETE LINE OF STANDARD AND SPECIAL ELECTRONIC PLIERS!



NEW UA-300 POWER WRITER

Just as the name implies, the UA-300 Power Writer is a power writing tool. It's a pencil styled, air-activated tool for inscribing, coding, labeling or marking all types of materials such as hard and soft metals, plastics, ceramics and glass.

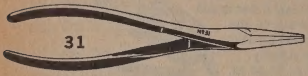
NEW UA-200 THE VERSATILE MULTI-PURPOSE POWER CUTTER

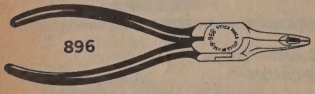
With Interchangeable Cutting Heads

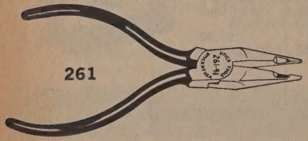
This latest and most versatile addition to the Utica line of production tools is available with four optional, interchangeable cutting heads. Each head is designed for a specific cutting purpose and all have electronically induction hardened jaws.

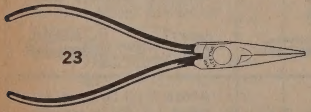
A REVOLUTIONARY NEW WIRE STRIPPER

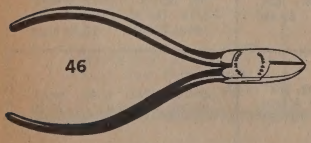
Strip fast and clean! Eliminate nicking! Reduce insulation marking! Handle any wire size from #12 to #26 . . . and do it all with Stripwright® . . . Utica's revolutionary new wire stripper.

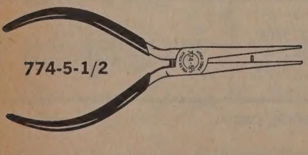












No. 31 DUCK BILL WIRING PLIERS
Long reach duck bill pliers. Serrated jaws. Size: 8″.

No. 896 RADIO AND IGNITION CUTTING PLIERS
For cutting and forming wire. Center cutter near tip of jaws. Size: 6″.

No. 261 SPECIAL SHORT CHAIN NOSE CUTTING PLIERS
Flush cutter near tip of jaws for close cuts. Size: 4½″ (formerly custom tool No. B801).

No. 23 NEW MIDGET SHORT CHAIN NOSE PLIERS
Very thin nose for delicate electronic subminiature assembly. Sizes: 4″, 4½″, 5″.

No. 46 MIDGET DIAGONAL PLIERS
Small, light, sturdy diagonal for work on small electronic assemblies. Size: 4″.

No. 774-5-1/2 PICK-UP AND WIRING PLIERS
Ideal for looping, twisting, bending and picking up finest wires.

No. 1033 LONG CHAIN NOSE PLIERS
For general wiring. ³⁄₃₂″ nose and deep serrated jaws. Sizes: 6″, 7″.

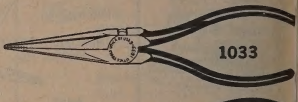
No. 25-5 BENT CHAIN NOSE PLIERS
Finely serrated jaws for sensitive circuit wiring. Size: 5″.

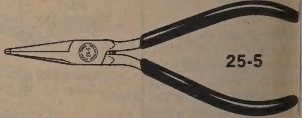
No. 777 LONG NEEDLE NOSE PLIERS
Long, spring tempered jaws for very fine work in assembling small electronic apparatus. Size: 6″.

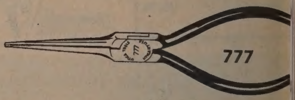
No. 776 CURVED LONG NEEDLE NOSE PLIERS
Fine, spring tempered pliers with bent nose for offset work. Size: 6″.

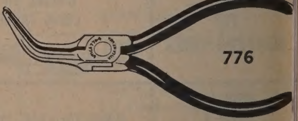
No. 265-5 WIRING PLIERS
Cutter designed to snap-cut, loop or twist. Size: 5″.

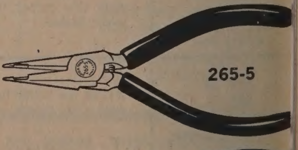
No. 47 MIDGET DIAGONAL PLIERS
Fine tapered nose for delicate work in confined areas. Flush jaws for close cutting. Size: 4″.

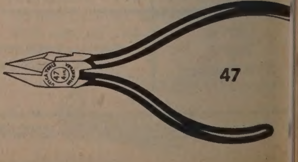












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VULCAN ELECTRIC SOLDERING TOOLS

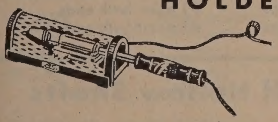
• High powered Soldering Tools, designed for fast soldering with low operating cost • Tips are of finest forged copper • The "Hang" or balance good mechanics appreciate, plus light weight • Cool handles of selected birch, shaped to fit the hand • 6 ft heater cord, with unbreakable rubber plug • Fireproof terminals • Heating elements easily replaced • Operate equally well on AC or DC

Pygmy
PENCIL TYPE

A very efficient tool for fine soldering of instruments, meters, gauges, small radios, etc. or any spots where space is cramped or there is little clearance. The cool, tapering wood handle permits "writing grip." Flexible coil also assures coolness. Equipped with approved cord and unbreakable rubber plug. Standard tip is ¼″ but ³⁄₁₆″ or ⅛″ tips are available, as well as special tips, bent to any angle or in various shapes.

Cat. No.	Watts	Tip	Weight	Length	List
Pigmy	25	¼″	7 oz.	8¼″	**$5.10**

SOLDERING TOOL HOLDER



Holds and guards the Soldering Tool and keeps the tip at soldering temperature as long as it remains in the holder. Has a cord and attached plug cap for connection to current and a receptacle for plugging in the Tool. A convenient adjusting screw sets the Holder thermostat to maintain proper temperature. AC only

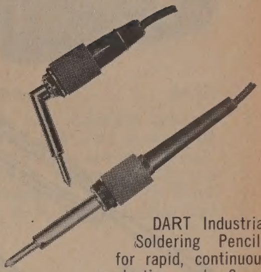
No. 2100	without thermostat	**$4.95**
No. 2100T	with thermostat	**$8.00**

"DUREVER" Soldering Tips are pure forged copper, shaped to your favorite style, with a special metal coating that will preserve the original shape of the tip by protecting the copper from corrosion and oxidation. Will outlast copper tips, cannot amalgamate with solder, do away with the necessity for dressing or filing. Can be readily tinned without filing and hold their original shape. Circular on request.

NEW "HIGH-SPEED" SOLDERING IRONS

for continuous, precision, high production work. Only 12⅜″ O.A. including tips.

Cat. No.	Watts	Tip	List
450	150	⅜″	**11.50**
450S	175	⅜″	**11.50**
455	150	½″	**11.50**
550	200	⅝″	**13.00**
553	200	⅜″	**13.00**
555	200	½″	**13.00**



DART Industrial Soldering Pencils for rapid, continuous production, only 3 oz. wgt., cool handle, high power, heavy duty.

Cat. No.	Watts	Tip	List
P314	40	¼″	**5.80**
P318	40	⅛″	**5.85**
RAP314	40	¼″	**6.75**

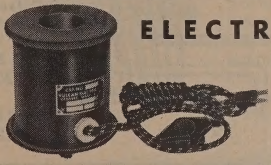
PLUG TIP — All parts replaceable

UL

CAT No.	WATTS	TIP	LIST
* 25	50	¼″	$6.55
35	100	⅜″	10.30
453	150	⅜″	11.20
45	150	½″	11.70
55	200	⅝″	12.10
* 75	300	⅞″	15.80

*Heating element replaceable at Factory only.

ELECTRIC SOLDER POTS



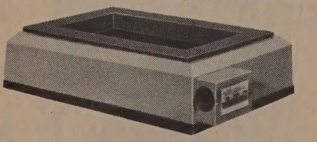
Both single and three-temperature Pots in a variety of sizes and wattages, all with cord and plug approved at Underwriters' Laboratories.

CAT. No.	WATTS HIGH	MEDIUM	LOW	CAPACITY SOLDER APPROXIMATE	LIST
1700	200	120	80	1¼ lbs.	**$28.60**
1702	250	150	100	5 lbs.	**32.85**
1704	500	250	125	10 lbs.	**41.25**
1600	150	Single Heat		14 oz.	**9.90**
1606	350	Single Heat		3 lbs.	**11.55**
1701	250	Single Heat		4 lbs.	**21.10**
1703	200	Single Heat		1½ lbs.	**16.10**

Other sizes up to 6000 watts, single heat.

VULCAN "EVEN DIP" SOLDER POTS

DESIGNED AND DEVELOPED BY SPECIALISTS FOR PRINTED CIRCUIT SOLDER OPERATIONS



- 16 Crucible Sizes
- High Fidelity thermostat control — Adjustable 150-600°F
- Surface Temperature does not vary beyond ±2°F
- Localized "hot spots" completely eliminated
- Replaceable heavy-duty heating elements.

Send for free, detailed specifications.

VULCAN

ELECTRIC COMPANY

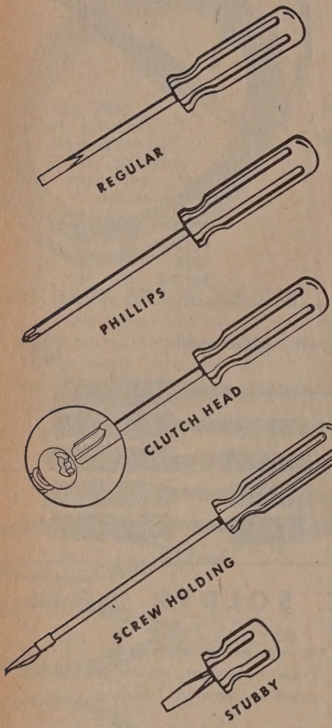
DANVERS, MASS.

ELECTRIC SOLDERING TOOLS • SOLDER POTS • GLUE POTS • BRANDING IRONS • HEATING UNITS

VACO®

Screw Drivers Nut Drivers

The Industry's Finest and Most Complete Line



1/8" Cabinet Style—Round Blades

Stock Number	Blade Diameter and Length	Price
A 216-4	1/8"x4"	$ .70
A 216-6	1/8"x6"	.72
A 216-8	1/8"x8"	.78
A 216-10	1/8"x10"	.86

3/16" Cabinet Style—Round Blades

Stock Number	Blade Diameter and Length	Price
A 316-4	3/16"x4"	.92
A 316-5	3/16"x5"	.98
A 316-6	3/16"x6"	1.02
A 316-8	3/16"x8"	1.08
A 316-10	3/16"x10"	1.18

1/4" General Service—Round Blades

Stock Number	Blade Diameter and Length	Price
A 416-4	1/4"x4"	1.12
A 416-5	1/4"x5"	1.14
A 416-6	1/4"x6"	1.18
A 416-8	1/4"x8"	1.24
A 416-10	1/4"x10"	1.36

5/16" Heavy Duty—Round Blades

Stock Number	Blade Diameter and Length	Price
A 516-6	5/16"x6"	1.50
A 516-8	5/16"x8"	1.58
A 516-10	5/16"x10"	1.78

Stubbys

A 132	1/4"x1-1/4"	.84
A 135	5/16"x1-3/4"	1.10

Phillips Drivers

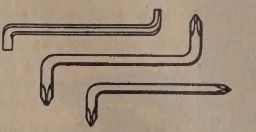
Stock Number	Point No.	Blade Diam. and Length	Price
P 01	0	1/8"x2-1/2"	$ .74
P 1	1	3/16"x3"	1.00
P 2	2	1/4"x4"	1.26
P 3	3	5/16"x6"	1.72
P 5 (Stub)	2	1/4"x1-3/4"	1.10
P 6 (Stub)	1	3/16"x1-1/4"	1.00
P 12 (Pocket Clip)	1	1/8"x2-1/2"	.76

Clutch Head Drivers

Stock Number	Bit Point Diameter and Blade Length	
CH 43	1/8"x3"	1.30
CH 54	5/32"x4-1/4"	1.30
CH 64	3/16"x4-1/4"	1.30
CH 86	1/4"x6"	1.72
CH 106	5/16"x6"	2.22
	Stub Styles	
CH 51	5/32"x1-1/2"	1.16
CH 61	3/16"x1-1/2"	1.16

Screw Holding Drivers

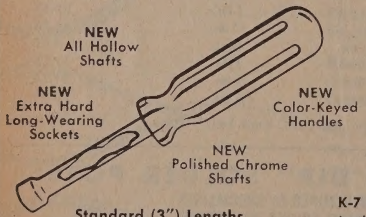
Stock Number	Blade Diam. & Length	
OK 23	1/8"x3"	.98
OK 24	1/8"x4"	1.02
OK 26	1/8"x6"	1.08
OK 28	1/8"x8"	1.12
OK 34	3/16"x4"	1.30
OK 36	3/16"x6"	1.36
OK 38	3/16"x8"	1.42



Offset Screw Drivers

Stock No.	Type	Blade	Price
VO 1	Regular	5/32"x3"	$ .48
VO 2	Regular	1/4"x4"	.78
P 120	Phillips	#1 point one end, #2 point other end	.68
P 111	Phillips	#1 point both ends	.54
P 222	Phillips	#2 point both ends	.60

VACO® NEW DESIGN NUT DRIVERS—With All Hollow Shafts

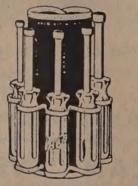


Standard (3") Lengths

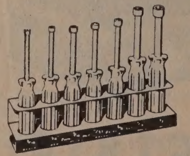
Stock No.	Hex Size	Overall Length	Color Key	Price
S 6	3/16"	6⅝"	Black	$ .96
S 8	¼"	6⅝"	Red	.96
S 10	5/16"	6⅝"	Yellow	.96
S 11	11/32"	6⅝"	Green	.96
S 12	⅜"	6⅝"	Blue	.96
S 14	7/16"	7"	Brown	1.18
S 16	½"	7"	Orange	1.18

ALSO AVAILABLE

Stubby sizes ¼", 5/16", ⅜"
Odd sizes 7/32", 9/32"
Extra Large sizes 9/16", ⅝"



K-7 Self-Standing Kit............$8.60
Includes 7 nut drivers (3" lengths), each in own holder marked for size and color.

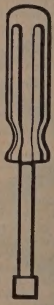


S 700 Bench Stand............$8.00
All metal for permanent attachment to bench or wall. 7 drivers.

VACO
Nut Drivers
Feature

4-STAR DESIGN

- ★ Extra Large Colored-for-Size Handles
- ★ Beautiful Polished Chrome Finish
- ★ All Hollow Shafts
- ★ Extra Hard Tempered Sockets



with COLORED HANDLES

Available in 24 types and sizes

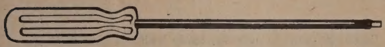
© U.C.P., Inc.

Beryllium Copper Drivers

Round Blade, Non-Spark, Non-Magnetic

Stock Number	Blade Diameter and Length	Price
VB 26	1/8″x6″	$1.34
VB 210	1/8″x10″	1.48
VB 38	3/16″x8″	2.36
VB 46	1/4″x6″	2.94
VB 48	1/4″x8″	3.24

Insulated Blade Screw Drivers



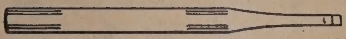
VR 241	1/8″x4″	.84
VR 261	1/8″x6″	.96
VR 281	1/8″x8″	1.00
VR 361	3/16″x6″	1.12
VR 381	3/16″x8″	1.16

Non-Metallic Radio and TV Aligners

Bone Fiber Blade

AT 55	5/32″x5″	.74
AT 510	5/32″x10″	.86

Non-Magnetic *Metal Tip* Radio and TV Aligner

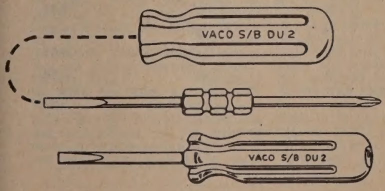


Stock Number	Body Size	Bit Diameter	Capacitance	Price
AT 45	3/8″x5-1/2″	3/16″	Slight	$ .60

Neon Light Screw Drivers

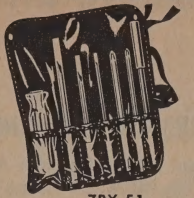
Stock Number	Blade Diameter and Length	Price
AN 44	1/4″x4″	$1.78
AN 2 (Pocket Clip)	1/8″x3″	1.08

Duplex "Reversible" Drivers



Stock Number	Blade Size and Type	Price
DU 2	No. 1 Phillips, One End 3/16″ Regular, Other End	$1.46
DUH 4	No. 2 Phillips, One End 1/4″ Regular, Other End	1.76
DUP 12	No. 1 Phillips, One End No. 2 Phillips, Other End	1.94

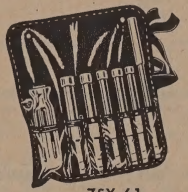
VACO RADIO and TV KITS



ZBX 51

ZBX 51 Screw Driver Kit................$5.22

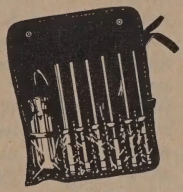
A fine, all-purpose kit of interchangeable regular and Phillips blades that fit same handle. 6″ extension makes 10 combinations possible. In durable leatherette bag.



ZSX 61

ZSX 61 Nut Driver Kit....................$6.30

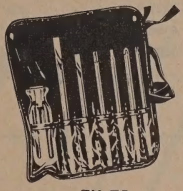
A most versatile and complete hexagon wrench kit for radio, television or any other work requiring speedy nut setting. All sockets are super hard for maximum utility and long life. 6″ extension makes 10 blade lengths possible. In handy leatherette tool roll.



ZA 70

ZA 70 Allen Driver Kit..................$5.12

This useful kit consists of 6 hexagon drivers, handle and bag. Will service hexagon recessed opening screws Nos. 4, 5, 6, 8, 10, 1/4″, 5/16″ and 3/8″. Each bit is extra long and may ground back as wear occurs.



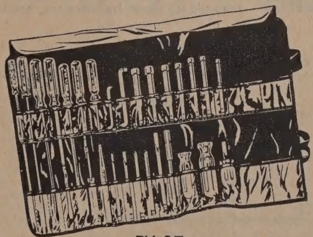
ZU 75

ZU 75 Universal Driver Kit............$5.22

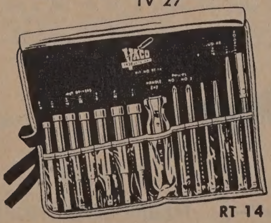
Here is a kit that is universal in its applications since it will serve all three types of the most popular screws in use today—regular slotted, Phillips, and clutch head. All popular size blades are included—3/16″ and 1/4″ for regular slotted screws; No. 1 and No. 2 Phillips; 5/32″ x 3/16″ clutch head.

27-Piece TV and Radio Kit..........$26.42

NO. TV 27 KIT—Contains practically every hand tool necessary for television and radio work, *plus* extra pockets for pliers and other personal tools according to individual preferences. Contains one each of the following: ZH 1 medium duty handle; ZH 2 heavy duty handle; ZX 56 extension; A 132 1/4″ stub; 1/4″, 3/16″, 1/8″ regular bits; No. 1 Phillips and No. 2 Phillips bits; 3/16″, 1/4″, 5/16″, 11/32″, 3/8″, 7/16″ and 1/2″ hex. wrenches; AT 45 metal tip aligner; A 116-2 3/32″ pocket clip; P 01 #0 Phillips thin blade; OK 24 1/8″ screw holding; VR 261 1/8″ insulated blade; OK 38 3/16″ screw holding; VR 381 3/16″ insulated blade; VB 210 1/8″ x 10″ non-magnetic adjuster; AT 510 5/32″ fiber aligner; VO 2 medium offset; VO 1 small offset.



TV 27



RT 14

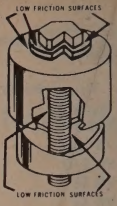
14-Piece TV and Radio Kit $11.98

NO. RT 14 KIT—Here's a handy, convenient kit for radio and TV service men. Contains nut drivers, Phillips and regular drivers, plus ZH 2 heavy duty handle and famous Vaco 6″ extension which doubles the usefulness of each driver. In durable leatherette tool roll.

VACO PRODUCTS CO., Chicago 11, Illinois

In Canada: Vaco-Lynn Products (of Canada) Ltd.

Walsco ELECTRONICS CHASSIS PUNCHES



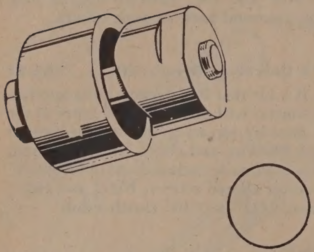
50% LESS EFFORT REQUIRED THAN COMPETITIVE PUNCHES

NEW *"LT" (LOW TORQUE) CHASSIS PUNCHES

A brand-new electro-coating process (which can't wear off) reduces friction, thus lowers torque. You get a much cleaner hole with much less effort. The Walsco "L.T." Chassis Punch requires no lubrication of any kind and will give perfect service almost indefinitely.

ROUND CHASSIS PUNCHES

Made of hardened, precision-ground, tool steel. Quick and easy to operate. Saves hours of hard work.

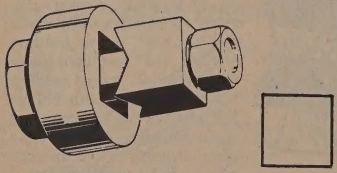


Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Dealer Net
3050-R	1/2"	1/4	5/16"	$2.60
3062-R	5/8"	5/16	3/8"	2.63
3069-R	11/16"	3/8	7/16"	2.60
3075-R	3/4"	3/8	7/16"	2.60
3087-R	7/8"	3/8	7/16"	2.60
3100-R	1"	3/8	7/16"	2.85
3106-R	1 1/16"	3/8	7/16"	3.00
3112-R	1 1/8"	3/8	7/16"	3.00
3116-R	1 5/32"	3/8	7/16"	3.00
3117-R	1 11/64"	3/8	7/16"	3.00
3119-R	1 3/16"	3/8	7/16"	3.00
3125-R	1 1/4"	3/8	7/16"	3.00
3137-R	1 3/8"	1/2	9/16"	4.17
3150-R	1 1/2"	1/2	9/16"	4.92
3225-R	2 1/4"	3/4	7/8"	9.92

* LOW TORQUE

SQUARE CHASSIS PUNCHES

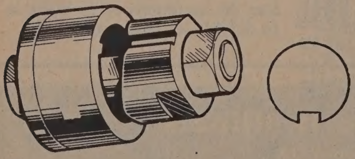
Very handy for mounting I.F. transformers, or for "nibbling" larger square holes such as may be required for power transformers, tuning condensers, etc. Finest quality steel.



Cat. No.	Punch Size	Pilot Bolt Size	Pilot Hole Drill Size	Dealer Net
3062-S	5/8"	3/8	1/2"	$5.42
3069-S	11/16"	3/8	1/2"	5.85
3075-S	3/4"	3/8	1/2"	5.92
3087-S	7/8"	3/8	1/2"	6.55
3100-S	1"	3/8	1/2"	7.50

* LOW TORQUE

KEY AND "D" CHASSIS PUNCHES



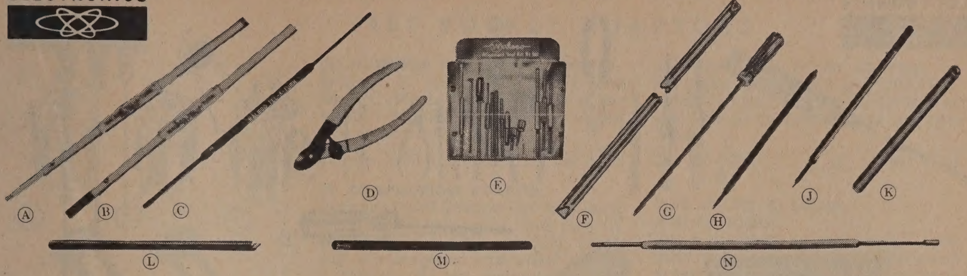
KEY 3117-K	1-11/64"	1/2"	9/16"	6.08

Cuts a special keyed hole for key-type sockets and other components where turning or twisting is not desired.

© U.C.P., Inc.

Walsco ELECTRONICS

ALIGNMENT AND SPECIAL TOOLS



(A) I.F. Aligner and also double-ended. One end fits a #4 stud, the other end fits a #6 stud.
Cat. No. 2586 Tel-A-Turn Tool Net $ .98

(B) An alignment screwdriver with a standard metal tip at one end. The other end has a very thin 7/64" wide metal blade for small can openings.
Cat. No. 2587 Tel-A-Turn Tool Net $ .98

(C) A double ended Hex Aligner that turns both top and bottom slugs. One end has .100" hex, the other end is .125" hex.
Cat. No. 2588 Tel-A-Turn Tool Net $ .98

(D) WALSCO STRIP-ER-CLIP. A brand new precision tool with an exclusive safeguard that prevents accidental nicking or cutting while wires are being stripped. Strips and clips all wires ranging from 14 to 26 gauge.
Cat. No. 595-X Net $1.38

(E) "LUCKY 13" ALIGNMENT TOOL KIT. Carefully selected as the most needed tools, for the Service-Technician in Electronics, TV, Hi-Fi and Printed Circuit Work.
Cat. No. 582 Net $8.73

(F) NEW "SLIM-FIBREGLASS STICKS." New precision made Walsco Slim-Sticks are made of durable fibreglass. Completely non-metallic.
Cat. No. 2531-X ⅛" Dia. x 12" Long Net $ .42
2532-X ⅛" Dia x 16" Long .57
2534-X 5/32" Dia. x 12" Long .48
2535-X 5/32" Dia. x 16" Long .72

(G) WALSCO "GLAS-STICKS." Precision made machined fiberglas reinforced polyester alignment screwdriver.
Cat. No. 2537 5/32" Dia., 7" blade Net $ .72
2538 5/32" Dia., 14" blade 1.05

(H) DUPLEX ALIGNMENT SCREWDRIVER. Large end is 7/32" wide; small end, 5/32" wide. Tip thickness conforms to standard slot dimensions, 7" long.
Cat. No. 2520 Net $ .62

(J) ALIGNMENT TOOL FOR WESTINGHOUSE, ETC. Especially designed to fit Westinghouse and other sets. Very thin tip for small can openings.
Cat. No. 2541 5¾" long Net $ .57

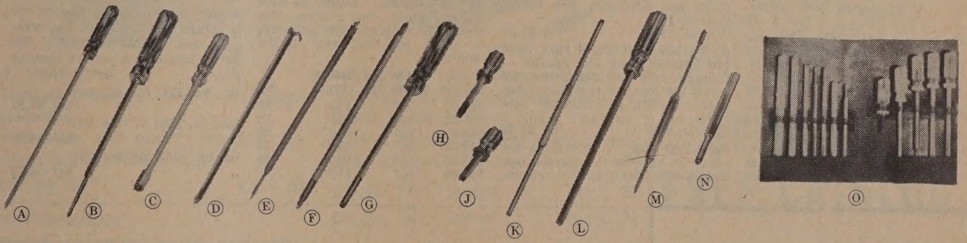
¼" **HEX I.D. NEUTRALIZING WRENCH.** Made of tough, flexible, Lo-loss plastic. If corners wear round, just trim back, 7½" long, ⅜" round O.D.
Cat. No. 2503 Net $ .37

(K) 5/16" **HEX I.D. NEUTRALIZING WRENCH.** Durable Lo-loss plastic gives long service life. 7½" long, 7/16" O.D.
Cat. No. 2508 Net $ .37

(L) METAL TIP ALIGNMENT SCREWDRIVER. Combines low capacitance desirable in alignment tool with mechanical strength of metal screwdriver. Plastic handle, 7/32" diameter, 6" long over all.
Cat. No. 2525 Net $ .42

(M) WALSCO TUNING WAND. Rod with one end made of brass, the other loaded with powdered iron—for checking coils.
Cat. No. 2540 Net $ .53

(N) DOUBLE END NYLON HEX IRON CORE TOOLS—For .075", .100" and .125" Cores. Turn both top and bottom coil slugs with this one handy tool. One end under cut for turning bottom slug separately.
Cat. No. 2542 .125" Hex, 5" long, Hex Handle Net $ .48
2543 .100" Hex, 5" long, Hex Handle .48
2544 .100" Hex, 11" long, knurled ¼" Handle .63
2545 .100" Hex, 11" long, thin, 5/32" Handle .63
2546 .075" Hex, 11" long, knurled ¼" Handle .63
2547 .075" Hex, 11" long, thin, 5/32" Handle .63



(A) "THE LONG RANGER." A full 12", slim, completely insulated tuner alignment tool. Features tough, replaceable, molded nylon tip.
Cat. No. 2523 Net $1.50

(B) TURRET TUNER TOOL. A tool for adjusting all sets using "Standard Coil" and similar turret-type tuners.
Cat. No. 2522 Net $ .92

(C) PHILCO TUNER TOOL. A special tool for 1946-48 front-end tuners.
Cat. No. 2518 Net $1.12

(D) WIRE DRESSING & ALIGNMENT TOOL. A handy dual-purpose tool with a thin 7/32" Butyrate handle. One end is a special tool for dressing wires in hard-to-reach places. Other end with a low capacitance metal screwdriver tip.
Cat. No. 2512 Net $ .45

(E) K-TRAN ALIGNMENT TOOL. This tough, double-use tool is machined at one end to fit the slots on all K-Tran miniature I.F. transformers.
Cat. No. 2515 Net $ .60

(F) "SLUG SAVER" TUNER TOOL. New patented tool for aligning "Standard Coil" front ends. Prevents "loosing" slugs, thru ingenious "step" design.
Cat. No. 2528 7½" long Net $ .67

(G) SLOTTED STUD DRIVER. An 8¼" long precision screwdriver with blade to fit No. 6 studs.
Cat. No. 2516 Net $ .92

(H) I.F. ALIGNER. 2½" long molded high-impact styrene . . . for RCA, Zenith and others.
Cat. No. 2527 Net $ .58

(J) STUBBY STUD DRIVER. The only screwdriver only 2" long overall. Fits No. 6 studs.
Cat. No. 2517 Net $ .58

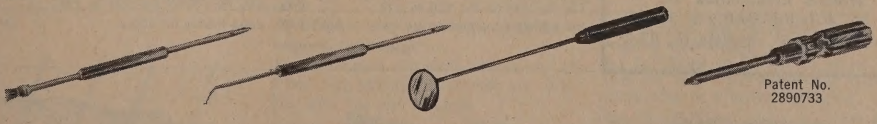
(K) STANDARD ALIGNMENT TOOL. Screwdriver blades are made with extra-thin tempered Swedish steel and are recessed so that they will slide easily over a stud and will not slip off.
Cat. No. 2519 Net $ .67

(L) SLOTTED SCREWDRIVER. Instead of a blade, this tool has a slot to fit No. 6 studs. For many of the older TV sets.
Cat. No. 2524 Net $ .87

(M) DOUBLE ENDER. A 5½" long, molded-nylon tool, with one end to fit hex studs, the other end being a very small screwdriver.
Cat. No. 2526 Net $ .37

(N) I.F. ALIGNER TOOL. Designed for I.F. Alignment of Zenith, RCA and other similar types. Made of molded nylon. 5½" long.
Cat. No. 2521 Net $ .48

(O) WALSCO TV-FM ALIGNMENT TOOL KIT. Kit contains 12 tools. These are all standard Walsco tools and come in a handy leatherette case or wall rack for mounting above work bench.
Cat. No. 580 Leatherette case. Net $7.20
581 in wall rack 7.50



WALSCO SPECIAL TOOLS

SOLDER-AID TOOL. Wire brush makes removing of solder a cinch. Forked tool end and brush made of special stainless steel to which solder will not stick.
Cat. No. 2529 8"long plastic handle Net $1.00

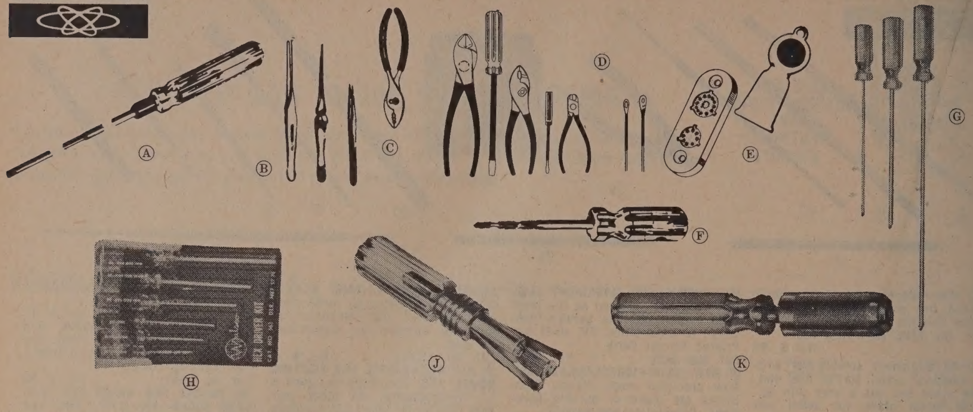
SOLDER-AID TOOL. Similar to #2529 but has very thin curved hook in place of brush. Designed for use in delicate printed circuit work.
Cat. No. 2530 8" long plastic handle Net $1.00

INSPECTION MIRROR. High-visibility polished glass reflection mirror is protected against breakage by a heavy gauge plated metal backing. Has plastic, insulated grip.
Cat. No. 554 Net $ .42

MINI-HOLD SCREWDRIVERS. Designed primarily to speed replacing phono cartridges. Exclusive "wedge-action" securely grips extremely small screws (#1 to #4) "Mini-hold" measures just 2⅞" when in use.
Cat. No. 2568 2⅞" long, "Open" length 3¼" Net $1.72
2569 7" long 2.25

Walsco ELECTRONICS

ALIGNMENT AND SPECIAL TOOLS



(A) WALSCO SLUG RETRIEVING & SCREW HOLDING TOOL — Especially designed for removing "lost" TV Tuner slugs in Standard Coil Tuners. Excellent screw holding tool. End is precision-ground of hardened steel.
Cat. No. 2565 11" Lgh. Net **$2.58** ea.
Cat. No. 2566 15" Lgh. Net **$3.00** ea.
Cat. No. 2567 19" Lgh. Net **$3.75** ea.

(B) WALSCO SERVICE TWEEZERS — For handling small parts in crowded spaces. Walsco Tweezers are indispensable. They are made of forged steel, polished nickel-plated.

Cat. No. 570 Self-Closing Tweezer with cross-over action, 6½" long, serrated, blunt points. Net **$ .78**

Cat. No. 571 Heavy-Duty Tweezer with slide-lock feature. 6½" length, serrated, blunt points. Net **$ .90**

Cat. No. 572 Precision Tweezer with narrow, pointed ends especially suitable for delicate work. Over-all length 4½". Net **$ .52**

Cat. No. 575 Tweezer Kit, made of durable leatherette, containing one each of the above listed tweezers. Net **$2.28**

(C) EASY-ON TOOL GRIP — Designed for pliers, cutters, diagonals, wire, snippers, etc. Made of flexible, elastic plastic. Gives superior insulation and protection against electrical shock.
Cat. No. 521 Small Net **$ .23** per pr.
Cat. No. 522 Med. Net **$ .27** per pr.
Cat. No. 523 Large Net **$ .33** per pr.

(D) WALSCO PROTECTO TUBE — Insulate the handles of your pliers, wire cutters, screwdriver shanks neatly and effectively with Walsco Protecto Tube.
Cat. No. 18K Net **$1.20**

(E) WALSCO STRAIGHT'N PULL TUBE PIN STRAIGHTENER AND PULLER — Compact tube pin straightener for seven and nine pin miniature tubes combined with an ingenious tube puller.
Cat. No. 565 Net **$1.08**

(F) 3-STEP TAP — Eliminates the need for carrying 3 separate taps and handle. Designed for reaming holes, tapping new holes, etc. Sizes are 6/32, 8/32 and 10/32.
Cat. No. 2574 Net **$3.50**

(G) NON-MAGNETIC BERYLLIUM SCREWDRIVERS — Ideal for making adjustments near magnetic fields such as in focalizers of TV sets. Does not affect TV picture as a steel tool would.
Cat. No. 2560 1/8" Dia., 9" Overall Length Net **$ .83**
Cat. No. 2561 1/8" Dia., 13" Overall Length Net **$ .90**
Cat. No. 2562 3/16" Dia., 9" Overall Length Net **$1.48**
Cat. No. 2564 3/16" Dia., 13" Overall Length Net **$1.65**

(H) HEX DRIVERS — Blades are made of high torque, heat treated, alloy steel and are permanently embedded in shock and chip-proof plastic handles.

Cat. No.	Size of Hex across flat	Overall Length	Net
562-01	.050"	3 3/8"	**$ .30**
562-02	1/16"	3 5/8"	**.30**
562-03	5/64"	4 3/8"	**.30**
562-04	3/32"	5 1/8"	**.35**
562-05	1/8"	5 3/8"	**.35**
562-06	5/32"	6 1/2"	**.45**

COMPLETE KIT containing all six above drivers in attractive plastic case.
Cat. No. 563 Net **$2.97**

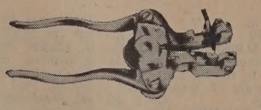
(J) TWISTO WIRE STRIPPER — A low-cost, pocket-size, precision stripper. Operating on an entirely new principle, the Walsco Twisto Wire Stripper permits stripping insulation right up next to a soldered connection, plug or socket.
Cat. No. 592-00 Net **$2.70**
Cat. No. 592-03
Replacement Blades $ **.60** per set

(K) WALSCO KNURL-TITE WRENCH — Tighten or loosen knurled finish nuts quickly and easily. The knurled nut is slipped into the collet-type pressure jaws. A quarter turn of the handle results in a positive vise-like grip.
Cat. No. 2581 3/8" Dia. nut Net **$4.83**
Cat. No. 2582 1/2" Dia. nut Net **$4.83**
Ca. No. 2583 5/8" Dia. nut Net **$4.83**

FREE CATALOG

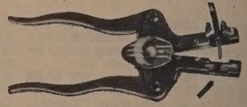
Send for the Big New Catalog of the Complete Walsco Line

Walsco Electronics Co.
Div. GC-Textron Electronics, Inc.
400 So. Wymen St., Rockford, Ill., U.S.A.



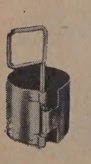
SPEED-O-MATIC WIRE STRIPPERS—With fully automatic—delayed-action return that prevents the crushing of fine stranded wires. Completes the stripping operation with one simple squeeze of the handles. Strips all types of wire insulation from #10 to #30 wires by easy exchange of cutter blades.

Cat. No. 594-01 For #8 to #22	Net **$5.93**
Cat. No. 594-02 For #10 to #18	**5.93**
Cat. No. 594-03 For #14 to #30	**5.93**
Cat. No. 594-04 For #16 to #22	**5.93**
Extra Blades for Above	set **1.43**

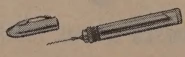


TRIG-O-MATIC WIRE STRIPPERS — Similar to 594 but has a Trig-O-Matic action that holds jaws open until released. Especially desirable for stripping of fine stranded wire.

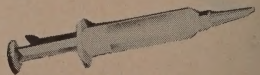
Cat. No. 593-01 For #10 to #22	Net **$5.93**
Cat. No. 593-02 For #10 to #18	**5.93**
Cat. No. 593-03 For #14 to #30	**5.93**
Cat. No. 593-04 For #16 to #22	**5.93**
Extra Blades for Above	set **1.35**



NEW WALSCO VIBRA-PULL — The quickest, easiest safest way to pull auto radio vibrators. Exclusive design offers absolute protection against damage to vibrator prongs, sockets and adjacent electronic components.
Cat. No. 566 Net **$1.60**



WALSCO OILETTE — Filled with high grade Walsco oil. Dispenses accurately one drop at a time. For use on electronic and electrical devices, clocks, office machines, sporting goods, etc.
Cat. No. 986 Net **$ .83**
Cat. No. 986-22 Refill for Oilette Net **$ .33**

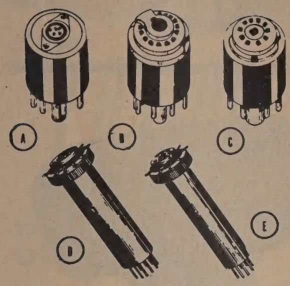


NEW WALSCO CHEM-O-JECTOR — A new type applicator for lubricants, greases, certain adhesives and many cleaning fluids used in electronics. Uses the "hypodermic" plunger principal, which makes it possible to reach "hard-to-get-at" places.
Cat. No. 987 Net **$ .30**

Walsco ELECTRONICS

NEW ALIGNMENT TOOLS and Service Aids

TEST SOCKET ADAPTORS



(A) NUVISTOR TEST SOCKET ADAPTER
Designed for testing RCA 6C W4 5-Pin Nuvistor Triode Tubes. Used with any standard EMISSION TYPE TESTER. Complete instructions included.

Cat. No. 1960 .... Net **$1.95**

(B) COMPACTRON ADAPTER
Use your present Emission Type Tube Tester in testing the new triple triode tube (12 pin) 6C10, 6K11, 6D10 and 6Q11. Simply plug into designated octal socket and use in sequence the test equipment for 6SN7 (2 setups*) and the 6SQ7 (1 setup). These setups allow you to test each section of the triple triode tubes.

*Some testers combine these 2 sections into one test.

Cat. No. 1981 .... Net **$2.25**

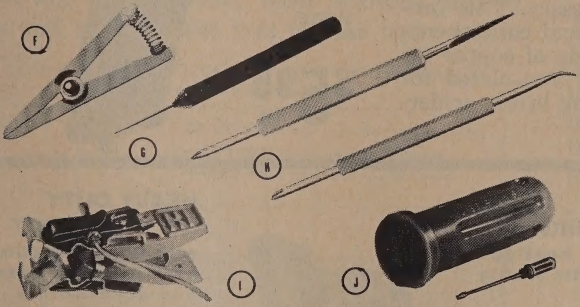
(C) DUOTETRODE 10 PIN ADAPTER
For testing Sylvania 6C9 and 17C9 "Duotetrode" 10 pin tubes. This adapter is to be used with all standard emission type tube testers.

Cat. No. 1950 .... Net **$1.80**

TEST SOCKET ADAPTERS FOR TV TUNERS
Tall, slim features of new adapters eliminates removing tube shields or tuner covers to test tube pins for voltage or resistance. Test tabs on the adapters clear tne tops of tube shields. Two sizes available: No. 1949-12: 9 pin, .75" dia. and 1949-10: 7 pin, .65" dia.

(D) Cat. No. 1949-12 .... Net **$1.95**

(E) Cat. No. 1949-10 .... Net **$1.85**



(F) HEAT SINK
Protects Transistors and Diodes when soldering.
Lightweight, first quality, firm grip. Aluminum will not stick to solder.

Cat. No. 2577 .... Net $ .36

(G) "PIGTAILER"
Makes connections quickly and easily.
For lengthening pigtails, repairing broken leads, connections, tuners, printed circuits, to hold a part until solder is applied, or for making solderless connections, for testing and reconnecting, for replacing resistors and condensers. Will wind a "pigtail" that slips over 18-gauge wire. (Used in most Radio and TV work.)

Cat. No. 2557 .... Net $1.20

(H) SOLDERING TOOLS
Won't Stick to Solder
Heat-treated tool steel, chrome-plated, won't stick to solder. Wraps or disconnect wire-wrapped soldered joints quickly. Double ended to ream solder from lug holes as well as for holding or prying parts to be soldered.

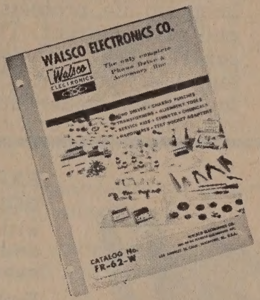
Cat. No. 2570 Straight .... Net $ .70
Cat. No. 2571 Angled .... Net $ .70

(I) "QUICK SNAP" ANTENNA CLIP
For the Serviceman's Bench
Side clips allow fast connecting with antenna lines. A-N-P type, Pin type and Flat Terminal. Fits all leading sets.

Cat. No. 1530 .... Net $.49

(J) TWISTMASTER
Twice the Leverage of the Bare Hand
Slips easily on any standard screw driver. Insulates against shock, prevents blisters.

Cat. No. 524 .... Net $ .29



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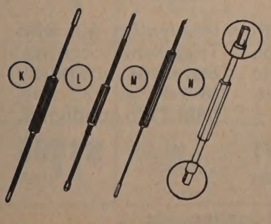
OF THE COMPLETE LINE OF WALSCO ALIGNMENT TOOLS AND SERVICE AIDS

WALSCO Electronics Co.
Div. GC-Textron Electronics, Inc.
400 SOUTH WYMAN STREET
ROCKFORD, ILLINOIS, U.S.A.



(K) DOUBLE END HEX CORE ALIGNER
Adjusts Coil Slugs
General purpose alignment tool as well as a coil slug adjuster. Both ends are .075" Hex, with one end undercut.

Cat. No. 2510 .... Net $ .48

(L) 3 IN 1 CORE ALIGNER
Adjusts Coil Slugs
For Magnavox sets and others. Hex ends, one .100" with undercut shaft; other end is .075" and .100".

Cat. No. 2511 .... Net $ .48

(M) DOUBLE END ALIGNER
Adjusts Coil Slugs
For Coil Slugs on Webcor and other sets. One end .075" Hex shaped with undercut shaft; other is a handy screwdriver.

Cat. No. 2513 .... Net $ .48

(N) ALIGNMENT TOOL
Walsco New Transistor I.F. Core Alignment Tool
Delrin alignment tool for Regency, Arvin, Silvertone and others. One end square .058", opposite end rectangle nib .039" x .072" to reach bottom slugs in iron cores.

Cat. No. 2501 .... Net $ .63

© U.C.P., Inc.

SINGLE AND DUAL HEAT Weller® SOLDERING GUNS AND KITS

DUAL HEAT SOLDERING GUN

Weller Dual Heat feature saves time and money, and increases tip life

2 trigger positions give 2 soldering temperatures. Switch instantly to the heat best suited for the job—100 or 140 watts. Use high heat only when necessary. This prolongs tip life, protects adjacent components and saves current. Tip made of copper for superior heat transfer and iron-plated for long life. Spotlight. Cleaning brush, soldering aid and solder included.

Weller® Expert
UL

MODEL 8200K **$5.95 net**

Weller
EXPERT SOLDERING KIT
SAFETY

EXPERT SOLDERING KIT

with dual heat gun and plastic utility case

Features a 100/140 watt Weller soldering gun. Break-proof plastic utility case. 3 soldering tips, tip-changing wrench, flux brush, soldering aid and solder included.

MODEL 8200PK **$7.46 net**

Weller
HEAVY DUTY SOLDERING KIT

HEAVY DUTY SOLDERING KIT

with 275-watt gun, plastic utility case and accessories

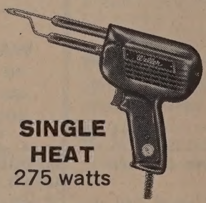
Professional 275-watt gun. Also included: break-proof plastic case, soldering tip, smoothing tip, cutting tip, tip-changing wrench, solder, instruction booklet.

MODEL 8250AK **$11.21 net**

SINGLE HEAT
120 watts

Tip heats instantly. Pistol grip with fingertip on-off control. Spotlight. Superior long-life tip.

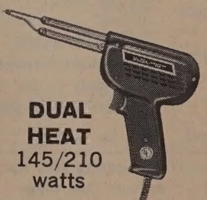
MODEL 8100B **$4.83 net**



SINGLE HEAT
275 watts

General purpose, heavy-duty model. Instant heat. Twin spotlights. Long-life tip with long reach.

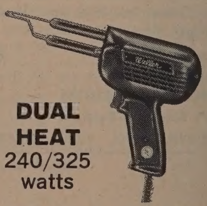
MODEL 8250A **$9.71 net**



DUAL HEAT
145/210 watts

Professional gun with Triggermatic control. Switches instantly to 145 or 210 watt heat. Twin spotlights.

MODEL D440 **$9.71 net**



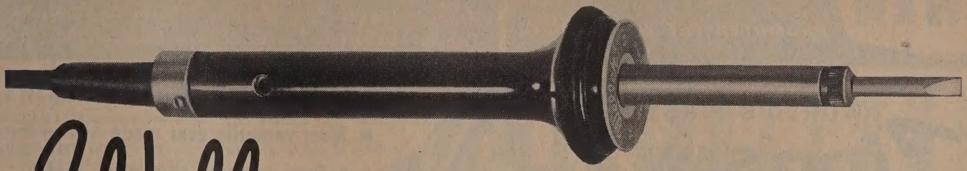
DUAL HEAT
240/325 watts

Heavy duty gun with Triggermatic control. Switches instantly to 240 or 325 watt heat. Twin spotlights.

MODEL D550 **$11.95 net**

Accessory tips available for cutting, smoothing, heat-sealing, etc.

Temperature control is in the TIP. Wide variety of tips in three different controlled temperature ranges eliminates need for extra soldering irons.

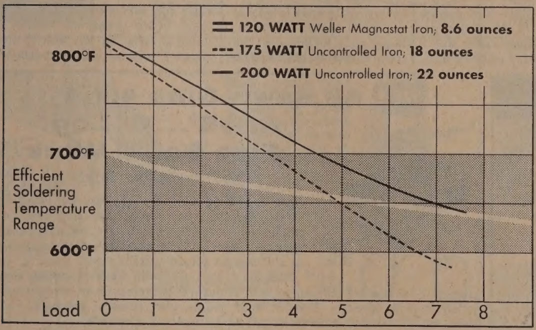


Weller® MAGNASTAT

CONTROLLED TEMPERATURE SOLDERING IRONS

With only half the weight, Weller Magnastat Irons do the work of uncontrolled irons of much higher wattage

COMPARATIVE SOLDERING IRON PERFORMANCE
—temperature vs. load



White line—Weller TC1202 Magnastat Iron temperature stability compared with two typical uncontrolled irons.

STANDARD WELLER MAGNASTAT IRONS

MODEL NO.	WATTS	TIP	NET PRICE
TC552 STD	55	5-CIN-750°F	6.75
TC602 STD	75	6-EIN-750°F	7.50
TC1202 STD	120	12-G4N-750°F	8.63

Furnished with standard two wire cord and Tip Number designated.

Other Combinations and Specifications

MODEL NO.	COMBINATION	WATTS	NET WEIGHT	NET PRICE
TC552	No cord	55	3 oz.	5.43
TC552-2	2-wire cord	55	6¾ oz.	6.19
TC552-3	3-wire cord	55	7½ oz.	6.94
TC552-TL3	Twist-lock cord	55	9½ oz.	7.69
TC602	No cord	75	3½ oz.	5.63
TC602-2	2-wire cord	75	7¼ oz.	6.38
TC602-3	3-wire cord	75	8⅛ oz.	7.13
TC602-TL3	Twist-lock cord	75	10⅛ oz.	7.88
TC1202	No cord	120	6 oz.	6.38
TC1202-2	2-wire cord	120	9¾ oz.	7.13
TC1202-3	3-wire cord	120	10½ oz.	7.88
TC1202-TL3	Twist-lock cord	120	12½ oz.	8.63

Above prices do not include tips.

Here are the only soldering irons with temperature control in the tip. One Magnastat iron with 3 different controlled temperature tips does the work of 3 different irons. And it maintains proper temperature for secure, reliable soldered connections.

- Tip temperature will not vary more than ±3% when idling.
- Efficient soldering temperature under load and excellent recovery.
- Choice of 3 different controlled temperatures by interchanging tips.
- Light weight reduces operator fatigue. Handle remains cool.

Over 90 different Magnastat Wellertips . . . premium plated for long life

Available in popular configurations and in 3 temperature ranges for all Magnastat iron models. There are short, normal and bent screwdriver types. Also various pyramid and cone types. Each tip houses the Magnastat sensing device. Made of copper and premium iron-plated for long life. Tips are available in 3 series:

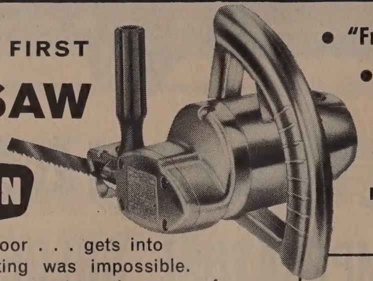
SERIES	FOR MODEL	TEMPERATURE	NET PRICE
5	TC552	600°F, 700°F or 750°F	.57
6	TC602	600°F, 700°F or 750°F	1.14
12	TC1202	600°F, 700°F or 750°F	1.52

WEN *. . . Tools you will sell the most*

PROMOTED THE YEAR 'ROUND | Reader's Digest—Life, Saturday Evening Post—Esquire, Popular Mechanics, Popular Science, Mechanix Illustrated

WORLD'S FIRST Zipp SAW

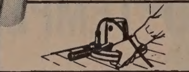
Exclusively from **WEN**



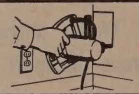
- **"Free Hand" cutting saw**
- **Most versatile ever made**
- **Cuts anything anywhere—fast**
- **1/3 HP Motor—UL Industrially Rated**

MODEL 920 $44.95 LIST COMPLETE WITH 7 BLADES

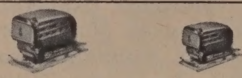
Makes wall cuts flush with floor . . . gets into corners where powered cutting was impossible. Handles like a keyhole saw with many times the power of a crosscut. Perfectly balanced for one-hand use. Great on the job for virtually every type of cutting . . . metal up to ½″, steel or wood up to 6″ x 6″, fine scroll work. 3200 1″ strokes per minute. Heavy duty roller & oilite bearings. 3 wire cord.



Makes horizontal wall base cuts dead flush with floor.



Corner cuts are easy—flush to either wall. The Zipp Saw is actually the first power saw to solve the problem of close corner work due to its uniquely designed miniature base plate.



STRAIGHT-LINE VIBRATOR SANDERS

Model 202—$13.95
Small, light, quiet. Strong black plastic case. 14,400 strokes per minute. In display carton with 6 abrasive sheets, 2 polishing pads.

Model 303—$16.95
General utility model in red plastic. 14,400 strokes per minute. In gold metal Kit Box with 12 abrasive sheets, 2 polishing pads.

Model 404—$19.95
Heavy duty with special motor for amazing power. 14,400 strokes per minute. Ebony plastic in metal Kit Box with 15 abrasive sheets, 2 polishing pads, instruction book

Belt Sander Model 910 $44.95 LIST

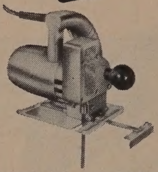
Cool-running 4¼ amp. motor turns belt at 850 surface ft. per min. Gear driven with permanently lubricated precision needle and oversize sleeve bearings. Unique tension device enables quick change of belts. Exclusive casting design causes dust accumulation at rear—keeps work clean, easy to see. Balanced weight, contour grip handle minimize fatigue. Die cast polished aluminum housing. Total weight 7 lbs. Comes with 3 belts: coarse, medium, fine.

$29.95 LIST
⅜″ 2-Speed Power Drill Model 808

A 2-speed ⅜″ Power Drill by Wen—and only Wen. Here in one tool is everything needed in an electric drill. Easy to change speeds. 1000 RPM to 3000 RPM. Husky, powerful, but streamlined design. Genuine ⅜″ Geared Chuck. Universal 2 amp. Motor. Size 12¼″ x 4¾″ x 2½″. Weight 4½ lbs.

WEN All Saw...Cuts 4 x 4 At 45°...6″ Log Fine Scroll Work...

with complete safety.



Does Everything a Pattern Saw Will Do, More Than A Circular Saw Does! Does many things a band saw or nibbler will do—and many things that, until now, only a chain saw could. No other portable electric-saw can cut a 6″ board or a 6″ log, yet cut any pattern, too!

Cuts 2 x 4, 4 x 4, 6 x 6—all metals, including steel thin gauge to ½″—pipe and thin wall up to 2″ in diam. Cuts curves, circles, straight cuts, fine pattern work in Masonite, Bakelite, wood, metals, tiles, Formica, wallboard, Plexiglas, plaster board, asbestos. Knife blade cuts all materials cut with knife.

Curved foot plate enables inside cut anywhere; cutting blade in line of sight; air stream clears dust from line of cut; powerful ½ H.P. motor; 3 wire 8 cord with adaptor; heavy duty hardened gears; heavy duty roller and oilite bearings.

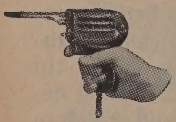
1/2 h.p.

Complete with 7 blades, rip guide, circle cutter, 45 tilting base plate. Universal Motor: AC-DC, 3400 1″ strokes per minute. Length 8″, Width 7″, Height 7½″, Wt. 6½ lbs.

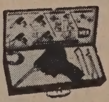
only **$44.95**
UL listed under Industrial Classification

"Quick Hot" Soldering Guns . . . 8 standard and special tips

Promotionally Priced



$7.95 LIST
Model 199



$9.95 LIST
Model 199K

General purpose gun. Heats 2½ seconds. Weighs 1½ lbs. Has long, durable tips, spotlight, sturdy red plastic case. Kit includes gun, extra tips for hot-cutting, smoothing, rosin core solder, all in strong metal box.

$9.95 LIST
Model 288

Heats in 5 seconds, far beyond 200 watt rating. Light (2¼ lbs.) Has long reach, long life tips, spotlight, strong shatterproof handle and case.

$12.95 LIST
Model 250

Famous WEN 250 Watt Heavy Duty Model. 567 hours continuous operation. Heats in 5 seconds. Spotlights work. With special rip cuts plastic tile. Strong black plastic case. Comes in attractive Self-Display Carton. Also available in kit form (250K) with metal carrying case.

$5.95 LIST
Model 100

Feather-light (19 oz.) Slim-line (1¹¹⁄₁₆″ cross section) 100 Watts power. Heats 2½ seconds. Built-in spotlight focused on work. Long reach, long life tips, replaceable and interchangeable with special purpose tips. Lustrous black plastic housing.

WEN PRODUCTS, INC. Chicago, Ill.

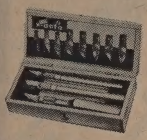
precision hand tools

The line of tools that "fit-the-job" to save you time and money

x-acto "Refill-Blade" KNIVES

lways Sharp...Safe To Use! Wherever a Sharp Knife is Used

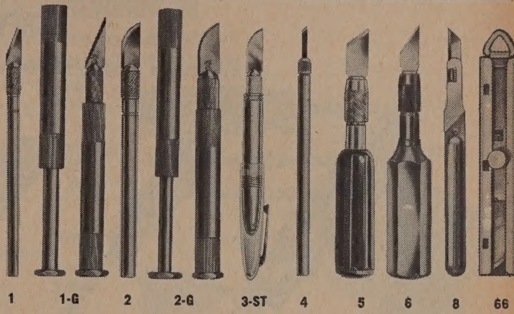
- **Famous X-acto "Interchangeable Blade" Knife Feature!** Just "twist the chuck" and insert new blade.
- **Versatility!** X-acto knife handles accommodate more than 28 different style of Blades, Gouges, Routers and Punches.
- **So Safe!** Fingers are never near the cutting edge.



No. 83

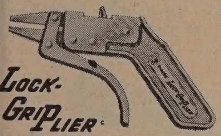
KNIFE SETS

No. 83 DeLuxe Knife Chest: Nos. 1, 2, & 6 Knives plus 18 ass't Blades in wood chest....$6.00
No. 82 Knife Chest: Nos. 1, 2, & 5 Knives plus 9 ass't Blades in wood chest....$4.50
No. 81 Knife Set: Nos. 1, 2, & 5 Knives plus 10 ass't Blades in plastic case....$3.75
No. 62 Knife Set: Nos. 1 & 2 Knives plus 10 ass't Blades in plastic case....$2.75
No. 52: No. 2 Knife plus 5 ass't Blades....$1.35
No. 51: No. 1 Knife plus 5 ass't Blades....$1.20



No. 1 KNIFE—Aluminum Handle. For Light to Medium work with #11 Blade....60¢
No. 1-G KNIFE (Pat.)—Aluminum Construction. Ideal for depth gauge cutting. For Light to Medium work. With #11 Blade....$1.20
No. 2 KNIFE—Aluminum Handle. For Medium to Heavy Work. With #22 Blade..75¢
No. 2-G KNIFE (Pat.)—Same as #1-G Knife except is for Medium to Heavy work. With #22 Blade....$1.50
No. 3-ST PENKNIFE—For Light to Medium work. With #10 Blade....$1.00
No. 4 STENCIL KNIFE—Metal Handle with detachable blade....30¢
No. 5 KNIFE—Plastic Handle, metal blade lock. With #19 Blade....$1.20
No. 6 KNIFE—For Heavy Work. With #24 Blade....$1.80
No. 8 UTILITY KNIFE—Steel Handle, reversible blade. With #8 Blade....29¢
No. 66 POCKET KNIFE—Push button operation. With #122 Blade....59¢

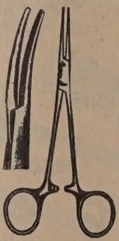
No. 348 Soldering Aid Kit—Contains five tools and a universal, double-chuck handle—all in an always-handy, see-thru carrying case. Tools are hard chrome-plated steel, to which solder will not adhere. Individual tools are replaceable.
No. 348 ....$3.00



(Pat. No. 2,766,646)

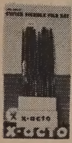
e "third hand" for small assemblies. rves as a Heat Sink, Plier, Vise, ripper, Crimper, Tweezer, Wrench.
. 800 ....$3.50

RETRIEVER CLAMPS



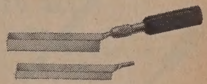
Multi-purpose tools with scores of uses in soldering, wiring & small parts assembly. Made of Swedish Steel. Box Lock assures perfect alignment.

5½" Length
No. 810-S $5.75
Straight Nose
No. 810-C $5.90
Curved Nose
6¼" Length
No. 813-S $6.75
Straight Nose
No. 813-C $6.90
Curved Nose



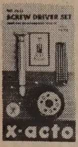
SWISS NEEDLE FILES

No. 60S—Swiss Needle File Set: Complete Set of 12 assorted styles $3.95



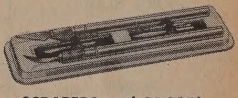
RAZOR SAWS

No. 53—Razor Saw Set: No. 5 Handle with #34 and #35 Razor Saw Blades....$1.75
No. 34—¾" Razor Saw Blade....40¢
No. 35—1" Razor Saw Blade....45¢



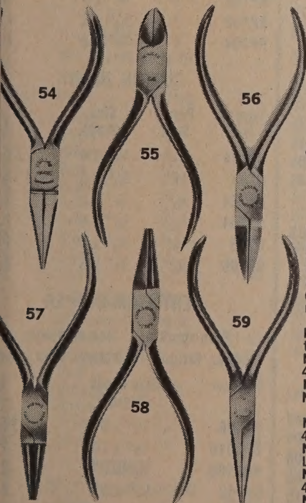
JEWELER'S SCREW DRIVERS

No. 70—Screw Driver Set: Aluminum handle with positive locking chuck and 5 assorted "interchangeable" steel blades $1.75



SCRAPERS and PROBES

No. 63—Scraper Set: 2 handles, 6 asst'd scraper points, 2 straight edge cutting blades in plastic case $2.75
(Scraper points and handles also available separately)



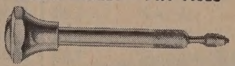
Royal Swedish

PLIERS

Tempered Swedish Steel. Box-joint assures perfect jaw alignment. Scientifically hardened and tempered in all three key areas (1) Jaws, (2) Box Joint, (3) Handles. Also available with non-slip insulated handles.

No. 54—Long nose, side cutting. Length 4½" $4.50
No. 55—Diagonal cutting. Lgth 4" $4.00
No. 555—5" Length $5.00
No. 56—Flat nose. Length 4½" $3.50
No. 57 — Snipe-nose. Length 4½" $3.50
No. 58 — Combination nose. Length 4½" $3.50
No. 59 — Long-nose. Length 4½" $4.00
No. 596—6" Length $5.00

HAND DRILLS — PIN VISES



All-Aluminum handles with swivel knobs. Precision-tooled English Model Chucks.

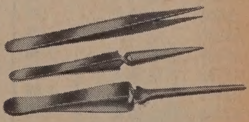
No. 1D $1.25
(for #80 to #60 dril bits)
No. 2D $1.25
(for #63 to #50 drill bits)
No. 3D $1.50
(for #53 to #44 drill bits)
No. 21D $1.00
(with double end chuck)
No. 321D $2.75
(Precision chuck set for drill bits #44 to #80 and Pin Vise with interchangeable Standard Handle.)

DRILL CHUCK ADAPTERS

Precision-tooled English Models (1⅜" long). Fit standard hand drills, power drills and lathes.

No. 22A ....75¢
(for #80 to #60 drill bits)
No. 22B ....75¢
(for #63 to #50 drill bits)
No. 22C ....75¢
(for #53 to #44 drill bits)

TWEEZERS



No. 36—Plain Pointed (4¾" long)....50¢
No. 37—Cross-action, self locking, pointed (4¾" long)....65¢
No. 38—Cross-action, self locking, blunt (6½" long) ....70¢
(Other specialized tweezers also available)

HEAT SINKS

(also ideal for use as cross-action clamp and tweezer)
No. 349 ST ....60¢ card of 3
3½" long all-aluminum

Write for complete catalog of X-acto Precision Hand Tools

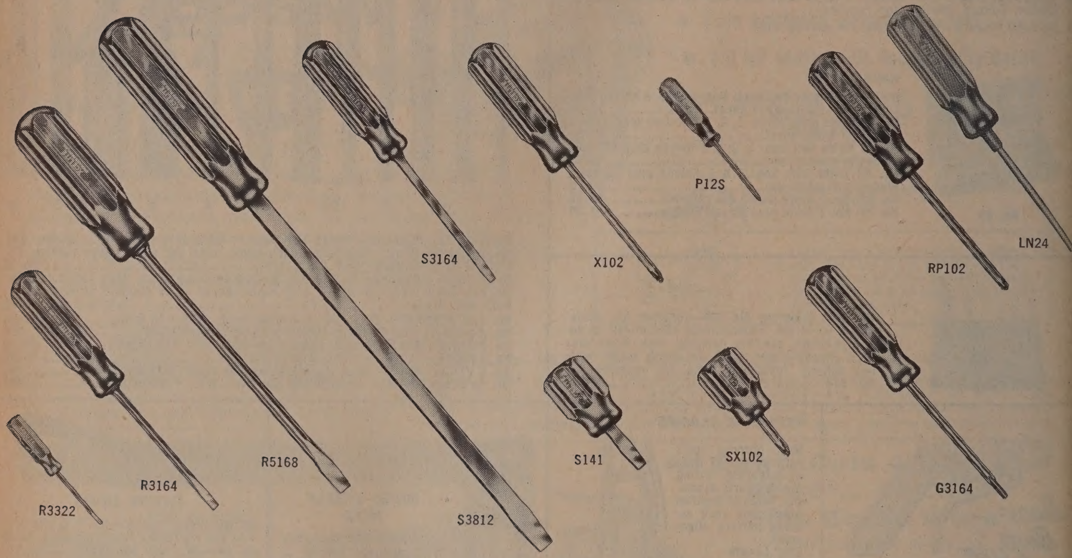
X-ACTO PRECISION TOOLS, INC., **Long Island City, New York**
Nearly a Half-Century experience in precision manufacturing

x-acto

XCELITE® QUALITY PROFESSIONAL TOOLS

SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.



ROUND BLADE

Number	Size Blade	List
	Regular	
R182	⅛″ x 2″	$ .55
R184	⅛″ x 4″	.65
R186	⅛″ x 6″	.70
R188	⅛″ x 8″	.90
R1810	⅛″ x 10″	1.00
R5323	5/32″ x 3″	.75
R5324	5/32″ x 4″	.75
R5325	5/32″ x 5″	.75
R5328	5/32″ x 8″	1.00
R3163	3/16″ x 3″	.95
R3164	3/16″ x 4″	1.05
R3166	3/16″ x 6″	1.20
R3168	3/16″ x 8″	1.40
R31610	3/16″ x 10″	1.50
R142	¼″ x 2″	1.15
R144	¼″ x 4″	1.30
R146	¼″ x 6″	1.40
R148	¼″ x 8″	1.50
R1410	¼″ x 10″	1.60
R5164	5/16″ x 4″	1.45
R5166	5/16″ x 6″	1.65
R5168	5/16″ x 8″	1.80
	Pocket Clip Style	
R3322	3/32″ x 2″	.40
R3323	3/32″ x 3″	.45
R3324	3/32″ x 4″	.45
R181	⅛″ x 2″	.40
R183	⅛″ x 3″	.45
R184½	⅛″ x 4″	.45

SQUARE BLADE

Number	Size Blade	List
	Regular	
S3163	3/16″ x 3″	$1.10
S3164	3/16″ x 4″	1.15
S3166	3/16″ x 6″	1.35
S3168	3/16″ x 8″	1.50
S31610	3/16″ x 10″	1.65
S142	¼″ x 2″	1.25
S144	¼″ x 4″	1.45
S146	¼″ x 6″	1.55
S148	¼″ x 8″	1.70
S5162	5/16″ x 2″	1.35
S5164	5/16″ x 4″	1.65
S5166	5/16″ x6″	1.75
S5168	5/16″ x 8″	1.90
S51610	5/16″ x 10″	2.10
S51612	5/16″ x 12″	2.30
S388	⅜″ x 8″	2.30
S3812	⅜″ x 12″	3.30
S3818	⅜″ x 18″	3.55
S7166	7/16″ x 6″	2.70
S71612	7/16″ x 12″	3.30
S71618	7/16″ x 18″	3.55
S1424	¼″ x 24″	3.00
	Stubby	
S3161	3/16″ x 1″	.75
S141	¼″ x 1″	.85
S5161	5/16″ x 1″	.85

PHILLIPS

Number	Point Size	Size Blade	List
		Extra Long	
X1010	1	3/16″ x 10″	$1.75
X1020	2	¼″ x 10″	1.95
		Regular	
X100	0	⅛″ x 2″	.75
X101	1	3/16″ x 3″	1.15
X108	1	3/16″ x 6″	1.25
X102	2	¼″ x 4″	1.45
X103	3	5/16″ x 6″	1.95
X104	4	⅜″ x 8″	2.45
		Stubby	
SX101	1	3/16″ x 1⅜″	1.05
SX102	2	¼″ x 1⅜″	1.15
		Pocket Clip Style	
P12S	0	⅛″ x 2″	.65

ALLEN HEX

Number	Hex Size	Blade Length	List
LN20	.050″	4″	$1.00
LN21	1/16″	4″	1.00
LN22	5/64″	4″	1.00
LN23	3/32″	4″	1.00
LN24	⅛″	4″	1.15
LN25	5/32″	6″	1.15
LN26	3/16″	6″	1.15
LN27	7/32″	6″	1.30
LN28	¼″	6″	1.30

REED & PRINCE

Number	Point Size	Size Blade	List
RP101	1	3/16″ x 3″	$1.10
RP102	2	¼″ x 4″	1.40
RP103	3	5/16″ x 6″	1.85
RP104	4	⅜″ x 8″	2.35

CLUTCH HEAD

Type G No.	Point Size	Size Blade	List
G3324	3/32″	⅛″ x 4″	$1.20
G183	⅛″	3/16″ x 3″	1.20
G5324	5/32″	¼″ x 4″	1.35
G3164	3/16″	¼″ x 4″	1.35
G146	¼″	5/16″ x 6″	1.75
G5166	5/16″	⅜″ x 6″	2.15

BERYLLIUM-COPPER

Non-sparking. Non-magnetic.
Higher fatigue resistance than steel.

Number	Size Blade	List
	Regular	
BR186	⅛″ x 6″	$1.25
BR1810	⅛″ x 10″	1.35
BR3168	3/16″ x 8″	2.20
BR146	¼″ x 6″	2.75
BR148	¼″ x 8″	2.95
	Pocket-Clip Style	
BR181	⅛″ x 2″	.50

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XCELITE® QUALITY PROFESSIONAL TOOLS

COMBINATION-REVERSIBLE SCREWDRIVERS

SAE 6150 chrome vanadium steel blades. Shockproof, breakproof, plastic (UL) handles.. Patented spring holds blades securely. 7/16" hex opening doubles as a nutdriver.

COMPLETE UNITS

Regular Type	List
CR1—No. 25 handle & RB1 blade	$2.30
CR2—No. 25 handle & RB2 blade	2.30
CR3—No. 25 handle & RB3 blade	2.30
Stubby Type	
CS1—No. 26 handle & SB1 blade	2.05
CS2—No. 26 handle & SB2 blade	2.05

HANDLES ONLY

25—Regular	1.00
26—Stubby	.90

BLADES ONLY

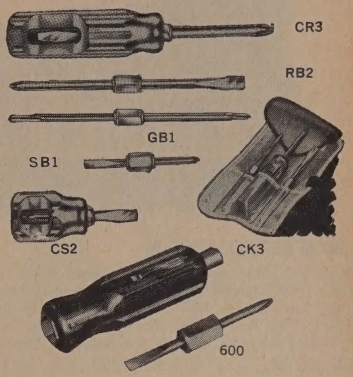
Regular Type	
RB1 — No. 1 Phillips & 3/16" Slotted	1.30
RB2 — No. 2 Phillips & 1/4" Slotted	1.30
RB3 — No. 3 Phillips & 5/16" Slotted	1.30
RB12—No. 1 & No. 2 Phillips	1.45
GB1—3/16"G & 5/32"G Clutch	$1.45
GB2—5/16"G & 1/4"G Clutch	1.45
Stubby Type	
SB1—No. 1 Phillips & 3/16" Slotted	1.15
SB2—No. 2 Phillips & 1/4" Slotted	1.15
GS1—3/16"G & 5/32"G Clutch	1.28

ROLL KIT COMBINATIONS

	List
CK2 with No. 25 combination handle and RB1 and RB2 reversible blades	$4.50
CK3 Same as CK2, plus RB3 blade	5.80
CK5 Same as CK2, plus RB3, GB1, and GB2 blades	8.70

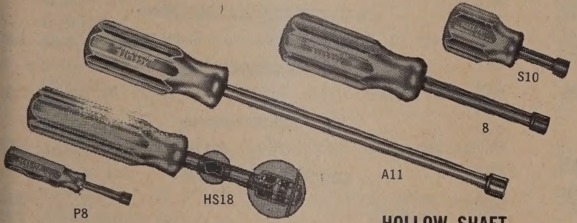
COMBINATION SCREW AND NUTDRIVER TOOL

600—Handy 4-way tool with pocket clip. 1/4" and 7/16" hex openings. Reversible SB1 blade ... .List $2.30



NUTDRIVERS (Color-Coded Handles)

Polished-plated, High Carbon Steel shafts. Shockproof, breakproof, plastic (UL) handles. Precision, cold drawn, case hardened sockets.



REGULAR

(6" Overall Length)

Number	Handle Color	Hex Opening	List
5	Amber	5/32"	$1.25
6	Black	3/16"	1.25
7	Brown	7/32"	1.25
8	Red	1/4"	1.25
9	Orange	9/32"	1.25
10	Amber	5/16"	1.25
11	Green	11/32"	1.25
12	Blue	3/8"	1.25
14	Brown	7/16"	1.60
16	Red	1/2"	1.60

EXTRA LONG

(9" Overall Length)

A6	Black	3/16"	$1.45
A7	Brown	7/32"	1.45
A8	Red	1/4"	1.45
A9	Orange	9/32"	1.45
A10	Amber	5/16"	1.45
A11	Green	11/32"	1.45
A12	Blue	3/8"	1.45

STUBBY

(3 1/4" Overall Length)

S6	Black	3/16"	$1.05
S8	Red	1/4"	1.05
S10	Amber	5/16"	1.05
S11	Green	11/32"	1.05
S12	Blue	3/8"	1.05

HOLLOW SHAFT

Number	Handle Color	Hex Opening	List
HS6	Black	3/16"	$1.55
HS7	Brown	7/32"	1.55
HS8	Red	1/4"	1.55
HS9	Orange	9/32"	1.55
HS10	Amber	5/16"	1.55
HS11	Green	11/32"	1.55
HS12	Blue	3/8"	1.55
HS13	Amber	13/32"	1.75
HS14	Brown	7/16"	1.75
HS15	Amber	15/32"	1.80
HS16	Red	1/2"	1.80
HS17	Amber	17/32"	1.90
HS18	Orange	9/16"	1.90
HS19	Amber	19/32"	2.10
HS20	Amber	5/8"	2.10
HS22	Amber	11/16"	2.65
HS24	Amber	3/4"	2.65

POCKET CLIP STYLE

P3	Amber	3/32"	$ .80
P4	Red	1/8"	.80
P5	Amber	5/32"	.80
P6	Black	3/16"	.80
P7	Brown	7/32"	.80
P8	Red	1/4"	.80
P9	Orange	9/32"	.80
P10	Amber	5/16"	.80
P11	Green	11/32"	.80
P12	Blue	3/8"	.80

NUTDRIVER SETS

Choice of heavy gage steel stands and racks with large readable size indexes. Color-coded, shockproof, breakproof, plastic (UL) handles. Polished-plated shafts.

No. 17 BENCH STAND TYPE List $10.50

Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

No. 137 BENCH STAND TYPE List $11.95

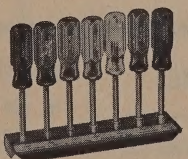
Contains Nos. 6, 8, 10, 11, 12, HS16 and HS18 color-coded nutdrivers.

No. 127 LOCKABLE WALL RACK TYPE List $10.75

Contains Nos. 6, 7, 8, 9, 10, 11, and 12 color-coded nutdrivers.

No. 147 BENCH STAND TYPE (Hollow Shaft) List $13.30

Contains Nos. HS8, HS9, HS10, HS11, HS12, HS14, and HS16 hollow shaft, color-coded nutdrivers.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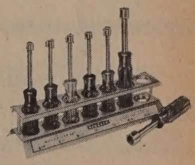
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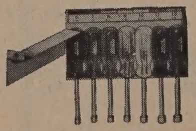
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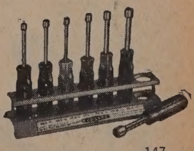
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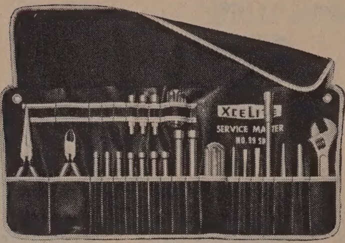
XCELITE® QUALITY PROFESSIONAL TOOLS

SERIES "99" SERVICE KITS, BLADES, AND HANDLES



NO. 99SM SERVICE MASTER — List $38.15

Contains 52CG long nose cushion grip plier, 55CG 5″ diagonal cushion grip plier, 99-3 handle (Stubby) with three nutdrivers (¼″, ⁵⁄₁₆″, ⅜″), 46C adjustable wrench, 99-1 handle (Regular) with nine interchangeable nutdrivers (99-6 thru 99-16), one Phillips and two slotted screwdrivers, 99-X10 extension shaft, and two chrome-plated reamers.

99SMK, Kit only ....List $3.20

No. 99PR ROLL KIT — List $14.45

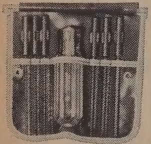
Contains nine nutdrivers (99-6 thru 99-16), 99-81 (Slotted) and 99-82 (Phillips) reversible screwdriver blades, 99-1 handle (Regular).

99K, Kit only ....List $1.60

No. 99JR ROLL KIT — List $12.50

Contains seven nutdrivers (99-6 thru 99-12) four screwdriver blades 99-811 and 99-812 (slotted), and 99-821 and 99-822 (Phillips), 99-2 handle (Junior).

99KJR, Kit only ....List $1.60

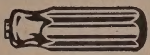
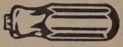
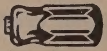
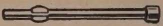
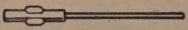
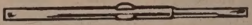
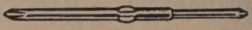
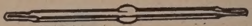
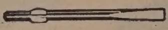
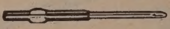
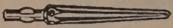
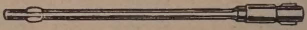
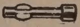


No. 99LN ROLL KIT — List $7.45

Contains six Allen hex screwdriver blades (99-21 thru 99-26) and 99-1 handle (Regular).

No. 99-30 CLEAR PLASTIC POUCH — List $5.40

Heat sealed plastic snap case with size numbers on pockets for convenient selecting and storing. Contains six Allen hex screwdriver blades (99-21 thru 99-26).

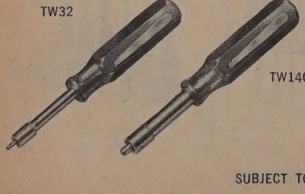
	List
99-1 (1¹⁄₁₆″ x 4⅛″) Regular Handle (for all blades, single-end and reversible)	$1.15
99-2 (1″ x 3⅛″) Junior Handle (for single-end blades only)	1.00
99-3 (1¹⁄₁₆″ x 2″) Stubby Handle (for single-end blades only)	.90
Nutdriver Blades: 99-6 (³⁄₁₆″), 99-7 (⁷⁄₃₂″), 99-8 (¼″), 99-9 (⁹⁄₃₂″), 99-10 (⁵⁄₁₆″), 99-11 (¹¹⁄₃₂″), 99-12 (⅜″)	.90
99-14 (⁷⁄₁₆″), 99-16 (½″)	1.20
Allen Hex Screwdriver Blades: 99-21 (¹⁄₁₆″), 99-22 (⁵⁄₆₄″), 99-23 (³⁄₃₂″), 99-24 (⅛″), 99-25 (⁵⁄₃₂″), 99-26 (³⁄₁₆″)	.90
99-81 Slotted Screwdriver Reversible Blade (³⁄₁₆″ & ⁹⁄₃₂″)	1.50
99-82 Phillips Screwdriver Reversible Blade (#1 & #2)	1.50
99-83 Reed & Prince Screwdriver Reversible Blade (³⁄₁₆″ & ⁹⁄₃₂″)	1.50
99-84 Clutch "G" Screwdriver Reversible Blade (³⁄₁₆″ & ⁵⁄₃₂″)	1.50
Slotted Screwdriver Blades: 99-811 (³⁄₁₆″), 99-812 (⁹⁄₃₂″)	.90
Phillips Screwdriver Blades: 99-821 (#1), 99-822 (#2)	.90
Reamers: 99-38 (⅛″-⅜″)	2.20
99-39 (¼″-½″)	2.75
99-X10 Extension Shaft. Adds 7″ reach to single-end blades	1.45
Stubby Nutdriver Blades: 99-S8, 99-S10, 99-S12	.80

TERMINAL WRENCHES

Removes spanner nut on external antenna and earphone jacks of transistor radios. Convenient pocket clip.

No. TW32 (.086″ guide pin for ¼″ O.D. spanner nut) ....**List $ .80**

No. TW140 (.140″ guide pin for ⁵⁄₁₆″ O.D. spanner nut) ....**List $ .80**



CARBURETOR AND DISTRIBUTOR TOOLS

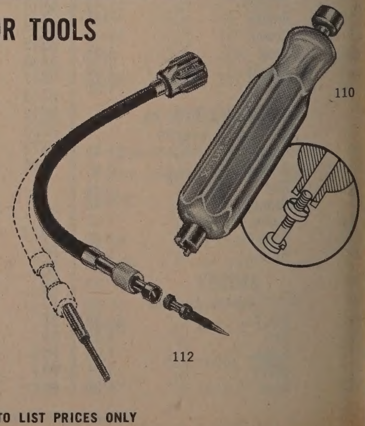
No. 110 POCKET CLIP STYLE

For adjustment and replacement of Delco distributor points. Nutdriver end turns ¹¹⁄₃₂″ hex nut on lead wire from coil. Pronged end engages slot in circular nut to release or adjust points.

List $1.65

No. 112 FLEXIBLE SHAFT

Hooded screwdriver bit permits "hairline" adjustment of carburetor idle. Allen bit quickly adjusts Delco Remy distributors. Length including bits, 14⅜″ ....**List $3.95**



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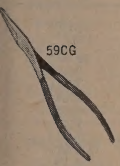
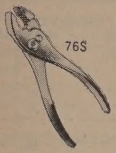
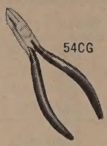
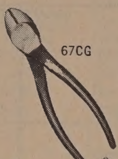
XCELITE® QUALITY PROFESSIONAL TOOLS

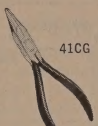
PLIERS

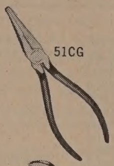


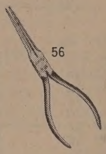




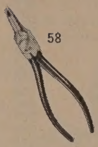


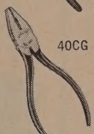


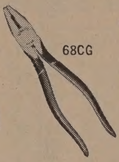


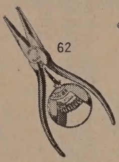


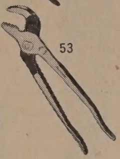
Precision-machined forged alloy steel. Perfectly aligned jaws. Hand-honed, mated cutting edges. Box joints provided where "double-strength" is important. Polished heads.











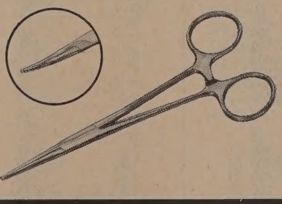
No.	Description	List
59CG	—CHAIN NOSE ELECTRICIANS PLIER (8″)—Cushion Grip	$4.40
75C	—COMBINATION SLIP JOINT PLIER (5″)—Chrome-Plated	1.62
76C	—COMBINATION SLIP JOINT PLIER (6″)—Chrome-Plated	1.62
	76S—Satin Finish	.94
78C	—COMBINATION SLIP JOINT PLIER (8″)—Chrome-Plated	2.16
54	—DIAGONAL PLIER (Midget 4″)	3.70
	54CG—Cushion Grip	4.10
5	—DIAGONAL PLIER (5″)	3.40
	55CG—Cushion Grip	3.90
6	—DIAGONAL PLIER (6″)	3.90
	66CG—Cushion Grip	4.40
7	—DIAGONAL PLIER (7″)	4.00
	67CG—Cushion Grip	4.70
1CG	—LONG NOSE PLIER (Midget 4″)—Without Side Cutters—Cushion Grip	3.70
2	—LONG NOSE PLIER (6″)—Without Side Cutters	3.10
	52CG—Cushion Grip	3.50

No.	Description	List
51	—LONG NOSE PLIER (6″)—With Side Cutters	$3.90
	51CG—Cushion Grip	4.40
56	—NEEDLE NOSE PLIER (6″)	3.60
	56CG—Cushion Grip	4.00
58	—RADIO AND TV PLIER (6″)	4.50
	58CG—Cushion Grip	4.90
40CG	—SIDE CUTTING PLIER (Midget 4″)—Cushion Grip	3.50
60	—SIDE CUTTING PLIER (6″)	3.60
	60CG—Cushion Grip	4.10
68	—SIDE CUTTING PLIER (8″)	4.40
	68CG—Cushion Grip	4.90
62	—TRAVERSE CUTTING PLIER (6″)	4.40
	62CG—Cushion Grip	4.90
53	—UTILITY PLIER (6″)—Forged Rib-Lock	2.60
	53CG—Cushion Grip	3.00
63	—UTILITY PLIER (10″)—Forged Rib-Lock	3.40
	63CG—Cushion Grip	4.32

SEIZER

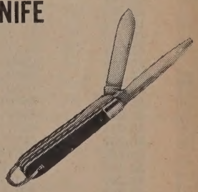
utreaches, outholds needle nose pliers. lamps tightly. Holds wires for soldering, etrieves small parts from hard-to-reach laces. It's a heat sink. Two-position snap-ock. Stainless steel, box-joint construction. ″ length. Precision machined and tempered.

2H	Straight Nose	List $5.70
3H	Curved Nose	List 5.90



No. K22 ELECTRICIAN'S KNIFE

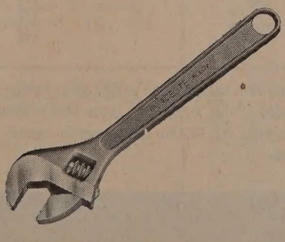
Two blades. One is combination insulation-scraper and screwdriver. Has positive lock when open .... List $3.35



ADJUSTABLE WRENCHES

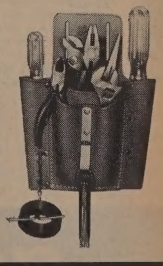
hin-pattern permits access to close-quarter ork. Chrome-plated forged alloy steel. olished heads.

No.	Size	List
4C	4″	$2.88
6C	6″	2.88
8C	8″	3.30
0-10C	10″	4.20
0-12C	12″	6.20



No. 150 TOOL HOLSTER

Has tape holder, knife clip, and 5 tool pockets. Durably made of pliable saddle leather with natural cowhide finish. Features comfortable hip-contoured back, hot-waxed stitching, and brass rivets .... List $5.25



XCELITE, INC. • ORCHARD PARK, N. Y., U. S. A.

adam electronics

AMERICAN MADE
MINIATURE TRANSISTOR TRANSFORMERS

A complete line of quality transistor transformers available in 2 sizes. 100 series measures 1 x ¾ x ¾, 200 series ¾ x ⅝ x ⅝. Units feature molded nylon bobbins, with mylar insulation. Provided with color-coded leads and optional channel frames.

CHANNEL

"100 SERIES" 1 x ¾ x ¾ OVERALL

PART NO.	TYPE	IMPEDANCE		UNBALANCED CURRENT PR	POWER	D.C. RESISTANCE		USERS
		PRI OHM	SEC OHM	DC MA	M.W.	PRI OHMS	SEC OHMS	NET
AD-172	OUTPUT	48 CT	8 or 3.2	15.	350	2.3	.6/.3	$2.67
AD-174	OUTPUT	125 CT	3.2	8.	350	6	.3	2.35
AD-176	OUTPUT	125 CT	8	8.	350	4	.7	2.35
AD-170	OUTPUT	160 CT	8 or 3.2	8.	350	10	.6/.3	2.67
AD-123	INPUT	200	2,000 CT	2.	150	11	50	2.35
AD-122	OUTPUT	250 CT	3.2	2.	150	11	.3	2.35
AD-139	OUTPUT	250 CT	8	2.	250	15	.7	2.35
AD-162	OUTPUT	500 CT	500 CT	5.	350	18	18	2.67
AD-138	OUTPUT	1,000 CT	3.2	4.	250	120	.3	2.35
AD-137	OUTPUT	1,000 CT	8	4.	250	120	.9	2.35
AD-136	OUTPUT	1,000 CT	100	4.	250	120	10	2.35
AD-175	DRIVER	2,000	1,500 CT	2.	350	150	60	2.35
AD-116	OUTPUT	2,000	200	4.	250	120	20	2.12
AD-115	INPUT	2,000 CT	8,000 CT	2.	150	150	660	2.67
AD-112	OUTPUT	3,500	200	1.	150	120	25	2.12
AD-135	OUTPUT	4,000 CT	3.2	4.	250	150	.3	2.35
AD-134	OUTPUT	4,000 CT	8	4.	250	150	.8	2.35
AD-173	DRIVER	5,000	3,000 CT	2.	350	200	90	2.35
AD-107	DRIVER	15,000	200	1.5	250	1000	20	2.31
AD-105	DRIVER	20,000	400	1.	100	600	30	2.31
AD-103	DRIVER	20,000	2,000 CT	1.	100	400	50	2.55
AD-129	INPUT	50,000	1,000	2.	100	2500	20	2.31
AD-128	INPUT	50,000	1,500 CT	2.	100	3000	50	2.55
AD-127	INPUT	50,000	3,000 CT	1.	100	2000	50	2.55
AD-146	INPUT	100 K	50	.5	350	3000	1.6	2.31
AD-102	INPUT	100 K	1,500 CT	.5	100	3600	40	2.55
AD-145	INPUT	100 K	2,000 CT	.5	350	3000	50	2.55
AD-101	INPUT	100 K	3,000 CT	.5	100	3600	60	2.55
AD-126	INPUT	150 K	1,500 CT	2.	100	3700	55	2.55
AD-100	INPUT	200 K	1,000	.5	100	3600	90	2.31
AD-144	INPUT	200 K	1,500 CT	.5	350	3000	65	2.55
AD-143	INPUT	250 K	200 CT	.5	350	3500	20	2.55
AD-142	INPUT	500 K	200 CT	.3	350	3500	20	2.55
AD-141	INPUT	500 K	1,500 CT	.3	350	3500	60	2.55
100C CHANNEL FOR 100 SERIES								.15

"200 SERIES" ¾ x ⅝ x ⅝ OVERALL

PART NO.	TYPE	IMPEDANCE PRI OHM	IMPEDANCE SEC OHM	UNBALANCED CURRENT PR DC MA	POWER M.W.	D.C. RESISTANCE PRI OHMS	D.C. RESISTANCE SEC OHMS	USERS NET
AD-225	INPUT	3	4,000	15.	250	14	50	$2.12
AD-271	OUTPUT	100 CT	10 CT	10.	175	4	0.8	2.67
AD-240	OUTPUT	200 CT	3.2	2.	100	10	.3	2.35
AD-269	OUTPUT	200 CT	8 or 3.2	7.	175	9	.6/.3	2.67
AD-224	OUTPUT	200 CT	16	2.	250	20	1.3	2.35
AD-221	OUTPUT	300 CT	3.2	6.	150	20	.25	2.35
AD-268	OUTPUT	300 CT	16	6.	175	12	1.4	2.35
AD-267	OUTPUT	400 CT	8 or 3.2	5.	175	16	.6/.3	2.67
AD-220	OUTPUT	400 CT	11	1.	150	20	.9	2.35
AD-266	OUTPUT	400 CT	16	5.	175	16	1.3	2.67
AD-219	OUTPUT	500 CT	3.2	5.	100	20	.3	2.35
AD-264	OUTPUT	500 CT	8	5.	175	18	.8	2.35
AD-218	OUTPUT	500 CT	16	5.	100	20	1.5	2.35
AD-217	OUTPUT	500 CT	30	5.	100	20	1.5	2.35
AD-265	OUTPUT	500 CT	50	5.	175	18	.4	2.35
AD-263	OUTPUT	500 CT	150 CT	5.	175	18	8	2.67
AD-261	OUTPUT	650 CT	16	5.	175	27	1.3	2.35
AD-260	OUTPUT	800 CT	3.2	5.	175	40	.3	2.35
AD-259	DRIVER	1,500	500 CT	4.	175	100	20	2.35
AD-214	OUTPUT	2,500	11	10.	150	50	1.1	2.12
AD-213	DRIVER	3,000 CT	1,000	9.	150	100	60	2.35
AD-211	OUTPUT	5,000	100	1.	100	600	10	2.12
AD-254	INPUT	5,000 CT	7,500 CT	2.	175	150	400	2.67
AD-255	INPUT	5,000	10,000	2.	175	150	450	2.31
AD-256	INPUT	5,000	30,000	2.	175	150	1300	2.31
AD-257	INPUT	5,000	45,000	2.	175	250	1600	2.31
AD-258	INPUT	5,000 CT	80,000	2.	175	350	1800	2.55
AD-233	OUTPUT	10,000	3.2	1.	100	600	.3	2.31
AD-232	OUTPUT	10,000	8	1.	100	600	.6	2.31
AD-210	OUTPUT	10,000	16	2.	150	600	2.5	2.31
AD-253	DRIVER	10,000	200 CT	2.	175	400	10	2.35
AD-209	DRIVER	10,000	2,000 CT	1.5	100	500	50	2.55
AD-208	DRIVER	10,000	3,000 CT	1.5	100	200	100	2.55
AD-252	DRIVER	15 K	200 CT	1.5	175	550	10	2.55
AD-206	DRIVER	16 K	4,000	1.	100	620	350	2.31
AD-231	OUTPUT	20 K	3.2	.5	100	400	.3	2.31
AD-230	OUTPUT	20 K	8	.5	100	400	.6	2.31
AD-251	DRIVER	20 K	800 CT	1.5	175	600	60	2.55
AD-204	DRIVER	20 K	1,000	1.	100	400	50	2.31
AD-250	INPUT	40 K	100	1.	175	850	6	2.31
AD-247	INPUT	50 K	30 CT	1.	175	1,300	1.5	2.55
AD-249	INPUT	50 K	200 CT	1.	175	1,300	10	2.55
AD-248	INPUT	50 K	500 CT	1.	175	1,300	20	2.55
200C CHANNEL FOR 200 SERIES								.15

ENCAPSULATED

Units can be provided hermetically sealed with compression sealed glass headers. Add suffix H, e.g. AD 209 H. 100 can size 1" dia. x 1⅝ high, 200 series 1" dia. x $\frac{15}{16}$ high. Units also available encapsulated add suffix E, e.g. AD 209 E. Overall dimensions increase by ⅛. For hermetically sealed units double net price. For encapsulated units add 75% to net price.

HERMETIC

adam electronics BROOKLYN, NEW YORK

ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

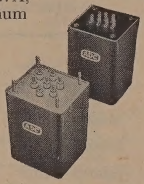
A Division of Magnetic Controls Company

POWER TRANSFORMERS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

Reliability, minimum size and long life under rugged environmental conditions are prime requisites in today's military electronic equipment. To meet these modern standards, ADC offers a complete line of hermetically sealed power transformers. Designed to meet MIL-T-27A specifications and utilizing MIL cases and mounting dimensions, these units offer our customers a ready source for prototype and production applications. All military contractors and commercial electronic engineers with stringent environmental conditions will find these carefully rated units ideally suited. For those applications where hermetic sealing is not necessary, we offer the conservative transformer designs of our hermetically sealed line, in drawn steel cases of MIL size and mounting dimensions with phenolic terminal plates and solder lug terminals.

POWER TRANSFORMERS—60 Cycle

ADC offers these standard power transformer designs to cover a wide range of requirements for electronic circuit application. They are available in standard MIL case sizes, hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R, life expectancy X. Maximum operating altitude is 10,000 feet.



The same electrical ratings are also available as commercial grade fully enclosed units for non-military applications in the same MIL case sizes. This version is furnished with a phenolic terminal board and heavy duty solder lug terminals. Mounting screws and tapped inserts provide the same mounting centers as MIL-T-27A versions.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No.		Plate Winding			Filament Windings		
Comm'l Case	Hermetic Seal	AC Volts	DC Ma	DC Volts	Volts/Amps		MIL Case
522A	523A	250-0-250 C Input	20	300	6.3 CT/5	2	FA
522B	523B	300-0-300 C Input	60	310	5	2	HA
					6.3 CT	2	
522C	523C	350-0-350 C Input	110	355	5	2	JA
		L Input		265	6.3 CT	4	
522D	523D	375-0-375 C Input	150	380	5	3	LA
		L Input		280	6.3 CT	5	
522E	523E	385-0-385 C Input	200	360	5	3	
		L Input		280	6.3 CT	5	
					6.3 CT	2	MA
522F	523F	500-0-500 L Input	300	400	6.3/5	6	
					6.3 CT	6	NA

FILAMENT TRANSFORMERS

PRIMARY: 105/115/125 V., 50-60 CPS

Catalog No. Commercial Case	Hermetic Seal	Sec. Volts	Sec. Amps.	Insulation Volts RMS	MIL Case
522FA	523FA	2.5 CT	5.5	3,500	FA
522FB	523FB	2.5 CT	10.0	7,500	GA
522FC	523FC	2.5 CT	15.0	10,000	JA
522FD	523FD	5.0 CT	4	3,500	GA
522FE	523FE	5.0 CT	10	5,000	HA
522FF	523FF	5.0 CT	20	10,000	MA
522FG	523FG	6.3 CT	3.0	2,500	FA
522FH	523FH	6.3 CT	5.5	2,500	GA
522FJ	523FJ	6.3 CT	10	2,500	JB
522FK	523FK	6.3 CT	20	2,500	KA
522FL	523FL	12.6 CT	2	2,500	GA

POWER TRANSFORMERS—400 Cycle

These items are especially designed for maximum performance in 380 to 1500 CPS applications, with maximum altitude ratings of 50,000 feet. They are hermetically sealed to meet all requirements of MIL-T-27A, Grade 4, Class R. Standard MIL case sizes and construction are used.

COMBINATION PLATE AND FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No.				Filament Windings		
Comm'l Case	Hermetic Seal	Plate Winding AC Volts	DC Ma	Volts / Amps		MIL Case
512A	513A	240-0-240 C Input	20	6.3 CT	1.5	AJ
512B	513B	250-0-250 C Input	40	6.3 CT	2.5	EA
512C	513C	300-0-300 C Input	80	6.3 CT	5	GA
				6.3/5V	2	
512D	513D	350-0-350 C Input	150	6.3 CT	4	HA
				6.3/5V	3	
512E	513E	450-0-450 C Input	200	6.3 CT	8	JA
				6.3/5V	3	

FILAMENT TRANSFORMERS

PRIMARY: 115 V., 380-1500 CPS

Catalog No. Commercial Case	Hermetic Seal	Sec. Volts	Sec. Amps	Insulation Volts RMS	MIL Case
512FA	513FA	6.3 CT	1	1,500	AH
512FB	513FB	6.3 CT	3	1,500	AJ
512FC	513FC	6.3 CT	5.5	2,500	EA
512FD	513FD	6.3 CT	10	2,500	FA
512FE	513FE	6.3 CT	20	2,500	GA
512FF	513FF	26 CT	1	2,500	EA
512FG	513FG	26 CT	3	2,500	FA

MILITARY STANDARD TRANSFORMERS

These Military Standard transformers have been specified by ASESA and are established by the three Military Services and the transformer industry as standards for Military transformer applications. Each item is available as either Grade 1 or Grade 4 (ruggedized) as requested. Tests have been conducted in ADC's environmental laboratory which indicate that these units will meet the requirements of MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X 10,000 hours minimum).

MILITARY STANDARD POWER TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary AC Volts	#1 DC Ma	DC Volts	Sec #2 Volts/Amps		Sec. #3 Volts/Amps	
MS-90026	521A	TF 4RX 03HA001	200-100-0-100-200	70	140	6.3/5	2	6.3	3
MS-90027	521B	TF 4RX 03JB002	325-0-325	70	250	6.3/5	2	6.3	4
MS-90028	521C	TF 4RX 03KB006	325-0-325	150	240	6.3	5	5	3
MS-90029	521D	TF 4RX 03LB003	400-0-400	175	290	5	3	6.3	8
MS-90030	521E	TF 4RX 03MB004	450-0-450	250	320	5	3	6.3	8
MS-90031	521F	TF 4RX 02KB001	350-0-350	250	250	--	--	--	--
MS-90032	521G	TF 4RX 02LB002	550-0-550	250	400	--	--	--	--
MS-90036	521H	TF 4RX 02NB003	800-0-800	250	575	--	--	--	--

NOTE: 1. Primaries 105/115/125V., 54-66 CPS.
2. Secondary #1 DC voltage based upon inductive input filter.
3. Max. operating altitude 10,000 ft.
4. These items are also available as Grade 1 components.

MILITARY STANDARD FILAMENT TRANSFORMERS

Military Part No.	Catalog No.	Type Designation	Secondary Volts	Secondary Amps	Insulation Volts RMS
MS-90016	521M	TF 4RX 01EB002	2.5	3.0	2500
MS-90017	521N	TF 4RX 01GB003	2.5	10	2500
MS-90018	521P	TF 4RX 01FB004	5.0	3.0	2500
MS-90019	521Q	TF 4RX 01HB005	5.0	10	2500
MS-90020	521R	TF 4RX 01FB006	6.3	2.0	2500
MS-90021	521S	TF 4RX 01GB007	6.3	5.0	2500
MS-90022	521T	TF 4RX 01JB008	6.3	10	2500
MS-90023	521U	TF 4RX 01KB009	6.3	20	2500
MS-90024	521V	TF 4RX 01JB012	2.5	10	10000
MS-90025	521W	TF 4RX 01KB013	5.0	10	10000

NOTE: 1. Primaries 105/115/125 V., 54-66 CPS.
2. Max. operating altitude 10,000 ft.
3. These items are also available as Grade 1 components.

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See Page 1389 for ADC Prices

ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

INDUCTORS *FOR MILITARY AND INDUSTRIAL APPLICATIONS*

ADC's line of inductors are circuit running mates to ADC's power transformers. They are available hermetically sealed, to meet MIL-T-27A requirements Grade 4, Class R, life expectancy X. For commercial applications, where hermetic sealing is not necessary, these same ratings are available in MIL cases and mounting dimensions, but with phenolic terminal board and solder lug terminals.

FOR 50-60 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current MA	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422A	423A	15	20	700	1000	AJ
422B	423B	20	40	475	2500	EB
422C	423C	15	60	230	2500	FA
422D	423D	12	80	175	2500	FA
422E	423E	10	110	175	2500	GA
422F	423F	8	150	100	2500	HA
422G	423G	8	200	85	2500	JA
422H	423H	8	250	85	2500	KB
422J	423J	8	325	55	2500	LA
422K	423K	4	500	30	2500	LA
422L	423L	5/25	250/25	160	2500	KB
422M	423M	5/25	325/30	110	2500	LA

FOR 380-1500 CYCLE POWER SUPPLIES

Catalog No. Commercial Case	Catalog No. Hermetic Seal	Inductance Henries	DC Current Ma	DC Resistance Ohms	Insulation Volts RMS	MIL Case
422V	423V	2.5	50	175	2500	AH
422W	423W	5	50	350	2500	AJ
422X	423X	2	80	250	2500	AJ
422Y	423Y	2	150	100	2500	EB
422Z	423Z	2	200	100	2500	EA

MILITARY STANDARD INDUCTORS (power)

These Military Standard inductors have been specified by ASESA and are established by the three military services and the transformer industry as standards for military inductor applications. They are hermetically sealed to meet all MIL-T-27A requirements Grade 1, Class R, life expectancy X.

Military Part No.	Catalog No.	Type Designation	Inductance Series	Inductance Parallel	DC Resistance Ohms		Insulation Volts RMS
MS90009	421A	TF 1RX 04FA001	16 hy .08 a	4 hy .16 a	1-2 3-4	295 350	2400
MS90010	421B	TF 1RX 04GA002	25 hy .08 a	6.25 hy .16 a	1-2 3-4	300 370	2400
MS90011	421C	TF 1RX 04HA003	40 hy .08 a	10 hy .16 a	1-2 3-4	450 570	2400
MS90013	421D	TF 1RX 04HA005	16 hy .125 a	4 hy .25 a	1-2 3-4	145 185	3800
MS90014	421E	TF 1RX 04JB006	25 hy .125 a	6.25 hy .25 a	1-2 3-4	225 235	3800
MS90037	421F	TF 1RX 04KA007	40 hy .125 a	10 hy .25 a	1-2 3-4	240 295	5300
MS75000	421G	TF 1RX 04LA009	16 hy .20 a	4 hy .40 a	1-2 3-4	80 100	5900
MS75001	421H	TF 1RX 04MA010	25 hy .20 a	6.25 hy .40 a	1-2 3-4	90 120	5900
MS75002	421J	TF 1RX 04NA012	16 hy .315 a	4 hy .63 a	1-2 3-4	45 60	5900
MS75003	421K	TF 1RX 04YY013	25 hy .315 a	6.25 hy .63 a	1-2 3-4	70 80	5900

ADC TOROIDS

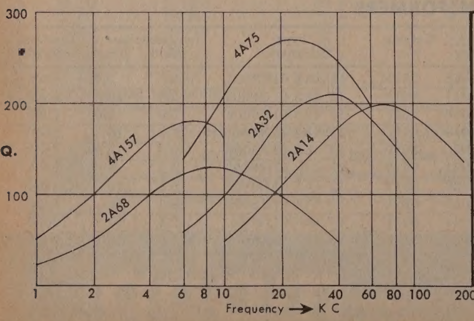
These toroids are readily available in the standard inductance ratings and sizes shown below. Typical characteristics are shown in the curves for each style of core. High inductance values will show an apparent decrease in Q at higher frequencies due to distributed capacitance.

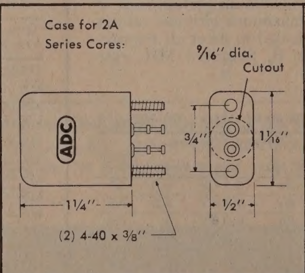
These are hermetically sealed to meet Military specifications in the drawn steel cases shown.

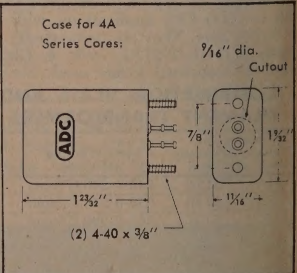
Available on 2A68 core: DCR—200 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 5.0 hy.	$\frac{400}{\sqrt{L}}$
Available on 2A32 core: DCR—430 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .002 to 1.0 hy.	$\frac{570}{\sqrt{L}}$
Available on 2A14 core: DCR—1000 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .001 to .5 hy.	$\frac{850}{\sqrt{L}}$
Available on 4A157 core: DCR—100 ohms/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 15 hy.	$\frac{570}{\sqrt{L}}$
Available on 4A75 core: DCR—220 ohm/hy. Max DC (ma) for 5% drop in L (mh). Available in .005 to 5 hy.	$\frac{790}{\sqrt{L}}$

TABLE OF STOCKED INDUCTANCE VALUES (±1%) IN HENRIES

Inductance (henries)	Core Types 2A68	2A32	2A14	4A157	4A75
.0010			419EA		
.0015			419EC		
.0022		419CE	419EE		
.0033		419CG	419EG		
.0047		419CJ	419EJ		
.0068	419AL	419CL	419EL	419GL	419KL
.010	419AN	419CN	419EN	419GN	419KN
.015	419AQ	419CQ	419EQ	419GQ	419KQ
.022	419AS	419CS	419ES	419GS	419KS
.033	419AU	419CU	419EU	419GU	419KU
.047	419AW	419CW	419EW	419GW	419KW
.068	419AY	419CY	419EY	419GY	419KY
.10	419BA	419DA	419FA	419HA	419LA
.15	419BC	419DC	419FC	419HC	419LC
.22	419BE	419DE	419FE	419HE	419LE
.33	419BG	419DG	419FG	419HG	419LG
.47	419BJ	419DJ	419FJ	419HJ	419LJ
.68	419BL	419DL		419HL	419LL
1.0	419BN			419HN	419LN
1.5	419BQ			419HQ	419LQ
2.2	419BS			419HS	419LS
3.3	419BU			419HU	419LU
4.7	419BW			419HW	419LW
6 8				419HY	







See Page 1389 for ADC Prices

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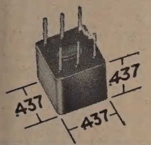
ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

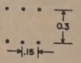
"BLUE CHIP" TRANSISTOR TRANSFORMERS *for Printed Circuit Applications*

Five different sizes, from .08 to 1.2 cubic inches with a total of 62 new ratings are listed below to indicate the available power levels for both voice frequency range and extended frequency operation. These ratings take into account not only power handling capacities at minimum frequencies, but also total harmonic distortion under stated conditions. Within the limits shown on the rating charts, variations in both power and distortion levels are possible depending upon the minimum operating frequency.

These units are designed and built to meet MIL-T-27A Grade 5, Class S requirements.



PIN LAYOUT

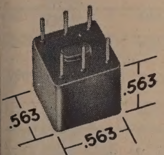


Pin Diameter: .030″
Pin Length: ½″
Weight: 0.15 oz.

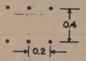
RESPONSE: ±2 DB 300 to 100,000 CPS.
DISTORTION: 10% at 30 MW, 300 to 100,000 CPS, except as noted.

Catalog Number	Primary Impedance–Ohms	Secondary Impedance–Ohms	Primary-Secondary DC Resistance–Ohms		Max. DC in Primary–MA.
324–6A	★ 100K–CT	1000–CT	3300	70	0
324–6B	25K–CT	1000–CT	2800	150	0
124–6C	10K–CT	10K–CT	1100	1400	1
324–6D	10K–CT	1500–CT	1100	180	1
324–6E	10K–CT	600–CT	1100	75	1
224–6F	4000–CT	10K–CT	440	1400	1.5
324–6G	1000–CT	600–CT	110	75	3
324–6H	1000–CT	4	110	0.5	3
224–6J	600–CT	25K–CT	65	3500	4
124–6K	600–CT	600–CT	65	75	4
324–6L	600–CT	60	65	7	4
324–6M	600–CT	4	65	0.5	4

★Max. power level: 10 mw at 300 cps.



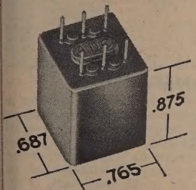
PIN LAYOUT



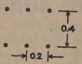
Pin Diameter: .030″
Pin Length: ½″
Weight: 0.4 oz.

RESPONSE: ± 1 DB 200 to 50,000 CPS.
DISTORTION: 10% at 150 MW, 200 to 50,000 CPS.

324–5A	100K–CT	1000–CT	6000	60	0
324–5B	25K–CT	1000–CT	2800	120	0
124–5C	10K–CT	10K–CT	1100	1200	1
324–5D	10K–CT	1500–CT	1100	200	1
324–5E	10K–CT	600–CT	1100	75	1
224–5F	4000–CT	10K–CT	440	1200	1.5
324–5G	1000–CT	600–CT	100	60	3
324–5H	1000–CT	4	100	0.4	3
224–5J	600–CT	25K–CT	65	3500	4
124–5K	600–CT	600–CT	65	75	4
324–5L	600–CT	60	65	7	4
324–5M	600–CT	4	65	0.5	4



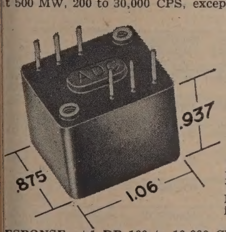
PIN LAYOUT



Pin Diameter: .030″
Pin Length: ½″
Weight: 0.9 oz.

ESPONSE: ±1 DB 200 to 20,000 CPS.
ISTORTION: 1.5% at 20 MW, 60 to 30,000 CPS, or 10%
t 500 MW, 200 to 30,000 CPS, except as noted.

324–4B	25K–CT	1000–CT	2800	120	0
124–4C	10K–CT	10K–CT	1100	1200	1
324–4D	10K–CT	1500–CT	1100	180	1
324–4E	10K–CT	600–CT	1100	75	1
324–4F	10K–CT	4	1100	0.5	1
224–4G	4000–CT	10K–CT	440	1200	1.5
324–4H	1500–CT	15	165	2	2.5
324–4J	1000–CT	600–CT	110	75	3
324–4K	1000–CT	4	110	0.5	3
224–4L	600–CT	25K–CT	65	3000	4
124–4M	600–CT	600–CT	65	75	4
324–4N	600–CT	60	65	7	4
324–4P	600–CT	15	65	2	4
324–4Q	600–CT	4	65	0.5	4
224–4R	250	600–CT	30	75	7



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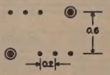
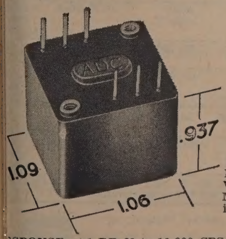


Pin Diameter: .030″
Pin Length: ½″
Weight: 1.5 oz.
Mounting: 2—4x40 inserts, 0.6″x0.8″

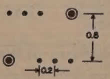
ESPONSE: ±1 DB 100 to 10,000 CPS.
ISTORTION: 1.5% at 60 MW, 100 to 10,000 CPS, or
% at 3.5 W, 200 to 10,000 CPS, except as noted.

124–3A	10K–CT	10K–CT	800	1100	1
324–3B	10K–CT	600–CT	800	65	1
324–3C	10K–CT	4	800	0.5	1
324–3D	1500–CT	15	110	1.6	2.5
324–3E	1000–CT	600–CT	75	65	3
324–3F	1000–CT	4	75	0.5	3
224–3G	★ 600–CT	25K–CT	45	2800	4
124–3H	600–CT	600–CT	45	65	4
324–3J	600–CT	60	45	7	4
324–3K	600–CT	15	45	1.6	4
324–3L	600–CT	4	45	0.5	4
224–3M	250	600–CT	20	65	7

★Max. power level: 2.5 w.



PIN LAYOUT



Pin Diameter: .030″
Pin Length: ½″
Weight: 2.5 oz.
Mounting: 2—4x40 inserts, 0.8″x0.8″

SPONSE: ±1 DB 60 to 10,000 CPS.
STORTION: 1% at 250 MW, 60 to 10,000 CPS, or 10%
7.5W, 200 to 10,000 CPS, except as noted.

124–2A	★ 10K–CT	10K–CT	700	900	1
324–2B	★ 10K–CT	600–CT	700	55	1
324–2C	★ 10K–CT	4	700	0.4	1
324–2D	1500–CT	15	100	1.5	2.5
324–2E	1000–CT	600–CT	65	55	3
324–2F	1000–CT	4	65	0.4	3
124–2H	600–CT	600–CT	40	55	4
324–2J	600–CT	60	40	6	4
324–2K	600–CT	15	40	1.5	4
324–2L	600–CT	4	40	0.4	4
224–2M	250	600–CT	13	55	7

★Max. power level: 6 w.

Tolerance on outline dimensions +.020 −.010

ALL RATINGS BASED UPON MAXIMUM UNBALANCED DC IN PRIMARY AS LISTED

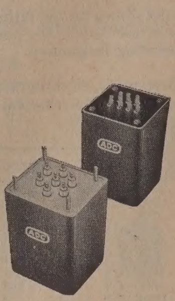
ADC

ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

AUDIO TRANSFORMERS *FOR MILITARY AND COMMERCIAL APPLICATIONS*

ADC offers the following designs to cover a wide range of standard audio applications, from low power transistors through heavy duty output circuits. They are conservatively rated at ±½ db from 30 to 15,000 cycles at the maximum rated power. Each is designed for minimum insertion loss, is fully impregnated before potting and rated for dependable continuous duty operation.



These audio transformers are available in standard MIL cases, hermetically sealed to meet all requirements of MIL-T-27A. THE SAME RATINGS ARE ALSO AVAILABLE AS COMMERCIAL GRADE COMPONENTS, featuring the lower cost construction of a phenolic terminal board with solder lug terminals in the same drawn MIL cases.

INPUT TRANSFORMERS Response ±½ db, 30-15,000 cps

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Hum Reduction	Case Size
222A	223A	Line to Single or Push Pull Grids.	600[1]	60,000[1] Split	+ 10 dbm	—65 db	AJ
222B	223B	Low Impedance Line to Grid.	12.5/50/200	80,000	+ 10 dbm	—65 db	AJ
222C	223C	Line and Bridging to Single or Push Pull Grids. [3-4]	150/600/15,000	60,000[1] Split	+ 10 dbm	—65 db	AJ
222D	223D	High Impedance Pickup or Plate to Push Pull Grids.	10,000 (10MA DC)	80,000[1] Split	+ 22 dbm	—35 db	EA
222E	223E	Push Pull Plates to Push Pull Grids.	20,000[1] Split	90,000[1] Split	+ 24 dbm	—35 db	EA

IMPEDANCE TRANSFORMERS Response ±½ db, 30-15,000 cps

122A	123A	Line to Line	600[1]/250[1] (150/62.5)	600[1]/250[1] (150/62.5)	+ 15 dbm	—65 db	AJ
122B	123B	Bridging and Line to Line.[3]	10,000[1]/600[1] (2500/150)	600[1]/250[1] (150/62.5)	+ 15 dbm	—65 db	AJ
122C	123C	Line to Line	600[1]/150[1] (150/37.5)	600/150 (150/37.5)	+ 15 dbm	—65 db	AJ
122D	123D	Line to Voice Coil	Impedances 3000/2500/2000/1000/500/250 ohm to 16/8/4		+ 40 dbm (10 W)		FA
122E	123E	Line to Voice Coil	3000/2500/2000/1000/500/250 ohm to 16/8/4		+ 45 dbm (30 W)		JA
122F	123F	Auto Matching	600/500/440/400/333/250/220/140/75/50/43/37/22/16/10/8/6/3/2/1		+ 43 dbm (20 W)		GA
122G		Hybrid —50 db bal.	600 to 600 (300 Ohm Amp.)		+ 10 dbm	—35 db	EA

INTERSTAGE TRANSFORMERS Response ±½ db, 30-15,000 cps

222F	223F	Transistor to Transistor	500/100CT Split[2] (25 MA DC)	200/300CT Split[2]	+ 15 dbm	—15 db	AJ
222G	223G	Transistor to Transistor	1000/250CT Split[2] (10 MA DC)	500/200CT Split[2]	+ 15 dbm	—15 db	AJ

NOTES:

[1] Balanced Center Tap

[2] Bifilar Wound

[3] All bridging transformers have built-in primary resistors, balanced to 0.1% or better, making the bridging impedance twice the primary impedance.

[4] For single grid input, response is ±1 db, 30-15,000 cps.

OUTPUT TRANSFORMERS Response ±½ db, 30-15,000 cps (Power Response at Rated Output)

Catalog No. Commercial Case	Hermetic Seal	Application	Primary Impedance Rating (Ohms)	Secondary Impedance Rating (Ohms)	Max. Level	Case Size
322A	323A[6]	Plate to Line	15,000 (10 MA DC)	600/250 (150/62.5)[2]	+ 20 dbm (.1 W)	EB
322B[5]	323B[5]	Plate to Voice Coil	5,000 (40 MA DC)	16/8/4	+ 37 dbm (5 W)	FA
322C	323C	Push Pull Plates to Line	20,000 CT	600/250 (150/62.5)[2]	+ 30 dbm (1 W)	EB
322D	323D	Push Pull Plates to Line and Voice Coil	10,000 CT	600 (150)[2] 16/8/4	+ 40 dbm (10 W)	GA
322E	323E[1]	Push Pull Plates to Voice Coil[4]	9,000/2,250 Split[2]	16/8/4	+ 40 dbm (10 W)	GA
322F	323F[1]	Push Pull Plates to Voice Coil[3]	10,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322G	322G[1]	Push Pull Plates to Voice Coil[4]	8,000/1,600 Split[2]	16/8/4	+ 42 dbm (15 W)	JB
322H	323H[1]	Push Pull Plates to Voice Coil[4]	5,000/3,000 Split[2]	16/8/4	+ 43 dbm (20 W)	JA
322J	323J[1]	Push Pull Plates to Voice Coil[4]	6,600/1,650 Split[2]	16/8/4	+ 45 dbm (30 W)	KA
322K	323K[1]	Push Pull Plates to Voice Coil[4]	3,500/700 Split[2]	16/8/4	+ 48 dbm (70 W)	LA
322L	323L[1]	Push Pull Par Plates to Voice Coil	2,500/1,500 Split[2]	16/8/4	+ 49 dbm (80 W)	MA
322M	323M[1]	Push Pull Class A Transistors to Voice Coil	48/16/8 Split[2]	16/8/4	+ 47 dbm (50 W)	KA
322N	323N[1]	Class A Transistor to Voice Coil	10 (1.25a. DC)	16/8/4	+ 38 dbm (7 W)	JB
322P	323P[1]	Push Pull Transistors to Voice Coil	48/32 CT	16/8/4	+ 40 dbm (10 W)	GA

NOTES:

[1] These items are not normally carried in stock.

[2] "Split" indicates 2 separate, symmetrical windings. Impedances shown are for series connection. Where impedances are shown in parenthesis, they indicate the impedances resulting when windings are connected in parallel.

[3] Balanced, for Williamson type circuit operation.

[4] Has primary taps suitable for Screen loading

[5] Power response ±½ db, 50-15,000 cps.

[6] Response is ±1 db, 30-15,000 cps.

All of these designs are available on special order with output impedances of other values than shown above.

MINIATURE AUDIO TRANSFORMERS

2-56 Screws
Bottom View

These transformers offer a variety of special design features on a catalog basis for particular circuit and chassis applications. They are available for plug-in and printed circuit applications as well as standard installations. The special cases shown allow the maximum of electrical performance for each type as well as variety and flexibility in mechanical arrangement. All electrical ratings are shown for continuous duty at full specified power levels. Dia. ⅞″, Ht. 1⅜″, 2-56 Mtg. screws on 11/16″ centers.

MINIATURE SERIES

Cat. No.	Type	Application	Primary Impedance (Ohms)	Secondary Impedance (Ohms)	Max. Level	Response
108A	Impedance	Line to Line	50/250/600	50/250/600	+ 8 dbm	±1 db 30-15,000
208A	Input	Line to Single Grid	50/250/600	80,000	+ 10 dbm	±1 db 30-15,000
208B	Input	Line to Push Pull Grids	50/250/600	80,000CT	+ 10 dbm	±1 db 30-15,000
208C	Input	Low Impedance to Grid	7.5/30	80,000	+ 8 dbm	±1 db 30-15,000
208D	Interstage	Plate (O DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±1 db 30-10,000
208E	Interstage	Plate (3MA DC) to Push Pull Grids	15,000	60,000CT	+ 10 dbm	±2 db 200-10,000
208F	Input	Line to Single Grid	50/250/600	500,000	+ 10 dbm	±3 db 200-3000
208G	Interstage	Transistor to Transistors (20 MA DC)	10,000 (2500) Split	4000/1000CT	+ 10 dbm	±2 db 100-10,000
308E	Output	Plate to Line (O DC)	15,000	50/250/600	+ 10 dbm	±1 db 40-15,000
308F	Output	Plate to Line (3MA DC)	15,000	50/250/600	+ 10 dbm	±2 db 100-15,000
308G	Output	Push Pull Plates to Line	30,000CT	50/250/6600	+ 10 dbm	±1 db 30-15,000
308H	Output	Class B Transistors to Voice Coil	2000/500CT	16/8/4	+ 23 dbm	±1 db 100-10,000
408D	Inductor	200 Hy @ 0 DC; ;100 Hy @ 2MA DC; 50 Hy @ 4MA DC; 16 Hy @ 10MA DC; 6000 Ohms Resistance				

NOTE: These items are also available, on special request, as plug-in transformers with:

1. Mumetal case 15/16″ dia. by 1-5/16″ high. 35 db shielding.
2. Mumetal case plus 1 Mumetal shield 1-1/16″ dia. by 1½″ high. 65 db shielding.

See Page 1389 for ADC Prices

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AUDIO TRANSFORMERS

SUB-MINIATURE *FOR COMMERCIAL APPLICATION*

LISTED BELOW: are 18 typical sub-miniature transformers and chokes available as stock items in production quantities. Others may be designed to specifications for general audio and carrier frequency equipment. Power level for voice range without unbalanced DC, up to 3-5 watts, or for single tube output, up to 1 watt. All listed units in mumetal cases except 320Y and 320Z.

INPUT TRANSFORMERS

Cat. No.	Primary Impedance¹		Secondary Impedance¹	Primary Inductance (±5% at 10 mv 50 cps.)
220A	500 (125) ohms	to	150,000 ohms CT	8.5 hy.
220B	60 (15) ohms	to	150,000 ohms CT	1.0 hy.
220C	500 (125) ohms	to	300,000 ohms CT	8.5 hy.
220D	60 (15) ohms	to	300,000 ohms CT	1.0 hy.

OUTPUT TRANSFORMERS

320A	20,000 ohms CT	to	16/8/4/2 ohms	50 cps.) 310 hy.
320B	20,000 ohms CT	to	16/8/4/2 ohms	1200 hy.
320C	20,000 ohms CT	to	16/8/4/2 ohms	1750 hy.
320D	20,000 ohms CT	to	500 (125) ohms	1750 hy.
320E	20,000 ohms CT	to	50/25/12½/ 6.25 ohms	1200 hy.
320F	20,000 ohms CT	to	50/25/12½/ 6.25 ohms	1750 hy.
320Y	15,000 ohms CT	to	600 (150) ohms 2 watts	1 db—250—15,000 cps.
320Z²	10,000 ohms (10 MA DC)	to	600 (150) ohms ½ watt	1 db—300—10,000 cps.

INDUCTORS

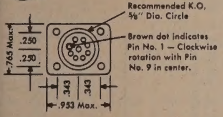
	Inductance	Percentag Taps	Q at 0.1 v 50 cps.
420A	1050/800/550/ 400/280 hy.	None	1050 hy.-.11; 280 hy.-8
420D	1500 hy.	3 — 2%	12
420E	1000 hy.	3 — 2%	12
420F	850 hy.	3 — 2%	12
420G	600 hy.	3 — 2%	12
420H	500 hy.	3 — 2%	12

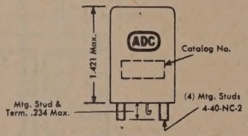
NOTES:

Inductance of middle tap is nominal ±2% at 0.1 volt, 50 cps.

[1] Impedance in parenthesis indicates parallel connected windings.

[2] Single plate, all other transformers push-pull.


Recommended K.O,
⅝" Dia. Circle
Brown dot indicates Pin No. 1 — Clockwise rotation with Pin No. 9 in center.
.765 Max.
.250
.250
.343
.343
.953 Max.



AILITARY STANDARD AUDIO TRANSFORMERS

hese Military Standard audio transformers have been specified by ASESA and re established by the three Military Services and the transformer industry as andards for Military transformer applications. Tests have been conducted in DC's environmental laboratory which indicate that these units will meet the quirements of MIL-T-27A, Grade 1, Class R operating temperature, life pectancy X (10,000 hours minimum).

at-log No.	MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance (Ohms)	Operating Level	Pri. DCMA Bal.	Unbal.
21A	TF 1RX 15AJ001	MS-90000	Push Pull Plates to Push Pull Grids	Pri. 10,000 CT Sec. 90,000 CT 22,500 CT	15 dbm	--	10
21A	TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri. 600 CT (150) Sec. 4/8/16	2 W	--	--
21B	TF 1RX 10AJ001	MS-90002	Line to Push Pull Grids	Pri. 600 CT (150) Sec. 135,000 CT	15 dbm	--	--
21B	TF 1RX 16AJ001	MS-90003	Line to Line	Pri. 600 CT (150) Sec. 600 CT (150)	15 dbm	--	--
21A	TF 1RX 13AJ001	MS-90004	Plate to Line	Pri. 7600/4800 Sec. 600 CT (150)	2 W	--	40
21B	TF 1RX 13AJ002	MS-90005	Plate to Voice Coil	Pri. 7600/4800 Sec. 4/8/16	2 W	--	40
21C	TF 1RX 13AJ003	MS-90006	Push Pull Plates to Line	Pri. 15,000 CT Sec. 600 CT (150)	2 W	--	10
21D	TF 1RX 13AJ004	MS-90007	Push Pull Plates to Line	Pri. 24,000 CT Sec. 600 CT (150)	1 W	20	1
21E	TF 1RX 13AJ005	MS-90008	Push Pull Plates to Line	Pri. 60,000 CT Sec. 600 CT (150)	.5 W	20	1

QUALITY PLUS TRANSFORMERS

For many years ADC has offered these carefully chosen audio transformers which have gained wide acceptance in many quality performance applications. The very conservative ratings are based upon full power operation at 30 cycles, with response from 30 to 15,000 cycles within ½ db. Each is designed for low insertion loss and minimum hum pickup, with hum bucking construction used on all impedance, output and bridging types.

To remain consistent with the many units already in widespread use, these designs are again offered in the standard ADC type 14 case. This features fully enclosed construction in steel or cast cases, with heavy duty silver plated terminals on a phenolic terminal board. Detailed dimensions are shown below.

STANDARD LINE IMPEDANCES

Impedance values shown within parentheses following a higher value, as "600 (150) ohms," indicate the effect of connecting windings in parallel. In either case windings are well balanced, but center tap is available only when both windings are connected in series.

IMPEDANCE MATCHING TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. Level	DBM Case	Weight Lbs.
114A	600/250 (150/62.5)	600/250 (150/62.5)	2 mumetal shields	+ 16	14A	1½
114B	600/250 (150/62.5)	600/250 (150/62.5)	Cast case only	+ 20	14AD	2¼
114C	10,000/600 (2500/150)	600/250 (150/62.5)	Bridging and line to line 2 mumetal shields¹	+ 16	14A	1½
114E	10,000 (2500)	600/150 (150/37.5)	Bridging to line 2 mumetal shields¹	+ 16	14A	1½
114F	600/150 (150/37.5)	600/150 (150/37.5)	2 mumetal shields	+ 16	14A	1¾
114G	600/150 (150/37.5)	600/150 (150/37.5)	Cast case only	+ 20	14AD	2¼

INPUT TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance In Primary	Max. Level DBM	Case	Weight Lbs.
214A	600/250 (150/62.5)	80,000	Line to 1 grid 2 mumetal shields	0	+ 20	14A	1½
214B	600/250 (150/62.5)	80,000	Line to 1 grid. Cast case	0	+ 20	13AC	2½
214C	600/250 (150/62.5)	60,000 (15,000)	Line to PP grids 3 mumetal shields	0	+ 20	14A	2½

INTERSTAGE TRANSFORMERS

Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance In Primary	Max. Level DBM	Case	Weight Lbs.
214H	10,000	80,000 (20,000)	Single plate to PP grids. Humbucking. Cast case	0	+ 26	14AC	1¼
214J	20,000 (5000)	80,000 (20,000)	PP plates to PP grids. Humbucking. Cast case	1 MA	+ 30	14AC	2¼
214L	20,000 (5000)	20,000 (5000)	PP plates to PP grids. Humbucking. Cast case	1 MA	+ 30	14AC	2¼

PLATE TO LINE, PRE-AMPLIFIER

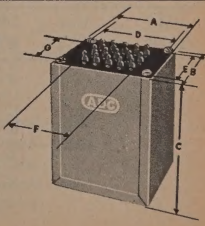
Cat. No.	Primary Impedance	Secondary Impedance	Description	Max. DC Unbalance in Primary	Max. Level DBM	Case	Weight Lbs.
314A	15,000	600/250 (150/62.5)	1 6J5, etc.	8	+ 23	14AD	2½
314B	20,000	600/250 (150/62.5)	PP 6J5, etc.	1	+ 27	14AD	2¼

TYPE 14 TRANSFORMER CASE DIMENSIONS

	Mounting Dimensions (6/32 Mounting Screws—Top or Bottom)				Chassis Knock-Out for Max. No. of Terminals		
Type	A	B	C	D	E	F	G
14AC*	2.375	2	3	1.875	1.5	2	1.125
14AD*	2.375	2	3.5	1.875	1.5	2	1.125
14A	2.375	2	3	1.875	1.5	2	1.125

*Heavy annealed cast iron for low shielding.

[1] All bridging transformers have built-in primary resistors, balanced to 0.1% or better, making the bridging impedance twice the primary impedance.

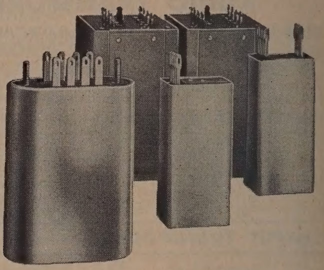


See Page 1389 for ADC Prices

ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

TELEPHONE COILS



For many years, ADC has been a dependable source of transformers and filters for the telephone and telegraph industry. Recently, we have designed and tooled for additional items in a series of "coils" which are electrically and physically interchangeable with similar components made by Western Electric. These items are listed below with the equivalent Western Electric number. All items in this series can be supplied in MIL cases if desired.

ADC Inductors	W.E. Indr. or Ret.	Fig.
409BB	149B	2
409BC	149C	2
409BD	149D	2
409E	149E	2
409G	149G	2
409H	149H	2
409J	149J	2
409K	149K	2
409M	149M	2
409N	149N	2
409P	149P	2
409R	149R	2
405A	152B	*
405H	225A	*
405E	250C	*
412AC	274C	1A
412AD	274D	1A
412AG	274G	1A
412AH	274H	1A
412AJ	274J	1A
412AL	274L	1A
412AR	274R	1A
412AS	274S	1A
412BB	274AB	1A
412T	307B	1A
412C	307C	1A
412F	307F	1A
412G	307G	1A
412H	307H	1A
412J	307J	1A
412K	307K	1A
412L	307L	1A
412M	307M	1A
412B	307N	1A
412A[1]	307P	1A
412R	307R	1A

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
118A	67E	*
113A	91A	5
113A	93A	5
113B	93B	5
113F	93F	5
113G	93G	5
113H	93H	5
113J	93J	5
109S[1]	94E	2
109T	94F	2
109J	94G	2
109K[1]	93H	2
109V	94K	2
109W	94L	2
109Y	94N	2
109Z	94P	2
109BB	94S	2
109BC	94T	2
109BD	94U	2
109BE	94W	2
109BF	94Y	2
109BG[1]	94AA	2
118F	106A	*
118S	119C	*
118U	119E	*
109B[1]	120C	2
109C[1]	120D	2
109D[1]	120E	2
109E[1]	120F	2
109F[1]	120H	2
109G[1]	120J	2
109H[1]	120K	2
109P[1]	120L	2
109L	146A	*
109M	146U	*
119P	170A	*

ADC Imped. Trans.	W.E. Repeat Coil	Fig.
119C	177C	*
119D	177D	*
112G	189A	1
112B	189D	1A
112C	189E	1A

ADC Imped. Trans.	W.E. Auto Trans.	Fig.
109A	23A	*
112A[1]	181B	1
112E	181C	1
112H	D166840	1A

[1] These represent most commonly used items and are normally carried in stock.

*Space did not permit outline drawings for all types. Dimensions will be sent on your request.

Fig. 1 and 1A

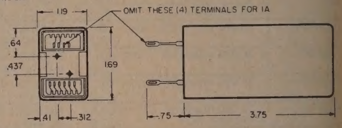


Fig. 2

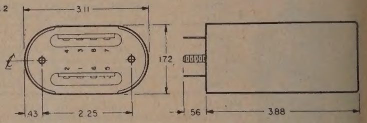
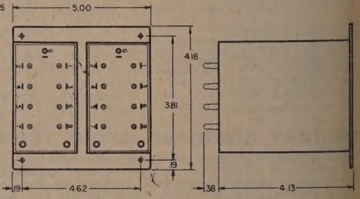
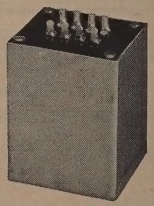


Fig. 5



ADC REPEATING COILS

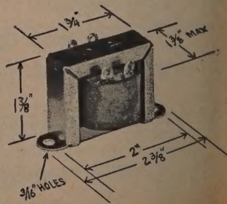


104A—Cord Circuit. This repeating coil is designed to have good transmission efficiency for voice frequencies. Low frequency ringing currents are attenuated and circuit will not ring through. Case is heavy steel to eliminate all cross-talk. Core will not saturate at maximum normal current.

104B—Phantom. The 104B Repeating Coil is a 4-winding coil, for use in phantom circuits. The phantom winding (5-6-7-8) is parallel wound. Heavy Formvar wire is used for maximum surge voltage or lightning protection. This coil has good transmission efficiency at both ringing and voice frequencies.

	PRI. DCR		SEC. DCR			Mounting	
Type	1-2	3-4	5-6	7-8	Case	Screw	Centers
104A	10.3	16.5	12.5	14.5	2¼x1¹¹⁄₁₆x3½ high	(4) 6-32	1¾x1⅛
104B	16.5	20	24	24	2¾x2⅜x3½ high	(4) 8-32	1⅞x2¼

INDUCTION COILS



103A—Induction Coil is a 2-winding coil for local battery telephones.

103B—Anti-Sidetone Induction Coil is similar to 103A, but with an additional winding for anti-sidetone connection.

103C—Anti-Sidetone Induction Coil is designed for common battery telephone use.

See Page 1389 for ADC Prices

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ADC PRODUCTS • MINNEAPOLIS, MINNESOTA

A Division of Magnetic Controls Company

NET PRICE LIST

Prices subject to change without notice

CATALOG NO.	NET PRICE
108A	8.25
103A	3.15
103B	3.39
103C	3.30
104A	8.70
104B	9.54
114A	23.85
114B	19.80
114C	23.85
114E	23.85
114F	23.85
114G	18.00
121A	14.40
121B	14.40
122A	24.30
122B	25.20
122C	24.30
122D	16.80
122E	19.80
122F	15.90
122G	22.20
123A	26.40
123B	27.30
123C	26.40
123D	17.40
123E	21.30
123F	16.80
124-2A	8.10
124-2H	7.20
124-3A	7.80
124-3H	6.90
124-4C	7.20
124-4M	6.60
124-5C	6.90
124-5K	6.90
124-6C	6.60
124-6K	6.00
208A thru F	7.50
208G	9.00
214A	23.70
214B	16.20
214C	23.70
214H	15.45
214J	16.80
214L	16.80
220A thru D	20.85
221A	15.45
221B	13.20
222A	22.50
222B	22.50
222C	25.20
222D	19.80
222E	19.80
222F	17.40
222G	17.40
223A	24.90
223B	24.90
223C	28.20
223D	21.60
223E	21.60
223F	18.30
223G	18.30
224-2M	6.60
224-3G	7.80
224-3M	6.30
224-4G	7.20
224-4L	7.80
224-4R	6.00
224-5F	6.90

CATALOG NO.	NET PRICE
224-5J	7.80
224-6F	6.60
224-6J	7.20
308E, F	7.50
308G, H	9.00
314A	20.40
314B	18.00
320A thru F	20.85
320Y, Z	20.85
321A thru E	12.90
322A	11.70
322B	16.80
322C	15.90
322D	17.40
322E	17.40
322F	19.80
322G	21.00
322H	20.40
322J	22.80
322K	31.50
322L	33.90
322M	23.70
322N	21.60
322P	17.10
323A	13.50
323B	20.70
323C	17.40
323D	21.60
324-2B	7.80
324-2C	7.20
324-2D	6.60
324-2E	7.20
324-2F	6.60
324-2J	6.60
324-2K	6.60
324-2L	6.60
324-3B	7.50
324-3C	6.90
324-3D	6.30
324-3E	6.90
324-3F	6.30
324-3J	6.30
324-3K	6.30
324-3L	6.30
324-4B	7.80
324-4D	7.20
324-4E	7.20
324-4F	6.60
324-4H	6.00
324-4J	6.60
324-4K	6.00
324-4N	6.00
324-4P	6.00
324-5A	8.70
324-5B	7.80
324-5D	6.90
324-5E	6.90
324-5G	6.90
324-5H	5.70
324-5L	5.70
324-5M	5.70
324-6A	7.50
324-6B	7.20
324-6D	6.60
324-6E	6.60
324-6G	6.00
324-6H	5.40
324-6L	5.40
324-6M	5.40
408D	6.75

CATALOG NO.	NET PRICE
419AL thru AW	6.75
419AY thru BE	7.50
419BG thru BN	8.25
419BQ thru BS	9.00
419BU	9.75
419BW	10.50
419CE thru CS	8.25
419CU thru DA	8.70
419DC thru DG	9.00
419DJ	9.75
419DL	10.50
419EA thru EN	6.75
419EQ thru EY	7.50
419FA thru FC	8.25
419FE	8.70
419FG	9.00
419FJ	9.75
419GL thru GY	7.50
419HA thru HG	8.25
419HJ thru HN	8.70
419HQ thru HS	9.00
419HU	9.75
419HW	10.50
419HY	11.25
419KL thru LC	9.75
419LE thru LJ	10.50
419LL thru LN	11.25
419LQ thru LS	12.00
419LU	12.45
419LW	12.90
420A thru H	17.64
421A	11.10
421B	12.30
421C	13.20
421D	14.10
421E	14.70
421F	20.10
421G	21.30
421H	24.90
421J	36.90
421K	30.00
422A	5.40
422B	6.00
422C	6.45
422D	6.45
422E	6.90
422F	7.95
422G	9.60
422H	10.20
422J	12.90
422K	12.00
422L	10.20
422M	12.90
422V	7.05
422W	6.00
422X	6.00
422Y	6.90
422Z	7.20
423A	6.60
423B	7.65
423C	8.10
423D	8.10
423E	9.15
423F	10.20
423G	12.00
423H	12.90
423J	15.90
423K	14.70
423L	12.90
423M	15.90
423V	7.80
423W	7.50
423X	7.50
423Y	8.70
423Z	9.00

CATALOG NO.	NET PRICE
512A	11.70
512B	12.60
512C	17.10
512D	18.90
512E	20.55
512FA	9.00
512FB	9.60
512FC	10.35
512FD	10.80
512FE	12.90
512FF	10.65
512FG	11.25
513A	12.60
513B	14.25
513C	21.45
513D	23.70
513E	25.65
513FA	11.25
513FB	12.15
513FC	12.90
513FD	13.50
513FE	16.20
513FF	13.20
513FG	13.80
521A	22.20
521B	21.30
521C	23.70
521D	26.70
521E	30.90
521F	19.80
521G	24.90
521H	29.70
521M	13.80
521N	14.10
521P	12.90
521Q	15.60
521R	13.20
521S	15.60
521T	18.00
521U	22.05
521V	21.30
521W	22.20
522A	13.50
522B	15.00
522C	17.40
522D	18.30
522E	26.70
522F	26.70
522FA	10.80
522FB	13.20
522FC	14.40
522FD	11.70
522FE	12.90
522FF	21.30
522FG	10.80
522FH	11.70
522FJ	14.10
522FK	18.30
522FL	11.70
523A	15.90
523B	19.80
523C	21.00
523D	21.60
523E	32.80
523F	32.80
523FA	12.90
523FB	16.20
523FC	20.10
523FD	14.70
523FE	15.90
523FF	27.60
523FG	12.60
523FH	14.70
523FJ	17.10
523FK	21.30
523FL	14.70

Argonne® TRANSISTOR TRANSFORMERS

LIST PRICE 5.00 ANY TYPE

THE ONLY COMPLETE LINE OF QUALITY TRANSISTOR TRANSFORMERS MADE IN U.S.A.

• NICKEL-STEEL LAMINATIONS • WOUND ON NYLON BOBBINS • MYLAR OUTER WRAP • COLOR CODED LEADS

Efficiently designed to meet the needs of miniaturization and engineered to provide more power handling capacity and improved frequency response with minimum distortion. All are nickel-steel laminations. Applications under "TYPE" column shows typical use. Many units may be used for other applications as well. Average net weight 1¼ oz.; average shp. wt., 4 oz.

ARGONNE NUMBER	TYPE	IMPEDANCE PRIMARY OHMS	IMPEDANCE SECONDARY OHMS	UNBALANCED CURRENT PRI. D.C. MA	POWER MILLI-WATTS	D.C. RESISTANCE PRI. OHMS	D.C. RESISTANCE SEC. OHMS	OVERALL SIZE
AR-141	Input	500,000	1,500 CT	.3	350	3500	60	1"x¾"x¾"
AR-142	Input	500,000	200 CT	.3	350	3500	20	1"x¾"x¾"
AR-143	Input	250,000	200 CT	.5	350	3500	20	1"x¾"x¾"
AR-144	Input	200,000	1,500 CT	.5	350	3000	65	1"x¾"x¾"
AR-100	Input	200,000	1,000	.5	100	3600	90	1"x¾"x¾"
AR-126	Input	150,000	1,500 CT	2.	100	3700	55	1"x¾"x¾"
AR-101	Input	100,000	3,000 CT	.5	100	3600	60	1"x¾"x¾"
AR-145	Input	100,000	2,000 CT	.5	350	3000	50	1"x¾"x¾"
AR-102	Input	100,000	1,500 CT	.5	100	3600	40	1"x¾"x¾"
AR-146	Input	100,000	50	.5	350	3000	1.6	1"x¾"x¾"
AR-127	Input	50,000	3,000 CT	1.	100	2000	50	1"x¾"x¾"
AR-128	Input	50,000	1,500 CT	2.	100	3000	50	1"x¾"x¾"
AR-129	Input	50,000	1,000	2.	100	2500	20	1"x¾"x¾"
AR-148	Input	50,000	500 CT	1.	175	1300	20	¾"x⅝"x⅝"
AR-149	Input	50,000	200 CT	1.	175	1300	10	¾"x⅝"x⅝"
AR-147	Input	50,000	30 CT	1.	175	1300	1.5	¾"x⅝"x⅝"
AR-150	Input	40,000	100	1.	175	850	6	¾"x⅝"x⅝"
AR-103	Driver	20,000	2,000 CT	1.	100	400	50	1"x¾"x¾"
AR-104	Driver	20,000	1,000	1.	100	400	50	¾"x⅝"x⅝"
AR-151	Driver	20,000	800 CT	1.5	175	600	60	¾"x⅝"x⅝"
AR-105	Driver	20,000	400	1.	100	600	30	1"x¾"x¾"
AR-130	Output	20,000	8	.5	100	400	0.6	¾"x⅝"x⅝"
AR-131	Output	20,000	3.2	.5	100	400	0.3	¾"x⅝"x⅝"
AR-106	Driver	16,000	4,000	1.	100	620	350	¾"x⅝"x⅝"
AR-152	Driver	15,000	200 CT	1.5	175	550	10	¾"x⅝"x⅝"
AR-107	Driver	15,000	200	1.5	250	1000	20	1"x¾"x¾"
AR-108	Driver	10,000	3,000 CT	1.5	100	200	100	¾"x⅝"x⅝"
AR-109	Driver	10,000	2,000 CT	1.5	100	500	50	¾"x⅝"x⅝"
AR-153	Driver	10,000	200 CT	2.	175	400	10	¾"x⅝"x⅝"
AR-110	Output	10,000	16	2.	150	600	2.5	¾"x⅝"x⅝"
AR-132	Output	10,000	8	1.	100	600	.6	¾"x⅝"x⅝"
AR-133	Output	10,000	3.2	1.	100	600	.3	¾"x⅝"x⅝"
AR-158	Input	5,000 CT	80,000	2.	175	350	1800	¾"x⅝"x⅝"
AR-157	Input	5,000	45,000	2.	175	250	1600	¾"x⅝"x⅝"
AR-156	Input	5,000	30,000	2.	175	150	1300	¾"x⅝"x⅝"
AR-155	Input	5,000	10,000	2.	175	150	450	¾"x⅝"x⅝"
AR-154	Input	5,000 CT	7,500 CT	2.	175	150	400	¾"x⅝"x⅝"
AR-173	Driver	5,000	3,000 CT	2.	350	200	90	1"x¾"x¾"
AR-111	Output	5,000	100	1.	100	600	10	¾"x⅝"x⅝"
AR-134	Output	4,000 CT	8	4.	250	150	.8	1"x¾"x¾"
AR-135	Output	4,000 CT	3.2	4.	250	150	.3	1"x¾"x¾"
AR-112	Output	3,500	200	1.	150	120	25	1"x¾"x¾"
AR-113	Driver	3,000 CT	1,000	9.	150	100	60	¾"x⅝"x⅝"
AR-114	Output	2,500	11	10.	150	50	1.1	¾"x⅝"x⅝"
AR-115	Input	2,000 CT	8,000 CT	2.	150	150	660	1"x¾"x¾"
AR-116	Output	2,000	200	4.	250	120	20	1"x¾"x¾"
AR-175	Driver	2,000	1,500 CT	2.	350	150	60	1"x¾"x¾"
AR-159	Driver	1,500	500 CT	4.	175	100	20	¾"x⅝"x⅝"
AR-136	Output	1,000 CT	100	4.	250	120	10	1"x¾"x¾"
AR-137	Output	1,000 CT	8	4.	250	120	.9	1"x¾"x¾"
AR-138	Output	1,000 CT	3.2	4.	250	120	.3	1"x¾"x¾"
AR-160	Output	800 CT	3.2	5.	175	40	.3	¾"x⅝"x⅝"
AR-161	Output	650 CT	16	5.	175	27	1.3	¾"x⅝"x⅝"
AR-162	Output	500 CT	500 CT	5.	350	18	18	1"x¾"x¾"
AR-163	Output	500 CT	150 CT	5.	175	18	8	¾"x⅝"x⅝"
AR-165	Output	500 CT	50	5.	175	18	4	¾"x⅝"x⅝"
AR-117	Output	500 CT	30	5.	100	20	1.5	¾"x⅝"x⅝"
AR-118	Output	500 CT	16	5.	100	20	1.5	¾"x⅝"x⅝"
AR-164	Output	500 CT	8	5.	175	18	.8	¾"x⅝"x⅝"
AR-119	Output	500 CT	3.2	5.	100	20	.3	¾"x⅝"x⅝"
AR-166	Output	400 CT	16	5.	175	16	1.3	¾"x⅝"x⅝"
AR-120	Output	400 CT	11	1.	150	20	.9	¾"x⅝"x⅝"
AR-167	Output	400 CT	8 or 3.2	5.	175	16	.6/.3	¾"x⅝"x⅝"
AR-168	Output	300 CT	16	6.	175	12	1.4	¾"x⅝"x⅝"
AR-121	Output	300 CT	3.2	6	150	20	.25	¾"x⅝"x⅝"
AR-139	Output	250 CT	8	2.	250	15	.7	1"x¾"x¾"
AR-122	Output	250 CT	3.2	2	150	11	.3	1"x¾"x¾"
AR-123	Input	200	2,000 CT	2.	150	11	50	1"x¾"x¾"
AR-124	Output	200 CT	16	2.	250	20	1.3	¾"x⅝"x⅝"
AR-169	Output	200 CT	8 or 3.2	7.	175	9	.6/.3	¾"x⅝"x⅝"
AR-140	Output	200 CT	3.2	2.	100	10	.3	¾"x⅝"x⅝"
AR-170	Output	160 CT	8 or 3.2	8.	350	10	.6/.3	1"x¾"x¾"
AR-176	Output	125 CT	8	8.	350	4	.7	1"x¾"x¾"
AR-174	Output	125 CT	3.2	8.	350	6	.3	1"x¾"x¾"
AR-171	Output	100 CT	10 CT	10.	175	4	.8	¾"x⅝"x⅝"
AR-172	Output	48 CT	8 or 3.2	15.	350	2.3	.6/.3	1"x¾"x¾"
AR-125	Input	3	4,000	15.	250	14	50	¾"x⅝"x⅝"

HIGH FIDELITY TRANSISTOR TRANSFORMERS

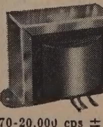
Driver and output transformers, completely encased. Response 20-20,000 cps ± 0.25 db. Output transformer 1.5 watts [illegible] 20-20,000 cps ± 2 db. Size 1-5/16" x 1-5/16" x 1¾". Shpg. wt., 9 oz.

MODEL AR-500 DRIVER TRANSFORMER: 5000 ohm primary, 3000 ohm CT secondary; dc resistance of primary 50 ohms, secondary 75 ohms; unbalanced primary dc current 20 ma List Price 9.60

MODEL AR-501 OUTPUT TRANSFORMER: Primary 125 ohms CT, secondary 8 ohms; primary dc resistance 4 ohms, secondary 0 8; unbalanced primary current 50 ma. dc............................List Price [illegible]

HIGH POWER TRANSISTOR AUDIOS

For the new high-output transistors



MODEL AR-503 OUTPUT TRANSFORMER: 6 watts. 70-20,000 cps ± 2 db. Primary 48 ohms CT, secondary 3.2 ohms; primary dc resistance 1.1 ohms, secondary 0.3; unbalanced primary current 200 ma. dc. Size 1-9/16" x 1⅞" x 1-9/16". Shpg. wt., 1 lb. List Price 2.95

MODEL AR-504 INPUT TRANSFORMER: 2 watts. 70-20,000 cps ± 2 db. Primary 100 ohms, secondary 200 ohms CT. Primary dc resistance 1.8 ohms, secondary 2.7; unbalanced primary current 200 ma. dc ....List Price 2.50

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HST TRANSFORMERS

TYPE TT

MINIATURIZED TRANSISTOR TRANSFORMERS

**MIL-T-27A, CLASS R
GRADE 5 SPECIFICATION**

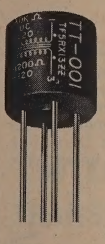
The HST line of type "TT" Transistor Transformers is the most complete available.

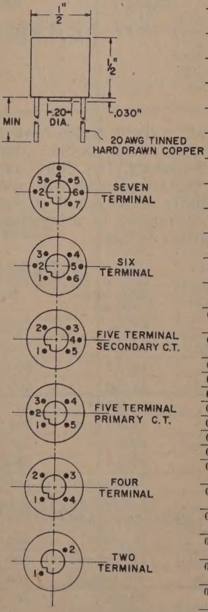
Standard types cover practically all applications: interstage, output, output to line, input, single or push-pull output, reactors, mixing and matching. All designs can be used reversed, input to secondary. The "TT" Series are vacuum molded in green epoxy resin with schematic diagrams and transformer parameters permanently and legibly marked on all units.

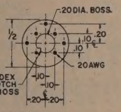
Standard 0.10″ spacing is used on terminal leads. No bulky clamps are required for mounting, saving valuable board area.

All "TT" Transformers have been tested to the requirements of MIL-T-27A, Class R, Grade 5 specifications. Reliability of operation is insured by continuous reassurance testing. The meticulous plant conditions under which the "TT" series is manufactured insure the maximum quality obtainable. A magnetic shield is available for all TT units. The TT-101 Shield offers approximately 20 db of attenuation. The shield is designed to "snap-lock" onto the unit, or in addition, can be permanently cemented with a drop of epoxy resin.

MECHANICAL PARAMETERS







MOUNTING TEMPLATE

TT #	Mil Type	Application	Pri Imp.	D.C. MA* In Pri.	Sec. Imp.	Nom. Pri. Res.	MW Level @ 1 KC
001	TF5RX13ZZ	Interstage	20,000 30,000	.5 .5	800 1200	850	50
002	TF5RX17ZZ	Output	500 600	3 3	50 60	60	100
003	TF5RX13ZZ	Output	1000 1200	3 3	50 60	115	100
004	TF5RX17ZZ	Output	600	3	3.2	60	100
005	TF5RX13ZZ	Output	1200	2	3.2	115	100
006	TF5RX13ZZ	Output	10,000	1	3.2	790	100
007	TF5RX16ZZ	Input Other Application	200,000 500	0 0	1000 100,000	8500 —	25
008	TF5RX20ZZ	Reactor 3.5 HY @ 2MADC, 1HY @ 5MADC				630	
009	TF5RX13ZZ	Output or Driver	10,000 12,000	1 1	500CT 600CT	800	100
010	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 1500CT	800	100
011	TF5RX13ZZ	Driver	10,000 12,000	1 1	1200CT 2500CT	800	100
012	TF5RX17ZZ	Single or PP Output	150CT 200CT	10 10	12 16	11	500
013	TF5RX17ZZ	Single or PP Output	300CT 400CT	7 7	12 16	20	500
014	TF5RX17ZZ	Single or PP Output	600CT 800CT	5 5	12 16	43	500
015	TF5RX17ZZ	Single or PP Output	800CT 1070CT	4 4	12 16	51	500
016	TF5RX13ZZ	Single or PP Output	1000CT 1330CT	3.5 3.5	12 16	71	500
017	TF5RX13ZZ	Single or PP Output	1500CT 2000CT	3 3	12 16	108	500
018	TF5RX13ZZ	Single or PP Output	7,500CT 10,000CT	1 1	12 16	505	500
019	TF5RX17ZZ	Output to Line	300CT	7	600	19	500
020	TF5RX17ZZ	Output or line to Line or Mixing	500CT	5.5	600	31	500
021	TF5RX17ZZ	Output to Line	900CT	4	600	53	500
022	TF5RX13ZZ	Output to Line	1500CT	3	600	86	500
023	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	800CT 1200CT	850	100
024	TF5RX16ZZ	Input Other Application	200,000CT 500CT	0 0	1000CT 100,000CT	8500 —	25
025	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	1500CT 1800CT	800	100
026	TF5RX20ZZ	Reactor 6HY @ 2MADC 1.5HY @ 5MADC				2100	
027	TF5RX20ZZ	Reactor 1.25HY @ 2MADC, .5HY @ 11MADC				100	
028	TF5RX20ZZ	Reactor. 3HY @ 4MADC 15HY @ 20MADC				31	
029	TF5RX17ZZ	Single or PP Output	120CT 150CT	10 10	3.2 4	10	500
030	TF5RX17ZZ	Single or PP Output	320CT 400CT	7 7	3.2 4	20	500
031	TF5RX17ZZ	Single or PP Output	640CT 800CT	5 5	3.2 4	43	500
032	TF5RX17ZZ	Single or PP Output	800CT 1000CT	4 4	3.2 4	51	500
033	TF5RX13ZZ	Single or PP Output	1060CT 1330CT	3.5 3.5	3.2 4	71	500
034	TF5RX13ZZ	Single or PP Output	1600CT 2000CT	3 3	3.2 4	109	500
035	TF5RX13ZZ	Single or PP Output	8000CT 10,000CT	1 1	3.2 4	505	100
036	TF5RX13ZZ	Isolation or Interstage	10,000CT 12,000CT	1 1	10,000CT 12,000CT	950	100
037	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	1200CT 1500CT	800	100
038	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	2000CT 2500CT	800	100
039	TF5RX13ZZ	Driver	10,000CT 12,000CT	1 1	500CT 600CT	800	100
040	TF5RX16ZZ	Input	100,000	0	1000	1700	70
041	TF5RX13ZZ	Driver	20,000	.5	1000	1000	100
042	TF5RX13ZZ	Driver	20,000	.5	1200CT	1000	100
043	TF5RX17ZZ	Output	1000	3	50	60	100
044	TF5RX17ZZ	Output	400	3	50	30	100
045	TF5RX17ZZ	Output	400	3	11	30	100
046	TF5RX17ZZ	Single or PP Output	400CT	3	11	30	500
047	TF5RX20ZZ	Reactor 10HY @ 0 MADC 8HY @ .5MADC				650	
048	TF5RX13ZZ	Isolation or Interstage Ratio 1 : 1 : 1	2000CT 2500CT	3 3	8000 split 10,000 split	195	100
049	TF5RX13ZZ	Interstage	10,000CT 12,000CT	1 1	2000 split 2400 split	560	100
050	TF5RX13ZZ	Interstage	20,000CT 30,000CT	.5 .5	1000 split 1500 split	800	100
051	TF5RX13ZZ	Interstage	40,000CT 50,000CT	.25 .25	400 split 500 split	1700	50
052	TF5RX17ZZ	Interstage or Output	400CT 500CT	8 6	400 split 500 split	46	500
053	TF5RX17ZZ	Interstage	400CT 500CT	8 6	120 split 150 split	46	500
054	TF5RX17ZZ	Interstage	400CT 500CT	8 6	40 split 50 split	46	500
055	TF5RX17ZZ	Interstage	80CT 100CT	12 10	32 split 40 split	9.8	500
101		Drawn Mu-Metal Shield 20 to 30 db					

*DCMA shown is for single ended usage (under 5% distortion —100 MW —1KC) . . . for push pull, DCMA can be any balanced value taken by .5W transistors (under 5% distortion —500MW —1KC).

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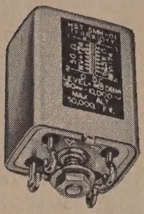
HST TRANSFORMERS

TYPES SMH, MH

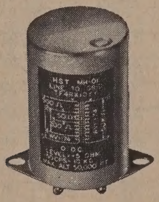
Hermetically Sealed AUDIO TRANSFORMERS



Type SMH | MIL-T-27A

The SMH series of HST Transformers offers the ultimate in miniaturized metal cased, hermetically sealed, iron core components. Glass-to-metal seals are used to insure reliability. Mounting is provided for by a single stud on the header surface. All units are furnished in attractive grey with schematic diagrams permanently and legibly marked on all cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ± 2db	Max. Level
SMH-01	TF4RX10YY	Input to Grid	50	0	62,500	150-10,000	±13dbm
SMH-02	TF4RX10YY	Plate to Grid	10,000	0	90,000	300-10,000	20MW
SMH-03	TF4RX13YY	Plate to Line	10,000 25,000	3MA 1.5MA	200 500	300-10,000	20MW
SMH-04	TF4RX13YY	Plate to Low Imp.	30,000	1MA	50	300-10,000	30MW
SMH-05	TF4RX20YY	Reactor	100HYS @0 DC, 50HYS @1 MADC, 4400 Ohms				
SMH-06	TF4RX13YY	Transistor Interstage	25,000 (DCR 800)	.5MA	1000 (DCR 110)	300-10,000	10MW
SMH-07	TF4RX17YY	Transistor Output	500CT (DCR 50)	3.5MA	50 (DCR 5)	300-10,000	30MW
SMH-08	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	1200CT	300-10,000	30MW
SMH-09	TF4RX13YY	Transistor Interstage	10,000CT (DCR 600)	2MA	2000CT	300-10,000	30MW
SMH-10	TF4RX17YY	Transistor Output	500CT (DCR 26)	10MA	600CT	300-10,000	30MW
SMH-11	TF4RX13YY	Transistor Output	1500CT (DCR 71)	7MA	600CT	300-10,000	30MW
SMH-12	TF4RX13YY	Isolation or Transistor Interstage	10,000CT	1MA	10,000CT	300-10,000	100MW



Type MH | MIL-T-27A

The "MH" transformers illustrated and described on these pages have excellent application in the fields of military electronics, communications, public address systems and anywhere that quality audio components are necessary. The "MH" series transformers and reactors are enclosed in a compact, easy mounting case with glass-to-metal seals to insure reliability of operation. High permeability cores result in excellent frequency response for such small units. All units are furnished in attractive grey finish with schematic diagrams permanently and legibly marked on case.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Response ±2db	Max. Level
MH-01	TF4RX10YY	Mike, Line to Grid	50,200CT, 500CT*	0	50,000	50-10,000	+5dbm
MH-02	TF4RX11YY	Mike to Grid	82	50MA	135,000	250-8000	+18dbm
MH-03	TF4RX10YY	Plate to Grid	15,000	0	60,000	50-10,000	4MW
MH-04	TF4RX15YY	Plate to Grid	15,000	4MA	60,000	200-10,000	25MW
MH-05	TF4RX10YY	Plate to PP Grids	15,000	0	95,000CT	50-10,000	3MW
MH-06	TF4RX15YY	Plate to PP Grids	15,000	4MA	95,000 split	200-10,000	12MW
MH-07	TF4RX13YY	Plate or PP to Line	20,000CT	4MA	600/150	200-10,000	125MW
MH-08	TF4RX16YY	Mixing or Matching	600/150	0	600CT	50-10,000	+8dbm
MH-09	TF4RX10YY	Input to Grid	600/150	0	1 Megohm	±4db 200-3000	+10dbm
MH-10	TF4RX10YY	Plate to Grid	10,000	0	1 Megohm	±4db 200-3000	10MW
MH-11	TF4RX20YY	Reactor	300 HYS @ 0 DC; 50 HYS @ 3 MADC; 6000 Ohms				
MH-12	TF4RX10YY	Mike, Line to PP Grids	50,200CT, 500CT*	0	50,000CT	50-10,000	+5dbm
MH-13	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	2K/500 split	100-10,000	100MW
MH-14	TF4RX13YY	Transistor Interstage	10K/2.5K split	4MA	4K/1K split	100-10,000	100MW
MH-15†•	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	50-12,000	0dbm
MH-16†	TF4RX16YY	Plate to Line	15,000	0	600/250/50	50-15,000	+10dbm
MH-17†	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	300-7000	+10dbm
MH18†•	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	50-15,000	+10dbm

* 200 ohm termination can be used for 150 or 200 ohms, 500 ohm termination for 600 ohms.
† Layer wound coils in a MU-metal case.
• Electrostatic shield between windings.

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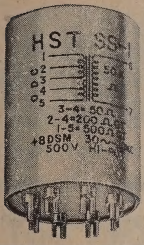
HST TRANSFORMERS

TYPE SS

Space Savers AUDIO TRANSFORMERS



Type SS

SS series Components fill the need for economical, compact, quality transformers. These units, which weigh one ounce, are fully impregnated and sealed in a drawn aluminum housing ⅞″ in diameter . . . mounting opposite terminal board. SS series items are ideal for portable broadcast, aircraft, mobile service, and similar applications. Additional magnetic shielding (25 db) available by use of SS-17 mu-metal shield. (See photo at middle left.) High-fidelity characteristics are provided, uniform within approximately 1 db from 30 to 20,000 cycles, except for SS-14, SS-15 and units carrying DC which are intended for voice frequencies. All units are furnished in an attractive anodized finish with schematic permanently and legibly marked on the case. (For MIL-T-27A Styles, see HST Type "MH").

	Type No.	Application	Pri. Imp. Ohms	DCMA Unbal.	Sec. Imp. Ohms	Pri. Res.	Response ±1db	Max. Level
INPUT AND MIXING TRANSFORMERS	SS-1	Low Imp.to Grid	50,000/250, 500/600	0	50,000	52	30-15,000	+8dbM
	SS-2	Low Imp. to PP Grids	50,200/250, 500/600	0	50,000CT	52	30-15,000	+8dbM
	SS-3	Low Imp. to Grid	7.5/30	0	50,000	4.5	30-15,000	+8dbM
	SS-11	Crystal to Line	50,000	0	50,200/250, 500/600	3900	30-15,000	+8dbM
	SS-12	Mixing, Matching	50,200/250	0	50,200/250, 500/600	12	30-20,000	+8dbM
	SS-14	Low Imp. to Grid	200	0	½ Megohm	10	200-3000	+8dbM
	SS-16	Low Imp. to Grid	250CT	0	50,000	40	30-15,000	+8dbM
		This Transformer provides very low Hum Pick-up . . . Employs two heavy gauge Mu-Metal shields, plus orientable mounting. Primary CT is balanced to 1%. Can be used for 150, 200, 250, 500 or 600 ohm sources . . . 200:1 impedance ratio. (See photo upper left.)						
	SS-25	Transistor Input	600/150 split	0	2000/500 split	70	60-15,000	+15dbM
INTERSTAGE TRANSFORMERS	SS-4	Plate to Grid	15,000	0	60,000	710	50-20,000	6.3MW
	SS-5	Plate to Grid	15,000	4	60,000	710	200-10,000	6.3MW
	SS-6	Plate to PP Grid	15,000	0	95,000CT	690	40-15,000	6.3MW
	SS-7	Plate to PP Grid	15,000	4	95,000CT	690	300-10,000	6.3MW
	SS-15	Plate to Grid	15,000	0	1 Megohm	330	150-3000	6.3MW
	SS-18	Transistor Interstage	10K/2.5K split	4	2000/500 split	800	150-20,000	100MW
	SS-19	Transistor Interstage	10K/2.5K split	4	4K/1K split	800	150-20,000	100MW
	SS-26	Transistor Interstage	10,000CT	4	10,000CT	700	150-15,000	100MW
	SS-27	Transistor Interstage	10,000CT	4	500/125 split	750	150-20,000	100MW
	SS-28	Transistor Interstage	50,000CT	2	500/125 split	3200	150-20,000	100MW
	SS-29	Trans. Inter. or Chopper	100,000CT	1	500/125 split	3200	200-20,000	100MW
	SS-30	Transistor Interstage	500/125 split	20	500/125 split	37	150-15,000	1W*
	SS-31	Transistor Interstage	500/125 split	20	150/37.5 split	35	150-15,000	1W*
	SS-32	Transistor Interstage	500/125 split	20	50/12.5 split	37	150-15,000	1W*
	SS-33	Transistor Interstage	100/25 split	40	40/10 split	9	150-15,000	1W*
OUTPUT TRANSFORMERS	SS-8	Plate to Line	15,000	0	50,200/250, 500/600	950	30-15,000	6.3MW
	SS-9	Plate to Line	15,000	4	50,200/250, 500/600	950	200-10,000	6.3MW
	SS-10	PP to Line	30,000CT	0	50,200/250, 500/600	2000	40-20,000	6.3MW
	SS-20	Transistor to Line	1500CT	8	500/125 split	100	150-20,000	100MW
	SS-21	Transistor to Voice Coil	2000CT 4000CT	4	8 16	200	150-20,000	100MW
	SS-22	Transistor to Voice Coil	400CT 500CT	20	3.2 4	35	150-15,000	1W*
REACTORS	SS-13	Reactor	300 HYS . . . 0 DC; 50 HYS . . . 3 MADC; 6000 Ohms					
	SS-23	Reactor	7 HYS . . . 3 MADC; 3.5 HYS . . . 10 MADC; 230 Ohms					
	SS-24	Reactor	1.6 HYS . . . 3 MADC; .8 HY . . . 10 MADC; 25 Ohms					
	SS-17	Mu-Metal Shield	Slip Fit Over Space Saver. Provides 25db Shielding.					

* At 200 CPS, ¼ watt at 150 CPS.

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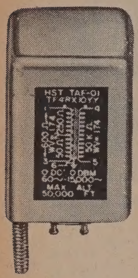
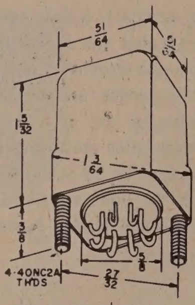
HST TRANSFORMERS

TYPE TAF

Hermetically Sealed AUDIO TRANSFORMERS

Type TAF To MIL-T-27A SPECIFICATIONS





UNIT WEIGHT 2½ OZ. MAX.

The HST series TAF Transformers and Reactors are all housed in deep drawn mu-metal cases offering maximum magnetic shielding obtainable in a single enclosure. All units are vacuum impregnated and potted with high quality compounds. Excellent frequency response is obtained by use of high nickel content laminations and special winding techniques. Glass-to-metal seals are used to insure positive hermetic sealing. All units furnished in attractive grey finish with schematics permanently and legibly marked on cases.

Type No.	Mil Type	Application	Pri. Imp. Ohms	Pri. DC Unbal.	Sec. Imp. Ohms	Approx. DCR		Response	Max. Level
						Pri.	Sec.		
TAF-01*	TF4RX10YY	Line to Grid	600/250/50	0	50,000	100	3200	60-15,000	0dbm
TAF-02*	TF4RX10YY	Line to Grid	600/250/50	0	250,000	48	3600	150-7000	0dbm
TAF-03	TF4RX10YY	Line to PP Grids	600/250/50	0	60,000CT	125	3600	60-15,000	0dbm
TAF-04*	TF4RX10YY	Mike or V.C. to Grid	30/12/4	0	50,000	10	4100	60-12,000	0dbm
TAF-05	TF4RX10YY	Plate to Grid	15,000	0	50,000	1100	2860	60-15,000	+10dbm
TAF-06	TF4RX10YY	Plate to PP Grids	15,000	0	60,000CT	1350	2700	60-15,000	+10dbm
TAF-07	TF4RX15YY	Plate to PP Grids	15,000	3MA	95,000CT	1450	3050	350-7000	+10dbm
TAF-08*	TF4RX10YY	Line to Grid	200	0	500,000	100	4900	350-5000	0dbm
TAF-09	TF4RX10YY	Plate to Grid	15,000	0	1 Megohm	550	4450	350-5000	+10dbm
TAF-10	TF4RX16YY	Plate to Line	15,000	0	600/250/50	1330	58	60-15,000	+10dbm
TAF-11	TF4RX13YY	Plate to Line	15,000	3MA	600/250/50	1330	58	350-7000	+10dbm
TAF-12	TF4RX16YY	PP Plates to Line	20,000CT	0	600/250/50	2600	84	60-15,000	+10dbm
TAF-13*	TF4RX16YY	Line to Line	600/250/50	0	600/250/50	80	85	60-15,000	+10dbm
TAF-14*	TF4RX21YY	HI-Imp. Line to Line	5000CT	0	5000CT	2150	2190	60-15,000	+10dbm
TAF-15	TF4RX20YY	Reactor	50 HYS @ .75 MADC			4800			

* Electrostatic shield between windings.

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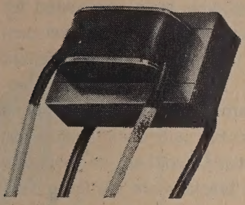
HST TRANSFORMERS

TYPE SMO

SUB-SUB MINIATURE TRANSFORMERS



Type SMO

The SMO series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available.

Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Max. Level
SMO-1	Input	200 50	0	250K 62.5K	13.5	3600	+7dbM
SMO-2	Interstage/3:1	10K	0.25	90K	710	3150	30MW
SMO-3	Plate to Line	10K 25K	3MA 1.5MA	200 500	2500	34	100MW
SMO-4	Output	30K	1MA	50	2875	50	100MW
SMO-5	Reactor	50 HYS. @ 1 MADC 4400 Ohms D.C.R.					
SMO-6	Output	100K	.5MA	60	3500	3.3	100MW
SMO-7	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	800	110	100MW
SMO-8	Transistor to P.P. Sec.	10K	1MA	200CT	1200	45	100MW
SMO-9	Transistor to V.C.	10K	2MA	16	800	2.7	100MW
SMO-10	Transistor to V.C.	10K	2MA	3.2	800	.65	100MW
SMO-11	Transistor Output	500 600	3.5MA 3.5MA	50 60	50	5	100MW
SMO-12	Transistor Output	1000 1200	3MA 3MA	50 60	90	5	100MW
SMO-13	Crystal to Transistor	200K	0	1000	4000	190	+7dbM
SMO-14	Transistor Interstage	10KCT 25KCT	2MA 1MA	200CT 500CT	650	22	100MW
SMO-15	Transistor Interstage	20KCT 30KCT	1MA 1MA	800CT 1200CT	800	110	100MW
SMO-16	Output	1200 1500	3MA 3MA	3.2 4	70	.45	100MW
SMO-17	Output or Driver	10K 12.5K	2MA 2MA	500CT 600CT	800	95	100MW
SMO-18	Single or PP Output	7.5KCT 9.4KCT	4MA 4MA	3.2 4	770	.73	100MW
SMO-19	Output or Matching	500CT	10MA	600CT	26	70	100MW
SMO-20	Output	1.5KCT	7MA	600CT	70	65	100MW
SMO-21	Crystal/Chopper	200KCT	0	1000CT	4000	200	+7dbM
SMO-22	Interstage	10KCT 12KCT	4MA 4MA	1500CT 1800CT	800	300	100MW
SMO-23	Reactor	8 HYS @ 2 MADC, 4 HYS @ 5 MADC 650 Ohms DCR					
SMO-24	Reactor	3.5 HYS @ 2 MADC, 1.5 HYS @ 5 MADC 160 Ohms DCR					
SMO-25	Transistor Interstage	10KCT 12KCT	1MA 1MA	10KCT 12KCT	560	650	100MW
SMO-26	Transistor Interstage	40KCT 50KCT	.5MA .5MA	400 split 500 split	1900	43	100MW
SMO-CH	Channel Frame	Mounting Frame for any of above SMO Units.					

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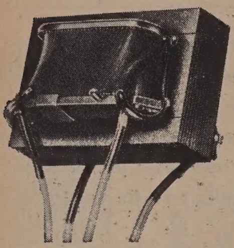
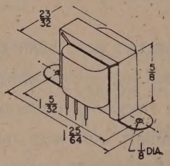
HST TRANSFORMERS

TYPES SSM, RM

Sub-Miniature TRANSFORMERS





Type SSM

The SSM series transformers and reactors have been engineered for highest efficiency along with minimum size. Special high nickel content lamination and compact winding techniques insure excellent frequency response and low distortion. These units are moisture-proofed by treatment with high quality varnish. All units are supplied with a black finish. All units have #26 flexible color-coded lead wires, four inches minimum in length. As normally supplied, no mounting brackets are furnished; however, channel brackets are available (HST type SSM-CH) as shown in sketch at left.

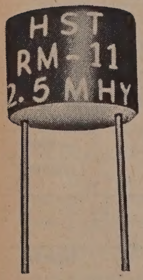
Type No.	Application	Pri. Imp. Ohms	Pri. D.C. Unbal.	Sec. Imp. Ohms	Approx. DCR Pri.	Approx. DCR Sec.	Max. Level
SSM-1*	Input	200 50	0 0	250K 62.5K	16	2500	+10dbM
SSM-2	Interstage/3:1	10K	0.25	90K	215	1850	100MW
SSM-3*	Plate to Line	10K 25K	3MA 1.5MA	200 500	1225	30	200MW
SSM-4	Output	30K	1MA	50	1850	3.8	200MW
SSM-5	Reactor	50 HYS @ 1 MADC	2675 Ohms DCR				
SSM-6	Output	100K	.5MA	60	3400	3.7	200MW
SSM-7*	Transistor Interstage	20K 30K	.5MA .5MA	800 1200	450	32	200MW
SSM-8	Transistor to P.P. Sec.	10K	1MA	2000CT	1000	40	200MW
SSM-9	P.P. Transistor to V.C.	500CT	0	3.2	15	.35	250MW
SSM-10*	P.P. Transistor to V.C.	2000CT 4000CT	4MA 2MA	8 16	290	2	250MW
SSM-11	Transistor Interstage	400CT 500CT	8MA 8MA	400 split 500 split	20	45	250MW
SSM-12	Transistor Interstage	400CT 500CT	8MA 8MA	120 split 150 split	20	12.6	250MW
SSM-13	Transistor Interstage	400CT 500CT	8MA 8MA	40 Split 50 split	20	4.5	250MW
SSM-14	Transistor Interstage	80CT 100CT	16MA 16MA	32 split 40 split	4.9	3.2	250MW
SSM-CH	Channel Frame	Mounting Frame for any of above SSM Units.					

* Impedance ratio is fixed. Any impedance between values shown may be employed.

Sub-Miniature TOROIDS

Printed Circuit Design

MIL-T-27A



Type RM

RM TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
RM-1	3.0 Mhy	50
RM-2	5.0 Mhy	40
RM-3	8.0 Mhy	30
RM-4	12.5 Mhy	25
RM-5	20.0 Mhy	20
RM-6	30.0 Mhy	16
RM-7	60.0 Mhy	11
RM-8	120.0 Mhy	8
RM-9	0.6 Mhy	90
RM-10	1.5 Mhy	57
RM-11	2.5 Mhy	44
RM-12	6.0 Mhy	28
RM-13	10.0 Mhy	22
RM-14	15.0 Mhy	18
RM-15	25.0 Mhy	14
RM-16	40.0 Mhy	11

HST sub-miniature toroids, type "RM", are specifically designed for printed circuit applications in transistor circuits. These units are ideal companion design components for use with HST type "TT" transformers.

Proper choice of core types and winding techniques insures maximum "Q" performance. See curves below for further pertinent data. All inductance values shown are adjusted to a tolerance of ±2%. All units are marked with inductance values. The "RM" series are epoxy molded.

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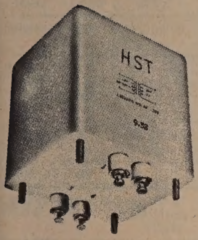
HST TRANSFORMERS

TYPE PX, PY, RS

ISOLATION TRANSFORMERS

MIL-T-27A, CLASS R, GRADE 4

IMMEDIATE DELIVERY FROM AUTHORIZED HST DISTRIBUTOR STOCKS



The HST isolation transformers listed below are designed to offer maximum utility to the user in requirements for electrical isolation. All units have electrostatic shields.

Vacuum impregnation and potting is employed in all units.

The PX series is for use in the frequency range of 380 to 1000 cycles.

The PY series is for use in the frequency range of 50 to 60 cycles. All enclosures are MIL-T-27A, standard sizes of deep drawn steel.

All units are finished in an attractive grey with schematic diagrams permanently and legibly marked on the case.

ISOLATION TRANSFORMERS

Primaries 115 Volts 380 to 1000 Cycles

Type No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PX-60	26	0.2	500	AH	0.15
PX-100	26	1.0	2500	FA	1.5
PX-200	26	2.0	2500	GB	1.75
PX-300	26	4.0	2500	GA	2.0
PX-320	26	6.5	1000	JA	6.0
PX-360	115	0.3	2000	EA	0.75
PX-400	115	1.0	2500	GA	2.0
PX-500	115	2.0	2500	JA	6.0

ISOLATION TRANSFORMERS

Primary 115 Volts 50/60 Cycles

Catalog No.	Secondary Volts	Secondary Amps	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
PY-100	115	0.2	2000	GA	2.0
PY-200	115	0.5	2000	HA	3.5
PY-300	115	1.0	2000	KA	8.5
PY-400	115	2.5	2000	MA	13.0
PY-500	26	1.0	2000	GA	2.0
PY-600	26	2.0	2000	HA	3.5
PY-700	26	4.0	2000	KA	8.5

FILTER REACTORS

MIL-T-27A

CLASS R, GRADE 4

HST
CATALOG NO. RS-200

The 4RS series HST reactors have been designed specifically for use in 400 cycle circuits. Their small size versus ratings are ideal for 800 cycle ripple reduction.

The RS series of HST reactors offers a wide selection of inductance values, DC resistance ranges and current ratings.

All units are housed in deep drawn steel cases, MIL-T-27A standard sizes. All units are vacuum impregnated and potted with the finest materials obtainable.

Cases are finished in an attractive grey with schematic diagrams permanently and legibly marked on all units.

FILTER REACTORS — 400 Cycle Application

Type No.	Inductance Henries	Current D.C. Ma.	D.C. Resistance (Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
4RS-100	2	55	210	2500	AH	0.15
4RS-200	2	70	240	2500	AJ	0.25
4RS-300	2	120	105	2500	EA	0.75
4RS-400	2	165	80	2500	FB	1.0
4RS-500	2	200	77	2500	FA	1.5

FILTER REACTORS — General Application

Catalog No.	Inductance (Henries)	Current D.C. (Max.)	D.C. Resistance (Max. Ohms)	Insulation Test Volts RMS	*Case Size	Approx. Wt. Lbs.
RS-100	15	10	700	1000	AJ	.25
RS-200	15	20	700	1000	AJ	.25
RS-300	15	40	460	2500	EA	.75
RS-400	25	50	1400	2500	GA	2.0
RS-500	10	60	230	2500	FA	1.5
RS-600	30	60	900	2500	HA	3.5
RS-700	10	85	195	2500	FA	1.5
RS-800	8	105	100	2500	GA	2.0
RS-900	8	150	100	2500	HA	3.5
RS-1000	10	150	150	2500	JA	6.0
RS-2000	8	200	90	2500	KB	6.5
RS-3000	5	250	220	2500	JA	6.0
RS-4000	8	250	95	3000	LA	11.0
RS-5000	8	300	55	3500	MA	13.0
RS-6000	4	600	20	3500	MA	13.0
RS-7000	0.5	1200	6	3500	MA	13.0

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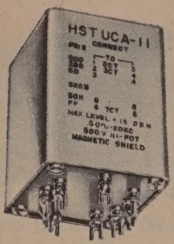
HST TRANSFORMERS

TYPE UCA

COMMERCIAL GRADE COMPONENTS



Type UCA

The HST commercial grade UCA Series has been designed and manufactured to the same exacting quality standards as the HST Military line. The excellent frequency response and low distortion inherent with these units makes them ideally suited for high-fidelity application, portable broadcast and other uses. Check the advantages listed below:

1. Rugged die-cast cases providing mounting from both ends. See photo above.
2. Excellent Frequency Response.
3. Hum-bucking coil construction on all units except those with DC in primary.
4. Additional magnetic shielding (20 db) available by use of UCA-33 mu-metal shield. See photo above.
5. Vacuum impregnated and sealed with high quality potting compound.
6. Schematic diagrams permanently marked on all units.
7. Attractive grey finish offering maximum eye-appeal in equipment.

INPUT TRANSFORMERS

Type No.	Application	Primary Imp. Ohms	Unbal. D.C.	Secondary Imp. Ohms	Response ±2db	Pri. Res. Ohms	Max. Level
UCA-10	Low Imp. to Grid	50,125/150,200/250, 333,500/600	0	50,000 split	20-20,000	59	+15dbM
UCA-11*	Low Imp. to 1 or 2 Grids	50,200,500	0	50,000CT	20-20,000	52	+5dbM
UCA-12	Low Imp. to PP Grids	50,125/150,200/250, 333,500/600	0	80,000 split	20-20,000	60	+15dbM
UCA-20†	Mixing, Matching	50,125/150,200/250, 333,500/600	0	50,125/150,200/250, 333,500/600	10-50,000	64	+15dbM
UCA-21*†	Mixing, Matching	50,200/250,500/600	0	50,200/250,500/600	40-30,000	28	+15dbM
UCA-27	Xtal/Hl. Imp. to Line	100,000 split	0	50,125/150,200/250, 333,500/600	30-20,000 with res. source	3700	+15dbM
UCA-39*	Line to Transistors	600/150 split	0	2000/500 split	20-20,000	70	+10dbM

* Multiple alloy shield for extremely low hum pickup. † High electrostatic shielding.

INTERSTAGE AND OUTPUT TRANSFORMERS

UCA-15	Transistor Interstage	10,000/2500 split	8MA	2000/500 split	40-20,000	600	1 Watt
UCA-16	Plate to Grid	15,000	0	60,000	20-20,000	800	30MW
UCA-17	Plate to Grid	15,000	8MA	60,000	40-20,000	3340	30MW
UCA-18	Single or PP Plates to PP Grids	15,000 split	0	80,000 split	20-15,000	1040	30MW
UCA-19	Plate to PP Grids	15,000	8MA	80,000 split	40-15,000	2900	30MW
UCA-22	Transistor Interstage or Output	500CT	20MA	500/125 split	40-20,000	36	1 Watt
UCA-23	Transistor Interstage or Output	500CT	20MA	16/4 split	40-20,000	36	1 Watt
UCA-24	Single or PP Plates to Line	15,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	1430	30MW
UCA-25	Plate to Line	15,000	8MA	50,125/150,200/250, 333,500/600	40-20,000	1580	30MW
UCA-26	Single or PP Plates to Line	30,000 split	0	50,125/150,200/250, 333,500/600	20-40,000	2520	30MW
UCA-28	Transistor to V.C.	48CT	750 MA Bal.	16 split 8, 4	40-20,000	5	5 Watts
UCA-34	Transistor Interstage	25,000/6250 split	3MA	500/125 split	30-20,000	1620	1 Watt
UCA-35	Transistor Interstage	10,000/2500 split	8MA	500/125 split	30-20,000	610	1 Watt
UCA-36	Transistor Interstage	500/125 split	20MA	150/37.5 split	40-20,000	36	1 Watt
UCA-37	Transistor Interstage	500/125 split	20MA	50/12.5 split	40-20,000	36	1 Watt
UCA-38	Transistor Interstage	100/25 split	40MA	40/10 split	40-20,000	6.2	1 Watt

REACTORS AND FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Type No.	Application	
UCA-30	Audio Choke	450 HYS @ 0 MA, 250 HYS @ 5 MA—6000 Ohms; 65 HYS @ 10 MA—1500 Ohms.
UCA-32	Filter Choke	60 HYS @ 15 MA—2000 Ohms; 15 HYS @ 30 MA—500 Ohms.
UCA-41	Filter Choke	240 MHY. @ .2A—6 Ohms; 60 MHY. @ .4A—1.5 Ohms.
UCA-40	Power Transformer	115 V 60 CPS to Two 6.3 VCT @ .2A Secondaries.
UCA-33	Mu-Metal Shield	Slip Fit Over UCA Case, Provides Approximately 20db Shielding.

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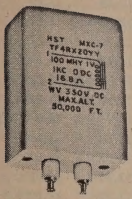
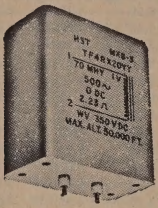
HST TRANSFORMERS

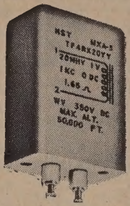
TYPES
MXA, TXA
MXB, MXC

ADVANCED "MX" SERIES OF HIGH "Q" TOROIDS

MIL-T-27A







MXA and TXA:

Length	1 9/32
Width	11/16
Height	1 21/32
Mounting	7/8 x 9/32
Screws (two)	4-40
Cutout-MXA	5/16 x 1/2
Cutout-TXA	5/16 x 3/4
Unit Weight	4 oz.

MXB:

Length	2 9/16
Width	1 3/16
Height	2 13/16
Mounting	2 1/16 x 11/16
Screws (four)	6-32
Cutout	7/8 x 1/2
Unit Weight	14 oz.

MXC:

Length	1 1/16
Width	1/2
Height	1 7/32
Mounting	3/4
Screws (two)	4-40
Cutout	5/16 x 1/2
Unit Weight	1.5 oz.

The new advanced "MX" series of HST standard toroids provides the highest "Q" factors, inductance stability and linearity obtainable in the industry. Permalloy dust cores are used in all units; core types selected for maximum efficiency at specified frequency ranges. All units are individually adjusted to ±1% tolerance. Enclosures are made of high permeability steel for magnetic shielding.

The TXA series toroids are center tapped for use in "capacitor multiplying tuned circuits," oscillator circuits," etc.

All units are furnished in an attractive grey finish with schematics permanently and legibly marked on cases.

MXB TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXB-1	10.0 Mhy	400
MXB-2	30.0 Mhy	250
MXB-3	70.0 Mhy	170
MXB-4	120.0 Mhy	120
MXB-5	0.5 Hy	60
MXB-6	1.0 Hy	40
MXB-7	2.0 Hy	30
MXB-8	3.5 Hy	22
MXB-9	7.5 Hy	16
MXB-10	12.0 Hy	11
MXB-11	18.0 Hy	9
MXB-12	25.0 Hy	8
MXB-13	40.0 Hy	6
MXB-14	60.0 Hy	4

MXA and TXA TYPES

Type No.	Ind. (0 DC)	DC MA Max.	Center Tapped Type No.
MXA-1	7.0 Mhy	250	TXA-1
MXA-2	12.0 Mhy	200	TXA-2
MXA-3	20.0 Mhy	150	TXA-3
MXA-4	30.0 Mhy	125	TXA-4
MXA-5	50.0 Mhy	100	TXA-5
MXA-6	70.0 Mhy	80	TXA-6
MXA-7	120.0 Mhy	60	TXA-7
MXA-8	0.2 Hy	50	TXA-8
MXA-9	0.3 Hy	40	TXA-9
MXA-10	0.5 Hy	30	TXA-10
MXA-11	.07 Hy	25	TXA-11
MXA-12	1.0 Hy	20	TXA-12
MXA-13	1.5 Hy	17	TXA-13
MXA-14	2.5 Hy	13	TXA-14
MXA-15	4.0 Hy	10	TXA-15
MXA-16	6.0 Hy	9	TXA-16
MXA-17	10.0 Hy	7	TXA-17
MXA-18	15.0 Hy	5	TXA-18
MXA-19	22.0 Hy	4	TXA-19
MXA-20	35.0 Hy	3	TXA-20

MXC TYPES

Type No.	Ind. (0 Dc)	Dc Ma Max
MXC-0	4.0 Mhy	160
MXC-1	7.0 Mhy	135
MXC-2	12.0 Mhy	100
MXC-3	20.0 Mhy	80
MXC-4	30.0 Mhy	65
MXC-5	50.0 Mhy	50
MXC-6	70.0 Mhy	40
MXC-7	100.0 Mhy	35
MXC-8	150.0 Mhy	30
MXC-9	0.25 Hy	22
MXC-10	0.4 Hy	17
MXC-11	0.6 Hy	14
MXC-12	0.9 Hy	12
MXC-13	1.5 Hy	9
MXC-14	2.0 Hy	8
MXC-15	2.8 Hy	7.2
MXC-16	4.0 Hy	5

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HST TRANSFORMERS

INDUSTRIAL
O.E.M.
NET PRICE
LIST

(All prices subject to change without notice)

"SS" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
SS-1	7.80	6.63	6.24	5.20
SS-2	7.80	6.63	6.24	5.20
SS-3	7.51	6.38	6.01	5.01
SS-4	6.60	5.61	5.28	4.40
SS-5	6.60	5.61	5.28	4.40
SS-6	7.51	6.38	6.01	5.01
SS-7	7.51	6.38	6.01	5.01
SS-8	7.80	6.63	6.24	5.20
SS-9	7.80	6.63	6.24	5.20
SS-10	8.40	7.14	6.72	5.60
SS-11	7.80	6.63	6.24	5.20
SS-12	7.80	6.63	6.24	5.20
SS-13	6.31	5.36	5.05	4.21
SS-14	7.51	6.38	6.01	5.01
SS-15	7.51	6.38	6.01	5.01
SS-16	10.20	8.67	8.16	6.80
SS-17	1.51	1.28	1.21	1.01
SS-18	7.80	6.63	6.24	5.20
SS-19	7.80	6.63	6.24	5.20
SS-20	6.31	5.36	5.05	4.21
SS-21	5.40	4.59	4.32	3.60
SS-22	5.40	4.59	4.32	3.60
SS-23	5.11	4.34	4.09	3.41
SS-24	5.11	4.34	4.09	3.41
SS-25	8.11	6.89	6.49	5.41
SS-26	8.11	6.89	6.49	5.41
SS-27	8.40	7.14	6.72	5.60
SS-28	8.40	7.14	6.72	5.60
SS-29	8.71	7.40	6.97	5.81
SS-30	8.11	6.89	6.49	5.41
SS-31	8.11	6.89	6.49	5.41
SS-32	8.11	6.89	6.49	5.41
SS-33	8.11	6.89	6.49	5.41

"SSM" Series

SSM-1	3.60	3.06	2.88	2.40
SSM-2	3.31	2.81	2.65	2.21
SSM-3	3.31	2.81	2.65	2.21
SSM-4	3.31	2.81	2.65	2.21
SSM-5	3.00	2.55	2.40	2.00
SSM-6	3.91	3.32	3.13	2.61
SSM-7	3.00	2.55	2.40	2.00
SSM-8	3.60	3.06	2.88	2.40
SSM-9	3.60	3.06	2.88	2.40
SSM-10	3.60	3.06	2.88	2.40
SSM-11	4.20	3.57	3.36	2.80
SSM-12	4.20	3.57	3.36	2.80
SSM-13	4.20	3.57	3.36	2.80
SSM-14	4.20	3.57	3.36	2.80

"PY" Series

PY-100	17.90	15.22	14.32	11.94
PY-200	15.35	13.05	12.28	10.24
PY-300	22.00	18.70	17.60	14.67
PY-400	22.50	19.13	18.00	15.01
PY-500	15.80	13.43	12.64	10.54
PY-600	16.90	14.37	13.52	11.27
PY-700	24.00	20.40	19.20	16.01

"TT" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
TT-001	6.00	5.10	4.80	4.00
TT-002	5.40	4.59	4.32	3.60
TT-003	5.40	4.59	4.32	3.60
TT-004	5.40	4.59	4.32	3.60
TT-005	5.40	4.59	4.32	3.60
TT-006	6.00	5.10	4.80	4.00
TT-007	6.60	5.61	5.28	4.40
TT-008	4.80	4.08	3.84	3.20
TT-009	6.60	5.61	5.28	4.40
TT-010	6.60	5.61	5.28	4.40
TT-011	6.60	5.61	5.28	4.40
TT-012	5.70	4.85	4.56	3.80
TT-013	5.70	4.85	4.56	3.80
TT-014	6.00	5.10	4.80	4.00
TT-015	6.00	5.10	4.80	4.00
TT-016	6.00	5.10	4.80	4.00
TT-017	6.00	5.10	4.80	4.00
TT-018	6.30	5.36	5.04	4.20
TT-019	6.00	5.10	4.80	4.00
TT-020	6.00	5.10	4.80	4.00
TT-021	6.00	5.10	4.80	4.00
TT-022	6.00	5.10	4.80	4.00
TT-023	6.90	5.87	5.52	4.60
TT-024	7.50	6.38	6.00	5.00
TT-025	7.20	6.12	5.76	4.80
TT-026	5.70	4.85	4.56	3.80
TT-027	4.80	4.08	3.84	3.20
TT-028	4.80	4.08	3.84	3.20
TT-029	5.70	4.85	4.56	3.80
TT-030	5.70	4.85	4.56	3.80
TT-031	6.00	5.10	4.80	4.00
TT-032	6.00	5.10	4.80	4.00
TT-033	6.00	5.10	4.80	4.00
TT-034	6.00	5.10	4.80	4.00
TT-035	6.30	5.36	5.04	4.20
TT-036	7.50	6.38	6.00	5.00
TT-037	6.60	5.61	5.28	4.40
TT-038	6.60	5.61	5.28	4.40
TT-039	6.60	5.61	5.28	4.40
TT-040	6.60	5.61	5.28	4.40
TT-041	5.40	4.59	4.32	3.60
TT-042	5.70	4.85	4.56	3.80
TT-043	4.95	4.21	3.96	3.30
TT-044	4.95	4.21	3.96	3.30
TT-045	4.95	4.21	3.96	3.30
TT-046	5.25	4.46	4.20	3.50
TT-047	5.25	4.46	4.20	3.50
TT-048	7.80	6.63	6.24	5.20
TT-049	7.80	6.63	6.24	5.20
TT-050	7.80	6.63	6.24	5.20
TT-051	8.40	7.14	6.72	5.60
TT-052	7.50	6.38	6.00	5.00
TT-053	7.50	6.38	6.00	5.00
TT-054	7.50	6.38	6.00	5.00
TT-055	7.50	6.38	6.00	5.00
TT-101	.90	.77	.73	.60

"4RS" Series

4RS-100	7.80	6.63	6.24	5.20
4RS-200	8.45	7.18	6.76	5.64
4RS-300	9.55	8.12	7.64	6.37
4RS-400	10.45	8.88	8.36	6.97
4RS-500	12.20	10.37	9.76	8.14

"TAF" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
TAF-01	13.20	11.22	10.56	8.80
TAF-02	13.73	11.67	10.98	9.16
TAF-03	13.73	11.67	10.98	9.16
TAF-04	13.73	11.67	10.98	9.16
TAF-05	12.84	10.91	10.27	8.56
TAF-06	13.20	11.22	10.56	8.80
TAF-07	13.73	11.67	10.98	9.16
TAF-08	13.73	11.67	10.98	9.16
TAF-09	13.73	11.67	10.98	9.16
TAF-10	13.20	11.22	10.56	8.80
TAF-11	13.20	11.22	10.56	8.80
TAF-12	13.73	11.67	10.98	9.16
TAF-13	14.15	12.03	11.32	9.44
TAF-14	14.15	12.03	11.32	9.44
TAF-15	12.60	10.71	10.08	8.40

"UCA" Series

UCA-10	12.75	10.84	10.20	8.50
UCA-11	12.00	10.20	9.60	8.00
UCA-12	12.00	10.20	9.60	8.00
UCA-15	9.91	8.42	7.93	6.61
UCA-16	9.91	8.42	7.93	6.61
UCA-17	12.00	10.20	9.60	8.00
UCA-18	12.00	10.20	9.60	8.00
UCA-19	12.00	10.20	9.60	8.00
UCA-20	14.40	12.24	11.52	9.60
UCA-21	12.00	10.20	9.60	8.00
UCA-22	9.91	8.42	7.93	6.61
UCA-23	9.91	8.42	7.93	6.61
UCA-24	12.91	10.97	10.33	8.61
UCA-25	12.00	10.20	9.60	8.00
UCA-26	12.75	10.84	10.20	8.50
UCA-27	12.00	10.20	9.60	8.00
UCA-28	10.20	8.67	8.16	6.80
UCA-30	10.20	8.67	8.16	6.80
UCA-32	6.60	5.61	5.28	4.40
UCA-33	2.71	2.30	2.17	1.81
UCA-34	10.20	8.67	8.16	6.80
UCA-35	9.91	8.42	7.93	6.61
UCA-36	9.60	8.16	7.68	6.40
UCA-37	9.60	8.16	7.68	6.40
UCA-38	9.29	7.90	7.43	6.20
UCA-39	11.11	9.44	8.89	7.41
UCA-40	10.13	8.61	8.10	6.76
UCA-41	6.13	5.21	4.90	4.09

"SMH" Series

SMH-1	8.40	7.14	6.72	5.60
SMH-2	8.40	7.14	6.72	5.60
SMH-3	8.40	7.14	6.72	5.60
SMH-4	8.40	7.14	6.72	5.60
SMH-5	6.91	5.87	5.53	4.61
SMH-6	7.51	6.38	6.01	5.01
SMH-7	7.51	6.38	6.01	5.01
SMH-8	7.51	6.38	6.01	5.01
SMH-9	7.51	6.38	6.01	5.01
SMH-10	7.51	6.38	6.01	5.01
SMH-11	7.51	6.38	6.01	5.01
SMH-12	9.60	8.16	7.68	6.40

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HST TRANSFORMERS

INDUSTRIAL
O.E.M.
NET PRICE
LIST

(All prices subject to change without notice)

"MH" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
MH-01	9.00	7.65	7.20	6.00
MH-02	9.91	8.42	7.93	6.61
MH-03	7.80	6.63	6.24	5.20
MH-04	7.80	6.63	6.24	5.20
MH-05	8.40	7.14	6.72	5.60
MH-06	10.20	8.67	8.16	6.80
MH-07	9.60	8.16	7.68	6.40
MH-08	9.00	7.65	7.20	6.00
MH-09	9.00	7.65	7.20	6.00
MH-10	8.40	7.14	6.72	5.60
MH-11	7.51	6.38	6.01	5.01
MH-12	9.60	8.16	7.68	6.40
HM-13	9.00	7.65	7.20	6.00
MH-14	9.00	7.65	7.20	6.00
MH-15	13.91	11.82	11.13	9.28
MH-16	13.73	11.67	10.98	9.16
MH-17	13.73	11.67	10.98	9.16
MH-18	13.73	11.67	10.98	9.16

"MXA" Series

MXA-1	7.50	6.38	6.00	5.00
MXA-2	7.80	6.63	6.24	5.20
MXA-3	8.10	6.89	6.48	5.40
MXA-4	8.40	7.14	6.72	5.60
MXA-5	8.70	7.40	6.96	5.80
MXA-6	9.00	7.65	7.20	6.00
MXA-7	9.30	7.91	7.44	6.20
MXA-8	9.60	8.16	7.68	6.40
MXA-9	9.90	8.42	7.92	6.60
MXA-10	10.20	8.67	8.16	6.80
MXA-11	10.50	8.93	8.40	7.00
MXA-12	10.80	9.18	8.64	7.20
MXA-13	11.10	9.44	8.88	7.40
MXA-14	11.40	9.69	9.12	7.60
MXA-15	12.00	10.20	9.60	8.00
MXA-16	12.90	10.97	10.32	8.60
MXA-17	13.80	11.73	11.04	9.20
MXA-18	15.00	12.75	12.00	10.00
MXA-19	18.00	15.30	14.40	12.00
MXA-20	20.70	17.60	16.56	13.80

"MXB" Series

MXB-1	12.90	10.97	10.32	8.60
MXB-2	13.20	11.22	10.56	8.80
MXB-3	13.50	11.48	10.80	9.00
MXB-4	13.80	11.73	11.04	9.20
MXB-5	14.10	11.99	11.28	9.40
MXB-6	14.40	12.24	11.52	9.60
MXB-7	14.70	12.49	11.76	9.80
MXB-8	15.00	12.75	12.00	10.00
MXB-9	15.90	13.52	12.72	10.60
MXB-10	16.80	14.28	13.44	11.20
MXB-11	18.00	15.30	14.40	12.00
MXB-12	19.20	16.32	15.36	12.80
MXB-13	21.00	17.85	16.80	14.00
MXB-14	24.00	20.40	19.20	16.00

"MXC" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
MXC-0	6.90	5.87	5.52	4.60
MXC-1	7.20	6.12	5.76	4.80
MXC-2	7.50	6.38	6.00	5.00
MXC-3	7.80	6.63	6.24	5.20
MXC-4	7.80	6.63	6.24	5.20
MXC-5	8.10	6.86	6.48	5.40
MXC-6	8.40	7.14	6.72	5.60
MXC-7	8.40	7.14	6.72	5.60
MXC-8	8.70	7.40	6.96	5.80
MXC-9	8.70	7.40	6.96	5.80
MXC-10	9.00	7.65	7.20	6.00
MXC-11	9.00	7.65	7.20	6.00
MXC-12	9.30	7.91	7.44	6.20
MXC-13	9.90	8.42	7.92	6.60
MXC-14	10.80	9.18	8.64	7.20
MXC-15	12.00	10.20	9.60	8.00
MXC-16	13.50	11.48	10.80	9.00

"RM" Series

RM-1	7.50	6.38	6.00	5.00
RM-2	7.50	6.38	6.00	5.00
RM-3	7.80	6.63	6.24	5.20
RM-4	7.80	6.63	6.24	5.20
RM-5	8.10	6.89	6.48	5.40
RM-6	8.10	6.89	6.48	5.40
RM-7	8.40	7.14	6.72	5.60
RM-8	8.40	7.14	6.72	5.60
RM-9	8.10	6.89	6.48	5.40
RM-10	8.10	6.89	6.48	5.40
RM-11	8.40	7.14	6.72	5.60
RM-12	8.40	7.14	6.72	5.60
RM-13	8.70	7.40	6.96	5.80
RM-14	8.70	7.40	6.96	5.80
RM-15	9.00	7.65	7.20	6.00
RM-16	9.00	7.65	7.20	6.00

"TXA" Series

TXA-1	9.00	7.65	7.20	6.00
TXA-2	9.30	7.91	7.44	6.20
TXA-3	9.60	8.16	7.68	6.40
TXA-4	9.90	8.42	7.92	6.60
TXA-5	10.20	8.67	8.16	6.80
TXA-6	10.50	8.93	8.40	7.00
TXA-7	10.80	9.18	8.64	7.20
TXA-8	11.10	9.44	8.88	7.40
TXA-9	11.40	9.69	9.12	7.60
TXA-10	11.70	9.95	9.36	7.80
TXA-11	12.00	10.20	9.60	8.00
TXA-12	12.30	10.46	9.84	8.20
TXA-13	12.60	10.71	10.08	8.40
TXA-14	12.90	10.97	10.32	8.60
TXA-15	13:50	11.48	10.80	9.00
TXA-16	14.70	12.50	11.76	9.80
TXA-17	15.90	13.52	12.72	10.60
TXA-18	17.40	14.79	13.92	11.60
TXA-19	21.00	17.85	16.80	14.00
TXA-20	23.40	19.89	18.72	15.60

"RS" Series

Type No.	1 to 9	10 to 49	50 to 99	100 to 249
RS-100	8.35	7.10	6.68	5.57
RS-200	8.90	7.57	7.12	5.94
RS-300	10.00	8.50	8.00	6.67
RS-400	10.35	8.80	8.28	6.90
RS-500	12.35	10.50	9.88	8.24
RS-600	14.45	12.28	11.56	9.64
RS-700	13.80	11.73	11.04	9.20
RS-800	18.50	15.73	14.80	12.34
RS-900	16.20	13.77	12.96	10.81
RS-1000	18.00	15.30	14.40	12.01
RS-2000	18.65	15.85	14.92	12.44
RS-3000	19.60	16.66	15.68	13.07
RS-4000	19.70	16.75	15.76	13.14
RS-5000	35.60	30.26	28.48	23.75
RS-6000	34.95	29.71	27.96	23.31
RS-7000	33.70	28.65	26.96	22.48

"PX" Series

PX-60	11.10	9.44	8.88	7.40
PX-100	13.10	11.14	10.48	8.74
PX-200	13.90	11.82	11.12	9.27
PX-300	16.70	14.20	13.36	11.14
PX-320	20.00	17.00	16.00	13.34
PX-360	13.50	11.48	10.80	9.00
PX-400	17.00	14.45	13.60	11.34
PX-500	25.00	21.25	20.00	16.68

"SMO" Series

SMO-1	4.51	3.83	3.61	3.01
SMO-2	4.80	4.08	3.84	3.20
SMO-3	4.20	3.57	3.36	2.80
SMO-4	3.91	3.32	3.13	2.61
SMO-5	3.91	3.32	3.13	2.61
SMO-6	4.20	3.57	3.36	2.80
SMO-7	3.31	2.81	2.65	2.21
SMO-8	3.91	3.32	3.13	2.61
SMO-9	3.00	2.55	2.40	2.00
SMO-10	3.00	2.55	2.40	2.00
SMO-11	3.00	2.55	2.40	2.00
SMO-12	3.00	2.55	2.40	2.00
SMO-13	4.51	3.83	3.61	3.01
SMO-14	4.20	3.57	3.36	2.80
SMO-15	4.20	3.57	3.36	2.80
SMO-16	3.00	2.55	2.40	2.00
SMO-17	3.31	2.81	2.65	2.21
SMO-18	3.31	2.81	2.65	2.21
SMO-19	3.31	2.81	2.65	2.21
SMO-20	3.31	2.81	2.65	2.21
SMO-21	4.80	4.08	3.84	3.20
SMO-22	3.91	3.32	3.13	2.61
SMO-23	3.00	2.55	2.40	2.00
SMO-24	3.00	2.55	2.40	2.00
SMO-25	5.11	4.34	4.09	3.41
SMO-26	5.11	4.34	4.09	3.41

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TRANSFORMERS

This group of transformers and filter reactors are designed to meet the full requirements of MIL-T-27A specifications, and are hermetically sealed in standard MIL-T-27A case sizes. They provide the highest standard of quality necessary for military and professional requirements.

The range includes the specific types standardized by the Armed Services Standards Agency as well as a group of standard types for 400 cycle power supplies.

Transformers and reactors meeting MIL-T-27A specifications Grade 1 through 6, Class Q, S, T, or U can be supplied on special order.

A wide range of transformers and reactors of all varieties are regularly manufactured, including the more economical types for commercial use.

If the ratings you require are not listed, we can offer prompt competitive quotations on designs to your specifications.

All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

MILITARY STANDARD FILAMENT TRANSFORMERS Input 105/115/125 Volts 60 Cycles ± 10%

Cat. No.	MIL Types	Military Standards No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	List Price
FMF 20	TF1RX01EB002 or TF4RX01EB002	MS90016-1 or 2	2.5	3	2500	EB	1	$16.80
FMF 21	TF1RX01GB003 or TF4RX01GB003	MS90017-1 or 2	2.5	10	2500	GB	2.125	22.60
FMF 22	TF1RX01FB004 or TF4RX01FB004	MS90018-1 or 2	5.0	3	2500	FB	1.5	18.50
FMF 23	TF1RX01HB005 or TF4RX01HB005	MS90019-1 or 2	5.0	10	2500	HB	3.125	24.60
FMF 24	TF1RX01FB006 or TF4RX01FB006	MS90020-1 or 2	6.3	2	2500	FB	1.25	18.50
FMF 25	TF1RX01GB007 or TF4RX01GB007	MS90021-1 or 2	6.3	5	2500	GB	2.125	21.00
FMF 26	TF1RX01JB008 or TF4RX01JB008	MS90022-1 or 2	6.3	10	2500	JB	5	29.00
FMF 27	TF1RX01KB009 or TF4RX01KB009	MS90023-1 or 2	6.3	20	2500	KB	7.75	35.00
FMF 28	TF1RX01JB012 or TF4RX01JB012	MS90024-1 or 2	2.5	10	10,000	JB	4.25	27.00
FMF 29	TF1RX01KB013 or TF4RX01KB013	MS90025-1 or 2	5.0	10	10,000	KB	6	34.00

MILITARY STANDARD PLATE AND FILAMENT TRANSFORMERS

Input 105/115/125 Volts 60 Cycles ± 10%. Choke Input Filter

Cat. No.	MIL Types	Military Standards No.	FIL 1	FIL 2	Plate (RMS)	Current	Case	Wt. Lbs.	List Price
FMP 30	TF1RX03HA001 or TF4RX03HA001	MS90026-1 or 2	6.3/5v 2a	6.3v 3a	200-100-0-100-200	.07A.DC	HA	3.75	$33.00
FMP 31	TF1RX03JB002 or TF4RX03JB002	MS90027-1 or 2	6.3/5v 2a	6.3v 4a	325-0-325	.07A.DC	JB	5.125	29.00
FMP 32	TF1RX03KB006 or TF4RX03KB006	MS90028-1 or 2	5v 3a	6.3v 5a	325-0-325	.150A.DC	KB	7.25	34.00
FMP 33	TF1RX03LB003 or TF4RX03LB003	MS90029-1 or 2	5v 3a	6.3v 8a	400-0-400	.175A.DC	LB	9.5	40.00
FMP 34	TF1RX03MB004 or TF4RX03MB004	MS90030-1 or 2	5v 3a	6.3v 8a	450-0-450	.250A.DC	MB	12.125	46.00
FMP 35	TF1RX02KB001 or TF4RX02KB001	MS90031-1 or 2			350-0-350	.250A.DC	KB	7.125	31.00
FMP 36	TF1RX02LB002 or TF4RX02LB002	MS90032-1 or 2			550-0-550	.250A.DC	LB	9.5	36.00
FMP 37	TF1RX02NB003 or TF4RX02NB003	MS90036-1 or 2			800-0-800	.250A.DC	NB	14.75	48.00

400 Cycle Transformers

FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles

Cat. No.	Sec. Volts	Sec. Amps	Test Volts	Case	Wt. Lbs.	List Price
FF 440	6.3 ct	2	1500	AJ	.625	$16.20
FF 41	6.3 ct	5	1500	EA	1	19.60
FF 42	6.3 ct	5	2500	FA	2	22.00
	6.3	5	2500			
FF 43	5/6.3	3	2500	EB	.95	19.00
FF 44	5 ct	6	2500	EA	1	19.60
FF 45	2.5 ct	10	5000	HB	2.75	25.60

PLATE AND FILAMENT TRANSFORMERS

Input 115 Volts 380-1200 Cycles. Choke Input Filter

Cat. No.	Plate RMS	DC Amps	Filaments	Case	Wt. Lbs.	List Price
FP 40	250-0-250	.070	5/6.3V 2A 6.3Vct 3A	GB	1.875	$27.50
FP 41	325-0-325	.120	5V 3A 6.3 ct 5A	JB	4.625	33.00
FP 42	400-0-400	.200	5V 3A 6.3Vct 6A	KB	6.625	37.50
FP 43	350-0-350	.250	——	JB	4.625	27.50
FP 44	500-0-500	.250	——	KB	6.25	30.00

FERRANTI ELECTRIC, INC.

TRANSFORMER DIVISION
INDUSTRIAL PARK
PLAINVIEW, N. Y.

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TRANSFORMERS

MILITARY STANDARD AUDIO TRANSFORMERS

Frequency Response 300-10,000 c.p.s. ± 2DB

Weight — 0.72 Lbs. Max. Altitude — 50,000 Ft. Max.

All units are hermetically sealed in MIL-T-27A case size AJ and are designed to meet the full requirements of the MIL-T-27A specification. All manufacturing, testing and inspection in accordance with applicable requirements of Military Specifications.

Cat. No.	Function	Type Designation	Military Standards No.	IMPEDANCE LEVEL (in ohms) Primary	IMPEDANCE LEVEL (in ohms) Secondary	Max. Power Level	Pri. D.C. Per Side in MA	Max. D.C. Unbalance	List Price
FMA 550	Interstage, Single or P.P. plates to single or P.P. grids	TF1RX15AJ001	MS 90000	10,000 CT	90,000 split and CT	+15 DBM	10	10	$20.80
FMA 551	Matching, 600 ohm line to voice coil	TF1RX16AJ002	MS 90001	600 split	4, 8, 16	2 watt	0	0	20.30
FMA 552	Input, 600 ohm line to single or P.P. grids	TF1RX10AJ001	MS 90002	600 split	135,000 CT	+15 DBM	0	0	20.80
FMA 553	Matching, 600 ohm line to 600 ohm line	TF1RX16AJ001	MS 90003	600 split	600 split	+15 DBM	0	0	20.30
FMA 554	Output, single plate 7600 ohm or 4800 ohm to 600 ohm line	TF1RX13AJ001	MS 90004	7600 tap @ 4800	600 split	2 watt	40	40	19.80
FMA 555	Output, single plate 7600 ohm or 4800 ohm to voice coil	TF1RX13AJ002	MS 90005	7600 tap @ 4800	4, 8, 16	2 watt	40	40	19.80
FMA 556	Output, single or P.P. plates to 600 ohm line	TF1RX13AJ003	MS 90006	15,000 CT	600 split	2 watt	10	10	19.80
FMA 557	Output, P.P. plates to 600 ohm line	TF1RX13AJ004	MS 90007	24,000 CT	600 split	1 watt	10	1	20.30
FMA 558	Output, P.P. plates to 600 ohm line	TF1RX13AJ005	MS 90008	60,000 CT	600 split	0.5 watt	10	1	20.30

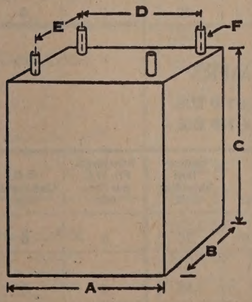
FILTER REACTORS

FOR 60 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	List Price
FC 410	.020	30	930	1500	AJ	.625	$14.50
FC 11	.070	15	260	2500	GB	2.25	14.00
FC 12	.150	10	110	2500	JB	4.75	20.00
FC 13	.200	8	90	2500	KB	6.25	21.00
FC 14	.300	10	95	2500	LB	9.625	28.50

FOR 400 CYCLE POWER SUPPLIES

Cat. No.	DC Amps	Induct. Henries	Resist. Ohms	Test Volts	Case	Wt. Lbs.	List Price
FC 440	.070	3	225	1500	AJ	.625	$14.00
FC 41	.120	3	145	2000	EB	1	15.00
FC 42	.200	3	115	2000	FB	1.5	15.50
FC 43	.250	3	65	2000	GB	2.25	17.50



MIL-T-27A CASE AND MOUNTING DIMENSIONS

Case	A	B	C	D	E	F
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32
EA	1 15/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32
MB	4 11/16	4	4 15/16	3 11/16	3	¼-20
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	¼-20

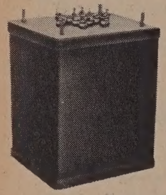
FERRANTI ELECTRIC, INC.

TRANSFORMER DIVISION
INDUSTRIAL PARK
PLAINVIEW, N. Y.

BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS

DC-2B CASE



Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32
Knockout: 1½" dia.

DC-4A CASE

Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen.: 2½"x2½"
Studs: 4 8-32
Knockout: 2" dia.

INPUT TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 1	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	70	0	0	DC-2B
QGA 2	Universal 500 ohm line to push-pull grids	U-500	100,000 split	+10	1:14.1	90	0	0	DC-2B
QGA 3	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	70	0	0	DC-2B
QGA 4	Universal 500 ohm line to single or push-pull grids	U-500	60,000 split	+10	1:11	90	0	0	DC-2B
QGA 5	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	70	0	0	DC-2B
QGA 6	Universal low impedance microphone, pickup or line to single or push-pull grids	U-60	60,000 split	+10	1:31.6	90	0	0	DC-2B

U-60 IMPEDANCES IN OHMS:
2.5, 5, 10, 15, 20, 30, 40, 60

U-500 IMPEDANCES IN OHMS:
50, 125, 200 CT, 250, 330, 500 CT.
125 and 500 ohms can be used for 150 and 600 ohms.

HYBRID AND REPEAT COILS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 7	Hybrid. Unbalanced 500/600 ohm lines to 600 ohms.	Total Pri 1200/1000 split 300/250 300/250	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 8	Hybrid. Balanced 500/600 ohm lines to 600 ohms. Longitudinal balance 70 DB	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	600/150 or 500/125 split	+10	1.41:1	70	0	0	DC-2B
QGA 9	Hybrid. Unbalanced 500/600 ohm lines to triode plate. No. D.C. in secondary.	Total Pri 1200/1000 split 300/250 300/250	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 10	Hybrid. Balanced 500/600 ohm lines to triode plate. No. D.C. in secondary. Longitudinal balance 70 DB.	Total Pri 1200/1000 split 300/250 C.T. 300/250 C.T.	15,000 or 12,500	+10	1:3.54	70	0	0	DC-2B
QGA 11	Repeat coil for low frequency ringing. Longitudinal balance 70 DB.	600/500 split	600/500 split Balanced		1:1	90	0	0	DC-4A

INTERSTAGE TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 D.B.
*50-20,000 C.P.S. ±1.0 D.B.

Catalog No.	Application	Impedance Level Ohms Primary	Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Maximum Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 12	Bridging line to single or push-pull grids.	10,000	60,000 split	+10	1:2.45	70	0	0	DC-2B
QGA 13	Single 6C4, 6J5 ½ 6SN7 triode to push-pull grids. Shunt feed.	15,000	60,000 split	+18	1:2	45	0	0	DC-2B
QGA 14*	Single 6C4, 6J5, ½ 6SN7 triode to push-pull grids.	15,000	60,000 split	+18	1:2	45	8	8	DC-2B
QGA 15	Push-pull triode plates to push-pull class A grids.	20,000 split	45,000 split	+25	1:1.5	30	8	0.5	DC-4A

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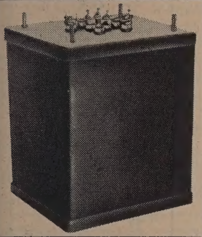
BROADCAST QUALITY COMPONENTS

CASE DIMENSIONS



DC-2B CASE

Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″ dia.

DC-4A CASE

Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32
Knockout: 2″ dia.

DC-5B CASE

Height: 4½″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3⅛″x2⅝″
Studs: 4 10-32
Knockout: 2½″ dia.

DC-6A CASE

Height: 4⅞″
Width: 5″
Depth: 4⅛″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″ dia.

DC-6B CASE

Height: 6″
Width: 5″
Depth: 4⅛″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″ dia.

DC-7 CASE

Height: 5⅜″
Width: 5½″
Depth: 5″
Mtg. Cen.: 4⅜″x3¾″
Studs: 4 ¼″-20
Knockout: 3″ dia.

LOW LEVEL OUTPUT, MIXING, MATCHING TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB
*50-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Maximum Power Level D.B.M.	Ratio	Equivalent Shielding D.B.	Max. Pri-D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 16	Single plate or bridging line to Universal 500 ohm line. Shunt feed.	15,000	U-500	+18	5.5:1	70	0	0	DC-2B
QGA 17*	Single plate to Universal 500 ohm line.	15,000	U-500	+18	5.5:1	70	8	8	DC-2B
QGA 18	Push-pull triode plates to Universal 500 ohm line.	20,000 C.T.	U-500	+25	6.3:1	70	8	0.5	DC-2B
QGA 19	Mixing, low impedance microphone or line to Universal 500 ohm line.	U-500	U-500	+12	1:1	70	0	0	DC-2B
QGA 20	Line level mixing and matching.	U-500	U-500	+30	1:1	70	0	0	DC-2B
QGA 21	High mu triode photo-cell to Universal 500 ohm line.	100,000	U-500	+12	14.1:1	70	0	0	DC-2B

DRIVER TRANSFORMERS

Frequency Response 20-20,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Maximum Power Level D.B.M.	Turn Ratio Pri.: ½ Sec.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 22	Universal 500 ohm line to Class B grids.	U-500	+40	1:1	0	0	DC-4A
QGA 23	Push-pull 6J5, etc. to push-pull 2A3's, 6L6's, etc.	20,000 C.T.	+30	3.2:1	8	0.5	DC-2B
QGA 24	Push-pull 2A3, 6B4 to push-pull 809, T2-40, 4/125A.	5,000 C.T.	+40	3.1:1	50	5	DC-4A

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 20-30,000 C.P.S. ±0.5 DB

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Maximum Power Level DBM	Maximum Power Level Watts	Ratio	Max. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
QGA 25	PP 5881, 6B4, 6L6, 300A, 275A to Universal 500 ohm line.	5,000 split	U-500	+42	15	3.16:1	70	7	DC-5B
QGA 26	As above to Universal voice coil.	5,000 split	U-16	+42	15	17.7:1	70	7	DC-5B
QGA 27	Push-pull 6V6, 6AQ5, 7C5, 6N7 to Universal 500 ohm line.	8,000 split	U-500	+42	15	4:1	50	5	DC-5B
QGA 28	As above to Universal voice coil.	8,000 split	U-16	+42	15	22.4:1	50	5	DC-5B
QGA 29	P.P. 6F6, 6V6, 6AQ5, 7C5, 7B5, 6AR5, 6K6, 6L6 to Universal 500 ohm line.	10,000 split	U-500	+42	15	4.47:1	40	4	DC-5B
QGA 30	As above to Universal voice coil.	10,000 split	U-16	+42	15	25:1	40	4	DC-5B
QGA 31	PP. 807, 1614, KT-66, (Williamson Amplifier) to Universal 500 ohm line.	10,000 split	U-500	+45.5	36	4.47:1	60	6	DC-6A
QGA 32	As above to Universal voice coil.	10,000 split	U-16	+45.5	36	25:1	60	6	DC-6A
QGA 33	P.P. Parallel, 6A5G, 300A to Universal 500 ohm line.	2,500 split	U-500	+45.5	36	2.24:1	100	10	DC-6A
QGA 34	As above to Universal voice coil.	2,500 split	U-16	+45.5	36	12.5:1	100	10	DC-6A
QGA 35	P.P. 6L6 or P.P. Parallel 6L6 to Universal 500 ohm line.	3,800 split	U-500	+47	50	2.75:1	140	14	DC-6B
QGA 36	As above to Universal voice coil.	3,800 split	U-16	+47	50	15.4:1	140	14	DC-6B
QGA 37	High level multiple line to Universal voice coil.	U-500	U-16	+42	15	5.6:1	0	0	DC-5B
QGA 38	High level multiple line to Universal voice coil.	U-500	U-16	+47	50	5.6:1	0	0	DC-6B
QGA 39*	5881 or 6146 Class AB1 to Universal 500 ohm line.	6,600 split	U-500	+45.5	36	3.64:1	70	7	DC-6A
QGA 40*	5881 or 6146 Class AB1 to Universal voice coil.	6,600 split	U-16	+45.5	36	20:1	70	7	DC-6A
QGA 41	6550 AB1 or 6146 AB2. to Universal 500 ohm line.	5,000 split	U-500	+50	100	3.16:1	140	14	DC-7
QGA 42	6550AB1 or 6146AB2 to Universal voice coil.	5,000 split	U-16	+50	100	17.7:1	140	14	DC-7

*These units supplied with taps for applying screen feedback.

U-500 IMPEDANCES IN OHMS. 50, 125, 200 C.T., 250, 330, 500 C.T. 125 and 500 ohms can be used for 150 and 600 ohms.

U-16 IMPEDANCES IN OHMS: 2, 4, 8, 12, 16.

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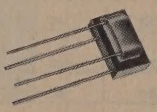
CONDENSED LISTING

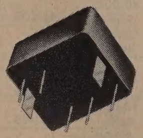
MINIATURE TRANSISTOR AUDIO TRANSFORMERS

TYPE			TUA			TSA			TNA			TPA			TTA		
MAX. POWER			500 MW			500 MW			1 W			3 W			5 W		
FREQ. RESPONSE			.4 — 15 KC ± 2 DB			.3 — 15 KC ± 2 DB			.2 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB		
SIZE	UNCASED		—			—			—			7/16 × 19/32 × 3/4			1 1/16 × 13/16 × 13/16		
	CASED	MIL-T-27A-4RX	11/32 D. × 1/2 H.			7/16 D., 15/32 H.			9/16 D. × 21/32 H.			15/16 D. × 11/16 H.			15/16 D. × 1 9/16 H.		
	MOLDED	MIL-T-27A-5RX	—			1/2 D. × 1/2 H.			19/32 × 17/32 × 17/32			7/8 × 25/32 × 17/32			1 5/32 × 1 × 31/32		
MATCHING IMP.		Turns Ratio	Cat. No. TUA	Pri.	Sec.	Cat. No. TSA	Pri.	Sec.	Cat. No. TNA	Pri.	Sec.	Cat. No. TPA	Pri.	Sec.	Cat. No. TTA	Pri.	Sec.
Pri.	Sec.																
150/37.5	3.2	6.85/1	**16**	CT		**28**	CT		**28**	CT		**30**	CT		**15**	CT	
150/37.5	12	3.54/1	**17**	CT		**29**	CT		**29**	CT		**31**	CT		**17**	CT	
150/37.5	50	1:73/1	**21**	CT		**30**	CT		**30**	CT		**32**	CT		**18**	CT	
300/75	3.2	9.68/1	**20**	CT		**31**	CT		**31**	CT		**33**	CT		**20**	CT	
300/75	12	5/1	**19**	CT		**32**	CT		**32**	CT		**34**	CT		**21**	CT	
300/75	50	2.45/1	**22**	CT		**33**	CT		**33**	CT		**35**	CT		**22**	CT	
500/125	500	1/1	**23**	CT		**34**	CT		**34**	CT		**36**	CT		**1**	CT	
600/150	3.2	13.7/1	**1**	CT		**1**	SP		**1**	SP		**1**	SP		**23**	SP	
600/150	12	7.07/1	**2**	CT		**2**	SP		**2**	SP		**2**	SP		**24**	SP	
600/150	50	3.47/1	**13**	CT		**35**	SP		**35**	SP		**3**	SP		**25**	SP	
600/150	600–150	1/1	**3**	CT		**3**	SP	SP	**3**	SP	SP	**4**	SP	SP	**26**	SP	SP
600/150	1.2K–300	1/1.41	**24**	CT		**22**	SP	CT	**22**	SP	CT	**37**	SP	CT	**7**	SP	CT
1K/250	3.2	17.7/1	**4**	CT		**36**	CT		**36**	CT		**38**	CT		**19**	CT	
1K/250	12	9.13/1	**25**	CT		**37**	CT		**37**	CT		**39**	CT		**27**	CT	
1K/250	50	4.47/1	**14**	CT		**26**	CT		**26**	CT		**40**	CT		**13**	CT	
1.2K/300	3.2	19.3/1	**26**	CT		**4**	SP		**4**	SP		**5**	SP		**28**	SP	
1.2K/300	12	10/1	**5**	CT		**5**	SP		**5**	SP		**6**	SP		**29**	SP	
1.2K/300	50	4.9/1	**27**	CT		**38**	SP		**38**	SP		**7**	SP		**30**	SP	
1.2K/300	600–150	1.41/1	**6**	CT		**6**	SP	SP	**6**	SP	SP	**8**	SP	SP	**31**	SP	SP
2K/500	3.2	25/1	**28**	CT		**7**	SP		**7**	SP		**9**	SP		**10**	SP	
2K/500	12	12.9/1	**29**	CT		**8**	SP		**8**	SP		**10**	SP		**32**	SP	
2K/500	600	1.83/1	**30**	CT		**9**	SP	SP	**9**	SP	SP	**11**	SP	SP	**33**	SP	SP
4K/1000	3.2	35.4/1	**8**	CT		**10**	SP		**10**	SP		**12**	SP		**11**	SP	
4K/1000	12	18.2/1	**9**	CT		**11**	SP		**11**	SP		**13**	SP		**34**	SP	
4K/1000	600–150	2.58/1	**10**	CT		**12**	SP	SP	**12**	SP	SP	**14**	SP	SP	**9**	SP	SP
10K/2.5K	3.2	56/1	**7**	CT		**13**	SP		**13**	SP		**15**	SP		**35**	SP	
10K/2.5K	12	29/1	**11**	CT		**14**	SP		**14**	SP		**16**	SP		**36**	SP	
10K/2.5K	50	14.1/1	**12**	CT		**39**	CT		**39**	CT		**17**	CT		**37**	CT	
10K/2.5K	600–150	4.1/1	**15**	CT		**15**	SP	SP	**15**	SP	SP	**18**	SP	SP	**38**	SP	SP
10K/2.5K	1K	3.17/1	**18**	CT		**40**			**40**			**19**			**39**		
10K/2.5K	10K–2.5K	1/1	**31**		CT	**16**		SP	**16**		SP	**20**		SP	**40**		SP
20K/5K	50	20/1	**32**	CT		**25**	CT		**25**	CT		**21**	CT		**12**	CT	
20K/5K	600/150	5.78/1	**33**	CT	CT	**41**	CT	CT	**41**	CT	CT	**22**	CT	CT	**16**	CT	CT
25K/6.2K	600/150	6.45/1	**34**	CT	CT	**23**	CT	CT	**23**	CT	CT	**23**	CT	CT	**8**	CT	CT
25K/6.2K	1.2K/300	4.55/1	**35**	CT	CT	**21**	CT	CT	**21**	CT	CT	**24**	CT	CT	**5**	CT	CT
50K/12.5K	6/1.5	91.5/1	**36**	CT	CT	**18**	CT	CT	**18**	CT	CT	**25**	CT	CT	**3**	CT	CT
50K/12.5K	500/125	10/1	**37**	CT	CT	**17**	CT	CT	**17**	CT	CT	**26**	CT	CT	**2**	CT	CT
50K/12.5K	1.2K/300	6.45/1	**38**	CT	CT	**20**	CT	CT	**20**	CT	CT	**27**	CT	CT	**6**	CT	CT
100K/25K	1K/250	10/1				**27**	CT	CT	**27**	CT	CT	**28**	CT	CT	**14**	CT	CT
100K/25K	1.2K/300	9.15/1				**19**	CT	CT	**19**	CT	CT	**29**	CT	CT	**4**	CT	CT

CT—Center Tap　　SP—Split Winding

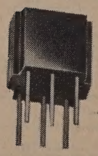


TPA UNCASED

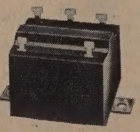


TPA MOLDED

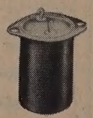
TUA, TSA, TNA CASED
TSA MOLDED



TNA MOLDED



TTA MOLDED



TTA, TPA CASED

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FREED TRANSFORMER COMPANY, INC.

MINIATURE TRANSISTOR AUDIO TRANSFORMERS

These high quality miniature transformers are high efficiency audio components featuring hermetic sealing for maximum protection against electrolysis and subsequent corrosion of fine wires caused by moisture penetration. The units are constructed in accordance with MIL-T-27A Specifications. Transistor transformers can also be supplied in an open or encapsulated type of construction.

TYPE		TSA			TNA			TPA			TTA		
MAX. POWER		500 MW			1 W			3 W			5 W		
FREQ. RESPONSE		.3 — 15 KC ± 2 DB			.2 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB			.15 — 15 KC ± 2 DB		
SIZE	UNCASED	———			———			7/16 x 19/32 x 3/4			1 7/16 x 13/16 x 13/16		
	CASED MIL-T-27A-4RX	7/16 D., 15/32 H.			9/16 D. x 21/32 H.			15/16 D. x 11/16 H.			15/16 D. x 1 9/16 H.		
	MOLDED MIL-T-27A-5RX	1/2 D. x 1/2 H.			19/32 x 17/32 x 17/32			7/8 x 25/32 x 17/32			1 5/32 x 1 x 31/32		
MATCHING IMP.		Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.	Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.
Pri.	Sec.												
150 (CT	3.2	**28**	35	12	**28**	40	16	**30**	45	20	**15**	130	50
150 (CT)	12	**29**	35	12	**29**	40	16	**31**	45	20	**17**	130	50
150 (CT)	50	**30**	35	12	**30**	40	16	**32**	45	20	**18**	130	50
300 (CT)	3.2	**31**	30	8	**31**	32	14	**33**	35	16	**20**	100	35
300 (CT)	12	**32**	30	8	**32**	32	14	**34**	35	16	**21**	100	35
300 (CT)	50	**33**	30	8	**33**	32	14	**35**	35	16	**22**	100	35
500 (CT)	500	**34**	20	6	**34**	22	10	**36**	25	12	**1**	80	25
600 (SP)	3.2	**1**	16	6	**1**	18	8	**1**	20	10	**23**	65	25
600 (SP)	12	**2**	16	6	**2**	18	8	**2**	20	10	**24**	65	25
600 (SP)	50	**35**	16	6	**35**	18	8	**3**	20	10	**25**	65	25
600 (SP)	600 (SP)	**3**	16	6	**3**	18	8	**4**	20	10	**26**	65	25
600 (SP)	1.2K (CT)	**22**	16	6	**22**	18	8	**37**	20	10	**7**	65	25
1K (CT)	3.2	**36**	14	4	**36**	15	6	**38**	16	8	**19**	50	20
1K (CT)	12	**37**	14	4	**37**	15	6	**39**	16	8	**27**	50	20
1K (CT)	50	**26**	14	4	**26**	15	6	**40**	16	8	**13**	50	20
1.2K (SP)	3.2	**4**	12	4	**4**	14	6	**5**	16	8	**28**	40	15
1.2K (SP)	12	**5**	12	4	**5**	14	6	**6**	16	8	**29**	40	15
1.2K (SP)	50	**38**	12	4	**38**	14	6	**7**	16	8	**30**	40	15
1.2K (SP)	600 (SP)	**6**	12	4	**6**	14	6	**8**	16	8	**31**	40	15
2K (SP)	3.2	**7**	9	3	**7**	10	5	**9**	14	6	**10**	25	12
2K (SP)	12	**8**	9	3	**8**	10	5	**10**	14	6	**32**	25	12
2K (SP)	600 (SP)	**9**	9	3	**9**	10	5	**11**	14	6	**33**	25	12
4K (SP)	3.2	**10**	6.5	2	**10**	8	3	**12**	9	4	**11**	20	10
4K (SP)	12	**11**	6.5	2	**11**	8	3	**13**	9	4	**34**	20	10
4K (SP)	600 (SP)	**12**	6.5	2	**12**	8	3	**14**	9	4	**9**	20	10
10K (SP)	3.2	**13**	5	1	**13**	6	2	**15**	7	3	**35**	15	9
10K (SP)	12	**14**	5	1	**14**	6	2	**16**	7	3	**36**	15	9
10K (CT)	50	**39**	5	1	**39**	6	2	**17**	7	3	**37**	15	9
10K (SP)	600 (SP)	**15**	5	1	**15**	6	2	**18**	7	3	**38**	15	9
10K	1K	**40**	5	1	**40**	6	1.5	**19**	7	3	**39**	15	9
10K	10K (SP)	**16**	5	1	**16**	6	1.5	**20**	7	3	**40**	15	9
20K (CT)	50	**25**	2.5	.8	**25**	3	1	**21**	5	2	**12**	8	6
20K (CT)	600 (CT)	**41**	2.5	.8	**41**	3	1	**22**	5	2	**16**	8	6
25K (CT)	600 (CT)	**23**	2.5	.8	**23**	3	1	**23**	5	2	**8**	6	4
25K (CT)	1.2K (CT)	**21**	2.5	.8	**21**	3	1	**24**	5	2	**5**	6	4
50K (CT)	6 (CT)	**18**	2	.6	**18**	2.5	1	**25**	3.5	1	**3**	5	3
50K (CT)	500 (CT)	**17**	2	.6	**17**	2.5	1	**26**	3.5	1	**2**	5	3
50K (CT)	1.2K (CT)	**20**	2	.6	**20**	2.5	1	**27**	3.5	1	**6**	5	3
100K (CT)	1K (CT)	**27**	2	.4	**27**	2	.8	**28**	2	1	**14**	4	2
100K (CT)	1.2K (CT)	**19**	2	.4	**19**	2	.8	**29**	2	1	**4**	4	2

TYPE		TUA		
MAX. POWER		500 MW		
FREQ. RESPONSE		.4 — 15 KC ± 2 DB		
SIZE	UNCASED	———		
	CASED MIL-T-27A-4RX	11/32 D. x 1/2 H.		
	MOLDED	———		
MATCHING IMP.		Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.
Pri.	Sec.			
150 (CT)	3.2	**16**	15	10
150 (CT)	12	**17**	15	10
150 (CT)	50	**21**	15	10
300 (CT)	3.2	**20**	9	7
300 (CT)	12	**19**	9	7
300 (CT)	50	**22**	9	7
500 (CT)	500	**23**	7	5
600 (CT)	3.2	**1**	7	5
600 (CT)	12	**2**	7	5
600 (CT)	50	**13**	7	5
600 (CT)	600	**3**	7	5
600 (CT)	1.2K	**24**	7	5
1K (CT)	3.2	**4**	6	3.5
1K (CT)	12	**25**	6	3.5
1K (CT)	50	**14**	6	3.5
1.2K (CT)	3.2	**26**	6	3.5
1.2K (CT)	12	**5**	6	3.5
1.2K (CT)	50	**27**	6	3.5
1.2K (CT)	600	**6**	6	3.5

TYPE		TUA		
MAX. POWER		500 MW		
FREQ. RESPONSE		.4 — 15 KC ± 2 DB		
SIZE	UNCASED	———		
	CASED MIL-T-27A-4RX	11/32 D. x 1/2 H.		
	MOLDED	———		
MATCHING IMP.		Cat. No.	Max. I (MA) Total Pri.	Max. I dc (MA) Unbal. ½ Pri.
Pri.	Sec.			
2K (CT)	3.2	**28**	3.5	2.5
2K (CT)	12	**29**	3.5	2.5
2K (CT)	600	**30**	3.5	2.5
4K (CT)	3.2	**8**	3.5	1.5
4K (CT)	12	**9**	3.5	1.5
4K (CT)	600	**10**	3.5	1.5
10K (CT)	3.2	**7**	2	1
10K (CT)	12	**11**	2	1
10K (CT)	50	**12**	2	1
10K (CT)	600	**15**	2	1
10K (CT)	1K	**18**	2	1
10K	10K (CT)	**31**	2	1
20K (CT)	50	**32**	2	.8
20K (CT)	600 (CT)	**33**	2	.8
25K (CT)	600 (CT)	**34**	2	.8
25K (CT)	1.2K (CT)	**35**	2	.8
50K (CT)	6 (CT)	**36**	2	.6
50K (CT)	500 (CT)	**37**	2	.5
50K (CT)	1.2K (CT)	**38**	2	.5

CT = Center Tap.   SP = Split Winding.

MINIATURE AUDIO TRANSFORMERS

These high quality, miniature transformers feature hermetically sealing for maximum protection from moisture penetration with subsequent electrolysis and corrosion of fine wires. While primarily intended for non-military equipment, these units are constructed in accordance with MIL-T-27A Specifications.

Frequency response: ± 2DB 30-20,000 CPS.
*± 2DB 200-10,000 CPS.

CASE DIMENSIONS

DM-20 CASE

Height: 1 9/16"
Dia.: 15/16"
Mtg. Cen.: 1 1/8" to 1 7/32"
Mtg. 2 holes: .166 x .120
Flange Lgth.: 1 13/32"
Flange D.: .975"

Catalog No.	Application	MIL Type	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Max. Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PMA 1	Line or microphone to single or push-pull grids.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11		0	0	DM-20
PMA 2	Dynamic microphone or speaker voice coil to single or P.P. grid.	TF4RX10YY	4/8	60,000 C.T.	+8	1:86.6		0	0	DM-20
PMA 3	Line or microphone to single or push-pull grids. Magnetically shielded.	TF4RX10YY	50/200/500	60,000 C.T.	+8	1:11	30	0	0	DM-20
PMA 4	Single triode plate to single or push-pull grids.	TF4RX10YY	15,000	60,000 C.T.	+8	1:2		0	0	DM-20
PMA 5*	Single triode plate to push-pull grids.	TF4RX12YY	15,000	60,000 C.T.	+8	1:2		2	2	DM-20
PMA 6	Single triode plate to multiple line.	TF4RX16YY	15,000	50/200/500	+8	5.48:1		0	0	DM-20
PMA 7*	Single triode plate to multiple line.	TF4RX12YY	15,000	50/200/500	+8	5.48:1		2	2	DM-20
PMA 8	Push-pull triode plates to multiple line.	TF4RX12YY	30,000 C.T.	50/200/500	+8	7.75:1		2	0.25	DM-20
PMA 9	Crystal mike or pickup to multiple line.	TF4RX16YY	60,000 C.T.	50/200/500	+8	11:1		0	0	DM-20
PMA 10	Mixing or matching.	TF4RX16YY	50/200	50/200/500	+8	1:1.50		0	0	DM-20
PMA 11	Parallel Feed Reactor.	TF4RX20YY	40 hy, 3 ma dc, 3500 ohms d. c. resistance.							DM-20
PMA 12	Microphone or line to grid.	TF4RX10YY	50/200/500 C.T.	60,000 C.T.	+5	1.11		0	0	DM-20
PMA 13	Mixing and matching.	TF4RX16YY	150/600	600 C.T.	+8	1.1		0	0	DM-20
PMA 14	Single triode plate to push-pull grids.	TF4RX15YY	15,000	95,000 Split	+5	1:2.5		0	0	DM-20
PMA 15*	Single triode plate to push-pull grids.	TF4RX15YY	15,000	94,000 Split	15	1:2.4		4	4	DM-20

See Freed Price Pages 1442-1444

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PROFESSIONAL GRADE COMPONENTS

This group of components has been designed for use in high fidelity and professional equipment and for public address service. Freed has developed this series of units employing the latest design techniques and the best commercially available materials. Except for units carrying unbalanced direct current the frequency response is ± 1 DB from 30 to 15,000 cps. All units feature excellent performance characteristics combined with minimum size and weight.

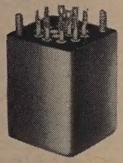
All units are vacuum varnished and then potted in compound to insure long life and trouble free performance.

Professional Grade components are supplied cased. Upon request these units can be supplied open or in shell type construction.

All cased Professional Grade Components supplied with terminals meet "EIA" standards.

Transformers PGA 1 through PGA 10 are supplied in hermetically sealed cases.

CASE DIMENSIONS



DM-01B CASE

Height: 2¼"
Width: 1½"
Depth: 1½"
Mtg. Cen.: 1¹⁄₁₆"x1¹⁄₁₆"
Studs: 2 6-32
Knockout: 1⅜" dia.

INPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Maximum Power Level DBM	Ratio	Equivalent Shielding D.B.	Max. Pri. D.C. per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 1	Universal 500 ohm line to single grid.	U-500	50,000	+12	1:10	50	0	0	DM-01A
PGA 2	Universal 500 ohm line to push-pull grids.	U-500	60,000 split	+12	1:11	50	0	0	DM-01B
PGA 3	Universal 500 ohm line to push-pull grids.	U-500	100,000 split	+12	1:14.1	50	0	0	DM-01C
PGA 4	Bridging line to single grid.	10,000	60,000	+12	1:2.45	50	0	0	DM-01C
PGA 5	Bridging line to push-pull grids.	10,000	60,000 center tap	+12	1:2.45	50	0	0	DM-01C
PGA 6	Low level line matching.	U-500	U-500	+18	1:1	50	0	0	DM-01C

LOW LEVEL OUTPUT AND MIXING TRANSFORMERS

Frequency Response 30-15 000 C.P.S. ±1.0 DB

Catalog No.	Application	Impedance Level Ohms Primary	Impedance Level Ohms Secondary	Maximum Power Level DBM	Ratio	Max. Pri. D.C. Per Side Ma.	D.C. Unbalance Ma.	Case Number
PGA 7	Single triode plate to Universal 500 ohm line. Shunt feed.	15,000	U500	+18	5.48:1	0	0	DM-01A
PGA 8	Single triode plate to Universal 500 ohm line.	15,000	U500	+18	5.48:1	8	8	DM-01A
PGA 9	Push-pull triode plates to Universal 500 ohm	20,000 CT	U500	+30	6.32:1	8	0.5	DM-01A
PGA 10	Low level line matching.	U500	U500	+18	1.1	0	0	DM-01A

U-500 IMPEDANCES IN OHMS: 50, 125, 200 CT, 250, 330, 500 CT. 125 and 500 ohms can be used for 150 and 600 ohms.

DRIVER TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB

Catalog No.	Application	Primary Impedance Ohms	Turn Ratio Pri: ½ Sec.	Max. Level DBM	Max. Pri. D.C. Per Side Ma.	Max. D.C. Unbalance Ma.	Case Number
PGA 11	Universal 500 ohm line to push-pull grids.	U500	1:1	+40	0	0	DC-2A
PGA 12	Push-pull 6C4, 6SN7 triodes to push-pull 2A3, 6L6 grids.	20,000 C.T.	3.0:1	+30	10	1	DC-1A
PGA 13	Push-pull 2A3, 6B4, 6A5G to push-pull 809, TZ-40, 4/125A	5,000 C.T.	3.2:1	+40	50	5	DC-2A

All units supplied with leads.

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See Freed Price Pages 1442-1444

PROFESSIONAL GRADE COMPONENTS

CASE DIMENSIONS

DC-1A CASE
Height: 2½″
Width: 2$\frac{1}{16}$″
Depth: 1$\frac{13}{16}$″
Mtg. Cen.: 1½″x1¼″
Studs: 4 8-32
Knockout: 1¼″ dia.

DC-2A CASE
Height: 3″
Width: 2⅝″
Depth. 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″x1⅜″

DC-2B CASE
Height: 3½″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″x1¾″
Studs: 4 8-32
Knockout: 1½″x1⅜″

DC-4A CASE
Height: 3¾″
Width: 3⅛″
Depth: 3″
Mtg. Cen.: 2½″x2½″
Studs: 4 8-32
Knockout: 2″x1¾″

DC-5A CASE
Height: 3⅞″
Width: 4⅛″
Depth: 3½″
Mtg. Cen.: 3⅛″x2⅝″
Studs: 4 10-32
Knockout: 2½″x2″

DC-6A CASE
Height: 4⅞″
Width: 5″
Depth: 4⅛″
Mtg. Cen.: 3¾″x3″
Studs: 4 10-32
Knockout: 3″x2½″

HIGH LEVEL OUTPUT TRANSFORMERS

Frequency Response 30-15,000 C.P.S. ±1.0 DB.

Catalog No.	Application	Impedance Level Ohms		Maximum Power Level		Ratio	Max. Pri. D.C. Per Side Ma	DC Unbalance Ma	Case Number
		Primary	Secondary	DBM	Watts				
PGA 14	P.P. 6K6, 6AR5, 7B5 Class A to Universal voice coil.	12,000 C.T.	U16	+40	10	27.4:1	40	4	DC-2B
PGA 15	P.P. 6F6 Cl. AB$_2$, P.P. 6V6, 6AQ5, 7C5, Cl. AB$_1$, 6L6 or 5881 Triode to Universal voice coil.	10,000 C.T.	U16	+43	20	25:1	50	5	DC-4A
PGA 16	P.P. 6L6 Cl. AB$_2$, self bias to Universal 500 ohm line.	9,000	U500	+44.8	30	4.23:1	50	5	DC-4A
PGA 17	As above to Universal voice coil.	9,000	U16	+44.8	30	23.7:1	50	5	DC-4A
PGA 18	P.P. 6N7 Cl. B, P.P. 6V6, 6AQ5, 7C5, Cl. AB$_1$ to Universal voice coil.	8,000 C.T.	U16	+41.8	15	22.3:1	45	5	DC-4A
PGA 19*	P.P. 6L6, fixed bias, Cl. AB$_1$, to Universal 500 ohm line.	6,600 C.T.	U500	+44.8	30	3.63:1	70	7	DC-4A
PGA 20	As above to Universal voice coil.	6,600 C.T.	U16	+44.8	30	20.3:1	70	7	DC-4A
PGA 21	P.P. 6L6 Cl. A, P.P. 2A3, 6A5G, 6B4 self bias P.P. Par. 6V6 Cl. AB$_1$ to Universal voice coil.	5,000 C.T.	U16	+43	20	17.7:1	80	8	DC-4A
PGA 22	P.P. Par 6L6 Cl. AB$_1$, self bias P. P. 6L6 Cl. AB$_2$ fixed bias PP807 Cl. AB$_2$ to Universal 500 ohm line.	4000 C.T.	U500	+47	50	2.83:1	100	10	DC-5A
PGA 23	As above to Universal voice coil.	4000 C.T.	U16	+47	50	15.8:1	100	10	DC-5A
PGA 24	P.P. 6A5G, 6B4, 2A3, fixed bias Universal voice coil.	3000 C.T.	U16	+41.8	15	13.7:1	75	7.5	DC-4A
PGA 25	P.P. Par. 807 Cl. AB$_2$ to Universal 500 ohm line.	2100 C.T.	U500	+51.8	150	2.05:1	240	12	DC-6A
PGA 26	P.P. Par 2A3, 6A5G, fixed bias 6B4, 300A Cl. AB$_1$, P.P. Par 6L6 Cl. A to Universal 500 ohm line.	1500 C.T.	U500	+44.8	30	1.73:1	150	15	DC-4A
PGA 27	As above to Universal voice coil.	1500 C.T.	U16	+44.8	30	9.7:1	150	15	DC-4A
PGA 28	Matching line to Universal voice coil.	U500	U16	+44.8	30	5.6:1	0	0	DC-4A
PGA 29	Matching line to Universal voice coil.	U500	U16	+47	50	5.6:1	0	0	DC-5A
PGA 30	Matching line to Universal voice coil.	U500	U16	+50	100	5.6:1	0	0	DC-6A

†Available with taps to apply screen feedback.

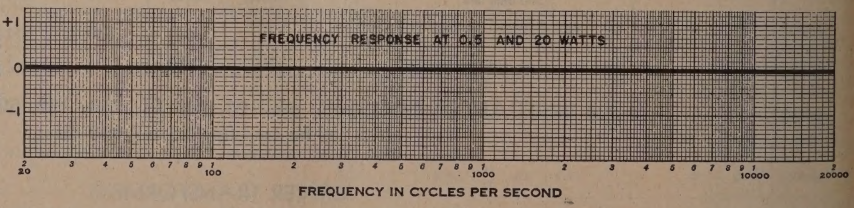
U-16 IMPEDANCES IN OHMS:
2, 4, 8, 12, 16
U-500 IMPEDANCES IN OHMS:

50, 125, 200 C.T., 250, 330, 500 C.T., 125 and 500 ohms can be used for 150 and 600 ohms.

A 70 volts level can be obtained for the following impedances:
500 ohms — 10 watts + 40 DBM
330 ohms — 15 watts + 42 DBM
250 ohms — 20 watts + 43 DBM
200 ohms — 25 watts + 44 DBM
125 ohms — 40 watts + 46 DBM
50 ohms — 100 watts + 50 DBM

*PGA 28, 29 & 30 supplied with terminals, all other units with leads.

NEW CIRCUIT REVISES WILLIAMSON HI-FIDELITY AMPLIFIER FOR IMPROVED PERFORMANCE



- Frequency response: .1DB from 20 to 30,000 cps. at 20W.
- Harmonic distortion: 0.4% from 20 to 30,000 cps. at 20W.
- Two section L-C filter for improved stable performance.
- 20 Watt output connected as Williamson amplifier.
- 10 Watt output connected as ultra linear amplifier.

FREED supplies the following parts from stock.

Catalog No.	Application	Rating	Case No.
KA-10	output transf.	Prim: 10,000 Ω ct. Sec. 16/8 Ω	VS-506
KC-10	filter reactor	12Hy at 165MA, RDC 180 Ω	VS-304
KC-11	filter reactor	20Hy at 30MA, RDC 1,250 Ω	CH-40
KP-10	power transf.	Pri: 115V 60cps; Sec. 1: 1100 Vct at 150MA; Sec. 2:6.3Vct at 4A; Sec. 3: 5V at 3A.	VS-606

CASE DIMENSIONS

DM-01 CASE

Height: 2"
Width: 1½"
Depth: 1½"
Mtg. Cen.: 1 1/16"x1 1/16"
Studs: 4 6-32

DC CASE STYLE

DC-1A

Height: 2½"
Width: 2 1/16"
Depth: 1 13/16"
Mtg. Cen.: 1½"x1¼"
Studs: 4 8-32

DC-2A

Height: 3"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-2B

Height: 3½"
Width: 2⅝"
Depth: 2¼"
Mtg. Cen.: 2"x1¾"
Studs: 4 8-32

DC-4A

Height: 3¾"
Width: 3⅛"
Depth: 3"
Mtg. Cen. 2½"x2½"
Studs: 4 8-32

DC-5A CASE

Height: 3⅞"
Width: 4⅛"
Depth: 3½"
Mtg. Cen.: 3⅛"x2⅝"
Studs: 4 10-32

DC-5B

Height: 4½"
Width: 4⅛"
Depth: 3½"
Mtg. Cen. 3⅛"x2⅝"
Studs: 4 10-32

DC-6A CASE

Height: 4⅞"
Width: 5"
Depth: 4⅛"
Mtg. Cen. 3¾"x3"
Studs: 4 10-32

DC-7B CASE

Height: 6¾"
Width: 5½"
Depth: 5"
Mtg. Cen.: 4⅜"x3¾"
Studs: 4¼-20

PROFESSIONAL GRADE COMPONENTS

FILTER REACTORS

Inductance measured at 50V, 60 cycles with rated direct current in the winding.

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 1	40	15	2000	1000	DM-01
PGC 2	12	40	400	1000	DC-1A
PGC 3	8	50	300	1000	DC-1A
PGC 4	20	50	425	2500	DC-2A
PGC 5	10	70	250	2500	DC-2A
PGC 6	6	100	160	2500	DC-2A
PGC 7	6	150	115	2500	DC-2B
PGC 8	10	150	160	2500	DC-4A
PGC 9	5.5	200	95	2500	DC-4A
PGC 10	10	200	150	2500	DC-4A
PGC 11	10	250	135	2500	DC-5B
PGC 12	8	300	95	2500	DC-5B
PGC 13	7	400	60	2500	DC-5B
		PARALLEL FEED	AUDIO CHOKES		
PGC 14	100	10	3500	1000	DM-01
PGC 15	30	50	650	1500	DC-2A
PGC 16	400	1	6000	1000	DM-01

SWINGING INPUT REACTORS

Catalog No.	Inductance in Henries*	Rated Current D.C. Ma.	D.C. Resistance Ohms	Dielectric Test Voltage VRMS	Case Number
PGC 17	5-20	150	160	1500	DC-4A
PGC 18	5-20	250	135	1500	DC-5B
PGC 19	3-15	300	95	1500	DC-5B
PGC 20	3-15	400	60	1500	DC-5B

*Inductance values for 100% and 10% of rated Direct Current.

POWER TRANSFORMERS

ALL PRIMARIES ARE FOR 115V., 50/60 c.p.s.

Temperature rises range from 45° to 50°C.

Catalog No.	Py Va	Hi Volt	Choke Input		Cond. Input		Bias Tap.	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
			D.C.V.	D.C. Ma	D.C.V.	D.C. Ma.						
PGP 1	15	440V C.T.	Low flux densisity, hum-bucking. For Preamplifier service.		270	15		6X4	6.3VCT@0.6A	6.3V @ 0.3A		DC-2B
PGP 2	30	550V C.T.	Low flux density, hum-bucking. For Preamplifier service.		310	35		6X4	6.3VCT@0.6A	6.3VCT@0.9A		DC-4A
PGP 3	45	500V C.T.			270	40		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2A		DC-4A
PGP 4	57	600V C.T.			330	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 2.5A		DC-4A
PGP 5	64	650V C.T.			370	50		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 6	73	600V C.T.			320	70		6X4, 5Y3	5/6.3V @ 2A	6.3V @ 3A		DC-4A
PGP 7	110	650V C.T.	225	140	330	100		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 8	76	700V C.T.	260	100	385	70		5Y3	5V @ 2A	6.3V @ 2.5A		DC-5A
PGP 9	108	700V C.T.	250	125	370	90		5Y3, 5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 10	127	700V C.T.	260	170	350	120		5U4	5V @ 3A	6.3V @ 5A		DC-5B
PGP 11	146	700V C.T.	260	210	350	150		5U4	5V @ 3A	6.3V @ 5A	6.3V @ 1A	DC-6A
PGP 12	207	800V C.T.	295	280	400	200		5U4, 2-5Y3	5V @ 4A	6.3V @ 6A		DC-6A
PGP 13	225	800V C.T.	295	280	400	200	80	5U4, 2-5Y3	5V @ 4A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 14	268	840V C.T.	330	350	450	250	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-6A
PGP 15	320	900V C.T.	340	420	490	300	80	2-5U4	5V @ 6A	6.3V @ 6A	5/6.3V @ 2A	DC-7B
PGP 16	127	900V C.T.	360	150				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 17	150	900V C.T.	350	200				5U4	5V @ 3A	6.3V @ 5A		DC-6A
PGP 18	203	1100V C.T.	400	250				5R4GY	5V @ 3A	6.3V @ 5A		DC-6A
PGP 19	248	1100V C.T.	420	300				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-6A
PGP 20	310	1280V C.T.	480	350				2-5R4GY	5V @ 4A	6.3V @ 7A		DC-7B

All units supplied with leads.

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PQC HIGH Q REACTORS

PQC-Reactors are low-priced High Q components designed for use in selective circuits such as wave filters, wave traps, and noise suppressors.

CASE DIMENSIONS

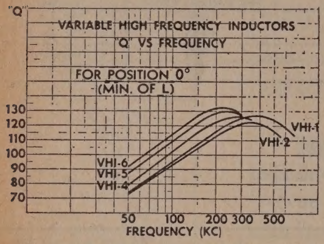
DM-02 CASE

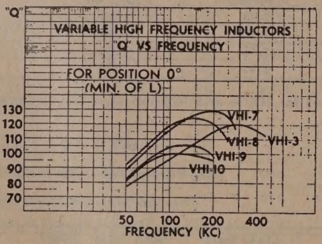
Height: 1 21/32″
Width: 1 21/32″
Depth: 1 13/32″
Flange L: 2 3/8″
Mtg. Cen.: 2″

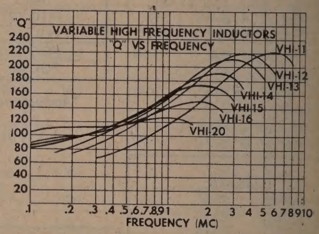
Catalog No.	Application	Rated Ind. in Henries	Q	Tuning Capacitor (Mf)	Case Size
PQC 1	60 cps resonant trap	14.00	10	.5	DM-02
PQC 2	400 cps resonant trap	1.58	15	.1	DM-02
PQC 3	1000 cps resonant trap	1.00	20	.025	DM-02
PQC 4	Dynamic noise suppression inductor	2.40	20 @ 4 KC		DM-02
PQC 5	Dynamic noise suppression inductor	2.00	15 @ 4 KC		DM-02
PQC 6	Dynamic noise suppression inductor	1.30	15 @ 4 KC		DM-02
PQC 7	Dynamic noise suppression inductor	.80	15 @ 4 KC		DM-02
PQC 8	Dynamic noise suppression inductor	.60	15 @ 4 KC		DM-02
PQC 9	Dynamic noise suppression inductor	.40	15 @ 4 KC		DM-02

MINIATURE VARIABLE HIGH FREQUENCY INDUCTORS

- Continuous variation of inductance
- Q practically constant over whole range of variation
- Hermetically sealed
- Inductances other than those listed can be supplied to special order







CASE DIMENSIONS

VI-1

Height: 1″
Diameter: 3/4″
2 Studs: 4-40
Mtg. Cen.: 3/8″

Catalog No.	Test Freq. (MC)	Inductance Min.	Inductance Max.	Variations of Q @ L Min.	Variations of Q @ L Max.	RDC (Ω) ±15%	Self Res. Freq. (MC) @ L Max.	Max. Non Destruct Current (MA)	Case Size
VHI-1	.1	1.1 MH	1.75 MH	93.5	100.5	.75	2.2	250	VI-1
VHI-2	.1	1.7 MH	2.5 MH	94.5	96.5	1.1	1.9	200	VI-1
VHI-3	.1	2.3 MH	3.7 MH	94.5	97.2	1.4	1.6	200	VI-1
VHI-4	.1	3. MH	4.5 MH	100.7	101.7	1.9	1.4	160	VI-1
VHI-5	.1	4. MH	5.7 MH	107.	108.	2.2	1.3	160	VI-1
VHI-6	.1	5.5 MH	7.5 MH	112.	119.	3.1	1.	130	VI-1
VHI-7	.1	7. MH	10.5 MH	116.	120.5	4.5	.9	100	VI-1
VHI-8	.1	10. MH	15. MH	106.	109.	6.6	.85	80	VI-1
VHI-9	.1	14.5 MH	20.5 MH	101.	101.5	9.2	.6	60	VI-1
VHI-10	.1	20. MH	30. MH	105.	115.	13.7	.55	50	VI-1
VHI-11	1.	9.50 µH	11.0 µH	114.	104.	.24	>10	150	VI-1
VHI-12	1.	14.0 µH	15.6 µH	127.	113.	.29	>10	150	VI-1
VHI-13	1.	24.5 µH	28.0 µH	156.	145.	.37	>10	150	VI-1
VHI-14	1.	47.0 µH	52.0 µH	195.	178.	.46	>10	150	VI-1
VHI-15	.5	71.0 µH	79.5 µH	168.	152.	.56	>10	150	VI-1
VHI-16	.5	94.0 µH	105.0 µH	173.	165.	.64	>10	150	VI-1
VHI-17	.5	145.0 µH	165.0 µH	222.	200.	.75	9.7	150	VI-1
VHI-18	.5	191.0 µH	218.0 µH	229.	204.	.9	9.4	150	VI-1
VHI-19	.5	234.0 µH	265.0 µH	238.	216.	1.0	8.3	150	VI-1
VHI-20	.5	279.0 µH	318.0 µH	236.	219.	1.1	7.	150	VI-1
VHI-21	.5	38.0 µH	416.0 µH	230.	216.	1.3	6.5	150	VI-1
VHI-22	.5	48.0 µH	545.0 µH	237.	220.	1.5	7.	150	VI-1

See Freed Price Pages 1442-1444

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HIGH "Q" REACTORS

QGC — are hermetically sealed, MIL-T-27A, Grade 4, Class R, High Q Reactors for low audio frequency application with an excellent inductance stability with variations of A.C. and D.C. currents, frequencies and temperatures.

SPECIAL REACTORS:

(1) with a center tap
(2) with a split winding
(3) with inductances other than those listed can be supplied.

DC - 2A CASE

Height: 3″
Width: 2⅝″
Depth: 2¼″
Mtg. Cen.: 2″ x 1¾″
Studs: 4 8-32
Knockout: 1″

DM - 20 CASE

Height: 1 9/16″
Diameter: 15/16″
Flange L: 1 13/32″
Flange D: 0.975″
Mtg. Cen.: 1⅛″ x 1 7/32″
2 Holes: .147″ wd.
Knockouts: .875″

AJ CASE

Height: 2⅜″
Width: 1⅝″
Depth: 1⅝″
Mtg. Cen.: 1 1/16 x 1 1/16″
Studs: 4 6-32

DM - 30 CASE

Height: 29/32″
Diameter: 15/16″
Flange L: 1 13/32″
Flange D: 0.975″
Mtg. Cen.: 1⅛″x 1 7/32″
2 Holes: .147″ wd.
Knockouts: .875″

AH CASE

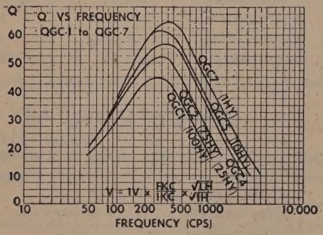
Height: 1¾″
Width: 1 5/16″
Depth: 1 5/16″
Mtg. Cen.: 1 1/16″ x 1 1/16″
Studs: 4 6-32

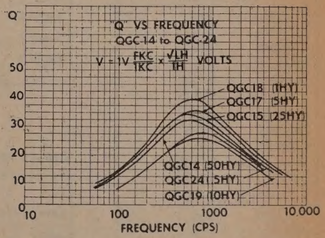
DM - 40 CASE

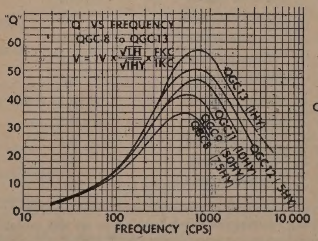
Height: 21/32″
Diameter: 9/16″
Pig Tails

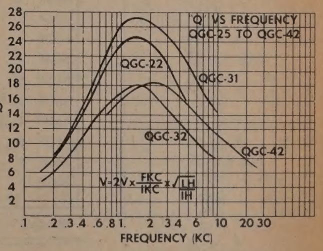
Catalog No.	Ind. H (±2%)	Ω/H Max.	Max. Norm DC*	Max. Norm AC**	Self Res. Freq. ±25%	Case
QGC-1	100	20	85	0.58	$F_o = 22/\sqrt{L_H}$	DC-2A
QGC-2	75					
QGC-3	50					
QGC-4	25					
QGC-5	10					
QGC-6	5					
QGC-7	1					
QGC-8	75	55	60	0.5	$F_o = 7.2/\sqrt{L_H}$	AJ
QGC-9	50					
QGC-10	25					
QGC-11	10					
QGC-12	5					
QGC-13	1					
QGC-14	50	70	40	0.25	$F_o = 35/\sqrt{L_H}$	AH
QGC-15	25					
QGC-16	10					
QGC-17	5					
QGC-18	1					
QGC-19	10	110	15	0.15	$F_o = 34/\sqrt{L_H}$	DM-20
QGC-20	7.5					
QGC-21	5					
QGC-22	2.5					
QGC-23	1					
QGC-24	.5					
QGC-25	5	250	13	0.11	$F_o = 35/\sqrt{L_H}$	DM-30
QGC-26	2.5					
QGC-27	1					
QGC-28	.75					
QGC-29	.5					
QGC-30	.2					
QGC-31	.1					
QGC-32	2	500	10	0.04	$F_o = 45/\sqrt{L_H}$	DM-40
QGC-33	1.5					
QGC-34	1					
QGC-35	.75					
QGC-36	.5					
QGC-37	.25					
QGC-38	.1					
QGC-39	.075					
QGC-40	.05					
QGC-41	.025					
QGC-42	.01					

$$\left.\begin{array}{l}\text{*Max. Norm D.C.} = \text{I D,C. (MA)}\ \sqrt{L_H} \\ \text{**Max. Norm. A.C.} = V/F_\sim\ \sqrt{L_H}\end{array}\right\}\ \text{at which the inductance will decrease by 20\%.}$$









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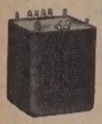
FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS

AJ CASE

Height: 2 3/8"
Width: 1 5/8"
Depth: 1 5/8"
Mtg. Cen.: 1 3/16"x1 3/16"
Studs: 4 6-32
Cut Out: 1 1/8" D



EB CASE

Height: 2 7/16"
Width: 1 15/16"
Depth: 1 13/16"
Mtg. Cen.: 1 3/8"x1 1/4"
Studs: 4 6-32

FB CASE

Height: 2 1/2"
Width: 2 5/16"
Depth: 2 1/16"
Mtg. Cen.: 1 11/16"x1 7/16"
Studs: 4 6-32

GB CASE

Height: 2 13/16"
Width: 2 3/4"
Depth: 2 3/8"
Mtg. Cen.: 2 1/8"x1 3/4"
Studs: 4 6-32

HA CASE

Height: 4 1/4"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64"x1 55/64"
Studs: 4 8-32

HB CASE

Height: 3 3/16"
Width: 3 1/16"
Depth: 2 5/8"
Mtg. Cen.: 2 19/64"x1 55/64"
Studs: 4 8-32

JB CASE

Height: 3 7/8"
Width: 3 9/16"
Depth: 3 1/16"
Mtg. Cen.: 2 5/8"x2 1/8"
Studs: 4 8-32

KB CASE

Height: 4 5/16"
Width: 3 15/16"
Depth: 3 3/8"
Mtg. Cen.: 3"x2 7/16"
Studs: 4 10-32

LB CASE

Height: 4 1/2"
Width: 4 5/16"
Depth: 3 11/16"
Mtg. Cen.: 3 5/16"x2 11/16"
Studs: 4 10-32

MB CASE

Height: 4 15/16"
Width: 4 11/16"
Depth: 4"
Mtg. Cen.: 3 11/16"x3"
Studs: 4 1/4-20

NB CASE

Height: 5 1/2"
Width: 5 1/16"
Depth: 4 5/16"
Mtg. Cen.: 4 1/16"x3 5/16"
Studs: 4 1/4-20

STANDARD MILITARY TRANSFORMERS

This group comprises audio and power units designed to meet MIL-T-27 A specifications.

The functional characteristics of these transformers were established by the Armed Service Standardization Program. These units are supplied in standard MIL cases.

Transformers meeting MIL-T-27A specifications Grade 1 through 6 with temperature characteristics of Class S, T, or U can be supplied on special order.

Encapsulated units using either Epoxy-Resins or Fosterite can be supplied for Grade 2 and 5.

Class U components can be supplied molded in special high temperature Freed resin.

STANDARD MILITARY AUDIO TRANSFORMERS

Frequency Response 300-10,000 C.P.S. ±2 DB

Catalog No.	Application	Type Designation	Impedance Level in Ohms Primary	Impedance Level in Ohms Secondary	Ratio	Max. Power Level DBM	Pri. D.C. Per Side in Ma	Max. D.C. unbalance	Case
MGA 1	Transformer; interstage, single or P.P. plates to single or P.P. grids.	TF4RX15AJ	10,000 C.T.	90,000 split and C.T.	1:3 overall	+15	10	10	AJ
MGA 2	Transformer; matching 600 ohm line to voice coil.	TF4RX16AJ	600 split	4, 8, 16	6.12:1 overall	+33	0	0	AJ
MGA 3	Transformer; input, 600 ohm line to single or P.P. grids.	TF4RX10AJ	600 split	135,000 C.T.	1:15	+15	0	0	AJ
MGA 4	Transformer; matching, 600 ohm line to 600 ohm line.	TF4RX16AJ	600 split	600 split	1:1	+15	0	0	AJ
MGA 5	Transformer; output, single plate 7,600 ohm, 4,800 ohm to 600 ohm line.	TF4RX13AJ	7,600 tap @ 4,800	600 split	3.56:1	+33	40	40	AJ
MGA 6	Transformer; output, single plate 7,600 ohm, 4,800 ohm to voice coil.	TF4RX13AJ	7,600 tap @ 4,800	4, 8, 16	21.8:1	+33	40	40	AJ
MGA 7	Transformer; output, single or P.P. plates to 600 ohm line.	TF4RX13AJ	15,000 C.T.	600 split	5:1	+33	10	10	AJ
MGA 8	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	24,000 C.T.	600 split	6.32:1	+30	10	1	AJ
MGA 9	Transformer; output, P.P. plates to 600 ohm line.	TF4RX13AJ	60,000 C.T.	600 split	10:1	+27	10	1	AJ

STANDARD MILITARY POWER TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER.

Catalog No.	MIL-T-27 Type Designation	Hi Volt.	D.C. Volts	D.C. Amps.	Fil. No. 1	Fil. No. 2	Case
MGP 1	TF4RX03HA001	200/100/0/100/200	185	.070	5/6. 3V @ 2A	6. 3V @ 3A	HA
MGP 2	TF4RX03JB002	650 C.T.	260	.070	5/6. 3V @ 2A	6. 3V @ 4A	JB
MGP 3	TF4RX03KB006	650 C.T.	245	.150	6. 3V @ 5A	5V @ 3A	KB
MGP 4	TF4RX03LB003	800 C.T.	318	.175	5V @ 3A	6. 3V @ 8A	LB
MGP 5	TF4RX03MB004	900 C.T.	345	.250	5V @ 3A	6. 3V @ 8A	MB
MGP 6	TF4RX02KB001	700 C.T.	255	.250			KB
MGP 7	TF4RX02LB002	1100 C.T.	419	.250			LB
MGP 8	TF4RX02NB003	1600 C.T.	640	.250			NB

STANDARD MILITARY FILAMENT TRANSFORMERS

Primary 105/115/125V 60~

SINGLE PHASE 400 CPS, AND THREE PHASE 60 AND 400 CPS TRANSFORMERS CAN BE SUPPLIED ON SPECIAL ORDER

Catalog No.	MIL-T-27 Type Designation	Secondary Volts	Secondary Current Amps	Secondary Test Volts RMS	Case
MGF 1	TF4RX01EB002	2.5	3.0	2,500	EB
MGF 2	TF4RX01GB003	2.5	10.0	2,500	GB
MGF 3	TF4RX01FB004	5.0	3.0	2,500	FB
MGF 4	TF4RX01HB005	5.0	10.0	2,500	HB
MGF 5	TF4RX01FB006	6.3	2.0	2,500	FB
MGF 6	TF4RX01GB007	6.3	5.0	2,500	GB
MGF 7	TF4RX01JB008	6.3	10.0	2,500	JB
MGF 8	TF4RX01KB009	6.3	20.0	2,500	KB
MGF 9	TF4RX01JB012	2.5	10.0	10,000	JB
MGF 10	TF4RX01KB013	5.0	10.0	10,000	KB

***Standard Military Filament and Power Transformers are also available in Grade 4.**

See Freed Price Pages 1442-1444

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CASE DIMENSIONS

DM-8 CASE

Height:	1½"
Width:	1$\frac{3}{32}$"
Flange D.:	1¼"

DM-01 CASE

Height:	2"
Width:	1½"
Depth:	1½"
Mtg. Cen.:	1$\frac{1}{16}$"x1$\frac{1}{16}$"
Studs:	4 6-32
Knockout:	1¼" dia.

DM-20 CASE

Height:	1$\frac{9}{16}$"
Diameter:	'⁄16
Flange L.:	1$\frac{13}{32}$"
Flange D.:	0.975"
Mtg. Cen.:	1⅛" to 1$\frac{7}{32}$
2 Holes:	.147 wide
Knockout:	.875

DM-18 CASE

Height:	1"
Width:	2¼"
Depth:	1⅛"
Mtg Cen.:	$\frac{9}{16}$"
Studs:	2 6-32

MM-1

Length:	¾"
Diameter:	½"

MM-2

Length:	$\frac{23}{32}$"
Width:	$\frac{23}{32}$"
Height:	½"

MM-3

Length:	1¼"
Width:	1¼"
Height:	½"
Mtg. Cen.:	1½"
Mtg. Flange:	1$\frac{11}{16}$"

MM-4

Length:	1$\frac{13}{16}$"
Depth:	1¼"
Height:	½"
Mtg. Cen.:	2⅛"
Mtg. Flange:	2½"

MOLDED DIMENSIONS

MMO-1

Diameter:	$\frac{11}{16}$"
Thickness:	$\frac{29}{64}$"

MMO-2

Diameter:	$\frac{13}{16}$"
Thickness:	$\frac{15}{32}$"

HERMETICALLY SEALED PULSE TRANSFORMERS

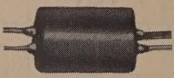
Hermetically sealed Pulse Transformers for use in blocking oscillator, low level interstage coupling, and modulator output circuits. These components meet MIL-T-27 A specifications. The pulse transformers are designed for maximum power, efficiency, and optimum pulse performance. Balanced coil structures permit series or parallel connection of windings for turn ratios other than unity. Pulse characteristics, voltages and impedance levels will depend upon the interconnections made.

PULSE TRANSFORMERS

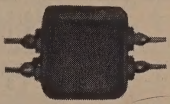
Catalog No.	MIL Type	Blocking Osc.	Inter-stage Coupling	Low Power Output	Pulse Voltage Kilovolts	Pulse Duration Micro-seconds	Duty Rate	No. of Windings	Test Voltage KV., RMS	Character-istic Impedance Ohms	Case No.
MPT-1	TF4RX35YY	✓	✓		0.25/0.25/0.25	0.2-1.0	.004	3	0.7	250	DM-20
MPT-2	TFR4X35YY	✓	✓		0.25/0.25	0.2-1.0	.004	2	0.7	250	DM-20
MPT-3	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.2-1.5	.002	3	1.0	250	DM-18
MPT-4	TF4RX35YY	✓	✓		0.5/0.5	0.2-1.5	.002	2	1.0	250	DM-18
MPT-5	TF4RX35YY	✓	✓		0.5/0.5/0.5	0.5-2.0	.002	3	1.0	500	DM-20
MPT-6	TF4RX35YY	✓	✓		0.5/0.5	0.5-2.0	.002	2	1.0	500	DM-20
MPT-7	TF4RX35YY	✓	✓	✓	0.7/0.7/0.7	0.5-1.5	.002	3	1.5	200	DM-18
MPT-8	TF4RX35YY	✓	✓	✓	0.7/0.7	0.5-1.5	.002	2	1.5	200	DM-18
MPT-9	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	0.7-3.5	.002	3	2.0	200	DM-18
MPT-10	TF4RX35YY	✓	✓	✓	1.0/1.0	0.7-3.5	.002	2	2.0	200	DM-18
MPT-11	TF4RX35YY	✓	✓	✓	1.0/1.0/1.0	1.0-5.0	.002	3	2.0	500	DM-01
MPT-12	TF4RX35YY	✓	✓	✓	0.15/0.15/0.3/0.3	0.2-1.0	.004	4	0.7	700	DM-8

ULTRA MINIATURE PULSE TRANSFORMERS

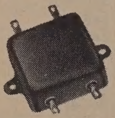
- Meet all requirements of MIL-T-27 A.
- Negligible weight.
- Exceedingly small size.
- Encapsulated or hermetically sealed.



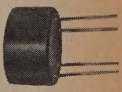
MM-1



MM 2



MM-3
MM-4



MMO-1
MMO-2

Catalog No.	MIL Type	Application	Pulse Volts	Pulse Width usec	Rise time usec	Inductance Prin. uhy	Inductance Leakage uhy	PPS. Mcs	Turns Ratio	Zo ohms	Case Des.
EPT-1	TF4RX31YY	Impedance matching & Interstage coupling	20	.07	.03	125	12	2	1:1	200	MM-1
EPT-2	TF4RX31YY		20	.07	.03	150	15	2	2.1	200	MM-1
EPT-3	TF4RX31YY		20	.07	.03	160	15	2	3.1	100	MM-1
EPT-4	TF4RX31YY		20	.07	.03	200	20	2	4.1	100	MM-1
EPT-5	TF4RX31YY		17	.10	.04	200	6	2	4.1	100	MM-1
EPT-6	TF4RX31YY		15	.10	.04	200	5	2	5:1	100	MM-1
EPT-7	TF4RX31YY		25	.50	.05	1,200	20	1	7:1:1		MM-1
EPT-8	TF4RX31YY		10	10	.04	12,000	70	.01	5:1		MM-2
EPT-9	TF4RX31YY		10	5	.04	7,500	22	.01	3:1	100	MM-2
EPT-11	TF4RX35YY	Blocking oscillator	100	.25	.02	200	2	.012	1:1		MM-1
EPT-12	TF4RX35YY		50	.33	.07	240	2	.002	1:1		MM-1
EPT-13	TF4RX35YY		40	.5	.07	6,000	15		2:1		MM-2
EPT-14	TF4RX35YY		15	6	.1	16,000	15	.0004	1:1.4		MM-2
EPT-15	TF4RX36YY	Memory core & Current driver	5	1.5	.25	4,000	300		5:5:1PP	10	MM-4
EPT-16	TF4RX36YY		2.5	2.4	.2	2,800	200		3.3:3.3:1PP	6	MM-4
EPT-17	TF4RX32YY	Current driver	21	1-4	.22	18,000	800	.250	6:1	200	MM-3
EPT-18	TF4RX32YY	Current transformer	10	6	.2	90,000	200	.05	11:1	75	MM-3
EPT-19	TF4RX36YY	Pulse inversion	22	1-7	.25	55,000	300	.05	6:1:1	400	MM-3

When ordering encapsulated units add "M" to the catalog number.

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See Freed Price Pages 1442-1444

PULSE TRANSFORMERS

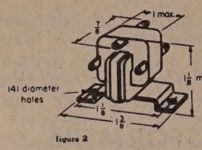
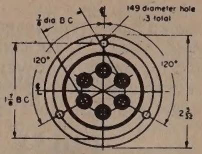
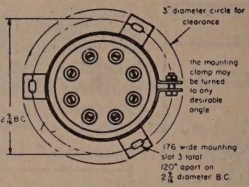

1 max.
7/8
1 1/8 max.
141 diameter holes
1 1/8
1 3/8

figure 2


7/8 dia B C
149 diameter hole 3 total
120°
120°
1 7/8 B C
2 3/32


3" diameter circle for clearance
the mounting clamp may be turned to any desirable angle
2 9/16 B C
176 wide mounting slot 3 total 120° apart on 2 9/16 diameter B.C

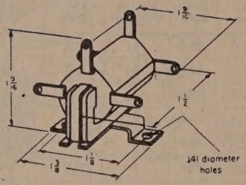

1 9/16
1 9/16
1 1/2
1 1/8
1 3/8
141 diameter holes

figure 1

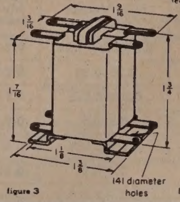

1 9/16
1 3/16
1 7/16
1 3/4
1 1/8
1 3/8
141 diameter holes

figure 3

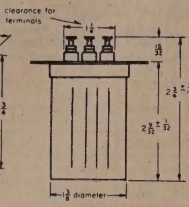

clearance for terminals
1 1/8
15/32
2 3/4 ± 1/16
2 9/32 ± 1/32
1 3/8 diameter

figure 4

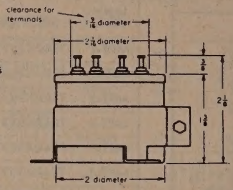

clearance for terminals
1 9/16 diameter
2 1/16 diameter
3/8
2 1/8
1 3/8
2 diameter

figure 5

Freed No.	Radiation Laboratory No.	Westinghouse No.	Dimension Figure	GUIDANCE VALUES				Test Voltage (60 Cycle RMS)
				Pulse Voltage (KV)	Pulse Duration (Microseconds)	Maximum Duty Ratio	Load Impedance (Ohms)	
BLOCKING OSCILLATOR, REGENERATIVE DRIVER OR COUPLING TRANSFORMERS								
MPT-13C	132AW2	1P1	1	1.0/1.0/1.0	0.3 to 1.5	0.002	250	1000
MPT-13M	132AW2F	7P1	1					
MPT-13H	132AW2P	4P101	4					
MPT-14C	132BW2	1P2	1	0.5/0.5/0.5/0.15	0.3 to 1.5	0.002	200	1000
MPT-14M	132BW2F	7P2	1					
MPT-14H	132BW2P	4P102	5					
MPT-15C	132DW2	1P3	1	0.5/0.5/0.5	0.1 to 0.5	0.002	300	1000
MPT-15M	132DW2F	7P3	1					
MPT-15H	132DW2P	4P103	4					
MPT-16C	134BW2	1P4	3	2.5/2.5; 2.5/1.25 1.5/1.5; 1.5/0.75	1 to 2.5 1 to 5	0.002 0.002	1500 1500	1500
MPT-16M	134BW2F	7P4	3					
MPT-16H	134BW2P	4P104	5					
MPT-17C	134CW2	1P5	1	2.0/2.0/1.0 1.5/1.5/0.75	1 to 2.5 1 to 5	0.002 0.002	1200 1200	1000
MPT-17M	134CW2F	7P5	1					
MPT-17H	134CW2P	4P105	4					
MPT-18C	134EW2	1P6	2	2.0/2.0/1.0	0.3 to 1	0.002	800	750
MPT-18M	134EW2F	7P6	2	1.5/1.4/0.75	0.3 to 1.5	0.002	800	
MPT-19C	145CW2	1P7	1	0.5/0.5/0.5	1.0 to 5	0.002	500	1000
MPT-19M	145CW2F	7P7	1					
MPT-19H	145CW2P	4P107	4					
MPT-20C	145EW2	1P8	1	1.0/1.0/1.0	1.0 to 5	0.002	800	1000
MPT-20M	145EW2F	7P8	1					
MPT-20H	145EW2P	4P108	4					
MPT-21C	166AW2	1P9	1	1.0/0.67/0.67	1.0 to 5	0.002	800	1000
MPT-21M	166AW2F	7P9	1					
MPT-21H	166AW2P	4P109	4					
MPT-22C	176AW2	1P10	1	2.0/1.0/1.0 1.5/0.75/0.75	1 to 2.5	0.002 0.002	1000 1000	1000
MPT-22M	176AW2F	7P10	1					
MPT-22H	176AW2P	4P110	4					
MPT-23C	187AW2	1P11	1	1.0/0.5/0.5	0.5 to 2	0.002	400	1000
MPT-23M	187AW2F	7P11	1					
MPT-23H	187AW2P	4P111	4					
MPT-24C	224AW2	1P12	2	1.0/1.0/1.0/0.3	0.1 to 0.5	0.002	1000	750
MPT-24M	224AW2F	7P12	2					
PULSE TRIGGERING OR CURRENT TRANSFORMERS								
MPT-25C	139DW2	1P13	1		0.25 to 5	0.002		1000
MPT-25M	139DW2F	7P13	1					
MPT-25H	139DW2P	4P113	4					
PULSE OUTPUT TRANSFORMERS								
MPT-26C	148CW2	1P14	3	0.2/2.0	0.6 to 3	0.002	1600	1500
MPT-26M	148CW2F	7P14	3	0.4/2.0	0.25 to 1.25	0.002	1000	
MPT-26H	148CW2P	4P114	5	0.4/2.0	0.5 to 2.5	0.002	2000	
MPT-27C	148DW2	1P15	3	0.29/2.0	0.5 to 2.5	0.002	1200	1500
MPT-27M	148DW2F	7P15	3	0.57/2.0	0.2 to 1.0	0.002	800	
MPT-27H	148DW2P	4P115	5	0.57/2.0	0.4 to 2.0	0.002	1500	

C Indicates — varnish impregnated commercial construction.
M Indicates — encapsulated or molded construction to MIL-T-27A Grade 5 Class R.
H Indicates — hermetically sealed to MIL-T-27A Grade 4 Class R.

See Freed Price Pages 1442-1444

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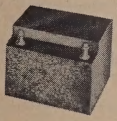
HERMETICALLY SEALED FILTER REACTORS

MEET MIL-T-27A SPECIFICATIONS

Case	Height	Depth	Width	Mtg. Centers	Studs
AJ	2 3/8	1 5/8	1 5/8	1 3/16x1 3/16	4 6-32
EB	2 7/16	1 13/16	1 15/16	1 3/8x1 1/4	4 6-32
FA	3 1/8	2 1/16	2 5/16	1 11/16x1 7/16	4 6-32
GA	3 13/16	2 3/8	2 3/4	2 1/8x1 3/4	4 6-32
HB	3 3/16	3 1/16	2 5/8	2 19/64x1 55/64	4 8-32
JA	3 9/16	3 1/16	4 7/8	2 5/8x2 1/8	4 8-32
JB	3 7/8	3 1/16	3 9/16	2 5/8x2 1/8	4 8-32
KB	4 5/16	3 3/8	3 15/16	3 x2 7/16	4 10-32
LA	5 9/16	3 11/16	4 5/16	3 5/16x2 11/16	4 10-32
LB	4 1/2	3 11/16	4 5/16	3 5/16x2 11/16	4 10-32
MB	4 15/16	4	4 11/16	3 11/16x3	4 1/4-20



MC-10 CASE

Height: 15/16"
Width: 1 1/4"
Depth: 15/16"
Mtg. Cen.: 9/16" x 7/8"
Studs: 2 4-40 threaded inserts

Catalog No.	MIL Type	Inductance Henry	Rat. Current DC Ma.	DC Res. Ohms	Test Volt Kilovoltas	Case No.
MGC 1	TF4RX04AJ	100	10	3,500	1.	AJ
MGC 2	TF4RX04AJ	4	50	230	1.	AJ
MGC 3	TF4RX04EB	10	50	325	1.	EB
MGC 4	TF4RX04FA	20	50	475	1.5	FA
MGC 5	TF4RX04FA	30	50	650	1.5	FA
MGC 6	TF4RX04AJ	3	75	175	1.	AJ
MGC 7	TF4RX04EB	6	75	235	1.5	EB
MGC 8	TF4RX04FA	12	75	265	1.5	FA
MGC 9	TF4RX04EB	3.5	100	145	1.	EB
MGC 10	TF4RX04FA	8	100	180	1.5	FA
MGC 11	TF4RX04GA	12	100	190	2.	GA
MGC 12	TF4RX04EB	2	150	92	1.5	EB
MGC 13	TF4RX04FA	4	150	115	1.5	FA
MGC 14	TF4RX04GA	8	150	125	2.	GA
MGC 15	TF4RX04JB	11	150	120	2.5	JB
MGC 16	TF4RX04FA	2.5	200	70	1.5	FA
MGC 17	TF4RX04GA	4	200	80	2.	GA
MGC 18	TF4RX04HB	7	200	135	2.	HB
MGC 19	TF4RX04JA	10	200	125	2.5	JA
MGC 20	TF4RX04GA	2.5	300	50	2.	GA
MGC 21*	TF4RX04HB	4	300	62	2.5	HB
MGC 22	TF4RX04JB	6	300	85	2.5	JB
MGC 23*	TF4RX04KB	8	300	65	2.5	KB
MGC 24	TF4RX04LA	10	300	100	2.5	LA
MGC 25*	TF4RX04HB	2	400	37	2.5	HB
MGC 26	TF4RX04KB	6	400	60	2.5	KB
MGC 27*	TF4RX04JA	2	500	35	2.5	JA
MGC 28	TF4RX04KB	4	500	45	2.5	KB
MGC 29*	TF4RX04MB	7	500	50	2.5	MB
MGC 30*	TF4RX04LB	2	700	20	2.5	LB
MGC 31*	TF4RX04MB	1.75	1,000	12.5	2.5	MB

*Not stocked, available on short delivery.
Above units available in Grade 4.

HERMETICALLY SEALED, MIL-T-27A, GRADE 5, CLASS S FILTER REACTORS

These reactors have a split winding for series or parallel connections.

Catalog No.	Min. Inductance @ Idc (Series Connection)				Max. Rdc	Test Voltage	Case No.
MGC-32	3.2 H @ Odc	2.1 H @ 25 MA	1.70 H @ 35 MA	1.4 H @ 25 MA	220 Ohms	1000 V	MC-10
MGC-33	1.3 H @ Odc	1.1 H @ 50 MA	0.8 H @ 70 MA	0.5 H @ 90 MA	100 Ohms	1000 V	MC-10
MGC-34	400 MH @ Odc	300 MH @ 100 MA	240 MH @ 130 MA	190 MH @ 160 MA	35 Ohms	1000 V	MC-10
MGC-35	105 MH @ Odc	100 MH @ 200 MA	80 MH @ 250 MA	500 MH @ 300 MA	10 Ohms	1000 V	MC-10
MGC-36	25 MH @ Odc	23.5 MH @ 400 MA	15 MH @ 500 MA	11 MH @ 600 MA	2 Ohms	1000 V	MC-10
MGC-37	5.7 MH @ Odc	4.5 MH @ 0.8 A	3.9 MH @ 1A	3 MH @ 1.2A	0.5 Ohms	1000 V	MC-10

When using two sections in parallel, double the Idc. Both inductance and resistance are divided by 4.

TOROIDAL INDUCTORS

Using the latest developments in the field of magnetic materials and new impregnation and molding techniques the Freed Transformer Co. makes available to the industry the most extensive line of toroidal inductors.

Freed toroids are available in three types of constructions. Open units coated with a special high temperature extremely low loss compound, hermetically sealed in metal cases or molded in special **Freed Epoxy Resin.** Both hermetically sealed and molded units meet the latest military specification MIL-T-27A (graded 1 or 4 and 2 or 5 respectively). Freed toroidal inductors are supplied with either molypermalloy or carbonyl iron powder cores.

1. Temperature Stabilization:

The molypermalloy and carbonyl iron powder cores have a temperature coefficient of inductance. Depending on the degree of temperature stabilization the cores have different temperature coefficients. The degree of stabilization is denoted by a two-letter code.

SF	Non-stabilized cores, ±5% inductance variations from −55 °C to +85 °C.
SN	Non-stabilized cores, ±2% inductance variations from −55 °C to +85 °C.
SE	Temperature stabilized cores, +1% to −0.4% inductance variations from −1.5 °C to +54 °C.
SB	Temperature stabilized cores, ±0.1% inductance variations from +13 °C to +35 °C.
SD	Temperature stabilized cores, ±0.1% inductance variations from −1.5 °C to +54 °C.
SW	Temperature stabilized cores, ±0.25% inductance variations from −54 °C to +85 °C.
SP	Temperature stable carbonyl iron cores, ±0.3% inductance variations from −55 °C to +85 °C.

The temperature (stabilization) coefficient of an inductor will depend upon the nominal inductance value, operating frequency and A.C. voltage across the coil. Under some unfavorable working conditions the temperature coefficient of inductance corresponding to a given stability characteristic may be exceeded.

2. Nominal and Apparent Inductance:

All toroidal inductors are adjusted at a frequency well below the self resonant frequency "F°". Since all toroids have a voltage coefficient of inductance they are adjusted with a low A.C. voltage in the region of the initial permeability of the core material.

The apparent inductance at any frequency F is given by the expression

$$L\ \text{app} = \frac{L}{1-\left(\frac{F}{F_o}\right)^2} = \frac{L}{1-\frac{C_d}{C_o}}$$

where L = Nominal inductance

C_d = Distributed capacity

$$C_o = \frac{1}{(2\pi F_o)^2 L}$$

3. Variation of Inductance vs. Normalized A.C. Voltage and Normalized A.C. and D.C. Currents:

$$\text{Normalized } V_{AC} = \frac{V}{F}\,\frac{1}{\sqrt{L_H}}$$

$$\text{Normalized } I_{AC} = I_{AC}\sqrt{L_H}$$

$$\text{Normalized } I_{DC} = I_{DC}\sqrt{L_H}$$

where F — operating frequency in cycles
LH — inductance in henries
Iac — A.C. current in MA
Idc — D.C. current in MA
V — A.C. voltage across the core

These normalized expressions for a 20% decrease in inductance are listed on "Q" charts.

Toroids with special requirements such as tapped toroids, toroidal transformers, molded and cased units with dimensions other than standard sizes and high temperature toroids can be supplied on request. Our engineering and laboratory facilities are available for consultation, research and development.

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FREED TRANSFORMER COMPANY, INC.

TORODIAL INDUCTORS

Type	% H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac	Type	% H	Max. Norm. Idc	Max. Norm. Iac	Max. Norm. Vac
TI- 1	70	55	73.5	0.46	TI-19	4,500	25	29	0.18
TI- 1A	68	75	90.5	0.57	TI-20	2,750	100	*	*
TI- 2	160	90	135	0.85	TI-21	1,200	350	*	*
TI- 3	600	100	67	0.42	TI-22	5,600	210	*	*
TI- 3A	310	150	240	1.5	TI-23	7,000	250	*	*
TI- 4	110	55	67	0.42	TI-24	330	15	18	0.11
TI- 5	260	28	35	0.22	TI-25	200	20	24	0.15
TI- 6	230	75	125	0.80	TI-26	150	25	32	0.20
TI- 7	480	40	53	0.33	TI-27	76.5	50	62	0.39
TI- 8	1,500	50	80	0.5	TI-28	48.5	50	64	0.40
TI- 9	150	200	240	1.5	TI-29	33.5	70	88	0.55
TI-10	430	125	270	1.7	TI-30	28	100	135	0.84
TI-11	30	120	190	1.2	TI-31	19.5	100	136	0.85
TI-12	45	100	160	1	TI-32	48.5	6	14.5	0.09
TI-13	55	140	175	1.1	TI-33	2,150	8	13	0.08
TI-14	580	150	—	—	TI-34	1,700	8	9.5	0.06
TI-15	900	100	—	—	TI-35	4,100	10	18	0.11
TI-16	600	16	21	0.13	TI-36	3,950	10	11	0.07
TI-17	1,200	20	23	0.18	TI-37	235	10	3.2	0.20
TI-18	2,600	30	40	0.25	TI-38	100	4	9.5	0.06

*TI-20 through TI-23 have a very low voltage coefficient and inductance will change very little with voltage. Because of high frequency application, the maximum voltage is limited rather by breakdown than by saturation.

CASED, UNCASED AND MOLDED UNITS

DT-1 CASE

DT-2 CASE

DT-3 CASE

DT-4 CASE

DT-5 CASE

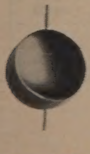
DT-6 CASE

DST-1 CASE

DM-2 CASE

DM-11 CASE

MR-1



MR-2 to MR-10

MS-1

OS-1 to OS-11

LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	100 ~ to 10 KC			200 ~ to 12 KC								Freq. Range
TYPE	**TI-38**	**TI-32**	**TI-37**	**TI-24**	**TI-25**	**TI-26**	**TI-27**	**TI-28**	**TI-29**	**TI-30**	**TI-31**	**TYPE**
Temp. Stability	SF	SF	SF	SN	SN	SN	SN	SN	SN	SN	SN	Temp. Stability
Size: Uncased Case Mold	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST1 MR1, MS2	OS12 DT1 MR2	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS8 DT3, DT5 MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size: Uncased Case Mold
Nominal Inductance	Catalog Number											Nominal Inductance
1 MH				F2400	F2450	F2500	F2550	F2600	F2650	F2700	F2750	1 MH
2 MH				F2401	F2451	F2501	F2551	F2601	F2651	F2701	F2751	2 MH
3 MH				F2402	F2452	F2502	F2552	F2602	F2652	F2702	F2752	3 MH
5 MH	F3550			F2403	F2453	F2503	F2553	F2603	F2653	F2703	F2753	5 MH
7.5 MH	F3551			F2404	F2454	F2504	F2554	F2604	F2654	F2704	F2754	7.5 MH
10 MH	F3552			F2405	F2455	F2505	F2555	F2605	F2655	F2705	F2755	10 MH
15 MH	F3553			F2406	F2456	F2506	F2556	F2606	F2656	F2706	F2756	15 MH
20 MH	F3554			F2407	F2457	F2507	F2557	F2607	F2657	F2707	F2757	20 MH
30 MH	F3555			F2408	F2458	F2508	F2558	F2608	F2658	F2708	F2758	30 MH
50 MH	F3556	F2800	F4000	F2409	F2459	F2509	F2559	F2609	F2659	F2709	F2759	50 MH
75 MH	F3557	F2801	F4001	F2410	F2460	F2510	F2560	F2610	F2660	F2710	F2760	75 MH
100 MH	F3558	F2802	F4002	F2411	F2461	F2511	F2561	F2611	F2661	F2711	F2761	100 MH
150 MH	F3559	F2803	F4003	F2412	F2462	F2512	F2562	F2612	F2662	F2712	F2762	150 MH
200 MH	F3560	F2804	F4004	F2413	F2463	F2513	F2563	F2613	F2663	F2713	F2763	200 MH
300 MH	F3561	F2805	F4005	F2414	F2464	F2514	F2564	F2614	F2664	F2714	F2764	300 MH
400 MH	F3562	F2806	F4006	F2415	F2465	F2515	F2565	F2615	F2665	F2715	F2765	400 MH
500 MH	F3563	F2807	F4007	F2416	F2466	F2516	F2566	F2616	F2666	F2716	F2766	500 MH
750 MH	F3564	F2808	F4008	F2417	F2467	F2517	F2567	F2617	F2667	F2717	F2767	750 MH
1 H	F3565	F2809	F4009	F2418	F2468	F2518	F2568	F2618	F2668	F2718	F2768	1 H
1.25 H	F3566	F2810	F4010	F2419	F2469	F2519	F2569	F2619	F2669	F2719	F2769	1.25 H
1.5 H	F3567	F2811	F4011	F2420	F2470	F2520	F2570	F2620	F2670	F2720	F2770	1.5 H
1.75 H	F3568	F2812	F4012	F2421	F2471	F2521	F2571	F2621	F2671	F2721	F2771	1.75 H
2 H	F3569	F2813	F4013	F2422	F2472	F2522	F2572	F2622	F2672	F2722	F2772	2 H
2.25 H	F3570	F2814	F4014		F2473	F2523	F2573	F2623	F2673	F2723	F2773	2.25 H
2.5 H	F3571	F2815	F4015		F2474	F2524	F2574	F2624	F2674	F2724	F2774	2.5 H
3 H	F3572	F2816	F4016		F2475	F2525	F2575	F2625	F2675	F2725	F2775	3 H
3.5 H	F3573	F2817	F4017		F2476	F2526	F2576	F2626	F2676	F2726	F2776	3.5 H
4 H	F3574	F2818	F4018		F2477	F2527	F2577	F2627	F2677	F2727	F2777	4 H
4.5 H	F3575	F2819	F4019		F2478	F2528	F2578	F2628	F2678	F2728	F2778	4.5 H
5 H	F3576	F2820	F4020		F2479	F2529	F2579	F2629	F2679	F2729	F2779	5 H
7.5 H	F3577	F2821	F4021		F2480	F2530	F2580	F2630	F2680	F2730	F2780	7.5 H
10 H	F3578	F2822	F4022		F2481	F2531	F2581	F2631	F2681	F2731	F2781	10 H
15 H		F2823	F4023			F2532	F2582	F2632	F2682	F2732	F2782	15 H
20 H		F2824	F4024			F2533	F2583	F2633	F2683	F2733	F2783	20 H
25 H			F4025									25 H
30 H									F2684	F2734	F2784	30 H
40 H									F2685	F2735	F2785	40 H
50 H									F2686	F2736	F2786	50 H
75 H											F2787	75 H
100 H											F2788	100 H

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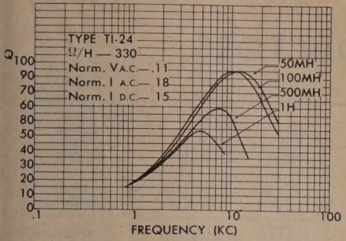
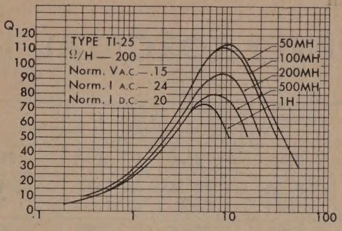
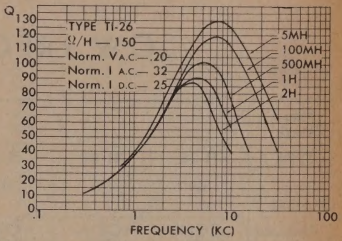
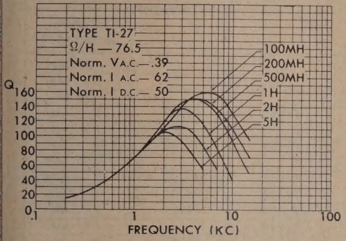
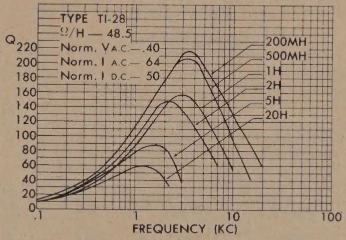
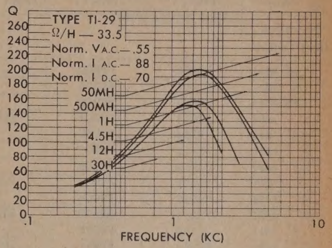


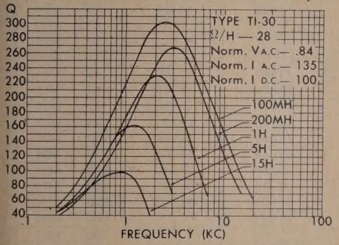


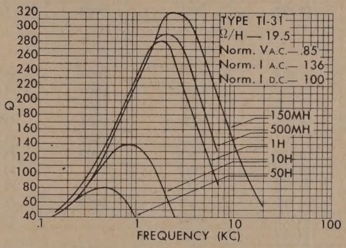


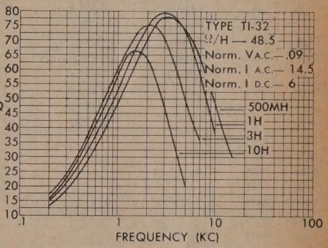


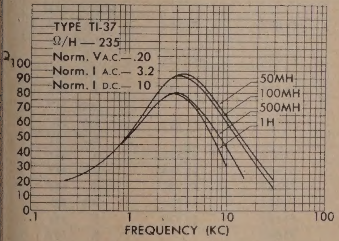






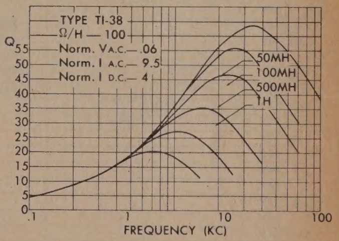






UNCASED

Type	O.D.	Hi.
OS-1	5/8″	5/16″
OS-3	1″	3/8″
OS-5	1 5/16″	5/8″
OS-8	1 7/8″	11/16″
OS-9	2 1/4″	1 1/8″
OS-11	2 5/8″	1 1/8″
OS-12	13/16″	3/8″



CASE

Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32″		1 1/16″	1/2″	2 4-40 inserts	3/4″	5/16″ x 1/2″
DT-2	1 3/4″		1 7/16″	13/16″	2 6-32 studs	7/8″ x 9/32	3/8″ x 11/16″
DT-3	2″		1 25/32″	7/8″	2 6-32 studs	1 1/4″ x 3/8″	3/8″ x 3/4″
DT-4	3 1/8″		2 3/4″	1 5/16″	4 8-32 studs	2 1/16″ x 11/16″	3/4″ x 3/8″
DT-5	1 3/16″	1 13/16″			2 6-32 studs	1 1/8″	3/8″ x 1″
DM-2	1″	1 1/8″			2 4-40 inserts	5/8″	3/8″ x 7/8″
DM-11	1 1/2″	1 3/8″			2 6-32 inserts	7/8″	3/8″ x 7/8″
DST-1	25/32″		3/4″	11/32″	1/4″ long pins	To fit 1/2″ crystal socket	

MOLD

Type	O.D.	Hi.	Clearance Hole Mounting
MR-1	7/8″	13/32″	Pig Tails
MR-2	1 1/16″	1/2″	No. 4
MR-3	1 3/16″	1/2″	No. 6
MR-4	1 1/2″	3/4″	No. 8
MR-6	2 1/8″	7/8″	No. 8
MR-7	2 3/8″	1 5/16″	No. 10
MR-8	2 1/2″	1 3/8″	No. 10
MR-10	2 7/8″	1 3/8″	No. 10
MS-1	25/32″ x 25/32″	13/32″	Pig Tails

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LOW FREQUENCY TOROIDAL INDUCTORS

Freq. Range	1 KC to 15 KC									Freq. Range
TYPE	TI-33	TI-34	TI-16	TI-5	TI-4	TI-1	TI-1A	TI-12	TI-11	TYPE
Temp. Stability	SN	SN	SN	SN, SE, SD	SN, SD, SW	SN	SN, SD, SW	SN, SD, SW	SN, SD, SW	Temp. Stability
Size: Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2, MR3	OS5 DT2, DM1, MR4	OS8 DT3, DT5, MR6	OS9 DT4 MR7	OS9 DT4 MR8	OS11 DT4 MR10	Size: Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.25 MH	F2850	F2900								.25 MH
.5 MH	F2851	F2901								.5 MH
.75 MH	F2852	F2902								.75 MH
1 MH	F2853	F2903	F2050				F1500	F1655	F1747	1 MH
1.5 MH	F2854	F2904								1.5 MH
2 MH	F2855	F2905					F1501	F1656	F1748	2 MH
2.5 MH	F2856	F2906								2.5 MH
3 MH	F2857	F2907	F2051				F1502	F1657	F1749	3 MH
4 MH	F2858	F2908					F1503	F1658	F1750	4 MH
5 MH	F2859	F2909	F2052	F1700	F850	F800	F1504	F1659	F1751	5 MH
7.5 MH	F2860	F2910					F1505	F1660		7.5 MH
10 MH	F2861	F2911	F2053	F1701	F851	F801	F1506	F1661	F1752	10 MH
12.5 MH	F2862	F2912								12.5 MH
15 MH	F2863	F2913	F2054	F1702	F852	F802	F1507	F1662	F1753	15 MH
17.5 MH	F2864	F2914								17.5 MH
20 MH	F2865	F2915								20 MH
25 MH	F2866	F2916								25 MH
30 MH	F2867	F2917	F2055	F1703	F853	F803	F1508	F1663	F1754	30 MH
50 MH		F2918	F2056	F1704	F854	F804	F1509	F1664	F1755	50 MH
75 MH		F2919	F2057	F1705	F855	F805	F1510	F1665	F1756	75 MH
100 MH		F2920	F2058	F1706	F856	F806	F1511	F1666	F1757	100 MH
150 MH			F2059	F1707	F857	F807	F1512	F1667	F1758	150 MH
200 MH			F2060	F1708	F858	F808	F1513	F1668	F1759	200 MH
300 MH			F2061	F1709	F859		F1514	F1669	F1760	300 MH
400 MH			F2062	F1710	F860		F1515	F1670	F1761	400 MH
500 MH			F2063	F1711	F861	F809	F1516	F1671	F1762	500 MH
600 MH				F1712	F862		F1517	F1672		600 MH
700 MH				F1713	F863					700 MH
750 MH			F2064			F810	F1518	F1673	F1763	750 MH
800 MH				F1714	F864					800 MH
900 MH				F1715	F865					900 MH
1.0 HY			F2065	F1716	F866	F811	F1519	F1674	F1764	1.0 HY
1.25 HY			F2066	F1717	F867	F812				1.25 HY
1.5 HY			F2067	F1718	F868	F813	F1520	F1675	F1765	1.5 HY
1.75 HY			F2068	F1719	F869	F814				1.75 HY
2 HY			F2069	F1720	F870	F815	F1521	F1676	F1766	2 HY
2.25 HY					F871	F816				2.25 HY
2.5 HY					F872	F817	F1522	F1677	F1767	2.5 HY
2.75 HY					F873	F818				2.75 HY
3 HY					F874	F819	F1523	F1678	F1768	3 HY
3.5 HY					F875	F820	F1524	F1679	F1769	3.5 HY
4 HY					F876	F821	F1525	F1680	F1770	4 HY
4.5 HY					F877	F822	F1526	F1681	F1771	4.5 HY
5 HY					F878	F823	F1527	F1682	F1772	5 HY
6 HY						F824	F1528	F1683		6 HY
7 HY						F825	F1529	F1684		7 HY
7.5 HY									F1773	7.5 HY
8 HY						F826	F1530	F1685		8 HY
9 HY						F827	F1531	F1686		9 HY
10 HY						F828	F1532	F1687	F1774	10 HY
12 HY							F1533	F1688		12 HY
15 HY						F829	F1534	F1689	F1775	15 HY
17 HY							F1535	F1690		17 HY
20 HY						F830	F1536	F1691	F1776	20 HY
25 HY							F1537	F1692	F1777	25 HY
30 HY							F1538	F1693	F1778	30 HY
40 HY									F1779	40 HY
50 HY									F1780	50 HY

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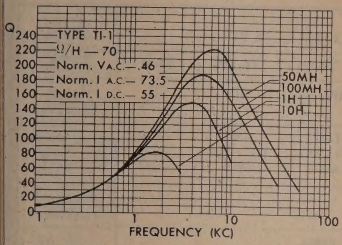

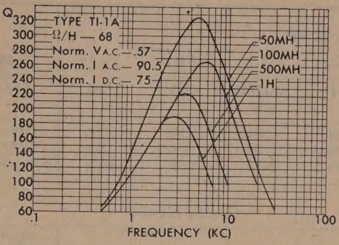

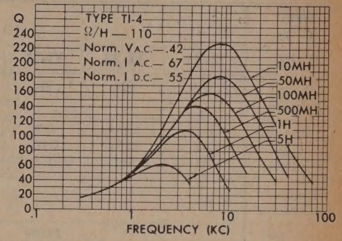

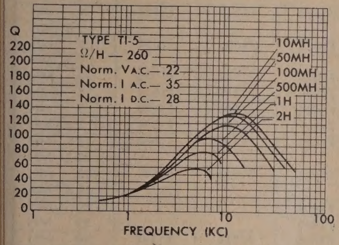

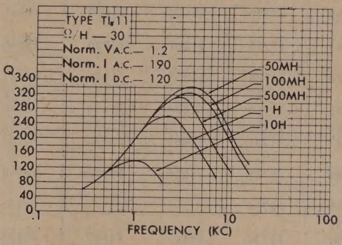

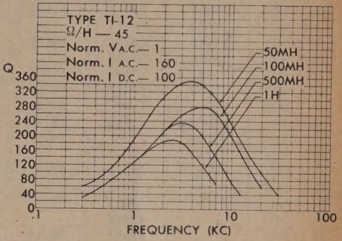

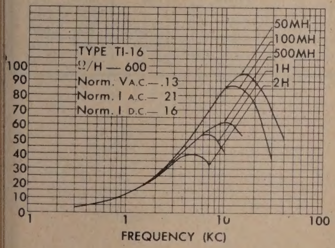

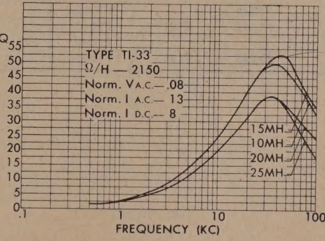

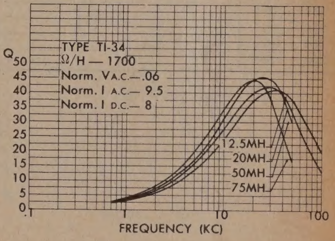

UNCASED		
Type	O.D.	Hi.
OS-1	5/8"	5/16"
OS-3	1"	3/8"
OS-5	1 5/16"	5/8"
OS-8	1 7/8"	11/16"
OS-9	2 1/4"	1 1/8"
OS-11	2 5/8"	1 1/8"
OS-13	3/8"	1/4"
OS-14	7/16"	7/32"

CASE							
Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32"		1 1/16"	1/2"	2 4-40 inserts	3/4"	5/16" x 1/2"
DT-2	1 3/4"		1 7/16"	13/16"	2 6-32 studs	7/8" x 9/32"	3/8" x 11/16"
DT-3	2"		1 25/32"	7/8"	2 6-32 studs	1 1/4" x 3/8"	3/8" x 3/4"
DT-4	3 1/8"		2 3/4"	1 5/16"	4 8-32 studs	2 1/16" x 11/16"	3/4" x 3/8"
DT-5	1 3/16"	1 13/16"			2 6-32 studs	1 1/8"	3/8" x 1"
DT-6	5/8"	1/2"			Pig Tails		
DM-2	1"	1 1/8"			2 4-40 inserts	5/8"	3/8" x 7/8"
DM-11	1 1/2"	1 3/8"			2 6-32 inserts	7/8"	3/8" x 7/8"
DST-1	25/32"		3/4"	11/32"	1/4" long pins	To fit 1/2" crystal socket	

MOLD			
Type	O.D.	Hi.	Clearance Hole Mounting
MR-1	7/8"	13/32"	Pig Tails
MR-3	1 3/16"	1/2"	No. 6
MR-4	1 1/2"	3/4"	No. 8
MR-6	2 1/8"	7/8"	No. 8
MR-7	2 3/8"	1 5/16"	No. 10
MR-8	2 1/2"	1 3/8"	No. 10
MR-10	2 7/8"	1 3/8"	No. 10
MR-11	7/16"	1/4"	Pig Tails
MS-1	25/32" x 25/32"	13/32"	Pig Tails

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MEDIUM FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 50 KC							30 KC to 75 KC				Freq. Range
TYPE	**TI-35**	**TI-36**	**TI-17**	**TI-7**	**TI-6**	**TI-2**	**TI-13**	**TI-18**	**TI-8**	**TI-10**	**TI-9**	**TYPE**
Temp. Stability	SN	SN	SN	SN	SN, SD SW	SD	SN	SN	SN, SD	SB	SB	Temp. Stability
Size Uncased Case Mold	OS13 DT6 MR11	OS14 DT6 MR11	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS6 DT3, DT5 MR5	OS9 DT4 MR8	OS1 DST1 MR1, MS1	OS3 DT1, DM2 MR3	OS7 DT3, DT5 MR5	OS10 DT4 MR9	Size Uncased Case Mold
Nominal Inductance	Catalog Number											Nominal Inductance
.1 MH			F2100					F2140	F1821			.1 MH
.2 MH			F2101					F2141	F1822			.2 MH
.25 MH	F2950	F3000										.25 MH
.3 MH			F2102					F2142	F1823			.3 MH
.4 MH			F2103					F2143	F1824			.4 MH
.5 MH	F2951	F3001	F2104	F1781				F2144	F1825			.5 MH
.75 MH	F2952	F3002										.75 MH
1 MH	F2953	F3003	F2105	F1782	F1726	F1800	F1629	F2145	F1826	F1579	F1554	1 MH
1.5 MH	F2954	F3004										1.5 MH
2 MH	F2955	F3005	F2106	F1783	F1727	F1801	F1630	F2146	F1827	F1580	F1555	2 MH
2.5 MH	F2956	F3006										2.5 MH
3 MH	F2957	F3007	F2107	F1784	F1728	F1802	F1631	F2147	F1828	F1581	F1556	3 MH
4 MH	F2958	F3008	F2108		F1729	F1803	F1632	F2148	F1829	F1582	F1557	4 MH
5 MH	F2959	F3009	F2109	F1785	F1730	F1804	F1633	F2149	F1830	F1583	F1558	5 MH
7.5 MH	F2960	F3010	F2110	F1786	F1731		F1634	F2150	F1831	F1584	F1559	7.5 MH
10 MH	F2961	F3011	F2111	F1787	F1732	F1805	F1635	F2151	F1832	F1585	F1560	10 MH
12.5 MH	F2962	F3012										12.5 MH
15 MH	F2963	F3013	F2112	F1788	F1733	F1806	F1636	F2152	F1833	F1586	F1561	15 MH
17.5 MH		F3014										17.5 MH
20 MH		F3015	F2113	F1789	F1734			F2153	F1834			20 MH
25 MH		F3016		F1790					F1835			25 MH
30 MH		F3017	F2114	F1791	F1735	F1807	F1637	F2154	F1836	F1587	F1562	30 MH
40 MH				F1792					F1837			40 MH
50 MH			F2115	F1793	F1736	F1808	F1638	F2155	F1838	F1588	F1563	50 MH
75 MH			F2116	F1794	F1737	F1809	F1639	F2156	F1839	F1589	F1564	75 MH
100 MH			F2117	F1795	F1738	F1810	F1640	F2157	F1840	F1590	F1565	100 MH
150 MH				F1796	F1739	F1811	F1641			F1591	F1566	150 MH
200 MH				F1797	F1740	F1812	F1642			F1592	F1567	200 MH
250 MH					F1741							250 MH
300 MH					F1742	F1813	F1643				F1568	300 MH
400 MH							F1644				F1569	400 MH
500 MH					F1743	F1815	F1645				F1570	500 MH

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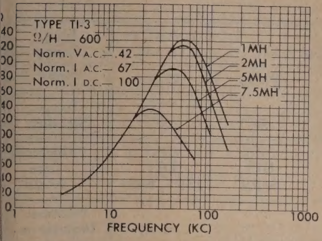

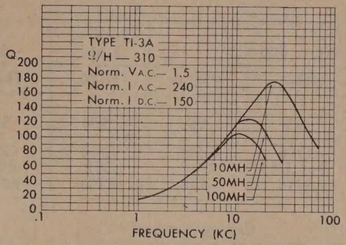

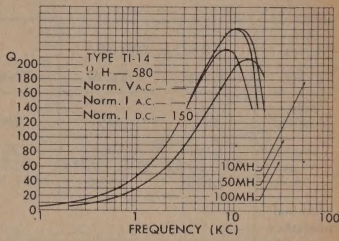

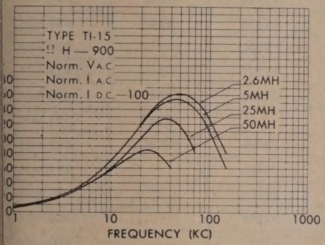

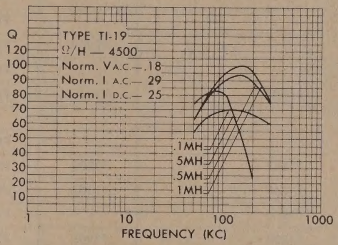

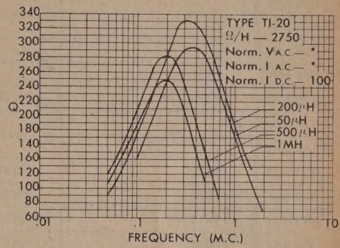

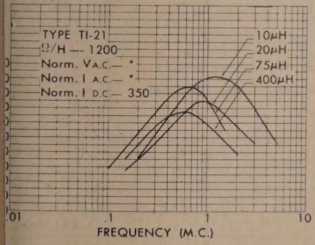

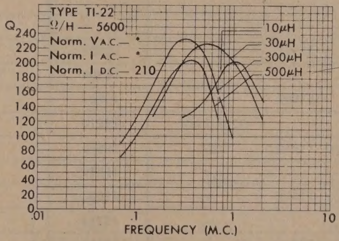

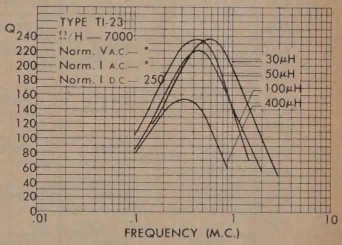

UNCASED		
ype	O.D.	Hi.
S-1	⅝″	5/16″
S-2	⅞″	⅜″
S-3	1″	⅜″
S-4	1″	9/16″
S-5	1 15/16″	⅝″
S-6	1⅝″	⅞″
S-10	2⅜″	1¼″

CASE							
Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32″		1 1/16″	½″	2 4-40 inserts	¾″	5/16″ x ½″
DT-2	1¾″		1 7/16″	13/16″	2 6-32 studs	⅞″ x 9/32″	⅜″ x 11/16″
DT-3	2″		1 25/32″	⅞″	2 6-32 studs	1¼″ x ⅜″	⅜″ x ¾″
DT-4	3⅛″		2¾″	1 5/16″	4 8-32 studs	2 1/16″ x 11/16″	¾″ x ⅜″
DT-5	1 3/16″	1 13/16″			2 6-32 studs	1⅛″	⅜″ x 1″
DT-6	⅝″	½″			Pig Tails		
DM-2	1″	1⅛″			2 4-40 inserts	⅝″	⅜″ x ⅞″
DM-11	1½″	1⅜″			2 6-32 inserts	⅞″	⅜″ x ⅞″
DST-1	25/32″		¾″	11/32″	¼″ long pins	To fit ½″ crystal socket	

MOLD			
Type	Dia.	Hi.	Clearance Hole Mounting
MR-1	⅞″	13/32″	Pig Tails
MR-2	1 1/16″	½″	No. 4
MR-3	1 3/16″	½″	No. 6
MR-3A	1 3/16″	11/16	No. 6
MR-4	1½″	¾″	No. 8
MR-5	1⅞″	1″	No. 8
MR-8	2½″	1⅜″	No. 10
MS-1	25/64″ x 25/32″	13/32″	Pig Tails

HIGH FREQUENCY TOROIDAL INDUCTORS

Freq. Range	10 KC to 100 KC		50 KC to 200 KC			20KC to 2 MC	50 KC to 5 MC		100 KC to 10 MC	Freq. Range
TYPE	**TI-15**	**TI-14**	**TI-19**	**TI-3**	**TI-3A**	**TI-20**	**TI-22**	**TI-23**	**TI-21**	**TYPE**
Temp. Stability	SN	SN	SN	SD	SB	SP	SP	SP	SP	Temp. Stability
Size: Uncased Case Mold	OS3 DT1, DM2 MR3	OS5 DT2, DM11 MR4	OS1 DST 1 MR1, MS1	OS6 DT3, DT5 MR5	OS10 DT4 MR8	OS4 DT2 MR3A	OS2 DT1 MR2	OS2 DT1 MR2	OS1 DT1 MR1, MS1	Size: Uncased Case Mold
Nominal Inductance	Catalog Number									Nominal Inductance
.010 MH							F2270	F2301	F2240	.010 MH
.015 MH							F2271	F2302	F2241	.015 MH
.020 MH							F2272	F2303	F2242	.020 MH
.030 MH							F2273	F2304	F2243	.030 MH
.040 MH							F2274	F2305	F2244	.040 MH
.050 MH						F2201	F2275	F2306	F2245	.050 MH
.075 MH							F2276	F2307	F2246	.075 MH
.100 MH	F1870		F2180	F1846		F2202	F2277	F2308	F2247	.100 MH
.125 MH									F2248	.125 MH
.150 MH							F2278	F2309	F2249	.150 MH
.200 MH	F1871		F2181	F1847		F2203	F2279	F2310		.200 MH
.300 MH	F1872		F2182	F1848		F2204	F2280	F2311		.300 MH
.400 MH	F1873		F2183	F1849			F2281	F2312		.400 MH
.500 MH	F1874		F2184	F1850		F2205	F2282	F2313		.500 MH
.600 MH			F2185				F2283			.600 MH
.700 MH			F2186			F2206	F2284			.700 MH
.750 MH										.750 MH
.800 MH			F2187							.800 MH
.900 MH			F2188							.900 MH
1 MH	F1875	F1920	F2189	F1851		F2207				1 MH
1.5 MH						F2208				1.5 MH
2 MH	F1876	F1921	F2190	F1852		F2209				2 MH
2.5 MH						F2210				2.5 MH
3 MH	F1877	F1922	F2191	F1853		F2211				3 MH
3.5 MH						F2212				3.5 MH
4 MH	F1878	F1923	F2192	F1854		F2213				4 MH
4.5 MH						F2214				4.5 MH
5 MH	F1879	F1924	F2193	F1855		F2215				5 MH
7.5 MH	F1880	F1925		F1845						7.5 MH
10 MH	F1881	F1926		F1844	F1856					10 MH
15 MH	F1882	F1927			F1857					15 MH
20 MH	F1883	F1928			F1858					20 MH
25 MH	F1884									25 MH
30 MH	F1885	F1929			F1859					30 MH
40 MH	F1886				F1860					40 MH
50 MH	F1887	F1930			F1861					50 MH
75 MH	F1888	F1931			F1862					75 MH
100 MH	F1889	F1932			F1863					100 MH
150 MH		F1933								150 MH
200 MH		F1934								200 MH
250 MH		F1935								250 MH
300 MH		F1936								300 MH

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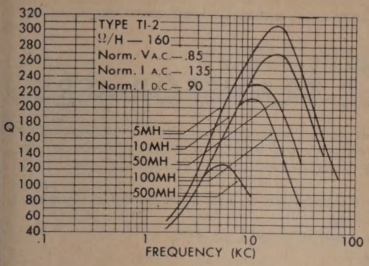
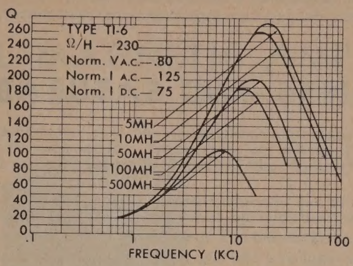
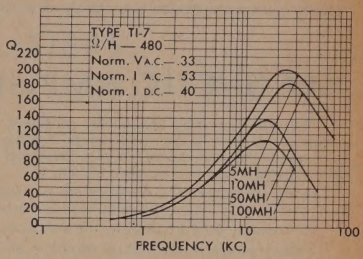
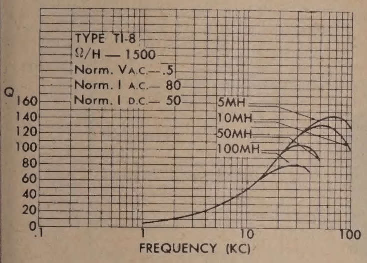
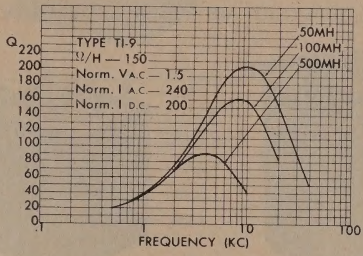
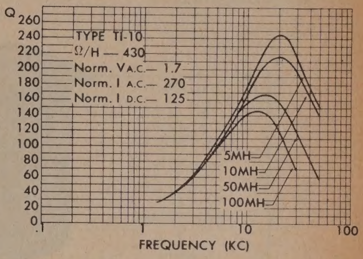


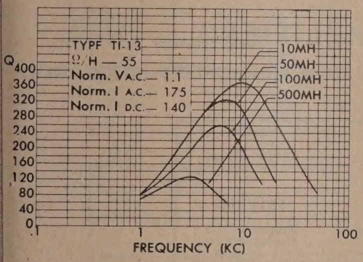


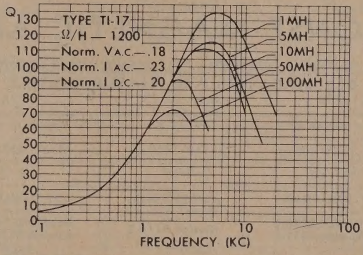


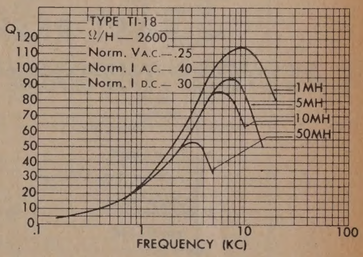


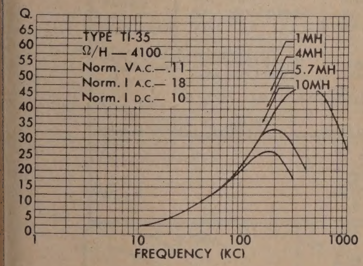




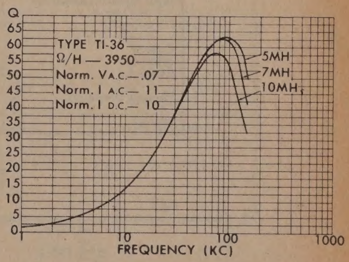








UNCASED		
Type	OD	HI
OS-1	⅝″	5/16″
OS-3	1″	⅜″
OS-5	1 15/16″	⅝″
OS-6	1⅝″	⅞″
OS-7	1 11/16″	⅝″
OS-9	2¼″	1⅛″
OS-10	2⅜″	1¼″
OS-13	⅜″	¼″
OS-14	7/16″	7/32″



CASE							
Type	Hi.	Dia.	Length	Width	Mtg.	Mtg. Cen.	Cutout
DT-1	1 7/32″		1 1/16″	½″	2 4-40 inserts	¾″	5/16″ x ½″
DT-2	1¾″		1 7/16″	13/16″	2 6-32 studs	⅞″ x 9/32″	⅜″ x 11/16″
DT-3	2″		1 25/32″	⅞″	2 6-32 studs	1¼″ x ⅜″	⅜″ x ¾″
DT-4	3⅛″		2¾″	1 5/16″	4 8-32 studs	2 1/16″ x 11/16″	¾″ x ⅜″
DT-5	1 3/16″	1 13/16″			2 6-32 studs	1⅛″	⅜″ x 1″
DT-6	⅝″	½″			Pig Tails		
DM-2	1″	1⅛″			2 4-40 inserts	⅝″	⅜″ x ⅞″
DM-11	1½″	1⅜″			2 6-32 inserts	⅞″	⅜″ x ⅞″
DST-1	25/32″		¾″	11/32″	¼″ long pins	To fit ½″ crystal socket	

MOLD			
Type	O.D.	Hi.	Clearance Hole Mounting
MR-1	⅞″	13/32″	Pig Tails
MR-3	1 3/16″	½″	No. 6
MR-3A	1 3/16″	11/16″	No. 6
MR-4	1½″	¾″	No. 8
MR-5	1⅞″	1″	No. 8
MR-8	2½″	1⅜″	No. 10
MR-9	2⅝″	1 7/16″	No. 10
MR-11	7/16″	¼″	Pig Tails
MS-1	25/32 x 25/64″	13/64″	Pig Tails

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FREED TRANSFORMER COMPANY, INC.

MAGNETIC AMPLIFIERS AND SATURABLE TRANSFORMERS

The ever increasing demand for reliability, ruggedness, miniaturization and high performance has made the magnetic amplifier an indispensable component of many military and industrial automatic control and servo systems. Recent advances in materials and techniques permit an even greater utilization of the well-known inherent advantages of magnetic amplifiers such as direct operation from line voltage, no warm-up time, long-life components, ease of signal mixing and hermetic sealing.

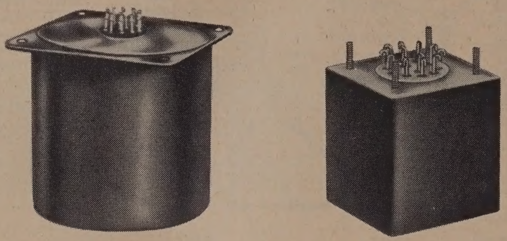
Freed Transformer Co. manufactures an extensive line of magnetic amplifiers, ranging from saturable transformers to half-wave type, fast-response servo amplifiers. Choice of catalog amplifiers assures standardization, lowest possible cost and rapid delivery.

All standard units are designed for continuous operation and will operate in an ambient temperature range of −55° C to +75° C.

Vacuum tube and transistor preamplifiers can be supplied if very high impedance inputs are required.

In addition to standard items, Freed Transformer Co. has extensive facilities for the design and production of special amplifiers, saturable reactors and magnetic components.

ALL ITEMS LISTED ARE AVAILABLE FROM STOCK.

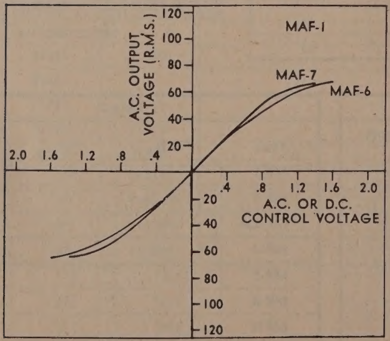


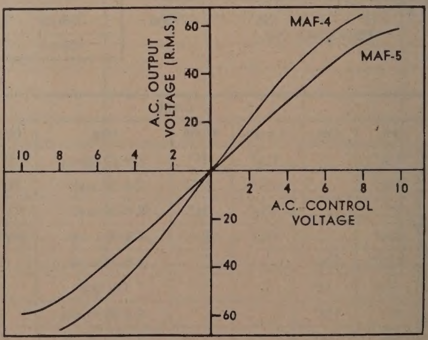
FAST RESPONSE MAGNETIC AMPLIFIERS

THE MAF TYPE OF FAST RESPONSE MAGNETIC AMPLIFIERS COMBINES HIGH POWER GAIN, RUGGEDNESS, AND RELIABILITY WITH A MAXIMUM 2 CYCLE RESPONSE. ALL MAF UNITS ARE PHASE-REVERSIBLE.

Freed No.	MAF-4	MAF-5	MAF-6	MAF-7
Power Supply	115V 400 cps	115V 400 cps	115V 400 cps	115V 400 cps
Maximum Output Wattage	10	15	10	15
Output Voltage	57.5V RMS	57.5V RMS	57.5V RMS	57.5V RMS
Typical Load	Kearfott R110-2 Kearfott R111-2	Kearfott R112-2	Kearfott R110-2 Kearfott R111-2	Kearfott R111-2 Kearfott R112-2
Input Signal Required for Full Output	8V AC	8V AC	R110-2 10K 1K 1.2V .4V R111-2 10K 1K 1.6V .6V	R111-2 10K 1K 1.2V .6V R112-2 10K 1K 2.5V 1.0V
Control Winding Resistance	60 Ohms CT 150 Ohms CT	60 Ohms CT 150 Ohms CT	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.	AC or DC 10,000 Ohms Min. 1,000 Ohms Min.
Physical Dimensions	$2\frac{3}{16}$″ O.D. x 2⅜″ H	2½″ O.D. x 2½″ H	4⅜″ x 4¼″ x 2⅞″ H	4⅜″ x 4¼″ x 2⅞″ H
Weight	13 oz.	18 oz.	4½ lbs.	4½ lbs.

TRANSFER CHARACTERISTIC CURVES





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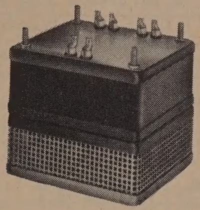
FREED TRANSFORMER COMPANY, INC.

PUSH-PULL MAGNETIC AMPLIFIERS

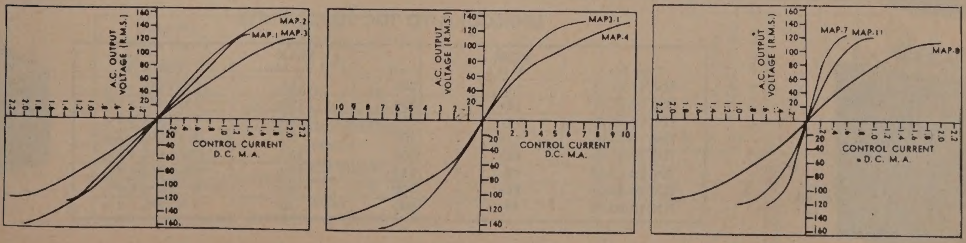
The map line of push-pull magnetic amplifiers features high gain, polarity-sensitive amplification and a phase-reversible output.



Freed No.	MAP-1	MAP-2	MAP-3	MAP-3-1
Power Supply	115 V.A.C. 60 Cycles (To MAPT-1)	115 V.A.C. 60 Cycles (To MAPT-2)	115 V.A.C. 60 Cycles (To MAPT-3)	115 V.A.C. 60 Cycles (To MAPT-3-1)
Maximum Output Wattage	2.8 Watts	15 Watts	50 Watts	50 Watts
Voltage	140 V	150 V	120 V	140 V
Typical Load	Kollsman 951-0160	Diehl FPE 25-11	Diehl FPF 49-9	Diehl FPF 49-9
Input Signal Required for Full Output	1.2 ma.	1 ma.	2 ma.	4.5 ma.
Resp. Time	ON OFF 15 cycles 60	ON OFF 5 cycles 38	ON OFF 3 cycles 15	ON OFF 5 cycles 20
Control Winding Resistance	620 ohms each	1230 ohms each	250 ohms each	1700 ohms each
Physical Dimensions	3⅜″ x 3¼″ x 5⅞″ H M.A. 2⅝″ x 2¼″ x 3″ H T.	3⅞″ x 4⅝″ x 7″ H M.A. 2 5/16″ x 2¾″ x 3¾″ H T.	5⅛″ x 6⅞″ x 8″ H M.A. 3 5/16″ x 3⅞″ x 4¼″ H T.	5½″ x 5″ x 8″ H M.A. 3⅝″ x 4¼″ x 3⅜″ H T.
Weight	6 lbs. M.A. 3 lbs. T.	11 lbs. M.A. 3½ lbs. T.	26½ lbs. M.A. 8 lbs. T.	20 lbs. M.A. 8 lbs. T.

Freed No.	MAP-4	MAP-7	MAP-8	MAP-11
Power Supply	115 V.A.C. 60 Cycles (To MAPT-4)	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles (To MAPT-8)	115 V.A.C. 400 Cycles
Maximum Output Wattage	175 Watts	15 Watts	50 Watts	10 Watts
Voltage	130 V	125 V	115 V	115 V
Typical Load	Diehl FPF 85-18-1	Kearfott R112-2A	Bendix CK-3000-1-A	Kearfott R111-2A
Input Signal Required for Full Output	8 ma.	.5 ma.	1.8 ma.	.9 ma.
Resp. Time	ON OFF 17 cycles 66	ON OFF 5 cycles 15	ON OFF 45 cycles 60	ON OFF 4 cycles 75
Control Winding Resistance	3000 ohms each	4.400 ohms each	320 ohms each	3300 ohms each
Physical Dimensions	7¼″ x 5″ x 7⅞″ H M.A. 4″ x 4¾″ x 5⅝″ H T.	3¼″ x 3⅝″ x 7″ H	3⅞″ x 3⅞″ x 7⅞″ H M.A. 2 15/16″ x 2¾″ x 3¾″ H T.	4⅛″ x 3½″ x 5¼″ H
Weight	35 lbs. M.A. 12 lbs. T.	7 lbs.	7½ lbs. M.A. 4 lbs. T.	5 lbs.

TRANSFER CHARACTERISTIC CURVES

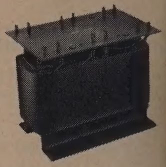


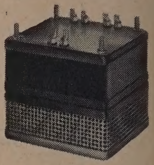
See Freed Price Pages 1442-1444

SINGLE ENDED MAGNETIC AMPLIFIERS

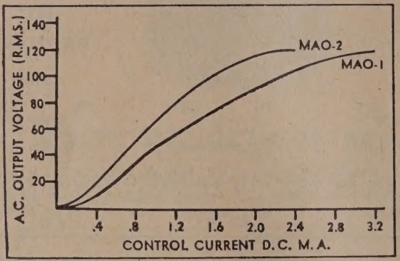
THE MAO LINE OF SINGLE-ENDED MAGNETIC AMPLIFIERS PROVIDES A SINGLE STAGE OF DC CONTROLLED AMPLIFICATION, UTILIZING POSITIVE FEEDBACK TO OBTAIN MUCH HIGHER GAIN THAN THAT OF A SATURABLE REACTOR.

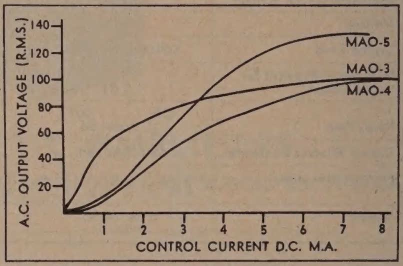
Freed No.	MAO-1	MAO-2	MAO-3	MAO-4	MAO-5
Power Supply	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. to the MAO-T-5 Transformer 60 Cycles
Maximum Output Wattage	4 watts	20 watts	100 watts	400 watts	575 watts
Voltage	120V	120V	100V	100V	135V
Typical Load	4000 ohms	700 ohms	100 ohms	25 ohms	25 ohms
Input Signal Req. for Full Output	3 ma.	1.8 ma.	9 ma.	9 ma.	6 ma.
Control Winding Resistance	300 ohms each	700 ohms each	5600 ohms each	4500 ohms each	4,500 ohms
Physical Dimensions	3¾″ x 4″ x 3½″ H	4¼″ x 3⅝″ x 6⅜″ H	3¼″ x 5½″ x 4$^{13}/_{16}$″ H	5″ x 7½″ x 6″ H	5″ x 7½″ x 6″H Transf. 3⅞″ x 3⅞″ x 3¾″ H
Weight	4 lbs.	7 lbs.	8½ lbs.	21 lbs.	21 lbs. Trans. 7¼ lbs.





TRANSFER CHARACTERISTIC CURVES



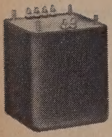


TRANSISTOR CONVERTERS

THE FREED LINE OF HERMETICALLY SEALED DC TO AC AND DC TO DC TRANSISTOR CONVERTERS PROVIDE A HIGH EFFICIENCY VOLTAGE CONVERSION FROM BATTERY SOURCES TO AN AC LINE VOLTAGE OR HIGH DC VOLTAGE WITHOUT THE USE OF MOVING PARTS.

Freed Transformer Co. maintains a stock line of reliable, highly efficient static DC to DC and DC to AC converters.
DC to DC converters in hermetically sealed cans. RF filters included inside case.
The MAC Line of Static DC to DC and DC to AC Converters provide a highly efficient voltage conversion from battery sources to AC or DC voltage without the use of moving parts.
The output voltage and/or frequency is directly proportional to source voltage variation.
Special regulators can be supplied to compensate for this variation.

- RUGGED, QUIET, MAINTENANCE FREE, LONG LIFE OPERATION.
- HIGH POWER TO WEIGHT RATIO, ARC-FREE OPERATION.



DC TO DC CONVERTERS

All TDC units are Hermetically Sealed, Oil Filled. Mtg. base plate must be mounted on a sink of sufficient area to maintain a base temperature of 70° C. Maximum output regulation 5% from half load to full load. Ripple frequency 4 to 5 KC; Ripple content 0.1%.

UNREGULATED TDC STOCK UNITS

Type No.	NOM. V in	V out	MAX 1 out MA	Case Size
TDC 12-30-15	12v	300	150	2⅝ x 2¼ x 3½
TDC 12-25-12	12v	250	120	2⅝ x 2¼ x 3½
TDC 12-30-05	12v	300	50	2 x 2¼ x 3½
TDC 12-20-05	12v	200	50	2 2¼ x 3⅛
TDC 28-30-15	28v	300	150	2⅝ x 2¼ x 3½
TDC 28-25-12	28v	250	120	2⅝ x 2¼ x 3½
TDC 28-30-05	28v	300	50	2 x 2¼ x 3⅛
TDC 28-20-05	28v	200	50	2 x 2¼ x 3⅛

See Freed Price Pages 1442-1444

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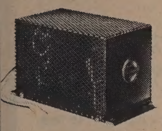
DC TO AC TRANSISTOR CONVERTERS

Input Voltage — 12 VDC
Output Frequency — 60 CPS.— Square Wave

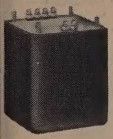

OPEN CASE

Freed No.	Output Voltage	Power	Type of Case	Dimensions
MAC 12-3-60	115 VRMS	30 VA	Open	7¼″ x 3⅛″ x 4⅜″
MAC 12-10-1	115 VRMS	100 VA	Open	7¼″ x 4″ x 5″
MAC 12-10-2	115 VRMS	100 VA	Sealed	7¼″ x 4⅛″ x 4 13/16″
MAC 12-20-1	115 VRMS	180 VA	Open	6″ x 4⅛″ x 6″
MAC 12-20-2	115 VRMS	180 VA	Sealed	6″ x 4⅛″ x 6″
MAC 12-30-1	115 VRMS	250 VA	Open	5⅞″ x 6⅛″ x 7 1/16″
MAC 12-30-2	115 VRMS	250 VA	Sealed	5⅞″ x 6⅛″ x 7 1/16″

SEALED CASE

DC TO AC TRANSISTOR CONVERTER

- Output Waveform — Square Wave
- Output Frequency — 60 cps (Adjustment Control)
- Frequency Stability ± 3%
- Hermetically Sealed
- Maximum Ambient Temperature 50° C
- Temperature of Base Mounting Plate must not exceed 70° C
- Output Voltage Variation — Varies Directly with Input Voltage

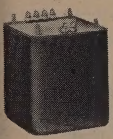


	Nominal Input V.D.C.	Output @ 115 V VA	Case Unregistered	Case Registered*
TAC-12-50	12	50	4⅛″ x 3½″ x 4½″ H	———
TAC-12-90	12	90	4⅛″ x 3½″ x 4⅞″ H	———
TAC-12-175	12	175	5″ x 4⅛″ x 6″ H	———
TAC-28-50	28	50	4⅛″ x 3½″ x 4½″ H	4⅛″ x 3½″ x 4⅞″ H
TAC-28-100	28	100	4⅛″ x 3½″ x 4⅞″ H	5″ x 4⅛″ x 6″ H
TAC-28-175	28	175	5″ x 4⅛″ x 6″ H	———
TAC-28-250	28	250	5½″ x 5″ x 6¾″ H	———

*Add "R" (Suffix) to regulated units.

DC TO AC INVERTERS WITH SINE WAVE OUTPUTS ARE AVAILABLE IN TYPES LISTED BELOW

Input Voltage — 5 Volts Output Voltage — 5 Volts ± 5% (NOM)



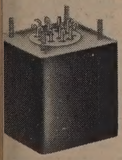
Freed No.	Frequency	Distortion	Power
MAC 5-2-F-1	600 cps.	4% Max.	.5 VA
MAC 5-1-F-2	1200 cps.	4% Max.	.5 VA
MAC 5-3-F-2	2400 cps.	4% Max.	.5 VA
MAC 5-4-F	4800 cps.	4% Max.	.5 VA

hese units will operate in an ambient of 20 degrees C to 50 degrees C with the nominal output voltage constant within ±.15% over the temperature range.

ase size is 1⅞″ x 2″ x 5″ high. Connections are brought out to an octal plug.

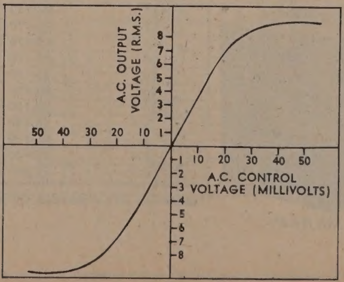
MINIATURIZED SILICON TRANSISTOR PREAMPLIFIER

THE MAT TYPE OF TRANSISTOR PREAMPLIFIER COMBINES LOW POWER CONSUMPTION, HIGH POWER GAIN AND SMALL SIZE AND WEIGHT.



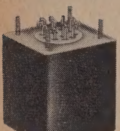
Freed No.	MAT-1-1
Power Supply	115V 400~
Voltage Gain	400
Maximum Output Voltage	10V (RL = 1.5K)
Typical Load	Freed MAF-4 and MAF-5 Magnetic Amplifiers
Input Signal Required for Full Output	50MV
Input Impedance	>10,000 OHMS
Physical Dimensions	1¾″ x 1⅞″ x 2⅝″ H
Weight	10 oz.

TRANSFER CHARACTERISTIC CURVES



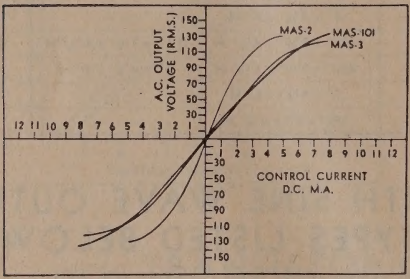
FREED SATURABLE TRANSFORMERS

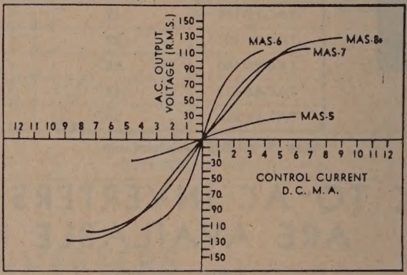
The MAS line of saturable transformers, commonly controlled by dual-triodes or transistors, emphasizes low cost, small size, extreme reliability (no rectifiers) and phase-reversible output.



Freed No.	MAS-1	MAS-2	MAS-3	MAS-4	MAS-5	MAS-6	MAS-7	MAS-8	MAS-101
Power Supply	115 V.A.C. 60 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 60 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 400 Cycles	115 V.A.C. 60 Cycles
Maximum Output	15 watts	6 watts	30 watts	60 watts	2.7 watts	30 watts	40 watts	10 watts	15 watts
Wattage Voltage	130V	120V	120V	120V	26V	120V	115V	125V	120V
Typical Load	Diehl FPE 25-11	Kearfott R-110	Diehl FPE 49-7	250 ohms	Kearfott R-118	Diehl FPE 49-13-1	Bendix CK-3000-1A	Kearfott R-110, R-111	Diehl FPE 25-11
Input Signal Required for Full Output	6 ma.	3 ma.	8 ma.	20 ma.	4 ma.	4 ma.	6 ma.	11 ma.	9 ma.
Resp. Time	ON OFF 2 cycles 5	ON OFF 3 cycles 6	ON OFF 3 cycles 30	ON OFF 5 cycles 35	ON OFF 10 cycles 35	ON OFF 12 cycles 9	ON OFF 12 cycles 9	ON OFF 6 cycles 3	ON OFF 3 cycles 6
Control Winding Resistance	14 K ohms each	2000 ohms each	6800 ohms each	2000 ohms each	1500 ohms each	4000 ohms each	4000 ohms each	7000 ohms each	3200 ohms each
Physical Dimensions	3½″ x 4⅛″ x 5½″ H	1¾″ x 2 9/16″ x 2 13/16″ H	4¾″ x 5⅞″ x 5½″ H	7″ x 5¼″ x 7″ H	2¼″ x 2⅛″ x 2¼″ H	3¾″ x 3¼″ x 4″ H	3 13/16″ x 3¼″ x 4″ H	1⅝″ x 2⅜″ x 3⅛″ H	3½″ x 4⅛″ x 5½″ H
Weight	9 lbs.	2 lbs.	18.5 lbs.	29 lbs.	1.25 lbs.	6 lbs.	6 lbs.	21 oz.	9.75 lbs.

TRANSFER CHARACTERISTIC CURVES



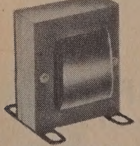


CONSTANT VOLTAGE TRANSFORMERS

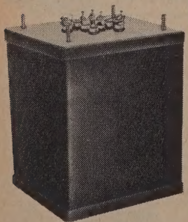
The MCV line of constant voltage transformers provides accurate regulation against line and/or load variations, withou the use of tubes or moving parts.

- MILITARY SPECIFICATIONS
- NO TUBES
- COMMERCIAL
- NO MOVING PARTS
- ACCURATE REGULATIONS
- FAST RESPONSE
- FULLY AUTOMATIC

Rated output within ±2% of nominal value. Regulation automatically maintained within ±1%. Regulation from 20% t full load ±2%.



COMMERCIAL



MILITARY

Reg. Output in R.M.S. Volts	Input Range in R.M.S. Volts	Output in V.A. P.F-1	CATALOG NUMBERS			
			60 Cycles		400 Cycles	
			Comm.	Military*	Comm.*	Military*
115	95-130	5	MCV65LC	MCV65LM	MCV45LC	MCV45LM
115	95-130	25	MCV625LC	MCV625LM	MCV425LC	MCV425LM
115	95-130	75	MCV675LC	MCV675LM	MCV475LC	MCV475LC
115	95-130	125	MCV6125LC	MCV6125LM	MCV4125LC	MCV4125LM
115	95-130	175	MCV6175LC	MCV6175LM	MCV4175LC	MCV4175LM
115	95-130	250	MCV6250LC	MCV6250LM	MCV4250LC	MCV4250LM
115	95-130	375	MCV6375LC	MCV6375LM	MCV4375LC	MCV4375LM
115	95-130	500	MCV6500LC	MCV6500LM	MCV4500LC	MCV4500LM
115	95-130	750	MCV6750LC	MCV6750LM	MCV4750C	MCV4750LM
115	95-130	1000	MCV61000LC	MCV61000LM	MCV41000LC	MCV41000LM
26	95-130	5	MCV6-5-4FC	MCV6-5-4FM	MCV454FC	MCV454FM
26	95-130	25	MCV6254FC	MCV6254FM	MCV4254FC	MCV4254FM
26	95-130	75	MCV6754FC	MCV6754FM	MCV4754FC	MCV4754FM
26	95-130	125	MCV61254FC	MCV61254FM	MCV41254FC	MCV4125FM
6.4	95-130	5	MCV6-5FC	MCV6-5FM	MCV45FC	MCV45FM
6.4	95-130	25	MCV625FC	MCV625FM	MCV425FC	MCV425FM
6.4	95-130	75	MCV675FC	MCV675FM	MCV475FC	MCV475FM
6.4	95-130	125	MCV6125FC	MCV6125FM	MCV125FC	MCV4125FM

*Condensers are not provided with units. Where condensers are provided they are external to units.

See Freed Price Pages 1442-1444

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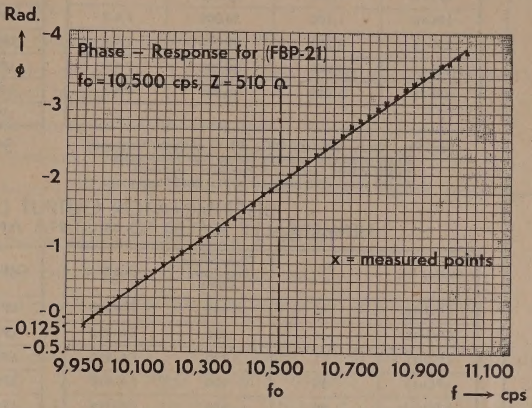
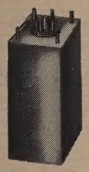
TELEMETERING COMPONENTS

A complete line of Band Pass Filters, Low Pass Filters and Discriminators is available for multi-channel telemetering applications. These components cover the frequency range from 400 cps to 70,000 cps. The filters feature **exceptional phase linearity,** excellent selectivity characteristics and plug-in construction. The Discriminators, either fixed or slug tuned, have exceptional linearity, high amplification, and utmost stability.



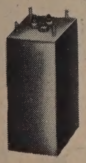
CASE DIMENSIONS

FA-5 CASE



Height: 4½″
Width: 3½″
Depth: 2⅛″
Mtg. Cen.: 2 7/16″x1 9/16″
Studs: 5—8-32x½″
Octal Header

FA-10 CASE



Height: 4½″
Width: 3½″
Depth: 2⅛″
Mtg. Cen.: 1 11/16″x1 9/16″
Studs: 4—8-32x½″
Knockout: 1½″ dia.

FA-15 CASE

Height: 4½″
Width: 2⅞″
Depth: 2⅛″
Mtg. Cen.: 1 11/16″x1 9/16″
Studs: 4—8-32x ½″
Knockout: 1½″ dia.

TELEMETERING BAND PASS FILTERS

Hermetically sealed to MIL-T-27A and MIL-F-18327

These filters cover the frequencies from 400 c.p.s. to 70KC. Narrow frequency B.P.F. have a band width of ±9¾% of center frequency and 45 DB (minimum) points at ±7½% of center frequency of higher or lower adjacent channels. Wide frequency B.P.F. have a band width of ±19½% of center frequency and, 50 D.B. points at ±15% of center frequencies of higher or lower second adjacent channels.

Characteristic Impedance 500 Ω			
Catalog No.	**Center Frequency c.p.s.**	**3 DB Band Width % of C.F.**	**Case No.**
FBP-10	400	± 9¾	FA-10
FBP-11	560	± 9¾	FA-10
FBP-12	730	± 9¾	FA-10
FBP-13	960	± 9¾	FA-10
FBP-14	1,300	± 9¾	FA-10
FBP-15	1,700	± 9¾	FA-10
FBP-16	2,300	± 9¾	FA-10
FBP-17	3,000	± 9¾	FA-15
FBP-18	3,900	± 9¾	FA-15
FBP-19	5,400	± 9¾	FA-15
FBP-20	7,350	± 9¾	FA-15
FBP-21	10,500	± 9¾	FA-15
FBP-22	12,300	± 9¾	FA-15
FBP-23	14,500	± 9¾	FA-15
FBP-24	22,000	± 9¾	FA-15
FBP-25	22,000	±19½	FA-15
FBP-26	30,000	± 9¾	FA-15
FBP-27	30,000	±19½	FA-15
FBP-28	40,000	± 9¾	FA-15
FBP-29	40,000	±19½	FA-15
FBP-30	52,500	± 9¾	FA-15
FBP-31	52,500	±19½	FA-15
FBP-32	70,000	± 9¾	FA-15
FBP-33	70,000	±19½	FA-15

Characteristic Impedance 2,500 Ω			
Catalog No.	**Center Frequency c.p.s.**	**3 DB Band Width % of C.F.**	**Case No.**
FBP-34	400	± 9¾	FA-5
FBP-35	560	± 9¾	FA-5
FBP-36	730	± 9¾	FA-5
FBP-37	960	± 9¾	FA-5
FBP-38	1,300	± 9¾	FA-5
FBP-39	1,700	± 9¾	FA-5
FBP-40	2,300	± 9¾	FA-5
FBP-41	3,000	± 9¾	FA-5
FBP-42	3,900	± 9¾	FA-5
FBP-43	5,400	± 9¾	FA-5
FBP-44	7,350	± 9¾	FA-5
FBP-45	10,500	± 9¾	FA-5
FBP-46	12,300	± 9¾	FA-5
FBP-47	14,500	± 9¾	FA-5
FBP-48	22,000	± 9¾	FA-5
FBP-49	22,000	±19½	FA-5
FBP-50	30,000	± 9¾	FA-5
FBP-51	30,000	±19½	FA-5
FBP-52	40,000	± 9¾	FA-5
FBP-53	40,000	±19½	FA-5
FBP-54	52,500	± 9¾	FA-5
FBP-55	52,500	±19½	FA-5
FBP-56	70,000	± 9¾	FA-5
FBP-57	70,000	±19½	FA-5

See Freed Price Pages 1442-1444

FREED TRANSFORMER COMPANY, INC.

CASE DIMENSIONS

FA-1 CASE

Height: 4½″
Width: 1½″
Depth: 1½″
Mtg. Cen.: 31/32″ sq.
4 Inserts 6-32
Knockout: 1″

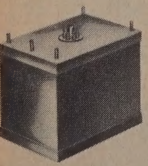
FA-185 CASE

Height: 4½″
Width: 1⅞″
Depth: 1⅝″
Mtg. Cen.: 1 15/64″x1 1/16″
4 Inserts: 6-32
Knockout: 1½″

FA-190 CASE

Height: 4½″
Width: 2¼″
Depth 1⅝″
Mtg. Cen.: 1 7/32″x1 1/16″
4 Inserts: 6-32
Knockout: 1½″

FA-410 CASE



Height: 4½″
Width: 6″
Depth: 4″
Mtg. Cen.: 5¼″x3¼″
5 Studs: 10-32
Octal Header

DISCRIMINATOR INPUT LOW PASS FILTER
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-10	400	30,000	FA-1
LPI-11	560	30,000	FA-1
LPI-12	730	30,000	FA-1
LPI-13	960	30,000	FA-1
LPI-14	1,300	30,000	FA-1
LPI-15	1,700	30,000	FA-1
LPI-16	2,300	30,000	FA-1
LPI-17	3,000	30,000	FA-1
LPI-18	3,900	30,000	FA-1

Band Pass Attenuation: 0.05 DB ± 9¾% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

Catalog No.	Fo Center Freq. in c.p.s.	Characteristic Impedance Ohms	Case No.
LPI-19	5,400	30,000	FA-1
LPI-20	7,350	30,000	FA-1
LPI-21	10,500	30,000	FA-1
LPI-22	12,300	30,000	FA-1
LPI-23	14,500	30,000	FA-1
LPI-24	22,000	5,100	FA-1
LPI-25	30,000	5,100	FA-1
LPI-26	40,000	5,100	FA-1
LPI-27	52,500	5,100	FA-1
LPI-28	70,000	5,100	FA-1

Band Pass Attenuation: 0.05 DB ± 15% of Center Frequency
30 DB at second harmonic of Pass Band Frequencies
50 DB at third harmonic of Pass Band Frequencies
40 DB above third harmonic of Pass Band Frequencies

DISCRIMINATOR OUTPUT LOW PASS FILTER
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Fo c. p. s.	Characteristic Impedance Ohms	Case No.
LPO-10	6	330	FA-410
LPO-11	8	330	FA-410
LPO-12	11	330	FA-410
LPO-13	14	330	FA-410
LPO-14	20	330	FA-410
LPO-15	25	330	FA-410
LPO-16	35	330	FA-410
LPO-17	45	330	FA-410
LPO-18	60	330	FA-410
LPO-19	81	330	FA-410
LPO-20	110	330	FA-410
LPO-21	160	330	FA-410
LPO-22	185	330	FA-410

Catalog No.	Fo c. p. s.	Characteristic Impedance Ohms	Case No.
LPO-23	220	330	FA-410
LPO-24	330	330	FA-410
LPO-25	450	330	FA-410
LPO-26	600	330	FA-410
LPO-27	660	330	FA-410
LPO-28	790	330	FA-410
LPO-29	900	330	FA-410
LPO-30	1,050	330	FA-410
LPO-31	1,200	330	FA-410
LPO-32	1,600	330	FA-410
LPO-33	2,100	330	FA-410
LPO-34	7,200	330	FA-410
LPO-35	10,000	330	FA-410

Attenuation: < 0.2 DB up to 0 5 times Fo
< 0.7 DB from 0.5 to 1. times Fo
> 20 DB at 2 Fo to 2.5 Fo
> 30 DB from 2.5 times Fo to 100 Kc.

SLUG TUNED DISCRIMINATORS

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-17	3.0	±8½	±0.5%	32.5	FA-190
DST-18	3.9	±8½	±0.5%	32.5	FA-190
DST-19	5.4	±8½	±0.5%	32.5	FA-190
DST-20	7.35	±8½	±0.5%	32.5	FA-190
DST-21	10.5	±8½	±0.5%	32.5	FA-190
DST-22	12.3	±8½	±0.5%	32.5	FA-190
DST-23	14.5	±8½	±0.5%	32.5	FA-190
DST-24	22.0	±8½	±0.5%	32.5	FA-190
DST-25	30.0	±8½	±0.5%	32.5	FA-190

Catalog No.	Center Frequency (Kc.)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-26	40.0	± 8½	±0.5%	32.5	FA-190
DST-27	52.5	± 8½	±0.5%	32.5	FA-190
DST-28	70.0	± 8½	±0.5%	32.5	FA-190
DST-29	22.0	±15	±1.0%	26.0	FA-190
DST-30	30.0	±15	±1.0%	26.0	FA-190
DST-31	40.0	±15	±1.0%	26.0	FA-190
DST-32	52.5	±15	±1.0%	26.0	FA-190
DST-33	70.0	±15	±1.0%	26.0	FA-190

FIXED DISCRIMINATORS
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-10	400	±8½	±0.5%	32.5	FA-185
DST-11	560	±8½	±0.5%	32.5	FA-185
DST-12	730	±8½	±0.5%	32.5	FA-185
DST-13	960	±8½	±0.5%	32.5	FA-185

Catalog No.	Center Frequency (cps)	% Deviation of Fo	Linearity	D.C. Output Volts	Case No.
DST-14	1,300	±8½	±0.5%	32.5	FA-185
DST-15	1,700	±8½	±0.5%	32.5	FA-185
DST-16	2,300	±8½	±0.5%	32.5	FA-185

See Freed Price Pages 1442-1444

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FREED FILTERS

To MIL-T-27A and MIL-F-18327

Freed Standard Filters are **Hermetically Sealed Miniature** high performance components designed for both production and laboratory applications in the Communications and Electronic industry. In order to achieve attenuation requirements not obtainable with one single filter, one can combine several standard filters of different transmission characteristics. Wide Band Pass characteristics are obtainable by combining low and high Pass Units. The astatic construction of inductive components together with special shielding reduces the hum pick-up of the standard filters.

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40 db or more at 2 cut-off frequency.

ILP Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLP Line Low Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHP Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHP Line High Pass Filter. Characteristic Impedance 500 to 600 Ω, in and out.

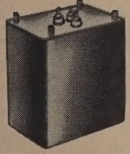
Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

IBP Interstage Band Pass Filter. Nominal input impedance — 10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBP Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 9:1. (Output voltage to source voltage.)

CASE DIMENSIONS

DF-1 CASE



Height: 2½"
Width: 1 11/16"
Depth: 1 3/16"
Mtg. Cen.: 1¼"x¾"
Studs: 4—6-32x⅜"
Knockout: ⅞" dia.

Catalog No.	Cut-off Frequency c.p.s.
ILP- 100	100
ILP- 200	200
ILP- 300	300
ILP- 500	500
ILP- 750	750
ILP- 1,000	1,000
ILP- 1,500	1,500
ILP- 2,000	2,000
ILP- 2,500	2,500
ILP- 3,000	3,000
ILP- 5,000	5,000
ILP- 7,000	7,000
ILP- 10,000	10,000
ILP- 15,000	15,000
ILP- 20,000	20,000
ILP- 23,000	23,000
ILP- 25,000	25,000
ILP- 32,000	32,000
ILP-130,000	130,000
ILP-150,000	150,000

Catalog No.	Cut-off Frequency c.p.s.
LLP- 500	500
LLP- 1,000	1,000
LLP- 1,500	1,500
LLP- 1,600	1,600
LLP- 2,000	2,000
LLP- 2,500	2,500
LLP- 3,000	3,000
LLP-16,000	16,000
LLP-20,000	20,000
LLP-70,000	70,000
LLP-80,000	80,000
IHP- 200	200
IHP- 250	250
IHP- 300	300
IHP- 400	400
IHP- 500	500
IHP- 1,000	1,000
IHP- 2,000	2,000
IHP- 3,000	3,000
IHP-10,000	10,000
IHP-15,000	15,000
LHP- 200	200
LHP- 300	300
LHP- 400	400
LHP- 500	500
LHP- 800	800
LHP- 1,000	1,000
LHP- 2,000	2,000
LHP- 6,000	6,000
LHP-10,000	10,000

Catalog No.	Cut-off Frequency c.p.s.
IBP - 100	100
IBP - 200	200
IBP - 250	250
IBP - 400	400
IBP - 500	500
IBP - 700	700
IBP - 800	800
IBP - 900	900
IBP - 1,000	1,000
IBP - 1,500	1,500
IBP - 2,000	2,000
IBP - 3,000	3,000
IBP - 5,000	5,000
IBP - 7,200	7,200
IBP -10,000	10,000
IBP -12,000	12,000
IBP -15,000	15,000
IBP -30,000	30,000
IBP -57,600	57,600
LBP- 200	100
LBP- 300	300
LBP- 400	400
LBP- 600	600
LBP- 800	800
LBP- 1,000	1,000
LBP- 1,500	1,500
LBP- 2,000	2,000
LBP- 3,000	3,000
LBP- 7,200	7,200
LBP-10,000	10,000
LBP-14,400	14,400
LBP-20,000	20,000
LBP-28,800	28,800

Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

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See Freed Price Pages 1442-1444

HERMETICALLY SEALED SUB-MINIATURE FILTERS

The standard filters are available in Low Pass, High Pass and Band Pass Filters.

Low Pass Filters: The attenuation characteristics of Low Pass Filters are 6db or less at cut-off frequency, 35db or more at 1.5 cut-off frequency and 40 db or more at 2 cut-off frequency.

ILM Interstage Low Pass Filter. Characteristic impedance 10,000 ohms, in and out.

LLM Line Low Pass Filter. Characteristic Impedance 500 to 600 L, in and out.

High Pass Filters: The attenuation characteristics of High Pass Filters are 6db or less at cut-off frequency, 35db and 40db or more at 0.67 and 0.5 cut-off frequency.

IHM Interstage High Pass Filter. Characteristic Impedance 10,000 ohms, in and out.

LHM Line High Pass Filter. Characteristic Impedance 500 to 600 L, in and out.

Band Pass Filters: The attenuation characteristics of Band Pass Filters are 2db or less at plus or minus 3% of center frequency 40db or more at 0.5 and 2 center frequency.

IBM Interstage Band Pass Filter. Nominal input impedance — 10,000 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 2:1. (Output voltage to source voltage.)

LBM Line Band Pass Filter. Nominal input impedance 500 to 600 ohms. Nominal output impedance 5 megohms or grid of vacuum tube. Effective voltage step-up 9:1. (Output voltage to source voltage.)

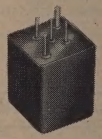
Special filters in all six types are available for any frequency from 200 to 20,000 cycles.

Catalog No.	Cut-off Freq. c.p.s.
IBM 400	400
IBM - 500	500
IBM - 700	700
IBM - 800	800
IBM - 900	900
IBM - 1,000	1,000
IBM - 1,500	1,500
IBM - 2,000	2,000
IBM - 3,000	3,000
IBM - 5,000	5,000
IBM - 7,200	7,200
IBM -10,000	10,000
IBM -12,000	12,000
IBM -15,000	15,000
IBM -30,000	30,000
IBM -57,600	57,600
IHM - 300	300
IHM - 400	400
IHM - 500	500
IHM - 1,000	1,000
IHM - 2,000	2,000
IHM - 3,000	3,000
IHM -10,000	10,000
IHM -15,000	15,000

Catalog No.	Cut-off Freq. c.p.s
ILM - 300	300
ILM - 500	500
ILM - 750	750
ILM - 1,000	1,000
ILM - 1,500	1,500
ILM - 2,000	2,000
ILM - 2,500	2,500
ILM - 3,000	3,000
ILM - 5,000	5,000
ILM - 7,000	7,000
ILM - 10,000	10,000
ILM - 15,000	15,000
ILM - 20,000	20,000
ILM - 23,000	23,000
ILM - 25,000	25,000
ILM - 32,000	32,000
ILM -150,000	130,000
ILM -150,000	150,000
LHM - 300	300
LHM - 400	400
LHM - 500	500
LHM - 800	800
LHM - 1,000	1,000
LHM - 2,000	2,000
LHM - 6,000	6,000
LHM-10,000	10,000

Catalog No.	Cut-off Freq. c.p.s.
LBM - 300	300
LBM - 400	400
LBM - 600	600
LBM - 800	800
LBM - 1,000	1,000
LBM - 1,500	1,500
LBM - 2,000	2,000
LBM - 3,000	3,000
LBM - 7,000	7,200
LBM - 10,000	10,000
LBM - 14,400	14,000
LBM - 20,000	20,000
LBM - 28,800	28,800
LLM - 500	500
LLM - 1,000	1,000
LLM - 1,500	1,500
LLM - 1,600	1,600
LLM - 2,000	2,000
LLM - 2,500	2,500
LLM - 3,000	3,000
LLM - 16,000	16,000
LLM - 20,000	20,000
LLM - 70,000	70,000
LLM - 80,000	80,000

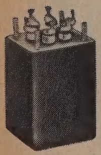
CASE DIMENSIONS



FILTER CASE

Height: 1⅜″
Width: 1″
Depth: 1″

SERIES 1950 NULL "T" FILTERS



The Freed Series 1950 Null T networks consist of two resistance capacitance networks, whose outputs completely cancel each other at the balance frequency. They may be used as rejection networks particularly at low frequencies where LC filters become excessively large and unstable.

Standard models are available for 30, 60 and 120 cycles in a wide range of impedances. Each network will give a minimum of 50 db attenuation at the null frequency.

The null frequency is adjusted to a tolerance of ±2%.

All Null T Filters are hermetically sealed.

Prices on request.

Catalog No.	Frequency
NTF- 30	30 cps
NTF- 60	60 cps
NTF-120	120 cps

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TELEGRAPH TONE CHANNEL FILTERS

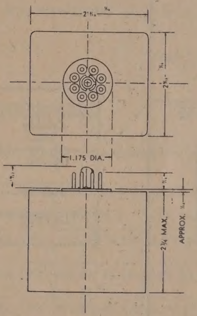
HERMETICALLY SEALED TO MIL-T-27A AND MIL-F-18327 SPECIFICATIONS

Freed Band Pass Filters are extensively used in multiplex frequency shift transmitting and receiving. Stock filters cover all arrow and wide band channels. All units are built with a standard octal socket.

FBT Transmitting Filters are built for a 600 ohm in and out characteristic impedance. Filter configuration allows paralleling f channel outputs. 10db adjacent channel crossover attenuation.

TRANSMITTING FILTERS

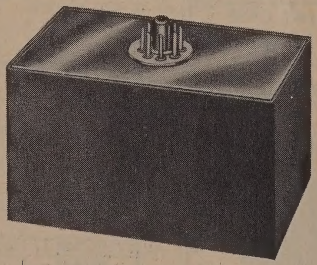
Catalog No. Case FA-955	Center Frequency (c.p.s.) Insertion Loss 5db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 20db
FBT-10	425	±42.5	±130
FBT-11	595	±42.5	±130
FBT-12	765	±42.5	±130
FBT-13	935	±42.5	±130
FBT-14	1,105	±42.5	±130
FBT-15	1,275	±42.5	±130
FBT-16	1,445	±42.5	±130
FBT-17	1,615	±42.5	±130
FBT-18	1,785	±42.5	±130
FBT-19	1,955	±42.5	±130
FBT-20	2,125	±42.5	±130
FBT-21	2,295	±42.5	±130
FBT-22	2,465	±42.5	±130
FBT-23	2,635	±42.5	±130
FBT-24	2,805	±42.5	±130
FBT-25	2,975	±42.5	±130
FBT-26	1,955	±85	±260
FBT-27	2,380	±85	±260
FBT-28	2,805	±85	±260
FBT-29	3,230	±85	±260

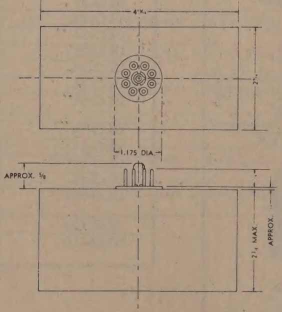


FBR Receiving Filters are designed for a characteristic impedance of 600 ohms in and out. Filter configuration permits paralleling channel inputs. 20db adjacent channel crossover attenuation.

RECEIVING FILTERS

Catalog No. Case FA-950	Center Frequency (c.p.s.) Insertion loss 6db	Pass Band (c.p.s.) Attenuation 2db	Stop Band (c.p.s.) Attenuation 20db
FBR-10	425	±42.5	±130
FBR-11	595	±42.5	±130
FBR-12	765	±42.5	±130
FBR-13	935	±42.5	±130
FBR-14	1,105	±42.5	±130
FBR-15	1,275	±42.5	±130
FBR-16	1,445	±42.5	±130
FBR-17	1,615	±42.5	±130
FBR-18	1,785	±42.5	±130
FBR-19	1,955	±42.5	±130
FBR-20	2,125	±42.5	±130
FBR-21	2,295	±42.5	±130
FBR-22	2,465	±42.5	±130
FBR-23	2,635	±42.5	±130
FBR-24	2,805	±42.5	±130
FBR-25	2,975	±42.5	±130
FBR-26	1,955	±85	±260
FBR-27	2,380	±85	±260
FBR-28	2,805	±85	±260
FBR-29	3,230	±85	±260



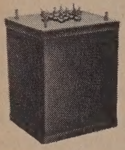


CASE DIMENSIONS

DC-4 CASE

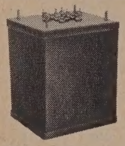
Height: 4¾"
Width: 3⅛"
Length: 3"
Mounting: 4 8-32 Studs
Mtg. Cen.: 2½" x 2½"
Cutout: (2)1⅜" x ⅝"

DC-6B CASE



Height: 6"
Width: 5"
Length: 4⅛"
Mounting: 4 10-32 Studs
Mtg. Cen.: 3¾" x 3"
Cutout: 3" Dia.

OL-MA-2 CASE

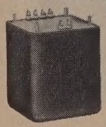


Height: 4"
Width: 4⅝"
Length: 3 15/16"
Mounting: 4 10-32 Studs
Mtg. Cen.: 2½" x 3¾"
Cutout: (2)2¾" x ¾"

OL-112-1 CASE

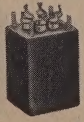
Height: 6"
Width: 5⅞"
Length: 4¾"
Mounting: 4 ¼-20 Studs
Mtg. Cen.: 4¾"x3⅝"
Cutout: 3" dia.

EA CASE



Height: 2 11/16"
Width: 1⅞
Length: 1¾"
Mounting: 4 6-32 Studs
Mtg. Cen.: 1⅜" x 1¼"
Cutout: 1 3/16"

DM-03 CASE



Height: 2½"
Width: 1½"
Length: 1½"
Mounting: 4 6-32 Studs
Mtg. Cen.: 1 1/16" x 1 1/16"
Cutout: 1¼" Dia.

ULTRASONICS

New developments and applications of ultrasonics for industrial cleaning, soldering, weldin and mixing have created a demand for generators and components specifically designed for ultrasonic applications.

Using the latest developments in the field of special magnetic materials the FREED ultrasoni transformers are designed for greatest efficiency and maximum reliability. They feature small siz excellent performance and long life under continuous duty operation.

Transformers with an extended frequency range (frequencies up to 2 MC) can be supplie upon request.

ULTRASONIC DRIVER AND INPUT TRANSFORMERS

Frequency response: ± 1 DB 10 KC to 60 KC.

Catalog No.	Application	Primary Impedance Ohms	Ratio	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULI-20	Transducer to PP 811A	1, 2, 4	1:17.3	5		DM-03
ULD-20	PP 6CM6 to PP 811A	10,000	4.4:1	5	50	DM-03
ULD-50	PP 5881 to PP 8000	7,200	1.7:1	25	90	FH-EA

ULTRASONIC OUTPUT TRANSFORMERS

Frequency response: ± 1 DB 20 KC to 60 KC.

Catalog No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Maximum Power Watts	Maximum Primary D.C. per Side Ma.	Case Size
ULO-10	PP 6083 to transducer	7,600	1/4	100	120	DC-4B
ULO-11	Same	7,600	2/8	100	120	DC-4B
ULO-12	Same	7,600	4/16	100	120	DC-4B
ULO-13	Same	7,600	7.5/30	100	120	DC-4B
ULO-30	PP 811A to transducer	12,400	1/4	300	170	DC-4B
ULO-31	Same	12,400	2/8	300	170	DC-4B
ULO-32	Same	12,400	4/16	300	170	DC-4B
ULO-33	Same	12,400	7.5/30	300	170	DC-4B
ULO-34	Same	12,400	25	300	170	DC-4B
ULO-35	Same	12,400	125/500	300	170	DC-4B
ULO-36	Same	12,400	250/1000	300	170	DC-4B
ULO-37	Same	12,400	75/300	300	170	DC-4B
ULO-52	PP 8000 to transducer	10,800	4/16	500	230	OL-MA-2
ULO-53	Same	10,800	7.5/30	500	230	OL-MA-2
ULO-54	Same	10,800	25/100	500	230	OL-MA-2
ULO-55	Same	10,800	125/500	500	320	OL-MA-2
ULO-56	Same	10,800	250/1000	500	230	OL-MA-2
ULO-101	PP. Par. 8000 to transducer	5,400	25/100	1000	430	DC-6B
ULO-104	Same	5,400	75/300	1000	430	DC-6B
ULO-110	PP 4-250A to transducer	10,900	18.8/75/300	800	250	OL-112-1

See Freed Price Pages 1442-1444

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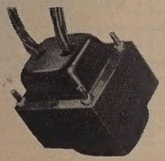
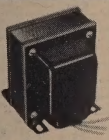
CASE DIMENSIONS



Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
HS300	2⅝	3	2½	2½x2	(4) 3/16x⅜
HS303	2⅞	3	2½	2½x2	(4) "
HS306	3¼	3	2½	2½x2	(4) "
HS307	3⅜	3	2½	2½x2	(4) "
HS503	3½	3¾	3⅛	3⅛x2½	(4) "
HS505	3¾	3¾	3⅛	3⅛x2½	(4) "
HS603	3¾	4½	3¾	3¾x3	(4) "
HS605	4	4½	3¾	3¾x3	(4) "
HS606	4 5/16	4½	3¾	3¾x3	(4) "
HS610	4⅝	4½	3¾	3¾x3	(4) "
HS612	4⅞	4½	3¾	3¾x3	(4) "
HS708	5⅞	5¼	4⅜	4⅜x3½	(4) 9/32x21/32
HS709	6	5¼	4⅜	4⅜x3½	(4) "



Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Holes
VS300	3 5/32	2⅝	2¾	2x1 11/16	(4) 3/16x⅜
VS303	3 5/32	2⅝	3	2x1 15/16	(4) "
VS304	3 29/32	4¼	3¼	2½x3	(4) "
VS306	3 5/32	2⅝	3⅜	2x2 1/16	(4) "
VS307	3 5/32	2⅝	3½	2x2 7/16	(4) "
VS503	3 29/32	3¼	3⅝	2½x2 5/16	(4) "
VS505	3 29/32	3¼	3⅞	2½x2⅝	(4) "
VS506	3 29/32	3¼	4¼	2¼x3	3/16x⅜
VS508	3⅝	2⅝	3⅛	2x2⅛	(4) "
VS603	4 21/32	3⅞	3⅞	3x2 11/16	(4) "
VS605	4 21/32	3⅞	4⅛	3x2 15/16	(4) "
VS606	4 21/32	3⅞	4¼	3x3⅛	(4) "
VS610	4 21/32	3⅞	4¾	3x3 9/16	(4) "
VS612	4 21/32	3⅞	5	3x3 15/16	(4) "
VS708	5 7/16	4 9/16	5¾	3½x4	(4) 9/32x21/32
VS709	5 7/16	4 9/16	5⅞	3½x4⅛	(4) "

COMMERCIAL GRADE COMPONENTS

These components are designed to meet the demand for low-cost replacement parts for commercial electronic equipment.

The best commercially available materials have been utilized in the design of these units, to insure reliability and excellent performance characteristics. Vacuum impregnation with a non-hygroscopic varnish to prevent penetration of humidity are employed to give these units long life and trouble-free performance.

230-115 V, 50-60 C. P. S. Stepdown Transformers rated from 25 V A up to 5,000 V A Rating and line booster transformers are included in this series.

All units, with only a few exceptions, are uncased or of shell-type construction.

Isolation transformers and Stepdown transformers are equipped with line cord and receptacle.

POWER TRANSFORMERS

All primaries designed for 115-volt, 50-60 cycle operation.

Catalog No.	Py Va	Hi Volt	Choke Input		Cond. Input		Bias Tap	Rectifier	Fil. No. 1	Fil. No. 2	Fil. No. 3	Case No.
			D.C.V.	D.C.Ma.	D.C.V.	D.C.Ma.						
RGP 1 RGP 2	45 "	500V CT "			270 "	40 "		6X4, 5Y3 "	5/6.3V @ 2A "	6.3V @ 2A "		VS300 HS300
RGP 3 RGP 4	57 "	600V CT "			330 "	50 "		6X4, 5Y3 "	5/6.3V @ 2A "	6.3V @ 2.5A "		VS303 HS303
RGP 5 RGP 6	64 "	650V CT "			370 "	50 "		6X4, 5Y3 "	5/6.3V @ 2A "	6.3V @ 3A "		VS303 HS303
RGP 7 RGP 8	73 "	600V CT "			320 "	70 "		6X4, 5Y3 "	5/6.3V @ 2A "	6.3V @ 3A "		VS306 HS306
RGP 9 RGP 10	110 "	650V CT "	225 "	140 "	330 "	100 "		5Y3, 5U4 "	5V @ 3A "	6.3V @ 5A "		VS503 HS503
RGP 11 RGP 12	76 "	700V CT "	260 "	100 "	385 "	70 "		5Y3 "	5V @ 2A "	6.3V @ 2.5A "		VS307 HS307
RGP 13 RGP 14	108 "	700V CT "	250 "	125 "	370 "	90 "		5Y3, 5U4 "	5V @ 3A "	6.3V @ 5A "		VS503 HS503
RGP 15 RGP 16	127 "	700V CT "	260 "	170 "	350 "	120 "		5U4 "	5V @ 3A "	6.3V @ 5A "		VS505 HS505
RGP 17 RGP 18	146 "	700V CT "	260 "	210 "	350 "	150 "		5U4 "	5V @ 3A "	6.3V @ 5A "	6.3V @ 1A "	VS603 HS603
RGP 19 RGP 20	207 "	800V CT "	295 "	280 "	400 "	200 "		5U4, 2-5Y3 "	5V @ 4A "	6.3V @ 6A "		VS606 HS606
RGP 21 RGP 22	225 "	800V CT "	295 "	280 "	400 "	200 "	80 "	5U4, 2-5Y3 "	5V @ 4A "	6.3V @ 6A "	5/6.3V @ 2A "	VS606 HS606
RGP 23 RGP 24	268 "	840V CT "	330 "	350 "	450 "	250 "	80 "	2-5U4 "	5V @ 6A "	6.3V @ 6A "	5/6.3V @ 2A "	VS612 HS612
RGP 25 RGP 26	320 "	900V CT "	340 "	420 "	490 "	300 "	80 "	2-5U4 "	5V @ 6A "	6.3V @ 6A "	5/6.3V @ 2A "	VS708 HS708
RGP 27 RGP 28	127 "	900V CT "	360 "	150 "				5U4 "	5V @ 3A "	6.3V @ 5A "		VS603 HS603
RGP 29 RGP 30	150 "	900V CT "	350 "	200 "				5U4 "	5V @ 3A "	6.3V @ 5A "		VS605 HS605
RGP 31 RGP 32	203 "	1100V CT "	400 "	250 "				5R4GY "	5V @ 3A "	6.3V @ 5A "		VS610 HS610
RGP 33 RGP 34	248 "	1100V CT "	420 "	300 "				2-5R4GY "	5V @ 4A "	6.3V @ 7A "		VS612 HS612
RGP 35 RGP 36	310 "	1280V CT "	480 "	350 "				2-5R4GY "	5V @ 4A "	6.3V @ 7A "		VS709 HS709

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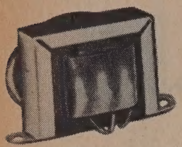
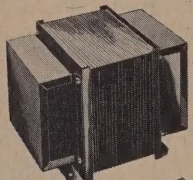
CASE DIMENSIONS


CH

DC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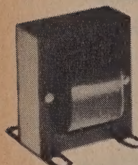
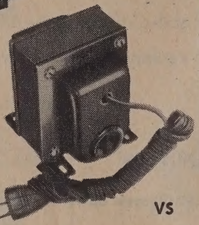

FV


VS

Case No.	Height	Width	Depth	Mtg. Centers	Mtg. Studs
DC2B	3½	2⅝	2¼	2x1¾	(4)8-32
DC4A	3¾	3⅛	3	2½x2½	(4)8-32
DC5C	4⅞	4⅛	3½	3⅛x2⅝	(4)10-32
DC6A	4⅞	5	4⅛	3¾x3	(4)10-32
CH50	1 11/16	2 13/16	1¾	2⅜	(2) 3/16
CH60	2	3¼	1¾	2 13/16	(2) 3/16
CH62	2	3¼	2⅛	2 13/16	(2) 3/16
CH70	2 5/16	3 11/16	2¼	3⅛	(2) 3/16
CH80	2⅝	4	2⅝	3 9/16	(2) 3/16
FV10	3 1/16	2½	2 9/16	2x2	(4) 13/64x21/64
FV12	3 1/16	2½	2 11/16	2x2⅛	(4) 13/64x21/64
FV22	3 7/16	2 13/16	2⅞	2¼x2¼	(4) 3/16x⅜
FV30	4 1/32	3⅛	3	2½x2¼	(4) 13/64x21/64
HB718	6¼	6½	8½	4¾x4½	(4) 9/32x21/32
HB728	6¼	6½	9¾	4¾x5¾	(4) 9/32x21/32
HB828	6⅝	7 5/16	9⅞	5⅝x5¾	(4) 9/32x21/32
HB920	6⅝	7⅞	10¼	6½x7 5/16	(4) 9/32x21/32
VS300	3 5/32	2⅝	3	2x2	(4) 3/16x⅜
VS401	3 9/16	2 15/16	3¼	2¼x1 15/16	(4) 3/16x⅜
VS501	3 29/32	3¼	3⅜	2½x2 1/16	(4) 3/16x⅜
VS503	3 29/32	3¼	3⅝	2½x2 5/16	(4) 3/16x⅜
VS601	4 21/32	3⅞	3⅝	3x2 7/16	(4) 3/16x⅜
VS604	4 21/32	3⅞	4	3x2⅞	(4) 3/16x⅜
VS611	4 21/32	3⅞	4⅞	3x3 11/16	(4) 3/16x⅜
VS612	4 21/32	3⅞	5	3x3 15/16	(4) 3/16x⅜
VS700	5 7/16	3⅞	5	3½x3¼	(4) 3/16x⅜
VS706	5 7/16	4 9/16	5½	3½x3¾	(4) 3/16x⅜
VS714	5 7/16	4 9/16	6½	3½x4¾	(4) 3/16x⅜
VS718	5 7/16	4 9/16	7	3½x5¼	(4) 9/32x21/32
VS728	5 7/16	4 9/16	8¼	3½x6½	(4) 3/16x⅜

COMMERCIAL GRADE COMPONENTS

FILAMENT TRANSFORMERS

All primaries are for 115V, 50/60 c.p.s.

Catalog No.	Secondary Voltage	Secondary Current Amps.	Secondary Test Voltage RMS	Case Size
TF 1	2.5 (C.T.)	7.5	1500	CH60
TF 2	2.5 (C.T.)	10	1500	CH70
TF 3	2.5 (C.T.)	5	7500	DC2B
TF 4	2.5 (C.T.)	10	7500	DC4A
TF 5	5.0 (C.T.)	4	1500	CH60
TF 6	5.0 (C.T.)	6	1500	CH70
TF 7	5.0 (C.T.)	10	1500	CH80
TF 8	5.0 (C.T.)	10	1500	FV10
TF 9	5.0 (C.T.)	20	2500	FV30
TF 10	5.0 (C.T.)	20	10,000	DC6A
TF 11	6.3 (C.T.)	1.35	1500	CH50
TF 12	6.3 (C.T.)	3	1500	CH60
TF 13	6.3 (C.T.)	5	1500	CH70
TF 14	6.3 (C.T.)	7	1500	FV12
TF 15	6.3 (C.T.)	10	1500	FV22
TF 16	10 (C.T.)	5	2500	CH80
TF 17	10 (C.T.)	5	2500	FV10
TF 18	10 (C.T.) or 11 (C.T.) (tapped primary)	12 or 11	7500	DC-5C
TF 19	12.6 (C.T.)	2	1500	CH62

TF 3, 4 & 10 supplied with terminals. All others with leads.

AUTO TRANSFORMERS

To be used as step-down transformer. Equipped with standard receptacle and line cord.

Catalog No.	Transformation	VA Rating	Weight (lbs.)	Case Size
SDT 1*	230/115 V. 50/60 c.p.s.	25	1	CH-60
SDT 2*	230/115 V. 50/60 c.p.s.	50	1¼	CH-62
SDT 3	230/115 V. 50/60 c.p.s.	50	2½	VS-300
SDT 4	230/115 V. 50/60 c.p.s.	100	3	VS-401
SDT 5	230/115 V. 50/60 c.p.s.	200	5	VS-501
SDT 6	230/115 V. 50/60 c.p.s.	300	6½	VS-601
SDT 7	230/115 V. 50/60 c.p.s.	400	8	VS-604
SDT 8	230/115 V. 50/60 c.s.p.	500	11	VS-611
SDT 9	230/115 V. 50/60 c.p.s.	750	15	VS-706
SDT 10	230/115 V .50/60 c.p.s.	1000	23	VS-718
SDT 11	230/115 V. 50/60 c.p.s.	1500	29½	VS-728
SDT 12*	230/115 V. 50/60 c.p.s.	2000	37	HB-718
SDT 13*	230/115 V. 50/60 c.p.s.	2500	47	HB-728
SDT 14*	230/115 V. 50/60 c.p.s.	3000	58	HB-828
SDT 15*	230/115 V. 50/60 c.p.s.	5000	72	HB-920

*Supplied with leads without line cord and receptacle.

ISOLATION TRANSFORMERS

Electrostatic shield between primary and secondary. Equipped with standard receptacle and line cor

Catalog Number	Primary Voltage 50/60 c.p.s	Secondary Voltage	VA Rating	Case Size
IT 1	115	115	50	VS-401
IT 2	115	115	100	VS-503
IT 3	115	115	300	VS-700
IT 4	115	115	500	VS-714
IT 5*	220/440	110/220	250	VS-612
IT 6*	220/440	110/220	500	VS-714

*Supplied with leads without line cords and receptacle.

LINE BOOSTER TRANSFORMERS

Operates from 90 to 110 volts input to provide 10% step-up.

Catalog Number	Primary Voltage	Secondary Voltage	VA Rating	Case Size
LB-1	90-110	1.1 x input	350	VS-300
LB-2	90-110	1.1 x input	2000	VS-611

See Freed Price Pages 1442-1444

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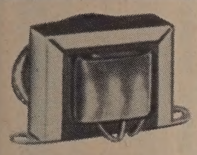
COMMERCIAL GRADE COMPONENTS

CASE DIMENSIONS

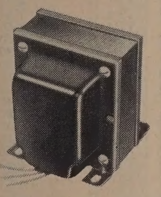


CH-40 CASE
Height: 1 7/16"
Width: 2 3/8"
Depth: 1 3/16"
Mtg. Cen.: 2"

CH-50 CASE
Height: 1 11/16"
Width: 2 13/16"
Depth: 1 3/4"
Mtg. Cen.: 2 3/8"

CH-60 CASE
Height: 2"
Width: 3 1/4"
Depth: 1 3/4"
Mtg. Cen.: 2 13/16"

CH-80 CASE
Height: 2 5/8"
Width: 4"
Depth: 2 5/8"
Mtg. Cen.: 3 9/16"



VS-100 CASE
Height: 2 11/32"
Width: 1 7/8"
Depth: 2 1/4"
Mtg. Cen.: 1 1/2"x1 7/16"

VS-300 CASE
Height: 3 3/32"
Width: 2 5/8"
Depth: 2 3/4"
Mtg. Cen.: 2"x1 11/16"

VS-303 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3"
Mtg. Cen.: 2x1 15/16
Mtg. Hole: (4) 3/16x3/8

VS-306 CASE
Height: 3 5/32"
Width: 2 5/8"
Depth: 3 3/8"
Mtg. Cen.: 2x2 5/16
Mtg. Hole: (4) 3/16x3/8

VS-308 CASE
Height: 3 33/64"
Width: 2 27/32"
Depth: 3 3/8"
Mtg. Cen.: 2"x2 9/16"

AUDIO TRANSFORMERS

Catalog No.	Application	Impedance Level Ohms		Max. Power Level DBM or Power in Watts	Ratio	Max. Pri. D.C. per Side Ma.	D.C. Un-balance Ma.	Freq. Response C.P.S.	Case No.
		Primary	Secondary						
RGA 1	Input; multiple line or double button mike to single or push-pull grids.	500 CT 200 CT	100.000 CT	+20	1:14.1	50	5	±2DB 200-5000	CH-40
RGA 2	Input; single button mike to single or push-pull grids.	100	100.000 CT	+20	1:31.6	50		±2DB 200-5000	CH-40
RGA 3	Input; voice coil to grid. Intercom	3.2	100,000	+20	1:179			±2DB 200-5000	CH-40
RGA 4	Mixing and matching line to line.	600 CT 500 CT 200 CT 150/125/50	600 CT 500 CT 200 CT 150/125/50	+20	1:1			±2DB 100-5000	CH-40
RGA 5	Interstage; single triode plate to single or P.P. grids.	10.000	90.000 CT	+30	1:3	10		±2DB 200-5000	CH-40
RGA 6	Output; single plate to line or mixer.	10.000	600 CT 500 CT 200 CT 150/125/50	+30	4.8:1	10		±2DB 200-5000	CH-40
RGA 7	Output; Push-pull plate to line or mixer.	20.000 CT	600 CT 500 CT 200 CT 150/125/50	+30	6.32:1	10	1	±2DB 200-5000	CH-40
RGA 8	Output; plate to V.C. 6AL6, 6L6, 6Y6, 25B6, 25C6, 35A5, 35B5, 35C5, 50B5, 50C5, 50C6, 50L6, 117N7.	2500	3.2	5W		70		±3DB 200-10000	CH-40
RGA 9	Output; plate to V.C. 6V6, 6AQ5, 6AS5, 7C5.	5000	3.2	5W		50		±3DB 200-10000	CH-40
RGA 10	Output; plate to V.C. 6AR5, 6K6, 6V6, 7B5, 14A5, 3S4, 3U4, 3Q4, 3Q5, 3C5, 3A4.	10.000 or 7500	3.2	5W		30		±3DB 200-10000	CH-40
RGA 11	Output; P.P. plates to V.C. P.P. 6V6, PP6K6.	12.000 CT or 8000 CT	3.2	15W		50	5	±2DB 200-8000	CH-60
RGA 12	Output: TP to V.C. 6V6, 6AQ5, 7C5, C1AB.	10,000CT	3.2	10W	5.6:1	40	4	±3DB 200-10000	CH-60

COMMERCIAL GRADE CHOKES

Catalog No.	Inductance in Henries	Rated Current D.C. Ma.	D.C. Resistance	Dielectric Test Voltage	Case Number
RGC 17	40	15	2000	1000	CH-40
RGC 1	4	40	200	1000	CH-40
RGC 2	9	40	400	1000	CH-40
RGC 3	6	50	400	1000	CH-40
RGC 18	20	50	425	1500	CH-60
RGC 4	10	55	400	1500	CH-50
RGC 19	3	75	200	1500	CH-40
RGC 5	10	75	250	1500	CH-60
RGC 6	10	75	250	1500	VS-100
RGC 7	6	100	150	1500	CH-60
RGC 8	6	100	150	1500	VS-100
RGC 9	3.5	150	100	1500	CH-60
RGC 10	3.5	150	100	1500	VS-100
RGC 20	12	160	180	2500	VS-306
RGC 11	2	200	60	1500	CH-60
RGC 12	2	200	60	1500	VS-100
RGC 13	3.7	200	65	1500	CH-80
RGC 21	7	200	100	2500	VS-303
RGC 14	3.7	200	65	1500	VS-300
RGC 15	2.8	300	65	1500	CH-80
RGC 16	2.8	300	65	1500	VS-300
RGC 22	5	300	65	2500	VS-308

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See Freed Price Pages 1442-1444

FREED TRANSFORMER COMPANY, INC. — PRICE LIST

Catalog No.	Net Price
EPT-1	7,50
EPT-2	7.50
EPT-3	7.50
EPT-4	7.50
EPT-5	7.50
EPT-6	7.50
EPT-7	7.50
EPT-8	9.50
EPT-9	9.50
EPT-11	7.50
EPT-12	7.50
EPT-13	9.50
EPT-14	9.50
EPT-15	12.50
EPT-16	12.50
EPT-17	11.50
EPT-18	11.50
EPT-19	11.50

Note—Molded Units $1.00 additional.

Catalog No.	Net Price
IT-1	7.25
IT-2	10.55
IT-3	26.40
IT-4	31.95
IT-5	26.40
IT-6	34.95
KA-10	16.50
KP-11	9.05
KC-10	4.30
KC-11	1.45
LB-1	6.60
LB-2	19.20
MAC-5-2-F1	42.50
MAC-5-1-F2	42.50
MAC-5-3-F2	42.50
MAC-5-4-F	42.50
MAC-6-2-1	40.60
MAC-6-3-1	49.90
MAC-12-2-1	39.80
MAC-12-2-2	39.50
MAC-12-4-1	49.50
MAC-12-4-2	44.75
MAC-12-4-3	49.50
MAC-12-4-4	49.00
MAC-12-3-60	29.95
MAC-12-10-1	36.50
MAC-12-10-2	44.20
MAC-12-20-1	46.50
MAC-12-20-2	57.00
MAC-12-30-1	63.70
MAC-12-30-2	77.50
MAC-26-2-1	52.00
MAC-26-2-2	55.00
MAC-26-2-3	54.00
MAC-26-4-1	80.00
MAC-26-4-2	80.00
MAC-26-4-3	82.00
MAF-4	78.00
MAF-5	80.00
MAF-6	180.00
MAF-7	180.00
MAO-1	70.00
MAO-2	102.00
MAO-3	110.00
MAO-4	155.00
MAO-5	175.00
MAP-1	90.00
MAP-2	150.00
MAP-3	225.00
MAP-3A	175.00
MAP-4	280.00
MAP-7	105.00
MAP-8	133.00
MAP-11	95.00
MAS-1	55.00
MAS-2	37.00
MAS-5	33.00
MAS-6	50.00
MAS-7	60.00
MAS-8	24.00
MAS-101	62.50
MAT-1-1	148.50
MCV-4-5LC	14.00
MCV-4-25LC	20.00
MCV-4-75LC	30.00
MCV-4-125LC	38.00
MCV-4-175LC	45.00
MCV-4-250LC	54.00
MCV-4-375LC	69.00
MCV-4-500LC	85.00
MCV-4-750LC	115.00
MCV-4-1000LC	143.00
MCV-4-5-4FC	14.00
MCV-4-25-4FC	20.00
MCV-4-75-4FC	30.00
MCV-4-125-4FC	38.00
MCV-4-5FC	15.00
MCV-4-25FC	21.00
MCV-4-75FC	31.00
MCV-4-125FC	39.00
MCV-4-5LM	22.00
MCV-4-25LM	28.00
MCV-4-75LM	39.00
MCV-4-125LM	48.00
MCV-4-175LM	55.00
MCV-4-250LM	66.00
MCV-4-375LM	81.00
MCV-4-500LM	100.00
MCV-4-750LM	131.00
MCV-4-1000LM	160.00
MCV-4-5-4FM	22.00
MCV-4-25-4FM	28.00

Catalog No.	Net Price
MCV-4-75-4FM	39.00
MCV-4-125-4FM	48.00
MCV-4-5FM	23.00
MCV-4-25FM	29.00
MCV-4-75FM	40.00
MCV-4-125FM	49.00
MCV-6-5LC	11.00
MCV-6-25LC	17.00
MCV-6-75LC	27.00
MCV-6-125LC	34.00
MCV-6-175LC	41.00
MCV-6-250LC	50.00
MCV-6-375LC	64.00
MCV-6-500LC	76.00
MCV-6-750LC	104.00
MCV-6-1000LC	128.00
MCV-6-54FC	11.00
MCV-6-25-4FC	17.00
MCV-6-75-4FC	27.00
MCV-6-125-4FC	34.00
MCV-6-5FC	12.00
MCV-6-25FC	18.00
MCV-6-75FC	28.00
MCV-6-125FC	35.00
MCV-6-5LM	20.00
MCV-6-25LM	26.00
MCV-6-75LM	37.00
MCV-6-125LM	45.00
MCV-6-175LM	53.00
MCV-6-250LM	62.00
MCV-6-375LM	76.00
MCV-6-500LM	90.00
MCV-6-750LM	123.00
MCV-6-1000LM	150.00
MCV-6-54FM	20.00
MCV-6-25-4FM	26.00
MCV-6-75-4FM	37.00
MCV-6-125-4FM	45.00
MCV-6-5FM	21.00
MCV-6-25FM	27.00
MCV-6-75FM	38.00
MCV-6-125FM	46.00
MGA-1	12.50
MGA-2	12.50
MGA-3	16.50
MGA-4	15.00
MGA-5	12.50
MGA-6	12.50
MGA-7	12.50
MGA-8	12.50
MGA-9	12.50
MGC-1	7.50
MGC-2	6.15
MGC-3	6.50
MGC-4	7.25
MGC-5	7.50
MGC-6	6.15
MGC-7	6.50
MGC-8	7.00
MGC-9	6.50
MGC-10	7.00
MGC-11	8.75
MGC-12	6.50
MGC-13	7.00
MGC-14	8.75
MGC-15	9.50
MGC-16	7.00
MGC-17	8.75
MGC-18	10.00
MGC-19	12.50
MGC-20	8.75
MGC-21	*
MGC-22	9.50
MGC-23	*
MGC-24	18.00
MGC-25	*
MGC-26	16.00
MGC-27	*
MGC-28	16.00
MGC-29	*
MGC-30	*
MGC-31	*
MGC-32	6.80
MGC-33	6.80
MGC-34	6.80
MGC-35	6.80
MGC-36	6.80
MGC-37	6.80

*Not stocked, available on short delivery. Prices on request.

Catalog No.	Net Price
MGF-1	6.50
MGF-2	14.10
MGF-3	7.00
MGF-4	15.30
MGF-5	7.00
MGF-6	12.90
MGF-7	16.40
MGF-8	21.90
MGF-9	16.50
MGF-10	21.00
MGP-1	12.50
MGP-2	16.80
MGP-3	14.00
MGP-4	16.50
MGP-5	29.40
MGP-6	19.50
MGP-7	23.40
MGP-8	32.70
MPT-1	17.50
MPT-2	15.00
MPT-3	22.50
MPT-4	20.00

Catalog No.	Net Price
MPT-5	17.50
MPT-6	15.00
MPT-7	17.50
MPT-8	15.00
MPT-9	22.50
MPT-10	20.00
MPT-11	17.50
MPT-12	27.50
MPT-13C	11.60
MPT-13M	15.40
MPT-13H	19.20
MPT-14C	16.90
MPT-14M	20.90
MPT-14H	26.30
MPT-15C	15.60
MPT-15M	19.50
MPT-15H	26.50
MPT-16C	18.90
MPT-16M	22.90
MPT-16H	28.10
MPT-17C	19.50
MPT-17M	22.60
MPT-17H	26.60
MPT-18C	12.80
MPT-18M	16.60
MPT-19C	19.50
MPT-19M	22.60
MPT-19H	22.60
MPT-20C	14.80
MPT-20M	18.60
MPT-20H	24.00
MPT-21C	20.80
MPT-21M	23.50
MPT-21H	24.00
MPT-22C	19.50
MPT-22M	22.60
MPT-22H	26.60
MPT-23C	20.80
MPT-23M	23.50
MPT-23H	26.60
MPT-24C	13.70
MPT-24M	16.80
PGA-1	13.50
PGA-2	15.00
PGA-3	15.00
PGA-4	12.75
PGA-5	12.75
PGA-6	12.75
PGA-7	11.25
PGA-8	11.25
PGA-9	11.25
PGA-10	12.00
PGA-11	12.75
PGA-12	12.75
PGA-13	15.00
PGA-14	15.00
PGA-15	18.75
PGA-16	18.75
PGA-17	18.75
PGA-18	17.25
PGA-19	18.75
PGA-20	18.75
PGA-21	18.75
PGA-22	20.55
PGA-23	20.55
PGA-24	18.75
PGA-25	33.00
PGA-26	18.75
PGA-27	18.75
PGA-28	18.75
PGA-29	18.75
PGA-30	33.00
PGC-1	4.60
PGC-2	4.95
PGC-3	4.95
PGC-4	5.45
PGC-5	5.45
PGC-6	5.45
PGC-7	5.95
PGC-8	6.60
PGC-9	6.60
PGC-10	6.90
PGC-11	9.60
PGC-12	9.60
PGC-13	11.55
PGC-14	7.25
PGC-15	7.85
PGC-16	7.60
PGC-17	6.60
PGC-18	9.60
PGC-19	9.60
PGC-20	11.55
PGP-1	9.25
PGP-2	13.50
PGP-3	6.60
PGP-4	6.90
PGP-5	7.25
PGP-6	7.90
PGP-7	9.25
PGP-8	8.60
PGP-9	9.25
PGP-10	10.20
PGP-11	13.85
PGP-12	16.50
PGP-13	18.15
PGP-14	21.80
PGP-15	25.35
PGP-16	11.55
PGP-17	13.50
PGP-18	18.15
PGP-19	21.80
PGP-20	27.00
PMA-1	9.90
PMA-2	8.10

Catalog No.	Net Price
PMA-3	11.40
PMA-4	8.10
PMA-5	8.10
PMA-6	9.90
PMA-7	9.90
PMA-8	9.90
PMA-9	9.90
PMA-10	9.30
PMA-11	7.20
PMA-12	9.90
PMA-13	9.00
PMA-14	10.10
PMA-15	9.90
PQC-1	6.00
PQC-2	6.00
PQC-3	6.00
PQC-4	6.00
PQC-5	6.00
PQC-6	6.00
PQC-7	6.00
PQC-8	6.00
PQC-9	6.00
QGA-1	18.60
QGA-2	23.10
QGA-3	16.50
QGA-4	23.10
QGA-5	21.00
QGA-6	24.30
QGA-7	16.50
QGA-8	23.10
QGA-9	23.10
QGA-10	26.40
QGA-11	19.80
QGA-12	19.80
QGA-13	16.50
QGA-14	17.10
QGA-15	21.00
QGA-16	17.10
QGA-17	17.10
QGA-18	18.30
QGA-19	17.10
QGA-20	21.90
QGA-21	19.80
QGA-22	33.00
QGA-23	23.10
QGA-24	23.10
QGA-25	23.10
QGA-26	23.10
QGA-27	23.10
QGA-28	23.10
QGA-29	23.10
QGA-30	23.10
QGA-31	29.70
QGA-32	29.70
QGA-33	29.70
QGA-34	29.70
QGA-35	32.70
QGA-36	32.70
QGA-37	19.80
QGA-38	32.70
QGA-39	23.10
QGA-40	23.10
QGA-41	32.70
QGA-42	32.70
QGC-1	22.50
QGC-2	22.50
QGC-3	22.50
QGC-4	22.50
QGC-5	22.50
QGC-6	22.50
QGC-7	22.50
QGC-8	15.00
QGC-9	15.00
QGC-10	15.00
QGC-11	15.00
QGC-12	15.00
QGC-13	15.00
QGC-14	13.50
QGC-15	13.50
QGC-16	13.50
QGC-17	13.50
QGC-18	13.50
QGC-19	11.50
QGC-20	11.50
QGC-21	11.50
QGC-22	11.50
QGC-23	11.50
QGC-24	11.50
QGC-25	10.50
QGC-26	10.50
QGC-27	10.50
QGC-28	10.50
QGC-29	10.50
QGC-30	10.50
QGC-31	10.50
QGC-32	10.50
QGC-33	10.50
QGC-34	10.50
QGC-35	10.50
QGC-36	10.50
QGC-37	10.50
QGC-38	10.80
QGC-39	10.50
QGC-40	10.50
QGC-41	10.50
QGC-42	10.50
RGA-1	3.60
RGA-2	2.90
RGA-3	2.90
RGA-4	5.10
RGA-5	2.90
RGA-6	3.45
RGA-7	3.60

Catalog No.	Net Price
RGA-8	1.65
RGA-9	1.65
RGA-10	1.98
RGA-11	3.60
RGA-12	2.90
RGC-1	1.47
RGC-2	1.47
RGC-3	1.47
RGC-4	1.65
RGC-5	1.98
RGC-6	2.97
RGC-7	1.98
RGC-8	2.97
RGC-9	1.98
RGC-10	2.97
RGC-11	1.98
RGC-12	2.97
RGC-13	3.15
RGC-14	3.96
RGC-15	3.15
RGC-16	3.96
RGC-17	1.80
RGC-18	1.98
RGC-19	1.47
RGC-20	5.10
RGC-21	5.10
RGC-22	72.60
RGP-1	5.76
RGP-2	5.76
RGP-3	5.76
RGP-4	5.76
RGP-5	6.12
RGP-6	6.12
RGP-7	6.75
RGP-8	6.75
RGP-9	7.59
RGP-10	7.59
RGP-11	6.75
RGP-12	6.75
RGP-13	7.59
RGP-14	7.59
RGP-15	8.40
RGP-16	8.40
RGP-17	10.20
RGP-18	10.20
RGP-19	10.35
RGP-20	10.35
RGP-21	14.04
RGP-22	14.04
RGP-23	18.96
RGP-24	18.96
RGP-25	22.80
RGP-26	22.80
RGP-27	8.40
RGP-28	8.40
RGP-29	10.20
RGP-30	10.20
RGP-31	15.15
RGP-32	15.15
RGP-33	18.96
RGP-34	18.96
RGP-35	24.75
RGP-36	24.75
SDT-1	2.25
SDT-2	2.64
SDT-3	4.50
SDT-4	6.12
SDT-5	6.93
SDT-6	8.82
SDT-7	11.04
SDT-8	12.03
SDT-9	16.05
SDT-10	22.56
SDT-11	33.00
SDT-12	39.60
SDT-13	53.61
SDT-14	84.00
SDT-15	112.50
TAC-12-50	65.55
TAC-12-90	73.00
TAC-12-175	88.50
TAC-28-50	73.50
TAC-28-100	81.50
TAC-28-175	95.50
TAC-28-250	105.50
TDC-12-30-15	51.70
TDC-12-25-12	50.55
TDC-12-30-05	42.50
TDC-12-20-05	39.50
TDC-28-30-15	56.45
TDC-28-25-12	54.80
TDC-28-30-05	45.30
TDC-28-20-05	42.90
TF-1	2.91
TF-2	3.30
TF-3	9.90
TF-4	12.15
TF-5	2.97
TF-6	3.96
TF-7	4.35
TF-8	4.62
TF-9	7.59
TF-10	15.84
TF-11	1.98
TF-12	2.91
TF-13	3.96
TF-14	4.80
TF-15	5.10
TF-16	4.35
TF-17	4.62
TF-18	15.84
TF-19	3.30

Catalog No	Net Price
TNA-1	6.30
TNA-2	6.30
TNA-3	6.70
TNA-4	6.10
TNA-5	6.10
TNA-6	6.70
TNA-7	6.30
TNA-8	6.30
TNA-9	7.30
TNA-10	6.80
TNA-11	6.80
TNA-12	7.30
TNA-13	7.30
TNA-14	7.30
TNA-15	7.50
TNA-16	6.70
TNA-17	6.70
TNA-18	6.70
TNA-19	7.20
TNA-20	6.70
TNA-21	6.10
TNA-22	6.60
TNA-23	6.30
TNA-25	6.30
TNA-26	5.90
TNA-27	7.20
TNA-28	5.80
TNA-29	5.80
TNA-30	6.00
TNA-31	5.80
TNA-32	5.80
TNA-33	6.00
TNA-34	6.30
TNA-35	6.30
TNA-36	5.90
TNA-37	5.90
TNA-38	6.30
TNA-39	6.80
TNA-40	6.30
TNA-41	6.50
TPA-1	7.60
TPA-2	7.60
TPA-3	7.60
TPA-4	8.05
TPA-5	7.60
TPA-6	7.60
TPA-7	7.60
TPA-8	8.05
TPA-9	7.60
TPA-10	7.60
TPA-11	8.05
TPA-12	7.60
TPA-13	7.60
TPA-14	8.05
TPA-15	8.30
TPA-16	8.30
TPA-17	7.80
TPA-18	8.50
TPA-19	7.50
TPA-20	8.30
TPA-21	7.80
TPA-22	8.30
TPA-23	8.30
TPA-24	8.30
TPA-25	8.30
TPA-26	8.30
TPA-27	8.30
TPA-28	8.80
TPA-29	8.80
TPA-30	7.30
TPA-31	7.30
TPA-32	7.30
TPA-33	7.30
TPA-34	7.30
TPA-35	7.30
TPA-36	7.30
TPA-37	7.95
TPA-38	7.30
TPA-39	7.30
TPA-40	7.30
TSA-1	6.50
TSA-2	6.50
TSA-3	7.00
TSA-4	6.30
TSA-5	6.30
TSA-6	7.00
TSA-7	6.50
TSA-8	6.50
TSA-9	7.50
TSA-10	7.00
TSA-11	7.00
TSA-12	7.50
TSA-13	7.50
TSA-14	7.50
TSA-15	8.00
TSA-16	7.00
TSA-17	7.00
TSA-18	7.00
TSA-19	7.50
TSA-20	7.00
TSA-21	6.50
TSA-22	6.75
TSA-23	6.50
TSA-25	6.50
TSA-26	6.00
TSA-27	7.50
TSA-28	6.00
TSA-29	6.00
TSA-30	6.30
TSA-31	6.00
TSA-32	6.00
TSA-33	6.30
TSA-34	6.50
TSA-35	6.50
TSA-36	6.00

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FREED TRANSFORMER COMPANY, INC.

Catalog No.	Net Price
TSA-37	6.00
TSA-38	6.50
TSA-39	7.00
TSA-40	6.50
TSA-41	6.75
TTA-1	8.10
TTA-2	6.60
TTA-3	8.60
TTA-4	9.10
TTA-5	8.60
TTA-6	6.60
TTA-7	8.75
TTA-8	8.60
TTA-9	8.90
TTA-10	8.45
TTA-11	8.45
TTA-12	8.50
TTA-13	8.10
TTA-14	9.10
TTA-15	8.10
TTA-16	8.60
TTA-17	8.10
TTA-18	8.10
TTA-19	8.10
TTA-20	8.10
TTA-21	8.10
TTA-22	8.10
TTA-23	8.45
TTA-24	8.45
TTA-25	8.45
TTA-26	8.90
TTA-27	8.10
TTA-28	8.45
TTA-29	8.45
TTA-30	8.45
TTA-31	8.90
TTA-32	8.45
TTA-33	8.90
TTA-34	8.45
TTA-35	8.60
TTA-36	8.60
TTA-37	8.50
TTA-38	9.10
TTA-39	8.35
TTA-40	8.60
TUA-1	6.00
TUA-2	6.00
TUA-3	6.00
TUA-4	6.00
TUA-5	6.00
TUA-6	6.00
TUA-7	6.30
TUA-8	6.30
TUA-9	6.30
TUA-10	6.60
TUA-11	6.30
TUA-12	6.50
TUA-13	5.40
TUA-14	6.30
TUA-15	6.60
TUA-16	5.70
TUA-17	5.70
TUA-18	6.60
TUA-19	5.70
TUA-20	5.70
TUA-21	5.75
TUA-22	5.75
TUA-23	6.00
TUA-24	6.10
TUA-25	6.00
TUA-26	6.00
TUA-27	5.40
TUA-28	6.00
TUA-29	6.00
TUA-30	6.60
TUA-31	7.50
TUA-32	6.60
TUA-33	6.90
TUA-34	6.90
TUA-35	6.90
TUA-36	6.90
TUA-37	6.90
TUA-38	6.90
ULD-20	10.00
ULD-50	15.65
ULI-20	10.00
ULO-10	25.00
ULO-11	25.00
ULO-12	25.00
ULO-13	25.00
ULO-30	32.50
ULO-31	32.50
ULO-32	32.50
ULO-33	32.50
ULO-34	32.50
ULO-35	32.50
ULO-36	32.50
ULO-37	32.50
ULO-52	75.00
ULO-53	75.00
ULO-54	75.00
ULO-55	75.00
ULO-56	75.00
ULO-101	145.00
ULO-104	145.00
ULO-110	145.00
VHI-1	9.50
VHI-2	9.50
VHI-3	9.50
VHI-4	9.50
VHI-5	9.50
VHI-6	9.50
VHI-7	9.50
VHI-8	9.50
VHI-9	9.50
VHI-10	9.50
VHI-11	9.50
VHI-12	9.50
VHI-13	9.50
VHI-14	9.50
VHI-15	9.50
VHI-16	9.50
VHI-17	9.50
VHI-18	9.50
VHI-19	9.50
VHI-20	9.50
VHI-21	9.50
VHI-22	9.50

Filters and Discriminators

IBM*	25.00 35.00
IBP*	25.00 35.00
IHM*	25.00 35.00
IHP*	25.00 35.00
ILM*	25.00 35.00
ILP*	25.00 35.00
LBM*	25.00 35.00
LBP*	25.00 35.00
LHM*	25.00 35.00
LHP*	25.00 35.00
LLM*	25.00 35.00
LLP*	25.00 35.00

*Stock Frequencies are $25.00 Net.

Special Frequencies are $35.00 Net.

FBR-10	89.50
FBR-11	89.50
FBR-12	89.50
FBR-13	89.50
FBR-14	89.50
FBR-15	89.50
FBR-16	89.50
FBR-17	89.50
FBR-18	89.50
FBR-19	89.50
FBR-20	89.50
FBR-21	89.50
FBR-22	89.50
FBR-23	89.50
FBR-24	89.50
FBR-25	89.50
FBR-26	89.50
FBR-27	89.50
FBR-28	89.50
FBR-29	89.50
FBT-10	42.50
FBT-11	42.50
FBT-12	42.50
FBT-13	42.50
FBT-14	42.50
FBT-15	42.50
FBT-16	42.50
FBT-17	42.50
FBT-18	42.50
FBT-19	42.50
FBT-20	42.50
FBT-21	42.50
FBT-22	42.50
FBT-23	42.50
FBT-24	42.50
FBT-25	42.50
FBT-26	42.50
FBT-27	42.50
FBT-28	42.50
FBT-29	42.50
NTF-30	25.00
NTF-60	25.00
NTF-120	25.00
DSF-10	39.50
DSF-11	39.50
DSF-12	39.50
DSF-13	39.50
DSF-14	39.50
DSF-15	39.50
DSF-16	39.50
DSF-17	39.50
DSF-18	39.50
DSF-19	39.50
DSF-20	39.50
DSF-21	39.50
DSF-22	39.50
DSF-23	39.50
DSF-24	39.50
DSF-25	39.50
DSF-26	39.50
DSF-27	39.50
DSF-28	39.50
DSF-29	39.50

Catalog No.	Net Price
DST-10	50.00
DST-11	50.00
DST-12	50.00
DST-13	50.00
DST-14	50.00
DST-15	50.00
DST-16	60.00
DST-17	50.00
DST-18	50.00
DST-19	50.00
DST-20	50.00
DST-21	50.00
DST-22	50.00
DST-23	50.00
DST-24	60.00
DST-25	60.00
DST-26	60.00
DST-27	50.00
DST-28	60.00
DST-29	60.00
DST-30	60.00
DST-31	60.00
DST-32	60.00
DST-33	60.00
FBP-10	86.00
FBP-11	86.00
FBP-12	86.00
FBP-13	86.00
FBP-14	70.80
FBP-15	70.80
FBP-16	70.80
FBP-17	70.80
FBP-18	70.80
FBP-19	70.80
FBP-20	70.80
FBP-21	70.80
FBP-22	70.80
FBP-23	70.80
FBP-24	86.00
FBP-25	70.80
FBP-26	86.00
FBP-27	86.00
FBP-28	86.00
FBP-29	86.00
FBP-30	86.00
FBP-31	86.00
FBP-32	86.00
FBP-33	86.00
FBP-34	73.00
FBP-35	73.00
FBP-36	73.00
FBP-37	73.00
FBP-38	73.00
FBP-39	80.00
FBP-40	88.00
FBP-41	88.00
FBP-42	88.00
FBP-43	88.00
FBP-44	88.00
FBP-45	88.00
FBP-46	88.00
FBP-47	88.00
FBP-48	88.00
FBP-49	88.00
FBP-50	88.00
FBP-51	88.00
FBP-52	88.00
FBP-53	88.00
FBP-54	88.00
FBP-55	88.00
FBP-56	88.00
FBP-57	88.00
LPI-10	43.25
LPI-11	43.25
LPI-12	43.25
LPI-13	43.25
LPI-14	43.25
LPI-15	43.25
LPI-16	43.25
LPI-17	43.25
LPI-18	43.25
LPI-19	43.25
LPI-20	43.25
LPI-21	43.25
LPI-22	43.25
LPI-23	43.25
LPI-24	43.25
LPI-25	43.25
LPI-26	43.25
LPI-27	43.25
LPI-28	43.25
LPO-10	93.30
LPO-11	85.50
LPO-12	81.30
LPO-13	85.00
LPO-14	72.00
LPO-15	68.85
LPO-16	64.50
LPO-17	62.50
LPO-18	61.60
LPO-19	62.80
LPO-20	61.15
LPO-21	55.60
LPO-22	55.60
LPO-23	48.20
LPO-24	47.10
LPO-25	47.10
LPO-26	47.10
LPO-27	48.20
LPO-28	47.10
LPO-29	47.10
LPO-30	47.10
LPO-31	48.20
LPO-32	47.10
LPO-33	47.10
LPO-34	47.10
LPO-35	47.10

Toroidal Inductors

Prices shown are Net for Hermetically Sealed. Deduct $1.50 from Net for Uncased units. Add $1.00 to Net for Encapsulated units.

Type TI - 1

Catalog No.	Net Price
F-800	6.65
F-801	6.65
F-802	6.65
F-803	7.10
F-804	6.60
F-805	6.60
F-806	8.50
F-807	8.50
F-808	8.50
F-809	9.50
F-810	9.50
F-811	10.50
F-812	10.50
F-813	10.50
F-814	10.50
F-815	10.50
F-816	11.00
F-817	11.50
F-818	12.00
F-819	12.35
F-820	12.65
F-821	12.75
F-822	13.00
F-823	13.30
F-824	13.75
F-825	14.25
F-826	14.50
F-827	14.80
F-828	15.20
F-829	16.15
F-830	17.10

Type TI - 4 and 4s

F-850	7.90
F-851	7.90
F-852	7.90
F-853	7.90
F-854	7.90
F-855	7.90
F-856	8.25
F-857	8.60
F-858	8.80
F-859	8.95
F-860	9.05
F-861	9.20
F-862	9.35
F-863	9.50
F-864	9.80
F-865	10.35
F-866	10.65
F-867	10.65
F-868	10.65
F-869	11.15
F-870	11.15
F-871	11.15
F-872	11.50
F-873	11.50
F-874	12.00
F-875	12.45
F-876	12.90
F-877	13.40
F-878	13.90

Type TI - IA and As

F-1500	7.50
F-1501	7.50
F-1502	7.50
F-1503	7.50
F-1504	7.50
F-1505	7.50
F-1506	7.50
F-1507	7.75
F-1508	7.75
F-1509	7.75
F-1510	7.75
F-1511	7.75
F-1512	7.75
F-1513	7.90
F-1514	7.90
F-1515	7.90
F-1516	8.10
F-1517	8.10
F-1518	8.10
F-1519	8.35
F-1520	8.35
F-1521	8.55
F-1522	8.55
F-1523	8.75
F-1524	8.75
F-1525	9.05
F-1526	9.05
F-1527	9.25
F-1528	9.75
F-1529	10.10
F-1530	10.10
F-1531	10.35
F-1532	10.75
F-1533	11.25
F-1534	11.75
F-1535	11.75
F-1536	12.75
F-1537	13.10
F-1538	13.60

Catalog No. Net Price

Type TI - 9s

Catalog No.	Net Price
F-1554	16.60
F-1555	16.80
F-1556	17.00
F-1557	17.30
F-1558	17.40
F-1559	17.50
F-1560	17.60
F-1561	17.80
F-1562	18.05
F-1563	18.30
F-1564	18.50
F-1565	18.50
F-1566	19.00
F-1567	19.50
F-1568	19.95
F-1569	20.40
F-1570	21.40

Type TI - 10s

F-1579	14.15
F-1580	14.15
F-1581	14.35
F-1582	14.45
F-1583	14.50
F-1584	14.60
F-1585	14.70
F-1586	14.80
F-1587	14.90
F-1588	15.00
F-1589	15.10
F-1590	15.30
F-1591	15.40
F-1592	15.60

Type TI - 13

F-1629	16.60
F-1630	16.80
F-1631	17.00
F-1632	17.30
F-1633	17.40
F-1634	17.50
F-1635	17.60
F-1636	17.80
F-1637	18.05
F-1638	18.30
F-1639	18.50
F-1640	18.50
F-1641	19.00
F-1642	19.50
F-1643	19.95
F-1644	20.40
F-1645	21.40

Type TI - 12 and 12s

F-1655	13.60
F-1656	13.60
F-1657	13.60
F-1658	14.05
F-1659	14.05
F-1660	14.05
F-1661	14.65
F-1662	14.65
F-1663	15.10
F-1664	15.10
F-1665	13.75
F-1666	13.75
F-1667	14.15
F-1668	14.15
F-1669	14.65
F-1670	14.65
F-1671	14.65
F-1672	15.10
F-1673	15.60
F-1674	16.05
F-1675	16.05
F-1676	16.50
F-1677	16.50
F-1678	17.00
F-1679	17.00
F-1680	17.50
F-1681	17.50
F-1682	17.50
F-1683	17.95
F-1684	17.95
F-1685	17.95
F-1686	18.45
F-1687	18.90
F-1688	19.50
F-1689	19.95
F-1690	20.40
F-1691	20.90
F-1692	21.40
F-1693	21.85

Type TI - 5

Catalog No.	Net Price
F-1700	5.70
F-1701	5.70
F-1702	5.70
F-1703	6.20
F-1704	6.65
F-1705	6.90
F-1706	7.10
F-1707	7.35
F-1708	7.60
F-1709	7.85
F-1710	8.05
F-1711	8.30
F-1712	9.00
F-1713	9.60
F-1714	9.80
F-1715	10.25
F-1716	10.60
F-1717	10.95
F-1718	11.20
F-1719	11.50
F-1720	11.90

Type TI - 5s

F-1700s	7.90
F-1701s	7.90
F-1702s	7.90
F-1703s	7.90
F-1704s	7.90
F-1705s	8.15
F-1706s	8.25
F-1707s	8.50
F-1708s	8.80
F-1709s	8.95
F-1710s	9.05
F-1711s	9.20
F-1712s	9.30
F-1713s	9.60
F-1714s	9.80
F-1715s	10.25
F-1716s	10.65
F-1717s	10.85
F-1718s	11.20
F-1719s	11.50
F-1720s	11.90

Type TI - 6 and 6s

F-1726	8.15
F-1727	8.15
F-1728	8.15
F-1729	8.15
F-1730	8.15
F-1731	8.15
F-1732	8.45
F-1733	8.45
F-1734	8.55
F-1735	8.55
F-1736	8.55
F-1737	9.00
F-1738	10.00
F-1739	10.00
F-1740	10.00
F-1741	10.00
F-1742	10.45
F-1743	11.90

Type TI - 11s

F-1747	14.20
F-1748	14.20
F-1749	14.20
F-1750	14.20
F-1751	14.20
F-1752	15.20
F-1753	15.20
F-1754	15.20
F-1755	15.20
F-1756	15.20
F-1757	14.20
F-1758	14.20
F-1759	14.65
F-1760	14.65
F-1761	15.20
F-1762	15.85
F-1763	16.15
F-1764	16.65
F-1765	17.10
F-1766	17.60
F-1767	17.80
F-1768	18.05
F-1769	18.45
F-1770	18.45
F-1771	18.45
F-1772	19.00
F-1773	19.50
F-1774	19.95
F-1775	20.40
F-1776	20.90
F-1777	21.85
F-1778	22.80
F-1779	23.75
F-1780	24.70

Type TI - 7

F-1781	7.90
F-1782	7.90
F-1783	7.90
F-1784	7.90
F-1785	7.90
F-1786	7.90
F-1787	8.05
F-1788	8.05
F-1789	8.25
F-1790	8.25
F-1791	8.45
F-1792	8.65
F-1793	8.65
F-1794	8.65
F-1795	9.00
F-1796	9.45
F-1797	10.00

Type TI - 2s

F-1800	14.20
F-1801	14.20
F-1802	14.20
F-1803	14.20
F-1804	14.20
F-1805	14.65
F-1806	14.65
F-1807	14.65
F-1808	14.65

FREED TRANSFORMER COMPANY, INC.

Catalog No.	Net Price
F-1809	14.65
F-1810	14.65
F-1811	14.90
F-1812	14.90
F-1813	14.90
F-1814	14.90
F-1815	14.90
Type TI-8 and 8s	
F-1821	8.65
F-1822	8.65
F-1823	8.65
F-1824	8.65
F-1825	8.65
F-1826	8.65
F-1827	8.65
F-1828	8.65
F-1829	8.65
F-1830	8.65
F-1831	8.65
F-1832	8.75
F-1833	8.85
F-1834	9.00
F-1835	9.00
F-1836	9.00
F-1837	9.10
F-1838	9.40
F-1839	9.50
F-1840	9.90
Type TI-3s	
F-1844	14.25
F-1845	14.25
F-1846	14.25
F-1847	14.25
F-1848	14.25
F-1849	14.25
F-1850	14.25
F-1851	14.25
F-1852	14.25
F-1853	14.25
F-1854	14.25
F-1855	14.25
Type TI-3As	
F-1856	20.00
F-1857	20.50
F-1858	20.50
F-1859	22.30
F-1860	22.80
F-1861	22.80
F-1862	23.30
F-1863	23.30
Type TI-15	
F-1870	7.25
F-1871	7.25
F-1872	7.25
F-1873	7.25
F-1874	7.25
F-1875	7.25
F-1876	7.25
F-1877	7.25
F-1878	7.25
F-1879	7.25
F-1880	7.25
F-1881	7.45
F-1882	7.45
F-1883	7.65
F-1884	7.65
F-1885	7.85
F-1886	8.05
F-1887	8.05
F-1888	8.05
F-1889	8.45
Type TI-14	
F-1920	7.40
F-1921	7.40
F-1922	7.40
F-1923	7.40
F-1924	7.40
F-1925	7.40
F-1926	7.85
F-1927	7.85
F-1928	7.95
F-1929	7.95
F-1930	7.95
F-1931	8.40
F-1932	8.75
F-1933	8.75
F-1934	9.00
F-1935	9.25
F-1936	9.75
Type TI-16	
F-2050	6.05
F-2051	6.05
F-2052	6.05
F-2053	5.85
F-2054	5.85
F-2055	6.30
F-2056	6.80
F-2057	7.05
F-2058	7.25
F-2059	7.35
F-2060	7.70
F-2061	8.00
F-2062	8.20
F-2063	8.45
F-2064	9.75
F-2065	10.80
F-2066	11.00
F-2067	11.40
F-2068	11.65
F-2069	12.00

Catalog No.	Net Price
Type TI-17	
F-2100	7.90
F-2101	7.90
F-2102	7.90
F-2103	7.90
F-2104	7.90
F-2105	7.90
F-2106	7.90
F-2107	7.90
F-2108	7.90
F-2109	7.90
F-2110	7.90
F-2111	8.05
F-2112	8.05
F-2113	8.25
F-2114	8.25
F-2115	8.65
F-2116	8.65
F-2117	9.05
Type TI-18	
F-2140	8.65
F-2141	8.65
F-2142	8.65
F-2143	8.65
F-2144	8.65
F-2145	8.65
F-2146	8.65
F-2147	8.65
F-2148	8.65
F-2149	8.65
F-2150	8.65
F-2151	8.75
F-2152	8.85
F-2153	9.00
F-2154	9.00
F-2155	9.20
F-2156	9.50
F-2157	9.70
Type TI-19	
F-2180	7.90
F-2181	7.90
F-2182	7.90
F-2183	7.90
F-2184	7.90
F-2185	7.90
F-2186	7.90
F-2187	7.90
F-2188	7.90
F-2189	7.90
F-2190	7.90
F-2191	7.90
F-2192	7.90
F-2193	7.90
Type TI-20s	
F-2201	6.40
F-2202	6.40
F-2203	6.95
F-2204	6.95
F-2205	6.95
F-2206	7.15
F-2207	7.45
F-2208	8.10
F-2209	8.10
F-2210	8.10
F-2211	8.10
F-2212	8.10
F-2213	8.10
F-2214	8.10
F-2215	8.10
Type TI-21s	
F-2240	6.00
F-2241	6.00
F-2242	6.00
F-2243	6.00
F-2244	6.00
F-2245	6.00
F-2246	6.40
F-2247	6.40
F-2248	6.40
F-2249	6.40
Type TI-22s	
F-2270	6.00
F-2271	6.00
F-2272	6.00
F-2273	6.00
F-2274	6.00
F-2275	6.00
F-2276	6.40
F-2277	6.40
F-2278	6.40
F-2279	6.40
F-2280	7.15
F-2281	7.15
F-2282	7.15
F-2283	7.15
F-2284	7.15
Type TI-23s	
F-2301	6.25
F-2302	6.25
F-2303	6.25
F-2304	6.25
F-2305	6.25
F-2306	6.25
F-2307	6.75
F-2308	6.75
F-2309	6.75
F-2310	6.75
F-2311	7.50
F-2312	7.50
F-2313	7.50

Catalog No.	Net Price
TYPE TI-24	
F2400	5.90
F2401	5.90
F2402	5.90
F2403	5.90
F2404	6.05
F2405	6.05
F2406	6.05
F2407	6.05
F2408	6.30
F2409	6.30
F2410	6.80
F2411	7.05
F2412	7.25
F2413	7.35
F2414	7.70
F2415	8.00
F2416	8.20
F2417	8.45
F2418	9.75
F2419	10.50
F2420	10.80
F2421	11.00
F2422	11.40
TYPE TI-25	
F2450	7.90
F2451	7.90
F2452	7.90
F2453	7.90
F2454	7.70
F2455	7.70
F2456	7.50
F2457	7.50
F2458	7.30
F2459	7.30
F2460	7.20
F2461	7.10
F2462	7.10
F2463	7.05
F2464	7.00
F2465	7.00
F2466	7.05
F2467	7.10
F2468	7.20
F2469	7.20
F2470	7.40
F2471	7.40
F2472	7.60
F2473	7.80
F2474	8.00
F2475	8.40
F2476	8.80
F2477	9.50
F2478	9.80
F2479	9.95
F2480	10.20
F2481	10.50
TYPE TI-26	
F2500	5.70
F2501	5.70
F2502	5.70
F2503	5.70
F2504	5.70
F2505	5.70
F2506	5.70
F2507	5.70
F2508	6.05
F2509	6.20
F2510	6.60
F2511	6.80
F2512	7.10
F2513	7.35
F2514	7.60
F2515	7.80
F2516	8.05
F2517	8.30
F2518	8.50
F2519	8.70
F2520	8.90
F2521	9.20
F2522	9.50
F2523	9.90
F2524	10.30
F2525	10.80
F2526	11.05
F2527	11.30
F2528	11.50
F2529	11.90
F2530	12.20
F2531	12.60
F2532	13.05
F2533	13.80
TYPE TI-27	
F2550	7.90
F2551	7.90
F2552	7.90
F2553	7.90
F2554	7.90
F2555	8.10
F2556	8.10
F2557	8.20
F2558	8.40
F2559	8.20
F2560	8.30
F2561	8.50
F2562	8.60
F2563	8.80
F2564	8.95
F2565	9.10

Catalog No.	Net Price
F2566	9.30
F2567	9.50
F2568	9.90
F2569	10.50
F2570	10.70
F2571	10.90
F2572	11.40
F2573	11.60
F2574	12.10
F2575	12.40
F2576	12.90
F2577	13.40
F2578	13.70
F2579	13.90
F2580	14.20
F2581	14.20
F2582	14.50
F2583	14.50
TYPE TI-28	
F2600	6.75
F2601	6.85
F2602	6.90
F2603	6.95
F2604	7.05
F2605	7.10
F2606	7.30
F2607	7.40
F2608	7.60
F2609	7.80
F2610	7.20
F2611	7.60
F2612	8.40
F2613	8.50
F2614	8.70
F2615	9.20
F2616	9.40
F2617	9.55
F2618	9.70
F2619	9.90
F2620	10.05
F2621	10.10
F2622	10.20
F2623	10.30
F2624	10.50
F2625	10.80
F2626	11.80
F2627	12.20
F2628	12.35
F2629	12.65
F2630	13.30
F2631	14.65
F2632	15.20
F2633	16.15
TYPE TI-29	
F2650	8.05
F2651	8.10
F2652	8.20
F2653	8.20
F2654	8.20
F2655	8.20
F2656	8.20
F2657	8.30
F2658	8.10
F2659	8.10
F2660	7.90
F2661	7.60
F2662	7.70
F2663	7.75
F2664	7.80
F2665	7.90
F2666	7.90
F2667	8.00
F2668	8.00
F2669	8.10
F2670	8.15
F2671	8.20
F2672	8.25
F2673	8.30
F2674	8.35
F2675	8.40
F2676	8.50
F2677	8.60
F2678	8.75
F2679	8.75
F2680	9.25
F2681	10.10
F2682	10.75
F2683	11.75
F2684	12.75
F2685	13.60
F2686	13.80
TYPE TI-30	
F2700	12.05
F2701	12.30
F2702	12.50
F2703	12.80
F2704	12.95
F2705	13.20
F2706	13.50
F2707	13.70
F2708	13.90
F2709	14.20
F2710	14.50
F2711	13.60
F2712	13.75
F2713	14.10
F2714	14.20
F2715	14.30
F2716	14.50
F2717	14.70
F2718	15.10
F2719	15.20
F2720	15.30

Catalog No.	Net Price
F2721	15.50
F2722	15.70
F2723	15.80
F2724	15.95
F2725	16.05
F2726	16.20
F2727	16.50
F2728	16.70
F2729	17.00
F2730	17.50
F2731	17.95
F2732	18.90
F2733	19.45
F2734	20.40
F2735	21.85
F2736	22.50
TYPE TI-31	
F2750	14.40
F2751	14.80
F2752	14.90
F2753	14.90
F2754	14.90
F2755	14.90
F2756	14.90
F2757	14.90
F2758	15.05
F2759	15.10
F2760	15.20
F2761	15.20
F2762	14.50
F2763	14.80
F2764	15.10
F2765	15.50
F2766	15.80
F2767	16.05
F2768	16.10
F2769	16.20
F2770	16.40
F2771	16.60
F2772	16.80
F2773	17.00
F2774	17.10
F2775	17.40
F2776	17.60
F2777	17.90
F2778	18.05
F2779	18.45
F2780	19.00
F2781	19.50
F2782	19.95
F2783	20.90
F2784	21.80
F2785	22.80
F2786	23.80
F2787	24.70
F2788	27.50
TYPE TI-32	
F2800	7.40
F2801	7.60
F2802	7.80
F2803	8.40
F2804	8.60
F2805	8.70
F2806	8.80
F2807	8.90
F2808	9.60
F2809	9.80
F2810	10.20
F2811	10.40
F2812	10.60
F2813	10.80
F2814	11.05
F2815	11.20
F2816	11.40
F2817	11.65
F2818	12.10
F2819	12.20
F2820	12.30
F2821	12.50
F2822	12.70
F2823	13.05
F2824	13.30
TYPE TI-33	
F2850	5.90
F2851	6.00
F2852	6.10
F2853	6.30
F2854	6.40
F2855	6.70
F2856	6.90
F2857	7.10
F2858	7.30
F2859	7.40
F2860	7.60
F2861	7.70
F2862	7.80
F2863	8.10
F2864	8.20
F2865	8.30
F2866	8.50
F2867	8.60
TYPE TI-34	
F2900	5.60
F2901	5.60
F2902	5.60
F2903	5.60
F2904	5.60
F2905	5.80

Catalog No.	Net Price
F2906	5.80
F2907	6.00
F2908	6.00
F2909	6.00
F2910	6.30
F2911	6.60
F2912	6.60
F2913	7.30
F2914	8.30
F2915	8.30
F2916	8.40
F2917	8.60
F2918	8.80
F2919	8.80
F2920	8.90
TYPE TI-35	
F2950	6.60
F2951	6.90
F2952	7.20
F2953	7.40
F2954	7.60
F2955	7.80
F2956	8.00
F2957	8.10
F2958	8.30
F2959	8.50
F2960	8.70
F2961	8.90
F2962	9.05
F2963	9.20
TYPE TI-36	
F3000	5.90
F3001	5.90
F3002	5.90
F3003	6.00
F3004	6.00
F3005	6.15
F3006	6.30
F3007	6.30
F3008	6.60
F3009	6.60
F3010	6.80
F3011	7.20
F3012	7.40
F3013	7.70
F3014	8.20
F3015	8.50
F3016	8.80
F3017	8.90
TYPE TI-37	
F3550	7.50
F3551	7.50
F3552	7.50
F3553	7.45
F3554	7.40
F3555	7.35
F3556	7.30
F3557	7.25
F3558	7.75
F3559	8.00
F3560	8.25
F3561	8.50
F3562	8.65
F3563	8.85
F3564	9.00
F3565	9.10
F3566	9.30
F3567	9.60
F3568	9.80
F3569	10.20
F3570	10.60
F3571	10.90
F3572	11.15
F3573	11.50
F3574	11.90
F3575	12.30
F3576	12.70
F3577	13.10
F3578	13.50
TYPE TI-38	
F4000	9.30
F4001	9.30
F4002	9.30
F4003	9.30
F4004	9.10
F4005	9.10
F4006	9.05
F4007	9.00
F4008	8.80
F4009	8.70
F4010	8.60
F4011	8.80
F4012	8.90
F4013	9.20
F4014	9.30
F4015	9.50
F4016	9.70
F4017	9.90
F4018	10.30
F4019	10.60
F4020	11.10
F4021	11.70
F4022	12.50
F4023	13.10
F4024	13.50
F4025	13.90

PRICES

All prices listed in The MASTER are subject to change without notice — they should not be considered final.

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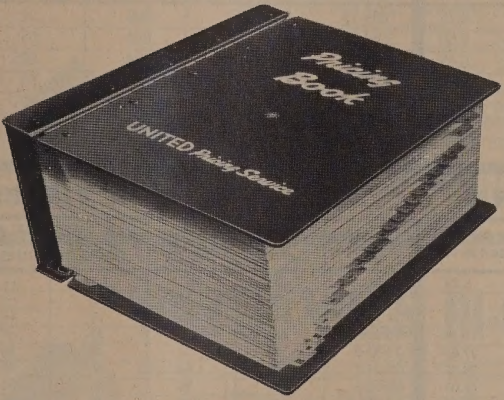

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DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

GATES

TRANSFORMERS
CHOKES
CAPACITORS
RECTIFIERS

TRANSFORMERS

36, 38 and 40 VOLTS*

MODEL NO.	AMPS	PRICE
GT 36-2	2	6.00
GT 36-5	5	7.60
GT 36-8	8	13.00
GT 36-10	10	14.75
GT 36-12	12	15.00
GT 36-15	15	21.50
GT 36-20	20	28.50
GT 36-30	30	41.00
GT 36-50	50	55.00

36 V. CENTER TAPPED**

MODEL NO.	AMPS	PRICE
XF 36-1	1	4.75
XF 36-2	2	6.45
XF 36-4	4	7.75
XF 36-8	8	14.10
XF 36-12	12	15.50
XF 36-24	24	34.05
XF 36-30	30	42.50
XF 36-50	50	56.75

56 V. CENTER TAPPED***

MODEL NO.	AMPS	PRICE
AH 56-2	2	7.50
AH 56-4	4	11.50
AH 56-6	6	21.50
AH 56-12	12	29.00

* Primary 115 vac 60C, tapped to deliver 36, 38 and 40 vac. ** Provide two 18V secondary windings. Secondaries connected in series gives 36 V as rated; in parallel gives 18 V at twice rated current (taps 9, 18, 27, 36 V.) Primary is tapped for 100, 105, 110, and 115 V on 12, 24, 30, and 50 amp models. ***Center tapped secondary.

CHOKES

MODEL NO.	AMPS	HY	OHMS	PRICE
GH-1	1	.1	1.5	4.75
GH-2	2	.04	.9	5.50
GH-4	4	.07	.6	6.45
GH-5	5	.03	.02	6.60
GH-8	8	.03	.3	11.00
GH-10	10	.015	.05	12.50
GH-12	12	.01	.1	14.20
GH-15	15	.006	.01	14.75
GH-20	20	.004	.05	15.00
GH-24	24	.004	.025	25.00
GH-30	30	.003	.01	35.00
GH-50	50	.001	.001	43.00
GH-100	100	.0005	.005	53.00

SELENIUM RECTIFIERS

MAX. AMPS	0-26 VAC 0-20 VDC	0-52 VAC 20-40 VDC	0-78 VAC 40-60 VDC	0-130 VAC 60-100 VDC	0-156 VAC 100-120 VDC
0.6	1.50	2.50	3.25	4.50	6.25
1.5	2.30	3.25	4.75	8.25	10.00
2.2	3.20	5.00	5.75	11.25	13.25
3.4	4.15	6.00	8.25	14.00	16.50
4	7.00	11.00	15.00	24.00	27.00
6.6	8.00	12.00	18.00	32.00	35.00
10	12.00	19.00	25.00	41.00	48.00
12	15.00	21.00	29.00	44.00	51.00
15	18.00	28.00	38.00	53.00	63.00
20	22.00	35.00	46.00	75.00	88.00
24	30.00	42.00	53.00	83.00	93.00
30	34.00	53.00	70.00	115.00	133.00
36	45.00	65.00	84.00	140.00	185.00

SILICON RECTIFIERS

STOCK No.	A.C. INPUT UP TO	D.C. OUTPUT UP TO	MAX. AMPS SELF COOLED	MAX. AMPS FAN COOLED	NET PRICE
G6S6	420	390	1.5	—	$ 4.66
G1-32-3	36	32	10	—	19.00
G2-125-3	140	125	10	—	28.00
G3-250-3	280	250	10	—	40.00
G1-32-5	36	32	40	80	30.00
G2-64-5	72	64	40	80	45.00
G3-95-5	105	95	40	80	85.00
G4-125-5	140	125	40	80	100.00
G1-32-5	36	32	50	100	32.00
G2-250-5	280	250	50	100	85.00
G1-32-6	36	32	75	100	58.00
G2-64-7	72	64	150	150	133.00
G3-95-6	105	95	75	150	155.00

DURALYTIC CAPACITORS

MFD.	WVDC	PRICE
2,000	50	$ 3.75
4,000	50	4.68
10,000	50	12.44
1,000	75	$ 9.80
2,000	75	10.50
7,000	75	16.25
2,000	100	$12.90
4,000	100	15.50
1,000	200	$14.25
2,000	200	18.75
250	300	$12.25
500	300	14.75
750	300	16.75
1,000	300	17.75
250	350	$13.25
500	350	14.75
1,000	350	19.00

POWER SUPPLIES

SEE OUR PAGES ON POWER SUPPLIES
IN SECTION 4000

GATES
ELECTRONIC COMPANY, BRONX, N. Y.

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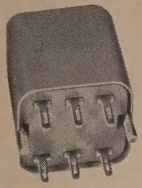
NORTH HILLS WIDE BAND TRANSFORMERS

- Antenna Matching
- Interstage Coupling
- Impedance Matching
- Computer Drive Circuits
- Signal Distribution
- Pulse Applications
- Voltage Step-Up
- DC Isolation
- Phase Detectors
- Balanced Modulators


AA
Epoxy
Encapsulated
1 1/2x1 1/2x1 1/2

Type Number	Impedance Ratio	Type Number	Impedance Ratio
1100	75 Unb/75 Bal	0300	50 Unb/100 Bal
1300	75 Unb/100 Bal	0400	50 Unb/150 Bal
1400	75 Unb/150 Bal	0500	50 Unb/200 Bal
1500	75 Unb/200 Bal	0501	50 Unb/300 Bal
1501	75 Unb/300 Bal	0600	50 Unb/450 Bal
1600	75 Unb/450 Bal	0700	50 Unb/600 Bal
1700	75 Unb/600 Bal	0800	50 Unb/800 Bal
1800	75 Unb/800 Bal	0900	50 Unb/1200 Bal
1900	75 Unb/1200 Bal		

BA
Hermetically
Sealed
1 15/16x1 5/16x1 1/8

Frequency range on some of these units is as wide as 100 kc to 100 mc. Data sheets with individual curves are available upon request.

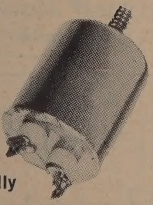
North Hills wideband transformers have been designed for low insertion loss (less than 1 db) and good matching characteristics over wide frequency ranges. Balanced windings feature extremely low unbalanced voltages and have a center tap. Complete specifications are available upon request.

Three case styles are offered. Series AA models are potted in metal cases with a terminal board on the bottom and two 6-32 spade mounting bolts. Series BA are hermetically sealed with glass terminals at the case ends and two 4-40 studs on the bottom for mounting. Series BB is similar to BA except that the unbalanced connection is provided by a BNC connector.

A great variety of different requirements is being met by special designs. Your specifications for custom wideband transformers may be submitted for quotation.

BB
Hermetically
Sealed
1 15/16x1 5/16x1 1/8

NORTH HILLS HI-Q RF TOROIDS


1218
Hermetically
Sealed
21/32 O.D.x3/4

Type	L(μH)	Q	F(mc)
1218-1	1.5	180	12
1218-2	2.8	180	8
1218-3	5.4	170	7
1218-4	10.2	170	5
1218-5	15.0	150	3.5
1218-6	18.7	150	3

These high Q toroids are hermetically sealed and shielded in a metal case which is nickel plated. There are two teflon terminals 1/4" high and one mounting stud 6-32x3/8.

See Section 1800 for line of adjustable inductors.

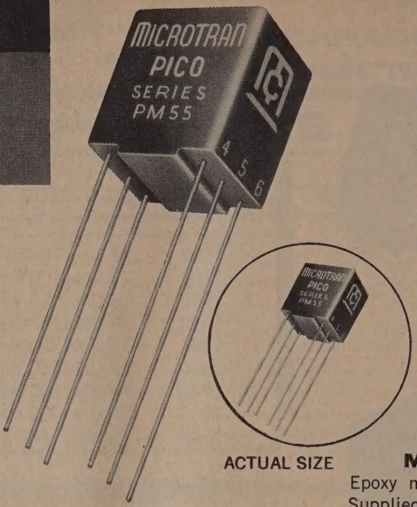
NORTH HILLS
ELECTRONICS, INCORPORATED
GLEN COVE, LONG ISLAND, N. Y.

MICROTRAN

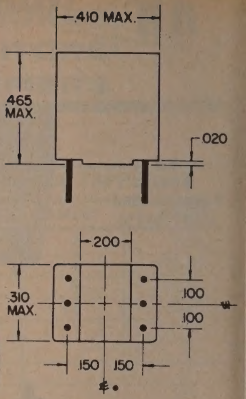
PICO MINIATURE TRANSFORMERS

PM SERIES

Microtran Pico Miniature Transformer Series is designed for use in miniaturized printed circuit board applications where space is of the essence. Electrical characteristics are designed to match the latest transistor circuitry. Gold plated high strength nickel alloy leads permit both reliable soldered joints and high-density welded lead packaging. Epoxy molded for long life and suitability for printed circuit applications.



ACTUAL SIZE



MOLDED PM-M

Epoxy molded finish. Weight .1 oz. Supplied with gold plated leads .020 x ¾". To order add -M to part number, i.e. PM12-M, PM29-M.

MIL DESIGNATION TF5RX †† ZZ
†† See family designation in chart.

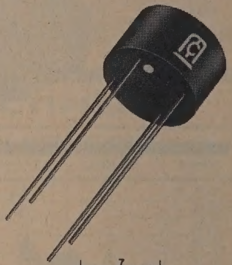
PICO MINIATURE TRANSFORMERS — PM Series

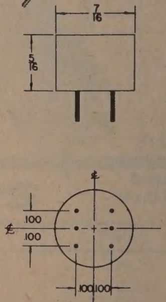
Frequency Response ± 2 db 300 Cycles to 100KC †

Part No.	Application	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma	Pri. D.C.R.	Sec. D.C.R.	Power Level MW.	Family
PM3-(*)	Input	200,000 C.T.	1,000 C.T.	0	5300	110	10	16
PM5-(*)	Input	200,000	1,000	0	5300	110	10	16
PM7-(*)	Interstage	50,000 C.T.	1,000 C.T.	0	3300	75	10	16
PM9-(*)	Interstage	50,000	1000/250 Split	0	3300	75	10	16
PM11-(*)	Interstage	25,000 C.T.	1,000 C.T.	0.5	1700	110	40	12
PM13-(*)	Interstage	25,000	1000/250 Split	0.25	1700	110	40	12
PM15-(*)	Interstage	25,000	1,000	0.25	1700	110	40	12
PM17-(*)	Isolation	10,000 C.T.	10,000 C.T.	1	1000	1300	50	12
PM19-(*)	Driver	10,000 C.T.	2,000 C.T.	1	1000	300	50	12
PM21-(*)	Driver	10,000	2000/500 Split	0.5	1000	300	50	12
PM23-(*)	Driver	10,000 C.T.	1,200 C.T.	1	1050	280	50	12
PM25-(*)	Driver	10,000	1200/300 Split	0.5	1050	280	50	12
PM27-(*)	Driver	10,000	1,200	0.5	1050	280	50	12
PM29-(*)	Driver	10,000 C.T.	500 C.T.	1	1050	80	50	12
PM31-(*)	Isolation	2,500	2,500 C.T.	1	250	325	50	12
PM33-(*)	Output	1,500 C.T.	600	3	170	95	50	12
PM35-(*)	Output	500	50	3	60	8	50	17
PM37-(*)	Output	120 C.T.	3.2	10	16	0.75	50	17
PM39-(*)	Audio choke	6 Hy.		2	1800			20
PM41-(*)	Audio choke	.3 Hy.		4	43			20

*Add either -M or -L to Part No. (-L on special order only). See photos figures PM-M and PM-L. Power levels shown are for 15% †† max. distortion. Frequency response measured at stated power level above.

††PM35 - 20%, PM37 - 25%   †PM3 & PM5 - 45KC





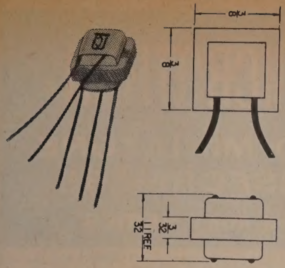
MOLDED LOW-HEIGHT
Type PM-L

Not Stocked—On Special Order Onl

For applications requiring extremel low height. Weight .1 oz. Gold plate leads .020 x ¾". To order add -L t part number, i.e. PM12-L, PM29-L

Price and delivery on quotation basi only.

MIL DESIGNATION TF5RX †† ZZ
†† See Family Designation in Chart



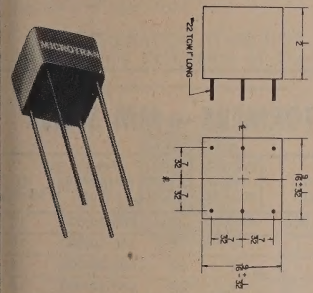
OPEN FRAME UM-F

ULTRA MINIATURE SIZE

To order add -F to Part Number.
i.e. UM-22-F Weight .08 oz.

MIL DESIGNATION TF6RX † † ZZ

†† See Family Designation in Chart



MOLDED VM-M

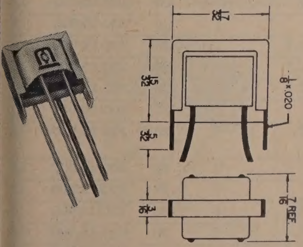
VERI-MINIATURE SIZE

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Wt. .25 oz.

To order add -M to Part Number.
.e. VM2-M, VM9-M

MIL DESIGNATION TF5RX †† ZZ

†† See Family Designation in Chart



PLUG-IN TAB MOUNTED CHANNEL VM-FPB

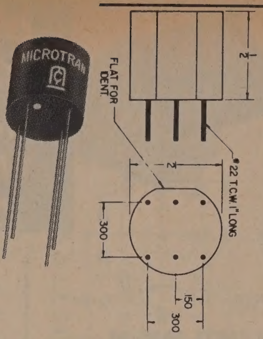
VERI-MINIATURE SIZE

To order add -FPB to Part Number.
.e. VM2-FPB Weight .2 oz.

MIL DESIGNATION TF6RX † † ZZ

†† See Family Designation in Chart

NOTE: Available without channel on special order only, as VM-F, 7/16" x 7/16" x ½". Wt. .16 oz.



MOLDED UM-M

ULTRA MINIATURE SIZE

To order add -M to Part Number.
i.e. UM-22-M Weight .14 oz.

MIL DESIGNATION TF5RX †† ZZ

†† See Family Designation in Chart

MICROTRAN
VERI and ULTRA MINIATURE TRANSFORMERS
VM and UM SERIES

On this page are listed units designed for the extremes in miniaturization. The 4 inch #27 color coded leads supplied are suitable for dip soldering in printed circuits. Thorough baking and resin impregnation assure reliable life. Insulating materials used are compatible for later epoxy potting of complete assemblies. Highest efficiency—space factor obtained by use of high permeability Nickel-Alloy Cores, Nylon Bobbins, Formvar Wire. Available from stock.

ULTRA-MINIATURE TRANSISTOR TRANSFORMERS -UM Series

Frequency Response ± 2 db 300 to 10,000 Cycles, Measured at level stated for 300 Cy.

Part No.	Application	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma	Pri. D.C.R.	Sec. D.C.R	Level @ 300 cy.	Level @ 1 kc	†† Family
UM21-(*)	Input	100,000	1,000	0	1900	135	5mw	70mw	16
UM22-(*)	Driver	20,000	1,000	0.5	1100	100	5mw	300mw	13
UM23-(*)	Driver	20,000	1,200 C.T.	0.5	1100	110	5mw	300mw	13
UM24-(*)	Output	1,000	50	3	65	10	5mw	500mw	17
UM25-(*)	Output	400	50	3	35	5	15mw	500mw	17
UM26-(*)	Output	400	11	3	35	1.5	15mw	500mw	17
UM27-(*)	Output	400 C.T.	11	6	35	1.5	15mw	500mw	17
UM28-(*)	Choke	10 hy (0 dc)		8hy (0.5ma)	650				20
UM29-(*)	Interstage	600 C.T.	600 C.T.	7	45	60	5mw	400mw	21
UM30-(*)	Choke	1.5 hy (0 dc)		0.7hy (2ma)	100				20
UM31-(*)	Interstage	10,000 C.T.	1,200 C.T.	2	850	120	5mw	500mw	21
UM32-(*)	Output	1,500 C.T.	600	5	135	65	5mw	500mw	17
UM33-(*)	Output	1,000 C.T.	600	6	80	65	5mw	500mw	17
UM34-(*)	Driver	10,000 C.T.	600 C.T.	2	850	40	5mw	500mw	13
UM35-(*)	Isolation	15,000 C.T.	15,000 C.T.	1	930	1210	5mw	300mw	15

*Add either -F, or -M to Part No. to designate construction. See Photos.
Power levels shown are for 7½% maximum distortion.

VERI-MINIATURE TRANSISTOR TRANSFORMERS — VM Series

Frequency Response ± 2 db. 200 to 10,000 Cycles

Part No.	Application	Primary Impedance		Pri. D.C.R.	Sec. D.C.R.	Level MW.	†† Family
VM1-(*)	Input	50	600 (1.5ma)	7	90	15	21
VM2-(*)	Input or Interstage	200,000	600 (1.0ma)	3000	110	5	21
VM3-(*)	Interstage	25,000	600 (1ma)	720	45	5	21
VM4-(*)	Input or Interstage	200,000	1200 (.72ma)	3100	165	5	21
VM5-(*)	Interstage	50,000	600 (1.0ma)	830	55	5	21
VM6-(*)	Interstage	100,000	1,200 C.T. (.72ma)	2000	150	5	21
VM7-(*)	Output	500 (3.5ma)	3.4	50	.5	15	21
VM8-(*)	Output	1250 (2.0ma)	3.4	135	.5	15	21
VM9-(*)	Output	1250 (2.0ma)	50	135	6.5	15	21
VM10-(*)	Interstage	2,500 (1.5ma)	2,500 C.T.	225	215	3	21
VM11-(*)	Choke	20 hy. (0ma)	12 hy. (.5ma)	1000	—	—	21
VM12-(*)	Interstage	20,000	1,000 (.75ma)	625	85	5	21
VM13-(*)	Interstage	20,000	1,000 C.T. (.75ma)	625	85	5	21
VM14-(*)	Interstage	600 C.T. (7ma)	600 C.T.	50	65	15	17
VM15-(*)	Isolation	50,000 C.T.	50,000 C.T.	2000	2600	5	15
VM16-(*)	Driver	500 C.T. (7.5ma)	250 C.T.	40	13	15	17

*Add either -FPB, or -M to Part No. to designate construction. See Photos.
Power levels shown are for 7½% maximum distortion.

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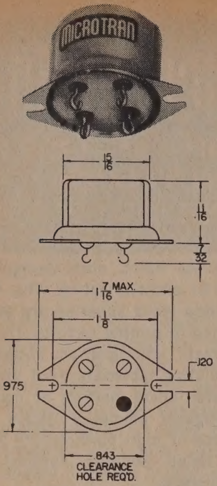


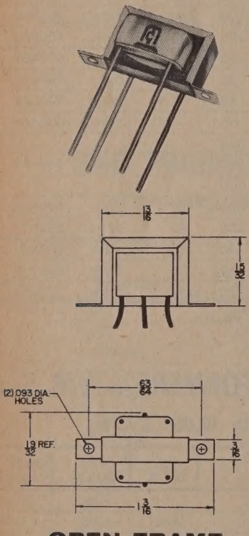
HERMETIC MM-H

Grey Enamel Finish. High Compression Glass Terminals. Weight ¾ oz.

To order add -H to Part Number. i.e. MM2-H, MMT3-H.

MIL DESIGNATION TF4RX †† YY

†† See Family Designation in Chart



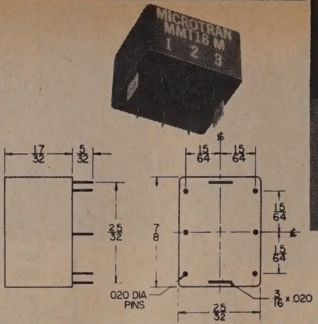
OPEN FRAME WITH CHANNEL MM-FB

To order add -FB to Part No. i.e. MMT3-FB, MM1-FB.

Available with plug-in tab mounted channel as type MM-FPB, 25/32 mounting centers. On Special Order only. Available without channel as type MM-F ¾ x 7/16 x 19/32. Wt. .38 oz. On Special Order only.

MIL DESIGNATION TF6RX †† ZZ

†† See Family Designation in Chart



MOLDED MM-M

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight ½ oz.

To order add -M to Part Number. i.e. MM2-M, MMT2-M.

MIL DESIGNATION TF5RX †† ZZ

†† See Family Designation in Chart

MICROTRAN

MICRO MINIATURE TRANSFORMERS

MM and MMT SERIES

The units shown on this page are suitable for rigid sub-miniaturization applications where the highest resistance to extremes of ambients must still be maintained. Available from stock for immediate delivery.

MICRO-MINIATURE AUDIO TRANSFORMERS — MM Series

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Oper. Level DBM	Freq. Response ±2 db.	†† Family
MM1-(*)	Input	200/50	250,000/62,500	0	4	200-10,000	10
MM2-(*)	Interstage 3:1	10,000	90,000	0	4	150-10,000	10
MM3-(*)	Plate to line	10,000	200	3	20	150-10,000	13
MM4-(*)	Output	30,000	50	1	20	150-10,000	13
MM5-(*)	Reactor 50 HY at 1 MIL. D.C.	4,700 ohms D.C. Res.					20
MM6-(*)	Output	100,000	60	0.5	20	250-10,000	13
MM7-(*)	Output	30,000	1,200	0.5	20	200-10,000	13

MICRO-MINIATURE TRANSISTOR SERIES — MMT Series

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Oper. Level DBM	Freq. Response ±2 db.	†† Famil
MMT1-(*)	Line to Base	600	600	8	22	200-15,000	17
MMT3-(*)	Coll. to Base or line	50,000	600	0.7	20	200-15,000	13
MMT4-(*)	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200-15,000	13
MMT5-(*)	Collector to speaker	50,000	6	1	20	200-15,000	13
MMT7-(*)	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200-15,000	13
MMT8-(*)	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200-15,000	13
MMT9-(*)	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200-15,000	17
MMT10-(*)	Collector to Base	25,000	600	1	20	200-15,000	13
MMT11-(*)	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200-15,000	12
MMT12-(*)	Coll. to Spkr.	2,000	3.4	5	28	200-15,000	13
MMT13-(*)	Output P.P. coll. to spkr.	4,000 C.T.	3.4	5	28	200-15,000	13
MMT16-(*)	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200-15,000	13
MMT17-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200-15,000	13
MMT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200-15,000	13
MMT19-(*)	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200-15,000	13
MMT21-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200-15,000	13
MMT25-(*)	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200-15,000	13
MMT26-(*)	Line to Base	600 C.T.	600 C.T.	16	22	200-15,000	17
MMT27-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200-15,000	13
MMT28-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200-15,000	13
MMT29-(*)	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200-15,000	13
MMT30-(*)	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200-15,000	13
MMT31-(*)	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200-15,000	13
MMT32-(*)	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200-15,000	17

*Add either -H, -M, or -FB to Part No. to designate construction. See Photos.

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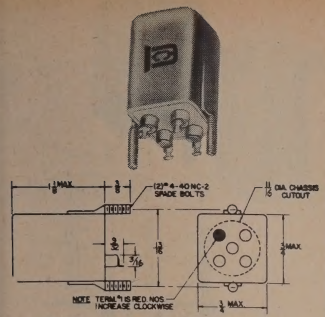
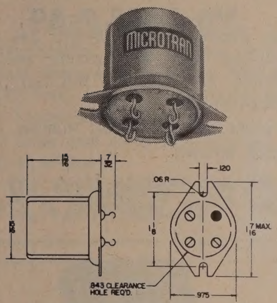

1 1/8 MAX.
3/8
(2) #4-40NC-2 SPADE BOLTS
11/16 DIA. CHASSIS CUTOUT
3/16
13/16
1 MAX
NOTE TERM. #1 IS RED. NOS. INCREASE CLOCKWISE
1/2 MAX.

MIL CASE SM-AF

Gray Enamel Finish. Weight 1⅛ oz. Supplied with compression sealed ceramic terminals in MIL-T-27A-AF modified case.

To order add -AF to Part Number. i.e. SM2-AF, SMT3-AF.

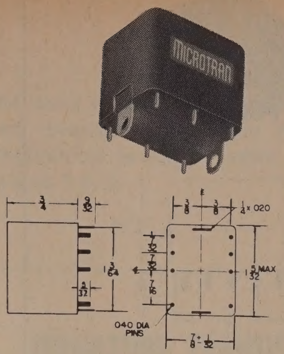
MIL DESIGNATION TF4RX †† YY
†† See Family Designation in Chart



HERMETIC SM-H

Grey Enamel Finish. Weight 1 oz. High Compression Glass Terminals. To order add -H to Part Number. i.e. SM2-H, SMT3-H

MIL DESIGNATION TF4RX †† YY
†† See Family Designation in Chart



MOLDED SM-M

Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight 1½ oz.

To order add -M to Part Number. i.e. SM5-M, SMT5-M

MIL DESIGNATION TF5RX †† ZZ
†† See Family Designation in Chart

MICROTRAN

SUB MINIATURE TRANSFORMERS

SM AND SMT SERIES

The units shown on this page are suitable for rigid sub-miniaturization applications where the highest resistance to extremes of ambients must still be maintained. Available from stock for immediate delivery.

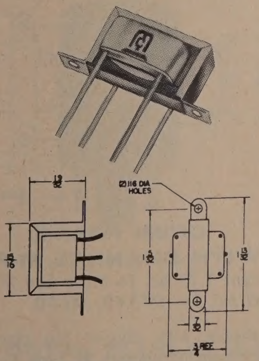
SUB-MINIATURE AUDIO TRANSFORMERS — SM Series

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
SM1-(*)	Input	200/50	250,000/62,500	0	6	80-10,000	10
SM2-(*)	Interstage 3:1	10,000	90,000	0	8	100-10,000	10
SM3-(*)	Plate to line	10,000	200	3	21	150-10,000	13
SM4-(*)	Output	30,000	50	1	21	150-10,000	13
SM5-(*)	Reactor 50 HY at 1 MIL. D.C.	3,000 ohms D.C. Res.					20
SM6-(*)	Output	100,000	60	0.5	21	150-10,000	13

SUB-MINIATURE TRANSISTOR TRANSFORMERS — SMT Series

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbalance Ma.	Operating Level DBM	Freq. Response ±2 db.	†† Family
SMT1-(*)	Line to Base	600	600	9	23	200-15,000	17
SMT3-(*)	Coll. to Base or line	50,000	600	1	20	300-15,000	13
•SMT4-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	600 C.T.	2	20	200-15,000	13
SMT5-(*)	Coll. to speaker	50,000	6	1	20	300-15,000	13
SMT7-(*)	Coll. to P.P. Base	25,000	1,200 C.T.	1.5	20	200-15,000	13
•SMT8-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	2	20	200-15,000	13
•SMT9-(*)	Line to P.P. Base	600 C.T.	1,200 C.T.	18	23	200-15,000	17
SMT10-(*)	Collector to Base	25,000	600	2	20	200-15,000	13
SMT12-(*)	Output coll. to spkr.	2,000	3.4	5	30	200-15,000	13
SMT13-(*)	Output P.P. coll to spkr.	4,000 C.T.	3.4	5	30	200-15,000	13
SMT16-(*)	Coll. to P.P. Base	10,000	1,500 C.T.	1	23	200-15,000	13
•SMT17-(*)	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200-15,000	13
•SMT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	3	20	200-15,000	13
SMT19-(*)	Coll. to P.P. Base	2,500	2,500 C.T.	2.5	26	200-15,000	13
•SMT26-(*)	Line to Base	600 C.T.	600 C.T.	18	23	200-15,000	17

* Add either -AF, -H, -M, or -FB to Part No. to designate construction. See photos.
• These items not available in -AF case.



OPEN FRAME WITH CHANNEL SM-FB

To order add -FB to Part Number. i.e. SMT3-FB, SM1-FB. Weight .710 oz. Available with plug-in tab mounted channel as type SM-FPB 29/32 mtg. centers on Special Order only.

Available without channel as type SM-F 9/16x7/8x3/4. Weight .67 oz. on Special Order only.

MIL DESIGNATION TF6RX †† ZZ
†† See Family Designation in Chart

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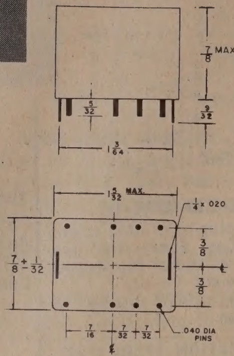
See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

MICROTRAN

MINIATURE AUDIO MINIATURE TRANSISTOR TRANSFORMERS

M and MT SERIES

The ruggedized military type units shown on this and the accompanying page were developed to meet the demands of a growing miniaturization program. The various types shown are available from stock for immediate delivery. For use in miniaturized vacuum tube and transistor circuitry.


7/8 MAX.
5/32
3/32
1 3/64
1 5/32 MAX.
1/4 x .020
3/8
3/8
7/8 + 1/32
7/16
7/32
7/32
.040 DIA PINS

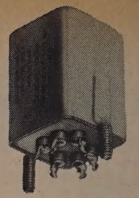
MOLDED M-M

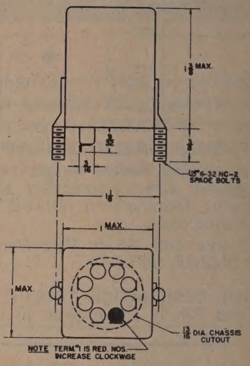
Designed for plug-in printed circuit applications. Cast Epoxy resin provides highest resistance to extremes of ambient. Weight 1¾ oz.

To order add -M to Part Number. i.e. M2-M, MT3-M

MIL DESIGNATION TF5RX †† ZZ

†† See Family Designation in Chart




1 3/8 MAX.
(2) 6-32 NC-2 SPADE BOLTS
1 MAX.
MAX.
13/16 DIA. CHASSIS CUTOUT
NOTE TERM. 1 IS RED. NOS. INCREASE CLOCKWISE

MIL CASE M-AG

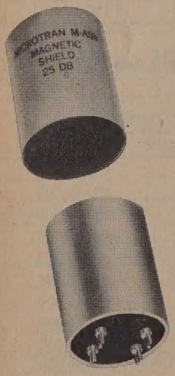
Grey Enamel Finish. Weight 2⅜ oz. Supplied with compression sealed ceramic terminals in MIL-T-27 AG case (modified)

To order add -AG to Part Number. i.e. M2-AG, MT3-AG

MIL DESIGNATION TF4RX †† YY

†† See Family Designation in Chart

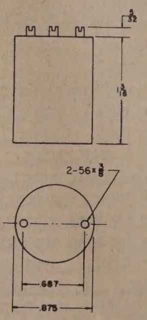
Refer to page 6 for Details and Charts


MICROTRAN M-A-Sh
MAGNETIC SHIELD
25 DB

MAGNETIC SHIELD

M-A-Sh

25 DB magnetic shield. 2 clearance holes on 11/16 centers to match aluminum cased M-A can mounting.


5/32
1 3/16
2-56 x 3/8
.687
.875

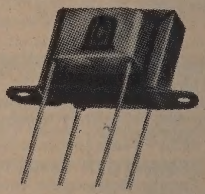
ALUMINUM CASED M-A

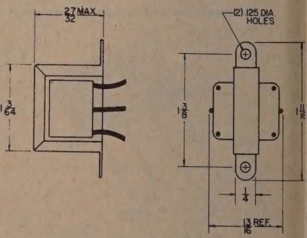
Supplied with 2-56 Screws.
Weight 1.25 oz.

To order add -A to Part Number. i.e. MT3-A, M1-A

MIL DESIGNATION TF6RX †† ZZ

†† See Family Designation in Chart




27/32 MAX.
(2) .125 DIA HOLES
1 3/64
1 3/8
1/4
13/16 REF.

OPEN FRAME WITH CHANNEL M-FB

Weight 1.13 oz. To order add -FB to Part No. i.e. MT3-FB, M1-FB

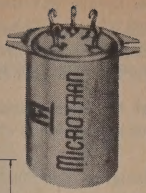
Available with plug-in tab channel. 1 1/32 mounting centers as Type M-FPB. On Special Order (page 2 for photo).

Available without channel as type M-F ¾x1x13/16. Wt. 1 oz.; Special Order.

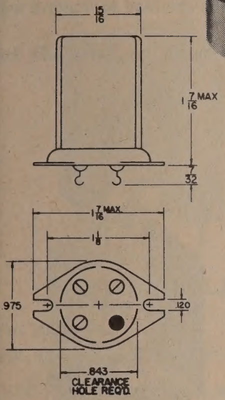
MIL DESIGNATION TF6RX †† ZZ

†† See Family Designation in Chart

MICROTRAN
MINIATURE AUDIO MINIATURE TRANSISTOR TRANSFORMERS
M and MT SERIES



All items shown in charts below are available in any of the mechanical packages shown on pages 5 & 6.



HERMETIC M-H

Grey Enamel Finish. Weight 1¼ oz. High Compression Glass Terminals. .120 holes instead of slots, available on Special Order.

To order add -H to Part Number. i.e. M2-H, MT3-H

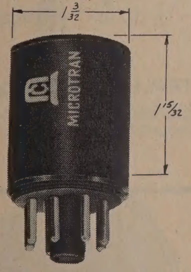
MIL DESIGNATION TF4RX †† YY

†† See Family Designation in Chart

MINIATURE TRANSISTOR TRANSFORMERS — MT Series

Part No.*	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal-ance Ma.	Oper-ating Level DBM	Frequency Response ±2 db.	†† Family
MT1-(*)	Line to Base	600	600	10	23	200-15,000	17
MT2-(*)	Coll. to P.P. Base 2N57	100	10 C.T./40 C.T.	100	27	200-20,000	17
MT3-(*)	Collector to Base or line	50,000	600	3	20	300-15,000	13
MT5-(*)	Collector to speaker	50,000	6	3	20	300-15,000	13
MT6-(*)	Collector to P.P. Base	100,000	1,200 C.T.	1.4	17	200-15,000	13
MT7-(*)	Collector to P.P. Base	25,000	1,200 C.T.	3	22	200-15,000	13
MT8-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300-15,000	13
MT9-(*)	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200-15,000	17
MT10-(*)	Collector to Base	25,000	600	3	22	200-15,000	13
MT11-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200-15,000	13
MT12-(*)	Output Coll. to speaker	2,000	3.4	10	32	200-15,000	13
MT13-(*)	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200-15,000	13
MT14-(*)	Coll. to Spkr. 2N179	400	10	50	25	200-20,000	13
MT15-(*)	P.P. Servo Output 2N57	500 C.T.	210	30	27	300-20,000	17
MT18-(*)	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200-15,000	13
MT20-(*)	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300-15,000	13
MT21-(*)	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200-15,000	13
MT22-(*)	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200-15,000	17
MT23-(*)	P.P. Coll. to Servo	250 C.T.	1000	10	30	200-15,000	17
MT24-(*)	Coll. to P.P. Base	2,500	600 C.T.	10	32	200-15,000	17
MT25-(*)	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200-15,000	12
MT26-(*)	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200-15,000	17
MT29-(*)	P.P. Coll. to Servo	1600 C.T.	450	15	30	200-15,000	17
MT30-(*)	P.P. Coll. to Servo	250 C.T.	500	10	30	200-15,000	17

*Add either -AG, -H, -M, -P, -A, or -FB to Part No. to designate construction. See photos.



OCTAL PLUG-IN M-P

Sealed Plastic Housing. Weight 2 oz. To order add -P to Part No. i.e. MT3-P, M1-P

MIL DESIGNATION TF6RX †† ZZ

†† See Family Designation in Chart

MINIATURE AUDIO TRANSFORMERS — M Series

Part No.*	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Unbal-ance Ma.	Oper-ating Level DBM	Frequency Response ±2 db.	†† Family
M1-(*)	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20-20,000	10
M2-(*)	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20-20,000	10
M3-(*)	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20-20,000	10
M4-(*)	Single plate to 1 grid	15,000	60,000	0	6	20-15,000	10
M5-(*)	Single plate to 1 grid	15,000	60,000	4	14	200-20,000	15
M6-(*)	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20-15,000	10
M7-(*)	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200-20,000	15
M8-(*)	Single plate to line	15,000	50/250/600 C.T.	0	8	20-20,000	16
M9-(*)	Single plate to line	15,000	50/250/600 C.T.	4	21	150-20,000	13
M10-(*)	Push pull plates to line	30,000 P.P.	50/250/600 C.T.	0	8	30-50,000	16
M11-(*)	Crystal mike to line	50,000	50/250/600 C.T.	0	5	20-20,000	16
M12-(*)	Mixing and matching	50/250 C.T.	50/250/600 C.T.	0	8	20-20,000	16
M13-(*)	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			6000 Ω D.C.R.	20
M14-(*)	50: 1 mike to grid	200	½ Megohm	0	9	80-3,000	10
M15-(*)	10: 1 plate to grid	10,000	1 Megohm	0	11	100-2,500	10

*Add either -AG, -H, -M, -P, -A, or -FB to Part No. to designate construction. See photos.

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See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

MICROTRAN

TRANSISTOR DRIVER TRANSISTOR OUTPUT CHOPPER INPUT PLUG-IN INPUT TRANSFORMERS

On this page are hermetically sealed and cased transformers designed for tra sistor and tube servo and audio applications. In the initial design of these unit impedance ratings were selected to enable the user to match the latest transistor

Input transformers permit connection of low level chopper, microphone, picku or tape heads to amplifier. These units are magnetically shielded to improve signa to noise ratio.

Driver and Output Transformers were designed specifically for Servo and Audi applications and are of MIL-T-27A constructions.

TRANSISTOR DRIVER AND OUTPUT TRANSFORMERS

Mil Designation: TF4RX†† xx

Part No.	Application	Pri. Imp.	Sec. Imp.	Pri. D.C. Unbal. Ma.	Level Watts	Frequency Response ± 2Db.	Mil Case xx	Family ††
M8002*	Collector to P.P. Base	560	400 C.T.	18	.15	200-20,000	AJ	17
M8003*	Collector to P.P. Base	625 C.T.	100 C.T.	20	1.5	200-20,000	AJ	17
M8004	Collector to P.P. Base	5,400	600 C.T.	15	.075	200-15,000	AH	13
M8005	Collector to P.P. Base	7,000	320 C.T.	7	.040	70-15,000	AH	13
M8006	Collector to P.P. Base	10,000	6,500 C.T.	.75	.005	200-15,000	YY**	13
M8008	Collector to Spkr.	25	3-4	600	3	200-20,000	AJ	17
M8007*	P.P. Auto Transformer	30 C.T.	3-4	200	2	100-20,000	AJ	17
M8009	P.P. Output to Spkr.	48 C.T.	3.2/8	50	5	200-20,000	AJ	17
M8010	P.P. Col. to Servo	120 C.T.	1,000	40	6	300-15,000	AJ	17
M8011	P.P. Output to Spkr.	125 C.T.	3-4	20	1.5	200-15,000	AH	17
M8012*	P.P. Col. to Servo	140 C.T.	500	50	6	300-15,000	AJ	17
M8013*	P.P. Output to Spkr.	250 C.T.	3-4	20	.4	70-15,000	AH	17
M8014	P.P. Output to Spkr.	400 C.T.	11	2	.25	300-15,000	YY**	17
M8015	P.P. Col. to Servo	1,600 C.T.	800	5	2.5	150-20,000	AJ	17
M8016	P.P. Output to Spkr.	2,500 C.T.	12	4	.10	300-15,000	YY**	17
M8054	P.P. Output to Servo	250 C.T.	130	20	3	200-15,000	AH	17

* Bi-Filar wound to minimize switching transients.
** See Type AF on Page 30 for dimensions.

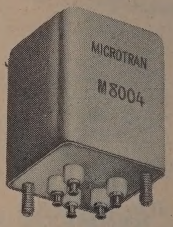

Fig. A.

HERMETICALLY SEALED to MIL-T-27A

MIL Designation: TF4RX †† xx

See Page 10 for MIL Case Dimensions.

LOW LEVEL CHOPPER INPUT TRANSFORMERS

Efficiently transfers 30 to 500 cps. Transducer or Thermocouple signals to instrument amplifiers. Signal level range from .5μV. to .5 volts. Resin impregnated to minimize mechanical vibration noise signal. Low hum pick up assured by 3 mu-metal and 2 copper shields. Accurate center taps and external electrostatic shield connection improve low-level operation.

Part Number	Turn Ratio Full Pri. To Full Sec.	Turn Ratio ½ Pri. To Full Sec.	Ind. of Full Pri. @ .5V. 60 cy.	Imped. of Full Pri. @ .5V. 60 cy.	D.C. Resistance Full Pri.	D.C. Resistance Sec.	Magnetic Shielding	Height	Dia.	Wt. Oz.
M8025	1:7.7	1:15.4	17.5	6,600	365	4140	90 db.	1²⁵⁄₃₂	1⅜ D.	4.5
M8026	1:3.2	1:6.4	60 HY.	22,500	455	3500	90 db.	1²⁵⁄₃₂	1⅜ D.	4.5
M8052	1:4.53	1:9.06	90	34,000	760	5220	90 db.	1²⁵⁄₃₂	1⅜ D.	4.5
M8053	1:1	1:0.5	140	53,000	920	653	90 db.	1²⁵⁄₃₂	1⅜ D.	4.5

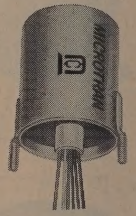

Fig. B

TRIPLE MU-METAL CASE, two internal copper shields. 6-32x⅜" mounting studs on 1½" centers.

PLUG-IN INPUT TRANSFORMERS

These Broadcast fidelity input transformers are double mu-metal shielded. Plug-in feature permits simple installation.

Part Number	Pri. Imp.	Sec. Imp.	Magnetic Shielding	Level DBM	Frequency Resp. ± 2db.	Height	Diameter	Weight Oz.
M8030*	200/50 C.T.	50,000	65	+5	20-20,000	2⅛	1⅛ D.	6
M8031	600 C.T./150	50,000	65	+5	30-20,000	2⅛	1⅛ D.	6
M8032†	250 C.T.	50,000	65	+5	20-20,000	2⅛	1⅛ D.	6
M8033†	50 C.T.	50,000	65	+5	20-20,000	2⅛	1⅛ D.	6

* M8030 is designed as a replacement for Ampex No. 1733-1.
† M8032 and M8033 mates with sockets on many RCA amplifiers.

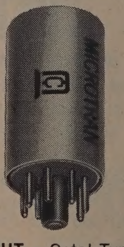

Fig. C.

MIKE INPUT — Octal Type Plug-in Base. M8030-1 have 8 pins. M8032-3 have 9 pins. Matches many amplifiers.

See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

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Designed specifically for Transistor and other low voltage applications. All units shown are Hermetically sealed per MIL-T-27A and are available from stock. On special order certain units may be obtained in alternate constructions such as Epoxy molded, or open frame.
Also available with modified electrical specifications.

MICROTRAN

400 CYCLE POWER
400 CYCLE ISOLATION
60 CYCLE POWER
TRANSFORMERS

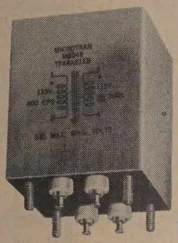

Fig. A

HERMETICALLY SEALED

Per MIL-T-27A

MIL Designation: TF4RX01 XX

SEE PAGE 10 FOR DIMENSIONS

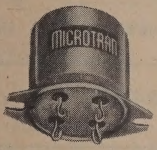

Fig. B

HERMETIC

Round steel can 1⁵⁄₁₆" Dia. 1⅛" mounting centers. High compression glass terminals. M8063 and M8069 see fig. MM-H Page 3 for detailed information. M8047 and M8058 see fig. M-H Page 6 for detailed information.

MIL Designation: TF4RX01YY

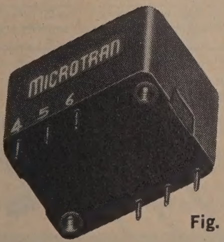

Fig. C

EPOXY MOLDED

On special order only. Inserts, studs or tabs for mounting. .040 pins for printed circuit applications.

MIL Designation TF5RX01ZZ

400 CYCLE POWER SUPPLY TRANSFORMERS

FOR SILICON RECTIFIER CIRCUITRY AND FILAMENT APPLICATIONS

Primary 105/115/125 Volts MIL Designation: TF4RX01XX

Part No.	Secondary A.C. Volts	Secondary RMS Amperes	Rectifier Circuit C.T. Full Wave D.C. Volts**	Rectifier Circuit F.W. Bridge D.C. Volts**	Fig. A Mil Case XX
M8063†	2.85 2.85	.045 .045	1.5	3	YY (Fig. B)
M8064†	6.3 C.T.	.6	1.9	3.8	AH
M8039	12.6 12.6 C.T.	.8 .8	10.5	21	AJ
M8018	18.5 C.T.	1	7	14	EA
M8019	18.5 C.T.	3	7	14	FA
M8065	26 C.T.	1.5	10.7	21.5	EA
M8066	26 C.T.	3	10.7	21.5	FA
M8067	30 C.T.	.5	12.5	25	FB
M8020	35 C.T.	3	14.5	29	GA
M8068	40 C.T.	.2	17	34	AJ
M8041†	50 C.T.	.25	21.5	43	AH
M8069†	60 C.T.	.003	26	52	YY (Fig. B)
M8070†	65 C.T.	.170	28.4	56.8	AH
M8021	70 C.T.	1	30	60	FA
M8071	80 C.T.	.90	35.2	70.4	FA

**DC Output v. for resistive or inductive rect. loads. Output v. based on approx. 1 v. drop per rect.
†Primary 115 volts only.

60 CYCLE POWER SUPPLY TRANSFORMERS

FOR SILICON RECTIFIER CIRCUITRY, AND FILAMENT APPLICATIONS

Primary 105/115/125 Volts MIL Designation: TF4RX01XX

Part No.	Secondary A.C. Volts	Secondary RMS Amperes	Rectifier Circuit C.T. Full Wave D.C. Volts**	Rectifier Circuit F.W. Bridge D.C. Volts**	Fig. A Mil Case XX
M8042	6.3 C.T.	.6	1.9	3.8	AJ
M8043	6.3 C.T.	2	1.9	3.8	FB
M8044	12.6 C.T. 12.6 C.T.	2 2	10.5	21	JB
M8022	18.5 C.T.	3	7	14	JB
M8045	28 C.T.	.6	11.7	23.4	FA
M8055	30 C.T.	2.5	12.5	25	JA
M8023	35 C.T.	3	14.5	29	KA
M8046	49 C.T.	2.5	21	42	LA
M8024	70 C.T.	1	30	60	JA
M8056	80 C.T.	.6	35	70.5	HA
M8057	115 C.T.	.9	51	102	KA

**DC Output volts for resistive or inductive loads. Output volts based on approx. 1 v. drop per rectifier.

400 CYCLE ISOLATION TRANSFORMERS

CENTER TAP PERMITS USE IN EITHER F.W. BRIDGE OR F.W.C.T. CIRCUITRY

Electrostatic Shielding MIL Designation: TF4RX01XX

Part No.	Input Voltage	Output Voltage	Current RMS Amps	V.A. Rating	Fig. A Mil Case XX
M8047††	115	115	.017	2	YY (Fig. B)
M8058	115	115 C.T.	.017	2	YY (Fig. B)
M8048††	115	115	.35	40	EB
M8059	115	115 C.T.	.35	40	EB
M8049††	115	115	1.3	150	GA
M8060	115	115 C.T.	1.3	150	GA
M8061*	115	115 C.T.	2.6	300	JA
M8062*	115	115 C.T.	4.4	500	KA

††Discontinued item, available until stock is depleted. *Primary 105/115/125 volts.

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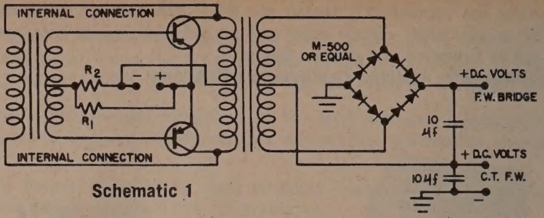
See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

MICROTRAN

DC-DC CONVERTER TRANSFORMERS

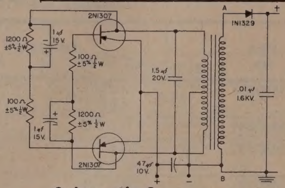
Permits conversion of low voltage direct current to high voltage for operating mobile and military electronic equipment. Provides greatly improved reliability, efficiency, ruggedness, over vibrator and rotary power converters. Unique construction eliminates the difficulties usually experienced with high voltage random wound torroidal transformers and mechanical fragility of ferrite cores.

TYPICAL DC-DC CONVERTER CIRCUITS

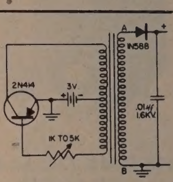

INTERNAL CONNECTION
R2
R1
INTERNAL CONNECTION
M-500 OR EQUAL
+D.C. VOLTS F.W. BRIDGE
10 μf
+D.C. VOLTS C.T. F.W.
10μf

Schematic 1

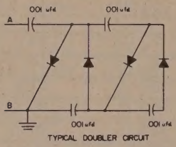
Values of R₁ and R₂ vary with transistors and transformer used. Full information given in connection sheet supplied with transformer. Overall full load efficiencies to 80%.


2N1307
1200Ω ±5% ½W
1μf 15V
100Ω ±5% ½W
100Ω ±5% ½W
1200Ω ±5% ½W
1μf 15V
1.5μf 20V
1N1329
.01μf 1.6KV
2N1307
47μf 10V
A
B

Schematic 2

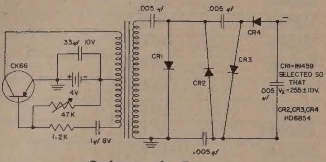

A
1N588
2N414
3V
.01μf 1.6KV
1K TO 5K
B

Schematic 3

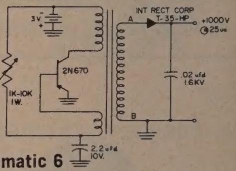

.001 ufd
.001 ufd
A
B
.001 ufd
.001 ufd
TYPICAL DOUBLER CIRCUIT

Schematic 4

The information, diagrams, or any other data included herein is believed to be accurate and reliable. However, Microtran Company, Inc. assumes no responsibility or liability whatsoever for the application, interpretation or use made of such information, diagrams, or data, especially insofar as the use of said information, diagrams, or data affects any patent, trademark or proprietary data rights.


.005 μf
.005 μf
33μf 10V
CK66
4V
47K
1.2K
1μf 8V
CR1
CR2
CR3
CR4
CR1=1N459 SELECTED SO THAT Vz=255±10V.
.005 μf
CR2,CR3,CR4 HD6854
.005μf

Schematic 5


3V
INT RECT CORP T-35-HP
A
+1000V @25μa
2N670
.02 ufd 1.6KV
1K-10K 1W.
B
2.2ufd 10V.

Schematic 6

DC TO DC CONVERTER TRANSFORMERS — SWITCHING TYPE

800 CYCLE APPROXIMATE REPETITION RATE

Part No.	Nominal D.C. Input Volts	Total V.A. Output*	Typical** Transistors	F.W. Volts	D.C. Output Bridge Ma.	D.C. Output C.T. Full Wave Volts	D.C. Output C.T. Full Wave Ma.	Dimensions D	Dimensions W	Dimensions H	Mounting Centers MD	Mounting Centers MW	Case xx	Fig.	Schematic No.
M8034	28	125	Delco 2N174	500	250	250	420	2¾	2⅜	3¹³⁄₁₆	2⅛	1¾	GA	A	1
M8035	13.6	125	Delco 2N442	500	250	250	420	2¾	2⅜	3¹³⁄₁₆	2⅛	1¾	GA	A	1
M8036	13.6	40	Delco 2N442	450	90	225	155	2⁵⁄₁₆	2¹⁄₁₆	3⅛	1¹¹⁄₁₆	1⁷⁄₁₆	FA	A	1
M8072	2.7	190mw	Delco 2N1307	480†	400μa	—	—	1¹¹⁄₁₆	¹³⁄₁₆	²⁷⁄₃₂	1⅜	—	ZZ	C	2

*Full wave and C.T. loads may be simultaneously drawn, but for continuous duty operation, Total V.A. output shown should not be exceeded.
**Typical transistors for reference only. User must verify that max. ratings will not be exceeded for the particular application.
†Output when used with simple ½ wave capacitor input rectifier.

TRANSISTOR BLOCKING OSCILLATOR TYPE

400 CYCLES APPROXIMATE REPETITION RATE

Part No.	H.V.	Turns Ratio Collector	Turns Ratio Feed-back	Typical Input Volts D.C.	Typical Input Ma D.C.	Typical Output Volts D.C.	Typical Output μa D.C.	Dimensions L	Dimensions W	Dimensions H	Mounting Center	Fig.	Schematic No.
M8050	600:	12:	1	3	20	1000*	25	1¹¹⁄₁₆	¹³⁄₁₆	²⁷⁄₃₂	1⅜	C	6
M8051	600:	12:	1	3	20	1000*	25	1	1	1⅜	1⅛	B	6
M8073	44:	1:	1	4	2-15†	425-500†	50 Max†	½	⁷⁄₁₆	⁷⁄₁₆	—	C	5
M8074	65.5:	.33:	1	3	45	535*	90	1¹¹⁄₁₆	¹³⁄₁₆	²⁷⁄₃₂	1⅜	C	3

* Output when transformer is used in blocking oscillator circuit with single capacitor input rectifier.

†Dependent on load and bias conditions. Frequency varies from 100 to 2800 CPS.

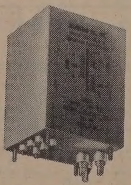


FIG. A

HERMETICALLY SEALED per MIL-T-27A. See Page 10 for dimensions.
MIL Designation TF4RX09xx

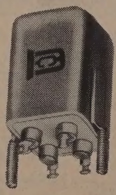


FIG. B

MIL CASE M-AG construction. See Page 5 for details.
MIL Designation TF4RX09YY

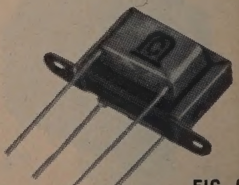


FIG. C

OPEN FRAME with Channel and leads. (M8073 supplied without channel.)
MIL Designation TF6RX09ZZ

MICROTRAN PAGE 9

TRANSISTOR TRANSFORMER SELECTOR KIT – model 400K

TRANSISTOR TRANSFORMER
Selector Kit
MICROTRAN COMPANY INC.
MICROTRAN

29.50 user net
Available off-the-shelf from franchised distributors.

A Short-cut to:
- *"BREAD BOARD CIRCUITRY"*
- *"A LIBRARY OF PRODUCTS AND TECHNICAL INFORMATION"*

FULL DESIGN DATA ENCLOSED

■ Nomographs and circuitry for determining correct transformer impedances for class A and B transistor amplifiers ■ Power versus DBM chart ■ Terminal connection sheet ■ Guide to MIL-T-27A ■ Cross Reference index ■ Outline drawings furnished enables later selection of stock items with these same electrical ratings in many other mechanical constructions

NOW AVAILABLE FOR THE FIRST TIME

- Set of 9 transformers covers impedance range of 150 through 200,000 ohms
- Matches most new transistor impedance ratings
- Sizes from 3/8" cube to 3/4" x 3/4" x 1"
- Vacuum resin impregnated to provide long reliable life and protection from rough handling
- 4" color coded leads
- Transformers individually boxed in transparent case

TRANSISTOR TRANSFORMER SELECTOR KIT SPECIFICATIONS

Part No.	Primary Impedance*	Primary DCR	Secondary Impedance*	Secondary DCR	Unbal. Pri. D.C. MA.	Power Level MW.	Frequency Response ±2 db.
MMT9-FB	600 C.T.	45	1200 C.T.	100	16	150	200-15,000
MT24-FB	2,500	230	600 C.T.	55	10	1500	200-15,000
MMT21-FB	4,000 C.T.	300	600/150 Split	30/30	5	600	200-15,000
MMT17-FB	10,000 C.T.	2400	200 C.T.	35	6	100	200-15,000
UM31-F	10,000 C.T.	850	1200 C.T.	120	2	5(.5W@1Kc)	300-10,000
UM22-F	20,000	1100	1000	100	.5	5(.3W@1Kc)	300-10,000
SMT18-FB	25,000 C.T.	2000	1200 C.T.	110	3	100	200-15,000
VM2-FBP	200,000	2650	600	80	1 (Sec.)	5	200-10,000
UM28-F	10 hy (0dc)	650	8 hy (.5ma)	—	—	—	Reactor

* Primary and secondary may be interchanged but impedance will be slightly different.

SPECIAL PACKAGING OF STOCK ITEMS

The following types are available on special order, with the same electrical ratings but packaged specially to suit customer requirements. These are just some of the various mechanical constructions that may be had on special order.

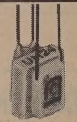


Fig. A
ULTRA MINIATURE ENCAPSULATED TINNED BUSS LEADS

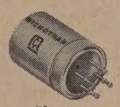


Fig. B
VERI MINIATURE HERMETICALLY SEALED

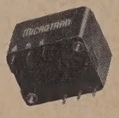


Fig. C
HERMETIC FLAT BRACKET

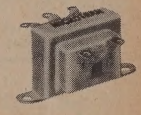


Fig. D
CONTOUR MOLDED WITH LUGS

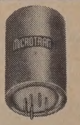


Fig. E
PLUG-IN MU CAN

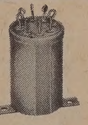


Fig. F
MOLDED WITH INSERTS

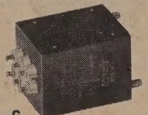


Fig. G
HERMETICALLY SEALED STUDS OPPOSITE TERMINALS

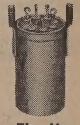
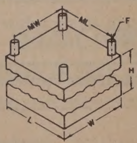


Fig. H
MU CAN WITH STUDS

STANDARD MIL-T-27A CASES



YY—All metal cases not included above or with non-standard mounting centers. ZZ—Open type & encapsulated units.

1. Tolerances on dimensions L and W are +0 to —1/16 for cases AF, AG, AH and AJ; +0 to —1/8 for all other cases.
2. Tolerances on dimension H are +0 to —1/8 for cases AF, AG, AH, and AJ; +0 to —3/16 for all other cases.

3. Tolerances on dimensions ML and MW are ±1/64 for cases AJ to JB inclusive; ±1/32 for cases KA to LB, inclusive; and ±3/64 for cases MA to OA, inclusive. When mounting studs or holes for inserts are used, they shall be symmetrically located.
4. Screw-stud lengths are from mounting surface and have a length tolerance of ±1/16 on studs 1/2" long or less & ±1/8 on studs over 1/2" L.

Case Symbol	Case Dimensions L	Case Dimensions W	Case Dimensions H	Mounting Dimensions ML	Mounting Dimensions MW	Mounting Dimensions F
AF	3/4	3/4	1 1/8	*13/16	—	4-40x3/8
AG	1	1	1 3/8	*1 1/8	—	6-32x3/8
AH	1 5/16	1 5/16	1 3/4	S:1 1/4	—	6-32x3/8
AJ	1 5/8	1 5/8	2 3/8	1 3/16	1 3/16	6-32x3/8
EA	1 13/16	1 13/16	2 3/4	1 3/8	1 1/4	6-32x3/8
EB	1 13/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32x3/8
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	6-32x3/8
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32x3/8
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6-32x3/8
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32x3/8
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32x3/8
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32x3/8
JA	3 9/16	3 1/16	4 7/8	2 5/8	2 1/8	8-32x3/8
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32x3/8
KA	3 15/16	3 3/8	5 1/4	3	2 7/16	10-32x1/2
KB	3 15/16	3 3/8	4 3/16	3	2 7/16	10-32x1/2
LA	4 5/16	3 11/16	5 9/16	3 5/16	2 11/16	10-32x1/2
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32x1/2
MA	4 11/16	4	6	3 11/16	3	1/4-20x5/8
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20x5/8
NA	5 1/16	4 5/16	6 13/16	4 1/16	3 5/16	1/4-20x5/8
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20x5/8

S: Two studs in a diagonal. *Not in conformance with MIL-T-27A.

MICROTRAN company, inc.
VALLEY STREAM, NEW YORK

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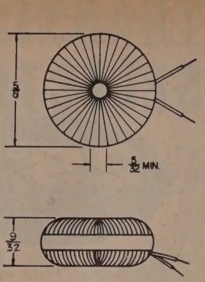
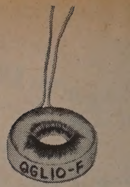
MICROTRAN

MICRO-MINIATURE TOROIDAL INDUCTOR

QGL and QGM SERIES

The QGL and QGM Series are sometimes referred to as the "Cheerio" size. This series is used in extreme miniaturized missile-type applications and provides an optimum combination of small size and high "Q." Both series are available on special order with ±1% or better inductance tolerances. QGL Series available on special order with stabilized cores and with specific inductance values from 1.0 Mh through 4.0 Hy. QGM Series available to 500 Mh on special order.





OPEN FRAME QG-F

Microcrystalline wax dipped. Supplied with 4" #27 plastic leads.

To order add -F to part number, i.e. QGL10-F, QGM25-F

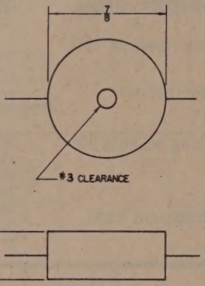
AVAILABLE ON SPECIAL ORDER

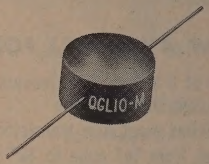
Hermetically Sealed, 11/16 D. x 13/32 hi. Mounting tabs 3/32 wide x 3/16. Leads .031x2".

To order add -H to pt. no., i.e. QGL10-H

Hermetic Crystal Can, 23/32 x 11/32 x 49/64 hi. Leads .031.

To order add -HC to part number, i.e. QGL10-HC, QGM25-HC

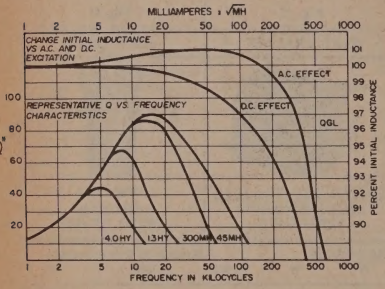




MOLDED QG-M

Molded in High Temperature Epoxy Resin. Pigtail leads may be bent down for plug-in printed circuit applications. Leads .020"x2" gold plated nickel alloy.

To order add -M to part number, i.e. QGL10-M, QGM25-M

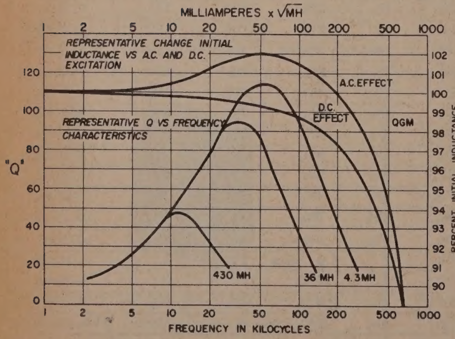


TOROIDAL INDUCTOR—QGL SERIES

Frequency Range to 20KC — Accuracy ± 2%

Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
QGL5-(*)	5 Mhy.	2.5	30
QGL10-(*)	10	5	33
QGL15-(*)	15	8	34
●QGL30-(*)	30	17	37
QGL50-(*)	50	28	40
QGL100-(*)	100	50	42
●QGL250-(*)	250	130	46
QGL500-(*)	500	290	48
QGL1000-(*)	1.00 Hy.	530	51
QGL1500-(*)	1.50	825	53

*Add either -M or -F to Part No. to designate construction. See Photos.



TOROIDAL INDUCTOR—QGM SERIES

Frequency Range 2KC to 100KC — Accuracy ± 2%

Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
QGM1-(*)	1 Mhy.	1.4	22
●QGM2-(*)	2	2.5	25
QGM5-(*)	5	6	28
QGM10-(*)	10	12	31
QGM15-(*)	15	18	32
QGM25-(*)	25	30	35
QGM50-(*)	50	52	37
●QGM100-(*)	100	115	39

*Add either -M or -F to Part No. to designate construction. See Photos.

● NORMALLY NOT CARRIED IN STOCK.

MICROTRAN PAGE 11

See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

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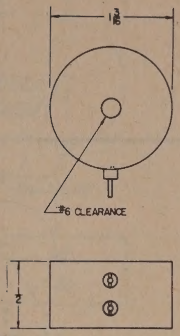
MICROTRAN

SUB-MINIATURE TOROIDAL INDUCTOR

QIL SERIES

The QIL Series is sometimes known as the "Wedding Ring" size. The excellent "Q" characteristics of this series make it ideal for the size and weight requirements of portable airborne equipment. Available from stock in three constructional types for maximum prototype and production flexibility. This series is available on special order with ±1% or better inductance tolerances and stabilized cores. Available on special order with specific inductance values through 7.0 Hy.

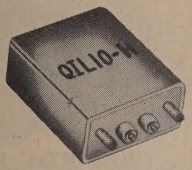


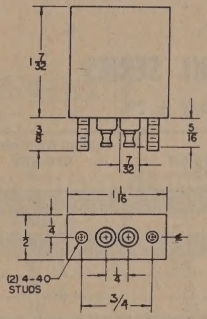
MOLDED QI-M

Molded in high temperature Epoxy. Silver plated turret lugs.

To order add -M to part number, i.e. QIL10-M, QIL25-H

On special order threaded insert is available in place of clearance hole.



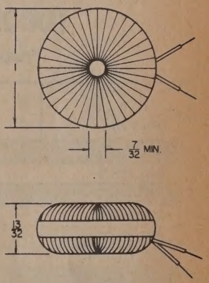


HERMETIC QI-H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

To order add -H to part number, i.e. QIL10-H, QIL25-H.

On special order available with inserts in place of studs, ref. page 16.



OPEN FRAME QI-F

Microcrystalline wax dipped. Supplied with 4" #27 plastic leads.

To order add -F to part number, i.e. QIL250-F

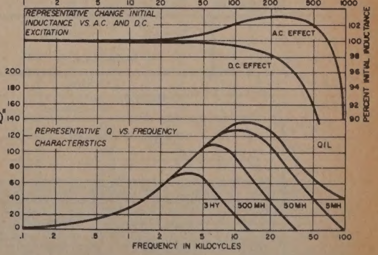
TOROIDAL INDUCTOR — QIL SERIES

Frequency Range to 20KC — Accuracy ± 2%

Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
●QIL3-(*)	3 Mhy.	.73	36
QIL5-(*)	5	1.1	38
QIL10-(*)	10	2.1	40
●QIL15-(*)	15	3.3	42
QIL25-(*)	25	5.3	45
QIL50-(*)	50	11	47
QIL100-(*)	100	22	49
●QIL150-(*)	150	34	50
QIL250-(*)	250	55	53
QIL500-(*)	500	95	55
QIL1000-(*)	1.00 Hy.	210	57
●QIL1500-(*)	1.50	335	59
QIL2500-(*)	2.50	550	61

*Add either -M, -H, or -F to Part No. to designate construction. See Photos.

• NORMALLY NOT CARRIED IN STOCK.



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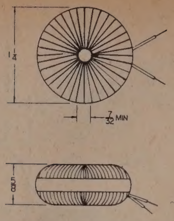
MICROTRAN

MINIATURE TOROIDAL INDUCTOR

QKL and QKM SERIES

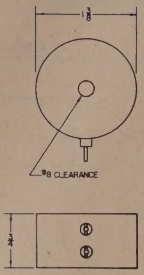


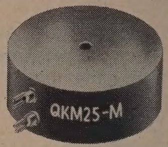
OPEN FRAME QK-F

Microcrystalline wax dipped. Supplied with 4" #27 plastic leads.

To order add -F to part number, i.e. QKL10-F, QKM25-F

The QKL and QKM Series are one of the industry's most popular. Their characteristics permit high "Q", power level, and stability in a unit with reasonable size and weight. Available from stock in three constructional types for maximum prototype and production flexibility. Both series available on special order with ±1% or better inductance tolerances and stabilized cores. QKL series available on special order with specific inductance values to 17.5 Hy. QKM Series available on special order with specific inductance values to 750 Mh.





MOLDED QK-M

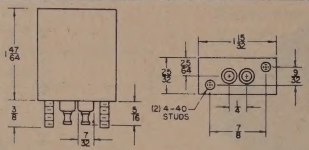
Molded in high temperature epoxy resin. Silver plated turret lugs.

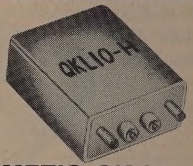
To order add -M to part number, i.e. QKL10-M, QKM25-M

On special order threaded insert is available in place of clearance hole.

TOROIDAL INDUCTOR — QKL SERIES

Frequency Range to 10KC — Accuracy ± 2%





Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
●QKL5-(*)	5 Mhy.	.62	60
QKL10-(*)	10	1.1	66
●QKL15-(*)	15	1.7	68
QKL25-(*)	25	2.8	72
QKL50-(*)	50	6	76
QKL100-(*)	100	11	81
●QKL150-(*)	150	17	83
QKL250-(*)	250	28	87
QKL500-(*)	500	63	91
QKL1000-(*)	1.00 Hy.	110	96
●QKL1500-(*)	1.50	175	98
●QKL2500-(*)	2.50	275	103
QKL5000-(*)	5.00	645	106
QKL10,000-(*)	10.00	1175	112

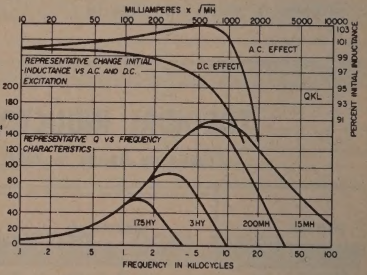
*Add either -M, -H, or -F to Part No. to designate construction. See Photos.

HERMETIC QK-H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

To order add -H to part number, i.e. QKL10-H, QKM25-H

On special order available with inserts in place of studs, ref. page 16.



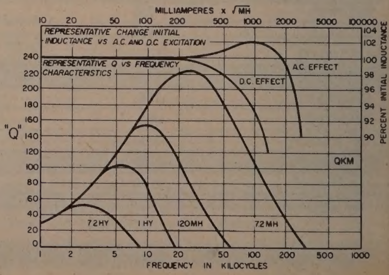
TOROIDAL INDUCTOR — QKM SERIES

Frequency Range 5 to 50KC — Accuracy ± 2%

Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
QKM2-(*)	2 Mhy.	.45	52
QKM5-(*)	5	1.1	58
QKM10-(*)	10	2.5	62
QKM25-(*)	25	6.5	70
QKM50-(*)	50	11	74
●QKM100-(*)	100	25	79
●QKM250-(*)	250	65	87
●QKM500-(*)	500	115	92
●QKM1000-(*)	1.00 Hy.	250	97

*Add either -M, -H. or -F to Part No. to designate construction. See Photos.

• NORMALLY NOT CARRIED IN STOCK



See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

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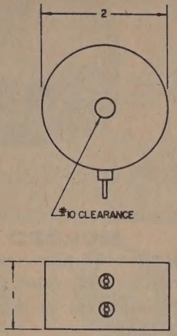
MICROTRAN

HIGH-Q TOROIDAL INDUCTORS

QPL SERIES

The exceptional "Q" of the QPL Series makes it ideal for tuned transformers, critical filters and oscillators. Permits construction of filters with high power ratings and sharp frequency characteristics. Available from stock in three constructional types for maximum prototype and production flexibility. This series is available on special order with ±1% or better inductance tolerances and stabilized cores. Available on special order with specific inductance values to 50 Hy.

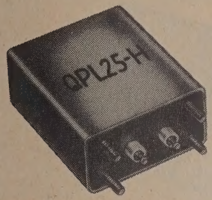


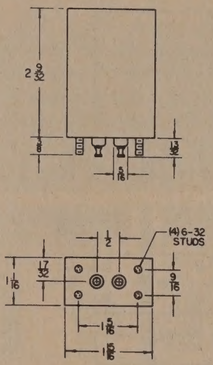
MOLDED QPL-M

Molded in high temperature epoxy resin. Silver plated turret lugs.

To order add -M to part number, i.e. QPL25-M.

On special order threaded insert is available in place of clearance hole.



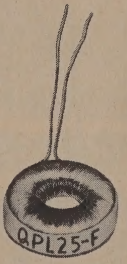


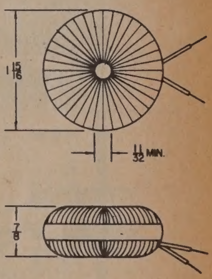
HERMETIC QPL-H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

To order add -H to part number, i.e. QPL25-H.

On special order available with inserts in place of studs, ref. page 16.





OPEN FRAME QPL-F

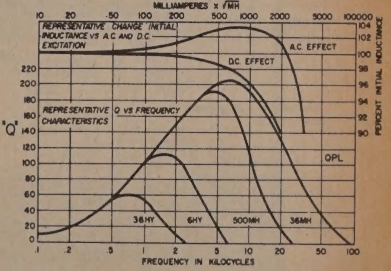
Microcrystalline wax dipped, 4" #24 Leads. To order add -F to part number, i.e. QPL25-F.

TOROIDAL INDUCTOR — QPL Series

Frequency Range to 10KC — Accuracy ± 2%

Part. No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
QPL25-(*)	25 Mhy.	1.5	100
QPL50-(*)	50	2.5	105
QPL100-(*)	100	6	110
●QPL250-(*)	250	15	115
QPL500-(*)	500	25	120
QPL1000-(*)	1.00 Hy.	60	125
●QPL1500-(*)	1.50	90	130
●QPL2500-(*)	2.50	150	133
QPL5000-(*)	5.00	350	138
●QPL7500-(*)	7.50	525	140
QPL10,000-(*)	10.00	600	142
●QPL15,000-(*)	15.00	900	146
QPL25,000-(*)	25.00	1500	150

Add -M, or -H, or -F to Part No. to designate construction. See Photos.



• NORMALLY NOT CARRIED IN STOCK.

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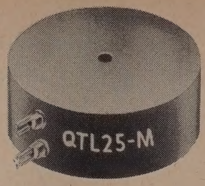
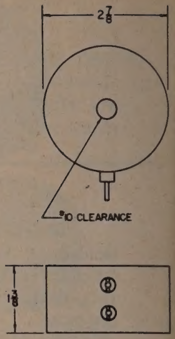
MICROTRAN

HIGH-Q TOROIDAL INDUCTORS

QTL SERIES

The QTL Series is most widely used in low audio frequency applications where the highest possible "Q" is required. It is designed for use in high operating level networks and should be employed where inductance stability over a wide operating voltage is required. Available from stock in three constructional types for maximum prototype and production flexibility. This series is available on special order with ±1% or better inductance tolerances. Available on special order with specific inductance values to 75 Hy.



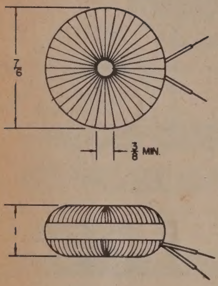


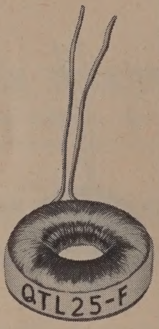
MOLDED QTL-M

Molded in high temperature epoxy resin. Silver plated turret lugs.

To order add -M to part number, i.e. QTL25-M

On Special Order threaded insert is available in place of clearance hole.

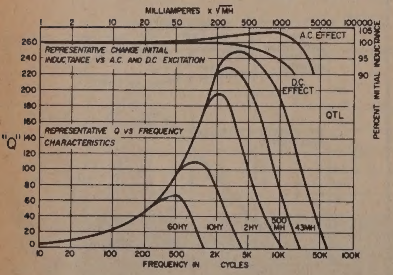


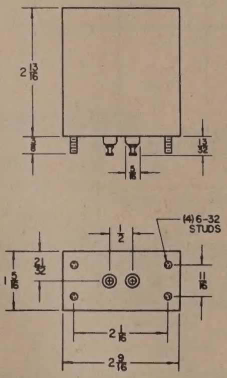


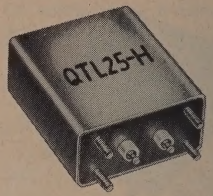
OPEN FRAME QTL-F

Microcrystalline wax dipped, 4" #24 Leads

To order add -F to part number, i.e. QTL25-F







HERMETIC QTL-H

Hermetically sealed in metal case. Teflon terminals assure permanent seal at temperature extremes.

To order add -H to part number, i.e. QTL25-H

On Special Order available with inserts in place of studs, ref. page 16.

TOROIDAL INDUCTOR — QTL Series

Frequency Range to 15KC — Accuracy ± 2%

Part No.	Inductance	Typical DCRΩ	Typical Distributed Capacity μμF
●QTL25-(*)	25 Mhy.	.85	127
QTL50-(*)	50	1.5	136
QTL100-(*)	100	2.8	144
●QTL150-(*)	150	3.9	149
●QTL250-(*)	250	7	156
QTL500-(*)	500	15	164
QTL1000-(*)	1.00 Hy.	27	173
●QTL1500-(*)	1.50	40	177
QTL2500-(*)	2.50	70	184
QTL5000-(*)	5.00	140	192
QTL10,000-(*)	10.00	270	200
●QTL15,000-(*)	15.00	430	205
QTL25,000-(*)	25.00	850	212
QTL50,000-(*)	50.00	1500	221

Add -M, -H or -F to Part No. to designate construction. See Photos.

• NORMALLY NOT CARRIED IN STOCK.

See Pages 1464-1467 for Prices. Also see EEM Pages 1769-1771

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MICROTRAN

designs to meet your needs

PROTOTYPES ● SHORT RUNS ● PRODUCTION RUNS SOLICITED

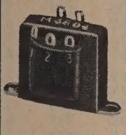
Figure E
Encapsulated
Channel Mtd.

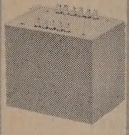
Figure Q
Hermetic
with Inserts

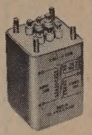
Figure MIL
Hermetic
MIL-T-27A Case

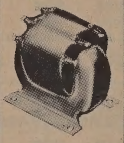
Figure R
Encapsulated
Hipersil

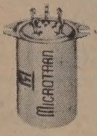
Figure H
Miniature
Hermetic

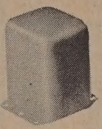
Figure V
Cylindrical with
rectangular
flange

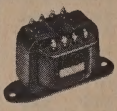
Figure X
Hipersil with
terminal board

RAPID DELIVERY OF CUSTOM TRANSFORMERS

Separate sampling Department for quick delivery. Immediate service assured by large stocks of high temperature insulation and other specialized materials.

IN-PLANT TESTING assures full compliance with military requirements and often saves weeks on contract completion. Units can be supplied to meet MIL-T-27A, MIL-T-9219, AN-E-19, CAA-R-9786, MIL-E-5400, MIL-E-16400, MIL-E-4158, MIL-E-8189A, MCREE-553, MIL-T-9454.

NOT STOCK, CUSTOM BUILT TO ORDER ONLY

400 CYCLE POWER SUPPLY TRANSFORMER

PRIMARY 115 VOLTS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Ma.	Test Volts R.M.S.	Figure
M2954	24.2	10 A	1,500	MIL-KA
M2821	30	500	500	MIL-FB
M2880	32	5.5 A	500	MIL-KA
M2845	60 C.T.	166	500	MIL-AH
M2835	112 C.T.	500	500	MIL

400 CYCLE FILAMENT TRANSFORMER

PRIMARY 115 VOLTS

Part No.	Filament Volts	Filament Amps	Test Volts R.M.S.	Figure
M2655	6.3	1.5	1,500	MIL
	6.3	1.5		
M2810	6.3 C.T.	2.0	1,000	MIL-EA
	6.3 C.T.	2.0		
M2611	6.3 C.T.	2.0	1,000	Q
	6.3 C.T.	10.0	1,000	
M2724	12.6 C.T.	3.0	1,000	MIL
	6.3	1.2		
M2829	12.6	0.3	500	MIL-AJ
	12.6	0.3		
	12.6	0.3		
M2830	12.6 C.T.	5.0	500	MIL-JA
	12.6 C.T.	5.0		
M2812	26.0	1.0	1,000	MIL-EA

60 CYCLE POWER TRANSFORMERS

PRIMARY 115 VOLTS

Part No.	Plate Supply A.C. Volts	D.C. Ma.	Rectifier Filament Volts	Rectifier Filament Amps	Filament No. 2 Volts	Filament No. 2 Amps	Figure
M2571	550 C.T.	55	5.0	2.0	6.3 C.T.	3.0	MIL-JB
M2558	386 C.T.	70	6.3	2.5			MIL-HA
M2192	800 C.T.	250	6.3	5.0	5.0	3.0	MIL
M2442	330	300 FWB	6.3 C.T.	10.0	6.3	3.0	MIL-MB

60 CYCLE POWER SUPPLY TRANSFORMERS

PRIMARY 115 VOLTS

Part No.	Secondary A.C. Volts	Secondary R.M.S. Ma.	Test Volts R.M.S.	Figure
M1606	2.5	10	500	H
M2530	25.0	230	1,000	MIL-GB
M2552	26.5 C.T.	600	3,000	MIL-GA
M2808	34.0	15A	500	MIL
M2531	40.0	400	1,000	MIL-HB
	40.0	400		
M2244	600	300	1,500	MIL-MA
M2242	600	500	1,500	MIL-NB
M2170	980 C.T.	225	2,500	MIL-MA

60 CYCLE FILAMENT TRANSFORMER

PRIMARY 117 VOLTS

Part No.	Filament Volts	Filament Amps	Test Insulation Volts R.M.S.	Figure
M1070	5.0 C.T.	4.0	1,500	MIL-FA
M2245	5.0 C.T.	6.0	6,600	MIL-JA
	6.3 C.T.	0.6		
M2166	6.3 C.T.	0.6	3,500	MIL-JB
	6.3	4.0		
	5.0 C.T.	4.0		
M1631	6.3 C.T.	1.0	3,500	MIL-JA
	6.3 C.T.	1.5		
	6.3 C.T.	4.5		
M1191	7.5	3.0	1,500	MIL-GA
M2228	12.6	65.0	1,500	Q
M1395	24.0	1.0	1,500	MIL-GA

400 CYCLE SERVO DRIVER AND OUTPUT TRANSFORMERS

Part No.	Primary Impedance	Pri. Unbal. D.C. Ma.	Secondary Impedance	Power Level	Figure
M1828	4,750	15.	250	1 Watt	E
M1378	6,000	38.	180	1.3 Watts	H
M2472	2,500 C.T.	2.	300	1.5 Watts	H
M2848	200 C T.	20.	1,640 C.T.	5.6 Watts	MIL-AJ
M2769	10,000 C.T.	9.	500	7 Watts	E
M2849	62 C.T.	75.	510 C.T.	16 Watts	MIL-FB

MICROTRAN company, inc.

VALLEY STREAM, N. Y.

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MICROTRAN

INDUSTRIAL — O.E.M.
NET PRICE LIST
Effective June 1, 1962

NOTE:

1. Price of -FPB items is same as equivalent -FB items. (i.e. MT1-FPB is same price as MT1-FB).
2. Price of -F item (i.e. MT1-F) is price of -FB item (i.e. MT1-FB) less the following amounts: Quantity 1-9 $.30; 10-49 $.27; 50-99 $.25; 100-249 $.20.
3. Items may not be combined to obtain quantity discount.

PICO-MINIATURE TRANSFORMERS (PAGE 1)

Part No.	1 -9	10 -49	50 -99	100 -249
PM3-M	7.65	6.89	6.38	5.10
PM3-L†	7.80*	7.02*	6.50	5.20
PM5-M	6.60	5.94	5.50	4.40
PM5-L†	6.75*	6.08*	5.63	4.50
PM7-M	7.50	6.75	6.25	5.00
PM7-L†	7.65*	6.89*	6.38	5.10
PM9-M	8.10	7.29	6.75	5.40
PM9-L†	8.10*	7.29*	6.75	5.40
PM11-M	7.05	6.35	5.88	4.70
PM11-L†	7.20*	6.48*	6.00	4.80
PM13-M	7.65	6.89	6.38	5.10
PM13-L†	7.65*	6.89*	6.38	5.10
PM15-M	6.15	5.54	5.13	4.10
PM15-L†	6.30*	5.67*	5.25	4.20
PM17-M	7.65	6.89	6.38	5.10
PM17-L†	7.80*	7.02*	6.50	5.20
PM19-M	6.75	6.08	5.63	4.50
PM19-L†	6.90*	6.21*	5.75	4.60
PM21-M	7.35	6.62	6.13	4.90
PM21-L†	7.35*	6.62*	6.13	4.90
PM23-M	6.75	6.08	5.63	4.50
PM23-L†	6.90*	6.21*	5.75	4.60
PM25-M	7.20	6.48	6.00	4.80
PM25-L†	7.20*	6.48*	6.00	4.80
PM27-M	6.00	5.40	5.00	4.00
PM27-L†	6.15*	5.54*	5.13	4.10
PM29-M	6.75	6.08	5.63	4.50
PM29-L†	6.90*	6.21*	5.75	4.60
PM31-M	6.30	5.67	5.25	4.20
PM31-L†	6.45*	5.81*	5.38	4.30
PM33-M	6.15	5.54	5.13	4.10
PM33-L†	6.30*	5.67*	5.25	4.20
PM35-M	5.40	4.86	4.50	3.60
PM35-L†	5.70*	5.13*	4.75	3.80
PM37-M	5.70	5.13	4.75	3.80
PM37-L†	5.85*	5.27*	4.88	3.90
PM39-M	5.40	4.86	4.50	3.60
PM39-L†	5.70*	5.13*	4.75	3.80
PM41-M	4.65	4.19	3.88	3.10
PM41-L†	4.80*	4.32*	4.00	3.20

ULTRA-MINIATURE TRANSFORMERS (PAGE 2)

Part No.	1 -9	10 -49	50 -99	100 -249
UM21-F	6.00	5.40	5.00	4.00
UM21-M	6.60	5.94	5.50	4.40
UM22-F	4.35	3.92	3.63	2.90
UM22-M	5.40	4.86	4.50	3.60
UM23-F	4.65	4.19	3.88	3.10
UM23-M	6.00	5.40	5.00	4.00
UM24-F	3.90	3.51	3.25	2.60
UM24-M	4.95	4.46	4.13	3.30
UM25-F	3.90	3.51	3.25	2.60
UM25-M	4.95	4.46	4.13	3.30
UM26-F	3.90	3.51	3.25	2.60
UM26-M	4.95	4.46	4.13	3.30
UM27-F	4.20	3.78	3.50	2.80
UM27-M	5.25	4.73	4.38	3.50
UM28-F	3.75	3.38	3.13	2.50
UM28-M	5.25	4.73	4.38	3.50
UM29-F	4.65	4.19	3.88	3.10
UM29-M	5.70	5.13	4.75	3.80
UM30-F	3.60	3.24	3.00	2.40
UM30-M	4.50	4.05	3.75	3.00
UM31-F	4.80	4.32	4.00	3.20
UM31-M	5.85	5.27	4.88	3.90
UM32-F	4.35	3.92	3.63	2.90
UM32-M	5.40	4.86	4.50	3.60
UM33-F	4.35	3.92	3.63	2.90

ULTRA-MINIATURE (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
UM33-M	5.40	4.86	4.50	3.60
UM34-F	4.50	4.05	3.75	3.00
UM34-M	5.55	5.00	4.63	3.70
UM35-F	4.95	4.46	4.13	3.30
UM35-M	6.15	5.54	5.13	4.10

VERI-MINIATURE TRANSFORMERS (PAGE 2)

Part No.	1 -9	10 -49	50 -99	100 -249
VM1-FPB	4.20	3.78	3.50	2.80
VM1-M	5.55	5.00	4.63	3.70
VM2-FPB	5.70	5.13	4.75	3.80
VM2-M	7.20	6.48	6.00	4.80
VM3-FPB	4.50	4.05	3.75	3.00
VM3-M	6.30	5.67	5.25	4.20
VM4-FPB	5.70	5.13	4.75	3.80
VM4-M	7.20	6.48	6.00	4.80
VM5-FPB	4.65	4.19	3.88	3.10
VM5-M	6.60	5.94	5.50	4.40
VM6-FPB	5.85	5.27	4.88	3.90
VM6-M	7.35	6.62	6.13	4.90
VM7-FPB	4.20	3.78	3.50	2.80
VM7-M	5.55	5.00	4.63	3.70
VM8-FPB	4.35	3.92	3.63	2.90
VM8-M	5.70	5.13	4.75	3.80
VM9-FPB	4.35	3.92	3.63	2.90
VM9-M	5.70	5.13	4.75	3.80
VM10-FPB	4.65	4.19	3.88	3.10
VM10-M	6.90	6.21	5.75	4.60
VM11-FPB	4.05	3.65	3.38	2.70
VM11-M	5.10	4.59	4.25	3.40
VM12-FPB	4.50	4.05	3.75	3.00
VM12-M	6.30	5.67	5.25	4.20
VM13-FPB	4.65	4.19	3.88	3.10
VM13-M	6.90	6.21	5.75	4.60
VM14-FPB	4.50	4.05	3.75	3.00
VM14-M	6.75	6.08	5.63	4.50
VM15-FPB	6.00	5.40	5.00	4.00
VM15-M	8.40	7.56	7.00	5.60
VM16-FPB	4.50	4.05	3.75	3.00
VM16-M	6.75	6.08	5.63	4.50

MICRO-MINIATURE TRANSFORMERS (PAGE 3)

Part No.	1 -9	10 -49	50 -99	100 -249
MM1-FB	4.50	4.05	3.75	3.00
MM1-H	7.35	6.61	6.13	4.90
MM1-M	8.55	7.69	7.13	5.70
MM2-FB	4.80	4.32	4.00	3.20
MM2-H	7.50	6.75	6.25	5.00
MM2-M	8.70	7.83	7.25	5.80
MM3-FB	4.20	3.78	3.50	2.80
MM3-H	7.20	6.48	6.00	4.80
MM3-M	8.40	7.56	7.00	5.60
MM4-FB	4.05	3.64	3.38	2.70
MM4-H	7.05	6.34	5.88	4.70
MM4-M	8.25	7.42	6.88	5.50
MM5-FB	4.05	3.64	3.38	2.70
MM5-H	6.90	6.21	5.75	4.60
MM5-M	8.10	7.29	6.75	5.40
MM6-FB	4.20	3.78	3.50	2.80
MM6-H	7.20	6.48	6.00	4.80
MM6-M	8.40	7.56	7.00	5.60
MM7-FB	3.30	2.97	2.75	2.20
MM7-H	6.45	5.80	5.38	4.30
MM7-M	7.65	6.88	6.38	5.10

MICRO-MINIATURE TRANSISTOR TRANSFORMERS (PAGE 3)

Part No.	1 -9	10 -49	50 -99	100 -249
MMT1-FB	3.90	3.51	3.25	2.60
MMT1-H	7.35	6.61	6.13	4.90

MICRO-MINIATURE TRANSISTOR (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
MMT1-M	8.55	7.69	7.13	5.70
MMT3-FB	4.05	3.64	3.38	2.70
MMT3-H	7.50	6.75	6.25	5.00
MMT3-M	8.70	7.83	7.25	5.80
MMT4-FB	4.80	4.32	4.00	3.20
MMT4-H	8.55	7.69	7.13	5.70
MMT4-M	9.75	8.77	8.13	6.50
MMT5-FB	4.35	3.91	3.63	2.90
MMT5-H	7.95	7.15	6.63	5.30
MMT5-M	9.15	8.23	7.63	6.10
MMT7-FB	4.50	4.05	3.75	3.00
MMT7-H	8.40	7.56	7.00	5.60
MMT7-M	9.60	8.64	8.00	6.40
MMT8-FB	4.65	4.18	3.88	3.10
MMT8-H	8.55	7.69	7.13	5.70
MMT8-M	9.75	8.77	8.13	6.50
MMT9-FB	4.20	3.78	3.50	2.80
MMT9-H	7.65	6.88	6.38	5.10
MMT9-M	8.85	7.96	7.38	5.90
MMT10-FB	3.45	3.10	2.88	2.30
MMT10-H	7.20	6.48	6.00	4.80
MMT10-M	8.40	7.56	7.00	5.60
MMT11-FB	4.35	3.91	3.63	2.90
MMT11-H	7.80	7.02	6.50	5.20
MM11-M	9.00	8.10	7.50	6.00
MMT12-FB	3.90	3.51	3.25	2.60
MMT12-H	7.35	6.61	6.13	4.90
MMT12-M	8.55	7.69	7.13	5.70
MMT13-FB	4.05	3.64	3.38	2.70
MMT13-H	7.50	6.75	6.25	5.00
MMT13-M	8.70	7.83	7.25	5.80
MMT16-FB	4.50	4.05	3.75	3.00
MMT16-H	8.40	7.56	7.00	5.60
MMT16-M	9.60	8.64	8.00	6.40
MMT17-FB	4.50	4.05	3.75	3.00
MMT17-H	8.10	7.29	6.75	5.40
MMT17-M	9.30	8.37	7.75	6.20
MMT18-FB	4.65	4.18	3.88	3.10
MMT18-H	8.55	7.69	7.13	5.70
MMT18-M	9.75	8.77	8.13	6.50
MMT19-FB	4.05	3.64	3.38	2.70
MMT19-H	7.50	6.75	6.25	5.00
MMT19-M	8.70	7.83	7.25	5.80
MMT21-FB	4.65	4.19	3.88	3.10
MMT21-H	8.55	7.70	7.13	5.70
MMT21-M	9.75	8.78	8.13	6.50
MMT25-FB	4.35	3.92	3.63	2.90
MMT25-H	7.80	7.02	6.50	5.20
MMT25-M	9.00	8.10	7.50	6.00
MMT26-FB	4.20	3.78	3.50	2.80
MMT26-H	7.65	6.89	6.38	5.10
MMT26-M	8.85	7.97	7.38	5.90
MMT27-FB	4.50	4.05	3.75	3.00
MMT27-H	8.40	7.56	7.00	5.60
MMT27-M	9.60	8.64	8.00	6.40
MMT28-FB	4.65	4.18	3.88	3.10
MMT28-H	8.55	7.69	7.13	5.70
MMT28-M	9.75	8.77	8.13	6.50
MMT29-FB	4.65	4.19	3.88	3.10
MMT29-H	8.55	7.70	7.13	5.70
MMT29-M	9.75	8.78	8.13	6.50
MMT30-FB	4.50	4.05	3.75	3.00
MMT30-H	8.40	7.56	7.00	5.60
MMT30-M	9.60	8.64	8.00	6.40
MMT31-FB	4.35	3.92	3.63	2.90
MMT31-H	8.25	7.43	6.88	5.50
MMT31-M	9.45	8.51	7.88	6.30
MMT32-FB	4.65	4.19	3.88	3.10
MMT32-H	8.55	7.70	7.13	5.70
MMT32-M	9.75	8.78	8.13	6.50

†Not Stocked; Available on Short Order.

*Not Stocked; Available on Short Order; In qty. 1-49 add $12.50 lot set-up charge.

PRICES, MECHANICAL CONSTRUCTION, OR ELECTRICAL CHARACTERISTICS SUBJECT TO MODIFICATION WITHOUT NOTICE.

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MICROTRAN

INDUSTRIAL O.E.M.
PRICE LIST

SUB-MINIATURE TRANSFORMERS (PAGE 4)

Part No.	1 -9	10 -49	50 -99	100 -249
SM1-AF	9.00	8.10	7.50	6.00
SM1-FB	4.35	3.91	3.63	2.90
SM1-H	7.20	6.48	6.00	4.80
SM1-M	9.00	8.10	7.50	6.00
SM2-AF	8.70	7.83	7.25	5.80
SM2-FB	3.90	3.51	3.25	2.60
SM2-H	6.90	6.21	5.75	4.60
SM2-M	9.00	8.10	7.50	6.00
SM3-AF	8.70	7.83	7.25	5.80
SM3-FB	3.90	3.51	3.25	2.60
SM3-H	6.90	6.21	5.75	4.60
SM3-M	9.00	8.10	7.50	6.00
SM4-AF	8.70	7.83	7.25	5.80
SM4-FB	3.90	3.51	3.25	2.60
SM4-H	6.90	6.21	5.75	4.60
SM4-M	9.00	8.10	7.50	6.00
SM5-AF	7.20	6.48	6.00	4.80
SM5-FB	3.30	2.97	2.75	2.20
SM5-H	6.30	5.67	5.25	4.20
SM5-M	8.40	7.56	7.00	5.60
SM6-AF	8.70	7.83	7.25	5.80
SM6-FB	4.35	3.91	3.63	2.90
SM6-H	7.05	6.34	5.88	4.70
SM6-M	9.00	8.10	7.50	6.00

SUB-MINIATURE TRANSISTOR TRANSFORMERS (PAGE 4)

Part No.	1 -9	10 -49	50 -99	100 -249
SMT1-AF	6.75	6.07	5.63	4.50
SMT1-FB	3.90	3.51	3.25	2.60
SMT1-H	6.00	5.40	5.00	4.00
SMT1-M	7.20	6.48	6.00	4.80
SMT3-AF	7.35	6.61	6.13	4.90
SMT3-FB	4.50	4.05	3.75	3.00
SMT3-H	6.60	5.94	5.50	4.40
SMT3-M	7.80	7.02	6.50	5.20
SMT4-FB	4.95	4.45	4.13	3.30
SMT4-H	7.05	6.34	5.88	4.70
SMT4-M	8.25	7.42	6.88	5.50
SMT5-AF	7.20	6.48	6.00	4.80
SMT5-FB	4.35	3.91	3.63	2.90
SMT5-H	6.45	5.80	5.38	4.30
SMT5-M	7.65	6.88	6.38	5.10
SMT7-AF	7.50	6.75	6.25	5.00
SMT7-FB	4.65	4.18	3.88	3.10
SMT7-H	6.75	6.07	5.63	4.50
SMT7-M	7.95	7.15	6.63	5.30
SMT8-FB	4.95	4.45	4.13	3.30
SMT8-H	7.05	6.34	5.88	4.70
SMT8-M	8.25	7.42	6.88	5.50
SMT9-FB	4.20	3.78	3.50	2.80
SMT9-H	6.30	5.67	5.25	4.20
SMT9-M	7.50	6.75	6.25	5.00
SMT10-AF	7.05	6.34	5.88	4.70
SMT10-FB	4.20	3.78	3.50	2.80
SMT10-H	6.30	5.67	5.25	4.20
SMT10-M	7.50	6.75	6.25	5.00
SMT12-AF	6.75	6.07	5.63	4.50
SMT12-FB	3.90	3.51	3.25	2.60
SMT12-H	6.00	5.40	5.00	4.00
SMT12-M	7.20	6.48	6.00	4.80
SMT13-AF	6.90	6.21	5.75	4.60
SMT13-FB	4.05	3.64	3.38	2.70
SMT13-H	6.15	5.53	5.13	4.10
SMT13-M	7.35	6.61	6.13	4.90
SMT16-AF	7.50	6.75	6.25	5.00
SMT16-FB	4.65	4.18	3.88	3.10
SMT16-H	6.75	6.07	5.63	4.50
SMT16-M	7.95	7.15	6.63	5.30
SMT17-FB	4.80	4.32	4.00	3.20
SMT17-H	6.90	6.21	5.75	4.60
SMT17-M	8.10	7.29	6.75	5.40
SMT18-FB	4.95	4.45	4.13	3.30

SUB-MINIATURE TRANSISTOR (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
SMT18-H	7.05	6.34	5.88	4.70
SMT18-M	8.25	7.42	6.88	5.50
SMT19-AF	7.50	6.75	6.25	5.00
SMT19-FB	4.65	4.18	3.88	3.10
SMT19-H	6.75	6.07	5.63	4.50
SMT19-M	7.95	7.15	6.63	5.30
SMT26-FB	4.50	4.05	3.75	3.00
SMT26-H	6.60	5.94	5.50	4.40
SMT26-M	7.80	7.02	6.50	5.20

MINIATURE TRANSFORMERS (PAGE 5)

Part No.	1 -9	10 -49	50 -99	100 -249
M-A-Sh	1.35	1.22	1.13	.90
M1-A	7.50	6.75	6.25	5.00
M1-AG	9.90	8.91	8.25	6.60
M1-FB	4.05	3.65	3.38	2.70
M1-H	9.00	8.10	7.50	6.00
M1-M	9.90	8.91	8.25	6.60
M1-P	8.85	7.97	7.38	5.90
M2-A	7.65	6.89	6.38	5.10
M2-AG	10.35	9.32	8.63	6.90
M2-FB	4.20	3.78	3.50	2.80
M2-H	9.45	8.51	7.88	6.30
M2-M	10.20	9.18	8.50	6.80
M2-P	8.85	7.97	7.38	5.90
M3-A	7.50	6.75	6.25	5.00
M3-AG	9.90	8.91	8.25	6.60
M3-FB	3.90	3.51	3.25	2.60
M3-H	9.00	8.10	7.50	6.00
M3-M	9.75	8.78	8.13	6.50
M3-P	8.40	7.56	7.00	5.60
M4-A	6.45	5.81	5.38	4.30
M4-AG	8.55	7.70	7.13	5.70
M4-FB	3.45	3.10	2.87	2.30
M4-H	7.65	6.89	6.38	5.10
M4-M	8.55	7.70	7.13	5.70
M4-P	7.50	6.75	6.25	5.00
M5-A	6.45	5.81	5.38	4.30
M5-AG	8.55	7.70	7.13	5.70
M5-FB	3.45	3.10	2.87	2.30
M5-H	7.65	6.89	6.38	5.10
M5-M	8.55	7.70	7.13	5.70
M5-P	7.50	6.75	6.25	5.00
M6-A	7.35	6.62	6.13	4.90
M6-AG	9.45	8.51	7.88	6.30
M6-FB	3.60	3.24	3.00	2.40
M6-H	8.55	7.70	7.13	5.70
M6-M	9.45	8.51	7.88	6.30
M6-P	8.25	7.43	6.88	5.50
M7-A	7.35	6.62	6.13	4.90
M7-AG	9.75	8.78	8.13	6.50
M7-FB	3.75	3.38	3.13	2.50
M7-H	8.85	7.97	7.38	5.90
M7-M	9.75	8.78	8.13	6.50
M7-P	8.25	7.43	6.88	5.50
M8-A	7.65	6.89	6.38	5.10
M8-AG	10.50	9.45	8.75	7.00
M8-FB	3.75	3.38	3.13	2.50
M8-H	9.60	8.64	8.00	6.40
M8-M	10.50	9.45	8.75	7.00
M8-P	8.85	7.97	7.38	5.90
M9-A	7.65	6.89	6.38	5.10
M9-AG	10.50	9.45	8.75	7.00
M9-FB	3.75	3.38	3.13	2.50
M9-H	9.60	8.64	8.00	6.40
M9-M	10.50	9.45	8.75	7.00
M9-P	8.85	7.97	7.38	5.90
M10-A	8.25	7.43	6.88	5.50
M10-AG	10.80	9.72	9.00	7.20
M10-FB	3.90	3.51	3.25	2.60
M10-H	9.60	8.64	8.00	6.40
M10-M	10.80	9.72	9.00	7.20
M10-P	9.00	8.10	7.50	6.00
M11-A	7.65	6.89	6.38	5.10
M11-AG	10.50	9.45	8.75	7.00
M11-FB	3.75	3.38	3.13	2.50
M11-H	9.30	8.37	7.75	6.20

MINIATURE (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
M11-M	10.50	9.45	8.75	7.00
M11-P	8.85	7.97	7.38	5.90
M12-A	7.50	6.75	6.25	5.00
M12-AG	10.50	9.45	8.75	7.00
M12-FB	3.75	3.38	3.13	2.50
M12-H	9.30	8.37	7.75	6.20
M12-M	10.50	9.45	8.75	7.00
M12-P	9.00	8.10	7.50	6.00
M13-A	6.15	5.54	5.13	4.10
M13-AG	8.25	7.43	6.88	5.50
M13-FB	3.30	2.97	2.75	2.20
M13-H	7.35	6.62	6.13	4.90
M13-M	8.25	7.43	6.88	5.50
M13-P	7.50	6.75	6.25	5.00
M14-A	7.35	6.62	6.13	4.90
M14-AG	9.90	8.91	8.25	6.60
M14-FB	3.90	3.51	3.25	2.60
M14-H	9.00	8.10	7.50	6.00
M14-M	10.20	9.18	8.50	6.80
M14-P	8.85	7.97	7.38	5.90
M15-A	7.35	6.62	6.13	4.90
M15-AG	9.30	8.37	7.75	6.20
M15-FB	3.60	3.24	3.00	2.40
M15-H	8.40	7.56	7.00	5.60
M15-M	9.30	8.37	7.75	6.20
M15-P	8.85	7.97	7.38	5.90
MT1-A	7.20	6.48	6.00	4.80
MT1-AG	8.70	7.83	7.25	5.80
MT1-FB	3.60	3.24	3.00	2.40
MT1-H	7.80	7.02	6.50	5.20
MT1-M	9.00	8.10	7.50	6.00
MT1-P	7.35	6.61	6.13	4.90
MT2-A	8.10	7.29	6.75	5.40
MT2-AG	9.60	8.64	8.00	6.40
MT2-FB	4.20	3.78	3.50	2.80
MT2-H	8.70	7.83	7.25	5.80
MT2-M	9.90	8.91	8.25	6.60
MT2-P	8.25	7.42	6.88	5.50
MT3-A	7.80	7.02	6.50	5.20
MT3-AG	9.30	8.37	7.75	6.20
MT3-FB	3.90	3.51	3.25	2.60
MT3-H	8.40	7.56	7.00	5.60
MT3-M	9.60	8.64	8.00	6.40
MT3-P	7.95	7.15	6.63	5.30
MT5-A	7.80	7.02	6.50	5.20
MT5-AG	9.30	8.37	7.75	6.20
MT5-FB	3.90	3.51	3.25	2.60
MT5-H	8.40	7.56	7.00	5.60
MT5-M	9.60	8.64	8.00	6.40
MT5-P	7.95	7.15	6.63	5.30
MT6-A	7.95	7.15	6.63	5.30
MT6-AG	9.45	8.50	7.88	6.30
MT6-FB	4.05	3.64	3.38	2.70
MT6-H	8.55	7.69	7.13	5.70
MT6-M	9.75	8.77	8.13	6.50
MT6-P	8.10	7.29	6.75	5.40
MT7-A	7.95	7.15	6.63	5.30
MT7-AG	9.45	8.50	7.88	6.30
MT7-FB	4.05	3.64	3.38	2.70
MT7-H	8.55	7.69	7.13	5.70
MT7-M	9.75	8.77	8.13	6.50
MT7-P	8.10	7.29	6.75	5.40
MT8-A	8.10	7.29	6.75	5.40
MT8-AG	9.60	8.64	8.00	6.40
MT8-FB	4.20	3.78	3.50	2.80
MT8-H	8.70	7.83	7.25	5.80
MT8-M	9.90	8.91	8.25	6.60
MT8-P	8.25	7.42	6.88	5.50
MT9-A	8.10	7.29	6.75	5.40
MT9-AG	9.60	8.64	8.00	6.40
MT9-FB	4.20	3.78	3.50	2.80
MT9-H	8.70	7.83	7.25	5.80
MT9-M	9.90	8.91	8.25	6.60
MT9-P	7.80	7.02	6.50	5.20
MT10-A	7.80	7.02	6.50	5.20

INDUSTRIAL O.E.M. PRICE LIST

MICROTRAN

MINIATURE (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
MT10-AG	9.30	8.37	7.75	6.20
MT10-FB	3.90	3.51	3.25	2.60
MT10-H	8.40	7.56	7.00	5.60
MT10-M	9.60	8.64	8.00	6.40
MT10-P	7.95	7.15	6.63	5.30
MT11-A	8.10	7.29	6.75	5.40
MT11-AG	9.60	8.64	8.00	6.40
MT11-FB	4.20	3.78	3.50	2.80
MT11-H	8.70	7.83	7.25	5.80
MT11-M	9.90	8.91	8.25	6.60
MT11-P	8.25	7.42	6.88	5.50
MT12-A	7.80	7.02	6.50	5.20
MT12-AG	9.30	8.37	7.75	6.20
MT12-FB	3.90	3.51	3.25	2.60
MT12-H	8.40	7.56	7.00	5.60
MT12-M	9.60	8.64	8.00	6.40
MT12-P	7.95	7.15	6.63	5.30
MT13-A	7.95	7.15	6.63	5.30
MT13-AG	9.45	8.50	7.88	6.30
MT13-FB	4.05	3.64	3.38	2.70
MT13-H	8.55	7.69	7.13	5.70
MT13-M	9.75	8.77	8.13	6.50
MT13-P	8.10	7.29	6.75	5.40
MT14-A	7.20	6.48	6.00	4.80
MT14-AG	8.70	7.83	7.25	5.80
MT14-FB	3.60	3.24	3.00	2.40
MT14-H	7.80	7.02	6.50	5.20
MT14-M	9.00	8.10	7.50	6.00
MT14-P	7.35	6.61	6.13	4.90
MT15-A	7.80	7.02	6.50	5.20
MT15-AG	9.30	8.37	7.75	6.20
MT15-FB	3.90	3.51	3.25	2.60
MT15-H	8.40	7.56	7.00	5.60
MT15-M	9.60	8.64	8.00	6.40
MT15-P	7.95	7.15	6.63	5.30
MT18-A	8.10	7.29	6.75	5.40
MT18-AG	9.60	8.64	8.00	6.40
MT18-FB	4.20	3.78	3.50	2.80
MT18-H	8.70	7.83	7.25	5.80
MT18-M	9.90	8.91	8.25	6.60
MT18-P	8.25	7.42	6.88	5.50
MT20-A	8.40	7.56	7.00	5.60
MT20-AG	9.90	8.91	8.25	6.60
MT20-FB	4.50	4.05	3.75	3.00
MT20-H	9.00	8.10	7.50	6.00
MT20-M	10.20	9.18	8.50	6.80
MT20-P	8.55	7.69	7.13	5.70
MT21-A	8.25	7.42	6.88	5.50
MT21-AG	9.75	8.77	8.13	6.50
MT21-FB	4.35	3.91	3.63	2.90
MT21-H	8.85	7.96	7.38	5.90
MT21-M	10.05	9.04	8.38	6.70
MT21-P	8.40	7.56	7.00	5.60
MT22-A	8.25	7.42	6.88	5.50
MT22-AG	9.75	8.77	8.13	6.50
MT22-FB	4.35	3.91	3.63	2.90
MT22-H	8.85	7.96	7.38	5.90
MT22-M	10.05	9.04	8.38	6.70
MT22-P	8.40	7.56	7.00	5.60
MT23-A	7.80	7.02	6.50	5.20
MT23-AG	9.30	8.37	7.75	6.20
MT23-FB	3.90	3.51	3.25	2.60
MT23-H	8.40	7.56	7.00	5.60
MT23-M	9.60	8.64	8.00	6.40
MT23-P	7.95	7.15	6.63	5.30
MT24-A	7.80	7.02	6.50	5.20
MT24-AG	9.30	8.37	7.75	6.20
MT24-FB	3.90	3.51	3.25	2.60
MT24-H	8.40	7.56	7.00	5.60
MT24-M	9.60	8.64	8.00	6.40
MT24-P	7.95	7.16	6.63	5.30
MT25-A	8.10	7.29	6.75	5.40
MT25-AG	9.60	8.64	8.00	6.40
MT25-FB	4.20	3.78	3.50	2.80
MT25-H	8.70	7.83	7.25	5.80

MINIATURE (Cont'd)

Part No.	1 -9	10 -49	50 -99	100 -249
MT25-M	9.90	8.91	8.25	6.60
MT25-P	8.25	7.43	6.88	5.50
MT26-A	7.95	7.16	6.63	5.30
MT26-AG	9.45	8.51	7.88	6.30
MT26-FB	4.05	3.65	3.38	2.70
MT26-H	8.55	7.70	7.13	5.70
MT26-M	9.75	8.78	8.13	6.50
MT26-P	8.10	7.29	6.75	5.40
MT29-A	7.80	7.02	6.50	5.20
MT29-AG	9.30	8.37	7.75	6.20
MT29-FB	3.90	3.51	3.25	2.60
MT29-H	8.40	7.56	7.00	5.60
MT29-M	9.60	8.64	8.00	6.40
MT29-P	7.95	7.16	6.63	5.30
MT30-A	7.80	7.02	6.50	5.20
MT30-AG	9.30	8.37	7.75	6.20
MT30-FB	3.90	3.51	3.25	2.60
MT30-H	8.40	7.56	7.00	5.60
MT30-M	9.60	8.64	8.00	6.40
MT30-P	7.95	7.16	6.63	5.30

TRANSISTOR DRIVER & OUTPUT TRANSFORMERS (PAGE 7)

Part No.	1 -9	10 -49	50 -99	100 -249
M8002	11.25	10.12	9.38	7.50
M8003	12.30	11.07	10.25	8.20
M8004	14.85	13.36	12.38	9.90
M8005	14.85	13.36	12.38	9.90
M8006	9.45	8.51	7.88	6.30
M8007	11.40	10.26	9.50	7.60
M8008	11.10	9.99	9.25	7.40
M8009	11.70	10.53	9.75	7.80
M8010	11.55	10.39	9.63	7.70
M8011	14.55	13.09	12.13	9.70
M8012	11.25	10.12	9.38	7.50
M8013	14.55	13.09	12.13	9.70
M8014	9.15	8.24	7.63	6.10
M8015	12.00	10.80	10.00	8.00
M8016	9.30	8.37	7.75	6.20
M8054	14.55	13.09	12.13	9.70

INPUT TRANSFORMERS (PAGE 7)

Part No.	1 -9	10 -49	50 -99	100 -249
M8030	13.50	12.15	11.25	9.00
M8031	13.35	12.01	11.13	8.90
M8032	13.05	11.74	10.88	8.70
M8033	13.05	11.74	10.88	8.70

CHOPPER TRANSFORMERS (PAGE 7)

Part No.	1 -9	10 -49	50 -99	100 -249
M8025	13.80	12.42	11.50	9.20
M8026	13.80	12.42	11.50	9.20
M8052	14.25	12.82	11.88	9.50
M8053	13.65	12.28	11.38	9.10

SELECTOR KIT (PAGE 10)

Part No.	1 -9	10 -49	50 -99	100 -249
400K	29.50‡	29.50‡	29.50‡	29.50‡

‡Standard Discounts do not apply.

DC TO DC CONVERTER TRANSFORMERS (PAGE 9)

Part No.	1 -9	10 -49	50 -99	100 -249
M8034	26.70	24.03	22.25	17.80
M8035	26.70	24.03	22.25	17.80
M8036	24.90	22.41	20.75	16.60
M8050	5.55	4.99	4.63	3.70
M8051	11.85	10.66	9.88	7.90
M8072	5.40	4.86	4.50	3.60
M8073	5.25	4.73	4.38	3.50
M8074	5.10	4.59	4.25	3.40

60 ~ POWER SUPPLY TRANSFORMERS (PAGE 8)

Part No.	1 -9	10 -49	50 -99	100 -249
M8022	20.25	18.22	16.87	13.50
M8023	26.10	23.49	21.75	17.40
M8024	25.65	23.09	21.38	17.10
M8042	10.20	9.18	8.50	6.80
M8043	12.00	10.80	10.00	8.00

60 ~ POWER SUPPLY (Cont'd))

Part No.	1 -9	10 -49	50 -99	100 -249
M8044	21.60	19.44	18.00	14.40
M8045	16.35	14.71	13.63	10.90
M8046	28.20	25.38	23.50	18.80
M8055	25.65	23.09	21.38	17.10
M8056	16.65	14.98	13.88	11.10
M8057	25.35	22.81	21.12	16.90

400 ~ ISOLATION TRANSFORMERS (PAGE 8)

Part No.	1 -9	10 -49	50 -99	100 -249
M8047 ††	9.30	8.37	7.75	6.20
M8048 ††	14.25	12.82	11.88	9.50
M8049 ††	17.10	15.39	14.25	11.40
M8058	9.60	8.64	8.00	6.40
M8059	14.70	13.23	12.25	9.80
M8060	18.45	16.60	15.37	12.30
M8061	24.90	22.41	20.75	16.60
M8062	26.85	24.16	22.38	17.90

400 ~ POWER SUPPLY TRANSFORMERS (PAGE 8)

Part No.	1 -9	10 -49	50 -99	100 -249
M8018	15.30	13.77	12.75	10.20
M8019	15.90	14.31	13.25	10.60
M8020	18.00	16.20	15.00	12.00
M8021	16.05	14.44	13.38	10.70
M8039	15.15	13.63	12.63	10.10
M8041	11.10	9.99	9.25	7.40
M8063	10.50	9.45	8.75	7.00
M8064	11.10	9.99	9.25	7.40
M8065	15.60	14.04	13.00	10.40
M8066	16.05	14.44	13.38	10.70
M8067	15.00	13.50	12.50	10.00
M8068	13.20	11.88	11.00	8.80
M8069	9.75	8.78	8.13	6.50
M8070	11.25	10.12	9.38	7.50
M8071	16.20	14.58	13.50	10.80

TOROID SERIES QGL (PAGE 11)

Part No.	1 -9	10 -49	50 -99	100 -249
QGL5-F	4.35	3.92	3.63	2.90
QGL5-H †	**	6.75	6.25	5.00
QGL5-HC†	**	6.75	6.25	5.00
QGL5-M	5.70	5.13	4.75	3.80
QGL10-F	4.35	3.92	3.63	2.90
QGL10-H†	**	6.75	6.25	5.00
QGL10-HC†	**	6.75	6.25	5.00
QGL10-M	5.70	5.13	4.75	3.80
QGL15-F	4.50	4.05	3.75	3.00
QGL15-H†	**	6.89	6.38	5.10
QGL15-HC†	**	6.89	6.38	5.10
QGL15-M	5.85	5.27	4.88	3.90
QGL30-F†	4.65	4.19	3.88	3.10
QGL30-H†	**	7.02	6.50	5.20
QGL30-HC†	**	7.02	6.50	5.20
QGL30-M†	6.15	5.54	5.13	4.10
QGL50-F	4.80	4.32	4.00	3.20
QGL50-H†	**	7.16	6.63	5.30
QGL50-HC†	**	7.16	6.63	5.30
QGL50-M	6.30	5.67	5.25	4.20
QGL100-F	4.95	4.46	4.13	3.30
QGL100-H†	**	7.29	6.75	5.40
QGL100-HC†	**	7.29	6.75	5.40
QGL100-M	6.45	5.81	5.38	4.30
QGL250-F†	5.10	4.59	4.25	3.40
QGL250-H†	**	7.56	7.00	5.60
QGL250-HC†	**	7.56	7.00	5.60
QGL250-M†	6.60	5.94	5.50	4.40
QGL500-F	5.40	4.86	4.50	3.60
QGL500-H†	**	8.24	7.63	6.10
QGL500-HC †	**	8.24	7.63	6.10
QGL500-M	7.20	6.48	6.00	4.80
QGL1000-F	6.15	5.54	5.13	4.10
QGL1000-H†	**	8.64	8.00	6.40
QGL1000-HC†	**	8.64	8.00	6.40
QGL1000-M	7.95	7.16	6.63	5.30
QGL1500-F	6.30	5.67	5.25	4.20
QGL1500-H †	**	9.18	8.50	6.80
QGL1500-HC†	**	9.18	8.50	6.80
QGL1500-M	8.70	7.83	7.25	5.80

**Not Stocked; Available on Short Order; Request Price on Qty. 1-9.

††Discontinued item, available until stock is depleted.

†Not Stocked; Available on Short Order.

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MICROTRAN

INDUSTRIAL O.E.M. PRICE LIST

TOROID SERIES QGM (PAGE 11)

Part No.	1-9	10-49	50-99	100-249
QGM1-F	4.80	4.32	4.00	3.20
QGM1-H†	**	7.29	6.75	5.40
QGM1-HC†	**	7.29	6.75	5.40
QGM1-M	6.45	5.81	5.38	4.30
QGM2-F†	4.80	4.32	4.00	3.20
QGM2-H†	**	7.29	6.75	5.40
QGM2-HC†	**	7.29	6.75	5.40
QGM2-M†	6.45	5.81	5.38	4.30
QGM5-F	5.10	4.59	4.25	3.40
QGM5-H†	**	7.43	6.88	5.50
QGM5-HC†	**	7.43	6.88	5.50
QGM5-M	6.60	5.94	5.50	4.40
QGM10-F	5.25	4.73	4.38	3.50
QGM10-H†	**	7.43	6.88	5.50
QGM10-HC†	**	7.43	6.88	5.50
QGM10-M	6.75	6.08	5.63	4.50
QGM15-F†	5.40	4.86	4.50	3.60
QGM15-H†	**	7.56	7.00	5.60
QGM15-HC†	**	7.56	7.00	5.60
QGM15-M†	6.90	6.21	5.75	4.60
QGM25-F	5.70	5.13	4.75	3.80
QGM25-H†	**	7.70	7.13	5.70
QGM25-HC†	**	7.70	7.13	5.70
QGM25-M	7.05	6.35	5.88	4.70
QGM50-F	6.30	5.67	5.25	4.20
QGM50-H†	**	8.64	8.00	6.40
QGM50-HC†	**	8.64	8.00	6.40
QGM50-M	7.35	6.62	6.13	4.90
QGM100-F†	6.45	5.81	5.38	4.30
QGM100-H†	**	8.91	8.25	6.60
QGM100-HC†	**	8.91	8.25	6.60
QGM100-M†	7.95	7.16	6.63	5.30

TOROID SERIES QIL (PAGE 12)

Part No.	1-9	10-49	50-99	100-249
QIL3-F†	3.90	3.51	3.25	2.60
QIL3-H†	6.75	6.08	5.63	4.50
QIL3-M†	5.25	4.73	4.38	3.50
QIL5-F	3.90	3.51	3.25	2.60
QIL5-H	6.75	6.08	5.63	4.50
QIL5-M	5.25	4.73	4.38	3.50
QIL10-F	3.90	3.51	3.25	2.60
QIL10-H	6.75	6.08	5.63	4.50
QIL10-M	5.25	4.73	4.38	3.50
QIL15-F†	3.90	3.51	3.25	2.60
QIL15-H†	6.75	6.08	5.63	4.50
QIL15-M†	5.40	4.86	4.50	3.60
QIL25-F	4.05	3.65	3.38	2.70
QIL25-H	7.20	6.48	6.00	4.80
QIL25-M	5.40	4.86	4.50	3.60
QIL50-F	4.05	3.65	3.38	2.70
QIL50-H	7.20	6.48	6.00	4.80
QIL50-M	5.40	4.86	4.50	3.60
QIL100-F	4.20	3.78	3.50	2.80
QIL100-H	7.65	6.89	6.38	5.10
QIL100-M	5.70	5.13	4.75	3.80
QIL150-F†	4.35	3.92	3.63	2.90
QIL150-H†	7.80	7.02	6.50	5.20
QIL150-M†	5.85	5.27	4.88	3.90
QIL250-F	4.50	4.05	3.75	3.00
QIL250-H	8.25	7.43	6.88	5.50
QIL250-M	6.00	5.40	5.00	4.00
QIL500-F	4.80	4.32	4.00	3.20
QIL500-H	8.55	7.70	7.13	5.70
QIL500-M	6.30	5.67	5.25	4.20
QIL1000-F	5.10	4.59	4.25	3.40
QIL1000-H	9.00	8.10	7.50	6.00
QIL1000-M	6.75	6.08	5.63	4.50
QIL1500-F†	5.85	5.27	4.88	3.90
QIL1500-H†	9.45	8.51	7.88	6.30
QIL1500-M†	7.35	6.62	6.13	4.90
QIL2500-F	6.75	6.08	5.63	4.50
QIL2500-H	10.80	9.72	9.00	7.20
QIL2500-M	8.70	7.83	7.25	5.80

TOROID SERIES QKL & QKM (PAGE 13)

Part No.	1-9	10-49	50-99	100-249
QKL5-F†	4.35	3.92	3.63	2.90
QKL5-H†	7.05	6.35	5.88	4.70
QKL5-M†	6.15	5.54	5.13	4.10
QKL10-F	4.50	4.05	3.75	3.00
QKL10-H	7.20	6.48	6.00	4.80

TOROID SERIES QKL, QKM (Cont'd)

Part No.	1-9	10-49	50-99	100-249
QKL10-M	6.15	5.54	5.13	4.10
QKL15-F†	4.50	4.05	3.75	3.00
QKL15-H†	7.35	6.62	6.13	4.90
QKL15-M†	6.15	5.54	5.13	4.10
QKL25-F	4.65	4.19	3.88	3.10
QKL25-H	7.50	6.75	6.25	5.00
QKL25-M	6.15	5.54	5.13	4.10
QKL50-F	4.65	4.19	3.88	3.10
QKL50-H	7.80	7.02	6.50	5.20
QKL50-M	6.15	5.54	5.13	4.10
QKL100-F	4.80	4.32	4.00	3.20
QKL100-H	8.40	7.56	7.00	5.60
QKL100-M	6.60	5.94	5.50	4.40
QKL150-F†	4.95	4.46	4.13	3.30
QKL150-H†	8.55	7.70	7.13	5.70
QKL150-M†	6.60	5.94	5.50	4.40
QKL250-F	4.95	4.46	4.13	3.30
QKL250-H	8.85	7.97	7.38	5.90
QKL250-M	6.75	6.08	5.63	4.50
QKL500-F	5.10	4.59	4.25	3.40
QKL500-H	9.15	8.24	7.63	6.10
QKL500-M	6.90	6.21	5.75	4.60
QKL1000-F	5.25	4.73	4.38	3.50
QKL1000-H	9.60	8.64	8.00	6.40
QKL1000-M	7.20	6.48	6.00	4.80
QKL1500-F†	5.40	4.86	4.50	3.60
QKL1500-H†	9.75	8.78	8.13	6.50
QKL1500-M†	7.35	6.62	6.13	4.90
QKL2500-F†	6.00	5.40	5.00	4.00
QKL2500-H†	10.05	9.05	8.38	6.70
QKL2500-M†	7.50	6.75	6.25	5.00
QKL5000-F	6.75	6.08	5.63	4.50
QKL5000-H	11.10	9.99	9.25	7.40
QKL5000-M	8.40	7.56	7.00	5.60
QKL10000-F	7.50	6.75	6.25	5.00
QKL10000-H	12.45	11.20	10.38	8.30
QKL10000-M	9.60	8.64	8.00	6.40
QKM2-F	5.10	4.59	4.25	3.40
QKM2-H	8.25	7.43	6.88	5.50
QKM2-M	6.30	5.67	5.25	4.20
QKM5-F	5.25	4.73	4.38	3.50
QKM5-H	8.40	7.56	7.00	5.60
QKM5-M	6.45	5.81	5.38	4.30
QKM10-F	5.25	4.73	4.38	3.50
QKM10-H	8.55	7.70	7.13	5.70
QKM10-M	6.60	5.94	5.50	4.40
QKM25-F	5.40	4.86	4.50	3.60
QKM25-H	8.85	7.97	7.38	5.90
QKM25-M	6.75	6.08	5.63	4.50
QKM50-F	5.55	5.00	4.63	3.70
QKM50-H	9.00	8.10	7.50	6.00
QKM50-M	6.90	6.21	5.75	4.60
QKM100-F†	5.70	5.13	4.75	3.80
QKM100-H†	9.00	8.10	7.50	6.00
QKM100-M†	7.05	6.35	5.88	4.70
QKM250-F†	5.85	5.27	4.88	3.90
QKM250-H†	9.30	8.37	7.75	6.20
QKM250-M†	7.35	6.62	6.13	4.90
QKM500-F†	6.15	5.54	5.13	4.10
QKM500-H†	9.60	8.64	8.00	6.40
QKM500-M†	7.65	6.89	6.38	5.10
QKM1000-F†	6.45	5.81	5.38	4.30
QKM1000-H†	10.65	9.58	8.88	7.10
QKM1000-M†	8.25	7.43	6.88	5.50

TOROID SERIES QPL (PAGE 14)

Part No.	1-9	10-49	50-99	100-249
QPL25-F	6.90	6.21	5.75	4.60
QPL25-H	10.35	9.32	8.63	6.90
QPL25-M	8.55	7.70	7.13	5.70
QPL50-F	7.05	6.35	5.88	4.70
QPL50-H	10.50	9.45	8.75	7.00
QPL50-M	8.70	7.83	7.25	5.80
QPL100-F	7.20	6.48	6.00	4.80
QPL100-H	10.65	9.58	8.88	7.10
QPL100-M	8.85	7.97	7.38	5.90
QPL250-F†	7.35	6.62	6.13	4.90

TOROID SERIES QPL (Cont'd)

Part No.	1-9	10-49	50-99	100-249
QPL250-H†	10.80	9.72	9.00	7.20
QPL250-M†	9.15	8.24	7.63	6.10
QPL500-F	7.50	6.75	6.25	5.00
QPL500-H	10.95	9.85	9.13	7.30
QPL500-M	9.60	8.64	8.00	6.40
QPL1000-F	7.80	7.02	6.50	5.20
QPL1000-H	11.40	10.26	9.50	7.60
QPL1000-M	9.90	8.91	8.25	6.60
QPL1500-F†	8.10	7.29	6.75	5.40
QPL1500-H†	11.70	10.53	9.75	7.80
QPL1500-M†	10.20	9.18	8.50	6.80
QPL2500-F†	8.70	7.83	7.25	5.80
QPL2500-H†	12.30	11.07	10.25	8.20
QPL2500-M†	10.50	9.45	8.75	7.00
QPL5000-F	9.45	8.51	7.88	6.30
QPL5000-H	13.20	11.88	11.00	8.80
QPL5000-M	11.10	9.99	9.25	7.40
QPL7500-F†	10.05	9.05	8.38	6.70
QPL7500-H†	14.10	12.69	11.75	9.40
QPL7500-M†	12.00	10.80	10.00	8.00
QPL10000-F	11.10	9.99	9.25	7.40
QPL10000-H	15.00	13.50	12.50	10.00
QPL10000-M	12.90	11.61	10.75	8.60
QPL15000-F†	12.00	10.80	10.00	8.00
QPL15000-H†	15.75	14.17	13.13	10.50
QPL15000-M†	13.80	12.42	11.50	9.20
QPL25000-F	13.05	11.74	10.88	8.70
QPL25000-H	17.55	15.80	14.63	11.70
QPL25000-M	15.45	13.90	12.88	10.30

TOROID SERIES QTL (PAGE 15)

Part No.	1-9	10-49	50-99	100-249
QTL25-F†	10.80	9.72	9.00	7.20
QTL25-H†	13.50	12.15	11.25	9.00
QTL25-M†	12.60	11.34	10.50	8.40
QTL50-F	10.95	9.85	9.13	7.30
QTL50-H	13.65	12.28	11.38	9.10
QTL50-M	12.75	11.47	10.63	8.50
QTL100-F	11.25	10.12	9.38	7.50
QTL100-H	13.95	12.55	11.63	9.30
QTL100-M	13.05	11.74	10.88	8.70
QTL150-F†	11.70	10.53	9.75	7.80
QTL150-H†	14.25	12.82	11.88	9.50
QTL150-M†	13.65	12.28	11.38	9.10
QTL250-F†	12.00	10.80	10.00	8.00
QTL250-H†	14.55	13.09	12.13	9.70
QTL250-M†	13.95	12.55	11.63	9.30
QTL500-F	11.85	10.66	9.88	7.90
QTL500-H	14.85	13.36	12.38	9.90
QTL500-M	13.05	11.74	10.88	8.70
QTL1000-F	12.15	10.93	10.13	8.10
QTL1000-H	15.15	13.63	12.63	10.10
QTL1000-M	13.95	12.55	11.63	9.30
QTL1500-F†	12.45	11.20	10.38	8.30
QTL1500-H†	15.45	13.90	12.88	10.30
QTL1500-M†	14.25	12.82	11.88	9.50
QTL2500-F	13.05	11.74	10.88	8.70
QTL2500-H	16.05	14.44	13.38	10.70
QTL2500-M	14.85	13.36	12.38	9.90
QTL5000-F	13.05	11.74	10.88	8.70
QTL5000-H	16.65	14.98	13.88	11.10
QTL5000-M	15.00	13.50	12.50	10.00
QTL10000-F	14.25	12.82	11.88	9.50
QTL10000-H	17.25	15.53	14.38	11.50
QTL10000-M	16.20	14.58	13.50	10.80
QTL15000-F†	15.30	13.77	12.75	10.20
QTL15000-H†	18.30	16.47	15.25	12.20
QTL15000-M†	17.25	15.53	14.38	11.50
QTL25000-F	16.50	14.85	13.75	11.00
QTL25000-H	19.50	17.55	16.25	13.00
QTL25000-M	18.45	16.61	15.38	12.30
QTL50000-F	22.20	19.98	18.50	14.80
QTL50000-H	25.20	22.68	21.00	16.80
QTL50000-M	24.15	21.74	20.13	16.10

†Not Stocked; Available on Short Order.

**Not Stocked; Available on Short Order; Request Price on Qty. 1-9.

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Net

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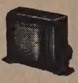
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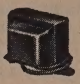
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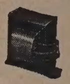
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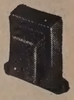
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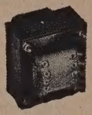
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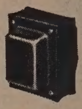

Style FL Mtg.

Skillful Engineering, latest production techniques and highest quality materials . . . backed by careful workmanship, exacting step-by-step inspection and rigorous final testing . . . are combined in every SNC transformer to provide a quality product that gives MORE in dollar value.

AUDIO TRANSFORMERS — THE "ONE" SERIES

AUDIO INPUT

Type Number	Application	Impedance		Pri. Mils (D.C.)	Max. Turns Ratio	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions				Net. Wt.	List Price
		Primary	Secondary			50	200	1M	5M	10M		A	B	C	C		
1P121	P.M. Speaker to Grid	4	100,000	0	1:58	−4.0	−1.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.85
1P124	S.B. Mic. to Sgl. or P.P. Grids	100	400,000 C.T.	50	1:63		−6.0	0	−2.0	−6.0	BL	1-7/8	1 9/16	1-1/2	2	.5	4.05
1P125	Low Z to Sgl. or P.P. Grids	50	100,000 C.T.	0	1:45		−3.0	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.75
1P128	Sgl. or D.B. Mic. or Line to Sgl. or P.P. Grids	200*/50	100,000 C.T.	50	1:45	−2.0	−0.3	0	−0.7	−2.0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.3	5.95
1P136	Line to Sgl. or P.P. Grids	500*/125	100,000 C.T.	0	1:28	−3.0	−0.4	0	−0.4	−1.5	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.4	5.95
1P145	Sgl. or P.P. Plates to Line	20,000 C.T.	500*/125	8	12.6:1	−3.5	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.90
1P152	Sgl. or P.P. Plates to Line	20,000 C.T.	200*/50	8	20:1	−4.0	−1.0	0	0	0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.90
1P161	Line to Line	500	500*/125	0	2:1	−0.4	−0.1	0	−0.4	−1.0	DL	2-1/4	1-7/8	1-13/16	2-3/8	.9	5.30

*Indicates Balanced Center Tap

AUDIO INTERSTAGE

Type Number	Application	Impedance		Pri. Mils (D.C.)	Max. Turns Ratio	50	200	1M	5M	10M	Mtg. Style	A	B	C	C	Net. Wt.	List Price
1P323	Sgl. Plate to Sgl. Grid	10,000	90,000	8	1:3	−5.0	−1.5	0	0	0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.60
1P331	Sgl. Plate to P.P.Grids	10,000	90,000 C.T.	8	1:3	−6.0	−2.0	0	0	−1.0	BL	1-7/8	1-1/16	1-1/2	2	.5	3.85
1P339	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−3.0	−0.5	0	±0.1	+0.5	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.30
1P342	Sgl. Plate to P.P. Grids	10,000	90,000 C.T.	8	1:3	−2.5	−0.5	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.55
1P346	P.P. Plates to P.P. Grids	20,000 C.T.	45,000 C.T.	10	1:1.5	−1.0	−0.2	0	0	0	DL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.70
1P351	Universal	Universal		8	1:3	−2.0	−0.4	0	0	0	BL	2-1/4	1-7/8	1-13/16	2-3/8	.9	4.55
3P363	Sgl. Type 30 to 19, 1J5 or P.P 30 Class B	10,000	7,000 C.T.	8	2.4:1	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2	.5	3.10

TELEVISION REPLACEMENT (VERTICAL BLOCKING OSCILLATOR)

Type Number	Primary Inductance	Leakage Inductance	Turns Ratio	Mounting Style	Mounting	Dimensions				Net Wt.	List Price
						H	W	D	Ctrs.		
1P412	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Flange	1-7/8	2-5/16	1-1/2	1-15/16	.5	4.00
1P416	1.15 Hy.±20%	.008 Hy.±25−15%	1:42	Comp. Filled Case	Studs	1-5/8	1-3/16	1-3/16	1-13/64	.4	3.70

CHOKES AND REACTORS — THE "TWO" SERIES

AUDIO REACTORS

Type Number	D.C. Mils		Inductance				Insul. Test Voltage	D.C. Res.	Mtg. Style	Dimensions					Net Weight	List Price
	Nom.	Max.	0-D.C.	50% Nom. D.C.	Nom. D.C.	Max. D.C.				A	B	C	D	E		
2P123	5-0.5	15	550	–	300-500	80	2000	5500	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	3.85
2P124	5-0.5	15	550	–	300-500	80	2000	5500	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	4.30
2P126	35-15	45	65	–	25-35	20	2000	800	AL	1-7/8	2-1/4	1-5/8	2-13/16		.9	3.05
2P127	35-15	45	65	–	25-35	20	2000	800	CL	1-7/8	2-1/4	1-3/4	2-13/16		.9	3.60

FILTER AND SWINGING CHOKES

Type Number	Nom.	Max.	0-D.C.	50% Nom. D.C.	Nom. D.C.	Max. D.C.	Insul. Test Voltage	D.C. Res.	Mtg. Style	A	B	C	D	E	Net Weight	List Price
2P132	40	50	22	13	8	6	2000	450	AL	1-5/16	1-5/8	1-1/8	2		.3	2.00
2P135	65	80	18	11	8	7	2000	300	AL	1-9/16	1-7/8	1-3/8	2-3/8		.5	2.35
2P138	85	100	30	16	8	7	2000	350	AL	1-7/8	2-1/4	1-7/8	2-13/16		1.2	3.00
2P141	110	135	20	10.5	8	7	2000	200	BL	2-5/8	2-3/16	1-7/8	2-13/16		1.5	4.05
2P142	110	135	20	10.5	8	7	2000	200	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	4.30
2P144	150	180	26	13	8	5.5	2000	190	BL	3	2-1/2	2-1/8	3-1/8		2.1	4.05
2P145	150	180	26	13	8	5.5	2000	190	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.2	5.55
2P147	200	250	16	10	8	6.5	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	7.15
2P148	200-20	—	—	—	3-15	—	3500	110	GL	3-1/2	2-7/8	3-1/8	2-1/4	2	3.2	7.15
2P151	300	350	18	11	8	7	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	12.20
2P152	300-30	—	—	—	3-15	—	5000	75	GL	4-5/8	3-3/4	3-7/8	3	2-13/16	7.5	12.20
2P155	500	600	16	10	8	5.5	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	34.30
2P156	500-50	—	—	—	3-15	—	5000	55	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.8	34.30

DRIVER TRANSFORMERS — THE "THREE" SERIES

Type Number	Primary Impedance	Watts	Ratio, Pri. to 1/2 Sec. or Sec. Z	Pri. D.C. Mils	Frequency Characteristics—c. p. s.					Mtg. Style	Dimensions					Net Wt.	List Price
					50	200	1M	5M	10M		A	B	C	D	E		
3P323	6,000 C.T. to 10,000 C.T.	25	6, 5.5, 5:1	60	−0.5	0	0	0	−0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.45
3P328	3,000 C.T. to 5,000 C.T.	25	6, 5.5, 5:1	60	−0.4	0	0	0	−0.1	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.45
3P334	6,000 C.T. to 10,000 C.T.	25	4.5, 4, 3.5:1	60	−1.0	−0.3	0	+0.1	+0.6	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.25
3P338	3,000 C.T. to 5,000 C.T.	25	4.5, 4, 3.5:1	60	−1.7	−0.5	0	0	0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.50
3P342	6,000 C.T. to 10,000 C.T.	25	3, 2, 1:1	60	−0.7	−0.1	0	+0.1	+0.4	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.95
3P347	3,000 C.T. to 5,000 C.T.	25	3, 2, 1:1	60	−0.8	0	0	0	−0.8	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.75
3P353	6,000 C.T. to 10,000 C.T.	25	500 Ohms	60	−1.1	−0.3	0	0	+0.3	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.55
3P358	3,000 C.T. to 5,000 C.T.	25	500 Ohms	60	−0.9	−0.1	0	−0.4	−1.0	GL	3-1/8	2-1/2	2-5/8	2	1-11/16	2.3	12.55
3P363	10,000	5	2.4:1	10	−0.5	0	0	−0.2	−1.0	BL	1-7/8	1-9/16	1-1/2	2		.5	3.10

SNC

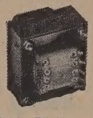
QUALITY TRANSFORMERS Give OUTSTANDING PERFORMANCE!

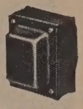
Style AL Mtg.

Style CL Mtg.

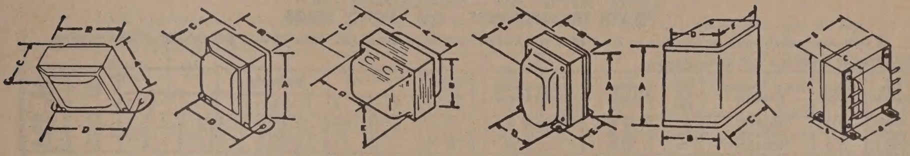
Style BL Mtg.

Style DL Mtg.


Style ET Mtg.


Style FL Mtg.

DIMENSIONAL ILLUSTRATIONS



OUTPUT TRANSFORMERS — THE "SIX" SERIES

SPECIFIC DUTY REPLACEMENT TYPES—TUBE TO VOICE COIL

Type Number	Primary Imp.—Ohms		Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions A	B	C	D	Net Wt.	List Price
6P300	Single	2,000 Plate	50	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.00
6P306	Single	4,000 Plate	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.00
6P312	Single or P.P.	7,500 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.65
6P316	Single or P.P.	10,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.65
6P319	Push-Pull	15,000 Plates	35	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70
6P321	Push-Pull	20,000 Plates	30	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70
6P325	Push-Pull	25,000 Plates	20	3-6	6	AL	1-5/16	1-5/8	1-1/2	2	.3	2.70

UNIVERSAL REPLACEMENT TYPES—TUBE TO VOICE COIL—TUBE TO LINE—LINE TO VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Sec. Z—Ohms	Watts	Mtg. Style	Dimensions A	B	C	D	Net Wt.	List Price
6P165	Sgl. or P.P. 4M to 14M Plates	40	1.1 to 14	4	ATL	1-5/16	1-5/8	1-3/8	2	.3	3.10
6P166	Sgl. or P.P. 4M to 14M Plates	50	1.1 to 14	8	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	3.10
6P167	Sgl. or P.P. 3M to 10M Plates	50	1.2 to 13	15	BTL	1-7/8	1-9/16	1-3/4	2	.5	3.85
6P169	Sgl. 1500 to 7M Plate	55	.8 to 19	10	ATL	1-9/16	1-7/8	1-5/8	2-3/8	.5	3.10
6P172	P.P. 3500 to 12M Plates	60	1.3 to 14	20	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.60
6P701	Single 2500 to 7500 Plate	45	165 to 1500	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	4.90
6P710	P.P. 7500 to 15M Plates	45	250 to 1000	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.55
6P714	Sgl. or P.P. 2500 to 12M Plates	45	150 to 2400	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.85
6P717	125 to 500 Line	0	1 to 32	35	BTL	2-5/8	2-3/16	2-1/8	2-13/16	1.5	5.95
6P722	500 to 3M Line in 500-Ohm Steps	0	1.3 to 48	10	BTL	2-1/4	1-7/8	1-7/8	2-3/8	.9	5.60

AMPLIFIER AND EQUIPMENT TYPES—TUBE TO LINE AND VOICE COIL

Type Number	Primary Imp.—Ohms	Pri. D.C. Mils	Secondary Imp.—Ohms	Watts	Frequency Characteristics—c. p. s. 50	200	1M	5M	10M	Mtg. Style	Dimensions A	B	C	D	E	Net Wt.	List Price
6P726	P.P. 3300 or 3800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.1	+0.5	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	11.75
6P731	P.P. 4500 or 6800 Plates	90	4-8-16-250-500	60	−0.3	0	0	+0.2	0	GL	3-3/4	3-1/16	3-3/8	2-1/2	2-3/16	4.4	11.75
6P736	P.P. 5000 Plates	70	4-8-16-250-500	25	−0.9	−0.2	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P740	P.P. 4300 Plates	70	4-8-16-250-500	25	−0.9	−0.3	0	+0.3	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P743	P.P. 6600 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.2	+0.5	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P746	P.P. 8000 Plates	70	4-8-16-250-500	25	−0.7	−0.1	0	+0.1	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	7.90
6P749	P.P. 10,000 Plates	60	4-8-16-250-500	25	−0.4	−0.1	0	+0.2	+0.3	DL	2-5/8	2-3/16	2-1/8	2-13/16		1.5	8.30
6P752	Sgl. 2500 Plate	60	4-8-16-250-500	10	−3.0	−0.4	0	+0.3	+0.5	DL	2-1/4	1-7/8	2-1/8	2-3/8		1.0	6.25

TELEVISION REPLACEMENT (VERTICAL DEFLECTION)

Type Number	Ratio Pri. to Sec.	Primary Imp.—Ohms	Leakage Inductance	Mounting Style	Dimensions A	B	C	D	E	Net Wt.	List Price
6P860	10:1	19,000 Min.	0.33 Hy. Max.	B x L	3-3/16	2-3/4	2-9/16	1-19/32	2	2.2	7.35

MODULATION TRANSFORMERS — THE "FIVE" SERIES

SNC universal modulation transformers are specifically designed to provide maximum application possibilities per type. All units are provided with two identical secondary windings, permitting series or parrallel operation. Changes in the ratio can be readily accomplished, when desired, without removing the unit from the chassis. Most units available in either air cooled or compound filled cases.

UNIVERSAL TYPES

Type Number	Watts	Primary Current Mils	Secondary Characteristics Series Sec. Impedance	Mils.	Parallel Sec. Impedance	Mils	Primary Impedance Ohms	Mtg. Style	Dimensions A	B	C	D	E	Net Weight	List Price
5P341	15	60	3M to 8M	50	1000 to 5000	100	3M to 8M	DL	2-5/8	2-3/16	2-3/8	2-13/16		1.5	9.90
5P346	50	80	2M to 18M	75	500 to 4500	150	3M to 15M	GTL	3-7/8	3-1/8	3-3/8	2-1/2	2-3/16	4	15.50
5P352	100	120	2M to 18M	100	500 to 4500	200	3M to 15M	GTL	4-5/8	3-3/4	3-7/8	3	2-13/16	9.7	24.75
5P354								HT						24	56.75
5P355	200	200	2M to 18M	150	500 to 4500	300	3M to 15M	JT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	32	62.05
5P357								HT						33	68.65
5P358	300	250	2M to 18M	250	500 to 4500	500	3M to 15M	JT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	41	73.90
5P363								HT						51	138.60
5P364	500	300	2M to 18M	300	500 to 4500	600	3M to 15M	JT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	64	151.80

Style GL Mtg.

Style HP Mtg.

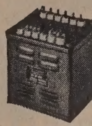
Style ATL Mtg.

Style BTL Mtg.

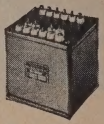
Style BxL Mtg.

Style HSP Mtg.

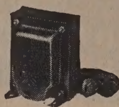
Style GTL Mtg.



Style HT Mtg.



Style JT Mtg.



Style GP Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols
L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug

POWER TRANSFORMERS — THE "EIGHT" SERIES

All units conservatively rated for operation on either 50 or 60 cycles and contain an electrostatic shield between primary and all other windings.

REPLACEMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	List Price
							A	B	C	D	E		
8P040	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	2-3/4	2-1/2	2	2.3	5.95
8P055	117	300-0-300	55	5V. @ 2A.	6.3A. @ 2.5A.	FL	3	2-1/2	3-1/8	2-1/2	2	2.8	6.00
8P070	117	325-0-325	70	5V. @ 2A.	6.3V. @ 3A.	FL	3	2-1/2	3-1/2	2-1/2	2	3.2	7.60

HEAVY DUTY REPLACEMENT AND NEW EQUIPMENT TYPES (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	List Price
							A	B	C	D	E		
8P180	117	265-0-265	40	5V. @ 2A.	6.3V. @ 2A.	FL	3	2-1/2	3-1/4	2-1/2	2	3.2	8.15
8P180G						GL	3-1/16	2-7/32	3-1/8	2	2-3/16		
8P183	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	FL	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.5	8.60
8P183G						GL	3-7/16	2-27/32	3-1/4	2-1/4	2-1/8		
8P186	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	FL	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	9.00
8P186G						GL	3-7/16	2-27/32	3-1/2	2-1/4	2-3/8		
8P189	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	9.90
8P186G						GL	3-13/16	3-5/32	3-5/8	2-1/2	2-7/16		
8P192	117	350-0-350	90	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.7	10.90
8P192G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P194	117	375-0-375	110	5V. @ 3A.	6.3A. @ 4A.	FL	3-3/4	3-1/8	4-1/8	3-1/8	2-1/2	6.0	12.20
8P194G						GL	3-13/16	3-5/32	4	2-1/2	2-13/16		
8P196	117	350-0-350	150	5V. @ 3A.	6.3V. @ 4.8A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.7	12.85
8P196G						GL	4-3/16	3-15/32	4-3/8	2-3/4	3-5/16		
8P199	117	400-0-400	70	5V. @ 3A.	6.3V. @ 3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	11.55
8P199G						GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P202	117	450-0-450	200	5V. @ 3A.	6.3V. @ 5A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	16.50
8P202G						GL	4-9/16	3-25/32	4-3/8	3	3-11/16		
8P205	117	450-0-450	325	5V. @ 6A.	6.3V. @ 8A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	22.3	44.90
8P208	117	550-0-550	275	5V. @ 6A.	6.3V. @ 6A.	HT	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	44.90

REPLACEMENT TYPES (2.5 Volt Heater Winding)

8P287	117	350-0-350	70	5V. @ 3A.	2.5V. @ 6A.	FL	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	5.0	9.90
8P293	117	350-0-350	90	5V. @ 3A.	2.5V..@ 8A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.6	10.80
8P295	117	350-0-350	150	5V. @ 3A.	2.5V. @ 12A.	FL	4-1/8	3-7/16	4-3/8	3-7/16	2-3/4	7.3	12.85

REPLACEMENT TYPES (Two 2.5 Volt Heater Windings)

8P487	117	350-0-350	70	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4	3-1/8	2-1/2	5.8	11.90
8P487G					No. 2=2.5V.@8A.	GL	3-13/16	3-5/32	3-7/8	2-1/2	2-11/16		
8P494	117	375-0-375	110	5V. @ 3A.	No. 1=2.5V.@3.5A.	FL	3-3/4	3-1/8	4-1/4	3-1/8	2-1/2	6.2	13.00
8P494G					No. 2=2.5V.@10A.	GL	3-13/16	3-5/32	4-1/8	2-1/2	2-15/16		

GENERAL PURPOSE TYPES WITH CONVENIENT LUG TERMINALS (6.3 Volt Heater Winding)

Type Number	Primary Voltage	R.M.S.—High Volt. Secondary	Sec. D.C. Mils	Rectifier Filament	Heater Winding Center Tapped	Mtg. Style	Dimensions					Net Wt.	List Price
							A	B	C	D	E		
8P382	117	300-0-300	50	5V. @ 2A.	6.3V. @ 2A.	ET	3-3/8	2-13/16	3-7/16	2-13/16	2-1/4	3.2	7.80
8P385	117	325-0-325	60	5V. @ 2A.	6.3V. @ 3A.	ET	3-3/8	2-13/16	3-11/16	2-13/16	2-1/4	4.0	8.35
8P388	117	350-0-350	70	5V. @ 3A.	6.3V. @ 3.5A.	ET	3-3/4	3-1/8	3-3/4	3-1/8	2-1/2	4.7	9.15

BIAS TYPES

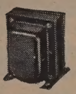
8P510	117	40-0-40	25	5V. @ 2A.		CL	1-7/8	2-1/4	1-3/4	2-13/16		1.0	4.95
8P511	117	0-90-150-200-250	50	5V. @ 2A.		GL	3-1/16	2-7/32	2-5/8	2	1-11/16	2.0	7.20

VIBRATOR TYPES

8P610	6	225-0-225	40			AL	2-3/16	2-5/8	2	3-1/8		1.3	5.60
8P611	6	320-0-320	40			GL	3-1/16	2-7/32	2-1/2	2	1-9/16	2.1	6.70
8P612	6	390-0-390	60			GL	3-7/16	2-27/32	3-5/16	2-1/4	2-3/16	3.7	7.60

TELEVISION REPLACEMENT TYPES

8P803	117	375-0-375	210	5V. @ 3A.	No. 1=5V.@2A. No. 2=6.3V.@5.6A.	FL	4-1/2	3-3/4	4-3/4	3-3/4	3	10.7	19.55
8P805	117	235-0-235	90	5V. @ 2A.	6.3V. @ 5.5A.	FL	3-3/8	2-13/16	4	2-13/16	2-1/4	5.1	11.20
8P807	117	365-0-365	300	5V. @ 6A.	No. 1=12.6V.@5A No. 2=5V.@2A	FL	4-23/32	3-27/32	6-3/4	4-1/16	3-3/16	16.0	33.65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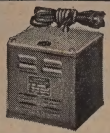
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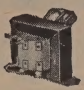
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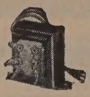
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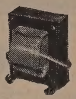
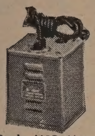

Style BxL Mtg.

NOTE

Basic mounting types are classified as "A," "B," "C," "D," "E," "F," "G," "H," "J," and Bx.

Explanation of Suffix Symbols

L = Leads
T = Lugs
P = Cord and Plug
SP = Switch, Cord and Plug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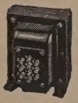
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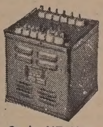
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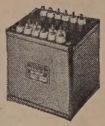
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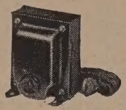

Style GP Mtg.

PLATE TRANSFORMERS — THE "SEVEN" SERIES

All SNC plate transformers have dual secondary ratings. Most units available in either air cooled or compound filled cases. All units electrostatic shields between primary and high voltage windings. 50/60 Cycle Operation

Type Number	Primary Voltage	Pri. V.A.	Secondary R.M.S. Voltage	D.C. Voltage From Filter*	D.C. Current	Mtg. Style	Dimensions					Net Wt.	List Price
							A	B	C	D	E		
7P530	115-230	220	920-0-920 or 740-0-740	750 or 600	200MA	GL	4-3/4	3-3/4	5-1/8	3	4-1/16	12	19.80
7P535	115-230	320	930-0-930	750	300MA	HT	7-1/8	5-1 2	5-15/16	4-3/8	4-13/16	22	46.20
7P536			or 750-0-750	or 600		JT						30	52.80
7P542	115-230	530	1470-0-1470	1250	300MA	HT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	33	55.45
7P543			or 1220-0-1220	or 1000		JT						41	60.70
7P551	115-230	750	2050-0-2050	1750	300MA	HT	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	43	59.40
7P552			or 1740-0-1740	or 1500		JT						51	72.60
7P557	115-230	1060	2880-0-2880	2500	300MA	HT	10-3/4	6-1/2	7-1/4	5-3/8	6-1/8	53	81.85
7P558			or 2350-0-2350	or 2000		JT						69	88.45
7P563	115-230	1760	2900-0-2900	2500	500MA	HT	10-3/4	9	7-1/4	7	5-13/16	96	118.80
7P564			or 2370-0-2370	or 2000		JT						126	165.00

*All units may be operated with simultaneous loads—provided the total D.C. Current of the two loads does not exceed the rating listed.

FILAMENT TRANSFORMERS — THE "FOUR" SERIES

Most SNC Filament Transformers are constructed to provide two identical center tapped secondary windings and offer a minimum of three applications. They provide three-fold the number of possible applications of ordinary filament types. A few are single secondary units and are so designed. All have 117 V. 50/60 cycle primary.

Type Number	Applications			Test Voltages	Mtg. Style	Dimensions					Net Wt.	List Price
	Parallel Secondaries	Series Secondaries	Independent Identical Secondaries			A	B	C	D	E		
4P222	2.5V. C.T. @ 5 A.	5 V. C.T. @ 2.5 A.	Two of 2.5V. C.T.@ 2.5 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	3.90
4P226*	2.5V. C.T. @ 10 A.*			7500	BL	3	2-1/2	2-3/8	3-1/8		2.0	6.05
4P227	2.5V. C.T. @ 10 A.	5 V. C.T. @ 5 A.	Two of 2.5V. C.T.@ 5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	5.30
4P234	2.5V. C.T. @ 15 A.	5 V. C.T. @ 7.5 A.	Two of 2.5V. C.T.@ 7.5 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	6.25
4P239	5 V. C.T. @ 6.5A.	10 V. C.T. @ 3.25A.	Two of 5 V. C.T.@ 3.25A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.2	5.60
4P242*	5 V. C.T. @ 20 A.*			10000	BxL	4-1/8	3-7/16	2-3/4	2-3/4	2-1/8	4.6	11.20
4P243	5 V. C.T. @ 20 A.	10 V. C.T. @ 10 A.	Two of 5 V. C.T.@ 10 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.3	9.90
4P244*	6.3V. C.T. @ 0.6A.*			2000	BL	1-7/8	1-9/16	1-1/2	2		.6	3.85
4P245*	6.3V. C.T. @ 1.2A.*			2000	BL	1-7/8	1-9/16	1-5/8	2		.7	4.20
4P246	6.3A. C.T. @ 2 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T.@ 1 A.	2000	BL	2-1/4	1-7/8	1-3/4	2-3/8		1.0	4.60
4P251	6.3V. C.T. @ 6 A.	12.6V. C.T. @ 1 A.	Two of 6.3V. C.T.@ 3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	5.35
4P256	6.3V. C.T. @ 10 A.	12.6V. C.T. @ 5 A.	Two of 6.3V. C.T.@ 5 A.	2000	BxL	3-3/8	2-13/16	2-1/2	2-1/4	2-1/8	2.9	6.95
4P260	7.5V. C.T. @ 3 A.	15 V. C.T. @ 1.5 A.	Two of 7.5V. C.T.@ 1.5 A.	2000	BL	2-5/8	2-3/16	2	2-13/16		1.5	5.60
4P267	7.5V. C.T. @ 4.5A.	15 V. C.T. @ 2.3 A.	Two of 7.5V. C.T.@ 2.3 A.	2000	BL	3	2-1/2	2-1/4	3-1/8		2.0	6.95
4P272	11 V. C.T. @ 10 A.	22 V. C.T. @ 5 A.	Two of 11 V. C.T.@ 5 A.	2000	BxL	3-3/4	3-1/8	2-3/4	2-1/2	2-1/4	4.1	9.90

*Single Secondary Units.

VOLTAGE CHANGER AND ISOLATION — THE "NINE" SERIES

All Units Have Primary Cord and Secondary Plug and Are For 50/60 Cycle Operation.

VOLTAGE CHANGER (ISOLATION)

Type Number	Primary Voltage	Secondary Voltage	Capacity in V. A.	Mtg. Style	Dimensions					Net Wt.	List Price
					A	B	C	D	E		
9P707	220-250	110-125	75	GP	3-13/16	3-5/32	3-1/8	2-1/2	1-15/16	3.9	10.25
9P713	220-250	110-125	150	GP	4-9/16	3-25/32	3-7/8	3	2-13/16	8.0	15.20
9P718	220-250	110-125	360	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	39.60

ISOLATION TYPES

9P721	110-250	110-250	150	GP	4-9/16	3-25/32	4-5/8	3	3-9/16	12.1	19.80
9P725	110-250	110-250	250	HP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	32.35
9P728	110-250	110-250	500	HP	7-1/8	6-1/2	7-1/4	5-3/8	6-1/8	34.8	45.55

VOLTAGE ADJUSTMENT TYPES WITH TAP CHANGE SWITCH

9P732	95-130 in 5V. Steps	115	150	HSP	4-7/8	3-7/8	3-7/8	3-1/8	3-1/8	4.7	28.40
9P737	95-130 in 5V. Steps	115	250	HSP	5-3/8	4-3/8	4-1/4	3-5/8	3-1/2	8.0	36.30
9P739	80-130 in 5V. Steps	115	500	HSP	7-1/8	5-1/2	5-15/16	4-3/8	4-13/16	23.3	54.10

All list prices given are subject to regular trade discounts and may be changed without notice.

S N C MANUFACTURING CO., INC., OSHKOSH, WISCONSIN

MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS & CHOKES

- RECTIFIER CIRCUITS
- DC-DC CONVERTERS
- HIGH CURRENT CHOKES
- CONSTANT VOLTAGE TRANSFORMERS

HIGH CURRENT RECTIFIER TRANSFORMERS

24 VOLTS SERIES

0-6-12-18-24 V

24 V C.T. or Parallel 12 V C.T. @ 2 x current

PART NO.	PRIMARY*	SECONDARY VOLTS		SECONDARY AMPS		APPROX. DIMENSIONS					APX. LBS.	NET PRICE
		SERIES	PARALLEL	SERIES	PARALLEL	L	W	H	ML	MW		
24-1	115V	0-6 12-18-24	0-6-12	1	2	3	2½	2¾	2½	2	2.2	4.65
24-2	115	"	"	2	4	3	2⅞	2¾	2½	2⅜	3	5.90
24-4	115	"	"	4	8	3¾	2⅝	3¼	3⅛	2¼	4.2	7.20
24-6	115	"	"	6	12	4⅛	2⅞	3¼	3 7/16	2⅜	5.2	8.45
24-8	115	"	"	8	16	4⅛	3⅞	3¼	3 7/16	3	7.6	12.00
24-12	105, 115, 125	"	"	12	24	4½	4⅜	4	3¾	3⅜	11.7	15.00
24-20	105, 115, 125	"	"	20	40	5¼	4¾	4⅝	4⅜	3⅜	15	18.00
24-25	105, 115, 125	"	"	25	50	5¼	5½	4⅝	4⅜	4⅛	18	24.00
24-50	105, 115, 125	"	"	50	100	6⅜	6⅜	5⅝	5 5/16	4⅜	32	36.00
24-100	115/230	"	"	100	200	7	9½	5	6⅛	5⅛	37	52.00

36 VOLTS

0-9-18-27-36 V

36 V C.T. or Parallel 18 V C.T. @ 2 x current

36-1	115 V	0- 9-18-27-36	0-9-18	1	2	3	2¾	2¾	2½	2¼	2.5	$ 5.20
36-2	115	"	"	2	4	3½	3	3¼	2 13/16	2⅜	3.8	6.90
36-4	115	"	"	4	8	4⅛	3½	3¾	3 7/16	2⅝	6.5	8.45
36-6	115	"	"	6	12	4½	3¾	4	3¾	2¾	8.6	12.75
36-8	115	"	"	8	16	4½	4⅛	4	3¾	3⅜	11	14.50
36-12	105, 115, 125	"	"	12	24	5¼	4½	4⅝	4⅜	3⅜	14.5	16.25
36-20	105, 115, 125	"	"	20	40	6⅜	5	5⅝	5 5/16	3⅜	22	27.60
36-25	105, 115, 125	"	"	25	50	6⅜	5½	5⅝	5 5/16	3¾	25	29.75
36-30	105, 115, 125	"	"	30	60	6⅜	6	5⅝	5 5/16	4⅜	32	36.00
36-50	115/230	"	"	50	100	6⅜	7	5⅝	5 5/16	5⅛	38	43.00
36-100	115/230	"	"	100	200	7	12	5	6⅛	7⅝	60	85.00

56 VOLTS

0-14-28-42-56 V

56 V C.T. or Parallel 28 V C.T. @ 2 x current

56-1	115	0-14 28-42-56	0-14-28	1	2	3½	3	3¼	2 13/16	2¼	3.8	7.25
56-2	115	"	"	2	4	3¾	3¼	3⅜	3⅛	2½	5	8.80
56-4	115	"	"	4	8	4⅛	4	3¾	3 7/16	3	8	12.50
56-6	115	"	"	6	12	5¼	4¼	4⅝	4⅜	2⅞	13	18.00
56-8	105, 115, 125	"	"	8	16	5¼	4¾	4⅝	4⅜	3⅝	16	22.00
56-12	105, 115, 125	"	"	12	24	6⅜	5	5⅝	5 5/16	3⅜	22	27.00
56-25	105, 115, 125	"	"	25	50	6⅜	6½	5⅝	5 5/16	5⅛	35	45.00
56-50	115/230	"	"	50	100	7	11	5	6⅛	6⅝	50	85.00

80 VOLTS

0-20-40-60-80 V

80 V C.T. or Parallel 40 V C.T. @ 2 x current

80-.5	115	0-20 40-60-80	0-40-80	0.5	1	3	2¾	2¾	2½	2¼	3.7	4.80
80-1	115	"	"	1	2	3⅜	3⅛	3¼	2 13/16	2½	4.2	7.00
80-2	115	"	"	2	4	4⅛	3½	3¾	3 7/16	2⅝	6.4	10.50
80-4	115	"	"	4	8	5¼	4⅛	4⅝	4⅜	2⅞	10.8	18.00
80-6	105, 115, 125	"	"	6	12	5¼	5⅛	4⅝	4⅜	3⅞	17	23.00
80-8	105, 115, 125	"	"	8	16	6⅜	5	5⅝	5 5/16	3¼	19	26.00
80-12	105, 115, 125	"	"	12	24	6⅜	6	5⅝	5 5/16	4⅛	27	34.00

MULTI-VOLT

1 to 54 VOLTS in 1 VOLT STEPS

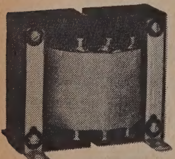
MV-2	115	1 to 54 in 1-Volt Steps		2		4⅛	3⅛	3¼	3⅛	2⅜	5	12.00
MV-4	115			4		5¼	3⅝	4	3¾	2½	7.5	16.00

Primary ratings are at 57-440 cps. Units available for 47-440 cps operation in **same physical size**, add suffix -5 to Signal No., e.g., 36-1-5., Add 20% to net price shown.

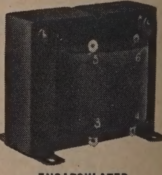
Resin Encapsulated units are available for extreme environments. Add ¼ inch to overall dimensions and prefix "E" to part no., e.g., E-36-1. Add 25% to net price shown.

A 56 volt transformer with a rating of 12 amps, to operate at 47-440 cps, and to be encapsulated would be designated as E-56-12-5. A 12 amp choke to match this item would be described as ECH-12.

HIGH CURRENT CHOKES


OPEN FRAME

PART NO.	INDUCTANCE (milli-hy.)	CURRENT (amps)	RESIS. (ohms)	DIMENSIONS					APPR. WT.	NET PRICE
				L	W	H	ML	MW		
CH-1	100	1	1.5	3	2½	2¾	2½	2	2	$4.80
CH-2	40	2	0.9	3⅜	2¾	3⅛	2 13/16	2⅛	3.2	5.80
CH-4	70	4	0.6	3¾	3¼	3⅜	3⅛	2½	5	7.80
CH-6	40	6	0.4	3¾	3¾	3⅜	3⅛	3	6.8	9.20
CH-8	30	8	0.3	4⅛	4	3¾	3 7/16	3	8	11.70
CH-12	10	12	0.1	5¼	4¼	4⅝	4⅜	3⅛	13	14.70
CH-20	4	20	0.05	5¼	4¼	4⅝	4⅜	3⅛	13	14.90
CH-25	4	25	0.025	5¼	5	4⅝	4⅜	3⅞	18	22.00
CH-30	3	30	0.01	6⅜	5	5⅝	5 5/16	3⅜	22	27.00
CH-50	1	50	0.01	6⅜	5½	5⅝	5 5/16	3¾	25	30.00
CH-100	0.5	100	0.005	6⅜	6½	5⅝	5 5/16	4⅛	32	34.00


ENCAPSULATED

LIGHT WEIGHT HIGHER FREQUENCY (360-2000 CPS) versions of the above are available on special order, both encapsulated and hermetically sealed.

SIGNAL TRANSFORMER CO., INC

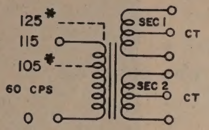
BROOKLYN, NEW YORK

MOST COMPLETE LINE IN THE INDUSTRY

HIGH CURRENT TRANSFORMERS & CHOKES

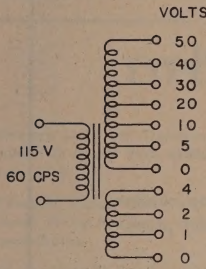
ALL ITEMS AVAILABLE IMMEDIATELY FROM STOCK

ELECTRICAL DATA
(24, 36, 56, 80 VOLT SERIES)



*Taps are standard on higher current units, consult chart.

ELECTRICAL DATA MV SERIES



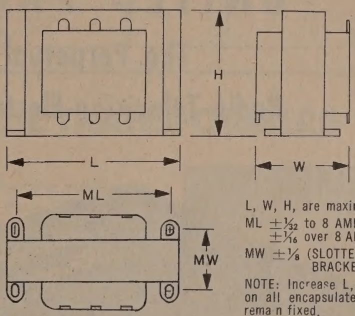
MV (multi-voltage) secondaries may be series connected for any output from 1 to 54 volts, in 1 volt steps, at rated current.

Ideal for determining proper transformer output voltage in bread-board setups.

Secondaries may be series connected at rated current for ¼-½-¾ or full voltage output, for full wave c.t. or bridge connection. Secondaries may be paralleled to obtain twice rated current.

NOTE: Current ratings are for AC load, full wave bridge resistive—inductive load, or F.W.C.T. capacitive load. For bridge circuit capacitive load use transformer current rating equal to 1.8 times the D.C. current. For F.W.C.T. inductive load use transformer current rating equal to 0.7 times the D.C. current.

MECHANICAL DATA

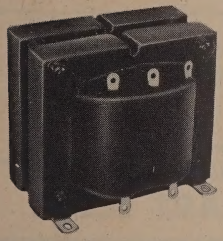


L, W, H, are maximum dimensions

ML ±1/32 to 8 AMP
±1/16 over 8 AMP

MW ±⅛ (SLOTTED HOLE IN BRACKET)

NOTE: Increase L, W, H by ¼ inch on all encapsulated units. ML, MW remain fixed.



CONSTANT VOLTAGE TYPE

(supplied with matched capacitor)

PART NO.	INPUT VOLTS	LINE FREQUENCY	DC OUTPUT* VOLTS	DC RATED AMPS	NET PRICE
CV-28-3.5	95-130	60 cps	28	3.5	$27.00
CV-28-7	95-130	60 cps	28	7.0	36.00
CV-36-3	95-130	60 cps	36	3.0	27.00
CV-36-5.5	95-130	60 cps	36	5.5	36.00
CV-24-10	95-130	60 cps	24	10	36.00
CV-28-2	95-130	60 cps	28	2	20.00
CV-56-1	95-130	60 cps	56	1	25.00
CV-56-2	95-130	60 cps	56	2	27.00
CV-56-4	95-130	60 cps	56	4	36.00

THESE UNITS PROVIDE THE FOLLOWING FEATURES:

- **Constant output voltage** practically independent of line variations shown. Excellent load regulation.
- **Current limiting action**—short circuit proof—protects rectifiers and transformers.
- **No current spikes**—protects rectifier elements.
- **Output approximates a square wave**—ideal for rectifier circuits, less ripple, easier filtering.

***DC output voltage** obtained from silicon bridge using input capacitor approx. 1,000 MFD. per amp.

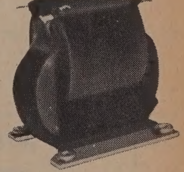
We specialize in rapid service on custom designed constant voltage transformers. Variations of output voltage and current combinations for above VA ratings available at nominal cost in one week. New items being added continuously to our line.

DC to DC TRANSISTOR CONVERTER TRANSFORMERS

PART NO.	DC INPUT VOLTS	*TOTAL VA OUT	TYPICAL TRANSISTORS	DC OUTPUT FW BRIDGE VOLTS	DC OUTPUT FW BRIDGE MA	DC OUTPUT FW CT. VOLTS	DC OUTPUT FW CT. MA	NET PRICE
TC-1	6	50	Delco 2N 441	250	200			$12.50
TC-2	12	100	Delco 2N 442	500	200	250	400	12.50
TC-4	12	100	Delco 2N 442	600	160	300	320	12.50

*Total va may be drawn from bridge or ct. loads simultaneously, however, total va should not be exceeded.

A high reliability line utilizing tape-wound grain-oriented "C" cores with layer wound coils. Resin impregnation and encapsulation ensures a full measure of protection from extreme environmental conditions. All units in same package size 2⅛ lg. x 3 wide x 2 high. Mounts on 1 11/16 x 1 17/32 centers. Weight approx. ¾ lb. Full circuit details provided with each transformer.



CUSTOM SERVICE

Signal has many years of design and manufacture experience in custom designed rectifier transformers and reactors to the exacting specifications of leading power supply manufacturers. Consult us for your special needs.

SIGNAL TRANSFORMER CO., INC

BROOKLYN, NEW YORK

PRICES

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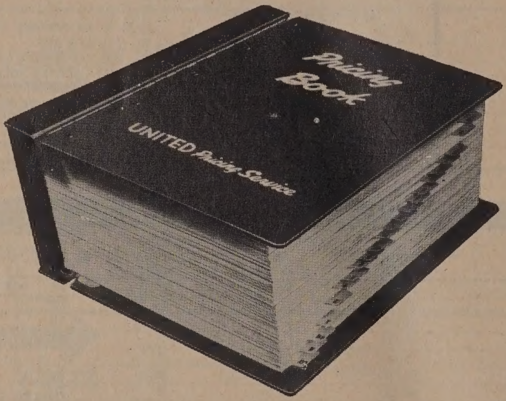

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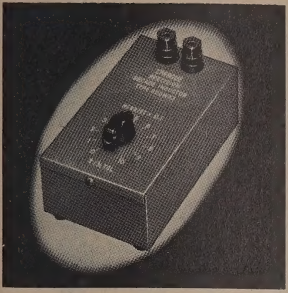
DELIVERY

Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

SPRAGUE PULSE TRANSFORMERS AND DECADE INDUCTORS

TYPE 850W PRECISION DECADE INDUCTORS

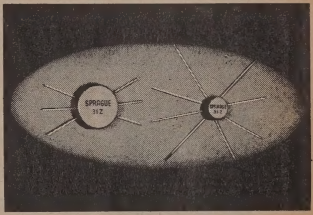


- Indispensable For Design and Experimental Work on Audio Filters, Equalizers, and Tuned Circuits. Frequency Range is 150 to 20,000 Cycles per Second
- Excellent Stability With Respect to Current and Ambient Temperature Changes
- All Four Decade Inductors May Be Connected in Series to Provide 11,110 Steps of Inductance
- Housed in Gray Aluminum Case with Rubber Feet. Measures 5¼″ long, 3″ Wide, 2¼″ High. Fitted With Five-way Binding Posts.

Cat. No.	Inductance Steps	Optimum Freq. Range in cps	Average Q Factor at 1000 cps	Average Q Factor at 4500 cps	Max. Milliamperes D-C	Max. Milliamperes A-C	Net Each
850WA1	10 x 0.001H	400 to 20,000	40	75	250	700	$31.90
850WA2	10 x 0.01H	400 to 20,000	60	125	79	220	31.90
850WA3	10 x 0.1H	400 to 20,000	60	125	25	70	31.90
850WA4	10 x 1.0H	400 to 5,000	60	125	8	22	31.90

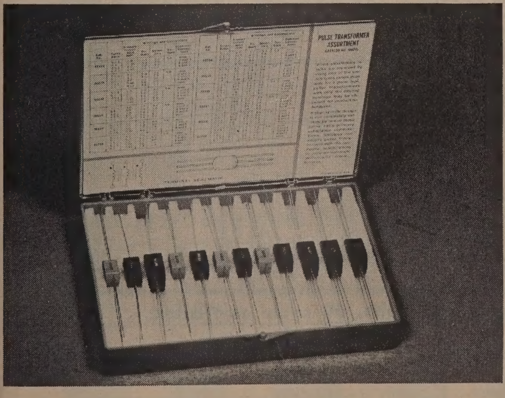
TYPE 31Z 'PANCAKE' PULSE TRANSFORMERS

- Miniature Units with Transformer Section Embedded in Epoxy Resin Inside a Pre-molded Outer Shell.
- "Pancake" Design is Excellent for Mounting on Printed Wiring Boards as Well as On Conventional Chassis.
- For Complete Technical Data, Refer to Latest Issue of Engineering Bulletin 40,230.
- 31Z382 Is Recommended for Pulse Voltages up to 200 Volts at Average Power Rating of 1.0 Watt. Maximum Suggested Volt-microsecond Product is 1200.
- 31Z204 and 31Z286 Are Recommended for Pulse Voltages up to 100 Volts at Average Power Rating of 0.5 Watt. Maximum Suggested Volt-microsecond Product is 340.



Cat. No.	Turns Ratio	L_P (mH)	L_L (μH)	C_I (μμF)	C_C (μμF)	Typical Pulse Width Range and Impedance Level for 10% Droop: Width at 100Ω (μsec)	Width at 250Ω (μsec)	Width at 500Ω (μsec)	Net, ea.
31Z204	1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	$4.60
31Z286	1 : 1 : 1	6.0	10.0	14	29	13.0	4.80	2.6	5.70
31Z382	1 : 1 : 1	15	25	24	49	33	12	6.4	5.70

PULSE TRANSFORMER ASSORTMENT No. 100Z41



Cat. No. 100Z41 . . . . .Net, $65.00

- A Special Selection of Pulse Transformers for Low-Power High-speed Computer Circuitry
- Covers a Wide Range of Turns Ratios and Primary Inductance Combinations
- Ideal for Experimental Circuit Design on Transistorized or Electron Tube Circuits.
- MIL-T-27A and MIL-T-21038 Quality — Transformer Cores and Windings are Potted in Pre-Molded Epoxy Cases for Mechanical and Moisture Protection
- Can Be Mounted Flush on Printed Wiring Boards or Used in Conventional Point-to-Point Wiring
- Packed in Clear, Hinged-Lid Reusable Plastic Case

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STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

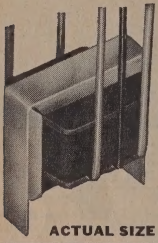
STANCOR TRANSFORMERS

AND RELATED COMPONENTS - INDEX on STANCOR Page 2

TRANSISTOR AUDIO TRANSFORMERS

Part No.	Application	Imp. in Ohms Pri.	Imp. in Ohms Sec.	Max. Pri. DC Ma.	DC Res. in Ohms Pri.	DC Res. in Ohms Sec.	Power in Watts	Ht.	Base Area	Mtg. Ctrs.	Mtg. Type	Shpg. Wt.	Net Price
TA-1	Input	600 C.T.	10	20	42	.8	.05	13/16	1 9/16x15/16	1 5/16	A	1 oz.	**$1.93**
TA-2	Interstage	100 C.T.	10 C.T.	100	4.3	.8	.25	1 1/16	2⅛x1⅜	1 13/16	A	3 oz.	**1.93**
TA-3	Interstage	100	1000 C.T.	100	5.8	45	.25	1⅜	2 7/16x1⅜	2	A	3 oz.	**1.93**
TA-4	Interstage	500 C.T.	5000 C.T.	12	37	250	.03	1⅜	2 7/16x1⅜	2	A	3 oz.	**2.53**
TA-5	Driver	1000	200 C.T.	10	400	115	.05	⅝	1¼x½	1 1/16	A	2 oz.	**4.80**
TA-6	Driver	2000	200 C.T.	5	720	115	.05	⅝	1¼x½	1 1/16	A	2 oz.	**5.43**
TA-7	Driver	100	100 C.T.	100	12	12	.5	1⅝	1 13/16x1⅜	2⅜	A	5 oz.	**1.93**
TA-8	Output	9800	15	2	640	2	.05	1⅜	2 7/16x1⅜	2	A	2 oz.	**4.33**
TA-9	Output	1000	4/8/16	10	180	3.5	.2	¾	1 9/16x¾	1⅜	A	1 oz.	**4.96**
TA-10	Output	2000 C.T.	4/8/16	—	250	4	.2	¾	1 9/16x¾	1⅜	A	1 oz.	**5.43**
TA-11	Output	48 C.T.	8/16	275	5	1.5	5	2	3 5/16x1¾	2⅞	A	1 lb.	**3.72**
TA-12	Output	20 C.T.	8	500	.55	.35	10	1⅜	1 7/16x1½	2	A	4 oz.	**1.93**
TA-13	Driver	200 C.T.	400 C.T.	10	—	—	.6	3	2 11/16x2 5/32	2⅜x1½	TD	1½ lb.	**4.10**
TA-14	Output	24 C.T.	16/4 C.T.†	200	—	—	10	4¼	4⅜x3 9/16	3⅞x2¾	TD	6¼ lb.	**10.27**
TA-15	Input	50 to 100	10	50			5MW	13/16	1 9/16x15/16	1 3/16	A	5½ oz.	**1.50**
TA-16	Driver	20	36 C.T.	400			1W	1 3/16	2 1/16x1⅛	1¾	A	2 oz.	**1.73**
TA-17	Modulation	8 C.T.	7500/5000	120			35	3⅛	3x2½	1 15/16x2	C	3 lbs.	**6.49**
TA-56	Output	48 C.T.	3.2/8/16	550	3.6	1.4	10	2 5/16"	2⅞ x 2"	2⅜"	J	1 lb.	**3.10**
TA-57	Output	100 C.T.	3.2/8/16	500	6.6	1.5	10	2 5/16"	2⅞ x 2"	2⅜"	S	1 lb.	**3.05**
TA-58	Driver	100	200 C.T.	200	6.5	15.5	.5	1¼"	2⅛" x 1"	1¾"	A	½ lb.	**2.17**
TA-59	Driver	500 C.T.	200 C.T.	50	36.5	15.5	.5	1¼"	2⅛" x 1"	1¾"	A	½ lb.	**2.42**
TA-60	Hi-Fi Out.‡	125 C.T.	8	50#	7.5	0.9	1.5	1¾"	1¼" x 1¼"	1¼"	TS	¾ lb.	**4.19**
TA-61	Driver	Turns Ratio Pri. to ½ Sec. 1:1 D.C. Res. 1.8 ohms per winding						1 15/16	2⅜"x1½"	2"	S	¾ lb.	**2.60**
TA-62	Output	25	4	400	1.5	0.4	4	1⅜"	2 13/16"x1½"	2⅜"	A	¾ lb.	**1.87**

‡Freq. Resp. ±½ db, 20-20,000 cps. #Unbalanced Primary Current.



ACTUAL SIZE

.150 WATT GROUP

Dimensions:

H x W x D: 21/32"x13/16"x5/8"

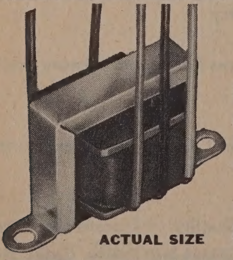
Mounting Tabs Centers: 25/16"—3/16" W

Weight............65 oz.

Net Price......$3.72

For other transistor transformers see:

STANCOR PAGE 16—Hermetically sealed units
STANCOR PAGE 12, 18—Ultra-miniature units
STANCOR PAGE 18—Transverter power supply transistor transformers



ACTUAL SIZE

.300 WATT GROUP

Dimensions:

H x W x D: 13/16"x 1⅝"x¾"

Mounting Centers: 1⅜"

Weight.....1.2 oz.

Net Price $3.72

Part No.	Application	Turns Ratio Pri. to Sec.	Impedance in Ohms Pri.	Impedance in Ohms Sec.	D.C. Res. in Ohms Pri.	D.C. Res. in Ohms Sec.
TA-18	Input	1.00:45.5	30 C.T.	50,000	14.7	4060
TA-19	Interstage	3.08:1	100 C.T.	10 C.T.	19	1.27
TA-20	Output	5.22:1	350 C.T.	4, 12	38	1.45
TA-21	Output	5.53:1	500 C.T.	4, 8, 16	75.3	3.55
TA-22	Interstage	3.16:1	500 C.T.	50	59.7	7.9
TA-23	Output	5.65:1	600 C.T.	4, 8, 16	73.2	3.2
TA-24	Interstage	10.0:1	500 C.T.	50,000	76.8	5135
TA-25	Output	6.75:1	825 C.T.	4, 8, 16	74	2.7
TA-26	Output	9.80:1	1,250	4, 12	132.5	1.4
TA-27	Interstage	4.08:1	1,200	20,000 C.T.	142	1860
TA-28	Interstage	1.65:1	1,500	500 C.T.	104	46.5
TA-29	Output	11.8:1	2,500	4, 16	370	2.3
TA-30	Interstage	1.00:1.22	5,000 C.T.	7,500 C.T.	650	790
TA-31	Interstage	1.00:1.41	5,000 C.T.	10,000 C.T.	635	1100
TA-32	Interstage	1.00:4	5,000 C.T.	80,000 C.T.	573	5740
TA-33	Output	24.6:1	10,000 C.T.	4, 8, 16	1174	2.6
TA-34	Interstage	14.0:1	10,000	200 C.T.	1200	33.4
TA-35	Interstage	2.24:1	10,000	2,000 C.T.	1200	257
TA-36	Interstage	1.83:1	10,000	3,000 C.T.	1200	385
TA-37	Output	5.55:1	400 C.T.	11	71.5	1.5
TA-38	Interstage	3.44:1	500 C.T.	150 C.T.	62	21.2
TA-53	Input‡	3:1	5000 C.T.	45,000	310	1400
TA-54	Input#	5:1	20,000	800 C.T.	1350	95
TA-39	Output	3.08:1	100 C.T.	4, 8, 16	10.9	1.45
TA-40	Output	3.27:1	160	4, 8, 16	18.7	1.4
TA-41	Output	5.00:1	400 C.T.	4, 8, 16	34	1.5
TA-42	Output	5.60:1	500 C.T.	4, 8, 16	47	.85
TA-43	Output	6.63:1	700 C.T.	4, 8, 16	77	1.15
TA-44	Output	12.5:1	2,500	4, 8, 16	172	1.15
TA-45	Output	13.7:1	3,000	4, 8, 16	192	1.2
TA-46	Interstage	8.17:1	100,000	1,500 C.T.	3250	143
TA-47	Input	1.00:14.1	1,000 C.T.	200,000 C.T.	123	1815
TA-52	Driver‡	100:1	500 C.T.	500 C.T.	40	55
TA-55	Input	50:1	500,000	200 C.T.	7,000	8.5
TA-63	Driver	3.17:1	20,000 C.T.	2,000 C.T.	2140	325

TRANSISTOR POWER TRANSFORMERS—Primary 117 volts, 60 cycle operation

Part No.	Plate Supply No. 1 AC Volts	Plate Supply No. 1 DC Ma	Plate Supply No. 2 AC Volts	Plate Supply No. 2 DC Ma	Height	Base Area	Mtg. Type	Shpg. Wt.	Net Price
***TP-1**	13 or 18	900	13 or 18	900	3"	3x2½	C	2¾	**$4.96**
P-8196	80 CT	1200	—	—	3½	2⅞x3½	C	4.5	**6.55**
TP-2**	10/20 CT/40 CT	100	—	—	1⅝	2 13/16x1⅝	A	0.7	**4.00**
TP-3**	10/20 CT/40 CT	300	—	—	2¼	3¾x2	A	1.5	**5.20**
TP-4**	10/20 CT/40 CT	1000	—	—	3 3/16	2⅝x3	C	3.25	**8.50**

* For bridge rectifier systems. † 2 secondaries 16 ohm series, 4 ohms parallel. ‡Also Interstage. #Also driver and interstage.
●New Part Number. **Tapped primary to obtain Lower Secondary Voltages.

DRIVER TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

INDEX TO STANCOR TRANSFORMER LISTINGS IN THE MASTER

AUDIO

Stancor Page

Audio Chokes 8, 12
Crystal Recorder Output 5
Driver Transformers 2, 12, 16, 19
High Fidelity Output 4
Input 3, 12, 15, 16, 18, 20
Intercommunication and Transceiver 3, 20
Interstage 2, 3, 12, 16
Line Driver 2
Line to VC Output 5
Microphone or Line Input 3, 15, 17, 18
Microphone, Pickup or Line to Grid Input 3, 15, 17
Plate Modulation 7, 19, 20
Output 4, 5, 12, 15, 16, 18, 19, 20
Poly-Pedance Driver 2
Poly-Pedance Line Driver 2
Poly-Pedance Modulation 7
Push-Pull Plates to VC Output 4
Pulse 12
25 Volt Line to VC Output 5
70.7 Volt Line to VC Output 5
140 Volt Line to VC Output 5
Single Plate to VC Output 4
Transistor 1, 12, 16, 18
Tube to Line Output 5
Universal Output 5

POWERS

Automation Control Transformers 7
Auto Transformers 11
Bias Supply 10
Cathode Ray Tube Power 11

Stancor Page

Combination Plate and Filament 6, 13, 14, 17
Condenser Tester 11
Filament Transformers, Multiple Secondary 9, 14
Filament Transformers, Single Secondary 9, 13, 14, 17
400 CPS 16, 17
Isolation Testing Transformer 11
Isolation Transformers 11, 16, 20
Line Adjusting Autotransformers 11
Photoflash Transformers 11
Plate Transformers 10, 19
Power Transformers 13, 14, 17
"8400" Series Power Transformers 6
Saturable 16
Selenium Rectifier 6, 7
Silicon Rectifier 7, 14
Speaker Field Supply 11
Step Down Isolation 11, 20
Straight Isolation 11, 20
Testing Autotransformer 11
Transistor 1
Trigger Coil, Photoflash 11
Tube Checker Multi-tapped Filament 10

CHOKES

Audio Chokes 8
Filter Chokes 8, 13, 17, 19
High "Q" Chokes 15
Smoothing Chokes 8
Swinging Chokes 8
Toroidal 14

TELEVISION COMPONENTS

Almost 1000 TV replacement transformers and related components, the most complete line in the industry, are available from Chicago Standard. These include almost 200 exact replacement flybacks and over 70 power transformers, 45 yokes, as well as vertical outputs, width and linearity coils and many other popular TV replacement units. . . . including 450 exact replacement coils. Ask your distributor for a free copy of the latest edition of the Stancor TV Transformer Catalog and Replacement Guide listing these units and replacement data on thousands of television sets.

SINGLE PLATE TO PUSH-PULL GRIDS

Part No.	Pri. Impedance in Ohms	Pri /½ Sec. Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4713	10,000	2:1	⅝" x ⅝"	30 ma.	A	1⅝"	2⅞" x 1⅛"	0.7	**$2.12**
A-4752	10,000	2/1.5/1:1	¾" x ¾"	40 ma.	A	2"	3¼" x 1¾"	1.2	**2.93**
A-4722	10,000	2:1	¾" x 1"	30 ma.	TD	2$^{11}/_{16}$"	2¾" x 2$^{3}/_{16}$"	1.7	**4.33**
A-4292	10,000	2.5:1	⅝" x ⅝"	20 ma.	A	1⅝"	2⅞" x 1½"	0.7	**2.27**
A-4723	10,000	3:1	⅝" x ⅝"	30 ma.	A	1⅝"	2⅞" x 1½"	0.7	**2.15**
A-4210	1,500 to 5,000	3:1	1" x 1"	40 ma.	C	3$^{3}/_{16}$"	2⅝" x 2⅝"	2.4	**4.96**
A-4702	1,500 to 5,000	5:1	1" x 1"	80 ma.	C	3$^{3}/_{16}$"	2⅝" x 2⅝"	2.5	**4.90**

PUSH-PULL PLATES TO PUSH-PULL GRIDS

Part No.	Pri. Imp. (P.P.) in Ohms	Pri./½ Sec. Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4208#	20,000 to 30,000	2.8:1	1" x 1"	15 ma.	C	3$^{3}/_{16}$"	2⅝" x 2⅝"	2.5	**$5.67**
A-4701#	20,000	3:1	1" x 1"	25 ma.	C	3$^{3}/_{16}$"	2⅝" x 2⅝"	2.7	**6.40**
A-4212	1,500 to 5,000	3.2:1	1" x 1"	50 ma.	C	3$^{3}/_{16}$"	2⅝" x 2⅝"	2.5	**5.20**
A-4703#	3,000 to 10,000	5:1	1⅛" x 1⅛"	95 ma.	C	3⅝"	3" x 3⅛"	3.7	**6.44**

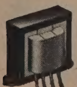
#Split secondaries for individual bias adjustment and/or use of inverse feedback.

POLY-PEDANCE DRIVER MULTI-TAPPED UNITS FOR USE IN CIRCUITS WHERE THE OPTIMUM RATIO CANNOT BE PREDETERMINED.

Part No.	Application and Ratio Pri./½ Sec.	Max. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt in Lbs.	Net Price
A-4761	Driver to Class "B" Grids 1.25:1/ 1.4:1/ 1.6:1/ 1.8:1/ 2:1/ 2.2:1/ 2.4:1	Pri—150 ma. Sec—100 ma.	15	CD	3$^{3}/_{16}$"	2⅝" x 3⅝"	3.4	**$11.10**
A-4762	Driver to Class "B" Grids 2.6:1/ 3:1/ 3.2:1/ 3.4:1/ 4:1/ 4.5:1/ 5:1	Pri—150 ma. Sec—180 ma.	15	CD	3$^{3}/_{16}$"	2⅝" x 3⅛"	2.7	**10.46**
A-4763	Driver to Class "B" Grids 1.25:1/ 1.5:1/ 1.75:1/ 2:1/ 2.25:1/ 3.2:1	Pri—225 ma. Sec—280 ma.	30	CD	3⅝"	3" x 4"	4.3	**12.96**

POLY-PEDANCE LINE DRIVER MULTI-TAPPED UNIT TO MATCH ALL COMMON LINE IMPEDANCES TO GRID CIRCUIT OF MODULATOR OR CLASS "B" AMPLIFIER.

Part No.	Application and Ratio Pri./ ½ Sec.	Max. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4765	Line to Grid 1:0.75/ 1:0.85/ 1:1/ 1:1.25/ 1:1.45/ 1:1.75/ 1:2/ 1:2.25/ 1:2.5/ 1:2.75/ 1:3.15	Pri—180 ma. Sec—100 ma.	15	CD	3$^{3}/_{16}$"	2⅝" x 3⅜"	3.2	**$11.50**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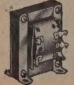
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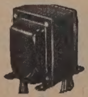
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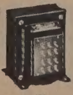
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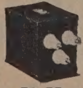
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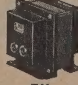
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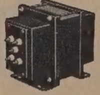
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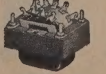
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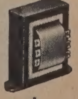
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INPUT-INTERSTAGE

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

MICROPHONE OR LINE TO LINE

Part No.	Impedance In Ohms	Mtg.	Height Overall	Base Area	Shpt. Wt. In Lbs.	Net Price
A-4350#	Pri—500/333/200/125/50 Sec—500/333/200/125/50	Q	2″	3¼″ x 1¾″	1.0	**$ 4.33**
A-4407#†	Pri—500/333/200/125/50 Sec—500/333/200/125/50	D	3 3/16″	2⅝″ x 3¼″	2.4	**8.99**

MICROPHONE PICKUP OR LINE TO GRID

Part No.	Application	Impedance in Ohms	Turns Ratio	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4705	S. B. Mic. to S. Grid	Pri—200/70 Sec—80,000	1:20	A	1⅜″	2⅜″ x 1⅜″	0.4	**$2.97**
A-4706	S. B. Mic. to S. Grid	Pri—100 Sec—60,000	1:24.5	A	1⅜″	2⅜″ x 1½″	0.5	**2.17**
A-4708	D. B. Mic. to S. Grid	Pri—200 CT Sec—57,000	1:17	J	2″	2⅜″ x 1⅝″	0.7	**2.93**
A-4742	S. B. Mic. to P.P. Grids	Pri—100 Sec—400,000 CT	1:64	S	2 5/16″	2⅞″ x 1¾″	1.2	**3.13**
A-4747	S. B. Mic. or Low Imp. Line to S. Grid	Pri—70 Sec—1,300,000	1:137	VE	1 7/16″	1 5/16″ x 1¼″ 1½″	0.5	**3.15**
A-4351#	Mic. or Line to S. Grid	Pri—500/333/200/125/50 Sec—89,000	1:13.3	TD	2 11/16″	2¾″ x 2 3/16″	1.4	**4.63**
A-4352#	Mic. or Line to S. Grid	Pri—500/333/200/125/50 Sec—89,000	1:13.3	Q	2″	3¼″ x 1¾″	1.0	**4.80**
A-4709	Dynamic Mic. or Pickup to S. Grid	Pri—30/15/8/4 Sec—106,000	1:60	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.20**
A-4778	Line to Grid	Pri.—500/600 C.T. Sec.—240,000	1:20	C	2⅜″	2⅞″ x 1⅞″	—	**3.97**
A-4779	Line to S. or P. P. Grids	Pri.—500/600 C. T. Sec.—60,000 C.T.	1:10	A	2″	2⅜″ x 1¼″	—	**2.30**
A-4780	Line to P. P. Grids	Pri.—500/600 C.T. Sec.—240,000 C.T.	1:20	A	2 13/16″	3⅛″ x 1¾″	—	**4.02**

INTERCOMMUNICATOR AND TRANSCEIVER

Part No.	Application	Impedance in Ohms Primary	Impedance in Ohms Secondary	Max. Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4744	Intercom. input	4	25,000		VE	1⅜″	2⅜″ x 1½″	0.5	**$2.02**
A-4748	Intercom. input	45 or 50	50,000		A	1 3/16″	2 3/16″ x 1¼″ 1¾	0.4	**3.00**
A-4749	Telephone Patch Circuit	10,000	2–500 each		TD	1 15/16″	1 17/32″ x 2¼″	1.0	**4.85**
A-8090	Line to Voice Coil	45 or 50	3–4, 6–8	3	QL	1⅜″	2⅜″ x 1½″	0.5	**1.77**
A-8091	Line to Voice Coil	45 or 50	3–4, 6–8	8	QL	1⅝″	2⅞″ x 1⅝″	0.7	**2.10**
A-3833	Transceiver Input Mic. and Plate to Grid	200 and 5,000	60,000	5	A	1⅝″	2⅞″ x 1½″	0.7	**2.87**
A-3836	Transceiver Output. Plate to Low or High impedance phones	10,000	50 at 2,000	5	A	1⅝″	2⅞″ x 1½″	0.7	**2.80**
A-3817	Transceiver modulation and output (Autoformer)	5,000 at 50 madc	6750 at 40 madc	10	A	1 15/16″	1½″ x 2⅜″	0.7	**3.00**

SINGLE PLATE TO SINGLE GRID—FOR 7,000-20,000 OHM PLATE IMPEDANCES

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-53	1:3	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1½″	0.5	**$2.02**

SINGLE PLATE TO PUSH-PULL GRIDS—FOR 7,000-15,000 OHM PLATE IMPEDANCES

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-52-C	1:2	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1⅜″	0.4	**$2.25**
A-62-C	1:2	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**2.33**
A-4745	1:2	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.66**

Recommended for use in super-regenerative circuits. Has a static shield between pri. and sec. windings.

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-53-C	1:3	½″ x ½″	10 ma.	A	1⅜″	2⅜″ x 1⅜″	0.5	**2.40**
A-63-C	1:3	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**2.70**
A-73-C	1:3	¾″ x ¾″	10 ma.	A	2″	3¼″ x 1¾″	1.0	**3.15**
A-4719	1:3	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**4.96**
A-64-C	1:4	⅝″ x ⅝″	10 ma.	A	2″	2⅜″ x 1¾″	0.7	**2.43**
A-4420	Exact Repl. United Motors (Delco) 6061 18,000 Ω Plate to P-P Grids, Autoformer			S2	1⅝″	1 7/16″ x 1¼″	0.5	**2.01**

MULTI-PURPOSE INTERSTAGE—SPLIT SECONDARIES

May be used as a single plate to single grid, single plate to push-pull grid, or push-pull plate to push-pull grid interstate transformers. Overall ratios are 3:1, however, primaries are center-tapped and secondaries have split windings, thus providing ratios of 1:1, 3:1 and 6:1 in either step-up or step-down applications. § Has split secondary.

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4774	1:3	¾″ x ¾″	10 ma.	S	2 5/16″	2⅞″ x 1¾″	1.2	**$3.25**
A-4773	1:3	¾″ x 1″	10 ma.	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**5.20**

PUSH-PULL PLATES TO PUSH-PULL GRIDS—FOR 7,000-15,000 OHM PLATE IMPEDANCES

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4711	1:1	⅝″ x ⅝″	10 ma.	A	1⅝″	2⅞″ x 1½″	0.7	**$3.15**

PUSH-PULL PLATES TO PARALLEL OR PUSH-PULL GRIDS—FOR 7,000-20,000 OHM PLATE IMPEDANCES

Part No.	Turns Ratio	Core	Max. Pri. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-4208	1:1.4	1″ x 1″	15 ma.	C	3 3/16″	2⅝″ x 2⅝″	2.5	**$5.67**

#Has a dual primary—when properly connected the 500 and 200 ohm sections are center tapped. §Has split secondary.
†Has a static shield between primary and secondary windings. ‡Designates part numbers to be removed from next catalog.

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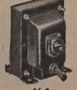
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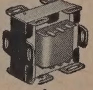
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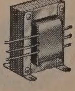
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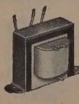
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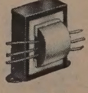
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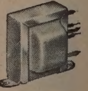
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OUTPUT TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

SINGLE PLATE TO VOICE COIL

Part No.	Application	Max. Pri. D.C.	Typical Output Tubes	Class	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3332	2,000 ohms to 3.2 ohms	50 ma.	25B5, 25B6, 25L6, 35A5, 35L6, 50L6	A	3	A	1 3/16″	2⅛″ x 1″	0.4	**$1.39**
A-3876	2,000 ohms to 4 ohms	60 ma.	2A3, 6A3, 6B4, 6W6, 6Y6, 25AC5, 25B5, 25B6, 25L6, 35A5, 35L6, 50L6	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.48**
A-3328	4,000 ohms to 3.5 ohms	10 ma.	1S4, 3S4	A	3	A	1 3/16″	2⅛″ x 1″	0.4	**1.37**
A-2203	4,000 ohms to 8 ohms	40 ma.	43, 45, 48, 12A5, 25A6	A	5	A	1⅝″	2⅛″ x 1⅝″	0.7	**2.47**
A-3877	5,000 ohms to 4 ohms	40 ma.	43, 59, 6V6, 7C5, 25A5	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.48**
A-3310	5,000 ohms to 500/15/8/4 ohms	55 ma.	45, 6L6, 6V6, 25A6, 25A7	A	20	C	3 3/16″	2⅝″ x 2⅝″	2.5	**5.70**
A-3878	7,000 ohms to 4 ohms	30 ma.	20, 31, 33, 42, 2A5, 6AC5, 6B5, 6F6, 6K6, 6N6, 7B5	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.52**
A-2313	7,000 ohms to 8 ohms	40 ma.	33, 41, 42, 47, 59, 89, 2A5, 6AC5, 6F6, 6K6, 6N6, 7B5	A	10	A	2″	3¼″ x 1¾″	1.0	**2.55**
A-8114	7,600 ohms to 3.2 ohms	32 ma.	33, 41, 42, 47, 59, 89, 2A5, 6AC5, 6F6, 6K6, 6N6, 7B5	A	5	A	1⅜″	2⅜″ x 1⅝″	0.4	**1.77**
A-3329	8,000 ohms to 3.5 ohms	10 ma.	1C5-GT, 1G5-G, 1Q5-GT/G, 1S4, 3S4	A	3	A	1 3/16″	2⅛″ x 1″	0.4	**1.37**
A-3879	10,000 ohms to 4 ohms	30 ma.	1J6, 3C5, 6A4, 6G6, 6N7	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.48**
A-3881	15,000 ohms to 4 ohms	10 ma.	1D8, 1E7, 1F4, 1F5, 1J5, 1T5, 6V7, 6Y7, 12A7	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.63**
A-3327	25,000 ohms to 4 ohms	5 ma.	1A5, 1D8-GT, 1F4, 1F5-G, 1LA4, 1LB4, 1N6-G	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.84**
A-4431	Fxact Repl. United Motors (Delco) 6062, 6,000 ohms to 3-4 ohms			—	5	A2	1⅝″	1 15/16″ x 1⅜″	0.8	**1.86**

PUSH-PULL PLATES TO VOICE COIL

A-3802	3,800/3,300 to 500/250/8/4 ohms	250 ma.	45, 6L6, Par. 6L6	AB2, AB1	75	C	4¾″	4″ x 3⅞″	7.9	**$12.01**
A-3851§	4,400 ohms to 500/250/15/8/4 ohms	70 ma.	6L6	AB1	30	C	3⅝″	3″ x 3⅛″	3.6	**7.40**
A-3872	5,000 ohms to 15/8/4 ohms	75 ma.	45, 2A3, 6A3, 6L6	AB	18	TD	2 11/16″	2¾″ x 2 3/16″	1.7	**4.66**
A-3800	5,000 ohms to 500/250/15/8/4 ohms	80 ma.	45, 2A3, 6A3, 6L6	AB	30	C	3⅝″	3″ x 3⅜″	3.7	**6.87**
A-3307	6,000 ohms to 500/15/8/4 ohms	100 ma.	46, 59, 42, 2A5, 6F6, Par. 53, 6A6, 6N7	B, AB2	30	C	3⅝″	3″ x 3⅛″	3.5	**7.92**
A-3801	6,600 ohms to 500/250/15/8/4 ohms	150 ma.	6L6	AB1	35	C	4″	3¼″ x 3⅜″	5.8	**8.76**
A-3885	9,000 ohms to 500/250/15/8/4 ohms	150 ma.	6L6	AB1	35	C	4″	3¼″ x 3⅜″	4.5	**8.68**
A-3304	10,000/7,000 ohms to 500/15/8/4 ohms	60 ma.	45, 6V6, 6AC5	AB	25	C	3 3/16″	2⅝″ x 2⅝″	2.7	**6.43**
A-3311	10,000 ohms to 500/15/8/4 ohms	70 ma.	6F6, 6V6, 6AC5	AB	25	C	3⅝″	3″ x 3⅛″	3.5	**6.91**
A-3831	10,000 ohms to 8/4/2 ohms	40 ma.	30, 49	AB	5	A	1⅝″	2″ x 1½″	0.7	**2.70**
A-3335	10,000 ohms to 6-8/3.2-4 ohms	40 ma.	10	S	2 5/16″	2 15/16″ x 1¾″	2⅜″		1.0	**3.15**
A-2312	14,000 ohms to 4 ohms	40 ma.	33, 41, 42, 47, 49, 2A5, 6F6, 6K6, 7B5	AB	10	A	2″	3¼″ x 1¾″	1.0	**2.85**
A-3496	14,000 ohms to 4 ohms	25 ma.	33, 41, 42, 47, 49, 2A5, 6F6, 6K6, 7B5	AB	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**2.70**
A-3303	14,000 ohms to 500/15/8/4 ohms	55 ma.	41, 42, 47, 59, 89, 2A5, 6F6, 6K6, 7B5	AB	20	C	3 3/16″	2⅝″ x 2⅝″	2.7	**6.53**
A-3857	25,000 ohms to 4 ohms	10 ma.	1F4, 1F5, 1J5, 1T5, 6G6 12A7, 950	A	5	A	1⅜″	2⅜″ x 1⅜″	0.4	**2.40**
A-4430	Exact Repl. United Motors (Delco) 7269231, 7269116, 7266997 9,000 ohms CT to 3.2 ohms			—	5	A2	1 15/16″	2⅜″ x 1⅝″	1.0	**2.28**
A-4432	Exact Repl. United Motors (Delco) 6063 10,000 ohms CT to 4 ohms			—	10	S2	2⅜″	2″ x 1⅝″	1.0	**2.46**

HUM-REDUCING TRANSFORMERS, Single Plate to Voice Coil

A-3330	†2,000 ohms to 3.5 ohms	60 ma.			5	A	1⅜″	2⅜″ x 1⅜″ 2	0.4	**$1.98**
A-3336	#2,500 ohms to 3.5 ohms	50 ma.			5	A	1⅜″	2 7/16″ x 1⅜″ 2	0.4	**1.99**

HIGH FIDELITY OUTPUT TRANSFORMERS, Better than ±1 db from 20 to 20,000 cps.

All units have Type C mounting. Shipping weight 6.5 lbs., except A-8098, shipping weight 3.2 lbs.

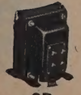
Part No.	Pri. Imp. (P-P) in Ohms	Sec. Imp.* in Ohms	Max. Pri. D.C. Per Side	Audio Watts	Height Overall	Base Area	Net Price
A-8050	1500	8, 16	200	50	4 5/16″	3 9/16″ x 4¼″	**$13.63**
A-8098	2000 C.T.	8, 16, 32	140	15	3¾″	2⅝″ x 3¼″	**8.14**
A-8051	2500	8, 16	150	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8052	3000	8, 16	175	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8053	5000	8, 16	150	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8054	9000	8, 16	100	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8056	6600	8, 16	125	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8060	1500	500	200	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8061	2500	500	150	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8062	3000	500	175	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8063	5000	500	150	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8064	9000	500	100	50	4 5/16″	3 9/16″ x 4¼″	**13.63**
A-8072**	7600	4, 8, 16	100	25	4 5/16″	3 9/16″ x 4¼″	**16.60**
A-8066	6600	500	125	50	4 5/16″	3 9/16″ x 4¼″	**13.63**

*Where more than one secondary impedance is shown, only one value is to be used at any time.

**Primary provided with seven taps for Ultra-Linear application.

#Has tapped primary for use in hum-reducing circuit. §This unit has a tertiary winding to provide 10% inverse feedback

‡Designates part number to be removed from next catalog. †Has a 4.5% primary tap.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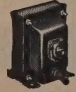
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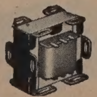
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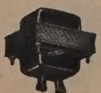
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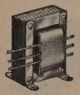
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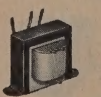
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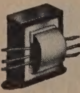
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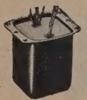
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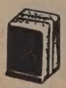
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STANCOR PAGE 4

OUTPUT TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

UNIVERSAL OUTPUT

Part No.	Application	Max. Pri. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3856	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	35 ma.	4	Q	1⅜"	2⅜" x 1⅜"	0.4	**$2.90**
A-3822¶	Single plate (7,000 to 10,000 ohms) to voice coil	35 ma.	4	Q	1⅜"	2⅜" x 1⅜"	0.4	**1.95**
A-3848§	Single plate (7,000 to 16,000 ohms) to voice coil	10 ma.	5	Q	1⅜"	2⅜" x 1⅜"	0.4	**2.60**
A-3823	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma.	8	Q	1⅝"	2⅜" x 1½"	0.7	**3.37**
A-3850	Single or Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma.	8	J	2"	2⅜" x 1½"	0.7	**3.32**
A-3825§	Single plate (1,500 to 4,500 ohms) to voice coil	75 ma.	8	Q	2"	3¼" x 1⅝"	0.9	**2.63**
A-3824§	Single or Push-pull plates (6,000 to 10,000 ohms) to voice coil	75 ma.	8	Q	2"	3¼" x 2"	1.4	**3.30**
A-3849	Single plate (1,500 to 10,000 ohms) to voice coil	55 ma.	10	Q	1⅝"	2⅞" x 1½"	0.7	**3.37**
A-3880	Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma. ea. ½	15	Q	2¼"	3¾" x 2¼"	1.7	**4.39**
A-2855	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	15	L	2 1/16"	2 5/16" x 1¾"	1.0	**3.76**
A-3890	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	15	TD	2 11/16"	2¾" x 2 3/16"	1.5	**5.43**
A-3852	Push-pull plates (4,000 to 14,000 ohms) to voice coil	40 ma. ea. ½	18	J	2 5/16"	2⅞" x 2"	1.3	**4.07**
A-3870	Push-pull plates (4,000 to 14,000 ohms) to voice coil	50 ma. ea. ½	18	Q	2"	3¼" x 2"	1.3	**4.15**
A-3830	Push-pull plates (3,000 to 10,000 ohms) to voice coil	60 ma. ea. ½	20	J	2 11/16"	3 5/16" x 2¼"	1.8	**4.50**

¶Secondary impedance 0.7, 1, 1.4, 2, 2.8, 4 ohms. §Secondary impedance, 1, 2, 4 ohms.

SINGLE AND / OR PUSH-PULL PLATES TO LINE

Part No.	Application	Impedance in Ohms	Max. Pri. D.C.	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3841	Single plate to line	Pri—7,000/6,000/5,000/4,000/2,500; Sec—500	60 ma.	10	J	2 11/16"	3 5/16" x 2¼"	1.5	**$5.00**
A-3842	Push-pull plates to line	Pri—14,000/12,000/10,000/8,000 CT; Sec—500	55 ma.	10	J	2 11/16"	3 5/16" x 2¼"	1.7	**5.70**
A-4770	Single plate to line	Pri—7,000/6,000/5,000/4,000/2,500; Sec—500	60 ma.	20	J	3⅛"	3⅝" x 2¼"	2.4	**5.26**
A-3250	Single plate or Push-pull plates to line	Pri—20,000/10,000/5,000 Pri—20,000 CT Sec—500/333/200/125/50	15 ma.	—	Q	2"	3¼" x 1¾"	1.0	**4.19**
A-3315	Single plate or Push-pull plates to line	Pri—20,000/10,000/5,000 Pri—20,000 CT; Sec—500/333/200/125/50	35 ma.	—	D	3 3/16"	2⅝" x 2⅝"	2.7	**8.42**

LINE TO VOICE COIL

Part No.	Impedance in Ohms	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-8101	Pri—500 Sec—3.2/6-8	5	Q	1⅜"	2⅜" x 1⅜"	0.4	**$1.77**
A-3883	Pri—500 Sec—15/8/6/4	25	J	2 5/16"	2⅞" x 1¾"	1.1	**3.45**
A-3882	Pri—500/333/250 Sec—15/8/4	25	D	3 3/16"	2⅝" x 3½"	2.4	**8.51**
A-3838	500/250/175/150/140/125/100/85/45/14/4/0.7 This Unit is designed to operate one or more speakers in series across a 500 ohm line or to match unequal lines.	30	B	3⅛"	2½" x 2¼"	2.3	**5.30**
A-3818	Pri—1,500/1,000/500 Sec—15/8/4	25	J	3⅛"	3⅝" x 2¼"	2.2	**4.92**
A-7947	Pri—2,000/1,500/1,000/500 Sec—6 ohms	8	Q	1⅝"	2 13/16" x 1 9/16"	0.7	**2.93**
A-7949	Pri—2,000/1,500/1,000/500 Sec—6-8 ohms	12	J	2 5/16"	2⅞" x 1 13/16"	1.1	**3.44**
A-3820	Pri—2,000/1,500/1,000/500 Sec—15/8/4	40	D	4 5/16"	3⅝" x 4½"	5.0	**10.73**
A-8104	Pri—3,000/2,000/1,500/1,000/500 Sec—16/8/4	10	J	2 5/16"	2 15/16" x 1¾" 2⅜"	1.5	**4.07**
A-3837	Line to Line or V. C. (Autoformer) Pri—500 Sec—8/4/2.65/2.35/2/1.5/0.7/0.5/0.3/0.2/0.1/0.05 This Unit is designed to operate one or more speakers in parallel across a 500 ohm line.	15	J	2 5/16"	2⅞" x 2"	1.4	**4.01**

70.7 VOLT LINE TO VOICE COIL

Part No.	Power Steps in Watts	Impedance in Ohms	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. Wt. in Lbs.	Net Price
A-8080	5/4/3/2/1	Pri.—1000/1250/1667/2500/500 Sec.—8/16	Q	1⅜"	2⅜" x 1⅜"	2"	0.4	**$2.91**
A-8081	10/9/8/7/6	Pri—500/555/625/715/833 Sec—8/16	J	2"	2 7/16" x 1⅝"	2"	0.7	**3.16**
A-8082	15/14/13/12/11	Pri—333/357/384/417 455 Sec—8/16	J	2 5/16"	2⅞" x 1¾"	2⅜"	1.2	**3.66**
A-8102	8/4/2/1/0.5	Pri—625/1,250/2,500/5,000/10,000 Sec—4/8/16	J	2"	1⅝" x 2⅞"	2"	0.7	**3.50**
A-8103	16/8/4/2/1/0.5	Pri—312.5/625/1,250/2,500/5,000/10,000 Sec—4/8/16	J	2⅛"	2¼" x 3¼"	2 13/16"	1.5	**4.95**
A-8105	5/2.5/1.25/.62/.31	Pri—1,000/2,000/4,000/8,000/16,000 Sec—4/8	J	1⅜"	2⅜" x 1⅜"	2"	0.4	**2.84**
A-8109	2/1/0.5	Pri—2500/5000/10,000 Sec—4/8	Q	1¼"	2⅛" x 1¾"	1¾"	0.3	**2.50**

140 VOLT LINE TO VOICE COIL

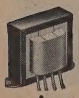
A-8106	1/2/4/8	Pri—2,500/5,000/10,000/20,000 Sec—4/8/16	J	2	1⅝" x 2 7/16"	2	0.7	**$3.00**
A-8107	1/2/4/8/16	Pri—1,250/2,500/5,000/10,000/20,000 Sec—4/8/16	J	2	3 3/16" x 2"	2 13/16"	1.8	**4.74**
A-8108	0.625/1.25/2.5/5.0	Pri—4,000/8,000/16,000/32,000 Sec—4/8	Q	1⅜"	2⅜" x 1⅜"	2	0.4	**2.72**

25 VOLT LINE TO VOICE COIL

A-8095	5/2.5/1.25/.62/.31	Pri—125/250/500/1,000/2,000 Sec—4/8	Q	1⅜"	2⅜" x 1⅜"	2"	0.4	**$2.69**
A-8096	8/4/2/1/0.5	Pri—78/156/312.5/625/1,250 Sec—4/8/16	J	2"	1⅝" x 2 7/16"	2"	0.65	**3.60**
A-8097	16/8/4/2/1/0.5	Pri—39/78/156/312.5/625/1,250 Sec—4/8/16	J	2 13/16"	2¼" x 3¼"	2 13/16"	1.6	**4.32**
A-8099	2/1/0.5	Pri—312.5/625/1250 Sec—4/8	Q	1¼"	2⅛" x 1¾"	1¾"	0.3	**2.50**

CRYSTAL RECORDER OUTPUT

Part No.	Application	Max. Pri. D.C.	Audio Watts	Core Size	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3859	Push-pull 10,000 ohm plates to 70,000 ohm crystal cutter OR 4 ohm voice coil	30 ma. ea. ½	5	¾" x ¾"	A	2"	3¼" x 1¾"	1.0	**$4.26**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C

D

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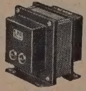
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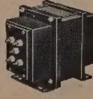
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POWER TRANSFORMERS

COMBINATION PLATE AND FILAMENT SUPPLY

POWER TRANSFORMERS TO PROVIDE APPROXIMATELY 260 VOLTS D.C. TO CONDENSER INPUT FILTER

Type and Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Ma.	Rectifier Fil. Volts	Rectifier Fil. Amps.	Other Windings Volts	Other Windings Amps.	Base Area	Overall Height	Mtg. Centers	Shpg. Wt. in Lbs.	Net Price
PC8401	235-0-235	40	5.0	2.0	6.3 CT	2.0	2⅝″ x 2⅝″	3 3/16″	2″ x 1 9/16″	2.2	$ 5.53
PM8401							2½″ x 3″	2⅝″	2″ x 2½″		5.77
PC8402	240-0-240	55	5.0	2.0	6.3 CT	2.0	2⅝″ x 2¾″	3 3/16″	2″ x 1 11/16″	2.4	5.49
PM8402							2½″ x 3″	2¾″	2″ x 2½″		5.64
PC8403	250-0-250	70	5.0	2.0	6.3 CT	2.5	2⅝″ x 3⅛″	3 3/16″	2″ x 2 1/16″	3.2	6.36
PM8403							2½″ x 3″	3⅛″	2″ x 2½″		6.36
PC8404	260-0-260	90	5.0	2.0	6.3 CT	3.0	3″ x 3½″	3⅝″	2¼″ x 2¼″	4.0	7.05
PM8404							2⅞″ x 3⅜″	3⅝″	2¼″ x 2 13/16″		7.05
PC8405	270-0-270	120	5.0	3.0	6.3 CT	3.5	3¼″ x 3½″	4″	2½″ x 2 3/16″	4.9	9.19
PM8405							3⅛″ x 3¾″	3½″	2½″ x 3⅛″		9.19
FOR USE WITH CHOKE INPUT FILTER, OR HIGHER VOLTAGE WITH CONDENSER INPUT FILTER											
PM8423	300-0-300	90	5.0	2.0	6.3 CT	3.5	2 13/16″ x 3⅜″	3¼″	2¼″ x 2⅞″	3.0	$ 8.13
PC8406	325-0-325	40	5.0	2.0	6.3 CT	2.0	2⅝″ x 2¾″	3 3/16″	2″ x 1 11/16″	2.4	5.76
PM8406							2½″ x 3″	2¾″	2″ x 2½″		5.76
PC8407	325-0-325	55	5.0	2.0	6.3 CT	2.0	2⅝″ x 3⅛″	3 3/16″	2″ x 2 1/16″	3.2	6.00
PM8407							2½″ x 3″	3⅛″	2″ x 2½″		6.00
PC8422	325-0-325	50	5.0	3.0	6.3 CT	5.0	3¼″ x 3⅞″	4″	2½″ x 2 9/16″	5.8	9.59
PM8422							3⅛″ x 3¾″	3¾″	2½ x 3⅛″		9.61
PC8408	340-0-340	70	5.0	2.0	6.3 CT	2.5	3″ x 3⅜″	3⅝″	2¼″ x 2⅛″	3.8	7.50
PM8408							2⅞″ x 3⅜″	3½″	2¼″ x 2 13/16″		7.50
PC8409	350-0-350	90	5.0	2.0	6.3 CT	3.0	3″ x 3⅝″	3⅝″	2¼″ x 2⅜″	4.5	7.92
PM8409							2⅞″ x 3⅜″	3¾″	2¼″ x 2 13/16″		7.92
PC8410	360-0-360	120	5.0	3.0	6.3 CT	3.5	3¼″ x 3¾″	4″	2½″ x 2 7/16″	5.5	8.99
PM8410							3⅛″ x 3¾″	3¾″	2½″ x 3⅛″		9.36
PC8411	375-0-375	150	5.0	3.0	6.3 CT	4.5	3⅝″ x 4″	4 5/16″	2¾″ x 2 13/16″	5.8	12.03
PM8411							3½″ x 4⅛″	3⅞″	2¾″ x 3 7/16″		12.55
PC8412	400-0-400	200	5.0	3.0	6.3 CT	5.0	4″ x 4″	4¾″	3″ x 2 13/16″	8.2	12.55
PM8412							3¾″ x 4½″	3⅞″	3″ x 3¾″		12.58
PC8413	400-0-400	250	5.0	4.0	6.3 CT	5.0	4″ x 4½″	4¾″	3″ x 3 5/16″	10.0	14.35
PC8414	600-0-600	200	5.0	3.0	6.3 6.3	3.0 3.0	4″ x 4″	4¾″	3″ x 2 13/16″	8.3	14.76
POWER TRANSFORMERS FOR USE WITH 6AX5, 6X4, 6X5, OR SELENIUM RECTIFIERS											
PS8415	125 ½-wave	15	. . .	. . .	6.3	0.6	2⅜″ x 1⅜″	2″	2″	0.7	$ 2.37
PS8416	125-0-125	25	. . .	. . .	6.3	1.0	2⅞″ x 1¾″	2 5/16″	2⅜″	1.0	2.85
***PA8421**	125 ½-wave	50	---	---	6.3	2.0	3¾″ x 2⅛″	2¼″	3⅛″	1.5	3.84
PC8417	220-0-220	50	6.3	0.6	25.2	0.5	2⅝″ x 2⅝″	3 3/16″	2″ x 1 9/16″	2.2	6.41
PC8418	230-0-230	50	. . .	. . .	6.3	2.5	2⅝″ x 2⅝″	3 3/16″	2″ x 1 9/16″	2.2	4.80
PM8418							2½″ x 3″	2⅝″	2″ x 2½″		4.80
PC8419	240-0-240	70	. . .	. . .	6.3	3.0	2⅝″ x 2⅞″	3 3/16″	2″ x 1 13/16″	2.6	5.52
PM8419							2½″ x 3″	2⅞″	2″ x 2½″		5.52
PC8420	260-0-260	90	. . .	. . .	6.3	4.0	3″ x 3½″	3½″	2″ x 2¼″	3.5	6.42
PM8420							2⅞″ x 3⅜″	3½″	2¼″ x 2 13/16″		6.69

POWER TRANSFORMER (MISC.)

#Primary for 117/107 Volts.

Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Ma.	Rectifier Filament Volts—Amperes	Other Windings Volts—Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8359	190/160-0-160/190	70	———	6.3-0.6	C	3⅛″	2½″ x 2⅝″	2.8	7.55
P-8173	250-0-250	10	———	6.3-0.6 6.3-1.2	C	2¼″	2⅞″ x 2⅛″	1.0	$ 4.66
P-8174	250-0-250	20	———	6.3-0.6 6.3-1.2	C	2⅝″	3 5/16″ x 2¼″	1.5	4.83
P-6001	325-0-325	40	5.0 CT-2.0	2.5 CT-4.0	M	2¾″	2½″ x 3″	2.5	6.80
P-6348	240-0-240	60	———	6.3 CT-2.75	M	2¾″	2 3/16″ x 2 11/16″	2.3	5.58
P-6358	300-0-300	65	———	6.3 CT-2.7	C	3⅛″	2⅝″ x 2⅝″	2.8	5.96
P-4047	350-0-350	70	5.0-3.0	2.5 CT-9.0 6.3-3.0	C	4″	3¼″ x 3″	3.8	8.46
P-8175	300-0-300	70	5.0-3.0	6.3 CT-3.0	C	3½″	2⅞″ x 3⅛″	4.0	7.85
P-6007	400-0-400	110	5.0 CT-3.0	2.5 CT-15.0 2.5 CT-3.5	M	3⅜″	3⅛″ x 3¾″	5.4	11.38
P-8176	350-0-350	110	5.0-2.0	6.3 CT-3.0 6.3 CT-3.0	C	3⅞″	3 3/16″ x 3⅞″	5.5	10.56
P-8177	300-0-300	120	5.0-3.0	6.3 CT-5.0	C	3⅞″	3 3/16″ x 3¾″	5.8	9.59
P-6008	375-0-375	180	5.0 CT-3.0	2.5 CT-6.0 6.3 CT-3.3	M	3⅜″	3½″ x 4⅛″	6.2	11.87
P-8360	437.5-0-437.5	185	5.0-3.0	6.3-3.0 6.3-4.0	C	4¾″	4″ x 4½″	9.5	16.00
P-6143	440-0-440	130	5.0–3.0	6.3 CT–3.5	C	4 5/16″	3⅝″ x 3⅞″	7.0	11.29
P-4004#	400-0-400 80 v. Bias	175	5.0 CT–3.0	2.5–1.75 6.3 CT–2.5 6.3 CT–2.5	C	4¾″	4″ x 3⅞″	8.3	14.53
P-5059#	337.5-0-337.5	200	5.0 CT–3.0	6.3 CT–5.0	C	4¾″	4″ x 4¼″	9.6	13.33
P-6315	370-0-370	275	5.0 CT–3.0	6.3 CT–7.0	M	4¼″	3¾″ x 4½″	9.3	13.96
P-8307	870-0-870 410-0-410	150 60	5.0-2.0	6.3-3.5	TD	4¼″	3 9/16″ x 4 7/16″	5.9	12.40

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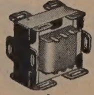
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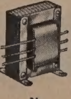
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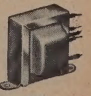
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Net

POWER—MODULATION

SELENIUM RECTIFIER TRANSFORMERS (117 volt, 50-60 cycle input)

Part No.	Rectifier Circuit	Range of Applied A.C. Volts Under Load (Approx.)	Output Resistive or Inductive Load Max. D.C. Volts	Output Resistive or Inductive Load Max. D.C. Amps.	Output Capacitive Load* Max. D.C. Volts	Output Capacitive Load* Max. D.C. Amps.	Mtg. Type	Overall Dimensions H W D	Shpg. Wt. (lbs.)	Net Price
RT-201	C. T.	11.7 to 29.4	11.2	2.0	13.8[1]	2.0	B	3⅛" x 2½" x 3⅜"	2.5	$ 5.07
	Bridge	11.1 to 28.5	23.0	1.25	30.0[2]	1.25	B	3½" x 2½" x 3⅜"	2.5	
RT-202	C. T.	12.0 to 29.8	11.1	4.0	14.7[3]	4.0	B	3⅝" x 2⅞" x 3½"	3.8	6.89
	Bridge	12.0 to 29.8	24.3	2.0	33.0[1]	2.0	B	3⅝" x 2⅞" x 3½"	3.8	
RT-204	C. T.	11.7 to 29.2	12.0	8.0	14.5[4]	8.0	B	4" x 3¼" x 4⅛"	6.1	8.91
	Bridge	11.6 to 29.2	24.0	4.0	32.4[3]	4.0	B	4" x 3¼" x 4⅛"	6.1	
RT-206	C. T.	12.0 to 29.7	11.5	12.0	14.4[5]	12.0	B	4¼" x 3 7/16" x 5⅛"	9.1	12.11
	Bridge	12.0 to 29.7	24.0	6.0	32.0[6]	6.0	B	4¼" x 3 7/16" x 5⅛"	9.1	
RT-208	C. T.	12.1 to 29.2	11.4	15.0	14.8[7]	15.0	B	4¾" x 3¾" x 5¼"	12.6	15.26
	Bridge	12.1 to 29.2	23.7	8.0	32.5[4]	15.0	B	4¾" x 3¾" x 5¼"	12.6	
RT-2012	C. T.	12.1 to 29.0	11.4	22.5	14.3[8]	22.5	B	5⅜" x 4⅜" x 6⅜"	20.5	22.50
	Bridge	12.0 to 29.0	23.5	12.0	33.0[5]	12.0	B	5⅜" x 4⅜" x 6⅜"	20.5	
RT-408	Bridge	25.0 to 53.5	44.0	8.0	63.0[4]	8.0	B	5⅜" x 4⅜" x 7½"	26.5	33.28
RT-4012	Bridge	25.0 to 53.0	43.5	12.0	60.0[5]	12.0	B	7⅛" x 5⅝" x 6¼"	33.5	43.82

SILICON RECTIFIER TRANSFORMERS (117 v., 50-60 cycle input)

Catalog No.	Secondary No. 1 Volts	Secondary No. 1 DCMA†	Secondary No. 2 Volts	Secondary No. 2 Amps	Secondary No. 3 Volts	Secondary No. 3 Amps	Mtg. Type	Height	Base Area	Mtg. Ctrs.	Net Wt. in Lbs.	Net Price
RP-400	400 CT	400	6.3	3.0	6.3	3.0	C	4 5/16"	3⅝" x 4 5/16"	2¾" x 3 1/16"	7.1	$13.38
RP-600	300 CT	600	6.3	2.5	6.3	2.5	C	4 5/16"	3⅝" x 4 5/16"	2¾" x 3 1/16"	7.1	13.35
RP-800	200 CT	800	6.3	2.0	6.3	2.0	C	4 5/16"	3⅝" x 4 3/16"	2¾" x 2 15/16"	6.9	13.31
RP-1600	100 CT	1600	6.3	1.5	6.3	1.5	C	4 5/16"	3⅝" x 3 15/16"	2¾" x 2 11/16"	6.0	11.82
RP-2000	80 CT	2000	6.3	1.5	6.3	1.5	C	4 5/16"	3⅝" x 4 1/16"	2¾" x 2 13/16"	6.5	12.87
RP-2500	60 CT	2500	6.3	1.5	6.3	1.5	C	4 5/16"	3⅝" x 3 15/16"	2¾" x 2 11/16"	6.0	12.91

Note: For MIL-T-27A equivalents, See Stancor page 14.

RECTIFIER TRANSFORMERS (Primary 117 volt, 60 cycle)

Part No.	Secondary	Rectified Circuit ½ Wave	Rectified Circuit Full-wave Brdg.	Mtg. Type	Mtg. Ctrs.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8193	17-18 V. A.C. at 3A. R.M.S.	6-7 V. D.C.	13-14 V. D.C.	BV	2½" x 2⅝"	3¾"	3⅛" x 3⅝"	5¼	$ 8.61
P-8194	36 V. A.C. at 3A. R.M.S.	13 V. D.C.	26 V. D.C.	BV	3" x 3"	4½"	3¾" x 4"	9½	14.64

AUTOMATION CONTROL TRANSFORMERS (Primary 115-230 volts, 50-60 cycle)

Part No.	Secondary Parallel	Secondary Series	V. A. Rating	Mtg. Type	Mtg. Ctrs.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6375	6 V. at 2 A.	12 V. at 1 A.	12	J	2⅜"	2⅜"	2⅞" x 2"	¾	$ 3.34
P-6376	6 V. at 4 A.	12 V. at 2 A.	24	J	2⅞"	3⅝"	3⅜" x 2¼"	1½	3.79
P-6377	12 V. at 4 A.	24 V. at 2 A.	48	J	3⅛"	3⅛"	3⅝" x 2⅜"	2	4.79
P-6378	12 V. at 8 A.	24 V. at 4 A.	96	BV	2⅜" x 2¼"	3⅜"	3⅞" x 3"	3½"	7.72
P-6379	12 V. at 16 A.	24 V. at 8 A.	192	BV	2⅞" x 2¾"	4⅛"	3½" x 3½"	8	13.33

*Transformers and Rectifiers will have a higher temperature rise when operating with a capacitive load as compared to a resistive or inductive load for a given load current. If this is undesirable extra ventilation should be provided or else the output current from the rectifier should be derated by approximately 20% from the values shown.

RT Footnotes: MFD. Filter Capacitor: 1. 1,000 2. 500 3. 2,000 4. 4,000 5. 6,000 6. 3,000 7. 7,500 8. 12,000.

PLATE MODULATION

Part No.	Impedance in Ohms	Max. Ma. D.C./Tube Pri.	Max. Ma. D.C./Tube Sec.	Typical Output Tubes	Class	Audio Watts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3812	Pri—10,000 CT Sec—4,000	32	50	Sgl.—37, 38, 41, 1G5, 6K6 Sgl.—19, 1G6, 1J6, 6E6, 6G6, 6Z7 P.P.—30, 49, 1H4	A B B	5	A	1⅝"	2⅞" x 1½"	0.7	$2.43
A-3871	Pri—4,500 Sec—8,500 #Secondary used as primary.	60	50	Sgl.—6L6, HY69 #Sgl.—6B5, 6F6, 6N6	A A	10	TD	2 11/16"	2¾" x 2 3/16"	1.4	4.43
A-3845	Pri—10,000 CT Sec—8,000/6.500/5,000/3,000	100	100	Sgl. 53, 79, 6A6, 6N7, 6Y7 P.P.—42, 2A5, 6F6, 6V6	B AB2	25	C	3 3/16"	2⅝" x 2¾"	2.8	5.84
A-3808	Pri—3,800/3,300 CT Sec—10,000/7,500/5,000/4,000	260	170	P.P.—6L6, 807, HY61, RK41 P.P. Par—6L6	AB2 AB1	60	D	4¾"	4" x 2⅞"	7.7	15.12
A-3829	Pri—9,000/6,900 CT Sec—6,250/5,000/4,000/3,300	250	300	P.P.—RK12, HY25, 35T, HY40Z, T40, TZ40, 100TL, HK354, 756, 809, 830B	B	175	D	4¾"	4" x 6⅛"	11.4	16.82

POLY-PEDANCE MODULATION MULTI-TAPPED UNITS TO PROPERLY MATCH THE OUTPUT OF THE MODULATOR STAGE TO THE MODULATED LOAD. WILL MATCH ALL COMMON IMPEDANCES OF CLASS "B" MODULATOR (2,000 to 20,000 OHMS) TO CLASS "C" LOAD IMPEDANCES OF 2,000 TO 20,000 OHMS.

Part No.	Max. Watts	Max. D.C.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
A-3891	15	Pri—100 ma. Sec—100 ma.	D	3 3/16"	2⅝" x 2⅞"	2.5	$ 9.60
A-3892	30	Pri—150 ma. Sec—150 ma.	D	4"	3¼" x 3⅝"	4.3	12.16
A-3893	60	Pri—180 ma. Sec—180 ma.	D	4"	3¼" x 4⅛"	6.2	13.16
A-3894	125	Pri—225 ma. Sec—225 ma.	D	4¾"	4" x 4⅝"	9.4	16.58
A-3898	300	Pri—260 ma. Sec—260 ma.	FS	8⅛"	5¾" x 7⅝"	37.9	97.65
A-3899	600	Pri—500 ma. Sec—500 ma.	FS	9⅛"	7¼" x 10¼"	70.0	119.20

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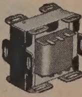
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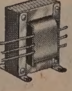
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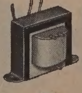
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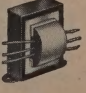
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FILTER CHOKES

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

SMOOTHING CHOKES FOR D.C. POWER SUPPLIES.

Inductance varies with the amount of D.C. flowing through the coil, therefore these units have been tested under uniform conditions. They are rated at 10 volts, 60 cycles, with maximum D.C. in winding. Tolerance of plus 15% is maintained on all ratings.

Part No.	Rating Induc.	at	Ma. D.C.	D.C. Res. in Ohms	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-2344	1.5 hy.	at	10 ma.	95	2500	A	1¼″	2⅛″ x 1⅛″	0.5	**$1.12**
C-2707	2.0 hy.	at	15 ma.	70	1500	A	1 3/16″	2 3/16″ x 1¼″	0.4	**1.50**
C-1515	20.0 hy.	at	15 ma.	900	1500	A	1⅝″	2⅞″ x 1½″	0.7	**2.14**
C-2318	12.0 hy.	at	30 ma.	400	2000	A	1⅜″	2⅜″ x 1⅜″	0.5	**1.83**
C-1706	4.5 hy.	at	50 ma.	300	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.28**
C-1707	7.0 hy.	at	50 ma.	550	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.42**
C-1003	16.0 hy.	at	50 ma.	580	1500	A	2″	3¼″ x 1¾″	1.1	**2.17**
C-1708	13.0 hy.	at	65 ma.	500	1500	A	2″	3¼″ x 1¾″	1.0	**2.40**
C-1355	8.0 hy.	at	75 ma.	290	1500	L	2 1/16″	2 5/16″ x 1¾″	1.0	**2.65**
C-1002	15.0 hy.	at	75 ma.	400	1500	A	2¼″	3¾″ x 2¼″	1.7	**2.88**
C-1420	16.0 hy.	at	80 ma.	360	1500	C	3 3/16″	2⅝″ x 2⅝″	2.5	**4.64**
C-1709	8.0 hy.	at	85 ma.	250	1500	A	2″	3¼″ x 2″	1.4	**2.40**
C-2305	5.0 hy.	at	100 ma.	300	1500	TD	2 11/16″	2¾″ x 2 3/16″	1.5	**3.45**
C-1001	10.5 hy.	at	110 ma.	225	3000	A	2⅝″	4″ x 2¼″	2.3	**3.59**
C-2704	9 hy.	at	125 ma.	250	1500	Q	2¼″	3 3/16″ x 2⅛″	1.5	**3.07**
C-2303	2.5 hy.	at	130 ma.	100	2000	A	2″	3¼″ x 1¾″	1.0	**2.25**
C-1421	7.0 hy.	at	140 ma.	165	3000	C	3 3/16″	2⅝″ x 2⅝″	2.5	**4.64**
C-2304	2.3 hy.	at	150 ma.	60	1500	A	2″	3¼″ x 1¾″	1.0	**2.25**
C-2309	3.0 hy.	at	150 ma.	90	2000	A	2¼″	3¾″ x 2¼″	1.7	**2.57**
C-1710	7.0 hy.	at	150 ma.	200	1500	A	2⅝″	4″ x 2¼″	2.2	**3.60**
C-1410	4.0 hy.	at	175 ma.	100	3000	C	3 3/16″	2⅝″ x 2⅝″	2.4	**4.54**
C-2327	1.5 hy.	at	200 ma.	85	1500	A	1⅝″	2⅞″ x 1½″	0.8	**1.80**
C-1646	5.0 hy.	at	200 ma.	90	5000	C	4″	3¼″ x 3⅜″	4.5	**6.80**
C-1411	4.5 hy.	at	200 ma.	80	3000	C	3⅝″	3″ x 3⅛″	3.5	**5.67**
C-1721	8.5 hy.	at	200 ma.	120	3000	N	3⅞″	3⅛″ x 3″	4.4	**7.50**
C-2705	10 hy.	at	200 ma.	150	2500	C	3 9/16″	3″ x 3⅝″	4.25	**7.23**
C-1703	4.0 hy.	at	250 ma.	60	3000	B	3½″	2⅞″ x 3⅛″	4.2	**6.20**
C-1412	4.0 hy.	at	250 ma.	60	3000	C	3⅝″	3″ x 3½″	4.3	**6.96**
C-1722	8.0 hy.	at	300 ma.	80	3000	N	4⅝″	3¾″ x 3½″	7.3	**11.04**
C-2308	8.0 hy.	at	300 ma.	80	3000	C	4¾″	4″ x 3⅞″	7.8	**11.04**
C-1413	8.0 hy	at	300 ma	80	5000	D	4¾″	4″ x 4⅛″	7.8	**11.48**
C-2706	2.6 hy.	at	310 ma.	60	1500	C	3 3/16″	2⅝″ x 3⅛″	3.4	**6.06**
C-2328	0.8 hy.	at	375 ma.	25	1500	A	2½″	3¾″ x 2″	1.5	**3.60**
C-1414	7.5 hy.	at	400 ma.	60	5000	D	4¾″	4″ x 5⅛″	11.8	**15.69**
C-1415	6.0 hy.	at	500 ma.	75	7500	FS	8⅛″	5⅝″ x 5½″	23.7	**48.17**
C-2708	0.32 hy.	at	600 ma.	10	1500	A	1 15/16″	3 5/16″ x 2″	1.3	**2.87**

SWINGING CHOKES FOR INPUT SECTION OF D.C. POWER SUPPLIES.

Part No.	Min. Swg. Induc.	D.C. Res. in Ohms	Approx. Range of Induc.	at	D.C. Ma.	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-1718	10 hy.	130	13.5-3.5 hy.	at	15-150	2000	C	3 3/16″	2⅝″ x 2½″	2.3	**$4.43**
C-1400	10 hy.	100	12-2	at	17.5-175	3000	C	3 3/16″	2⅝″ x 2⅝″	2.4	**4.73**
C-1401	10 hy.	80	12-2	at	20-200	3000	C	3⅝″	3″ x 3⅛″	3.5	**5.95**
C-1645	10 hy.	90	12-2	at	20-200	5000	C	4″	3¼″ x 3⅜″	4.5	**6.59**
C-1702	10 hy.	60	12-2	at	25-250	3000	B	3½″	2⅞″ x 3⅛″	4.3	**6.77**
C-1402	10 hy.	60	12-2	at	25-250	3000	C	3⅝″	3″ x 3½″	4.3	**6.96**
C-1720	16 hy.	80	20-4	at	30-300	3000	N	4⅝″	3¾″ x 3½″	7.2	**11.91**
C-2307	16 hy.	80	20-4	at	30-300	3000	C	4¾″	4″ x 3⅞″	7.9	**11.44**
C-1403	16 hy.	80	20-4	at	30-300	5000	D	4¾″	4″ x 4⅛″	7.7	**11.70**
C-1404	14 hy.	60	17-3	at	40-400	5000	D	4¾″	4″ x 5⅛″	11.7	**15.23**
C-1405	12 hy.	75	16-4	at	50-500	7500	FS	7⅝″	6⅛″ x 7″	24.3	**40.78**

SMOOTHING CHOKES FOR USE IN A.C.-D.C. POWER SUPPLIES.

Part No.	Rating Induc.	at	Ma. D.C.	D.C. Res. in Ohms	R.M.S. V. Insul.	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
C-1080	3.5 hy.	at	50 ma.	200	1500	A	1⅝″	2⅞″ x 1½″	0.7	**$1.65**
C-1325	5.0 hy.	at	50 ma.	250	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1277	7.0 hy.	at	50 ma.	300	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.80**
C-1723	4.5 hy.	at	50 ma.	325	1500	A	1⅜″	2⅜″ x 1⅜″	0.4	**1.42**
C-1227	7.0 hy.	at	50 ma.	350	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.80**
C-1279	8.5 hy.	at	50 ma.	400	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1333	8.0 hy.	at	50 ma.	450	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.65**
C-1215	9.0 hy.	at	50 ma.	500	1500	A	1⅝″	2⅞″ x 1½″	0.7	**1.60**

HIGH CURRENT FILTER CHOKES (Indcutances rated at 1 volt RMS, 60 cycle)

Part No.	Inductance Henrys	at	D.C.	D.C. Res. Ohms	R.M.S. V. Insul.	Height Overall	Mtg. Ctrs.	Base Area	Mtg. Type	Shpg. Wt. in Lbs.	Net Price
C-2685	.035	at	2.0 amp.	.72	1500	2⅜″	2 3/16″ x 2″	2⅝″ x 2¾″	BH	1.9	**$3.55**
C-2686	.025	at	4.0 amp.	.425	1500	3″	2 13/16″ x 2⅛″	3⅜″ x 2⅞″	BH	3.4	**6.05**
C-2687	.01	at	8.0 amp.	.15	1500	3¼″	3⅛″ x 2½″	3¾″ x 3 3/16″	BH	5.3	**7.96**
C-2688	.01	at	12.5 amp.	.11	1500	3½″	3 7/16″ x 2⅜″	4⅛″ x 3 1/16″	BH	5.9	**9.17**
C-2689	.005	at	22.5 amp.	.03	1500	3⅞″	3¾″ x 3½″	4½″ x 4½″	BH	11.9	**13.45**
C-2690	.3-.075		1A-2A	3.0-.75	1500	3 7/16″	2¼″ x 2¼″	2 13/16″ x 3¼″	BV	5.0	**8.02**
C-2691	.08-.02		2.5A-5A	.57-.143	1500	3¾″	2½″ x 3″	3⅛″ x 4″	BV	6.5	**10.21**

AUDIO CHOKES

Audio reactors are rated at 2 volts, 200 cycles, with maximum D.C. in windings. Tolerance of plus 15% is maintained on all ratings.

Part No.	Rated Inductance	Max. D.C.	D.C. Res. in Ohms	Test Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	List Price
C-1003	16 hy at 50 ma.	50 ma.	580	1500	A	2″	3¼″ x 1¾″	1.1	**$2.17**
C-2346	35 hy at 15 ma.	—	1850	2500	A	1⅜″	2⅜″ x 1¼″	½	**1.72**
C-2301	135 hy at 5 ma.	10 ma.	6500	1500	TD	2 11/16″	2¾″ x 1 13/16″	1.7	**4.28**
C-2345	350 hy at 5 ma.	—	5500	2500	A	2″	3¼″ x 2″	1½	**3.07**

♯These units have split secondaries for individual bias adjustment and/or use of inverse feedback.

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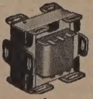
KA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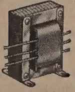
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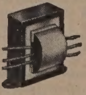
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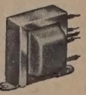
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FILAMENT TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

FILAMENT TRANSFORMERS WITH SINGLE SECONDARY

Part No.	Secondary Volts	Secondary Amperes	R.M.S. V. Insul.	Primary Volts#	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-4026	2.5	1.5	2,500	117	A	1⅝"	2⅞" x 1½"	0.7	**$2.76**
P-4082	2.5 CT	2.5	2,500	117/107	TD	2¹¹⁄₁₆"	2¾" x 2³⁄₁₆"	1.5	**4.83**
P-6133	2.5 CT	5.0	7,500	117	S	2¹¹⁄₁₆"	3⁵⁄₁₆" x 2¼"	1.5	**3.80**
P-4083	2.5 CT	6.0	2,500	117/107	C	3³⁄₁₆"	2⅝" x 2⅜"	2.2	**5.06**
P-3024	2.5 CT	10.0	2,500	117/107	C	3³⁄₁₆"	2⅝" x 2⅝"	2.5	**5.00**
P-6454	2.5 CT	10.0	7,500	107/117	S	3⅛"	3⅝" x 2½"	2.5	**4.00**
P-3060	2.5 CT	10.0	10,000	117	B	3½"	2⅞" x 2½"	2.5	**6.72**
P-3026	5.0 CT	3.0	2,500	117/107	C	3³⁄₁₆"	2⅝" x 2⅝"	2.4	**5.00**
P-4088	5.0 CT	3.0	2,500	117	B	3⅛"	2½" x 2½"	1.8	**4.25**
P-6467	5.0 CT	3.0	2,500	117	A	2	3⁵⁄₁₆" x 2"	1.4	**3.20**
P-6455	5.0 CT	6.0	2,000	107/117	S	2⅝"	3⁵⁄₁₆" x 2¼"	2.0	**4.33**
P-3062	5.0 CT	6.0	2,500	117	B	3⅛"	2½" x 2½"	2.3	**5.14**
P-5000	5.0 CT	6.0	2,500	117/107	C	3³⁄₁₆"	2⅝" x 2⅞"	3.1	**5.80**
P-6135	5.0 CT	10.0	2,500	117	N	3⅛"	2½" x 2⅞"	3.0	**5.60**
P-4086	5.0 CT	14.0	10,000	117/107	FA	5⅛"	4¼" x 8½"	12.3	**22.88**
P-6432	5.0 CT	21.0	2500	117*	BV	3⅝"	2⅜" x 2⅝"	5.0	**8.33**
P-6433	5.0 CT	15.0	2500	117*	BV	3⅛"	2½" x 2⅞"	3½	**7.15**
P-6302	5.0 CT	22.0	10,000	117/107	FA	5⅛"	4¼" x 8½"	13.5	**32.12**
P-6492	5.0 CT	30.0	2,500	117	C	4¾"	3¾" x 3⅞"	7.5	**10.94**
P-6468	5.0 CT	30.0	2,500	117/107	D	4⁵⁄₁₆"	3⁹⁄₁₆" x 3⅞"	4.3	**12.79**
P-6305	5.0 CT	30.0	10,000	117/107	FB	5⅛"	4¼" x 10"	18.3	**30.96**
P-6137	5.25 CT	13.0	2,500	117	N	3⅞"	3⅛" x 3¼"	5.2	**8.19**
P-6463	†6.0 CT, 6.5 CT, or 7.0 CT	13.0	2,000	117	B	3⅜"	2¹³⁄₁₆" x 3⅜"	4.5	**7.85**
P-6465	6.3 CT	0.6	1,500	117	A	1⅜	2⅜" x 1⅜"	0.5	**1.98**
P-6134	6.3 CT	1.2	3,000	117	A	1⅝"	2⅞" x 1⅝"	0.8	**2.10**
P-8190	6.3	1.2	5,000	117	A	2	3¼" x 1¾"	1.0	**2.76**
P-8191	6.3	1.2	5,000	6.3	A	2	3¼" x 1¾"	1.0	**2.97**
P-5014	6.3 CT	3.0	2,500	117	B	3⅛"	2½" x 2½"	2.0	**4.67**
P-6466	6.3 CT	3.0	2,500	117	A	2	3⁵⁄₁₆" x 2"	1.4	**3.39**
P-6462	6.3	3.0	7,000	107/117	A	2⅝"	4" x 2⅝"	2.0	**5.60**
P-4019	6.3 CT	4.0	2,500	117/107	C	3³⁄₁₆"	2⅝" x 2⅝"	2.7	**5.04**
P-6456	6.3 CT	6.0	2,000	107/117	A	2¼"	3⅝" x 2½"	2.0	**3.82**
P-3064	6.3 CT	6.0	2,500	117	B	3⅛"	2½" x 2⅞"	2.4	**5.42**
P-4089	6.3 CT	6.0	2,500	117/107	C	3⅝"	3" x 3⅛"	3.5	**6.62**
P-6308	6.3 CT	10.0	2,500	117/107	N	3½"	2⅞" x 2¾"	3.4	**6.59**
P-6464	6.3 CT	10.0	1 500	117	C	3⁹⁄₁₆"	3" x 3¼"	3.5	**6.94**
P-6309	6.3 CT	20.0	2,500	117/107	N	4⅝"	3¾" x 3"	6.7	**10.21**
P-5015	7.5 CT	4.0	2,500	117	B	3⅛"	2½" x 2⅞"	2.7	**4.75**
P-6457	7.5 CT	5.0	2,000	107/117	C	4½"	3¾" x 4"	6.0	**12.69**
P-4091	7.5 CT	5.0	2,500	117/107	C	3⅝"	3" x 3"	3.4	**6.70**
P-6138	7.5 CT	8.0	2,500	117	N	3⅞"	3⅛" x 2⅞"	4.7	**7.39**
P-5016	10.0 CT	4.0	2,500	117	B	3½"	2⅞" x 2⅝"	3.3	**6.05**
P-6458	10.0 CT	5.0	2,000	107/117	N	3¹⁄₁₆"	2½" x 2⅞"	3.0	**4.70**
P-4096	10.0 CT	5.0	2,500	117/107	C	4"	3¼" x 3⅛"	4.0	**7.22**
P-6139	10.0 CT	8.0	2,500	117	N	3⅞"	3⅛" x 3⅛"	4.9	**7.50**
P-4097	10.0 CT	8.0	2,500	117/107	C	4"	3¼" x 3⅝"	5.2	**7.82**
P-6461	10.0 CT	10.0	2,000	117*	C	3⅞"	3¼" x 3⅝"	5.0	**8.79**
P-5002	10.0 CT	12.0	7,500	117/107	FA	5⅛"	4¼" x 8½"	14.7	**24.85**
P-3020	11.0 CT	10.0	2,500	117/107	C	4¾"	4" x 3½"	7.7	**9.96**
P-8130	12.6 CT	2.0	1,500	117	A	2"	3¼" x 2"	1.4	**3.43**
P-8358	12.6 CT	3.0	1,500	117	A	2¼"	3⅝" x 2⅛"	1.6	**4.15**
P-6469	25.2	1.0	1,500	117	A	2"	3¼" x 2"	1.4	**3.27**
P-8357	25.2 CT	3.0	1,500	117	A	2⅝"	4" x 2¼"	3⁹⁄₁₆"	**5.10**

FILAMENT TRANSFORMERS WITH MULTIPLE SECONDARY

Part No.	Secondary	R.M.S. V. Insul.	Primary Volts#	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6144	2.5 VCT at 3.5 A; 5.0 VCT at 3.0 A; 6.3 VCT at 3.0 A	2,500	117	C	3⅝"	3" x 3⅛"	3.7	**$7.80**
P-6338	2.5 V at 3.0 A; 5.0 V at 3.0 A; 5.0 VCT at 2.0 A; 6.3 VCT at 3.0 A	2,500	117	N	3½"	2⅞" x 2¾"	3.4	**7.59**
P-5009	5.0 VCT at 3.0 A; 6.3 VCT at 6.0 A	2,500	117/107	C	4"	3¼" x 3¼"	4.5	**8.90**
P-5008	5.0 VCT at 4.0 A; 6.3 VCT at 3.6 A	2,500	117/107	C	3⅝"	3" x 3¼"	3.8	**7.83**
P-4022	5.0 VCT at 6.0 A; 6.3 VCT at 6.0 A	2,500	117/107	C	4"	3¼" x 3⅜"	4.8	**8.46**
P-6333	5.0 V at 3.0 A; 5.0 V at 3.0 A; 6.3 VCT at 4.0 A; 7.5 V/6.3 VCT at 3.0A	2,500	117	B	3½"	2⅞" x 3⅞"	4.7	**9.43**
P-6428	6.3 V at 1.75 A; 6.3 V at 1.75 A; 6.3 V at 1.75 A; 6.3 VCT at 1.75 A	2,500	117	C	3⅛"	2½" x 3"	3.0	**6.20**
P-6429	6.3 V at 3.5 A; 6.3 V at 3.5 A; 6.3 V at 3.5 A; 6.3 VCT at 3.5 A	2,500	117	C	3⅞"	3⅛" x 3½"	4.8	**8.43**
P-6430	6.3 VCT at 3.0 A; 6.3 VCT at 3.0 A	2,500	117	C	3⅛"	2½" x 3⅞"	2.8	**5.50**
P-6431	6.3 VCT at 6.0 A; 6.3 VCT at 6.0 A	2,500	117	C	3⅞"	3⅛" x 3½"	4.8	**8.34**

#All primary windings for 60 cycle operation. *Primary 50/60 cycles. †By means of primary tap: For Eimac 4CX1000A tube.

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PLATE TRANSFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

PLATE TRANSFORMERS

Part No.	D.C. Volts	Sec. A.C. Volts at Plate	D.C. Ma. CCS	D.C. Ma. ICAS	Pri. Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8040	400 40	500/40–0–500	300	375	115	C	4¾″	4″ x 4½″	9.8	**$13.49**
P-8041	500 400 40	615/520/40–0–520/615	250	310	115	C	4¾″	4″ x 5⅛″	13.6	**16.02**
P-8042	600 400 40	770/510/40–0–510/770	300	375	115	C	4¾″	4″ x 6⅜″	18.0	**21.49**
P-8043	750 600 40	950/750/40–0–750/950	300	375	115	FS	7⅝″	6⅛″ x 8½″	29.0	**79.18**
P-8025	1000 750	1230/940–0–940/1230	400	500	115	FS	7⅝″	6⅛″ x 9½″	35.0	**89.14**
P-8026	1250 1000	1475/1175–0–1175/1475	300	375	115	FS	7¾″	7⅜″ x 8¼″	36.5	**73.89**
P-8027	1250 1000	1510/1210–0–1210/1510	500	625	115	FS	8″	5⅝″ x 8¼″	45.2	**75.89**
P-8028	1500 1250	1740/1460–0–1460/1740	300	375	115	FS	8⅛″	5⅝″ x 7⅞″	38.7	**82.62**
P-8029	1500 1250	1775/1500–0–1500/1775	500	625	115–230	FS	9⅞″	7¼″ x 8⅜″	65.0	**90.58**
P-8030	1750 1500	2100/1800–0–1800/2100	300	375	115	FS	7¾″	7⅜″ x 9″	45.8	**71.20**
P-8031	1750 1500	2075/1775–0–1775/2075	500	625	115–230	FS	10½″	7¼″ x 8⅛″	65.5	**86.63**
P-8032	2000 1750	2400/2100–0–2100/2400	300	375	115	FS	7¾″	7⅜″ x 9¼″	46.0	**79.59**
P-8033	2000 1750	2375/2065–0–2065/2375	500	625	115–230	FS	11¼″	7⅜″ x 9½″	77.0	**103.85**
P-8034	2500 2000	2900/2385–0–2385/2900	300	375	115–230	FS	11¼″	7⅜″ x 8¾″	62.8	**102.17**
P-8035	2500 2000	2950/2375–0–2375/2950	500	575	115–230	FS	11¼″	7⅜″ x 10¼″	80.0	**155.37**

PLATE TRANSFORMERS

No exposed terminals. Insulated leads provide protected routing to circuits. Simplified design offers ease of mounting and neat, convenient circuit wiring. No difficult cutouts needed

Each of these units is "all transformer," taking a minimum of chassis space. No bulky casing or protruding, "hot" terminals to increase mounting area.

D.C. output rated CCS at load terminals of single-section reactor-input filter, ICAS with single-section capacitor-input filter. Primaries for 117 volts, 60 cycles.

Type Part No.	Secondary A.C. Volts	D.C. Output Volts	D.C. Output Ma.	Type Filter	Rectifier	Net Price
PC8301	415-0-415	300 425	200 160	Reactor Input Capacitor Input	5U4G 5U4G	**$ 8.03**
PC8302	515-0-515	385 500	235 200	Reactor Input Capacitor Input	5U4G 5R4GY	**10.52**
PC8303	665-0-665	500 750	250 200	Reactor Input Capacitor Input	5R4GY 5R4GY	**13.36**
PC8304	750-0-750	600 850	265 200	Reactor Input Capacitor Input	2-5R4GY 5R4GY	**15.05**
PC8305	920-0-920	750 1000	250 200	Reactor Input Capacitor Input	2-5R4GY 5R4GY	**15.66**
PC8306*	920-0-920	750 1100	150 125	Reactor Input Capacitor Input	5R4GY 5R4GY	**15.46**
	500-0-500	380 550	150 125	Reactor Input Capacitor Input	5U4G 5U4G	

D.C. output rated at load terminals of single-section, reactor-input filter with full-wave mercury-vapor rectification. Primaries for 117 volts, 60 cycles

Type and Part No.	Secondary A.C. Volts	D.C. Volts	D.C. Ma. CCS	D.C. Ma. ICAS	Net Price
PT8311	1200-0-1200	1000	225	280	**$17.05**
PT8312	1200-0-1200	1000	325	405	**29.83**
PT8313	1475-0-1475	1250	250	310	**26.62**
PT8314	1790-0-1790	1500	225	280	**30.72**
PT8315	2065-0-2065	1750	200	250	**30.99**

*Tapped for use with dual rectifier-filter systems to deliver two rated outputs simultaneously.

BIAS SUPPLY TRANSFORMERS

Part No.	High Voltage Supply A.C. Volts at D.C. Milliamps.	Rectifier Fil. Volts	Rectifier Fil. Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6317	200/170/130/90/0/90/130/170/200 @ 200 ma.	5.0	3.0	CD	4″	3¼″ x 3⅝″	4.9	**$11.46**
P-6318	450/400/350/250/0/250/350/400/450 @ 200 ma.	5.0	3.0	CD	4⁵⁄₁₆″	3⅝″ x 4⅛″	7.0	**13.64**

TUBE CHECKER MULTI-TAPPED FILAMENT TRANSFORMER

Part No.	Secondary Volts	Primary Volts	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-1834-3	1.1/ 1.4/ 1.5/ 2.0/ 2.5/ 3.0/ 3.3/ 5.0/ 6.3/ 7.0/ 7.5/ 12/ 25/ 30/ 35/ 50/ 70/ 85/ 110/ 117	125/115/105	A	2⅝″	4″ x 2″	2.4	**$10.12**

All Primary Windings for 60 cycle operation. ‡Designates part number to be removed from next catalog.
§Output changed by means of tap on primary winding. Rating is for a single section choke input filter using a 6 mfd. condenser.

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ISOLATION AND AUTOFORMERS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

STRAIGHT ISOLATION—125/115/105 VOLTS TO 115 VOLTS.†

Part No.	Wattage	Primary#	Secondary	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6160	100	125/115/105	115	KA	4¾"	4" x 3⅝"	7.0	**$14.48**
P-6371	175	117	117	TE	5 5/16"	4 9/16" x 5¼"	9.0	**19.34**
P-6161	250	125/115/105	115	KA	4¾"	4" x 5⅜"	14.2	**21.40**
P-6298	500	125/115/105	115	FK	7⅝"	6⅛" x 7⅛"	28.0	**43.13**
P-6125	1000	125/115/105	115	FK	7¾"	5⅝" x 7¾"	34.8	**60.99**
P-6123	1500	125/115/105	115	FK	7¾"	5⅝" x 9"	49.8	**73.59**

STEP-DOWN ISOLATION—250/230/210 VOLTS TO 115 VOLTS.†

P-6383	100	250/230/210	115	KA	4¾"	4" x 3⅝"	7.3	**$14.63**
P-6385	250	250/230/210	115	KA	4¾"	4" x 5⅜"	14.2	**23.82**
P-6387	500	250/230/210	115	FK	7⅝"	6⅛" x 7⅛"	29.5	**45.39**
P-6389	1000	250/230/210	115	FK	7¾"	5⅝" x 8"	33.8	**57.63**
P-6390	1500	250/230/210	115	FK	7¾"	5⅝" x 9⅜"	50.3	**75.14**

†Built-in electrostatic shields are grounded to core internally.

ISOLATION TESTING TRANSFORMER

P-6415	350	117	105/115/125	KC	5⅜"	4½" x 5¾"	17.0	**$23.52**

Large enough to handle almost any television or radio receiver on test. Has three standard receptacles, providing output voltages of 105, 115 and 125, with 117 volts, A.C., from the line for testing purposes or for correction of high or low line voltage. Has electrostatic shield.

AUTOFORMERS

P-6287	40	230	115	—	4½"	3" Diam. can	2.7	**$6.49**
P-5062	80	230	115	K	3⅝"	3" x 3¼"	3.8	**7.94**
P-5063	100	230	115	K	4"	3¼" x 3¼"	4.5	**8.42**
P-5064	150	230	115	K	4 5/16"	3⅝" x 3⅝"	5.2	**9.92**
P-5065	300	230	115	K	4¾"	4" x 4⅛"	8.8	**13.78**
P-6141	500	230	115	K	4¾"	4" x 5⅛"	13.7	**18.12**
P-6124	1000	230	115	FK	7⅛"	5⅝" x 6¾"	24.5	**38.40**
P-6299	150	115	150/140/130/120/110/100/90	KA	4"	3¼" x 4¾"	6.0	**12.69**

Testing Autoformer—Incorporates a convenient tap switch to permit variable voltages from 90 to 150 volts. Primary equipped with 6 ft. approved cord and plug. Secondary connected to female receptacle.

LINE ADJUSTING AUTOFORMERS

Type and Part No.	Va.*	Input Voltage 50-60 Cycle	Output Voltage	Height	Base Area	Shpg. Wt. in Lbs.	Net Price
PV-6441	150	65/75/90/100/115/130/145	115	5½"	3⅞" x 5⅜"	6.4	**$19.80**
PV-6442	350	65/75/90/100/115/130/145	115	5½"	3⅞" x 6⅛"	10.5	**22.80**
PV-6443	500	65/75/90/100/115/130/145	115	5½"	3⅞" x 6⅞"	15.0	**25.20**
PV-6444	750	65/75/90/100/115/130/145	115	6 5/16"	4½" x 8⅛"	19.0	**38.64**

*Watts to pure resistive load. To other types of loads, multiply rating of line adjuster by power factor of load for actual wattage.

AIR CONDITIONER AUTO-TRANSFORMERS—230 VOLTS TO 208 VOLTS

Part No.	Rating KVA	Motor Size	Input Voltage	Output Voltage	Mtg.	Height	Base Area	Shpg. Wt. in Lbs.	Net Price
PSU-2000	2.3	½-1 hp.	208/230	230/208	PSU	3½"	3¾" x 6½"	9	**$16.72**
PSU-3000	3.0	1-2 hp.	208/230	230/208	PSU	4"	4½" x 6"	10	**20.08**

CATHODE RAY TUBE POWER TRANSFORMERS

For use with type 2X2 rectifier tubes in a conventional half-wave voltage supply.

Part No.	Plate Supply A.C. Volts	Plate Supply D. C. Milliamperes	Rectifier Filament Volts	Rectifier Filament Amperes	Other Windings Volts	Other Windings Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-8150	1,550 half-wave	1.5	2.5	1.75	. . .	. . .	TD	3 1/16"	3" x 2½"	1.8	**$9.00**
P-8179*	1,600 half-wave	3.0	. . .	. . .	2.5/5/6.3 2.5/5/6.3	1.0 3.0	M	3⅜"	3" x 2½"	3.5	**10.30**
P-8151	2,400 half-wave	5.0	2.5	2.0	2.5	2.0	C	4 5/16"	3 9/16" x 3⅞"	6.4	**11.86**
P-8178	1,800 half-wave	2.0	2.5	1.8	2.5 or 6.3	2.2 0.8	C	3⅞"	2½" x 2½"	5	**9.21**

PHOTOFLASH POWER TRANSFORMER

Part No.	Application	Pri	Sec.	Mtg. Type	Height Overall	Base Area	Mtg. Ctrs.	Shpg. Wt. in Lbs.	Net Price
P-6425	For use in Sprague electronic flash circuits. See Sprague Electronic Flash Handbook C-703	105/115/125V. 60 cy.	Charges up to 1050 mfd. to 450 Volts D.C.	S	2 5/16"	2 15/16" x 2"	2⅜"	1.4	**$3.50**
P-6426	Trigger coil for use with 450V. flashtube. Replaces G.E. 86G41				¾"	9/16" diam.		0.2	**1.67**

SPEAKER FIELD SUPPLY TRANSFORMER

Part No.	Plate Supply A.C. Volts	Plate Supply D.C. Milliamperes	Rectifier Filament Volts	Rectifier Filament Amperes	Mtg.	Height Overall	Base Area	Shpg. Wt. in Lbs.	Net Price
P-6146	120-0-120	250	5.0	3.0	C	4"	3¼" x 3⅛"	4.2	**$7.83**

CONDENSER TESTER POWER TRANSFORMER

Part No.	Plate Supply A.C. Volts	Plate Supply D.C.-M.A.	Fil. Wdgs. Volts	Fil. Wdgs. Amps.	Overall Dimensions L	Overall Dimensions W	Overall Dimensions D	Mtg.§ Type	Shpg. Wt. in Lbs.	Net Price
P-6459	550 55	30 60	6.3 6.3	0.9 0.6	2⅝"	2 3/16"	2¼"	Coil and Iron	1.4	**$5.46**

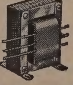
#All Primary Windings for 117 V-60 cycle operation unless otherwise indicated. *Secondary insul. 4200 VRMS test.

K

KA

FK

M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CHICAGO

MILITARY AND NEW EQUIPMENT
TRANSISTOR TRANSFORMERS
PULSE TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

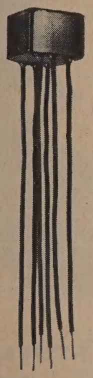
POLYCHROMATRANS—Function Color-Coded Transistor Transformers

Specifically designed for printed circuit boards. Measures only .405″ x .305″ x .460″. Weight 0.102. Beveled end leads are .020″ diameter, .563″ long, gold plated to MIL-G-45204. Magnetic alloy shield available, SPCT-10, net price $.84.

Catalog No.	MIL Type No.	Power Level in M.W.	Application	Case Color	Matching Impedance		Max. M.A. D.C. Unbal. in Pri.	D.C. Resistance		Overall Turns Ratio	RMS Test Volts	Net Price
					Primary	Secondary		Primary	Secondary			
•PCT-14	TF5SX16ZZ	15	Input	Brown	200,000 CT	1,000 CT	0	6300	130	14.1:1	500	$7.80
•PCT-15	TF5SX16ZZ	35	Input	Brown	50,000 CT	1,000 CT	0	4600	90	7.1:1	500	7.65
•PCT-17	TF5SX16ZZ	15	Input	Brown	200,000	1,000	0	6300	130	14.1:1	500	6.75
•PCT-21	TF5SX13ZZ	55	Interstage	Red	25,000	1,000	.5	2000	140	5:1	500	6.30
•PCT-23	TF5SX13ZZ	55	Interstage	Red	25,000 CT	1,000 CT	.5	2000	140	5:1	500	7.20
•PCT-25	TF5SX13ZZ	75	Interstage	Red	10,000 CT	1,500 CT	1	1250	360	2.57:1	500	7.20
•PCT-30	TF5SX13ZZ	75	Driver	Orange	10,000 CT	1,200 CT	1	1250	240	2.88:1	500	6.90
•PCT-31	TF5SX13ZZ	75	Driver	Orange	10,000 CT	2,000 CT	1	1250	400	2.24:1	500	6.90
•PCT-39	TF5SX13ZZ	75	Driver	Orange	10,000 CT	500 CT	1	1250	100	4.47:1	500	6.90
•PCT-43	TF5SX17ZZ	75	Output	Yellow	1,000	50	3	175	9.5	4.4:1	500	5.85
•PCT-54	TF5SX17ZZ	75	Output	Yellow	600 CT	12	4.5	92	3.6	7.06:1	500	6.00
•PCT-60	TF5SX17ZZ	75	Output	Yellow	500 CT	600	3	80	118	1.1:1	500	6.00
•PCT-61	TF5SX17ZZ	75	Output	Yellow	900 CT	600	4	125	115	1.22:1	500	6.15
•PCT-62	TF5SX13ZZ	75	Output	Yellow	1,500 CT	600	3	200	110	1.58:1	500	6.3
•PCT-70	TF5SX17ZZ	75	Output	Yellow	320 CT	3.2	6	52	.9	10:1	500	5.85
•PCT-71	TF5SX17ZZ	75	Output	Yellow	600 CT	3.2	4.5	84	1	13.6:1	500	6.00
•PCT-76	TF5SX13ZZ	75	Output-Isolation	Green	10,000 CT	10,000 CT	1	1440	1500	1:1	500	7.80
•PCT-77	TF5SX17ZZ	75	Output-Isolation	Green	600 CT	600 CT	3	85	110	1:1	500	7.20
•PCT-116	TF5SX20ZZ	—	Choke	Blue	6 HYS.	—	2	1800	—	—	500	5.70
•PCT-117	TF5SX20ZZ	—	Choke	Blue	1.25 HYS.	—	2	200	—	—	500	4.80
•PCT-118	TF5SX20ZZ	—	Choke	Blue	3.5 HYS.	—	2	1200	—	—	500	4.80
•PCT-128	TF5SX20ZZ	—	Choke	Blue	.3 HY	—	4	50	—	—	500	4.80

ULTRA MINIATURE ENCAPSULATED TRANSISTOR TRANSFORMERS

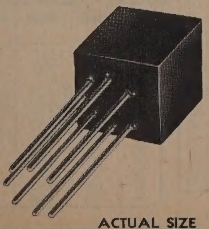
The 27 transformers in the UME series are characterized by high power ratings, low distortion, high efficiency and excellent frequency response. Designed and built in accordance with MIL-T-27A specifications, their ratings match those of most popular transistors. They are ideally suited for printed circuit applications. Dimensions: .312″ x .400″ x .426″. Weight is approximately ⅛ ounce.



ACTUAL SIZE

CHICAGO Part No.	Application	Pri. Res.	Pri. Impedance in Ohms	D.C. M.A. in Pri.	Sec. Impedance in Ohms	Sec. Res.	Net Price
UME-12	output	120	500 600	3	50 60	13	$5.40
UME-13	output	250	1000 1200	3	50 60	17	5.40
UME-14	output	70	600	3	3.2	.7	5.40
UME-15	output	170	1200	2	3.2	.75	5.40
UME-16	output	1200	10,000	1	3.2	.7	5.50
UME-18	reactor	1000	3 hy at 2 Madc	2	—	—	4.80
UME-19	output or driver	1100	10,000 CT 12,500 CT	1	500 CT 600 CT	45	5.50
UME-20	driver	1000	10,000 12,500	1	1200 CT 1500 CT	100	6.10
UME-21	driver	1100	10,000 12,500	1	2000 CT 2500 CT	160	6.10
UME-22	single or PP output	25	150 CT 200 CT	10	12 16	3	5.45
UME-23	single or PP output	35	300 CT 400 CT	7	12 16	2.5	5.45
UME-24	single or PP output	75	600 CT 800 CT	5	12 16	2	5.50
UME-25	single or PP output	85	800 CT 1070 CT	4	12 16	2	5.50
UME-26	single or PP output	120	1000 CT 1330 CT	3.5	12 16	2	5.50
UME-27	single or PP output	225	1500 CT 2000 CT	3	12 16	2.5	5.50
UME-28	single or PP output	750	7500 CT 10,000 CT	1	12 16	2.5	6.00
UME-29	output	35	300 CT	7	600	110	5.50
UME-30	output	60	500 CT	5.5	600	110	5.50
UME-31	output	105	900 CT	4	600	110	5.50
UME-32	output	200	1500 CT	3	600	120	5.50
UME-33	interstage.	1500	20,000 CT 30,000 CT	.5	800 CT 1200 CT	175	6.50
UME-34	input	6500	200,000 CT	0	1000 CT	250	7.00
UME-35	interstage	1000	10,000 CT 12,000 CT	1	1500 CT 1800 CT	115	6.50
UME-36	reactor	2600	6 hy at 2 Madc	2	—	—	5.45
UME-37	reactor	190	1 hy at 2 Madc	2	—	—	4.80
UME-38	reactor	1800	12 hy at 0 dc	0	—	—	4.80
UME-39	reactor	2700	20 hy at 0 dc	0	—	—	5.50

PULSE TRANSFORMERS



ACTUAL SIZE

MIL-T-27A hermitically encapsulated 3-winding units. See Chicago Bulletin CT-45 for pulse and other data based on N.B.S. preferred circuit No. 46. Weight 0.16 ounce.

CHICAGO Part No.	Nominal Pulse Width Microseconds	Rise Time Microseconds	Height	Width	Depth	Net Price
PE-50	0.5	.07	9/16″	9/16″	9/16″	$9.92
PE-75	0.75	.07	9/16″	9/16″	9/16″	9.98
PE-100	1	.06	9/16″	9/16″	9/16″	10.02
PE-200	2	.05	11/16″	11/16″	¾″	10.92
PE-500	2	.07	11/16″	11/16″	¾″	10.72
PE-700	7	.1	11/16″	11/16″	¾″	12.03

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CHICAGO

MILITARY AND NEW EQUIPMENT
POWER TRANSFORMERS
FILTER REACTORS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

POWER TRANSFORMERS—PLATE AND FILAMENT SUPPLY—TF4RX03YY

For CAPACITOR INPUT SYSTEMS—Primary 117 Volts, 50-60 Cycles

High Voltage Secondary			Filaments				Wt. Lbs.	YY Case Mounting			S-Type Mounting			C-Type Mounting		
Volts A-C-	Ma. D-C	Output V.D-C	Rectifier Volts	Rectifier Amps.	Others Volts	Others Amps.		Cat. No.	Case No.	Net Price	Cat. No.	Case No.	Net Price	Cat. No.	Case No.	Net Price
250-0-250	10	320	6.3	1.2	6.3	0.6	1¼	PHC-10	14	$17.22						
250-0-250	20	300	6.3	1.2	6.3	0.6	1¾	PHC-20	15	16.35						
225-0-225	40	210	5	2	6.3CT	2	3¼	PHC-40	17	18.72	PSC-40	17	$15.07	PCC-40	16	$9.92
270-0-270	55	260	5	2	6.3CT	2	3½	PHC-55	17	19.82	PSC-55	17	15.42	PCC-55	16	10.62
300-0-300	60	285	5	2	6.3CT	3	4½	PHC-60	19	20.32	PSC-60	19	17.88	PCC-60	18	11.83
335-0-335	70	320	5	2	6.3CT	3	4½	PHC-70	19	21.12	PSC-70	19	17.48	PCC-70	18	12.22
330-0-330	85	320	5	2	6.3CT	3	6	PHC-85	20	22.58	PSC-85	20	18.28	PCC-85	20	13.27
345-0-345	105	320	5	2	6.3CT	3.5	6½	PHC-105	21	24.88	PSC-105	21	19.68	PCC-105	20	13.78
375-0-375	120	380	5	3	6.3CT	4	9½	PHC-120	21	25.73	PSC-120	22	22.82	PCC-120	22	16.35
370-0-370	150	390	5	3	6.3CT 6.3CT	4 1	11½	PHC-150	22	31.18	PSC-150	22	26.98	PCC-150	22	20.92
385-0-385	200	390	5	3	6.3CT 6.3CT	4.5 1	12¼	PHC-200	22	33.35	PSC-200	22	27.78	PCC-200	22	21.28
400-80-0-80-400	250	410	5	6	6.3CT 5	7 2	15	PHC-250	24	42.25	PSC-250	24	37.77	PCC-250	24	26.25
625-0-625	300	685	5	4	6.3 6.3 6.3	8 3 3	21									

For REACTOR INPUT SYSTEMS—Primary 117 Volts, 50-60 Cycles

High Voltage Secondary			Filaments				Wt. Lbs.	YY Case Mounting			S-Type Mounting			C-Type Mounting		
Volts A-C-	Ma. D-C	Output V.D-C	Rectifier Volts	Rectifier Amps.	Others Volts	Others Amps.		Cat. No.	Case No.	Net Price	Cat. No.	Case No.	Net Price	Cat. No.	Case No.	Net Price
350-0-350	55	260	5	2	6.3CT	2	3¼	PHR-55	17	$20.00	PSR-55	17	$16.38	PCR-55	16	$11.45
425-0-425	70	320	5	2	6.3CT	3	4½	PHR-70	19	20.67	PSR-70	19	17.98	PCR-70	18	12.82
440-0-440	85	325	5	2	6.3CT	3	6	PHR-85	20	24.23	PSR-85	20	19.72	PCR-85	20	13.33
450-0-450	105	320	5	2	6.3CT	3.5	6½	PHR-105	21	23.60	PSR-105	21	19.27	PCR-105	20	13.88
500-0-500	120	390	5	3	6.3CT	4	9½	PHR-120	21	24.18	PSR-120	22	24.15	PCR-120	22	17.88
510-0-510	150	395	5	3	6.3CT 6.3CT	4 1	11½	PHR-150	22	34.63	PSR-150	22	30.23	PCR-150	22	24.05
520-0-520	200	390	5	3	6.3CT 6.3CT	4.5 1	12¼	PHR-200	22	35.18	PSR-200	22	31.97	PCR-200	22	22.52
550-370-75-0-75-370-550	300	420	5	6	6.3CT 6.3CT	1 5	17½	PHR-300	24	45.28	PSR-300	24	39.73	PCR-300	24	30.08

For REGULATED POWER SUPPLIES, CAPACITOR INPUT—Primary 117 Volts, 50-60 Cycles

High Voltage Secondary			Filaments						Wt. Lbs.	H-Type Mounting			S-Type Mounting		
			Rectifier		Others										
Volts A-C	Ma. D-C	Output V.D-C-	Volts	Amps.	Volts	Amps.	Volts	Amps		Cat. No.	Case No.	Net Price	Cat. No.	Case No.	Net Price
440-0-440	165	430	5	3	6.3 6.3	7.5 0.6	6.3 6.3	3 3	12	PHC-165	22	$38.02	PSC-165	22	$33.40
450-0-450	200	442	5	2	6.3 6.3	4 4	6.3	0.6	12	PHC-200A	22	34.18	PSC-205	22	32.43

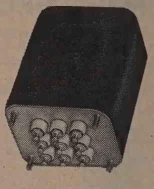
FILTER REACTORS—TF4RX01YY

Inductance in Henries	Max. Current Ma. D-C	D-C Resistance in Ohms	Insulation Test Volts	Wt. Lbs.	YY Case Mounting Cat. No.	YY Case No.	YY Net Price	S-Type Mounting Cat. No.	S-Type Case No.	S-Type Net Price	C-Type Mounting Cat. No.	C-Type Case No.	C-Type Net Price
15	10	680	1,000	1	RH-1510	8	$9.08						
15	20	680	1,000	1	RH-1520	8	7.30						
15	40	475	2,500	1½	RH-1540	12	8.95	RS-1540	12	$ 7.35	RC-1540	12	$ 5.25
15	55	420	2,500	2	RH-1555	13	8.98	RS-1555	13	7.67	RC-1555	12	6.00
15	85	285	2,500	2¾	RH-1585	14	9.95	RS-1585	15	8.85	RC-1585	14	6.92
12	105	170	2,500	4	RH-12105	17	11.98	RS-12105	17	10.57	RC-12105	16	10.57
12	150	150	2,500	5½	RH-12150	19	13.75	RS-12150	19	11.90	RC-12150	18	9.28
12	200	140	2,500	7	RH-12200	20	15.88	RS-12200	21	13.97	RC-12200	20	11.32
10	55	230	2,500	1¾	RH-1055	13	8.90	RS-1055	13	7.62	RC-1055	12	5.52
10	85	175	2,500	2½	RH-1085	14	9,78	RS-1085	15	8.45	RC-1085	14	6.28
8	105	100	2,500	3¾	RH-8105	17	12.12	RS-8105	17	10.70	RC-8105	16	8.13
8	150	100	2,500	5¼	RH-8150	18	13.25	RS-8150	19	12.65	RC-8150	18	9.77
8	200	85	2,500	7	RH-8200	20	15.73	RS-8200	21	8.66	RC-8200	20	11.05
8	250	90	2,500	10½	RH-8250	22	18.12	RS-8250	22	10.50	RC-8250	22	14.27
8	300	55	3,500	12½	RH-8300	22	22.87	RS-8300	22	13.16	RC-8300	22	14.77

FILAMENT TRANSFORMERS—Primary 115-230 Volts, 50-60 Cycles—TF4RX01YY

Secondary Volts	Secondary Amps.	Insulation Test Volts	Wt. Lbs.	YY Case Mounting Cat. No.	YY Case No.	YY Net Price	S-Type Mounting Cat. No.	S-Type Case No.	S-Type Net Price
2.5CT	5.25	3,500	2	FH-25	15	$15.67	F-25	14	$13.65
2.5CT	10.0	5,000	3	FH-210	15	16.82	F-210	17	10.83
2.5CT	10.0	9,000	4	FH-210H	19	27.40	F-210H	19	13.16
2.5CT	15.0	9,000	6	FH-215H	21	25.07	F-215H	20	26.73
5CT	4.0	2,500	2¼	FH-54	15	15.67	F-54	15	7.23
5CT	10.0	2,500	3½	FH-58	17	18.23	F-58	17	15.02
5CT	10	8,000	6	FH-510H	21	25.68	F-510H	21	26.66
5CT	20.0	2,500	6½				F-516	21	18.98
5CT	20	10,000	13	FH-520HB	22	36.78	F-520HB	22	18.82
5CT	30	2,500	10½				F-530	22	24.35
5CT	30	2,500	10½				F-530BX*	22	41.58
6.3CT	1.5	2,500	1	FH-615	12	14.03	F-615	12	11.93
6.3CT	3	2,500	2	FH-63	14	14.45	F-63	14	7.00
6.3CT	5.5	2,500	3	FH-65	16	15.98	F-65	17	12.47
6.3CT	10.0	2,500	5	FH-610	19	17.49	F-610	19	16.78
7.5CT	12	2,500	6½				F-712	21	20.53
7.5CT	25.0	2,500	12				F-725	22	26.95
7.5CT	51	2,500	29				F-751	26	51.93
10CT	4.0	2,500	3¼	FH-104	17	16.92	F-104	17	12.33
10CT	6.5	2,500	5				F-106	19	18.33
10CT	10.0	2,500	6½				F-1010	21	16.33

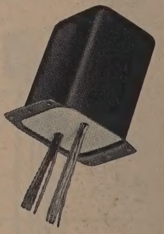
*BX mounting, see page 1350 for illustration and dimensions.



MEETS MIL-T-27A SPECS

YY Case. Steel base cover deep-seal soldered into case. Terminals hermetically sealed. Ceramic bushings. Stud-mounted unit.

S-Type. Steel base cover fitted with phenolic terminal board. Convenient numbered solder lug terminals. Flange-mounted unit.



C-Type. With 10" color-coded stripped and tinned leads brought out through fibre board base cover. Flange-mounted unit.

S-TYPE & C-TYPE CASE DIMENSIONS

YY Case Dimensions on STANCOR PAGE 15

Case No.	Depth	Width	Height
12	2¼	2⅛	2 11/16
13	2¼	2⅛	2 15/16
14	2½	2⅜	3 1/16
15	2½	2⅜	3 5/16
16	2⅞	2 11/16	3½
17	2⅞	2 11/16	3¾
18	3¼	3	3⅞
19	3¼	3	4¼
20	3 11/16	3 5/16	4 5/16
21	3 11/16	3 5/16	4 11/16
22	4 9/16	4⅛	5 5/16
24	5 5/16	4 13/16	6 1/16

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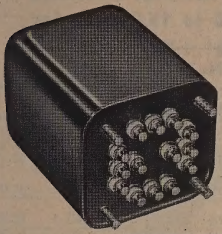
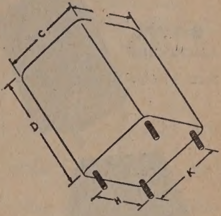
CHICAGO

MILITARY STANDARD
POWER AND FILAMENT TRANSFORMERS
MOLDED TOROIDAL INDUCTORS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

MS (MILITARY STANDARD) POWER AND FILAMENT TRANSFORMERS



Case Type	Dimensions In Inches A	C	D	H	K	Stud Size
EB	1 15/16	1 13/16	2 7/16	1 3/8	1 1/4	6-32
FB	2 5/16	2 1/16	2 1/2	1 11/16	1 7/16	6-32
GA	2 3/4	2 3/8	3 13/16	2 1/8	1 3/4	6-32
GB	2 3/4	2 3/8	2 13/16	2 1/8	1 3/4	6-32
HB	3 1/16	2 5/8	3 3/16	2 19/64	1 55/64	8-32
HA	3 1/16	2 5/8	4 1/4	2 19/64	1 55/64	8-32
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	8-32
KA	3 15/16	3 3/8	5 1/4	3	2 7/16	10-32
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	10-32
LB	4 5/16	3 11/16	4 1/2	3 5/16	2 11/16	10-32
MB	4 11/16	4	4 15/16	3 11/16	3	1/4-20
NB	5 1/16	4 5/16	5 1/2	4 1/16	3 5/16	1/4-20



POWER TRANSFORMERS—Primary, 105/115/125 V.—Frequency, 54-66 Cycles

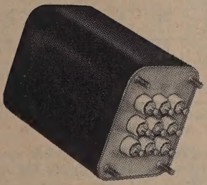
MIL-T-27 Classification	MIL-T-27 Part No.	High Voltage Secondary A-C Volts	D-C Ma.	D-C V Output	Rect. Fil. Volts	Amps	Fil. No. 2 Volts	Amps	Wt. Lbs.	Case Size	Catalog Number	Net Price
TF4RX03HA001	MS-90026	200-100-0-100-200	70	385	6.3/5	2	6.3	3	4	HA	PMS-70	$25.37
TF4RX03JB002	MS-90027	325-0-325	70	260	6.3/5	2	6.3	4	5	JB	PMS-70A	24.85
TF4RX03KB006	MS-90028	325-0-325	150	245	6.3	5	5	3	7 1/4	KB	PMS-150	26.87
TF4RX03LB003	MS-90029	400-0-400	175	318	5	3	6.3	8	10	LB	PMS-175	32.15
TF4RX03MB004	MS-90030	450-0-450	250	345	5	3	6.3	8	13	MB	PMS-250	38.50
TF4RX02KB001	MS-90031	350-0-350	250	255					7 1/2	KB	PMS-350	23.43
TF4RX02LB002	MS-90032	550-0-550	250	419					11	LB	PMS-550	29.07
TF4RX02NB003	MS-90036	800-0-800	250	640					16 1/2	NB	PMS-800	42.02

FILAMENT TRANSFORMERS—Primary, 105/115/125 V.—Frequency, 54-66 Cycles

MIL-T-27 Classification No.	MIL-T-27 Part No.	Secondary Volts	Amps	Insulation Volts RMS	Wt. Lbs.	Case Size	Catalog Number	Net Price
TF4RX01EB002	MS-90016	2.5	3.0	2500	1 1/2	EB	FMS-23	$15.47
TF4RX01GB003	MS-90017	2.5	10	2500	2 1/2	GB	FMS-210	15.50
TF4RX01FB004	MS-90018	5.0	3.0	2500	1 3/4	FB	FMS-53	13.62
TF4RX01HB005	MS-90019	5.0	10	2500	4	HB	FMS-510	18.55
TF4RX01FB006	MS-90020	6.3	2.0	2500	1 3/4	FB	FMS-62	13.97
TF4RX01GB007	MS-90021	6.3	5.0	2500	2 3/4	HB	FMS-65	15.88
TF4RX01JB008	MS-90022	6.3	10	2500	5	JB	FMS-610	19.66
TF4RX01KB009	MS-90023	6.3	20	2500	8	KB	FMS-620	24.08
TF4RX01JB012	MS-90024	2.5	10	10000	4 3/4	JB	FMS-210H	23.95
TF4RX01KB013	MS-90025	5.0	10	10000	7	KB	FMS-510H	27.27

MULTIPLE FILAMENT TRANSFORMERS (TR4RX01— —†)Primary, 105/115/125 V., Frequency, 50/60 cycles

Designed and built in accordance with MIL-T-27A, Grade 4, Class R operating temperature; life expectancy X (10,000 hours minimum). Maximum operating altitude 10,000 feet. Also available in type S, **Sealed-in-Steel** cases (catalog Numbers F-1 through F-8, listed below). Dimensions on page 1342.



Sec. No. 1	Sec. No. 2	Sec. No. 3	Insul. Test	Case Size†	Wt. Lbs.	Catalog No.	Net Price	Catalog No.	Case Size	Net Price
5 V. 2A	6.3 V. CT 2.5 A	—	2500 V.	GA	2 1/2	FMS-1	$19.82	F-1	15	$17.97
5 V. 2A	16.6 V. CT 1.25A	—	2500 V.	GA	3 1/2	FMS-2	19.78	F-2	15	15.33
5 V. 3A	6.3 V. CT 5A	—	2500 V.	HA	4	FMS-3	21.80	F-3	17	18.28
5 V. 3A	6.3 V. CT 3A 12.6 V. CT 3A	6.3 V. CT 3A	2500 V.	JB	4 3/4	FMS-4	29.15	F-4	18	21.02
5 V. 3A	6.3 V. CT 1A	6.3 V. CT 5A	2500 V.	JB	4 3/4	FMS-5	30.93	F-5	18	22.50
6.3 V. CT 3A 12.6 V. CT 3A	6.3 V. CT 3A	—	2500 V.	HA	4	FMS-6	20.03	F-6	17	18.50
6.3 V. CT 6A 12.6 V. CT 6A	6.3 V. CT. 6A	—	2500 V.	KA	6 1/2	FMS-7	26.57	F-7	21	20.75
5 V. CT 3A	5 V. CT 3A	5 V. CT 6A	5000 V.	KA	7	FMS-8	38.55	F-8	21	25.60

†Refer to case size. All secondary A.C. voltages ± 3%.

SILICON RECTIFIER POWER TRANSFORMERS—TF4RX03LA

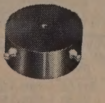
Catalog No.	Secondary No. 1 Volts	DCMA	Secondary No. 2 Volts	Amps	Secondary No. 3 Volts	Amps	Case Size	Wt. Lbs.	Net Price
HRP-400	400 CT	400	6.3	3.0	6.3	3.0	LA	10.5	$29.73
HRP-600	300 CT	600	6.3	2.5	6.3	2.5	LA	10.5	29.64
HRP-800	200 CT	800	6.3	2.0	6.3	2.0	LA	10.0	29.64
HRP-1600	100 CT	1600	6.3	1.5	6.3	1.5	LA	10.5	29.64
HRP-2000	80 CT	2000	6.3	1.5	6.3	1.5	LA	9.6	28.64
HRP-2500	60 CT	2500	6.3	1.5	6.3	1.5	LA	9.0	28.73

Note: See page 13 for recommended circuits and commercial grade equivalents.

MOLDED TOROIDAL INDUCTORS

1 1/16" diameter, 1/2" high, with 90° spacing of terminals and mounting hole for 4-40 screw.

Features:
- High Q over wide frequency ranges
- Minimum pickup from external magnetic fields
- Close tolerance of plus, minus 1%
- High stability over temperature range of —55° to plus 85° centigrade
- Not affected by high humidity
- Resist shock and vibration
- Small sized, uniform, easily stacked



Catalog No.	Inductance (m.h.)	D.C. Res. (ohms)	Net Price	Catalog No.	Inductance (m.h.)	D.C. Res. (ohms)	Net Price
TM-1A	1	.32	$6.28	TM-80 A	80	29.5	$7.02
TM-2 A	2	.72	4.00	TM-100 A	100	32.5	4.00
TM-5 A	5	1.85	4.00	TM-200 A	200	71.5	4.37
TM-8 A	8	2.25	4.00	TM-500 A	500	185	5.00
TM-10 A	10	3.25	4.00	TM-800A	800	300	9.78
TM-20 A	20	7.0	4.00	TM-1000 A	1000	340	5.00
TM-50 A	50	18.5	4.00				

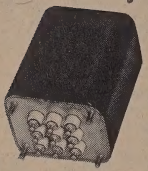
STANCOR PAGE 14

CHICAGO

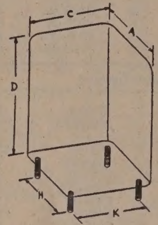
MILITARY AND NEW EQUIPMENT AUDIO TRANSFORMERS

STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

B-TYPE MOUNTING



YY CASE



YY Case & H Type Mtg. Dimensions

Case Size	Dimensions In Inches				
	A	C	D	H	K
8	1½	1½	1 15/16	1	1
9	1½	1½	2⅛	1	1
12	2¼	2⅛	2 11/16	1 9/16	1⅜
13	2¼	2⅛	2 15/16	1 9/16	1⅜
14	2½	2⅜	3 1/16	1 13/16	1 11/16
15	2½	2⅜	3 5/16	1 13/16	1 11/16
16	2⅞	2 11/16	3½	2	1⅞
17	2⅞	2 11/16	3¾	2	1⅞
18	3¼	3	3⅞	2⅜	2⅛
19	3¼	3	4¼	2⅜	2⅛
20	3 11/16	3 5/16	4 5/16	2⅝	2⅜
21	3 11/16	3 5/16	4 11/16	2⅝	2⅜
22	4 9/16	4⅛	5 5/16	3⅜	3
24	5 5/16	4 13/16	6 1/16	3⅜	3

HIGH Q CHOKES

For Dynamic Noise Suppression Circuits (S-Type Mounting)

Two efficient reactors, inductance values .8 and 2.4 henrys respectively, are designed for noise suppression circuits, but can be used in any tuned circuit requiring the given inductances. Inductance values accurate within −5% with up to 15 ma. d-c. Minimum Q of 20. Mounted in drawn steel cases, 1 21/32" x 1 13/32" x 1 21/32" high.

Cat. No.	Inductance	Net Price
NSI-1	.8 hy.	$12.15
NSI-2	2.4 hy.	13.43

(S-Type and C-Type Case Dimensions on STANCOR PAGE 13.

FULL FREQUENCY RANGE AUDIO TRANSFORMERS

Frequency Response within ±½ db, 30 to 15,000 Cycles

INPUT TRANSFORMERS—TF4RX— —YY††

YY Case (Cat. No. BIH) and B-Type (Cat. No. BI) Mountings

Application	Impedance Primary—Secondary	Max. Power Level	Hum Shielding, dbm	Case Size	Family	Wt. Lbs.	Cat. No.	Net Price
Line to Single or P-P Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10	1½	BIH-1 BI-1	$29.07 30.12
Line to Single or P-P Grids	*Pri: 600/150 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−90	13		1½	BI-2	37.00
Line bridging to P-P Grids	*Pri: 8,000/6,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13		1½	BI-3	33.25
Line to Line	Pri: 600/150 ohms CT Sec: 600/150 ohms CT	+15 dbm.	−70	13	16	1½	BIH-4 BI-4	29.33 30.62
Line to Line	*Sec: 600/150 ohms CT	+30 dbm.	−90	18		3¼	BI-5	59.33
Interstage: P-P Plates to Sgl. or P-P Grids	*Pri: 20,000 ohms CT *Sec: 50,000 ohms CT	+15 dbm.	−70	13	15	1½	BIH-6 BI-6	33.70 29.78
Low Imped. Mike, Pickup, or Multiple Line to Grid	Pri: 50/150/250/600 *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10	1½	BIH-7 BI-7	30.72 31.55
Single Plate to Push-Pull Grids	Pri: 10,000 ohms *Sec: 50,000 ohms CT	+15 dbm.	−70	13	10	1½	BIH-8	25.10

††Refer to family.

OUTPUT TRANSFORMERS—TR4RX13YY

YY Case (Cat. No. BOH) and B-Type (Cat. No. BO) Mountings

Application	Impedance Primary—Secondary	Max. Power Level	Case Size	Wt. Lbs.	Cat. No.	Net Price
Single Plate to Line	†Pri: 15,000 ohms *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	14	2¼	BOH-1 BO-1	17.13 15.85
P-P Plates to Line	*Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+30 dbm. (1 watt)	16	3	BOH-2 BO-2	19.73 19.15
P-P Plates to Line	Pri: 7,500 ohms CT *Sec: 600/150 ohms CT‡	+43 dbm. (20 watts)	20	6	BOH-4	25.50
P-P Plates to Line or Voice Coil	*Pri: 10,000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+37 dbm. (5 watts)	18	4	BOH-5 BO-5	24.85 22.68
P-P Plates to Voice Coil	Pri: 7,500 ohms CT Sec: 8/20 ohms‡	+43 dbm. (20 watts)	20	6	BO-6	29.42
P-P Plates to Line or Voice Coil	*Pri: 5000/3000 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+42 dbm. (15 watts)	20	6	BOH-9 BO-9	35.63 30.75
P-P Low Level Plates to Line	Pri: 20,000 ohms CT *Sec: 600/150 ohms CT	+15 dbm. (22 mw)	13	1½	BO-10	34.88
P-P Plates to Line or Voice Coil	*Pri: 3000/2500 ohms CT *Sec: 600/16/8 ohms CT and 150/4 ohms	+46 dbm. (40 watts)	22	9½	BO-11	40.32
P-P Plates to Line or Voice Coil	Pri: 10,000 ohms CT Sec: 600/16/8 ohms	+40 dbm. (10 watts)	22	9	BO-12	34.48
P-P Plates to Voice Coil	Pri: 10,000 ohms Sec: 16/8/4 ohms	+43 dbm. (20 watts)	21	7	BO-13	29.63
P-P Plates to VC, pentode, triode or Ult.-Lin. Circuits	Pri: 5000 phms CT Sec: 16/8 ohms: 70.7 volts	+50 dbm. (100 watts)	24	24	BO-14	45.42

*Split and balanced windings. †0 to 10 ma. D.C. ‡Has tertiary windin g to provide 15% inverse feedback. **Has D.C. in primary; frequency response ±2 db, 30–1 5,000 cycles.

LOW PASS FILTER LPF-2—Hermetically sealed unit for attentuating frequencies above 3,000 cycles in low level speech amplifiers, 50,000 ohm plate to 50,000 ohm grid. Insertion loss 0.8 db. Height 2⅛", width 1 7/16", depth 1 7/16", mtg. ctrs. 1 15/16". Shpg. wt. ½ lb. Net Price $35.10.

DETAILS OF NEW EQUIPMENT LINE MOUNTINGS

YY CASE MOUNTING—Hermetic sealing meets all MIL-T-27A specifications. Steel base cover is bonded into the case by deep-seal soldering. Terminals are hermetically sealed by unique rubber gasket—ceramic bushing construction. Units are stud mounted.

C-TYPE MOUNTING—Moisture-resistant compound surrounds coil and core. Ten-inch E.I.A. color-coded leads, ends stripped and tinned for easy soldering. Flange-mounted drawn steel cases.

S-TYPE MOUNTING—Precision-fitted steel base-covers and terminal boards, plus compound filling, keep moisture out. Solder-lug terminals are clearly identified, easy to use. Drawn steel cases are flange-mounted.

B-TYPE MOUNTING—Steel bases are bonded into the drawn steel cases by deep-seal soldering to make units completely moisture proof. Stud-mounted cases take minimum chassis space. Convenient, compact, pin-type terminals.

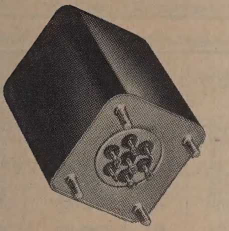
BIAS TRANSFORMERS—Combination Plate and Filament—Primary 50-60 Cycles

Primary Volts	High Voltage Secondary AC Volts CT	DC Ma.	Rect. Volts	Fila. Amps.	YY Case Mounting* Cat. No.	Case No.	Net Price	S-Type Mounting Cat. No.	Case No.	List Price	C-Type Mounting Cat. No.	Case No.	Net Price
115	180-160-140-120	150	5.0	3.0				1BS-150	19	$19.03	1BC-150	18	$12.63
230	180-160-140-120	150	5.0	3.0	1BH-150	19	$23.08	2BS-150	19	21.43	2BC-150	18	13.72

*TF4RX03YY.

CHICAGO

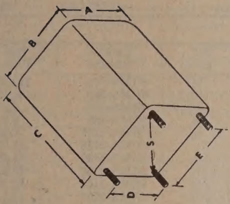
MILITARY STANDARD AUDIOS
MS TRANSISTOR AUDIOS
MIL-T-27A SATURABLE TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



MILITARY STANDARD AUDIO TRANSFORMERS

Designed and built in accordance withMIL–T–27A, Grade A Class R; Life Expectancy X (10,000 hrs. min) Maximum Operating Altitude 50,000 ft. **Frequency Response ± 2 db 300—10,000 cps,** AJ Case Size—Max. Wt., 6 lbs.

MIL-T-27A Classification	MIL-T-27A Part No.	Application	Impedance	Operating Level	Pri. DCMA	Catalog No.	Net Price
TF 1RX 15AJ001	MS-90000	P-P Plates to P-P Grids	Pri: 10,000 ohms CT Sec: 90,000 ohms CT 22,500 ohms CT	15 dbm.	10	AMS-1	$22.52
TF 1RX 16AJ002	MS-90001	Line to Voice Coil	Pri: 600 ohms CT 150 ohms Sec: 4/8/16 ohms	2W	—	AMS-2	16.32
TF 1RX 10AJ001	MS-90002	Line to P-P Grids	Pri: 600 ohms CT 150 ohms Sec: 135,000 ohms CT	15 dbm.	—	AMS-3	18.98
TF 1RX 16AJ001	MS-90003	Line to Line	Pri: 600 ohms CT 150 ohms Sec: 600 ohms CT 150 ohms	15 dbm.	—	AMS-4	18.55
TF 1RX 13AJ001	MS-90004	Single Plate to Line	Pri: 7600/4800 ohms Sec: 600 ohms CT/150 ohms	2W	40	AMS-5	13.35
TF 1RX 13AJ002	MS-90005	Single Plate to Voice Coil	Pri: 7600/4800 ohms Sec: 4/8/16 ohms	2W	40	AMS-6	12.95
TF 1RX 13AJ003	MS-90006	P-P Plates to Line	Pri: 15,000 ohms CT Sec: 600 ohms CT/150 ohms	2W	10	AMS-7	14.77
TF 1RX 13AJ004	MS-90007	P-P Plates to Line	Pri: 24,000 ohms CT Sec: 600 ohms CT/150 ohms	1W	20	AMS-8	15.33
TF 1RX 13AJ005	MS-90008	P-P Plates to Line	Pri: 60,000 ohms CT Sec: 600 ohms CT/150 ohms	5W	20	AMS-9	15.07



TRANSISTOR AUDIO TRANSFORMERS—TF4RX— — — — †

Designed and built in accordance with MIL–T–27A, Grade 4, Class R operating temperature; Life Expectancy X (10,000 hrs. min.). Maximum Operating Altitude 50,000 ft.

Application	Impedance in Ohms Pri.	Impedance in Ohms Sec.	Max. Pri. D.C. Ma.	DC Res. in Ohms Pri.	DC Res. in Ohms Sec.	Power in Watts	Case† Size	Family†	Wt. Lbs.	Catalog No.	Net Price
Input	600 CT	10	20	42	.8	.05	AG	17	2½ oz.	TAMS-1	$14.50
Interstage	100 CT	10 CT	100	4.3	.8	.25	AH	17	5 oz.	TAMS-2	14.97
Interstage	100	1000 CT	100	5.8	45	.25	AJ	17	11 oz.	TAMS-3	12.43
Interstage	500 CT	5000 CT	12	37	250	.03	AJ	17	11 oz.	TAMS-4	15.98
Driver	1000	200 CT	10	400	115	.05	AG	17	2 oz.	TAMS-5	15.88
Driver	2000	200 CT	5	720	115	.05	AG	12	2 oz.	TAMS-6	12.95
Driver	100	100 CT	100	12	12	.5	EB	17	1 lb.	TAMS-7	15.43
Output	9800	15	2	640	2	.05	AG	12	2 oz.	TAMS-8	14.62
Output	1000	4/8/16	10	180	3.5	.2	AG	17	2½ oz.	TAMS-9	17.63
Output	2000 CT	4/8/16	—	250	4	.2	AG	12	2½ oz.	TAMS-10	19.37
Output	48 CT	8/16	275	5	1.5	5	FA	17	1½ lb.	TAMS-11	15.98
Output	20 CT	8	500	.55	.35	10	AJ	17	12 oz.	TAMS-12	14.40

†Refer to Family and Case Size.

CASE DIMENSIONS

Case Size	Dimensions in inches A	B	C	D	E	S
AG	1	1	1⅜	—	—	¾
AH	1$\frac{5}{16}$	1$\frac{5}{16}$	1¾	—	—	1¼
AJ	1⅝	1⅝	2⅜	1$\frac{3}{16}$	1$\frac{3}{16}$	—
EA	1$\frac{15}{16}$	1$\frac{13}{16}$	2¾	1⅜	1¼	—
EB	1$\frac{15}{16}$	1$\frac{13}{16}$	2$\frac{7}{16}$	1⅜	1¼	—
FA	2$\frac{5}{16}$	2$\frac{1}{16}$	3⅛	1$\frac{11}{16}$	1$\frac{7}{16}$	—

SATURABLE TRANSFORMERS

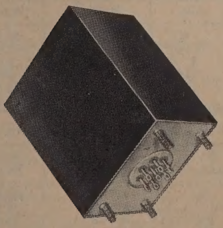
are designed and built in accordance with MIL–T–27A; Grade 4, Class R operating temperature and life expectancy X (10,000 hrs. min.).

MIL-T-27A SATURABLE TRANSFORMERS (Magnetic Amplifiers)

Application: For use with 2 phase 115v. 400 cycle Servo-Motors.

Saturable Transformer Ratings Maximum Altitude 50,000 ft. All Primaries 115v., 400 cycles: TF4RX40YY

Catalog No.	STH-3		STH-5	STH-10	STH-18
Power Output in watts	2.7	3.5	5	10	18
Voltage Output, volts	26	115	115	115	115
Load Resistance in ohms	250	3800	2640	1320	775
Tuning Capacitor, MFD	.28	.19	.4	.6	1.0
Primary Current in amps	.085	.1	.13	.24	.35
Control Current, MA	8	8	8	8	8
Control Coil Res. (Per Coil) in ohms	2900	2900	3100	4200	5600
Control Coil By pass Capacitors, MFD	.1	.1	.1	.1	.1
Base Area, Dimensions, in.	1$\frac{5}{16}$ x 1$\frac{13}{16}$		1½ x 2⅛	1¾ x 2½	2⅛ x 3⅛
Height, in.	2$\frac{7}{16}$		2¾	2$\frac{31}{32}$	3⅜
Mtg. Ctrs., in.	¾ x 1$\frac{15}{16}$		1 x 1⅝	1⅛ x 1⅞	1½ x 2½
Actual Wt., Lbs.	¾		1	1½	2½
Typical Servo-Motor Load:					
Kearfott	R-118	R-119-2	R-110-2	R-111-2	R-112-2
G. M. Labs.	—	665-54-19	665-54-47 665-52-48	665-53-40 665-53-41	665-53-44 665-53-45
Net Price	$27.00		$30.00	$36.00	$39.00



400 CYCLE STEP-DOWN TRANSFORMER—TF1RX01YY

Y-Y connected, HP3–140 is identical to CHICAGO Specification No. 9926A in size and construction, but is rated at 140 va. instead of 88 va. Primary is 115 volts per phase, 3-phase, 400 cycles. Designed primarily for aircraft applications.

Catalog No.	Secondary Volts	Secondary Va. Cap.	Case Size	Terminal Type	Weight Lbs.	Net Price
HP3-140	28.5	140	17	R	3	$36.73

All secondary A.C. voltages ± 3%

ISOLATION TRANSFORMERS—TF4RX01— — † **All Primaries 115 V., 380-1000 cycles.**

Catalog No.	Volts	Secondary Amps.	V.A.	Insul. Test Volts RMS	Case Size†	Wt. Lbs.	Net Price
41MS-40	115	0.35	40	1,500	EA	1.5	$13.65
41MS-160	115	1.39	160	1,500	GA	3.1	18.50

†Refer to Case Size.

CHICAGO

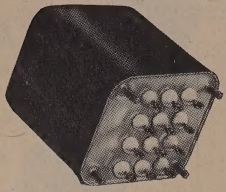
MILITARY STANDARD AND MIL-T-27A
400 CYCLE
TRANSFORMERS AND REACTORS

STANCOR ELECTRONICS INC.

(formerly Chicago Standard Transformer Corporation)

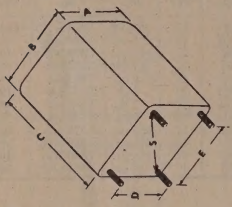
MILITARY STANDARD CASES

Designed and built in accordance with MIL-T-27A, Grade 4, Class S* operating temperature and life expectancy X (10,000 hours minimum). Maximum operating altitude 70,000 feet. The complete line is housed in Chicago's one piece drawn-steel cases. Outside case dimensions and mounting dimensions are within the tolerance of the Military Standard Specifications. *High Temperature Operation 85° C. ambient, 45° C. rise.



MS CASE DIMENSIONS

Case Size	Dimensions in Inches					
	A	B	C	D	E	S
AH	1 5/16	1 5/16	1¾	—	—	1¼
AJ	1 5/8	1 5/8	2 3/8	1 1/16	1 3/16	—
EA	1 15/16	1 13/16	2¾	1 3/8	1¼	—
EB	1 15/16	1 13/16	2 7/16	1 3/8	1¼	—
FA	2 5/16	2 1/16	3 1/8	1 11/16	1 7/16	—
GA	2¾	2 3/8	3 13/16	2 1/8	1¾	—
GB	2¾	2 3/8	2 13/16	2 1/8	1¾	—
HA	3 1/16	2 5/8	4¼	2 19/64	1 55/64	—
JB	3 9/16	3 1/16	3 7/8	2 5/8	2 1/8	—
KA	3 15/16	3 3/8	5¼	3	2 7/16	—
KB	3 15/16	3 3/8	4 5/16	3	2 7/16	—



POWER TRANSFORMERS—TF4SX03— —† (Cap. Input. All pri. 105/115/125 V., 380-1000 c.

High Voltage Secondary		Rectifier Filament		Other Filaments		Case† Size	Wt. Lbs.	Catalog Number	Net Price
A.C. Volts	D.C. Ma.	Volts	Amps.	Volts	Amps.				
255-0-255	40	5.0	2.0	6.3 CT	2.0	GB	1½	4PMS-40	$28.62
270-0-270	55	5.0	2	6.3 CT	2	GB	1¾	4PMS-55	25.55
335-0-335	70	5.0	2	6.3 CT	3	GB	1¾	4PMS-70	30.78
330-0-330	85	5.0	2.0	6.3 CT	3.0	GA	2½	4PMS-85	31.80
345-0-345	105	5.0	2.0	6.3 CT	3.5	GA	2¼	4PMS-105	34.32
375-0-375	120	5.0	3	6.3 CT	4	GA	3	4PMS-120	37.57
370-0-370	150	5.0	3.0	6.3 CT 6.3 CT	4.0 1.0	JB	4¼	4PMS-150	44.30
440-0-440	165	5.0	3	6.3 6.3 6.3 6.3	7.5 3 3 0.6	KB	6½	4PMS-165	58.12
450-0-450	200	5.0	2	6.3 6.3 6.3	4 4 0.6	KB	6¼	4PMS-200A	56.83
550-370-75-0 75-370-550	300	5.0	6	6.3 CT 6.3 CT	5 1	KA	7½	4PMS-300‡§	79.95

FILTER REACTORS—TF4SX04— — †

Inductance (henries)	Maximum D.C. Ma.	D.C. Resistance (ohms)	Insulation Volts RMS	Case† Size	Wt. Lbs.	Catalog Number	Net Price
2.0	40	190	2,500	AH	¼	4RMS-240	$10.33
2.0	55	160	2,500	AH	¼	4RMS-255	10.12
2.0	70	165	2,500	AJ	¾	4RMS-270	9.60
2.0	85	125	2,500	AH	¼	4RMS-285	9.07
2.0	105	110	2,500	EB	½	4RMS-2105	9.88
2.0	120	100	2,500	EB	1	4RMS-2120	11.50
3.0	120	150	1,500	EB	1.2	4RMS-3120	11.40
2.0	150	95	2,500	EB	1	4RMS-2150	10.62
2.0	165	90	2,500	EB	1	4RMS-2165	10.65
2.0	200	73	2,500	FA	2	4RMS-2200	12.42
2.0	300	47	2,500	HA	4	4RMS-2300§	14.53

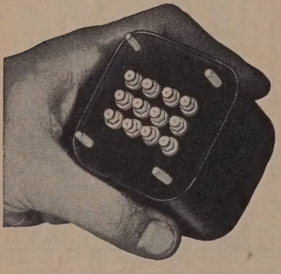
FILAMENT TRANSFORMERS— TF4SX01 — —†(All Prim. 105/115/125 V., 380-1000 cys.

Sec. Volts	Sec. Amps.	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog No.	Net Price
6.3 CT	3	2,500	EB	1	4FMS-63	$18.55
6.3 CT	5.5	2,500	EA	1¼	4FMS-65	18.68
6.3 CT	10	2,500	FA	2	4FMS-610	21.99
6.3 CT	20	2,500	GA	2½	4FMS-620	26.67

‡Reactor Input. †Refer to Case Size. All secondary A.C. voltages ±3% §Max. operating Alt. 50,000 ft

For additional 400 cycle filament transformers, TF4RX01-series, see Rtancor page 19.

400 CYCLE TRANSFORMERS AND REACTORS (YY ALTERNATE CASES) (Max. Alt. 10,000 ft.)



POWER TRANSFORMERS (All Primaries 105/115/125 V., 380-1000 Cycles)—TF4SX03YY

High Voltage Secondary		Rect. Fil.		Other Fil.		Case Size	Wt. Lbs.	Catalog Number	Net Price
A. C. Volts	D.C. Ma.	Volts	Amps.	Volts	Amps.				
270-0-270	55	5.0	2	6.3 CT	2	13	1½	4PHC-55	$23.35
335-0-335	70	5.0	2	6.3 CT	3	13	1¾	4PHC-70	27.30
375-0-375	120	5.0	3	6.3 CT	4	17	2½	4PHC-120	33.48
440-0-440	165	5.0	3	6.3 6.3 6.3 6.3	7.5 3 3 0.6	20	6	4PHC-165	56.62
450-0-450	200	5.0	2	6.3 6.3 6.3	4 4 0.6	20	5¾	4PHC-200A	55.53
550-370-75-0 75-370-550	300	5.0	6	6.3 CT 6.3 CT	5 1	21	6½	4-PHR-300	80.92

FILTER REACTORS—TF4SX04YY

Inductance (henries)	Maximum D.C. Ma.	D.C. Resistance (Ohms)	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog Number	Net Price
2.0	55	160	2,500	3	¼	4RH-255	$7.18
2.0	70	165	2,500	7	½	4RH-270	7.22
2.0	120	100	2,500	11	1	4RH-2120	8.55
2.0	165	90	2,500	11	1½	4RH-2165	8.58
2.0	200	73	2,500	13	1¾	4RH-2200	10.58
2.0	300	47	2,500	16	3¼	4RH-2300	12.57

CASE DIMENSIONS

Case Size	Dimensions In Inches				
	A	C	D	H	K
3	1 3/16	1 3/16	2	1 5/32-2 Studs	
7	1 3/8	1 3/8	2	1 5/16-2 Studs	
10	1 7/8	1¾	2 3/16	1 5/16	1 1/16
11	1 7/8	1¾	2 7/16	1 5/16	1 1/16
12	2¼	2 1/8	2 11/16	1 9/16	1 3/8
13	2¼	2 1/8	2 15/16	1 9/16	1 3/8
15	2½	2 3/8	3 5/16	1 13/16	1 11/16
16	2 7/8	2 11/16	3½	2	1 7/8
17	2 7/8	2 11/16	3¾	2	1 7/8
20	3 11/16	3 5/16	4 5/16	2 5/8	2 3/8
21	3 11/16	3 5/16	4 11/16	2 5/8	2 3/8

FILAMENT TRANSFORMERS (All Prim. 105/115/125 V., 380-1000 cycles—TF4SX04YY)

Sec. Volts	Sec. Amps.	Insulation Volts RMS	Case Size	Wt. Lbs.	Catalog Number	Net Price
6.3 CT	3	2,500	10	¾	4FH-63	$16.25
6.3 CT	5.5	2,500	11	1	4FH-65	17.73
6.3 CT	10	2,500	13	1¾	4FH-610	19.66
6.3 CT	20	2,500	15	2½	4FH-620	24.68

400 CYCLE STEP-DOWN AND ISOLATION TRANSFORMERS

(See Stancor Page 16)

STANCOR PAGE 17

CHICAGO

NEW EQUIPMENT
AUDIO
TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)

TRANSISTOR AUDIO TRANSFORMERS

Here are the smallest iron core audio transformers ever built. They weigh less than 1/10 ounce and are no larger than the transistors they power. Write for Bulletin 462 showing typical circuit application.

Part No.	Application	Pri. Imp.	Sec. Imp.	Pri. DC Res.	Sec. DC Res.	Dimensions (±.015″)	Weight in ounces	Net Price
UM-110	Interstage	20,000	1,000	1675	285	¼″ x ⅜″ x ⅜″	0.07	**$5.70**
UM-111	Output or matching	1,000	50/60	120	9.0	⅜″ x ⅜″ x ⅜″	0.10	**3.90**
UM-112	High imp. mic. input	200,000	1,000	4000	195	⅜″ x ⅜″ x ⅜″	0.10	**6.30**
UM-113	Interstage	20,000	1,000	1350	205	⅜″ x ⅜″ x ⅜″	0.10	**4.35**
UM-114	Output or matching	500	50/60	70	9.0	⅜″ x ⅜″ x ⅜″	0.10	**3.90**

TRANSISTOR TRANSVERTER TRANSFORMERS

For converting 12 V. battery voltage to plate supply voltage. See Chicago Bulletin CT-43 for schematics and parts lists.

Part No.	Application	Mtg. Type	Dimensions	Weight	Net Price
DCT-1	Converts 12 VDC to 275 VDC at 125 DCMA	C	1⅞″ x 2⁷⁄₁₆″ x 2³⁄₁₆″	14 oz.	**$14.68**
DCT-2	Converts 12 VDC to 250 VDC at 275 DCMA or 500 VDC at 165 DCMA	C	2¼″ x 2¹¹⁄₁₆″ x 2¹¹⁄₁₆″	1.5 lbs.	**16.63**

MINIATURE HIGH FIDELITY AUDIO TRANSFORMERS

Chicago-Stancor Tinytrans are miniature transformers made with nickel steel laminations. They have an exceptional frequency response for units of this size; ±1 db. 30-15,000 cps, Maximum level 0 db. Write for Bulletin 463 showing frequency response curves on these transformers.

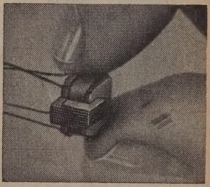
These units are sealed and potted in ⅞″ square, anodized aluminum cases with phenolic terminal boards. Total height, including terminals, is 1¼″. The case has two 2-56 threaded inserts, ¹¹⁄₁₆″ centers, for easy chassis mounting. The entire transformer weighs only 1.3 ounces.

Part No.	Application	Primary Impedance	Secondary Impedance	Net Price
TT-11	Mic., pickup or line to single grid	50, 200/250, 500/600	50,000	**$13.43**
TT-12	Mic., pickup or line to push-pull grids	50, 200/250, 500/600	50,000	**14.27**
TT-13	Dynamic mic. to single grid	7.5/30	50,000	**8.52**
TT-14	Single plate to single grid	15,000* (No DC in primary	60,000	**8.03**

PUBLIC ADDRESS RANGE TRANSFORMERS

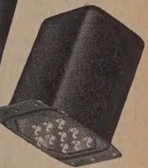
Frequency Response within ±1 db, 50 to 10,000 Cycles

Driver and output transformers in this CHICAGO series are designed for three general power levels to fit a wide range of application. Up-to-date secondary impedances match 600 or 150-ohm lines, 16, 8, and 4-ohm speakers. (16/8/4-ohm taps also suitable for 20/6/3.2-ohm speakers.) Output transformers have tertiary windings for 10% inverse feedback that minimizes distortion and provides extra audio watts without loss of fidelity.

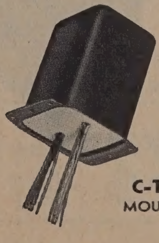


TYPE UM

YY CASE MOUNTING



S-TYPE MOUNTING



See Page 1422 For Mounting Dimensions

C-TYPE MOUNTING

DRIVERS H-Type—TF4RX12YY (Cat. No. PHD), S-Type (Cat. No. PSD) and C-Type (Cat. No. PCD) Mountings

Application	Primary Impedance	Max. D.C. Pri.	Ratio, Pri. to ½ Sec.	Case Size	Wt. Lbs.	Cat. No.	Net Price
P-P Plates to P-P Grids	20,000 ohms (Pri. CT)	10 ma.	3:1	14	2¼	PHD-10 PSD-10 PCD-10	$16.13 15.15 12.38
P-P Plates to P-P Grids	20,000 ohms (Pri. CT)	25 ma.	3:1	15	2¼	PHD-25 PSD-25 PCD-25	15.25 15.68 7.97
P-P Plates to P-P Grids	5,000/10,000 ohms (Pri. CT)	100 ma.	5:1	18	4½	PHD-100	29.55

OUTPUTS H-Type—TF4RX13YY (Cat. No. PHO), S-Type (Cat. No. PSO) and (Cat. No. PCO) Mountings

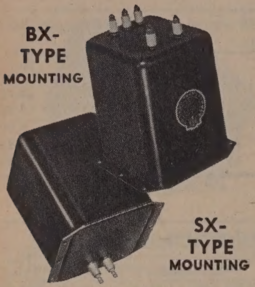
Application	Impedances	Typical Output Tubes	Class	Max. Audio Watts	Max. D.C. Pri. CT	Case Size Wt.	Cat. No.	Net Price
P-P Plates to Line or Voice Coil	Primary: 5,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	6B4G, 6L6, 6V6, etc.	A_1 AB	20	120 ma.	20: 6½ lbs.	PHO-80 PSO-80 PCO-80	$37.73 31.62 19.13
P-P Plates to Line or Voice Coil	Primary: 10,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	6V6, 6F6, 6K6, etc.	AB, AB_1	15	200 ma.	19: 5 lbs.	PSO-150 PCO-150	21.67 13.43
P-P Plates to Line or Voice Coil	Primary: 6,000 ohms, CT Secondary: * 600/150/16/8/4 ohms	Two 6L6's, Four 6V6's, or similar	B, AB_2†	30	250 ma.	22: 9 lbs.	PSO-200 PCO-200	27.40 13.75

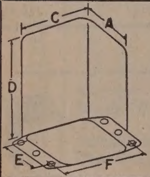
*Has tertiary winding to provide 10% inverse feedback.
†For low distortion, use fixed bias.

CHICAGO

NEW EQUIPMENT
TRANSFORMERS AND REACTORS
for Broadcast, Amateur and Industrial Application

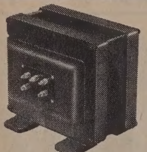
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



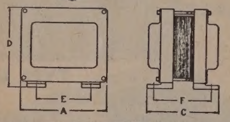


CASE DIMENSIONS FOR BX-, S- & SX-TYPE MOUNTINGS

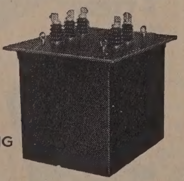
Case Size	Dimensions in Inches A	C	D	E	F
22	4 9/16	4⅛	5 5/16	2½	4¾
24	5 5/16	4 13/16	6 1/16	3½	5⅜
26	6⅛	5¼	7 1/16	4¼	6
28	7 1/16	6⅛	8 1/16	5	7



FS TYPE MOUNTING



Size	Dimensions in Inches A	D	E	F	C
60	7½	7	4¾	5½	6 5/16
61	7½	7	4¾	5 5/16	6⅞
62	7½	7	4¾	6¼	7⅛
63	7½	7	4¾	6 11/16	7½
64	7 13/16	10	8⅝	6	7¾
65	7½	7	4¾	6⅞	7 13/16
71	8⅞	8½	5½	6½	8⅛
81	11½	10½	7½	8¼	10¼
84	11½	10½	7½	11 13/16	13 13/16
90	13 13/16	12¾	9	8⅞	10⅜



WC-TYPE MOUNTING

Overall Case Dimensions:
H—31½' W—26½' D—23½'

LARGE CAPACITY TRANSFORMERS AND REACTORS
For Broadcast, Communications and Industrial Use

DRIVER TRANSFORMERS

Recommended Application: In:	Tubes:	Ratio Pri./½ Sec.	Mtg. Type	Case Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	From two 2A3's, 6B4's, or similar P-P Plates to Class B 838's, 805's, 203-A's, etc.	3.5:1	B*	20	6½	BD-1	$31.42
1-KW Transmitter	From four 2A3's, 6B4's, or similar P-P Plates to two 833-A's or similar P-P Grids	3:1	†	24	12¼	BD-2	34.80

†Similar to SX-Type mounting, but with screw terminals on a terminal board.
*B-Type mounting, but with screw terminals.

MODULATION TRANSFORMERS

Recommended Application In:	With:	Impedances (Pri. Plate to Plate)	Modulator Tubes	Mtg. Type	Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	Driver Transformer #BD-1	Pri: 7500 ohms CT Sec: 5000 ohms	203-A, 838 805, etc.	BX	26	25	BM-1	$56.58

MODULATION REACTORS

Recommended Application: In:	With:	Inductance	D.C. Ma.	Mtg. Type	Size	Wt. Lbs.	Cat. No.	Net Price
250-Watt Transmitter	Mod. Transformer #BM-1	65 hy.	250	BX	28	41	BR-1	$ 79.50

PLATE TRANSFORMERS

Primary: Volts	Max. VA.	Secondary: A.C. Load Volts	D.C. Volts after Filter	D.C. Ma.	Mtg. Size	Mtg. Type	Wt. Lbs.	Cat. No.	Net Price
115-230	185	675-0-675 575-0-575	500 400	250	22	S	12	P-45	$26.62
115-230	250	900-0-900 735-0-735	750 600	250	22	S	13½	P-67	26.70
115-230	310	1150-0-1150 870-0-870	1000 750	250	60	FS	37	P-107	95.23
115-230	360	1425-0-1425* 600-0-600	1250 400	150 200	24	S	26	P-1240	41.35
115-230	550	1710-0-1710 1430-0-1430	1500 1250	300	63	FS	43	P-1512	105.77
115-230	915	2820-0-2820 2260-0-2260	2500 2000	300	71	FS	71	P-2520	126.95
115-230	1600	2900-0-2900 2320-0-2320	2600 2100	500	64	FS	95	P-2126	177.42
115-230	3050	4600-0-4600 4050-0-4050 3400-0-3400	4000 3500 3000	600	90	FS	150	P-4353	363.82

*Both secondaries may be rectified simultaneously.

FILTER REACTORS

Inductance in Henrys	Max. D.C. Ma.	D.C. Resistance, Ohms	Insulation Test Volts	Mtg. Type	Mtg. Size	Wt. Lbs.	Cat. No.	Net Price
10	500	40	9,000	FS	62	35	R-105	$69.38
10	300	40	7,500	SX	26	22	R-103	40.38
6	700	35	10,000	FS	61	35	R-67	79.03
6	500	35	9,000	FS	60	35	R-65	65.80
6	300	35	7,500	SX	24	16½	R-63	38.18

Splatter Chokes for High Level "Clipper" Filters

Can withstand high peak voltages. Has tapped windings to cover an inductance from .02 to 1.5 henries at relatively constant Q. Eliminates splatter, caused by heavy modulation; limits band width to 3,000 cycles, effectively increases "get through" ability of phone signals, and prevents negative peak clipping.

Type	D.C. Ma.	Insulation Volts	Inductance in Henries	Mounting Type	Mounting Size	Net Price
SR-300	300	7,500	.02 to 1.5 Hy	BX	22	$38.28
SR-500	500	10,000	.02 to 1.5 Hy	BX	24	42.42

Low Pass Filter No. LPF-1

For attenuating frequencies above 3,000 cycles in low level speech amplifiers. Operates out of a 15,000 ohm source, *e.g.*, the plate of 6C5, 6J5, etc. when its 60,000 ohm secondary is connected to an equal impedance output. Operates at signal levels up to −8 db. Complete with operating instructions. S type mtg. Case size 13. (Stancor Page 13).

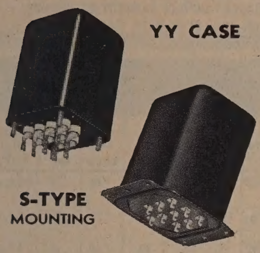
Net Price......................$34.07

FILAMENT TRANSFORMERS—TF4RX01 — — †
All primaries 105/115/125 V., 380-1000 cycles.

Catalog Number	Sec. Volts	Sec. Amps.	Insul. Test Volts RMS	Case Size†	Wt. Lbs.	Net Price
4FMS-2415	24 CT	1.5	1,500	EA	1.2	$16.30
4FMS-1208	12.6 CT 12.6	0.8 0.8	1,500 1,500	AJ	0.8	16.00
4FMS-122	12.6 CT 12.6	2.0 2.0	1,500 1,500	EA	1.3	19.00

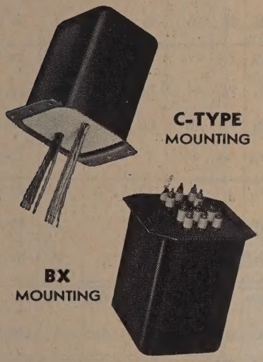
CHICAGO

NEW EQUIPMENT
AUDIO
TRANSFORMERS
STANCOR ELECTRONICS INC.
(formerly Chicago Standard Transformer Corporation)



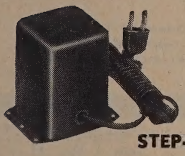
YY CASE

S-TYPE MOUNTING

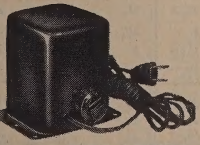


C-TYPE MOUNTING

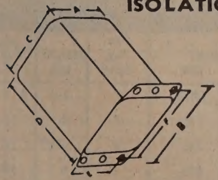
BX MOUNTING



STEP-DOWN



ISOLATION



DIMENSIONS for S, SX, STEP-DOWN and ISOLATION TRANSFORMERS

Case Size	Dimensions in Inches A	B	C	D	E	F
16	2⅞	3½	2$\frac{11}{16}$	3½	2	3⅛
20	3$\frac{11}{16}$	4$\frac{7}{16}$	3$\frac{5}{16}$	4$\frac{5}{16}$	2¾	3⅞
21	3$\frac{11}{16}$	4$\frac{7}{16}$	3$\frac{5}{16}$	4$\frac{11}{16}$	2¾	3⅞
22	4$\frac{9}{16}$	5¼	4⅛	5$\frac{5}{16}$	2½	4¾
24	5$\frac{5}{16}$	5⅞	4$\frac{13}{16}$	6$\frac{1}{16}$	3½	5⅜
26	6⅛	6½	5¼	7$\frac{1}{16}$	4¼	6

COMMUNICATIONS RANGE AUDIO TRANSFORMERS

Frequency Response within ±1 db, 200 to 3,500 Cycles

These transformers are specifically designed for use in receiving and transmitting equipment such as amateur, police, railroad, and aircraft types, where clear voice reproduction is desired.

INPUTS H-Type-TF4RX--YY† (Cat. No. CIH), S-Type (Cat. No. CIS) and C-Type (Cat. No. CIC) Mountings*

Application	Impedances: Primary—Secondary	Case Size	Wt. Lbs.	Cat. No.	Family	Net Price
Low Level Line to Single or Push-Pull Grids	Pri: 600/150 ohms CT *Sec: 100,000 ohms CT	9	¾	**CIH-1** **CIS-1** **CIC-1**	10 — —	$22.38 20.32 16.70
Low Level S. B. or D. B. Mike to Sgl. or P-P Grids	Pri: 125/50 ohms @ 80 ma. Sec. 125,000 ohms CT	9	¾	**CIH-2** **CIS-2** **CIC-2**	11 — —	11.66 10.72 7.43

**Split and balanced windings: may be used singly or push-pull. †Refer to family.

OUTPUTS H-Type-TF4RX13YY (Cat. No. COH), S-Type (Cat. No. COS) and C-Type (Cat. No. COC) Mountings*

Application	Impedances: Pri.—Sec.	Typical Audio Tubes	Pri. Class	Max. Case Watts	Max. Pri. D.C.	Case Size	Wt. Lbs.	Cat. No	Net Price
Sgl. P. to Line or Speaker	Pri.: 5000 ohms Sec. ohms: 600/150/16/8/4	6L6, 6V6, 25A6	A	5	55 ma.	14	2¼	**COH-1** **COS-1** **COC-1**	$15.20 13.72 8.45
Sgl. Pl. to Line or Speaker	Pri: 8000 ohms Sec. ohms: 600/150/16/8/4	6F6, 6V6, 6K6	A	5	55 ma.	14	2¼	**COH-2** **COS-2** **COC-2**	16.87 12.50 10.12

DRIVER H-Type (Cat. No. CDH), S-Type (Cat. No. CDS) and C-Type (Cat. No. CDC) Mountings*

Application	Primary Impedance	Max. D.C. Pri. CT	Ratio, Pri. to ½ Sec.	Case Size	Wt. Lbs.	Cat. No.	Net Price
P-P Plates (2A3's, etc.) to P-P Grids	5,000 ohms (Pri. CT)	100 ma.	3:1	17	3½	**CDS-1** **CDC-1**	$17.10 5.56

*Mounting Dimensions on Page 1428.

MODULATION TRANSFORMERS—Class B Plates to Class C Load

Catalog No.	Typical Mod. Tubes	Impedances Primary-Secondary	D.C. Ma. Pri	D.C. Ma. Sec.	Power Level	Mounting Type	Mounting Size	Wt. Lbs.	Net Price
CMS-1	203A's, 805's, 75TL's, 203Z's	Pri: 9000/6700 ohms CT Sec: 8000/6000/4000 ohms	350	350	250-350 watts	X	26	22	$66.07
CMS-3	810's, 822's, 4-250A's, etc.	Pri: 18,000/12,000 ohms CT Sec: 6250 ohms	500	500	500.750 watts	FS†	4†	43	116.62

†Mounting Dimensions and Illustration on Page 1360.

STEP-DOWN TRANSFORMERS—Primary, 50/60 cycles

CHICAGO step-down autotransformers solve the problem of operating standard 117-volt radios, amplifiers, and various electrical appliances from 220-volt power sources. They are particularly well adapted to use in Central and South American countries, where 220-volt lines are frequently found, and where the **Sealed-in-Steel** construction protects them against corrosion caused by excessive humidity. Input side is equipped with 8-foot, rubber-covered cord and plug. Output side has standard female receptacle.

Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	Net Price
SD-50	220-250	110-125	50 watts	16	2¾	$ 6.08
SD-100	220-250	110-125	100 watts	20	4¼	7.62
SD-150	220-250	110-125	150 watts	22	7	9.65
SD-250	220-250	110-125	250 watts	22	8¾	11.45
SD-500	220-250	110-125	500 watts	24	14½	17.28
SD-1000	220-250	110-125	1000 watts	26	22½	24.53

ISOLATION TRANSFORMERS—Primary, 50/60 cycles

A rotary switch on each CHICAGO isolation transformer adjusts to either of three primary voltages, 125/115/105 volts. With the unit operating on a 115-volt line, the three switch positions also provide varying secondary voltages, 105/115/125 volts isolated from line.

Eight-foot, rubber-covered cord and plug on primary, standard female receptacle on secondary.

Catalog No.	Input Voltage	Output Voltage	Rating, Continuous Duty	Case Size	Wt., Lbs.	Net Price
IS-50	105/115/125	125/115/105*	50 watts	21	5	$11.42
IS-100	105/115/125	125/115/105*	100 watts	22	8½	14.97
IS-150	105/115/125	125/115/105*	150 watts	24	12½	17.62
IS-250	105/115/125	125/115/105*	250 watts	24	18¼	23.87

*With 115-volt primary.

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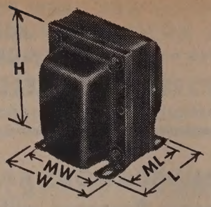

TRANSFORMERS for Electronically Regulated Power Supplies

- ONE UNIT PROVIDES PLATE AND FILAMENT POWER FOR ENTIRE SUPPLY.
- RATINGS BASED ON D.C. OUTPUT OF SUPPLY.
- APPLICATION BULLETIN WITH EACH UNIT.

2K SERIES

PLATE AND FILAMENT TRANSFORMERS

Cat. No.	Supply Rating	High Voltage Secondary AC Volts	DC MA	Rectifier Fil.		Pass Tube Fil.		Regulator Fil.		Auxiliary Fil.		Overall			Mtg. Dim.		Rec. Mtg. Screw	Weight Lbs.	Net Price 1–9 pcs.
				V.	A	V	A	V	A	V	A	L	W	H	ML	MW			
2K6	300/250VDC 400MADC	550-480-0 480-550V	440		Use with 2K20				Use with 2K20			6	4⅝	5½	4½	3½	#10	19	$18.48
2K8	300/250VDC 300MADC	540-475-0 475-540V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	6¼	4⅝	5½	4¾	3½	#10	20	21.62
2K10	300/250VDC 200MADC	500-440-0 440-500V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	5	4⅝	5½	3½	3½	#10	14	17.66
2K12	300/250VDC 100MADC	540-465-0 465-540V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4¾	4⅝	5½	3¼	3½	#10	12	15.18
2K13	150/100VDC 400MADC	370-310-0 310-370V	440		Use with 2K20				Use with 2K20			4¾	4⅝	5½	3¼	3½	#10	12	15.18
2K14	150/100VDC 300MADC	375-320-0 320-375V	340	5	6	6.3	6	6.3	1.2	6.3CT	6	5½	4⅝	5½	4	3½	#10	16	17.82
2K15	150/100VDC 200MADC	355-300-0 300-355V	240	5	3	6.3	3	6.3	1.2	6.3CT	6	4¾	4⅝	5½	3¼	3½	#10	12	15.18
2K16	150/100VDC 100MADC	350-310-0 310-350V	140	5	3	6.3	3	6.3	1.2	6.3CT	3	4⅜	3⅞	4⅝	3 5/16	3	#8	10	13.20
2K17	300/250VDC 600MDC	565-500-0 500-565V	640		Use with 2K20				Use with 2K20			6¼	4½	6	4½	3 7/16	#10	22	27.19
2K18	300/250VDC 800MADC	580-520-0 520-580V	840		Use with 2K21				Use with 2K21			6	6⅛	7¼	4	4 25/32	¼	33	35.64
2K19	300/250VDC 1.0 Amp.	590-525-0 525-590V	1040		Use with 2K21				Use with 2K21			7½	6⅛	7¼	5½	4 25/32	¼	48	50.16
2K20	(Filament Transformer for 400MA and 600MA Supplies)			5	6	6.3	6	6.3	1.2	6.3CT	6	3⅞	3⅞	4⅝	2 13/16	3	#8	7.5	11.22
2K21	(Filament Transformer for 800MA and 1 Amp. Supplies)			5	10	6.3	10	6.3	2	6.3CT	10	4⅞	3⅞	4⅝	3 13/16	3	#8	12	15.51

Standard Color Code

Primary: Black	Rectifier Filaments: Yellow
High Voltage: Center Tap: Red-Yellow	Pass Tube Filaments: Brown
High Voltage: High Tap: Red	Regulator Filaments: Green
High Voltage: Low Tap: Blue	Auxiliary Filaments: Slate

NOTES

1. All Primaries 115 Volts 50/60 Cps.
2. Ratings Based On Capacitor Input Filters
3. Dielectric Test Voltages:
   Primaries: 1500 V. RMS
   All Secondaries: 2500 V. RMS

CHOKES

Cat. No.	Inductance	Rated Current MADC	DC Resist.	Dielectric Test Volt.	Overall			Mtg. Dim.		Rec. Mtg. Screw	Weight Lbs.	Net Price 1–9 pcs.
					L	W	H	ML	MW			
2K5	4 hys. min.	440	50	2500V RMS	3¾	3 9/16	4¼	2⅝	2¾	#8	6	$ 7.66
2K7	4 hys. min.	340	60	2500V RMS	3⅛	2 15/16	3½	2	2¼	#8	3.3	5.15
2K9	4 hys. min.	240	90	2500V RMS	2⅝	2⅝	3⅛	1 11/16	2	#8	2.3	3.89
2K11	4 hys. min.	140	185	2500V RMS	3 11/16	2 3/16	2 5/16	3⅛	Chan.	#8	1.5	2.64
2K22	4 hys. min.	.64A	52	2500V RMS	4¾	4⅝	5½	3¼	3½	#10	12	13.20
2K23	4 hys. min.	.84A	25	2500V RMS	5½	4⅝	5½	4	3½	#10	17	16.96
2K24	4 hys. min.	1.04A	20	2500V RMS	7	4⅝	5½	5½	3½	#10	25	23.56

SPECIALS

Cat. No.	Secondary Volts	Secondary Amperes	RMS Volts Insulation	Primary Volts	Overall Dim.			Mtg. Dim.		Rec. Mtg. Screw	Weight Lbs.	Net Price 1–9 pcs.
					L	W	H	ML	MW			
6K1	6.3	4	1000	115/230	3 11/16	2½	2 5/16	3⅛	Chan.	8	1¾	$ 5.61
6K2	6.3	12	1500	115/230	3¾	3¼	4	2 7/16	2½	8	6	10.30
6K3	6.3 CT	16	3000	115	3⅞	3¼	4	2 9/16	2½	8	6½	10.96
6K4	5 6.3 CT 6.3 CT	3 4 4	2000 2000 2000	115/230	3½	3¼	4	1 3/16	2½	8	5	10.89
6K5	6.3 6.3	1.5 1.5	1000 1000	115/230	4	2½	2⅝	3 9/16	Chan.	8	2¼	6.14
6K6	800 CT	.036 DC	4000	115/230	3½	2⅝	3 3/16	2 7/16	2	8	4	6.93
6K7	28 CT	7 DC	1000	115	4¼	3¼	4	2 15/16	2½	8	8	10.43
6K8	660 CT 5	.25 DC 4.5	1500 1500	115/230	3⅞	3⅞	4⅝	2 13/16	3	8	8	12.67
6K9	1130 CT 5	.062 DC 2	3300 3300	115/230	3⅞	3⅞	4⅝	2 13/16	3	8	8	12.67

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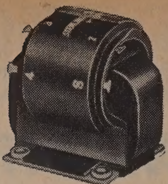


ENCAPSULATED

400 CPS TRANSFORMERS CLIPPER SERIES

FOR MINIMUM SIZE & MINIMUM WEIGHT

- CONTOUR MOLDED
- HIPERSIL CORES

	Cat. No.	Secondary Volts	Secondary Amps.	Rms. V Insulation	Primary Volts	Mold Size	Maximum Operating Ambient	Net Price 1-9 pcs.
FILAMENT	4C1	6.3 CT	.8	1500	115	SM3	100°C	10.89
	4C2	6.3 CT	1.2	1500	115	SM2	100°C	10.89
	4C3	6.3 CT	6.75	1500	110/115/120	2	100°C	17.49
	4C4	6.3 6.3	4.9 2.7	1500 1500	115	3	90°C	15.64
	4C5	6.3 CT	7.2	1500	115	35	120°C	18.15
	4C6	6.3 6.3 6.3	7 7 1.5	1500 1500 1500	120	35	80°C	17.69
	4C7	6.3 CT 6.3 CT	7 7	1500 1500	120	4	100°C	21.05
	4C8	6.3 6.3 6.3	13.7 2.93 0.3	1500 1500 1500	115	4	90°C	21.05
	4C9	6.3 CT	12.3	1500	115	5	100°C	19.47
	4C10	20 CT	0.6	1500	115	SM1	100°C	13.86
	4C11	6.3 6.3 6.3	2.4 2.5 2.7	1500 1500 1500	115	3	100°C	19.47
	4C26	6.3 CT	2	1500	115	SM1	100°C	13.86
	4C27	6.3 CT	3	1500	115	1A	100°C	14.39
	4C28	6.3 CT	5	1500	115	2	100°C	14.92
	4C29	5.0 CT	3	2500	115	SM1	100°C	13.86
	4C30	5.0 CT	6	2500	115	2	100°C	14.92
POWER	4C12	14.1	3	1500	115	3	100°C	14.85
	4C13	21	9	1500	115	4	65°C	16.50
	4C14	26	0.5	1500	115	SM1	55°C	13.53
	4C15	26 CT	1.5	1500	115	3	65°C	13.99
	4C16	28 CT 6.3 CT	0.75 7A	1500 1500	115	2	65°C	20.99
	4C17	52 CT	.192	1500	115	SM1	100°C	15.02
	4C18	90 CT	4.5	1500	115	9	100°C	28.38
	4C19	115	.05	1500	115	SM2	100°C	11.09
	4C20	105/115/125	0.4	1500	105/115/125	2	90°C	16.04
	4C21	115	2.83	1500	115	8	100°C	23.10
	4C22	334	.025	1500	115	SM1	120°C	12.74
	4C23	26 CT	3	1500	115	4	100°C	16.83
	4C24	26 CT	5	1500	115	6	100°C	19.40
	4C25	52 CT	2	1500	115	5	100°C	18.55

Built to pass MIL-T-27A specifications, including Grade 2 humidity tests, and to operate continuously at 150° C. Result: Savings up to 50% in space and weight without sacrifice in performance.

HIGH SHOCK

EXTREME ENVIRONMENT CONDITIONS

LIGHT WEIGHT FOR AIRBORNE USE

10,000 HOUR PLUS-LIFE

SERVO APPLICATIONS

ISOLATION

POWER SUPPLIES

AIRBORNE CONTROL CIRCUITS

MISSILE CIRCUITS

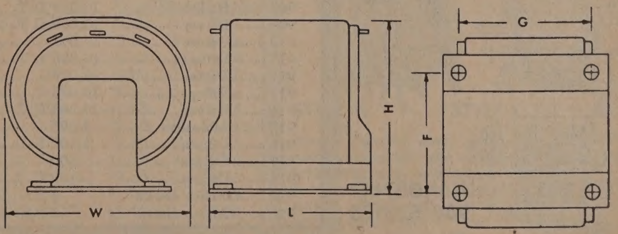
MOLD NO.	OVERALL DIMENSIONS			MTG. DIMENSIONS		APP. WT. (LBS.)	MTG. METH.
	L	W	H	F	G		
SM3	1	1-1/4	1-3/16	1	Note 1	0.06	Note 1
SM2	1-1/2	1-1/4	1-11/16	1	Note 1	0.10	Note 1
SM1	1-1/2	1-1/2	1-11/16	1-1/8	Note 1	0.16	Note 1
1	1-13/16	1-7/8	1-13/16	1-1/4	1-7/16	0.25	Note 2
1A	1-11/16	1-17/32	1-13/16	1-5/32	1-1/8	0.25	Note 2
2	2	1-15/16	2-1/8	1-9/32	1-1/4	0.40	Note 2
3	2-5/16	1-13/16	2-1/8	1-9/32	1-7/16	0.45	Note 2
35	2-1/16	2-3/8	2-3/16	1-17/32	1-11/16	0.70	Note 2
4	2-5/16	2-3/8	2-9/16	1-17/32	1-11/16	0.90	Note 2
5	2-3/4	2-3/8	2-7/8	1-17/32	2-3/16	1.20	Note 2
6	2-3/4	2-5/8	3-1/8	1-17/32	2-3/16	1.50	Note 2
7	3	2-7/8	3-3/8	1-25/32	2-1/2	2.00	Note 2
8	3-3/8	2-7/8	3-3/8	1-25/32	2-1/2	2.50	Note 2
83	3-3/4	3-1/4	3-3/8	2-1/4	3	3.25	Note 3
86	3-3/4	3-3/4	3-3/8	2-3/4	3-1/8	4.25	Note 3
9	4-1/16	3-3/8	3-7/8	2-3/16	3-1/2	5.00	Note 3
10	4-1/2	3-15/16	3-15/16	2-3/4	3-1/8	6.00	Note 3

Note 1—SM series are two hole mounting with holes on center line. #4-40 Pem nuts are fastened to the bracket.

Note 2—#6-32 Pem nuts on bracket are standard.

Note 3—#8-32 Pem nuts on bracket are standard.

- All primaries 380-1000 cps
- Dielectric test voltages: PRIMARIES 1000 Volts RMS
  SECONDARIES 1500 Volts RMS
- Epoxy resin used as encapsulant
- Prices subject to change without notice



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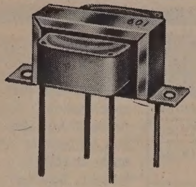
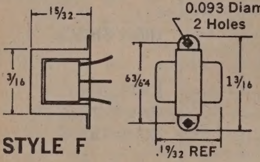
TRANSFORMERS for TRANSISTOR APPLICATIONS

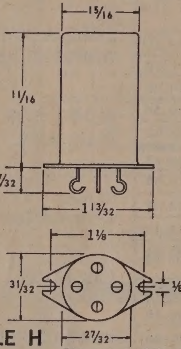


Subminiature transformers for high efficiency circuits.

MICROSPEC 600 SERIES



STYLE F



STYLE H

Clearance Hole Required

Military style encapsulated versions of these units are available.

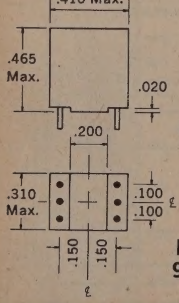
MICROSPEC TRANSISTOR TRANSFORMERS — 600 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Un-bal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
601	Line to Base	600	600	8	22	200–15,000	$3.90	$7.35
602	Coll. to Base or line	50,000	600	0.7	20	200–15,000	4.05	7.50
603	P.P. coll. to P.P. Base	50,000 C.T.	600 C.T.	1.4	20	200–15,000	4.80	8.55
604	Collector to speaker	50,000	6	1	20	200–15,000	4.35	7.95
605	Coll. to P.P. Base	25,000	1,200 C.T.	1	20	200–15,000	4.50	8.40
606	P.P. coll. to P.P. Base	50,000 C.T.	1,200 C.T.	1.4	20	200–15,000	4.65	8.55
607	Line to P.P. Base	600 C.T.	1,200 C.T.	16	22	200–15,000	4.20	7.65
608	Collector to Base	25,000	600	1	20	200–15,000	3.45	7.20
609	P.P. coll. to P.P. Base or line	4,000 C.T.	600 C.T.	5	28	200–15,000	4.35	7.80
610	Coll. to Spkr.	2,000	3.4	5	28	200–15,000	3.90	7.35
611	Output P.P. coll. to spkr	4,000 C.T.	3.4	5	28	200–15,000	4.05	7.50
612	Coll. to P.P. Base	10,000	1,500 C.T.	1	20	200–15,000	4.50	8.40
613	P.P. Coll. to P.P. Base	10,000 C.T.	200 C.T.	6	20	200–15,000	4.50	8.10
614	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	2	20	200–15,000	4.65	8.55
615	Coll. to P.P. Base	2,500	2,500 C.T.	2	23	200–15,000	4.05	7.50
616	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 split	5	28	200–15,000	4.65	8.55
617	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	4	22	200–15,000	4.35	7.80
618	Line to Base	600 C.T.	600 C.T.	16	22	200–15,000	4.20	7.65
619	P.P. Coll. to P.P. Base	25,000 C.T.	600 C.T.	2	20	200–15,000	4.50	8.40
620	P.P. Coll. to P.P. Base	10,000 C.T.	1,500 C.T.	2	20	200–15,000	4.65	8.55
621	Driver/Isolation	10,000 C.T.	10,000 C.T.	2	20	200–15,000	4.65	8.55
622	P.P. Coll. to P.P. Base	7,500 C.T.	1,200 C.T.	4	22	200–15,000	4.50	8.40
623	P.P. Coll. to P.P. Base	2,000 C.T.	500 C.T.	10	28	200–15,000	4.35	8.25
624	Line to P.P. Base	600 C.T.	1200/300 split	16	22	200–15,000	4.65	8.55

MICROSPEC AUDIO TRANSFORMERS — 600 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Un-bal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
675	Input	200/50	250,000/62,500	0	4	200–10,000	$4.50	$7.35
676	Interstage 3:1	10,000	90,000	0	4	150–10,000	4.80	7.50
677	Plate to line	10,000	200	3	20	150–10,000	4.20	7.20
678	Output	30,000	50	1	20	150–10,000	4.05	7.05
679	Reactor 50 HY at 1 madc					4700 ohms DCR	4.05	6.90
680	Output	100,000	60	0.5	20	250–10,000	4.20	7.20
681	Output	30,000	1,200	0.5	20	200–10,000	3.30	6.45

Designed for printed circuit transistor use in high component density applications. Nickel alloy leads on 0.1 inch centers and stepped mounting face to insure ease of installation. Epoxy resin encapsulated.



NANOSPEC 900 SERIES

NANOSPEC TRANSISTOR TRANSFORMERS — 900 SERIES

Frequency Response ± 2 db 300 Cycles to 90 KC

Part No.	Application	Primary Impedance	Secondary Impedance	Unbal. Pri. DC Ma.	Power Level MW.	Net Price 1–9 pcs.
901	Input	200,000 C.T.	1,000 C.T.	0	10	$7.65
902	Input	200,000	1,000	0	10	6.60
903	Interstage	50,000 C.T.	1,000 C.T.	0	10	7.50
904	Interstage	50,000	1000/250 Split	0	10	8.10
905	Interstage	25,000 C.T.	1,000 C.T.	0.5	40	7.05
906	Interstage	25,000	1000/250 Split	0.25	40	7.65
907	Interstage	25,000	1,000	0.25	40	6.50
908	Isolation	10,000 C.T.	10,000 C.T.	1	50	7.65
909	Driver	10,000 C.T.	2,000 C.T.	1	50	6.75
910	Driver	10,000	2000/500 Split	0.5	50	7.35
911	Driver	10,000 C.T.	1,200 C.T.	1	50	6.75
912	Driver	10,000	1200/300 Split	0.5	50	7.20
913	Driver	10,000	1,200	0.5	50	6.00
914	Driver	10,000 C.T.	500 C.T.	1	50	6.75
915	Isolation	2,500	2,500 C.T.	1	50	6.30
916	Output	1,500 C.T.	600	3	50	6.15
917	Output	500	50	3	50	5.40
918	Output	120 C.T.	3.2	10	50	5.70
919	Audio choke	6 Hy.	DCR 1800 ohms	2		5.40
920	Audio choke	.3 Hy.	DCR 45 ohms	4		4.65

TRANSFORMERS for TRANSISTOR APPLICATIONS

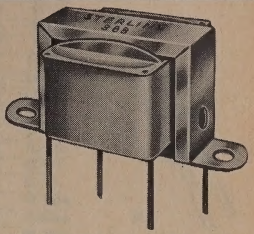
STERLING—THE MARK OF QUALITY

STERLING TRANSFORMER CORPORATION

Brooklyn 11, N. Y.

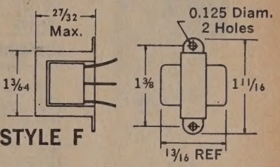
MINISPEC TRANSISTOR TRANSFORMERS—300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Un-bal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
300	Line to Base	600	600	10	23	200–15,000	$3.60	$7.80
301	Coll. to P.P. Base	100	10 C.T./40 C.T	100	27	200–20,000	4.20	8.70
302	Coll. to Base or line	50,000	600	3	20	300–15,000	3.90	8.40
303	Collector to speaker	50,000	6	3	20	300–15,000	3.90	8.40
304	Coll. to P.P. Base	100,000	1,200 C.T.	1.4	17	200–15,000	4.05	8.55
305	Coll. to P.P. Base	25,000	1,200 C.T.	3	22	200–15,000	4.05	8.55
306	P.P. Coll. to P.P. Base	50,000 C.T.	1,200 C.T.	3	20	300–15,000	4.20	8.70
307	Line to P.P. Base	600 C.T.	1,200 C.T.	4	23	200–15,000	4.20	8.70
308	Collector to Base	25,000	600	3	22	200–15,000	3.90	8.40
309	P.P. Coll. to P.P. Base	4,000 C.T.	600 C.T.	3	32	200–15,000	4.20	8.70
310	Output Coll. to speaker	2,000	3.4	10	32	200–15,000	3.90	8.40
311	P.P. Coll. to speaker	4,000 C.T.	3.4	3	32	200–15,000	4.05	8.55
312	Coll. to Speaker	400	10	50	25	200–20,000	3.60	7.80
313	P.P. Servo Output	500 C.T.	210	30	27	300–20,000	3.90	8.40
314	P.P. Coll. to P.P. Base	25,000 C.T.	1,200 C.T.	6	22	200–15,000	4.20	8.70
315	P.P. Coll. to P.P. Base	50,000 C.T.	1200/300 Split	3	20	300–15,000	4.50	9.00
316	P.P. Coll. to P.P. Base	4,000 C.T.	600/150 Split	3	32	200–15,000	4.35	8.85
317	Line to P.P. Base	600/150 Split	1,200 C.T.	4	23	200–15,000	4.35	8.85
318	P.P. Coll. to Servo	250 C.T.	1,000	10	30	200–15,000	3.90	8.40
319	Coll. to P.P. Base	2,500	600 C.T.	10	32	200–15,000	3.90	8.40
320	P.P. Coll. to P.P. Base	7,500 C.T.	600 C.T.	8	32	200–15,000	4.20	8.70
321	Line to P.P. Base	600 C.T.	600 C.T.	20	23	200–15,000	4.05	8.55
322	P.P. Coll. to Servo	1,600 C.T.	450	15	30	200–15,000	3.90	8.40
323	P.P. Coll. to Servo	250 C.T.	500	10	30	200–15,000	3.90	8.40

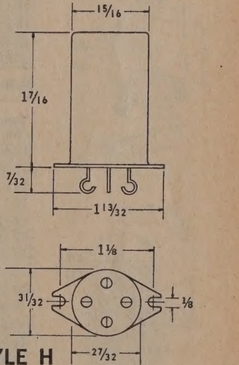


Highest efficiency miniature transformer for transistor and audio circuit applications.

MINISPEC 300 SERIES



STYLE F



STYLE H

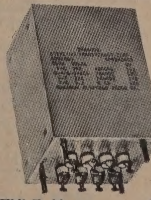
Military style encapsulated versions of these units are available.

MINISPEC AUDIO TRANSFORMERS—300 SERIES

Part No.	Application	Primary Impedance	Secondary Impedance	Pri. D.C. Un-bal. Ma.	Oper. Lev. DBM	Freq. Response ±2 db.	Net Price 1–9 pcs. F	H
375	Mike or line to 1 grid	50/250/600 C.T.	50,000	0	5	20–20,000	$4.05	$9.00
376	Mike or line to 2 grids	50/250/600 C.T.	50,000 C.T.	0	5	20–20,000	4.20	9.45
377	Dynamic mike to 1 grid	7.5/30	50,000	0	5	20–20,000	3.90	9.00
378	Single plate to 1 grid	15,000	60,000	0	6	20–15,000	3.45	7.65
379	Single plate to 1 grid	15,000	60,000	4	14	200–20,000	3.45	7.65
380	Single plate to 2 grids	15,000	95,000 C.T.	0	5	20–15,000	3.60	8.55
381	Single plate to 2 grids	15,000	95,000 C.T.	4	11	200–20,000	3.75	8.85
382	Single plate to line	15,000	50/250/600C.T.	0	8	20–20,000	3.75	9.60
383	Single plate to line	15,000	50/250/600C.T.	4	21	150–20,000	3.75	9.60
384	Push pull plates to line	30,000 C.T.	50/250/600C.T.	0	8	30–50,000	3.90	9.60
385	Crystal mike to line	50,000	50/250/600C.T.	0	5	20–20,000	3.75	9.30
386	Mixing and matching	50/250 C.T.	50/250/600C.T.	0	8	20–20,000	3.75	9.30
387	Reactor	300 hy. 0 d.c.	50 hy. @ 3 ma.			DCR 6,000	3.30	7.35
388	50:1 mike to grid	200	½ Megohm	0	9	80–3,000	3.90	9.00
389	10:1 plate to grid	10,000	1 Megohm	0	11	100–2,500	3.60	8.40

TRANSISTOR POWER MODULE TRANSFORMERS—7K SERIES

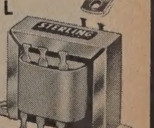
Type No.	RATING RANGE: MIL Rated DC Range	RATING RANGE: Commercial Rated DC Amps.	HERM. SEALED MIL STYLE H: Case Size	HERM. SEALED MIL STYLE H: Net Price	OPEN STYLE TYPE F OR L: Style	OPEN STYLE TYPE F OR L: Net Price 1-9 pcs.
7K1	6v–.065A to 53v–.02A	.085 to .025	AH	11.70	F	7.15
7K2	6v–.22A to 53v–.07A	.28 to .085	AJ	12.90	F	8.35
7K3	6v–1.2A to 53v–.4A	1.5 to .48	FA	14.40	F	7.40
7K4	6v–3A to 53v–1A	3.8 to 1.2	HA	19.80	L	12.15
7K5	6v–7.5A to 53v–2.5A	9 to 3	KA	28.80	L	20.55
7K6	6v–18A to 53v–6A	23 to 7.5	OA	48.00	L	36.15
7K7	12v–1.5A to 106v–.5A	1.9 to .6	HA	20.40	L	12.75
7K8	8v–.43A to 26v–.2A	.5 to .24	EB	10.20	F	5.15
7K9	9v–.85A to 26v–.4A	1 to .48	EA	12.90	F	7.85
7K10	14v–3A to 56v–1A	3.5 to 1.2	HA	18,60	L	12.15
7K11	14v–8A to 56v–2.5A	9.5 to 3	LA	30.00	L	21.45
7K12	14v–18A to 56v–6A	21 to 7	4¾x6x7H	45.90	L	33.70
7K13	28v–9A to 110v–3A	10.5 to 3.5	4¾x6x7H	45.90	L	33.70
7K14	8.2v–20A to 10v– 13A	24 to 15	KA	27.00	L	20.85



STYLE H

STYLE L

Universal transistor power supply module transformers with output voltage selection by varied secondary connections. Designed for silicon rectifier application with choke or capacitor input filters.



STYLE F

TRIAD DISTRIBUTOR DIVISION

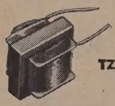
A DIVISION OF LITTON INDUSTRIES

MINIATURES

†† JAF SERIES — Hermetically Sealed

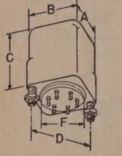
Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	** MTG.
JAF-1	600/250/50	50000	0	60-15000	AF
JAF-2	600/250/50	250000	0	100-15000	AF
JAF-3	600/250/50	60000 CT.	0	60-15000	AF
JAF-5	30/12/4	50000	0	50-15,000	AF
JAF-11	15000	50000	10	60-15000	AF
JAF-12	15000	60000 CT.	10	60-15000	AF
JAF-13	15000 (3 Ma.)	95000 CT.	10	350-7000	AF
JAF-14	200	½ megohm	10	300-3000	AF
JAF-15	15000	1 megohm	10	350-5000	AF
JAF-21	15000	600/250/50	10	60-15,000	AF
JAF-22	15000 (3 Ma.)	600/250/50	10	350-7000	AF
JAF-23	20000 CT.	600/250/50	10	60-15000	AF
●JAF-24	10,000CT.	2000 CT.	10	50-20000	AF
●JAF-25	15,000 CT.	600 CT./150	12	50-15000	AF
●JAF-26	50,000 CT.	600 CT./150	10	100-15000	AF
JAF-31	600/250/50	600/250/50	10	60-15000	AF
●JAF-32	1500 CT.	600 CT./150	14	50-15000	AF
JAF-33	5000 CT.	5000 CT.	10	60-15000	AF
●JAF-34	500 CT.	500 CT./125	14	50-20000	AF
●JAF-35	600 CT.	2000 CT./500	14	50-20000	AF
JAF-101	50 h.-.75 Ma.				AF
JAF-102	8 HY.—3 MA. or 2 HY.—6Ma.				

JZ


TZ

SUB-MINIATURE AUDIO — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	DC Res. Ohms (Approx.) Sec.	** Case
JZ-1	600/250/50	60000	350	4100	JZ
JZ-5	30/12/4	50000	11.5	3800	JZ
JZ-7	30/12/4	1000	5	480	JZ
JZ-13	15000 (1 Ma.)	135000 CT.	985	4400	JZ
JZ-15	20000 (.5 Ma.)	1200/600/100	2700	350	JZ
JZ-25	10000 (1 Ma.)	200	1500	120	JZ
JZ-26	1000 (5 Ma.)	50	355	20	JZ

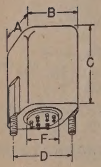


AF
AJ

SUB-MINIATURE AUDIO — Open Frame

Type No.	Primary Impedance	Secondary Impedance	DC Res. Ohms (Approx.) Pri.	DC Res. Ohms (Approx.) Sec.
TZ-1	600/250/50	60000	350	4100
●TZ-2XT	200 CT	200,000	35(t)	5000(t)
TZ-5	30/12/14	50000	11.5	3800
TZ-7	30/12/4	1000	5	480
TZ-13	15000 (1 Ma.)	135000 CT.	985	4400
TZ-15	20000 (.5 Ma.)	1200/600/100	2700	350
●TZ-24XT	25,000 CT	500 CT	2000(t)	60(t)
●TZ-17XT	10,000 CT	2000 CT	1000(t)	250(t)
●TZ-29XT	10,000 CT	10,000 CT	1100(t)	1400(t)
TZ-25	10000 (1 Ma.)	200	1500	120
●TZ-32XT	1500 CT	600 CT/150	160(t)	65(t)
TZ-26	1000 (5 Ma.)	50	355	20
TZ-28	600	50	95	11
●TZ-103XT	4 Hy. or 1 Hy.	—	400(t)	—
T-41X	1000 (10 Ma.)	200 CT.	430	130
T-42X	9800 (2 Ma.)	16	855	1.7
TY-44X	1000 (10 Ma.)	16/8/4	180	3.8
TY-47X	2000 CT	16/8/4	260	4

●New Item. (t) Tentative Data.

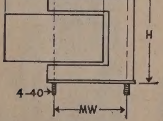


AG
AH

TRANSFORMERS FOR TRANSISTOR POWER SUPPLIES

Type No.	D.C. Volts Out of Rect.	D.C. Ma. Max.	Dimensions—Inches H	W	D	MW
*TY-68S	250	65	1-3/4	1-3/4	1-11/32	1-1/2
*TY-69S	300	100	1-7/8	2-3/8	1-7/8	1-1/2
*TY-70S	325	150	2	2-3/8	2-7/16	1-1/2
*TY-71S	375	200	2	2-3/8	2-7/16	1-1/2
*TY-74S	600	200	2	4-1/8	3	3-3/4

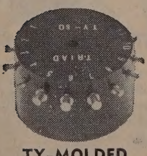
*Discontinued items. Available until supply exhausted.



TY-S

EPOXY MOLDED TOROIDAL TYPE

Type No.	D.C. Source Volts	D.C. Volts Out Of Rectifier	D.C. Ma. Max.	Dimension—Inches Dia.	Ht.	Wt. Lbs.
TY-78	12.6	250/125	100	1¾	11/16	.35
TY-79	12.6	300/150	200	1¾	1	.35
TY-80	12.6	325/162.5	150	1¾	1	.35
TY-81	12.6	375/187.5	200	2	1	.50
TY-82	12.6	450/225	150	2	1	.50
TY-83	12.6	500/250	250	2¾	1⅜	.85
TY-84	12.6	600/300	200	2¾	1⅜	1.00
TY-88	28	250/125	80	1 5/16	9/16	.25
TY-89	28	300/150	100	1¾	11/16	.35
TY-90	28	325/162.5	200	1¾	1	.35
TY-91	28	375/187.5	200	2	1	.50
TY-92	28	450/225	200	2	1	.50
TY-93	28	500/250	250	2¾	1⅜	.85
TY-94	28	600/300	200	2¾	1⅜	1.00
TY-99	6.3	300/150	100	1¾	1	.35
TY-100	6.3	325/162.5	150	2	1	.50
TY-101	6.3	375/187.5	200	2¾	1⅜	1.00
TY-102	6.3	450/225	150	2¾	1⅜	1.00


TY-MOLDED

†† MINIATURE AUDIO — "Trijets"

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.
T-1X‡	600/250/50	50000	0	60-15000
T-2X‡	600/250/50	250000	0	100-5000
T-3X	600/250/50	60000 CT.	0	60-15000
T-5X‡	30/12/4	50000	0	60-15000
T-11X	15000	50000	10	60-15000
T-12X	15000	60000 CT.	10	60-15000
T-13X	15000	95000 CT.	10	350-7000
●T-14X‡	200	500000	10	200-10000
●T-15X	15000	1 Megohm	10	150-15000
T-20X	15000	600/250/50	10	60-15000
T-21X	30000	50	10	60-15000
T-22X	15000	600/250/50	10	350-7000
T-23X	20000 CT.	600/250/50	10	50-16000
●T-24X	10000 CT.	2000 CT.	10	50-20000
●T-25X	12000 CT.	600 CT./150	10	50-10000
●T-26X	50000 CT.	600 CT./150	10	100-15000
T-31‡	600/250/50	600/250/50	10	60-15000
●T-32X	1500 CT.	600 CT./150	13	50-15000
T-33X‡	5000 CT.	5000 CT.	10	60-15000
●T-34X	500 CT.	500 CT./125	13	50-20000
●T-35X	600 CT.	2000 CT./500	13	50-20000
T-101X	50 henries @ .75 Ma.			
●T-102X	8 Hy.-3 Ma. or 2 Hy.-6 Ma.			

●New Item. ‡Static Shield.

††Low frequency loss will result from DC in windings other than where specified.

**See Case Chart on Triad Page 15

MINIATURES

TRANSISTOR TRANSFORMERS

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-23X	50000	.5	500 CT.	100 MW
TY-24X	50000	.5	3000 CT.	200 MW
TY-25X	100000	.5	200 CT.	200 MW
TY-26X	100000	.5	3000 CT.	200 MW
TY-27XT	500 CT.	2	500 CT.	10 MW
TY-28XT	500 CT.	2	200 CT.	10 MW
TY-29X	24 CT.	500	8/4	8W
TY-30X	100 CT.	100	8/4	2W
TY-31X	200 CT.	60	8/4	2W
TY-32X	200 CT.	2	2000 CT.	200 MW
TY-33X	400 CT.	5	16/8/4	200 MW
TY-34X	400 CT.	5	2000 CT.	200 MW
TY-35X	500 CT.	2	150 CT.	100 MW
TY-36X	2000	2	1500 CT.	200 MW
TY-37X	2000 CT.	4	8000 CT.	200 MW
TY-38X	3000 CT.	4	1000 CT.	200 MW
TY-39X	4000 CT.	4	16/8/4	200 MW
TY-40X	5000	1	200 CT.	100 MW
TY-41X	16000	1	4000	100 MW
TY-42X	20000	.5	8/4	100 MW
TY-43X	20000	.5	800 CT.	100 MW
TY-44X	1000	10	16/8/4	200 MW

Continued on TRIAD Page 2

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TRIAD DISTRIBUTOR DIVISION

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MINIATURES (Continued)

Type No.	Primary Matching Impedance	Primary Current MA	Secondary Matching Impedance	Maximum Level
TY-45X	500 CT.	5	16/8/4	200 MW
TY-46X	100	100	1000 CT.	250 MW
TY-47X	2000 CT.	10	16/8/4	200 MW
TY-48X	100 CT.	40	16/8/4	.5W
TY-49X	500 CT.	12	5000 CT.	300 MW
TY-50X	125000	0	2000 CT.	40 MW
TY-51X	2000 CT.	10	200 CT.	50 MW
TY-52X	20000 CT.	1	2000 CT.	100 MW
TY-53X	200 CT.	10	400 CT.	.6W
TY-54X	15000	1.5	200 CT.	100 MW
TY-55X	2000 CT.	2	500 CT.	200 MW
TY-56X	10000	1	2000 CT.	50 MW
TY-57X	250 CT.	10	16/8/4	200 MW
TY-58X	125 CT.	15	8/4	200 MW
TY-59X	5000 CT.	1	50000 CT.	200 MW
TY-60X	200000	0	1000	—10 DBM
TY-61X	100	100	100 CT.	.5W
TY-62X	10000	2	4	100 MW
TY-63X	48 CT.	550	16/8	5W
TY-64X	32 CT.	575	16/8/4	10W
TY-65Z	32 CT.	575	6K/4K/3K	10W
TY-66A	6 CT.	5A	6K/4K/3K	40W
TY-67A	6 CT.	5A	16/8/4	40W

†† JO SERIES — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-DBM	Freq. Resp.	Case
JO-1	600/250/50	50000	0	50-15000	JOA
JO-2	600/250/50	250000	0	10-15000	JOA
JO-3	600/250/50	60000 CT.	0	50-15000	JOA
JO-5	30/12/4	50000	0	50-12000	JOA
JO-11	15000	60000	10	50-15000	JOB
JO-12	15000	60000 CT.	10	50-15000	JOB
JO-13	15000-3 Ma.	95000 CT.	10	100-7000	JOB
JO-21	15000	600/250/50	10	50-15000	JOB
JO-22	15000-3 Ma.	600/250/50	10	300-7000	JOB
JO-23	20000 CT.	600/250/50	10	50-15000	JOB
JO-31	600/250/50	600/250/50	10	50-15000	JOB
JO-101	50 h.-2 Ma.				JOB

††Low frequency loss will result from DC in windings other than where specified.

DC TO AC TRANSISTOR TRANSFORMERS

Type	Primary	Secondary		
TY-75A	12v	115v	60cps	120 watts
TY-76A	12v	115v	60cps	60 watts
TY-468	28v	115v	400cps	60 watts
●**TY-462**	12v	115v	400cps	60 watts

●New Item.

POWER COMPONENTS

HERMETICALLY SEALED

Combined PLATE and FILAMENT Transformers
Primary 115V — 50/60 cycle

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	F Dim. (Min.) Inches	Case
HSM-200	120	100	6.3 CT.-1.6A.	1⅜	FA
†**HSM-201**	500 CT.	20	6.3 CT.-2A.	1⅜	GA
HSM-203	600 CT.	50	6.3 CT.-2.5A. 5 -2A.	1⅜	JB
HSM-205	700 CT.	70	6.3 CT.-3A. 5 -3A.	1⅜	JA
HSM-207	700 CT.	120	6.3 CT.-5A. 5 -3A.	1⅜	KA
HSM-241	700 CT.- 70V. bias tap.	150	6.3 CT.-6A. 6.3-V. -2A. 5 -3A.	1⅜	LA
HSM-212	1000/ 800 CT.	150 (ch. in.) 117 (cd. in.)	6.3/5-4A. 6.3 CT.-4A. 6.3-V-4A.	1⅜	LA
HSM-245	800/ 700 CT. 70 V. bias tap.	200	6.3 CT.-6A. 6.3-V. -4A. 5 -6A.	1⅜	MA
HSM-216	1000/ 800 CT.	200 (ch. in.) 157 (cd. in.)	6.3/5-4A. 6.3 CT.-5A. 6.3-5A.	1⅜	MA
HS-247	800/ 700 CT. 70 V. bias tap.	300	6.3 CT.-8A. 6.3-V. -4A. 5 -6A.	1⅜	GP-15
HSM-218	1000/ 800 CT.	300 (ch. in.) 235 (cd. in.)	6.3/5-6A. 6.3 CT.-6A. 6.3-6A	1⅜	GP-15
HSM-219	(115/ 230 pri.) 760/ 1600 CT.	40/230 (ch. input)		Spcl.	GP-15

† Low flux density—for pre-amplifier service. All types electrostatically shielded.
GP-15 dimens. 4¾″ x 5⅞″ x 6⅝″ high. Wt. approx. 22 lbs. Mtg. centers 3¾″ x 4⅞″.

Combined PLATE and FILAMENT Transformers
Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filaments	Insul. Test Volt.	F Dim. (Min.) Inches	Case
HS-402	475 CT.	20	6.3 CT.-1.5A.	1500	23/32	AJ
HS-401	500 CT.	40	6.3 CT.-1A. 6.3-1A	1500	⅞	EB
HS-405	600 CT.	70	6.3 CT.-2A. 6.3-2A. *6.3-2A.	1500	1⅜	GA
HS-407	600 CT.	120	6.3 CT.-3.5A. 6.3-3.5A. *6.3/5-3A.	1500	1⅜	JB
HS-409	700 CT.	150	6.3 CT.-4A. *6.3/5-3A.	1500	1⅜	HA
HS-413	450 CT.	200	6.3 CT.-6A. 6.3 -6A. *6.3/5-4A.	1500	1⅜	JA
HS-415	800/ 600 CT.	200	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1⅜	KB
HS-417	800/ 600 CT.	300	6.3 CT.-6A. 6.3-6A. 6.3/5-6A.	2500	1⅜	LA

* Tapped for 5 volt rectifier use. All types electrostatically shielded.

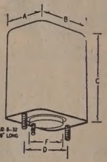
AUDIO INTERSTAGE Transformers

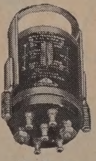
Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Max. Level Pri. Volts	Shld'g	Case
HS-23	15000	1:2.7	20-20000	15	P-3	GP-4
HS-25	15000	1:2.72 overall	20-20000	25	P-1	GP-4
HS-35	15000	1:2.72 overall	20-20000	20	P-1	GP-2
HS-27	20000/ 5000	1:1.72 overall	20-20000	50	P-1	GP-4
HS-29	20000/ 5000	1:2 overall	20-20000	20	P-5	GP-4
HSM-31	20000/ 5000	1:1 or 2:1	20-20000	240		FA
HS-32	15000 (6 Ma.)	1:2 overall	20-15000	20	P-1	GP-5

Low frequency loss will result from use of unbalanced DC in windings other than where specified.

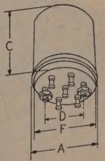
See Triad Page 15 for shielding data.

HS Series





JO Series



TRIAD PAGE 2

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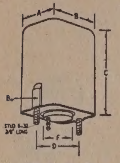
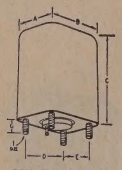
See Price List on Triad Pages 13, 14 & 15

TRIAD DISTRIBUTOR DIVISION

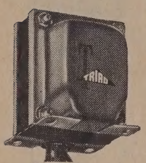
A DIVISION OF LITTON INDUSTRIES



GP 1, 2, 3



MIL-T-27A CASE



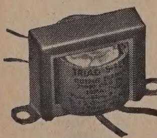
Case A

PL-4

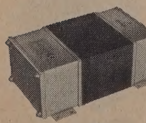
PL-5

PL-6
TRIAD
LOS ANGELES CALIF.

PL-6



Case X



Case SC

POWER OUTPUT to Line and VC.
Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Max. Level-Watts	Freq. Resp.	** Case
HS-71	10000 (10 Ma.)	600/150	2	150-15000	AH-2
HS-73	5000 (40 Ma.)	500/250/ 16/8/4	5	150-15000	AJ-2
HS-75	10000 CT. (50 Ma. bal.)	500/250/ 16/8/4	10	150-15000	EB
HS-77	9000 CT. (120 Ma. bal.)	500/250/ 16/8/4	25	150-15000	GA

LOW LEVEL AUDIO

AUDIO INPUT TRANSFORMERS
Hermetically Sealed

Type No.	Primary Imped.	Turn Ratio	Freq. Resp.	Max. Level DBM	Shld'g	** Case
HS-1	600*/250*/ 150/62.5	1:11.3	20- 20000	10	P-5	GP-4
HS-11	Same as above				P-1	GP-2
HS-3	600*/250*/ 150/62.5	1:14 overall	20- 20000	10	P-5	GP-5
HS-4	Same as above				P-3	GP-4
HS-14	Same as above				P-1	GP-3
HS-15	600*/250*/ 150/62.5 (10 Ma.)	1:8 overall	30- 20000	20	P-3	GP-5
HS-5	30-50	1:65.7	50- 10000	0	P-5	GP-4
HS-8	600*/250*/ 150/62.5	1:14 overall	20- 20000	20	P-1	GP-4

*Balanced center tap.

Low frequency loss will result from use of unbalanced DC in windings other than where specified. (See table on Triad Page 15 for shielding data.)

OUTPUT, MIXING, MATCHING, BRIDGING

Type No.	Primary Imped.	Secondary Impedance	Freq. Resp.	Max. Level DBM	Shld'g	** Case
HS-50	15000	600*/250*/ 150/62.5	20- 20000	26	P-3	GP-4
HS-60	15000	600*/250*/ 150/62.5	20- 20000	10	P-1	GP-2
HS-61	15000 (5 Ma.)	600*/250*/ 150/6.25	50- 15000	20	P-1	GP-5
HS-52	20000/ 5000	600*/250*/ 150/62.5	20- 20000	26	P-1	GP-4
HS-54	20000/ 5000	600*/250*/ 150/62.5	20- 20000	10	P-5	GP-4
HS-56	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10- 30000	20	P-3	GP-4
HS-66	600*/250*/ 150/62.5	600*/250*/ 150/6.25	10- 30000	20	P-1	GP-3
HS-58	600*/250*/ 150/62.5	600*/250*/ 150/6.25	20- 30000	15	P-3H	GP-5

* Balanced center tap.

Low frequency loss will result from use of unbalanced DC in windings other than where specified.

See table on Triad Page 15 for shielding data.

POWER COMPONENTS

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HSM-223	115	6.3	0.6	1500	AJ-2
HSM-225	105-115-125	6.3 CT.	2	1500	EA
HSM-226	105-115-125	6.3 CT.	3.6	1500	FA
●HSM-224	105-115-125	6.3 CT.	5.5	2000	HB
HSM-234	105-115-125	†6.3 CT. 6.3	10 10	2500	KA
HSM-227	105-115-125	†6.3 CT. 6.3	3 3	2500	GA
HSM-229	105-115-125	6.3 CT.	8	2500	JB
●HSM-233	105-115-125	12.6 CT.	.8	1500	EA
●HSM-237	105-115-125	12.6 CT.	2	2000	FA
HSM-230	105-115-125	24 CT.	0.8	1500	FA
●HSM-239	105-115-125	24 CT.	1.5	1500	GA
●HSM-240	115/230	†12.6 CT. †12.6	1.5 1.5	1500	GA
HSM-236	105-115-125	†12.6 CT. 12.6	2 2	2500	JB
HSM-228	105-115-125	†6.3 CT. 6.3	6 6	2500	JA
HSM-231	105-115-125	6.3 CT. 5 CT.	5 3	2500	JB

† Series or parallel connections. ●New Item.
** See case chart Triad Page 15.

POWER COMPONENTS (cont.)

HSM-235	105-115-125	2.5 CT. 10 CT.	10 10	7500 2500	MA
●HSM-238	105-115-125	†26 CT. †26	2 2	2000	JA

FILAMENT Transformers, 380/1500 cycle

Type No.	Primary Volts	Secondary Volts	Secondary Amperes	Insulation Test Voltage	** Case
HS-436	115	6.3 CT.	1	1500	AH
HS-425	105-115-125	6.3 CT.	2	1500	AJ-2
HS-427	105-115-125	6.3 CT.	5	1500	EA
●HS-445	105-115-125	12.6 CT.	2.5	2000	EA
HS-438	105-115-125	24 CT.	1.5	1500	EA
HS-433	105-115-125	*6.3 CT. *6.3	5 5	2500	FA
HS-435	105-115-125	*6.3 CT. *6.3 †6.3/5	3.5 3.5 3	2000	FA
HS-441	105-115-125	*5 CT. *5 2.5 CT.	10 10 10	2000 7500	HA
HS-443	105-115-125	*12.6 CT. *12.6	0.8 0.8	1500	AJ-2
HS-442△	57.5-99.7-115-120 Single phase.	*12.6 CT. *12.6	2 2	1500	EA
●HS-444△	57.5-99.7-115-120	*26 CT. *26 CT.	2 2	2000	FA

△ Two Units can be used, 115 volt 3 phase to 26 volt 2 phase, Scott-connected. * Series or parallel connection. † 5 volt tap for filament type rectifiers. ** See case chart on Triad Page 15. ● New Item.

HIGH FIDELITY OUTPUT

HIGH LEVEL OUTPUT — Hermetically Sealed

Type No.	Primary Impedance	Secondary Impedance	Freq. Resp.	Max. Level Watts	F Di. Min. In.	** Case
HSM-79	20000 CT. (20 Ma.) or 5000 (40 Ma.)	16/8/4	50-25000	5	1½	FA
HSM-80	20000 CT. (20 Ma.) or 5000 (40 Ma.)	500/ 250 CT. or 125/62.5	50-25000	5	1½	FA
HSM-81	8000 CT. Split primary.	16/8/4	15-30000	15	1½	JB
HSM-82	8000 CT.	500/ 250/125	15-30000	15	1½	JB
†HSM-181	8000/ 2000 CT. Split primary.	16/8/4	15-30000	15	1½	JB
†HSM-182	8000/ 2000 CT. Split primary.	500/ 250/125	15-30000	15	1½	JB
HSM-84	5000 CT.	16/8/4	15-30000	20	1½	JB
HSM-184	8000/ 2000 Split primary	16/8/4	10-50000	25	1½	KB
†HSM-189	10000/ 2500 CT. Split primary.	16/8/4	15-30000	25	1½	KB
†HSM-190	10000/ 2500 CT. Split primary.	500/ 250/125	15-30000	25	1½	KB
†HSM-186	6600 CT. Split primary.	16/8/4	10-50000	25	1½	KB
†HSM-187	6600 CT. Split primary.	500/ 250/125	10-50000	25	1½	KB

(Continued on next page.)

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HSM-94	4500 CT.	16/8/4	15-30000	55	1½	LA
†**HSM-192**	4000 CT. Split primary.	16/8/4	15-30000	65	1½	LA
†**HSM-193**	4000 CT. Split primary.	500/250/125	15-30000	65	1½	LA

† Williamson type circuit.
Proper taps on primary for screen operation.

HIGH LEVEL OUTPUT

Type No.	Primary Impedance	Secondary Impedance	Output Watts
S-34X	4000 CT.	32/16/8	7.5
S-31A	8000 CT.	16/8/4	15
S-32A	8000 CT.	500/250/125	15
†**S-142A**	8000 CT.	16/8/4	15
S-35A	5000 CT.	16/8/4	20
S-36A	5000 CT.	500/250/125	20
†**S-144A**	8000 CT.	16/8/4	25
†**S-146A**	6600 CT.	16/8/4	25
†**S-148A**	10000 CT.	16/8/4	25
S-42A	4500 CT.	16/8/4	50
†**S-152A**	4000 CT.	16/8/4	65
SR-45Z*	4000/2000/1000/500	16/8/4	10
S-46A	2000/1000/500/250	16/8/4	20

† Williamson type circuit. Proper taps on primary for screen operation, leads out both end bells.
* Replaces S-45Z.

LINE POWER

ISOLATION Transformers, 50/60 cycles

(See page 1429 for 380/1500 cycle isolation transformers)

Type No.	V. A. Output	Input Volts	Output Volts
N-51X	35	115	115
N-68X	50	230/115	115
N-53M	85	115	115
N-54M	150	115	115
N-67A	150	230/115	115
N-55M	250	115	115
N-66A	250	230/115	115
N-57M	500	115	115
N-59M	1000	115	115
†**N-52M**	350	95 to 130 (in 5V steps)	115
†**N-56M**	150	95 to 130 (in 5V. steps)	115

†With switch and meter for primary voltage control. Detachable cord.

N-469A	50	460/230	115
N-470A	150	460/230	115
N-471A	300	460/230	115

STEPDOWN Autoformers, 50/60 cycles

Type No.	V. A. Output	Input Volts	Output Volts
N-1X	50	230	115
N-3M	85	230	115
N-4M	150	230	115
N-5M	250	230	115
N-7M	600	230	115
N-9M	1250	230	115
N-11M	2000	230	115
N-34X	150	95/105/115/125/135	115
†**N-35M**	250	95 to 130 (in 5V. steps)	115
†**N-50M**	500	95 to 130 (in 5V. steps) With switch and meter.	115

† M case with switch for primary voltage control and detachable cord.

Note: Last letter of Type No. denotes case style.

FILTER REACTORS

Type No.	Current DC Ma.	Inductance *Henries	Resistance Ohms	Insulation Test Voltage
HSM-301	20	30	1000	1500
HSM-302	20	14	550	1500
HS-331	40	4	375	1500
HS-303	50	12	385	1500
HS-333	70	3	225	1500
HSM-305	70	15	300	2500
HS-335	120	3	150	1500
HSM-307	120	15	185	2500
HSM-309	150	9	115	2500
HS-339	200	3	105	2000
HSM-315	200	10	100	2500
HS-341	300	2	48	2000
HSM-319	300	10	85	2500

* Minimum Inductance—20%

PULSE TRANSFORMERS
BLOCKING OSCILLATOR TYPE

Type No.	Pulse Voltage per Winding	Pulse Duration—us	Load Impedance —Ohms
PL-4	100-100	.54 to .66	500*
PL-5	100-100-100	.36 to .54	2000*
PL-6	100-100-100	.36 to .54	2000*

* As blocking oscillator in Triad circuit. Can be used with lower impedances and higher peak power at lower duty cycle.

HIGH SPEED FERRITE TOROIDAL CORE LOW POWER

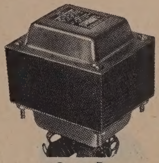
Type No.	Turns Ratio	Pulse Width μ Sec.	Rise Time μ Sec.	Repetition Rate	Suggested Load Ohms	Volts
PL-80E **PL-80H** **PL-80P**	1-1	.07	.03	1-2 Mc	200	15
PL-81E **PL-81H** **PL-81P**	2-1	.07	.03	1-2 Mc	200	20
PL-82E **PL-82H** **PL-82P**	3-1	.08	.03	1-2 Mc	100	15
PL-83E **PL-83H** **PL-83P**	4-1	.08	.03	1-2 Mc	100	15
PL-84E **PL-84H** **PL-84P**	5-1	.08	.03	1-2 Mc	100	15

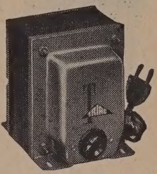
The letter "H" indicates Hermetically Sealed, the letter "P" indicates Miniature Plug-in and the letter "E" indicates Epoxy Molded.

SLOW SPEED SILICON CORE LOW POWER

Type No.	Pulse Voltage per Winding	Pulse Duration—μ Sec.	Load Impedance —Ohms
PL-124E **PL-124H**	300-300-300	.6 to 5	150
PL-140E **PL-140H** **PL-140M**	100-400-100	.6 to 5	175
PL-139E **PL-139H** **PL-139M**	100-100	.3 to 1.5	250
PL-146E **PL-146H** **PL-146M**	300-300	.6 to 5	250

Letter "M" indicates MIL type case. For pulse types only.


Case B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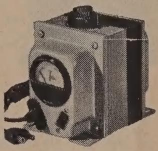
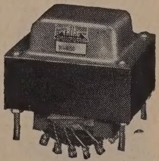
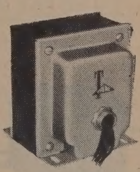

Case M with Meter


Case C


Case AC

TRIAD DISTRIBUTOR DIVISION

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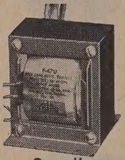
Instrument POWER SUPPLY Transformers

For PREAMPLIFIERS, VTVM, etc.

Primary 115 volts — 60 cycles

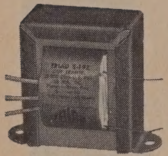


Case U

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes
R-68A	800 CT.	30	5V.-2A, 6.3V-1.2A, 6.3V-1.2A.
R-2C	135	15	6.3V-.9A.
R-23B	250 CT.	22	6.3-.8A. 15.5/12.6V-.6A.
R-3A	500 CT.	20	6.3V CT.-2A.
R-29A	230 CT.	40	6.3V.CT.-1.5A.
R-30X	135	50	6.3V.-1.5A.
R-54X	115	15	6.3V.-.6A.
R-56A	130	20	0/15/22.5/30V-6A.
R-73B	135	200	6.3V CT.-5.5A.

For CATHODE RAY Tubes

Primary 115 volts — 60 cycles



Case Z

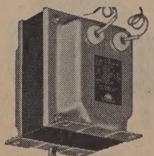
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Filament Windings Volts and Amperes	
R-41C	440-0- 440-1250.	125/5	*6.3V.-.6A. †2.5V.-1.75A. 5V.-3A.	†2.5V.-1.75A. 5V.-3A.
R-45C	400-0- 400-800.	30/5	*6.3V.-.6A. 6.3 CT.-3A. †5V.-2A	6.3V.-1A. 5V.-2A.
R-43C	1600	3	*6.3/5/2.5V.-1A. †6.3/5/2.5V.-3A.	

* Static shielded and insulated for full plate voltage.

† Insulated for full plate voltage.

For REGULATED POWER SUPPLIES

Primary 115 volts — 60 cycles



Case AL

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
R-70A	880 CT.	75	6.3V.-.6A. 6.3V.-.3A.	6.3V.-.9A. 6.3V.-3A.
R-26A	880-720 CT.	200	6.3 CT.-8A. 6.3V.-1A.	6.3V.-3A. 5V.-3A.
R-28A	1250 CT.	300	6.3 CT.-8A. 6.3V.-3A.	6.3V.-3A 5V.-6A.
R-46A	1250 CT. 130 (Bias winding)	350 50	5V.-4A.	6.3V.-4A. 6.3V.-1A. 6.3V.-1A.

R-46A will supply 550 V. D.C. using 2 5R4G rectifier tubes, choke input. Will also supply 130 V. for bias using Selenuim rectifier. Sufficient filament windings to regulate screen voltages.

Type No.	Plate Supply AC Volts	Plate Supply DC Ma. Choke Input	Filament Windings Volts and Amperes	
R-27A	1500 CT.	400	5V.-6A.	6.3V.-3A. 6.3V.-8A.

UNIVERSAL

Isolation, Autoformer, Voltage Control 50/60CPS

Case X

Type No.	V.A. (Isolation)	V.A. (Autoformer)
N-64AC	500	1000
N-62AC	1000	2000
N-60SC	2000	4000

SELENIUM RECTIFIER Transformers

Primary 60 cycles

These transformers are for use with Selenium rectifiers. Rectifiers *not* included.

Type No.	Primary Volts	Secondary AC Volts	Secondary Amperes RMS	Half Wave Volts DC	Full Wave Volts DC
F-47U	115	17-18	3	6-7	13-14
F-48U	115	17-18	6	6-7	13-14
F-49U	115	36 36	3 3	13	26
F-60U	115	6.5-13- 19.5-26	3 (int.)	9	18
F-61U	115	24-27-30 33-36	3	13	26
F-67U	110-120	24-27-30- 33-36	8	13	26
F-63U	115	8-9 8-9	2 2		6-7
F-64U	115	7-8-9	7		6-7
F-62U	105-115- 125	9-9-9-9	10 ea. wdg.		6-7 ea. wdg.
F-68U	115	9 CT. 9 9 9	3.5 3.5 3.5 3.5		6-7 ea. wdg.
F-65U	110-120	140-150-160	.75	60	115
F-66U	110-120	140-150-160	2.5	60	115
***F-79U**	115	24-26-28-30	15	—	22.8
F-80U	tapped for mult. sec.	12 to 18 or 24 to 36CT	40 20		
F-84AC	230-115	24CT or 12CT	10 20		
F-90X	115 tapped	40CT-20CT-10	100ma		
F-91X	115 tapped	40CT-20CT-10	300ma		
F-92A	115 tapped	40CT-20CT-10	1 amp		
R-93A	115	6.3CT (voltage doubler circuit) 150-160-170	6 (500ma)		
F-93X	115V tapped	40CT-20CT-10	750ma		
F-94X	115X tapped	40CT-20CT-10	35ma		

* Replaces F-69U

FILAMENT Transformers, Single Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts	Secondary Amperes	Test Volts
F-1X	2.5 CT.	3	1500
F-72Z	2.5 CT.	5	7500
F-6X	2.5 CT.	6	2500
F-3X	2.5 CT.	10	3000
F-5U	2.5 CT.	10	7500
F-71U	2.5 CT.	10	10000
F-7X	5 CT.	3	1500
F-8X	5 CT.	6	1500
F-12X	5 CT.	8	2500
F-9A	5.2 CT.	13	1500
F-10U	5 CT.	14	10000
F-9U	5.2 CT.	13	1500
F-15U	5 CT.	15	3000
F-11U	5.2 CT.	24	1500
F-13X	6.3	.6	1500
F-14X	6.3 CT.	1.2	2500
†F-52X	6.3	1.2	5000
†F-51X	6.3/5	2	5000
†F-53X	6.3	4	5000
F-16X	6.3 CT.	3	2500
F-18X	6.3 CT.	6	1500
F-18A	6.3 CT.	6	1500
F-19X	6.3/6 CT.	6	2000
F-21A	6.3 CT.	10	1500
F-20U	6.3/6 CT.	11	3000
F-22A	6.3 CT.	20	2000
F-24U	7.5/6.3 CT.	8	3000
F-28U	7.5/6.3 CT.	25	3000
F-23U	10 CT.	7	1500
F-29U	12/11/10 CT.	11	3000
F-25X	12.6 CT.	1.5	1500

(Continued on next page.)

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F-44X	12.6 CT.	2	1500
F-26X	12.6 CT.	2.5	1500
F-45X	24 CT	1	1500
F-41X	25.2 CT.	2	1500
F-40X	26.8 CT	1	1500
F-50X	Filament line transformer Pri. 6.3V/5V Sec. 6.3/5V 2A		5000
F-83A	12.6 CT. 12.6 CT.	5 5	1500

† Low capacity—High voltage for damper tube operation.

CHOKES

SWINGING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-31A	25/5	20/200	150	2500
C-33A	25/5	30/300	105	3000
C-32AL	20/4	35/350	105	5000
C-35A	20/4	40/400	60	3000
C-39A	25/5	50/500	65	3000
C-38AL	25/5	50/500	65	5000

SMOOTHING FILTER REACTORS

Type No.	Inductance Henries	Current Ma.	Resistance Ohms	Test Volts RMS
C-30X	50	15	3500	1500
C-2X	2	15	70	1500
C-1X	15	20	1000	1500
C-3X	10	50	500	1500
C-4X	4	50	360	1500
C-6X	5	65	330	1500
C-5X	12	75	390	1500
C-8X	7	75	240	1500
C-7X	10	90	270	1500
C-9X	4	90	100	1500
C-11X	6	110	160	1500
C-10X	9	125	250	1500
C-12X	6	160	165	1500
C-12A	6	160	165	1500
C-13X	3	160	75	1500
C-14X	6	200	150	1500
C-14A	6	200	150	1500
C-16A	10	200	150	2500
C-21X	1.5	225	65	1500
C-15X	4	250	100	1500
C-15A	4	250	100	1500
C-23X	1.2	260	45	1500
C-24X	1	240	50	1500
C-27X	.7	290	25	1500
•C-36X	.5	300	30	1500
C-17X	1.5	300	40	1500
C-18A	8	300	90	2500
C-19A	10	300	105	3000
C-25A	2.6	310	60	1500
C-42AL	8	350	105	5000
C-20A	6	400	60	3000
C-22A	10	500	65	3000
C-45AL	10	500	65	5000
C-40X	.32	600	10	1500
C-47U	.3-.075	1A-2A	3-.75	1500
C-48U	.08-.02	2.5A-5A	.57-.143	1500
C-49U	.032-.008	5A-10A	.19-.05	1500
C-80U	.024-.006	20A-40A	.096-.024	1500

ISOLATION Transformers

Primary 115V—400 cycle to operate 380 to 1500 cycles

Type No.	Secondary Volts	Amp.	V. A.	F Dim. (Min.) Inches	Case
HS-470	115	.35	40	1⅛	EA
HS-471	115	.7	80	1⅛	FA
HS-472	115	1.4	160	1⅛	GA
HS-474	115	2.6	300	1⅛	JA
HS-475	115	4.4	500	1⅛	KA

60 cycle — hermetically sealed

Type No.	secondary volts	amp.	V.A.	F dim. (Min.) inches	Case
HSM-270	105-115-125	.4	50	1	JB
HSM-271	105-115-125	1	125	1	KA
HSM-272	105-115-125	2	250	1⅜	NB

All isolation transformers electrostatically shielded.

FILAMENT Transformers, Multiple Secondary

Primary 115 volts — 60 cycles

Type No.	Secondary Volts and Amperes		Test Volts RMS
F-27U	10 CT.-10A.	2.5 CT.-10A.	1500 7500
F-30A	5 CT.-3A.	6.3 CT.-8A.	1500
F-32A	6.3 CT.-3A.	6.3 CT.-3A.	1500
F-34A	6.3 CT.-1.75A. 6.3V.-1.75A.	6.3V.-1.75A. 6.3V.-1.75A.	1500
F-36A	6.3 CT.-3.5A. 6.3V.-3.5A.	6.3V.-3.5A. 6.3V.-3.5A.	1500
F-38A	6.3 CT.-5A. 6.3V.-1A. 5V.-4A.	6.3V.-5A. 5 CT.-2A.	1500
F-42A	12.6 CT.-2.5A.	12.6-2.5A.	1500

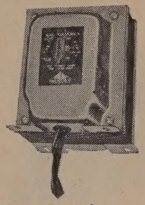
AUDIO INPUT TRANSFORMERS

Low Level Input

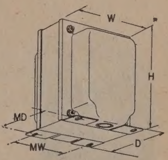
Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-9J	line or mike to grid	30-15000	600/250/50	12
A-10J	line to grid	30-15000	600/150 split wdgs.	10.5
A-11J	line or mike to grid 60-80DB shielding	30-15000	600/250/50	10
A-12J	same as A-11J	30-15000	600 CT./150 split windings	10
A-13J	line to transistor or line to line (70 db Shldg)	30-15000	600/300/ 200 CT./110/50 split windings	1
A-40J	par. fed 6J5 or 6SN7 plate to P.P. grids	30-15000	15000	2.76
A-41J	same as A-40J 8ma DC in primary			2.3
A-50J	pp plates to voice coil	30-15000	10000 CT.	35.3
A-52J	line or transistor to line or transistor	30-15000	500/CT./125 20 MA. D.C. Split Winding	2
A-55J	par. fed 6J5 or 6SN7 to line	30-15000	15000	5
A-56J	lin or transistor to Voice Coil	30-15000	500 CT./125 20 MA. D.C. Split Winding	5.6
A-57J	line to line	30-15000	600/250/50	1
A-58J	pp plates or transistors to line or transistors	30-15000	10000 CT./2500 Split Winding	2.24
A-64J	line or transistor to transistor	30-15000	100 CT.*25 30 MA. D.C. Split Winding	1.58
A-65J	par. fed 6J5 or 6SN7 to line	30-15000	15000 CT.	5
A-66J	same as A-65J— 5 ma DC in primary	40-15000	15000	5
A-67J	line to line	30-15000	600 CT./150 split windings	1
A-68J	pp plate to line 4 ma DC in primary	30-15000	15000 CT.	5
A-69J	pp plates or bridging to line 3 MA. D.C. in Primary	30-15000	25,000 CT./ 6250 Split Winding	7.1
A-70J	line or transistor to line or transistor	30-15000	500 CT./125 15 MA. D.C. Split Winding	2.24
A-77J	Audio choke — dual winding	250 henries - 5 ma DC 62.5 henries - 10 ma DC		
A-78J	output pp transistors to line	30-15000	2000CT	1.82
A-79J	Transistor interstage 10ma in primary	40-15000	1000	2.2

Line or Microphone to Grid

Type No.	Application	Frequency Response	Primary Impedance	Turn Ratio
A-1X	Line or single button mike to grid.	300-3000	100	31.4
A-3X	Line or D.B. mike to grid.	300-3000	400 CT.	22.1
A-4X	Line to grid.	300-3000	500/200/ 67.5 CT.	12
A-5X	Single button mike to p.p. grids—Hi-gain.	300-3000	100	84
A-6X	Speaker V.C. to grid.	300-3000	8/3.2	79
A-7J	Voice coil to grid	300-3000	3.2	124



Case A



Case A

Triad J Series offers flexibility enabling your amplifiers to exceed broadcast standards. Although economy in construction has cut costs, these transformers approach and closely approximate performance characteristics found in more costly hermetically sealed parts. Single hole mounting provides for rotation for maximum reduction of hum . . . alloy shielding gives you 40-60 db hum reduction (60-80 db in Types A-11J & A-12J) . . . you can obtain wide frequency ranges . . . flexible leads facilitate ease in mounting . . . input units are electrostatically and magnetically shielded . . . light weight and encased in Triad's satin smooth baked gray enamel cases, 1⅜" diameter, 1¾" above chassis . . . legible circuit diagrams are permanently affixed to every case.

TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

AUDIO OUTPUT TRANSFORMERS

Line to Voice Coil

Type No.	Primary Impedance	Output Imped.	Output Watts	Freq. Resp.
S-23X	50 (autoformer).	3.2	1	300-3000
S-26X	500/50 (autoformer).	3.2	4	300-3000
S-65X	500	8/4	5	300-7000
S-66X	500 (autoformer).	16/8/4	3	100-5000
S-76Z	250/125/62.5/31	16/8/4	10	40-15000
S-77U	500 CT./125 split wdgs.	32/16/8/4/2	30	40-15000

POWER

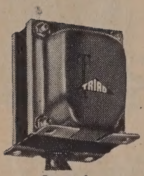
Combined PLATE and FILAMENT Transformers

Primary 115 volts — 60 cycles

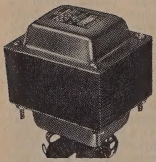
Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Fil. Volts	Rect. Fil. Amp.	Other Fil. Volts	Other Fil. Amp.
R-22A	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-22B	380/320 CT.	70	6.3	.6	6.3 CT.	3
R-4A	500 CT.	40			6.3 CT.	2
R-4B	500 CT.	40			6.3 CT.	2
R-5A	600 CT.	65			6.3 CT.	2.7
R-5B	600 CT.	65			6.3 CT.	2.7
R-6A	480 CT.	50	5	2	6.3 CT.	2
R-6B	480 CT.	50	5	2	6.3 CT.	2
R-7A	600 CT.	50	5	2	6.3 CT.	2
R-7B	600 CT.	50	5	2	6.3 CT.	2
R-8A	500 CT.	75	5	2	6.3 CT.	2.5
R-8B	500 CT.	75	5	2	6.3 CT.	2.5
R-9A	600 CT.	75	5	2	6.3 CT.	3
R-9B	600 CT.	75	5	2	6.3 CT.	3
R-10A	525 CT.	90	5	2	6.3 CT.	5
R-10B	525 CT.	90	5	2	6.3 CT.	5
R-11A	700 CT.	90	5	2	6.3 CT.	3.5
R-11B	700 CT.	90	5	2	6.3 CT.	3.5
R-12A	550 CT.	110	5	2	6.3 CT.	5
R-12B	550 CT.	110	5	2	6.3 CT.	5
R-14A	700 CT.	125	5	3	6.3 CT.	4.5
R-14B	700 CT.	125	5	3	6.3 CT.	4.5
R-16A	700 CT.	160	5	3	6.3 CT.	5
R-16B	700 CT.	160	5	3	6.3 CT.	5
R-17A	750 CT. 80 Tap	160	5	3	6.3 CT. 2.5 CT.	5 5
R-18A	750 CT.	175	5	3	6.3 CT.	8
R-18B	750 CT.	175	5	3	6.3 CT.	8
R-19A	750 CT. 80 Tap	200	5	3	6.3 CT. 2.5 CT.	6 10
R-20A	700 CT.	200	5	3	6.3 CT.	8
R-20B	700 CT.	200	5	3	6.3 CT.	8
R-72A	800 CT.	140	5	3	6.3 CT.	4
R-21A	800 CT.	200	5	3	6.3 CT.	6
R-21B	800 CT.	200	5	3	6.3 CT.	6
R-24A	800 CT.	300	5	6	6.3 CT.	6
R-24B	800 CT.	300	5	6	6.3 CT.	6
R-25A	800 CT.	500	5	6	6.3 6.3 CT.	3 7
R-58A	875 CT.	185	5	3	6.3 6.3	4 3
R-71A	900 CT.	250	5 CT.	4	6.3 CT. 6.3	2 4
R-93A	150-160-170	500 250	Silicon Rectifier Voltage doubler		6.3 CT.	6

Combined PLATE and FILAMENT Transformers "100" Series

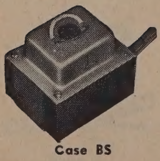
Never have the outstanding features of Triad Combined Plate and Filament Power Transformers been available at such realistic costs. No quality or performance requirement has been overlooked... specify Triad and be certain. Shielding, impregnation, chatter freedom ... to Triad's demanding quality control standards.



Case A



Case B



Case BS

PRIMARY 115 VOLTS 60 CYCLES

Type No.	Plate Supply AC Volts	Plate Supply DC Ma.	Rect. Filaments Volts	Rect. Filaments Amp.	Other Filaments Volts	Other Filaments Amp.	Case Dim. H	Case Dim. W	Case Dim. D	Mtg. Dim. MW	Mtg. Dim. MD	Wt. Lbs.
R-104A	500 C.T.	40			6.3 V.C.T.	2	2¾	2⅜	2¼	1¾	1½	1.55
R-104B	500 C.T.	40			6.3 V.C.T.	2	1⅝	2¾	2¼	2 3/16	1¾	1.55
R-105A	600 C.T.	65			6.3 V.C.T.	2.7	3⅛	2⅝	2½	2	1¾	2
R-105B	600 C.T.	65			6.3 V.C.T.	2.7	1¾	3 1/16	2⅝	2½	2	2
R-106A	480 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2⅜	2	1⅝	2.05
R-106B	480 C.T.	50	5	2	6.3 V.C.T	2	1⅝	3 1/16	2⅝	2½	2	2.05
R-107A	600 C.T.	50	5	2	6.3 V.C.T.	2	3⅛	2⅝	2½	2	1¾	2.35
R-107B	600 C.T.	50	5	2	6.3 V.C.T	2	1¾	3 1/16	2⅝	2½	2	2.35
R-108A	500 C.T.	75	5	2	6.3 V.C.T.	2.5	3⅛	2⅝	2⅝	2	1⅞	2.4
R-108B	500 C.T.	75	5	2	6.3 V.C.T.	2.5	1⅞	3 1/16	2⅝	2½	2	2.4
R-109A	600 C.T.	75	5	2	6.3 V.C.T.	3	3½	3	2⅞	2¼	1¾	2.9
R-109B	600 C.T.	75	5	2	6.3 V.C.T.	3	1¾	3 7/16	2⅞	2 13/16	2¼	2.9
R-110A	525 C.T.	90	5	2	6.3 V.C.T.	5	3½	3	3¼	2¼	2	3.25
R-110B	525 C.T.	90	5	2	6.3 V.C.T.	5	2	3 7/16	2⅞	2 13/16	2¼	3.25
R-111A	700 C.T.	90	5	2	6.3 V.C.T.	3.5	3½	3	3¼	2¼	2	3.55
R-111B	700 C.T.	90	5	2	6.3 V.C.T.	3.5	2	3 7/16	2⅞	2 13/16	2¼	3.55
R-112A	550 C.T.	110	5	2	6.3 V.C.T.	5	3½	3	3⅜	2¼	2⅛	3.7
R-112B	550 C.T.	110	5	2	6.3 V.C.T	5	2⅛	3 7/16	2⅞	2 13/16	2¼	3.7
R-113A	650 C.T.	40	5	2	6.3 V.C.T.	2	3⅛	2⅝	2¾	2	1¾	2.3
R-113B	650 C.T.	40	5	2	6.3 V.C.T.	2	2	3	2½	2½	2	2.3
R-114A	700 C.T.	125	5	3	6.3 V.C.T.	4.5	3⅞	3¼	3¼	2½	2⅜	4.7
R-114B	700 C.T.	125	5	3	6.3 V.C.T.	4.5	2½	3¾	3⅛	3⅛	2½	4.7
R-115A	680 C.T.	70	5	2	6.3 V.C.T.	2.5	3⅝	3	3⅜	2¼	2⅛	3.5
R-115B	680 C.T.	70	5	2	6.3 V.C.T.	2.5	2	3 7/16	2⅞	2 13/16	2¼	3.5
R-116A	700 C.T.	160	5	3	6.3 V.C.T.	5	3⅞	3¼	3⅝	2½	2⅝	5.65
R-116B	700 C.T.	160	5	3	6.3 V.C.T.	5	2⅝	3¾	3⅛	3⅛	2½	5.65
R-118A	750 C.T.	175	5	3	6.3 V.C.T.	8	4¼	3⅝	4	2¾	2⅞	7.45
R-118B	750 C.T.	175	5	3	6.3 V.C.T.	8	2⅞	4⅛	3½	3 7/16	2¾	7.45
R-120A	700 C.T.	200	5	3	6.3 V.C.T.	8	4¼	3⅝	4⅛	2¾	2⅞	8.25
R-120B	700 C.T.	200	5	3	6.3 V.C.T.	8	3	4⅛	3½	3 7/16	2¾	8.25
R-121A	800 C.T.	200	5	3	6.3 V.C.T.	6	4¼	3⅝	4⅜	2¾	3¼	8.25
R-121B	800 C.T.	200	5	3	6.3 V.C.T.	6	3¼	4⅛	3½	3 7/16	2¾	8.25

See Price List on Triad Pages 13, 14 & 15

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PLATE POWER Transformers
Primary 115 volts — 60 cycles

Type No.	Secondary Volts		Sec. D.C. Ma.		Rect. Fil.
	AC	DC	CCS	ICAS	
P-1A	440/220 CT.	180/90	160	190	5V-3A
P-3A	600/300 CT.	250/125	300	360	5V-4A
P-5A	1100 CT.	400	250	310	5V-4A
P-7A	1235 CT.	500	250	310	5V-4A
P-9A	1235 CT.	500	500	600	5V-6A
P-11A	1455 CT.	600	250	310	
•P-213AL*†	1780 CT.	750	250	310	
§P-14A	1780 CT.	750/600	250	310	
•P-215AL*†	2340 CT.	1000	250	310	
•P-216AL"†	2430 CT.	1000	500	600	
•P-217AL*†	2880 CT.	1250	250	310	
•P-218AL*†	2880 CT.	1250	500	600	
•P-220AL*†	3300 CT.	1500	350	425	
*PR-21AL	3300 CT.	1500	500	600	

† Plate leads out side of case for 866 rectifiers.
§ Tapped Pri. to produce the lower D.C. voltage.
•New Item
*Pri. Is 230/115V.

TELEVISION COMPONENTS

Replacement POWER Transformers, Combined Plate and Filament

Electrostatically shielded. Primary 115 volts 60 cycles.

Type No.	Plate Supply		Filaments — Volts and Amperes	
	AC Volts	DC Ma.		
R-37BC	735 V.C.T.	275	5V.—6A.	6.3V.—8.5A. 6.3V./5V.—2A.*
R-38A R-38BC	750 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-39BC	640 V.C.T.	225	5V.—3A.	6.3V.—10A. 6.3V.—1.2A.*
R-40BC	780/440 V.C.T.	300	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—8.5A. 6.3V.—3.5A.
R-42BC	675 V.C.T.	185	5V.—3A.	6.3V.—7A. 6.3V.—2A.*
R-49BS R-49BC	650 V.C.T.	240	5V.—3A.	6.3V.—9A. 6.3V.—0.9A. 6.3V.—1.2A.*
R-50A R-50BC	790/650 V.C.T.	310	5V.—3A. 5V.—3A. 5V.—2A.	6.3V.—5A. 6.3V.—5A. 6.3V.—2.6A.
R-51BC	505 V.C.T.	320	5V.—6A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-52BC	600 V.C.T.	270	5V.—3A.	6.3V.—5A. 6.3V.—5A. 6.3V.—1.2A.*
R-60BC	460 V.C.T.	300	5V.—6A.	6.3V.—10A. 6.3V.—1.2A.* 6.3V.—2.5A.
R-61BC	560 V.C.T.	275	5V.—6A.	6.3V.—6A. 6.3V.—6A. 6.3V.—1.2A.*
R-62BC	680 V.C.T.	290	5V.—6A.	6.3V.—10A. 6.3V.—1.5A. 6.3V.—1.2A.*
R-64BC	520 V.C.T.	270	5V.—3A.	6.3V.—10A.
R-65BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-66BC	580 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-67BC	600 V.C.T.	250	5V. —3A.	6.3V. —9A.
R-69BC	550 V.C.T.	270	5V. —3A.	6.3V. —10A.
R-74BC	680 V.C.T.	190	6.3V.—7.8A. 6.3V.—1.2A. (damper wdg)	5V.—3A.
R-75BA	560 .C.T.	280	5V.—3A.	6.3V.--9.5A.
R-79BA	127V.	1000	6.3V.-2A 6.3V.-10A.	12.6V.-2A 12.6V.CT.-2A.
R-80BA	500V.CT.	300	5V.-6A 6.3V.-2.0A	6.3V.-8A 6.3V.-5A
R-86BA	117/129*141 multi-purpose	1000	6.3V.-6A 6.3V.-6A	12.6V.CT.-2A

* Less than 100 m.m.f.d. capacity to ground and insulated for high voltage damper tube.
Height of transformers in BC cases is measured from chassis line to top of case. Copper shading ring on all BC cases to reduce external magnetic field.

Note: Last letter of Type No. denotes case style.

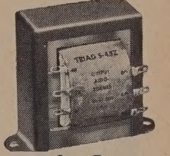
AUDIO

Triad Replacement Output Transformers furnish a wide range of size and mounting characteristics . . . specifically engineered for mounting in precise location in chassis. Climatite treated . . . manufactured to exacting quality standards of more costly types . . . progressively designed for advanced circuitry and audio tubes . . . total complete coverage over Impedance and wattage ranges . . . Triad units provide finest response in minimum space . . . and outlive all others.

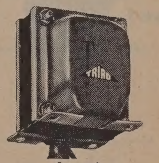
REPLACEMENT OUTPUT TRANSFORMERS

Single Tube To Standard Voice Coil 3-4 Ohms

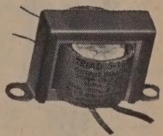
Type No.	Primary Impedance	D.C. Ma	Audio Watt
S-20X	2000	50	2-3
S-20Z	2000	50	2-3
S-2X	2000	55	3-5
S-12X	2500	50	2-3
S-12Z	2500	50	2-3
S-1X	2500	60	3-5
S-16X	3000 5% Tap	50	2-3
S-30X	3000	60	3-5
S-67X	3200	60	4-6
S-4X	3000	70	5-8
S-14Z	4000	50	2-3
S-41X	4000	50	3-5
S-41Z	4000	50	3-5
S-6X	5000	35	2-3
S-6Z	5000	35	2-3
S-3X	5000	40	3-5
S-5X	5000	50	5-8
S-5Z	5000	50	5-8
S-48X	6500	35	2-3
S-48Z	6500	35	2-3
S-49X	6500	35	3-5
S-7X	7500	30	3-5
S-9X	7500	50	5-8
S-9Z	7500	50	5-8
S-8X	8000	30	2-3
S-8Z	8000	30	2-3
S18X	8000	45	4-6
S-18Z	8000	45	4-6
S-11X	10000	30	2-3
S-11Z	10000	30	2-3
S-17X	10000	30	3-5
S-10X	10000	45	4-6
S-40X	14000	5.5	¼
S-38X	16000	15	2-3
S-38Z	16000	15	2-3
S-37X	25000	4.0	¼
S-13X	25000	10	2-3
S-13Z	25000	10	2-3



Case Z



Case A



Case X

REPLACEMENT PUSH-PULL OUTPUT TRANSFORMERS

Push-Pull Tubes To Voice Coil 3-4 Ohms

Type No.	Impedance	D.C. MA. Each Side	Audio Watts
S-39X	12000 CT.	30	3-4
S-64X	6000 CT.	40	4-6
S-15X	10000 CT.	35	7-10
S-19Z	10000 CT.	50	10-14
S-68Z	3000/3800 CT.	90	15-18
S-69Z	5000 CT.	60	15-18
S-21A	8000 CT.	55	15-18
S-21Z	8000 CT.	55	15-18

TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

AUDIO

LOW LEVEL OUTPUT Transformers

Type No.	Application	Freq. Resp.	Pri. Imped.	Second. Imped.
A-51X	Tube to line.	300-3000	7000	50
A-53X	Single or p.p. tubes to line.	70-7000	18000 CT.	600/250/50
A-54X	P.P. Tubes to V.C.	150-30000	7700 CT.	8/4
A-55J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding	30-15000	15000	600/250/50
A-65J	Parallel-fed 6J5 or 6SN7 to line. 45 db. shielding.	30-15000	15000	600/150 Split winding
S-58X	Line to line.	300-3000	600/ 150	600/ 150 —Split windings—
A-67J	Line to line. 45 db. shielding.	30-15000	600/ 150	600/ 150 —Split windings—

Case X

SPLATTER Chokes

Type No.	Inductance Henries	Current Ma.	Res. Ohms	Wt. Lbs.
C-26X	Tapped .2 to 1.5	100	95	1¼
C-43X	Tapped .05 to 1	300	40	2

Case J

UNIVERSAL OUTPUT Transformers

Single Or Push-Pull Tubes To Voice Coil

Type No.	Application	Impedance	DC MA	Audio Watts
S-62X	Single or P.p. plates	2000-10000	30	2
S-52X	Single or p.p. plates	4000-24000	30	4
S-51X	Single or p.p. plates	4000-14000	35	5
S-63X	Single or p.p. plates	1500- 7000	50	6
S-54X	Single	1500- 5000	70	8
S-53X	Single or p.p. plates	4000-14000	40	8
S-55X	P.p. plates	4000-14000	40	10
S-55Z	P.p. plates	4000-14000	40	10
S-56Z	Single	1500- 6000	85	12
S-59Z	P.p. plates	1500- 4000	65	15
S-57Z	P.p. plates	4000-14000	55	15
S-61Z	P.p. plates	4000-10000	60	20

Case P

PLUG-IN INPUT Transformers

Type No.	Application	Pri. Imped.	Second Imped.	Freq. Resp.	Shld'g
A-200P	Line or mike to grid.	200/50 CT. △	36,000	30-20000	70 db.
A-202P	Same as above.	200/50 CT. △	36,000	20-20000	90 db.
HS-273P	Same as above.	200/50 CT. △	80,000	30-30000	70 db.
A-210P	Stereo Isolation	1:1 ratio	30,000	20-20000	45 db.

△ Split Winding

INTERSTAGE Transformers

Plate to Grid

Type No.	Application	Freq. Resp.	Pri. Imped.	Second Imped.	Ratio
A-31X	Plate to single or p.p. grids	300-3000	10000	90000CT	1 : 3
A-33X	Plate to single or p.p. grids	70-7000	10000	90000CT	1 : 3
A-42Z	Multi-ratio single or p.p. plates to single or p.p. grids.	70-7000	15000 CT.	135000C.T. or 33750	1 : 1.5 1 : 3 1 : 6
A-35A	Plate to single or p.p. grids	50-10000	10000	90000CT	1 : 3
A-39A	P.p. plates to p.p. grids	50-10000	20000 CT.	45000CT	1 : 1.5
A-40J	Parallel-fed 6J5 or 6SN7. Plate to p.p. grid 45 db. shielding.	30-15000	15000	115000CT	1 : 2.76

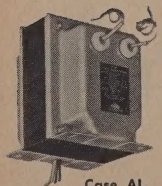
MODULATION Transformers

Tube to RF Load

Type No.	Primary	Freq. Resp.	Secondary		Aud. Wtts.
			Impedance	Ma.	
TY-65Z	32 CT. (575 Ma.) (Transistor use)	70-15000	3000-4000-6000	100	10
M-4Z	5000 (Auto-former).	300-3000	6750 4	100 (total)	10
M-5Z	5000 (Auto-former).	300-3000	6750 4	165 (total)	20
M-1X	10000 CT. for 19, 1J6, 6N7, 6A6, etc.	300-3000	5000-8000-10000	50	5
M-3X	10000 CT. for 6N7, 6A6, 6F6's, etc.	300-3000	3000-5000-8000	100	20
TY-66A	6 CT. (5A) (Transistor use)	300-3000	3000-4000-6000	200	40
†M-7AL	4250 CT. for 807's	300-3000	3000-5000-8000	200	60
M-15A	Multi-match	300-3000	4000 to 20000	150	30
†M-12AL	Multi-match	300-3000	4000 to 20000	300	125

DRIVER Transformers

Type No.	Driver Tubes	Output Tubes	Frequency Response	Ratio Primary ½ Sec.	Primary D.C. Ma.
A-81X	30, 1H4, etc.	19, 30's, 1J6, etc.	200-20,000	2.66:1	15
A-83X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	70-7000	1.33:1	40
A-85X	6F6, 42, 45, etc.	6L6, 6F6, 6V6, 807, etc.	50-10000	2.66:1	40
A-89A	P.p. plates to class B or AB grids—Universal 15 watt.	Any class B or AB tubes. 100-500 watts output	50-10000	3.1 or 1.8:1	100 per side
TY-61X	Transistor use		70-10000	1:0.5	100



Case AL

†Plate leads out side

See Price List on Triad Pages 13, 14 & 15

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TRIAD DISTRIBUTOR DIVISION

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OUTPUT Transformers

Tube to Voice Coil and Line

Type No.	Tubes	Pri. Imped.	Sec. Imped.	DC Pri.	Audio Watts
S-27A	2A3, 6A3, 6B4, 6L6, 6U6, 6Y6, 12A5, 25B6, 35B5, 50A5.	2500	500/16/8/4	80	8
S-28X	2A5, 6AC5, 6B5, 6F6, 6K6, 7B5, 14A5, 25AC5.	7500	500/16/8/4	40	5
S-29X	6AQ5, 6AS5, 6V6, 7C5, 25A6, 25B5, 25L6, 25N6, 35A5, 35L6.	5000	500/16/8/4	45	5
S-22A	P.p. 2A3, 6B4, 6A5, 6L6, etc.	5000 CT.	500/16/8/4	100 (bal.)	15
S-24A	P.p. 6V6, 7C5, 6K6, 6F6, etc.	8000 CT.	500/16/8/4	80 (bal.)	15
S-60A	P.p. 6L6, 5881, 807, etc.	6600 CT.	500/250/16/8/4	120 (bal.)	35

70.7 volt Line to Voice Coil

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-70Z	Autoformer 16000/8000/4000/2000/1000.	8/4	5	40-15000
S-71Z	Autoformer 4000/2000/1000/500.	16/8/4	10	40-20000
S-25Z	Autoformer 4000/2000/1000/500.	8/4	10	30-20000
SR-45Z	Autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
SR-74K	Weatherproof autoformer 4000/2000/1000/500.	16/8/4	10	20-20000
S-72Z	Autoformer 2000/1000/500/250.	16/8/4	20	40-20000

70.7 volt Line to Voice Coil (Cont.)

Type No.	Primary Impedance	Sec. Imped.	Output Watts	Freq. Resp.
S-46A	Autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-75K	Weatherproof autoformer 2000/1000/500/250.	16/8/4	20	20-20000
S-78Z	Isolation 4000/2000/1000/500.	16/8/4	10	40-20000
S-79Z	Isolation 2000/1000/500/250.	16/8/4	20	40-20000
S-47Z	10K/5K/2.5K/1250/625	16/8/4	8	20-20000
S-73X	Isolation 16K/8K/4K/2K/1K	16/8/4	5	40-15000

25 VOLT LINE TRANSFORMERS

Type No.	Primary Matching Impedance	Secondary Load Impedance	Output Watts
S-131X	1250/625/312	8/4	2
S-132X	1000/500/250/125	16/8/4	5
S-133Z	500/250/125/62.5	16/8/4	10

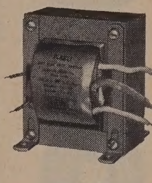
MATCHING TRANSFORMERS FOR 25 OR 70.7 VOLT LINE

S-129Z	70.7V line to 25V line or, 25V line to 70.7V line	30	20-15000
S-130Z	70.7V line to 25V line or, 25V line to 70.7V line	10	20-15000

Special TRANSCEIVER Transformers

(Voice Frequencies)

Type No.	Application	Primary Impedance	Secondary Impedance
A-21X	S.B. mike or plate to grid (2 primaries)	100 10000	100000
A-23X	Tube to line and hi-impedance phones.	10000	50 and 2000



Case U

INSTRUMENTATION GEOFORMERS

LOW FREQUENCY TRANSISTOR TRANSFORMERS

Type No.	Impedance Ohms Pri.	Impedance Ohms Sec.	Turns Ratio	Min. pri. Ind. @ 100MV—60 cy. With No Unbalanced D.C. Current	D.C. Resistance (Ohms) Pri.	D.C. Resistance (Ohms) Sec	1 Ma. −3DB	1 Ma. −1DB	2 Ma. −3DB	2 Ma. −1DB	3 Ma. −3DB	3 Ma. −1DB	5 Ma. −3DB	5 Ma. −1DB	Shielding	Case Mtg.	Wt.
							Frequency Response in Cycles Primary Signal of 1 Volt Unbalanced D.C. Secondary Current of										
G-18	1000 or 250	125 or 31	2:83:1	60.	500	44	5 to 20000	8 to 7000	5 to 20000	8 to 7000	6 to 20000	9 to 7000	7 to 20000	10 to 7000	P1-H	GP-1F	3.2 oz.
G-19	1000 or 250	1000 or 250	1:1	65.	540	230	12 to 7000	15 to 3800	12 to 7000	15 to 3800	12 to 7000	15 to 3800	20 to 7000	40 to 3800	P1-H	GP-2L	5¼ oz.
G-30	1000 CT.	2500 CT.	1:1.58	20.	350	1800	20 to 8000	40 to 4200	22 to 8000	45 to 4200	40 to 8000	75 to 4200	70 to 8000	160 to 4200	P1	GP-1F	3.2 oz.

CHOPPER INPUT TRANSFORMERS

Triad Chopper Input Transformers provide exceedingly close balance between the two halves of the primary winding . . . minimum noise in microvolt ranges of input signals is assured with Triad's special core treatment techniques. For demanding transistor and tube applications, Triad's special design capabilities have an outstanding record. For special applications, consult Triad.

Type No.	Turns Ratio	Minimum Primary Inductance @ 1V—60	Maximum Primary Volts @ 60	Primary Matching Impedance In Ohms	Secondary Matching Impedance In Ohms	D.C. Resistance Primary In Ohms	D.C. Resistance Secondary In Ohms	Stray Fields Shield	Case and Mounting	Weight
G-20‡ **G-20H‡**	1:8	120 h.	25	10,000 CT or 2500	640,000 CT	370	21,000	P5-H P1-H	GP-4T GP-2L	11½ oz. 5¼ oz.
G-21‡ **G-21TS‡**	4:1	1200 h.	84	20,000 CT	12,500 CT	4000	1300	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-22H‡ **G-22‡**	1:4	1000 h.	90	50,000 CT	800,000 CT	2200	19,000	P1-H P5-H	GP-3R GP-5W	7¾ oz. 1 lb.
G-23‡ **G-23TS‡**	6.32:1	1000 h.	75	40,000 CT	1000 CT	4400	160	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.
G-24‡	1:1	400 h. Low capacity coupling less than .02 $\mu\mu F$ between windings.	19.5	40,000 CT	40,000 CT	1625	1625	P5	GP-5S	1 lb.
G-25‡ **G-25TS‡**	2:1	800 h.	70	40,000 CT or 10,000 CT	10,000 CT	3200	2200	P1-H P5-H	GP-2L GP-4T	5¼ oz. 11½ oz.

‡Static Shield

TRIAD DISTRIBUTOR DIVISION

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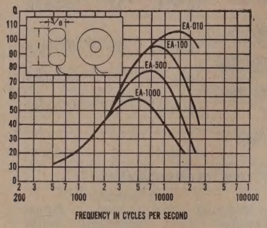
TOROIDS

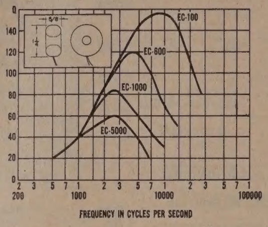
A

TOROIDS

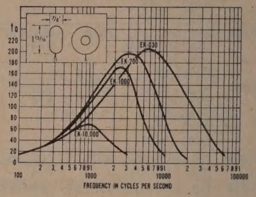
EA SERIES



EC SERIES



EK SERIES



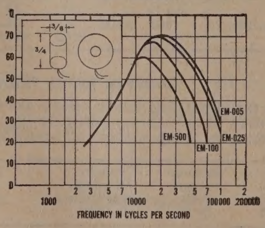
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EA-001	1 mh	.40	270
EA-002	2 mh	.58	192
EA-003	3 mh	.73	157
EA-004	4 mh	.85	135
EA-005	5 mh	1.20	121
EA-007	7 mh	1.42	102
EA-010	10 mh	2.20	86
EA-015	15 mh	3.40	70
EA-020	20 mh	5.05	60
EA-025	25 mh	5.80	54
EA-030	30 mh	7.90	50
EA-040	40 mh	11.40	43
EA-050	50 mh	12.80	38
EA-070	70 mh	19.00	32
EA-100	100 mh	30.00	27
EA-150	150 mh	46.00	22
EA-200	200 mh	52.00	19
EA-250	250 mh	73.00	17
EA-300	300 mh	80.00	16
EA-400	400 mh	115.00	14
EA-500	500 mh	126.00	12
EA-600	600 mh	178.00	11
EA-700	700 mh	193.00	10
EA-1000	1000 mh	297.00	8.6

Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EC-001	1 mh	.40	520
EC-002	2 mh	.56	368
EC-003	3 mh	.70	300
EC-004	4 mh	.82	260
EC-005	5 mh	.92	233
EC-007	7 mh	1.05	195
EC-010	10 mh	1.30	165
EC-015	15 mh	1.60	134
EC-020	20 mh	1.85	116
EC-030	30 mh	2.85	95
EC-040	40 mh	4.20	82
EC-050	50 mh	4.60	74
EC-070	70 mh	7.00	62
EC-100	100 mh	8.00	52
EC-200	200 mh	25.00	37
EC-250	250 mh	28.00	33
EC-300	300 mh	38.20	30
EC-400	400 mh	44.00	26
EC-500	500 mh	63.50	23
EC-600	600 mh	71.00	21
EC-700	700 mh	80.00	19.5
EC-1000	1000 mh	113.00	16.5
EC-1500	1500 mh	175.00	13.5
EC-2000	2000 mh	243.00	11.6
EC-3000	3000 mh	370.00	9.5
EC-4000	4000 mh	435.00	8.2
EC-5000	5000 mh	645.00	7.4
EC-7000	7000 mh	780.00	6.2
EC-10000	10000 mh	1190.00	5.2

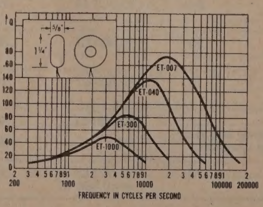
Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EK-010	10 mh	.92	262
EK-020	20 mh	1.30	184
EK-030	30 mh	1.65	150
EK-040	40 mh	1.90	130
EK-050	50 mh	3.50	116
EK-060	60 mh	4.00	106
EK-080	80 mh	4.60	92
EK-100	100 mh	5.20	82
EK-120	120 mh	5.50	75
EK-150	150 mh	6.20	67
EK-200	200 mh	7.50	58
EK-250	250 mh	10.30	52
EK-300	300 mh	12.00	47
EK-400	400 mh	16.50	41
EK-500	500 mh	23.60	37
EK-700	700 mh	30.00	31
EK-1000	1000 mh	45.00	26
EK-2000	2000 mh	100.00	18.4
EK-3000	3000 mh	151	15
EK-4000	4000 mh	175	13
EK-5000	5000 mh	250	11.6
EK-7000	7000 mh	380	9.8
EK-10000	10000 mh	500	8.2
EK-20000	20000 mh	1000	5.8
EK-30000	30000 mh	1500	4.7
EK-40000	40000 mh	1850	4.1

Type No.	Ind.	Res-Ohms Average	D.C.-Ma. for 5% Ind. drop
EM-001	1 mh	2.8	150
EM-002	2 mh	4.1	108
EM-003	3 mh	5.1	87
EM-004	4 mh	6.0	76
EM-005	5 mh	6.8	68
EM-007	7 mh	8.2	57
EM-010	10 mh	10	48
EM-015	15 mh	12.5	39
EM-020	20 mh	14.5	34
EM-025	25 mh	16.5	30
EM-030	30 mh	18	27.6
EM-040	40 mh	27	24
EM-050	50 mh	30	22
EM-060	60 mh	40	19.5
EM-070	70 mh	43	18
EM-100	100 mh	66	15
EM-150	150 mh	100	12.5
EM-200	200 mh	115	11
EM-250	250 mh	167	9.6
EM-300	300 mh	180	8.8
EM-400	400 mh	265	7.6
EM-500	500 mh	295	7
EM-700	700 mh	440	5.8
EM-1000	1000 mh	650	4.8

EM SERIES



ET SERIES



Type No.	Ind.	Res Ohms Approx.	D.C.-Ma. for 5% Ind. drop
ET-001	1 mh	.57	680
ET-002	2 mh	.82	480
ET-003	3 mh	.98	396
ET-004	4 mh	1.10	342
ET-005	5 mh	1.35	306
ET-007	7 mh	1.50	260
ET-010	10 mh	2	217
ET-015	15 mh	3	177
ET-020	20 mh	4.3	153
ET-025	25 mh	4.8	137
ET-030	30 mh	6.9	125
ET-040	40 mh	7.2	108
ET-050	50 mh	8	97
ET-060	60 mh	15.5	88
ET-070	70 mh	16.8	82
ET-100	100 mh	26.0	68
ET-150	150 mh	38.5	56
ET-200	200 mh	44.5	48
ET-250	250 mh	64	43
ET-300	300 mh	72	40
ET-400	400 mh	103	34
ET-500	500 mh	118	31
ET-700	700 mh	173	26
ET-1000	1000 mh	245	22

See Price List on Triad Pages 13, 14 & 15

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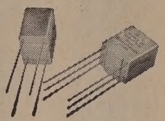
TRIAD DISTRIBUTOR DIVISION

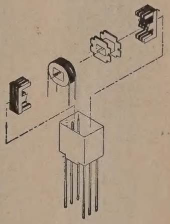
A DIVISION OF LITTON INDUSTRIES

RED SPEC TRANSISTOR TRANSFORMERS

Type No.	Application Type	MIL-T-27A Designation	Primary Impedance	D.C. Res. Pri. Ohms	Max. Unbal. Pri. D.C. Ma.	Secondary Impedance	Max. Power MW
SP-4	Input	TF5RX16ZZ	200000 c.t.	5300	0	1000 c.t.	10
SP-5	Input	TF5RX16ZZ	50000 c.t.	3800	0	1000 c.t.	25
SP-7	Input	TF5RX16ZZ	200000	5300	0	1000	10
SP-11	Interstage	TF5RX13ZZ	20000/30000	1700	.5	800/1200	40
SP-13	Interstage	TF5RX13ZZ	20000/30000 c.t.	1700	.5	800/1200 c.t.	40
SP-15	Interstage	TF5RX13ZZ	10000/12000 c.t.	1050	1	1500/1800 c.t.	50
SP-20	Driver	TF5RX13ZZ	10000/12500 c.t.	1050	1	1200/1500 c.t.	50
SP-21	Driver	TF5RX13ZZ	10000/12500 c.t.	1050	1	2000/2500 c.t.	50
SP-29	Driver	TF5RX13ZZ	10000/12000 c.t.	1050	1	500/600 c.t.	50
SP-32	Output	TF5RX17ZZ	500/600	60	3	50/60	50
SP-33	Output	TF5RX17ZZ	1000/1200	145	3	50/60	50
SP-34	Output	TF5RX17ZZ	600	70	3	3.2	50
SP-35	Output	TF5RX13ZZ	1200	120	2	3.2	50
SP-36	Output	TF5RX13ZZ	10000	1160	1	3.2	50
SP-42	Output	TF5RX17ZZ	150/200 c.t.	18	10	12/16	50
SP-43	Output	TF5RX17ZZ	300/400 c.t.	38	7	12/16	50
SP-44	Output	TF5RX17ZZ	600/800 c.t.	75	4.5	12/16	50
SP-46	Output	TF5RX17ZZ	1000/1330 c.t.	120	3.5	12/16	50
SP-47	Output	TF5RX13ZZ	1500/2000 c.t.	180	3	12/16	50
SP-48	Output	TF5RX13ZZ	7500/10000 c.t.	820	1	12/16	50
SP-49	Output	TF5RX17ZZ	300 c.t.	37	7	600	50
SP-50	Output	TF5RX17ZZ	500 c.t.	60	3	600	50
SP-51	Output	TF5RX17ZZ	900 c.t.	100	4	600	50
SP-52	Output	TF5RX13ZZ	1500 c.t.	170	3	600	50
SP-59	Output	TF5RX17ZZ	120/150 c.t.	15	10	3.2/4	50
SP-60	Output	TF5RX17ZZ	320/400 c.t.	40	6	3.2/4	50
SP-61	Output	TF5RX17ZZ	600/750 c.t.	70	4.5	3.2/4	50
SP-62	Output	TF5RX17ZZ	800/1000 c.t.	100	4	3.2/4	50
SP-63	Output	TF5RX13ZZ	1200/1500 c.t.	125	3	3.2/4	50
SP-64	Output	TF5RX13ZZ	1600/2000 c.t.	190	2.5	3.2/4	50
SP-65	Output	TF5RX13ZZ	8000/10000 c.t.	820	1	3.2/4	50
SP-66	Output Isolation	TF5RX13ZZ	10000 c.t.	1000	1	10000 c.t.	50
SP-67•	Output Isolation	TF5RX17ZZ	600 CT.	73	3	600 CT.	50
SP-106	Choke	TF5RX20ZZ	6 hy. @ 2 ma.	1700			
SP-107	Choke	TF5RX20ZZ	1.25 hy. @ 2 ma.	180			
SP-108	Choke	TF5RX20ZZ	3.5 hy. @ 2 ma.	1100			
SP-117•	Choke	TF5RX20ZZ	.9HY	110	2	—	—
SP-118	Choke	TF5RX20ZZ	.3 hy. @ 4 ma.	42			
SP-128•	Choke	TF5RX20ZZ	.1HY	15	5	—	—
SP-310	Magnetic shielding case						

•New Item. **CT** For Center Tap.





PRICE INDEX by Triad Transformer Type Number

Prefix letters indiciate transformer type as follows. Suffix letters indicate case type.

A	Audio	HSM	Hermetically Sealed	PL	Pulse
C	Choke	JAF	Trijet/Hermetically Sealed	R	Power/Combined Plate and Filament
E	High Q Toroidal Coil	JO	Trijet/Hermetically Sealed	S	Speaker Coupling or Output
F	Filament	JZ	Trijet/Hermetically Sealed	SP	Transistor/Red Spec Microminiature
G	Geoformer Instrumentation	M	Modulation	T	Miniature
HC	Box Shielded Isolation	N	Isolation or Stepdown Autoformer	TZ	Miniature
HS	Hermetically Sealed	P	Plate Power	TY	Transistor

When you specify TRIAD you are assured of transformers which will give you the exceptional performance you seek. Engineered, developed and manufactured to the most rigid quality control standards, Triad Transformers employ the most advanced techniques of scientific research.

Every Triad Transformer is manufactured under the Signal Corps RIQAP Program, providing you with a product which is pre-inspected to meet military specifications.

Triad's sound pricing policy and stable marketing philosophy guarantee the finest transformer products available. Triad transformers are produced by skilled craftsmen . . . they are constructed of only the finest pre-inspected new materials available from manufacturers within the limits of the United States.

Leader in transformer research, Triad continues to incorporate the newest, most progressive methods of manufacture in every transformer. All Triad transformers will perform within specifications given when matched and loaded at impedances shown. All Triad transformers shown are available off the shelf at your finest stocking distributor.

Only Triad Transformers are always . . . Climatite vacuum impregnated, core and coil . . . encased in satin smooth baked gray enamel . . . packaged engineered for quick, easy identification . . . permanently marked (wherever possible) with legible circuit and connection specifications . . . of the smallest, lightest construction possible at any cost . . . shielded with copper foil in static shielded types . . . there is no substitute for a Triad Transformer.

For quality assurance . . . . performance tested transformers . . . excellence in design and technology . . . **always specify Triad.**

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
A-1X	2.04	A-141X	3.66	D-59	6.42	D-155	7.08	D-638	8.88	EC-600	4.59	EM-005A	5.55	F-1X	2.61
A-3X	2.22	A-142X	3.51	D-60R	6.66	D-156	8.40	EA-001	3.69	EC-600A	6.39	EM-007	3.99	F-3X	4.02
A-4X	2.67	A-143X	3.90	D-61	5.55	D-157	7.50	EA-001A	5.43	EC-700	4.65	EM-007A	5.64	F-5U	5.67
A-5X	2.97	A-144X	3.87	D-62	5.55	D-158	7.32	EA-002	3.69	EC-700A	6.45	EM-010	4.05	F-6X	3.42
A-6X	2.25	A-200P	15.00	D-63	5.88	D-159	8.40	EA-002A	5.43	EC-1000	4.74	EM-010A	5.70	F-7X	3.57
A-7J	5.58	A-202P	20.85	D-64R	7.50	D-160	6.90	EA-003	3.69	EC-1000A	6.54	EM-015	4.14	F-8X	4.17
A-9J	10.05	A-210P	10.86	D-65	7.41	D-161	7.50	EA-003A	5.43	EC-1500	4.89	EM-015A	5.79	F-9A	8.22
A-10J	10.11	C-1X	1.56	D-66	7.50	D-162	7.05	EA-004	3.60	EC-1500A	6.69	EM-020	4.20	F-9U	7.32
A-11J	11.67	C-2X	1.50	D-67	9.30	D-163	6.90	EA-004A	5.34	EC-2000	4.95	EM-020A	5.85	F-10U	9.33
A-12J	11.67	C-3X	2.10	D-68	9.30	D-164	7.05	EA-005	3.60	EC-2000A	6.75	EM-025	4.20	F-11U	9.39
A-13J	12.84	C-4X	1.77	D-69	7.50	D-165	7.41	EA-005A	5.34	EC-3000	5.04	EM-025A	5.85	F-12X	4.80
A-21X	2.31	C-5X	2.34	D-70	7.92	D-166	7.20	EA-007	3.60	EC-3000A	6.84	EM-030	4.26	F-13X	2.10
A-23X	2.61	C-6X	2.04	D-71	7.20	D-167	7.20	EA-007A	5.34	EC-4000	5.10	EM-030A	5.91	F-14X	2.22
A-31X	2.37	C-7X	2.67	D-72	7.68	D-168	7.32	EA-010	3.60	EC-4000A	6.90	EM-040	4.29	F-15U	7.41
A-33X	3.30	C-8X	2.34	D-73R	6.96	D-169	8.25	EA-010A	5.34	EC-5000	5.28	EM-040A	5.94	F-16X	3.33
A-35A	5.94	C-9X	2.34	D-74	7.14	D-170	7.50	EA-015	3.69	EC-5000A	7.08	EM-050	4.29	F-17U	11.60
A-39A	6.00	C-10X	3.21	D-75	7.14	D-171	7.20	EA-015A	5.43	EC-7000	5.79	EM-050A	5.94	F-18A	6.15
A-40J	10.56	C-11X	3.18	D-76R	7.20	D-172	7.20	EA-020	3.69	EC-7000A	7.59	EM-060	4.38	F-18X	4.80
A-41J	10.56	C-12A	4.74	D-77R	7.50	D-173	7.17	EA-020A	5.43	EC-10000	6.42	EM-060A	6.03	F-19X	5.25
A-42Z	3.60	C-12X	3.39	D-78	6.96	D-174	8.25	EA-025	3.69	EC-10000A	8.22	EM-070	4.38	F-20U	7.05
A-50J	9.30	C-13X	3.24	D-79	7.41	D-175	7.50	EA-025A	5.43	EK-010	5.85	EM-070A	6.03	F-21A	7.38
A-51X	1.92	C-14A	5.25	D-80	7.95	D-176	2.85	EA-030	3.75	EK-010A	7.71	EM-100	4.44	F-22A	10.56
A-52J	10.80	C-14X	3.93	D-81	6.81	D-177	7.50	EA-030A	5.49	EK-020	5.94	EM-100A	6.09	F-23U	7.17
A-53X	2.82	C-15A	5.25	D-82	8.04	D-178	7.20	EA-040	3.75	EK-020A	7.80	EM-150	4.44	F-24U	7.32
A-54X	2.73	C-15X	3.93	D-83R	7.20	D-179	7.50	EA-040A	5.49	EK-030	6.00	EM-150A	6.09	F-25X	3.57
A-55J	10.17	C-16A	7.08	D-84	8.34	D-180	7.50	EA-050	3.75	EK-030A	7.86	EM-200	4.50	F-26X	4.17
A-56J	10.43	C-17X	3.09	D-85	7.38	D-181	7.65	EA-050A	5.49	EK-040	6.00	EM-200A	6.15	F-27U	9.66
A-57J	10.59	C-18A	9.42	D-86	9.30	D-182	7.20	EA-070	3.84	EK-040A	7.86	EM-250	4.50	F-28U	14.88
A-58J	10.80	C-19A	10.65	D-87	7.77	D-183	8.40	EA-070A	5.58	EK-050	6.12	EM-250A	6.15	F-29U	9.99
A-64J	9.12	C-20A	12.48	D-88	8.16	D-184	7.50	EA-100	3.84	EK-050A	7.98	EM-300	4.65	F-30A	9.00
A-65J	10.80	C-21X	2.67	D-89R	7.65	D-185	8.70	EA-100A	5.58	EK-060	6.18	EM-300A	6.30	F-32A	7.05
A-66J	9.75	C-22A	21.66	D-90	9.45	D-186	7.80	EA-150	3.84	EK-060A	8.04	EM-400	4.74	F-34A	9.00
A-67J	10.80	C-23X	2.67	D-91	6.99	D-187	7.50	EA-150A	5.58	EK-080	6.27	EM-400A	6.39	F-36A	10.41
A-68J	10.29	C-24X	2.25	D-92	7.20	D-188	8.70	EA-200	3.93	EK-080A	8.13	EM-500	4.89	F-38A	10.98
A-69J	10.80	C-25A	6.66	D-93	7.20	D-189	8.40	EA-200A	5.67	EK-100	6.36	EM-500A	6.54	F-40X	3.39
A-70J	10.55	C-26X	4.50	D-94R	7.50	D-190	7.20	EA-250	3.99	EK-100A	8.22	EM-700	5.19	F-41X	5.16
A-75J	11.67	C-27X	2.10	D-95	7.20	D-191	7.50	EA-250A	5.73	EK-120	6.36	EM-700A	6.84	F-42A	7.95
A-77J	9.78	C-28X	2.73	D-96	7.50	D-192	7.68	EA-300	3.99	EK-120A	8.22	EM-1000	5.79	F-43X	3.84
A-78J	10.50	C-29X	3.09	D-97R	8.40	D-193	8.16	EA-300A	5.73	EK-150	6.36	EM-1000A	7.44	F-44X	3.66
A-79J	9.99	C-30X	2.10	D-98R	9.30	D-194	7.20	EA-400	4.08	EK-150A	8.22	ET-001	3.84	F-45X	3.39
A-81X	2.13	C-31A	7.26	D-99	6.30	D-195	8.64	EA-400A	5.82	EK-200	6.42	ET-001A	5.58	F-47U	6.30
A-83X	2.58	C-32AL	12.57	D-100	6.60	D-196	7.20	EA-500	4.29	EK-200A	8.28	ET-002	3.84	F-48U	9.15
A-85X	3.06	C-33A	10.65	D-101	6.60	D-197	7.35	EA-500A	6.03	EK-250	6.51	ET-002A	5.58	F-49U	14.10
A-89A	7.02	C-34X	2.25	D-102	7.50	D-198	7.92	EA-600	4.38	EK-250A	8.37	ET-003	3.84	F-50X	3.33
A-91A	9.42	C-35A	13.08	D-103	7.50	D-199	6.75	EA-600A	6.12	EK-300	6.57	ET-003A	5.58	F-51X	3.57
A-95X	2.28	C-36X	2.04	D-104	6.30	D-200	7.80	EA-700	4.50	EK-300A	8.43	ET-004	3.84	F-52X	3.09
A-96X	3.00	C-38AL	21.84	D-105	6.90	D-201	8.04	EA-700A	6.24	EK-400	6.75	ET-004A	5.58	F-53X	4.50
A-97K	3.27	C-39A	21.24	D-106	6.60	D-202	8.40	EA-1000	4.65	EK-400A	8.61	ET-005	3.90	F-60U	7.59
A-97X	2.16	C-40X	2.67	D-107	7.35	D-203	7.68	EA-1000A	6.39	EK-500	6.90	ET-005A	5.64	F-61U	10.20
A-97Y	3.36	C-42AL	12.90	D-108	7.20	D-204	8.40	EC-001	3.99	EK-500A	8.76	ET-007	3.99	F-62U	19.50
A-97Z	2.16	C-43X	6.00	D-109	7.17	D-205	7.92	EC-001A	5.79	EK-700	7.05	ET-007A	5.73	F-63U	6.27
A-98K	3.33	C-45AL	21.96	D-110	7.20	D-206	7.65	EC-002	3.99	EK-700A	8.91	ET-010	3.99	F-64U	7.50
A-98X	2.16	C-47U	8.25	D-111	7.44	D-207	7.92	EC-002A	5.79	EK-1000	7.20	ET-010A	5.73	F-65U	11.19
A-99X	3.75	C-48U	9.84	D-112	7.11	D-208	8.16	EC-003	3.99	EK-1000A	9.06	ET-015	3.99	F-66U	27.60
A-101U	5.16	C-49U	11.67	D-113	7.20	D-209	7.65	EC-003A	5.79	EK-1500	7.20	ET-015A	5.73	F-67U	15.96
A-102X	3.09	C-80U	38.70	D-114	7.20	D-210	8.10	EC-004	3.99	EK-1500A	9.06	ET-020	4.20	F-68U	10.56
A-103X	3.45	CL-1	.60	D-115R	8.16	D-211	7.20	EC-004A	5.79	EK-2000	7.44	ET-020A	5.94	F-71U	6.51
A-104X	3.87	D-2	6.90	D-116	8.25	D-212	7.41	EC-005	3.99	EK-2000A	9.30	ET-025	4.20	F-72Z	4.20
A-105X	3.93	D-11	7.80	D-117	6.45	D-601	7.80	EC-005A	5.79	EK-2500	7.44	ET-025A	5.94	F-79U	24.00
A-107X	4.74	D-14R	7.47	D-118R	7.50	D-602	7.74	EC-007	4.08	EK-2500A	9.30	ET-030	4.29	F-80U	45.00
A-108X	3.72	D-19	7.47	D-119	7.20	D-603	7.65	EC-007A	5.88	EK-3000	7.62	ET-030A	6.03	F-83A	11.70
A-109X	4.05	DA-20	5.67	D-120	7.20	D-604	7.80	EC-010	4.14	EK-3000A	9.48	ET-040	4.29	F-84AC	19.32
A-110X	3.72	D-22	7.80	D-121	6.90	D-605	9.60	EC-010A	5.94	EK-4000	7.86	ET-040A	6.03	F-90X	4.05
A-111X	3.15	D-26	7.35	D-122	6.84	D-606	7.65	EC-015	4.14	EK-4000A	9.72	ET-050	4.29	F-91X	5.22
A-112X	4.17	D-27	7.14	D-123	6.60	D-607	8.28	EC-015A	5.94	EK-5000	7.92	ET-050A	6.03	F-92A	8.55
A-113X	3.69	D-28	7.14	D-124	7.05	D-608	7.50	EC-020	4.20	EK-5000A	9.78	ET-060	4.38	F-93X	5.73
A-113Z	3.69	D-33	7.14	D-125	6.60	D-609	7.80	EC-020A	6.00	EK-7000	8.31	ET-060A	6.12	F-94	3.48
A-114X	3.90	D-35	8.40	D-126	7.80	D-610	7.80	EC-030	4.20	EK-7000A	10.17	ET-070	4.38	F-102X	6.90
A-115X	3.78	DA-36	2.49	D-127	7.44	D-611	7.50	EC-030A	6.00	EK-10000	8.70	ET-070A	6.12	F-104U	9.15
A-115Z	3.78	DA-37	2.49	D-128	2.85	D-612	7.80	EC-040	4.29	EK-10000A	10.56	ET-100	4.38	G-1	19.60
A-116X	4.05	D-40	7.71	D-129	6.45	D-613	7.50	EC-040A	6.09	EK-20000	9.00	ET-100A	6.12	G-2	24.53
A-117X	3.00	D-41	8.10	D-130R	6.90	D-614	7.44	EC-050	4.29	EK-20000A	10.86	ET-150	4.44	G-2H3	23.65
A-118X	3.90	D-42	7.71	D-131	7.80	D-615	7.20	EC-050A	6.09	EK-25000	9.30	ET-150A	6.18	G-4	24.53
A-119X	3.78	D-43	7.50	D-132	6.90	D-616	8.10	EC-070	4.38	EK-25000A	11.16	ET-200	4.44	G-4H3	23.65
A-120X	2.40	D-44	7.32	D-133	7.50	D-617	8.40	EC-070A	6.18	EK-30000	9.66	ET-200A	6.18	G-5	21.20
A-120Z	2.40	D-45R	8.10	D-134	7.50	D-618	8.40	EC-100	4.38	EK-30000A	11.52	ET-250	4.50	G-5TS	28.90
A-122X	2.16	D-46	8.10	D-135	2.58	D-619	7.80	EC-100A	6.18	EK-40000	10.35	ET-250A	6.24	G-7	21.20
A-122Z	2.16	D-47	7.50	D-136	2.82	D-620	7.65	EC-200	4.44	EK-40000A	12.21	ET-300	4.50	G-8	28.07
A-131X	3.24	D-48	6.48	D-137	7.80	D-621	7.80	EC-200A	6.24	EM-001	3.90	ET-300A	6.24	G-9	21.20
A-132X	3.36	D-49	6.36	D-138	7.20	D-622	8.70	EC-250	4.44	EM-001A	5.55	ET-400	4.50	G-10	28.07
A-133X	3.24	D-50	8.22	D-139	6.90	D-623	8.10	EC-250A	6.24	EM-002	3.90	ET-400A	6.24	G-12	20.00
A-134X	3.48	D-52	5.40	D-141	7.50	D-624	7.80	EC-300	4.50	EM-002A	5.55	ET-500	4.59	G-14	19.60
A-135X	3.72	D-53	5.34	D-142	9.60	D-625	7.20	EC-300A	6.30	EM-003	3.90	ET-500A	6.33	G-14TS	24.53
A-136X	3.51	D-54	5.10	D-143	6.45	D-626	7.20	EC-400	4.50	EM-003A	5.55	ET-700	4.65	G-15	32.15
A-137X	3.09	D-55	7.14	D-151R	7.38	D-627	8.10	EC-400A	6.30	EM-004	3.90	ET-700A	6.39	G-16	20.68
A-138X	3.51	D-56	7.35	D-152	6.90	D-628	9.60	EC-500	4.59	EM-004A	5.55	ET-1000	4.74	G-17	21.76
A-139X	3.93	D-57	6.93	D-153	9.60	D-629	4.20	EC-500A	6.39	EM-005	3.90	ET-1000A	6.48	G-18	20.00
A-140X	3.87	D-58	6.63	D-154	7.50	D-630	7.44								

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TRIAD DISTRIBUTOR DIVISION

A DIVISION OF LITTON INDUSTRIES

PRICE INDEX BY TYPE NUMBER

Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
G-18TS	24.40	G-388	19.30	HSM-208	27.90	HS-474	22.86	N-50M	23.94	PL-10	1.17	R-28A	25.26	R-105A	5.94
G-19	20.00	G-389	19.30	HSM-212	34.56	HS-475	25.62	N-51X	4.74	PL-80E	11.25	R-29A	5.85	R-105B	5.85
G-19TS	24.53	G-391	18.91	HSM-216	40.50	JAF-1	13.21	N-52M	31.65	PL-80H	12.48	R-30X	4.89	R-106A	6.06
G-20	28.90	G-394	18.91	HSM-218	54.60	JAF-2	13.74	N-53M	10.41	PL-80P	11.85	R-33BC	19.02	R-106B	5.97
G-20H	23.65	G-401	19.60	HSM-219	49.95	JAF-3	13.74	N-54M	12.30	PL-81E	11.79	R-35A	17.70	R-107A	6.69
G 21	23.65	G-435	19.60	HSM-223	11.61	JAF-5	13.74	N-55M	19.32	PL-81H	12.60	R-36A	19.02	R-107B	6.57
G-21TS	28.90	G-435TS	25.85	HSM-224	18.32	JAF-11	12.84	N-56M	25.50	PL-81P	12.00	R-37BC	20.64	R-108A	6.75
G-22	31.22	G-437	19.60	HSM-225	14.28	JAF-12	13.21	N-57M	36.00	PL-82E	11.70	R-38A	18.18	R-108B	6.63
G-22H	25.85	G-437TS	25.85	HSM-226	16.32	JAF-13	13.74	N-59M	52.80	PL-82H	13.05	R-38BC	19.26	R-109A	7.26
G-23	23.65	G-455	19.60	HSM-227	19.44	JAF-14	13.74	N-60SC	114.00	PL-82P	12.36	R-39BC	18.78	R-109B	7.17
G-23TS	28.90	G-475	20.32	HSM-228	23.19	JAF-15	13.74	N-62AC	54.30	PL-83E	12.51	R-40A	21.06	R-110A	7.89
G-24	37.83	G-493	17.65	HSM-229	21.96	JAF-21	13.21	N-64AC	31.20	PL-83H	13.29	R-40BC	22.56	R-110B	7.77
G-25	23.65	HC-25	21.25	HSM-230	15.72	JAF-22	13.21	N-66A	18.66	PL-83P	12.63	R-41C	16.86	R-111A	8.01
G-25TS	28.90	HC-115	29.25	HSM-231	20.64	JAF-23	13.74	N-67A	12.36	PL-84E	12.15	R-42BC	16.26	R-111B	7.89
G-30	17.98	HC-300	38.10	HSM-232	22.41	JAF-24	14.30	N-68X	5.67	PL-84H	13.44	R-43C	10.32	R-112A	8.19
G-30TS	24.40	HS-1	28.58	HSM-233	14.00	JAF-25	14.15	N-73A	12.15	PL-84P	12.78	R-44BS	16.50	R-112B	8.07
G-31	19.60	HS-3	31.10	HSM-234	25.80	JAF-26	14.30	N-74A	12.15	PL-124E	11.70	R-45C	14.34	R-113A	6.54
G-32	24.53	HS-4	28.40	HSM-235	33.30	JAF-31	14.18	N-469A	7.50	PL-124H	13.14	R-46A	26.67	R-113B	6.42
G-33	21.20	HS-5	27.55	HSM-236	21.54	JAF-32	14.10	N-470A	10.41	PL-139E	10.08	R-47BS	19.80	R-114A	9.42
G-34	27.89	HS-8	28.58	HSM-237	16.49	JAF-33	14.18	N-471A	15.00	PL-139H	11.13	R-49BC	19.20	R-114B	9.30
G-36	16.81	HS-11	21.68	HSM-238	24.58	JAF-34	14.10	NW-1	.60	PL-139M	12.09	R-49BS	20.40	R-115A	7.80
G-36TS	25.85	HS-14	22.57	HSM-239	18.00	JAF-35	14.10	NW-2	.60	PL-140E	11.70	R-50A	22.98	R-115B	7.68
G-40	21.20	HS-15	26.65	HSM-240	19.44	JAF-101	12.61	NW-3	.60	PL-140H	13.14	R-50BC	23.58	R-116A	9.75
G-40TS	26.89	HS-23	21.73	HSM-241	33.00	JAF-102	12.70	NW-4	.60	PL-140M	14.25	R-51BC	17.34	R-116B	9.63
G-48	16.39	HS-25	21.73	HSM-245	39.90	JO-1	13.38	NW-5	.60	PL-146E	11.70	R-52BC	17.34	R-118A	11.07
G-48TS	25.85	HS-27	19.70	HS-247	45.99	JO-2	13.92	NW-6	.60	PL-146H	13.08	R-54X	3.63	R-118B	10.95
G-51	19.60	HS-29	27.50	HSM-270	20.52	JO-3	14.04	NW-7	.60	PL-146M	14.22	R-56A	6.90	R-120A	12.30
G-51A	19.60	HSM-31	21.08	HSM-271	26.10	JO-5	13.92	NW-8	.60	R-2C	4.05	R-58A	16.02	R-120B	12.18
G-52	20.80	HS-32	27.50	HSM-272	36.96	JO-11	13.32	NW-9	.60	R-3A	6.00	R-60BC	18.30	R-121A	12.90
G-53	20.80	HS-35	19.51	HS-273P	17.10	JO-12	13.74	NW-10	.60	R-4A	6.15	R-61BC	20.16	R-121B	12.75
G-53A	20.80	HS-50	23.23	HSM-301	11.82	JO-13	13.74	NW-11	.60	R-4B	6.00	R-62BC	22.98	R-122A	15.60
G-54	20.80	HS-52	24.02	HSM-302	11.04	JO-21	13.74	NW-12	.60	R-5A	6.90	R-63BC	17.01	R-123HA	13.80
G-57	16.81	HS-54	28.58	HS-303	11.34	JO-22	13.74	NW-13	.60	R-5B	6.75	R-64BC	14.58	R-124BC	14.10
G-58	25.85	HS-56	25.82	HSM-305	12.24	JO-23	13.92	NW-14	.60	R-6A	7.32	R-65BC	15.42	R-125BC	15.15
G-64	16.39	HS-58	30.32	HSM-307	15.15	JO-31	13.98	NW-15	.60	R-6B	7.20	R-66BC	15.66	R-126A	14.94
G-65	16.39	HS-60	19.51	HSM-309	16.32	JO-101	12.60	NW-16	.60	R-7A	7.38	R-67BC	14.67	R-127A	15.36
G-72	21.20	HS-61	20.65	HSM-315	18.84	JZ-1	11.79	NW-17	.60	R-7B	7.26	R-68A	10.32	R-128BC	15.15
G-80	24.58	HS-66	23.18	HSM-319	26.01	JZ-5	12.13	NW-18	.60	R-8A	7.68	R-69BC	15.06	R-129BC	15.66
G-84	21.20	HS-71	14.41	HS-331	8.16	JZ-7	11.79	NW-19	.60	R-8B	7.56	R-70A	12.30	R-130HA	15.54
G-85	21.20	HS-73	15.43	HS-333	9.09	JZ-13	11.79	NW-20	.60	R-9A	8.49	R-71A	17.01	R-131A	15.45
G-92	22.06	HS-75	18.19	HS-335	11.49	JZ-15	11.79	NW-21	.60	R-9B	8.40	R-72A	11.91	R-132BC	15.27
G-101	19.60	HS-77	21.20	HS-339	12.48	JZ-25	11.47	NW-22	.60	R-10A	8.91	R-73B	8.67	R-133A	15.06
G-101TS	23.65	HSM-79	19.51	HS-341	13.32	JZ-26	11.47	NW-23	.60	R-10B	8.79	R-74BC	21.00	R-134A	15.48
G-135	19.60	HSM-80	21.31	HS-400	13.31	K-20	4.50	NW-24	.60	R-11A	9.27	R-75BA	13.80	R-135BC	15.60
G-150	19.60	HSM-81	23.60	HS-401	17.64	M-1X	2.97	NW-25	.60	R-11B	9.15	R-76BC	20.52	R-136BC	15.84
G-155	19.60	HSM-82	23.60	HS-402	15.96	M-3X	4.95	P-1A	9.24	R-12A	9.33	R-77BC	19.74	R-137HA	16.14
G-183	24.92	HSM-84	23.60	HS-404	21.00	M-4Z	3.09	P-3A	11.16	R-12B	9.21	R-77BS	20.82	R-138A	15.48
G-201	19.60	HSM-85	23.60	HS-405	21.90	M-5Z	4.11	P-5A	13.92	R-14A	10.41	R-78BC	17.34	R-139A	15.30
G-202	20.00	HSM-91	39.33	HS-407	26.34	M-6X	5.58	P-7A	14.16	R-14B	10.29	R-79BA	13.50	R-675A	17.25
G-235	19.60	HSM-94	43.65	HS-409	22.38	M-7AL	13.50	P-9A	24.75	R-16A	11.67	R-80BA, BC	18.84	S-1X	1.74
G-250	19.60	HSM-95	43.65	HS-413	27.30	M-8AL	17.10	P-11A	15.36	R-16B	11.52	R-81BC	20.25	S-2X	1.80
G-255	19.60	HS-97	82.26	HS-415	34.20	M-12AL	20.34	P-14A	20.67	R-17A	12.12	R-81BS	21.42	S-3X	1.80
G-266	20.50	HSM-181	23.60	HS-417	37.44	M-15A	11.67	P-15AL	22.98	R-18A	12.66	R-83A	14.40	S-4X	2.43
G-274	20.41	HSM-182	23.60	HS-425	13.32	M-16AL	13.68	P-16AL	45.60	R-18B	12.54	R-84K	6.66	S-5X	2.46
G-275	20.50	HSM-184	30.02	HS-427	16.02	MB-10	.45	P-17AL	28.80	R-19A	15.12	R-85A	18.90	S-5Z	2.46
G-276	20.50	HSM-186	30.02	HS-433	17.76	MB-20	.72	P-18AL	52.20	R-20A	13.80	R-86BA	12.48	S-6X	1.62
G-283	24.92	HSM-187	30.02	HS-435	19.86	MB-21	.72	P-20AL	51.75	R-20B	13.65	R-87BC	15.00	S-6Z	1.62
G-284	20.00	HSM-189	30.02	HS-436	11.40	MB-31	.45	PR-21AL	50.67	R-21A	14.31	R-88A	15.15	S-7X	1.74
G-285	20.00	HSM-190	30.02	HS-438	16.38	N-1X	4.02	P-213AL	19.50	R-21B	14.04	R-89BC	15.60	S-8X	1.59
G-301	19.30	HSM-192	45.04	HS-441	27.15	N-3M	8.16	P-215AL	21.65	R-22A	7.59	R-90BC	15.00	S-8Z	1.59
G-306	19.30	HSM-193	45.04	HS-442	19.08	N-4M	9.99	P-216AL	43.32	R-22B	7.44	R-91HA	15.45	S-9X	2.49
G-313	19.30	HSM-200	16.98	HS-443	16.08	N-5M	11.76	P-217AL	26.82	R-23B	6.51	R-92A	14.94	S-9Z	2.49
G-315	19.30	HSM-201	21.66	HS-444	26.70	N-7M	17.01	P-218AL	48.30	R-24A	16.35	R-93A	15.00	S-10X	2.13
G-335	18.91	HSM-202	14.75	HS-445	16.22	N-9M	36.33	P-220AL	47.82	R-24B	16.23	R-94H	29.75	S-11X	1.71
G-336	18.91	HSM-203	22.86	HS-470	13.74	N-11M	52.20	PL-4	10.32	R-25A	25.92	R-104A	5.16	S-11Z	1.71
G-350	18.91	HSM-205	24.42	HS-471	14.82	N-34X	5.91	PL-5	12.48	R-26A	18.78	R-104B	5.07	S-12X	1.65
G-355	18.91	HSM-207	26.40	HS-472	18.60	N-35M	13.50	PL-6	12.48	R-27A	33.60				

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Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price	Type No.	Net Price
S-12Z	1.65	S-50X	2.13	S-152A	25.02	SP-128	4.80	TY-38X	3.99	TY-83	14.91	WLC-4	1.17	Y-28	6.78
S-13X	1.80	S-51X	2.67	S-154A	29.16	SP-310	.84	TY-39X	4.05	TY-84	15.90	WLC-5	1.17	Y-28-3	7.38
S-13Z	1.80	S-52X	2.67	S-156A	19.17	T-1X	4.32	TY-40X	3.75	TY-88	11.10	WLC-6	1.17	Y-40	7.68
S-14Z	1.59	S-53X	3.15	S-158A	37.50	T-2X	4.32	TY-41X	3.84	TY-89	12.21	WLC-7	1.47	Y-40-3	8.28
S-15X	2.73	S-54X	3.09	SP-4	7.80	T-3X	4.32	TY-42X	3.75	TY-90	12.51	WLC-8	1.80	Y-41	7.68
S-16X	1.89	S-55X	3.84	SP-5	7.65	T-5X	4.32	TY-43X	3.84	TY-91	12.60	WLC-8A	1.80	Y-41-3	8.28
S-17X	1.98	S-55Z	3.84	SP-7	6.75	T-11X	4.01	TY-44X	3.87	TY-92	13.20	WLC-9	1.80	Y-42-2	8.73
S-18X	2.13	S-56Z	4.08	SP-11	6.30	T-12X	4.32	TY-45X	3.87	TY-93	15.24	WLC-10	1.59	Y-43	7.68
S-18Z	2.13	S-57Z	4.59	SP-13	7.20	T-13X	3.97	TY-46X	2.64	TY-94	15.96	WLC-11	1.59	Y-43-1	8.28
S-19Z	3.54	S-58X	3.00	SP-15	7.20	T-14X	4.11	TY-47X	4.08	TY-99	12.45	WLC-12	1.17	Y-44	7.68
S-20X	1.62	S-59Z	4.50	SP-20	6.90	T-15X	4.11	TY-48X	4.08	TY-100	12.60	WLC-17	1.41	Y-44-1	8.28
S-20Z	1.62	S-60A	9.66	SP-21	6.90	T-20X	4.05	TY-49X	2.94	TY-101	14.40	WLC-21	1.05	Y-45	7.68
S-21A	5.67	S-61Z	4.74	SP-29	6.90	T-21X	3.86	TY-50X	4.80	TY-102	14.70	WLC-23	1.05	Y-45-2	8.91
S-21Z	4.32	S-62X	2.58	SP-32	5.70	T-22X	3.86	TY-51X	4.14	TY-462	9.51	WLC-25	1.92	Y-46	7.68
S-22A	6.99	S-63X	2.67	SP-33	5.85	T-23X	4.01	TY-52X	4.47	TY-468	9.51	WLC-26	2.01	Y-46-3	8.28
S-23X	1.92	S-64X	2.40	SP-34	5.55	T-24X	4.05	TY-53X	3.42	TZ-1	3.68	WLC-29	2.04	Y-47	7.68
S-24A	6.99	S-65X	1.98	SP-35	5.55	T-25X	3.99	TY-54X	4.26	TZ-2XT	3.93	WLC-30	2.04	Y-48	7.68
S-25Z	4.20	S-66X	1.92	SP-36	6.15	T-26X	4.05	TY-55X	4.32	TZ-5	3.68	WLC-31	1.59	Y-48-3	8.28
S-26X	1.92	S-67X	2.13	SP-42	5.85	T-31X	4.01	TY-56X	4.32	TZ-7	3.26	Y-12	6.78	Y-49	7.68
S-27A	6.33	S-68Z	4.59	SP-43	5.85	T-32X	3.99	TY-57X	3.69	TZ-13	3.83	Y-12-1	7.38	Y-49-1	8.28
S-28X	3.90	S-69Z	4.41	SP-44	6.00	T-33X	4.01	TY-58X	3.69	TZ-15	3.83	Y-12-3	7.38	Y-50	12.87
S-29X	3.75	S-70Z	3.09	SP-46	6.15	T-34X	3.96	TY-59X	4.74	TZ-17XT	3.99	Y-17	6.78	Y-50-3	13.56
S-30X	1.74	S-71Z	3.33	SP-47	6.30	T-35X	3.96	TY-60X	4.50	TZ-24XT	3.99	Y-17-1	7.38	Y-60	10.80
S-31A	9.00	S-72Z	4.20	SP-48	6.75	T-41X	3.90	TY-61X	3.06	TZ-25	3.11	Y-17-3	7.38	Y-60-1	11.55
S-32A	9.00	S-73X	3.18	SP-49	6.00	T-42X	3.90	TY-62X	3.63	TZ-26	3.11	Y-19	6.78	Y-60-2	11.85
S-34X	4.98	SR-74K	9.33	SP-50	6.00	T-101X	3.34	TY-63X	4.17	TZ-28	3.11	Y-19-1	7.38	Y-62	11.91
S-35A	9.30	S-75K	13.20	SP-51	6.15	T-102X	3.42	TY-64X	3.81	TZ-29XT	4.02	Y-19-3	7.38	Y-62-1	12.51
S-36A	9.66	S-76Z	5.04	SP-52	6.30	TY-23X	3.90	TY-65Z	3.81	TZ-32XT	3.90	Y-20	6.78	Y-64	11.49
S-37X	2.52	S-77U	9.15	SP-59	5.85	TY-24X	4.53	TY-66A	9.42	TZ-103XT	3.00	Y-20-2	7.68	Y-64-1	12.09
S-38X	1.74	S-78Z	3.66	SP-60	5.85	TY-25X	4.62	TY-67A	9.75	V-21	4.20	Y-20-3	7.38	Y-66-1	12.51
S-38Z	1.74	S-79Z	4.35	SP-61	6.00	TY-26X	4.65	TY-68S	6.48	V-21B	4.80	Y-21	6.78	Y-70	11.40
S-39X	2.40	S-128Z	5.70	SP-62	6.15	TY-27XT	3.87	TY-69S	8.31	V-21K	6.33	Y-21-1	7.38	Y-70-1	12.00
S-40X	2.52	S-129Z	5.34	SP-63	6.15	TY-28XT	3.87	TY-70S	8.49	V-21Z	4.29	Y-21-3	7.38	Y-72	11.49
S-41X	1.80	S-130Z	3.69	SP-64	6.30	TY-29X	4.26	TY-71S	10.35	V-23	4.92	Y-22	6.78	Y-72-1	12.09
S-41Z	1.80	S-131X	2.82	SP-65	6.75	TY-30X	3.33	TY-74S	10.92	V-23B	6.00	Y-22-1	7.38	Y-81-3	11.55
S-42A	16.20	S-132X	3.51	SP-66	7.80	TY-31X	3.33	TY-75A	12.00	V-23K	7.26	Y-22-3	7.38	Y-82-1	9.00
SR-45Z	5.58	S-133Z	4.41	SP-67	7.20	TY-32X	3.90	TY-76A	8.25	V-23Z	4.98	Y-24	6.78	Y-83-1	12.60
S-46A	9.24	S-142A	12.00	SP-106	5.70	TY-33X	3.90	TY-78	11.25	VR-30Z	4.71	Y-24-3	7.38	YC-1	.60
S-47Z	3.84	S-144A	17.49	SP-107	4.80	TY-34X	3.90	TY-79	12.21	V-31	4.47	Y-25	6.78	YC-110	.75
S-48X	1.65	S-146A	16.68	SP-108	4.80	TY-35X	3.75	TY-80	12.33	V-31K	6.96	Y-25-1	7.38	YC-111	.75
S-48Z	1.65	S-148A	16.68	SP-117	4.80	TY-36X	3.90	TY-81	12.51	WC-13	1.14	Y-25-3	7.38	YC-112	.75
S-49Z	1.74	S-149A	28.80	SP-118	4.80	TY-37X	3.99	TY-82	12.90	WLC-3	1.26	Y-26-2	7.68	YP-8	66.72

TRIAD CASES

	GB	HA	HB	JA	JB	KA	KB
A	2 3/8	2 5/8	2 5/8	3 1/16	3 1/16	3 3/8	3 3/8
B	2 3/4	3 1/16	3 1/16	3 9/16	3 9/16	3 15/16	3 15/16
C	2 13/16	4 1/4	3 3/16	4 7/8	3 7/8	5 1/4	4 5/16
D	2 1/8	2 19/64	2 19/64	2 5/8	2 5/8	3	3
E	1 3/4	1 55/64	1 55/64	2 1/8	2 1/8	2 7/16	2 7/16
G	3/8	3/8	3/8	3/8	3/8	1/2	1/2
I	6-32	8-32	8-32	8-32	8-32	10-32	10-32
Wt. (avg.) lbs.	1 3/4	2 1/2	2 1/4	4 1/2	4	7 3/4	7

	LA	LB	MA	MB	NA	NB
A	3 11/16	3 11/16	4	4	4 5/16	4 5/16
B	4 5/16	4 5/16	4 11/16	4 11/16	5 1/16	5 1/16
C	5 9/16	4 1/2	6	4 15/16	6 13/16	5 1/2
D	3 5/16	3 5/16	3 11/16	3 11/16	4 1/16	4 1/16
E	2 11/16	2 11/16	3	3	3 5/16	3 5/16
G	1/2	1/2	5/8	5/8	5/8	5/8
I	10-32	10-32	1/4-20	1/4-20	1/4-20	1/4-20
Wt. (avg.) lbs.	9 1/4	8 1/2	13 1/2	12 1/2	18	16

	AH	AJ	EA	EB	FA	FB	GA
A	1 5/16	1 5/8	1 13/16	1 13/16	2 1/16	2 1/16	2 3/8
B	1 5/16	1 5/8	1 15/16	1 15/16	2 5/16	2 5/16	2 3/4
C	1 3/4	2 3/8	2 3/4	2 7/16	3 1/8	2 1/2	3 13/16
D	1 1/4	1 3/16	1 3/8	1 3/8	1 11/16	1 11/16	2 1/8
E		1 3/16	1 1/4	1 1/4	1 7/16	1 7/16	1 3/4
G	3/8	3/8	3/8	3/8	3/8	3/8	3/8
I	6-32	6-32	6-32	6-32	6-32	6-32	6-32
Wt. (avg.) lbs.	4 oz.	9 oz.	1	15 oz.	1 3/4	1 1/2	2

	AF	AG	AH-2	AJ-2	JZ*†
A	3/4	1	1-5/16	1-5/8	9/16 dia.
B	3/4	1	1-5/16	1-5/8	Round
*†Bw	1-3/64	1-3/32	1-11/32		
C	1-1/8	1-3/8	1-3/4	2-3/8	25/32
D	*27/32	*1-1/32	*1-11/32	*1-5/8	
F	5/8	3/4	7/8	7/8	
I	4/40	6/32	6/32	6/32	
Unit	1-1/4	2-1/2	5-1/4	11	.5
Wt.	oz.	oz.	oz.	oz.	oz.

* Not in conformance with MIL-T-27A.
† Not in conformance with MIL-T-27

	GP-1	GP-2	GP-3	GP-4	GP-5
A	7/8	1 1/16	1 1/4	1 7/16	1 5/8
B	1 1/16	1 1/4	1 1/2	1 3/4	2
Bw	1 1/16	1 11/32	1 9/16		
C	1 11/16	2 1/4	2 3/8	2 1/2	2 3/4
D	1 3/32	1 3/16	1 15/32	1 1/2	1 1/2
F	3/4	3/4	15/16	15/16	15/16
Wt.	3 oz.	5 1/2 oz.	8 oz.	12 oz.	17 oz.

	JOA	JOB
A	15/16 dia.	15/16 dia.
B	Round	Round
C	1 13/32	1 25/32
D	9/16	9/16
F	7/8	7/8
Unit Wt.	2 oz.	2 1/2 oz.

SHIELDING

P-1—One nickel alloy high permeability shield — 45db. reduction in pickup.
P-3—Two nickel alloy shields interleaved with one heavy copper shading ring — 70db. reduction in pickup.
P-5—Three nickel alloy shields interleaved with two heavy copper shading rings— 95 db. reduction in pickup.

Prices subject to change without notice. Net prices shown for 1-9 quantity. For 1 to 249 pieces, see your stocking Triad Distributor for quantity discount schedule. For 250 or more pieces, contact your Triad Representative or call the factory.

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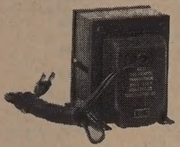
TODD ELECTRIC Co., Inc.

STEP-DOWN, STEP-UP AUTO TRANSFORMERS FOR EVERY 50 OR 60 CYCLE APPLICATION

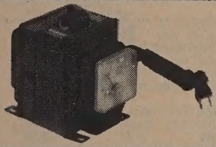
Todd's precision designed Auto Transformers are specially constructed to resist corrosion caused by excessive humidity and will withstand abnormal loading. The input side is equipped with 6 ft. U.L. approved line cord with American wall plug. British or Continental wall plugs available at extra cost.



HEAVY DUTY MODEL

220/240 – 110/120 volts

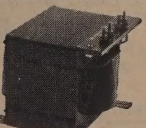
Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-15	75	2 1/4	3 3/16	2 3/4	3 3/16	$ 7.90
SD-16	100	2 1/3	3 3/16	2 3/4	3 5/16	8.10
SD-17	150	3 2/3	3 3/16	2 3/4	3 15/16	9.60
SD-12	250	6	4 5/8	3 7/8	3 5/8	13.20
SD-18	350	6 2/3	4 5/8	3 7/8	3 3/4	14.25
SD-11	500	10 2/3	4 5/8	3 7/8	4 7/8	17.10
SD-19	750	12	4 5/8	3 7/8	5 1/8	21.80
SD-13	1000	15 2/3	4 5/8	3 7/8	6 1/8	28.50
SD-14	1500	20	4 5/8	3 7/8	7 1/8	37.20
SD-20	2000	24	6	4 1/2	6 5/8	70.00



HEAVY DUTY VOLTAGE REGULATOR

Type	input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TC-17	11 or 22	150	6	5 13/32	3 25/32	5	$ 25.20
TC-18	11 or 22	350	7	5 13/32	3 25/32	5 3/8	35.60
TC-11	11 or 22	500	11	5 13/32	3 25/32	5 3/4	41.00
TC-19	11 or 22	750	15	5 13/32	3 25/32	6 3/8	51.30
TC-13	11 or 22	1000	20	5 13/32	3 25/32	7 1/8	62.25
TC-14	11 or 22	1500	25	5 13/32	3 25/32	8 1/8	81.50
TC-20	11 or 22	2000	30	6 21/32	4 9/32	8 3/4	155.00
TC-17	12 or 21	150	6	5 13/32	3 25/32	5 1/4	29.50
TC-18	12 or 21	350	7	5 13/32	3 25/32	5 3/4	41.15
TC-11	12 or 21	500	11	5 13/32	3 25/32	6	47.30
TC-19	12 or 21	750	15	5 13/32	3 25/32	6 3/4	60.50
TC-13	12 or 21	1000	20	6 21/32	4 9/32	7 3/4	75.00
TC-14	12 or 21	1500	25	6 21/32	4 9/32	8 3/4	92.25
TC-20	12 or 21	2000	30	6 21/32	4 9/32	9 3/4	178.00



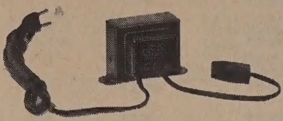
INDUSTRIAL MODEL

220/240 – 110/120 volts
Step-up or Step-down

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28	3000	38	6 1/8	7 1/16	6 1/4	$171.00
SD-29	4000	47	6 1/8	7 1/16	6 1/4	200.00
SD-22	5000	58	6 1/8	7 1/16	6 1/4	233.00
SD-30	6000	70	6 1/8	7 1/16	6 1/4	283.00

ALL IN STOCK . . . SAME DAY SHIPMENT!

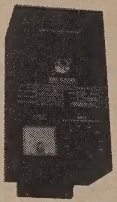
INDUSTRIAL DISCOUNT 40% INQUIRE FOR QUANTITY DISCOUNT



NORMAL DUTY MODEL

220/240 – 110/120 volts

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-24	50	1 1/2	2 3/8	3 3/4	2 1/4	$4.90
SD-21	65	1 2/3	2 3/8	3 3/4	2 1/4	5.15
SD-25	80	1 2/3	2 3/8	3 3/4	2 1/4	5.40
SD-23	100	1 2/3	2 3/8	3 3/4	2 3/8	5.70
SD-26	125	2	2 9/16	4	2 5/8	6.35
SD-27	150	2 1/4	2 9/16	4	2 5/8	6.90



PANEL MOUNTED VOLTAGE REGULATOR

Type	input Taps								Sec.
11	84	92	100	108	115	122	130	138	115
12	84	92	100	108	115	122	130	138	230
21	170	185	200	215	230	245	260	275	115
22	170	185	200	215	230	245	260	275	230

Catalog Number	Type	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
TA-20	11 or 22	2000	40	6 7/8	7 1/2	17 3/8	$182.00
TA-28	11 or 22	3000	50	6 7/8	7 1/2	17 3/8	208.00
TA-29	11 or 22	4000	60	6 7/8	7 1/2	17 3/8	253.00
TA-22	11 or 22	5000	70	6 7/8	7 1/2	17 3/8	293.00
TA-30	11 or 22	6000	85	6 7/8	7 1/2	17 3/8	348.00
TA-20	12 or 21	2000	40	6 7/8	7 1/2	17 3/8	198.00
TA-28	12 or 21	3000	50	6 7/8	7 1/2	17 3/8	222.00
TA-29	12 or 21	4000	60	6 7/8	7 1/2	17 3/8	270.00
TA-22	12 or 21	5000	70	6 7/8	7 1/2	17 3/8	313.00
TA-30	12 or 21	6000	85	6 7/8	7 1/2	17 3/8	370.00

INDUSTRIAL PANEL MODEL

220/240 – 110/120 volts
Step-up or Step-down

Catalog Number	Rating Watts	Weight Lbs.	Dimension Inches H	W	D	List Price
SD-28TA	3000	50	6 7/8	7 1/2	17 3/8	$198.00
SD-29TA	4000	60	6 7/8	7 1/2	17 3/8	229.00
SD-22TA	5000	72	6 7/8	7 1/2	17 3/8	265.00
SD-30TA	6000	85	6 7/8	7 1/2	17 3/8	316.00

Todd is a step-down, step-up specialist. Consult us for modifications including fusing, metering, non-standard voltage, specialized mountings, Mil-T-27A applications, hermetic sealing and other custom requirements.

TODD ELECTRIC CO., INC.
YONKERS, N.Y.

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Trade Discount Applies To List Prices Only.

NEW PRODUCTS

DI-T200 SERIES TRANSISTOR TRANSFORMERS

These revolutionary transistor transformers embody the same rugged reliable construction afforded by the unique winding techniques and physical construction found in the DO-T & DI-T transformers (see pg. 3). DI-T200 series differ by having straight pin, 1″ long, .017 d. Dumet wire, gold plated leads. To MIL-T-27A, size 5/16 x 3/8″, wt. 1/15 oz.

See UTC page 3 for other DO-T & DI-T units.

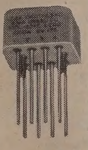
Type No.	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	Net Each
DI-T225	Interstage	80 CT 100 CT	32 Split 40 Split	$8.40
DI-T230	Output or Matching	300 CT	600 Split	7.20
DI-T235	Interstage	400 CT 500 CT	40 Split 50 Split	8.40
DI-T240	Interstage or Output (Ratio 2:1:1)	400 CT 500 CT	400 Split 500 Split	8.40
DI-T245	Output or Matching	500 CT 600 CT	50 CT 60 CT	6.90
DI-T250	Output or Mixing	500 CT	600 CT	7.20
DI-T255	Output or Matching	1,000 CT 1,200 CT	50 CT 60 CT	6.90
DI-T260	Output	1,500 CT	600 CT	7.20
DI-T265	Isolation or Interstage	2,000 CT 2,500 CT	8,000 Split 10,000 Split	8.70
DI-T270	Output or Driver	10,000 CT 12,000 CT	500 CT 600 CT	7.80
DI-T273	Output or Driver	10,000 CT 12,500 CT	1,200 CT 1,500 CT	7.80
DI-T276	Interstage or Driver	10,000 CT 12,000 CT	2,000 CT 2,400 CT	7.80
DI-T278	Interstage or Driver	10,000 CT 12,500 CT	2,000 Split 2,500 Split	8.70
DI-T283	Isolation or Interstage	10,000 CT 12,000 CT	10,000 CT 12,000 CT	8.40
DI-T288	Interstage or Driver	20,000 CT 30,000 CT	800 CT 1,200 CT	8.10
DI-T204	Split Inductor (2 wdgs)	Series: .1 hy @ 4 ma DC, 25Ω Parallel: .025 hy @ 8 ma DC, 6Ω		6.00
DI-T208	Split Inductor (2 wdgs)	Series: .9 hy @ 2 ma DC, 105Ω Parallel: .2 hy @ 4 ma DC, 26Ω		6.00
DI-T212	Split Inductor (2 wdgs)	Series: 2.5 hy @ 2 ma DC, 630Ω Parallel: .6 hy @ 4 ma DC, 157Ω		6.00
DI-T216	Split Inductor (2 wdgs)	Series: 4.5 hy @ 2 ma DC, 2300Ω Parallel: 1.1 hy @ 4 ma DC, 575Ω		6.90

LOW FREQUENCY HIGH Q COILS

Designed for high Q at low frequencies. Structure provides exceptional stability, adjusted to 2% at 1V. 60 cycles. Inductance variation less than 2% from −55°C to +130°C. Made to MIL-T-27A, MIL type TF4SX20YY. Size: 1 5/16 d. x 1 5/8″ h., cutout: 1″ d., wt: 5 oz.

Type No.	Series Hy (0 DC)	Parallel Hy (0 DC)	Series DCRΩ ±20%	Net Each
MQM-2	2	.5	21	$12.60
MQM-16	16	4	143	12.60
MQM-40	40	10	368	12.60
MQM-300	300	75	3700	13.50
MQM-600	600	150	5720	13.50

SUBMINIATURE AUDIO TRANSFORMERS & INDUCTORS



Lightweight, miniaturized units proved for ruggedness and reliability. Provided in hermetically sealed flat steel cases to MIL-T-27A, Grade 4, Class R, Life X. Units have straight pin terminals and mounting studs. Size: 7/8 x 23/32 x 9/16″, wt: 0.8 oz.

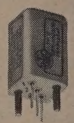
Type No.	Application	Pri. Imp. Ω	Sec. Imp. Ω	Net Each
FHA-15	Tr. Interstage	10 KCT/2.5K (Split)	200 CT/50 (Split)	$8.10
FHA-25	Tr. Interstage	20 KCT/5K (Split)	800 CT/200 (Split)	8.10

SPLIT INDUCTORS

FHI-3	Series Con: 60 Mhys-32 ma DC, 6Ω Parallel Con: 15 Mhys-64 ma DC, 1.5Ω	6.00
FHI-7	Series Con: 1 Hy-8 ma DC, 100Ω Parallel Con: .25 Hy-16 ma DC, 25Ω	6.00
FHI-11	Series Con: 2.4 Hys-2 ma DC, 160Ω Parallel Con: 6 Hy-4 ma DC, 40Ω	6.00

See UTC page 5 for similar hermetic audio units.

MINIATURE BAND PASS FILTERS



These two new stock filters are in drawn hermetically sealed cases shielded to reduce hum pick up. Manufactured and guaranteed to MIL-F-18327A. MIL Type FR4RX22AF. Attenuation is less than 3 db ±5% from center frequency, and 40 db per octave. Source and load 500 ohms. Size: 3/4 x 3/4 x 1 1/8″, wt: 1 oz.

UTC Type No.	Center Frequency
BPH-50000	50,000
BPH-100000	100,000

See UTC page 4 for complete series.

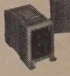
FULL WAVE BRIDGE & CENTER TAP PLATE TRANSFORMERS

These units are designed for both full wave center tap and full wave bridge applications.

MILITARY TYPE: Hermetically sealed to MIL-T-27A. MIL type TF4RX02 in MIL cases. Center tapped high voltage winding provides either of two secondaries. Primary 105/115/210/220 V. 50/60 cycles. Ratings are choke input. Bold type listing is industrial rating — light type listing are military ratings. Physically similar to units without "W" suffix, see UTC page 5.

Type No.	HV Sec. CT	Approx. Volts	MA DC	**MA DC**	MIL Case	Net Each
H-110W	1050 1200	730 860	210 190	**280** **265**	MB	$29.70
H-111W	1050 1200	830 960	350 310	**420** **380**	NA	36.00
H-112W	1500 1900	1230 1580	220 190	**270** **230**	NA	39.60

See complete series on UTC page 5.



COMMERCIAL TYPES: Primaries for 105/115/220/230 V. 50/60 cycles. For reduced power, secondaries can be halved using 220V. Pri. on 110 volts, then may be used on 25 to 43 cycles. Physically similar to units without "W" suffix, see UTC page 9.

UTC Type	High Voltage	DC MA	DC Volts	Net Each
CG-300W	625-515-0-515-625	140	1000/800	$17.70
CG-301W	580-530-300-0-300-530-580	290	950/850/500	26.40
CG-302W	950-750-0-750-950	250	1520/1220	33.00
CG-303W	1500-1235-400-0-400-1235-1500	180/210	2500/2000/600	39.60
CG-304W	1500-1235-0-1235-1500	550	2500/2000	156.00
CG-305W	2400-1750-0-1750-2400	210	4000/3000	69.00
CG-306W	2400-1750-0-1750-2400	350	4000/3000	165.00
CG-311W	1500-1235-0-1235-1500	350	2500/2000	69.00

See UTC page 9 for complete listing.

PIP SERIES TRANSISTOR PULSE TRANSFORMERS

UTC's PIP series of subminiature transistor type pulse transformers is designed to give a maximum of component density in equipments, their configuration being especially compatible with transistors. The design is based on the UTC DO-T and DI-T series to impart exceptional reliability. PIP-1 through PIP-9 have a ratio of 4:4:1, PIP-10 through PIP-12 have a ratio of 5:3:1. All units are checked and adjusted in a transistor test circuit to give the required pulse width.

Hermetically sealed, manufactured & guaranteed to MIL-T-20138B by full environmental testing . . . all units, completely METAL CASED, MIL type TP6RX4410CZ.

All Units Individually Adjusted to Parameters Shown in Table

5/16″ Dia. x 3/16″ high
Weight 1/20 oz.

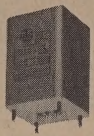
	APPROX. DCR, OHMS			BLOCKING OSCILLATOR PULSE					COUPLING CIRCUIT CHARACTERISTICS							
Type No.	1-Brn 2-Rd	3-Org 4-Yel	5-Grn 6-Blu	Width µSec.	Rise Time	% Over Shoot	Droop %	% Back Swing	P Width µSec.	Volt Out	Rise Time	% Over Shoot	Droop %	Back Swing	Imp. in, out,	Net Each
PIP-1	.18	.20	.07	.05	.02	0	0	37	.05	9	.018	0	0	12	50	$6.00
PIP-2	.47	.56	.17	.1	.025	0	0	25	.1	8	.02	0	0	5	50	6.00
PIP-3	1.01	1.25	.37	.2	.030	2	0	15	.2	7	.035	0	0	5	100	6.00
PIP-4	1.5	1.85	.54	.5	.05	0	0	15	.5	7	.06	0	0	0	100	6.00
PIP-5	2.45	3.1	.9	1	.08	0	0	14	1	6.8	.15	0	0	5	100	6.00
PIP-6	3.0	3.7	1.1	2	.10	0	0	15	2	6.6	.18	0	2	10	100	6.00
PIP-7	4.9	6.05	1.8	3	.20	0	0	14	3	6.8	.20	0	2	10	100	6.00
PIP-8	8.0	9.7	2.9	5	.30	0	0	3	5	7.9	.22	0	13	25	200	6.00
PIP-9	13.1	15.9	4.7	10	.35	0	5	12	10	6.5	.4	0	15	20	200	6.00
PIP-10	.55	.41	.15	.1	.01	0	0	20	.1	8	.01	0	0	5	140/50	6.00
PIP-11	2.9	2.2	.82	1	.02	4	4	6	1	6.6	.05	0	6	12	280/100	6.00
PIP-12	9.4	7.1	2.6	5	.05	0	12	12	5	8	.09	2	12	25	560/200	6.00
PIP-100	Transistor pulse transformer kit, consisting of PIP-1 thru PIP-9 in plastic case.															51.00

© U.C.P., Inc.

NEW PRODUCTS

1 NEW LOW FREQUENCY LOW PASS FILTER

For Transistor & Tube Applications
Metal Cased, Hermetically Sealed to MIL-F-18327A



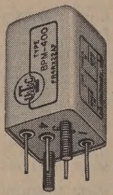
UTC Type	Frequency Cycles	Net Each
LLP-10	10	**$60.00**

See UTC page 4 for complete stock filter listings.

11 NEW MINIATURE FILTERS

(MINIFILTERS)

For Transistor & Tube Applications
Metal Cased, Hermetically Sealed to MIL-F-18327A



UTC Type	Frequency Cycles	Net Each
	BAND PASS	
BPM-800	800	**$27.00**
BPM-1200	1200	**27.00**
BPM-4800	4800	**27.00**

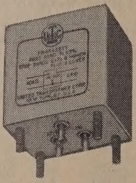
See UTC page 1 for BPH types.

UTC Type	Frequency Cycles	Net Each
	HIGH PASS	
HPM-1500	1500	**30.00**
HPM-4000	4000	**30.00**
	LOW PASS	
LPM-1500	1500	**30.00**
LPM-6000	6000	**30.00**
LPM-10000	10000	**30.00**
LPM-15000	15000	**30.00**

See UTC page 4 for complete series.

10 NEW STANDARD FILTERS

For Transistor & Tube Application
Metal Cased, Hermetically Sealed to MIL-F-18327A



UTC Type	Frequency Cycles	Net Each
	BAND PASS	
BMI-30	30	**$36.00**
BMI-50	50	**30.00**
BMI-90	90	**30.00**
BMI-150	150	**30.00**
BMI-200	200	**30.00**
BMI-240	240	**30.00**
	HIGH PASS	
HMI-100	100	**31.50**
HMI-300	300	**31.50**
	LOW PASS	
LMI-100	100	**31.50**
LMI-3000	3000	**31.50**

See UTC page 4 for complete series.

1 NEW MAGNETIC AMPLIFIER TRANSFORMER

(60 CYCLE TYPE)

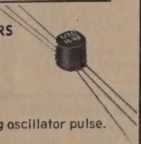
Metal Cased, Hermetically Sealed to MIL-T-27A
MIL TYPE TF4SX02FA

MAT-65 115V. 60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma.

See UTC page 6 for complete series.

Net $12.60 Each

7 NEW MINIATURE PULSE TRANSFORMERS



Both Transistor & Tube Types
Hermetically Sealed to MIL-T-21038B
RATIO 5:3:1

Coupling circuit characteristic shown; may be used for blocking oscillator pulse.

UTC Type	P Width µSec.	Volts Out	Rise Time	% Over Shoot	Droop %	% Back Swing	Imp. in, out, ohms	Net Each
H-461	.1	19	.02	3	5	20	700/250	**$6.75**
H-501	2	27	.06	12	15	35	1400/500	**6.00**
H-531	7	24	.23	12	10	40	2800/1000	**6.00**
H-561	20	23	.7	5	10	10	2800/1000	**6.30**
H-611	.1	8.2	.02	0	0	30	140/50	**6.60**
H-641	1	7	.07	0	20	30	280/100	**6.60**
H-671	5	8	.2	0	25	30	560/200	**7.50**

See UTC page 6 for complete series & parameters.

6 NEW TRANSISTOR TRANSFORMERS

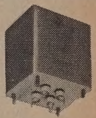
DO-T & DI-T SERIES
Hermetically Sealed to MIL-T-27A

UTC Type	Application	Pri. Imped. Ohms	Sec. Imped. Ohms	Net Each
DI-T43	Interstage	400 CT 8 ma 500 CT 6 ma	40 Split 50 Split	**7.50**
DI-T44	Interstage	80 CT 12 ma 100 CT 10 ma	32 Split 40 Split	**7.50**
DO-T47	Isolation	9K/10K CT 1 ma	9K/10K CT	**$8.10**
DO-T48	Interstage	8K/10K CT 1 ma	1.2K/1.5K CT	**7.80**
DO-T49	Split Inductor	Series: 20 hy-1 ma, 5100Ω Parallel: 5 hy-2 ma, 1275Ω		**7.80**
DO-T50	Split Inductor	Series: .075 hy-10 ma, 10.5Ω Parallel: .018 hy-20 ma, 2.6Ω		**5.70**

See UTC page 3 for complete.series.

4 NEW FILTER INDUCTORS

Transistor & Tube Applications
Hermetically Sealed to MIL-T-27A

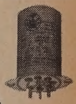


UTC Type	Ind Mhy	@	ma DC	Res Ohms	Test V RMS	Net Each
H-164	45 11.25		35 70	1.2 .295	500	**$6.60**
H-166	125 31		50 100	1.2 .3	500	**7.50**
H-168	68 17		100 200	.8 .2	750	**8.40**
H-300	1000 1250		5 10	40 10	500	**6.30**

See UTC page 5 for complete series.

5 NEW HERMETIC AUDIO UNITS

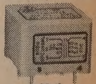
For Transistor & Tube Applications
Metal Cased, Hermetically Sealed to MIL-T-27A



UTC Type	Application		Net Each
H-222	Split Inductor	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm	**$6.00**
H-224	Split Inductor	Series: 1 Hy-20 ma, 60 ohms Parallel:.25 Hy-40 ma, 15 ohms	**6.00**
H-283	Mixing or Matching	Pri. & Sec. Imped. ohms: 50, 125/150, 200/250, 333, 500/600	**17.40**
H-284	Split Inductor	Series: 4 Hys-50 ma, 100 ohms Parallel: 1 Hy-100 ma, 25 ohms	**7.20**
H-286	Split Inductor	Series: 40 Hys-15 ma, 1000 ohms Parallel: 10 Hys-30 ma, 250 ohms	**7.50**

See UTC page 5 for complete series.

5 NEW SUBOUNCER & SUB-SUBOUNCER AUDIO UNITS



Printed Circuit — Transistor & Tube Applications
Hermetically Sealed, Molded to MIL Grade 5

UTC Type	Application	Pri. Imped. Ohms	Sec. Imped. Ohms	Net Each
SO-14P	Transistor Interstage	80 CT 100 CT	32 Split 40 Split	**$8.10**
SSO-8P	Transistor to PP Sec	10K	2000 CT	**8.10**
SSO-14P	Transistor Interstage	10K CT 25K CT	200 CT 500 CT	**8.40**
SSO-15P	Transistor Interstage	20K CT 30K CT	800 CT 1200 CT	**8.40**
SSO-20P	Output	1.5K CT	600 CT	**8.10**

See UTC page 10 for complete series.

2 NEW OUNCER AUDIO UNITS

UTC Type	Application		Net Each
0-34	Split Inductor	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm	**$5.10**
0-34	Split Inductor	Series: 1 hy-20 ma, 60 ohms Parallel: .25 hy-40 ma, 15 ohms	**5.10**

See UTC page 10 for complete series.

2 NEW ULTRA COMPACT AUDIO UNITS

For Transistor & Tube Applications

UTC Type	Application		Net Each
A-42	Split Filter Inductor	Series: 4 hys 50 ma DC, 100Ω Parallel: 1 hy-100 ma DC, 25Ω	**$6.60**
A-43	To 2 simult. lines or transis.	Pri. Imp. Ohms 600/150 (Split) Sec. Imp. Ohms 2, ea. 600/150 (Sp)	**14.10**

See UTC page 8 for complete series.

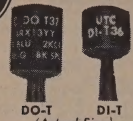
1 NEW LINEAR STANDARD TRANSFORMER

UTC Type	Application	Pri. Imp. Ohms	Sec. Imp. Ohms	Level dbm	Net Each
LS-68	Matching to 2 Simult. lines or trans.	600/150 (Split)	2, each 600/150 (Sp)	+15	**$24.00**

See UTC page 8 for complete series.

TRANSISTOR TRANSFORMERS *Hermetically sealed to MIL-T-27A*

DO-T AND DI-T TRANSISTOR TRANSFORMERS


DO-T DI-T
(Actual Size)

Revolutionary transistor transformers hermetically sealed to MIL-T-27A specs. Plastic insulated solderable leads, firmly anchored to withstand 10 pound pull. Ideal for printed circuits. DO-T: 5/16" dia. x 13/32" long, wt., 1/10 oz. D1-T: 5/16" dia. x 1/4" long, wt., 1/15 oz. these compact units provide wide frequency response, high efficiency and low distortion. See **UTC page 1 for NEW DI-T200 series.**

DO-T Type	DI-T Type	Net Each	Application	Pri. Imped., Ohms	Sec. Imped. Ohms
DO-T1	DI-T1	$6.00	a	20K/30K, 0.5 ma	800/1200
DO-T2	DI-T2	5.40	b	500/600, 3 ma	50/60
DO-T3	DI-T3	5.40	b	1K/1.2K, 3 ma	50/60
DO-T4	....	5.40	b	600, 3 ma	3.2
DO-T5	DI-T5	5.40	b	1.2K, 2 ma	3.2
DO-T6	....	6.00	b	10K, 1 ma	3.2
DO-T7	....	6.60	c	200K	1K
DO-T8	DI-T8	4.80	d*	3.5 hys. @ 2 ma	2.5 hys.‡‡
DO-T9	DI-T9	6.60	e	10K/12K, 1 ma	500/600 CT
DO-T10	DI-T10	6.60	f	10K/12.5K, 1 ma	1.2K-1.5K CT
DO-T11	DI-T11	6.60	f	10K/12.5K, 1 ma	2K/2.5K CT
DO-T12	....	5.70	b	150/200 CT, 10 ma	12/16
DO-T13	....	5.70	b	300/400 CT, 7 ma	12/16
DO-T14	....	6.00	b	600/800 CT, 5 ma	12/16
DO-T15	....	6.00	b	800/1070 CT, 4 ma	12/16
DO-T16	....	6.00	b	1K/1330 CT, 3.5 ma	12/16
DO-T17	....	6.00	b	1.5K/2K CT, 3 ma	12/16
DO-T18	....	6.30	b	7.5K/10K CT, 1 ma	12/16
DO-T19	DI-T19	6.00	b	300 CT, 7 ma	600
DO-T20	DI-T20	6.00	b	500 CT, 5.5 ma	600
DO-T21	DI-T21	6.00	b	900 CT, 4 ma	600
DO-T22	DI-T22	6.00	b	1500 CT, 3 ma	600
DO-T23	DI-T23	6.90	a	20K/30K CT, .5 ma	0.8K/1.2K CT
DO-T24	....	7.50	c	200K CT	1K CT
DO-T25	DI-T25	7.20	a	10K/12K CT, 1 ma	1.5K/1.8K CT
DO-T26	DI-T26	5.70	d†	6 hys. @ 2 ma	4.5 hys.‡‡
DO-T27	DI-T27	4.80	d‡	1.25 hys. @ 2 ma	0.9 hy.‡‡
DO-T28	DI-T28	4.80	d§	0.3 hy. @ 4 ma	0.1 hy.‡‡
DO-T29	....	5.70	b	120/150 CT, 10 ma	3.2/4
DO-T30	....	5.70	b	320/400 CT, 7 ma	3.2/4
DO-T31	....	6.00	b	640/800 CT, 5 ma	3.2/4
DO-T32	....	6.00	b	800/1K CT, 4 ma	3.2/4
DO-T33	....	6.00	b	1060/1330 CT, 3.5 ma	3.2/4
DO-T34	....	6.00	b	1.6K/2K CT, 3 ma	3.2/4
DO-T35	....	6.30	b	8K/10K CT, 1 ma	3.2/4
DO-T36	DI-T36	7.50	a	10K/12K CT, 1 ma	10K/12K CT
DO-T37	DI-T37	7.80	a	2K/2.5K CT, 3 ma	8K/10K Split
DO-T38	DI-T38	7.80	a	10K/12K CT, 1 ma	2K/2.4 Split
DO-T39	....	7.80	a	20K/30K CT, .5 ma	1K/1.5K Split
DO-T40	....	8.40	a	40K/50K CT, .25 ma	400/500 Split
DO-T41	DI-T41	7.50	a	400/500 CT, 8/6 ma	400/500 Split
DO-T42	....	7.50	a	400/500 CT, 8/6 ma	120/150 Split
DO-T43	DI-T43	7.50	a	400/500 CT, 8/6 ma	40/50 Split
DO-T44	DI-T44	7.50	a	80/100 CT, 12/10 ma	32/40 Split
DO-T45	....	7.80	a	1K/1.25K CT, 3.5 ma	16K/20K Split
DO-T46	....	8.40	c	100K CT	500 CT
DO-T47	....	8.10	a	9K/10K, 1 ma	9K/10K CT
DO-T48	....	7.80	a	8K/10K, 1 ma	1.2K/1.5K CT
DO-T49	....	7.80	d§§	Series—.075 hys @ 10 ma, 10.5Ω Parallel—.018 hys @ 20 ma, 2.6Ω	
DO-T50	....	5.70	d§§	Series—20 hys @ 1 ma, 5100Ω Parallel—5 hys @ 2 ma, 1275Ω	
DO-T500	....	6.60	j	Pri.28V,380-1K∿,sec,6.3V.@60 ma.	
DO-TSH	DI-TSH	.90		High mu shield and cover; 25 db	

*630 ohms. †2100 ohms. ‡100 ohms. §25 ohms.
‡‡**DI-T** primary impedance. §§2 Wdgs.
a—Interstage; b—Output; c—Input; d—Inductor; e—Driver or Output; f—Driver; g—matching; j—Power Unit.

UNIVERSAL TRANSISTOR SUPPLY TRANSFORMERS

Low Voltage DC Supply
Telephone Supply
Bias Supply
Battery Chargers
Plating Rectifiers

UTC universal transistor supply transformers are high reliability units in drawn MIL cases. Primary tapes can modify nom. AC voltages by −6%, +6%, and +12%. The capacitor following the rectifier affects the DC voltage.

PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 8.25 to 40.5

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-915	6V-.065A to 53V-.02A	6V-.085A to 53V-.025A	AH	**$11.70**
H-925	6V-.22A to 53V-.07A	6V-.28A to 53V-.085A	AJ	**12.90**
H-935	6V-1.2A to 53V-4A	6V-1.52A to 53V-.48A	FA	**14.40**
H-94	6V-3A to 53V-1A	6V-3.8A to 53V-1.2A	HA	**19.80**
H-95	6V-7.5A to 53V-2.5A	6V-9A to 53V-3A	KA	**28.80**
H-96	6V-18A to 53V-6A	6V-23A to 53V-7.5A	OA	**48.00**

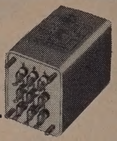
PRIMARY 115 VOLTS, 50/60 CYCLES
NOMINAL SEC. VOLTS, 16.5 TO 81

Type No.	MIL DC Range	Indust. DC Range	MIL CASE	Net Each
H-965	12V-1.5A to 106V-.5A	12V-1.9A to 106V-.6A	HA	**20.40**

HERMETIC SEALED TRANSISTOR/FILAMENT SUPPLY TRANSF.

Primary: 105/115/210/220 volts, 50/60 cycles, except H-130, H-137, H-138, H-104 (115v.) and H-131 (115/220v.) Suited to 400/100 cycle service. H-128: 6½" x 5½" x 7¾" h. (wt. 34 lbs.) H-129: 6½" x 5½" x 7¾" h. (wt. 28 lbs.)

METAL CASED TF4 TYPE



MIL T-27A RATINGS IN REGULAR TYPE,
INDUSTRIAL RATINGS IN BOLD TYPE

Type No.	MIL Type	Sec. Volts	Amps. (MIL)	Amps. (Indust.)	Sec. Test V. RMS	MIL Case	Net Each
H-119	TF4RX01AH	6.3CT	.3	**.38**	1500	AH	**$ 8.40**
H-120	TF4RX01GB	2.5	10	**12**	4000	GB	**13.80**
H-121	TF4RX01JB	2.5	10	**12**	10000	JB	**18.00**
H-122	TF4RX01KB	2.5	20	**26**	10000	KB	**21.00**
H-123	TF4RX01NB	2.5 2.5 2.5	5 5 10	**7.5** **7.5** **15**	10000	NB	**36.00**
H-124	TF4RX01FB	5	3	**3**	2000	FB	**12.00**
H-125	TF4RX01KB	5	10	**12**	10000	KB	**21.00**
H-126	TF4RX01LA	5	20	**25**	10000	LA	**27.00**
H-127	TF4RX01NA Term. Opp. Mtg.	5	20	**30**	21000	NA	**45.00**
H-128	TF4RX01YY Term. Opp. Mtg.	5	60	**75**	21000		**81.00**
H-129	TF4RX01YY Term. Opp. Mtg.	5 5 5	10 10 20	**12** **12** **24**	21000		**90.00**
H-130	TF4RX01AJ	6.3CT	.6	**.75**	1500	AJ	**9.00**
H-131	TF4RX01FB	6.3CT	2	**2.5**	2500	FB	**12.00**
H-132	TF4RX01JA	6.3CT 6.3CT	6 6	**7** **7**	2500	JA	**19.20**
H-133	TF4RX01HB	6.3CT	7	**8**	2500	HB	**15.00**
H-134	TF4RX01HA	6.3CT	10	**12**	2500	HA	**16.80**
H-135	TF4RX01JB	10 CT	10	**13**	2500	JB	**21.00**
H-136	TF4RX01LA	14, 12, 11 CT	10	**14**	2500	LA	**27.00**
H-137	TF4RX01EB	6.3 6.3	.6 .6	**.75** **.75**	1500	EB	**12.00**
H-138	TF4RX01GA	12.6 12.6	2 2	**2.5** **2.5**	1500	GA	**19.50**
		400 CYCLE TYPE					
H-139*	TF4RX01FA Pri. 400 cyc. 57.5,99.7,115V	12.6CT 12.6	2 2	**2.5** **2.5**	1500	FA	**18.00**
H-140	TF4RX01YY Pri. 400 Cyc.	6.3	.6	**.75**	500	RC-25 UTC Pg. 5	**7.80**

*Two H-139's Scott connected provide 26 volt two phase from 115V. three phase 400 cycle input.

400 CYCLE MOLDED TYPES

Primary 105/115
Volts 380-1000 Cycles. Sec: 6.3
VCT 2500V RMS Test

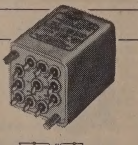
MOLDED 400 CYCLE TYPE TF5SX01ZZ

Type No.	Sec. Amp.	L In.	W In.	H In.	Wt. Lbs.	Net Each
H-101	**3.5**	**1 25/32**	**1 21/32**	**2**	**.3**	**$14.10**
H-102	**5.5**	**1¾**	**2**	**2¼**	**.44**	**15.00**
H-103	**10**	**2 5/16**	**2⅛**	**2½**	**.8**	**17.40**
H-104	**25**	**2⅞**	**2½**	**3 1/32**	**1.5**	**21.90**
H-118	.3	Sub ounces mold see pg. 10				**9.00**

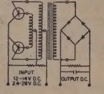
TRANSISTOR INVERTER TRANSFORMERS

High reliability (layer insulated) types providing high efficiency in small size. Units are in drawn MIL cases. Circuit details supplied with transformer. With 6 V. input instead of 12 V., output voltage is halved, current rating remains the same.

FOR 12/14 OR 24/48 VOLT BATTERY

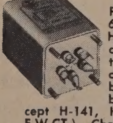


Type No.	DC output, when used in circut shown	MIL Case	Net Each
H-97	**250V.-60MA**	**AH**	**$14.70**
H-98	**375V.-100MA**	**AJ**	**15.90**
H-99	**425V.-175MA**	**FA**	**20.40**
H-100	**550V.-200MA**	**GB**	**21.00**



IMMEDIATE
DELIVERY
ON ALL ITEMS
FROM STOCK

TRANSISTOR SUPPLY TRANSFORMERS



Primary 115V. 50/60 cycles (tapped on H-143 thru H-146 for dual secondary voltages). DC ratings are approximate, based on silicon bridge rectifier (except H-141, H-142 also shown F.W.CT.). Choke input DCV is based on 10% voltage drop in choke. Condenser value, C, is in 1000 mfd. H-141, H-142, H-147 listing under "Secs in parallel" is single winding. All units MIL type TF4RX02.

			Sec. in Parallel					Sec. in Series						
Type No.	Sec. V Rms	Sec. A Rms	Choke DCV	Input DCA	Cond. DVC	Input DCA	C	Choke DCV	Input DCA	Cond. DVC	Input DCA	C	MIL Case	Net Each
H-141	20 CT	.3	16.5 8	.3 .43	26 12	.2 .3	.2 .5						EB	$10.20
H-142	20 CT	.6	16.5 9	.6 .85	26 13	.4 .6	.4 1						EA	12.90
H-143	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	1	28/35	1.5	43/56	1	.5	HA	18.60
H-144	17/21.5 17/21.5	4 4	14/17.5	8	18.5/25	5	2	28/35	4	43/56	2.5	1	LA	30.00
H-145	17/21.5 17/21.5	9 9	14/17.5	18	18.5/25	12	6	28/35	9	43/56	6	4	RC-175	45.90
H-146	34/43 34/43	4.5 4.5	28/35	9	43/56	6	4	56/70	4.5	85/110	3	1	UTC Pg. 9	45.90
H-147	10	20	8.2	20	10	13	12						KA	27.00

ELECTRIC WAVE FILTERS *Hermetically sealed to MIL-T-27A* and Transistor Transformers *(Commercial Type)*

INTERSTAGE AND LINE FILTERS

Available in stock frequencies listed below (numerical part of type number is cutoff frequency in cps). Compact shielded cases hermetically sealed to MIL-T-27A specs. BMI, LMI, BML cases: 1³⁄₁₆" x 1¹¹⁄₁₆" x 1⅝" h.; wt., 6 oz. HMI, HML, LML cases: 1³⁄₁₆" x 1¹¹⁄₁₆" x 2½" h.; wt., 9 oz. The BMI filters are band pass interstage units designed to operate between a vacuum tube plate (or 10,000 ohms) and a grid. They provide a gain of 2 at center frequency. BTI units are same as BMI, but 10,000 ohms output.

BML band pass filters, similarly, work into a grid, but have an input impedance of 500/600 ohms. They provide a gain of 9.

HMI filters are high pass interstage units.

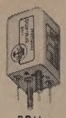
LMI filters are low pass interstage units.

HML filter are high pass with input and output impedance of 500/600 ohms.

LML filters are low pass filters with input and output impedance of 500/600 ohms.

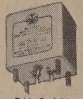
LLP low frequency low pass filter, loss of less than 40 db at 20 cycles. Source & load 100K ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BMI-30	$36.00	LMI-200	$31.50	HMI-1000	$31.50
BMI-50	30.00	LMI-400	31.50	HMI-2000	31.50
BMI-60	30.00	LMI-500	31.50	HMI-3000	31.50
BMI-90	30.00	LMI-800	31.50	BML-400	30.00
BMI-100	30.00	LMI-1000	31.50	BML-1000	30.00
BMI-120	30.00	LMI-1500	31.50	HML-200	39.00
BMI-150	30.00	LMI-2000	31.50	HML-300	39.00
BMI-200	30.00	LMI-2500	31.50	HML-500	39.00
BMI-240	30.00	LMI-3000	31.50	HML-1000	39.00
BMI-400	30.00	LMI-4000	31.50	LML-1000	31.50
BMI-500	30.00	LMI-5000	31.50	LML-1500	31.50
BMI-750	30.00	LMI-10000	31.50	LML-2000	31.50
BMI-800	30.00	BTI-60	36.00	LML-2500	31.50
BMI-1000	30.00	BTI-100	36.00	LML-3000	31.50
BMI-1500	30.00	BTI-120	36.00	LML-4000	31.50
BMI-2000	30.00	HMI-100	31.50	LML-8000	31.50
BMI-3000	30.00	HMI-200	31.50	LML-10000	31.50
BMI-4000	30.00	HMI-300	31.50	LML-12000	31.50
BMI-5000	30.00	HMI-400	31.50	LLP-10	60.00
BMI-10000	30.00	HMI-500	31.50		
LMI-100	31.50	HMI-800	31.50		

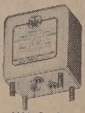


BPM

HPM & LPM



BM & LM Series



HM Series

MINIFILTERS

These units provide almost the same characteristics as the standard interstage units listed to the left, although extremely miniaturized. Hermetically sealed to MIL-T-27A specs. B type case: ¾" x ¾" x 1⅛" h.; wt., 1 oz. H and L cases: 1" x 1" x 1⅜" h.; wt., 2¼ oz. Cutoff frequencies in cps indicated by type number.

BPM units (BAND PASS) have 2:1 gain. Attenuation is approximately 2 db ±3% from center frequency, and 35 db per octave as shown. Input 10,000 ohms, output to grid, tapped for 10,000 ohms to provide for transistor circuits. For tube circuits continuity is on grid side, for transistor use continuity is on input side.

BPH units (BAND PASS) attenuation less than 3 db ±5% from center frequency, and 40 db per octave. Source and load 500 ohms.

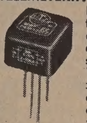
HPM units (HIGH PASS) are down less than 6 db at cutoff frequency, and more than 30 db at .67 cutoff frequency, 40 db at .6 cutoff frequency. Input and output 10,000 ohms.

LPM units (LOW PASS) are down less than 6 db at cutoff frequency, and more than 30 db at 1.5 cutoff frequency, 40 db at 1.65 cutoff frequency. Input and output 10,000 ohms.

UTC Type	Net Ea.	UTC Type	Net Ea.	UTC Type	Net Ea.
BPH-50000	$27.00	BPM-2000	$27.00	LPM-200	$30.00
BPH-100000	27.00	BPM-3000	27.00	LPM-500	30.00
BPM-400	27.00	BPM-4000	27.00	LPM-1000	30.00
BPM-440	27.00	BPM-4800	27.00	LPM-1500	30.00
BPM-500	27.00	BPM-5000	27.00	LPM-2000	30.00
BPM-600	27.00	BPM-10000	27.00	LPM-3000	30.00
BPM-750	27.00	HPM-500	30.00	LPM-5000	30.00
BPM-800	27.00	HPM-1000	30.00	LPM-6000	30.00
BPM-1000	27.00	HPM-1500	30.00	LPM-10000	30.00
BPM-1200	27.00	HPM-4000	30.00	LPM-15000	30.00
BPM-1500	27.00				

TELEMETERING BAND PASS FILTERS

TMN-.4 thru TMN-1.7
¹¹⁄₁₆ x 1⁹⁄₃₂ x 2"
Weight 3.5 oz.
TMN-2.3 thru TMW-70
²³⁄₃₂ x ²³⁄₃₂ x 1⅜"
Weight 1.2 oz.



MNF-.4 thru MNF-5.4
1³⁄₁₆" Sq. x ½" high
Weight 1 oz.
MNF-7.35 thru MWF-70
²³⁄₃₂" Sq. x ½" high
Weight ⅓ oz.

Both TMN and TMW types are designed for 100 K input and output impedance and have an insertion loss of less than 6 db. Four pin hermetic header matches small Winchester socket.

TMN filters are down less than 3 db at ± 7.5% of center frequency. They are down more than 18 db at ± 25% of center frequency. Attenuation is greater than 40 db beyond 1.75 Fc and .58 Fc.

TMW filters are down less than 3 db at ± 15% of center frequency. They are down more than 20 db at ± 50% of center frequency. Attenuation is greater than 40 db beyond 2.5 Fc and .4 Fc.

MNF and MWF (Minifilter) provide same performance as filters described above but are extremely miniaturized. Slanted toward use with transistors. Pin terminals ideally suited for printed circuits.

UTC Type	Net Each	Center Frequ'cy KC	Band Width±	UTC Type	Net Each
TMN- .4	$39.00	.4	7½%	MNF- .4	$39.00
TMN- .56	39.00	.56	7½%	MNF- .56	39.00
TMN- .73	39.00	.73	7½%	MNF- .73	39.00
TMN- .96	39.00	.96	7½%	MNF- .96	39.00
TMN-1.3	39.00	1.3	7½%	MNF-1.3	39.00
TMN-1.7	39.00	1.7	7½%	MNF-1.7	39.00
TMN-2.3	39.00	2.3	7½%	MNF-2.3	39.00
TMN-3.0	39.00	3.0	7½%	MNF-3.0	39.00
TMN-3.9	39.00	3.9	7½%	MNF-3.9	39.00
TMN-5.4	39.00	5.4	7½%	MNF-5.4	39.00
TMN-7.35	39.00	7.35	7½%	MNF-7.35	39.00
TMN-10.5	42.00	10.5	7½%	MNF-10.5	42.00
TMN-14.5	42.00	14.5	7½%	MNF-14.5	42.00
TMN-22	42.00	22	7½%	MNF-22	42.00
TMN-30	42.00	30	7½%	MNF-30	42.00
TMN-40	42.00	40	7½%	MNF-40	42.00
TMN-52.5	42.00	52.5	7½%	MNF-52.5	42.00
TMN-70	42.00	70	7½%	MNF-70	42.00
TMW-22	42.00	22	15%	MWF-22	42.00
TMW-30	42.00	30	15%	MWF-30	42.00
TMW-40	42.00	40	15%	MWF-40	42.00
TMW-52.5	42.00	52.5	15%	MWF-52.5	42.00
TMW-70	42.00	70	15%	MWF-70	42.00

TELEGRAPH TONE CHANNEL FILTERS

TGT CASE
1½ x 1½ x 2½
Mtg 1¹⁄₁₆ x 1¹⁄₁₆"
Screws 6-32
Weight ......8 oz.

TGR CASE
1½ x 1½ x 4¼
Mtg 1¹⁄₁₆ x 1¹⁄₁₆"
Screws 6-32
Weight ....15 oz.

UTC band pass filters for mutiplex transmitting and receiving provide maximum stability in miniature sizes. Stock filters cover all standard transmit and receive bands. All units employ 7 terminal header matching subminiature 7 pin socket.

TGR (receiving) & TGT (transmitting) filters are 600 ohms in and out. They are down less than 3 db at ± 42.5 cycles from center frequency. TGR units are down more than 30 db at ± 170 cycles. Attenuation is greater than 15 db at adjacent channel crossover. TGT units are down more than 16 db at ± 170 cycles. Attenuation is greater than 7.5 db at adjacent channel crossover. *All units are MIL type FR4RX-22YY.*

UTC Type	Net Each	Center Frequency (Cyc.)	UTC Type	Net Each
TGT-425	$42.00	425	TGR-425	$72.00
TGT-595	42.00	595	TGR-595	72.00
TGT-765	42.00	765	TGR-765	72.00
TGT-935	42.00	935	TGR-935	72.00
TGT-1105	36.00	1105	TGR-1105	63.00
TGT-1275	36.00	1275	TGR-1275	63.00
TGT-1445	36.00	1445	TGR-1445	63.00
TGT-1615	36.00	1615	TGR-1615	63.00
TGT-1785	33.00	1785	TGR-1785	60.00
TGT-1955	33.00	1955	TGR-1955	60.00
TGT-2125	33.00	2125	TGR-2125	60.00
TGT-2295	33.00	2295	TGR-2295	60.00
TGT-2465	30.00	2465	TGR-2465	57.00
TGT-2635	30.00	2635	TGR-2635	57.00
TGT-2805	30.00	2805	TGR-2805	57.00
TGT-2975	30.00	2975	TGR-2975	57.00
TGT-3145	30.00	3145	TGR-3145	57.00
TGT-3315	30.00	3315	TGR-3315	57.00

IMMEDIATE DELIVERY ON ALL ITEMS

TRANSISTOR TRANSFORMERS *(Commercial Type)*

CHANNEL FRAME FILAMENT/TRANSISTOR TRANSFORMERS

Pri. 115 V. 50/60 Cycles—Test Volts RMS: 1500

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-1	2.5 VCT-3A	2⅞	1⅝	1¹¹⁄₁₆	2⅜	¾	$2.85
FT-2	6.3 VCT-1.2A	2⅞	1⅝	1¹¹⁄₁₆	2⅜	¾	3.15
FT-3	2.5 VCT-6A	3⁵⁄₁₆	1⅞	2	2¹³⁄₁₆	1	3.45
FT-4	6.3 VCT-3A	3⁵⁄₁₆	1⅞	2	2¹³⁄₁₆	1	3.45
FT-5	2.5 VCT-10A	3¾	2⅛	2⁵⁄₁₆	3⅛	1½	3.90
FT-6	5 VCT-3A	3¾	2⅛	2⁵⁄₁₆	3⅛	1½	4.05
FT-7	7.5 VCT-3A	3¾	2⅛	2⁵⁄₁₆	3⅛	1½	4.05
FT-8	6.3 VCT-8A	4	2½	2⅝	3⁹⁄₁₆	2½	4.80
FT-10	24 VCT-2A or 12V-4A	4	2⅝	2¹¹⁄₁₆	3⁹⁄₁₆	2½	5.10
FT-11	24 VCT-1A or 12 V-2A	3¾	2⅛	2⁵⁄₁₆	3⅛	1½	4.50
FT-12	36 VCT-1.3A or 18 V-2.6A	4	2⅝	2⅝	3⁹⁄₁₆	2½	5.10

Taps on pri. of FT-13 & FT-14 to modify sec. nominal V, −6% +6%, +12%

Type No.	Secondary	W	D	H	M	Lbs.	Net Each
FT-13	26 VCT-.04A	2⅛	1⅜	1¼	1¾	¼	$3.30
FT-14	26 VCT-.25A	2⅞	1⅝	1¹¹⁄₁₆	2⅜	¾	3.75

TRANSISTOR/FILAMENT TRANSFORMERS

Pri. 115 x 50/60 Cycles; Bridge Rectifier
S-77 & S-78 Tapped For Dual Secondary Voltages

UTC Type	DCV	DCA	Case No. See Page 11	Net Each
S-75	5.2/14	1.2/.4	G-1	6.00
S-76	10/26	4/1.4	G-4	9.00
S-77	14/56	3/1	G-5	10.20
S-78	28/110	9/3	G-10	30.00

TRANSISTOR/FILAMENT SUPPLY TRANSFORMERS

Primary 115 volts 50/60 cycles

Type No.	Sec. V RMS	Sec. A RMS	In Parallel Choke in DCV	In Parallel Choke in DCA	In Parallel C in DCV	In Parallel C in DCA	In Series Choke in DCV	In Series Choke in DCA	In Series C in DCV	In Series C in DCA	Case No. See Pg. 9	Net Each
CG-30	17/21.5 17/21.5	1.5 1.5	14/17.5	3	18.5/25	2	28/35	1.5	43/56	1	RC-112	$18.90
CG-31	34/43 34/43	4.5 4.5	28/35	9	43/56	6	56/70	4.5	85/110	3	RC-175	42.00
CG-32	6.3VCT	1.2									RC-62	10.50

FILAMENT/TRANSISTOR SUPPLY TRANSFORMERS

Primary 105, 115, 210, 220, 230 volts, 50/60 cycles, except CG-34 . . . 105, 115, 220, 230. These transformers may be used on 25 to 43 cycles if 220 volt primary is used on 110 volts. Secondary voltage is simultaneously reduced to half.

Type No	Sec. Volts C. T.	Sec. Amps.	Working Voltage	Sec. Test Volts RMS	Case No. See Page 9	Net Each
CG-33	6.3	4	500	2000	RC-75	$ 9.00
CG-34	2.5	10	2500	6000	RC-112	10.20
CG-120	2.5	10	5000	11000	RC-125	15.00
CG-121	5	25	5000	11000	RC-150	18.00
CG-122	7.5/6.3	10	1500	4000	RC-125	15.00
CG-124	10	10	1500	4000	RC-150	15.00
CG-125	14/12/11	10	1500	4000	RC-150	18.00
CG-126	14/11/10 14/11/10	10 10	1500	4000	RC-152	24.00

RC CASE
See Pg. 9

HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27A*

HERMETIC AUDIO UNITS

RC-25

RC-50

FH

SM

These extremely compact units are proved to specifications of MIL-T-27A. **Response & level ratings:** RC-25: Similar to Ouncers for case (1 13/32" x 61/64" x 1 7/16" h. 1.5 oz.). RC-50: Similar to ultra compact units for case (1 5/8" x 1 5/8" x 2 5/16" h. 8 oz.). SM: Similar to SSO units for case (1 1/16" x 1 1/2" x 29/32" h. 0.8 oz.). FH: 27/32" x 23/32" x 9/16", h. .8 oz.

UTC Type	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	#	Net Each
H-1	Line to grid	50, 200 CT, 500 CT	50K	a	$9.00
H-2	Mike to grid	82, 50 ma	135K	a	9.90
H-3	Pl. to grid	15K	60K	a	7.80
H-4	Pl. to grid	15K, 4 ma	60K	a	7.80
H-5	Pl. to p-p	15K	95K CT	a	8.40
H-6	Pl. to p-p	15K, 4 ma	95K split	a	10.20
H-7	Pl. to line	20K CT, 4 ma	150/600	a	9.60
H-8	Mixing	150/600	600 CT	a	9.00
H-9	Input	150/600	1 meg.	a	9.00
H-10	Pl. to grid	10K	1 meg.	a	8.40
H-11	Reactor: 300 hys, 50 hys @ 3 ma, 600 ohms			a	7.50
H-12	Line to p-p	50, 200 CT, 500 CT	50K CT	a	9.60
H-13	Interstage	10K/2.5K split	2K/.5K split	a	9.00
H-14	Interstage	10K/2.5K split	4K/1K split	a	9.00
H-15	Tr. to line	1.5K CT	500/125 split	a	9.00
H-16	Tr. to V.C.	2K/4K CT	8/16	a	9.00
H-17	Tr. Input	600/150 split	2K/500 split	a	8.70
H-18	Tr. Interstage	10K CT	500/125 split	a	8.70
H-19A	Input*	250 CT/500 CT	50K/100 CT	b	16.50
H-20	Interstage	15K split	80K split	b	15.00
H-21	Pl. to p-p	15K, 8 ma	80K split	b	18.00
H-219	Tr. Interstage	50K CT	500/125 split	a	9.00
H-22	Pl. to line	15K, 8 ma	50/200, 125/500	b	15.90
H-220	Tr. Interstage	500/125 split	500/125 split	a	8.70
H-221	Tr. Interstage	500/125 split	150/37.5 split	a	8.70
H-222	Split Inductor:	Series: 60 Mhy-80 ma, 4 ohms Parallel: 15 Mhy-160 ma, 1 ohm		a	6.00
H-224	Split Inductor:	Series: 1 Hy-20 ma, 60 ohms Parallel: .25 Hy-40 ma, 15 ohms		a	6.00
H-23	P-p to line	30K split	50/200, 125/500	b	16.20
H-24	Inductor: 250 hys. @ 5 ma†, 65 hys. @ 10 ma‡			b	10.80
H-25	Mixing	500 CT	125/500	b	15.00
H-26	Interstage	10K/2.5K split	2K/500 split	b	15.00
H-27	Tr. to V.C.	500 CT	16/4 split	b	15.00
H-280	Interstage	200 CT	400 split	b	12.00
H-281	Tr. to V.C.§	48 CT	16, 8, 4	b	12.00
H-282	Tr. to V.C.††	20 CT	16, 8, 4	c	12.60
H-283	Mixing/ Matching	50, 125/150 200/250, 333 500/600	50, 125/150, 200/250, 333 500/600	b	17.40
H-284	Split Inductor:	Series: 4 Hys-50 ma, 100 ohms Parallel: 1 Hy-100 ma, 25 ohms		b	7.20
H-286	Split Inductor:	Series: 40 Hys-15 ma, 1000 ohms Parallel: 10 Hys-30 ma, 250 ohms		b	7.50
H-290	Shld. chopper	2500 e. s.	100K	b	19.80
H-291	Max. shld. chop.	2000/500 e. s.	312K	c	28.00
H-30	Input	50	62,500	d	8.40
H-31	Pl. to grid	10K	90K	d	8.40
H-32	Pl. to line	10K, 3 ma	200	d	8.40
H-33	Output	30K, 1 ma	50	d	8.40
H-35	Inductor: 100 hys., 50 hys. @ 1 ma, 4400 ohms			d	6.90
H-36	Interstage	25K, 0.5 ma	1K	d	7.50
H-37A	Tr. output	500 CT	50	d	7.50
H-38	Interstage	10K CT, 2 ma	1.2K CT	d	7.50
H-39	Interstage	10K CT, 2 ma	2K CT	d	7.50
H-40A	Tr. output	500 CT	600 CT	d	7.50
H-41A	Tr. output	1500 CT	600 CT	d	7.50
H-42A	Isol./Tr. Inter.	10K CT	10K CT	d	8.40
FHA-15	Tr. Interstage	10K CT/2.5K split	200 CT/50 split	e	8.10
FHA-25	Tr. Interstage	20K CT/5K split	800 CT/200 split	e	8.10
FHI-3	Split Inductor:	Series: 60 Mhys-32 ma, 6 ohms Parallel: 15 Mhys-64 ma, 1.5 ohms		e	6.00
FHI-7	Split Inductor:	Series: 1 Hy-8 ma, 100 ohms Parallel: .25 Hy-16 ma, 25 ohms		e	6.00
FHI-11	Split Inductor:	Series: 2.4 Hys-2 ma, 160 ohms Parallel: .6 Hys-4 ma, 40 ohms		e	6.00

*Has 75 db shielding. †6000 ohms. ‡1500 ohms. §5 watts. ††10 watts. #Case: a—RC25. b—RC-50. c—RC-62. d—SM. e—FH. (See above & pg. 9)

HERMETIC SEALED FILTER INDUCTORS TUBE and TRANSISTOR TYPE

METAL CASED TF4 TYPE H-70 thru H-79, H-164 thru H-173

UTC H-105
TF5SX04ZZ
1.5 HYS 35 MA DC
10V 88~
WV 355V PEAK
MOLDED MIL TYPE TF5SX04ZZ H-105 thru H-109 & H-300

The multiple ratings for the "H" series of filter chokes suit these units for the complete gamut of military and industrial applications. Transistor supply units are swinging type to enhance regulation. H-79 terminals opposite mounting.

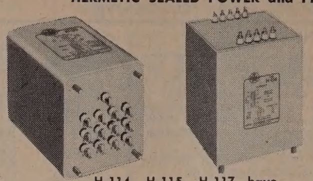
*Relates to ripple voltage, in input filter circuits only.

Type No.	Ind. Hys.	@	MA DC	Res. Ohms	Max. DCV* Ch. Input	Test V. RMS	MIL Case	Net Each
H-70	20		20	925	350	1000	AH	$ 7.20
H-71	20		40	350	500	2500	FB	8.40
H-72	13		70	215	500	2500	GB	9.00
H-73	11		100	150	700	2500	HB	11.40
H-74	11		150	135	700	2500	JB	12.90
H-75	11		200	90	700	2500	KB	17.40
H-76	11		200	85	1500	4500	LB	24.00
H-77	10		300	60	2000	5500	MB	27.00
H-78	7		400	48	2500	7000	OA	34.50
H-79	7		800	20	3000	9000	7x7x8	90.00
H-164	45‡		35	1.2		500	AG	6.60
	11.25‡		70	.295				
H-166	125‡		50	1.2		500	AH	7.50
	31‡		100	.3				
H-168	68‡		100	.8		750	AJ	8.40
	17‡		200	.2				
H170	.18		125	.6		1000	GB	10.20
(2 wdgs.)	.045		250	.15				
H-171	9‡		.75A	.03		1000	JA	15.00
(2 wdgs.)	2.25‡		1.5A	.0075				
H-172	70‡		.25A	.22		1000	HA	12.60
(2 wdgs.)	17.5‡		.5A	.055				
H-173	90‡		.5A	.15		1000	KA	21.00
(2 wdgs.)	22.5‡		1A	.038				

Type No.	Inductance Henries @ DC MA	DCR Ohms	Test Volts	L	W	H	Wgt. Lbs.	Net Each
H-105	2.5 @ 25 MA	225	1000	1 1/4	15/16	15/16	.1	$ 5.70
H-106	2.25 @ 60 MA	110	1000	1 5/8	1 5/16	1 3/8	.28	6.00
H-107	2 @ 120 MA	55	2500	2 1/8	1 3/4	1 55/64	.9	7.50
H-108	2 @ 220 MA	35	2500	2 7/8	2 1/2	2 17/32	1.7	9.60
H-109†	.2 @ 150 MA	.6	750	2 7/8	2 1/2	2 17/32	1.7	10.80
(2 wdgs.)*	.06 @ 250 MA	.15						
H-300	1 @ 5 MA	40	500	1	3/4	23/32	0.5	6.30
(2 wdgs.)*	.25 @ 10 MA	10						

†Split winding in series *Split winding in parallel
‡Rated in millihenries

HERMETIC SEALED POWER and PLATE TRANSFORMERS


H-114, H-115, H-117 have terminals opposite mounting.

Power transformers: primary 115V, 60 cycles suited to 50*-1000 cycles service. Plate transformers: primary 105/115/210/220 volts, 50/60 cycles. "L" ratings are choke input . . . "C" ratings are condenser input. H-80 thru H-197 MIL type TF4RX03, H-110 thru H-117 MIL type TF4RX02. The tapped high voltage winding provides either of two secondary voltages for greatest versatility. The power transformer listings indicate DC voltages and permissible currents for both choke and condenser input filters, as well as for military and industrial applications.

"W" suffix units designed for full wave center tap and full wave bridge application. Center tap of secondary may be disconnected from ground.

MIL-T-27A Ratings in Regular Type, **Industrial Ratings in Bold Type**

Type No.	HV Sec. C. T.		Approx. DC Volts	DC MA	Fil. Wdg.		**Approx. DC Volts**	**DC MA**	**Fil. Wdg.**	MIL Case	Net Each
H-80	450	C	240	30	6.3VCT-2A	**C**	**215**	**38**	**6.3VCT-2.5A**	FA	$12.90
H-81	500	L	170	95		**L**	**160**	**110**		HA	18.00
		C	270	55	6.3VCT-3A	**C**	**245**	**75**	**6.3VCT-3A**		
	550	L	200	85	5V-2A	**L**	**180**	**105**	**5V-2A**		
		C	310	50		**C**	**280**	**65**			
H-82	550	L	180	145		**L**	**160**	**190**		JB	20.40
		C	290	90	6.3VCT-4A	**C**	**270**	**115**	**6.3VCT-4.5A**		
	600	L	215	135	5V-2A	**L**	**190**	**180**	**5V-2A**		
		C	330	85		**C**	**315**	**100**			
H-83	600	L	215	165		**L**	**200**	**210**		JA	21.00
		C	315	100	6.3V-5A	**C**	**320**	**120**	**6.3V-6A**		
	670	L	250	150	5V-2A	**L**	**230**	**200**	**5V-2A**		
		C	400	90		**C**	**380**	**110**			
H-84	700	L	245	225		**L**	**240**	**255**		KA	26.40
		C	390	135	6.3V-5A	**C**	**375**	**160**	**6.3V-6A**		
	750	L	275	205	6.3V-1A	**L**	**270**	**230**	**6.3V-1.5A**		
		C	430	125	5V-3A	**C**	**410**	**150**	**5V-4A**		
H-85	700	L	245	300		**L**	**230**	**370**		LA	30.00
		C	390	190	6.3V-6A	**C**	**355**	**230**	**6.3V-6A**		
	750	L	270	280	6.3V-1.5A	**L**	**250**	**350**	**6.3V-2A**		
		C	425	170	5V-3A	**C**	**395**	**210**	**5V-4A**		
H-86	720	L	270	310		**L**	**250**	**360**		MB	30.90
		C	425	180	6.3V-6A	**C**	**395**	**225**	**6.3V-7.5A**		
	790	L	295	300	6.3V-2A	**L**	**280**	**350**	**6.3V-2A**		
		C	475	160	5V-3A	**C**	**440**	**210**	**5V-4A**		
H-87	730	L	245	420		**L**	**230**	**515**		NB	36.00
		C	390	275	6.3V-6A	**C**	**390**	**300**	**6.3V-6A**		
	800	L	275	400	6.3V-2A	**L**	**275**	**480**	**6.3V-2A**		
		C	440	250	5V-4A	**C**	**430**	**290**	**5V-6A**		
H-89	850	L	305	430		**L**	**275**	**550**		OA	49.50
		C	460	280	6.3V-8A	**C**	**445**	**340**	**6.3V-10A**		
	1050	L	400	400	6.3V-4A	**L**	**370**	**500**	**6.3V-5A**		
		C	600	260	5V-6A	**C**	**575**	**320**	**5V-6A**		
H-91	900	L	340	200	6.3V-5A	**L**	**330**	**220**	**6.3V-6A**	KA	27.00
	1000	L	390	190	6.3V-1A 5V-3A	**L**	**385**	**195**	**6.3V-1.5A 5V-4A**		
H-92	900	L	340	265	6.3V-6A	**L**	**330**	**310**	**6.3V-8A**	MB	33.00
	1050	L	400	240	6.3V-2A 5V-4A	**L**	**395**	**290**	**6.3V-2A 5V-4A**		
H-93	1000	L	370	300	6.3V-8A	**L**	**340**	**390**	**6.3V-10A**	OA	49.50
	1200	L	465	265	6.3V-4A 5V-6A	**L**	**455**	**350**	**6.3V-5A 5V-6A**		
H-194**	200	L	170	140	6.3V-3.5A	**L**	**160**	**155**	**6.3V-4A**	HA	21.00
		C	275	85		**C**	**260**	**95**			
	235	L	200	125		**L**	**190**	**135**			
		C	325	75		**C**	**310**	**85**			
H-195**	215	L	185	285	6.3V-5A	**L**	**175**	**300**		JA	24.00
		C	300	180		**C**	**285**	**195**	**6.3V-6A**		
	265	L	230	240		**L**	**220**	**255**			
		C	375	150		**C**	**360**	**165**			
H-196**	230	L	200	445	6.3V-5A	**L**	**190**	**480**		KA	30.00
		C	320	280	6.3V-1.5A	**C**	**300**	**300**	**6.3V-6A**		
	285	L	250	380		**L**	**240**	**420**	**6.3V-2A**		
		C	400	235		**C**	**380**	**260**			
H-197**	260	L	230	500	6.3V-6A	**L**	**220**	**550**		MB	42.00
		C	360	320	6.3V-2A	**C**	**340**	**350**	**6.3V-7A**		
	320	L	280	420		**L**	**270**	**470**	**6.3V-2A**		
		C	450	260		**C**	**430**	**290**			
H-198	No CT										
Highly	800		1000	5	1.25 V—.2A connected to one					HA	27.00
shielded	1600		2000	5	end of HV winding.						
Scope transformer	2400		3000	5	6.3 V—.6A 5.2 KV RMS test voltage						
H-110‡	1050	L	365	300		**L**		**400**		MB	27.00
	1200	L	430	275		**L**		**385**			
H-110W		L	730	210		**L**		**280**			29.70
		L	860	190		**L**		**265**			
H-111‡	1050	L	415	500		**L**		**600**		NA	33.00
	1200	L	480	450		**L**		**550**			
H-111W		L	830	350		**L**		**420**			36.00
		L	960	310		**L**		**380**			
H-112‡	1500	L	615	320		**L**		**385**		NA	36.00
	1900	L	790	275		**L**		**330**			
H-112W		L	1230	220		**L**		**270**			39.60
		L	1580	190		**L**		**230**			
H-113	2500	L	1050	310		**L**		**375**		†	54.00
	3000	L	1275	275		**L**		**330**			
H-114	2500	L	1050	475		**L**		**525**		‡	81.00
	3000	L	1265	425		**L**		**475**			
H-115	3500	L	1500	275		**L**		**375**		‡	81.00
	4400	L	1900	235		**L**		**320**			
H-117	5000	L	2125	950		**L**		**1150**		††	291.00
	6000	L	2550	850		**L**		**1050**			

*For 50 cycles, secondary current ratings reduced by 10%.
**DC ratings for bridge rectifier circuits.
†6x5 1/8x6 3/4, ‡6 3/4x6 1/2x8, ††11x11x14 3/4
‡ See pg. 1 for new full wave bridge rectifier types

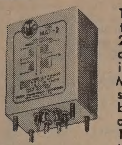
IMMEDIATE DELIVERY ON ALL UTC STOCK ITEMS

© U.C.P., Inc.

HERMETIC COMPONENTS *Hermetically sealed to MIL-T-27A*

MAGNETIC AMPLIFIERS FOR SERVO MOTOR APPLICATIONS

VACUUM TUBE TYPE



The MAT 1-4 Magnetic Amplifiers are exceptionally stable units designed for the control of 2 phase, 115V., 400 cycle servo motors. They are compact . . . hermetically sealed . . . magnetically shielded . . . and meet MIL-T-27A and MIL-E-5400 Specifications. The output is sinusoidal, amplitude variable, and phase reversible. Control is provided by a dual triode such as 12AU7 operating with a plate voltage of 115 volts, 400 cycles, or higher. The signal to the triode grids can be polarity reversible DC or phase reversible 400 cycles with or without suppressed carrier modulation. These units eliminate DC power requirements as well as temperature sensitive dry disc rectifiers. The high input impedance provides minimum loading on sensing elements and high power gain. Ringing at low load level has been reduced to a minimum through high internal damping factors. The power output figures are conservative . . . power gain of the *Magnetic Structure* is approximately 40 . . . response time approximately 7.5 milliseconds. The maximum null voltage is 3 volts RMS. For single phase supply voltage the load capacitor should effect 90° phase shift with motor load . . . for 3 phase, 30° phase shift.

Type No.	MAT-1	MAT-2	MAT-3	MAT-4
230 Volt Supply				
Power output	4 W.	8 W.	11 W.	18 W.
RL, ohms	3300	1600	1200	720
CL, mfd., approx.	.2	.3	.5	.7
115 Volt Supply				
Power output	2 W.	4 W.	6 W.	9 W.
RL, ohms	6500	3300	2200	1450
CL, mfd.	.13	.2	.3	.45
Reson. Freq.	40 cyc.	35 cyc.	35 cyc.	20 cyc.
Log-Decr.	.18	.23	.03	.65
Cont. Wdg. Res.	6200 ohms	8450 ohms	4750 ohms	5650 ohms
Case, Length, in.	1 1/4	1 1/2	1 3/4	2 1/8
Width, In.	1 15/16	2 1/8	2 1/2	3 1/8
Height, In.	2 5/16	2 3/4	2 15/16	3 3/8
Mtg. Dim., In.	13/16 x 1 1/2	1 x 1 5/8	1 1/8 x 1 7/8	1 1/2 x 2 1/2
Studs, stainless	4-40	6-32	8-32	8-32
Cutout, in.	1	1	1	1
Unit Weight, lbs.	.67	1.1	1.7	2.75
Net Each	**$27.00**	**$30.00**	**$36.00**	**$39.00**

MAT-5 115V.-400 cyc. to 460 VCT; provides 230V. 48 MA DC or 460V. 24 MA DC. RC-37 Case (UTC pg. 9). MIL type TF4SY02YY. **Net Each $10.80**

MAT-6 Input . . . 10,000 ohms pri. . . . 1:15 C.T. ratio . . . phase shift under 1°. . . . RC-25 case (UTC pg. 5). MIL- type TF4RX10YY. **Net Each $9.00**

TRANSISTOR TYPE

UTC transistor MAT units are identical to their vacuum tube counterparts, but designed for low impedance control. The input transformer may be chosen by impedance ratio rather than precise rated impedance.

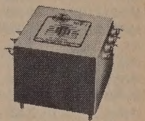
Type No.	MAT-7	MAT-8	MAT-9	MAT-10	MAT-60
Power output	4 W.	8 W.	11 W.	18 W.	50 W.
RL, ohms	3300	1600	1200	720	260
CL, mfd approx.	.2	.3	.5	.7	.7
Cont. Wind. Res.	38Ω	52Ω	30Ω	36Ω	50
Case Length, In.	2 5/16	2 1/2	2 3/4	2 29/32	MIL MB
Width, In.	1 13/16	2 1/4	2 1/2	2 29/32	
Height, In.	1 17/32	1 11/16	2	2 1/4	
Mtg. Dim., In.	1 3/8 x 1 7/8	1 13/16 x 2	1 15/16 x 2 3/16	2 3/8 x 2 3/8	60
Studs, stainless	4-40	6-32	8-32	8-32	cycle
Cutout, In.	1	1	1	1	type
Weights, lbs.	.65	1.1	1.7	2.75	
Net Each	**$25.80**	**$28.80**	**$34.50**	**$37.50**	**$54.00**

MAT-11 115V.-400 cyc. to two 28 Volt .2A windings for 56 VCT-.2A or 28 V- .4 A. RC-37 (UTC pg. 9) case. MIL type. TF4SY02YY. **Net Each $10.05**

MAT-65 115V. 60 cyc. to 8.5 VCT @ 500 ma & 63 VCT @ 300 ma. FA case. MIL Type TF4SX02FA. **Net Each 12.60**

ULTRASHIELDED POWER-LINE ISOLATION TRANSFORMERS

Simllates battery operation for critical circuits requiring extreme isolation from power line.



Designed to give the ultimate in isolation, for line-powered equipment, which formerly could only be obtained from battery power. The effective capacity coupling between primary and secondary windings is less than 0.1 MMFD. For this purpose shields are individually terminated to allow maximum flexibility. Input and output terminals are brought out on opposite sides of a special housing in order to maintain the excellent isolation between line and load.

MIL-T-27A Ratings in Regular Type
Industrial Ratings in Bold Type
Primary 115 V 50/60 Cycles·
Secondary 115 V

Type No.	Power Watts	**Power Watts**	Case Size	Net Each
HIT-1	50	**60**	4 1/32x4 1/32x3 1/32"	$33.00
HIT-15	120	**150**	5 11/32x5x3 1/2"	39.00
HIT-2	160	**200**	5 17/32x5 17/32x4 17/32"	48.00
HIT-3	400	**480**	8x6 17/32x5 17/32"	69.00

PRECISION MINIATURE WIDE APPLICATION PULSE TRANSFORMERS

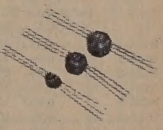
UTC miniature, wound core, pulse transformers are individually precision adjusted in standard test circuits to close tolerances. They are high reliability units, hermetically sealed by vacuum molding and suited for service from −70° C. to +130° C. Wound core structure provides excellent temperature stability (unlike ferrite). Designs are high inductance type to provide minimum of droop and assure true pulse width. H-45 thru H-57 ratio 1:1:1. H-60 thru H-69 ratio 4:4:1. Others ratio 5:3:1.

See PIP pulse units on UTC page 1

ALL UNITS INDIVIDUALLY ADJUSTED TO PARAMETERS SHOWN IN TABLES

TRANSISTOR PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width µ Sec.	Rise Time	% Over Shoot	Droop %	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width µ Sec.	Volts Out	Rise Time	% Over Shoot	Droop %	% Back Swing	Imp. in, out, ohms	Net Each
H-60	.124	.14	.05	.05	.016	0	0	30	.05	9.3	.012	0	0	20	50	**$ 6.60**
H-61	.41	.48	.19	.1	.016	0	0	30	.1	8.2	.021	0	0	15	50	**6.60**
H-62	.78	.94	.33	.2	.022	0	0	18	.2	7.4	.034	0	5	12	100	**6.60**
H-63	1.86	2.26	.70	.5	.027	2	10	20	.5	7.5	.045	0	20	25	100	**6.60**
H-64	3.73	4.4	1.33	1	.033	0	12	25	1	7	.078	0	15	23	100	**6.60**
H-65	6.2	7.3	2.22	2	.066	0	15	25	2	6.6	.14	0	10	20	100	**7.50**
H-66	10.2	12	3.6	3	.087	0	18	30	3	6.8	.17	0	10	20	100	**7.50**
H-67	14.5	17.5	5.14	5	.097	0	23	28	5	7.9	.2	0	18	28	200	**7.50**
H-68	42.3	52.1	14.8	10	.14	0	15	28	10	6.5	.4	0	15	30	200	**7.50**
H-611	.426	.32	.132	.1	.018	8	0	12	.1	8.2	.02	0	0	30	140/50	**6.60**
H-641	5	3.6	1.4	1	.04	0	10	10	1	7	.07	0	20	30	280/100	**6.60**
H-671	21	16	6	5	.08	0	14	12	5	8	.2	0	25	30	560/200	**7.50**
H-69	Transistor pulse tranformer kit, consists of H-60 thru H-68 in plastic case.															**60.00**



Size & weight of H-60 thru H-68 same as H-45.

VACUUM TUBE PULSE TRANSFORMERS

Type No.	APPROX. DCR, OHMS 1-2	3-4	5-6	BLOCKING OSCILLATOR PULSE Width µ Sec.	Rise Time	% Over Shoot	Droop %	% Back Swing	COUPLING CIRCUIT CHARACTERISTICS P Width µ Sec.	Volts Out	Rise Time	% Over Shoot	Droop %	% Back Swing	DIMENSIONS Imp. in, out, ohms	L In.	W In.	Wt. Grams	Net Each
H-45	3	3.5	4	.05	.022	0	20	10	.05	17	.01	20	0	35	250	3/8	3/8	1	$ 6.75
H-46	5.5	6.5	7	.10	.024	0	25	10	.10	19	.01	30	10	50	250	3/8	3/8	1	6.75
H-47	3.7	4.0	4	.20	.026	0	25	8	.20	18	.01	30	15	65	500	9/16	9/16	4	6.00
H-48	5.5	5.8	6	.50	.03	0	20	5	.50	20	.01	30	20	65	500	9/16	9/16	4	6.00
H-49	8	8.5	9	1	.04	0	20	10	1	24	.02	15	15	65	500	9/16	9/16	4	6.00
H-50	20	21	22	2	.05	0	20	10	2	27	.05	10	15	35	500	9/16	9/16	4	6.00
H-51	28	31	33	3	.10	1	20	8	3	26	.07	10	10	35	500	9/16	9/16	4	6.00
H-52	36	41	44	5	.13	1	25	8	5	23	.15	10	10	45	1000	9/16	9/16	4	6.00
H-53	37	44	49	7	.28	0	25	8	7	24	.20	10	10	50	1000	5/8	5/8	6	6.00
H-54	50	58	67	10	.30	0	20	8	10	24	.25	10	10	50	1000	5/8	5/8	6	6.30
H-55	78	96	112	16	.75	0	20	10	16	23	.40	5	15	20	1000	5/8	5/8	6	6.30
H-56	93	116	138	20	1.25	0	25	10	20	23	.6	5	10	10	1000	5/8	5/8	6	6.30
H-57	104	135	165	25	2.0	0	30	10	25	24	1.5	5	10	10	1000	5/8	5/8	6	6.30
H-461	9.6	6.4	2.5	.1	.025	0	0	8	.1	19	.02	3	5	20	700/250	3/8	3/8	1	6.75
H-501	30	20	7	2	.08	0	12	5	2	27	.06	12	15	35	1400/500	9/16	9/16	4	6.00
H-531	66	47	17	7	.32	0	12	3	7	24	.23	12	10	40	2800/1000	5/8	5/8	6	6.00
H-561	180	142	53	20	1.75	0	13	5	20	23	.7	5	10	10	2800/1000	5/8	5/8	6	6.30
H-58	Pulse transformer kit. Consisting of H-45 thru H-57 in a partitioned plastic case.																		75.00

HIGH Q COILS & INDUCTORS

MINIDUCTORS

All these ultracompact high Q units are grade 5, hermetically sealed to (MIL-T-27A). All give extra temperature stability rated at 1%, −55° C to +100° C.

25HY 30
Y 1KC

MM—Ultraminiature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 30 KC. 7/16 dia. x ¼"; wt. .07 oz.
MH—Ultraminiature epoxy molded toroidal inductors similar to MM except maximum Q at 100 KC. Size & wt. as MM.
ML—Ultraminiature hipermalloy cased inductors with epoxy board and pin terminals for printed circuit application. Maximum Q at 800 cps to 2 KC, depending on inductance. 7/16 x 31/64 x 9/16"; wt. .2 oz.
MO—Miniature epoxy molded inductors with pin terminals for printed circuit application. Maximum Q at 600 cps to 1500 cps depending on inductance. ¾ x 1 1/16 x 13/16"; wt. 1 oz.
MW—Miniature epoxy molded toroidal inductors with pin terminals for printed circuit application. Maximum Q at 5 to 10 KC. 23/32 dia. x 13/32"; wt. .25 oz.

UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each	UTC Type	Induct., Hys.	Net Each
ML-1	.25	**$8.40**	**MM-6**	.03	**$8.10**	**MO-2**	2	**$6.60**
ML-2	.40	**8.40**	**MM-7**	.06	**8.40**	**MO-5**	5	**6.60**
ML-3	.70	**8.40**	**MM-8**	.12	**8.40**	**MO-7.5**	7.5	**6.60**
ML-4	1.4	**8.40**	**MH-1**	.0006	**8.10**	**MO-20**	20	**6.60**
ML-5	2.5	**8.40**	**MH-2**	.0015	**8.10**	**MO-50**	50	**7.20**
ML-6	4.0	**8.40**	**MH-3**	.0025	**8.40**	**MO-100**	100	**7.20**
ML-7	6.0	**8.40**	**MH-4**	.006	**8.40**	**MW-.5**	.5	**7.80**
ML-8	10	**8.40**	**MH-5**	.01	**8.70**	**MW-.75**	.75	**8.40**
ML-9	25	**8.70**	**MH-6**	.015	**8.70**	**MW-1**	1	**8.70**
ML-10	60	**9.90**	**MH-7**	.025	**9.00**	**MW-1.2**	1.2	**9.30**
MM-1	.033	**7.50**	**MH-8**	.04	**9.00**	**MW-2**	2	**10.80**
MM-2	.005	**7.50**	**MO-.15**	.15	**6.30**	**MW-3**	3	**11.70**
MM-3	.008	**7.80**	**MO-.3**	.3	**6.30**	**MW-5**	5	**13.50**
MM-4	.0125	**7.80**	**MO-.5**	.5	**6.30**			
MM-5	.02	**8.10**	**MO-1**	1	**6.30**			

HIGH Q TOROID INDUCTORS

Favorites for over fifteen years, UTC HQ Toroids are only excelled by the preferred new "M" series. As typical Q curves show, HQ coils are available for application from 100 cycles to 100 KC. Adjusted to 1%, the inductance is virtually independent of frequency, temperature, and vibration. Voltage stability is excellent, and shielding case assures 80 db coupling attenuation. Hermetically to MIL-T-27. All units MIL type TF4RX-20YY.

HQA and HQC CASE
Diamter 1 13/16"
Height 1 3/16"
Mounting 1⅛"
Screws 6-32
Cutout 9/16 x 1 3/16"
Weight 5 oz.

HBQ CASE
Length 2⅝"
Width 1⅝"
Height 2⅝"
Mounting 1 11/64 x 2 11/64"
Screws 6-32
Cutout 9/16 x 1⅛"
Weight 14 oz.

HQE CASE
Length 1 1/16"
Widtth ½"
Height 1 7/32"
Mounting ¾"
Screws 4-40
Cutout 5/16 x ½"
Weight 1.5 oz.

Type No.	Inductance (O DC))		DC MA Max.	Net Each	Type No.	Inductance (O DC))		DC MA Max.	Net Each
HQA-1	5	mhy.	400	**$7.50**	**HQB-1**	10	mhy.	410	**$15.00**
HQA-2	12.5	mhy.	260	**7.80**	**HQB-2**	30	mhy.	240	**15.30**
HQA-3	20	mhy.	200	**8.10**	**HQB-3**	70	mhy.	170	**15.90**
HQA-4	30	mhy.	160	**8.40**	**HQB-4**	120	mhy.	120	**16.80**
HQA-5	50	mhy.	130	**8.70**	**HQB-5**	.5	hy.	60	**17.40**
HQA-6	80	mhy.	100	**9.00**	**HQB-6**	1	hy.	41	**18.00**
HQA-7	125	mhy.	85	**9.00**	**HQB-7**	2	hy.	30	**18.90**
HQA-8	200	mhy.	65	**9.60**	**HQB-8**	3.5	hy.	22	**19.80**
HQA-9	300	mhy.	50	**9.60**	**HQB-9**	7.5	hy.	16	**21.00**
HQA-10	.5	hy.	40	**9.90**	**HQB-10**	12	hy.	11	**21.90**
HQA-11	.75	hy.	35	**9.90**	**HQB-11**	18	hy.	9	**22.80**
HQA-12	1.25	hy.	26	**10.80**	**HQB-12**	25	hy.	8	**24.00**
HQA-13	2	hy.	20	**11.40**	**HQC-1**	1	mhy.	1350	**15.60**
HQA-14	3	hy.	16	**12.90**	**HQC-2**	2.5	mhy.	850	**16.80**
HQA-15	5	hy.	13	**13.80**	**HQC-3**	5	mhy.	600	**18.00**
HQA-16	7.5	hy.	10	**15.00**	**HQC-4**	10	mhy.	420	**19.80**
HQA-17	10	hy.	9	**15.90**	**HQC-5**	20	mhy.	300	**24.00**
HQA-18	15	hy.	8	**16.80**	**HQE-1**	5	mhy.	155	**7.80**
					HQE-2	10	mhy.	110	**7.80**
					HQE-3	50	mhy.	50	**8.10**
					HQE-4	100	mhy.	35	**8.40**
					HQE-5	200	mhy.	25	**8.70**

TYPE MQL LOW FREQUENCY HIGH Q COILS

(Also see MQM series, UTC page 1)

All these units of MIL type TF4RX20YY induct value to 2% tolerance at 1v., 60 cycles. Exceptional Q and stability, inductance swing less than 3.5% from −55°C to +85°C. The case, sealed hermetically to MIL-T-27A is 1 13/16" dia. 2½" h. Either transformer, parallel, series or center type connections are permitted due to dual windings to 4 terminals. Mounting 1½" oz. with a 6-32 screw. Cutout 1½" dia wt. 1 lb.

Type No.	Hys. (0 DC) Series	Hys. (0 DC) Parallel	Net Each	Type No.	Hys. (0 DC) Series	Hys. (0 DC) Parallel	Net Each
MQL-0	1	.25	**$30.00**	**MQL-3**	200	50	**$30.00**
MQL-1	10	2.5	**30.00**	**MQL-4**	400	100	**13.50**
MQL-2	20	5	**30.00**	**MQL-5**	2500	625	**33.00**

HERMETIC "M" TYPE TOROIDS

UTC permalloy dust toroids provide highest Q factor with miniaturized dimensions. Lab adjusted to 1% tolerance and sealed to MIL-T-27A specs. Magnetic case plus toroid provide 80 db shielding.

Type	
MQA	**40 at 500 cps, 160 at 5 kc, approx, 40 at 20 kc. SIZE (11/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.)**
MQB	**40 at 250 cps, 250 at 3 kc, approx. 40 at 20 kc. SIZE 1 3/16" x 2 9/16" x 2 13/16" h.; wt. 14 oz.**
MQD	**40 at 5 kc, 185 at 50 kc, approx. 40 at 300 kc. SIZE 11/16" x 1 9/32" x 1 23/32" h.; wt. 4 oz.**
MQE	**20 at 600 cps, 140 at 10 kc, approx. 40 at 40 kc. SIZE ½" x 1 1/16" x 1 7/32" h.; wt. 1.5 oz.**

TQA units are similar to MQA but center tapped for ocillator application, etc. Net each: TQA-1 thru TQA-15, $1.50 more than MQA's; TQA-16, 14.70; TQA-17, 15.90; TQA-18, 17.40; TQA-19, 21.00; TQA-20, 23.40.

UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each	UTC Type	Ind., Hys.	Net Each
MQA-1	**.007**	**$7.50**	**MQB-1**	**.010**	**$12.90**	**MQD-6**	**.020**	**$21.00**
MQA-2	**.012**	**7.80**	**MQB-2**	**.030**	**13.20**	**MQD-7**	**.030**	**22.80**
MQA-3	**.020**	**8.10**	**MQB-3**	**.070**	**13.50**	**MQE-0**	**.004**	**6.90**
MQA-4	**.030**	**8.40**	**MQB-4**	**.120**	**13.80**	**MQE-1**	**.007**	**7.20**
MQA-5	**.050**	**8.70**	**MQB-5**	**.50**	**14.10**	**MQE-2**	**.012**	**7.50**
MQA-6	**.070**	**9.00**	**MQB-6**	**1.0**	**14.40**	**MQE-3**	**.020**	**7.80**
MQA-7	**.120**	**9.30**	**MQB-7**	**2.0**	**14.70**	**MQE-4**	**.030**	**7.80**
MQA-8	**.20**	**9.60**	**MQB-8**	**3.5**	**15.00**	**MQE-5**	**.050**	**8.10**
MQA-9	**.30**	**9.90**	**MQB-9**	**7.5**	**15.90**	**MQE-6**	**.070**	**8.40**
MQA-10	**.50**	**10.20**	**MQB-10**	**12**	**16.80**	**MQE-7**	**.100**	**8.40**
MQA-11	**.70**	**10.50**	**MQB-11**	**18**	**18.00**	**MQE-8**	**.150**	**8.70**
MQA-12	**1.0**	**10.80**	**MQB-12**	**25**	**19.20**	**MQE-9**	**.250**	**8.70**
MQA-13	**1.5**	**11.10**	**MQB-13**	**40.0**	**21.00**	**MQE-10**	**.40**	**9.00**
MQA-14	**2.5**	**11.40**	**MQB-14**	**60.0**	**24.00**	**MQE-11**	**.60**	**9.00**
MQA-15	**4.0**	**12.00**	**MQD-0**	**.001**	**14.50**	**MQE-12**	**.90**	**9.30**
MQA-16	**6.0**	**12.90**	**MQD-1**	**.002**	**15.00**	**MQE-13**	**1.5**	**9.90**
MQA-17	**10.0**	**13.80**	**MQD-2**	**.003**	**15.60**	**MQE-14**	**2.0**	**10.80**
MQA-18	**15.0**	**15.00**	**MQD-3**	**.005**	**16.20**	**MQE-15**	**2.8**	**12.00**
MQA-19	**22.0**	**18.00**	**MQD-4**	**.007**	**16.80**	**MQE-16**	**4.0**	**13.50**
MQA-20	**35.0**	**20.70**	**MQD-5**	**.012**	**18.00**			

VARIDUCTORS

HVC

VIC

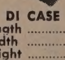
These variable inductors are ideal for use in tuned circuits, equalizers, oscillators, etc. TYPE HVC:—Gives highest Q and stability; adjustable —70% to +200% of mean value. Hermetically sealed to MIL-T-27A. 25/32" x 1⅛" x 1 7/32" h. (wt. 2 oz.). TYPE VIC:—Adjustable —45% to +85% of mean value; die cast case 1¼" + 1 1/32" x 1 7/16" h. (wt. 5½ oz.).

TVC type inductors are identical to HVC units, but provide taps at 30% and 50% of total turns — ideal for ocillator circuits, etc.

UTC Type	Mean Hys.	DC Ma.	Net Each	UTC Type	Mean Hys.	DC Ma.	Net Each
HVC-1	**.006**	**100**	**9.00**	**VIC-1**	**.0085**	**75**	**6.60**
HVC-2	**.015**	**60**	**9.00**	**VIC-2**	**.013**	**60**	**6.60**
HVC-3	**.040**	**40**	**9.00**	**VIC-3**	**.021**	**50**	**6.60**
HVC-4	**.1**	**30**	**9.00**	**VIC-4**	**.034**	**40**	**6.60**
HVC-5	**.25**	**20**	**9.00**	**VIC-5**	**.053**	**35**	**6.60**
HVC-6	**.6**	**15**	**9.00**	**VIC-6**	**.084**	**30**	**6.60**
HVC-7	**1.5**	**10**	**9.60**	**VIC-7**	**.13**	**25**	**6.60**
HVC-8	**4**	**7**	**9.60**	**VIC-8**	**.21**	**21**	**6.90**
HVC-9	**10**	**5**	**9.60**	**VIC-9**	**.34**	**18**	**6.90**
HVC-10	**25**	**3.5**	**9.90**	**VIC-10**	**.54**	**15**	**6.90**
HVC-11	**60**	**2**	**10.80**	**VIC-11**	**.85**	**12**	**6.90**
HVC-12	**150**	**1.5**	**12.00**	**VIC-12**	**1.3**	**10**	**7.20**
				VIC-13	**2.2**	**8**	**7.20**
TVC-1	**.006**	**100**	**11.10**	**VIC-14**	**3.4**	**7**	**7.20**
TVC-2	**.015**	**60**	**11.10**	**VIC-15**	**5.4**	**6**	**7.50**
TVC-3	**.040**	**40**	**11.10**	**VIC-16**	**8.5**	**5**	**7.50**
TVC-4	**.1**	**30**	**11.10**	**VIC-17**	**13**	**4**	**7.50**
TVC-5	**.25**	**20**	**11.10**	**VIC-18**	**21**	**3.5**	**7.80**
TVC-6	**.6**	**15**	**11.10**	**VIC-19**	**33**	**3**	**7.80**
TVC-7	**1.5**	**10**	**11.70**	**VIC-20**	**52**	**2**	**8.40**
TVC-8	**4**	**7**	**11.70**	**VIC-21**	**83**	**1.5**	**9.00**
TVC-9	**10**	**5**	**11.70**	**VIC-22**	**130**	**1**	**12.00**
TVC-10	**25**	**3.5**	**12.90**				
TVC-11	**60**	**2**	**14.10**				
TVC-12	**150**	**1.5**	**15.30**				

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.



DI CASE
Length ....4½"
Width ....4⅜"
Height .... 2⅜"
Weight ....2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	**$42.00**
DI-2	10 x .1	.25-20 KC	200	150	500	**54.00**
DI-3	10 x 1	.25-10 KC	200	50	500	**57.00**
DI-4	10 x 10	.2-1.5 KC	100	15	500	**72.00**

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HI-FI & BROADCASTING COMPONENTS

ULTRACOMPACT HI-FI AUDIOS

Small light weight, wide range units. Level +15 dbm except where otherwise noted. Top and bottom mounting. Die cast case, 1½'' x 1½'' x 2'' h. Weight, ½ lb.

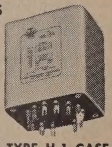
UTC Type	Application	Primary Impedance, Ohms	Sec. Imped., Ohms	#	Net Each
A-10	Input	50, 125/150, 200/250, 333, 500/600	50K split	a	$13.20
A-11	Shield. Input	50, 200, 500	50K CT	a	12.00
A-12	Input	Same as A-10	80K split	a	12.00
A-15	Interstage*	10K/2.5K split**	2K/500 sp.	c	9.90
A-16	Pl. to grid	15K	60K	a	9.90
A-17	Pl. to grid	15K, 8 ma	60K	c	12.00
A-18	Pl. to p-p	15K split	80K split	a	12.00
A-19	Pl. to p-p	15K, 8 ma	80K split	c	12.00
A-20	Mixing	Same as A-10	Same as pri.	d	14.40
A-21	Shield Mixing	50, 200/250, 500/600	Same as pri.	e	12.00
A-22	Tr. to line*	500 CT	500/125 spl.	c	9.90
A-23	Tr. to V.C.*	500 CT	16/4 split	c	9.90
A-24	Pl. to line	15K split	See A-10 pri.	f	12.90
A-25	Pl. to line	15K, 8 ma	See A-10 pri.	c	12.00
A-26	P-p to line	30K CT	See A-10 pri.	f	13.20
A-27	Input	100K split	See A-10 pri.	b	12.00
A-28	Tr. to V.C.	48 CT, 5 w.	16 (split), 8, 4	c	10.20
A-34	Transistor Interstage	25K/6250 split	500/125 split	b	10.20
A-35		10K/2.5K split	500/125 split	b	9.90
A-36		500/125 split	150/37.5 split	c	9.60
A-37		500/125 split	50/12.5 split	c	9.60
A-38		100/25 split	40/10 split	c	9.30
A-39	line to transist.	600/150 split	2K/500 split	a	11.10
A-30	Inductor: 250 hys. @ 5 ma†; 65 hys @ 10 ma‡				10.20
A-32	Inductor: 60 hys. @ 15 ma§; 15 hys @ 30 ma††				6.60
A-33	Hipermalloy shield fits A units 20 db				2.70
A-40	Power transformer: 115v 60 cycles to two 6.3 CT—.2A Secs.				9.90
A-41	Reactor: 240 Mhy. @ .2A, 6 ohms; 60 Mhy. @ .4A, 1.5 ohms				6.30
A-42 (2-wdgs.)	Split Filter Inductor	Series: 4 hys-50 ma, 100 ohms Parallel: 1 hy-100 ma, 25 ohms			6.60
A-43	Matching to 2 simult. lines or Tr.	600/150 split	(2) 600/150 split	g	14.10

*+30 dbm. †6K ohms. ‡1.5K ohms. §2K ohms. ††500 ohms. **8 ma. #Frequency response (±2 db), cps: a—20-20,000. b—30-20,000. c—40-20,000. d—10-50,000. e—30-30,000. f—20-40,000. g—20-30,000.

HIPERMALLOY TRANSFORMERS

Hipermalloy audio and power transformers are specifically designed for portable and compact service. High fidelity though light in weight and dependable. The frequency characteristic of the Hipermalloy audio units is uniform from 30 to 20,000 cycles. They incorporate a Hipermalloy nickel iron core and hum balanced coil structure. The rugged die cast case is of high conductivity alloy finished in grey, arranged for mounting with the terminals either up or down. DC in Primary shown is maximum unbalanced.

TYPE H-2 CASE
Length ..... 3 9/16''
Width ..... 2 13/16''
Height ..... 3½''
Mounting 2 x 2¾''
Screws 6-32
Cutout 2 11/16'' dia.
Unit Weight 5 lbs.



TYPE H-1 CASE
Length .... 2⅜''
Width ...... 1 15/16''
Height ..... 3⅛''
Mounting 1⅜ x 1 13/16''
Screws 6-32
Cutout 1 13/16'' dia.
Unit Weight 2 lbs.

LOW IMPEDANCE TO GRID AND MIXING TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level dbm	Net Each
HA-100	Line to grid	50, 125/150, 200, 250, 333, 500/600	60K split	+18	$17.40
HA-100X	As above but multiple alloy shields for low hum pick up			+16	17.40
HA-101	Linetogrids	Same as HA-100	120K split	+18	22.20
HA-101X	As above but muliple alloy shields for low hum pickup		80K split	+16	18.00
HA-103A	Mike/mixer to grid	2.5, 5.5, 10, 15, 22, 30, 38, 60	60K split 60K split	+18	15.00
HA-108*	Mixing	Same as HA-100	Same as Pri	+20	19.80
HA-108X*	As above but multiple alloy shields for low hum pick up			+18	19.80
HA-130X	Line to grids.	30, 50, 200, 250	60K Split	+18	21.00

INTERSTAGE AUDIO TRANSFORMERS
Units Housed in Type H-1 Case, except HA-107: in H-2 Case

UTC Type	Application	Primary Imped. Ohms	Sec. Imped. Ohms	Level Mw.	Net Each
HA-104	Pl. to grids	15K split	95K	100	$15.00
HA-105	Pl. to grid	15K	60K	100	21.00
HA-106	Pl. to grids	15K split	135K	100	18.90
HA-107	Pl's. to grids	30K	80K	600	27.00
HA-137	Pl's. to grids	30K	68K	100	16.80

Continued on next column

LINEAR STANDARD TRANSFORMERS

Guaranteed frequency response of ±1 db 20-20,000 cps, ±1 db 7-50,000 cps on high level units, make these ideal transformers for uniform frequency response and low distortion. High efficiency and dependability through shielding. Top and bottom mounting.

LOW LEVEL TRANSFORMERS

Type LS-1 case, 2⅝'' x 3⅛'' x 3¼'' h. Suffix X indicates multiple alloy shield. Weight, 3 lbs.

UTC Type	Application	Pri. Imp., Ohms	Sec. mp., Ohms	Level, dbm	Net Each
LS-10	Input	50, 125/150, 200, 250, 333, 500/600	60K split	+19	$24.00
LS-10X	Input	As above	50K	+17	24.00
LS-12	Input	As above	120K split	+19	27.00
LS-12X	Input	As above	80K split	+17	24.00
LS-30	Mixing	As above	Same as pri.	+23	24.00
LS-30X	Mixing	As above	Same as pri.	+20	27.00
LS-19	Pl. to grids	15K	95K	+20	19.50
LS-21	Pl. to p-p	15K	135K split	+20	24.00
LS-40	Pl. to p-p	15K, 8 ma	135K split	+20	33.00
LS-25	P-P to p-p	30K split	50K split	+23	27.00
LS-27	Pl. to line	15K, 8 ma	See LS-10 pri.	+23	24.00
LS-50	Pl. to line	15K	See LS-10 pri.	+23	24.00
LS-51	P-p to line	30K split	See LS-10 pri.	+24	27.00
LS-14X	Lo-Z to grids	2.5, 5.5, 10, 15, 22, 30, 38, 60	50K	+17	24.00
LS-26	Line to grids	5K	60K	+23	27.00
LS-31	Line to line	30, 50, 200,250	See LS-10 pri.	+23	24.00
LS-32	Lo-Z to line	Same as LS-14X	See LS-10 pri.	+23	33.00
LS-68	Matching to 2 Simult. lines or Tr.	600/150 split	(2) 600/150 split	+15	24.00
LS-150	Line to line	4K	See LS-10 pri.	+23	21.00
LS-151	Line to line	16K	See LS-10 pri.	+26	21.00
LS-140	70 db hybrid	500/600 split	Same as pri.	+18	27.00
LS-141	Hybrid*	500/600 split	Same as pri.	+18	21.00

*Has 3 sets of coils.

HIGH LEVEL TRANSFORMERS

Sizes: LS-33, -34, -35, -47, -52, -54, -55, -56, -61, -63, 3½'' x 4 7/16'' x 4 3/16'' h. (Wt., 7½ lbs.). LS-6L1, -6L4, -48, -58, -65, -666, -667, 5'' x 5 13/16'' x 4 11/16'' h. (Wt., 15 lbs.). LS-691, 13'' x 15¾'' x 24'' h. (Wt. 370 lbs.). LS-692, 13'' x 15¾'' x 28'' h. (Wt. 520 lbs.).

UTC Type	Application	Pri. Imped., Ohms	†	Level Watts	Net Each
LS-33	Matching	50, 125/150, 200, 250, 333, 500/600	a	20	$24.00
LS-34	Matching	As above	a	40	33.00
LS-47	Driver	5K	i	20	24.00
LS-48	Driver	12K	j	40	60.00
LS-6L1	P-p output	9K	b	30	36.00
LS-6L4	P-p output	4,500/3,800	b	55	66.00
LS-58	P-p output	2.5K/1.5K	b	40	57.00
LS-52	P-p output	8000	b	20	24.00
LS-55	P-p output	5K/3K split	b	20	24.00
LS-61	P-p output	10K/6K split	b	20	24.00
LS-54	P-p output	8000	c	20	21.00
LS-57	P-p output	5K/3K split	c	20	21.00
LS-63	P-p output	10K/6K split	c	20	21.00
LS-56	P-p output	5K/3K split	d	20	27.00
LS-35	EL-34's*	5K CT 43% taps	e	35	24.00
LS-65	6550's*	3.3K CT 40% taps	e	60	42.00
LS-666	P-p transistor	8 split	f	50	21.00
LS-667	P-p transistor	8 split	e	50	21.00
LS-691	Modulation	10,400	g	1,000	600.00
LS-692	Modulation	4,750	h	2,500	930.00

*With feedback. †Secondary Impedance: a—1.2, 2.5, 5, 7.5, 10, 15, 20, 30, 50, 125/150, 200/250, 333, 500/600 ohms. b—500, 333, 250/200, 125, 50, 30, 20, 10, 7.5, 5, 2.5, 1.2 ohms. c—30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. d—6K, 5K, 4K, 1.8K, 1.5K, 1K, 30, 20, 15, 10, 7.5, 5, 2.5, 1.2 ohms. e—4, 8; 16 ohms. f—500 ohms split. g—4.5K, 4K, 3.5K, 2.75K, 2K. h—2.5K, 2K, 1.75K, 1.5K, 1.25K. i—Pri/½ Sec. 3.2:1. j—Pri./½ Sec. 5.1:1.

Continued from bottom of previous column

PLATE TO LINE TRANSFORMERS
Units Housed in Type H-1 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Mw	Net Each
HA-113	to multiple line	15K split	50, 125/150, 200, 250, 333, 500/600	125	$18.00
HA-114	Lo-Z to multi-line	30K		200	21.00
HA-133	to multi-line	15K split		160	21.00

OUTPUT TRANSFORMERS
Units Housed in Type H-2 Case

UTC Type	Application	Prim. Imped. Ohms	Sec. Imped. Ohms	Level Watts	Net Each
HA-134	P-p to line	5K/9.4K	50, 125/150, 200, 250, 330, 500/600	15	$16.80
HA-135	P-p to V.C.	3K/5K	30, 20, 15, 10, 7.5, 5, 2.5, 1.2	18	16.80
HA-136	5881's screen-taps	6.6K	4, 8, 16	20	18.00

POWER TRANSFORMERS
Units Housed: HP-122 in Type H-1 Case; HP-123 in Type H-2 Case

UTC Type	Application	Psi. Volt 50/60u	Hi-Volt	Fil. Wind	Net Each
HP-122	Pre-amp	115	220-O-220 15 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—1.2A	$12.00
HP-123	Pre-amp or Tuner	115	275-O-275 35 Ma	6.3 V.C.T.—.6A 6.3 V.C.T.—2A	12.00

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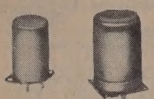
COMMERCIAL GRADE COMPONENTS

DIMENSIONS, COMMERCIAL GRADE "RC" CASE



Performance insured during constant usage due to the ruggedness of this vacuum impregnated component with special sealing compound. Case, finished in light gray enamel, is ready for mounting on chassis. (All audio components linear).

Case No.	Base Dim.(Sq.)	Mounting Dim. (Sq.)	Ht., +⅛, −1/16	Cutout Dia.	Unit Wt. (Lbs.)
RC-37	1⅜	1⅛	1⅝	1¼	.35
RC-50	1⅝	1 5/16	2¼	1½	½
RC-62	1 13/16	1½	2½	1½	1
RC-75	2 3/16	1 13/16	2⅞	1⅞	1½
RC-87	2 9/16	2 3/32	3¼	2	2½
RC-100	3	2⅜	3¾	2⅝	3½
RC-112	3 7/16	2 11/16	4⅛	2⅞	5
RC-125	3¾	3	4½	3	6½
RC-150	4½	3 9/16	5½	3¾	11
RC-152	5⅛	4⅛	5½	4	15½
RC-175	5¾	4⅞	7	4	22

SWINGING INPUT AND FILTER INDUCTORS

UTC Type	Induct. Henries	DC MA	DC Res. Ohms	Test Volts	Case No.	Net Each
CG-40	10	200	110	1750	RC-112	$ 8.10
CG-44	30	100	400	1750	RC-100	6.90
CG-45	250	15	5000	1750	RC-87	6.00
CG-48C	75	50	2200	1750	RC-87	7.50
CG-100	12	150	110	2500	RC-125	9.00
CG-102	12	250	100	3000	RC-150	13.20
CG-104	10	350	90	5000	RC-152	15.00
CG-108	10	500	52	7000	RC-175	27.00
CG-1S	10	1000	40	9000	11½ x 4¾ x 6⅞ H. Wt., 40 lbs.	54.00
CG-101	25/5	150	110	2500	RC-125	9.00
CG-103	25/5	250	100	3000	RC-150	13.20
CG-105	25/5	350	90	5000	RC-152	15.00
CG-109	25/5	500	52	7000	RC-175	27.00
CG-111	100/10	2.5A	.6	1500	RC-87	11.40
(2 wdgs.)	25/2.5	.5A	.15			
CG-1C	25/5	1000	40	9000	11½ x 4¾ x 6⅞ H. Wt., 40 lbs.	54.00

PLATE TRANSFORMERS

Primaries for 105, 115, 220, 230 volts; 50/60 cycles. For reduced power, secondary can be cut in half, using 220 v. primary on 110 volts; may be used on 25 to 43 cycles in this case. "W" suffix units designed for full wave center tap and full wave bridge application. Center tap may be disconnected from ground.

UTC Type	High Voltage	DC Volts	Case No.	Net Each
CG-300	625-515-0-515-625	500/400	RC-150	$16.20
CG-300W	625-515-0-515-625	1000/800	RC-150	17.70
CG-301	580-530-300-0-300-530-580	475/425/250	RC-152	24.00
CG-301W	580-530-300-0-300-530-580	950/850/500	RC-152	26.40
CG-302	950-750-0-750-950	760/610	RC-175	30.00
CG-302W	950-750-0-750-950	1520/1220	RC-175	33.00
CG-303	1500-1235-400-0-400-1235-1500	1250/1000 300	RC-175	36.00
CG303W	1500-1235-400-0-400-1235-1500	2500/2000 600	RC-175	39.60

POWER AND BIAS TRANSFORMERS

Primary 115 volts, 50/60 cycles. DCMA is for choke input; reduce 70% for condenser input. Filament 1 is 5 volts, 3 amps., and Filament 2 is 5 volts, 2 amps., except as otherwise noted.

UTC Type	High Voltage	DC Ma	Filament 3	Filament 4	Case No.	Net Each
CG-422	435-365-0-365-435 125-0-125	125 25	6.3 VCT-3A	2.5 VCT-5A	RC-150	$21.00
CG-428	500-0-500 80-0-80	250 100	6.3 VCT-4A	6.3 VCT-3A, tapped 2.5 VCT-3A	RC-152	24.90
CG-429*	600-525-0-525-600	250	7.5 VCT-3A, tapped 6.3 VCT-4A		RC-152	24.90
CG-431†	500-400-0-400-500 80-0-80	500 100	6.3 VCT-5A	6.3 VCT-3A	RC-175	36.00
CG-315	Tapped for any DC voltage from 15 to 100 volts within 6%—250 MA				RC-125	14.40
CG-316	Tapped for any DC voltage from 75 to 400 volts within 6%—250 MA				RC-152	21.00

*Filament 2 is 6.3 VCT-3A. †Filament 1 is 5V-6A.

AUDIO UNITS

UTC Type	Use †	Pri. Imped., Ohms	Level	Case RC-	Net Each
CG-131	a	15K	+28 dbm	50	$ 9.90
CG-132	b	15K	+30 dbm	62	9.90
CG-133	c	30K CT	+32 dbm	75	10.50
CG-134	d	50, 200, 500	+30 dbm	50	9.00
CG-135	e	50, 200, 500	+30 dbm	50	9.90
CG-235	f	50, 200, 500	+28 dbm	75	12.00
CG-136	g	15K, 50, 200	+30 dbm	62	13.20
CG-137	h	50, 200, 500	+28 dbm	50	8.40
CG-140	i	15K	+30 dbm	50	7.80
CG-141	j	30K CT	+32 dbm	50	9.00
CG-233	k	30K CT	+35 dbm	87	9.00
CG-333	k	30K CT	+35 dbm	87	9.00
CG-433	k	5K CT	10 w.	100	9.90
CG-15	l	8K CT	20 w.	100	12.00
CG-16	l	3K/5K CT	20 w.	100	12.00
CG-19	l	6K/10K CT	20 w.	100	12.00
CG-710	l	14K/20K CT	20 w.	100	12.00
CG-2L6	l	9K CT	30 w.	125	13.80
CG-20	m	5K CT, 43% screen taps	25 w.	125	15.00
CG-21	m	3.3K CT, 40% screen taps	50 w.	150	24.00
CVP-1	n	3K/5K/6K/8K/10K/14K CT	12 w.	100	13.20
CVP-2	n	"	30 w.	125	14.40
CVP-3	n	"	60 w.	150	21.00
CVP-4	n	"	125 w.	152	24.00
CVP-5	n	"	300 w.	175	39.00
CVL-1	p	500	15 w.	87	9.00
CVL-2	p	500	40 w.	125	10.50
CVL-3	p	500	75 w.	150	15.00
CVM-0	q	Any Class B	12 w.	100	10.50
CVM-1	q	"	30 w.	125	13.80
CVM-2	q	"	60 w.	150	18.00
CVM-3	q	"	125 w.	152	21.00
CVM-4	q	"	300 w.	175	39.00
CVM-5	q	"	600 w.	*	105.00
CG-51AX	r	15K	5 w.	87	9.00
CG-53AX	r	3K/10K/ CT	20 w.	112	10.50
CG-59AX	r	50, 200, 500	20 w.	112	10.80

*7" x 12" x 9"; Wt., 60 lbs. †a—Pl. to grid. b—Pl. to 2 grids. c—2 pl. to 2 grids. d—Input, humbucking. e—P-p input, humbucking. f—Input, mag. shielded. g—Dual input, humbucking. h—Mixing. i—Pl. to line. j—P-p to line. k—Driver. l—Output. m—Feedback output. n—Universal output. p—Universal matching. q—Universal modulator. r—Universal driver.

END CASTING UNITS

See note on "W" suffix units under plate transformers.

UCT Type	High Volt	DC Volt		L	W	H	Wt. Lbs.	Net Each
CG-304*	1500-1235-0-1235-1500	1.25K	1K	14⅝	8½	10⅜	100	$141.00
CG-304W	1500-1235-0-1235-1500	2.5K	2K	14⅝	8½	10⅜	100	156.00
CG-305*	2400-1750-0-1750-2400	2K	1.5K	10½	4¾	6⅞	50	63.00
CG-305W	2400-1750-0-1750-2400	4K	3K	10½	4¾	6⅞	50	69.00
CG-306*	as above	2K	1.5K	13⅞	8½	10⅜	100	150.00
CG-306W	as above	4K	3K	13⅞	8½	10⅜	100	165.00
CG-307	3500-3000-2400-0-2400-3000-3500	3K 2K	2.5K	13⅝	8½	10⅜	90	138.00
CG-308	as CG-307	3K 2K	2.5K	15⅛	8½	10⅜	125	162.00
CG-309	as CG-307	3K 2K	2.5K	21	10	13¼	253	360.00
CG-310	4600-4050-3500-0-3500-4050-4600	4K 3K	3.5K	17¼	10	13¼	150	309.00
CG-311*	1500-1235-0-1235-1500	1.25K	1K	10½	4¾	6⅞	50	66.00
CG-311W	1500-1235-0-1235-1500	2.5K	2K	10½	4¾	6⅞	50	69.00
CG-312	1800-1500-0-1500-1800	1.5K	1.25K	10½	4¾	6⅞	38	66.00

*See page 1 for Full Wave Bridge Rectifier types.

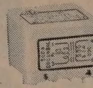
VARIPOWER AUTOFORMERS

Simultaneous control of filament, plate and line voltage. Filament voltage control within 2½%. Output voltage from 0 to 130 volts. 50/60 cycles. Taps at 25, 55, 75, 95, 100, 105, 110, 115, 120, 125, and 130 volts.

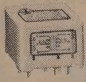
UTC Type	Watts Output	Case No.	Net Each	UTC Type	Watts Output	Case No.	Net Each
CVA-1	150	RC-112	$12.00	CVA-4	1000	RC-152	$21.00
CVA-2	250	RC-125	14.10	CVA-5	2000	RC-175	36.00
CVA-3	500	RC-150	18.00				

MINIATURE, OUNCER, SUBOUNCER & SUB-SUBOUNCER UNITS

SUBOUNCER & SUB-SUBOUNCER AUDIO TRANSFORMERS TRANSISTOR & TUBE TYPES HERMETICALLY SEALED



SO-#P UNIT
Dim.
$\frac{3}{4}\times1\times\frac{23}{32}$''
Pin Length $\frac{1}{4}$''
Wt. ....05 lb.



SSO-#P UNIT
Dim.
$\frac{3}{4}\times\frac{7}{8}\times\frac{9}{16}$''
Pin Length $\frac{1}{4}$''
Wt. ....04 lb.

SML-70
$\frac{7}{16}\times\frac{31}{64}\times\frac{9}{16}$''
Wt. .2 oz.

UTC SSO-#P and SO-#P units are ideal miniaturized components having high efficiency and wide frequency response. Special nickel iron core materials and winding methods provide exceptional performance and reliability.

These units are vacuum molded to MIL Grade 5. They employ 50 mil deeply anchored pin terminals ideally suited for printed circuit and transistor application. Terminals are strong enough to support these light weight units.

The UTC SML-70 is an ultra miniature transformer providing high shielding, extremely low insertion loss with wide band response, 200 cycles to 20 kc. These units are provided with pin terminals (.025 dia.) strong enough to support the unit and are ideal for printed circuits.

PRINTED CIRCUIT AUDIO UNIT — HIPERMALLOY SHIELD CASE

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SML-70	Input or Chopper Service	200K	1K	$8.40

MIL TYPE: TF5RX16ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SO-2P	Interstage/3:1	10K	90K	$7.50
SO-3P*	Plate to Line	10K 25K	200 500	7.50
SO-7P*	Transistor Interstage	20K 30K	800 1200	7.20
SO-8P	Transistor to PP Sec.	10K	2000 CT	7.80
SO-9P	PP Transistor to V.C.	500 CT	3.2	7.80
SO-14P	Transistor Interstage	80 CT 100 CT	32 Split 40 Split	8.10

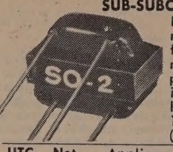
MIL TYPES: SO-2P, TF5RX15ZZ; SO-3P, TF5RX13ZZ; SO-7P, TF5RX13ZZ; SO-8P, TF5RX13ZZ; SO-9P, TF5RX17ZZ; SO-14P, TF5RX17ZZ.

PRINTED CIRCUIT MOLDED TYPES TO MIL GRADE 5

Type No.	Application	Pri. Imp. ohms	Sec. Imp. ohms	Net Each
SSO-3P	Plate to line	10K 25K	200	$8.10
SSO-8P	Transistor to pp sec.	10K	2000 CT	8.10
SSO-14P	Transistor Interstage	10K CT 25K CT	200 CT 500 CT	8.40
SSO-15P	Transistor Interstage	20K CT 30K CT	800 CT 1200 CT	8.40
SSO-19P	Output matching	500 CT	600 CT	8.10
SSO-20P	Output	1.5K CT	600 CT	8.10
SSO-21P	Crystal/Chopper	200K CT	1000 CT	8.40
SSO-22P	Interstage	10K CT 12K CT	1500 CT 1800 CT	7.80

MIL TYPES: SSO-3P, TF5RX13ZZ; SSO-8P, TF5RX13ZZ; SSO-14P, TF5RX13ZZ; SSO-15P, TF5RX13ZZ; SSO-19P, TF5RX17ZZ; SSO-20P, TF5RX17ZZ; SSO-21P, TF5RX16ZZ; SSO-22P, TF5RX13ZZ.

SUB-SUBOUNCERS AND SUBOUNCERS



Lead mounted (channel available as separate item) miniature nickel iron core units for transistor or vacuum tube circuits. Plastic mounted leads. SSO Sub-Subouncers: Approx. 2 db, 140-10,000 cps; +20 VU except inputs +7 VU. ($\frac{7}{16}$'' x $\frac{3}{4}$'' x $\frac{43}{64}$''; wt., .02 lb.) SO Subouncers: Approx. 2 db., 100-10,000 cps; +24 VU except inputs +10 VU. ($\frac{19}{32}$'' x $\frac{43}{64}$'' x $\frac{7}{8}$''; wt., .03 lbs.)

UTC SSO-	Net Each	Application	Pri. Imp., Ohms	Sec. Imp., Ohms	UTC SO-	Net Each
1	$4.50	Input	50/200	62.5K/250K	1	$3.60
2	4.80	Interstage	10K, .25 ma	90K	2	3.30
3	4.20	Pl. to line	10K/25K*	200/500	3	3.30
4	3.90	Output	30K, 1 ma	50	4	3.30
5	3.90	Inductor:	50 hys. @ 1 ma	4400 ohms#	5‡	3.00
6	4.20	Output	100K, .5 ma	60	6	3.90
7	3.30	Tr. intrstg.	20K/30K†	80/1200	7	3.00
8	3.90	Tr. intrstg.	10K, 1 ma	2K CT	8	3.60
9	3.00	Tr. to V.C.	10K, 2 ma	16	.....	.....
.....	.....	Tr. to V.C.	500 CT	3.2	9	3.60
10	3.00	Tr. to V.C.	10K, 2 ma	3.2	.....	.....
.....	.....	Tr. to V.C.	2K/4K CT	8/16	10	3.60
11	3.00	Tr. Output	500/600§	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	400/500 Split	11	4.20
12	3.00	Tr. Output	1K/1.2K††	50/60	.....	.....
.....	.....	Transist. Int.	400/500 CT	120/150 Split	12	4.20
13	4.50	Input	200K	1K	.....	.....
.....	.....	Transist. Int.	400/500 CT	40/50 Split	13	4.20
14	4.20	Tr. intrstg.	10K/25KCT	200/500 CT	.....	.....
.....	.....	Transist. Int.	80/100 CT	32/40 Split	14	4.20
15	4.20	Tr. intrstg.	20K/30K CT	.8K/1.2K CT	.....	.....
16	3.00	Tr. Output	1.2K/1.5K††	3.2/4	.....	.....
17	3.30	Tr. Output	10K/12.5K**	500/600 CT	.....	.....
18	3.30	Output	7.5K/9.4K CT	3.2/4	.....	.....
19	3.30	Matching	500 CT	600 CT	.....	.....
20	3.30	Output	1.5K CT	600 CT	.....	.....
21	4.80	Chopper	200K CT	1K CT	.....	.....
22	3.90	Tr. intrstg.	10K/12K CT	1.5K/1.8K CT	.....	.....
23	3.00	Inductor: 4hys @ 5 ma, 650 ohms				
24	3.00	Inductor: 1.5 hys. @ 5 ma, 160 ohms				
25	5.10	Transist. Int.	10K/12K CT	10K/12K CT	.....	.....
26	5.10	Transist. Int.	40K/50K CT	400/500 Split	.....	.....
CH	.30	Mounting channel for any of above			CH	.30

*1.5 ma. †0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. ** 2 ma. ††3 ma. #DC resis.

OUNCER AUDIO UNITS

Standard and Plug-in Types

UTC ouncer components provide wide range ±1 db, 30 to 20,000 cps (except Nos. 0-14 and 0-15). In compact $\frac{7}{8}$'' dia. case. No. 0-16 has heavy shielding (case $1\frac{1}{16}$'' dia.). P-16 has 9 pin plug ($1\frac{3}{16}$'' dia.). Wt., 4 oz. max.

UTC No.	Net Each	Application	Pri. Imped., Ohms	Sec. Imped., Ohms	UTC No.	Net Each
O-1	$7.80	Input	50, 200, 500	50K	P-1	$9.00
O-2	7.80	P-p input	50, 200, 500	50K CT	P-2	9.00
O-3	7.50	Input	7.5/30	50K	P-3	8.40
O-4	6.60	Pl. to grid	15K	60K	.....	.....
O-5	6.60	Pl. to grid	15K, 2 ma	60K	.....	.....
O-6	7.50	Pl. to p-p	15K	95K CT	P-6	8.40
O-7	7.50	Pl. to p-p	15K, 2 ma	95K CT	P-7	8.40
O-8	7.80	Pl. to line	15K	50, 200, 500	P-8	9.00
O-9	7.80	Pl. to line	15K, 2 ma	50, 200, 500	P-9	9.00
O-10	8.40	P-p to line	30K CT	50, 200, 500	P-10	9.00
O-11	7.80	Cryst. out.	50K	50, 200, 500	P-11	9.00
O-12	7.80	Mixing	50, 200, 500	50, 200, 500	P-12	9.00
O-13	6.30	Inductor	300 Hys-0 ma; 6000 ohms		.....	.....
O-14	7.50	50:1 input	200	500K	.....	.....
O-15	7.50	10:1 P/G	15K	1 meg.	P-15	9.00
O-16	10.20	Shld. input	250 CT	50K	P-16	11.40
O-17	1.50	Hipermalloy shield, 25 db, for Ouncers			.....	.....
O-18	7.80	Tr. intrstg.	10K split	2K split	.....	.....
O-19	7.80	Tr. intrstg.	10K split	4K split	.....	.....
O-20	6.30	Tr. to line	1.5K CT	500 split	.....	.....
O-21	5.40	Tr. to V.C.	2K/4K CT	8/16	.....	.....
O-22	5.40	Tr. to V.C.	500/400 CT	4/3.2	.....	.....
O-23	5.10	Inductor	7 Hys-3 ma; 230 ohms		.....	.....
O-24	5.10	Inductor	1.6 Hys-3 ma; 25 ohms		.....	.....
O-25	8.10	Transist. Input	600/150 split	2K/500 split	.....	.....
O-26	8.10	Transist. Int.	10K CT 4 ma.	10K CT	.....	.....
O-27	8.40	Transist. Int.	10K CT 4 ma.	500/125 split	.....	.....
O-28	8.40	Transist. Int.	50K CT. 2 ma.	500/125 split	.....	.....
O-29	8.70	Transist. Int. or chopper	100K CT 1 ma.	500/125 split	.....	.....
O-30	8.10	Transist. Int.	500/125 split	500/125 split	.....	.....
O-31	8.10	Transist. Int.	500/125 split	150/37.5 split	.....	.....
O-32	8.10	Transist. Int.	500/125 split	50/12.5 split	.....	.....
O-33	8.10	Transist. Int.	100/25 split	40/10 split	.....	.....
O-34	5.10	Split Inductor	Series: 60 Mhy-80 ma; 4 ohms Parallel: 15 Mhy-160 ma; 1 ohm		.....	.....
O-35	5.10	Split Inductor	Series: 1 Hy-20 ma; 60 ohms Parallel: .25 Hy-40 ma; 15 ohms		.....	.....

*1.5 ma. †0.5 ma. ‡Resis., 2675 ohms. §3.5 ma. **2 ma. ††3 ma. #DC resis.

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AMATEUR & PUBLIC ADDRESS TRANSFORMERS

DIMENSIONS, SPECIAL SERIES TRANSFORMERS

G-1 thru G-4

G-5 thru G-12

UTC Special Series transformers are specifically designed for amateur and popular-priced PA service. These units are finished in a rich, commercial type medium gray enamel. A recessed terminal strip is provided, permitting above chassis or breadboard wiring in addition to standard chassis type.

G-CASE SIZES

Case	Height, In.	Width, In.	Depth, In.	Wt., Lbs.
G-1	$1\frac{7}{8}$	$2\frac{13}{16}$	$1\frac{3}{4}$	1
G-2	$2\frac{5}{16}$	$3\frac{3}{8}$	$1\frac{15}{16}$	$1\frac{1}{2}$
G-3	$2\frac{1}{2}$	$3\frac{3}{4}$	$2\frac{5}{32}$	2
G-4	$2\frac{15}{16}$	$4\frac{1}{8}$	$2\frac{5}{16}$	3
G-5	$3\frac{3}{4}$	$3\frac{1}{8}$	$4\frac{1}{2}$	$4\frac{1}{2}$
G-7	$4\frac{5}{8}$	$4\frac{5}{8}$	$5\frac{1}{2}$	8
G-8	$4\frac{5}{8}$	$5\frac{3}{8}$	$5\frac{3}{8}$	12
G-9	$5\frac{7}{8}$	$5\frac{3}{8}$	$6\frac{3}{4}$	21
G-10	$5\frac{7}{8}$	$6\frac{1}{8}$	$6\frac{5}{8}$	24
G-11	$5\frac{7}{8}$	$6\frac{1}{2}$	$7\frac{3}{8}$	31
G-12	$10\frac{1}{4}$	$7\frac{3}{8}$	$9\frac{1}{4}$	52

INPUT AND DRIVER TRANSFORMERS

Type UTC	Application	Ratio Pri. to Sec.	Level	Case	Net Each
S-1	Plate to grid	$1:3\frac{1}{2}$	+30 dbm	G-2	$4.80
S-2	Plate to p-p grids	1:4*	+30 dbm	G-2	6.00
S-3	Pl. to 1 or 2 grids	1:4*	+25 dbm	G-1	4.50
S-5	Line to grid, humbkg.	1:16	+30 dbm	G-2	5.10
S-6	Line to grid, compact	1:16	+25 dbm	G-1	4.50
S-8	Driver pl. to p-p	2.66:1. 5:1*	5 w.	G-3	6.60
S-9	Driver p-p to p-p	2.66:1, 3.6:1 5:1*	20 w.	G-4	8.70
S-10	Driver p-p to p-p	2.25:1*	5 w.	G-3	6.60

*Center tapped.

MATCHING, OUTPUT AND MODULATION UNITS

UTC Type	Application	Pri. Imped., Ohms	†	Level, Watts	Case	Net Each
S-11	Pl. to line	15K	a	.25	G-2	$5.10
S-12	Line to V.C.	.5K/2K/4K	b	15	G-2	5.40
S-13	Line to V.C.	.5K/2K/4K	b	30	G-4	7.80
S-14	Output	2.5K/4K/7K/10K	c	10	G-2	6.60
S-15	PP output	4K/5K/10K CT	c	12	G-2	7.20
S-16	PP output	3K/6K/9/10K CT	c	30	G-4	8.40
S-17	PP output	3.8K/4.5/5K CT	c	55	G-5	12.00
S-18	Univ. modul.	Any Class B	d	12	G-3	7.20
S-19	Univ. modul.	Any Class B	d	30	G-4	9.30
S-20	Univ. modul.	Any Class B	d	55	G-5	15.00
S-21	Univ. modul.	Any Class B	d	110	G-7	21.00
S-22	Univ. modul.	Any Class B	d	250	G-9	33.00

†Secondary Impedance: a—200/500 ohms. b—2, 4, 8, 15 ohms. c—2, 8, 15, 500 ohms. d—Any Class C.

FILTER, SWINGING AND AUDIO INDUCTORS

Type	Henries	Ma. DC	Ohms	Insul.	Case	Net Each
S-23*	300	5	5000	1500 v.	G-2	$4.50
S-24‡	500	3	6000	1500 v.	G-2	5.10
S-25	30	30	800	1500 v.	G-2	3.90
S-26	12	60	250	1500 v.	G-2	3.90
S-27	25	75	350	1500 v.	G-4	5.10
S-28	20	100	350	1500 v.	G-4	6.30
S-29	6	175	90	1500 v.	G-4	5.10
S-30†	4/20	175	90	1500 v.	G-4	5.10
S-31	6	225	100	2700 v.	G-5	6.90
S-32†	4/20	225	100	2700 v.	G-5	6.90
S-33	8	300	100	4000 v.	G-7	9.30
S-34†	4/20	300	100	4000 v.	G-7	9.60
S-35	8	400	60	5000 v.	G-8	12.00
S-36†	4/20	400	60	5000 v.	G-8	12.00
S-37	8	550	60	6000 v.	G-8	15.00
S-38†	4/20	550	60	6000 v.	G-8	15.00
S-80	50/10 Mhy	1.75A	.5	500 v.	G-1	3.90
S-81	100/8 Mhy	2.5A	.6	1500 v.	G-3	6.00
(2Wdgs)	25/2 Mhy	5A	.15			

*Audio. ‡P.P. Audio C. T. †Swinging.

Information on components in this box listed on UTC page 12.

REPLACEMENT TYPE COMPONENTS

The shells and brackets of these vacuum sealed components are finished in shiny black enamel. A minimum number covers any replacement requirement.

Fig. A

Fig. B

Fig. C

Fig. D

Fig. E

Fig. F

Fig. G

Fig. H

FILAMENT TRANSFORMERS

Primary Tapped 105, 115 Volts, 50-60 Cy.

UTC Type	Secondary Volts	Secondary Current	Insulation	Case No.	Net Each
S-53	2.5 VCT	10 Amp	1500 V	G-3	$6.30
S-54	5 VCT	4 Amp	2500 V	G-3	5.70
S-55	6.3 VCT	3 Amp	1500 V	G-3	5.40
S-57	2.5 VCT	10 Amp	10000 V	G-5	9.00
S-58	2.5 VCT	20 Amp	10000 V	G-5	9.90
S-59	5 to 5.25 VCT	13 Amp	5000 V	G-5	9.30
S-60	5 to 5.25 VCT	22 Amp	10000 V	G-7	13.20
S-61	7.5 VCT tapped 6.3 VCT	10 Amp	3000 V	G-5	10.20
S-62	10 VCT	10 Amp	3000 V	G-5	9.30
S-63	14 VCT tapped 12 VCT & 11 VCT	10 Amp	5000 V	G-7	13.20

Type	Filament 1	Filament 2	Filament 3	Case	Net
S-64	2.5 VCT-5A	2.5 VCT-5A	5 VCT-6A	G-5	$10.80
S-67	5 VCT-6A	6.3 VCT-54		G-5	10.20
S-68	5 VCT-3A	6.3 VCT-4A	7.5 VCT-5A	G-5	10.50
‡S-70	6.3 VCT-5A	6.3 VCT-5A	....	G-5	10.20
S-71	2.5 VCT 6A	2.5 VCT-6A	2.5 VCT-12A	G-7	15.00
S-72	5 VCT-3A	5 VCT-3A	5 VCT-6A	G-5	11.40

*Insulation 10,000 v. †Insulation 5000 v. ‡Insulation 3000 v.

COMBINED PLATE AND FILAMENT TRANSFORMERS

Primary 115 V., 50-60 Cy.

UTC Type	Voltage	DC V.	Rect. Fil.	Filament No. 1	Filament No. 2	Case No.	Net Each
S-39	490-400-0-400-490 175 ma	400/310	5V-3A	2.5 VCT-6A	6.3 VCT-4A	G-7	$16.50
S-40	525-425-0-425-525 250 ma	400/310	5V-3A	6.3 VCT-3A	6.3 VCT-3A	G-7	18.00
S-41	600-0-600 200 ma	475	5 V-3A	7.5 V tapped 6.3 V-3A	6.3 VCT-2A	G-7	18.00
S-42	600-525-0-525-600 300 ma	480/400	5 V-6A	7.5 V tapped 6.3 V-3A	6.3 VCT-3A	G-7	19.50

PLATE AND BIAS TRANSFORMERS

Primary 115 V. 50/06 Cycles

UTC Type	2.5 VCT-12A High Voltage	DC Voltages*	DC Ma	Case	Net Each
S-44	575-525-0-525-575	470/430	500	G-9	$25.80
S-45	900-750-0-750-900	750/620	200	G-8	21.00
S-46	1000-750-0-750-1000	825/600	300	G-9	24.00
S-47	1500-1250-1000-0-1000-1250-1500	1275/1050/825	300	G-10	33.00
S-48	1500-1250-1000-0-1000-1250-1500	1300/1075/850	500	G-11	39.00
S-49	2100-1800-1500-0-1500-1800-2100	1815/1540/1275	300	G-11	36.00
S-50	3000-2500-0-2500-3000	2625/2175	300	G-12	60.00
S-51	Any bias voltage from 15 to 100 ± 6%		200	G-5	12.00
S-52	Any bias voltage from 75 to 400 ± 6%		200	G-7	15.60

*Based on two section filter for 200 ma. and 300 ma. units. Single section filter for 500 ma. units, both choke input.

IMMEDIATE DELIVERY

ON ALL UTC STOCK ITEMS

AND SPECIAL CUSTOM BUILT UNITS TO YOUR SPECS.

TRANSFORMERS FOR INDUSTRY WIDE APPLICATIONS

DOUBLE SHELL POWER TRANSFORMERS (FIG. B SEE PG. 11)

Rectifier filaments 5 volts, 3 amps except R-101, 2 amps.

UTC Type	High V.	DC Ma.	Amplifier Filament	Overall Height	Wt., Lbs.	Net Each
R-101	275-0-275	50	6.3 v. CT-2.7A	3″	2½	$7.20
R-102	350-0-350	70	6.3 v. CT-3A	3⅝″	3½	7.50
R-103	350-0-350	90	6.3 v. CT-3.5A	3 15/16″	4½	8.40
R-104	350-0-350	120	6.3 v. CT-5A	3⅞″	5½	9.00
R-105	385-0-385	160	6.3 v. CT-5A	4 5/16″	7	11.40

VERTICAL SHELL POWER TRANSFORMERS (FIG. C SEE PG. 11)

Rectifier filaments 5 volts, 3 amps., except R-110, 2 amps.

R-110	300-0-300	50	6.3 v. CT-2.7A	3¼″	2½	$7.20
R-111	350-0-350	70	6.3 v. CT-3A	3¼″	3½	7.50
R-112	350-0-350	120	6.3 v. CT-5A	4″	5½	9.00
R-113	400-0-400	200	6.3 v. CT-6A	4⅝″	8	13.20

CHANNEL FRAME FILTER INDUCTORS (FIG. E SEE PG. 11)

Inductance Shown is at Rated D.C.M.A.—Test Volts RMS: 1500

Type No.	Induct. Hys.	Current	Resist. Ohms	Dimensions, in. W	D	H	M	Wt. Lbs.	Net Each
R-55	6	40MA	300	2⅜	1⅜	1⅜	2	½	$1.65
R-14	8	40MA	250	2⅞	1½	1 11/16	2⅜	¾	1.95
R-15	12	30MA	450	2⅞	1½	1 11/16	2⅜	¾	1.95
R-16	15	30MA	630	2⅞	1½	1 11/16	2⅜	¾	1.95
R-17	20	40MA	850	3 5/16	1⅝	2	2 13/16	1	2.25
R-18	8	80MA	250	3 3/32	1⅝	2	2 13/16	1	2.52
R-19	14	100MA	450	3¾	1⅞	2 5/16	3⅛	1½	3.00
R-20	5	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-21	15/3	200MA	90	4⅛	2¼	2⅝	3 9/16	2½	3.60
R-220	100/8 Mhy. 25/2 Mhy.	2.5A 5A	.6 .16	3¾	2	2 5/16	3⅛	1½	4.20

PHOTOFLASH TRANSFORMERS

STANDARD 982

Can be used for either standard (Amglo type) or trigger (Sylvania type) multiple flash tubes. Circuit details included with transformer.

PF-6

PF-1 Primary for 115 volts, 50/60 cycles. Secondaries for power supply delivering 2200 volts DC to condenser up to 100 Mfd. Compound sealed in G-3 (Pg. 11) case 2⅛ x 2¾ (3¾ including flanges) x 2½ inches high. Weight 2 lbs. **Net Each $8.40**

PF-3 Trigger Transformer 15 KV peak. ⅞ O.D.x3 long. Weight 2 oz. **Net each: $6.00**

TRANSISTOR TYPE

These are miniaturized light weight units for transistor type photoflash supply.

PF-5 Primary for 115 volts. 50/60 cycles or for 4½ V. battery switched by PF-6 inverter transformer. Output delivers 400 V. DC when used in voltage doubler circuit to charge photoflash capacitor (typically 40 watt-Sec.). G-1 case (Pg. 11)
Net each: $8.40

PF-6 Inverter transformer transforms 4½ V. DC from battery to input for PF-5 stepup transformer. Ouncer case (Pg. 11)
Net each: $5.10

PF-7 Trigger transformer. Shorting .25 mfd. capacitor (charged to approx. 225 V. DC) across terminals 1-2 produces 6 KV pulse at terminal 3 for triggering flash tube. ⅞″ Dia. x 15/16″; Wt. ½ oz.
Net each: $3.60

HIGH Q PRECISION INDUCTANCE DECADE

Invaluable instruments for design and experimental work with tuned circuits, wave filters, and equalizers. The low hum pickup toroid coils employ a new permalloy dust core which, combined with special winding methods, provides very high Q, excellent voltage and temperature stability, and high self resonance frequency. The inductance values are laboratory adjusted to better than 1% precision, with calibration noted on base.

DI CASE

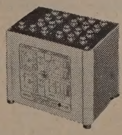
Length ....4½″
Width ....4⅜″
Height .... 2⅜″
Weight ....2 lbs.

Type No.	Induct. Henries	Optimum Range	Max. Q	Max. ACMA	Ins. Test Volts RMS	Net Each
DI-1	10 x .01	2-60 KC	200	500	500	$42.00
DI-2	10 x .1	.25-20 KC	200	150	500	54.00
DI-3	10 x 1	.25-10 KC	200	50	500	57.00
DI-4	10 x 10	.2-1.5 KC	100	15	500	72.00

CIRCUIT DEVELOPMENT TRANSFORMERS FOR TRANSISTORS

The UTC LABoratory circuit development transformers aid the designer in selecting optimum impedances for best power and distortion results from his transistor circuit.

LAB-10
units in LS-1 case
LAB-20
units in LS-3 case
See UTC page 8 for dimensions
Terminal board as shown above



LAB-20 20 Cycles to 20kc
Up to 50W Continuous

Pri. Imp. Ω	Sec. Imp.
6, 12, 24, 40, 54, 70,	4, 8, 16, 64

Net Each: $60.00

LAB-10 20 Cycles to 20kc
Up to 1W Continuous

Pri. Imp. Ω Range	Pri. to Sec. Ratio	Sec. Imp. Ω Range
1900 Ω to 14,400 Ω	20:1 or 10:1	19 Ω to 36 Ω
925 Ω to 7600 Ω	10:1 or 5:1	37 Ω to 76 Ω

Net Each: $30.00

STEP-DOWN AUTO-TRANSFORMERS (FIG. A SEE PG. 11)

With 6-ft. cord and female receptacle, except R-64; 220/240 to 110/120 v., 50/60 cps.

UTC Type	Rating	Size, Inches L.	W.	H.	Wt., Lbs.	Net Each
R-41	85 watt capacity	3 3/16	2⅝	3⅛	4	$5.70
R-42	125 watt capacity	3½	3	3½	5	6.00
R-43	175 watt capacity	3¾	3¼	3⅞	5½	6.90
R-44	250 watt capacity	4⅜	3¼	3⅞	6½	8.40
R-45	500 watt capacity	4⅝	3⅞	4⅝	12	12.00
R-46	1200 watt capacity	6⅞	3⅞	4⅝	18	24.00
R-64	2500 watts, no cord	10½	4¾	6¾	30	45.00

ISOLATION TRANSFORMERS (FIG. F SEE PG. 11)

Ideal for isolating line noise. AC-DC sets, etc. Excellent electrostatic shielding 1500 volt breakdown test. Six foot cord and female receptacle, except R-77.

Primary 110-120 volts 50/60 cycles—Secondary 110-120 volts
Except R-97 220 volt Primary—120 volt Sec.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-72	40	3⅛	2⅝	3⅛	2x1⅞	4	$ 7.20
R-73	100	3¾	3¼	3⅞	2½x2⅜	6	9.00
R-74	250	4⅞	3⅞	4⅝	3x3½	12	15.00
R-75	600	7⅜	3⅞	4⅝	3x5⅞	20	24.00
R-76	1200	8½	4½	6⅛	3⅝x6⅝	30	42.00
R-77	2500	12	7	9	6x11	70	84.00
R-97	250	4⅞	3⅞	4⅝	3x3½	12	15.00

LINE VOLTAGE ADJUSTERS WITH METER (FIG. G SEE PG. 11)

The perfect answer to abnormal or fluctuating line voltage. Adjust switch so that meter reads at red line and you know that your equipment is working at correct voltage. These units combine a tapped auto-transformer with a switch and meter in a compact, rugged assembly. The nine tap switch provides for line voltage of 60 to 140 volts on 115 volt output models and 160 to 240 volts on 230 volt output model. All units are designed for 50/60 cycles service and come complete with 6 foot input cord and plug and outlet receptacle.

Type No.	Primary Voltages	Sec. Volts	Watts Ratings	L	W	H	Wgt. Lbs.	Net Each
R-78	†	115	150	7	4	4¾	6	$17.70
R-79	†	115	300	7	4	4¾	9	18.90
R-80	†	115	600	10¼	4	4¾	13	22.80
R-81	†	115	1200	10¼	4	4¾	21	33.00
R-86	‡	230	1200	10¼	4	4¾	21	33.00

† 60, 70, 80, 90, 100, 110, 120, 130, 140
‡ 160, 170, 180, 190, 200, 210, 220, 230, 240

EXPORT VOLTAGE ADAPTER (FIG. D SEE PG. 11)

Complete with cord and plug and special locking switch providing for line voltages of 105, 115, 125, 135, 150, 210, 230, 250 volts; 42 to 60 cycles. Output voltage 115.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-47	85	4⅝	3	3½	2¼x2¼	4½	$10.20
R-48	150	4¾	3¼	4	2½x2½	5½	11.70

TV VOLTAGE REGULATOR (FIG. D SEE PG. 11)

Complete with cord, plug, and special locking switch. Permits operation of 115 volt 50/60 cycle TV sets on line voltages of 85, 90, 95, 100, 105, 110, 120, 125 V.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
R-49	350	5	3¼	4	2½x2¾	5	$12.00

VARITRAN VOLTAGE ADJUSTERS

Input 115 volts 50/60 cycles. Output continually adjustable from 0-130 Volts through roller contact on exposed autotransformer winding. Regulation and efficiency and excellent, no wave form distortion. Output voltage is independent of load. Complete with line cord, switch, and receptacle . . . for loads up to 570 Watts . . . 5 A.

Type No.		L	W	H	Wt. Lbs.	Net Each
V-1-M	with meter	4⅞	9⅞	3⅝	14	$20.00
V-1	without meter	4⅞	8	3⅝	12	35.00

SIGNALLING AND CONTROL TRANSFORMERS (FIG. H SEE PG. 11)

Primary 110-120 volts, 50/60 cycles—Secondary
4/8/12/16/20/24 volts

High power transformers suitable for operating relays, sirens horns, gongs, etc. from 115 V. 50/60 cycle line. These units have four secondary terminals providing 4, 8, 12, 16, 20 and 24 volt output. The volt ampere rating is based on the 24 volt secondary tap with corresponding reduction at the lower voltages. Underwriters' approved primary leads are employed, and screw-type binding posts.

Type No.	Rating Watts	L	W	H	Mtg. Dim.	Wgt. Lbs.	Net Each
SC-3	50	3	3 1/16	3 9/16	1¾x2¼	3	$7.50
SC-4	100	3¼	3 7/16	4	2⅛x2½	5	9.00
SC-5	250	4	4⅝	4¾	3 5/16x3	10	14.40

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electron tubes

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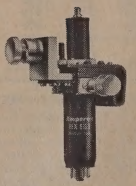
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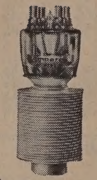

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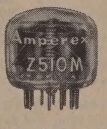
ORP60

Amperex
ORP50

ORP50


Amperex
Z510M

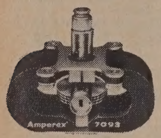
Z510M

Amperex
7854
MADE IN USA

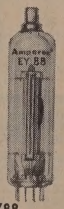
7854

Amperex
7377

7377


Amperex
7093

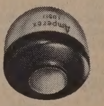
7093


Amperex
EY 88

6AL3/EY88

Amperex
8117
MADE IN USA

8117



18517

18515

6977

AMPEREX
PQ
6688

6688

Amperex
6FY5

6FY5

7459

COMMUNICATION

INDUSTRIAL

RECTIFICATION

SPECIAL PURPOSE

RADIATION DETECTION

AMATEUR

ELECTRO-MEDICAL

SEMICONDUCTORS

Detailed Data Sheets on any of these tubes, and applications engineering service are yours for the asking.

RADIATOR CREDIT FOR FORCED AIR-COOLED TUBES

Tube Type	Users Allowance
889RA	$20.00
891R, 892R	30.00
5604	45.00
5667	20.00
6445	30.00
6447	30.00
6757	45.00
6801	45.00

**Price on request.
#Price includes 10% Fed. Excise Tax.
ALL PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

ask Amperex

about AMPLIFRAME tubes

✱**AMPLIFRAME,** a new concept in electron tubes, designed and mass produced exclusively by Amperex, incorporates the unique **FRAME GRID** ...the closest approach to the ideal "Physicists' grid"—electrical characteristics but no physical dimensions. The **FRAME GRID** results in: • **higher transconductance per milliampere • tighter G_m and plate current tolerance • low transit time • low capacitances • lower microphonics • rugged construction**

Amperex®

ELECTRONIC CORP.
HICKSVILLE, L. I., N. Y.

IN CANADA: PHILIPS ELECTRON DEVICES LTD., 116 VANDERHOOF AVENUE, TORONTO 16, ONTARIO

© U.C.P., Inc.

Type No.	Suggested Resale Price
BEAM POWER TUBES	
#6GB5/EL500	$ 2.05
807	3.00
813	21.10
7378	45.00
6146	5.00
6159	5.00
8042	9.00
BEAM DEFLECTION TUBE	
6218/E80T	$ 8.75
COUNTING & INDICATOR TUBES	
6370/E1T	$16.50
6977	2.50
DIODE TUBES	
#6AL3/EY88	$ 1.45
#6R3/EY81	1.40
#16AQ3/XY88	1.45
6339	44.50
6923/EA52	11.00
EA53	12.00
TWIN DIODES	
#6AL5	$ .92
6AL5W	1.90
5726/E91AA	1.90
IGNITRONS	
5551A	$ 65.00
5552A	99.00
5553B	245.00
5555	316.00
5822A	116.00
MAGNETRONS	
5586	$417.00
7090	225.00
7091	405.00
7292	405.00
PENTAGRIDS	
#6BE6	$1.10
6687/E91H	1.30
PENTODES	
*#3EH7/XF183	$ 1.45
*#3EJ7/XF184	1.45
*#4EH7/YF183	1.45
*#4EJ7/YF184	1.45
#6AU6	1.05
#6BA6/EF93	.90
#6BQ5/EL84	1.30
#6BX6/EF80	1.55
6CA7/EL34	2.90
#6CW5/EL86	1.43
#6DA6/EF89	1.60
*#6EH7/EF183	1.45
*#6EJ7/EF184	1.45
#8BQ5/XL84	1.30
#45B5/UL84	1.43
828	32.95
5654/6AK5W	2.85
*5847/E182F	9.65
*5847(JAN)	9.65
6007	1.25
6008	1.25
6083	14.25
6084/E80F	3.00
6227/E80L	3.05
#6267/EF86	1.38
6375/DC70	8.40
6686/E81L	4.10
*6688/E180F	6.80
*6688A	6.86
6689/E83F	3.60
#7189	1.80
*7534/E130L	13.85
7693/E90F	2.90
7694/E99F	2.90
*7737	7.80
*7788	10.50
EFP60	7.50
#EL37	2.88
TRIODE PENTODES	
#6BL8/ECF80	$1.70
#6BM8/ECL82	1.60
#6DX8/ECL84	1.60
#6GW8/ECL86	1.70
*#6HG8/ECF86	1.60
#6U8	1.65
#50BM8/UCL82	1.50
7643/E80CF	3.60

Type No.	Suggested Resale Price
PHOTOMULTIPLIERS	
50AVP	$ 62.00
51UVP	308.00
52AVP	120.00
53AVP	80.00
53AVP-SP	88.00
53UVP	462.00
54AVP	158.00
56AVP	360.00
56UVP	696.00
57AVP	850.00
58AVP	600.00
150AVP	62.00
150AVP-02	76.00
150AVP-SP	76.00
150CVP	84.00
153AVP	88.00
RADIATION COUNTERS	
75N	$16.50
75NB3	16.50
90NB3(700V)	27.00
90NB3(900V)	27.00
90NB4(700V)	27.00
90NB4(900V)	27.00
100C	54.00
100CB	58.00
100HB	54.00
100N	43.50
100NB(700V)	46.00
100NB(900V)	46.00
120C	90.00
120CB	95.00
120N(700V)	90.00
120N(900V)	90.00
120NB(700V)	95.00
120NB(900V)	95.00
150N(700V)	61.00
150N(900V)	61.00
150NB	66.00
153C	91.00
200C	67.00
200CB	71.00
200HB	67.00
200N	56.00
200NB(700V)	58.50
200NB(900V)	58.50
230C	43.00
240N	41.00
400PC	**
912NB3(900V)	53.00
912NB4(900V)	53.00
RECTIFIERS	
#1S2A/DY87	$ 1.38
3B28	6.50
4B32	13.50
#5AR4/GZ34	2.10
#5R4GYB	1.90
#6CA4/EZ81	1.05
#6V4/EZ80	.75
#6X4/EZ90	.76
575A	22.15
673	22.15
857B	218.15
866AX	2.65
869B	138.00
869BL	138.00
872AX	9.90
6508	80.00
6693	25.00
7136	25.00
8008AX	10.65
8020AX	24.00
TETRODES	
4-65A	$ 28.00
4-125A	36.00
4-250A	46.50
4CX250B	39.35
4CX250BA (USAF)	45.00
4CX250F	39.35
4X150A	29.35
4X150D	29.35
4X250B	36.50
4X250F	36.50
4X500A	128.50
6075	250.00
6076	305.00
6079	60.00
6155	36.00
6156	46.50
6883	5.00
6979	42.50

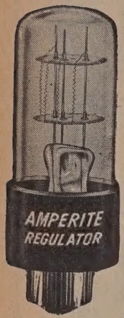
Type No.	Suggested Resale Price
TETRODES (Con't)	
7527	48.00
7580/4CX250BA (USAF)	45.00
7609	29.35
TWIN TETRODES	
829B	$19.00
832A	15.90
5894(COMM)	25.00
5894(MIL)	28.00
5895	13.70
6252	25.00
6252(USN)	28.00
6360(COMM)	5.15
6360(MIL)	5.70
6907	25.00
6907(USAF)	28.00
6939	12.00
7377	25.00
*7699	13.50
7854	29.00
7983	6.30
8117	29.00
THYRATRONS	
2D21	$ 1.29
3C23	11.98
632B	36.00
5544	32.50
5545	29.30
5557/FG17	9.50
5559	23.00
5560/FG95	33.00
5632/C3J	15.50
5684/C3JA	19.80
5685/C6JA	27.80
5727/E91N	2.50
5869	25.00
5870	100.00
6268	32.50
6279	45.00
6786	200.00
AX105/FG105	53.33
AX260	150.00
TRIODES	
*#2ER5	$ 1.40
*#2FY5	1.40
*#2GK5	1.07
*#3ER5	1.40
*#3GK5	1.07
*#4GK5	1.07
#6AT6	.89
#6AV6	.80
#6CM4/EC86	2.75
*#6DL4/EC88	2.75
*#6ER5/EC95	1.07
*#6FY5	1.40
*#6GK5	1.07
#6Q4/EC80	3.00
#6R4/EC81	2.55
#9AQ8/PCC85	1.55
#17EW8/HCC85	1.45
356	675.00
501R	225.00
504R	245.00
805	20.10
810	25.65
811A	6.90
812A	6.90
833A	53.65
834	19.30
838	20.00
845	20.80
849	185.00
849A	165.00
880	630.00
889A	235.00
889RA	370.00
891	275.00
891R	430.00
892	270.00
892R	425.00
5604	570.00
5619	423.00
5658	595.00
5666	280.00
5667	370.00
5771	675.00
*5842	7.45
*5842(JAN)	7.45
5866	20.00
5867	30.00
5868	60.00
5923	165.00

Type No.	Suggested Resale Price
TRIODES (Con't)	
5924	231.00
5924A	275.00
6333	310.00
6445	480.00
6446	305.00
6447	465.00
6756	388.00
6757	535.00
6758	173.00
6759	206.00
6800	395.00
6801	505.00
6960	150.00
6961	210.00
6961A	230.00
7004	160.00
7092	125.00
7237	200.00
7459	230.00
7804	440.00
7805	402.00
7806	795.00
7807	584.00
7900	250.00
8108/EC157	135.00
HF200	49.50
HF300	40.50
TBL2(400)	250.00
TBL2(500)	270.00
ZB3200	395.00
DUO-DIODE TRIODES	
#6AT6/EBC90	$ .89
#6AV6/EBC91	.80
TWIN TRIODES	
*#4ES8/XCC189	$2.28
#6AQ8/ECC85	1.45
*#6ES8/ECC189	2.28
*#6DJ8/ECC88	1.89
*#6GM8/ECC86	2.28
#6J6/ECC91	1.40
#9AQ8	1.55
#12AT7/ECC81	1.53
#12AU7/ECC82	1.23
#12AX7/ECC83	1.28
#17EW8	1.45
5920/E90CC	2.40
6085/E80CC	3.00
6201/E81CC	2.95
6211	1.66
6463	2.95
*6922(MIL)	4.75
*6922/E88CC	4.75
#7025	1.45
7062/E180CC	2.10
7119/E182CC	2.95
*7308	5.20
*7308(USN)	5.20
7316	1.40
E92CC	2.00
TUNING INDICATORS	
1M3/DM70	$ .98
6BR5/EM80	1.23
6CD7/EM34	1.83
6DA5/EM81	1.23
6FG6/EM84	1.48
DM71	1.00
EM87	1.50
VOLTAGE REFERENCE TUBES	
0E3/85A1	$2.50
0G3/85A2	2.30
5651	1.78
ZZ1000	2.15
VOLTAGE REGULATORS	
0A2	$1.26
0B2	1.32
90C1	2.25
6354/150B2	2.55
SPECIAL INDUSTRIAL TUBES	
5823/Z900T	$ 3.45
6779/Z803U	5.75
7709/Z70W	3.30
7710/Z70U	1.95
7711/Z71U	2.85
7713/Z804U	4.80
7714/Z805U	3.45
Z303C	13.10
Z502S	13.65
Z550M	14.50

For OEM prices, please write directly to the factory.

AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE



STANDARD

MINIATURE

AUTOMATIC REGULATION

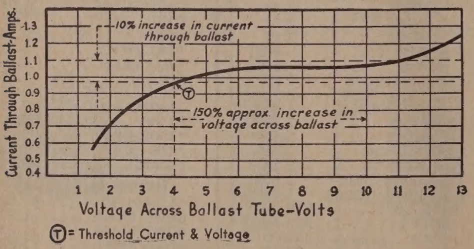
WHAT IT IS

The *AMPERITE Ballast-Regulating Tube* is an automatic *"rheostat"* designed to keep the current in a circuit at a definite value, for example, 0.5 amp.

Should the supply voltage increase, the *Amperite* will automatically increase in resistance enough to take up the increase in supply voltage — keeping the voltage on the load constant. It consists of an iron wire *hermetically sealed* in a bulb containing *hydrogen* or *helium* — the two gases with the *highest heat conductivity*. Its regulating action is based on the high temperature co-efficient of resistance of the iron wire and the rapid cooling of *hydrogen* or *helium* gas.

Being a constant current device, the *AMPERITE Ballast-Regulating Tube* can be used only to regulate a constant load—fixed wattage. Thermostatic relays can sometimes be included in these regulators to reduce initial surge.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



Characteristic curve of a typical Amperite. Approximate curve of any other Amperite can be obtained by multiplying or dividing the current or voltage scale by any number.

Standard Types of Amperite Ballast Tubes Net $1.80
Amperite NE70V Neon Lamp Net $1.80

D6-1E
*D6T4
**D6TK7
**D6TF10
**D6TF30
D7-20
D7H4
*D7HT4
*D7HT11
1A10
**1TF10
1-15
*1HT2
*1HT4
1H10
**1HTF10
*1HT11
**1HTF11

1H20
1H22
**2TK7
2A10
2A12
2A20
*2HT2
2H4
*2HT4
**2HTF4
2H10
3-2
**3TF2
**3TK2
3-4
3H-1-7
3H4
**3HTF4

*3T4
*3T4A
**3TF4A
**3TF4
**3TFV4
3V4
3-7
**3TF7
3A10
3-11
3H11
*3T11
3TF11
**3TF12
3-14
3-16
3A20
3H-25
3-38A
3-50A

4A10
4-12
4H3
4H4
4H4C
**4HTF4
**4HTF7
4H10
4H11
5E1
**5TF2
5-4
**5TF4
5A10
5-11
5-16
5H3
5H4
5H10
5H11

6-3
6-4
6-4A
6-4B
*6T4
*6T4F
**6TF4
6-7
**6TF7
6-8B
6A10
6-11
6-12
6-13
6A15
6-36
6H4
**6HTF4
6H6

7-4
**7TF4
7A10
7-11
**7HTF2
**7HTF3
**7HTF4
7H4
7H4B
7H7
7H11
**8TF2
8-3B
8-4
8A10
**9TF2
9-3
9-4

9-4A
9-7
9-8
9A10
10T1
**10TF2
10-3
10-4A
10-4B
10-4C
10-4D
10-4E
10A10
10A12
10-25
11-3
11-4
11A10
11-11

12-4
12-7
12A10
12-11
13-4
15-2
15-4
16-4
17-3
20-3
20-4
22-4
24-3
34-2
35-4
40-6E
41-7E
55-1
55-4

*T denotes T5½ bulb-7 pin miniature, e.g., 3T4.
**TF denotes T6½ bulb-9 pin miniature, e.g., 3TF4.
Base Wiring: Octal, 7 and 9 pin miniature—prongs 2-7.

AMPERITE NEON LAMP
TYPE NE70V Net $1.80

GENERAL ADVANTAGES:

• Light, compact • No moving parts • Rugged; will withstand vibration of 10G. minimum • Hermetically sealed; not affected by altitude or humidity changes • Can be changed as easily as a radio tube • Operates equally well on A.C. or D.C. • Inexpensive

CAPACITIES AVAILABLE

Current values of 60 ma. to 5 amps; threshold voltage 0.4 to 40 V. Maximum dissipation per AMPERITE 60w per tube (ST19 bulb). Any number of AMPERITES with the same voltage range can be operated in parallel. AMPERITES should not be used in series.

AGEING

AMPERITE Ballast Tubes may change approximately up to 3% in current if aged for 4 to 8 hours, at maximum voltage. They will change very little thereafter.

LIFE EXPECTANCY

Average life if operated as recommended	**2000 Hours**
If operated continuously at maximum voltage	**1000 Hours**
If operated continuously at 80% maximum voltage	**5000 Hours**
If filament is operated below glow point	**5000 Hours up**

In operation, the *Amperite* filament starts to glow at one point; as the voltage is increased, the glow spreads over the entire filament. Like incandescent lamps, turning *Amperite* on and off reduces its life, especially if operating near its maximum voltage.

TIME LAG CHARACTERISTICS

Time lag encountered in an *Amperite Ballast Tube* depends upon the wattage consumed by the ballast and the size of the bulb. Where the wattage is small for the size of the bulb, the action can be made practically instantaneous — less than 1 second. In such cases the bulb will remain at practically ambient temperature. When the wattage is high enough to heat the bulb to a temperature uncomfortable to the hand (160°F) the lag might be as much as several minutes for final readings—but normally reaches within 90% of final readings within a few seconds.

AMPERITE NUMBERING SYSTEM

In general, the AMPERITE number approximately denotes the current—voltage threshold value. For example:

Amperite Number	3-4	3H4	10-7	12-11	12H11
Threshold Current	0.3	0.35	1.0	1.2	1.25
Threshold Voltage	4.0	4.0	7.0	11.0	11.0

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.

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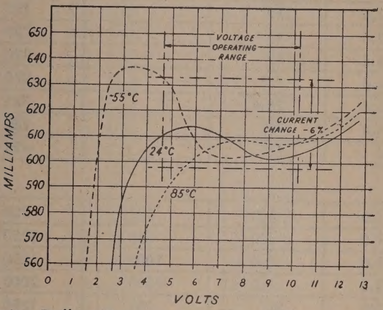
AUTOMATIC AMPERITE REGULATOR

BALLAST TUBE FOR AUTOMATIC REGULATION OF CURRENT AND VOLTAGE

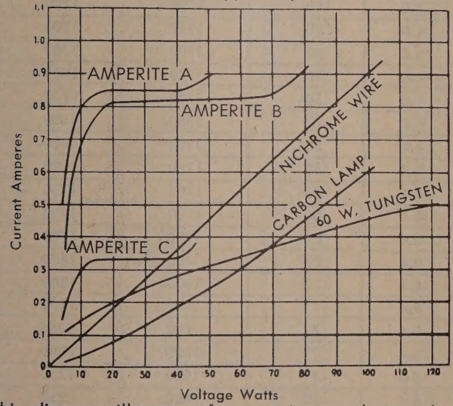
AMBIENT EFFECTS

Ambient temperature variation of —50° to +70° C will change the current value of an *Amperite* approximately 2% on regulating portion of curve as shown directly below. Being hermetically sealed the *Amperite* is not affected by altitude or humidity changes.

We strongly recommend that you send us your specifications on special problems, and let us recommend the BALLAST TUBE you need.



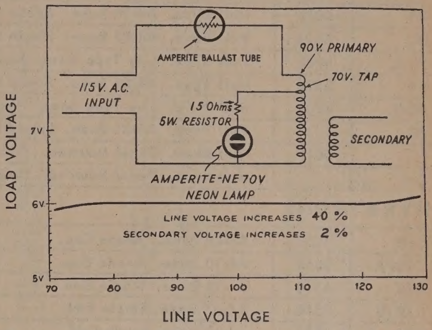
Amperite Ballast-Type 6-4 current voltage characteristic under ambient conditions of —55°, 24°, and 85° C. The percentage change with ambient is approximately the same with all type *Amperite* ballasts.



This diagram illustrates far superior regulating characteristics of the *Amperite* Ballast-Regulating Tube. ***STANDARD SIZES available for various wattage consumption . . . For good regulation, a bulb should not be required to dissipate more than 50% of maximum wattage.***

BATTERY CHARGING AND DISCHARGING

Amperite Ballast Tubes are very successfully used for keeping the current constant in charging and discharging batteries. Any number of *Amperites* of the same voltage range can be placed in parallel to obtain proper current. The current can be kept to ± 1%. Advise voltage variation and currents desired.



AMPERITE BALLAST TUBE
90 V. PRIMARY
70 V. TAP
115 V. A.C. INPUT
15 Ohms 5W. RESISTOR
SECONDARY
AMPERITE-NE 70V NEON LAMP
LOAD VOLTAGE
7V
6V
5V
LINE VOLTAGE INCREASES 40 %
SECONDARY VOLTAGE INCREASES 2 %
70 80 90 100 110 120 130
LINE VOLTAGE

A light, compact, and inexpensive method of obtaining close regulation is to use an *Amperite Ballast Tube* with an *Amperite* Neon Lamp — type NE70V. Base octal-base wiring-prongs 2-5. One NE70V is used for all loads up to 100W.

POWER SUPPLIES

We strongly recommend, for any particular application, to fill in and return one of our special problem sheets (ASP 343) and permit us to recommend the most suitable AMPERITE.

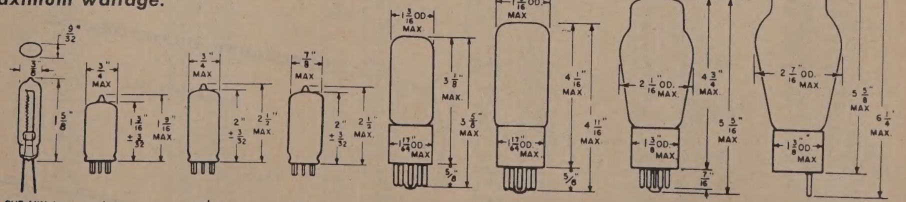
Power Supply	Dry Cells	6 Volts	12 Volts	26 Volts	115 Volts
Supply Variation	2.2-3.0V	5.5-7.5V	11.4-13.8V	22.0-30.0V	105-125V
Desired on Load	1.8-2.0V	3.9-4.1V	6.1- 6.4V	12.4-12.8V	90- 95V
Required on **AMPERITE**	0.4-1.0V	1.6-3.4V	5.3- 7.4V	9.6-19.2V	15- 30V
Current Variation	.29-.32a	.29-.32a	.29- .32a	.29- .32a	.29-.32a

The above chart shows the maximum load voltage for the given supply to obtain ± 2% current regulation on load. Better regulation is obtainable by increasing the voltage across the **AMPERITE**. Up to a point, the higher the percentage of the supply voltage taken up by the **AMPERITE**, the better the regulation.

Radio tube filament loads — have low cold resistance which causes a high initial surge. For such loads we recommend a bleeder of 20 to 50% prox. of load and the corresponding **AMPERITE**. e.g.

FILAMENT LOAD	USE AMPERITE	TOTAL CURRENT
0.3a	4HTF4	0.45a
0.6a	8-4	0.8a
0.7a	9H4	0.95a

On Radio tube filament loads the bleeder will also improve the regulation.



9/32"
3/8
1 5/8"
3/4" MAX
1 3/16" ± 3/32
1 9/16" MAX.
3/4" MAX
2" ± 3/32
2 1/2" MAX.
7/8" MAX
2" ± 3/32
2 1/2" MAX.
1 3/16" OD. MAX.
3 1/8" MAX.
3 5/8" MAX.
1 17/64" OD. MAX
5/8"
1 9/16" OD. MAX
4 1/16" MAX
4 11/16" MAX.
1 17/64" OD. MAX.
5/8"
2 1/16" OD. MAX.
4 3/4" MAX.
5 5/16" MAX
1 3/8" OD. MAX.
7/16"
2 7/16" OD. MAX.
5 5/8" MAX.
6 1/4" MAX.
1 3/8" OD. MAX

SIZE	SUB. MIN. L	T5½S	T5½L	T6½L	T9	T-12	ST-16	ST-19
MAX. WATTS	2 W.	3	5	5	12	20	30	60
WT. PER TUBE	2 GMS.	7 GMS.	8 GMS.	8 GMS.	1 oz.	2¼ oz.	2½ oz.	2¾ oz.

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Net

EL Industrial Control Tubes

A ready reference for reliable, temperature free thyratron and rectifier tubes.

TYPE	OTHER DESIG NATIONS	DESCRIPTION	MAX. CONTINUOUS AVERAGE DC ANODE CURRENT (AMPS)	OSCILLOGRAPH PEAK ANODE CURRENT CONTINUOUSLY RECURRING (AMPS)	MAX. INSTANTANEOUS PEAK FORWARD VOLTAGE	MAX. INSTANTANEOUS PEAK INVERSE VOLTAGE
RECTIFIERS						
EL 1C	3B22	Full Wave. A4-10 Base. Single End.	1.0	4.0		725
EL 3B	6013	Half Wave. A4-10 Base. Anode Cap.	2.5	20		920
EL 3C	4B24	Full Wave. A4-81 Base. Single End.	2.5	10		725
EL 3C/L	6982	Full Wave. Lug Type Base. Single End.	2.5	10		725
EL 6B	5892	Half Wave. A4-81 Base. Anode Cap.	6.4	77		920
EL 6B/L	6983	Half Wave. Lug Type Base. Anode Cap.	6.4	77		920
EL 6C		Full Wave. A4-81 Base. Single End	6.4	25.6		725
EL 6F	6015	Half Wave. Panel Mounted. Flexible Leads	6.4	77		920
EL 16F		Half Wave. Panel Mounted. Flexible Leads	16	96		620
THYRATRONS						
EL C1B	3C31	A4-10 Base. Anode Cap.	1.0	8.0	525	700
EL C1B/A	5664	A4-10 Base. Anode Cap.	1.0	8.0	750	1250
EL C1K	6014	A4-10 Base. Single End	1.0	8.0	1000	1250
EL C1K/B	7319	A4-10 Base. Single End.	1.0	8.0	2000	2000
EL C3J	5632	A4-10 Base. Anode Cap.	2.5	30	900	1250
EL C3J/A	5684	A4-10 Base. Anode Cap.	2.5	30	1000	1250
EL C3J/L	7216	Lug Type Base. Anode Cap.	2.5	30	900	1250
EL C3J/AL	7556	Lug Type Base. Anode Cap.	2.5	30	1000	1250
EL C4H-1		A4-81 Base. Anode Cap.	4.0	50	1700	1700
EL C4H-2		Panel Mounted. Anode Cap.	4.0	50	1700	1700
EL C4H-3		Lug Type Base. Anode Cap.	4.0	50	1700	1700
EL C4H-4		Panel Mounted. Flexible Leads	4.0	50	1700	1700
EL C4H-5		Lug Type Base. Flexible Lead.	4.0	50	1700	1700
EL C6C	6987	#4310 Base. Anode Cap.	6.4	77	2000	4000
EL C6H-1		A4-81 Base. Anode Cap.	6.4	80	1700	1700
EL C6H-2		Panel Mounted. Anode Cap .	6.4	80	1700	1700
EL C6H-3		Lug Type Base. Anode Cap.	6.4	80	1700	1700
EL C6H-4		Panel Mounted. Flexible Leads.	6.4	80	1700	1700
EL C6H-5		Lug Type Base. Flexible Lead.	6.4	80	1700	1700
EL C6J	5C21	A4-81 Base. Anode Cap.	6.4	77	750	1250
EL C6J/A	5685	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/F	6860	Panel Mounted. Anode Cap.	6.4	77	1000	1250
EL C6J/L	6988	Lug Type Base. Anode Cap.	6.4	77	750	1250
EL C6J/K	6864	A4-81 Base. Anode Cap.	6.4	77	1000	1250
EL C6J/KF	6871	Panel Mounted. Flexible Leads.	6.4	77	1000	1250
EL C6J/KL	6989	Lug Type Base. Anode Cap.	6.4	77	1000	1250
EL C16J	5665	Panel Mounted. Flexible Leads.	16.0	160	1000	1250
EL C16H		Panel Mounted. Flexible Leads.	16.0	160	1700	1700

ELECTRONS, INCORPORATED

NEWARK 3, N.J.

© U.C.P., Inc.

SERVICE-DESIGNED RECEIVING TUBES

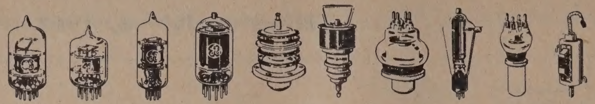
ELECTRONICS

Effective July 6, 1962

Type	List Price
0Z4	$ 2.45
0Z4A*	2.15
0Z4G	2.60
1A7GT	5.75
1AX2	3.05
1B3GT	2.90
1DN5	3.65
1G3GT	2.90
1H2	3.05
1H5GT	4.15
1J3	2.90
1K3	2.90
1L4*	2.65
1L6	6.85
1LA6	6.20
1LB4	8.45
1LH4	8.10
1LN5	8.20
1N2A	4.65
1S2A	2.70
1S4	4.35
1S5	2.65
1T4	2.50
1U4	2.50
1U5	2.20
1V2	2.10
1X2A/B	3.05
2A3	10.50
2AF4A	4.10
2AF4B	4.10
2BN4A	2.55
2CY5	2.85
2EN5	2.10
2ER5	3.55
2FH5	3.05
2FQ5	4.05
2FQ5A	4.05
2FS5	3.10
2FY5	2.80
2GK5	2.65
3A2	4.85
3A3	3.40
3AF4A	4.10
3AL5	1.90
3AU6	2.15
3AV6	1.75
3B2	10.35
3BC5	2.35
3BE6	2.25
3BN4	2.55
3BN6	3.05
3BU8	2.85
3BY6	2.35
3BZ6	2.30
3CB6	2.30
3CE5/3CB5	2.35
3CF6	2.55
3CS6	2.45
3CY5	2.85
3DG4	3.40
3DK6	2.40
3DT6	2.20
3EA5	2.85
3ER5	3.55
3GK5	4.15
3LF4	6.40
3Q4	3.55
3Q5GT	5.70
3S4	2.65
3V4	2.50
4AU6	2.20
4BC5	2.35
4BC8	4.10
4BN6	3.75
4BQ7A	4.00
4BS8	3.90
4BU8	2.85
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DT6	2.20
4EH7	3.80
4EJ7	3.80
4ES8	4.65
4EW6	2.65
4GZ5	2.40
5AM8	3.55
5AN8	4.00
5AQ5	2.20
5AR4	4.50
5AS4A	3.30
5AS8	4.15
5AT8	3.25
5AU4	3.40
5AV8	$4.10
5AZ4	5.65
5B8	5.30
5BE8	3.35
5BK7A	3.40
5BQ7A	4.00
5BR8	3.65
5BT8	3.30
5BW8	3.40
5CG8	3.25
5CL8A	3.25
5CM8	3.80
5CQ8	3.40
5CZ5	4.35
5DH8	5.10
5DJ4	2.20
5EA8	3.20
5ES8	5.80
5EU8	3.35
5FG7	2.80
5FV8	3.15
5GH8	3.95
5J6	2.85
5T8	3.40
5U4GA/B	2.10
5U4GB	2.10
5U8	3.35
5V3	3.85
5V4GA	3.50
5V6GT	2.45
5X8	3.45
5Y3GT	1.75
5Y4GA	2.55
5Y4GT	2.65
5Z3	3.30
6A7	8.55
6A8	6.90
6A8GT	4.80
6AB4	2.15
6AC5G	2.00
6AC5GT	4.35
6AC7	5.10
6AC7Y	5.30
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AG5	2.75
6AG7	5.90
6AH4GT	3.45
6AH6	4.65
6AJ4	9.80
6AK5*	4.20
6AL3	2.95
6AL5	1.85
6AL7GT*	5.75
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	4.00
6AQ8	3.20
6AR5	2.60
6AR8	5.15
6AS5	2.40
6AS8	3.80
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.50
6AV5GA	4.00
6AV6	1.65
6AW8A	3.75
6AX4GTA	2.65
6AX4GTB	2.65
6AX5GT	2.95
6AX8	3.70
6AZ8	5.55
6B8	7.30
6BA6	2.00
6BA7	5.95
6BA8A	3.90
6BC5	2.35
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BE6	2.20
6BF5	3.55
6BF6	1.80
6BF8	4.35
6BG6GA	6.50
6BH6	2.70
6BH8	3.50
6BJ6	2.60
6BJ7	$3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BLGTA	3.95
6BL8	3.95
6BM8	3.05
6BN4	2.50
6BN6	3.00
6BN8	3.05
6BQ5	2.40
6BQ6GA	4.35
6BQ6GTB	4.35
6BQ7A	3.95
6BR8A	3.65
6BS8	3.75
6BU5	5.50
6BU8	2.80
6BV8	3.20
6BW4	2.90
6BW8	3.55
6BX7GT	4.00
6BY5GA	5.10
6BY6	2.55
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.30
6CA4	1.95
6CA5	3.20
6CA7*	5.20
6CB5A	8.30
6CB6A	2.25
6CD6GA	5.80
6CE5/6BC5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.00
6CL5	9.60
6CL6	3.75
6CL8A	3.15
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.80
6CQ4	2.85
6CQ8	3.35
6CR6	2.40
6CS6	2.35
6CS7	3.00
6CU5	2.35
6CU6	4.35
6CU8	4.15
6CW4	4.45
6CW5	3.60
6CX8	3.65
6CY5	2.80
6CY7	3.20
6CZ5	4.10
6DA4	2.70
6DA5*	2.80
6DB5	5.30
6DE4	2.80
6DE6	2.55
6DE7	3.40
6DG6GT	2.50
6DJ8	5.00
6DK6	2.35
6DM4	2.75
6DN7	3.55
6DQ4	2.65
6DQ5	7.70
6DQ6A; 6DQ6B	4.15
6DR7	3.40
6DS5	3.20
6DT5	3.25
6DT6	2.15
6DT8	3.80
6DW5	4.05
6DX8	3.25
6DZ7	8.45
6E5*	4.90
6EA7	3.50
6EA8	3.20
6EB5	2.90
6EB8	4.00
6EH5	2.90
6EH7/EF183	3.20
6EH8	3.20
6EM5	3.40
6EM7	4.65
6EQ7	2.90
6ER5	$3.50
6ES5	3.00
6ES8	5.80
6ET7	4.25
6EU7	2.70
6EU8	3.30
6EV5	3.00
6EW6	2.30
6EW7	3.90
6EX6	7.25
6EY6	3.40
6EZ5	3.60
6EZ8	3.80
6F5	4.60
6F6	5.90
6F6GT	5.90
6FD6	2.30
6FD7	4.65
6FG5	5.20
6FG6*	3.25
6FG7	2.75
6FH5	2.55
6FM8	3.00
6FQ5	4.10
6FS5	3.05
6FV8	3.15
6FW5	4.10
6FY5	2.80
6GC5	3.20
6GH8	3.20
6GK5	4.10
6GK6	2.75
6GM6	2.40
6GN8	3.75
6GW6	4.15
6GW8	3.40
6GX6	2.30
6GY6	2.30
6GY8	3.80
6GY8	3.80
6H6	3.95
6HB6	2.80
6HF8	3.70
6HG8	2.90
6HJ8	3.30
6HS8	2.80
6HZ8	4.35
6J5	3.65
6J6	2.80
6J7	5.00
6JC8	3.05
6JE8	3.95
6JH8	4.35
6JK8	3.55
6K6GT	2.65
6K7	4.95
6K7	7.55
6L6*	8.65
6L6GC*	4.20
6N7	5.00
6Q7	5.35
6S4A	2.50
6S8GT	4.45
6SA7	4.30
6SB7Y	6.35
6SC7	4.25
6SF5	3.75
6SF7	6.30
6SG7	4.65
6SH7	4.50
6SJ7	4.15
6SK7	3.95
6SL7GT	3.55
6SN7GTB	2.60
6SQ7	3.75
6SR7	3.90
6SS7	5.50
6T4	5.45
6T8A	3.40
6U5/6G5(N)	5.55
6U8A	3.30
6V3A	4.55
6V4	1.60
6V6	6.80
6V6GT	2.15
6V6GTY(N)	2.85
6W4GT	2.45
6W4GTA	2.45
6W6GT	2.85
6X4	1.65
6X5GT	2.10
6X8	3.20
6Y6G	3.45
6Y6GT	3.45
7A4	7.55
7A6	7.45
7A7	$7.60
7A8	8.30
7AF7	6.00
7AG7	8.40
7AU7	2.60
7B5	8.85
7B6	5.60
7B7	8.10
7C5	3.50
7C6	7.75
7C7	3.60
7EY6	3.20
7F7	8.00
7F8	8.80
7N7	7.55
7S7	6.85
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.10
8AW8A	3.65
8BQ5	2.45
8CG7	2.50
8CM7	2.80
8CN7	2.80
8CS7	2.95
8CX8	3.90
8EB8	4.00
8EM5	3.45
8ET7	4.40
8GN8	3.80
9A8/PCF80	4.00
9AU7	2.80
9BR7	3.35
9CL8	3.15
9U8A	3.30
10C8	4.25
10DE7	3.40
10EG7	4.65
10BW7	3.95
10HF8	3.75
11CY7	3.25
11JE8	4.10
12AB5	2.45
12AC6	2.20
12AD6	2.30
12AE6A	2.05
12AE7	3.75
12AF3	2.90
12AF6	2.35
12AJ6	2.55
12AL5	1.90
12AL8	6.60
12AQ5	2.40
12AT6	1.90
12AT7	3.05
12AU6	2.15
12AU7; A	ea. 2.45
12AV5GA	3.85
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AX4GTB	2.70
12AX7	2.55
12AZ7A	2.75
12B4A	2.85
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.30
12BN6	3.90
12BQ6GA	4.50
12BQ6GTB	4.50
12BR7	3.20
12BV7	3.50
12BW4	2.90
12BY7A	3.20
12BZ7	4.45
12C5	2.45
12CA5	2.50
12CN5	2.45
12CR6	2.40
12CT8	4.30
12CU5	2.45
12CU6	4.45
12CWS	3.45
12CX6	2.90
12D4	2.80
12DB5	2.80
12DE8	3.35
12DK7	2.95
12DL8	5.80
12DQ6B	$4.25
12DQ7	3.45
12DS7	3.40
12DT8	3.75
12DU7	4.10
12DV8	3.55
12DY8	4.65
12DZ6	2.50
12EA6	2.65
12ED5	2.85
12EG6	2.50
12EK6	2.50
12EM6	3.15
12EN6	3.05
12EQ7	2.90
12EZ6	2.30
12F8	2.75
12FK6	2.10
12FM6	2.05
12FQ8*	3.00
12FR8	4.80
12FX8	3.80
12FX8A	4.10
12GA6	2.55
12GC6	4.20
12H6	3.95
12J5	3.65
12J8	4.65
12K5	2.95
12K7GT	7.05
12K8	4.80
12L6GT	2.45
12R5	3.10
12SA7	4.30
12SC7	5.50
12SF5	4.10
12SF7	6.60
12SG7	4.65
12SH7	5.75
12SJ7	4.15
12SK7	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SR7	5.45
12V6GT	2.45
12W6GT	3.00
12X4	1.95
13DE7	3.00
13DR7	3.40
13EM7	5.15
13FD7	4.85
14A7	5.95
14AF7	6.05
14B6	5.60
14GT8	3.00
14JG8	3.00
14Q7	6.20
15EA7	4.25
15EW6	2.80
17AV5GA	3.75
17AX4GT	2.70
17D4	2.75
17DE4	2.90
17DQ6A; B	ea. 4.20
17EW8	2.80
17GW6	4.25
17H3	2.50
18A5	4.10
18FW6	2.15
18FX6	2.15
18FY6	1.65
19AU4GTA	3.45
19CL8A	3.50
19EA8	3.45
19EZ8	3.80
19HV8	3.80
19J6	3.15
19JN8	3.20
19T8	3.35
19X8	4.35
21EX6	5.70
22DE4	3.10
25AV5GA	4.30
25AX4GT	2.85
25BK5	3.65
25BQ6GA	4.60
25BQ6GTB	4.60
25C5	2.15
25CA5	3.10
25CD6GB	5.85
25DK4	1.75
25DN6	5.55
25EC6	5.70
25EH5	2.30
25L6GT	2.35
25W4GT	$ 2.70
25W6GT	3.25
25Z5	4.60
25Z6GT	3.05
27GB5/PL500	3.95
32ET5	2.20
EL-34/6CA7(N)	5.20
34GD5	2.10
35A5	6.00
35B5	2.65
35C5	2.15
35DZ8	3.45
35EH5	2.20
35GL6	2.50
35HB8	4.55
35L6GT	2.45
35W4	1.10
35Y4	4.80
35Z3	5.00
35Z5GT	1.85
36AM3A	1.60
42	5.15
50A5	6.25
50B5	2.80
50C5	2.15
50DC4	1.50
50EH5	2.30
50FE5	3.65
50HC6	2.30
50HK6	2.30
50L6GT	2.55
50X6	6.25
50Y6GT	4.80
50Y7GT	4.50
70A7GT	3.55
70L7T	10.15
60FX5	2.50
75	6.80
80	4.25
84/6Z4	2.60
117L7/M7GT	10.15
117N7GT	13.65
117Z3	4.35
117Z6GT	7.15
6973	4.50
7025	3.00
7189A	2.85
7199	3.70
7247	3.05
7355*	3.05
7408	2.15
7543	3.10
7581*	3.80
7581A(N)	4.50
7591	3.00
7695	4.40
ECC85/6AQ8	3.20
ECF80/6BL8	3.95
ECL82/6BM8	3.05
EF183/6EH7	3.80
EF184/6EJ7	3.80
EL-34/6CA7	5.20
EM-81/6DA5*	2.80
EM84/6FG6	3.25
EZ80/6V4	1.60
EZ-81/6CA4	1.95
FM1000	9.45
GZ-34/5AR4	4.50
HCC85/17EW8	2.80
COMPACTRON TYPES	
1AD2	2.75
2AH2	2.90
6AF11	4.55
6AL11	4.15
6AR11	4.25
6AS11	4.55
6AV11	3.60
6AX3	2.45
6B10	3.20
6BE3	2.75
6C10	3.60
6D10	3.75
6FJ7	3.35
6G11	3.95
6GE5	3.80
6GF5	3.70
6J11	4.35
6K11	3.55
11AR11	4.25
12AL11	4.15
12AX3	2.50
12GE5	3.80
15AF11	4.60
17AX3	2.50
17GE5	3.80
21GY5	4.30

*Non-taxable type.

ELECTRONICS INDUSTRIAL tubes



FOR BROADCAST, COMMUNICATIONS AND INDUSTRY

Type	Suggested Dealer Price
0A2	$ 1.32
0A3	1.55
0A4G	1.90
0B2	1.45
0B3	2.35
0C3	1.50
0D3	1.45
1AD4	2.80
1AG4	3.05
1AH4	1.35
1AJ5	1.55
1C/3B22	10.30
1D21/SN4	7.10
C1K (See GL-6014/C1K)	
GL-1L21	25.00
GL-1L33	46.00
GL-1L36	18.50
GL-1L38	33.25
GL-1P21	54.50
GL-1P29	4.90
GL-1P39	2.45
GL-1P40	3.75
1P41	4.00
1Q26A (Price on request)	
1V6	1.90
2AP1A	15.75
GL-2B22	28.00
GL-2B23	68.20
2BP1A	19.05
GL-2C39A	22.50
GL-2C39B	32.15
GL-2C39WA	30.00
GL-2C40	29.30
GL-2C40A	34.00
GL-2C42	27.10
GL-2C43	27.50
GL-2C46	29.50
2D21	1.30
2D21W (See 5727/2D21W)	
2E24	5.20
2E26	5.05
GL-2H21	288.00
2X2A	3.05
3AP1A	24.15
GL-3B24W	10.55
GL-3B28	6.00
3BP1A	16.25
GL-3C	11.80
GL-3C23	11.98
GL-3CX100A5	32.00
3KP1	19.00
3MP1	26.30
GL-3X2500A3	198.00
KC-4 (See GL-5575/100)	
GL-4-65A	28.50
GL-4250/5D22	46.50
GL-4-400A	48.00
GL-4-1000A	135.00
GL-4CX5000A	495.00
GL-4D21/4-125A	36.00
GL-4X150A	25.00
GL-4X500A	121.00
5AUP24	140.00
GL-5C24	45.00
5CP1-A	21.45
5QP4A	67.70

Type	Suggested Dealer Price
5R4GYA	$ 2.05
5UP1	12.45
5Y3WGTB★	5.75
FA-6 (See GL-5627)	
6AC7WA★	5.70
6AK5W (See 5654/6AK5W)	
6AL5W (See 5726/6AL5W)	
6AK6	1.40
6AN5	3.75
6AS6	3.45
6AS6W (See 5725/6AS6W)	
6AS7GA	4.95
6AU6WB (See 6136/6AU6WA/B)	
6BA6W (See 5749/6BA6W)	
6BE6W (See 5750/6BE6W)	
6C4WA★	3.15
6D4	2.85
6J4	4.20
6SK7WA (See 6137/6SK7WA)	
6X4WA (See 6202/6X4WA)	
GL-7C29	189.50
GL-7D21	625.00
PJ-8 (See GL-5556)	
GL-8D21	1985.00
12A6	2.55
12AT7WB (See 6201/12AT7WA/B)	
12AY7	2.45
FA-13 (See GL-5628)	
C16J (See 5665/C16J)	
FG-17 (See GL-5557)	
PJ-23 (See GL-868)	
FG-27A	52.00
28D7	2.55
FG-32 (See GL-5558)	
FG-33 (See GL-5720)	
FG-41 (See GL-5830)	
B-47 (See GL-5623)	
FG-57 (See GL-5559)	
FG-67 (See GL-5728)	
FG-81A	32.50
83	1.90
FG-97	62.00
FG-98A	77.00
GL-100TH	26.00
FG-104 (See GL-5561)	
FG-105	59.00
FG-154	108.00
FG-172	122.00
GL-203/623	13.44
GL-207	330.00
GL-217C	21.20
FG-238B (See GL-5555)	
GL-242C	33.00
FG-259B (See GL-5554)	
FG-280	100.00
GL-393A	13.25
FP-400	71.45
407A	5.90
408A	4.95
GL-411	478.75
GL-414	231.00
GL-415 (See GL-5550)	
GL-441	4.50
502A	2.30
GL-506 (See GL-6228)	
GL-575A	20.15

Type	Suggested Dealer Price
GL-592	$ 37.50
GL-627	31.50
GL-672-A	39.85
GL-673	20.15
GL-678	49.50
740 (See GL-6856/740)	
760 (See GL-6858/760)	
760P (See GL-6859/760P)	
GL-800	11.50
GL-801-A; GL-802	ea. 13.00
GL-803	49.20
GL-805	22.10
GL-806	34.25
807	2.95
GL-809	7.95
GL-810	26.95
GL-811A; GL-812A	ea. 6.90
GL-813	23.15
GL-814; GL-815	ea. 28.35
GL-816	2.95
GL-828	32.95
GL-829-B	19.00
GL-830B	17.35
GL-832-A	15.90
GL-833-A	53.65
GL-836	11.10
GL-837	10.30
GL-838	20.00
GL-845	25.00
GL-851	717.00
GL-857-B	218.50
GL-862-A	1713.25
GL-866-A	2.65
GL-868	3.90
GL-869-B	138.00
GL-870-A	1982.00
GL-872-A	9.90
GL-880	595.00
884	2.30
GL-889-A	235.00
GL-889-R-A	370.00
GL-891-R	460.00
GL-892	290.00
GL-892R	455.00
GL-893-AR	1260.00
GL-917	6.00
GL-918	4.45
GL-919	6.00
GL-920	6.40
GL-921	3.50
GL-922	3.10
GL-923	3.40
GL-927	4.25
GL-929	2.35
GL-930	3.10
GL-931-A	11.15
1612	4.60
1614	5.75
GL-1616	13.90
1619	4.15
1620	7.00
2050	2.40
2050A	2.25
GL-5513	512.00
GL-5518	915.00
GL-5528/C6L	32.00

Type	Suggested Dealer Price
GL-5544	$ 32.50
GL-5545 (See GL-6807)	
GL-5549	653.50
GL-5550	49.00
GL-5551A	65.00
GL-5551A/P	65.00
GL-5552A	103.95
GL-5552A/P	103.95
GL-5553B	257.25
GL-5553B/P	257.25
GL-5554	215.00
GL-5555	316.00
GL-5556	35.00
GL-5557	9.50
GL-5558	17.50
GL-5559	23.00
GL-5560	33.00
GL-5561	59.00
GL-5563A	50.00
GL-5564/GL-507	740.00
GL-5575/100	250.00
GL-5581	3.45
GL-5588	190.00
GL-5593	270.00
5610	1.05
GL-5623	25.00
GL-5625 (Use GL-5575/100)	
GL-5627	72.50
GL-5628	56.50
GL-5630	1900.00
GL-5632/C3J	13.80
5636★	6.10
5642	2.45
5651	1.78
5654★	3.05
5654/6AK5W★	3.05
5662	1.45
5663	2.10
GL-5665/C16J	56.90
5670★	2.95
GL-5674	209.00
GL-5675	16.05
GL-5681	1990.00
5686★	3.40
5687★	4.00
5687WA★	5.66
5691	8.75
5692	8.25
5693	6.60
5696	2.05
5718★	3.65
5719★	3.15
GL-5720	34.75
5725 (See 5725/6AS6W)	
5725/6AS6W★	3.80
5726/6AL5W★	1.55
5727★	2.90
5727/2D21W★	2.90
GL-5728	74.00
GL-5736	205.00
GL-5740/FP-54	209.00
5749 (See 5749/6BA6W)	
5749/6BA6W★	2.20
5750 (See 5750/6BE6W)	
5750/6BE6W★	3.45

★Five Star Type

Net

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(continued)

INDUSTRIAL tubes

- FIVE STAR
- THYRATRON
- CATHODE RAY
- PHOTOTUBE
- IGNITRON
- RECTIFER
- KLYSTRON
- COMMUNICATION
- INDUSTRIAL RECEIVING

Type	Suggested Dealer Price	Type	Suggested Dealer Price	Type	Suggested Dealer Price	Type	Suggested Dealer Price
5751★	$ 2.53	6137★	$ 2.85	6663△	$ †1.95	7239★	$ 6.25
5751WA★	2.95	6146	4.35	6664△	†2.30	7247	†2.85
GL-5762/7C24	230.00	6146A	4.35	6669△	†2.30	7266	21.50
5763	2.55	GL-6161	125.00	6676△	†2.35	GL-7289	32.15
GL-5779	200.00	GL-6166	850.00	6677△	†3.85	GL-7293	1300.00
GL-5788	476.25	GL-6183 (See GL-6942)		6678△	†3.50	7296	31.00
5814A★	2.34	6189/12AU7WA★	3.65	6679△	†3.20	7355	†2.70
GL-5819	56.50	6197	3.05	6680△	†2.65	GL-7391	67.00
GL-5820	1200.00	GL-6198A (Use 7038)		6681△	†2.75	GL-7398	770.00
GL-5822A	121.80	6201/12AT7WA/B★	2.95	6688A★	8.75	7408	†2.15
5823	1.75	6202★	2.85	GL-6771	71.90	7427	2.90
5824	3.60	6203★	4.10	GL-6807	29.30	7462	25.00
GL-5830	465.00	6205★	5.45	GL-6808	29.40	7486	25.00
5840★	5.30	6206★	7.25	GL-6809	29.80	GL-7518	15.25
5844★	2.30	6211	2.15	6814★	5.05	7581	†3.80
GL-5855	75.00	6222★	7.35	6829★	6.10	7581A	†4.50
5879	1.95	GL-6228	3696-25	GL-6848	1740.00	7588	55.00
5881	3.10	GL-6251	2300.00	GL-6856/740	20.80	7625	25.00
GL-5894	25.00	6265★	4.10	GL-6858/760	28.90	GL-7629	1800.00
5896★	3.75	GL-6283	500.00	GL-6859/760P	29.40	GL-7644	65.00
5899★	5.50	GL-6299	56.00	6883	5.55	GL-7669	68.25
5902★	4.80	GL-6333	310.00	GL-6897	32.15	GL-7670	82.95
5915A	1.65	6336A	20.10	GL-6907	25.00	GL-7671	103.95
5963	1.50	GL-6346	70.00	6919	1.35	GL-7681	171.00
5964	ea. 1.55	GL-6347	104.00	GL-6930/635P	14.40	7701	†3.00
5965A	1.90	GL-6348	250.00	GL-6942	855.00	GL-7703	190.00
GL-5973	495.00	6350	1.95	6973	†4.50	7716	†3.65
6005★	3.95	6360	5.60	GL-7007	1120.00	7717/6CY5	†2.90
6005/6AQ5W★	3.95	6386★	7.40	7025	†3.00	7720	25.00
GL-6011/710	13.00	6397	8.30	7036	1.50	7724/14GT8	†3.10
6012★	7.65	6414★	3.65	7038	205.00	GL-7725	13.50
GL-6014/C1K	12.90	GL-6427	830.00	7054	1.55	GL-7726	16.30
GL6019	751.75	GL-6442	39.25	7056	1.20	GL-7735A	205.00
6021★	4.05	6463	1.90	7057	1.95	7861★	3.50
GL-6039	1260.00	6485	2.05	7058	1.30	GL-7985	1740.00
6046	1.55	GL-6511	156.90	7059	1.75	GL-8000	29.15
6072A★	3.90	GL-6512	259.80	7061	1.30	GL-8002	394.00
6080★	5.35	GL-6513	347.00	7077	25.00	GL-8005	17.85
6087★	5.75	GL-6514	509.00	GL-7085/356	600.00	GL-8008	9.90
6100★	2.49	GL-6515	806.50	GL-7151	825.00	GL-8013A	17.05
6111★	4.30	6550	4.30	7167	†2.00	GL-8020	24.00
6112★	4.45	GL-6623	205.00	GL-7171	81.50	GL-8025A	23.85
6134★	5.70	6660△	†2.20	7189-A	†2.65	9001	5.40
6135★	2.40	6661△	†2.90	7199	†3.70	9002	3.85
6136/6AU6WA/B★	2.70	6662△	†2.80			9003	5.40

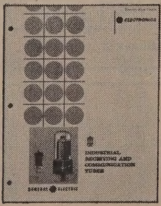
★Five-star Type †List Price △Communication Types

NEW G-E INDUSTRIAL TUBE CATALOGS

INDUSTRIAL TUBES
INTERCHANGEABILITY LIST
GENERAL ELECTRIC

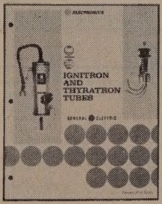
ETI-719D 25¢

Alpha-numerical listing of G-E replacements for nearlv 3,000 types of industrial tubes.


ELECTRONICS
INDUSTRIAL RECEIVING AND COMMUNICATION TUBES
GENERAL ELECTRIC

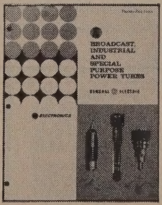
ETI-2387 25¢

Complete specifications of G-E industrial receiving, communications, 5-Star and ceramic receiving tubes.


ELECTRONICS
IGNITRON AND THYRATRON TUBES
GENERAL ELECTRIC

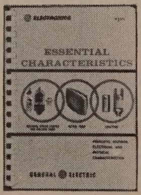
ETI-2388 25¢

Specifications and data on 80 types of G-E Ignitrons and Thyratrons, plus operating guide.


BROADCAST, INDUSTRIAL AND SPECIAL PURPOSE POWER TUBES
GENERAL ELECTRIC
ELECTRONICS

ETI-2389 25¢

Lists 125 special-purpose and broadcast power tubes and rectifiers, including installation information.


ELECTRONICS
ESSENTIAL CHARACTERISTICS
GENERAL ELECTRIC

ETR-15J $1.50

Lists all receiving, TV picture, 5-Star, and small special-purpose tubes, and G-E capacitors.

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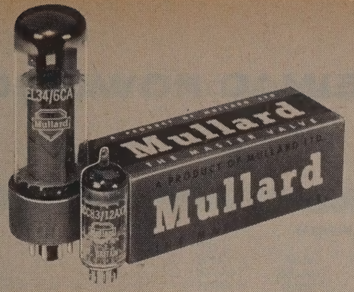

Mullard
ELECTRON TUBES

For High-Fidelity • AM-FM • Television • Industry • Foreign Replacement

Mullard electron tubes, universally recognized for their advanced designs and reliability, offer a comprehensive range of tubes for High-Fidelity, AM-FM, Television, and Industrial Applications. The vast manufacturing resources of the Mullard organization, including the world's most modern research laboratories, is your assurance of guaranteed tube design advantages for maximum performance in electronic equipment.

Mullard Type	EIA Type	List Price	Mullard Type	EIA Type	List Price	Mullard Type	EIA Type	List Price
DAF96	1AH5	$3.15	ECH83	6DS8	$4.10	EM84	6FG6	$3.30
DF96	1AJ4	3.25	ECL80	6AB8	3.40	EQ80	6BE7	5.30
DF97	1AN5	2.80	ECL82	6BM8	3.10	EY51	6X2	3.75
DK92	1AC6	3.40	ECL83		5.15	EY81	6R3	2.95
DK96	1AB6	3.40	ECL86	6GW8	3.25	EY86	6S2	2.95
DL96	3C4	2.85	EF37A		7.65	EY88	6AL3	2.85
DM70	1M3	2.05	EF40		4.45	EZ35	6X5	3.60
EAA91		1.85	EF41	6CJ5	2.90	EZ40	6BT4	2.30
EABC80	6AK8	3.55	EF42		4.45	EZ80	6V4	1.60
EAF42	6CT7	2.85	EF55		6.75	EZ81	6CA4	2.25
EB91	6AL5	1.85	EF80	6BX6	3.25	EZ90	6X4	1.70
EBC41	6CV7	2.60	EF85	EBY7	3.25	FW4/800		7.95
EBC81	6BD7A	3.50	EF86	6267	2.70	GZ30		5.30
EBC90	6AT6	1.90	EF89	6DA6	3.05	GZ32		4.70
EBC91	6AV6	1.70	EF91	6AM6	3.30	GZ33		5.90
EBF80	6N8	3.10	EF92	6CQ6	3.70	GZ34	5AR4	4.45
EBF83	6DR8	3.60	EF93	6BA6	2.05	HBC90	12AT6	1.85
EBF89	6DC8	3.25	EF94	6AU6	2.10	HBC91	12AV6	1.70
EC81	6R4	5.15	EF95	6AK5	4.30	HCC85	17EW8	2.80
EC90	6C4	3.60	EF98	6ET6	3.30	HF93	12BA6	2.10
EC91	6AQ4	5.45	EF183	6EH7	3.20	HK90	12BE6	2.20
EC92		2.45	EF184	6EJ7	3.20	HL92	50C5	2.20
EC95	6ER5	2.45	EK90	6BE6	2.25	HY90	35W4	1.45
EC97	6FY5	2.80	EL33	6AG6	5.15	PCC88		4.65
ECC33		5.90	EL34	6CA7	6.20	PCF80	8A8	4.45
ECC35	6SG7	5.90	EL37		6.67	PCL82	16A8	4.45
ECC40		4.10	EL38	6CN6	7.45	PL36	25E5	6.10
ECC81	12AT7	3.05	EL41	6CK5	3.25	PL81	21A6	4.55
ECC82	12AU7	2.50	EL42		3.25	UABC80		3.75
ECC83	12AX7	2.55	EL81	6CJ6	4.35	UCC85		3.75
ECC84	6CW7	3.75	EL83		4.10	UCH81	1908	3.60
ECC85	6AQ8	2.75	EL84	6BQ5	2.45	UCL82	50BM8	3.05
ECC86	6HG8	4.65	EL85	6BN5	5.80	UF86		3.45
ECC88	6DJ8	4.30	EL86	6CW5	2.85	UL41		3.20
ECC91	6J6	2.80	EL90	6AQ5	2.25	UL84	45B5	2.85
ECC189	6ES8	4.65	EL91	6AM5	3.30	UY85	38A3	1.65
ECF80	6BL8	3.95	EL95	6DL5	2.30	XC95	2ER5	2.50
ECF82	6U8	3.95	EL821	6CH6	7.15	6EU7	6EU7	2.75
ECH42	6CU7	3.10	EL822		7.65	7025	7025	2.75
ECH81	6AJ8	3.25	EM34	6CD7	3.95	7189	7189	3.05
			EM81	6DA5	2.75	7247	7247	3.05

Mullard
LABORATORY BALANCED MATCHED PAIR
Mullard EL34 6CA7
LABORATORY BALANCED MATCHED PAIR
EL34 6CA7
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LABORATORY BALANCED MATCHED PAIR

Laboratory-Balanced
Matched Pairs

For Optimum Performance
Of High- Fidelity Equipment
Mullard Receiving Tubes Available
As Matched Pairs

Mullard Matched Pairs	Replaces	List Price
ECL82 MP	6BM8	$ 7.15
ECL86 MP	6GW8	7.45
EL34 MP	6CA7 6L6GC 5881 KT66 1614	13.45
EL37 MP	6L6G	13.90
EL84 MP	6BQ5	5.55
EL86 MP	6CW5	6.50
EL90 MP	6AQ5 6AQ5A	5.35
EL95 MP	6DL5	5.35
UCL82 MP	50M8	7.15
UL84 MP	45B5	5.95
7189 MP	6BQ5A	6.95

Master 10M Series
IEC
INTERNATIONAL ELECTRONICS CORPORATION • NEW YORK, N.Y.
Master 10M Series

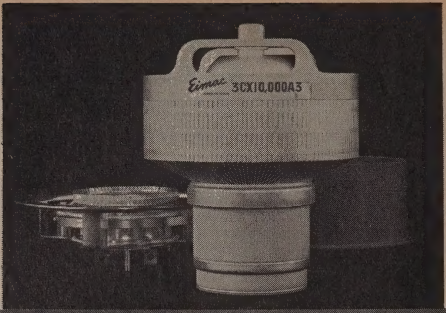
Master 10M *Series*

• Tube-To Tube Uniformity • Long Life • Guaranteed Performance •

A selected series of individually laboratory-tested tubes, ideal for today's technically-advanced and exacting electronic equipment . . . meets more stringent requirements . . . gold-protected pins . . . individual plastic-foam cushion packaging for protection during handling and shipping. Each Master 10M tube guaranteed for 10,000 hours of effective performance within two years from date of purchase. Recommended for the full range of electronic equipment.

Tube Type	Suggested Resale Price	Tube Type	Suggested Resale Price	Tube Type	Suggested Resale Price	Tube Type	Suggested Reseale Price	Tube Type	Suggested Resale Price
6AB8	$2.50	6BQ5A	$1.95	6J6A	$2.30	EB91/6AL5	$1.75	ECL80/6AB8	$2.50
6AJ8	2.40	6C4	2.60	6T8A	2.55	EBC90/6AT6	1.80	ECL84/6DX8	2.60
6AK5	2.95	6DA6	2.30	7HG8	2.40	EBC91/6AV6	1.75	EF86/6267	2.25
6AK8	2.55	6DC8	2.40	9A8	2.95	EBF89/6DC8	2.40	EF89/6DA6	2.30
6AL5	1.75	6DJ8	2.80	12AT7	2.30	EC90/6C4	2.60	EF93/6BA6	1.80
6AQ5	1.95	6DL5	2.30	12AU7	2.00	EC95/6ER5	2.20	EF94/6AU6	1.85
6AQ5A	1.95	6DX8	2.60	12AU7A	2.00	EC97/6FY5	2.15	EF95/6AK5	2.95
6AQ8	2.15	6EH7	2.35	12AV6	1.75	ECC81/12AT7	2.30	EF183/6EH7	2.35
6AT6	1.80	6EJ7	2.35	12AX7	2.00	ECC82/12AU7	2.00	EF184/6EJ7	2.35
6AU6	1.85	6ER5	2.20	12AX7A	2.00	ECC83/12AX7	2.00	EK90/6BE6	1.90
						ECC85/6AQ8	2.15	EL84/6BQ5	1.95
6AU6A	1.85	6ES8	3.15	12DW7	2.30	ECC88/6DJ8	2.80	EL90/6AQ5	1.95
6AV6	1.75	6EU7	2.15	15CW5	2.25	ECC91/6J6	2.30	EL95/6DL5	2.30
6BA6	1.80	6FY5	2.15	6267	2.25	ECC189/6ES8	3.15	HBC91/12AV6	1.75
6BE6	1.90	6GK5	2.20	7025	2.15	ECF80/6BL8	2.75	PCF80/9A8	2.95
6BL8	2.75	6HG8	2.80	7247	2.30	ECF86/6HG8	2.80	PCF86/7HG8	2.40
6BQ5	1.95	6J6	2.30	EABC80/6AK8	2.55	ECH81/6AJ8	2.40	PL84/15CW5	2.25

IEC : *International Electronics Corporation* *New York 12, N.Y.*



EIMAC POWER GRID

At Eimac you'll find the most *complete* line of power grid tubes available today: triodes, tetrodes, pulse modulators, diodes, zero-bias tubes, ceramic tubes, glass tubes. And there are more to come! Continuing Eimac projects are ever increasing the scope of power grid tube capabilities.

DIODES AND RECTIFIERS

	Filament Voltage Volts	Filament Current Amps	Peak Inverse Voltage Volts	Peak Plate Current Amps	Average Plate Current ma	Plate Dissipation Watts
2-01C	5.0	0.35	1,000	0.010	1	0.1
2-25A	6.3	3.0	25,000	1.0	50	15
2-50A	5.0	4.0	30,000	1.0	75	30
2-150D	5.0	13.0	30,000	3.0	250	90
2-240A	7.5	12.0	25,000	4.0	500	150
2-450A	7.5	26.5	30,000	8.0	1000	450
2-2000A	10.0	25.0	75,000	12.0	750	1200
250R	5.0	10.5	60,000	2.5	250	150
253	5.0	10.0	15,000	2.5	350	100
8020(100R)	5.0	6.5	40,000	1.5	100	60
2X1000A	26.5	2.2	25,000	25.0[6]	1250[6]	1000
2X3000F	7.5	51.0	25,000	20.0	3000	3000
KY21A	2.5	10.0	11,000	3.0	750	....
RX21A	2.5	10.0	11,000	3.0	750	....
322	6.3	1.0	800	4.8[6]	125[6]	100

PULSE MODULATORS

	Plate Dissipation Watts	Plate Voltage Volts	Plate Current ma	Grid Dissipation Watts	Screen Voltage Volts	Screen Dissipation Watts	Filament Voltage Volts	Filament Current Amps	Amplification Factor
4PR60B	60	20,000	18,000[3]	..	1500	8	26.0	2.25	...
4PR65A	65	15,000	1000[3]	5	2000	10	6.0	3.5	...
4PR125A	125	18,000	1800[3]	5	2000	20	5.0	6.5	...
4PR250C	250	50,000	4000[3]	5	2000	25	5.0	14.5	...
4PR400A	400	20,000	4000[3]	10	2500	35	5.0	14.5	...
4PR1000A	1000	30,000	8000[3]	25	2500	75	7.5	21.4	...
3CPL500A8	500[4]	120,000	5000[3]	25[4]	....	..	7.5	5.5	700
6C21	300	30,000	15,000[3]	50	....	..	8.2	17.00	30

AIR SYSTEM SOCKETS

	Tube	Screen By-Pass Capacitor uuf	Special Characteristics
SK-300	4CX5000A	none	
SK-300A	4CX5000A; 4CW10,000A; 4CX10,000D	none	
SK-400	4-400A; 4-250A; 4-125A; 4X500F	none	
SK-410	3-400Z; 4-250A; 4-400A; 4PR250C; 4PR400A	none	
SK-500	4-1000A	none	
SK-510	3-1000Z; 4-1000A; 4PR1000A	none	
SK-600	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	2700	No terminals grounded.
SK-610	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	2700	Cathode terminals grounded.
SK-620A	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	1100	No terminals grounded. Screen by-pass capacitor plastic sealed.
SK-630	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	1100	Cathode terminals grounded. Screen by-pass capacitor plastic sealed.
SK-640	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	none	No terminals grounded.
SK-650	4X150A; 4X150D; 4X250B; 4X250F; 4CX250B; 4W300B	none	Cathode terminals grounded.
SK-655	(Screen by-pass capacitor for use with SK-650)	1100	Plastic sealed.
SK-700	4CX300A	1100	No terminals grounded.
SK-710	4CX300A	1100	Cathode terminals grounded.
SK-711	4CN15A; 4CX125C; 4CX300A	1100	Cathode terminals grounded.
SK-740	4CX300A	none	No terminals grounded.
SK-760	4CX300A	none	Integral chimney. No terminals grounded.
SK-770	4CX300A	none	Integral chimney, screen terminals grounded.
SK-800A	4CX1000A, 4CW2000A	1500	No terminals grounded.
SK-810	4CX1000A, 4CW2000A	1500	Cathode terminals grounded.
SK-860	3CX1000A7	none	No terminals grounded.
SK-870	3CX1000A7	none	Grid terminals grounded.
SK-890	4CX1000A, 4CW2000A	1500	Cathode grounded. Screen isolated.
SK-900	4X500A	650	
SK-1300	3CX10,000A1; 3CX10,000A3; 3CX10,000A7; 3CW20,000A1; 3CW20,000A3; 3CW20,000A7	none	No terminals grounded.
SK-1400	4CX3000A	1800	
SK-1470	4CX3000A	none	Screen terminals grounded.
SK-1500	4CX35,000C	none	No terminals grounded. (Not an air-system socket)

CHIMNEYS

	User Price
SK-306	$ 6.50
SK-316	
SK-406	8.50
SK-416	6.00
SK-506	15.00
SK-516	11.00
SK-606	.75
SK-626	.75
SK-636A	7.00
SK-806	8.50
SK-816	
SK-906	11.50
SK-1306	6.50
SK-1406	6.50

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TUBES and Accessories

		MAXIMUM RATINGS						ELECTRICAL CHARACTERISTICS		
		Plate Dissi-pation Watts	Plate Voltage Volts	Plate Current ma	Grid Dissi-pation Watts	Screen Voltage Volts	Screen Dissi-pation Watts	Filament Voltage Volts	Filament Current Amps	Amplifi-cation Factor
TRIODES	2C39A	100	1000	125^{5}	2	....	...	6.3	1.0	100
	2C39WA	100	1000	125^{5}	2	....	...	6.3	1.0	100
	3-400Z	400	4000	400	20	....	...	5.0	14.5	200
	3-1000Z	1000	6000	800	50	....	...	7.5	21.3	200
	3C24	25	2000	75	7	....	...	6.3	3.0	24
	3CPN10A5	10	3500^{3}	3000^{3}	2	....	...	6.0	1.0	100
	3CX100A5	100	1000	125^{5}	2	....	...	6.0	1.0	100
	7289	100	1000	125^{5}	2	....	...	6.0	1.0	100
	3CX100F5	100	1000	125^{5}	2	....	...	26.5	0.22	100
	3CX1000A7	1000	2500	1000	45	....	...	5.0	34	200
	3CW20,000A1	20,000	7000	4000	100	....	...	7.5	100.0	5.5
	3CW20,000A3	20,000	7000	4000	250	....	...	7.5	100.0	20
	3CW20,000A7	20,000	7000	4000	500	....	...	7.5	100.0	200
	3CX10,000A1	10,000	7000	4000	100	....	...	7.5	100.0	5.5
	3CX10,000A3	10,000	7000	4000	250	....	...	7.5	100.0	20
	3CX10,000A7	10,000	7000	4000	500	....	...	7.5	100.0	200
	3W5000A1	5000	6000	2500	50	....	...	7.5	51.0	5
	3W5000A3	5000	6000	2500	150	....	...	7.5	51.0	20
	3W5000F1	5000	6000	2500	50	....	...	7.5	51.0	5
	3W5000F3	5000	6000	2500	150	....	...	7.5	51.0	20
	3X2500A3	2500	6000	2500	150	....	...	7.5	51.0	20
	3X2500F3	2500	6000	2500	150	....	...	7.5	51.0	20
	3X3000A1	3000	6000	2500	50	....	...	7.5	51.0	5
	3X3000F1	3000	6000	2500	50	....	...	7.5	51.0	5
	3X3000F7	3000	5000	2500	225	....	...	7.5	51.0	200
	25T	25	2000	75	7	....	...	6.3	3.0	24
	35T	50	2000	150	15	....	...	5.0	4.0	39
	35TG	50	2000	150	15	....	...	5.0	4.0	39
	75TH	75	3000	225	16	....	...	5.0	6.25	20
	75TL	75	3000	225	13	....	...	5.0	6.25	12
	100TH	100	3000	225	20	....	...	5.0	6.3	38
	100TL	100	3000	225	15	....	...	5.0	6.3	14
	152TH	150	3000	450	30	....	...	5 or 10	12.5 or 6.25	20
	152TL	150	3000	450	25	....	...	5 or 10	12.5 or 6.25	12
	250TH	250	4000	350	40	....	...	5.0	10.5	37
	250TL	250	4000	350	35	....	...	5.0	10.5	14
	304TH	300	3000	900	60	....	...	5 or 10	25 or 12.5	20
	304TL	300	3000	900	50	....	...	5 or 10	25 or 12.5	12
	450TH	450	6000	600	80	....	...	7.5	12.0	38
	450TL	450	6000	600	65	....	...	7.5	12.0	18
	592/3-200A3	200	3500	250	25	....	...	10.0	5.0	25
	750TL	750	10,000	1000	100	....	...	7.5	21.0	15
	1000T	1000	7500	750	80	....	...	7.5	15.5	35
	1500T	1500	8000	1250	125	....	...	7.5	24.0	24
	2000T	2000	8000	1750	150	....	...	10.0	23.5	23
PENTODE	4E27A/5-125B	125	4000	200	5	750	20	5.0	7.50	....
TETRODES	4-65A	65	3000	150	5	400	10	6.0	3.5	....
	4-125A	125	3000	225	5	400	20	5.0	6.5	....
	4-250A	250	4000	350	10	600	35	5.0	14.5	....
	4-400A	400	4000	350	10	600	35	5.0	14.5	....
	4-1000A	1000	6000	700	25	1000	75	7.5	21.0	....
	4CN15A	15	2500	....	2	400	12	6.0	3.0	....
	4CW2000A	2000	3000	1000	0	400	12	6.0	12.5	....
	4CW10,000A	10,000	7500	3000	75	1500	250	7.5	75.0	....
	4CX125C	125	2500	250	2	400	12	6.0	2.7	....
	4CX250B	250	2000	250	2	400	12	6.0	2.6	....
	4CX250K	250	2000	250	2	400	12	6.0	2.6	....
	4CX250F	250	2000	250	2	400	12	26.5	0.56	....
	4CX250M	250	2000	250	2	400	12	26.5	0.57	....
	4CX250R	250	2000	250	2	500	12	6.0	2.6	....
	4CX300A	300	2500	250	2	400	12	6.0	2.7	....
	4CX1000A	1000	3000	1000	0	400	12	6.0	10.5	....
	4CX1000K	1000	3000	1000	0	400	12	6.0	10.5	....
	4CX3000A	3000	7000	2000	50	1000	175	10.0	45	....
	4CX5000A	5000	7500	4000	75	1500	250	7.5	75.0	....
	4CX10,000D	10,000	7500	4000	75	1500	250	7.5	75.0	....
	4CX15,000A	15,000	7500	6000	200	1500	450	6.3	160	....
	4CX35,000A	35,000	10,000	15,000	450	2500	1500	10.0	300	....
	4CX35,000C	35,000	15,000	15,000	450	2500	1500	10.0	300	....
	4W300B	300	2000	250	2	400	12	6.0	2.6	....
	4W20,000A	20,000	8000	15,000	60	1500	200	10.0	30.0^{9}	....
	4X150A	250	2000	250	2	400	12	6.0	2.6	....
	4X150D	250	2000	250	2	400	12	26.5	0.57	....
	4X150G	250	2000	250	2	400	12	2.5	7.0	....
	4X150R	250	2000	250	2	400	12	6.0	2.7	....
	4X150S	250	2000	250	2	400	12	26.5	0.62	....
	4X250B	250	2000	250	2	400	12	6.0	2.6	....
	4X250F	250	2000	250	2	400	12	26.5	0.57	....
	4X500A	500	4000	350	10	500	30	5.0	13.5	....
	7580	250	2000	250	2	500	12	6.0	2.6	....

Specifications subject to change without notice. Write for complete specifications on any tube to:
Power Grid Tube Division, **EITEL-McCULLOUGH, INC.,** *San Carlos, California.*

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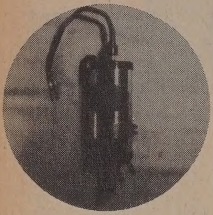

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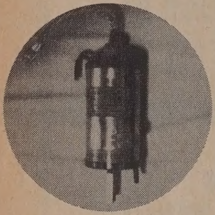

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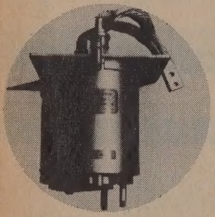

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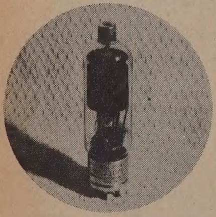

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IGNITRONS

MAXIMUM RATINGS

Type Number	Volts	Maximum Demand	Corresp. Current DC Amps	Maximum Current DC Amps	Corresp. Demand	Type Of Cooling	List Price
NL-1001	250-600	150K va	4.9	9.0	50 Kva	Convection	$37.50
NL-1005A	250-600	600K va	30.2	56	200 Kva	Forced Air	65.00
NL-1009A	250-600	1700K va	120.0	220	570 Kva	Water	155.00
NL-1011A	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1012A	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1013A	250-600	2400K va	192.	355	800 Kva	Water	245.00
NL-1014	250-600	4800K va	486	900	1600 Kva	Water	750.00
NL-1016A	250-600	1700K va	120.0	220	570 Kva	Water	155.00
NL-1022A	1500 Peak	1200 Amps	16	56	336 Amps	Water	116.00
NL-1051A*	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1052A*	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1053A	250-600	2400K va	192	355	800 Kva	Water	245.00
NL-1054	250-600	4800K va	486	900	1600 Kva	Water	750.00
NL-1061*	250-600	600K va	30.2	56	200 Kva	Water	65.00
NL-1062*	250-600	1200K va	75.6	140	400 Kva	Water	99.00
NL-1063	250-600	2400K va	192.	355	800 Kva	Water	245.00
NL-1064	250-600	4800K va	486	900	1600 Kva	Water	825.00
NL-1066*	2500 Peak	2000 Amps	10	——	——	Water	77.20
NL-1068*	1500 Peak	1200 Amps	16	56	336 Amps	Water	116.00
NL-1069	250-600	1700K va	120	220	570 Kva	Water	155.00
NL-5550	250-600	300K va	12.1	22.4	100 Kva	Water Clamp	49.00

THYRATRONS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-C3J/L	Xenon	2.5	30	1250	2.5	9	Convection	$ 15.25
NL-C3J/AL	Xenon	2.5	30	1250	2.5	9	Convection	16.00
NL-C3J/AL-Ne	Xenon	2.5	30	1250	2.5	9	Convection	18.40
NL-3C23	Arg & Merc	1.5	6	1250	2.5	7	Convection	11.98
NL-C6J+•	Xenon	6.4	80	1250	2.5	21	Convection	28.10
NL-C6J/K+	Xenon	6.4	80	1250	2.5	21	Convection	28.30
NL-C6J/K-Ne	Xenon	6.4	80	1250	2.5	21	Convection	32.40
NL-KY21A	Mercury	.75	3	11,000	2.5	10	Convection	26.75
NL-323B	Arg & Merc	1.5	6	1250	2.5	7	Convection	13.25
NL-393A	Arg & Merc	1.5	6	1250	2.5	7	Convection	13.25
NL-632B	Mercury	2.5	30	1500	5.0	5	Convection	33.00
NL-710/6011	Arg & Merc	2.5	30	1500	2.5	9	Convection	13.00
NL-710A/7725	Arg & Merc	2.5	30	2500	2.5	9	Convection	13.50
NL-710AL	Arg & Merc	2.5	30	2500	2.5	9	Convection	16.30
NL-710L	Arg & Merc	2.5	30	1500	2.5	9	Convection	15.25
NL-714	Arg & Merc	1	3	1250	2.5	5	Convection	9.50
NL-716	Arg & Merc	1	8	1250	2.5	6.3	Convection	12.50
NL-732	Arg & Merc	30	225	1500	2.5	55	Convection	100.00
NL-734/5544	Xenon	3.2	40	1500	2.5	11.5	Convection	22.50
NL-740+•	Arg & Merc	4	50	1500	2.5	16	Convection	20.80
NL-760+•	Arg & Merc	6.4	77	1500	2.5	21	Convection	28.10
NL-761+•	Mercury	6.4	77	5000	2.5	21	Convection	31.80
NL-770L+	Xenon-Merc	10.0	120	1500	2.5	25	Convection	44.00
NL-2050A	——	——	——	——	——	——	——	3.10

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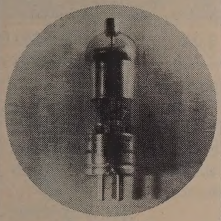
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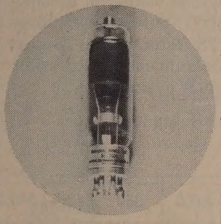
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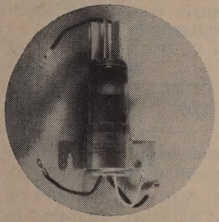
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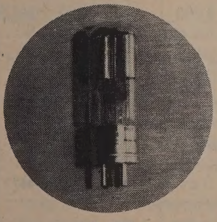
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THYRATRONS (cont'd)

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Amps	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-5557/ FG17/715	Mercury	1	3	5000	2.5	5	Convection	$9.50
NL-5559/ FG57	Mercury	2.5	15	1000	5.0	4.6	Convection	23.00
NL-5560/ FG95	Mercury	2.5	15	1000	5.0	4.6	Convection	33.00
NL-5632/ C3J	Xenon	2.5	30	1250	2.5	9	Convection	13.80
NL-5665/ C16J	Xenon	18.0	160	1250	2.5	31	Convection	56.90
NL-5684/ C3J/A	Xenon	2.5	30	1250	2.5	9	Convection	14.50
NL-5684-Ne	Xenon	2.5	30	1250	2.5	9	Convection	16.70
NL-5684A-Ne	Xenon	2.5	30	1500	2.5	9	Convection	16.70
NL-6014/ C1K	Xenon	1	8	1250	2.5	6.3	Convection	13.10
NL-6989/ C6J/KL	Xenon	6.4	80	1250	2.5	21.0	Convection	29.45
NL-6989-Ne	Xenon	6.4	80	1250	2.5	21.	Convection	33.90
NL-7556A-Ne	Xenon	2.5	30	1500	2.5	9	Convection	19.60

HALF WAVE RECTIFIERS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Amps	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-RX21A	Mercury	.75	3	11,000	2.5	10	Convection	$25.75
NL-575A	Mercury	2.5	10	15,000	5.0	10.0	Convection	20.15
NL-610/7723	Xenon	2.5	30	920	2.5	9.0	Convection	11.40
NL-615	Mercury	2.5	10	2000	2.5	7	Convection	9.75
NL-616•	Arg & Merc	2.5	30	1250	2.5	9.0	Convection	10.00
NL-617	Mercury	5	20	1000	2	12	Convection	15.00
NL-619	Mercury	6	20	300	2	12	Convection	10.00
NL-623	Mercury	15	45	500	2.5	20	Convection	13.35
NL-625	Mercury	15	45	900	2.5	20	Convection	29.00
NL-627	Mercury	20	120	1000	2.5	26	Convection	31.50
NL-635/ 7019+•	Xen & Merc	6.4	77	1000	2.5	18	Convection	13.00
NL-643	Mercury	15	90	700	2.5	23	Convection	13.50
NL-649/ 5834	Mercury	2	10	900	2.5	7	Convection	9.20
NL-653/ 5835	Mercury	3	12	900	2.5	10	Convection	12.90
NL-660+•	Xenon	6.4	80	920	2.5	21	Convection	13.00
NL-664L	Xenon-Merc	10.0	120	1000	2.5	25	Convection	26.00
NL-673	Mercury	2.5	10	15,000	5.0	10	Convection	20.15
NL-5558/ FG32	Mercury	2.5	15	5000	5	4.5	Convection	17.50
NL-7723-Ne	Xenon	2.5	30	920	2.5	9	Convection	13.10
NL-7786-Ne	Xenon	6.4	80	920	2.5	21	Convection	15.50

FULL WAVE RECTIFIERS

Type Number	Gas Filling	DC Output Amps	Peak Rating Amps	Peak Inverse Volts	Filament Volts	Filament Amps	Type Of Cooling	List Price
NL-604•	Arg & Merc	2.5	10	900	2.5	11.5	Convection	$11.80
NL-606•	Arg & Merc	6.4	25.6	900	2.5	17	Convection	20.80

NOTES
* Plastic coated version available, indicated by the addition of the suffix letter P.
+ Available with bracket base for panel mounting, designated by the addition of suffix letter P.
• Available with lug base, designated by the addition of suffix letter L.

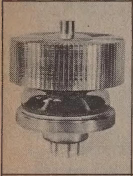
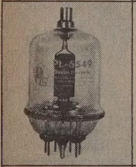
WRITE FOR INDIVIDUAL TUBE DATA SHEETS FOR FULL DETAILS

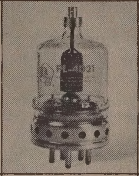
NATIONAL ELECTRONICS INC.

GENEVA • ILLINOIS • U.S.A.

A Subsidiary of Eitel-McCullough, Inc.

PENTA

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	Screen Volts Max.	Price
PL-8295/PL-172 BEAM PENTODE	6.0	8.2	1000	3,000	1000	600	$135
	1000-watt beam pentode. Provides high power gain and good efficiency at relatively low plate voltages. Cooled by forced air. Widely used as Class-AB$_1$ linear amplifier, delivering over 1500 watts useful power output. Also excellent for Class-AB$_2$, Class-B, and Class-C service. Spec. MIL-E-1/1350 *						
PL-175A BEAM PENTODE	5.0	14.5	400	4,000	350	800	$50.00
	400-watt beam pentode incorporating patented Penta vane-type suppressor grid. Replaces 4-400A; 20% to 40% increase in output in Class-AB$_1$ linear amplifier applications. Suppressor grid terminates in base shell and is designed to be operated at ground potential.						
PL-177A BEAM PENTODE	6.0	3.2	75	2,000	175	600	$29.00
	Small beam pentode incorporating exclusive Penta vane-type suppressor grid. Maximum ratings apply to 175 Mc. Highly efficient at plate voltages as low as 600 volts. Excellent as low-distortion linear r-f, a-f amplifier. Maximum useful power output, Class-AB$_1$, 220 watts.						
PL-177WA BEAM PENTODE	6.0	3.2	75	2,000	175	600	$33.50
	Ruggedized version of PL-177A. Directly interchangeable. May be mounted in any position. Withstands high shock and vibration. Exclusive vane-type suppressor grid permits high power at relatively low plate voltages.						
PL-6549 BEAM PENTODE	6.0	3.2	75	2,000	175	600	$29.00
	Similar to PL-177A except conventional suppressor grid. Recommended for replacement use only.						
PL-4E27A BEAM PENTODE	5.0	7.5	125	4,000	200	750	$45.00
	Popular beam pentode used as amplifier, oscillator, or modulator. Will deliver over 400 watts of usable power output with only two watts driving power in Class-C service; up to 280 watts as Class-AB$_1$ linear amplifier. Maximum frequency for full ratings, 75 Mc. Cooled by convection and radiation.						

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	Screen Volts Max.	Price
PL-4D21 (4-125A) POWER TETRODE	5.0	6.5	125	3,000	225	600	$36.00
	Popular 125-watt power tetrode, especially suited for use as r-f power amplifier. Can be operated at full ratings at frequencies as high as 120 Mc., and with reduced ratings up to 240 Mc. Can also be used as a-f power amplifier and modulator. Spec. MIL-E-1/776 *						
PL-4D21A POWER TETRODE	5.0	6.5	175	3,000	225	600	$37.50
	Exclusive Penta tetrode similar in all characteristics to PL-4D21, but has plate dissipation rating of 175 watts. Widely used in broadcast and communications transmitters where reliability is desired.						
PL-5D22 (4-250A) POWER TETRODE	5.0	14.5	250	4,000	350	800	$46.50
	Power tetrode, used in communications and amateur equipment. Can be used at full ratings up to 75 Mc, and with reduced ratings to 120 Mc. Unusually small amount of driving power normally required for specified value of power output. Useful as r-f power amplifier, or a-f amplifier and modulator. Spec. MIL-E-1/812A *						
PL-8165/PL-4-65A POWER TETRODE	6.0	3.5	65	2,000	150	600	$27.00
	Small, popular power tetrode, widely used in mobile communications equipment. Can be operated at full input at frequencies up to 150 Mc. For r-f amplifier, oscillator, or a-f amplifier, modulator applications. Spec. MIL-E-1/876/A *						
PL-4-400A POWER TETRODE	5.0	14.5	400	4,000	350	800	$48.00
	Widely used power tetrode. Excellent as r-f amplifier and a-f amplifier and modulator. Penta unique ribbed-anode construction provides large effective plate radiating area, with minimum plate, screen-grid and control-grid temperatures. Spec. MIL-E-1/887 *						
PL-8166/PL-4-1000A POWER TETRODE	7.5	21	1000	6,000	700	1000	$132
	Beam power tetrode suitable for use as r-f amplifier and oscillator, and as a-f amplifier and modulator. Can be used at frequencies up to 110 Mc. Widely used in FM broadcasting, television, and other services. Spec. MIL-E-1/37 *						

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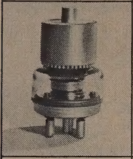
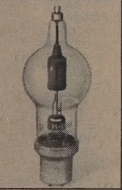
HIGH-EFFICIENCY
POWER TUBES

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	Screen Volts Max.	Price
PL-4X500A POWER TETRODE	5.0	13.5	500	4,000	350	500	$125.00



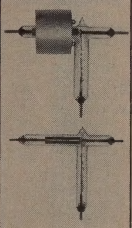
External-anode tetrode suitable for use as r-f amplifier and oscillator. Can be operated efficiently over a large portion of VHF region because of its small size and low-inductance leads.

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	Screen Volts Max.	Price
PL-250R RECTIFIER	5.0	10.5	--	60,000	250	--	$36.00



High-vacuum diode rectifier. Will deliver 160 milliamperes at 24,000 volts to capacitor-input filter with 21,000 volts single-phase supply. Four PL-250R's will provide 500 milliamperes at 38,000 volts to choke-input filter with 42,000 volt single-phase supply. Cooled by convection and radiation.

VACUUM SWITCHES

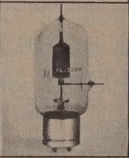


Type	Voltage, Maximum	Current Max. Amperes AC or DC	Pulse	Coil	Price
PL-R1	21,000	6	150	Not supplied; requires 1100 ampere-turns	$33.00
PL-169A	21,000	30	500	Not supplied; requires 1900 ampere-turns	$40.00
PL-186	21,000	6	—	Not supplied; requires 1000 ampere-turns	$38.00
PL-187	21,000	30	500	Integral; 28 V, 500 Ma., D-C	$58.00
PL-190	21,000	6	150	Integral; 28 V, 250 Ma., D-C	$58.00
PL-191	21,000	6	—	Not supplied; requires 1000 ampere-turns	$24.00

Penta vacuum switches are single-pole, double-throw switches enclosed in evacuated glass envelopes. They are ideal for use wherever compact, fast-acting relays are required to switch high-voltage circuits under a wide range of ambient atmospheric conditions, including explosive atmospheres, and in other applications where exposed-contact relays would be unsuitable.

These vacuum switches are operated by external actuating coils, which are excited by direct current and designed so that the soft-iron pole piece and the armature assembly enclosed in the envelope act to complete the magnetic circuit.

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	μ	Price
PL-254W POWER TRIODE	5.0	7.5	100	4,000	225	25	$25.00



100-watt plate dissipation radiation-cooled triode. Used as r-f power amplifier, oscillator, frequency multiplier. Will deliver up to 400 watts plate power output as Class-C CW or FM amplifier. Widely used as VHF power amplifier in base-station communications equipment.

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	μ	Price
PL-6569 POWER TRIODE	5.0	14.5	250	4,000	300	45	$37.50

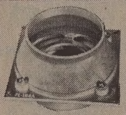
High-mu power triode designed especially for grounded-grid r-f amplifier service. Provides power gains as high as ten in grounded-grid use. Also capable of good performance in other applications. Will deliver up to 800 watts power output as Class-B linear r-f amplifier.

Spec. MIL-E-1/1370 (NAVY)

	Fil. Volts	Fil. Current Amps.	Plate Diss. Max. W.	Plate Volts Max.	Plate Current Ma., Max.	μ	Price
PL-6580 POWER TRIODE	5.0	14.5	400	4,000	350	45	$45.00

Same as PL-6569 (above), but with 400-watt plate dissipation rating. Will deliver over 1000 watts of power output in Class-C CW or FM grounded-grid use, over 900 watts in Class-B grounded-grid linear amplifier service.

ACCESSORIES



Type	Description	Price
PL-C1	Glass chimney for PL-4-400A, PL-175A, PL-6580.	$ 6.00
PL-C184	Plastic chimney, only, for PL-172. Same chimney as used on PL-184 and PL-184A sockets (see below).	$ 5.00
PL-184	Socket for PL-172, including chimney, built-in screen-grid and suppressor-grid by-pass capacitors. Includes contact provisions for all base pins and screen-grid and suppressor-grid ring terminals. Provides proper air distribution for correct cooling of PL-172 at full plate dissipation rating.	$45.00
PL-184A	Socket for PL-172, including chimney. Same as socket PL-184 (above), except that suppressor-grid contacts are grounded.	$45.00

* JAN branding available

PENTA LABORATORIES, INC.

SANTA BARBARA, CALIFORNIA
FIELD ENGINEERING REPRESENTATIVES AND DISTRIBUTORS SERVING MAJOR CITIES
Export Representative: Frazar & Hansen, Ltd., San Francisco 11, Calif.

RCA ELECTRON TUBES

ENTERTAINMENT RECEIVING TYPES

RESALE PRICE SCHEDULE • JUNE 27, 1962

RCA Type	List Price*
0Z4	$2.40
0Z4A	2.15
0Z4G	2.60
1A3	4.95
1A5GT	4.25
1A7GT	5.75
1AX2	3.05
1B3GT	2.90
1C5GT	5.30
1DN5	2.50
1G3GT/ 1B3GT	2.90
1H5GT	4.15
1J3	2.90
1K3	2.90
1L4 (see industrial type)	
1L6	6.80
1LA6	6.20
1LB4	8.65
1LC6	8.30
1LD5	8.40
1LE3	6.40
1LG5	6.20
1LH4	8.05
1LN5	8.15
1N2A	4.65
1N5GT	5.20
1R5	2.70
1S4	4.35
1S5	2.65
1T4	2.50
1U4	2.50
1U5	2.20
1V	5.85
1V2	2.10
1X2A; B	ea. 3.05
2A3	10.50
2AF4B	4.05
2BN4A	2.55
2CW4	4.45
2CY5	2.85
2DS4	4.45
2EN5	2.10
2ER5	3.50
2FH5	3.05
2GK5	4.05
3A2	4.85
3A3	3.40
3AF4A	4.05
3AL5	1.85
3AU6	2.15
3AV6	1.75
3B2	9.85
3BA6	2.15
3BC5	2.35
3BE6	2.25
3BN4A	2.55
3BN6	3.05
3BU8	2.85
3BY6	2.35
3BZ6	2.30
3CB6	2.30
3CE5	2.35
3CF6	2.55
3CS6	2.45
3CY5	2.85
3DG4	3.40
3DK6	2.40
3DT6A	2.20
3EA5	2.85
3ER5	3.50
3GK5	4.05
3GS8/ 3BU8	2.85
3LF4	6.40
3Q4	3.55
3Q5GT	5.65
3S4	2.65
3V4	2.50
4AU6	2.15
4AV6	1.70
4BC5	2.35
4BC8	4.05
4BL8	2.55
4BN6	3.05
4BQ7A	4.20
4BS8	3.85
4BU8	2.85
4BZ6	2.25
4BZ7	4.05
4CB6	2.30
4CS6	2.35
4CY5	2.85
4DE6	2.65
4DT6A	2.25
4EH7,4EJ7	ea. 3.80
4ES8	4.60
4EW6	2.35
4GS8/ 4BU8	2.85
5AM8	3.55
5AN8	4.00
5AQ5	2.20
5AS4A	2.65
5AS8	4.15

RCA Type	List Price*
5AT8	$3.65
5AU4	3.40
5AV8	4.05
5AW4	2.80
5AZ4	5.65
5B8	5.30
5BC3	2.30
5BE8	3.30
5BK7A	3.40
5BQ7A	4.05
5BR8	3.65
5BT8	3.30
5BW8	3.40
5CG8	3.25
5CL8A	3.15
5CM8	3.80
5CQ8	3.35
5CZ5	4.35
5DH8	4.50
5DJ4	2.20
5EA8	3.15
5EU8	3.35
5EW6	2.35
5FG7	2.75
5FV8	3.15
5GH8	3.20
5GM6	2.40
5GX6	2.35
5J6	2.85
5T4	12.10
5T8	3.40
5U4G;GB	ea. 2.10
5U8	3.30
5V3A	3.85
5V4GA	3.50
5V6GT	2.20
5X4G	3.35
5X8	3.30
5Y3GT	1.75
5Y4GA	2.60
5Y4GT	2.65
5Z3	3.30
5Z4	8.35
6A7	8.50
6A8	6.85
6A8G*	8.60
6A8GT	8.60
6AB4	2.15
6AB5/ 6N5	8.05
6AB7	8.25
6AC5GT	6.25
6AC7	5.10
6AD7G	9.40
6AF3	2.90
6AF4	4.00
6AF4A	4.00
6AF6G	6.20
6AG5	2.75
6AG7	6.20
6AH4GT	3.45
6AH6	4.70
6AK5	4.40
6AK6 (see industrial type)	
6AL3	2.75
6AL5	1.85
6AL7GT	5.75
6AM4	5.90
6AM8A	3.45
6AN4	6.55
6AN8A	4.00
6AQ5A	2.15
6AQ6	2.60
6AQ7GT	4.00
6AQ8	3.15
6AR5	2.65
6AS5	2.55
6AS8	3.80
6AT6	1.90
6AT8A	3.80
6AU4GTA	3.60
6AU5GT	4.30
6AU6A	2.10
6AU8A	3.50
6AV5GA	4.00
6AV6	1.65
6AW8A	3.70
6AX3	2.45
6AX4GT;B	ea. 2.65
6AX5GT	3.10
6AX8	3.70
6AY3	2.75
6AZ8	5.55
6B8	7.30
6BA3	2.75
6BA6	2.00
6BA7	5.95
6BA8A	3.85
6BC4	4.90
6BC5	2.55
6BC7	3.80
6BC8	4.00
6BD6	2.45
6BE6	2.20
6BF5	3.55

RCA Type	List Price*
6BF6	$1.80
6BG6G	6.80
6BH3	2.95
6BH6	2.70
6BH8	3.50
6BJ6	2.60
6BJ7	3.15
6BJ8	3.50
6BK4	8.00
6BK5	3.70
6BK7B	3.40
6BL7GTA	3.95
6BL8	3.95
6BN4A	2.50
6BN6	3.15
6BN8	3.05
6BQ5	2.35
6BQ6GTB/ 6CU6	4.35
6BQ7A	3.95
6BR8A	3.65
6BS8	3.75
[illegible]	2.80
6BV8	3.15
6BW4	2.90
6BW8	3.50
6BX7GT	4.00
6BY5GA	5.10
6BY6	2.50
6BY8	2.65
6BZ6	2.25
6BZ7	4.00
6BZ8	4.45
6C4	1.85
6C5	4.25
6C6	8.30
6C8G	8.55
6CA4	1.95
6CA5	3.15
6CB5A	8.25
6CB6A	2.25
6CD6GA	5.80
6CE5	2.35
6CF6	2.55
6CG7	2.45
6CG8A	3.30
6CH8	5.20
6CK4	3.00
6CL6	3.75
6CL8A	3.15
6CM6	3.30
6CM7	2.90
6CM8	4.25
6CN7	2.75
6CQ4	3.00
6CQ8	3.30
6CR6	2.40
6CS6	2.25
6CS7	2.95
6CU5	2.35
6CU6 (See 6BQ6GTB/ 6CU6)	
6CU8	4.15
6CW4	4.45
6CX8	3.65
6CY5	2.75
6CY7	3.20
6CZ5	4.10
6D6	7.80
6DA4	2.70
6DB5	5.30
6DC6	3.40
6DC8	3.20
6DE4	2.80
6DE6	2.55
6DE7	3.40
6DG6GT	2.55
6DK6	2.35
6DN6	7.45
6DN7	3.50
6DQ5	8.35
6DQ6A*	4.15
6DQ6B	4.15
6DR7	3.40
6DS4	4.45
6DS5	3.20
6DT5	3.25
6DT6A	2.15
6DT8	3.80
6DW4	3.70
6DW5	4.05
6DX8	3.10
6DZ7	5.45
6E5	4.45
6EA5	2.80
6EA7	3.45
6EA8	3.15
6EB8	3.70
6EH5	2.90
6EH7	3.80
6EH8	3.15
6EJ7	3.80
6EM5	3.40
6EM7	5.10
6EQ7	2.90

RCA Type	List Price*
6ER5	$ 3.50
6ES5	3.05
6ES8	5.80
6EU7	2.60
6EU8	3.30
6EV5	3.00
6EV7	2.50
6EW6	2.30
6EW7	3.90
6EX6	7.25
6EY6	3.15
6EZ5	3.40
6EZ8	3.80
6F5	4.60
6F6;6F6G	5.85
6F6GT	5.85
6F7	11.70
6F8G	8.95
6FA7	2.50
6FD7	5.05
6FG6 (See EM84/6FG6)	
6FG7	2.75
6FH5	2.55
6FH8	3.30
6FM8	3.00
6FQ5A	4.05
6FQ7	2.30
6FS5	3.05
6FV6	3.55
6FV8	3.15
6FW5	4.10
6FW8*	9.20
6G6G	7.20
6GC5	3.20
6GH8	3.15
6GJ5	4.55
6GK5	4.05
6GK6	2.75
6GM6	2.40
6GN8	3.70
6GT5	4.20
6GV8	3.30
6GW6	4.15
6GX6;Y6	ea. 2.30
6GY8	3.80
6H6	4.00
6HB6	3.10
6HF8	3.70
6HJ8	3.30
6HS6	2.50
6HS8	2.80
6J5;GT	ea. 3.65
6J6A	2.80
6J7;GT	4.95
6JC8	2.90
6JH8	4.35
6JU8	2.95
6K6GT	2.65
6K7;GT	4.95
6K8	7.50
6K11	3.50
6KA8	3.80
6L6	8.60
6L6GC	4.20
6L7	7.35
6N5 (See 6AB5/6N5)	
6N7	5.00
6N7GT	5.00
6Q7	5.30
6Q7GT	5.65
6R7	5.45
6S4A	2.05
6S7	7.20
6S8GT	4.40
6SA7	4.30
6SA7GT	4.30
6SB7Y	6.30
6SC7	4.20
6SF5	3.70
6SF5GT	3.20
6SF7	6.25
6SG7	4.60
6SH7	4.45
6SJ7	4.15
6SJ7GT	4.15
6SK7	3.95
6SK7GT	3.95
6SL7GT	3.50
6SN7GTB	2.60
6SQ7	3.75
6SQ7GT	3.80
6SR7	3.90
6SS7	5.50
6T4	5.45
6T8A	3.40
6U5	5.55
6U8A	3.30
6V3A	4.55
6V6	6.75
6V6GTA	2.15
6W4GT	2.40
6W6GT	2.85
6X4	1.65
6X5GT	2.10

RCA Type	List Price*
6X8	$3.15
6Y6G	4.30
6Y6GA	4.30
6Z4 (See 84/6Z4)	
7A4	7.50
7A5	6.00
7A6	7.40
7A7	7.55
7A8	8.25
7AF7	6.00
7AG7	8.40
7AH7	6.40
7AU7	2.60
7B4	7.20
7B5	8.85
7B6	5.60
7B7	8.10
7B8	5.95
7C5	3.50
7C6	7.75
7C7	3.60
7E7	6.70
7EY6	3.15
7F7	7.95
7F8	8.75
7G7	6.40
7H7	6.40
7J7	7.25
7K7	8.60
7N7	7.55
7Q7	6.20
7R7	6.05
7V7	4.90
7W7	7.00
7X7	8.10
7Y4	7.15
7Z4	6.90
8AU8	4.05
8AW8A	3.70
8BA8A	3.65
8BH8	3.55
8BN8	3.25
8BQ5	2.40
8CG7	2.50
8CM7	2.90
8CN7	2.80
8CX8	3.85
8EB5	3.75
8EM5	3.45
8ET7	4.40
8FQ7	2.35
8GN8	3.75
8KA8	3.85
9AU7	2.80
9BR7	3.35
9CL8	3.15
9U8A	3.55
10C8	4.25
10DE7	3.40
10DR7	2.95
10EG7	4.60
10EM7	3.70
10HF8	3.75
11CY7	3.25
12A8GT	8.85
12AB5	2.45
12AC6	2.20
12AD6	2.40
12AE6A	2.05
12AE7	3.75
12AF3	2.90
12AF6	2.35
12AH7GT	5.55
12AJ6	2.55
12AL5	1.90
12AL8	6.55
12AQ5	2.60
12AT6	1.85
12AT7	3.05
12AU6	2.15
12AU7A	2.45
12AV5GA	3.85
12AV6	1.65
12AV7	3.55
12AW6	3.30
12AX4GTA*	2.70
12AX4GTB	2.70
12AX7; 7A	ea 2.55
12AY3	2.80
12AY7	5.00
12AZ7A	3.05
12B4A	2.70
12BA6	1.65
12BA7	5.95
12BD6	2.45
12BE6	1.75
12BF6	2.20
12BH7A	3.05
12BK5	4.00
12BL6	2.30
12BQ6GTB/ 12CU6	4.45
12BR7	3.20
12BV7	3.20
12BW4	2.90

RCA Type	List Price*
12BY7A	$3.05
12BZ6	3.10
12BZ7	4.40
12C5 (See 12CU5/ 12C5)	
12C8	9.70
12CA5	2.50
12CN5	3.45
12CR6	2.40
12CT8	4.25
12CU5/ 12C5	2.35
12CU6 (See 12BQ6GTB/ 12CU6)	
12CX6	2.90
12D4	2.75
12DB5	2.75
12DE8	3.30
12DK6	2.40
12DK7	2.95
12DL8	5.80
12DQ6A*	4.20
12DQ6B	4.20
12DQ7	3.45
12DS7	3.40
12DT5	3.05
12DT8	3.80
12DU7	4.05
12DV8	3.55
12DW7	3.25
12DY8	4.60
12DZ6	2.55
12EA6	2.65
12EC8	3.60
12ED5	2.85
12EG6	2.55
12EH5	2.90
12EK6	2.55
12EL6	2.00
12EN6	3.05
12EQ7	2.90
12F8	2.75
12FK6	2.10
12FM6	2.00
12FQ8	2.95
12FR8	4.35
12FV7	3.65
12FX8	3.80
12GA6	2.30
12GC6	4.20
12GJ5	4.60
12GT5	4.25
12H6	3.95
12J5GT	4.35
12J7GT	7.40
12J8	4.60
12K5	2.95
12K7GT	7.00
12K8	8.70
12L6GT	2.50
12Q7GT	5.80
12R5	3.10
12SA7	4.30
12SA7GT	4.30
12SC7	5.50
12SF5	4.10
12SF7	6.60
12SG7	4.65
12SH7	5.75
12SJ7	4.20
12SK7	3.95
12SK7GT	3.95
12SL7GT	3.75
12SN7GTA	2.70
12SQ7	3.75
12SQ7GT	3.75
12SR7	5.45
12U7	2.65
12V6GT	2.15
12W6GT	3.00
12X4	1.90
13DE7	3.40
13DR7	3.40
13EM7	4.75
13FD7	5.35
14A7	5.90
14AF7	6.05
14B6	5.60
14C7	6.00
14F7	8.15
14F8	6.70
14GT8	3.00
14Q7	6.20
14R7	7.20
15HB6	3.30
17AX4GT	2.70
17AY3	2.80
17BH3	3.05
17BQ6GTB	5.55
17C9	7.60
17D4	2.75
17DE4; M4	ea 2.85
17DQ6A (2/62)	4.25

RCA Type	List Price*
17DQ6B	$ 4.20
17GJ5	4.60
17GT5	4.25
17GW6	4.25
17H3	2.50
18A5	4.15
18FW6	2.00
18FX6	2.15
18FY6	1.65
18GD6A	2.15
19AU4	3.50
19AU4GTA	3.45
19BG6GA	6.50
19CL8A	3.15
19EA8	3.25
19HS6	2.55
19J6	3.95
19T8	3.40
19X8	4.35
20EZ7	3.65
22BH3	3.05
22DE4	3.10
24A	6.60
25AV5GA	4.25
25AX4GT	2.90
25BK5	3.65
25BQ6GTB/ 25CU6	4.65
25C5	2.15
25CA5	2.60
25CD6GB	5.85
25CU6 (See 25BQ6GTB/ 25CU6)	
25DN6	5.55
25EC6	5.70
25EH5	2.30
25L6	8.85
25L6GT	2.35
25W4GT	2.70
25Z5	4.60
25Z6GT	2.90
27	5.40
32ET5	2.20
34GD5	2.10
34GD5A	2.10
35A5	6.00
35B5	3.40
35C5	2.15
35DZ8	3.45
35EH5	2.30
35GL6	2.30
35L6GT	2.40
35W4	1.05
35Y4	4.80
35Z3	5.00
35Z4GT	2.70
35Z5GT	1.85
36AM3A	1.50
41	5.80
42	5.15
43	7.60
47	9.15
50A5	6.25
50B5	2.95
50C5	2.15
50DC4	1.55
50EH5	2.30
50FE5	3.65
50FK5	2.30
50L6GT	2.55
50X6	6.20
50Y6GT	4.60
50Y7GT	4.50
60FX5	2.50
70L7GT	10.15
75	6.80
78	7.20
80	4.20
84/6Z4	3.65
117L7GT/ 117M7GT	10.15
117M7GT (See 117L7GT/ 117M7GT)	
117N7GT	13.60
117P7GT	13.60
117Z3	4.35
117Z6GT	7.10
5879	3.75
5881	6.40
6973	4.50
7025	2.95
7027A	6.60
7189	2.65
7199	3.70
7247	2.85
7408	2.15
7543	3.10
7591	2.95
7695	4.40
7868	3.30
EM84/6FG6	3.25

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice.

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RCA PICTURE TUBES

RCA SILVERAMA
Black & White Picture Tubes

RCA Silverama Picture Tubes contain the finest new parts and materials plus a reused envelope.

RCA COLORAMA
Color Picture Tubes

RCA Colorama Picture Tubes contain used materials which were carefully inspected to meet high quality standards.

RCA SILVERAMA BLACK & WHITE
LIST PRICE* SCHEDULE — JUNE 29, 1962

RCA TYPE	LIST PRICE*
5TP4	$87.00
7JP4	34.75
8DP4	37.50
10BP4A	43.00
10FP4A	45.75
12KP4A	44.75
12LP4A	44.75
14ATP4	38.25
14BP4	(Use 14EP4)
14CP4	(Use 14EP4)
14EP4	42.00
14HP4	40.50
14NP4	(Use 14WP4)
14NP4A	(Use 14WP4)
14QP4A	44.00
14RP4**	44.00
14RP4A	(Use 14WP4)
14WP4	44.00
14ZP4	(Use 14WP4)
16AP4A	41.25
16DP4A	43.00
16GP4B	40.50
16KP4	(Use 16RP4A)
16KP4A	(Use 16RP4A)
16LP4A	47.75
16RP4**	44.00
16RP4A	44.00
16TP4	44.00
16WP4A	47.75
16ZP4	(Use 16LP4A)
17AP4	(Use 17BP4B)
17ATP4	(Use 17BJP4)
17ATP4A	(Use 17BJP4)
17AVP4**	39.25
17AVP4A	(Use 17BJP4)
17BJP4	39.25
17BP4	(Use 17BP4B)
17BP4A**	37.25
17BP4B	37.25
17BP4C	(Use 17BP4B)
17BRP4	(Use 17DSP4)
17BUP4	(Use 17BJP4)
17BVP4	(Use 17CSP4)
17BWP4	(Use 17CSP4)
17BZP4	44.00
17CAP4	(Use 17DSP4)
17CBP4	(Use 17BJP4)
17CDP4	55.50
17CFP4	39.25
17CKP4	(Use 17DSP4)
17CLP4	(Use 17BJP4)
17CP4	40.00
17CSP4	44.75
17CWP4	(Use 17DSP4)
17CYP4	50.75
17DAP4	53.25
17DKP4	44.75
17DLP4	(Use 17DSP4)
17DQP4	44.00
17DSP4	44.00
17DTP4	(Use 17DKP4)
17DXP4	44.00
17GP4	44.00
17HP4**	37.25
17HP4A	(Use 17HP4B)
17HP4B	37.25
17JP4	(Use 17BP4B)
17LP4**	$36.25
17LP4A	36.25
17QP4**	37.25
17QP4A	37.25
17RP4	(Use 17HP4B)
17RP4C	(Use 17HP4B)
17TP4	46.50
17UP4	(Use 17QP4A)
17VP4	(Use 17LP4A)
17VP4B	(Use 17LP4A)
17YP4	(Use 17QP4A)
19AFP4	57.25
19AP4B	46.75
19AVP4	49.50
19AXP4	(Use 19AYP4)
19AYP4	49.50
19XP4	49.50
20CP4	(Use 20DP4C)
20CP4A	(Use 20DP4C)
20CP4B	(Use 20DP4C)
20CP4C	(Use 20DP4C)
20CP4D	(Use 20DP4C)
20DP4	(Use 20DP4C)
20DP4A	(Use 20DP4C)
20DP4B	(Use 20DP4C)
20DP4C	48.75
20HP4	(Use 20HP4D)
20HP4A**	48.75
20HP4C	(Use 20HP4D)
20HP4D	48.75
20LP4	(Use 20HP4D)
20MP4	(Use 20HP4D)
21ACP4	(Use 21AMP4A)
21ACP4A	(Use 21AMP4A)
21AFP4	(Use 21YP4A)
21ALP4	(Use 21CBP4A)
21ALP4A	(Use 21CBP4A)
21ALP4B	(Use 21CBP4A)
21AMP4	(Use 21AMP4A)
21AMP4A	45.75
21ANP4	(Use 21CBP4A)
21ANP4A	(Use 21CBP4A)
21AP4	49.50
21AQP4	(Use 21AMP4A)
21AQP4A	(Use 21AMP4A)
21ATP4	(Use 21CBP4A)
21ATP4A	(Use 21CBP4A)
21ATP4B	(Use 21CBP4A)
21AUP4	(Use 21AVP4B)
21AUP4A	(Use 21AVP4B)
21AUP4B	(Use 21AVP4B)
21AVP4**	45.75
21AVP4A	(Use 21AVP4B)
21AVP4B	45.75
21AWP4	45.75
21BAP4	(Use 21CBP4A)
21BNP4	(Use 21CBP4A)
21BSP4	(Use 21AMP4A)
21BTP4	(Use 21CBP4A)
21CBP4	(Use 21CBP4A)
21CBP4A	45.75
21CBP4B	(Use 21CBP4A)
21CEP4	(Use 21DFP4)
21CEP4A	(Use 21DFP4)
21CMP4	(Use 21CBP4A)
21CQP4	49.25
21CUP4	(Use 21AMP4A)
21CVP4	(Use 21CBP4A)
21CWP4	(Use 21CBP4A)
21CXP4	(Use 21DSP4)
21CZP4	(Use 21DEP4A)
21DAP4	(Use 21DEP4A)
21DEP4	(Use 21DEP4A)
21DEP4A	$49.25
21DFP4	49.25
21DLP4	45.75
21DMP4	(Use 21FAP4)
21DNP4	(Use 21CBP4A)
21DQP4	(Use 21DLP4)
21DSP4	45.75
21EAP4	(Use 21FDP4)
21EMP4	(Use 21EQP4)
21EP4	(Use 21EP4B)
21EP4A**	45.75
21EP4B	45.75
21EQP4	49.25
21ESP4	(Use 21FAP4)
21FAP4	49.25
21FDP4	62.00
21FLP4	(Use 21CBP4A)
21FP4	(Use 21FP4C)
21FP4A**;4C	ea. 45.75
21MP4	52.50
21WP4**	47.25
21WP4A	47.25
21XP4A	47.25
21YP4**	44.75
21YP4A	44.75
21ZP4	(Use 21ZP4B)
21ZP4A**	44.75
21ZP4B	44.75
23AHP4	61.00
23ANP4	(Use 23BKP4)
23AWP4	(Use 23BJP4)
23BJP4	61.00
23BKP4	68.75
23BLP4	70.50
23CP4	68.75
23EP4	68.75
23GP4	(Use 23CP4)
23HP4	(Use 23CP4)
23MP4	61.00
23XP4	(Use 23YP4)
23YP4	68.75
24ADP4	(Use 24CP4A)
24AEP4	65.75
24AHP4	71.75
24ALP4	(Use 24AHP4)
24ANP4	(Use 24AEP4)
24ATP4	84.75
24AUP4	65.75
24BAP4	90.75
24CP4	(Use 24CP4A)
24CP4A	65.75
24DP4	(Use 24AEP4)
24DP4A	(Use 24AEP4)
24QP4	(Use 24CP4A)
24TP4	(Use 24CP4A)
24VP4	(Use 24CP4A)
24VP4A	(Use 24CP4A)
24XP4	(Use 24CP4A)
24YP4	(Use 24AEP4)
24ZP4	(Use 24AEP4)
27EP4	(Use 27RP4)
27MP4	114.25
27RP4	111.50

RCA COLORAMA PICTURE TUBES
LIST PRICE* SCHEDULE — JUNE 29, 1962

RCA TYPE	LIST PRICE*
15GP22	(Price on Request)
21AXP22	(Use 21AXP22A)
21AXP22A	$127.00
21CYP22A	127.00
21FBP22	$135.00
21FJP22	148.00

*Optional. Prices include Federal Excise tax where applicable. All prices subject to change or withdrawal without notice. **Sales limited to extent of present inventory.

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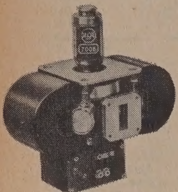
RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

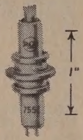
RESALE PRICE SCHEDULE • JUNE 1, 1962

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

MICROWAVE DEVICES



Magnetrons



Traveling Wave **Pencil**

CAMERA & DISPLAY

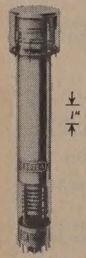
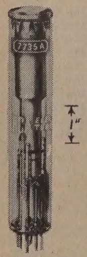


Image Orthicons



Vidicons

RCA POWER TUBES

RCA VACUUM POWER TUBES FOR CW APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C39A	$22.50
2C39WA	30.00
2C40	29.30
2C40A	33.00
2C43	26.95
2E24	5.25
2E26	3.75
4-65A	28.75
4-125A/4D21	36.00
4-250A/5D22	46.50
4-400A	48.00
4-1000A	132.00
4E27/8001	40.00
4E27A/5-125B	50.00
4X500A	128.50
6F4	13.10
8D21	1,985.00
9C21	1,465.00
9C22	1,960.00
9C25	1,535.00
207	330.00
801A	13.00
805	22.10
807	3.00
809	7.95
810	26.95
811A	6.90
812A	6.90
813	23.15
814	28.35
815	28.35
827R	335.00
828	32.95
829B	19.00
830B	17.35
832A	15.90
833A	53.65
834	21.25
838	22.05
845	25.00
860	48.10
880	595.00
889A	235.00
889RA	370.00
891	275.00
891R	430.00
892	270.00
892R	425.00
1624	6.25
1625	4.75
2029	9,100.00
4602	P
4604	7.30
5556	35.00
5588	190.00
5671	1,600.00
5713	280.00
5762/7C24	230.00
5762A	250.00
5770	1,135.00
5771	790.00
5786	170.00
6146	4.35
6155/4-125A	36.00
6156/4-250A	46.50
6159	4.80
6161	125.00
6166	850.00
6166A/7007	1,020.00
6181	1,015.00
6448	5,985.00
6524	16.15
6806	7,355.00
6816	60.00
6850	16.15
6883	4.45
6884	60.00
6893	4.15
6897	32.15
6949	P
7034/4X150A	25.00
7035/4X150D	27.90
7094	29.30
7203/4CX250B	39.35
7204/4CX250F	$39.35
7212	6.75
7213	465.00
7357	6.90
7457	90.00
7580	45.05
7650	290.00
7801	95.00
7842	90.00
7843	60.00
7844	60.00
7870	95.00
8000	29.15
8005	17.85
8072	18.75
8121	25.90
8122	31.60

RCA VACUUM POWER TUBES FOR RF-PULSE APPLICATIONS

RCA Type	Dist. Resale Price Optional
2C40A	33.00
2054	P
4603	P
4605V2	9,775.00
5946	125.00
6950/2039	41,625.00
6952	9,070.00
7214	485.00
7649	70.00
7651	305.00
7835	61,050.00

RCA HARD-TUBE MODULATORS

RCA Type	Dist. Resale Price Optional
3E29	19.00
6293	5.95
7358	8.30

RCA VACUUM POWER TUBES FOR SPECIAL APPLICATIONS

RCA Type	Dist. Resale Price Optional
3C33	26.15
4600A	245.00

RCA RECTIFIERS

VACUUM TYPES —
Half-Wave Types

RCA Type	Dist. Resale Price Optional
2X2A	3.10
579B	20.50
836	11.10
1616	13.90
5825	22.90
8013A	17.05
8020	24.00

MERCURY-VAPOR TYPES —
Half-Wave Types (except as noted)

RCA Type	Dist. Resale Price Optional
83	1.89
575A	20.15
604/7014	11.80
615/7018	9.75
635/7019	13.00
673	20.15
816	2.95
857B	218.50
866A	2.65
869B	138.00
872A	9.90
5558	17.50
5561	59.00
6894	25.00
6895	25.00
8008	9.90

GAS TYPES —
Half-Wave Types

RCA Type	Dist. Resale Price Optional
3B25	7.75
3B28	6.00

RCA IGNITRONS

RCA Type	Dist. Resale Price Optional
1051A	65.00
1052A	99.00
5550	49.00
5551A	65.00
5552A	99.00
5553B	245.00
5555	316.00

RCA THYRATRONS

TRIODES
(Mercury-Vapor Types)—
For Control Service
(except as noted)

RCA Type	Dist. Resale Price Optional
3C23	$11.98
627	29.75
676	63.80
677	63.80
710/6011	13.80
714/7021	9.50
716/6855	12.50
760/6858	28.10
5557	9.50
5559	23.00
5563A	50.00

TRIODES (Gas Types)—
For Control Service
(except as noted)

RCA Type	Dist. Resale Price Optional
629	18.25
884	2.28
885	2.00
6130/3C45	17.80
C1K/6014	13.10
C3J/5632	13.80
C3JA/5684	14.50
C3JL	15.25
C6J/5C21	28.10
C6JA/5685	29.00
C16J/5665	56.90

TETRODES
(Mercury-Vapor Types)—
For Control Service
(except as noted)

RCA Type	Dist. Resale Price Optional
105	59.00
172	122.00
632B	33.00
672A	39.85
5560	33.00

RCA MICROWAVE TUBES

RCA MAGNETRONS
(For Pulsed-Oscillator Service)

RCA Type	Dist. Resale Price Optional
6521	645.00
7008	1,315.00
7111	1,110.00
6865-A	1,590.00
4011-A	1,585.00

RCA TRAVELING-WAVE TUBES

RCA Type	Dist. Resale Price Optional
4009	1,755.00
4010	1,755.00
4015	3,330.00
4017	3,000.00
4019	3,000.00
4020	3,000.00
4021	2,775.00
4036	1,840.00
6861	955.00

RCA PENCIL TUBES

RCA Type	Dist. Resale Price Optional
4037	20.00
5675	16.05
5876	14.95
5876A	23.10
5893	20.75
6173	15.05
6263	21.50
6263A	21.50
6264A	21.50
6562/5794A	10.25
7533	10.75
7552	51.80
7553	57.10
7554	48.10

RCA PHOTOSENSITIVE TUBES & DEVICES

RCA PHOTOCONDUCTIVE CELLS

RCA Type	Dist. Resale Price Optional
4403	1.75
4404	1.75
4408	1.85
4423	$1.80
4425	1.90
4442	2.15
6694A	5.40
6957	3.20
7163	1.65
7412	2.10
7536	2.10

RCA PHOTOJUNCTION CELLS

RCA Type	Dist. Resale Price Optional
4420	6.40
7467	8.75

RCA PHOTOTUBES

SINGLE- AND TWIN-UNIT
TYPES — Gas Types

RCA Type	Dist. Resale Price Optional
1P29	4.80
1P37	3.90
1P40	3.75
1P41	4.00
868	3.90
918	4.45
920	6.40
921	3.50
923	3.40
927	4.25
928	5.25
930	3.10
4409	3.75
5581	3.45
5582	5.40
5583	4.80
5584	6.15
6405/1640	7.60
6953	3.30

SINGLE AND TWIN-UNIT
TYPES — Vacuum Tubes

RCA Type	Dist. Resale Price Optional
1P39	2.45
1P42	13.95
917	6.00
919	6.00
922	3.10
925	3.65
926	3.75
929	2.35
934	4.15
935	10.95
5652	6.75
5653	2.25
6570	9.00
7043	4.40

RCA MULTIPLIER PHOTOTUBES

RCA Type	Dist. Resale Price Optional
1P21	54.50
1P22	15.80
1P28	28.10
931-A	11.15
2020	85.00
4438	105.00
4439	105.00
4440	105.00
4441	155.00
5819	56.50
6199	52.00
6217	72.00
6328	12.65
6342-A	60.10
6472	13.10
6655-A	60.00
6810-A	225.00
6903	370.00
7029	605.00
7046	570.00
7102	110.00
7117	12.65
7200	205.00
7264	265.00
7265	425.00
7326	410.00
7746	200.00
7764	115.00
7767	135.00
7850	240.00
8053	120.00
8054	125.00
8055	195.00

P—Price and Delivery on Request

Net

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RCA ELECTRON TUBES
FOR INDUSTRY AND COMMUNICATIONS

RESALE PRICE SCHEDULE • JUNE 1, 1962

POWER/MICROWAVE/PHOTOSENSITIVE/CAMERA/DISPLAY/INDUSTRIAL RECEIVING

RCA CAMERA & DISPLAY TUBES

RCA IMAGE ORTHICONS

RCA Type	Dist. Resale Price Optional
8093-A	$1,320.00
7293-A	1,300.00
5820-A	1,200.00
7198	2,095.00
7513	1,320.00
7513/V1*	1,400.00
4401*	1,400.00
4401/V1	1,320.00
4415/V1	1,320.00
4415**	1,400.00
4416**	1,400.00
7295-A	1,440.00
7389-A	1,440.00

RCA MONOSCOPES

RCA Type	Dist. Resale Price Optional
2F21	275.00
1699	P

RCA VIDICONS

RCA Type	Dist. Resale Price Optional
2048-A	720.00
4427	585.00
6326	515.00
7038	205.00
7262-A	280.00
7263-A	615.00
7697	205.00
7735-A	205.00
8051	575.00
8134	555.00

RCA IMAGE-CONVERTER TUBES

RCA Type	Dist. Resale Price Optional
6032-A	170.00
6914	125.00
6914-A	130.00
6929	140.00
7404	370.00

RCA CATHODE-RAY TUBES OSCILLOGRAPH TYPES

RCA Type	Dist. Resale Price Optional
1EP1	21.45
1EP2	23.60
1EP11	23.60
2AP1-A	15.75
2BP1	19.05
2BP11	20.60
3AP1-A	24.15
3AQP1	23.10
3BP1-A	16.25
3JP1	20.50
3JP7	23.60
3KP1	19.50
3KP4	19.90
3KP7	19.90
3KP11	20.15
3RP1	13.25
3RP1-A	20.75
3WP1	24.70
3WP2	27.60
3WP11	27.60
5ABP1	29.70
5ABP7	36.40
5ABP11	36.95
5ADP1	28.30
5AHP7	31.85
5AHP7-A	38.65
5BP1-A	23.30
5CP1-A	21.45
5CP7-A	28.60
5CP11-A	28.15
5CP12	28.55
5FP7-A	21.35
5FP14-A	25.80
5FP15-A	30.00
5UP1	12.45
5UP7	22.90
5UP11	24.05
7BP7-A	36.20
7MP7	34.35
7VP1	25.30
10KP7	42.90
12DP7-A	57.20
16ADP7	100.00
902-A	19.30

TRANSCRIBER KINESCOPE

RCA Type	Dist. Resale Price Optional
5WP11	$85.80

VIEW-FINDER KINESCOPES

RCA Type	Dist. Resale Price Optional
5AYP4	65.00
5FP4-A	24.35

MONITOR KINESCOPES

RCA Type	Dist. Resale Price Optional
7CP4	46.80
7TP4	68.00
8HP4	42.90
10SP4	71.50

PROJECTION KINESCOPES

RCA Type	Dist. Resale Price Optional
5AZP4	110.00
7NP4	1,085.00
7WP4	1,110.00

FLYING-SPOT CATHODE-RAY TUBES

RCA Type	Dist. Resale Price Optional
5AUP24	140.00
5WP15	85.80
5ZP16	82.95

STORAGE TUBES
COMPUTER STORAGE TUBE — Primary-Current-Modulation Type

RCA Type	Dist. Resale Price Optional
6571	71.50

DISPLAY STORAGE TUBES — Direct-View Types

RCA Type	Dist. Resale Price Optional
6866	1,280.00
7183	1,230.00
7315	925.00
7448	925.00

RADECHON — Single Beam, Barrier-Grid Type

RCA Type	Dist. Resale Price Optional
6499	435.00

GRAPHECHON — Scan-Conversion Type

RCA Type	Dist. Resale Price Optional
7530	1,720.00

RECEIVING TYPE TUBES FOR INDUSTRY AND COMMUNICATIONS

RCA Type	Dist. Resale Price Optional
Beam Deflection	
7360	3.80
Beam Power	
Subminiature:	
5902	5.75
Miniature:	
5686	3.40
5763	2.53
6005	3.93
6005/6AQ5W	3.95
6005/6AQ5W/6095	3.95
6417	3.04
6669/6AQ5A	1.06
7061	1.30
7551	3.50
7558	3.50
7905	3.95
Other Air-Cooled Types:	
12A6	3.36
1614	4.93
1619	5.70
1622	4.85
1631	3.45
Diodes, Misc.	
9004	4.90
9005	8.05
9006	2.70
Glow-Discharge	
0A2	1.46
0A2WA	3.65
0A3	1.54
0A4G	1.86
0B2	1.44
0B2WA	$3.00
OC2	1.50
0C3	1.50
0D3	1.44
1C21	4.15
991	.87
5651	1.78
5651WA	4.20
5823	1.75
6073	3.00
6073/0A2	3.35
6074	3.45
6074/0B2	3.70
6626/0A2WA	4.45
Pentodes	
Subminiature:	
5636	7.80
5639	6.55
5840	6.25
5899	6.55
6205	6.40
6206	8.55
Miniature:	
1L4	1.37
3A4	1.25
6AK6	1.40
6AS6	3.43
6AU6WA	2.75
6AU6WB	2.75
26A6	3.70
5618	6.75
5654	3.05
5654/6AK5W	3.05
5654/6AK5W/6096	4.35
5725	3.80
5749	2.20
5749/6BA6W	2.20
5847	13.10
5847/404A	13.10
6136	2.75
6186	3.86
6186/6AG5WA	3.85
6197	3.05
6660/6BA6	1.01
6661/6BH6	1.34
6662/6BJ6	1.29
6676/6CB6A	1.12
6677/6CL6	1.85
7054	1.55
7056	1.20
8077/7054	1.55
9001	5.40
9003	5.40
Acorn:	
954	11.20
956	10.85
959	12.45
Other Air-Cooled Types:	
6AC7W	4.20
6AG7Y	2.65
6SJ7Y	1.80
1613	3.00
1620	7.55
1621	3.50
5693	6.60
Rectifiers	
Vacuum:	
5R4GY	2.03
5R4GYB	2.03
6X4W	1.60
5642	3.85
5690	14.10
Tetrodes	
Nuvistor:	
7587	5.20
Thyratrons	
Gas:	
2D21	1.29
2D21W	2.90
3D22A	25.50
502A	2.30
2050	2.37
2050A	2.21
5696	2.05
5727	2.90
5727/2D21W	2.90
6012	7.65
Triodes	
Subminiature:	
5718	4.25
5719	$3.85
6814	5.90
Miniature:	
6J4	4.19
6J4WA	5.60
6J6WA	5.35
6664/6AB4	1.06
9002	4.15
Nuvistor:	
7586	3.35
7895	3.35
8056	5.00
8058	13.25
Acorn:	
6F4	13.10
6L4	8.40
955	7.05
957	8.50
958A	10.90
Twin Diodes	
5726	1.55
5726/6AL5W	1.55
5726/6AL5W/6097	1.55
5896	4.45
6663/6AL5	.92
6887	1.25
7055	1.00

TWIN PENTODES

RCA Type	Dist. Resale Price Optional
6939	12.00

TWIN TRIODES

RCA Type	Dist. Resale Price Optional
3A5	2.03
6AS7G	4.95
12AT7WA	2.95
12SX7GT	2.53
1635	3.82
5670	3.00
5670WA	3.95
5687	4.05
5691	8.75
5692	8.25
5751	2.95
5751WA	2.95
5814A	3.35
5814WA	3.35
5842/417A	13.00
5963	1.50
5964	1.55
5965	1.95
6021	4.80
6072	3.90
6080	5.35
6080WA	11.40
6082	6.50
6099	P
6101	5.35
6101/6J6WA	5.35
6111	5.45
6112	5.45
6189/12AU7WA	3.70
6201	2.95
6211	2.15
6336A	20.20
6350	1.95
6386	7.40
6679/12AT7	1.50
6680/12AU7A	1.22
6681/12AX7	1.26
6681/12AX7A	1.26
6922	4.75
7044	3.20
7057	1.95
7058	1.30
7898	1.35

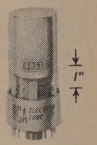
TWIN DIODE TRIODES AND TRIODE PENTODES

RCA Type	Dist. Resale Price Optional
12SW7	1.49
26C6	3.05
6678/6U8A	1.62
7059	1.79
7060	1.95

MISCELLANEOUS TYPES

RCA Type	Dist. Resale Price Optional
12SY7	2.67
26D6	3.05
1612	5.80
1629	1.90
5734	22.05
5750	3.45
5915	1.65

PHOTOSENSITIVE

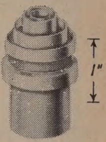


Multiplier

Phototubes

Photocells

POWER TUBES



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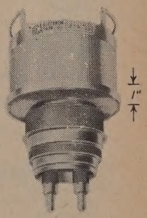

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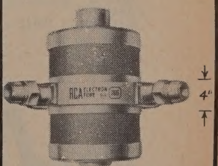

Super

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*Available in matched sets of three **Available as matched set of three—two 4415's, one 4416 P—Price and Delivery on Request

SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
C1K/6014	$ 12.90
C3J/5632	13.80
C3J/A/5684	14.50
C6J/5C21	28.10
C6J/A/5685	29.00
C16J/5665	56.90
*OA2	1.46
GB-OA2WA	3.65
OA3	1.54
*OA4G	1.86
OA5	6.96
*OB2	1.44
***OB2WA**	3.00
GB-OB2WA	3.00
*OB3	2.35
*OC3	1.50
*OD3	1.44
OZ4A	1.20
VG1A	15.04
1B35A	12.28
1B37A	8.80
1B44	24.55
1B63A	30.95
1C/3B22	10.85
1P21	54.50
1P39	3.90
1P40	3.75
1S6 (†)	1.55
2-25A	20.00
2-50A	23.00
2-150D	38.55
2-240A	42.85
2-450A	113.00
2-2000A	228.00
*2C36	38.72
2C37	39.32
2C39A	22.50
2C39B	32.15
2C39WA	30.00
2C40	29.30
2C41	35.00
2C43	26.95
2C51	3.65
2C53	9.80
2D21	1.25
2E24	5.20
2E26	3.85
*2J42	125.00
*2J42H	158.00
2X2A	3.10
2X1000A	127.50
2X3000F	168.00
3A4	1.25
3A5	2.03
3B28	6.00
3C23	11.98
3CX100A5	32.00
3F29	19.00
3W5000F1	243.00
3W5000F3	231.00
4-65A	28.50
4-125A	36.00
4-250A	46.50
4-400A	48.00
4-1000A	132.00
4CX250B	39.35
4CX250F	39.35
4CX250M	92.50
4E27A/5-125B	50.00
4W300B	57.00
4X150A	25.00
4X150D	28.00
4X250B	39.35
5R4GYB	2.03
***5Y3WGTA**	4.05
GB-5Y3WGTA	4.05
6AD4 (†)	3.70
*6AJ5	3.85
6AK4 (†)	3.10
*6AN6	4.35
6AS6	3.43
6AS7G	4.93
***6AU6WA**	2.95
***6AU6WB**	2.95
6AZ5 (†)	3.85
6BA5 (†)	4.70
***6BF7W**	4.20
*6D4	2.85
*6J4	4.19
***6J4WA**	5.60
GB-6J4WA	5.60
***6J6WA**	5.35
***6SJ7WGT**	2.70
GB-6SJ7WGT	2.70
***6SL7WGT**	3.15
GB-6SL7WGT	3.15
***6SN7WGT**	2.35
GB-6SN7WGT	2.35
***6SN7WGTA**	4.90
*6V6GTY	1.45

Type	Sugg. User Price
*6X4W	$ 1.60
***6X4WA**	2.85
GB-6X4WA	2.85
***6X5WGT**	1.55
GB-6X5WGT	1.55
***7AK7**	8.15
GB-7AK7	8.15
***7F8W**	7.05
GB-7F8W	7.05
***12AT7WA**	3.05
12AY7	2.45
KY21A	26.75
RX21A	25.75
***28D7**	4.95
S28D7	4.95
***28D7W**	10.75
GB-28D7W	10.75
FG-97	62.00
100TH	23.60
102A	186.00
141	117.00
212E	245.00
241B	245.00
250TH	38.55
279A	440.00
298A	1585.00
322	27.00
342A	705.00
356‡	660.00
GB-407A	5.90
GB-408A	4.95
414	188.00
450TL	77.00
481B	10.90
502A	2.30
575A‡	20.15
579B	20.50
604L	13.00
606	20.80
606L	21.90
615	9.75
624	79.00
627	29.75
628	41.00
629	18.25
632B	33.00
635	13.00
635L	13.50
642	17.00
672A	39.85
673	22.15
676	63.80
678	49.50
740	19.40
740L	21.40
760	28.10
760L	31.70
801A	13.00
807‡	3.00
810	26.95
811A	6.90
812A	6.90
813	23.15
815	28.35
816	2.95
828	32.95
829B	19.00
832A	15.90
833A‡	53.65
837	10.30
845	25.00
860	48.10
861	280.00
866A	2.90
869B‡	138.00
872A	10.65
880‡	630.00
884	2.28
891	315.00
892‡	310.00
892R†‡	425.00
893A	850.00
921	3.50
922	3.10
923	3.40
927	4.25
929	2.15
930	3.10
931A	11.15
TW956L	2100.00
R1111	12.70
R1111M	26.00
GB-1216	2.38
GB-1217	1.55
1218	4.50
GB-1219/5670	3.70
GB-1220/5654	3.05
•GB-1252/6U8A	2.00
1222A	2.45
1229	5.35

Type	Sugg. User Price
1237	$ 9.86
1247	6.00
1614	4.10
1616	13.90
1620/6J7	6.99
1622	4.05
1624	6.25
2050	2.37
2050A	2.21
TW4002M	2100.00
SP4019	3.09
M4164	1475.00
4198	862.50
CT4251	11.10
TW4260	1065.00
TW4261	1065.00
TW4267	1065.00
TW4268	1065.00
TR4271	510.00
5530†	350.00
5530-H†	350.00
5531†	660.00
5550/681	49.00
5551A/652	65.00
5552A	99.00
5553B/655	245.00
5555	316.00
5557‡	9.50
5558	17.50
5559‡	23.00
5560/FG95‡	33.00
5575/100	250.00
5576/200	280.00
5604†	570.00
5606	305.00
***5636**	6.75
***5636A**	6.75
***5639**	6.55
***5639A**	6.55
***5641**	7.55
***5641A**	7.55
***5643**	9.05
***5644**	9.90
***5644A**	9.90
***5647**	8.65
***5647A**	8.65
5651	1.90
*5651WA	4.20
GB-5654	3.05
***5654/6AK5W**	3.05
***5654/6AK5W/6096**	4.35
5658	630.00
5666	295.00
5667 (889RA)†‡	390.00
5668	350.00
5669†	515.00
***5670**	3.00
GB-5670	3.00
***5670WA**	3.95
5680†	190.00
5681†	1990.00
5687	4.00
GB-5687	4.00
5691	8.75
*5692	8.25
5693	6.60
5696	2.05
***5718**	4.00
***5718A**	4.00
***5719**	3.50
***5719A**	3.50
*5722	6.60
GB-5725	3.80
***5725/6AS6W**	3.80
GB-5726	1.55
***5726/6AL5W**	1.55
***5726/6AL5W/6097**	1.55
GB-5727	2.90
***5727/2D21W**	2.90
GB-5749	2.20
***5749/6BA6W**	2.20
GB-5750	3.45
***5751**	2.95
GB-5751	2.95
***5751WA**	2.95
5762/7C24	230.00
5763	2.53
5764	39.32
5767	44.77
*5768	32.37
5789	914.50
5790	390.00
5791	180.00
5796	17.25
***5814A**	3.35
GB-5814A	3.35
***5814WA**	3.35
5820	1200.00

Type	Sugg. User Price
5822A	$ 116.00
*5823	1.72
***5840**	5.85
***5840A**	5.85
5845	9.95
5855	75.00
5879	1.95
5881	3.50
5894	25.00
***5896**	4.15
***5896A**	4.15
***5899**	6.05
***5899A**	6.05
***5902**	5.25
***5902A**	5.25
***5903**	7.45
***5904**	7.90
***5905**	8.40
***5906**	8.40
***5907**	8.40
***5908**	9.80
5916	9.80
***5931**	6.80
GB-5931	6.80
***5932**	11.30
GB-5932	11.30
***5933**	12.35
GB-5933	12.35
***5933WA**	16.50
5934	22.00
***5963**	1.34
GB-5963	1.34
GB-5964	1.54
GB-5965	1.95
5966	42.00
***5977**	6.55
***5977A**	6.55
***5987**	11.10
5996†	210.00
GB-6005	3.95
***6005/6AQ5W**	3.95
6005/6AQ5W/6095	3.95
6009	228.00
6011/710	13.80
6012	7.65
***6021**	3.50
***6021A**	3.50
6027	180.00
6027H	210.00
*6080	5.33
GB-6080	5.33
GB-6101	5.35
***6110**	8.05
***6111**	5.05
***6111A**	5.05
***6112**	4.10
***6112A**	4.10
***6135**	2.40
GB-6135	2.40
GB-6136	2.90
GB-6145	12.80
6146	5.00
6146A	5.00
6159	4.80
6159A	4.80
6164	64.90
GB-6186	3.85
GB-6189	3.70
***6189/12AU7WA**	3.70
GB-6201	2.95
***6205**	5.90
***6205A**	5.90
***6206**	8.00
***6206A**	8.00
GB-6211	1.95
6217	72.00
6256	265.00
***6308**	8.25
GB-6350	2.15
***6352**	9.85
6366	170.00
6367	185.00
6396	12.30
6399	170.00
6400	199.00
6420	390.00
6421†	460.00
6422	410.00
6423-F†	550.00
6424	490.00
6425-F†	640.00
6426	720.00
6476	13.37
6476A	14.95
6481	38.30
6483	3.09
6503	65.82
6545	870.00
6546	270.00

Type	Sugg. User Price
6550 (†)	$ 4.95
6591	34.40
6660/6BA6	1.05
6661/6BH6	1.35
6662/6BJ6	1.30
6663/6AL5	.95
6669/6AQ5A	1.05
6677/6CL6	1.80
6678/6U8A	1.60
6679/12AT7	1.50
6680/12AU7	1.20
6681/12AX7	1.25
6788	11.95
6799	2760.00
6802	11.43
6807	29.40
GB-6814	5.55
6846	3.90
6879	13.37
6883	5.15
6883A	5.15
6887	1.25
GB-6888	6.90
6897	32.15
6909	11.43
6910	13.37
GB-6922	4.95
6943	12.05
6944	12.05
6945	12.05
6946	12.05
6947	12.05
6948	12.05
7006	1134.00
7007†	1020.00
GB-7044	3.20
7054	1.45
7055	1.00
7056	1.20
7057	1.95
7058	1.30
7059	1.75
7096	1945.25
7098	1170.00
***7137**	7.10
GB-7137	7.10
7155	13.37
7258	2.75
7291	375.00
7325	230.00
GB-7327	12.45
*7503	1170.00
7619	1374.25
8008	10.65
8020‡	24.00
9001	5.40
9002	3.85
9003	5.40

KLYSTRONS

Type	Sugg. User Price
SK-113	195.00
SK-114	195.00
SK-115	195.00
SK-220A	140.00
SK-220B	140.00
SK-220C	140.00
SK-220D	140.00
SK-220E	140.00
SK-220F	140.00
SK-220G	140.00
SK-220Z	315.00
SK-221A	160.00
SK-221B-G	145.00
SK-221K	160.00
SK-221H	205.00
SK-222A	145.00
SK-222B	145.00
SK-222C	145.00
SK-222D	145.00
SK-222E	145.00
SK-222F	145.00
SK-222G	145.00
SK-222Z	320.00
K-470	195.00
K-524	195.00
K-526	195.00
K-839B (†)	195.00
K-840B (†)	195.00
K-841B (†)	195.00
K-4008	195.00
K-4009	195.00
K-4010	195.00
K-4011	205.00
K-4012	195.00

Net

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SYLVANIA INDUSTRIAL TUBES

Type	Sugg. User Price
K-4013	$ 195.00
K-4014	195.00
K-4015	195.00
SK-X101	125.00
*6BL6	37.00
*6BM6	42.00
*6BM6A	53.00
*5836	69.00
*5837	69.00
6974/K709	403.00

FERRITE ISOLATORS

FD-151P	250.00
FD-1519	300.00
FD-1522W	245.00
FD-1537	350.00
FD-492	225.00
FD-502	225.00
FD-512	225.00
FD-522	195.00
FD-531A	250.00
FD-911	235.00
FD-7530	235.00
FD-155B	425.00
FD-1559	220.00
FD-1560	220.00
FD-1561	220.00
FD-1562	220.00
FD-1563	275.00
FD-1564	275.00
FD-503	125.00
FD-504	128.00
FD-514	122.00
FD-515	125.00
FD-516	128.00
FD-517	122.00
FD-518	125.00
FD-519	128.00
FD-5014	122.00
FD-5015	128.00
FD-5016	122.00
FD-5017	125.00
FD-5212	175.00
FD-7511	170.00
FD-7512	172.00
FD-7513	175.00
FD-7514	175.00
FD-7515	178.00
FD-7516	181.00

INDUSTRIAL and MILITARY CATHODE RAY TUBES

Type	Sugg. User Price
2AP1A	15.75
2BP1	19.05
2BP11	20.60
*3ACP1A	34.25
*3ACP2A	36.50
*3ACP7A	36.50
*3ACP11A	36.50
3ACP12A	36.50
*3ADP1	57.00
3ADP2	57.00
3ADP7	57.00
3ADP11	57.00
3AP1A	24.15
3ASP1	32.00
3ASP2	32.00
3ASP11	$ 32.00
3BEP1	37.00
3BGP1	37.80
3BGP2	37.80
3BGP7	37.80
3BGP11	37.80
3BMP1	47.05
3BMP2	47.05
3BMP7	48.75
3BMP11	47.05
3BMP12	47.05
*3BP1A	16.25
*3FP7A	27.50
*3JP1	20.50
*3JP2	27.50
*3JP7	23.60
*3JP12	31.45
*3KP1	19.50
3KP4	19.90
3KP7	19.90
3KP11	20.15
3KP16	42.20
3MP1	21.80
*3RP1	13.95
3RP1A	20.75
3RP4	20.00
*3SP1	25.20
3SP2	25.20
3SP4	25.20
3SP5	25.20
3SP11	25.20
*3WP1	24.70
3WP2	27.60
3WP11	27.60
*4MP1	72.25
5ABP1	29.70
5ABP1A	36.70
5ABP4	42.85
5ABP4A	46.20
5ABP7	42.85
5ABP7A	43.40
5ABP11	36.95
5ABP11A	43.95
5ABP31A	43.95
*5ADP1	28.30
5ADP1A	37.00
5ADP1B	37.00
*5ADP2	35.00
5ADP2A	42.00
5ADP2B	42.00
*5ADP7	35.00
5ADP7A	45.50
5ADP7B	45.50
5ADP11	38.50
5ADP11A	45.50
5ADP11B	45.50
5ADP31A	45.50
5AHP2	40.50
5AHP2A	44.75
*5AHP4A	44.75
*5AHP7	31.85
*5AHP7A	38.65
5AHP14	31.85
5AHP14A	39.10
5AHP19	31.85
5AHP19A	44.00
5AHP25	41.95
5AHP25A	49.65
5AMP1	44.60
*5AMP1A	47.60
5AMP2	44.60
*5AMP2A	47.60
5AMP7	47.50
*5AMP7A	60.50
5AMP11	49.00
5AMP11A	60.50
5AQP1	37.00
5AQP1A	40.00
5AQP1B	40.00
5AQP2	37.75
5AQP2A	$ 40.75
5AQP2B	40.75
*5AQP7	40.00
5AQP7A	43.00
5AQP7B	43.00
5AQP11	37.75
5AQP11A	40.75
5AQP11B	40.75
5AUP24	140.00
5AXP4	19.75
5BCP1	60.00
5BCP4	60.00
5BCP7	75.00
5BCP11	75.00
5BGP1	75.00
5BGP2	75.00
5BGP5	75.00
5BGP7	75.00
5BGP11	75.00
5BGP15	75.00
5BHP1	92.50
5BHP1A	92.50
5BHP2	92.50
5BHP2A	92.50
5BHP5	92.50
5BHP5A	92.50
5BHP7	92.50
5BHP7A	92.50
5BHP11	92.50
5BHP11A	92.50
5BHP15	92.50
5BHP15A	92.50
5BNP16	24.40
*5BP1A	23.30
5BRP1	42.00
5BRP4	42.00
5BRP7	43.70
5BRP11	43.70
*5CP1A	21.70
*5CP1B	32.65
*5CP7A	30.80
5CP11A	28.00
*5CP12	30.80
5CVP1	142.80
5CVP7	142.80
5CVP19	142.80
5DEP1	13.65
5DEP2	24.20
5DEP7	24.65
5DEP11	25.20
•5DKP4	30.25
•5DKP11	30.25
•5DKP15	30.25
•5DKP16	30.25
•5DKP24	30.25
•5DLP4	23.55
*5FP4A	26.20
*5FP7A	21.35
5FP11A	33.25
*5FP14A	25.80
5RP1A	130.00
5RP2A	130.00
5RP4A	175.00
5RP5A	175.00
5RP7A	132.50
5RP11A	130.00
*5UP1	12.45
5UP7	24.65
5UP11	25.20
5WP11	101.00
5WP15	101.00
5ZP15	128.55
5ZP16	82.95
5ZP24	128.55
7ABP7	46.65
*7ABP7A	48.50
7ABP14	59.95
7ABP14A	58.75
7ABP19	52.10
7ABP19A	58.75
7AEP1	$ 40.75
7AEP2	40.75
*7AEP7	43.50
7AEP11	55.75
7AQP4	84.50
7AQP7	84.50
7AQP16	84.50
7AQP19	84.50
7AQP25	84.50
7AUP4	29.40
7AUP7	31.10
7BP2A	42.00
*7BP7A	36.20
*7JP1/7VP1	29.00
7JP7	35.00
7MP7	34.35
7MP14	38.00
7UP7	40.00
7UP25	40.00
8CP1	40.00
8CP2	52.95
8CP4 (†)	52.95
8CP5	52.95
8CP7	43.70
8CP11	52.95
8DP4	25.20
8FP4	43.15
8KP4	23.25
8XP4	22.00
8YP4	29.50
*10AKP7	46.20
10ANP4	75.60
10ANP7	75.60
10ANP16	75.60
10ANP19	75.60
10ANP25	75.60
*10KP7	42.90
*10KP7A	47.80
10KP7B	52.70
10NP11	137.50
10SP4	71.50
10VP7	55.75
10VP15	55.75
*10WP7	34.45
10WP7A	37.80
10WP14	51.25
10WP14A	59.65
10WP19	51.25
10WP19A	51.25
12ABP7	60.00
12ABP7A	47.80
12ABP14	58.80
12ABP14A	68.50
12ABP19	$ 68.50
12ABP19A	75.60
10WP19A	51.25
*12DP7A	57.20
12DP7C	67.20
12SP7	38.50
12SP7B	46.00
*12SP7D	60.00
14BAP4	37.80
17DWP4	39.00
21EYP4	46.20
SC-2558P1	135.00
SC-2558P4	135.00
SC-2558P7	135.00
SC-2782	420.00
SC-2809	920.00
SC-2812P1	35.05
SC-2830P1	50.50
SC-2854	49.00
SC-3016P11	58.80
SC-3037P7	54.60
SC-3042P1	43.68
SC-3061P1	504.00
SC-3093	378.00
SC-3116P1/ T65P1/T543P1	110.00
SC-3116P2/ T65P2/T543P2	110.00
SC-3116P5/ T65P5/T543P5	110.00
SC-3116P7/ T65P7/T543P7	110.00
SC-3116P11/ T65P11/ T543P11	110.00
SC-3116P15/ T65P15/ T543P15	110.00
SC-3179P7	420.00
SC-3180P7	420.00
SC-3301P1/ T64P1/T533P1	110.00
SC-3301P2/ T64P2/T533P2	110.00
SC-3301P5/ T64P5/T533P5	110.00
SC-3301P7/ T64P7/T533P7	110.00
SC-3301P11/ T64P7/T533P7	110.00
SC-3301P15/ T64P15/ T533P15	110.00

NOTE: Other screen phosphors for industrial and Military Cathode Ray Tubes are available upon request.

Types listed in Bold Face are Sylvania Gold Brand Tubes.

GB—Manufactured to Commercial and Industrial Specifications.

*Indicates Military Type Approval.

(†) Federal Excise Tax included in price.

(‡) These tubes may be of foreign manufacture and in many cases manufactured by the foreign affiliate of Sylvania Electric Products Inc.

(•) Indicates additions to line since last price list.

For high quality Industrial or Entertainment Receiving Type Tubes and Picture Tubes—Specify Sylvania

ELECTRONIC TUBES DIVISION • SYLVANIA ELECTRIC PRODUCTS INC. • 730 THIRD AVE., NEW YORK 17, N.Y.

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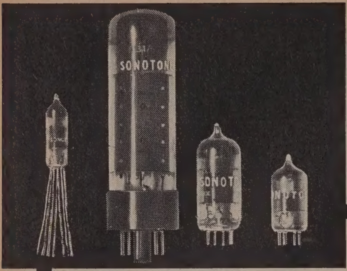
GENERAL SYSTEM



SONOTONE ELECTRON TUBES

for reliable performance in military—industrial—commercial applications

SONOTONE MILITARY AND INDUSTRIAL TUBES

All Sonotone military tubes are manufactured under the U.S. Army Signal Corps RIQAP (Reduced Inspection Quality Assurance Program) monitored by the U.S. Army Signal Supply Agency. Further, experience in the techniques of extreme miniaturization has made Sonotone a major supplier of miniature and subminiature tubes to industry and the military.

TUBE TYPE	DESCRIPTION	SPECIFICATION MIL-E-1/	SUGG. LIST
6CG7	Miniature Medium-MU twin triode	1095	$ 2.40
6J4	Miniature UHF amplifier triode	58	3.95
6J4WA	Miniature UHF High-MU triode	619D	5.35
6J6WA	Miniature R-F amplifier	243B	5.35
5636	Subminiature Sharp-Cutoff pentode	168E	8.69
5639	Subminiature pentode	169E	6.55
5639WA	Subminiature pentode	1267 (Tentative)	12.38
5702WA	Subminiature Sharp-Cutoff pentode	82D	10.50
5702WB	Subminiature Sharp-Cutoff pentode	1069C	15.74
5703	Subminiature Medium MU triode	692A	3.68
5703WA	Subminiature Medium MU triode	293D	10.50
5703WB	Subminiature Medium MU triode	1070B	14.58
5718	Subminiature UHF Medium MU triode	172D	4.25
5719	Subminiature High-MU triode	173E	3.85
5814A	Miniature Medium MU twin triode	12D	4.73
5840	Subminiature Sharp-Cutoff pentode	140D	6.25
5899	Subminiature pentode	97G	6.55
5902	Subminiature Beam Power pentode	175E	5.75
5977	Subminiature Medium-MU triode	187D	6.55
6021	Subminiature Medium-MU twin triode	188C	4.80
6026	Subminiature Medium-MU triode	No mil spec.	5.60
6101/6J6WA	Miniature R-F amplifier	Spec. MIL-E-1/243A Superseded-order 6J6WA	5.35
6111	Subminiature Medium-MU twin triode	189D	5.45
6112	Subminiature High-MU twin triode	190D	5.45
6205	Subminiature Sharp-Cutoff pentode	140D	6.40
6222	Subminiature Medium-MU triode	955A	11.07

All prices include Federal Excise Tax where applicable.

All orders subject to Local, State and Federal Taxes.

SONOTONE COMMERCIAL AND HOME ENTERTAINMENT TUBES

While Sonotone offers all popular commercial and home entertainment type tubes, it specializes in those that are most difficult to engineer. Sonotone has built its reputation by tackling the 'tough ones'. Typical examples are its UHF tube types — The Sonotone 6AF4A is the accepted choice of the industry for UHF converters and tuners. The specially designed 12AX7A with a unique damper mica and a coiled heater for low hum and low microphonics is another example.

TUBE TYPE	SUGG. LIST	TUBE TYPE	SUGG. LIST	TUBE TYPE	SUGG. LIST	TUBE TYPE	SUGG. LIST	TUBE TYPE	SUGG. LIST
0Z4	$ 2.40	6BM8	$ 2.95	6J4	$ 3.95	6026	$ 5.85	EF80/6BX6	$ 3.15
1AB6	3.30	6BM8 MP	6.20	6J4WA	5.35	6146	10.45	EF85/6BY7	3.15
1AC6	3.30	6BN5	5.55	6J6	2.75	7025	3.15	EF86/5928-6267	2.65
1AH5	3.10	6BQ5	2.35	6J6A	2.75	7189	2.60	EF89/6DA6	2.80
1AJ4	3.00	6BQ5 MP	5.05	6J6WA	5.35	7189 MP	5.75	EF91/6AM6	3.25
1AN5	2.70	6BQ6GTB/6CU6	4.35	6K6GT	2.35	7247	2.85	EF93/6BA6	2.00
1B3GT	2.90	6BQ7A	3.85	6L6GC	3.95	DAF91/1S5	2.15	EF94/6AU6	2.05
1G3GT	2.90	6BR5	2.70	6L6GC MP	8.20	DAF96/1AH5	3.10	EF95/6AK5	4.20
1L4	2.65	6BR8	3.45	6N8	3.00	DC90	2.60	EF98/6ET6	3.20
1M3	2.00	6BW7	2.90	6S4A	2.05	DF91/1T4	2.25	EF183/6EH7	3.00
1S2	3.00	6BX6	3.15	6SL7GT	3.45	DF92/1L4	2.65	EF184/6EJ7	3.00
1S4	3.80	6BY7	3.15	6SN7GTB	2.60	DF96/1AJ4	3.00	EF804	3.25
1S5	2.15	6BZ6	3.95	6T8	3.25	DF97/1AN5	2.70	EH90/6CS6	2.35
1T4	2.25	6BZ7	3.85	6U8	3.20	DK92/1AC6	3.30	EK90/6BE6	2.15
1U5	2.25	6C4	2.00	6V4	1.55	DK96/1AB6	3.30	EL34/6CA7	5.05
1X2B	3.00	6CA4	1.90	6V6GT	2.15	DL92/3S4	2.45	EL34/6CA7 MP	11.10
2AF4A	3.95	6CA7	5.05	6V6GT MP	4.40	DL94/3V4	2.15	EL37	6.40
2AF4B	3.95	6CA7 MP	11.10	6W4GT	2.40	DL96/3C4	2.75	EL37 MP	13.50
2ER5	2.90	6CB6	2.25	6X4	1.60	DM70/1M3	2.00	EL38/6CN6	7.25
3AF4A	3.95	6CD6GA	5.60	6X5G	3.50	DY30/1B3GT	2.90	EL41/6CK5	3.10
3AF4B	3.95	6CD7	3.80	6X8	3.00	DY80/1X2B	3.00	EL81/6CJ6	4.25
3BZ6	2.25	6CG7	2.40	7AN7	3.65	DY86/1S2	3.00	EL84/6BQ5	2.35
3C4	2.75	6CG8A	3.25	9A8	4.45	EAA91	1.80	EL84/6BQ5 MP	5.05
3GK5	4.00	6CJ5	2.85	9AQ8	3.10	EABC80/6T8	3.25	EL85/6BN5	5.55
3Q4	2.90	6CJ6	4.25	9U8/PCF82	3.30	EAF42/6CT7	2.80	EL86/6CW5	2.75
3S4	2.45	6CK5	3.10	12AD6	2.25	EB91/6AL5	1.80	EL86/6CW5 MP	5.70
3V4	2.15	6CL6	3.65	12AH8	3.25	EBC41/6CV7	2.55	EL90/6AQ5	2.15
4BQ7	3.95	6CL8A	3.10	12AT6	1.65	EBC90/6AT6	1.85	EL90/6AQ5 MP	4.40
4BZ7	4.00	6CN6	7.25	12AT7	2.90	EBC91/6AV6	1.65	EL95/6DL5	2.45
5AR4	4.25	6CS6	2.35	12AU6	2.15	EBF80/6N8	3.00	EL95/6DL5 MP	5.15
5J6	2.80	6CT7	2.80	12AU7	2.40	EBF83/6DR5	3.50	EM34/6CD7	3.80
5U4GB	2.10	6CV7	2.55	12AU7A	2.40	EBF89/6DC8	3.10	EM35	2.40
5V4	3.45	6CW5	2.75	12AV6	1.65	EC90/6C4	2.00	EM71	5.80
5Y3GT	1.75	6CW5 MP	5.70	12AX4GT	2.70	EC91/6AQ4	5.15	EM80/6BR5	2.70
6AB4	2.05	6CW7	3.70	12AX7	2.45	EC92/6AB4	2.05	EM81/6DA5	2.70
6AB8	3.25	6DA4	2.65	12AX7A	2.40	EC95/6ER5	2.40	EM84/6FG6	2.90
6AF4	3.95	6DA5	2.70	12BA6	1.65	EC97/6FY5	2.75	EZ12	4.80
6AF4A	3.95	6DA6	2.80	12BE6	2.15	ECC33/6SN7GTB	2.60	EZ35/6X5G	3.50
6AJ8	3.10	6DC8	3.10	12BH7A	3.00	ECC35/6SL7GT	3.45	EZ80/6V4	1.55
6AK5	4.20	6DJ8	4.05	12BL6	2.25	ECC40	4.00	EZ81/6CA4	1.90
6AL5	1.80	6DL5	2.45	12DQ6B	4.20	ECC81/12AT7	2.90	EZ90/6X4	1.60
6AM6	3.25	6DL5 MP	5.15	12SN7GT	2.70	ECC82/12AU7	2.40	GZ30/5Y3GT	1.75
6AN8	3.55	6DR5	3.50	15CW5	2.90	ECC83/12AX7	2.45	GZ34/5AR4	4.25
6AQ4	5.15	6DQ6B	4.05	15DQ5	3.95	ECC84/6CW7	3.70	HBC90/12AT6	1.65
6AQ5	2.15	6DT6A	2.15	16A8	4.35	ECC85/6AQ8	2.70	HBC91/12AV6	1.65
6AQ5 MP	4.40	6EA8	2.70	18DZ8	3.15	ECC86/6GM8	4.45	HF93/12BA6	1.65
6AQ8	2.70	6EB8	3.70	19AQ5	2.05	ECC88/6DJ8	4.05	HF94/12AU6	2.15
6AT6	1.85	6EH7	3.00	25EH5	2.15	ECC91/6J6	2.75	HK90/12BE6	2.15
6AU5GT	4.25	6EJ7	3.00	35C5	2.10	ECC180/6BQ7A	3.85	HL92/50C5	2.15
6AU6	2.05	6ER5	2.40	35DZ8	3.00	ECC189/6ES8	4.35	HY90/35W4	1.30
6AV6	1.65	6ES8	4.35	35EH5	2.15	ECF80/6BL8	3.85	M8081/6J6WA	5.35
6AW8A	3.45	6ET6	3.20	35W4	1.30	ECF82/6U8	3.20	M8232/6J4WA	5.35
6AX4GT	2.65	6EU7	2.50	45B5	2.80	ECF86/6HG8	3.15	PCC84/7AN7	3.65
6BA6	2.00	6FG6	2.90	50BM8	3.00	ECH81/6AJ8	3.10	PCC85/9AQ8	3.10
6BE6	2.15	6FY5	2.75	50BM8 MP	6.25	ECL80/6AB8	3.25	PCF80/9A8	4.45
6BH6	2.65	6GK5	4.00	50C5	2.15	ECL82/6BM8	2.95	PCF82/9U8	3.30
6BJ6	2.60	6GM8	4.45	50EH5	2.35	ECL82/6BM8 MP	6.20	PCL82/16A8	4.35
6BG6GA	6.40	6GN8	3.70	5928/6267	2.65	ECL86/6GW8	3.10	PCL84/15DQ5	3.95
6BL7GTA	3.95	6GW8	3.10	60FX5	2.35	EF40	4.35	PL84/15CW5	2.90
6BL8	3.85	6HG8	3.15	5763	3.45	EF41/6CJ5	2.85	UCL82/50BM8	3.00
								UCL82/50BM8 MP	6.25
								UL84/45B5	2.80
								XC95/2ER5	2.90

MP — Matched Pair.

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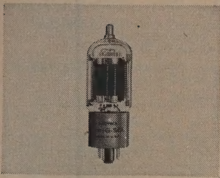
TUNG-SOL ELECTRON TUBES

The fully comprehensive Tung-Sol line of electron tubes fills virtually every requirement . . . from the most exacting military and industrial applications to the peak quality demands of modern entertainment electronics. A quality control network that's unparalleled plus unexcelled production know-how assure that high-volume production units exhibit the same superior performance and full-life dependability as the engineering samples.

Technical assistance is available through the following sales offices: Atlanta, Ga.; Columbus, Ohio; Culver City, Calif.; Dallas, Texas; Denver, Colo.; Detroit, Mich.; Irvington, N. J.; Melrose Park, Ill.; Newark, N. J.; Seattle, Wash. Canada: Abbey Electronics, Toronto, Ont.

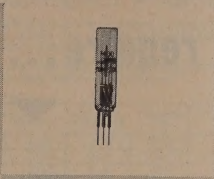
MILITARY INDUSTRIAL



VACUUM PULSE TUBES

Used in radar equipment and high power pulse generators.

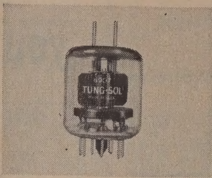
Types available:
3D21WA, 6293, 7358, 7403.



INDICATOR TUBES

Used in relay service wherever a small, lightweight, self-indicating tube is needed. Vacuum and thyratron types available.

Types available:
6977, 7323, 7400, 7401 ,7813, 8216.



TRANSMITTING TUBES

Used primarily in mobile transmitters through the UHF range.

Types available:
2E22, 6146, 6146W, 6159, 6252, 6883, 6907, 7212.

407A
TUNG-SOL
MADE IN U.S.A.

TELEPHONE TUBES

Used in hand sets, central office, and carrier equipment.

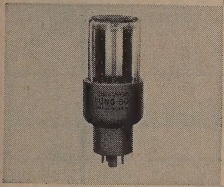
Types available:
313C, 338A, 407A, 426A, 5842/417A, 5847/404A, 6028, 408A.

6550
6550 TUNG-SOL

POWER PENTODES

Used in public address systems, hi-fi amplifiers, radio transmitters and receivers.

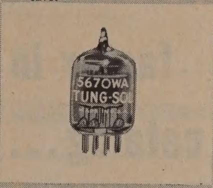
Types available:
2E22, 26E6WG, 3A4, 5A6, 5881, 6AR6, 6L6WGB, 6098/6AR6WA, 6327, 6550, 7189, 7591, 7867.



RECTIFIERS

Used throughout industrial electronic equipment and broadcasting operations—AM, FM and TV.

Types available:
1Z2, 3B24WA, 3B25, 3B28, 4B32, 5R4GY, 5R4WGA, 5R4WGB, 6H6WGT, 6X4WA, 6X4W, 25Z6WGT, 26Z5W, 583, 5517, 5726/6AL5W, 5829WA, 3B29, 576A.



TWIN TRIODES

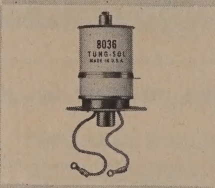
Used widely in equipment handling frequencies from the audio level through the frequency band.

Types available:
5670, 5670WA, 6SC7GTY, 6SU7GTY, 2C51, 12AT7WA, 12AY7, 5687, 5687WA, 5718, 5719, 5744WB, 5751, 5751WA, 5814A, 5814WA, 6021, 6111, 6188/6SU7WGT, 7370 ,6SN7WGTA.

POWER TRIODES

Used in series regulated power supplies and wherever high perveance, high current tubes are needed.

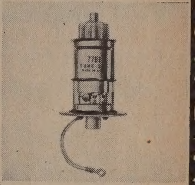
Types available:
5998, 6AS7G, 6080, 6080WA, 6080WB, 6082, 6082WA, 6082WB, 6336A, 6394A, 6520, 6528, 6877, 7105, 7236, 7241, 7242, 7802, 7802WA, 7802WB, 8193.



HYDROGEN THYRATRONS

Used in radar modulators and missile tracking beacons. Miniatures in airborne units. Glass and ceramic types available.

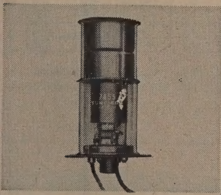
Types available:
1257, 1257A, 1258, 5948, 5948A, 5949, 5949A, 6587A, 7190, 7191, 7192, 7240, 8036, 8191, 8192, 8097.



HYDROGEN DIODES

Hydrogen filled tubes for use as high power rectifiers or radar charging diodes. Electrically rugged and temperature free compared to competing devices.

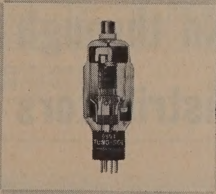
Types available:
7789, 7790, 7791, 7792.



CLIPPER TUBES

Used in radar to protect modulator components and to regulate output pulse. Both gas and vacuum tube versions available.

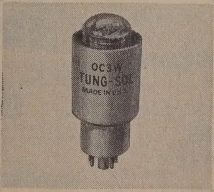
Types available:
3B29, 576A, 583, 6339, 7454, 7455.



THYRATRONS

Used in power supplies, radio transmitters, motor controllers and spot welders.

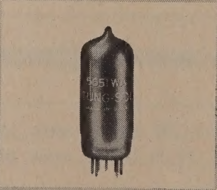
Types available:
2A4G, 2D21, 2050, 2050W, 3C23, 323B, 393A, 394A, 395A, 885, 5594, 5643, 5663, 5696, 5727, 6D4, 6012, 6901, 7410.



VOLTAGE REGULATORS

Used in radio and other electronic equipment with regulated power supplies.

Types available:
OA2, OB2WA, OB2, OC3W OD3W, 5787, 5787WA, 6074, 6542, 7099.



VOLTAGE REFERENCE TUBES

Used in radio equipment and other electronic gear with regulated power supplies, especially in high-accuracy units.

Types available:
5651, 5651WA, 5783, 5783WA, OG3.

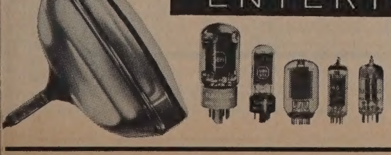
5654
TUNG-SOL

PENTODES

Used in military and other communications equipment.

Types available:
1AD4, 5636, 5639, 5654/6AK5W, 6AH6WA, 5672, 5678, 5702WA, 5702WB, 5725/6AS6W, 5749/5875, 6AJ5, 6AK5WB, 6AS6, 6AU6WA, 5840, 5875, 5902, 6088, 6136, 6205, 6245.

ENTERTAINMENT



Tung-Sol tubes . . . cathode ray, series string, hybrid auto radio, TV, radio, stereo and hi-fi . . . provide an ideal combination of the most sought-after characteristics. Tung-Sol is also packing the popular types of its quality audio tubes in factory-matched pairs. Dynamically-balanced 6550's, 5881's, 6V6GTA's, 6BQ5's bring you the finest in full-fidelity reproduction.

TUNG-SOL®

whatever electronic products
you require...

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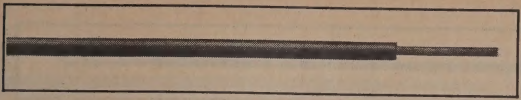


MIL-W-76B-PLASTIC WIRE

TYPE MW—UNCOVERED PLASTIC

DESCRIPTION: Solid or extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

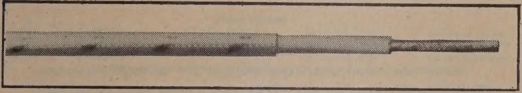
STRANDED

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1550	MW-C 24(7)U	24	7/32	.016″	.059″	1-30 AS LISTED BELOW
1551	MW-C 22(7)U	22	7/30	.016″	.064″	
1553	MW-C 20(10)U	20	10/30	.016″	.073″	
1555	MW-C 18(16)U	18	16/30	.016″	.084″	
1557	MW-C 16(26)U	16	26/30	.016″	.095″	
1559	MW-C 14(41)U	14	41/30	.016″	.110″	
1560	MW-C 12(65)U	12	65/30	.016″	.125″	

SOLID

1561/24	MW-C 24(1)U	24	1	.016″	.055″	1-30 AS LISTED BELOW
1561	MW-C 22(1)U	22	1	.016″	.060″	
1563	MW-C 20(1)U	20	1	.016″	.066″	
1565	MW-C 18(1)U	18	1	.016″	.074″	
1567	MW-C 16(1)U	16	1	.016″	.083″	

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID

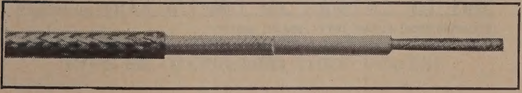
DESCRIPTION: Extra flexible stranded tinned copper, white **medium wall** polyvinylchloride insulation, color coded flame retardant lacquered glass braid overall. The stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1590/24	MW-C 24(7)B	24	7/32	.016″	.070″	1-19 as listed below
1590	MW-C 22(7)B	22	7/30	.016″	.080″	1-19 as listed below
1591	MW-C 20(10)B	20	10/30	.016″	.090″	1-19 as listed below
1592	MW-C 18(16)B	18	16/30	.016″	.100″	1-19 as listed below
1593	MW-C 16(26)B	16	26/30	.016″	.115″	1-19 as listed below
1594	MW-C 14(41)B	14	41/30	.016″	.125″	1 & 11-19 as listed below
1595	MW-C 12(65)B	12	65/30	.016″	.140″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—GLASS BRAID—SHIELDED

DESCRIPTION: Extra flexible stranded tinned copper, white medium wall polyvinylchloride insulation, white flame retardant lacquered glass braided with tinned copper shield overall, 80% coverage. The stranded conductor has an extra tight lay to prevent springing open when stripped.

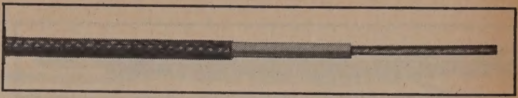
CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLOR
1194/24	MW-C 24(7)BS	24	7/32	.016″	.090″	White
1194/22†	MW-C 22(7)BS	22	7/30	.016″	.095″	White
1194†	MW-C 20(10)BS	20	10/30	.016″	.108″	White
1196†	MW-C 18(16)BS	18	16/30	.016″	.124″	White
1197†	MW-C 16(26)BS	16	26/30	.016″	.133″	White
1198†	MW-C 14(41)BS	14	41/30	.016″	.144″	White
1199†	MW-C 12(65)BS	12	65/30	.016″	.168″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.

†1194/22 to 1199 formerly 1361 to 1365



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED

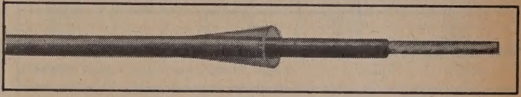
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, braided tinned copper shield overall, 80% coverage. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +80°C, Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1350	MW-C 24(7)S	24	7/32	.016″	.075″	White, Black, Red
1351	MW-C 22(7)S	22	7/30	.016″	.085″	White, Black, Red
1352	MW-C 20(10)S	20	10/30	.016″	.095″	White, Black, Red
1353	MW-C 18(16)S	18	16/30	.016″	.105″	White, Black, Red
1354	MW-C 16(26)S	16	26/30	.016″	.115″	White
1355	MW-C 14(41)S	14	41/30	.016″	.130″	White
1356	MW-C 12(65)S	12	65/30	.016″	.145″	White

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—NYLON JACKET

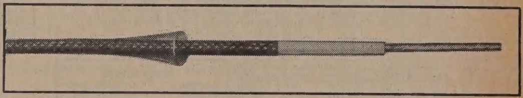
DESCRIPTION: Extra flexible stranded tinned copper, color coded **medium wall** polyvinylchloride insulation, clear nylon (polyamide) jacket overall. Stranded conductor has an extra tight lay to prevent springing open when stripped.

CHARACTERISTICS: Temperature rating —40°C to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOM. O.D.	* STOCK COLORS
1503	MW-C 24(7)J	24	7/32	.016″	.002″	.065″	1-19 as listed below
1504	MW-C 22(7)J	22	7/30	.016″	.003″	.072″	1-19 as listed below
1505	MW-C 20(10)J	20	10/30	.016″	.003″	.079″	1-19 as listed below
1506	MW-C 18(16)J	18	16/30	.016″	.003″	.090″	1-19 as listed below
1507	MW-C 16(26)J	16	26/30	.016″	.004″	.103″	1-19 as listed below
1508	MW-C 14(41)J	14	41/30	.016″	.004″	.118″	1-6 as listed below
1509	MW-C 12(65)J	12	65/30	.016″	.005″	.135″	1-3 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*Other solid colors and striped combinations available to order.



MIL-W-76B-PLASTIC WIRE

TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: Stranded tinned copper, white **medium** wall polyvinylchloride insulation, braided tinned copper shield, 80% minimum coverage, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —40° to +90°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

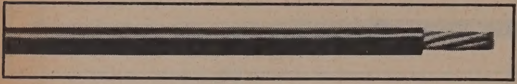
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1370	MW-C 24(7)SJ	24	7/32	.016″	.005″	.091″
1371	MW-C 22(7)SJ	22	7/30	.016″	.005″	.100″
1372	MW-C 20(7)SJ	20	7/28	.016″	.005″	.105″
1373	MW-C 18(19)SJ	18	19/30	.016″	.005″	.115″
1374	MW-C 16(19)SJ	16	19/29	.016″	.005″	.125″
1375	MW-C 14(19)SJ	14	19/27	.016″	.005″	.138″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet
20—White/Black/Red
21—White/Black/Green
22—White/Black/Yellow
23—White/Black/Blue
24—White/Black/Brown
25—White/Black/Orange
26—White/Black/Gray
27—White/Black/Violet
28—Tan
29—Pink
30—Dark Blue

*Other striped color combinations available to order.



MIL-W-76B-PLASTIC WIRE

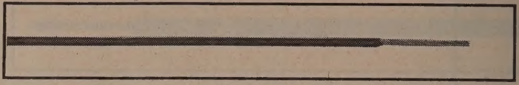
TYPE HW—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **heavy wall** polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —40°C to +80°C. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLT. RAT.	NOM. O.D.	* STOCK COLORS
1571	HW-C 22(7)U	22	7/30	.032″	2500	.103″	1-10 as listed below
1573	HW-C 20(10)U	20	10/30	.032″	2500	.108″	1-10 as listed below
1575	HW-C 18(16)U	18	16/30	.032″	2500	.120″	1-10 as listed below
1577	HW-C 16(26)U	16	26/30	.032″	2500	.134″	White, Black, Red
1579	HW-C 14(41)U	14	41/30	.045″	600	.170″	White, Black, Red
1651	HW-C 12(65)U	12	65/30	.045″	600	.190″	White, Black, Red
1653	HW-C 10(105)U	10	105/30	.045″	600	.215″	White, Black, Red
1655	HW-C 8(133)U	8	133/29	.045″	600	.265″	White, Black, Red
1657	HW-C 6(133)U	6	133/27	.045″	600	.310″	White, Black, Red

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



MIL-W-76B-PLASTIC WIRE

TYPE LW—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded **light wall** polyvinylcholride insulation.

CHARACTERISTICS: Temperature rating —40°C. to +80°C. Voltage rating 300 volts. Resistant to acids, alkalis, oil, flame, moisture and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. O.D.
1685	LW-C 30(7)U	30	7/38	.010″	.033″
1686	LW-C 28(7)U	28	7/36	.010″	.035″
1687	LW-C 26(7)U	26	7/34	.010″	.038″
1688	LW-C 24(7)U	24	7/32	.010″	.043″
1689	LW-C 22(7)U	22	7/30	.010″	.049″
1690	LW-C 20(7)U	20	7/28	.010″	.060″

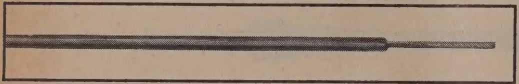
*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped combinations available to order.

STANDARD PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

MIL-W-16878C-PLASTIC WIRE



TYPE B—UNCOVERED PLASTIC

REGULAR TINNED COPPER

DESCRIPTION: Stranded tinned copper, color coded .010″ polyvinylchloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents, and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1850	B-32	32	7/40	.010″	.028″
1851	B-30	30	7/38	.010″	.032″
1852	B-28	28	7/36	.010″	.035″
1853	B-26	26	7/34	.010″	.038″
1854	B-24	24	7/32	.010″	.043″
1855	B-22	22	7/30	.010″	.049″
1856	B-20	20	7/28	.010″	.060″
1857	B-18	18	7/26	.010″	.068″
1858	B-16	16	19/29	.010″	.081″

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

HEAVY TINNED CONDUCTOR (For Induction Heat Soldering)

DESCRIPTION: Single conductor stranded heavy tinned copper, color coded, .010″ polyvinylchloride insulation. For use with high frequency generators for induction heat soldering with automatic cutting and stripping equipment.

CHARACTERISTICS: Temperature rating —55°C. to 105°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIG.	CONDUCTOR SIZE	CONDUCTOR STRAND	MIN. TINNED COATING	NOM. WALL THICKNESS	NOM. O.D.
1753	B-26	26	7/34	.00010″	.010″	.038″
1754	B-24	24	7/32	.00010″	.010″	.043″
1755	B-22	22	7/30	.00015″	.010″	.049″
1756	B-20	20	7/28	.00015″	.010″	.060″
1757	B-18	18	19/30	.00015″	.010″	.068″

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE B—NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .010″ polyvinchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

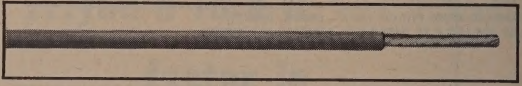
ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.
1860	B-32	32	7/40	.010″	.002″	.032″
1861	B-30	30	7/38	.010″	.002″	.036″
1862	B-28	28	7/36	.010″	.002″	.039″
1863	B-26	26	7/34	.010″	.002″	.042″
1864	B-24	24	7/32	.010″	.002″	.047″
1865	B-22	22	7/30	.010″	.002″	.053″
1866	B-20	20	7/28	.010″	.002″	.065″
1867	B-18	18	7/26	.010″	.003″	.075″
1868	B-16	16	19/29	.010″	.003″	.087″

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other striped combinations available to order.

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED



TYPE C—UNCOVERED PLASTIC

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinychloride insulation.

CHARACTERISTICS: Temperature rating —55°C to +105°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	* STOCK COLORS
1610	C-24	24	16/36	.016″	.058″	1-19 as listed below
1830	C-24	24	7/32	.016″	.058″	1-19 as listed below
1831	C-22	22	7/30	.016″	.064″	1-19 as listed below
1832	C-20	20	7/28	.016″	.072″	1-19 as listed below
1833	C-18	18	7/26	.016″	.082″	1-19 as listed below
1834	C-16	16	19/29	.016″	.091″	1 & 11-19 as listed below
1835	C-14	14	19/27	.016″	.105″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C—NYLON JACKET

DESCRIPTION: Stranded tinned copper, color coded .016″ polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

CHARACTERISTICS: Temperature rating —55°C to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOM. JKT. THICK.	NOMINAL O.D.	* STOCK COLORS
1840	C-24	24	7/32	.016″	.002″	.065″	1-19 as listed below
1841	C-22	22	7/30	.016″	.003″	.072″	1-19 as listed below
1842	C-20	20	7/28	.016″	.003″	.079″	1-19 as listed below
1843	C-18	18	7/26	.016″	.003″	.090″	1-19 as listed below
1844	C-16	16	19/29	.016″	.004″	.099″	1 & 11-19 as listed below
1845	C-14	14	19/27	.016″	.004″	.114″	1 & 11-19 as listed below

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

TYPE C—SHIELDED—NYLON JACKET

DESCRIPTION: Stranded tinned copper, **white** .016″ polyvinylchloride insulation, braided tinned copper shield, 90% coverage, clear nylon (polyamide) jacket (which can be striped to order for color identification) overall.

CHARACTERISTICS: Temperature rating —55°C. to +115°C. Voltage rating 1000 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

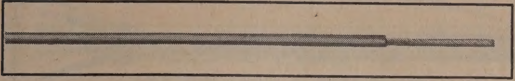
ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
1470	24	7/32	.016″	.005″	.091″
1471	22	7/30	.016″	.005″	.098″
1472	20	7/28	.016″	.005″	.105″
1473	18	19/30	.016″	.005″	.115″
1474	16	19/29	.016″	.005″	.125″
1475	14	19/27	.016″	.005″	.138″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED.

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

*Other solid and striped combinations available to order.



MIL-W-16878C-TEFLON† WIRE 260°c

TYPE E–EXTRUDED (600 VOLTS)

DESCRIPTION: Single conductor stranded silver plated copper, .010" TFE Teflon insulation.

CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2850	E-32	32	7/40	.029"	1-19 as listed
2851	E-30	30	7/38	.032"	1-19 as listed
2852	E-28	28	7/36	.036"	1-19 as listed
2853	E-26	26	7/34	.040"	1-19 as listed
2854	E-24	24	19/36	.045"	1-19 as listed
2855	E-22	22	19/34	.051"	1-19 as listed
2856	E-20	20	19/32	.059"	1-19 as listed
2857	E-18	18	19/30	.070"	1-19 as listed
2858	E-16	16	19/29	.083"	1-19 as listed
2859	E-14	14	19/27	.097"	1-6 & 11-19 as listed
2859/12	E-12	12	19/25	.113"	1 & 11-19 as listed
2859/10	E-10	10	37/26	.134"	1 & 11-19 as listed

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

*** STOCK COLORS**

1—White
2—Black
3—Red
4—Green
5—Yellow
6—Light Blue
7—Brown
8—Orange
9—Gray (slate)
10—Violet (purple)
11—White/Black
12—White/Red
13—White/Green
14—White/Yellow
15—White/Blue
16—White/Brown
17—White/Orange
18—White/Gray
19—White/Violet

* Other solid colors and striped combinations available to order.

TYPE E–SPIRAL WRAPPED (600 VOLTS)

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	* STOCK COLORS
2881	E-30	30	7/38	.032"	1—White 2—Black 3—Red 4—Green 5—Yellow 6—Light Blue 7—Brown 8—Orange 9—Gray (slate) 10—Violet (purple) *Other solid colors and striped combinations available to order.
2882	E-28	28	7/36	.036"	
2883	E-26	26	7/34	.040"	
2884	E-24	24	19/36	.045"	
2885	E-22	22	19/34	.051"	
2886	E-20	20	19/32	.059"	
2887	E-18	18	19/30	.070"	
2888	E-16	16	19/29	.083"	
2889	E-14	14	19/27	.097"	

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

TYPE EE–EXTRUDED (1000 VOLTS)

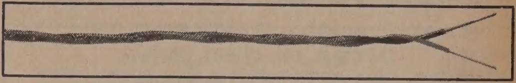
DESCRIPTION: Single conductor stranded silver plated copper, .016" TFE extruded Teflon insulation.

CHARACTERISTICS: Temperature rating —60°C. to +260°C. Voltage rating 1000 volts. Resistant to acid, alkalis, oil, flame, moisture, solvents and fungus.

ALPHA NO.	TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.	*STOCK COLORS
2874	EE-24	24	19/36	.055"	1—White 11—White/Black 12—White/Red 13—White/Green 14—White/Yellow 15—White/Blue 16—White/Brown 17—White/Orange 18—White/Gray 19—White/Violet
2875	EE-22	22	19/34	.062"	
2876	EE-20	20	19/32	.070"	
2877	EE-18	18	19/30	.080"	
2878	EE-16	16	19/29	.089"	
2879	EE-14	14	19/27	.106"	
2879/12	EE-12	12	19/25	.124"	
2879/10	EE-10	10	37/26	.145"	
2879/8	EE-8	8	133/29	.210"	

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT AND STRIPPED.

* Other solid colors and striped combinations available to order.



MIL-W-16878C SHIELDED TEFLON† CABLES

DESCRIPTION: Each conductor stranded silver plated copper, type E extruded TFE .010" insulation, braided silver plated copper shield over conductor(s), 90% coverage. When covered, either a Teflon impregnated fiberglass braid or a .010" Teflon fused tape jacket overall.

CHARACTERISTICS: Temperature rating —65°C. to +260°C. Voltage rating 600 volts. Resistant to acids, alkalis, oil, flame, moisture, solvents and fungus.

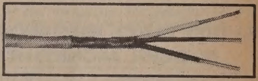
NO OUTER COVERING OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2809	1	24	19/36	.069"
2809/2	2	24	19/36	.112"
2809/3	3	24	19/36	.120"
2809/4	4	24	19/36	.132"
2812	1	22	19/34	.075"
2812/2	2	22	19/34	.124"
2812/3	3	22	19/34	.132"
2812/4	4	22	19/34	.146"
2815	1	20	19/32	.083"
2815/2	2	20	19/32	.142"
2815/3	3	20	19/32	.151"
2815/4	4	20	19/32	.168"
2818	1	18	19/30	.093"
2818/2	2	18	19/30	.162"
2818/3	3	18	19/30	.172"
2818/4	4	18	19/30	.192"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—White
2—Black
3—Red
4—Green



TEFLON TAPE WRAP JACKET OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2821	1	24	19/36	.084"
2821/2	2	24	19/36	.128"
2821/3	3	24	19/36	.135"
2821/4	4	24	19/36	.148"
2824	1	22	19/34	.090"
2824/2	2	22	19/34	.140"
2824/3	3	22	19/34	.148"
2824/4	4	22	19/34	.162"
2827	1	20	19/32	.099"
2827/2	2	20	19/32	.158"
2827/3	3	20	19/32	.167"
2827/4	4	20	19/32	.184"
2829	1	18	19/30	.109"
2829/2	2	18	19/30	.178"
2829/3	3	18	19/30	.189"
2829/4	4	18	19/30	.208"

TEFLON IMPREGNATED BRAID OVER SHIELD

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. O.D.
2811	1	24	19/36	.081"
2811/2	2	24	19/36	.126"
2811/3	3	24	19/36	.133"
2811/4	4	24	19/36	.144"
2814	1	22	19/34	.088"
2814/2	2	22	19/34	.137"
2814/3	3	22	19/34	.144"
2814/4	4	22	19/34	.158"
2817	1	20	19/32	.097"
2817/2	2	20	19/32	.154"
2817/3	3	20	19/32	.163"
2817/4	4	20	19/32	.180"
2819	1	18	19/30	.106"
2819/2	2	18	19/30	.174"
2819/3	3	18	19/30	.185"
2819/4	4	18	19/30	.205"

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—White
2—Black
3—Red
4—Green

TEFLON† INSULATED MAGNET WIRE

SPECIFICATION MIL-W-19583–TYPE III

APPLICATIONS: For coil winding where high temperature insulation is required.

CHARACTERISTICS: Temperature Rating —90°C. to +260°C.

DESCRIPTION: Single conductor round bare copper covered with a continuous insulating film of single layer TFE Teflon to Mil-W-19583-Type III.

ALPHA NO.	CONDUCTOR SIZE	NOM. O.D.	PUT-UP (LB.)
ST-44	44	.0022"	⅛ Lb., ¼ Lb.
ST-43	43	.0025"	⅛ Lb., ¼ Lb.
ST-42	42	.0028"	⅛ Lb., ¼ Lb.
ST-41	41	.0031"	⅛ Lb., ¼ Lb.
ST-40	40	.0035"	⅛ Lb., ¼ Lb.
ST-39	39	.0039"	⅛ Lb., ¼ Lb.
ST-38	38	.0045"	⅛ Lb., ¼ Lb., ½ Lb.
ST-37	37	.0050"	⅛ Lb., ¼ Lb., ½ Lb.
ST-36	36	.0056"	⅛ Lb., ¼ Lb., ½ Lb.
ST-35	35	.0062"	⅛ Lb., ¼ Lb., ½ Lb.
ST-34	34	.0070"	⅛ Lb., ¼ Lb., ½ Lb.
ST-33	33	.0078"	⅛ Lb., ¼ Lb., ½ Lb.
ST-32	32	.0088"	⅛ Lb., ¼ Lb., ½ Lb.
ST-31	31	.0098"	⅛ Lb., ¼ Lb., ½ Lb.
ST-30	30	.0190"	⅛ Lb., ¼ Lb., ½ Lb.

†T.M. DuPont

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SHIELDED MICROPHONE CABLE

PLASTIC JACKET—STANDARD DUTY

DESCRIPTION

1702-1706: Single conductor, stranded tinned copper, white polyethylene insulation, braided or spiral wrapped tinned copper shield, gray polyvinychloride jacket overall.

1709-1715: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, textile wrap, braided or spiral wrapped tinned copper shield, gray polyvinylchloride jacket overall.

APPLICATIONS

1702-1706: All high impedance microphones, lapel, ribbon, velocity, crystal contact, Hi-Fi interconnecting cables.

1709-1715: All low impedance microphones — carbon, condenser, dynamic.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	* CAPACITY NOM./FT.	TYPE OF SHIELD	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND					
1702	1	26	3/34† 4/34†	.016″	38 mmf.	Spiral Wrapped	.020″	.110″
1703	1	24	10/34	.020″	35 mmf.	Braided	.030″	.145″
1704	1	24	10/34	.040″	23 mmf.	Braided	.030″	.200″
1705	1	24	10/34	.016″	45 mmf.	Spiral Wrapped	.020″	.110″
1706	1	20	26/34	.030″	36 mmf.	Braided	.030″	.175″
1709	2	24	10/34	.016″	38 mmf.	Spiral Wrapped	.030″	.190″
1710	2	22	16/34	.025″	31 mmf.	Braided	.030″	.235″
1712	2	20	26/34	.014″	45 mmf.	Braided	.030″	.245″
1713	3	20	26/34	.014″	45 mmf.	Braided	.035″	.250″
1715	4	20	26/34	.014″	45 mmf.	Braided	.035″	.255″

* Between one conductor and remaining conductors connected to shield.

† Three strands of tinned copper and four strands of tinned copperweld.

1702-1706
COLOR CODE OF CONDUCTOR
1—White

1709-1715
COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Red 4—Green

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED MICROPHONE CABLE

RUBBER JACKET—STANDARD DUTY

DESCRIPTION:

1248-1249/18: Single conductor, stranded tinned copper, black rubber insulation, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall.

1250-1252/18: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS:

1248-1249/18: All high impedance microphones. Broadcast and heavy duty studio use.

1250-1252/18: All low impedance microphones. Broadcast and heavy duty studio use. Can also be used for control circuits, video and audio interconnecting cables, and as electronic power cables. Particularly suited for indoor use.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	* CAPACITY NOM./FT.	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND				
1248†	1	20	26/34	.025″	40 mmf.	.030″	.175″
1249	1	20	26/34	.040″	30 mmf.	.030″	.245″
1249/18	1	18	41/34	.040″	45 mmf.	.030″	.250″
1250	2	20	26/34	.020″	70 mmf.	.035″	.275″
1250/18	2	18	41/34	.020″	75 mmf.	.035″	.305″
1251	3	20	26/34	.020″	80 mmf.	.035″	.285″
1251/18	3	18	41/34	.020″	85 mmf.	.035″	.325″
1252	4	20	26/34	.020″	90 mmf.	.035″	.305″
1252/18	4	18	41/34	.020″	64 mmf.	.035″	.335″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

* Between one conductor and remaining conductors connected to shield.

† Mylar Wrap Under tinned copper shield.

1250-1252/18
COLOR CODE OF CONDUCTORS
1—Black 2—White 3—Red 4—Green

SHIELDED MICROPHONE CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

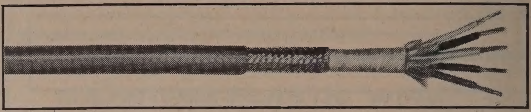
APPLICATIONS: Shielded microphone and electronic power cable. Control circuits. Video and Audio inter-connecting cable. Broadcast and heavy studio use.

CHARACTERISTICS: Oil and acid resistant. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
		SIZE	STRAND			
1449	1	18	41/34	.040″	.030″	.250″
1450	2	18	41/34	.020″	.035″	.305″
1451	3	18	41/34	.020″	.035″	.325″
1452	4	18	41/34	.020″	.035″	.335″
1450/16	2	16	65/34	.025″	.035″	.345″
1451/16	3	16	65/34	.025″	.035″	.365″
1452/16	4	16	65/34	.025″	.035″	.390″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red
2—White 4—Green



SHIELDED MULTI-CONDUCTOR CABLE

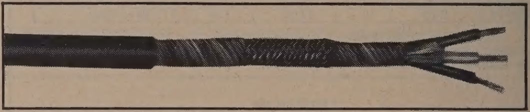
PLASTIC JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, cabled with fillers, wrap, braided tinned copper shield, gray polyvinylchloride jacket overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1716	5	20	26/34	.014″	.035″	.275″
1717	6	20	26/34	.014″	.035″	.300″
1719	8	20	26/34	.014″	.035″	.330″
1721	10	20	26/34	.014″	.035″	.375″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple
2—White 4—Green 6—Blue 8—Orange 10—Slate



SHIELDED MULTI-CONDUCTOR CABLE

RUBBER JACKET—HEAVY DUTY

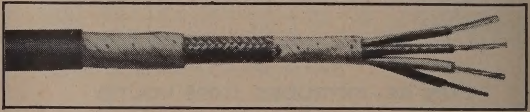
DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black rubber jacket overall. Cables are extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Shielded electronic power cable. Control circuits. Video and audio interconnecting cable. Broadcast and heavy duty studio use.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1253	5	20	26/34	.020″	.035″	.340″
1254	6	20	26/34	.020″	.035″	.365″
1254/18	6	18	41/34	.020″	.035″	.430″
1255	7	20	26/34	.020″	.035″	.405″
1255/8	8	20	26/34	.020″	.035″	.415″
1255/10	10	20	26/34	.020″	.035″	.440″
1255/12	12	20	26/34	.020″	.065″	.575″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)



SHIELDED MULTI-CONDUCTOR CABLE

NEOPRENE JACKET—HEAVY DUTY

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors cabled with fillers, cotton wrap, braided tinned copper shield, cotton wrap, tough black neoprene jacket overall.

CHARACTERISTICS: Resistant to oil and acid. Suitable for outdoor use and direct burial. Will resist aging and rough usage.

APPLICATIONS: Specifically designed for outdoor rough usage as interconnecting cables for electronic equipment, control cables for generator units, video and audio interconnecting cables, and for ground support equipment related to guided missile systems.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1454	6	18	41/34	.020″	.035″	.430″
1456	8	18	41/34	.020″	.035″	.465″
1458	10	18	41/34	.020″	.035″	.545″
1459	12	18	41/34	.020″	.065″	.625″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 3—Red 5—Yellow 7—Brown 9—Purple 11—Wh./Blk. (Braid)
2—White 4—Green 6—Blue 8—Orange 10—Slate 12—Wh./Red (Braid)

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SHIELDED PLASTIC JACKETED CABLE

BRAIDED COPPER SHIELD

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided copper shield, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

CHARACTERISTICS: A conventional type of braided shield providing approximately 75% coverage is particularly desirable where flexibility is required. The copper shield allows ease of pigtail soldering. Shield construction provides additional cable strength.

APPLICATIONS: For public address and sound systems, ideal for recording studios, amateur radio transmitters, shielded power or electronic circuits, wherever an economical shielded cable is required.

STRANDED

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1736	2	22	7/30	.016″	.020″	.185″
1737	3	22	7/30	.016″	.020″	.200″
1741	2	20	10/30	.016″	.020″	.200″
1742	3	20	10/30	.016″	.020″	.220″
1746	2	18	16/30	.016″	.020″	.240″
1747	3	18	16/30	.016″	.020″	.245″
1748	2	16	26/30	.016″	.020″	.255″
1750	2	14	41/30	.020″	.020″	.295″

SOLID

1775*	2	22	1	.016″	.020″	.175″
1779	2	20	1	.016″	.020″	.210″
1783	2	18	1	.016″	.020″	.220″

*With 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1 –Black 2—Red 3—White

CONDUCTIVE VINYL AS SHIELD

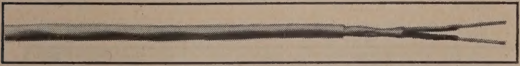
DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, #22-7/30 tinned copper drain wire under conductive vinyl and cabled with conductors, .010″ extruded conductive vinyl shield, .020″ polyvinylchloride jacket overall.

CHARACTERISTICS: Conductive vinyl shields provide 100% coverage with reduced noise pick-up. This type shield eliminates broken ends of copper when flexed. Cables of conductive vinyl shield are lighter in weight and have greater flexibility.

ALPHA NO.	NO. OF CONDUCTORS	CONDUCTOR		NOMINAL INSUL. THICKNESS	NOMINAL CONDUCTIVE VINYL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
		SIZE	STRAND				
2280	1	20	10/30	.016″	.010″	.020″	.160″
2282	2	20	10/30	.016″	.010″	.020″	.200″
2284	3	20	10/30	.016″	.010″	.020″	.210″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1. Black 2. Red 3. White



SPIRAL WRAPPED COPPER SHIELD

DESCRIPTION: Each conductor stranded or solid tinned copper, color coded polyvinylchloride insulation, conductors twisted, spiral wrapped copper shield, gray polyvinylchloride jacket overall.

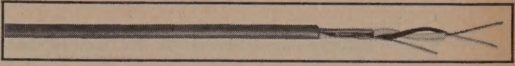
CHARACTERISTICS: Use of spiral shield makes pigtailing off extremely simple and fast. Excellent for production line work. Provides close to 100% shielded coverage for audio and RF frequencies.

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
2254	2	22	7/30	.016″	.020″	.195″
2254/3	3	22	7/30	.016″	.020″	.190″
2254/4	4	22	7/30	.016″	.020″	.210″
2255	2	22	1	.016″	.020″	.170″
2256/1†	1	20	10/30	.016″	.020″	.130″
2256	2	20	10/30	.016″	.020″	.195″
2256/3†	3	20	10/30	.016″	.020″	.210″
2256/4†	4	20	10/30	.016″	.020″	.225″
2258	2	18	16/30	.016″	.020″	.230″
2258/3	3	18	16/30	.016″	.020″	.235″
2260	2	16	26/30	.016″	.020″	.250″

†2256/1 formerly 2156
†2256/3 formerly 3256
†2256/4 formerly 4256

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green



SHIELDED PLASTIC JACKETED CABLE

MYLAR SUPPORTED ALUMINUM FOIL SHIELD

DESCRIPTION: Each conductor stranded tinned copper, color coded polyethylene insulation, conductors twisted with a stranded #22-7/30 tinned copper drain wire for maximum contact with aluminum foil shield, mylar tape with aluminum on both sides is applied longitudinally for 100% shielding coverage, gray polyvinylchloride jacket overall.

CHARACTERISTICS: Shielded cable with laminated aluminum foil is lighter in weight and provides 100% shield coverage at audio and radio frequencies.

ALPHA NO.	NO. OF CONDUCTORS	CONDUCTOR		NOMINAL WALL THICKNESS	NOMINAL JACKET THICKNESS	NOMINAL O.D.
		SIZE	STRAND			
2272	2	22	7/30	.016″	.020″	.190″
2276	2	20	10/30	.016″	.020″	.200″
2278	2	18	16/30	.016″	.020″	.220″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1. Black 2. Red

SHIELDED AUDIO CABLE

2 CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, braided tinned copper shield overall.

APPLICATIONS: For public address and sound systems. Transmission line. Industrial paging and call systems. Recording equipment. Hospital and school sound installations. Broadcast and audio cable. Rack and panel wiring.

STRANDED CONDUCTORS

ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOM. O.D.
		SIZE	STRAND		
1261/26	2	26	7/34	.010″	.095″
1261	2	24	16/36	.016″	.125″
1256/22V	2	22	7/30	.016″	.140″
1256V	2	20	10/30	.016″	.155″
1259V*	2	18	16/30	.016″	.170″
1260V	2	16	26/30	.020″	.210″
1260/14	2	14	41/30	.020″	.225″
1260/12	2	12	65/30	.025″	.295″

SOLID CONDUCTORS

1267/22V	2	22 Solid	1	.016″	.135″
1267V	2	20 Solid	1	.016″	.145″
1267/18V	2	18 Solid	1	.016″	.170″

* 22 AWG solid tinned copper ground wire under braided copper shield.

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS
1—Black 2—Red

UNSHIELDED RUBBER CABLE

MULTI-CONDUCTOR

DESCRIPTION: Each conductor stranded tinned copper, color coded rubber insulation, conductors twisted, cushioned with fillers, cotton wrap, tough black rubber jacket overall. It is extremely flexible and especially designed for heavy studio use.

APPLICATIONS: Inter-rack connecting cable. Recording studio and broadcast. Remote control circuits. Rough usage electronic power cable. P.A. systems. Multiple speaker cable.

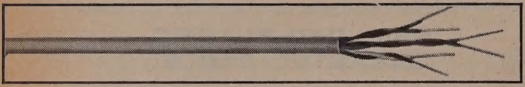
ALPHA NO.	NO. OF COND.	CONDUCTOR		NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
		SIZE	STRAND			
1244	2	20	26/34	.020″	.035″	.280″
1245	3	20	26/34	.020″	.035″	.285″
1246	4	20	26/34	.020″	.035″	.300″
1247	5	20	26/34	.020″	.035″	.340″
1247/6	6	20	26/34	.020″	.035″	.360″
1247/7	7	20	26/34	.020″	.035″	.380″
1247/8	8	20	26/34	.020″	.035″	.400″
1247/10	10	20	26/34	.020″	.035″	.440″
1247/12	12	20	26/34	.020″	.035″	.540″

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—Wh./Black (Braid)
12—Wh./Red (Braid)

ALPHA WIRE CORPORATION



PLASTIC INTERCOM CABLE

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted into pairs, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Balanced intercom systems. Annunciators. Telephones. Nurses call systems. Control circuit cable. Electronic computer cable. Multiple speaker cable. Signal systems. Alarm systems.

SOLID CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
1300	1	2	22 Solid	1	.010″	.020″	.130″
1302	2	4	22 Solid	1	.010″	.020″	.195″
1304	3	6	22 Solid	1	.010″	.020″	.220″
1307	6	12	22 Solid	1	.010″	.020″	.275″
1307/7	7	14	22 Solid	1	.010″	.020″	.285″
1307/9	9	18	22 Solid	1	.010″	.020″	.310″
1308/11	11	22	22 Solid	1	.010″	.020″	.340″
1309	13	26	22 Solid	1	.010″	.025″	.380″
1309/15	15	30	22 Solid	1	.010″	.025″	.400″
1310	16	32	22 Solid	1	.010″	.025″	.420″
1310	27	54	22 Solid	1	.010″	.035″	.510″
1313/31	31	62	22 Solid	1	.010″	.035″	.555″
1313/41	41	82	22 Solid	1	.010″	.035″	.630″
1314	51	102	22 Solid	1	.010″	.045″	.735″

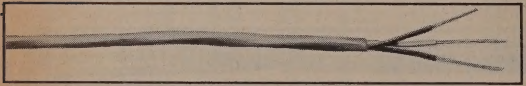
STRANDED CONDUCTORS

ALPHA NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	COND. STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOM. O.D.
1316	1	2	22	7/30	.010″	.020″	.145″
1317	2	4	22	7/30	.010″	.020″	.210″
1318	3	6	22	7/30	.010″	.020″	.225″
1319	4	8	22	7/30	.010″	.020″	.240″
1320	5	10	22	7/30	.010″	.020″	.265″
1322	6	12	22	7/30	.010″	.020″	.290″
1323	9	18	22	7/30	.010″	.020″	.355″
1327	15	30	22	7/30	.010″	.025″	.450″
1329	27	54	22	7/30	.010″	.035″	.570″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

PAIR NO. — COLOR COMBINATION

1—Black paired with Red
2—Black paired with White
3—Black paired with Green
4—Black paired with Blue
5—Black paired with Brown
6—Black paired with Yellow
7—Black paired with Orange
8—Red paired with Green
9—Red paired with White
10—Red paired with Blue
11—Red paired with Yellow
12—Red paired with Brown
13—Red paired with Orange
14—Green paired with Blue
15—Green paired with White
16—Green paired with Brown
17—Green paired with Orange
18—Green paired with Yellow
19—White paired with Blue
20—White paired with Brown
21—White paired with Orange
22—White paired with Yellow
23—Blue paired with Brown
24—Blue paired with Orange
25—Blue paired with Yellow
26—Brown paired with Orange
27—Brown paired with Yellow
28—Purple paired with Red
29—Purple paired with White
30—Purple paired with Green
31—Purple paired with Blue
32—Purple paired with Brown
33—Purple paired with Yellow
34—Purple paired with Orange
35—Purple paired with Slate
36—Purple paired with Black
37—Slate paired with Red
38—Slate paired with White
39—Slate paired with Green
40—Slate paired with Blue
41—Slate paired with Brown
42—Slate paired with Yellow
43—Slate paired with Orange
44—Slate paired with Black
45—White/Black paired w. Red
46—White/Black paired w. Green
47—White/Black paired w. Blue
48—White/Black paired w. Brown
49—White/Black paired w. Yellow
50—White/Black paired w. Orange
51—White/Black paired w. Purple



MULTI-CONDUCTOR AUDIO CABLE

OUTER PLASTIC JACKET

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

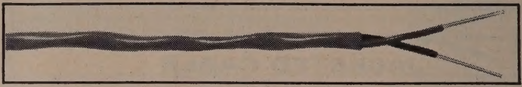
APPLICATIONS: Unbalanced intercom systems. Low voltage relay control cable. P.A. systems. Electronic computer cable.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1172	2	22	7/30	.010″	.020″	.140″
1173	3	22	7/30	.010″	.020″	.145″
1174	4	22	7/30	.010″	.020″	.170″
1175	5	22	7/30	.010″	.020″	.175″
1176	6	22	7/30	.010″	.020″	.185″
1177	7	22	7/30	.010″	.020″	.190″
1178	8	22	7/30	.010″	.020″	.200″
1179	9	22	7/30	.010″	.020″	.225″
1180	10	22	7/30	.010″	.020″	.235″
1181	12	22	7/30	.010″	.020″	.255″
1181/15	15	22	7/30	.010″	.020″	.280″
1181/20	20	22	7/30	.010″	.020″	.310″
1181/25	25	22	7/30	.010″	.020″	.340″
1181/30	30	22	7/30	.010″	.020″	.365″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS

1—Black
2—Red
3—White
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—Purple
10—Slate
11—Pink
12—Tan
13—Red/Green
14—Red/Yellow
15—Red/Black
16—White/Black
17—White/Red
18—White/Green
19—White/Yellow
20—White/Blue
21—White/Brown
22—White/Orange
23—White/Gray
24—White/Violet
25—White/Black/Red
26—White/Black/Green
27—White/Black/Yellow
28—White/Black/Blue
29—White/Black/Brown
30—White/Black/Orange



UNSHIELDED AUDIO CABLE

MULTI-CONDUCTOR—PLASTIC JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted, gray polyvinylchloride jacket overall. Suitable for outdoor installations.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1793	2	22	1	.010″	.020″	.130″
1794	3	22	1	.010″	.020″	.140″
1794/4	4	22	1	.010″	.020″	.160″
1795	2	20	1	.016″	.020″	.170″
1796	3	20	1	.016″	.020″	.180″
1796/4	4	20	1	.016″	.020″	.200″
1797	2	18	1	.016″	.020″	.190″
1798	3	18	1	.016″	.020″	.200″
1798/4	4	18	1	.016″	.020″	.220″
1798/5	5	18	1	.016″	.020″	.235″
1798/6	6	18	1	.016″	.020″	.265″
1799	2	16	1	.016″	.020″	.215″
1799/3	3	16	1	.016″	.020″	.230″
1799/4	4	16	1	.016″	.020″	.250″

STRANDED

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL JACKET	NOMINAL O.D.
1893	2	22	7/30	.010″	.020″	.135″
1894	3	22	7/30	.010″	.020″	.145″
1894/4	4	22	7/30	.010″	.020″	.170″
1895	2	20	10/30	.016″	.020″	.180″
1896	3	20	10/30	.016″	.020″	.190″
1896/4	4	20	10/30	.016″	.020″	.215″
1897	2	18	16/30	.016″	.020″	.200″
1898	3	18	16/30	.016″	.020″	.210″
1898/4	4	18	16/30	.016″	.020″	.240″
1899	2	16	26/30	.016″	.020″	.225″
1899/3	3	16	26/30	.016″	.020″	.245″
1899/4	4	16	26/30	.016″	.020″	.270″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue

MULTI-CONDUCTOR—NO OUTER JACKET

DESCRIPTION: Each conductor tinned copper, color coded polyvinylchloride insulation, conductors twisted.

APPLICATIONS: Intercoms. Interconnecting cables. Remote control circuits. Telephones. Telemetering connecting cable. "Baby Sitter" intercom.

SOLID

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1900†	2	22	1	.016″	.100″
1901†	3	22	1	.016″	.115″
1903†	2	20	1	.016″	.120″
1904†	3	20	1	.016″	.135″
1906†	2	18	1	.016″	.145″
1907†	3	18	1	.016″	.155″
1909†	2	16	1	.016″	.175″
1910†	3	16	1	.016″	.190″

†1900 to 1910 formerly 9269 to 9276

STRANDED

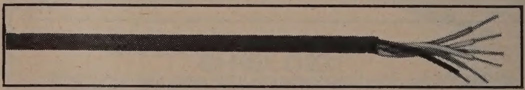
ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.
1915†	2	22	7/30	.016″	.125″
1916†	3	22	7/30	.016″	.140″
1918†	2	20	10/30	.016″	.145″
1919†	3	20	10/30	.016″	.160″
1921†	2	18	16/30	.016″	.165″
1922†	3	18	16/30	.016″	.180″
1924†	2	16	26/30	.016″	.190″
1925†	3	16	26/30	.016″	.210″
1927†	2	14	41/30	.016″	.220″
1928†	3	14	41/30	.016″	.240″

†1915 to 1928 formerly 9169 to 9178

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

COLOR CODE OF CONDUCTORS 1—Brown 2—Tan 3—Gray

The color code of the conductors has been selected to be as inconspicuous as possible so as to blend in with the decor of most rooms.



MULTI-CONDUCTOR AUDIO CABLE

OUTER COTTON BRAID

DESCRIPTION: Each conductor stranded tinned copper, color coded polyvinylchloride insulation, conductors twisted, brown cotton braid overall.

ALPHA NO.	NO. OF COND.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	NOMINAL O.D.	COLOR CODE OF CONDUCTORS
1182	2	20	10/30	.016″	.165″	1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue 7—Brown 8—Yellow 9—Purple 10—Slate 11—Pink 12—Tan 13—White Black 14—White Red 15—White Green 16—White Orange 17—White Blue 18—White Brown 19—White Yellow 20—White Purple
1183	3	20	10/30	.016″	.170″	
1184	4	20	10/30	.016″	.195″	
1185	5	20	10/30	.016″	.220″	
1186	6	20	10/30	.016″	.230″	
1187	7	20	10/30	.016″	.240″	
1188	8	20	10/30	.016″	.285″	
1189	9	20	10/30	.016″	.295″	
1190	10	20	10/30	.016″	.300″	
1192	12	20	10/30	.016″	.315″	
1192/15	15	20	10/30	.016″	.330″	
1192/20	20	20	10/30	.016″	.370″	

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

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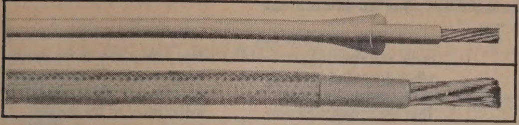


MIL-W-5086A & MIL-C-7078A

AIRCRAFT WIRE FOR ELECTRICAL SYSTEMS

DESCRIPTION:

MIL-W-5086A—Type I —AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-22 thru AN-12—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, clear nylon (polyamide) jacket overall.

MIL-W-5086A—Type II—AN-10 thru AN-00—Single conductor stranded tinned copper, white polyvinylchloride insulation, white glass braid, flame retardant nylon lacquered nylon braid overall.

MIL-C-7078A—Type I —Single conductor stranded tinned copper, white polyvinylchloride insulation, clear nylon jacket, braided tinned copper shield overall, 85% coverage.

CHARACTERISTICS: Temperature rating: —55°C. to +105°C. Voltage Rating: 600 volts. Resists effects of water, oil, aircraft fuels, hydraulic fluid, skydral, ethyleneglycol, alcohol, dilute acids, alkalis, fungus and abrasion.

UNSHIELDED (MIL-W-5086A) **TYPE I**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.
1381	AN-22	22	19/34	.068″
1382	AN-20	20	19/32	.078″
1383	AN-18	18	19/30	.088″
1384	AN-16	16	19/29	.098″
1385	AN-14	14	19/27	.117″
1386	AN-12	12	19/25	.137″

UNSHIELDED (MIL-W-5086A) **TYPE II**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.
1341†	AN-22	22	19/34	.075″
1342†	AN-20	20	19/32	.085″
1343†	AN-18	18	19/30	.095″
1344†	AN-16	16	19/29	.105″
1345†	AN-14	14	19/27	.125″
1346†	AN-12	12	19/25	.143″
1387	AN-10	10	49/27	.189″
1388	AN-8	8	133/29	.240″
1389	AN-6	6	133/27	.293″
1389/4	AN-4	4	133/25	.355″
1389/2	AN-2	2	665/30	.425″
1389/0	AN-0	0	1045/30	.525″
1389/00	AN-00	00	1330/30	.590″

†1341 to 1346 formerly 2381 to 2386

SHIELDED (MIL-C-7078A) **TYPE I**

ALPHA NO.	MIL TYPE DESIGNATION	CONDUCTOR SIZE	CONDUCTOR STRAND	NOMINAL O.D.
1391	AN-22	22	19/34	.100″
1392	AN-20	20	19/32	.110″
1393	AN-18	18	19/30	.125″
1394	AN-16	16	19/29	.140″
1395	AN-14	14	19/27	.155″
1396	AN-12	12	19/25	.165″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.
ALSO AVAILABLE TO ORDER CUT, STRIPPED AND TINNED

"ALMAG" MAGNET WIRE

SPECIFICATION MIL-W-583B

DESCRIPTION: **Plain Enamel**—Single conductor round bare copper covered with a continuous insulating film of enamel. Type T per Specification MIL-W-583B. 105°C.

DESCRIPTION: **Heavy Formvar**—Single conductor round bare copper, baked film insulation from a varnish base on a vinyl acetal resin. Type T2 per Specification MIL-W-583B. 105°C.

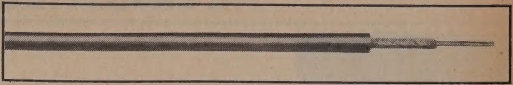
APPLICATIONS: Radio and audio frequency coils; transformers; chokes; speaker field coils; tuners; armatures; short wave coils; etc.

PLAIN ENAMEL (PE) ALPHA NO.	PLAIN ENAMEL (PE) NOM. O.D.	PLAIN ENAMEL (PE) SIZE
PE-44	.0023″	44*
PE-42	.0028″	42*
PE-40	.0034″	40*
PE-38	.0044″	38*
PE-36	.0055″	36‡
PE-34	.0069″	34‡
PE-32	.0087″	32
PE-30	.0108″	30
PE-28	.0135″	28
PE-26	.0169″	26
PE-24	.0212″	24
PE-22	.0266″	22
PE-20	.0332″	20
PE-18	.0416″	18
PE-16	.0522″	16
PE-14	.0657″	14
PE-12	.0825″	12
PE-10	.1037″	10

HEAVY FORMVAR (HF) ALPHA NO.	HEAVY FORMVAR (HF) NOM. O.D.	HEAVY FORMVAR (HF) SIZE
HF-44	.0026″	44*
HF-42	.0032″	42*
HF-40	.0038″	40*
HF-38	.0049″	38*
HF-36	.0060″	36‡
HF-34	.0075″	34‡
HF-32	.0095″	32
HF-30	.0116″	30
HF-28	.0144″	28
HF-26	.0180″	26
HF-24	.0224″	24
HF-22	.0277″	22
HF-20	.0346″	20
HF-18	.0432″	18
HF-16	.0539″	16
HF-14	.0673″	14
HF-12	.0842″	12
HF-10	.1056″	10

* Largest available put-up: 1 lb.
‡ Largest available put-up: 5 lb.

STANDARD PUT-UP: ¼ LB., ½ LB., 1 LB., 5 LB., 10 LB.



TEST LEAD WIRE

DESCRIPTION: Single conductor, extra flexible stranded tinned soft annealed copper, wrap, color coded rubber insulation, smooth satin finish.

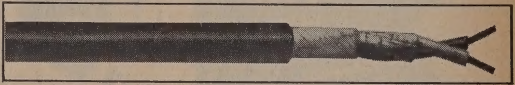
APPLICATIONS: As test leads in analyzers, oscillators, multi-meters, and all other types of testing apparatus or wherever an Extra Flexible insulated wire is required. Heavy Duty type designed for television, therapeutic equipment, analyzers, oscillators, etc.

STANDARD TYPE

ALPHA NO.	CONDUCTOR SIZE	CONDUCTOR STRAND	NOM. WALL THICKNESS	VOLTAGE BREAKDOWN	NOMINAL O.D.	STOCK COLORS
1632	20	41/36	.040″	5,000‡	.125″	Black, Red
1635	20	41/36	.047″	10,000‡	.140″	Black, Red
1636	18	65/36	.045″	12,000‡	.140″	Black, Red
HEAVY DUTY TYPE						
1638	18	65/36	.090″	22,000‡	.230″	Black, Red
MILITARY TYPE Specification MIL-W-13169B						
1639	18	65/36	.047″	12,000‡	.150″	Black, Red Green

STANDARD SPOOL PUT-UP: 100 FT., 250 FT., 500 FT., 1000 FT.

‡60 Cycles



SERVICE & POWER CORDS

(UNDERWRITERS APPROVED)

RUBBER & NEOPRENE

DESCRIPTION 1951-1958/4: Each conductor stranded bare copper, cotton separator, color coded rubber insulation, conductors twisted, cushioned with jute fillers, cotton wrap, tough black rubber jacket overall.

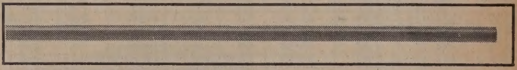
DESCRIPTION 1931-1938/4: Same physical construction as above except black neoprene jacket overall.

APPLICATIONS: For amplifiers, sound systems, speakers, vacuum cleaners, electric tools, washing machines, refrigerators, appliances, trouble lights, garage lamps or wherever a rough usage power line is required. Neoprene construction recommended for equipment exposed to oils, acids, etc.

ALPHA NO. (RUBBER)	U/L TYPE	ALPHA NO. (NEOPRENE)	U/L TYPE	NO. OF COND.	COND. SIZE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O.D.
1951	SV	**1931**	SVO	2	18	7 amps	300	.250″
1952	SJ	**1932**	SJO	2	18	7 amps	300	.310″
1952/3	SJ	**1932/3**	SJO	3	18	7 amps	300	.330″
1952/4	SJ	**1932/4**	SJO	4	18	6 amps	300	.360″
1953	SJ	**1933**	SJO	2	16	10 amps	300	.325″
1953/3	SJ	**1933/3**	SJO	3	16	10 amps	300	.365″
1953/4	SJ	**1933/4**	SJO	4	16	8 amps	300	.395″
1954	S	**1934**	SO	2	18	7 amps	600	.390″
1954/3	S	**1934/3**	SO	3	18	7 amps	600	.405″
1954/4	S	**1934/4**	SO	4	18	5 amps	600	.435″
1955	S	**1935**	SO	2	16	10 amps	600	.410″
1955/3	S	**1935/3**	SO	3	16	10 amps	600	.430″
1955/4	S	**1935/4**	SO	4	16	8 amps	600	.485″
1956	S	**1936**	SO	2	14	15 amps	600	.540″
1956/3	S	**1936/3**	SO	3	14	15 amps	600	.560″
1956/4	S	**1936/4**	SO	4	14	12 amps	600	.605″
1957	S	**1937**	SO	2	12	20 amps	600	.605″
1957/3	S	**1937/3**	SO	3	12	20 amps	600	.635″
1957/4	S	**1937/4**	SO	4	12	16 amps	600	.665″
1958	S	**1938**	SO	2	10	25 amps	600	.640″
1958/3	S	**1938/3**	SO	3	10	25 amps	600	.690″
1958/4	S	**1938/4**	SO	4	10	20 amps	600	.745″

STANDARD SPOOL PUT-UP: 50 FT., 100 FT., 250 FT.

COLOR CODE OF CONDUCTORS
1—White 2—Black 3—Green 4—Red



UNINSULATED TINNED COPPER

SOLID WIRE—SOFT DRAWN

DESCRIPTION: Pure electrolytic soft, drawn, solid, copper properly annealed and tinned for quick soldering.

APPLICATIONS: Winding of coils. Antennas. Point to point wiring. Bus-bar. Component leads. Ground wire.

SPECIFICATIONS MIL-W-3861 TYPE S — QQ-W-343 TYPE S — ASTM-B-33

ALPHA NO.	CONDUCTOR SIZE	CIRCULAR MIL AREA	NOMINAL O.D.
299/7	38 AWG	15.72	.004″
299/6	36 AWG	25.00	.005″
299/5	34 AWG	39.75	.006″
299/4	32 AWG	63.21	.008″
299/3	30 AWG	100.5	.010″
299/2	28 AWG	159.8	.013″
299/1	26 AWG	254.1	.016″
299	24 AWG	404.0	.020″
298	22 AWG	642.4	.025″
297	20 AWG	1022.0	.033″
296	18 AWG	1642.0	.040″
295	16 AWG	2583.0	.051″
286	14 AWG	4107.0	.065″
289	12 AWG	6530.0	.082″
292	10 AWG	10380.0	.103″
292/8	8 AWG	16510.0	.129″
292/6	6 AWG	26250.0	.162″

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

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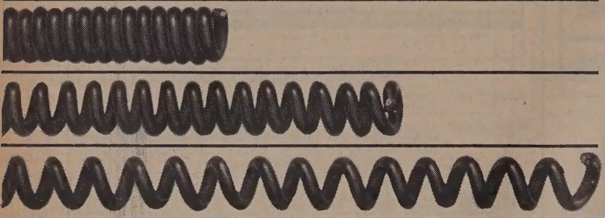
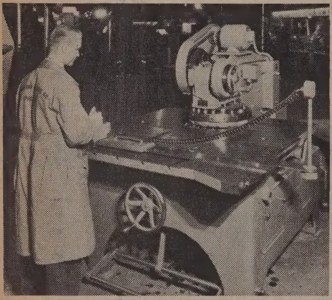
RETRACTILE COIL CORDS

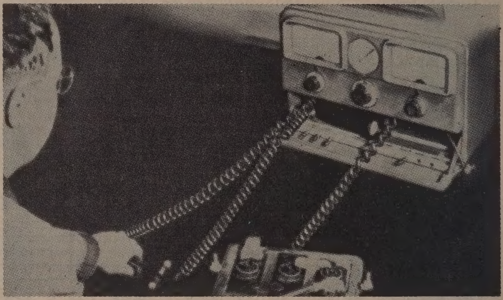


Alpha quality retractile coil cords are electric cords which are coiled permanently in the shape of a spring. They are constructed with neoprene jackets to withstand the wear and tear less expensive cords cannot endure. The cords are retracted neatly in a condensed length until you need them. When used, they extend only to the exact length you want—no longer—for easy, neat, trouble-free installation. In the manufacturing process, the coil cord is rewound after vulcanization, reversing the direction of the spiral to insure maximum retractility after repeated usage.



Power Cord

Communication Cord — Courtesy of Roanwell Corporation.



Test Lead Wire — Courtesy of Allen Electric and Equipment Co.

POWER CORDS—NEOPRENE JACKET (UL APPROVED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Long-lasting service is assured with this quality multi-conductor power cord. Each conductor is stranded copper, with rubber insulation, and a rugged weather and oil resistant neoprene jacket overall.

APPLICATION: Used on electric tools, portable drills, soldering wires, electrical appliances, household appliances, etc., to eliminate loose handing wires and to prevent wires from tangling and twisting.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U. L. TYPE	AMP RATING	VOLT RATING	COIL O.D.	NOM. O.D. CORD
660/2	660/4	2	18	41/34	SVO	7	300	1″	.260″
661/2	661/4	2	18	41/34	SJO	7	300	1¼″	.320″
662/2	662/4	3	18	41/34	SJO	7	300	1½″	.350″
*663/2	*663/4	4	18	41/34	SJO	5.6	300	1½″	.385″
664/2	664/4	2	16	65/34	SJO	10	300	1½″	.360″
665/2	665/4	3	16	65/34	SJO	10	300	1½″	.390″
*666/2	*666/4	4	16	65/34	SJO	8	300	1⅝″	.425″
670/2	670/4	3	16	65/34	SO	10	600	1⅞″	.470″
*671/2	*671/4	4	16	65/34	SO	8	600	1⅞″	.500″
672/2	672/4	2	14	41/30	SO	15	600	2″	.540″
673/2	673/4	3	14	41/30	SO	15	600	2⅛″	.560″
*674/2	*674/4	4	14	41/30	SO	12	600	2¼″	.605″
675/2	675/4	2	12	65/30	SO	20	600	2¼″	.605″
676/2	676/4	3	12	65/30	SO	20	600	2⅜″	.635″
*677/2	*677/4	4	12	65/30	SO	16	600	2½″	.678″

*If all four conductors normally carry current, AMP rating is as shown. If one lead is used as a ground, AMP rating is the same as 2 and 3 conductor cords.

COLOR CODE OF CONDUCTORS

1. White 2. Black 3. Green 4. Red

RETRACTILE POWER CORD SETS (UL APPROVED)

RETRACTED LENGTH 18″—EXTENDED LENGTH 7½ FEET

DESCRIPTION: Coiled power cord with a sturdy molded male plug on one end. On the other end we have removed a portion of the neoprene jacket, exposed the conductors and stripped them for easy termination.

APPLICATION: Same as power cords, but with a plug on one end.

ALPHA NO.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	U. L. TYPE	COIL O.D.	NOM. O.D.
654	2	18	41/34	SVO	1″	.260″
655	2	18	41/34	SJO	1¼″	.320″
656	3	18	41/34	SJO	1½″	.350″
657	2	16	65/34	SJO	1½″	.360″
658	3	16	65/34	SJO	1½″	.390″

COLOR CODE OF CONDUCTORS

1. Black 2. White 3. Green

RETRACTILE COMMUNICATION COIL CORDS

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Multi-conductor communication cord manufactured with extra flexible #23 AWG-21/36 tinned soft cadmium copper for maximum flex life. Insulated with rubber for communication circuits of maximum 120 working volts. The overall jacket is a specially compounded cured neoprene jacket giving long life to the retractile cord.

APPLICATION: Used in communication equipment, such as telephone car carriers, mobile radio equipment, ham operations, head sets, citizen band units and radio transmitter to receiver head sets, communication cords eliminate hazards and inconveniences caused by tangled straight cords.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	AMP.	VOLTS	COIL O.D.	CORD O.D.
680/2	680/4	2	23	21/36	1	120	¾″	.215″
681/2	681/4	3	23	21/36	1	120	¾″	.220″
682/2	682/4	4	23	21/36	1	120	⅞″	.250″
683/2	683/4	5	23	21/36	1	120	1″	.285″
684/2	684/4	6	23	21/36	1	120	1⅛″	.305″
685/2	685/4	7	23	21/36	1	120	1¼″	.320″

COLOR CODE OF CONDUCTORS

1. Black 2. White 3. Green 4. Red 5. Brown 6. Yellow 7. Blue

RETRACTILE COMMUNICATION CORD (SHIELDED)

RETRACTED LENGTHS 2 & 4 FEET—EXTENDED LENGTHS 12 & 25 FEET

DESCRIPTION: Same as above, except that shielded conductors are individually shielded with a cadmium copper shield to eliminate external electrical interference. Shield can be pigtailed for direct soldering connections.

APPLICATION: When shielded communication cords are needed.

ALPHA NO. 2 FT. LGTHS.	ALPHA NO. 4 FT. LGTHS.	NO. OF CONDS.	CONDUCTOR SIZE	CONDUCTOR STRAND	SHIELDING	COIL O.D.	NOM. O.D.	COLOR CODE OF CONDUCTORS
690/2	690/4	1	24	41/40	Shielded	⅝″	.160″	White
692/2	692/4	2	1-23 1-24	21/36 41/40	Unshielded Shielded	⅞″	.240″	Black White
694/2	694/4	3	2-23 1-24	21/36 41/40	Unshielded Shielded	⅞″	.240″	Black & Red White
696/2	696/4	4	2-23 2-24	21/36 41/40	Unshielded Individually Shielded	1″	.270″	Red & Black White & Green

RETRACTILE TEST LEAD WIRE

RETRACTED LENGTH 12″—EXTENDED LENGTH 6 FEET

DESCRIPTION: A high grade quality rubber insulation for maximum flex life extruded over a single conductor of extra flexible tinned copper which gives long life to this retractile test lead wire. Available in a 12″ retracted length with a 6″ straight lead on each end, the cord extends to approximately 6 feet.

ALPHA NO.	CONDUCTOR SIZE	CORD STRAND	AMP. RATED	VOLTAGE	COIL O.D.	NOM. O.D.	COLOR CODE
650	20	41/36	4	4,000	¾″	.165″	Black-Red

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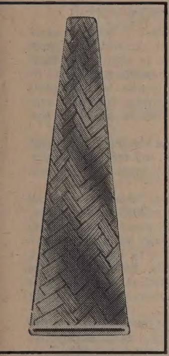
SHIELDING & BRAIDING

FLAT BRAID

A woven braid, composed of tinned copper strands, which is rolled flat at time of manufacture to a specific width depending upon construction.

Flat braid is usually employed for its current carrying capacity and its extreme flexibility. It is generally used as a high current conductor at low voltages. Battery grounding is typical of this application. It is also used as a bonding strap in vehicles and aircraft to help eliminate ignition interference. Because of its extreme flexibility it can be used in confined areas or as electrical connections on moving parts.



ALPHA CAT. #	NOMINAL FLAT WIDTH	THICKNESS	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
1221	.025	.015	#36	8	8	26	250	4.0 AMPS	1 thru 5
1222	1/32"	.020	#36	16	16	24	400	6.0 "	1 thru 5
1223	3/64"	.020	#36	24	24	22	640	7.0 "	1 thru 5
1224	3/32"	.020	#36	16	48	19	1290	11.0 "	1 thru 5
1229	1/8"	.020	#36	24	72	18	1620	16.0 "	1 thru 5
1230	3/16"	.020	#36	24	120	15	3260	25.0 "	1 thru 5
1231	1/4"	.030	#36	24	168	14	4100	32.0 "	1 thru 5
1232	3/8"	.030	#36	48	288	11	8230	46.0 "	1 thru 5
1233/2	1/2"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1233	5/8"	.030	#36	48	384	10	10400	53.0 "	1 thru 5
1234	3/4"	.040	#36	48	832	7	20900	85.0 "	1 thru 5
1235	1"	.045	#36	48	832	7	20900	85.0 "	1 thru 5
1239	1-3/8"	.050	#36	48	832	7	20900	85.0 "	1 thru 5
1240	1-1/2"	.060	#30	48	528	3	52800	125.0 "	1 thru 3
1241	1-3/4"	.080	#30	48	1248	0	108000	200.0 "	1 thru 3
1242	2"	.120	#30	48	1536	00	135000	235.0 "	1 thru 3

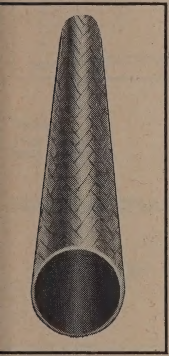
PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft. 4—500 Ft. 5—1000 Ft.

***These values based on copper in free air at 65°F**

TUBULAR BRAID TO MIL SPEC QQ-B-575

A woven tinned copper braid which is manufactured completely round as outlined in MIL Spec QQ-B-575. This braid construction has self-supporting characteristics which enables it to maintain its round configuration. The percentage of shielding coverage is 95% or more. A high degree of manufacturing tolerances is maintained.

Tubular braid to QQ-B-575 is utilized in military applications involving maximum shielding against electrostatic interference. It is also used as a protective covering against mechanical abrasion and stresses for the wires, cable, and other components which it covers.



ALPHA CAT. #	I.D. WHEN ROUNDED	BRAID CONSTRUCTION AWG OF INDIV. ENDS	CARRIERS	TOTAL NO. OF INDIV. ENDS	APPROX. AWG EQUIV.	NOM. CIRCULAR MILLS	*CURRENT CARRIER CAP.	PUT-UP CODE
2160	1/32"	#36	24	24	22	640	7.0 AMPS	1 thru 3
2162	1/16"	#36	24	48	19	1290	11.0 "	1 thru 3
2164	7/64"	#36	24	96	16	1620	22.0 "	1 thru 3
2166	1/8"	#36	24	120	15	3260	28.0 "	1 thru 3
2168	11/64"	#36	24	168	14	4100	32.0 "	1 thru 3
2170	13/64"	#34	24	192	11	7640	46.0 "	1 thru 2
2172	3/8"	#36	48	384	10	10400	53.0 "	1 thru 2
2174	1/2"	#36	48	528	9	13100	70.0 "	1 thru 2
2176	25/32"	#36	48	864	7	20900	85.0 "	1 thru 2

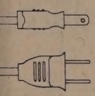
PUT-UP CODE 1—50 Ft. 2—100 Ft. 3—250 Ft.

***These values based on copper in free air at 65°F**

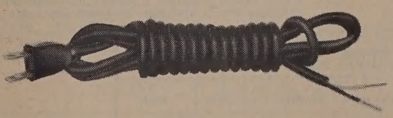
SPECIAL CONSTRUCTIONS: Constructions other than those tabulated in the above 2 tables are available to order in silver plated copper, bare copper and stainless steel. The above tabulated constructions represent a cross-section of types and sizes which are maintained in inventory. Literally thousands of variations are available to order by changing the various physical elements (carriers, ends, gauge).

CORD SETS

REPLACEMENT CORD SETS
(UL & CSA APPROVED)



olded plugs
tached to all
conductor
placement cords.
Amps—125 Volts

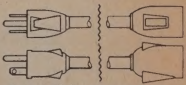


DESCRIPTION: Constructed so that it will last for years, this open end cord replacement set is manufactured with a flexible 2 conductor quality black rubber cord. One end has a black molded straight plastic plug (see diagram), the other end of the jacket is stripped back 1½", and ⅜" of the conductors are stripped assuring easy termination into equipment or components. The replacement cord set has a 300 volt rating.

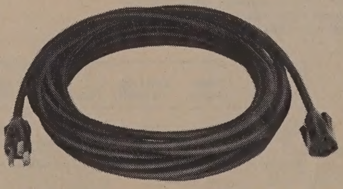
APPLICATION: Replacement Cords for direct termination; for office business machines, small electric hand tools, and home appliances which use fractional horsepower motors.

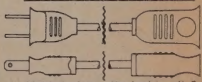
ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D. OF CORD	CORD LENGTH (FT.)
600	18	41/34	2	SV	.245"	6
602	18	41/34	2	SV	.245"	9
604	18	41/34	2	SV	.245"	12
606	18	16/30	2	SJ	.300"	8
608	18	16/30	2	SJ	.300"	10
610	16	26/30	2	SJ	.325"	8
612	16	26/30	2	SJ	.325"	10

EXTENSION CORD SETS
(UL & CSA APPROVED)



Molded plugs attached to all 3 conductor extension cords.
15 Amps— 125 Volts





Molded plugs attached to all 2 conductor extension cords.
15 Amps— 125 Volts

DESCRIPTION: Extension cord sets manufactured for lasting service with a flexible 2 or 3 conductor quality black rubber cord. This rugged cord has a black molded plastic male and female plug on either end to fit conventional sockets and plugs.

APPLICATION: Small business machines, vacuum cleaners, lamps, movie projectors, or any other home appliance. 3 conductor cord used when 1 conductor requires grounding.

ALPHA NO.	COND. SIZE	COND. STRAND	NO. OF CONDS.	U.L. TYPE	NOM. O.D.	CORD LENGTH (FT.)
620	18	41/34	2	SV	.245"	6
622	18	41/34	2	SV	.245"	9
624	18	16/30	2	SJ	.300"	10
626.	18	16/30	2	SJ	.300"	25
628	16	26/30	2	SJ	.325"	10
630	16	26/30	2	SJ	.325"	25
632	16	26/30	2	SJ	.325"	50
634	16	26/30	2	SJ	.325"	100
636	18	16/30	3	SJ	.365"	10
638	18	16/30	3	SJ	.365"	25

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ALPHLEX® TUBING SECTION

PLASTIC TUBING (PVC-105)

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Insulation Resistance	Fungi Resistance	Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
800 V/MIL	105°C	—30°C	Non-Flammable	2500 PSI	300%	Over 1,000,000 Megs.	Yes	Remains Flexible Indefinitely	Excellent	MIL-I-631C ASTM-D876 ASTM-D922

Standard Colors	
#24 thru #12	—Clear, Black, Yellow, Red, Blue, Brown, Green, White, Orange
#11 thru #2	—Clear, Black, Yellow, Red, Green, White
#1 thru 2½"	—Clear, Black

Standard Put-Ups	
#24 thru #15	—1,000 ft. spools
#14 thru #5	— 500 ft. spools
#4 thru ⅜"	— 250 ft. coils
7/16" thru ⅝"	— 100 ft. coils
¾" & larger	— 50 ft. coils

APPLICATIONS

Alphlex® PVC-105 Plastic Tubing is designed and manufactured specifically for electronic, aircraft and electrical applications involving temperatures as high as 105°C. It conforms to Specification MIL-I-631C, Type F, Form U, Grade C, Class I, Category I.

DESCRIPTION

PVC-105's exceptional integration of desirable qualities endows it with excellent versatility and durability. Its dielectric strength is high and remains unaffected by increasing temperature throughout its range. It displays high resistance to the agents of heat, oil, chemicals, corrosion, fungi and even abrasion with no loss in tensile strength, non-flammability—or flexibility.

Under all the above adverse conditions, PVC-105 will retain its ability to hug and protect irregular-shaped objects, will "snake" beautifully, and will always be easy to handle.

To achieve this combination of advantages, special care is taken in the making of PVC-105. It is compounded with only first-grade quality non-migratory resinous type plasticizers. From laboratory to production line, from raw material to finished product, strict quality control prevails. Behind it are the same engineering and production know-how that have made the name Alpha famous in the electronics industry.

As with all Alpha and Alphlex items, PVC-105 is "IN STOCK" for immediate delivery, and can be supplied to desired lengths as well as standard spools.

For your special problems, please call on us for consultation and recommendations—no obligation, of course.

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
PVC-105/24	24	.022"	.013"
PVC-105/22	22	.027"	.012"
PVC-105/20	20	.034"	.016"
PVC-105/19	19	.038"	.016"
PVC-105/18	18	.042"	.016"
PVC-105/17	17	.047"	.016"
PVC-105/16	16	.053"	.016"
PVC-105/15	15	.059"	.016"
PVC-105/14	14	.066"	.016"
PVC-105/13	13	.076"	.016"
PVC-105/12	12	.085"	.016"
PVC-105/11	11	.095"	.016"
PVC-105/10	10	.106"	.016"
PVC-105/9	9	.118"	.020"
PVC-105/8	8	.133"	.020"
PVC-105/7	7	.148"	.020"
PVC-105/6	6	.166"	.020"
PVC-105/5	5	.186"	.020"
PVC-105/4	4	.208"	.020"
PVC-105/3	3	.234"	.020"
PVC-105/2	2	.263"	.020"
PVC-105/1	1	.294"	.020"
PVC-105/0	0	.330"	.020"
PVC-105/5/16"	5/16"	.312"	.025"
PVC-105/⅜"	⅜"	.375"	.025"
PVC-105/7/16"	7/16"	.438"	.025"
PVC-105/½"	½"	.500"	.025"
PVC-105/9/16"	9/16"	.562"	.030"
PVC-105/⅝"	⅝"	.625"	.030"
PVC-105/¾"	¾"	.750"	.035"
PVC-105/⅞"	⅞"	.875"	.035"
PVC-105/1"	1"	1.000"	.035"
PVC-105/1⅛"	1⅛"	1.125"	.035"
PVC-105/1¼"	1¼"	1.250"	.040"
PVC-105/1⅜"	1⅜"	1.375"	.040"
PVC-105/1½"	1½"	1.500"	.045"
PVC-105/1¾"	1¾"	1.750"	.055"
PVC-105/2"	2"	2.000"	.060"
PVC-105/2¼"	2¼"	2.250"	.065"
PVC-105/2½"	2½"	2.500"	.070"

NOTE: PVC-105 manufactured under the recognition component section of UL is available to order.

TEFLON® EXTRUDED TUBING (TFT-200)

(THIN WALL)

DESCRIPTION

ALPHLEX® THIN WALL TEFLON TUBING, a high temperature insulation (designated by A.I.E.E. for continuous operation at 220°C minimum), while classified as a thermoplastic resin, does not melt and flow as do conventional thermoplastic materials.

APPLICATIONS

Because of its combination of electrical, chemical and mechanical properties, **ALPHLEX TEFLON** is unmatched by any other type tubing for use in electrical applications at high frequencies and temperatures. As a thin, flexible insulation, it permits miniaturization and compactness of design heretofore impossible.

Dielectric Strength	Temp. Rating	Low Temp. Flexibility	Flammability	Tensile Strength	Ultimate Elongation	Fungi & Oil Resistance	Corrosion & Abrasion Resistance	Applicable Specifications
500-1000 V/MIL	250°C	—90°C	Non-Flammable	1500-3000 PSI	100-200%	Excellent	Excellent	ASTM

ALPHA NO.	SIZE	NOM. INSIDE DIAMETER	NOM. WALL THICKNESS
TFT-200/30	30	.012"	.009"
TFT-200/28	28	.015"	.009"
TFT-200/26	26	.018"	.010"
TFT-200/24	24	.022"	.010"
TFT-200/22	22	.027"	.010"
TFT-200/20	20	.034"	.012"
TFT-200/19	19	.038"	.012"
TFT-200/18	18	.042"	.012"
TFT-200/17	17	.047"	.012"
TFT-200/16	16	.053"	.012"
TFT-200/15	15	.059"	.012"
TFT-200/14	14	.066"	.012"
TFT-200/13	13	.076"	.012"
TFT-200/12	12	.085"	.012"
TFT-200/11	11	.095"	.012"
TFT-200/10	10	.106"	.012"
TFT-200/9	9	.118"	.015"
TFT-200/8	8	.133"	.015"
TFT-200/7	7	.148"	.015"
TFT-200/6	6	.166"	.015"
TFT-200/5	5	.186"	.015"
TFT-200/4	4	.208"	.015"
TFT-200/3	3	.234"	.015"
TFT-200/2	2	.263"	.015"
TFT-200/1	1	.294"	.015"
TFT-200/0	0	.330"	.015"

Sizes	Standard Colors		Standard Put-Ups
#30-#15 Inclusive	Natural Yellow	Black Red	1000 ft. Spools or 10-100 ft. Spools per 1000 ft. Box
#14-#8 Inclusive	Natural Yellow	Black Red	500 ft. Spools or 5-100 ft. Spools per 500 ft. Box
#7-#0 Inclusive	Natural		Random Lengths Packed in 100 ft. Coils or 36"

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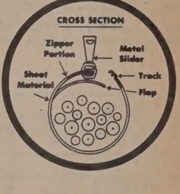
ALPHLEX® ZIPPER TUBING

DESCRIPTION Alphlex Zipper Tubing is the all purpose modern way to harness, cover and protect cables. Just zip to close—and zip to reopen. If you wish, it may be permanently sealed with PB-200 Special Compound Liquid Sealer. Alphlex Zipper Tubing is strong, flexible, durable, and offers new freedom in design, production and repair.

APPLICATIONS To shield, to harness wire, to custom-cable to any length, to enclose, to encase, to identify (such as cable markers), to protect, to replace worn jackets.



TYPES OF ZIPPER TUBING

Type ZIP-31 —fabricated from .020" polyvinyl sheet made from MIL-I-631C materials. All purpose type for general applications to 105°C. Standard colors: Clear, Black, Yellow.

Type ZIP-31M—heavy duty construction. Similar to ZIP-31 type except nominal wall thickness of .040". Standard colors: Clear, Black.

Type ZIP-44 —polyvinyl sheet made from MIL-I-7444B materials. Extremely flexible; for aircraft and low-temperature uses to —67°C. Standard colors: Clear, Black.

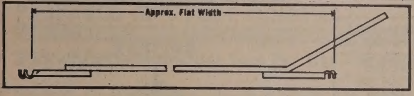
Type ZIP-44M—heavy duty construction. Similar to ZIP-44 type except nominal wall thickness of .040". Standard colors: Clear, Black.

Type ZIP-50 —"sandwich" of aluminum foil laminated between two sheets of polyvinyl. For 100% RF shielding applications to 105°C. Standard color: Silver Grey.

Type ZIP-90 —polyvinyl bonded to woven fibreglass sheet per MIL-I-3190A. For rough usage, abrasion resistance, and high temperature uses to 130°C. Standard color: Black.

STANDARD SIZES FOR ALL TYPES OF ALPHLEX TUBING

Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)	Zipper Tubing Inside Diameter	• Approx. Flat Width (From track to track—excluding flap)
*1/4"	1-5/16"	*1"	3-9/16"	1-3/4"	5-5/8"	3"	9-5/8"
*3/8"	1-5/8"	1-1/8"	3-15/16"	1-7/8"	6"	3-1/4"	10-3/8"
1/2"	2"	1-1/4"	4-1/8"	2"	6-3/8"	3-1/2"	11-1/8"
5/8"	2-3/8"	1-3/8"	4-1/2"	2-1/4"	7-1/8"	3-3/4"	11-7/8"
3/4"	2-3/4"	1-1/2"	4-7/8"	2-1/2"	7-7/8"	4"	12-5/8"
7/8"	3-1/8"	1-5/8"	5-1/4"	2-3/4"	8-3/4"		



STANDARD SPOOL PUT-UP:
25 Ft., 50 Ft., 100 Ft.

*Because of small inside Diameter, these sizes cannot be closed by using the slider. The tracks must be closed by manual pressure.

ZIPPER SPECIFICATIONS FOR ALL TYPES OF ALPHLEX ZIPPER TUBING

Material	Polyvinyl Chloride
Track Thickness (when closed)	.095"
Dielectric Strength, V/mil	759
Tensile Strength P.S.I.	3810
Ultimate Elongation	255%
Operating Temperature, Upper Limit	106°C
Cold Brittleness	—86°C
Fungus-proof	will not support fungus
Flammability	self-extinguishing
Lateral Pull Strength (unsealed)	42.7 pounds/inch
Lateral Pull Strength (permanently sealed)	59.8 pounds/inch
Standard Colors	Black, Clear, Yellow

Contrasting color combinations of zipper and body are available to order. The zipper portion can be supplied in any of the following colors: Black, Yellow, Clear, Blue, White, Brown, Purple, Red, Orange, Green, Slate.

ALPHLEX® ELECTRONIC LACING CORDS AND TAPES

MIL-T-713A NYLON TWISTED CORD

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	FINISH	NOMINAL DIAMETER	STOCK COLORS	YARDS PER POUND	STANDARD PUT-UP
LC-113	I	P Twine	70 lbs.	MW	.050"	Wh., Blk.	560	8 oz. spls.
LC-114	II	P Twine	48 lbs.	MW	.035"	Wh., Blk.	750	8 oz. spls.
LC-115	III	P Twine	32 lbs.	MW	.030"	Wh., Blk.	1180	8 oz. spls.

MIL-T-713A NYLON FLAT BRAIDED TAPE

ALPHA NO.	CLASS	TYPE	BREAKING STRENGTH	NOMINAL WIDTH	NOMINAL THICKNESS	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-136	II	P Tape	50 lbs.	.090" (3/32")	.014"	MW	Wh., Blk.	500 yd. spls.

NYLON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-132	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-134	1/16"	.010"	30 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-136	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.
LC-140	3/32"	.014"	50 lbs.	SR	Wh., Blk.	500 yd. spls.
LC-143	3/32"	.014"	50 lbs.	AM	Wh., Blk.	500 yd. spls.

DACRON FLAT BRAIDED TAPE

ALPHA NO.	WIDTH	THICKNESS	TENSILE STRENGTH	FINISH	STOCK COLORS	STANDARD PUT-UP
LC-158	3/32"	.014"	50 lbs.	GE	Wh., Blk.	500 yd. tubes
LC-162	3/32"	.014"	50 lbs.	MW	Wh., Blk.	500 yd. spls.

Other materials, finishes and sizes available to order.

TYPES OF LACING CORD

flat braided tape This construction was developed to prevent the "cold flow" that often is encountered in wire having plastic or rubber insulations. It has been specifically designed to create a wider contact area with the insulation, so that it does not flow away from the contact point. It is considerably more flexible and easier on the user's hands and is recommended for all types of harness work. Flat tapes do not appreciatively increase the diameter of the cable.

round twisted cord Available in various strands and thicknesses to produce different tensile strengths. This type, while it may be used for plastic and rubber insulated wire, is particularly suited for wires having a secondary insulation or those utilizing a textile as an insulating material.

MATERIALS

nylon Synthetic fiber resistant to: fungus, flame, acids, abrasion. Excellent tensile strength, light weight, small size.

dacron A synthetic fiber which retains all the above characteristics of Nylon plus: less elongation, better resistance to acids, no appreciable discoloration.

FINISHES

ge	synthetic rubber-like resin
mw	micro-crystalline wax
am	thermoplastic synthetic resin
sr	fungistatic synthetic rubber

ALPHA WIRE CORPORATION

ALPHLEX® SHRINKABLE TUBING

- A new all-purpose tubing with controlled shrinkage
- Shrinks in seconds when heated
- Forms a permanent, tight-fitting mechanical bond
- Irradiated polyolefin

DESCRIPTION ALPHLEX SHRINKABLE TUBING, with controlled shrinkage when heated, forms a tight-fitting mechanical bond, even over irregularly shaped materials.

A new concept in extruded tubing that is simple to use and provides a tight mechanical bond, ALPHLEX SHRINKABLE TUBING is an irradiated, flame retardant, thermally stable, modified polyolefin base product.

The tubing is supplied in an expanded form and easily slips over the object to be covered. When a temperature of approximately 275°F. (135°C.) is applied ALPHLEX SHRINKABLE TUBING immediately returns to its predetermined size (approximately one-third smaller) and forms a permanent tight-fitting mechanical bond.

HOW TO USE The use of a hot air gun is recommended as being generally the easiest heating method. However, excellent results may be achieved by the use of an oven, radiant heat, dipping in hot liquids, or heating with a soldering iron, burner or the flame of a match.

Controlled shrinkage to the correct predetermined size takes place within seven seconds at 275°F. to 300°F. Shrinkage will begin at 235°F. but at a somewhat slower rate. When using an oven, temperature may range from 235°F. to 300°F. Prolonged exposure to these temperatures **will not** effect the physical or electrical properties of ALPHLEX SHRINKABLE TUBING.

For a tight-fitting cover, select the tubing whose expanded size is larger than the object to be covered and whose recovered size is smaller.

DIMENSIONS CHART

ALPHA NO.	SIZE	MIN. I.D. BEFORE SHRINKING	RECOVERED I.D. AFTER SHRINKING	NOM. WALL THICKNESS
FIT-275—24	24	.050″	.027″	.012″
FIT-275—22	22	.055″	.032″	.012″
FIT-275—20	20	.060″	.039″	.016″
FIT-275—18	18	.076″	.049″	.016″
FIT-275—16	16	.093″	.061″	.016″
FIT-275—14	14	.120″	.072″	.016″
FIT-275—12	12	.153″	.089″	.016″
FIT-275—10	10	.191″	.112″	.016″
FIT-275—8	8	.240″	.141″	.020″
FIT-275—6	6	.302″	.178″	.020″
FIT-275—4	4	.348″	.224″	.020″
FIT-275—2	2	.430″	.275″	.020″
FIT-275—5/16	5/16″	.500″	.334″	.025″
FIT-275—3/8	3/8″	.600″	.399″	.025″
FIT-275—7/16	7/16″	.693″	.462″	.025″
FIT-275—1/2	1/2″	.787″	.524″	.025″
FIT-275—5/8	5/8″	.982″	.655″	.030″
FIT-275—3/4	3/4″	1.180″	.786″	.035″
FIT-275—7/8	7/8″	1.365″	.911″	.035″
FIT-275—1	1″	1.555″	1.036″	.035″

STOCK COLORS—
#24 thru #4—Black, Red, Blue, White, Yellow, Clear†
#2 thru 1″—Black and Clear†
(other colors available to order)

STANDARD PACKAGE—
#24 thru #4
100 Feet (25 4-Foot lengths)
#2 thru 1 inch
20 Feet (5 4-Foot lengths)

STANDARD PUT-UP—
4-foot lengths

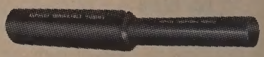
OTHER SIZES, COLORS AND LENGTHS AVAILABLE TO ORDER

PROPERTIES CHART

(Average Values)

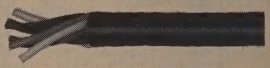
Temperature Rating	**135°C. Continuous**	Dielectric Constant	**2.5**
Tensile Strength	**1800 PSI***	Power Factor	**0.003**
Ultimate Elongation	**250%***	Fungus Resistance	**Inert***
Brittleness Temperature	**—100° F**	Fuel and Oil Resistance	**Excellent**
Hardness	**98 Shore A**	Hydraulic Fluid Resistance	**Excellent**
Specific Gravity	**1.28**	Solvent Resistance	**Good**
Water Absorption	**0.01%***	Acid and Alkali Resistance	**Excellent**
Dielectric Strength (20 Mil Wall)	**800 Volts/Mil**	Flammability	**Self Extinguishing**
Volume Resistivity	**10^{16} Ohm-Cm**	Corrosion Resistance	**Non-Corrosive***

*When tested to Mil-I-7444B †Color Clear is flammable.



EXPANDED • RESTORED

INSULATES



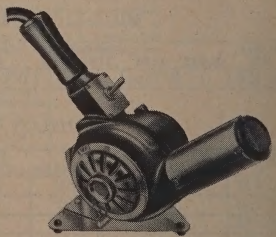
JACKETS

SPLICES

ENCAPSULATES

CABLE MARKERS

WEATHERPROOFS



HEAT GUN

ALPHA electronic WIRE

ALPHA WIRE CORPORATION
NEW YORK 14, NEW YORK
LOS ANGELES 25, CALIF.

© U.C.P., Inc.

NOW SHRINKABLE TUBING IN HANDY PACKAGED ASSORTMENTS

IN STOCK FOR IMMEDIATE DELIVERY

ALPHLEX®
SHRINKABLE
TUBING
A PRODUCT OF ALPHA WIRE

A complete selection of Alphlex FIT-275 irradiated polyolefin heat shrinkable tubing is now available packaged in small quantity assortments.

Designed to introduce the user to the unique properties of Alphlex Shrinkable Tubing, the assortments are ideal for laboratory, prototype, design, or electronic service applications. All assortments are packaged and labeled for easy handling and storage.

PACKAGED IN 4 FOOT LENGTHS

FIT-275C—Individual Size Per Box—Assorted Colors

Contains 25 four foot lengths of a single size tubing. Each Assortment consists of 40′ Black (10 lengths), 20′ Red (5 lengths), 20′ Yellow (5 lengths), 20′ White (5 lengths).

ALPHLEX PART NO.	TUBING SIZE	FOOTAGE PER BOX	NET PRICE PER BOX
FIT-275C-24	24	100 ft.	$16.00
FIT-275C-22	22	100 ft.	16.70
FIT-275C-20	20	100 ft.	17.50
FIT-275C-18	18	100 ft.	19.15
FIT-275C-16	16	100 ft.	20.75
FIT-275C-14	14	100 ft.	22.70
FIT-275C-12	12	100 ft.	24.90
FIT-275C-10	10	100 ft.	27.25
FIT-275C-8	8	100 ft.	31.80
FIT-275C-6	6	100 ft.	34.30
FIT-275C-4	4	100 ft.	37.30

FIT-275S—Assorted Sizes Per Box

Contains an assortment of 4 foot lengths of Shrinkable Tubing in various sizes. Every length identified as to size. Supplied in black only.

ALPHLEX PART NO.	TUBING SIZE RANGE	LENGTHS PER BOX	NET PRICE PER BOX
FIT-275S-1	#24 thru #4 (11 sizes)	2 lengths per size (22 lengths)	$24.00
FIT-275S-2	#2 thru 1/2″ (5 sizes)	1 length per size (5 lengths)	12.00
FIT-275S-3	5/8″ thru 1″ (4 sizes)	1 length per size (4 lengths)	22.00

PACKAGED IN 6 INCH LENGTHS

FIT-275M—Individual Size Per Box

Contains 6″ lengths of Shrinkable Tubing. Packaged one size per box.

ALPHLEX PART NO.	TUBING SIZE	LENGTHS PER BOX	NET PRICE PER BOX
FIT-275M-24	24	40	$3.75
FIT-275M-22	22	36	3.75
FIT-275M-20	20	34	3.75
FIT-275M-18	18	32	3.75
FIT-275M-16	16	30	3.75
FIT-275M-14	14	28	3.75
FIT-275M-12	12	24	3.75
FIT-275M-10	10	20	3.75
FIT-275M-8	8	18	3.75
FIT-275M-6	6	18	3.75
FIT-275M-4	4	16	3.75
FIT-275M-2	2	12	3.75
FIT-275M-5/16	5/16″	10	3.75
FIT-275M-3/8	3/8″	10	3.75
FIT-275M-7/16	7/16″	8	3.75
FIT-275M-1/2	1/2″	6	3.75
FIT-275M-5/8	5/8″	6	3.75

FIT-275MS—Assorted Sizes Per Box

Contains an assortment of 6″ lengths of Shrinkable Tubing in various sizes. Every length identified as to size. Supplied in black only.

ALPHLEX PART NO.	TUBING SIZE RANGE	LENGTHS PER BOX	NET PRICE PER BOX
FIT-275MS-1	#24 thru #10 (8 sizes)	4 lengths per size (32 lengths)	$3.75
FIT-275MS-2	#8 thru 5/8″ (9 sizes)	2 lengths per size (18 lengths)	7.50
FIT-275MS-3	3/4″ thru 1″ (3 sizes)	2 lengths per size (6 lengths)	6.00

ALPHA electronic WIRE

ALPHA WIRE CORPORATION
NEW YORK 14, NEW YORK
LOS ANGELES 25, CALIF.

SPECIALIZED FACILITIES FOR CUSTOM WIRE AND CABLE PRODUCTS

Engineering capabilities, prompt delivery, modern equipment and 40 years of experience all combine to make Alpha Wire your one source for custom wire products.

We have a complete department devoted exclusively to handling your custom wire requirements. Supervised by experienced engineers, utilizing specially designed modern equipment and taking advantage of our inventory of 6,000 items, we create the wire product to fit your specific application. When you come to us you know that you are saving both time and money. Time—because your wire is delivered on time and ready for direct assembly into your job. Money—because our department is geared to do the unusual to wire. Our facilities and experience are available to do your job less expensively than you can do it yourself.

Next time you have a design problem think of Alpha as an extension of your own model shop or your production line and remember CUSTOM WIRE PRODUCTS are our specialty.

SHORT RUN CABLE DEPARTMENT

Braiding, Shielding

Braided and spiral shields either bare, tinned or silver plated can be fabricated over the single conductor hookup wire and multi-conductor cables listed in this catalog. Alpha's textile braided coverings offer a wide variety of color combinations for easy identification, strength, durability, and appearance. Braiding materials such as cotton, rayon, dacron, celanese and glass may be used. In addition bonding and ground straps can be fabricated flat, oval or round to fill your requirements.

Jacketing

Alpha has developed highly engineered techniques by which we provide jackets of polyvinychloride, polyethylene, neoprene, rubber, teflon and many fabric textile braids, both organic and inorganic, to cover an infinite variety of inner core constructions. Our latest jacketing material, Zipper Tubing, was designed and engineered to meet the ever growing demand for short run cable lots (see page 1563). The use of Zipper Tubing as a jacketing material provides a strong durable outer covering while also being economical and easy to use for short run cable jackets.

Cabling

We produce cables in short runs ranging from 2 to 200 conductors, depending upon the outside diameter of each individual conductor. These cables are designed to withstand the stresses created by maximum flexing, impact, abrasion and torque because of our creative cable engineering techniques. To insure flexibility and roundness we use fillers, serves, and wraps. And all our cables can be produced in minimum length runs.

ALPHA electronic WIRE

WIRE PROCESSING

Striping

Spiral color striping of wires permits the creation of an almost unrestricted number of different color combinations—all to Military specifications. Specially compounded inks applied to vinyl, nylon, and teflon insulation resulting in an indelible stripe(s). As many as three different color combinations of spiral stripes can be applied at one time in wire sizes ranging from .375″ to .032″. This results in over 40,000 possible color combinations.

Cutting, Stripping, Tinning

Automatic cutting, stripping and hot tin dipping of wire to any length is our specialty. Modern high speed precision equipment insures prompt delivery and low unit cost. Alpha's equipment measures to precise tolerance the amount of insulation to be stripped and the exact length of wire to be cut. This guarantees trouble-free installation every time. These cutting, stripping and tinning facilities can be used in conjunction with our marking and numbering department. As a result you can specify the exact length of wire to be cut, stripped, tinned and then mark it for circuit identification.

Marking and Numbering

To guarantee circuit identification, a series of letters and numbers—or a combination of both—can be made a permanent part of the insulation and jacket of our various wire, cable and tubing. This marking and numbering—hot stamped in accordance with Military specifications—can be applied to vinyl, nylon and teflon insulation compounds. A wide variety of type faces and character widths are available for you to choose from. Circuit coding can also be achieved by the use of identification markers—e.g., your trade name shown on the wire and cable you purchase from Alpha.

Jacket Coloring

Alpha has developed a new process to color permanently and indelibly rubber, neoprene, and plastic jackets. We can take any catalog item from our inventory shown with a gray or black jacket and color it to your specification, regardless of the footage you require. The variety is limitless since we offer ten basic colors or any matching color shades. This allows clear circuit identification as well as enabling the cables to blend into the room decor.

© U.C.P., Inc.

ALPHA WIRE PRICE LIST

Number	Suggested Resale Ea. 1000′
286	$16.65
289	24.15
292	45.62
292/6	113.22
292/8	70.77
295	11.00
296	8.16
297	5.25
298	3.99
299	3.75
299/1	3.59
299/2	2.67
299/3	2.51
299/4	2.51
299/5	2.51
299/6	2.51
299/7	2.51
600△	.50
602•	.60
604■	.72
606°	.62
608‡	.71
610°	.72
612‡	.83
620△	.54
622•	.66
624‡	.81
626†	1.88
628‡	.90
630†	2.63
632***	3.68
634**	6.75
636‡	1.13
638†	2.31
654††	2.93
655††	3.38
656††	4.95
657††	3.68
658††	5.48
660-2*	3.08
661-2*	3.38
662-2*	4.28
663-2*	4.80
664-2*	4.05
665-2*	5.10
666-2*	6.08
670-2*	6.83
671-2*	7.58
672-2*	7.43
673-2*	8.40
674-2*	8.85
675-2*	11.33
676-2*	14.93
677-2*	15.75
680-2*	2.40
681-2*	2.70
682-2*	3.38
683-2*	4.43
684-2*	5.40
685-2*	6.08
690-2*	3.75
692-2*	5.03
694-2*	7.05
696-2*	8.10
1172	16.50
1173	18.75
1174	24.75
1175	30.00
1176	46.50
1177	52.50
1178	58.50
1179	64.50
1180	66.00
1181	70.50
1181/15	139.20
1181/20	184.50
1181/25	225.00
1181/30	270.00
1182	36.00
1183	49.35

Number	Suggested Resale Ea. 1000′
1184	62.25
1185	81.00
1186	99.00
1187	111.00
1188	123.00
1189	147.00
1190	162.00
1192	186.00
1192/15	234.00
1192/20	315.00
1194	37.47
1194/22	34.97
1194/24	34.14
1196	41.63
1197	51.95
1198	62.45
1199	79.10
1221	29.97
1222	30.81
1223	31.31
1224	32.81
1229	35.30
1230	41.96
1231	57.45
1232	96.57
1233	129.87
1233/2	123.21
1234	294.38
1235	313.02
1239	349.65
1240†††	107.40
1241†††	210.12
1242†††	258.92
1244	73.20
1245	84.15
1246	99.00
1247	121.05
1247/6	148.50
1247/7	183.00
1247/8	199.35
1247/10	255.00
1247/12	345.00
1248	60.00
1249	69.00
1249/18	88.50
1250	75.75
1250/18	100.50
1251	90.00
1251/18	171.90
1252	102.60
1252/18	191.10
1253	129.00
1254	157.80
1254/18	345.00
1255	168.00
1255/8	180.00
1255/10	297.90
1255/12	418.50
1256V	27.75
1256/22V	27.00
1259V	48.90
1260V	69.00
1260/12	187.50
1260/14	109.50
1261	45.45
1261/3	50.70
1261/26	47.25
1267V	27.00
1267/18V	45.90
1267/22V	21.00
1300	12.75
1302	23.25
1304	32.25
1307	55.50
1307/7	76.20
1307/9	77.25
1308/11	105.00
1309	118.50
1309/15	133.50
1310	180.00

Number	Suggested Resale Ea. 1000′
1313	247.50
1313/31	423.60
1313/41	572.40
1314	870.00
1316	19.50
1317	42.00
1318	60.00
1319	69.00
1320	72.75
1322	75.00
1323	108.00
1327	180.00
1329	337.50
1341	18.32
1342	19.98
1343	25.47
1344	27.81
1345	39.96
1346	54.12
1350	21.65
1351	22.49
1352	24.98
1353	30.63
1354	40.80
1355	49.95
1356	63.27
1370	39.96
1371	42.47
1372	44.13
1373	54.12
1374	63.27
1375	79.92
1381	12.90
1382	14.66
1383	19.65
1384	23.15
1385	41.63
1386	64.44
1387	91.58
1388	166.50
1389	266.40
1389/4	349.65
1389/2	516.15
1389/0	949.05
1389/00	1098.90
1391	46.62
1392	52.46
1393	56.61
1394	74.93
13.95	91.58
1396	106.56
1449	106.20
1450	150.00
1450/16	195.00
1451	214.05
1451/16	252.00
1452	243.60
1452/16	302.40
1454	420.00
1456	540.00
1458	645.00
1459	840.00
1470	41.63
1471	44.96
1472	47.46
1473	58.28
1474	68.27
1475	86.58
1503	10.41
1504	10.58
1505	11.99
1506	19.98
1507	24.98
1508	33.80
1509	48.29
1550	6.99
1551	8.16
1553	10.65
1555	15.15
1557	22.23

Number	Suggested Resale Ea. 1000′
1559	33.56
1560	56.12
1561	6.50
1561/24	6.00
1563	8.82
1565	12.50
1567	17.99
1571	14.66
1573	17.99
1575	24.15
1577	34.97
1579	56.94
1590	16.65
1590/24	15.83
1610	8.25
1632	17.25
1635	18.75
1636	20.25
1638	32.70
1639	33.00
1651	79.92
1653	116.55
1655	216.45
1657	316.35
1685	5.84
1686	5.49
1687	6.00
1688	6.50
1689	6.92
1690	7.50
1702	27.30
1703	26.70
1704	36.00
1705	29.10
1706	53.70
1709	63.75
1710	52.50
1712	66.30
1713	67.50
1715	76.50
1716	91.50
1717	180.00
1719	225.00
1721	264.00
1736	40.50
1737	51.00
1741	54.00
1742	66.00
1746	63.00
1747	81.00
1748	90.00
1750	108.00
1753	10.83
1754	10.32
1755	11.66
1756	12.99
1757	17.49
1775	36.00
1779	48.00
1783	56.25
1793	18.00
1794	27.75
1794/4	39.60
1795	27.45
1796	40.20
1796/4	54.15
1797	33.45
1798	47.25
1798/4	60.75
1798/5	78.00
1798/6	94.50
1799	64.20
1799/3	72.60
1799/4	81.30
1830	8.33
1831	9.83
1832	12.66
1833	16.65
1834	21.65
1835	34.14

Number	Suggested Resale Ea. 1000′
1840	11.90
1841	13.32
1842	16.65
1843	20.82
1844	26.64
1845	39.96
1850	10.16
1851	9.33
1852	8.91
1853	8.99
1854	7.74
1855	8.73
1856	10.32
1857	11.33
1858	14.40
1860	12.32
1861	11.66
1862	11.00
1863	11.57
1864	10.41
1865	11.57
1866	12.41
1867	15.57
1868	19.98
1883	36.63
1884	42.63
1885	56.94
1886	87.24
1887	116.55
1888	236.43
1889	274.73
1893	21.15
1894	31.50
1894/4	43.95
1895	30.15
1896	43.20
1896/4	57.00
1897	36.00
1898	50.40
1898/4	67.95
1899	72.30
1899/3	84.90
1899/4	93.30
1900	9.00
1901	17.25
1903	16.50
1904	27.00
1906	23.70
1907	35.10
1909	34.50
1910	51.00
1951†††	10.35
1952†††	13.50
1952/3†††	20.25
1952/4†††	37.65
1953†††	16.88
1953/3†††	27.15
1953/4†††	45.00
1954†††	26.48
1954/3†††	37.35
1954/4†††	52.35
1955†††	29.70
1955/3†††	45.98
1955/4†††	63.75
1956†††	48.60
1956/3†††	72.60
1956/4†††	99.90
1957†††	65.25
1957/3†††	87.90
1957/4†††	120.45
1958†††	92.10
1958/3†††	126.45
1958/4†††	148.65
2160†††	8.66
2162†††	10.49
2164†††	14.99
2166†††	17.99
2168†††	19.98
2170**	11.33
2172**	14.16

Number	Suggested Resale Ea. 1000′
2174**	21.32
2176**	32.97
2254/3	42.00
2254	27.00
2254/4	67.50
2255	22.50
2256	34.50
2256/1	30.75
2256/3	46.50
2256/4	87.00
2258	40.05
2258/3	50.40
2260	81.00
2272	24.00
2276	31.50
2278	36.00
2280	39.90
2282	57.15
2284	65.40
2809	163.17
2809/2	349.65
2809/3	509.49
2809/4	649.35
2812	183.15
2812/2	391.28
2812/3	566.10
2812/4	715.95
2815	219.78
2815/2	482.85
2815/3	666.00
2815/4	882.45
2818	266.40
2818/2	566.10
2818/3	765.90
2818/4	1032.30
2821	366.30
2821/2	616.05
2821/3	856.80
2821/4	1082.25
2824	416.25
2824/2	715.95
2824/3	999.00
2824/4	1298.70
2827	482.85
2827/2	865.80
2827/3	1182.15
2827/4	1481.85
2829	579.42
2829/2	949.05
2829/3	1265.40
2850	71.93
2851	76.43
2852	78.26
2853	79.76
2854	88.74
2855	103.40
2856	132.54
2857	159.51
2858	208.13
2859	254.75
2859/10	541.13
2859/12	369.63
2874	94.91
2875**	111.56
2876	141.20
2877	164.84
2878	224.78
2879	275.73
2879/8	1108.89
2879/10	606.06
2879/12	391.28
2881	79.92
2882	83.25
2883	86.58
2884	97.23
2885	116.55
2886	149.03
2887	177.15
2888**	233.10
2889**	299.70

Number	Suggested Resale Ea. 1000′
"ALMAG" MAGNET WIRE LINE PLAIN ENAMEL	
PE-44□	12.90
PE-42□	8.25
PE-40	4.50
PE-38□	3.00
PE-36§	10.88
PE-34§	9.38
PE-32□	17.25
PE-30□	16.50
PE-28#	15.00
PE-26#	14.25
PE-24#	13.80
PE-22#	13.50
PE-20#	12.75
PE-18#	12.30
PE-16#	12.00
PE-14#	11.70
PE-12#	11.40
PE-10#	11.40
TEFLON MAGNET WIRE	
ST-44♦	18.75
ST-42♦	14.93
ST-40♦	11.03
ST-38-●	14.93
ST-37♦	6.15
ST-36♦	5.03
ST-34♦	3.90
ST-32♦	3.08
ST-30♦	2.85
ALPHLEX PLASTIC TUBING (TYPE PVC-105)	
PVC-105-24	13.00
PVC-105-22	13.10
PVC-105-20	13.50
PVC-105-19	13.50
PVC-105-18	13.80
PVC-105-17	14.00
PVC-105-16	14.60
PVC-105-15	14.90
PVC-105-14°°	9.95
PVC-105-13°°	10.20
PVC-105-12°°	10.70
PVC-105-11°°	11.05
PVC-105-10°°	11.55
PVC-105-9°°	15.70
PVC-105-8°°	16.95
PVC-105-7°°	18.10
PVC-105-6°°	19.55
PVC-105-5°°	21.15
PVC-105-4†††	11.45
PVC-105-3†††	12.25
PVC-105-2†††	13.35
PVC-105-1†††	14.43
PVC-105-0†††	15.58
PVC-105-5/16†††	18.60
PVC-105-3/8†††	21.48
PVC-105-7/16**	9.65
PVC-105-1/2**	10.64
PVC-105-9/16**	14.17
PVC-105-5/8**	15.30
PVC-105-3/4***	10.56
PVC-105-7/8***	12.12
PVC-105-1***	13.27
PVC-105-1 1/8***	17.40
PVC-105-1 1/4***	18.39
PVC-105-1 3/8***	19.66
PVC-105-1 1/2***	23.84
PVC-105-1 3/4***	29.72
PVC-105-2***	40.84
PVC-105-2 1/4***	48.55
PVC-105-2 1/2***	57.56

All Standard Put-Ups are 1000 feet except as indicated by the following symbols:
△ 6′, • 9′, ° 8′, ■ 12′, ‡ 10′, † 25′, *** 50′, ** 100′, * 2′, ††† 250′, °° 500′,
††18″, □ 1 lb., -● ½ lb., ♦ ¼ lb., § 5 lb., # 10 lb.

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Delivery is often dependent on availability of raw materials. Check with your distributor for delivery information at the time you place your order.

BELDEN • PRICE LIST

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8000-50	.83
8000-75	1.13
8000-100	1.45
8000-1000	13.50
8002-50	.60
8002-75	.75
8002-100	.98
8002-1000	9.00
8008-100	2.55
8008-200	4.65
8008-500	10.90
8009-100	1.73
8009-200	3.30
8009-500	7.35
8011-100	2.10
8011-1000 TBO	18.00
8012-100	1.50
8012-1000	12.00
8013-100	1.10
8013-1000	8.25
8014-25	.38
8014-500	2.70
8018-50	.90
8018-500	7.50
8018-1000 TBO	14.25
8019-100	.75
8019-1000	5.25
8020-100	.60
8020-1000	4.00
8021-100	.53
8021-1000	3.40
8022-100	.51
8022-1000	3.00
8023-100	.51
8023-1000	2.63
8024-100	.50
8024-1000	2.40
8025-100	.50
8025-1000	2.25
8026-100	.50
8026-1000	2.25
8027-100	.50
8027-1000	2.25
(Trade numbers 8040 thru 8086 — See Magnet Wire on last Page)	
8127-10	.38
8127-500	5.25
8200-100	1.65
8200-500	6.45
8200-1000	12.15
8204-25 TBO	1.28
8204-100 TBO	3.75
8204-500 TBO	16.15
8204-1000 TBO	32.25/M'
8205-25	.83
8205-100	2.50
8205-500	9.75
8205-1000	19.15/M'
8206-15	.75
8206-50	2.03
8206-100	3.60
8206-250	7.90
8208-15	1.17
8208-50	3.25
8208-100	5.95
8208-500	25.50
8208-1000	51.00/M'
8209-15 TBO	1.17
8209-50 TBO	3.25
8209-100 TBO	5.95
8209-500	25.50
8209-1000	51.00/M'
8210-50 TBO	3.15
8210-100	5.65
8210-500	27.00
8211-500	48.00/M'
8211-1000	46.50/M'
8211-2000	46.50/M'
8212-100 TBO	5.35
8212-500	48.00/M'
8212-1000	46.50/M'
8212-2000	46.50/M'
8213-500	111.00/M'
8213-1000	111.00/M'
8213-2000	111.00/M'
*8214-100	12.00
*8214-500	115.50/M'
*8214-1000	115.50/M'
*8215-100	11.25
*8215-500	106.50/M'
*8215-1000	106.50/M'

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8216-100(RG-174/U)	4.15
*8216-500(RG-174/U)	37.50/M'
*8216-1000(RG-174/U)	37.50/M'
8222-100	1.65
8222-500	7.50
8224-100 TBO	2.05
8224-500 TBO	9.00
8225-25	.72
8225-50	1.05
8225-75	1.35
8225-100	1.65
8225-500	7.50
8225-1000	14.95
8226-25	.72
8226-50	1.16
8226-75	1.56
8226-100	1.92
8227-100	9.00
8227-250 TBO	21.75
8227-500	87.00/M'
8230-25	.78
8230-50	1.23
8230-75	1.70
8230-100	2.13
8230-500	10.20
8230-1000	19.20
8231-100 TBO	6.30
8231-500 TBO	60.00/M'
8231-1000 TBO	60.00/M'
8232-100 TBO	9.15
8232-500	87.00/M'
8232-1000	87.00/M'
8232-2000	87.00/M'
8233-500	168.00/M'
8233-1000	168.00/M'
8233-1500 TBO	168.00/M'
8233-2000	168.00/M'
8235-100	4.80
8235-500	21.00
8237-100 (RG-8/U)	12.40
8237-250 (RG-8/U)	115.50/M'
8237-500 (RG-8/U)	115.50/M'
8237-1000 (RG-8/U)	115.50/M'
8238-100 (RG-11/U)	11.20
8238-250 (RG-11/U)	103.50/M'
8238-500 (RG-11/U)	103.50/M'
8238-1000 (RG-11/U)	103.50/M'
8238-1500 (RG-11/U)	103.50/M'
8239-100 (RG-54A/U) TBO	8.25
8239-500 (RG-54A/U)	76.50/M'
8239-1000 (RG-54A/U)	76.50/M'
8240-25 (RG-58/U)	1.80
8240-50 (RG-58/U)	2.85
8240-100 (RG-58/U)	4.95
8240-250 (RG-58/U)	43.50/M'
8240-500 (RG-58/U)	43.50/M'
8240-1000 (RG-58/U)	43.50/M'
8241-25 (RG-59/U)	1.95
8241-50 (RG-59/U)	3.25
8241-100 (RG-59/U)	5.80
8241-250 (RG-59/U)	50.25/M'
8241-500 (RG-59/U)	47.00/M'
8241-1000 (RG-59/U)	47.00/M'
8242-100 (RG-9/U)	30.00
8242-500 (RG-9/U) TBO	294.00/M'

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8242-1000 (RG-9/U)	294.00/M'
8245-100 (RG-55/U) TBO	7.50
8245-500 (RG-55/U)	70.50/M'
8245-1000 (RG-55/U)	70.50/M'
8254-100 (RG-62/U)	6.15
8254-500 (RG-62/U)	50.00/M'
8254-1000 (RG-62/U)	50.00/M'
8257-100 (RG-71/U) TBO	9.75
8257-500 (RG-71/U)	91.50/M'
8257-1000 (RG-71/U)	91.50/M'
8259-25 (RG-58A/U)	1.75
8259-50 (RG-58A/U)	2.70
8259-100 (RG-58A/U)	5.05
8259-500 (RG-58A/U)	43.50/M'
8259-1000 (RG-58A/U)	43.50/M'
8260-100 TBO (RG-22A/U)	22.50
8260-500 TBO (RG-22A/U)	225.00/M'
8260-1000 TBO (RG-22A/U)	225.00/M'
8261-100 (RG-11A/U)	14.55
8261-500 (RG-11A/U)	132.00/M'
8261-1000 (RG-11A/U)	132.00/M'
8262-100 (RG-58C/U) TBO	6.00
8262-500 (RG-58C/U)	51.00/M'
8262-1000 (RG-58C/U)	51.00/M'
8263-100 (RG-59B/U) TBO	6.75
8263-500 (RG-59B/U)	54.00/M'
8263-1000 (RG-59B/U)	54.00/M'
8264-100 (RG-5A/U) TBO	25.42
8264-500 (RG-5A/U)	246.00/M'
8264-1000 (RG-5A/U)	246.00/M'
8267-100 (RG-213/U)TBO	15.45
8267-500 (RG-213/U)	142.50/M'
8267-1000 (RG-213/U)	142.50/M'
8275-50	2.40
8275-75	3.45
8275-100	4.28
8275-500	21.40
8275-1000	42.00
8280 (to customer's Specified length)§	600.00/M'
8281-100 TBO	16.50
8281-500	165.00/M'
8281-1000	165.00/M'
8282-50 TBO	13.50
8282-100 TBO	27.00
8282-500	270.00/M'
8282-1000	270.00/M'
8283★ (to customer's specified length)§	2,250.00/M'
8284 (to customer's specified length)§	675.00/M'
8285-50	2.85
8285-75	4.20
8285-100	5.40
8285-500	25.50
8285-1000	51.00
8300-25 † Solid△	1.90
8300-50 † Solid△	3.00
8300-100 †•Solid△	5.25
8300-250 †•Solid△	47.25/M'
8300-500 †•Solid△	43.50/M'
8300-1000†•Solid△	42.75/M'
8300-25 † Striped△	2.10

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8300-50 † Striped △	3.45
8300-100 †•Striped △	6.15
8300-250 †•Striped △	56.25/M'
8300-500 †•Striped △	52.50/M'
8300-1000†•Striped △	51.75/M'
8301-25 † Solid △	1.90
8301-50 † Solid △	3.00
8301-100 †•Solid △	5.50
8301-250 †•Solid △	48.75/M'
8301-500 †•Solid △	45.00/M'
8301-1000†•Solid △	44.25/M'
8301-25 † Striped △	2.10
8301-50 † Striped △	3.45
8301-100 †•Striped △	6.40
8301-250 †•Striped △	57.75/M'
8301-500 †•Striped △	54.00/M'
8301-1000†•Striped △	53.25/M'
8302-25 † Solid △	1.90
8302-50 † Solid △	3.15
8302-100 †•Solid △	5.55
8302-250 †•Solid △	49.50/M'
8302-500 †•Solid △	45.75/M'
8302-1000†•Solid △	45.00/M'
8302-25 † Striped △	2.10
8302-50 † Striped △	3.60
8302-100 †•Striped △	6.45
8302-250 †•Striped △	58.50/M'
8302-500 †•Striped △	54.75/M'
8302-1000†•Striped △	54.00/M'
8303-25 † Solid △	2.10
8303-50 † Solid △	3.30
8303-100 †•Solid △	6.40
8303-250 †•Solid △	55.50/M'
8303-500 †•Solid △	52.50/M'
8303-1000†•Solid △	51.75/M'
8303-25 † Striped △	2.35
8303-50 † Striped △	3.75
8303-100 †•Striped △	7.30
8303-250 †•Striped △	64.50/M'
8303-500 †•Striped △	61.50/M'
8303-1000†•Striped △	60.75/M'
8304-25 † Solid △	2.05
8304-50 † Solid △	3.25
8304-100 †•Solid △	6.00
8304-250 †•Solid △	53.25/M'
8304-500 †•Solid △	49.50/M'
8304-1000†•Solid △	48.75/M'
8304-25 † Striped △	2.25
8304-50 † Striped △	3.70
8304-100 †•Striped △	6.90
8304-250 †•Striped △	62.25/M'
8304-500 †•Striped △	58.50/M'
8304-1000†•Striped △	57.75/M'
8305-25 † Solid △	2.25
8305-50 † Solid △	4.00
8305-100 †•Solid △	7.50
8305-250 †•Solid △	63.00/M'
8305-500 †•Solid △	59.25/M'
8305-1000†•Solid △	58.50/M'
8305-25 † Striped △	2.50
8305-50 † Striped △	4.45
8305-100 †•Striped △	8.40
8305-250 †•Striped △	72.00/M'
8305-500 †•Striped △	68.25/M'
8305-1000†•Striped △	67.50/M'
8306-25 † Solid △	2.40
8306-50 † Solid △	4.15
8306-100 †•Solid △	7.50
8306-250 †•Solid △	66.75/M'
8306-500 †•Solid △	63.00/M'
8306-1000†•Solid △	62.25/M'
8306-25 † Striped △	2.65
8306-50 † Striped △	4.60
8306-100 †•Striped △	8.40
8306-250 †•Striped △	75.75/M'
8306-500 †•Striped △	72.00/M'
8306-1000†•Striped △	71.25/M'
8307-25 † Solid △	2.65
8307-50 † Solid △	4.80
8307-100 †•Solid △	9.00
8307-250 †•Solid △	78.75/M'
8307-500 †•Solid △	75.00/M'
8307-1000†•Solid △	74.25/M'
8307-25 † Striped △	2.85
8307-50 † Striped △	5.25
8307-100 †•Striped △	9.90
8307-250 †•Striped △	87.75/M'
8307-500 †•Striped △	84.00/M'
8307-1000†•Striped △	83.25/M'
8308-25 † Solid △	2.70
8308-50 † Solid △	4.80
8308-100 †•Solid △	9.00
8308-250 †•Solid △	78.75/M'
8308-500 †•Solid △	75.00/M'
8308-1000†•Solid △	74.25/M'

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8308-25 † Striped △	2.95
8308-50 † Striped △	5.25
8308-100 †•Striped △	9.90
8308-250 †•Striped △	87.75/M'
8308-500 †•Striped △	84.00/M'
8308-1000†•Striped △	83.25/M'
8309-25 † Solid △	3.15
8309-50 † Solid △	5.85
8309-100 †•Solid △	10.80
8309-250 †•Solid △	98.25/M'
8309-500 †•Solid △	93.75/M'
8309-1000†•Solid △	92.25/M'
8309-25 † Striped △	3.55
8309-50 † Striped △	6.30
8309-100 †•Striped △	11.70
8309-250 †• Striped△	107.25/M'
8309-500 †• Striped△	102.75/M'
8309-1000†• Striped△	101.25/M'
8310-25 † Solid △	4.15
8310-50 † Solid △	7.50
8310-100 †•Solid △	13.50
8310-250 †•Solid △	126.00/M'
8300-500 †•Solid △	121.50/M'
8310-1000†•Solid △	120.00/M'
8310-25 † Striped △	4.35
8310-50 † Striped △	7.95
8310-100 †•Striped △	14.40
8310-250 †• Striped△	135.00/M'
8310-500 †• Striped△	130.50/M'
8310-1000†• Striped△	129.00/M'
8320-25 † Solid △	2.40
8320-50 † Solid △	3.90
8320-100 †•Solid △	7.50
8320-250 †•Solid △	69.00/M'
8320-500 †•Solid △	65.25/M'
8320-1000†•Solid △	64.50/M'
8320-25 † Striped △	2.65
8320-50 † Striped △	4.35
8320-100 †•Striped △	8.40
8320-250 †•Striped △	78.00/M'
8320-500 †•Striped △	74.25/M'
8320-1000†•Striped △	73.50/M'
8321-25 † Solid △	2.40
8321-50 † Solid △	3.90
8321-100 †•Solid △	7.50
8321-250 †•Solid △	64.50/M'
8321-500 †•Solid △	60.75/M'
8321-1000†•Solid △	60.00/M'
8321-25 † Striped △	2.65
8321-50 † Striped △	4.35
8321-100 †•Striped △	8.40
8321-250 †•Striped △	73.50/M'
8321-500 †•Striped △	69.75/M'
8321-1000†•Striped △	69.00/M'
8322-25 † Solid △	2.25
8322-50 † Solid △	3.85
8322-100 †•Solid △	7.15
8322-250 †•Solid △	63.00/M'
8322-500 †•Solid △	60.75/M'
8322-1000†•Solid △	60.00/M'
8322-25 † Striped △	2.50
8322-50 † Striped △	4.30
8322-100 †•Striped △	8.05
8322-250 †•Striped △	72.00/M'
8322-500 †•Striped △	69.75/M'
8322-1000†•Striped △	69.00/M'
8323-25 † Solid △	2.55
8323-50 † Solid △	4.50
8323-100 †•Solid △	8.65
8323-250 †•Solid △	73.15/M'
8323-500 †•Solid △	69.00/M'
8323-1000†•Solid △	68.25/M'
8323-25 † Striped △	2.80
8323-50 † Striped △	4.95
8323-100 †•Striped △	9.55
8323-250 †•Striped △	82.15/M'
8323-500 †•Striped △	78.00/M'
8323-1000†•Striped △	77.25/M'
8324-25 † Solid △	2.50
8324-50 † Solid △	4.50
8324-100 †•Solid △	8.25
8324-250 †•Solid △	72.00/M'
8324-500 †•Solid △	68.25/M'
8324-1000†•Solid △	67.50/M'
8324-25 † Striped △	2.70
8324-50 † Striped △	4.95
8324-100 †•Striped △	9.15
8324-250 †•Striped △	81.00/M'
8324-500 †•Striped △	77.25/M'
8324-1000†•Striped △	76.50/M'

BELDEN • PRICE LIST

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8325-25 † Solid △	2.65
8325-50 † Solid △	4.50
8325-100 †• Solid △	8.65
8325-250 †• Solid △	75.75/M'
8325-500 †• Solid △	72.75/M'
8325-1000†• Solid △	72.00/M'
8325-25 † Striped △	2.85
8325-50 † Striped △	5.40
8325-100 †• Striped △	9.55
8325-250 †• Striped △	84.75/M'
8325-500 †• Striped △	81.75/M'
8325-1000†• Striped △	81.00/M'
8326-25 † Solid △	2.80
8326-50 † Solid △	4.95
8326-100 †• Solid △	9.55
8326-250 †• Solid △	81.90/M'
8326-500 †• Solid △	77.70/M'
8326-1000†• Solid △	76.50/M'
8326-25 † Striped △	3.00
8326-50 † Striped △	5.40
8326-100 †• Striped △	10.45
8326-250 †• Striped △	90.50/M'
8326-500 †• Striped △	86.70/M'
8326-1000†• Striped △	85.50/M'
8327-25 † Solid △	3.15
8327-50 † Solid △	5.40
8327-100 †• Solid △	10.50
8327-250 †• Solid △	92.25/M'
8327-500 †• Solid △	87.75/M'
8327-1000†• Solid △	87.00/M'
8327-25 † Striped △	3.40
8327-50 † Striped △	5.85
8327-100 †• Striped △	11.40
8327-250 †• Striped △	101.25/M'
8327-500 †• Striped △	96.75/M'
8327-1000†• Striped △	96.00/M'
8328-25 † Solid △	3.15
8328-50 † Solid △	5.40
8328-100 †• Solid △	10.50
8328-250 †• Solid △	92.25/M'
8328-500 †• Solid △	87.75/M'
8328-1000†• Solid △	87.00/M'
8328-25 † Striped △	3.40
8328-50 † Striped △	5.85
8328-100 †• Striped △	11.40
8328-250 †• Striped △	101.25/M'
8328-500 †• Striped △	96.75/M'
8328-1000†• Striped △	96.00/M'
8329-25 † Solid	3.75
8329-50 † Solid	6.90
8329-100 †• Solid	13.50
8329-250 †• Solid	118.50/M'
8329-500 †• Solid	114.00/M'
8329-1000†• Solid	113.25/M'
8329-25 † Striped	4.00
8329-50 † Striped △	7.35
8329-100 †• Striped △	14.40
8329-250 †• Striped △	127.50/M'
8329-500 †• Striped △	123.00/M'
8329-1000†• Striped △	122.50/M'
8330-25 † Solid △	4.50
8330-50 † Solid △	9.00
8330-100 †• Solid △	16.50
8330-250 †• Solid △	144.75/M'
8330-500 †• Solid △	136.50/M'
8330-1000†• Solid △	135.00/M'
8330-25 † Striped △	4.75
8330-50 † Striped △	9.45
8330-100 †• Striped △	17.40
8330-250 †• Striped △	153.75/M'
8330-500 †• Striped △	145.50/M'
8330-1000†• Striped △	144.00/M'
8401-15	.87
8401-25	1.20
8401-50	2.35
8401-100	4.30
8401-250	9.00
8401-500	18.00
8403-15	1.45
8403-50	3.60
8403-100	6.75
8403-250	16.50
8403-500	33.75
8403-1000	67.50
8404-15	1.50

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8404-50 TBO	4.05
8404-100	7.65
8404-250	19.50
8404-500	38.25
8404-1000	76.50
8405-15 TBO	1.90
8405-50 TBO	4.95
8405-100 TBO	10.00
8405-250	23.25
8405-500	45.75
8405-1000	91.50
*8406-100	9.30
*8406-250	22.50
*8406-500	45.00
8410-15	1.35
8410-25	2.10
8410-50	3.90
8410-100	7.35
8410-250	17.25
8410-500	34.50
8411-15	.71
8411-25	1.01
8411-50	1.75
8411-100	3.15
8411-250	6.70
8411-500	13.35
8412-15	1.53
8412-25	2.35
8412-50	4.30
8412-100	8.25
8412-250	19.00
8412-500	37.90
8413-15	1.50
8413-25	2.25
8413-50	4.00
8413-100	7.50
8413-250	18.00
8413-500	36.00
8414-50	4.00
8414-500	32.25
8415	1.15
8418-15 TBO	2.95
8418-50 TBO	9.00
8418-100	18.00
8418-250	45.00
8419-10	.75
8419-25	1.28
8419-250	9.00
8420-15	1.50
8420-25	2.25
8420-50	3.40
8420-100	6.40
8420-250	16.50
8420-500	30.00
8421-15	.87
8421-25	1.20
8421-50	2.35
8421-100	3.75
8421-250	8.50
8421-500 TBO	18.00
8422-15	1.15
8422-25	1.75
8422-50	3.25
8422-100	5.85
8422-250	13.15
8422-500	26.25
8523-15	1.80
8423-50	4.80
8423-100	9.30
8423-250	22.50
8423-500	45.00
8423-1000	90.00
8424-15	1.95
8424-50	5.65
8424-100	10.60
8424-250	25.65
8424-500	51.30
8424-1000	102.60
8425-15 TBO	2.25
8425-50 TBO	6.70
8425-100	13.20
8425-250	32.25
8426-15 TBO	2.70
8426-50 TBO	8.20
8426-100	15.75
8426-250	39.45
8427-15 TBO	2.95
8427-50 TBO	8.85
8427-100	17.25
8427-250	42.00
8428-15 TBO	1.75
8428-25 TBO	2.85
8428-50 TBO	5.40
8428-100	10.50
8428-500	50.25

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8429-10	.68
8429-25	1.08
8429-250	7.65
8430-10	.53
8430-25	.68
8430-250	4.20
8431-10	.53
8431-15	.66
8431-25	1.01
8431-100	3.25
8431-500	14.70
8432-100 TBO	6.40
8432-500	29.25
8432-1000	58.50/M'
8433-100 TBO	7.80
8433-500 TBO	75.00/M'
8434-100 ★	4.65
8434-500 ★	22.50
8434-1000★	45.00/M'
8436-100 TBO	4.75
8436-500	42.00/M'
8436-1000	42.00/M'
8437-100 TBO	3.85
8437-500	36.00/M'
8437-1000	36.00/M'
8440-100 TBO	4.60
8440-500	42.00/M'
8440-1000	42.00/M'
8441-100	4.50
8441-500	21.30
8441-1000	42.00/M'
*8442-500	16.50/M'
*8442-1000	16.50/M'
8443-25	.83
8443-100	2.48
8443-500	9.40
8443-1000	18.75/M'
8444-25	.98
8444-100	3.00
8444-500	12.40
8444-1000	24.75/M'
8445-25	1.16
8445-100	3.70
8445-500	15.00
8445-1000	30.00/M'
8446-15	1.05
8446-100	5.40
8446-500	23.25
8446-1000	46.50/M'
8447-15	1.15
8447-100	6.15
8447-500	26.25
8447-1000	52.50/M'
8448-15	1.20
8448-100	6.40
8448-500	29.25
8448-1000	58.50/M'
8449-15	1.30
8449-100	7.15
8449-500	32.25
8449-1000	64.50/M'
8450-100 ★	2.55
8450-500 ★	10.50
8450-1000★	21.00/M'
8451-100 ★	3.00
8451-500 ★	13.80
8451-1000★	27.00/M'
8452-15	.98
8452-25	1.50
8452-50	2.50
8452-100	4.45
8452-250	10.35
8452-500	20.65
8452-1000	39.75
8453-15	1.20
8453-50	3.15
8453-100	6.30
8453-500	31.50
8454-15	1.45
8454-50	3.75
8454-100	7.20
8454-500	34.50
8454-1000	69.00/M'
8455-15 TBO	1.50
8455-50 TBO	4.05
8455-100	7.50
8455-250	75.00/M'
*8456-100	7.05
*8456-500	66.00/M'
*8456-1000	66.00/M'

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8457-100	7.50
*8457-500	70.50/M'
*8457-1000	70.50/M'
8460-100	2.25
8460-500	9.90
8460-1000	19.20/M'
8461-100	3.15
8461-500	13.80
8461-1000	27.00/M'
8462-25 †	1.05
8462-100 †	2.96
8462-250 †	6.75
8464-50	1.60
8464-75	2.35
8464-100	2.95
8464-500	13.50
8464-1000	26.25
*8465-100	6.00
*8465-500	27.75
*8465-1000	55.00/M'
*8467-100	7.80
*8467-500	36.75
*8467-1000	73.50/M'
*8469-100	10.20
*8469-500	48.75
*8469-1000	97.50/M'
8470-100 TBO	2.85
8470-500	24.00/M'
8470-1000	24.00/M'
8471-100 TBO	4.00
8471-500	34.20/M'
8471-1000	34.20/M'
8472-25	1.90
8472-50	3.75
8472-100	7.15
8472-250	67.50/M'
*8473-500	55.50/M'
*8473-1000	55.50/M'
8474-100	9.00
8474-250	85.50 M'
8478-25	1.65
8478-50 TBO	2.95
8478-100	5.40
8478-250	13.50
8478-1000	54.00/M'
8481-100	1.28
8481-500	4.65
8481-1000	9.00/M'
8482-100	1.60
8482-500	5.85
8482-1000	11.25/M'
8483-100	1.95
8483-500	8.25
8483-1000	16.50/M'
8484-100	3.15
8484-500	13.90
8484-1000	27.75/M'
8485-100	3.70
8485-500	17.00
8485-1000	34.00/M'
8486-100 TBO	2.10
8486-500	18.00/M'
8486-1000	18.00/M'
8487-100 TBO	2.65
8487-500	23.10/M'
8487-1000	23.10/M'
8488-100	4.50
8488-500	21.00
8488-1000	40.50/M'
8492-100 †	1.80
8492-500 †	7.15
8492-1000†	13.90/M'
8493-100 † TBO	2.25
8493-500 † TBO	9.90
8493-1000†	21.00/M'
*8494	1.19
*8495	1.01
*8496	1.01
*8497	1.16
*8498	.72
*8499	.74
8500-100 † Solid	1.65
*8500-500 † Solid	6.90
8500-1000† Solid	13.00
8500-100 † Striped 🌢	1.77
*8500-500 † Striped 🌢	7.50
8500-1000† Striped 🌢	14.10
8501-100 † Solid	1.38
*8501-500 † Solid	5.40
8501-1000† Solid	10.20
8501-100 † Striped 🌢	1.50
*8501-500 † Striped 🌢	6.00
8501-1000† Striped 🌢	11.35
8502-100 † Solid	1.29
*8502-500 † Solid	4.95

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8502-1000† Solid	9.30
8502-100 † Striped 🌢	1.41
*8502-500 † Striped 🌢	5.55
8502-1000† Striped 🌢	10.45
8503-100 † Solid	1.16
*8503-500 † Solid	4.20
8503-1000† Solid	7.85
8503-100 † Striped 🌢	1.28
*8503-500 † Striped 🌢	4.80
8503-1000† Striped 🌢	9.00
8504-100 † Solid	1.11
*8504-500 † Solid	3.85
8504-1000† Solid	7.00
8504-100 † Striped 🌢	1.23
*8504-500 † Striped 🌢	4.45
8504-1000†Striped 🌢	8.10
8505-100 † Solid	1.15
*8505-500 † Solid	4.35
8505-1000† Solid	8.10
8505-100 † Striped 🌢	1.28
*8505-500 † Striped 🌢	4.95
8505-1000† Striped 🌢	9.25
8506-100 † Solid	1.80
8506-1000† Solid	12.90
8506-100 † Striped 🌢	1.92
8506-1000† Striped 🌢	14.05
8507-100 † Solid	1.43
8507-1000† Solid	10.60
8507-100 † Striped 🌢	1.55
8507-1000† Striped 🌢	11.70
8508-100 † Solid	1.40
8508-1000† Solid	10.30
8508-100 † Striped 🌢	1.52
8508-1000† Striped 🌢	11.40
8509-100 † Solid	1.37
8509-1000† Solid	10.15
8509-100 † Striped 🌢	1.49
8509-1000† Striped 🌢	11.25
8510-100 † Solid	2.10
*8510-500 † Solid	8.95
8510-1000† Solid	17.20
8510-100 † Striped 🌢	2.22
*8510-500 † Striped 🌢	9.55
8510-1000† Striped 🌢	18.30
8511-100 † Solid	1.80
*8511-500 † Solid	7.35
8511-1000† Solid	14.05
8511-100 † Striped 🌢	1.92
*8511-500 † Striped 🌢	7.95
8511-1000† Striped 🌢	15.15
8512-100 † Solid	1.50
*8512-500 † Solid	5.85
8512-1000† Solid	11.20
8512-100 † Striped 🌢	1.62
*8512-500 † Striped 🌢	5.85
8512-1000† Striped 🌢	12.30
8513-100 † Solid	1.43
*8513-500 † Solid	5.55
8513-1000† Solid	10.45
8513-100 † Striped 🌢	1.55
*8513-500 † Striped 🌢	6.15
8513-1000† Striped 🌢	11.55
8514-100 † Solid	1.32
*8514-500 † Solid	4.95
8514-1000† Solid	9.40
8514-100 † Striped 🌢	1.44
*8514-500 † Striped 🌢	5.55
8514-1000† Striped 🌢	10.50
8515-100 † Solid	1.41
*8515-500 † Solid	5.48
8515-1000† Solid	10.45
8515-100 † Striped 🌢	1.53
*8515-500 † Striped 🌢	6.10
8515-1000† Striped 🌢	11.55
8516-100 † Solid	2.03
8516-1000† Solid	15.60
8516-100 † Striped 🌢	2.15
8516-1000† Striped 🌢	17.10
8517-100 † Solid	1.73
8517-1000† Solid	13.30
8517-100 † Striped 🌢	1.85
8517-1000† Striped 🌢	14.40
8518-100 † Solid	1.71
8518-1000† Solid	13.15
8518-100 † Striped 🌢	1.83
8518-1000† Striped 🌢	14.25
8519-100 † Solid	1.52
8519-1000† Solid	11.50
8519-100 † Striped 🌢	1.64
8519-1000† Striped 🌢	12.60
8520-100 † Solid	2.03
*8520-500 † Solid	9.55
8520-1000† Solid	17.25
*8520-100 † Striped 🌢	2.15
*8520-500 † Striped 🌢	10.15
*8520-1000† Striped 🌢	18.40
8521-100 † Solid	1.58
*8521-500 † Solid	6.15

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Trade Number Lgth. in Ft.		Sug. Resale Price Each
8521-1000†	Solid	11.85
*8521-100 †	Striped ♦	1.70
*8521-500 †	Striped ♦	6.70
*8521-1000†	Striped ♦	13.00
8522-25 †	Solid	.48
8522-100 †	Solid	1.23
*8522-500 †	Solid	4.80
8522-1000†	Solid	9.10
8522-100 †	Striped ♦	1.35
*8522-500 †	Striped ♦	5.40
8522-1000†	Striped ♦	10.20
8523-25 †	Solid	.48
8523-100 †	Solid	1.05
*8523-500 †	Solid	3.90
8523-1000†	Solid	7.15
8523-100 †	Striped ♦	1.17
*8523-500 †	Striped ♦	4.50
8523-1000†	Striped ♦	8.25
8524-25 †	Solid	.39
8524-100 †	Solid	.93
*8524-500 †	Solid	3.25
8524-1000†	Solid	5.85
8524-100 †	Striped ♦	1.05
*8524-500 †	Striped ♦	3.85
8524-1000†	Striped ♦	7.00
8525-100 †	Solid	.93
*8525-500 †	Solid	2.95
8525-1000†	Solid	5.25
8525-100 †	Striped ♦	1.05
*8525-500 †	Striped ♦	3.55
8525-1000†	Striped ♦	6.40
8526-100 †	Solid (TBO)	6.35
8526-1000†	Solid (TBO)	51.60
8527-100 †	Solid	2.85
*8527-500 †	Solid	12.75
8527-1000†	Solid	24.00
*8527-100 †	Striped ♦	2.95
*8527-500 †	Striped ♦	13.30
*8527-1000†	Striped ♦	25.15
8528-100 †	Solid	1.15
*8528-500 †	Solid	4.05
8528-1000†	Solid	7.50
*8528-100 †	Striped ♦	1.25
*8528-500 †	Striped ♦	4.60
*8528-1000†	Striped ♦	8.65
8529-25 †	Solid	.44
8529-100 †	Solid	.96
*8529-500 †	Solid	3.00
8529-1000†	Solid	5.40
8529-100 †	Striped ♦	1.08
*8529-500 †	Striped ♦	3.60
8529-1000†	Striped ♦	6.55
8530-25 †	Solid	.36
8530-100 †	Solid	.74
*8530-500 †	Solid	2.55
8530-1000†	Solid	4.50
8530-100 †	Striped ♦	.86
*8530-500 †	Striped ♦	3.15
8530-1000†	Striped ♦	5.65
*8531-100 †	Solid	1.35
*8531-500 †	Solid	5.25
*8531-1000†	Solid	10.15
*8531-100 †	Striped ♦	1.47
*8531-500 †	Striped ♦	5.85
*8531-1000†	Striped ♦	11.25
*8532-100 †	Solid	5.10
*8532-500 †	Solid	22.50
*8532-1000†	Solid	43.50
*8533-100 †	Solid	3.75
*8533-500 †	Solid	16.50
*8533-1000†	Solid	30.00
*8534-100 †	Solid	2.70
*8534-500 †	Solid	12.00
*8534-1000†	Solid	22.50
*8534-100 †	Striped ♦	2.85
*8534-500 †	Striped ♦	12.60
*8534-1000†	Striped ♦	23.65
*8535-100 †	Solid	2.25
*8535-500 †	Solid	9.75
*8535-1000†	Solid	18.00
*8535-100 †	Striped ♦	2.37
*8535-500 †	Striped ♦	10.35
*8535-1000†	Striped ♦	19.15
*8536-100 †	Solid	1.35
*8536-500 †	Solid	6.15
*8536-1000†	Solid	10.80
*8536-100 †	Striped ♦	1.47
*8536-500 †	Striped ♦	6.75
*8536-1000†	Striped ♦	11.95
*8537-100 †	Solid	1.20
*8537-500 †	Solid	5.50
*8537-1000†	Solid	9.55
*8537-100 †	Striped ♦	1.32
*8537-500 †	Striped ♦	6.10
*8537-1000†	Striped ♦	10.65
*8541-100		1.65
*8541-500		7.05
*8541-1000		11.65
*8542-100		1.80
*8542-500		7.80
*8542-1000		13.20
*8543-100		2.10
*8543-500		9.60
*8543-1000		17.70
*8544-100		2.40
*8544-500		11.25
*8544-1000		20.85
*8545-100		4.05
*8545-500		19.50
*8545-1000		37.50
*8546-100		6.30
*8546-500		29.40
*8546-1000		58.05
*8547-100		105.00
*8547-500		525.00
*8547-1000		990.00
*8548-100		90.00
*8548-500		427.50
*8548-1000		855.00
*8549-100		49.50
*8549-500		240.00
*8549-1000		465.00
*8550-100		33.00
*8550-500		161.25
*8550-1000		315.00
*8551-100		25.50
*8551-500		121.50
*8551-1000		240.00
*8552-100		16.50
*8552-500		82.50
*8552-1000		150.00
*8553-100		9.00
*8553-500		42.00
*8553-1000		82.50
*8554-100		5.25
*8554-500		25.50
*8554-1000		48.75
*8555-100		3.75
*8555-500		19.50
*8555-1000		36.00
*8556-100		2.85
*8556-500		12.75
*8556-1000		25.05
*8557-100		2.40
*8557-500		12.00
*8557-1000		22.95
*8558-100		1.95
*8558-500		9.15
*8558-1000		18.00
*8559-100		1.90
*8559-500		9.00
*8559-1000		16.50
*8561-100		6.75
*8561-500		31.50
*8561-1000		60.00
*8562-100		3.75
*8562-500		18.00
*8562-1000		33.00
*8563-100		3.40
*8563-500		14.65
*8563-1000		27.75
*8564-100		2.63
*8564-500		12.00
*8564-1000		22.50
*8565-100		2.25
*8565-500		9.75
*8565-1000		18.00
*8566-100		1.80
*8566-500		8.10
*8566-1000		15.00
*8567-100 †	Solid	1.05
*8567-500 †	Solid	4.15
*8567-1000†	Solid	6.75
*8567-100 †	Striped ♦	1.17
*8567-500 †	Striped ♦	4.75
*8567-1000†	Striped ♦	7.90
*8568-100 †	Solid	.90
*8568-500 †	Solid	3.40
*8568-1000†	Solid	6.25
*8568-100 †	Striped ♦	.91
*8568-500 †	Striped ♦	3.40
*8568-1000†	Striped ♦	7.35
*8569-100 †	Solid	.90
*8569-500 †	Solid	3.15
*8569-1000†	Solid	5.85
*8569-100 †	Striped ♦	1.02
*8569-500 †	Striped ♦	3.75
*8569-1000†	Striped ♦	7.00
*8570-100 †	Solid	.75
*8570-500 †	Solid	3.00
*8570-1000†	Solid	5.40
*8570-100 †	Striped ♦	.87
*8570-500 †	Striped ♦	3.60
*8570-1000†	Striped ♦	6.55
*8571-100 †	Solid	.71
*8571-500 †	Solid	2.70
*8571-1000†	Solid	4.95
*8571-100 †	Striped ♦	.85
*8571-500 †	Striped ♦	3.30
*8571-1000†	Striped ♦	6.10
*8572-100 †	Solid	.75
*8572-500 †	Solid	2.80
*8572-1000†	Solid	.5.25
8573	(Per Box)	1.50
*8574-100 †	Solid	1.35
*8574-500 †	Solid	5.40
*8574-1000†	Solid	10.35
*8574-100 †	Striped ♦	1.47
*8574-500 †	Striped ♦	6.00
*8574-1000†	Striped ♦	11.50
*8575-100 †	Solid	1.24
*8575-500 †	Solid	4.50
*8575-1000†	Solid	8.55
*8575-100 †	Striped ♦	1.37
*8575-500 †	Striped ♦	5.10
*8575-1000†	Striped ♦	9.70
*8576-100 †	Solid	1.17
*8576-500 †	Solid	3.90
*8576-1000†	Solid	7.30
*8576-100 †	Striped ♦	1.29
*8576-500 †	Striped ♦	4.50
*8576-1000†	Striped ♦	8.40
*8577-100 †	Solid	.90
*8577-500 †	Solid	3.55
*8577-1000†	Solid	6.70
*8577-100 †	Striped ♦	1.02
*8577-500 †	Striped ♦	4.15
*8577-1000†	Striped ♦	7.80
*8578-100 †	Solid	.98
*8578-500 †	Solid	3.70
*8578-1000†	Solid	6.85
*8578-100 †	Striped ♦	.95
*8578-500 †	Striped ♦	4.30
*8578-1000†	Striped ♦	7.95
*8579-100 †	Solid	.98
*8579-500 †	Solid	3.70
*8579-1000†	Solid	7.05
*8580-100 †	Solid	24.00
*8580-500 †	Solid	112.50
*8580-1000†	Solid	225.00
*8581-100 †	Solid	19.50
*8581-500 †	Solid	90.00
*8581-1000†	Solid	180.00
*8582-100 †	Solid	8.25
*8582-500 †	Solid	37.50
*8582-1000†	Solid	75.00
*8583-100 †	Solid	5.25
*8583-500 †	Solid	22.50
*8583-1000†	Solid	45.00
*8584-100 †	Solid	4.05
*8584-500 †	Solid	16.50
*8584-1000†	Solid	33.00
*8585-100 †	Solid	2.70
*8585-500 †	Solid	9.75
*8585-1000†	Solid	19.50
*8586-100 †	Solid	2.25
*8586-500 †	Solid	7.50
*8586-1000†	Solid	15.00
*8587-100 †	Solid	1.20
*8587-500 †	Solid	5.65
*8587-1000†	Solid	11.25
*8588-100 †	Solid	1.05
*8588-500 †	Solid	4.80
*8588-1000†	Solid	9.60
*8589-100 †	Solid	21.75
*8589-500 †	Solid	105.00
*8589-1000†	Solid	210.00
*8590-100 †	Solid	16.50
*8590-500 †	Solid	78.00
*8590-1000†	Solid	156.00
*8591-100 †	Solid	9.75
*8591-500 †	Solid	44.25
*8591-1000†	Solid	88.50
*8594-100 †	Solid	1.28
*8594-500 †	Solid	5.95
*8594-1000†	Solid	9.90
*8594-100 †	Striped ♦	1.40
*8594-500 †	Striped ♦	6.55
*8594-1000†	Striped ♦	11.05
*8595-100 †	Solid	1.35
*8595-500 †	Solid	5.70
*8595-1000†	Solid	10.50
*8596-100 †	Solid	1.38
*8596-500 †	Solid	6.60
*8596-1000†	Solid	11.10
*8597-100 †	Solid	1.05
*8597-500 †	Solid	4.35
*8597-1000†	Solid	7.90
*8597-100 †	Striped ♦	1.17
*8597-500 †	Striped ♦	4.95
*8597-1000†	Striped ♦	9.00
*8598-100 †	Solid	1.13
*8598-500 †	Solid	4.65
*8598-1000†	Solid	8.40
*8599-100 †	Solid	1.20
*8599-500 †	Solid	5.05
*8599-1000†	Solid	9.15
8650-100	TBO	6.00
8651-100	TBO	4.50
8652-100	TBO	3.60
8656-100	TBO	5.25
8660-10		.51
8660-50		1.50
8660-250		6.75
8661-10		.68
8661-50		2.35
8661-250•		10.50
8662-10		1.58
8662-50		7.05
8662-250•		34.50
8663-10		.60
8663-50		1.90
8663-250		8.25
8666-100		5.85
8668-10		.69
8668-50		2.06
8668-250		9.00
8669-10		1.20
8669-50		5.50
8669-250•		24.90
*8670-10		2.40
*8670-50		10.65
*8670-250•		51.30
*8671-10		2.25
*8671-50		10.15
*8671-250•		48.75
*8672-10		1.60
*8672-50		6.70
*8672-250•		30.75
8673-100		9.30
8673-500		90.00/M'
*8674-10		.56
*8674-50		1.35
*8674-250		6.00
8675-100		7.45
8675-500		69.00/M'
*8676-10		.50
*8676-50		.90
*8676-250		4.20
8677-100		5.70
8677-500		54.00/M'
8680-100		14.40
8681-100		10.35
8682-100		5.25
8683-100		3.75
8684-100		2.65
8685-100		2.05
8722-100 ★	TBO	5.25
8722-500 ★		48.00/M'
8722-1000★		48.00/M'
*8723-100 ★		4.65
*8723-500 ★		22.50
*8723-1000★		45.00
8731-100	TBO	3.15
8731-500		28.50/M'
8731-1000		28.50/M'
8732-100		4.50
8732-500		42.75/M'
8732-1000		42.75/M'
*8733-100 ★		3.75
*8733-500 ★		32.25/M'
*8733-1000★		32.25/M'
8734-100		3.75
8734-500		16.50
8734-1000		32.25/M'
8735-15		.87
8735-50		2.30
8735-100		4.30
8735-500		19.15
8735-1000		38.25/M'
8737-100		3.40
8737-500		13.50
8737-1000		27.00/M'
8738-100		2.55
8738-500		10.50
8738-1000		21.00/M'
8739-100		2.95
8739-500		11.25
8739-1000		22.50/M'
8740-100		1.80
8740-500		6.60
8740-1000		12.75/M'
8741-100		2.95
8741-500		12.00
8741-1000		23.25/M'
8742-100		3.90
8742-500		16.50
8742-1000		32.25/M'
8743-100		6.00
8743-500		27.75
8743-1000		55.50/M'
8744-100		8.10
8744-500		38.65
8744-1000		77.25/M'
8745-100		13.95
8745-500		67.50
8745-1000		133.50/M'
8746 (to customer's specified length)§		247.50/M'
8747-100		8.25
8747-500		37.50
8747-1000		75.00/M'
8748-100		11.40
8748-500		54.00
8748-1000		108.00/M'
8749-100		19.50
8749-500		90.00
8749-1000		180.00/M'
8750 (to customer's specified length)§		337.50/M'
8751★ (to customer's specified length)§		735.00/M'
8753-100		10.95
8753-500		52.50
8753-1000		105.00/M'
8754-100		12.40
8754-500		59.25
8754-1000		118.50/M'
8755-100		19.50
8755-500		92.25
8755-1000		184.50/M'
8756-100		23.25
8756-500		108.00
8756-1000		216.00/M'
8757-500		41.25/M'
8757-1000		41.25/M'
8758-100		3.00
8758-500		13.90
8758-1000		27.75/M'
8759-100		3.75
8759-500		17.25
8759-1000		34.50/M'
8760-500 ★		37.50/M'
8760-1000★		37.50/M'
8761-500 ★		24.00/M'
8761-1000★		24.00/M'
8762-100 ★		3.45
8762-500 ★		15.75
8762-1000★		31.50/M'
8763-100 ★	TBO	4.45
8763-500 ★		36.00/M'
8763-1000★		36.00/M'
8764-100 ★		18.00
8764-500 ★		180.00/M'
8764-1000★		180.00/M'
8765-100 ★		20.25
8765-500 ★		202.50/M'
8765-1000★		202.50/M'
8766-100 ★		28.50
8766-500 ★		285.00/M'
8766-1000★		285.00/M'
8767-100 ★		6.60
8767-500 ★		66.00/M'
8767-1000★		66.00/M'
8768-100 ★		12.30
8768-500 ★		123.00/M'
8768-1000★		123.00/M'

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Net

BELDEN • PRICE LIST

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8769-100 ★	47.25
*8769-500 ★	472.50/M'
*8769-1000★	472.50/M'
8770-500 ★	47.25/M'
8770-1000★	47.25/M'
8771-500 ★	30.00/M'
8771-1000★	30.00/M'
8772-500 ★	37.50/M'
8772-1000★	37.50/M'
*8773★ (to customer's specified length)§	697.50/M'
8779-100 TBO	5.25
8779-500	49.50/M'
8779-1000	49.50/M'
8780-100	5.70
8780-500	27.00
8780-1000	54.00/M'
8782-25	.53
8782-50	.78
8782-100	1.23
8782-500	9.00/M'
8782-1000	9.00/M'
8783-100	4.50
8783-500	42.00/M'
8785-100 TBO	5.25
8785-500	49.50/M'
8786-100	5.75
8786-500	55.50/M'
8787-100 TBO	19.20
8787-500	187.50/M'
8789-100 TBO	4.30
8789-500	19.35
8789-1000	38.70/M'
8790-100	4.45
8790-500	20.00
8790-1000	40.00/M'
8791-100	5.40
8791-500	25.20
8791-1000	50.40/M'
*8792-100	25.50
*8792-500	255.00/M'
*8792-1000	255.00/M'
*8793 (to customer's specified length)§	562.50/M'
8799-100 TBO	4.50
8799-500	43.50/M'
8799-1000	43.50/M'
8800	.83
8817-100	.30
8818	5.04
8819	8.10
8820	5.04
8821	8.25
8822	4.40
8823	4.80
8824	3.84
8825	7.63
8826	7.48
8827	8.55
8828 TBO	19.00
8829 TBO	21.00
8830 TBO	24.00
8831 TBO	26.50
*8850-100	9.90
*8850-500	49.50
*8850-1000	96.00
*8851-100	9.00
*8851-500	42.00
*8851-1000	82.50
*8852-100	7.50
*8852--500	34.50
*8852-1000	67.50
*8853-100	5.40
*8853-500	26.25
*8853-1000	51.00
*8854-100	5.10
*8854-500	24.00
*8854-1000	47.25

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8855-100	4.50
*8855-500	21.75
*8855-1000	42.00
*8858-100	7.50
*8858-500	36.00
*8858-1000	71.25
*8859-100	6.00
*8859-500	28.50
*8859-1000	56.25
*8860-100	5.25
*8860-500	24.00
*8860-1000	46.80
*8861-100	4.50
*8861-500	19.50
*8861-1000	37.50
*8862-100	3.75
*8862-500	17.25
*8862-1000	33.75
*8863-100	3.40
*8863-500	16.50
*8863-1000	31.50
8868-25	.75
8868-100	1.90
8868-500	9.00
*8869-25	.68
*8869-100-	1.65
*8869-500	7.50
8874	.54
8875	.41
8878	2.25 pr
8879	.98 pr
*8880-100 †	6.00
*8880-500 †	29.25
*8880-1000 †	57.00
*8881-100 †	4.87
*8881-500 †	23.25
*8881-1000 †	45.00
*8882-100 †	3.00
*8882-500 †	14.25
*8882-1000 †	27.60
*8883-100 †	2.25
*8883-500 †	10.50
*8883-1000 †	20.25
8884-100 †	3.90
8884-500 †	18.75
*8884-1000 †	36.75
8885-15	.69
8885-25	1.02
8885-100	3.15
8885-500	29.25/M'
8886-15 † TBO	.66
8886-25 † TBO	.96
8886-100 †	2.65
8886-500 †	12.00
*8886-1000 †	22.50
*8887-100 †	2.25
*8887-500 †	10.50
*8887-1000 †	19.50
8888-25 †	.86
8888-100 †	2.25
*8888-250 †	5.25
*8892-100	5.25
*8892-500	25.50
*8892-1000	48.75
*8893-100	3.40
*8893-500	19.50
*8893-1000	38.25
*8894-100	6.00
*8894-500	29.25
*8894-1000	57.00
*8895-1	.38
*8895-100	.23
*8896-100	4.50
*8896-500	20.25
*8896-1000	39.75
8898-10 †	.72
8898-25 †	1.28
8898-100 †	3.60
8898-500 †	16.35
8899-10 †	.48

Trade Number Lgth. in Ft.	Sug. Resale Price Each
8899-14	.60
8899-25 †	.83
8899-100 †	2.40
8899-500 †	10.15
8899-1000†	20.25
8916-100 †	2.80
8916-500 †	11.65
8917-100 †	2.10
8917-500 †	8.70
8918-100 †	1.65
8918-1000†	12.45
8919-100 †	1.34
8919-1000†	10.35
8920-100 †	1.23
8920-1000†	9.15
8933-100 †	3.45
8933-500 †	15.75
8934-100 †	2.25
8934-500 †	9.50
8935-100 †	1.88
8935-1000†	15.00
8936-100 †	1.50
8936-1000†	11.55
8937-100 †	1.38
8937-1000†	10.35
8938-100 †	2.95
8938-500 †	12.90
8941-25 †	.63
8941-100 †	1.62
8941-1000†	12.00
8942-100 †	2.20
8942-1000†	18.75
8943-25 †	.63
8943-100 †	1.65
8943-1000†	12.80
8945-25 †	.60
8945-100 †	1.73
8945-1000†	14.20
8947-25 †	.63
8947-100 †	1.88
8947-1000†	15.90
*8950-100 † Solid	3.30
*8950-500 † Solid	15.75
*8950-1000 † Solid	30.75
*8950-100 † Striped ♦	3.45
*8950-500 † Striped ♦	16.35
*8950-1000 † Striped ♦	31.90
*8951-100 † Solid	2.18
*8951-500 † Solid	10.50
*8951-1000 † Solid	19.50
*8951-100 † Striped ♦	2.30
*8951-500 † Striped ♦	11.10
*8951-1000 † Striped ♦	20.65
*8952-100 † Solid	1.65
*8952-500 † Solid	7.90
*8952-1000 † Solid	15.00
*8952-100 † Striped ♦	1.77
*8952-500 † Striped ♦	8.50
*8952-1000 † Striped ♦	16.15
*8953-100 † Solid	1.20
*8953-500 † Solid	5.85
*8953-1000 † Solid	11.40
*8953-100 † Striped ♦	1.32
*8953-500 † Striped ♦	6.45
*8953-1000 † Striped ♦	12.55
*8954-100 † Solid	.98
*8954-500 † Solid	4.50
*8954-1000 † Solid	8.85
*8954-100 † Striped ♦	1.10
*8954-500 † Striped ♦	5.10
*8954-1000 † Striped ♦	10.00
*8955-100 † Solid	.90
*8955-500 † Solid	4.15
*8955-1000 † Solid	7.50
*8955-100 † Striped ♦	1.02
*8955-500 † Striped ♦	4.75
*8955-1000 † Striped ♦	8.65
*8956-100 † Solid	3.75
*8956-500 † Solid	18.40
*8956-1000 † Solid	36.00

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8956-100 † Striped ♦	3.87
*8956-500 † Striped ♦	19.00
*8956-1000 † Striped ♦	37.15
*8957-100 † Solid	2.55
*8957-500 † Solid	12.40
*8957-1000 † Solid	24.00
*8957-100 † Striped ♦	2.67
*8957-500 † Striped ♦	13.00
*8957-1000 † Striped ♦	25.15
*8958-100 † Solid	2.03
*8958-500 † Solid	9.75
*8958-1000 † Solid	18.75
*8958-100 † Striped ♦	2.14
*8958-500 † Striped ♦	10.35
*8958-1000 † Striped ♦	19.90
*8959-100 † Solid	1.65
*8959-500 † Solid	7.25
*8959-1000 † Solid	15.00
*8959-100 † Striped ♦	1.77
*8959-500 † Striped ♦	7.75
*8959-1000 † Striped ♦	16.15
*8960-100 † Solid	1.35
*8960-500 † Solid	6.40
*8960-1000 † Solid	12.00
*8960-100 † Striped ♦	1.47
*8960-500 † Striped ♦	7.00
*8960-1000 † Striped ♦	13.00
*8961-100 † Solid	1.28
*8961-500 † Solid	5.85
*8961-1000 † Solid	10.80
*8961-100 † Striped ♦	1.40
*8961-500 † Striped ♦	6.45
*8961-1000 † Striped ♦	11.95
*8963-100 † Solid	21.75
*8963-500 † Solid	106.50
*8963-1000 † Solid	210.00
*8963-100 † Striped ♦	21.90
*8963-500 † Striped ♦	107.10
*8963-1000 † Striped ♦	211.15
*8964-100 † Solid	18.75
*8964-500 † Solid	93.00
*8964-1000 † Solid	184.50
*8964-100 † Striped ♦	18.90
*8964-500 † Striped ♦	93.60
*8964-1000 † Striped ♦	185.65
*8965-100 † Solid	10.15
*8965-500 † Solid	49.50
*8965-1000 † Solid	97.50
*8965-100 † Striped ♦	10.25
*8965-500 † Striped ♦	50.10
*8965-1000 † Striped ♦	98.65
*8966-100 † Solid	7.20
*8966-500 † Solid	50.65
*8966-1000 † Solid	70.50
*8966-100 † Striped ♦	7.32
*8966-500 † Striped ♦	51.25
*8966-1000 † Striped ♦	71.65
*8967-100 † Solid	4.95
*8967-500 † Solid	24.40
*8967-1000 † Solid	48.00
*8967-100 † Striped ♦	5.10
*8967-500 † Striped ♦	25.00
*8967-1000 † Striped ♦	49.15
*8968-100 † Solid	3.60
*8968-500 † Solid	17.25
*8968-1000 † Solid	33.75
*8968-100 † Striped ♦	3.72
*8968-500 † Striped ♦	17.85
*8968-1000 † Striped ♦	34.90
*8969-100 † Solid	3.00
*8969-500 † Solid	14.65
*8969-1000 † Solid	28.50
*8969-100 † Striped ♦	3.12
*8969-500 † Striped ♦	15.25
*8969-1000 † Striped ♦	29.70
*8970-100 † Solid	2.40
*8970-500 † Solid	11.70
*8970-1000 † Solid	22.90
*8970-100 † Striped ♦	2.52
*8970-500 † Striped ♦	12.30

Trade Number Lgth. in Ft.	Sug. Resale Price Each
*8970-1000 † Striped ♦	24.00
*8971-100 † Solid	2.10
*8971-500 † Solid	10.50
*8971-1000 † Solid	20.10
*8971-100 † Striped ♦	2.22
*8971-500 † Striped ♦	11.10
*8971-1000 † Striped ♦	21.10
*8972-100 † Solid	1.75
*8972-500 † Solid	8.25
*8972-1000 † Solid	16.15
*8972-100 † Striped ♦	1.85
*8972-500 † Striped ♦	8.85
*8972-1000 † Striped ♦	17.25

BELDENAMEL
(Magnet Wire)

Size	Trade Number	Suggested Dealer Price Each
	¼ LB. SPOOLS	
28	8040	.54
30	8041	.57
32	8042	.59
34	8043	.60
36	8044	.69
38	8045	.90
40	8046	1.19
	½ LB. SPOOLS	
14	8047	.68
16	8048	.68
18	8049	.68
20	8050	.68
22	8051	.72
24	8052	.74
26	8053	.81
28	8054	.87
30	8055	.95
32	8056	.99
34	8057	1.02
36	8058	1.22

NYLCLAD (HNC)

Size	Trade Number	Suggested Dealer Price Each
	½ LB. SPOOLS	
14	8059	.68
16	8060	.68
18	8061	.68
20	8062	.68
22	8063	.72
24	8064	.77
26	8065	.83
28	8066	.90
30	8067	1.04
32	8068	1.11
34	8069	1.28
36	8070	1.58
38	8071	1.95
40	8072	2.81
	1 LB. SPOOLS	
14	8073	1.17
16	8074	1.17
18	8075	1.20
20	8076	1.25
22	8077	1.31
24	8078	1.38
26	8079	1.52
28	8080	1.65
30	8081	1.88
32	8082	2.06
34	8083	2.40
36	8084	3.00
38	8085	3.83
40	8086	5.63

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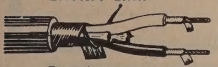
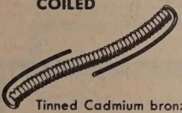
* New Item † Specify Color TBO To Be Obsoleted.
ALL SPOOLS ARE ONE PIECE UNLESS OTHERWISE INDICATED BY (●).
● Spools may contain more than one piece, minimum length of any one piece is 25 ft.
When priced per M ft. length may vary ± 10% from length shown; all other lengths are exact.
§ Cut to Customer's Specified Length subject to available stock lengths — 199 ft. or less, plus 25′, minus 0; 200 ft. or over, plus 50′, minus 0.
♦ (Vinyl Hook-up Wire) Prices apply to standard stock colors as listed in our current catalog and to non-stock striped colors over stock solid colors in quantities of 10,000′ or more. Non-stock striped colors over stock solid colors in quantities of 1000′ to 9999′, add pro-rata set-up charge of $3.00 per color combination. Minimum order 1000′ per special stripe combination. Special stripe colors in any quantity will be subject to 2 piece put-up and plus or minus 10% per spool.
△ (Teflon Hook-up Wire) Prices apply to any striped color combination in quantities of 1000′ or more. Minimum order 1000′ per stripe color combination. Striping adders do not apply to braided tracers — Write for prices on non-stock tracer colors. ★ Patent Applied For.

Prices Subject to Change Without Notice

rubber microphone and shielded power supply cables

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 3 strands copper, 4 strands Copperweld† tinned, cellulose yarn braid, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	8410	1	25(7x33)	.063	.025	.245	78	3000	52	33	—	15, 25, 50, 100, 250, 500
MINIATURE 2 CONDUCTOR 	8413	2	24(45x40)	.015	.025	.185	100	300	—	38	71	15, 25, 50, 100, 250, 500
MINIATURE 3 CONDUCTOR Tinned cadmium bronze, cotton serve, rubber insulated, cabled with fillers, conductive textile serve, tinned copper braid shield, cotton serve, black rubber jacket.	NEW 8406	3	24(45x40)	.015	.025	.223	100	300	—	43	76	100, 250, 500
MULTIPLE CONDUCTOR Tinned copper, cotton wrap, rubber insulated, rayon braid, tinned copper braid shield, cotton wrap, black rubber jacket.	8412	2	20(26x34)	.020	.043	.268	85	600	—	42	68	15, 25, 50, 100, 250, 500
	8423	3	20(26x34)	.020	.040	.277	84	600	—	50	85	15, 25, 50, 100, 250, 500, 1000
	8424	4	20(26x34)	.020	.040	.295	81	600	—	55	95	15, 25, 50, 100, 250, 500, 1000
	8425	5	20(26x34)	.020	.040	.323	76	600	—	44	80	100, 250
	8426	6	20(26x34)	.020	.040	.349	91	600	—	40	78	100, 250
	8427	7	20(26x34)	.020	.043	.360	91	600	—	40	75	100, 250
	8418	8	20(26x34)	.020	.043	.386	89	600	—	42	75	100, 250
NEOPRENE HEAVY DUTY Tinned copper, cotton wrap, rubber insulated, cabled, rayon braid, tinned copper braid shield, cotton wrap, black NEOPRENE jacket.	8428	2	18(41x34)	.022	.038	.295	91	600	—	47	80	100, 500
EXTRA LIMP  Tinned copper, cotton wrap, rubber insulated, cabled, conductive textile wrapped shield, stranded ground wire, black rubber jacket.	8414	2	20(26x34)	.020	.043	.256	100	600	—	45	80	50, 500

NEOPRENE RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put Up
COILED  Tinned Cadmium bronze, rubber insulated, paper tape wrap, black Neoprene jacket. 8499 has a spiral tinned copper braid shield. 8497 has a BELDFOIL braid shield.	8415	4 unshielded	23(21x36)	.015	.055	.250	No shield	—	11½"	6'	1
	NEW 8499	1 shielded	24(45x40)	.019	.043	.160	80%	285	7½"	4'	1
	NEW 8497	3 white cond. shielded	23(21x36)	.020	.046	.250	81%	480	11½"	6'	1

COLOR CODING OF INDIVIDUAL CONDUCTORS FOR CABLES ON THIS PAGE & PAGE 3

No. of Conductors	Color Coding							
	White	Black	Red	Green	Blue	Brown	Yellow	Orange
1	x							
2	x	x						
3	x	x	x					
4	x	x	x	x				
5	x	x	x	x	x			
6	x	x	x	x	x	x		
7	x	x	x	x	x	x	x	
8	x	x	x	x	x	x	x	x

*Capacitance between conductors (8401, 8410, 8411 between conductor and shield).

†Trademark of Copperweld Steel Company.

RUBBER—PLASTIC—NEOPRENE

PLASTIC CABLES RECOMMENDED FOR: Lower capacitance, lower loss, greater ozone and oil resistance, lighter weight, smaller diameter.

RUBBER CABLES RECOMMENDED FOR: Greater abrasion and impact resistance, and extra limpness so cable will lie flat on stage or studio floor.

NEOPRENE CABLES RECOMMENDED FOR: Outside use. Resistant to effects of sun, oil, and ozone.

***Capacitance between 1 conductor and remaining conductors connected to shield.*

****Capacitance of shielded conductor*

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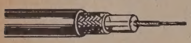
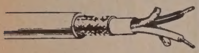
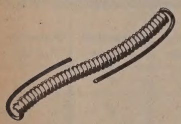
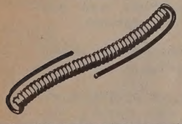
vinyl microphone and shielded power supply cables

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	Impedance (Ohms)	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
SINGLE CONDUCTOR 	**8411**	1	25(7x33)	.020	.020	.144	72	3500	52	34	—	15, 25, 50, 100, 250, 500
	8401	1	25(7x33)	.043	.025	.200	74	5000	57	25	—	15, 25, 50, 100, 250, 500
	3 strands copper, 4 strands Copperweld†, tinned, cellulose yarn braid, polyethylene insulated, tinned copper braid shield, chrome vinyl jacket.											
MINIATURE 2 CONDUCTOR 	**8420**	2	24(45x40)	.015	.025	.178	77	500	—	20	35	15, 25, 50, 100, 250, 500
	Tinned cadmium bronze, polyethylene insulated, cabled with fillers, rayon braid, tinned copper braid shield, chrome vinyl jacket.											
MULTIPLE CONDUCTOR Tinned copper, polyethylene insulated, cabled, rayon braid, tinned copper braid shield, chrome vinyl jacket.	**8422**	2	22(16x34)	.023	.023	.231	87	1000	—	18	32	15, 25, 50, 100, 250, 500
	8403	3	20(26x34)	.015	.033	.245	94	600	—	25	45	15, 50, 100, 250, 500, 1000
	8404	4	20(26x34)	.015	.033	.255	89	600	—	25	45	15, 100, 250, 500, 1000
	8405	5	20(26x34)	.015	.035	.275	84	600	—	25	45	250, 500, 1000
STRAIN GAUGE CABLE	**8434**	4	25(7x33) 3 copper 4 copper-weld	.013	.020	.169	100	400	—	25	40	100, 500, 1000
	Tinned conductors, polyethylene insulated, black and red conductors under BELDFOIL[1] aluminum-Mylar shield, stranded ground wire, green and white conductors under over-all BELDFOIL aluminum-Mylar♦ shield, chrome vinyl jacket.											
	NEW 8723	4	22(7x30) copper	.008	.019	.165	100	400	—	35	62	100, 500, 1000
	Tinned conductors, polypropylene insulated black and red under a BELDFOIL Shield, green and white BELDFOIL Shield (each pair separate) chrome viny jacket.											

VINYL RETRACTILE (COILED) MICROPHONE CABLES

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	***Cap. (mmf/cord)	Retracted Length	Extended Length	Standard Put Up
COILED 	**NEW 8498**	1 shielded	24(45x40)	.019	.053	.180	80%	285	7½″	4′	1
	NEW 8496	3 white cond. shielded	23(21x36)	.020	.046	.250	81%	480	11½″	6′	1
	Tinned cadmium bronze, rubber insulated, over-all vinyl jacket. 8498 has a spiral tinned copper braid shield. 8496 has a BELDFOIL braid shield.										

VINYL RETRACTILE (COILED) TELEPHONE CORDS

Description	Trade Number	No. of Cond.	AWG (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Retracted Length	Extended Length	Standard put-up
COILED 	**NEW 8495**	3	23(21x36)	.020	.041	.220	10″	4½′	1
	NEW 8494	4	23(21x36)	.020	.043	.245	10″	4½′	1
	Bare cadmium bronze, vinyl insulated, cabled, paper wrapped, black vinyl jacket. One end stripped 7¾″, spade terminals attached and hook strain relief clamped over jacket. Other end stripped 6¼″ and spade terminals attached.								

** Capacitance between conductors (8401, 8411 between conductor and shield).*
***Capacitance between 1 conductor and remaining conductors connected to shield.*
****Capacitance of shielded conductor.*

†Trademark of Copperweld Steel Company
♦Dupont trademark
[1] Belden trademark

See Prices on four pages preceding Belden Page 1

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Belden

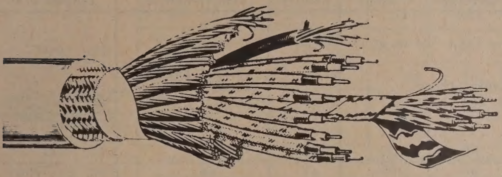
tv camera cables and 75 ohm video cable

TV CAMERA CABLES

Preferred by TV camera operators requiring dependable service under all conditions in which lighter weight, lower coefficient of friction, greater flexibility, and easier termination are essential.

Correct electronic characteristics are assured at every stage from design engineering through final inspection.

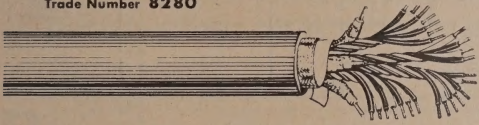
Trade Number 8283



82 Conductor TV Color Camera Cable

4-14 AWG (19x27) tinned copper, vinyl plastic insulated, color coded
3-16 AWG (26x30) tinned copper, vinyl plastic insulated, color coded
BELDFOIL aluminum-Mylar wrapped shield around the above 7 conductors cabled with stranded tinned copper drain wire
8 coaxial cables. Nom. impedance 53.5 ohms, color coded
67-22 AWG (7x30) tinned copper, vinyl plastic insulated, color coded, 7 under conductive textile shield with stranded ground wire
Tinned copper braid shield
Chrome vinyl plastic jacket. 1.22″ Nom. O.D.
Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or over, plus 50′, minus 0.

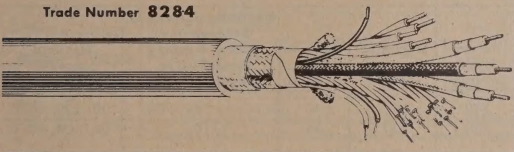
Trade Number 8280



28 Conductor TV Camera Cable

4-18 AWG (16x30) tinned copper, vinyl insulated, color coded
21-22 AWG (7x30) tinned copper, vinyl insulated, cabled in 3 groups of 7, color coded
3 coaxial cables. Nom. impedance 51 ohms, color coded
Tinned copper braid shield
Chrome vinyl jacket. .750″ Nom. O.D.
Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or over, plus 50′, minus 0.

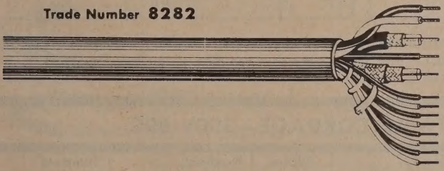
Trade Number 8284



24 Conductor TV Camera Cable

17-22 AWG (7x30) tinned copper, vinyl insulated, color coded
4-16 AWG (26x30) tinned copper, vinyl insulated, color coded
3 coaxial cables. Nom. impedance 53.5 ohms, color coded
Tinned copper braid shield
Heavy cotton braid
Chrome vinyl plastic jacket. .800″ Nom. O.D.
Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or over, plus 50′, minus 0.

Trade Number 8282

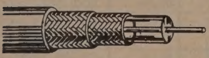


13 Conductor TV Eye Cable

9-22 AWG (7x30) tinned copper, vinyl insulated, color coded
2-18 AWG (16x30) tinned stranded copper conductor vinyl insulated. Black and Red
1-RG-58A/U cable 50-ohm coax
1-72-ohm coax, stranded conductor, Mylar tape wrapped
Chrome vinyl jacket. .470″ Nom. O.D.
Standard spool lengths 500′, 1000′.

75 OHM VIDEO CABLE

TYPICAL APPLICATIONS: Video signal transmission in color and monochrome TV studios. Provides high quality carrier of video signal with superior picture definition and eliminates problems of periodicity. Cable is manufactured with rigid control of concentricity and all dimensional tolerances. The black polyethylene jacket is manufactured with a non-contaminating, non-migratory compound. 100% SWEEP TESTED.

Description	Trade Number	AWG & (Stranding) Material	Nom. O.D. (Inch)	Percent Shield Coverage	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap (mmf/ft)	Nom. Attenuation mc	Nom. Attenuation db	Standard Spool Lengths in ft
 *Conductor, polyethylene insulated, tinned copper double braid shield, black polyethylene jacket.*	**8281**	20(Solid) copper	.304	93.5	75	65.2%	20.7	5	.55	500, 1000
								10	.8	
								20	1.3	
								100	2.7	
								300	5.1	
								500	6.8	
								700	8.4	

As a service to users of 8281 video cable, we can furnish, without charge, adapters for use with the PL259 plug.

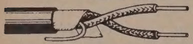
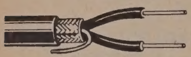
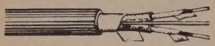
Belden

broadcast audio cables and portable cordage

BROADCAST AUDIO CABLES

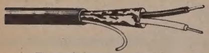
Spiral wrapped copper shields plus drain wire plus shield isolation eliminate current loops so often found troublesome in this service.

Free stripping jackets, fast shield termination, and small diameters cut installation time and costs.

Description	Trade Number	AWG & (Stranding) Inc. Drain Wire	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Suggested Working Voltage	Between Cond. (mmf/ft)	Nominal Capacitance Between one Cond. & other Cond. Tied to Shield (mmf/ft)	Standard Spool Lengths in ft
ABC TYPE  *Tinned copper, Celanese② wrap, Celanese braid lacquered, conductors cabled, tinned copper drain wire, tinned copper spiral wrapped shield, black vinyl jacket.*	**8436**	22(Solid)·	.180	Blk, Red	90	100	31	52	500, 1000
CBS TYPE  *Tinned copper, vinyl insulated, conductors cabled, tinned copper drain wire, tinned copper braid shield, black vinyl jacket.*	**8437**	22(Solid)	.200	Blk, Red	88	200	48	85	500, 1000
	8441	22(16x34)	.210	Blk, Red	88	200	49	86	100, 500, 1000
STANDARD  *Tinned copper, enameled, cotton wrap, cotton braid, conductors cabled, tinned copper drain wire, tinned copper spiral wrapped shield, chrome vinyl jacket.*	**8440**	22(Solid)	.185	Blk, Red	90	100	50	90	500, 1000

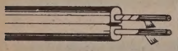
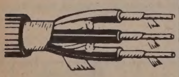
② Trademark of Celanese Corp.

MINIATURE BROADCAST AUDIO CABLES

Description	Trade Number	AWG & (Stranding) Inc. Drain Wire	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Suggested Working Voltage	Between Cond. (mmf/ft)	Nominal Capacitance Between one Cond. & other Cond. Tied to Shield (mmf/ft)	Standard Spool Lengths in ft
 *Tinned copper, Polypropylene insulated, conductors cabled, tinned copper drain wire, spiral wrap BELDFOIL shield, BLACK or CHROME VINYL JACKET.*	**8450**	22(Solid)	.118	Blk, Red	100	200	40	76	100, 500, 1000
	8451	22(7x30)	.135	Blk, Red	100	200	56	110	100, 500, 1000

The new Belden miniature type Broadcast Audio Cables have 100% shield coverage against Electrostatic fields. The folded BELDFOIL Shield gives high cable reliability together with easy termination by means of the drain wire. A most important feature of these cables is that they occupy only one third to one half the space required for a Standard Broadcast Audio Cable.

RUBBER-VINYL MULTI-CONDUCTOR PORTABLE CORDAGE—300V-60C

Description	Trade Number	U.L. Type	Insulation	No. of Conductors	AWG & Stranding	Insulation Thickness (Inch)	Conductor Coding	Jacket Thickness (Inch)	Nominal O.D. (Inch)	Color	Standard Spool Lengths in ft
 *Two conductors, stranded copper, parallel, insulated with one conductor polarity ribbed*	**8462**	SP-1	Rubber	2	18 (41x34)	.031	Polarity Ribbed	—	.123 x .223	Brown or Ivory	25, 100, 250
	8888	SPT-1	Vinyl	2	18 (41x34)	.031	Polarity Ribbed	—	.110 x .207	Brn, Ivory or Silver Gray	25, 100, 250
 Stranded copper, rubber insulated, cabled with fillers, rubber jacket	**8452**	SV	Rubber	2	18 (41x34)	.016	Blk, Wht	.031	.245.	Black	15, 25, 50, 100, 250, 500, 1000
	8478	SJ	Rubber	2	18 (41x34)	.031	Blk, Wht	.031	.299	Black	25, 100, 250, 1000
	8472	SJ	Rubber	2	16 (65x34)	.031	Blk, Wht	.031	.325	Black	25, 50, 100, 250
	8474	—	Rubber	2	14 (41x30)	.031	Blk, Wht	.035	.360	Black	100, 250
	8453	SV	Rubber	3	18 (41x34) Tinned	.016	Blk, Wht Green	.031	.265	Black	15, 50, 100, 500
	8454	—	Rubber	4	18 (41x34) Tinned	.016	Blk, Wht, Brn, Red	.031	.265	Black	15, 50, 100, 500, 1000
	8455	—	Rubber	5	3—20 (26x34) Tinned 2—18 (41x34) Tinned	.015 .015	Brn, Grn, White Blk, Red	.031	.280	Black	100, 250

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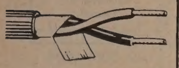
two and three conductor shielded cables

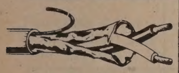
TWISTED PAIRS #22 thru #16 Gauge

With Jacket



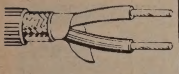
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8739	22 (Solid)	.015	.025	.160	Blk, Red	90	38	66	350	100, 500, 1000
8737	22 (7x30)	.015	.025	.170	Blk, Red	90	40	70	350	100, 500, 1000
8759	20 (7x28)	.015	.025	.195	Blk, Red	90	47	79	350	100, 500, 1000
8790	18 (7x26)	.020	.028	.231	Red, Wht	90	53	92	450	100, 500, 1000
8780	16 (19x29)	.023	.030	.266	Blk, Wht	90	57	98	450	100, 500, 1000

Tinned copper, vinyl insulated, tinned copper spiral wrapped shield, chrome vinyl jacket.



Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8761	22 (7x30)	.014	.025	.167	Blk, Wht	100	24	47	350	500, 1000
8762	20 (7x28)	.014	.028	.184	Blk, Wht	100	27	49	350	100, 500, 1000
8760	18 (16x30)	.018	.028	.222	Blk, Wht	100	24	44	450	500, 1000

Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar wrapped shield, stranded tinned copper ground wire, chrome vinyl jacket.



Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8208	18 (16x30)	.020	.025	.270	Red, Wht	69	46	77	200	500, 500, 1000

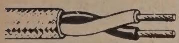
Tinned copper, rubber insulated, braided tinned copper shield, chrome vinyl jacket.

With Cotton Braid

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8209	18 (16x30)	.020	—	.258	Red, Wht	69	51	89	200	50, 100, 500, 1000

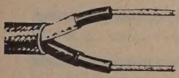
Tinned copper, rubber insulated, braided tinned copper shield, white cotton braid, treated for weather resistance.

Without Jacket



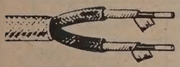
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8738	22 (Solid)	.015	—	.130	Blk, Red	72	35	61	350	100, 500, 1000
8758	20 (7x28)	.015	—	.165	Blk, Red	63	42	72	350	100, 500, 1000
8789	18 (7x26)	.020	—	.205	Blk, Wht	74	50	89	450	500, 1000
8779	16 (19x29)	.023	—	.225	Blk, Wht	83	63	112	600	500, 1000

Tinned copper, vinyl insulated, braided tinned copper shield.



Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8432	20 (10x30)	.016	—	.225	Blk, Red	90	46	86	150	500, 1000

Tinned copper, rubber insulated, cotton braid, lacquered, cabled, braided tinned copper shield.

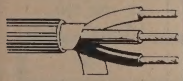


Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Per cent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8799	18 (Solid)	—	—	.165	Blk, Wht	78	30	50	100	500, 1000

Enameled copper, cotton wrap, cotton braid, cabled, braided tinned copper shield.

See Broadcast Audio Cables for additional 2 conductor shielded cables—Belden page 4.

3 CONDUCTORS SHIELDED #22 thru #18 Gauge

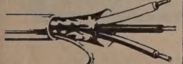


Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8731	22 (Solid)	.015	.025	.178	Blk, Red, Wht	90	36	63	350	500, 1000
8791	18 (7x26)	.020	.028	.236	Blk, Red, Wht	90	47	84	450	100, 500, 1000

Tinned copper, vinyl insulated, conductors cabled, tinned copper spiral wrapped shield, chrome vinyl jacket.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8735	22 (7x30)	.015	.025	.199	Blk, Red, Wht	70	34	60	350	15, 50, 100, 500, 1000

Tinned copper, vinyl insulated, conductors cabled, tinned copper braid shield, chrome vinyl jacket.



Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Percent Shield Coverage	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Suggested Working Voltage	Standard Spool Lengths in ft
8771	22 (7x30)	.014	.025	.175	Blk, Red, Wht	100	23	41	350	500, 1000
8772	20 (7x28)	.014	.028	.200	Blk, Red, Wht	100	27	51	350	500, 1000
8770	18 (16x30)	.018	.028	.236	Blk, Red, Wht	100	24	48	450	500, 1000

Tinned copper, polyethylene insulated, conductors cabled, BELDFOIL aluminum-Mylar wrapped shield, stranded tinned copper ground wire (22 AWG for 8771, and 20 AWG for 8770 and 8772), chrome vinyl jacket.

**Capacitance between conductors.*
***Capacitance between 1 conductor and other conductor connected to shield.*

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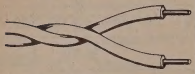
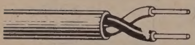
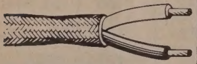
See Prices on four pages preceding Belden Page 1

Belden

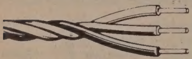
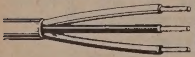
two and three conductor unshielded cables

TWO CONDUCTOR—TWISTED PAIR

Twisted Pairs 22 through 14 AWG	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
WITHOUT JACKET	**8481**	22 (Solid)	.015	—	Brn, Tan	.112	350	100, 500, 1000
	8482	19 (Solid)	.015	—	Brn, Tan	.115	350	100, 500, 1000
	**8492**	19 (Solid) Available Brown and White	.025	—	1 cond. tinned copper	.170	600	100, 500, 1000
	8460	18 (7x26) tinned	.020	—	Blk, Wht	.175	450	100, 500, 1000
Copper, vinyl insulated, twisted.	**8470**	16 (19x29) tinned	.023	—	Blk, Wht	.195	600	500, 1000
WITH JACKET	**8740**	22 (Solid) tinned	.015	.025	Blk, Red	.150	200	100, 500, 1000
	**NEW 8442**	22 (7x30) tinned	.015	.025	Blk, Red	.165	350	500, 1000
	8205	20 (10x30) tinned	.018	.025	Blk, Red	.190	350	25, 100, 500, 1000
	8486	19 (Solid)	.015	.025	Brn, Tan	.162	350	500, 1000
	8461	18 (7x26) tinned	.020	.028	Blk, Wht	.226	450	100, 500, 1000
	8471	16 (19x29) tinned	.023	.030	Blk, Wht	.256	600	500, 1000
Copper, vinyl insulated, cabled, chrome vinyl jacket.	**NEW 8473**	14 (19x29) tinned	.031	.035	Blk, Wht	.332	600	500, 1000
WITH COTTON BRAID	**8204**	18 (16x30)	.020	—	Red, Wht	.220	200	25, 100, 500, 1000
	*Tinned copper, rubber insulated, cabled, white cotton braid, treated for weather resistance.*							

For additional 2 conductor cables see PORTABLE CORDAGE *pages 2 and 3 and* COIN OPERATED PHONOGRAPH CABLE *page 11.*

THREE CONDUCTOR—UNSHIELDED CABLES

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Conductor Color Coding	Nominal O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
WITHOUT JACKET	**8483**	19 (Solid)	.015	—	Brn, Gray, Tan	.132	350	100, 500, 1000
 *Bare copper, vinyl insulated, cabled.*	**8493**	19 (Solid)	.025	—	Brn, 1 condr. tinned. 1 condr. insul. is ribbed	.170	600	1000
WITH JACKET 	**8443**	22 (7x30) tinned	.010	.025	Blk, Grn, Red	.150	200	25, 100, 500, 1000
Copper, vinyl insulated, cabled, chrome vinyl jacket.	**8487**	19 (Solid) Bare	.015	.025	Brn, Gray, Tan	.180	350	500, 1000

For additional 3 conductor cables see PORTABLE CORDAGE *pages 2 and 3 and* COIN OPERATED PHONOGRAPH CABLE *page 11.*

CONTROL CABLES

Through the wide coverage of cables shown in this catalog, Belden is a principal supplier of Control Cables for sound systems, business systems, machinery control or automation.

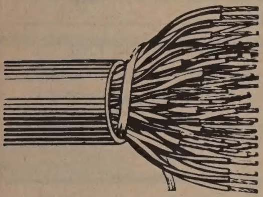
Control Cables are a Belden specialty. Where shielding is required, BELDFOIL shielding is particularly adaptable for complex cables.

Belden multiple pair unshielded intercom cable

TYPICAL APPLICATIONS: Balanced line intercom systems.

Made with 80C vinyl plastic compounds for high dielectric strength and the best physical properties, such as free stripping, small diameter, and tear resistance. It also resists the effects of water, sun, oil, grease, and ozone.

The conductors are paired with a short-lay twist for conductor balance, providing a quiet circuit, free from crosstalk.

1 to 27 Pairs	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
 #22 Tinned copper, vinyl insulated, cabled in pairs, chrome vinyl jacket. 200 Volts suggested working voltage. 	**8740**	1	Solid	.015	.025	.150	100, 500, 1000
	8741	2	Solid	.015	.028	.201	100, 500, 1000
	8742	3	Solid	.015	.030	.240	100, 500, 1000
	8757	4	Solid	.015	.030	.255	500, 1000
	8743	6	Solid	.010	.035	.305	100, 500, 1000
	8747	6	7x30	.010	.035	.340	100, 500, 1000
	8744	9	Solid	.010	.037	.354	100, 500, 1000
	8748	9	7x30	.010	.037	.389	100, 500, 1000
	8753	11	Solid	.010	.037	.384	100, 500, 1000
	8754	13	Solid	.010	.037	.409	100, 500, 1000
	8745	15	Solid	.010	.040	.420	100, 500, 1000
	8749	15	7x30	.010	.040	.425	100, 500, 1000
	8755	19	Solid	.010	.040	.480	100, 500, 1000
	8756	23	Solid	.010	.040	.510	100, 500, 1000
	8746	27	Solid	.010	.045	.550	To customer's specified length. §
	8750	27	7x30	.010	.045	.595	To customer's specified length. §

§ Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or less, plus 50′, minus 0.

COLOR CODING FOR PAIRED INTERCOM CABLES

This color code chart applies to multiple pair unshielded and shielded intercom cables shown above and on page 9. It does not apply to 8751.

Pair Number	Color Combination	Pair Number	Color Combination	Pair Number	Color Combination
1	Black paired with Red	10	Red paired with Blue	19	White paired with Blue
2	Black paired with White	11	Red paired with Yellow	20	White paired with Yellow
3	Black paired with Green	12	Red paired with Brown	21	White paired with Brown
4	Black paired with Blue	13	Red paired with Orange	22	White paired with Orange
5	Black paired with Yellow	14	Green paired with White	23	Blue paired with Yellow
6	Black paired with Brown	15	Green paired with Blue	24	Blue paired with Brown
7	Black paired with Orange	16	Green paired with Yellow	25	Blue paired with Orange
8	Red paired with White	17	Green paired with Brown	26	Brown paired with Yellow
9	Red paired with Green	18	Green paired with Orange	27	Brown paired with Orange

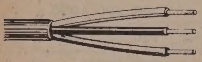
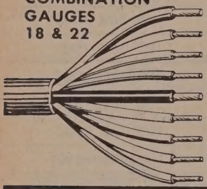
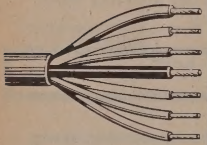
51 PAIR CABLE

Description	Trade Number	No. of Pairs	Conductors	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
	8751	51	Solid Tinned Copper	.010	.060	.745	To customers' specified length

#22 tinned copper, vinyl insulated, cabled in pairs, BELDFOIL Aluminum-Mylar wrapped shield over cabled pairs, with foil side out, #22(7 x 30) stranded drain wire running under jacket and over foil, chrome vinyl jacket. 200 Volts suggested working voltage. Color coding available on request.
§ Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or over, plus 25′, minus 0.

Belden multiple conductor and individually shielded pairs–intercom cable

MULTIPLE CONDUCTOR INTERCOM CABLES (NOT PAIRED)

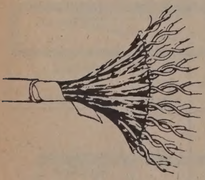
Description and Gauge	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
22 GAUGE  *Tinned copper, vinyl plastic insulated, cabled, vinyl jacket. 200 Volts suggested working voltage.*	**8443**	3	22 (7x30)	.010	.025	.150	25, 100, 500, 1000
	8444	4	22 (7x30)	.010	.025	.168	25, 100, 500, 1000
	8445	5	22 (7x30)	.010	.025	.180	25, 100, 500, 1000
	NEW 8456	10	22 (7x30)	.010	.030	.260	100, 500, 1000
	NEW 8457	12	22 (7x30)	.010	.030	.260	100, 500, 1000
COMBINATION GAUGES 18 & 22 	**8446**	6	4-22 (7x30) 2-18 (16x30)	.010 .018	.025	.222	15, 100, 500, 1000
	8447	7	5-22 (7x30) 2-18 (16x30)	.010 .018	.028	.246	15, 100, 500, 1000
	8448	8	6-22 (7x30) 2-18 (16x30)	.010 .018	.028	.251	15, 100, 500, 1000
	8449	9	7-22 (7x30) 2-18 (16x30)	.010 .018	.028	.261	15, 100, 500, 1000
18 GAUGE  *400 volts suggested working voltage*	**NEW 8465**	5	18 (16x30)	.018	.030	.272	100, 500, 1000
	NEW 8467	7	18 (16x30)	.018	.035	.320	100, 500, 1000
	NEW 8469	9	18 (16x30)	.018	.035	.375	100, 500, 1000

COLOR CODING OF INDIVIDUAL CONDUCTORS FOR CABLES 8443 THROUGH 8469

Conductor	Color	Conductor	Color	Conductor	Color
1st	Black	5th	Brown	9th	Purple
2nd	Red	6th	Blue	10th	Gray
3rd	Green	7th	Orange	11th	Pink
4th	White	8th	Yellow	12th	Tan

18 Gauge conductors in cables 8446 through 8449 are Black and Red.

MULTIPLE PAIR INDIVIDUALLY SHIELDED INTERCOM CABLE

Description	Trade Number	No. of Pairs	Stranding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Nom. *Cap. (mmf/ft)	Nom. **Cap. (mmf/ft)	Standard Spool Lengths in ft
22 GAUGE 	**8767**	3	Solid	.013	.030	.298	40	77	100, 500, 1000
	8768	6	Solid	.013	.037	.394	40	77	100, 500, 1000
	8764	9	Solid	.013	.040	.425	40	77	100, 500, 1000
	8765	11	Solid	.013	.040	.485	40	77	100, 500, 1000
	8766	15	Solid	.013	.045	.510	40	77	100, 500, 1000
	NEW 8769	19	7x30	.015	.055	.678	39	67	100, 500, 1000
	NEW 8773	27	7x30	.015	.070	.860	39	67	§Cut to customers specified lengths

#22 tinned copper, vinyl insulated, cabled in pairs, each pair and its ground wire under BELDFOIL aluminum-Mylar shield, over-all chrome vinyl jacket. 300 Volts suggested working voltage.

Insulation resistance between shields..........1000 megohms/M'
Capacitance between adjacent shields...............115 mmf/ft
Voltage breakdown between adjacent shields..........1500 volts
Working voltage between adjacent shields..............50 volts

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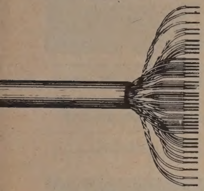
**Capacitance between conductors. **Capacitance between 1 conductor and other conductor connected to shield.*

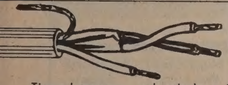
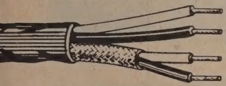
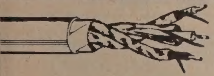
§Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or over, plus 50′, minus 0.

special intercom and sound cables

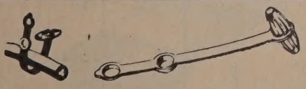
TELEPHONE CABLES-CONDUCTORS IN TRIPLETS

Description	Trade Number	Number of Triplets	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
 No. 22 bare copper solid, vinyl insulated, cabled in triplets, chrome vinyl jacket, 200 volts suggested working voltage. Each set of three conductors (triplets) are color coded Red, Green and Yellow. The identification of each set of triplets is indicated by consecutive printed numbers on the yellow conductor of each group.	NEW 8792	13	Solid	.012	.045	.540	100, 500, 1000
	NEW 8793	27	Solid	.012	.060	.770	§To customer's specified lengths

SPECIAL INTERCOM AND SOUND CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Percent Shield Coverage	Suggested Working Voltage	*Cap. (mmf/ft)	**Cap. (mmf/ft)	Standard Spool Lengths in ft
Tinned copper, vinyl insulated, tinned copper braid shield over 1 conductor, 3 conductors cabled, chrome vinyl jacket.	8734	1 shielded 2 unshielded	22 (7x30) 22 (7x30)	Wht Blk, Red	.015 .015	.025	.194	82	350	—	79	100, 500, 1000
 Tinned copper, polyethylene insulated, BELDFOIL aluminum-Mylar wrapped shield over 2 conductors, #20 stranded tinned copper ground wire, chrome vinyl jacket.	8763	2 shielded 1 unshielded	20 (7x28) 20 (7x28)	Blk, Red Wht	.014 .014	.028	.210	100	350	26	48	500, 1000
 Tinned copper, polyethylene insulated, tinned copper braid shield over 2 conductors, chrome vinyl jacket.	8732	2 shielded 2 unshielded	22 (7x30) 22 (7x30)	Blk, Wht Blk, Wht	.015 .015	.030	.188x .296	62	350	21	37	100, 500, 1000
Tinned copper, vinyl insulated, BELDFOIL aluminum-Mylar wrapped shield over 2 conductors, #22 stranded tinned ground wire, chrome vinyl jacket.	8722	2 shielded 2 unshielded	20 (7x28) 20 (7x28)	Blk, Red Grn, Wht	.015 .015	.028	.260	100	350	60	99	500, 1000
 Each conductor separately BELDFOIL shielded. Ground wire for each conductor is tinned cadmium bronze ribbon under BELDFOIL Z fold.	NEW 8733	3 shielded	22 (7x30)	Blk, Red, White	.014	.030	.225	100	350	—	39	100, 500, 1000

BELDEN STRAPLOCKS (NYLON CABLE CLAMPS)

	Trade Number	Number per Box
	8573	25 Straplocks plus one installation tool in plastic box.

For tying down wires or cables in the quickest possible time. Straplocks require only a ¼" stamped, punched or drilled mounting hole for installation. Eliminate bundling or lacing.

See COIN OPERATED PHONOGRAPH CABLES for additional special constructions.
** Capacitance between conductors*
***Capacitance between 1 conductor and other conductor connected to shield*

§Specified Length 199′ or less, plus 25′, minus 0.
Specified Length 200′ or less, plus 50′, minus 0.

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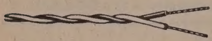
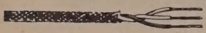
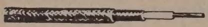
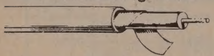
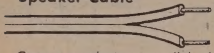
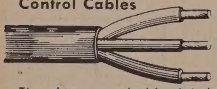
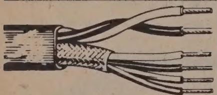
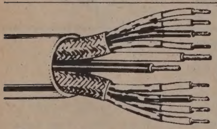
Belden hi-fi, stereo and phonograph cables

HI-FI AND STEREO CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Cond. Color Coding	Nom. Cap. between condrs. (mmf/ft)	Nom. Cap. condr. to other condr. & shield (mmf/ft)	Standard Spool Lengths in ft
Phono Pick-up Arm Cables	**8430**	2	32 (7x40)	.009	—	.050	Blk, Red	21	—	10, 25, 250
 *Tinned copper, vinyl insulated, twisted pair.*	→	4	use two 8430s for maximum channel isolation, one for each channel.							
	**8429**	2	32 (7x40)	.009	—	.057	Blk, Red	22	38	10, 25, 250
	8419	3	32 (7x40)	.009	—	.063	Blk, Red Wht	30	50	10, 25, 250
Tinned copper, vinyl insulated, twisted pair, tinned copper braid shield.	→	4	use two 8429s for maximum channel isolation, one for each channel.							
	**8431**	1	24 (16x36)	.015	—	.095	—	96	—	10, 15, 25, 100, 500
Tinned copper, rubber insulated, tinned copper braid shield, brown cotton braid.										
Hi-Fi Connecting Cable 	**8421**	1	25 (7x33)	.052	.025	.180	—	18	—	15, 25, 50, 100, 250

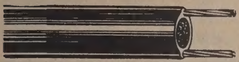
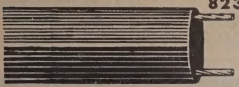
3 strands tinned copper and 4 tinned Copperweld, cellular polyethylene insulated, tinned copper, spiral wrapped shield, chrome vinyl jacket.

COIN OPERATED PHONOGRAPH CABLES

Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Color Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Spool Lengths in ft
Speaker Cable  *Copper conductors parallel, chrome vinyl insulated.*	**8782**	2	24 (7x32)	1 Conductor tinned	.017	—	.058x .115	300	25, 50, 100, 500, 1000
Control Cables  *Tinned copper, vinyl insulated, conductors cabled, chrome vinyl jacket.*	**8783**	3	1—20 (10x30) 2—16 (26x30)	Blue, Grn, Org	.020 .020	.025	.250	450	100, 500
 Tinned copper, vinyl insulated, 3 conductors twisted under tinned copper braid shield, 2 conductors twisted unshielded, chrome vinyl jacket.	**8785**	5 (2 unshielded) (3 shielded)	22 (7x30) 22 (7x30)	Blue, Yel Blk, Grn, Red	.015 .015	.028	.211x .316	350	500
 *Tinned copper, vinyl insulated, 4 conductors twisted under tinned copper braid shield, 2 conductors twisted unshielded, chrome vinyl jacket.*	**8786**	6 (2 unshielded) (4 shielded)	22 (7x30) 24 (7x32)	Blu, Wht Blk, Grn, Red, Yel	.015 .015	.028	.211x .316	350	100, 500
 *Tinned copper, polyethylene insulated, nylon covered; cabled in 2 quads individually tinned copper braid shielded; plus 2 unshielded conductors; paper tape; chrome vinyl jacket.*	**8787**	10 (4 shielded) (4 shielded) (2 unshielded)	24 (7x32) 24 (7x32) 22 (7x30)	Gry, Wht, Blu, Grn Red, Brn, Yel, Org Wht, Blu	.012 .012 .012	.027	.330	350	500

300 ohm transmission line cables

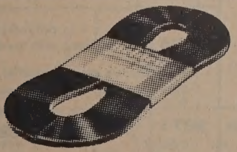
TWIN LEAD WIRES

Description & Trade Number	AWG & (Stranding)	Color	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′ mc	Nom. Attenuation per 100′ db	Standard Package Lengths in ft
Permohm★ 8285 *Copperweld, 2 conductors parallel, orange polyethylene insulation and web between conductors, cellular polyethylene oval jacket.*	22 (7x30)	Brown	.255 x .468	73.3%	5.3	100 300 500 700 900	1.4 2.8 3.8 4.8 5.6	50, 75, 100 coils in counter dispenser 500, 1000 spools
	PERMOHM ★ Encapsulated twin lead for strong, clear signals on all channels despite salt spray, industrial contamination, rain, ice and fringe area reception. An excellent color, UHF or VHF cable.							
Celluline ★ 8275  *Copperweld; 2 conductors parallel, polyethylene jacket with inert gas filled unicellular polyethylene core.*	20 (7x28)	Brown	.300 x .400	80%	4.6	100 200 300 400 500 700 900	1.05 1.64 2.12 2.5 2.98 3.62 4.3	50, 75, 100 coils in counter dispenser 500, 1000 spools
	CELLULINE ★ Maintains uniform electrical characteristics by eliminating all possible moisture between conductors. Installation is easier as no end-sealing is necessary. Losses are lower because of its lower dielectric constant (1.5). *The thick outer wall of brown polyethylene protects the cable from abrasion and sun damage, and the round shape offers less wind resistance. The result is a longer lasting, more efficient line which helps maintain a strong UHF or VHF picture.*							
8235  *Bare copper, 2 conductors parallel, polyethylene insulated.*	18 (7x26)	Brown	.185 x .520	77%	5.0	100 200 300 400 500 700 900	.85 1.35 1.80 2.20 2.60 3.25 3.85	100, 500 spools
	Amateur transmitting and receiving twin lead—1KW(RF) rated.							
Weldohm ▣ 8230 *Copperweld; 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.072 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
	WELDOHM ▣ This cable is 1½ times stronger and 2½ times more flexible than the equivalent twin lead with all copper conductors, without changing the RF electrical characteristics. Tests prove its superior resistance to the pulling, whipping, and twisting that is so important to a long lasting installation.							
8225 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Brown	.058 x .400	80%	4.4	100 200 300 400 500 700 900	1.1 1.7 2.2 2.7 3.1 3.7 4.5	25, 50, 75, 100 pancake coils in a sleeve 500, 1000 spools
	Brown polyethylene for the best weathering.							
8226 *Bare copper, 2 conductors parallel, polyethylene insulated.*	20 (7x28)	Ivory	.058 x .400	80%	4.4	Same as 8225		25, 50, 75, 100 pancake coils in a sleeve
	Recommended for indoor use.							

▣ Belden Trademark, Reg. U.S. Pat. off.

★ Belden Trademark, Reg. U.S. Pat. off. and Belden Patents—U.S. 2,782,251 and 2,814,666.

BELDEN MERCHANDISERS



10 Pancake Coils per Box

300 ohm Line Package Coils
8225
8226 (New Indoor Ivory)
8230 (Weldohm)
Put-ups 25′, 50′, 75′, 100′

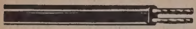
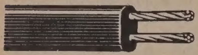
Antenna Rotor Cable
8464 (4 conductor, flat)
Put-ups 50′, 75′, 100′

300 ohm Line Coils
8275 (Celluline)
8285 (Permohm)
Put-ups 50′, 75′, 100′

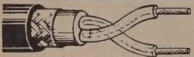
10 Coils per box

Belden transmission line cables and antenna rotor cables

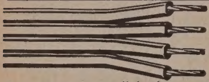
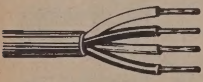
150 AND 72 OHM TRANSMISSION LINE CABLES

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Nom. Capacitance (mmf/ft)	Nom. Attenuation per 100′		Standard Spool Lengths in ft
						mc	db	
150 OHM LINE 	**8224**	20 (7x28)	.075 x .182	76%	9.5	100 200 300 400	2.8 4.2 5.4 6.4	100
72 OHM LINE *Bare copper, 2 conductors parallel, brown polyethylene insulated.*	**8222**	20 (7x28)	.075 x .128	69%	20.3	100 200 300 400	7.7 11.0 13.6 15.9	100, 500
72 OHM 1 KW (RF) RATED  *Bare copper, 2 conductors parallel, brown polyethylene insulated.*	**8210**	13 (7x21)	.166 x .278	68%	21.0	100 200 300 400 500 700 900	3.8 6.0 7.8 9.3 11.0 13.7 16.0	100, 500

SHIELDED 100 OHM IMPEDANCE LINE

Description	Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Nom. Velocity of Propagation	Percent Shield Coverage	Nom. Capacitance (mmf/ft)	Nom. Attenuation Per. 100′		Standard Spool Lengths in ft
							mc	db	
 *One conductor tinned, one bare copper, polyethylene insulated, cabled, polyethylene jacket, tinned copper braid shield, black vinyl jacket.*	**8227**	20 (7x28)	.325	62%	83	15.5	100 200 300 400	4.1 6.4 8.4 10.2	100, 500

ANTENNA ROTOR CABLE

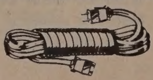
Description	Trade Number	No. of Cond.	AWG & (Stranding)	Cond. Coding	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Standard Package Lengths in ft
 *Bare copper, parallel, chrome vinyl insulated.*	**8464**	4	20 (7x28)	1 cond. tinned and insulation ribbed	—	—	.070 x .390	200	50, 75, 100 pancake coils 500, 1000 spools
	**8484**	4	20 (7x28)	Blk, Grn, Red, Wht	.010	.020	.180	200	100, 500, 1000 spools
	8485	5	20 (7x28)	Blk, Grn, Red, Wht, Yel	.010	.020	.190	200	100, 500, 1000 spools
Bare copper, vinyl insulated, cabled, chrome vinyl jacket.	**8488**	8	22 (7x30)	Blk, Blu, Brn, Grn, Org, Red, Wht, Yel	.010	.020	.205	200	100, 500, 1000 spools

ALUMINUM GROUND WIRE

Packaged in counter dispensers of 10-50′ connected coils, or spools of 500 ft. Wire on spools is marked every 100′ for easy measuring.

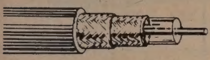
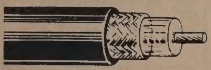
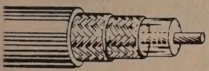
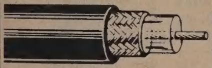
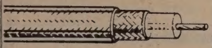
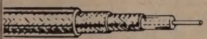
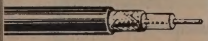
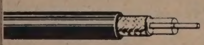
Description	Trade Number	Nom. O.D. (Inch)	Standard Package Lengths in ft
 8 AWG solid, soft annealed aluminum.	**8018**	.128	500 in 10-50 connected coils 500 spools

TV AND CHEATER CORDS

Description	Trade Number	Length in ft.	Standard Package
CHEATER CORDS	**8874**	6	1 in polyethylene bag with description. *SP-1 brown rubber parallel cord with male plug and TV connector.*
	NEW 8895	6	1 in polyethylene bag with description. *SPT-1 brown plastic parallel cord with male plug and TV connector.*
CHEATER EXTENSION CORDS 	**8875**	6	1 in polyethylene bag with description. *SPT-1 red plastic parallel cord with male and female TV connectors.*

Belden transmission line cables

RG/U CABLES

Description	Trade Number	RG No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Imp. (Ohms)	Nom. Vel. of Prop.	Nom. Cap. (mmf/ft.)	Nom. Attenuation per 100′		Standard Spool Lengths in ft.
											mc	db	
	**8264** JAN-C-17A	5A/U	16 (Solid) silver coated copper	Polyethylene	2 silver-coated copper	Gray non-contaminating vinyl	.328	50	66%	28.5	100 200 400	2.40 3.50 5.25	500 1000
	**8237** JAN-C-17A	8/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black vinyl	.405	52	66%	29.5	100 200 400	2.10 3.30 4.50	100 250, 500 1000
	8267 MIL-C-17B	213/U formerly 8A/U	13 (7x21) bare copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	50	66%	28.5	100 200 400	2.10 3.30 4.50	500 1000
	**8242** JAN-C-17A	9/U	13 (7x21) silver coated copper	Polyethylene	2 inner-silver-coated copper outer-bare copper	Gray non-contaminating vinyl	.420	51	66%	30.0	100 200 400	2.10 3.30 4.50	100 1000
	**8238** JAN-C-17A	11/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 250, 500 1000, 1500
	8261 MIL-C-17B	11A/U	18 (7x26) tinned copper	Polyethylene	1 bare copper	Black non-contaminating vinyl	.405	75	66%	20.5	100 200 400	1.90 2.85 4.35	100 500 1000
	**8239** JAN-C-17A	54A/U	18(7x.0152) bare copper	Polyethylene	1 tinned copper	Clear polyethylene	.245	58	66%	26.5	100 200 400	3.10 4.40 6.70	500 1000
	**8245** JAN-C-17A	55/U	20 (Solid) bare copper	Polyethylene	2 tinned copper	Clear polyethylene	.201	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	500 1000
	**8259** JAN-C-17A	58A/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	25, 50 100, 500 1000
	**8240** JAN-C-17A	58/U	20 (Solid) bare copper	Polyethylene	1 tinned copper	Black vinyl	.195	53.5	66%	28.5	100 200 400	4.10 6.20 9.50	25, 50, 100 250, 500 1000
	8262 MIL-C-17B	58C/U	20(19x.0071) tinned copper	Polyethylene	1 tinned copper	Black non-contaminating vinyl	.195	50	66%	28.5	100 200 400	5.30 8.20 12.60	500 1000

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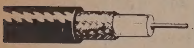
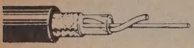
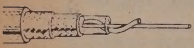
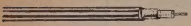
See Prices on four pages preceding Belden Page 1

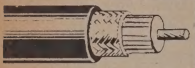
Belden transmission line cables and test prod wire

RG/U CABLES

Description	Trade Number	R.G. No.	AWG & (Stranding) Material	Insulation	No. of Shields & Material	Jacket	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100′ mc	db	Standard Spool Length in ft.
	**8241** JAN-C-17A	59/U	22 bare Copperweld	Polyethylene	1 bare copper	Black vinyl	.242	73	66%	21.0	100 200 400	3.75 5.60 8.30	25, 50, 100 250, 500 1000
	8263 MIL-C-17B	59B U	.023 bare Copperweld	Polyethylene	1 bare copper	Black non-contaminating vinyl	.242	75	66%	20.5	100 200 400	3.75 5.60 8.30	500 1000
	**8254** JAN-C-17A	62 U	22 bare Copperweld	Semi-solid Polyethylene	1 bare copper	Black vinyl	.242	93	84%	13.5	100 200 400	3.10 4.40 6.30	100 500 1000
	**8257** JAN-C-17A	71 U	22 bare Copperweld	Semi-solid Polyethylene	2 tinned copper	Clear Polyethylene	.245	93	84%	13.5	100 200 400	3.10 4.40 6.30	500 1000
	**NEW 8216**	174 U	7x34 bare Copperweld	Polyethylene	1 tinned copper	Black vinyl	.100	50	65.5%	30.4	100 200 400	8.8 13.0 20.0	100, 500 1000

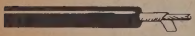
Production quantities of other RG/U types quoted on request.

FOAM CORE RG-8/U TYPE TRANSMISSION LINE

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100′ mc	db	Standard Spool Lengths in ft
 *Conductor, cellular polyethylene insulated, bare copper braid shield, black polyethylene jacket.*	**NEW 8214**	11 (7x19)	96.8%	.405	50	78%	26	50 100 200 300 400	1.20 1.80 2.60 3.30 3.80	100 500 1000

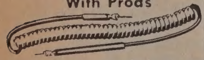
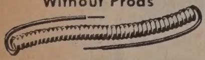
Foam core RG-8 U type—for use in citizens' band and amateur radio as a 50 Ohm antenna cable.

TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	**8899**	18 (65x36)	.045	.144	20,000	5,000	10, 14*, 25, 100, 500, 1000 *7′ of red and 7′ of black.
	8898	18 (65x36)	.088	.230	29,000	10,000	10, 25, 100, 500

Tinned copper, separator, rubber insulated, red or black. Extreme limpness and flexibility combined with high dielectric strength.

COILED TEST PROD WIRE

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Breakdown Voltage	Suggested Working Voltage	Standard Package
With Prods 	**8878**	20 (42x36)	.063	.170	20,000	5,000	1 pair Red and Black
Without Prods 	**8879**	20 (42x36)	.063	.170	20,000	5,000	1 pair Red and Black

Tinned copper, rubber insulated, red or black. 7′ 9″ of cable. Retracted length 8″. Stretches to 5′. (8878)

Tinned copper, rubber insulated, red or black. 7′ 9″ of cable. Retracted length 8″. Stretches to 5′. (8879)

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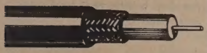
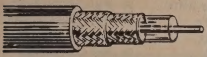
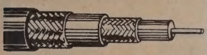
Belden

community tv antenna cables and cathode ray tube lead cable

ALL CABLES IN THIS GROUP ARE SWEEP TESTED

Description	Trade Number	AWG & (Stranding) Material	Percent Shield Coverage	Nom. O.D. (Inch)	Nom. Impedance (Ohms)	Nom. Velocity of Propagation	Nom. Cap. (mmf/ft)	Nom. Attenuation per 100′		Standard Spool Lengths in ft
								mc	db	
 Conductor, cellular polyethylene insulated, bare copper braid shield, black polyethylene jacket.	8211	22 (Solid) Copperweld Fits the same connectors as RG-59/U Foam core RG-59/U type	94.6	.242	80	78%	16.3	50	2.4	500, 1000, 2000
								100	3.4	
								200	4.8	
								300	5.8	
								400	6.7	
	8212	20 (Solid) Copperweld Foam core RG-59/U type	93.8	.242	75	78%	17.3	50	2.3	500, 1000, 2000
								100	3.2	
								200	4.5	
								300	5.5	
								400	6.3	
	8213	14 (Solid) copper Foam core RG-11/U type	96.8	.405	75	78%	17.3	50	1.0	500, 1000, 2000
								100	1.5	
								200	2.3	
								300	2.9	
								400	3.4	
 Conductor, polyethylene insulated, two bare copper braid shields, black polyethylene jacket.	NEW 8215	21 (Solid) Copperweld RG-6A/U type	96.6 (inner shield)	.332	75	66%	20.5	50	2.05	100, 500, 1000
								100	2.90	
								200	4.30	
								300	5.40	
								400	6.50	
 Conductor, cellular polyethylene insulated, bare copper braid shield, polyethylene insulated, bare copper braid shield, black polyethylene jacket.	8232	20 (Solid) Copperweld	93.8 (inner shield)	.315	75	78%	17.3	50	2.3	500, 1000, 2000
								100	3.2	
								200	4.5	
								300	5.5	
								400	6.3	
	8233	14 (Solid) copper	92.5 (inner shield)	.475	75	78%	17.3	50	1.0	500, 1000, 2000
								100	1.5	
								200	2.3	
								300	2.9	
								400	3.4	

SWEEP TESTING

For satisfactory transmission of a signal through a cable at any frequency, Belden Sweep Tests every length of its Community TV Cables at all channels in the VHF Frequency range on an oscilloscope.

Sweep Testing, performed by trained technicians using the most modern equipment, prevents unsatisfactory program reception due to imperfections in the cable acting as "Filter Traps" at some frequencies.

The Black Polyethylene Jackets on Belden numbers 8211, 8212, 8213, 8215, 8232, and 8233 are manufactured with a noncontaminating, nonmigratory compound specially formulated for superior weather resistance.

HIGH VOLTAGE CATHODE-RAY TUBE LEAD

Description	Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Jacket Color	Breakdown Voltage	Suggested Working Voltage	Standard Spool Lengths in ft
	8868	22 (7x30)	.045	.015	.150	Red	50,000	25,000	25, 100, 500
	NEW 8869	22 (7x30)	.030	.015	.120	Blk	35,000	17,000	25, 100, 500

Tinned copper, conductive polyethylene, polyethylene insulated, vinyl jacket. The new construction greatly improves working and breakdown voltage, reduces corona, and adds service life.

**For use with non-conductive ceramic flyback cores.*

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Belden mil-W-76B-plastic wire

TYPE MW-VINYL—1000V—80C

Formerly Type SRIR JAN-C-76

Tinned copper, vinyl insulated, Medium wall. The extruded vinyl insulation is flame and ozone resistant and is inert to most chemicals, oils, and solvents.

STRANDED CONDUCTOR

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					25′	100′	500 or 1000′
8525	MW-C-24-(7)-U	24(7x32)	.017	.058	—	1 thru 30	1 thru 30
8524	MW-C-22-(7)-U	22(7x30)	.017	.064	1 thru 13	1 thru 30	1 thru 30
8523	MW-C-20-(10)-U	20(10x30)	.017	.070	1 thru 13	1 thru 30	1 thru 30
8522	MW-C-18-(16)-U	18(16x30)	.017	.080	1 thru 13	1 thru 22	1 thru 30
8521	MW-C-16-(26)-U	16(26x30)	.019	.098	—	1 thru 10	1 thru 30
8520	MW-C-14-(41)-U	14(41x30)	.020	.111	—	1 thru 30	1 thru 30
8527	MW-C-12-65-U	12(65x30)	.020	.130	—	1 thru 30	1 thru 30

SOLID CONDUCTOR

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	25′	100′	500 or 1000′
8530	MW-C-22-(1)-U	22 (Solid)	.017	.059	1 thru 13	1 thru 30	1 thru 30
8529	MW-C-20-(1)-U	20 (Solid)	.017	.066	1 thru 13	1 thru 30	1 thru 30
8528	MW-C-18-(1)-U	18 (Solid)	.017	.074	—	1 thru 30	1 thru 30
NEW 8531	MW-C-16-(1)-U	16 (Solid)	.017	.085	1 thru 30	1 thru 30	1 thru 30

Color Combinations

Stock colors. First color in stripe combination is body color and second or third colors are stripes (White/Black/Red).

Code No.	Color Combination	Code No.	Color Combination
1	Brown	16	White/Green
2	Red	17	White/Yellow
3	Orange	18	White/Blue
4	Yellow	19	White/Brown
5	Green	20	White/Orange
6	Light Blue	21	White/Gray
7	Violet (purple)	22	White/Violet
8	Gray (slate)	23	White/Black/Red
9	White	24	White/Black/Green
10	Black	25	White/Black/Yellow
11	Tan	26	White/Black/Blue
12	Pink	27	White/Black/Brown
13	Dark Blue	28	White/Black/Orange
14	White/Black	29	White/Black/Gray
15	White/Red	30	White/Black/Violet

TYPE MW-SHIELDED—1000V—80C

Tinned copper, vinyl insulation. Medium wall. Tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8887	MW-C-24-(7)-S	24(7x32)	.017	.082	1 thru 10	1 thru 10	1 thru 10
NEW 8883	MW-C-22-(7)-S	22(7x30)	.017	.088	1 thru 10	1 thru 10	1 thru 10
8886	MW-C-20-(10-S	20(10x30)	.017	.094	1 thru 10	1 thru 10	1 thru 10
NEW 8882	MW-C-18-(16)-S	18(16x30)	.017	.104	1 thru 10	1 thru 10	1 thru 10
8884	MW-C-16-(26)-S	16(26x30)	.019	.122	1 thru 10	1 thru 10	1 thru 10
NEW 8881	MW-C-14-(41)-S	14(41x30)	.020	.135	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8880	MW-C-12-(65)-S	12(65x30)	.020	.154	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black

TYPE MW-SHIELDED—NYLON JACKET—1000V—80C

Tinned copper, vinyl insulation. Medium wall. Tinned copper shield, nylon jacket.

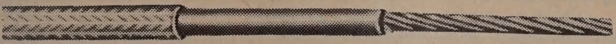
Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8893	MW-C-22-(7)-SJ	22(7x30)	.017	.095	9	9	9
NEW 8896	MW-C-20-(10)-SJ	20(10x30)	.017	.101	9	9	9
NEW 8892	MW-C-18-(16)-SJ	18(16x30)	.017	.112	9	9	9
NEW 8894	MW-C-16-(26)-SJ	16(26x30)	.019	.131	9	9	9

Color Coding

Vinyl insulation. **White** only. (9)

Belden mil-W-76B plastic wire

TYPE MW-GLASS BRAID—1000V—80C



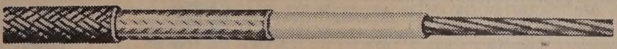
Tinned copper, vinyl insulated. Medium wall, lacquered glass braid overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8566	MW-C-22(7)-B	22(7x30)	.017	.076	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8565	MW-C-20-(10)-B	20(10x30)	.017	.084	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8564	MW-C-18(16)-B	18(16x30)	.017	.094	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8563	MW-C-16-(26)-B	16(26x30)	.019	.112	1 thru 10 124 thru 132	1 thru 10 124 thru 132	1 thru 10 124 thru 132
NEW 8562	MW-C-14-(41)-B	14(41x30)	.020	.125	9, 124 thru 132	9, 124 thru 132	9, 124 thru 132
NEW 8561	MW-C-12-(65)-B	12(65x30)	.020	.144	9, 125, 132	9, 125, 132	9, 125, 132

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	135	White/Black
2	Red	125	White/Red
3	Orange	128	White/Green
4	Yellow	127	White/Yellow
5	Green	129	White/Blue
6	Light Blue	124	White/Brown
7	Violet (Purple)	126	White/Orange
8	Gray (Slate)	131	White/Gray
9	White	130	White/Violet
10	Black		

TYPE MW-GLASS BRAID-SHIELDED—1000V—80C



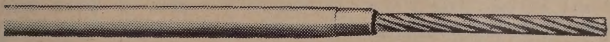
Tinned copper, vinyl insulated. Medium wall, lacquered glass braid, tinned copper shield overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8863	MW-C-22-(7)-BS	22(7x30)	.017	.102	9	9	9
NEW 8862	MW-C-20-(10)-BS	20(10x30)	.017	.108	9	9	9
NEW 8861	MW-C-18-(16)-BS	18(16x30)	.017	.118	9	9	9
NEW 8860	MW-C-16-(26)-BS	16(26x30)	.019	.136	9	9	9
NEW 8859	MW-C-14-(41)-BS	14(41x30)	.020	.149	9	9	9
NEW 8858	MW-C-12-(65)-BS	12(65x30)	.020	.168	9	9	9

Color Coding

Vinyl insulation. **White** only. (9)

TYPE MW—NYLON JACKET—1000V—90C



Tinned copper, vinyl insulated. Medium wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 100′	500′	1000′
NEW 8537	MW-C-22(7)-J	22(7x30)	.017	.069	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8536	MW-C-20-(10)-J	20(10x30)	.017	.075	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8535	MW-C-18(16)-J	18(16x30)	.017	.086	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8534	MW-C-16-(26)-J	16(26x30)	.019	.106	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8533	MW-C-14-(41)-J	14(41x30)	.020	.119	1, 3 thru 5, 9, 10	1, 3 thru 5, 9, 10	1, 3 thru 5, 9, 10
NEW 8532	MW-C-12-(65)-J	12(65x30)	.020	.139	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

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Belden mil-W-76B—plastic wire

TYPE HW—VINYL—Gauges 16-22 2500V, Gauges 6-14 600—80C

Tinned copper, vinyl insulated. Heavy wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8588	HW-C-22(7)-U	22(7x30)	.034	.098	1 thru 10	1 thru 10	1 thru 10
NEW 8587	HW-C-20-(10)-U	20(10x30)	.034	.104	1 thru 10	1 thru 10	1 thru 10
NEW 8586	HW-C-18(16)-U	18(16x30)	.034	.114	1 thru 10	1 thru 10	1 thru 10
NEW 8585	HW-C-16-(26)-U	16(26x30)	.034	.128	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8584	HW-C-14-(41)-U	14(41x30)	.048	.171	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8583	HW-C-12-(65)-U	12(65x30)	.048	.191	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8582	HW-C-10-(105)-U	10(105x30)	.048	.214	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8581	HW-C-8-(133)-U	8(133x29)	.048	.261	2, 9, 10	2, 9, 10	2, 9, 10
NEW 8580	HW-C-6-(133)-U	6(133x27)	.048	.296	2, 9, 10	2, 9, 10	2, 9, 10

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black

TYPE HW—GLASS BRAID—600V—80C

Tinned copper, vinyl insulated. Heavy wall, lacquered glass braid.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8591	HW-C-10-(105)-B	10(105x30)	.048	.232	9, 125, 132	9, 125, 132	9, 125, 132
NEW 8590	HW-C-8-(133)-B	8(133x29)	.048	.279	9, 125, 132	9, 125, 132	9, 125, 132
NEW 8589	HW-C-6-(133)-B	6(133x27)	.048	.314	9, 125, 132	9, 125, 132	9, 125, 132

Color Coding

Code No.	Color Combination
9	White
132	White/Black
125	White/Red

TYPE LW—VINYL—300V—80C

Tinned copper, vinyl insulated. Light wall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8572	LW-C-30-(7)-U	30(7x38)	.011	.034	1 thru 10	1 thru 10	1 thru 10
NEW 8571	LW-C-28(7)-U	28(7x36)	.011	.037	1 thru 10	1 thru 10	1 thru 10
NEW 8570	LW-C-26(7)-U	26(7x34)	.011	.041	14 thru 22	14 thru 22	14 thru 22
NEW 8569	LW-C-24(7)-U	24(7x32)	.011	.046	1 thru 19	1 thru 19	1 thru 19
NEW 8568	LW-C-22(7)-U	22(7x30)	.012	.054	1 thru 10	1 thru 10	1 thru 10
NEW 8567	LW-C-22-(10)-J	20(10x30)	.012	.060	14 thru 22	14 thru 22	14 thru 22

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE LW—NYLON JACKET—300V—90C

Tinned copper, vinyl insulated. Light wall, clear nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8579	LW-C-30-(7)-J	30(7x38)	.011	.039	1 thru 10	1 thru 10	1 thru 10
NEW 8578	LW-C-28(7)-J	28(7x36)	.011	.042	1 thru 10	1 thru 10	1 thru 10
NEW 8577	LW-C-26(7)-J	26(7x34)	.011	.046	14 thru 22	14 thru 22	14 thru 22
NEW 8576	LW-C-24(7)-J	24(7x32)	.011	.051	1 thru 19	1 thru 19	1 thru 19
NEW 8575	LW-C-24(7)-J	22(7x30)	.012	.059	1 thru 10	1 thru 10	1 thru 10
NEW 8574	LW-C-22-(10)-J	20(10x30)	.012	.065	14 thru 22	14 thru 22	14 thru 22

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

See Prices on four pages preceding Belden Page 1

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Belden mil-W-16878D plastic wire

TYPE B—VINYL—600V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8599	B-32	32(7x40)	.010	.029	1 thru 10	1 thru 10	1 thru 10
NEW 8598	B-30	30(7x38)	.010	.032	"	"	"
NEW 8597	B-28	28(7x36)	.010	.035	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8505	B-26	26(7x34)	.010	.039	"	"	"
8509	B-24	24(19x36)	.010	.045	9, 14-22	—	9, 14-22
8504	B-24	24(7x32)	.010	.044	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8508	B-22	22(19x34)	.010	.051	9, 14-22	—	9, 14-22
8503	B-22	22(7x30)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8507	B-20	20(19x32)	.010	.059	9, 14-22	—	9, 14-22
8502	B-20	20(7x28)	.010	.058	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8506	B-18	18(19x30)	.010	.069	9, 14-22	—	9, 14-22
8501	B-18	18(7x26)	.010	.068	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8500	B-16	16(19x29)	.010	.077	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE B—VINYL-NYLON JACKET—600V—115C

Tinned copper, vinyl insulated, nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8596	B-32	32(7x40)	.010	.035	1 thru 10	1 thru 10	1 thru 10
NEW 8595	B-30	30(7x38)	.010	.038	"	"	"
NEW 8594	B-28	28(7x36)	.010	.041	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8515	B-26	26(7x34)	.010	.045	"	"	"
8519	B-24	24(19x36)	.010	.051	"	—	"
8514	B-24	24(7x32)	.010	.050	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8518	B-22	22(19x34)	.010	.057	"	—	"
8513	B-22	22(7x30)	.010	.056	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8517	B-20	20(19x32)	.010	.065	"	—	"
8512	B-20	20(7x28)	.010	.064	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8516	B-18	18(19x30)	.010	.075	9, 14-22	—	9, 14-22
8511	B-18	18(7x26)	.010	.074	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
8510	B-16	16(19x29)	.("	.083	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (Purple)	20	White/Orange
8	Gray (Slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

Belden mil-W-16878D plastic wire

TYPE C VINYL—1000V—105C

Tinned copper, vinyl insulated

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8955	C-24	24(7x32)	.018	.060	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8954	C-22	22(7x30)	.018	.066	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8953	C-20	20(7x28)	.018	.074	"	"	"
NEW 8952	C-18	18(7x26)	.018	.084	"	"	"
NEW 8951	C-16	16(19x29)	.018	.093	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8950	C-14	14(19x27)	.018	.107	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White Brown
7	Violet (purple)	20	White Orange
8	Gray (slate)	21	White Gray
9	White	22	White Violet
10	Black		

TYPE C—VINYL-NYLON JACKET—1000V—115C

Tinned copper, vinyl insulated,
Nylon jacket overall.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8961	C-24	24(7x32)	.018	.066	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8960	C-22	22(7x30)	.018	.072	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8959	C-20	20(7x28)	.018	.080	"	"	"
NEW 8958	C-18	18(7x26)	.018	.091	"	"	"
NEW 8957	C-16	16(19x29)	.018	.100	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8956	C-14	14(19x27)	.018	.114	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

TYPE D-VINYL—3000V—105C

Tinned copper, vinyl insulated.

Trade Number	Type Designation	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8972	D-24	24(7x32)	.030	.084	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8971	D-22	22(7x30)	.030	.090	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8970	D-20	20(7x28)	.030	.098	"	"	"
NEW 8969	D-18	18(7x26)	.030	.108	"	"	"
NEW 8968	D-16	16(19x29)	.030	.117	9, 14 thru 22	9, 14 thru 22	9, 14 thru 22
NEW 8967	D-14	14(19x27)	.030	.131	"	"	"
NEW 8966	D-12	12(19x25)	.035	.160	1 thru 10 14 thru 22	1 thru 10 14 thru 22	1 thru 10 14 thru 22
NEW 8965	D-10	10(37x26)	.035	.181	"	"	"
NEW 8964	D- 8	8(133x29)	.040	.245	"	"	"
NEW 8963	D- 6	6(133x27)	.040	.290	"	"	"

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	14	White/Black
2	Red	15	White/Red
3	Orange	16	White/Green
4	Yellow	17	White/Yellow
5	Green	18	White/Blue
6	Light Blue	19	White/Brown
7	Violet (purple)	20	White/Orange
8	Gray (slate)	21	White/Gray
9	White	22	White/Violet
10	Black		

See Prices on four pages preceding Belden Page 1

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Belden mil-W-16878D

TYPE E—TFE TEFLON*—600V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 25′, 50′	100′, 250′	500′	1000′
8300	E-30	30(7x38)	.032	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8301	E-28	28(7x36)	.035	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8302	E-26	26(7x34)	.039	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8303	E-24	24(19x36)	.044	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8304	E-24	24(7x32)	.044	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8305	E-22	22(7x30)	.050	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8306	E-22	22(19x34)	.050	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8307	E-20	20(19x32)	.058	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8308	E-20	20(7x28)	.058	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8309	E-18	18(19x30)	.069	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8310	E-16	16(19x29)	.080	1 thru 10	1 thru 10	1 thru 10	1 thru 10

TEFLON: Du Pont trade name for Tetrafluorethylene Resin.

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black
		13	Dark Blue

TYPE EE—TFE TEFLON—1000V—200C

Concentrically stranded silver coated copper conductor, extruded TFE Teflon insulated

Trade Number	Type Designation	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors on Standard Spools 25′, 50′	100′, 250′	500′	1000′
8320	EE-30	30(7x38)	.042	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8321	EE-28	28(7x36)	.045	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8322	EE-26	26(7x34)	.049	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8323	EE-24	24(19x36)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8324	EE-24	24(7x32)	.054	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8325	EE-22	22(7x30)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8326	EE-22	22(19x34)	.060	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8327	EE-20	20(19x32)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8328	EE-20	20(7x28)	.068	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8329	EE-18	18(19x30)	.079	1 thru 10	1 thru 10	1 thru 10	1 thru 10
8330	EE-16	16(19x29)	.089	1 thru 10	1 thru 10	1 thru 10	1 thru 10

TEFLON: Du Pont trade name for Tetrafluorethylene Resin.

Color Coding

Code No.	Color Combination	Code No.	Color Combination
1	Brown	6	Light Blue
2	Red	7	Violet (purple)
3	Orange	8	Gray (slate)
4	Yellow	9	White
5	Green	10	Black
		13	Dark Blue

UL TYPE HOOK-UP AND LEAD WIRES

UL-600V-90C

Tinned copper, vinyl insulated, cotton braid, lacquered

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O D. (Inch)	Stock Colors	Standard Spool Lengths in ft
8937*	22(7x30)	.016	.091	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8936*	20(10x30)	.017	.098	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8935*	18(16x30)	.017	.113	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8934*	16(26x30)	.017	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8933	14(41x30)	.031	.177	1, 2, 3, 4, 5, 9, 10, 13	100, 500

See above chart for color coding.

* *UL rated 600V for electronic circuits only—300V for other applications.*

UL-600V-105C (CSA 600V-90C)

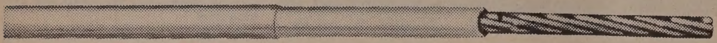
Tinned copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8920	22(7x30)	.031	.095	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8919	20(10x30)	.031	.102	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8918	18(16x30)	.031	.112	1, 2, 3, 4, 5, 9, 10, 13	100, 1000
8917	16(26x30)	.031	.126	1, 2, 3, 4, 5, 9, 10, 13	100, 500
8916	14(41x30)	.031	.141	1, 2, 3, 4, 5, 9, 10, 13	100, 500

See above chart for color coding.

mil-W-5086A & mil-C-7078A
aircraft power & lighting cables

MIL-W-5086A—TYPES 1 & 2—600V



Unshielded

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8541	AN-22	22(19x34)	.068	No. 1	9	9	9
NEW 8542	AN-20	20(19x32)	.078	No. 1	9	9	9
NEW 8543	AN-18	18(19x30)	.088	No. 1	9	9	9
NEW 8544	AN-16	16(19x29)	.098	No. 1	9	9	9
NEW 8545	AN-14	14(19x27)	.117	No. 1	9	9	9
NEW 8546	AN-12	12(19x25)	.137	No. 1	9	9	9
NEW 8559	AN-22	22(19x34)	.075	No. 2	9	9	9
NEW 8558	AN-20	20(19x32)	.085	No. 2	9	9	9
NEW 8557	AN-18	18(19x30)	.095	No. 2	9	9	9
NEW 8556	AN-16	16(19x29)	.105	No. 2	9	9	9
NEW 8555	AN-14	14(19x27)	.125	No. 2	9	9	9
NEW 8554	AN-12	12(19x25)	.143	No. 2	9	9	9
NEW 8553	AN-10	10(49x27)	.189	No. 2	9	9	9
NEW 8552	AN-8	8(133x29)	.240	No. 2	9	9	9
NEW 8551	AN-6	6(133x27)	.293	No. 2	9	9	9
NEW 8550	AN-4	4(133x25)	.355	No. 2	9	9	9
NEW 8549	AN-2	2(665x30)	.425	No. 2	9	9	9
NEW 8548	AN-0	0(1045x30)	.525	No. 2	9	9	9
NEW 8547	AN-00	00(1330x30)	.590	No. 2	9	9	9

Color Coding

White only

Additional Description

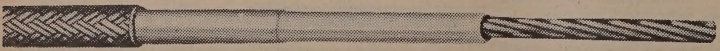
MIL-W-5086A-Type I
AN-22 thru AN-12.
Stranded tinned copper, white vinyl, clear nylon jacket insulation.

MIL-W-5086A-Type II
AN-22 thru AN-12
Stranded tinned copper, white vinyl insulation, saturated glass braid, clear nylon jacket.

MIL-W-5086A-Type II
AN-10 thru AN-00
Stranded tinned copper, white vinyl insulation, saturated glass braid, nylon braid, nylon lacquer.

MIL-C-7078A—TYPE 1—600 VOLT

(MIL-W-5086A Type I Conductor Braided Tinned Copper Shield)



Shielded

Trade Number	MIL Type Designation	AWG & (Stranding)	Nom. O.D.	Spec. Type	Stock Colors on Standard Spools		
					100′	500′	1000′
NEW 8855	AN-22	22(19x34)	.092	No. 1	9	9	9
NEW 8854	AN-20	20(19x32)	.102	No. 1	9	9	9
NEW 8853	AN-18	18(19x30)	.112	No. 1	9	9	9
NEW 8852	AN-16	16(19x29)	.122	No. 1	9	9	9
NEW 8851	AN-14	14(19x27)	.141	No. 1	9	9	9
NEW 8850	AN-12	12(19x25)	.161	No. 1	9	9	9

Color Coding

White only

Additional Description

Stranded tinned copper, white vinyl insulation nylon jacket, braided tinned copper shield

See Prices on four pages preceding Belden Page 1

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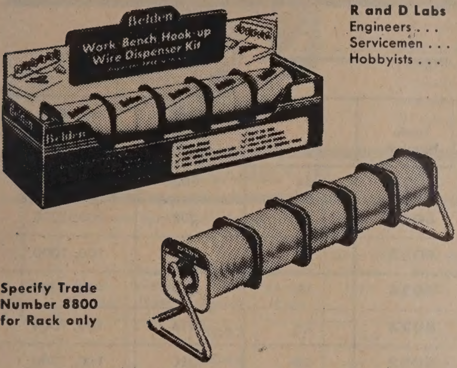
Belden kits-general purpose hook up wire

KITS—HOOK-UP WIRE ON RACKS



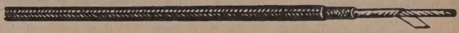
R and D Labs
Engineers . . .
Servicemen . . .
Hobbyists . . .

Specify Trade Number 8800 for Rack only

Each kit contains an assortment of Hook-Up Wire colors and types plus a portable metal dispenser rack for workbench or wall mounting. The dispenser rack provides a complete, compact, and convenient wire department for every working area.

Trade Number	No. of Spools	Spool Lengths	Type of Wire	Colors in Kit
8818	8	25′	20 solid, cellulose acetate (8941-25)	1, 2, 3, 4, 5, 6, 9, 10
8819	5	100′	20 solid, cellulose acetate (8941-100)	2, 5, 6, 9, 10
8820	8	25′	20 stranded, cellulose acetate (8943-25)	1, 2, 3, 4, 5, 6 9, 10
8821	5	100′	20 stranded, cellulose acetate (8943-100)	2, 5, 6, 9, 10
8822	10	25′	20 solid, Type MW vinyl (8529-25)	1, 2, 3, 4, 5, 6, 7, 8, 9, 10
8823	5	100′	20 solid, Type MW vinyl (8529-100)	2, 5, 6, 9, 10
8824	8	25′	20 stranded, Type MW vinyl (8523-25)	1, 2, 3, 4, 5, 6, 9, 10
8825	5	100′	20 stranded, MIL-W-16878D vinyl (8507-100)	9, 14, 15, 16, 17
8826	5	100′	22 stranded, MIL-W-16878D vinyl (8508-100)	9, 14, 15, 16, 17
8827	5	100′	22 stranded, MIL-W-16878D vinyl-nylon (8518-100)	2, 5, 6, 9, 10

GENERAL-PURPOSE HOOK-UP WIRES



Tinned copper, cellulose acetate wrap, cellulose acetate braid lacquered.
Nom. d-c Insulation Resistance—200 megohms/ft. Nom. Breakdown Voltage—1000.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Stock Colors	Standard Spool Lengths in ft.
8941	20(Solid)	.072	1, 2, 3, 4, 5, 6, 9, 10	25, 100, 1000
8943	20(10x30)	.076	1, 2, 3, 4, 5, 6, 9, 10	25, 100, 1000
8945	18(Solid)	.080	2, 4, 5, 6, 9, 10	25, 100, 1000
8947	18(16x30)	.087	2, 4, 5, 6, 9, 10	25, 100, 1000
8942	16(26x30)	.099	2, 5, 10	100, 1000
8938	14(41x30)	.115	2, 10	100, 500

INDOOR ANTENNA WIRE

Tinned copper, chrome vinyl insulated.

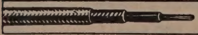
Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft.
8014	25(13x36)	.010	.044	25, 500

COLOR CODING

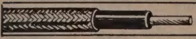
Stock Colors. First color in stripe combination is body color and second or third colors are stripes (White/Black/Red)

Code No.	Color Combination	Code No.	Color Combination
1	Brown	16	White/Green
2	Red	17	White/Yellow
3	Orange	18	White/Blue
4	Yellow	19	White/Brown
5	Green	20	White/Orange
6	Light Blue	21	White/Gray
7	Violet (purple)	22	White/Violet
8	Gray (slate)	23	White/Black/Red
9	White	24	White/Black/Green
10	Black	25	White/Black/Yellow
11	Tan	26	White/Black/Blue
12	Pink	27	White/Black/Brown
13	Dark Blue	28	White/Black/Orange
14	White/Black	29	White/Black/Gray
15	White/Red	30	White/Black/Violet

SHIELDED HOOK-UP and GRID WIRES

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Insulation Resistance megohms per 1000 feet	Cap. (mmf/ft)	Standard Spool Lengths in ft
	8885	20(10x30)	.015	.117	1500	4000	300	80	15, 25, 100, 500

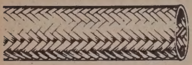
Tinned copper, rubber insulated, cellulose acetate braid, lacquered, tinned copper braid shield.

Description	Trade Number	AWG & Stranding	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Suggested Working Voltage	Breakdown Voltage	Insulation Resistance megohms per 1000 feet	Cap. (mmf/ft)	Standard Spool Lengths in ft
	8206	18(7x27)	.040	.156					15, 50, 100, 250

Tinned copper, rubber insulated, tinned copper braid shield.
For additional shielded hook-up wires see Military Specification Types on Pages 17, 18 & 23.

shielding, bus bar and accessory wires

SHIELDING AND BONDING CABLES

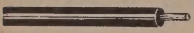


Braided tin copper.

Trade Number	Stranding	Approx. Cir. Mil. Area	Nom. I.D. (Inch)	Standard Spool Lengths in ft
NEW 8676	16x36	400	1/32	10, 50, 250
NEW 8674	24x36	600	3/64	10, 50, 250
8660	96x34	3,800	1/8	10, 50, 250
8668	120x34	4,700	11/64	10, 50, 250
8663	160x34	6,300	1/4	10, 50, 250
8661	192x34	7,600	3/8	10, 50, 250
8669	336x34	13,300	1/2	10, 50, 250
NEW 8672	528x36	13,200	5/8	10, 50, 250
8662	576x34	22,900	25/32	10, 50, 250
NEW 8670	480x30	48,000	3/4	10, 50, 250
NEW 8671	832x36	20,800	1	10, 50, 250

For additional sizes, see current BRAIDED AND STRANDED COPPER CABLE CATALOG.

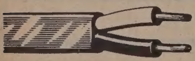
LEAD-IN WIRE



Tinned copper, black rubber insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8200	18 (7x27)	.040	.126	100, 500, 1000

DUPLEX PRIMARY WIRE

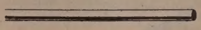


Tinned copper, vinyl insulated, conductors parallel, chrome vinyl jacket.

Standard Spools: 100 and 500 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Jacket Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8677	16 (19x29)	.032	.022	.164 x .276	Brn, Red
8675	14 (19x27)	.037	.022	.189 x .326	Brn, Red
8673	12 (19x25)	.040	.022	.213 x .384	Brn, Red

BUS BAR WIRE

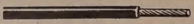


Solid Tinned Copper

Trade Number	AWG	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8027	34	.006	100, 1000
8026	32	.008	100, 1000
8025	30	.010	100, 1000
8024	28	.012	100, 1000
8023	26	.016	100, 1000
8022	24	.020	100, 1000
8021	22	.025	100, 1000
8020	20	.032	100, 1000
8019	18	.040	100, 1000
8013	16	.050	100, 1000
8012	14	.064	100, 1000
8011	12	.080	100

PRIMARY WIRE—MARINE AND AUTO

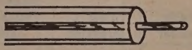
S.A.E. TYPE G.P.T.



Bare copper, vinyl insulated.

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color	Standard Spool
8685	16 (19x29)	.023	.102	Black	100
8684	14 (19x27)	.023	.117	Green	100
8683	12 (19x25)	.026	.142	Red	100
8682	10 (19x23)	.031	.175	White	100
8681	8 (19x21)	.037	.219	Chrome	100
8680	6 (37x21)	.043	.290	Chrome	100

7 MM IGNITION WIRE



Tinned Copperweld, POLYSIL* clear plastic insulation.
*Belden Trademark

Standard Spool: 100 feet

Trade Number	AWG & (Stranding)	Insulation Thickness (Inch)	Nom. O.D. (Inch)	Color Coding
8666	20 (7x28)	.121	.274	Clear

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Belden magnet wire

Belden
Belden
WIRES CABLES CORDS
NYLCLAD

Nylclad magnet wire combines the most desirable features of Formvar with the well-known toughness and solvent resistance of Nylon enamel.

For difficult and exacting windings, these plus values may represent the difference between low and high rejections.

Nylclad will out-perform all other A.I.E.E., Class A, film-coated wires with respect to: (1) ability to withstand winding abuse and forming operations; (2) resistance to the solvent action of insulating varnishes and all types of thinners; (3) resistance to softening at elevated temperatures; (4) solvent crazing; (5) windability.

BELDENAMEL* (E)

	¼ Pound Spool		½ Pound Spool			
Size	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)	Turns per Linear Inch	Turns per Square Inch
14	......	....	**8047**	40	15.2	231
16	......	....	**8048**	63	19.1	365
18	......	....	**8049**	100	23.9	571
20	......	....	**8050**	160	29.9	894
22	......	....	**8051**	254	37.4	1399
24	......	....	**8052**	404	46.9	2200
2o	......	....	**8053**	645	59.0	3481
28	**8040**	510	**8054**	1020	73.8	5446
30	**8041**	807	**8055**	1615	92.2	8501
32	**8042**	1257	**8056**	2515	114.0	12996
34	**8043**	2030	**8057**	4060	144.0	20736
36	**8044**	3200	**8058**	6400	180.0	32400
38	**8045**	5070	.....	....	225.0	50625
40	**8046**	8050	.....	....	290.0	84100

NYLCLAD* (HNC)

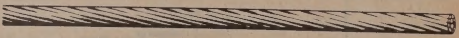
	½ Pound Spool		1 Pound Spool			
Size	Trade Number	Approx. Length (Feet)	Trade Number	Approx. Length (Feet)	Turns per Linear Inch	Turns per Square Inch
14	**8059**	40	**8073**	80	14.9	222
16	**8060**	63	**8074**	126	18.6	346
18	**8061**	100	**8075**	199	23.2	538
20	**8062**	157	**8076**	315	28.9	835
22	**8063**	250	**8077**	501	36.0	1296
24	**8064**	396	**8078**	793	44.7	1998
26	**8065**	630	**8079**	1260	55.7	3102
28	**8066**	995	**8080**	1990	69.4	4816
30	**8067**	1570	**8081**	3140	86.2	7430
32	**8068**	2440	**8082**	4880	106.0	11236
34	**8069**	3930	**8083**	7860	133.0	17689
36	**8070**	6200	**8084**	12400	167.0	27889
38	**8071**	9700	**8085**	19400	206.0	42436
40	**8072**	16050	**8086**	32100	263.0	69169

SOLID FORMVAR ANTENNA WIRE

Copper, HF Formvar insulated.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8009	14 (Solid)	.067	100, 200, 500
8008	12 (Solid)	.084	100, 200, 500

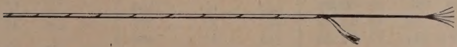
STRANDED BARE ANTENNA WIRE



Stranded bare copper.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8002	16 (7x24)	.060	50, 75, 100, 1000
8000	14 (7x22)	.076	50, 75, 100, 1000

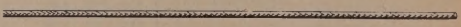
LITZ WIRE



Copper, Celenamel* insulated, nylon wrap.

Trade Number	Stranding	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8817	5x44	.008	100

VOICE COIL LEAD WIRE



Braided bare copper wire.

Trade Number	AWG & (Stranding)	Nom. O.D. (Inch)	Standard Spool Lengths in ft
8127	25 (32x40)	.024	10, 500

*Belden Trademark Reg. U. S. Pat. Off.

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It's so easy to order from this catalog . . .

When ordering products shown in this book or writing for additional information, please be sure to specify:

1. Manufacturer's Catalog Numbers and Page Numbers.
2. The Year and Edition of This MASTER.

This will avoid confusion and expedite delivery.

Thank you!

The
Radio-Electronic
MASTER

Birnbach

INSULATING TUBING & SLEEVING
BIRACO, BIRFLEX, VINYL COATED FIBERGLASS

BIRNBACH

BIRACO PLASTIC TUBING
UL APPROVED FOR 105° C. OPERATION — MEETS MIL-I-631C SPECS.

A quality plastic Vinyl tubing designed for electronic and electrical insulation work. Has high dielectric strength, extreme flexibility, non-flammability, abrasion resistance, impervious to oil, water, alkalies, alcohol, solvents, etc., high heat stability and resistance to aging. Meets all A.S.T.M. specifications, Mil. Spec. (Type F, Form U, Grades A and C, Class 2, Category 1).

BIRACO TUBING

Put up on convenient 100′ Spools or Coils.

LONGER LENGTHS AVAILABLE

Cat. No.	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
308BC	24	.022″	100′
311BC	22	.027″	100′
313BC	20	.034″	100′
314BC	18	.042″	100′
315BC	16	.053″	100′
316BC	14	.066″	100′
317BC	12	.085″	100′
325BC	10	.106″	100′
318BC	8	.135″	100′
326BC	6	.166″	100′
319BC	4	.208″	100′
320BC	2	.263″	100′
321BC	5/16″	.3125″	100′
322BC	⅜″	.375″	100′
323BC	½″	.500″	100′
324BC	⅝″	.625″	100′
*327BC	¾″	.750″	100′
*360BC	⅞″	.875″	100′
*361BC	1″	1.000″	100′
*362BC	1¼″	1.250″	50′
*363BC	1½″	1.500″	50′
*328BC	1¾″	1.750″	100′
*329BC	2″	2.000″	50′
*364BC	2¼″	2.250″	100′
*365BC	2½″	2.500″	100′

SPECIAL SPOOLS BIRACO TUBING

Cat. No.'s 36″ Lgths.	Cat. No.'s Spec. Spools	B & S Gauge Size No.	Approx. I.D.	Lgth. Spool
......	308B	24	.022″	25′
......	311B	22	027″	25′
313	313B	20	034″	25′
314	314B	18	.042″	25′
315	315B	16	.053″	25′
316	316B	14	.066″	25′
317	317B	12	.085″	25′
325	325B	10	.106″	15′
318	318B	8	.135″	15′
326	326B	6	.166″	15′
319	319B	4	.208″	10′
320	320B	2	.263″	10′
321	——	5/16	.3125″	—
322	——	⅜	.375″	—
323	——	½	.500″	—
324	——	⅝	.625″	—

Standard package 36″ lengths 25 each color:

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 ....1,000′
Soft Wound Spools
#14 Thru #8 .... 500′
Soft Wound Spools
#7 Thru #2 ....250′
#1 and larger ....100′ coils

COLORS AVAILABLE FROM STOCK:
Black, Red, Green, White, Yellow, Blue, Brown, Orange, Clear.

*Cat. Nos. 360BC, 361BC, 362BC, 363BC, 364BC, 328BC, 329BC, 365BC available in **Black, White and Clear** from stock.

DIMENSIONAL TOLERANCES OF BIRACO

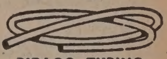
Sz.	Approx. I.D., Ins.	ASTM Tolerances, Ins.	Wall Thickness Inches
24	.022	.020 — .027	.012±.002
22	.027	.025 — .032	.012±.002
20	.034	.032 — .039	.016±.003
19	.038	.044 — .036	.016±.003
18	.042	.040 — .049	.016±.003
17	.047	.054 — .045	.016±.003
16	.053	.051 — .061	.016±.003
15	.059	.067 — .057	.016±.003
14	.066	.064 — .072	.016±.003
13	.076	.080 — .072	.016±.003
12	.085	.081 — .089	.016±.003
11	.095	.101 — .091	.016±.003
10	.106	.102 — .112	.016±.003
9	.118	.124 — .114	.020±.003
8	.133	.129 — .141	.020±.003
7	.148	.158 — .144	.020±.003
6	.166	.162 — .178	.020±.003
5	.186	.198 — .182	.020±.003
4	.208	.204 — .224	.020±.003
3	.234	.249 — .229	.020±.003
2	.263	.258 — .278	.020±.003
1	.294	.311 — .289	.020±.003
0	.330	.347 — .325	.020±.003
5/16	.315	.3125— .334	.025±.003
⅜	.375	.375 — .399	.025±.003
7/16	.438	.462 — .438	.025±.003
½	.500	.500 — .524	.025±.003
9/16	.562	.592 — .562	.030±.003
⅝	.625	.625 — .655	.030±.005
¾″	.750	.750 — .786	.035±.005
⅞	.875	.875 — .911	.035±.005
1″	1.000	1.000 — 1.036	.035±.005
1¼″	1.250	1.250 —1.286	.040±.005
1½″	1.500	1.500 —1.536	.045±.005
1¾″	1.750	1.812 —1.750	.055±.008
2″	2.000	2.000 —2.070	.060±.010
2¼″	2.250	2.250 —2.330	.065±.010
2½″	2.500	2.500 —2.590	.070±.010

IN STOCK

The Birnbach Line of insulated sleeving and tubing is the basic quality line designed for the rigid performance requirements of the Aircraft, Electrical and Electronic Industries.

Meets or exceeds the required MIL Specifications and ASTM and NEMA standards. We invite your inquiries on special problems and requirements.

TABLE OF PHYSICAL & ELECTRICAL PROPERTIES



BIRACO TUBING

Tensile Strength—2500 Psi (Minimum Average)

Flammability—Non-Flammable

Ultimate Elongation—340%

Recommended for Temperatures to—105° C

Cold Bend— -40° C.

Dielectric Strength .020″ Wall—800 V/Mil

Varnish Baking—Good

Water Absorption

Weight Increase (1 Week)—0.1%

Fungi Resistance-Yes

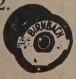
Oil Resistance—Indefinitely flexible when immersed in oil

Insulation Resistance — over 1,000,000 megohms.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

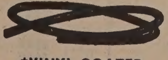
BIRFLEX VINYL COATED FIBERGLASS TUBING
(ASTM, NEMA Grade B-B-1) MEETS MIL-1-3190 B SPECS.

Quality Electronic and Electrical Tubing. It is Class B Insulation that combines the best featues of the inorganic fiberglass base sleeving with heat resistant, flexible plastic insulation. The plastic compound provides the highest electrical properties, heat stability (130° C.), flexibility and toughness. Meets performance requirements of specs. MIL-1-3190 B, NEMA VSI, ASTM D 372.



SPECIAL SPOOLS VINYL COATED FIBERGLASS

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth. Spool
291V	20	.034	25′
293V	18	.042	25′
294V	16	.053	25′
295V	14	.066	25′
300V	12	.085	25′
307V	10	.106	20′
301V	8	.135	15′
302V	6	.166	10′
305V	4	.208	10′
306V	2	.263	10′



*VINYL COATED FIBERGLASS

30″ Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
291	20	.034
293	18	.042
294	16	.053
295	14	.066
300	12	.085
307	10	.106
301	8	.135
302	6	.166
297	3/16	.208
298	1/4	.263

36″ Lengths

Cat. No.	B & S Gauge Size	Apx. I.D.
*303	5/16	.3125
*304	3/8	.375
*299	1/2	.500
*296	5/8	.625

*VINYL COATED FIBERGLASS

Put up on convenient 100′ Spools or Coils.

Cat. No.	B & S Gauge Size	Apx. I.D.	Lgth Spool
289VC	24	.022	100′
290VC	22	.027	100′
291VC	20	.034	100
293VC	18	.042	100′
294VC	16	.053	100′
295VC	14	.066	100′
300VC	12	.085	100′
307VC	10	.106	100′
301VC	8	.135	100′
302VC	6	.166	100′
305VC	4	.208	100′
306VC	2	.263	100′
*303VC	5/16	.3125	100′
*304VC	⅜	.375	100′
*299VC	½	.500	100′
*296VC	⅝	.625	100′

DIMENSIONAL TOLERANCES OF VINYL COATED FIBERGLASS

Size	Apx. I.D.	N.E.M.A. Tolerances Inches
24	.022	.020-.027
22	.027	.025-.032
20	.034	.032-.039
18	.042	.040-.049
16	.053	.051-.061
14	.066	.064-.072
12	.085	.081-.089
10	.106	.102-.112
8	.133	.129-.141
6	.166	.162-.178
3/16, 4	.208	.204-.224
¼, 2	.263	.258-.278
5/16	.3125	.312-.328
⅜	.375	.375-.399
½	.500	.500-.524
⅝	.625	.625-.655

PHYSICAL & ELECTRICAL PROPERTIES BIRFLEX VINYL COATED FIBERGLASS

Class B

Grade B-1

Dielectric Strength....................4000 V.

Temperature Rating..................130° C.

Low Temp. Flexibility................—30° C.

Non-Flammable

Ins. Resistance..........Over 1,000,000 MEGS.

Corrosion Resistance ....Excellent

Oil Resistance ....Good

In addition to Spools and Coils noted above the standard packaging is as follows on stock colors.

#24 Thru #15 ....1,000′
Soft Wound Spools
#14 Thru #8 .... 500′
Soft Wound Spools
#7 Thru #2 .... 250′
#1 and larger..................................100′ coils

COLORS:
Black, Red, White, Yellow, Brown, Orange, Green, Blue, Gray, Purple

Additional Sizes Available

Other types of Biraco, Birflex, Birflon Tubing and sleeving available. Write for new Comprehensive Catalog on Tubing and Sleeving.

ALL THE ABOVE TUBING CAN BE ORDERED CUT AND MARKED TO YOUR SPECIFICATIONS

© U.C.P., Inc.

See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach

NEW THIN WALL BIRFLON T-500
TEFLON* SPAGHETTI TUBING

BIRNBACH

Birflon T-500 Tubing is extruded from DuPont Tetrafluoroethylene Resin. Used in electronic and electrical equipment for connection of components. Its flexibility, ease of handling has established it as the best and most popular insulation sheathing. This high temperature Class C insulation does not melt and flow as the conventional thermoplastic materials. Birflon T-500 Teflon has unique electrical, chemical and mechanical properties unmatched by any other type tubing for use in applications requiring high frequencies and high temperatures. Because of Teflon's continuous service temperature of 250° C., which is more than 100° C. above other materials, the soldering technique is simplified since "Teflon" is not harmed by the hot barrel of the soldering iron — therefore, the assembly of aircraft, missile and electronic communication equipment is greatly speeded up. Thin Wall flexible Teflon Tubing can be processed easily into flexible and rigid printed circuits. As a thin, flexible insulation, it permits miniaturization and compactness of design never before possible.

TABLE OF PROPERTIES

Test	ASTM Method	Result
Tensile Strength, 73°F.	D638-52T	1500-3000 Lb/Sq. In.
Elongation, 73°F.	D638-52T	100-200%
Deformation Under Load—122°F.		
1200 Lb/Sq. In., 24 Hrs.	D621-51	4-8%
2000 Lb/Sq. In., 24 Hrs.	D621-51	25%
Hardness Durometer	D676-49T	D50-D65
Heat Distortion Temp., 66 Lb/Sq. In.	D648B-45T	250°F.
Dielectric Strength, .080"	D149-44	400-500 V/MIL
Surface Arc-Resistance	D495-48T	Sec.
Volume Resistivity	D257-52T	10^{15} Ohm-CM
Surface Resistivity, 100% R.H.	D257-52T	3.6×10^6 Megohms
Dielectric Constant, 60 to 10^8 Cycles	D150-54T	2.00
Power Factor, 60 to 10^8 Cycles	D150-54T	0.0003
Specific Gravity	D792-50	2.1-2.2

Thin Wall Birflon T-500 Teflon* Tubing Dimensional Specifications

AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness	AWG Size	Nom. O.D.	Nom. I.D.	Nom. Wall Thickness
32	.028"	.011"	.0085"	7	.178"	.148"	.015"
30	.030"	.012"	.009"	6	.196"	.166"	.015"
28	.033"	.015"	.009"	5	.216"	.186"	.015"
26	.038"	.018"	.010"	4	.238"	.208"	.015"
24	.042"	.022"	.010"	3	.264"	.234"	.015"
22	.047"	.027"	.010"	2	.293"	.263"	.015"
20	.058"	.034"	.012"	1	.324"	.294"	.015"
19	.062"	.038"	.012"	0	.360"	.330"	.015"
18	.066"	.042"	.012"	3/8"	.430"	.390"	.020"
17	.071"	.047"	.012"	7/16"	.493"	.453"	.020"
16	.077"	.053"	.012"	1/2"	.565"	.515"	.025"
15	.083"	.059"	.012"	9/16"	.633"	.583"	.025"
14	.090"	.066"	.012"	5/8"	.700"	.640"	.030"
13	.100"	.076"	.012"	3/4"	.825"	.765"	.030"
12	.109"	.085"	.012"	7/8"	.950"	.895"	.030"
11	.119"	.095"	.012"	1"	1.085"	1.025"	.030"
10	.130"	.106"	.012"	1⅛"	1.210"	1.150"	.030"
9	.148"	.118"	.015"	1¼"	1.335"	1.275"	.030"
8	.163"	.133"	.015"				

Tolerance — Nos. 32 thru 0 — ± .003" on Wall
Tolerance — Nos. ⅜" thru 1¼" — .020" on I.D., .006" on Wall

ADDITIONAL ADVANTAGES OF BIRFLON T-500 TEFLON*

- **ELECTRICAL:** Low power factor, low dielectric constant, high volume and surface resistivity, good dielectric strength (500 to 1000 volts/MIL) constant over wide ranges of temperatures and frequencies. Dielectric constant of 2.0 and dissipation factor of 0.0002 are lowest of any solid dielectric.
- **THERMAL:** No change of electrical properties with temperature (25°C. to 250°C.) or frequency (60 CPS to 100 MC). Class C insulation — capable of continuous service at temperatures to 250° C. Has color stability.
- **TOUGHNESS AND FLEXIBILITY:** Has high impact strength. Is tough and flexible over the broad temperature range of —90° C. to 250°C. Service range —320°F. to 500° F.
- **CHEMICAL INERTNESS:** Completely inert to all chemicals and solvents except molten alkali metals and fluorine at elevated temperatures and pressures. Non-corrosive to all metals.
- **MOISTURE ABSORPTION:** Zero moisture absorption. Completely sun and weather resistant.
- **NON-FLAMMABLE** ● **LOWEST COEFFICIENT OF FRICTION**
- **FUNGI RESISTANCE:** Inert to all fungi growths.
- **SIZES:** Birflon T-500 Teflon Tubing available in sizes to fit B & S gauge wires. Thin wall available from stock, in sizes No. 32 thru 1¼" I.D. Additional sizes and wall thicknesses made to order.

Birflon T-500 is made from high molecular weight virgin "Teflon" and meets AMS 3651B, 3653B, 3654, 3655, MIL-C-17B and MIL-I-22129B.

NOTE: When cutting Teflon Tubing, use single edge razor blade for clean unpinched cut.

"Teflon"* DuPont Trade Name for Tetrafluoroethylene Resin

NO EXTRA CHARGE FOR SOLID COLORS
SMALL PIECE CUTTING AVAILABLE TO ORDER

STOCK COLORS: Natural, Red, Black, Blue, Brown, Green, Orange, Yellow, Gray, Violet, White. Nos. 8020 thru 8029 available in Natural. Additional Colors, Sizes Made To Order

Teflon Tubing can be ordered cut to your specifications.

Tracer Colors Available

We Invite Your Inquiries For Your Special Requirements

WIRE — CABLE — TUBING DIVISION

NEW THIN WALL BIRFLON T-500 TEFLON* SPAGHETTI TUBING

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8013	*1000'	32
8013	500'	32
8013	100'	32
8014	*1000'	30
8014	500'	30
8014	100'	30
8015	*1000'	28
8015	500'	28
8015	100'	28
8016	*1000'	26
8016	500'	26
8016	100'	26
8000	*1000'	24
8000	500'	24
8000	100'	24
8000	50'	24
8000	25'	24
8001	*1000'	22
8001	500'	22
8001	100'	22
8001	50'	22
8001	25'	22
8002	*1000'	20
8002	500'	20
8002	100'	20
8002	50'	20
8002	25'	20

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8003	*1000'	18
8003	500'	18
8003	100'	18
8003	50'	18
8003	25'	18
8004	*1000'	16
8004	500'	16
8004	100'	16
8004	50'	16
8004	25'	16
8005	1000'	14
8005	* 500'	14
8005	100'	14
8005	50'	14
8005	25'	14
8006	1000'	12
8006	* 500'	12
8006	100'	12
8006	50'	12
8006	25'	12
8007	1000'	10
8007	* 500'	10
8007	100'	10
8007	50'	10
8007	25'	10
8008	1000'	8
8008	* 500'	8
8008	100'	8
8008	50'	8
8008	25'	8

Cat. No.	Spool or Coil Put-Up	B & S Size No.
8009	1000'	6
8009	* 500'	6
8009	100'	6
8009	50'	6
8009	25'	6
8010	1000'	4
8010	500'	4
8010	* 100'	4
8010	50'	4
8010	25'	4
8011	1000'	2
8011	500'	2
8011	* 100'	2
8011	50'	2
8011	25'	2
8012	1000'	0
8012	500'	0
8012	* 100'	0
8012	50'	0
8012	25'	0
8020	1000'	3/8"
8020	500'	3/8"
8020	* 100'	3/8"
8020	50'	3/8"
8021	1000'	7/16"
8021	500'	7/16"
8021	* 100'	7/16"
8021	50'	7/16"
8022	1000'	1/2"
8022	500'	1/2"
8022	* 100'	1/2"
8022	50'	1/2"
8022	25'	1/2"

Cat. No.	Spool or Coil Put-Up	Nom. I.D.
8023	1000'	9/16"
8023	500'	9/16"
8023	* 100'	9/16"
8023	50'	9/16"
8023	25'	9/16"
8024	1000'	5/8"
8024	500'	5/8"
8024	* 100'	5/8"
8024	50'	5/8"
8024	25'	5/8"
8025	1000'	3/4"
8025	500'	3/4"
8025	* 100'	3/4"
8025	50'	3/4"
8025	25'	3/4"
8026	1000'	7/8"
8026	500'	7/8"
8026	* 100'	7/8"
8026	50'	7/8"
8026	25'	7/8"
8027	1000'	1"
8027	500'	1"
8027	* 100'	1"
8027	50'	1"
8027	25'	1"
8028	1000'	1⅛"
8028	500'	1⅛"
8028	* 100'	1⅛"
8028	50'	1⅛"
8028	25'	1⅛"
8029	1000'	1¼"
8029	500'	1¼"
8029	* 100'	1¼"
8029	50'	1¼"
8029	25'	1¼"

*PREFERRED PUT-UP

Extruded virgin Teflon rod sizes ⅛" thru 3⅛" diam. available. Also "O" rings, washers, balls, etc.

See Pages 1620-1625 for Birnbach Prices for Above Items

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Birnbach

BIRACO - BIRFLON HEAT SHRINKABLE PLASTIC TUBINGS

BIRNBACH

NEW FROM BIRNBACH

This Series of Birnbach Shrink Plastic Tubings are expanded materials which facilitate the fitting of tubing over regular contoured or irregular shapes and then, on application of heat, provide a snug fitting protective cover with outstanding heat stability, chemical resistance and electrical characteristics. Shrinking temperatures vary with the type of tubing used. No special training is required to apply these tubings. Long exposure to shrinking temperatures (5 to 7 times normal time-temperature cycle) does not impair their properties.

PROPERTIES CHART

	PO SERIES Shrinkable Polyethylene	TE SERIES Shrinkable "Teflon"
DIELECTRIC STRENGTH (20 Mil Wall)	800 Volts/Mil	850 Volts/Mil
DIELECTRIC CONSTANT	2.5	2.2
POWER FACTOR	0.003	.00
VOLUME RESISTIVITY	10^{16} Ohms/CM	10^{17} Ohms/CM
FUNGUS RESISTANCE	Inert	Inert
FLAMMABILITY	Self-Extinguishing	Will Not Support Combustion
FUEL and OIL RESISTANCE	Excellent	Superior
HYDRAULIC FLUID RESISTANCE	Excellent	Superior
SOLVENT RESISTANCE	Good	Superior
ACID and ALKALI RESISTANCE	Excellent	Superior
CORROSION RESISTANCE	Non-Corrosive	Excellent
TENSILE STRENGTH	1800 PSI	5000-7500 PSI
ULITMATE ELONGATION	250%	300-500%
WATER ABSORPTION	0.01%	Nil
LOW TEMPERATURE BRITTLE POINT	— 100°F	—66°F
HARDNESS	98 SHORE A	98 Shore A
SPECIFIC GRAVITY	1.28	2.2

HAG-11 Hot Air Gun For PO Series
HAG-12 Hot Air Gun For TE Series

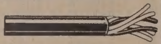
The quickest and most versatile method for applying heat is the hot air gun noted herein. Also, use of an oven, radiant heat, dipping in hot liquids, or using a soldering iron or the flame of a match.

SHRINK SERIES PO TUBING

HEAT SHRINKABLE POLYETHYLENE TUBING

Biraco Shrink Series PO Tubing is an irradiated, thermally stable Class B material. Simple to use, it insulates, jackets, splices, encapsulates, weatherproofs. It shrinks with application of heat approximately 275°F (135°C) and returns immediately to its predetermined size (approximately one-third smaller) to form a permanent tight-fitting mechanical bond even over irregularly shaped materials. The Biraco Shrink Series PO is an irradiated, flame retarded, thermally stable, modified polyolefin base product which permits controlled shrinkage with the result that there is less than 10% longitudinal contraction; no cracks; a definite wall thickness is achieved. It possesses hi-dielectricity and mechanical strength and resistance to chemicals; is tough and abrasion resistant; retains form stability at ambient temperatures. Controlled shrinking takes approximately seven seconds at 275°F to 300°F. Shrinkage starts at 235°F but at a slower rate. For a tight-fit, select the expanded size tubing which is larger than the object to be covered and whose recovered size is smaller.

DIMENSION CHART



BIRACO SHRINK SERIES PO TUBING

Birnbach No.	Size	Minimum I.D. Prior to Shrinking	Recovered I.D. After Shrinking	Nom. Wall Thickness
SK-275-24	24	.050″	.027″	.012″
SK-275-22	22	.055″	.032″	.012″
SK-275-20	20	.060″	.038″	.016″
SK-275-18	18	.076″	.049″	.016″
SK-275-16	16	.093″	.061″	.016″
SK-275-14	14	.120″	.072″	.016″
SK-275-12	12	.153″	.089″	.016″
SK-275-10	10	.191″	.112″	.016″
SK-275-8	8	.240″	.141″	.020″
SK-275-6	6	.302″	.178″	.020″
SK-275-4	4	.348″	.224″	.020″
SK-275-2	2	.430″	.275″	.020″
SK-275-⁵⁄₁₆	⁵⁄₁₆″	.500″	.334″	.025″
SK-275-⅜	⅜″	.600″	.399″	.025″
SK-275-⁷⁄₁₆	⁷⁄₁₆″	.693″	.462″	.025″
SK-275-½	½″	.787″	.524″	.025″
SK-275-⅝	⅝″	.982″	.655″	.030″
SK-275-¾	¾″	1.180″	.786″	.035″
SK-275-⅞	⅞″	1.365″	.911″	.035″
SK-275-1	1″	1.555″	1.036″	.035″

Standard Put-Up —
4 Foot Lengths

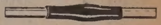
Standard Colors —
#24 thru #4 Black, Red, Yellow, White
#2 thru 1″—Black
Other colors available to order

Standard package
#24 thru #4—100 Feet (25-4 Ft. Lengths)
#2 thru 1″—20 Feet (5-4 Ft. Lengths)

1¼″ thru 2″ now available. Your inquiries invited.

BIRFLON SHRINK SERIES TE TUBING

HEAT SHRINKABLE TEFLON* TUBING



Is a Class C material modified from polytetrafluorethylene. The tubing will shrink when heated to 621 F. (It should be heated until it turns semi-transparent, then the heating process immediately stopped. Overheating can cause splitting, therefore trial and error testing is recommended to establish the proper time and temperature for each application.) Correct procedure will result in a snug-fitting insulating wrap possessing hi-heat resistance, superior chemical resistance, and excellent electrical characteristics. The tubing is available in a full range of colors.

* Dupont Polytetrafluoroethelene

DIMENSIONS—BIRFLON SHRINK SERIES TE TUBING

Birnbach No.	Nominal Tubing Size	Minimum Expanded ID	Recovered Dimensions Maximum ID (1)	Recovered Dimensions Wall Thickness (2)
SK-621-26	26	.046″	.022″	.009″
SK-621-24	24*	.050″	.027″	.010″
SK-621-22	22*	.055″	.032″	.010″
SK-621-20	20*	.060″	.039″	.012″
SK-621-19	19	.065″	.043″	.012″
SK-621-18	18*	.076″	.049″	.012″
SK-621-17	17	.085″	.054″	.012″
SK-621-16	16*	.093″	.061″	.012″
SK-621-15	15	.110″	.067″	.012″
SK-621-14	14*	.120″	.072″	.012″
SK-621-13	13	.140″	.080″	.012″
SK-621-12	12*	.150″	.089″	.012″
SK-621-11	11	.170″	.101″	.012″
SK-621-10	10*	.191″	.112″	.012″
SK-621-9	9	.205″	.124″	.015″
SK-621-8	8*	.240″	.141″	.015″
SK-621-7	7	.270″	.158″	.015″
SK-621-6	6*	.302″	.178″	.015″
SK-621-5	5	.320″	.198″	.015″
SK-621-4	4*	.348″	.224″	.015″
SK-621-3	3	.360″	.249″	.015″
SK-621-2	2*	.375″	.278″	.015″
SK-621-1	1	.385″	.311″	.015″
SK-621-0	0*	.400″	.347″	.015″
SK-621-⅜	⅜″*	.560″	.399″	.020″
SK-621-⁷⁄₁₆	⁷⁄₁₆″*	.655″	.462″	.020″
SK-621-½	½″*	.750″	.524″	.020″

Standard Package—100 Feet
Standard Put-up—36″ Straight Lengths—One Foot Minimums
Wall Tolerances: 26 thru 22 ± .002
20 thru 10 ± .003
9 thru 0 ± .004

(1) Tubings made to Military Standards for American Wire Gages will return within the tolerances for that gage number.

(2) Nominal wall thickness after heating. Expanded wall thickness will be 20% to 30% less.

(*) Stock Sizes

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See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach COPPERWELD ENAMEL, TINNED AND BARE COPPER BUS BAR, BRAIDED TINNED COPPER SHIELDING

TINNED COPPER WIRE — BUS BAR

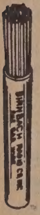
Pure Electrolytic, Copper, annealed, tinned for quick soldering

MIL—W—3861 type S, ASTM—B—33 specifications, QQ—W—343 type S

Cat. No.	Put-Up	Size AWG	Area Circular Mils	O.D.
1433/4	100′ Coil	4	41,740	.204″
1433/6	100′ Coil	6	26,250	.162″
1433	100′ Coil	8	16,510	.129″
1402	100′ Coil	10	10,380	.103″
1403	1000′ Spool	10	10,380	.103″
1406	100′ Coil	12	6,530	.082″
1407	1000′ Spool	12	6,530	.082″
1410	100′ Coil	14	4,107	.065″
1411	1000′ Spool	14	4,107	.065″
1414	100′ Coil	16	2,583	.051″
1415	1000′ Spool	16	2,583	.051″
1418	100′ Coil	18	1,624	.040″
1419	1000′ Spool	18	1,624	.040″
1422	100′ Coil	20	1,022	.033″
1423	1000′ Spool	20	1,022	.033″
1434	1000′ Spool	22	624.4	.025″
1424	1000′ Spool	24	404.0	.020″
1426	1000′ Spool	26	254.1	.016″
1428	1000′ Spool	28	159.8	.013″
1430	1000′ Spool	30	100.5	.010″
1430/32	1000′ Spool	32	63.21	.008″
1430/34	1000′ Spool	34	39.75	.006″
1430/36	1000′ Spool	36	25.00	.005″
1430/38	1000′ Spool	38	15.72	.004″

See Magnet Wire Section For Additional Sizes

BUS BAR WIRE (Hard Drawn)



MIL—W—3861 type S, ASTM—B—33, ASTM—B—246—51 specifications

For hooking up all types of transmitters, especially ultra short wave equipment. All bus wire is made of hard drawn copper, tinned, straightened, and cut in 2 ft. lengths.

Cat. No.	No.		Circular Mills Area
2010	10	Round Tinned	10,380
2012	12	Round Tinned	6,530
2013	12	Round Tinned	6,530
2014	14	Round Tinned	4,107
2015	14	Round Tinned	4,107
2016	16	Round Tinned	2,583
2018	18	Round Tinned	1,624
2020	20	Round Tinned	1,022
2022	22	Round Tinned	642

(100 to Std. Package)

TINNED COPPER SHIELDING

Used for shielding and bonding on aircraft, marine and auto radio wires and cables. Shields speaker leads, lead-ins, amplifier wires. Extremely flexible, slides over wires and cables.

EXTREMELY FLEXIBLE SHIELDING PER QQ—B—575 AVAILABLE TO ORDER

DESCRIPTION:

No. 853 thru 856/7—Composed of extremely flexible fine soft annealed copper tinned wires closely woven, braided and **Rolled Flat.**

No. 860—Composed of extremely flexible fine soft annealed copper wires closely woven, braided and **Rolled Flat.**

TINNED

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
853	12 x 2/36	1/32″	3/64″	1000′
854	12 x 2/36	3/64″	1/16″	1000′
855	16 x 3/36	1/16″	5/64″	50′
858	24 x 5/36	1/8″	5/32″	50′
859	24 x 5/36	3/16″	7/32″	50′
863	24 x 7/36	1/4″	9/32″	50′
864	48 x 4/36	3/8″	15/32″	50′
868	48 x 7/36	1/2″	19/32″	50′
865	48 x 8/36	5/8″	23/32″	50′
865/1	48 x 11/36	3/4″	13/16″	50′
857	48 x 19/36	25/32″	27/32″	50′
856	48 x 19/36	1″	1-1/16″	50′
856/1	48 x 19/36	1-3/8″	1-7/16″	50′
856/2	48 x 19/36	1-1/2″	1-9/16″	50′
856/3	48 x 27/30	1-3/4″	1-7/8″	50′
856/4	48 x 32/30	2″	2-1/4″	50′
856/6	48 x 45/30	2-1/2″	2-3/4″	50′
856/7	48 x 64/30	3″	3-1/4″	50′

BARE

Cat. No.	Size & No. of Wires	Inside Diam. Flattened	Approx. O.D. Flattened	Spool
860	24 x 10/36	1/4″		50′

For longer lengths and alternate put-ups—Specify.

COPPER WIRE—SOLID—STRANDED

STRANDED TINNED COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
495	100′ Coil	12	7/20	.102″
1671	100′ Coil	14	7/22	.076″
1638	1000′ Spool	14	7/22	.076″
1674	100′ Coil	15	7/23	.069″
1633	1000′ Spool	15	7/23	.069″
1628	1000′ Spool	16	7/24	.062″

#1671 meets H4.4—1940 type W—I

COIL LEAD, JUMPER CABLE

PURE ELECTROLYTIC, COPPER, annealed, tinned for quick soldering
MIL—W—3861 Type B, ASTM—B—33 Specifications

Cat. No.	Class Description	Put-Up	Size AWG	Strand	O.D.
1622	K	1000′ Spool	22	7/30	.030″
1620	K	1000′ Spool	20	10/30	.037″
1618	K	1000′ Spool	18	16/30	.045″
1616	K	1000′ Spool	16	26/30	.059″
1614	K	1000′ Spool	14	41/30	.073″
1612	K	1000′ Spool	12	65/30	.091″

BARE COPPER WIRE (Soft Drawn)

QQ—W—341A specifications

Cat. No.	Put-Up	Size AWG	Area Circular Mills	O.D.
1560	100′ Coil	8	16,510	.1285″
1562	100′ Coil	10	10,380	.102″
1563	1000′ Spool	10	10,380	.102″
1566	100′ Coil	12	6,530	.081″
1567	1000′ Spool	12	6,530	.081″
1570	100′ Coil	14	4,107	.064″
1571	1000′ Spool	14	4,107	.064″
1574	100′ Coil	16	2,583	.051″
1575	1000′ Spool	16	2,583	.051″

SILICON BRONZE AERIAL WIRE

Especially designed for ships, airports, short wave and transmitting antennas where high tensile strength and resistance to the elements are important.

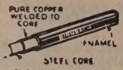
Cat. No.	Put-Up	Size AWG	Strand	Breaking Strength	O.D.
529*	100′	4	7/12	3670 lbs.	.240″
528*	100′	6	7/14	2140 lbs.	.190″
527	100′	8	7/16	1600 lbs.	.150″
499	100′	10	7/18	1000 lbs.	.122″
524	100′	12	7/20	650 lbs.	.100″
526	100′	14	7/22	420 lbs.	.075″

#528 and #499 meets MIL—W—13074; #524 meets MIL—W—13276

For longer lengths and alternate put-ups—Specify.

* 1000 feet on deposit reels

COPPERWELD ENAMEL ANTENNA WIRE



Used where high tensile strength is required as for short wave and transmitting aerials. Has low R.F. resistance and is ideal for transmitting doublet and directional antennas. Will maintain frequency characteristics because of its stretchless qualities.

Cat. No.	Put-Up	Size AWG	Tensile Strength	O.D.
710-100	100′ Spool	10	1130 lbs.	.103″
710-250	250′ Spool	10	1130 lbs.	.103″
710-500	500′ Spool	10	1130 lbs.	.103″
710-1000	1000′ Spool	10	1130 lbs.	.103″
710-2500	2500′ Spool	10	1130 lbs.	.103″
712-100	100′ Coil	12	720 lbs.	.082″
712-250	250′ Coil	12	720 lbs.	.082″
712-500	500′ Spool	12	720 lbs.	.082″
712-1000	1000′ Spool	12	720 lbs.	.082″
712-2500	2500′ Spool	12	720 lbs.	.082″
714-100	100′ Coil	14	400 lbs.	.065″
714-250	250′ Spool	14	400 lbs.	.065″
714-500	500′ Spool	14	400 lbs.	.065″
714-1000	1000′ Spool	14	400 lbs.	.065″
714-2500	2500′ Spool	14	400 lbs.	.065″

SOLID ENAMEL COPPER WIRE

Cat. No.	Put-Up	Size AWG	O.D.
497	100′ Coil	10	.103″
1497	1000′ Spool	10	.103″
492	100′ Coil	12	.083″
492A	150′ Coil	12	.083″
492B	200′ Coil	12	.083″
1492	1000′ Spool	12	.083″
490	100′ Coil	14	.066″
490A	150′ Coil	14	.066″
490B	200′ Coil	14	.066″
1490	1000′ Spool	14	.066″

STRANDED BARE COPPER WIRE

Cat. No.	Put-Up	Size AWG	Strand	O.D.
493	100′ Coil	12	7/20	.100″
1670	100′ Coil	14	7/22	.075″
1639	1000′ Spool	14	7/22	.075″
1673	100′ Spool	15	7/23	.068″
1634	1000′ Spool	15	7/23	.068″
1680	100′ Coil	16	7/24	.060″
1647	1000′ Spool	16	7/24	.060″
681	100′ Coil	18	7/26	.050″
1648	1000″ Spool	18	7/26	.050″
700	100′ Coil	19	7/27	.041″
1741	1000′ Spool	19	7/27	.041″

See Pages 1620-1625 for Birnbach Prices for Above Items

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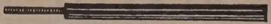
Birnbach GOV'T. SPEC. HOOK-UP WIRE

SPEC. MIL-W-16878D TEFLON*

BIRFLON EXTRUDED & SPIRAL WRAPPED TEFLON* HOOK-UP WIRE

SPECIFICATION MIL-W-16878D



TYPE E—600 VOLT

HIGH TEMPERATURE RATING —90° TO +250°C (TYPE EE-1000V AVAILABLE)

Chemically inert, non-flammable, excellent flexibility, easy stripping, high dielectric strength, unaffected by fungus. Exceeds Class H insulation requirements. Unaffected by high or low temperature. Outstanding for its dependability and long life under all operating conditions indoors or outdoors. Teflon permits miniaturization and compactness in electronic designs of sub-miniature components, computers, UHF equip., slip ring assemblies, leads to hermetically sealed and potted components, telemetering equip. and guided missiles.

Description: single conductor silver plated copper wire concentrically stranded and insulated with extruded or Spiral Wrapped Teflon insulation.

Cat. Nos. Extruded	Cat. Nos. Wrapped	Spool	Size AWG	Mil Type Designation	Strand	Nom. Insul.	Volt Rating	Diameter Over Insulation Max.
8532	8552	1000′	32	E-32	7/40	010″	600	033″
8532-1	8552-1	100′	32	E-32	7/40	010″	600	033″
8530	8550	1000′	30	E-30	7/38	010″	600	036″
8530-1	8550-1	100′	30	E-30	7/38	010″	600	036″
8528	8548	1000′	28	E-28	7/36	010″	600	039″
8528-1	8548-1	100′	28	E-28	7/36	010″	600	039″
8526	8546	1000′	26	E-26	7/34	010″	600	043″
8526-1	8546-1	100′	26	E-26	7/34	010″	600	043″
8524	8544	1000′	24	E-24	19/36	010″	600	048″
8524-1	8544-1	100′	24	E-24	19/36	010″	600	048″
8522	8542	1000′	22	E-22	19/34	010″	600	054″
8522-1	8542-1	100′	22	E-22	19/34	010″	600	054″
8520	8540	1000′	20	E-20	19/32	010″	600	062″
8520-1	8540-1	100′	20	E-20	19/32	010″	600	062″
8518	8538	1000′	18	E-18	19/30	010″	600	074″
8518-1	8538-1	100′	18	E-18	19/30	010″	600	074″
8516	8536	1000′	16	E-16	19/29	010″	600	087″
8516-1	8536-1	100′	16	E-16	19/29	010″	600	087″
8514	8534	1000′	14	E-14	19/27	010″	600	097″
8514-1	8534-1	100′	14	E-14	19/27	010″	600	097″
8512		1000′	12	E-12	19/25	010″	600	120″
8512-1		100′	12	E-12	19/25	010″	600	120″
8510		(100′-1000′)	10	E-10	37/26	010″	600	139″

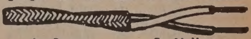
***Duponts Tetrafluoroethylene Resin. Cat. No's 8534 thru 8552 available Per MIL-W-7139A TEFLON AIRCRAFT SPEC./Per MIL-W-27300A (USAF), also NAS-703 Cable conforming to MIL-C-27500 SPEC.**

Colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White. Additional special custom constructions available to order. Wrapped extruded with or without shielding, glass braid, nylon braid, silicone and in miniature multi-conductors. Price and delivery on request.

TEFLON* CABLES—Shielded and Unshielded

DESCRIPTION: One or more conductors, each conductor stranded silver plated concentrically stranded copper, type E extruded or spiral wrapped insulation. When shielded, a closely woven silver plated copper shield is braided over conductor(s). When braided, a Teflon* impregnated fiberglass is woven over the conductor(s) or shield. MIL-W-16878D spec.

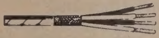
Additional variations and gauges are available to order. Multi-conductor color code:
1—White
2—Black
3—Red
4—Green
5—Yellow



BIRNBACH CAT NUMBERS 1 Cond.	2 Cond.	3 Cond.	4 Cond.	5 Cond.	Size and Stranding		Outer Covering
8704	8704/2	8704/3	8704/4	8704/5	#24	19/36	Shield
8705	8705/2	8705/3	8705/4	8705/5	#24	19/36	Braid
8706	8706/2	8706/3	8706/4	8706/5	#24	19/36	Shield & Braid
8707	8707/2	8707/3	8707/4	8707/5	#22	19/34	Shield
8708	8708/2	8708/3	8708/4	8708/5	#22	19/34	Braid
8709	8709/2	8709/3	8709/4	8709/5	#22	19/34	Shield & Braid
8710	8710/2	8710/3	8710/4	8710/5	#20	19/32	Shield
8711	8711/2	8711/3	8711/4	8711/5	#20	19/32	Braid
8712	8712/2	8712/3	8712/4	8712/5	#20	19/32	Shield & Braid
8713	8713/2	8713/3	8713/4	8713/5	#18	19/30	Shield
8714	8714/2	8714/3	8714/4	8714/5	#18	19/30	Braid
8715	8715/2	8715/3	8715/4	8715/5	#18	19/30	Shield & Braid

TEFLON* CABLES • TEFLON*TAPE WRAP JACKET OVER SHIELD

DESCRIPTION: One or more conductors, each conductor stranded silver plated concentrically stranded copper, Type E extruded Teflon* TFE .010″ insulation, braided silver plated copper shield over conductor(s), 90% coverage; .010″ fused, double reversed wrapped Teflon* tape jacket.



Fused, double reversed Teflon tape jacket

All Per MIL-W-16878D

Cat. No.	Conds.	Awg	Strand	Nom O.D.
8521	1	24	19/36	.084″
8521/2	2	24	19/36	.128″
8521/3	3	24	19/36	.135″
8521/4	4	24	19/36	.148″
8521/5	5	24	19/36	.162″
8523	1	22	19/34	.090″
8523/2	2	22	19/34	.140″
8523/3	3	22	19/34	.148″
8523/4	4	22	19/34	.162″
8523/5	5	22	19/34	.183″
8525	1	20	19/32	.099″
8525/2	2	20	19/32	.158″
8525/3	3	20	19/32	.167″
8525/4	4	20	19/32	.184″
8525/5	5	20	19/32	.204″
8527	1	18	19/30	.109″
8527/2	2	18	19/30	.178″
8527/3	3	18	19/30	.189″
8527/4	4	18	19/30	.208″
8527/5	5	18	19/30	.230″

MULTI-CONDUCTOR COLOR CODE: 1—White; 2—Black; 3—Red; 4—Green; 5—Yellow.

***TEFLON**—Dupont Reg. TM for Tetrafluorethylene.

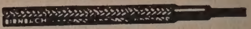
Birnbach SHIELDED PLASTIC HOOK-UP WIRE MIL-W-76B • SHIELDED • NYLON VINYL JACKETS • AIRCRAFT PLASTIC HOOK-UP WIRE MIL-W-5086A, MIL-C-7078A **BIRNBACH**

SHIELDED PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TEMPERATURE RATING: —40°C TO +80°C TYPE MW (Medium Wall) — SHIELDED

DESCR.: One conductor stranded tinned copper with thermoplastic insulation and tinned copper shielded braid overall.

(Supersedes Jan-C-76 Type SRIR Shielded)

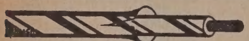


Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7074	1000′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7074-1	100′	24	MW-C 24(16)S	16/36	.015″	1000	.074″
7072	1000′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7072-1	100′	22	MW-C 22(7)S	7/30	.017″	1000	.084″
7070	1000′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7070-1	100′	20	MW-C 20(10)S	10/30	.017″	1000	.094″
7068	1000′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7068-1	100′	18	MW-C 18(16)S	16/30	.017″	1000	.106″
7067	1000′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
7067-1	100′	16	MW-C 16(26)S	26/30	.017″	1000	.121″
*7066	1000′	14	MW-C 14(41)S	41/30	.017″	1000	.137″
*7065	1000′	12	MW-C 12(65)S	65/30	.017″	1000	.155″

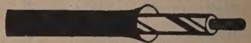
STOCK COLORS: (Underneath Shield) Black, White, Red, Yellow, Brown, Green, Blue, Gray. *Nos. 7066, 7065, available from stock in Black, White or Red.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS.

Also multiconductor can be formed to order twisted shielded, with or without plastic Jacket overall.



SHIELDED PLASTIC HOOK-UP WIRE



SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—NYLON JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, clear nylon (polymide) jacket overall. Temperature rating —40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074J	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.091″
7072J	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.100″
7070J	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.105″
7068J	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.115″
7067J	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.125″
7066J	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.138″
7065J	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.160″

Additional colors available to order.

SPECIFICATION MIL-W-76B TYPE MW—SHIELDED—VINYL JACKET

DESCRIPTION: One conductor stranded tinned copper, white medium wall polyvinyl chloride insulation, shielded tinned copper braid, minimum 80% coverage, black PVC (polyvinylchloride) jacket overall. Temperature rating —40° to +90°C. Resistant to acids, alkalis, oil, flame, moisture, fungus.

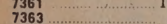
Cat.No.	Spool	Size AWG	MIL-W-76A Type Designation	Strand	Nom. Wall	Volt Rating	Nom. OD.
7074VJ	1000′	24	MW-C24(16)SJ	16/36	.015″	1000	.095″
7072VJ	1000′	22	MW-C22(7)SJ	7/30	.017″	1000	.105″
7070VJ	1000′	20	MW-C20(10)SJ	10/30	.017″	1000	.112″
7068VJ	1000′	18	MW-C18(16)SJ	16/30	.017″	1000	.120″
7067VJ	1000′	16	MW-C16(26)SJ	26/30	.017″	1000	.133″
7066VJ	1000′	14	MW-C14(41)SJ	41/30	.017″	1000	.148″
7065VJ	1000′	12	MW-C12(65)SJ	65/30	.017″	1000	.170″

Additional colors available to order.

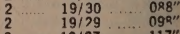
AIRCRAFT PLASTIC HOOK-UP WIRE

SPECIFICATIONS MIL-W-5086A and MIL-C-7078A (105°C Rating) NYLON JACKET

Used where a single conductor, 600 volt insulated wire, is required. This aircraft electrical wire is resistant to effects of salt water, oils, aircraft engine fuels, alcohol, fungus, heat, cold, salt water, abrasion, meets -65°F temperature test.



No. 7351



No. 7371

DESCRIPTION: Type 1 MIL-W-5086A One conductor stranded tinned copper with plastic insulation, nylon jacket overall. Type 2 MIL-W-5086A—one conductor stranded tinned copper, plastic insulation, nylon lacquered glass braid. Color: White.

MIL-W-5086A UNSHIELDED (Supersedes AN-J-C-48A)

600 Volt Rating

Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7351	22	AN-22	No. 1	19/34	070″
7353	20	AN-20	No. 1	19/32	080″
7355	18	AN-18	No. 1	19/30	090″
7357	16	AN-16	No. 1	19/29	100″
7359	14	AN-14	No. 1	19/27	125″
7361	12	AN-12	No. 1	19/25	140″
7363	8	AN-8	No. 2	133/29	240″
7364	6	AN-6	No. 2	133/27	297″
7365	4	AN-4	No. 2	133/25	355″
7365/2	2	AN-2	No. 2	665/30	412″
7365/0	0	AN-0	No. 2	1045/30	518″
7365/00	00	AN-00	No. 2	1330/30	588″
7351 NB	22	AN-22	No. 2	19/34	068″
7353 NB	20	AN-20	No. 2	19/32	078″
7355 NB	18	AN-18	No. 2	19/30	088″
7357 NB	16	AN-16	No. 2	19/29	098″
7359 NB	14	AN-14	No. 2	19/27	117″
7361 NB	12	AN-12	No. 2	19/25	137″
7362 NB	10	AN-10	No. 2	49/27	189″

MIL-C-7078A SHIELDED (Supersedes An-C-168)

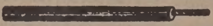
Cat. No.	Size AWG	Mil. Type	Type	Cond. Strand.	Nom. O.D.
7371	22	AN-22	No. 1	19/34	100″
7372	20	AN-20	No. 1	19/32	110″
7373	18	AN-18	No. 1	19/30	124″
7374	16	AN-16	No. 1	19/29	139″
7375	14	AN-14	No. 1	19/27	158″
7376	12	AN-12	No. 1	19/25	177″

DESCRIPTION: One conductor stranded tinned copper with plastic insulation, nylon jacket with tinned copper shielded braid overall. Color: White under shield 1,000′ Spools. Additional types to order.

ALL WIRE ON THIS PAGE CAN BE CUT AND STRIPPED TO YOUR SPECIFICATION

PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-16878D



TYPE B — HIGH TEMPERATURE — VINYL

Suitable for general purpose wiring for miniature high temperature hook-ups in aircraft, electronic instruments, devices, etc., where excellent resistance to moisture and solvents may be required.

DESCRIPTION: One conductor stranded tinned copper with rated -55°C to +105°C high temperature thermoplastic light wall insulation. The letter "N" after Catalog Number designates clear Nylon Jacket overall. 115° C.

Cat. No.	Spool	Size AWG	Mil-W-16878D Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7190	1000′	32	B-32	7/40	.010″	600	.028″
7191	1000′	30	B-30	7/38	.010″	600	.030″
7192	1000′	28	B-28	7/36	.010″	600	.033″
7193	1000′	26	B-26	7/34	.010″	600	.037″
7194	1000′	24	B-24	7/32	.010″	600	.043″
7195	1000′	22	B-22	7/30	.010″	600	.048″
7196	1000′	20	B-20	7/28	.010″	600	.057″
7197	1000′	18	B-18	7/26	.010″	600	.067″
7198	1000′	16	B-16	19/29	.010″	600	.077″

TYPE B

NYLON JACKET THICKNESS: 32-20 .002, 18-16 .003

NYLON JACKET

Cat. No.	Spool	Size AWG	Mil-W-16878D Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7190N	1000′	32	B-32	7/40	.010″	600	.032″
7191N	1000′	30	B-30	7/38	.010″	600	.036″
7192N	1000′	28	B-28	7/36	.010″	600	.039″
7193N	1000′	26	B-26	7/34	.010″	600	.042″
7194N	1000′	24	B-24	7/32	.010″	600	.047″
7195N	1000′	22	B-22	7/30	.010″	600	.053″
7196N	1000′	20	B-20	7/28	.010″	600	.065″
7197N	1000′	18	B-18	7/26	.010″	600	.075″
7198N	1000′	16	B-16	19/29	.010″	600	.085″

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple

White/Black
White/Red
White/Green
White/Yellow
White/Blue
White/Brown
White/Orange
White/Gray
White/Violet

SPECIFICATION MIL-W-16878D

TYPE C — HIGH TEMPERATURE — VINYL JACKET

DESCRIPTION: One Conductor Similar To Type B—Heavier Wall Hi-Temp Thermoplastic Insulation

Cat. No.	Spool	Size AWG	Mil-W-16878C Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7170	1000′	24	C-24	7/32	.016″	1000	.058″
7171	1000′	22	C-22	7/30	.016″	1000	.064″
7172	1000′	20	C-20	7/28	.016″	1000	.073″
7173	1000′	18	C-18	7/26	.016″	1000	.085″
7174	1000′	16	C-16	19/29	.016″	1000	.095″
7175	1000′	14	C-14	19/27	.016″	1000	.109″

TYPE C

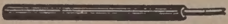
NYLON JACKET THICKNESS: 24 .002, 22, 20, 18 .003,16-14 .004

NYLON JACKET

Cat. No.	Spool	Size AWG	Mil-W-16878C Type Designation	Minimum Strand	Nom. Wall	Volt Rating	Nom. O.D.
7170N	1000′	24	C-24	7/32	.016″	1000	.065″
7171N	1000′	22	C-22	7/30	.016″	1000	.072″
7172N	1000′	20	C-20	7/28	.016″	1000	.079″
7173N	1000′	18	C-18	7/26	.016″	1000	.090″
7174N	1000′	16	C-16	19/29	.016″	1000	.099″
7175N	1000′	14	C-14	19/27	.016″	1000	.114″

STOCK COLORS: Black, Red, Brown, Blue, Orange, White, Yellow, Green, Gray, Purple. Also available in tracer colors. Additional types available to order.

SPECIFICATION MIL-W-16878D



TYPE D — HIGH TEMPERATURE — VINYL

DESCRIPTION: One Conductor Stranded Similar To Type C—Heavier Wall Hi-Temp Thermoplastic Insulation.

Cat. No.	Spool	Size AWG	Mil-W-16878D Type Designation	Cond. Strand	Nom. Wall	Volt Rating	Nom. O.D.
7180	1000′	24	D-24	7/32	.032″	3000	.084″
7181	1000′	22	D-22	7/30	.032″	3000	.089″
7182	1000′	20	D-20	10/30	.032″	3000	.097″
7183	1000′	18	D-18	16/30	.032″	3000	.107″
7184	1000′	16	D-16	26/30	.032″	3000	.116″
7185	1000′	14	D-14	41/30	.032″	3000	.130″
7186	1000′	12	D-12	65/30	.040″	3000	.163″
7187	1000′	10	D-10	105/30	.040″	3000	.182″
7188	1000′	8	D- 8	133/29	.040″	3000	.247″
7189	1000′	6	D- 6	133/27	.040″	3000	.291″

MIL-W-16878B Type D Available with Nylon Jacket.

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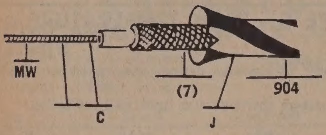
See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach GOV'T SPEC. HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPES MW, LW, HW, GLASS BRAID



904 COLORS:

0 BLACK
1 BROWN
2 RED
3 ORANGE
4 YELLOW
5 GREEN
6 BLUE
7 VIOLET
8 GRAY
9 WHITE

MW	C	22	(7)	J
TYPE OF WIRE	CONDUCTOR MATERIAL	CONDUCTOR SIZE (AWG)	STRANDING	CONSTRUCTION
LW .... 300 Volt Light Wall	TINNED COPPER	30 thru 20	MINIMUM NUMBER OF STRANDS	SYMBOL — COVERING OVER INSULATED WIRE U .... None J .... Jacket B .... Braid S .... Shield JS .... Jacket and Shield BS .... Braid and Shield SJ .... Shield & Outer Jacket JSJ .... Jacket, Shield and Outer Jacket BSJ .... Braid, Shield and Outer Jacket
MW ....1000 Volt Medium Wall	TINNED COPPER	24 thru 12		
HW ....2500 Volt Heavy Wall	TINNED COPPER	22 thru 12		
HW .... 600 Volt Heavy Wall	TINNED COPPER	10 thru 6		

*SPECIFICATION MIL-W-76B TYPE MW (MEDIUM WALL) PLASTIC HOOK-UP WIRE TYPE MW 1000 VOLTS (FUNGUS PROOF) SUPERSEDES JAN-C-76 TYPE SRIR

STRANDED TEMP. RATING: —40°C TO +80°C

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7024	1000′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-1	100′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-S	1000′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7024-1S	100′	24	MW-C 24(16)U	16/36	.015″	1000	.055″
7001	1000′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
7001-1	100′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
*† 7001-S	1000′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
*† 7001-1S	100′	22	MW-C 22(7)U	7/30	.017″	1000	.066″
7003	1000′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
7003-1	100′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
*† 7003-S	1000′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
*† 7003-1S	100′	20	MW-C 20(10)U	10/30	.017″	1000	.074″
7005	1000′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
7005-1	100′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
*7005-S	1000′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
*7005-1S	100′	18	MW-C 18(16)U	16/30	.017″	1000	.085″
7007	1000′	16	MW-C 16(26)U	26/30	.017″	1000	.098″
7007-1	100′	16	MW-C 16(26)U	26/30	.017″	1000	.098″
7009	1000′	14	MW-C 14(41)U	41/30	.017″	1000	.114″
7009-1	100′	14	MW-C 14(41)U	41/30	.017″	1000	.114″
7011	1000′	12	MW-C 12(65)U	65/30	.017″	1000	.132″
7011-1	100′	12	MW-C 12(65)U	65/30	.017″	1000	.132″
			SOLID				
7000	1000′	22	MW-C 22(1)U	1	.017″	1000	.061″
7000-1	100′	22	MW-C 22(1)U	1	.017″	1000	.061″
7002	1000′	20	MW-C 20(1)U	1	.017″	1000	.068″
7002-1	100′	20	MW-C 20(1)U	1	.017″	1000	.068″
7004	1000′	18	MW-C 18(1)U	1	.017″	1000	.075″
7004-1	100′	18	MW-C 18(1)U	1	.017″	1000	.075″

STOCK COLORS: White, Yellow, Lt. Blue, Black, Violet (purple), Blue, Brown, Lt. Green, Pink, Red, Green, Tan, Orange, Gray (slate).

***SINGLE SPIRAL TRACER COLORS AVAILABLE:**

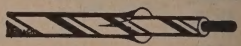
White/Black
White/Brown
White/Red
White/Orange
White/Yellow
White/Green
White/Blue
White/Purple
White/Gray

†DOUBLE SPIRAL TRACER COLORS AVAILABLE:

White/Black/Red
White/Black/Green
White/Black/Yellow
White/Black/Blue
White/Black/Brown
White/Black/Orange
White/Black/Gray
White/Black/Purple

Additional spiral tracer combination available, to order, for all numbers.

SPECIFICATION MIL-W-76B TYPE MW (Medium Wall)—NYLON JACKET 1000 VOLT (Fungus Proof) (Supersedes Jan-C-76 Types SRIR and WL Nylon Jacket)



DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and extruded nylon jacket overall. **TEMP. RATING: —40°C TO +90°C**

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7224	1000′	24	MW-C 24(16)J	16/36	.015″	1000	.068″
7224-1	100′	24	MW-C 24(16)J	16/36	.015″	1000	.068″
*7222	1000′	22	MW-C 22(7)J	7/30	.017″	1000	.075″
*7222-1	100′	22	MW-C 22(7)J	7/30	.017″	1000	.075″
*7220	1000′	20	MW-C 20(10)J	10/30	.017″	1000	.087″
*7220-1	100′	20	MW-C 20(10)J	10/30	.017″	1000	.087″
*7218	1000′	18	MW-C 18(16)J	16/30	.017″	1000	.100″
*7218-1	100′	18	MW-C 18(16)J	16/30	.017″	1000	.100″
7216	1000′	16	MW-C 16(26)J	26/30	.017″	1000	.112″
7216-1	100′	16	MW-C 16(26)J	26/30	.017″	1000	.112″
7214	1000′	14	MW-C 14(41)J	41/30	.017″	1000	.122″
7214-1	100′	14	MW-C 14(41)J	41/30	.017″	1000	.122″
7212	1000′	12	MW-C 12(65)J	65/30	.017″	1000	.140″
7212-1	100′	12	MW-C 12(65)J	65/30	.017″	1000	.140″
7210	1000′	10	HW-C 10(105)J	105/30	.045″	600	.240″
7210-1	100′	10	HW-C 10(105)J	105/30	.045″	600	.240″

NYLON JACKET THICKNESS: #24 .002 ; 22, 20, 18 .003 ; 16, 14 .004 ; 12 .005 ; 10 .007.

STOCK COLORS: White, Orange, Purple, Black, Yellow, Gray, Brown, Green, Red, Blue

White/Black
White/Brown
White/Red
White/Orange
White/Yellow
White/Green
White/Blue
White/Purple
White/Gray
White/Black/Red
White/Black/Yellow
White/Black/Blue
White/Black/Green
White/Black/Orange
White/Black/Brown
White/Black/Gray

*In addition Nos. 7218, 7220, 7222, available in Red/Black and Black/White. Nos. 7212, 7210 available solid colors only.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.

Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

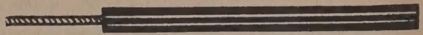
Birnbach

GOV'T SPEC. HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPES MW, LW, HW, GLASS BRAID

PLASTIC HOOK-UP WIRE

SPECIFICATION MIL-W-76B TYPE LW (Light Wall) TYPE LW — 300 VOLTS



DESCRIPTION: One conductor stranded tinned copper with light wall of primary thermoplastic insulation. **TEMP. RATING: —40°C TO +80°C**

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7330	1000′	30	LW-C 30(7)U	7/38	.010″	300	.033″
7330-1	100′	30	LW-C 30(7)U	7/38	.010″	300	.033″
7328	100′	28	LW-C 28(7)U	7/36	.010″	300	.035″
7328-1	1000′	28	LW-C 28(7)U	7/36	.010″	300	.035″
7326	1000′	26	LW-C 26(10)U	10/36	.010″	300	.040″
7326-1	100′	26	LW-C 26(10)U	10/36	.010″	300	.040″
7324	1000′	24	LW-C 24(7)U	7/32	.010″	300	.044″
7324/22	1000′	22	LW-C 22(7)U	7/30	.010″	300	.050″
7324/20	1000′	20	LW-C 20(7)U	7/28	.010″	300	.060″

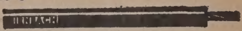
SPECIFICATION MIL-W-76B TEMP. RATING: —40°C TO +90°C TYPE LW—NYLON JACKET

Description: Same as above except clear NYLON JACKET overall.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7330N	1000′	30	LW-C 30(7)J	7/38	.010″	300	.036″
7328N	1000′	28	LW-C 28(7)J	7/36	.010″	300	.039″
7326N	1000′	26	LW-C 26(7)J	7/34	.010″	300	.042″
7324N	1000′	24	LW-C 24(7)J	7/32	.010″	300	.047″
7324/20N	1000′	20	LW-C 22(7)U	7/30	.010″	300	.053″
7324/22N	1000′	22	LW-C 20(7)U	7/28	.010″	300	.065″

STOCK COLORS: Black, Brown, Red, White, Green, Orange, Yellow, Gray, Blue, Purple. Additional sizes, colors available to order.

SPECIFICATION MIL-W-76B TYPE HW (Heavy Wall) — 2500 VOLTS (Fungus Proof) (SUPERSEDES Jan-C-76 Type SRHV) TEMP. RATING: —40°C TO 80°C

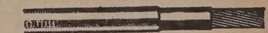


DESCRIPTION: Similar to type MW. One conductor stranded tinned copper with larger wall of primary thermoplastic insulation to take 2500 V RMS.

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7322	1000′	22	HW-C 22(7)U	7/30	.033″	2500	.105″
7322-1	100′	22	HW-C 22(7)U	7/30	.033″	2500	.105″
7320	1000′	20	HW-C 20(10)U	10/30	.033″	2500	.112″
7320-1	100′	20	HW-C 20(10)U	10/30	.033″	2500	.112″
7318	1000′	18	HW-C 18(16)U	16/30	.033″	2500	.122″
7318-1	100′	18	HW-C 18(16)U	16/30	.033″	2500	.122″
7316	1000′	16	HW-C 16(26)U	26/30	.033″	2500	.135″
7316-1	100′	16	HW-C 16(26)U	26/30	.033″	2500	.135″
7314	1000′	14	HW-C 14(41)U	41/30	.045″	600	.175″
7314-1	100′	14	HW-C 14(41)U	41/30	.045″	600	.175″
7312	1000′	12	HW-C 12(65)U	65/30	.045″	600	.195″
7312-1	100′	12	HW-C 12(65)U	65/30	.045″	600	.195″
*7013	1000′	10	HW-C 10(105)U	105/30	.045″	600	.217″
*7013-1	100′	10	HW-C 10(105)U	105/30	.045″	600	.217″
*7015	1000′	8	HW-C 8(133)U	133/29	.045″	600	.268″
*7015-1	100′	8	HW-C 8(133)U	133/29	.045″	600	.268″
*7017	1000′	6	HW-C 6(133)U	133/27	.045″	600	.315″
*7017-1	100′	6	HW-C 6(133)U	133/27	.045″	600	.315″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray. Additional sizes, colors available to order.

SPECIFICATION MIL-W-76B TYPE MW (Medium Wall) — GLASS BRAID 1000 VOLTS (Supersedes Jan-C-76 Types SRIR and WL Glass Braid)



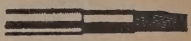
DESCRIPTION: One conductor stranded tinned copper with thermoplastic insulation and lacquered glass braid overall. **TEMP. RATING: —40°C TO +80°C**

Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	volt Rating	Nom. O.D.
7022	1000′	22	MW-C 22(7)B	7/30	.017″	1000	.079″
7022-1	100′	22	MW-C 22(7)B	7/30	.017″	1000	.079″
7020	1000′	20	MW-C 20(10)B	10/30	.017″	1000	.084″
7020-1	100′	20	MW-C 20(10)B	10/30	.017″	1000	.084″
7018	1000′	18	MW-C 18(16)B	16/30	.017″	1000	.100″
7018-1	100′	18	MW-C 18(16)B	16/30	.017″	1000	.100″
7016	1000′	16	MW-C 16(26)B	26/30	.017″	1000	.116″
7016-1	100′	16	MW-C 16(26)B	26/30	.017″	1000	.116″
*7014	1000′	14	MW-C 14(41)B	41/30	.017″	1000	.129″
*7014-1	100′	14	MW-C 14(41)B	41/30	.017″	1000	.129″
*7012	1000′	12	MW-C 12(65)B	65/30	.017″	1000	.149″
*7012-1	100′	12	MW-C 12(65)B	65/30	.017″	1000	.149″

STOCK COLORS: White, Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray, White/Brown, White/Black, White/Orange, White/Yellow, White/Green, White/Blue, White/Red, White/Gray, White/Purple, White/Black/Red, White/Black/Yellow, White/Black/Blue, White/Black/Green, White/Black/Orange, White/Black/Brown, White/Black/Gray. * Nos. 7014, 7012, available stock in solid colors.

TEMP. RATING:
—40°C TO 80°C

TYPE HW (Heavy Wall) — GLASS BRAID (Supersedes Jan-C-76 Type SRHV — Glass Braid)



Cat. No.	Spool	Size AWG	Mil-W-76B Type Designation	Conductor Strand	Nom. Wall	Volt Rating	Nom. O.D.
7010	1000′	10	HW-C 10(105)B	105/30	.045″	600	.237″
7010-1	100′	10	HW-C 10(105)B	105/30	.045″	600	.237″
7008	1000′	8	HW-C 8(133)B	133/29	.045″	600	.293″
7008-1	100′	8	HW-C 8(133)B	133/29	.045″	600	.293″
7006	1000′	6	HW-C 6(133)B	133/27	.045″	600	.340″
7006-1	100′	6	HW-C 6(133)B	133/27	.045″	600	.340″

STOCK COLORS: White, Black. Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.
ALL WIRES ON THIS PAGE CAN BE ORDERED CUT AND STRIPPED TO YOUR SPECIFICATIONS

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See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach HIGH VOLTAGE, SILICONE HOOK-UP WIRE
KEL-F HOOK-UP, CATHODE RAY, 105° UL
BIRNBACH

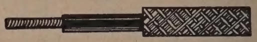
200° C. BIRSIL SILICONE RUBBER HOOK-UP LEAD WIRE 600 VOLT

This Birsil Silicone Rubber Hook up lead wire withstands extreme temperature range and flexibility from —104° C. to +400° F. with retention of physical properties and is highly resistant to flex cracking at temperature extremes; fungus resistant; corona resistant; engineered for high-heat and hi-frequency applications; low power factor; acid-alkali-oil resistant; low dielectric constant; insulation appproaching mica. Approved by U. L. but consumer must apply for Underwriter's Laboratories approval for individual product.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Volt Rating	Breakdown Voltage AC	Nom. O.D.
7622	1000′	22	7/30	1/32″	600	11,500	.105″
7622-1	100′	22	7/30	1/32″	600	11,500	.105″
7620	1000′	20	10/30	1/32″	600	18,000	.121″
7620-1	100′	20	10/30	1/32″	600	18,000	.121″
7618	1000′	18	16/30	1/32″	600	21,000	.128″
7618-1	100′	18	16/30	1/32″	600	21,000	.128″
7616	1000′	16	26/30	1/32″	600	20,000	.144″
7616-1	100′	16	26/30	1/32″	600	20,000	.144″
7614	1000′	14	41/30	1/32″	600	15,500	.165″
7614-1	100′	14	41/30	1/32″	600	15,500	.165″
7612	1000′	12	65/30	1/32″	600	14,500	.185″
7612-1	100′	12	65/30	1/32″	600	14,500	.185″
7610	1000′	10	65/28	3/64″	600	20,000	.240″
7610-1	100′	10	65/28	3/64″	600	20,000	.240″

Additional sizes and colors available to order. **Types F and FF per MIL-W-16878D available to order.**

DESCRIPTION:
One conductor, tinned copper strands, silicone rubber insulation, glass braid, lacquered. Color: White.

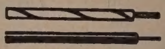


BIRFLENE* KEL-F HOOK-UP WIRE

—125° C. to +175° C. MEETS MIL-W-12349-SPEC

PERFORMANCE SPECIFICATIONS:
Continuous: —60° to +175° C. **Operating Voltage:** 1000 volts RMS. **Spark Test:** 7500 volts. **Dielectric Strength:** 5000 volts at 60° C. for 1 minute. **Insulation Resistance:** Greater than 5000 Meg Ohms/1000 Ft. at 60° C. **Moisture Absorption:** Nil. **Flammability:** Non-flammable. **Resistance to Chemicals:** All solvents and acids. **Aging:** Outdoor, 1 year; no detectable change.

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Nom. O.D.
7130	1000′	30	7/38	.006″	.029″
7130-1	100′	30	7/38	.006″	.029″
7128	1000′	28	7/36	.006″	.032″
7128-1	100′	28	7/36	.006″	.032″
7126	1000′	26	7/34	.008″	.037″
7126-1	100′	26	7/34	.008″	.037″
7124	1000′	24	7/32	.008″	.043″
7124-1	100′	24	7/32	.008″	.043″
7122	1000′	22	7/30	.008″	.050″
7122-1	100′	22	7/30	.008″	.050″
7120	1000′	20	7/28	.010″	.060″
7120-1	100′	20	7/28	.010″	.060″
7118	1000′	18	16/30	.010″	.070″
7118-1	100′	18	16/30	.010″	.070″
7116	1000′	16	19/29	.010″	.079″
7116-1	100′	16	19/29	.010″	.079″



DESCRIPTION:
One conductor silver plated copper stranded, insulation — Monochloro-trifluoroethylene (Birflene Kel-F).

COLORS: White, Red, Green, Gray, Black, Orange, Dk. Blue, Lt. Blue, Brown, Yellow, Purple

Available in Spiral Tracers.

*Made with Kellogg Co. Kel-F or Bakelite Co. Fluorothene.

HI-VOLTAGE and CATHODE RAY CABLE

Used for 10,000, 20,000, 40,000, 60,000 volt applications as for cathode ray tubes in TV receivers, oscilloscopes and other electronic devices. Has dielectric constant of 2.7 and power factor of .002. Shielded Hi-Voltage type used to shield RF radiation in X-Ray, diathermy, medical equipment, and in transmitters.

UNSHIELDED

Cat. No.	Spool	Size AWG	Strand	Nom. Ins. Wall	Suggested Working Voltage	Nom. O.D.
7402	1000′	20	10/30	.047″	10,000	.125″
7402-1	100′	20	10/30	.047″	10,000	.125″
7412	1000′	20	10/30	.068″	20,000	.169″
7412-1	100′	20	10/30	.068″	20,000	.169″
7418	1000′	18	16/30	.047″	10,000	.135″
7418-1	100′	18	16/30	.047″	10,000	.135″
7428	1000′	18	16/30	.069″	20,000	.179″
7428-1	100′	18	16/30	.069″	20,000	.179″
7448	1000′	18	16/30	.095″	40,000	.231″
7448-1	100′	18	16/30	.095″	40,000	.231″
7449	1000′	18	16/30	.123″	60,000	.285″
7449-1	100′	18	16/30	.123″	60,000	.285″
SHIELDED						
7458	1000′	18	16/30	.095″	40,000	.256″
7458-1	100′	18	16/30	.095″	40,000	.256″

DESCRIPTION:
One conductor stranded copper tinned rulan (flame retarding type) polyethylene insulation. Available white/red tracer. Temp. Rating: 105°C

Shielded: Same as above with tinned copper braided shield overall.

Special constructions available to order.

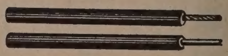
PLASTIC INSULATED HOOK-UP WIRE

Designed for the chassis, sub-chassis wiring of radio and television receivers and transmitters inside or/outside the chassis. UL approved for 105° C. (221° F.) operating temperature.

105° C. — 600 VOLT RATING UL APPROVED (CSA 600V-90°C)

Cat. No.	Spool	AWG	Stranding	Nom. Wall	Volt. Breakdown	DC Ins. Res. Megs./Ft.	Max. O.D.
7201	1000′	22	7/30	.032″	18000	5000	.100″
7201-1	100′	22	7/30	.032″	18000	5000	.100″
7203	1000′	20	10/30	.032″	18000	5000	.104″
7203-1	100′	20	10/30	.032″	18000	5000	.104″
7205	1000′	18	16/30	.032″	18000	5000	.112″
7205-1	100′	18	16/30	.032″	18000	5000	.112″
7207	1000′	16	26/30	.032″	18000	5000	.129″
7207-1	100′	16	26/30	.032″	18000	5000	.129″
7202	1000′	22	Solid	.032″	18000	5000	.095″
7202-1	100′	22	Solid	.032″	18000	5000	.095″
7204	1000′	20	Solid	.032″	18000	5000	.102″
7204-1	100′	20	Solid	.032″	18000	5000	.102″

COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple



DESCRIPTION:
One Conductor stranded annealed copper tinned, plastic insulation.

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

See Pages 1620-1625 for Birnbach Prices for Above Items

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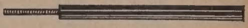
Birnbach MINIATURE, SUBMINIATURE, HIGH TEMP. SHIELDED & MULTICONDUCTOR **BIRNBACH**

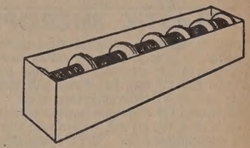
MINIATURIZATION HOOK-UP WIRE and CABLE

HIGH TEMPERATURE 105°C. UNSHIELDED — ONE CONDUCTOR

Used in miniaturized equipment Phono-pickup lead computers transistor circuits, electro-medical and electro therapeutic apparatus, instrumentation projects, miniaturization programs, where fine sizes are required with high operating temperature.
For "Lab" requirements Miniaturization Hook-Up Wire and Cable assortments—WRITE for information.

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7534	1000′	1	34	4/40	.010″	.027″
7534-500	500′	1	34	4/40	.010″	.027″
7532	1000′	1	32	7/40	.010″	.029″
7532-500	500′	1	32	7/40	.010″	.029″
7530	1000′	1	30	7/38	.010″	.030″
7530-500	500′	1	30	7/38	.010″	.030″
7529	1000′	1	29	5/36	.010″	.030″
7529-500	500′	1	29	5/36	.010″	.030″
7528-	1000′	1	28	7/36	.010″	.035″
7528-500	500′	1	28	7/36	.010″	.035″
7527	1000′	1	27	7/35	.010″	.037″
7527-500	500′	1	27	7/35	.010″	.037″
7526	1000′	1	26	10/36	.010″	.038″
7526-500	500′	1	26	10/36	.010″	.038″
7524	1000′	1	24	16/36	.015″	.055″
7524-500	500′	1	24	16/36	.015″	.055″

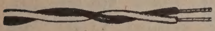




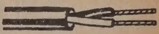
DESCRIPTION: One conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation overall.

STOCK COLORS: Black, Red, Green, Yellow, Blue, Brown, White, Orange, Gray, Purple

SUB-MINIATURE MULTI-CONDUCTOR CABLE (Super Flexible)



DESCRIPTION: Multi-Cond. tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation. When jacketed clear P.V.C. thermoplastic used over cabled wire.



NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7652	1000′	2	30	7/38	.010″	.059″
7652	500′	2	30	7/38	.010″	.059″
7653	1000′	3	30	7/38	.010″	.065″
7653	500′	3	30	7/38	.010″	.065″
7654	1000′	4	30	7/38	.010″	.072″
7654	500′	4	30	7/38	.010″	.072″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7668	1000′	2	28	7/36	.010″	.079″
7668	500′	2	28	7/36	.010″	.079″
7669	1000′	3	28	7/36	.010″	.086″
7669	500′	3	28	7/36	.010″	.086″
7670	1000′	4	28	7/36	.010″	.095″
7670	500′	4	28	7/36	.010″	.095″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

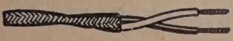
SUB-MINIATURE SHIELDED HOOK-UP WIRE (Super Flexible)

Cat. No	Spool	No. of Cond.	Size AWG	Conductor Strand	Nom. Wall	Nom. O.D.
7538	1000′	1	30	7/38	.010″	.053″
7538	500′	1	30	7/38	.010″	.053″
7535	1000′	1	28	7/36	.010″	.058″
7535	500′	1	28	7/36	.010″	.058″
7537	1000′	1	26	10/36	.010″	.061″
7537	500′	1	26	10/36	.010″	.061″
7536	1000′	1	24	16/36	.015″	.075″
7536	500′	1	24	16/36	.015″	.075″

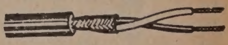
DESCRIPTION: One or multi-conductor stranded tinned copper with 105°C. high temperature thermoplastic insulation and tinned copper shielded braid overall.

STOCK COLOR: White (under shield)

SUB-MINIATURE MULTI-CONDUCTOR CABLE SHIELDED (Super Flexible)



DESCRIPTION: Multi-conductor, tinned copper stranded 105° C high temperature P.V.C. thermoplastic insulation, tinned copper shield. When jacketed clear P.V.C. Thermoplastic jacket used over tinned copper shield.



NO OUTER JACKET

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall	Nom. O.D.
7542	1000′	2	24	16/36	.015″	.114″
7542/3	1000′	3	24	16/36	.015″	.123″
7542/4	1000′	4	24	16/36	.015″	.144″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

CLEAR VINYL JACKET OVERALL

Cat. No.	Spool	No. of Cond.	Size AWG	Cond. Strand	Nom. Wall Jacket	Nom. O.D.
7552	1000′	2	28	7/36	.010″	.137″
7552/3	1000′	3	28	7/36	.010″	.145″
7552/4	1000′	4	28	7/36	.010″	.163″

CONDUCTOR COLOR CODE CHART:
1 Black, 2 White, 3 Red, 4 Green

ALL WIRES ON THIS PAGE CAN BE ORDERED CUT & STRIPPED TO YOUR SPECIFICATIONS.
Also multi-conductors can be formed to order twisted, shielded with or without plastic jacket overall.

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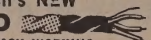
See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach PLASTIC and RUBBER MICROPHONE CABLE MULTI-CONDUCTOR — ARMORED CABLE

Microphone Cables with Birnbach's NEW • "VI-CON" SHIELD



HI-FLEXIBILITY • LONG FLEX LIFE • EASY WORKING

This series of cable is Birnbach's new outstanding shield in combination with vinyl plastic that is conductive thereby providing 100% shield coverage. Easy handling; lighter in weight than comparative types; extremely flexible; #24 Stranded Bare Tinned Wire is used for grounding termination; this is in continuous contact with the "Vi-Con" Shield.

Cat. No.	Spool	Cond.	Size No. AWG	Stranding	Nom. O.D.
1800	500′	1	25	7/33	.125″
1801	500′	1	25	7/33	.160″
1802	500′	2	22	16/34	.225″

PLASTIC MICROPHONE CABLE

Designed to stand up under physical abuse and is resistant to oil, moisture and aging for long life. These cables have low capacitance, high insulation resistance and low attenuation at audio frequencies. Will not stain or mark.
#1839 is used for high impedance microphone, lapel, contact, crystal, ribbon, velocity and Hi-Fi interconnecting cable.
#1840 is used for high impedance lapel microphones.
#1841 is used for crystal, ribbon and other impedance microphones.
Above recommended for Hi-Fi installations because of low loss and low capacitance.

PLASTIC — ONE-CONDUCTOR MICROPHONE CABLE

Nos. 1839, 1840, 1841

DESCRIPTION:
Single Conductor Stranded
3 strands #33 copper tinned, and 4 strands #33 (steel-tinned 1840 and 1841) cellulose yarn braid, Polyethylene insulation, tinned copper shielded braid, with chrome vinyl plastic jacket overall.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1839	500′	1	20	26/34	39MMF	.175″
1840	500′	1	25	7/33*	34MMF	.144″
1841	500′	1	25	7/33*	25MMF	.200″

*3X33 Copper, 4X33 Steel (All tinned)

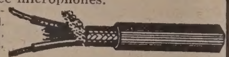
SPIRAL SHIELDED MICROPHONE CABLE

Constructed with tinned copper spiral wrapped concentric shield. Extremely flexible, smaller size.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1835	500′	1	25	7/33	25MMF	.159″
1836	500′	1	25	7/33	33MMF	.125″

PLASTIC — MULTI-CONDUCTOR MICROPHONE CABLE

Used with carbon and all low impedance microphones.



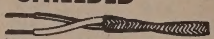
DESCRIPTION: Each conductor tinned copper, Polyethylene insulation — color coded. Multi conductors are cushioned with fillers, cotton wrapped under tinned copper shield, chrome vinyl jacket overall.

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
1842	500′	2	22	16/34	31MMF	.231″
1843	500′	3	20	26/34	39MMF	.250″
1844	500′	4	20	26/34	43MMF	.255″
1845	500′	5	20	26/34	48MMF	.275″
1846	500′	6	20	26/34	54MMF	.300″
1846/8	500′	8	20	26/34	57MMF	.330″
1846/10	500′	10	20	26/30	60MMF	.375″

CONDUCTOR COLOR CODE: 1-White, 2-Black, 3-Red, 4-Green, 5-Yellow, 6-Blue, 7-Brown, 8-Orange, 9-Purple, 10-Slate

2 CONDUCTOR SHIELDED

(Twisted Pair)



Used for transmission line, P. A. and sound systems, school, hospital sound installations, industrial paging systems, broadcast and audio cable, paging and rack panel wiring.

DESCRIPTION:
Each conductor copper tinned, plastic insulation, color coded twisted, tinned copper shield overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	NOM O.D.
826/30	500′	2	30	7/38	.010″	.085″
826/28	500′	2	28	7/36	.010″	.090″
826/26	500′	2	26	7/34	.010″	.100″
826	500′	2	24	16/36	.015″	.120″
825	500′	2	22	7/30	.017″	.140″
972S	500′	2	20	10/30	.017″	.155″
827	500′	2	18	16/30	.017″	.180″
828	500′	2	16	26/30	.020″	.210″
829	500′	2	14	41/30	.020″	.235″
830	500′	2	12	65/30	.025″	.295″
830/10	500′	2	10	105/30	.025″	.375″

3 CONDUCTOR SHIELDED

973S	500′	3	20	10/30	.017″	.192″

2 CONDUCTOR SHIELDED WAXED COTTON BRAID OVER SHIELD

972B	500′	2	20	10/30	.017″	.180″

SOLID CONDUCTORS

1701	500′	2	22 Solid	1	.017″	.135″
1702	500′	2	20 Solid	1	.017″	.145″
1703	500′	2	18 Solid	1	.017″	.170″

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White

RUBBER MICROPHONE CABLE

Especially Designed for Heavy Studio Use

RUBBER CRYSTAL MICROPHONE CABLE

Designed for long service life and low loss. Use with crystal, ribbon, dynamic and velocity microphones and photoelectric cells. Birnbach #1870 is used widely for lapel microphones and phono pick ups.

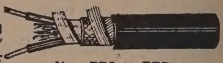
DESCRIPTION:
Single Conductor, 26 Strands
#34 extra flexible tinned copper, special low loss rubber compound, tinned copper braid shield, cotton wrap, tough black rubber jacket overall.

No 870

No. 872

Cat. No.	Spool	Cond.	Size No. Awg.	Stranding	Nom. Cap./Ft.	Nom. O.D.
870	100′	1	20	26/34	40 Mmf	.175″
1870	250′	1	20	26/34	40 Mmf	.175″
872	100′	1	20	26/34	30 Mmf	.245″
1872	250′	1	20	26/34	30 Mmf	.245″

RUBBER OR NEOPRENE MICROPHONE CABLE



Nos. 772 to 778

DESCRIPTION:
Each Conductor, extra flexible stranded tinned copper, insulated with a .022″ wall special low capacity rubber, color coded, conductors twisted, jute filler cotton wrap, tinned copper braided shield, cotton wrap with tough weatherproof black rubber or neoprene jacket overall.
Used for indoor and outdoor crystal, carbon and condenser microphones and for public address systems.

RUBBER JACKET

Cat. No.	Spool	Cond.	Size Awg.	Strand.	Nom. Cap. Between 1-Cond. & Shield	Nom. Cap. Between 1-Cond. & Others Connected to Shield	Nom. Cap. Between 1-Cond. & Others	Nom. O.D.
772	100′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
1772	250′	2	20	26/34	65 Mmf	68 Mmf	43 Mmf	.280″
772/18	100′	2	18	41/34	70 Mmf	73 Mmf	48 Mmf	.300″
773	100′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
1773	250′	3	20	26/34	68 Mmf	72 Mmf	55 Mmf	.290″
773/18	100′	3	18	41/34	68 Mmf	72 Mmf	55 Mmf	.350″
774	100′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
1774	250′	4	20	26/34	68 Mmf	74 Mmf	57 Mmf	.300″
774/18	250′	4	18	41/34	68 Mmf	74 Mmf	57 Mmf	.335″
775	100′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
1775	250′	5	20	26/34	70 Mmf	76 Mmf	58 Mmf	.330″
776	100′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
1776	250′	6	20	26/34	71 Mmf	80 Mmf	60 Mmf	.350″
777	100′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
1777	250′	7	20	26/34	72 Mmf	85 Mmf	62 Mmf	.365″
778	100′	8	20	26/34	74 Mmf	90 Mmf	65 Mmf	.390″
778/10	100′	10	20	26/34	75 Mmf	92 Mmf	67 Mmf	.440″
778/12	250′	12	20	26/34	77 Mmf	93 Mmf	69 Mmf	.575″

For longer lengths and alternate put-ups—Specify.

NEOPRENE JACKET

No.	Spool	Cond.	Size AWG	Strand.	Wall Thickness	Nom. Jacket	Nom. O.D.
1781	500′	1	18	41/34	.040″	.030″	.250″
1782	500′	2	18	41/34	.020″	.035″	.305″
1783	500′	3	18	41/34	.020″	.035″	.325″
1784	500′	4	18	41/34	.020″	.035″	.335″
1786	500′	6	18	41/34	.020″	.035″	.430″

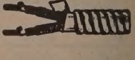
MICROPHONE CABLE COLOR CODE CHART

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—White/Blk. (Braid)
12—White/Red (Braid)

ARMORED INDUSTRIAL CABLE

Used for P.A. systems on speaker extensions, oil burner installations, auto wiring, etc.

Two Conductors Parallel #18 16/30 Stranded Tinned Copper, rubber insulation, lacquered cotton braid color coded, spiral galvanized steel armor overall.



Cat. No.	Spool	Size AWG	Strand	O.D.
1111	250′	18	16/30	.155″ x .240″
1112	500′	18	16/30	.155″ x .240″
1113	1000′	18	16/30	.155″ x .240″

FOR LONGER LENGTHS AND ALTERNATE PUT-UPS—SPECIFY.

Birnbach

BROADCAST AUDIO — FLEXIBLE TWISTED PAIR INTER-COM—MULTI-COND.

BIRNBACH

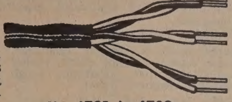
PLASTIC INTERCOMMUNICATING CABLES

TWISTED PAIRS—SOLID CONDUCTORS

Used in connecting Intercommunicating and Sound Systems, Telephones, Annunciators, Nurses Hospital Call Systems, Electronic Computers, Guided Missiles.

DESCRIPTION:

Each Conductor #22 Solid Copper Tinned, .010" Wall Vinyl Plastic Insulation, conductors color coded, twisted pairs cabled, tubed gray Vinyl plastic jacket overall. Suitable for outdoor installations.



No. 4701 to 4729

Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Nom. Jkt.	Nom. O.D.
4701	500′	1	2	22 Solid	.020"	.145"
4702	500′	2	4	22 Solid	.020"	.205"
4703	500′	3	6	22 Solid	.020"	.215"
4706	500′	6	12	22 Solid	.020"	.250"
4709	500′	9	18	22 Solid	.020"	.310"
4711	500′	11	22	22 Solid	.020"	.350"
4711/13	500′	13	26	22 Solid	.025"	.385"
4715	500′	15	30	22 Solid	.025"	.390"
4716	500′	16	32	22 Solid	.025"	.405"
4727	500′	27	54	22 Solid	.035"	.495"
4727/31	500′	31	62	22 Solid	.035"	.555"
4727/41	500′	41	82	22 Solid	.035"	.630"
4729	500′	51	102	22 Solid	.045"	.750"
4729/76*	500′	76	152	22 Solid	.070"	.970"
4729/101*	500′	101	202	22 Solid	.080"	1.140"

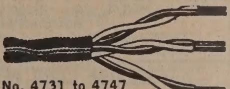
* Bare copper conductors.

For longer lengths and alternate put-ups—Specify.

TWISTED PAIRS—STRANDED CONDUCTORS

DESCRIPTION:

Each Conductor #22 7/30 Stranded Tinned Copper, .010" Vinyl plastic insulation, twisted pairs cabled, conductors color coded, tubed gray Vinyl plastic jacket overall.



No. 4731 to 4747

Cat. No.	Spool	Pairs	Cond.	Size No. AWG	Strand	Nom. O.D.
4731	500′	1	2	22	7/30	.145"
4732	500′	2	4	22	7/30	.210"
4733	500′	3	6	22	7/30	.225"
4734	500′	4	8	22	7/30	.235"
4735	500′	5	10	22	7/30	.245"
4736	500′	6	12	22	7/30	.270"
4739	500′	9	18	22	7/30	.325"
4745	500′	15	30	22	7/30	.455"
4747	500′	27	54	22	7/30	.570"

For longer lengths and alternate put-ups—Specify.

For Conductor Color Code Chart for Paired Intercom Cables, See Page 1558

SHIELDED MULTI-CONDUCTOR CABLE

Used indoors for permanent or portable work to prevent interference pickup on P.A. systems, recording equipment, photo electric circuits, etc

TINNED COPPER SHIELD OVERALL

DESCRIPTION:

Each Conductor #20 10/30 Stranded Tinned Copper, 1/64" pvc wall, waxed cotton braid color coded, twisted conductors, tinned copper shield overall. No. 1972 with cotton braid overall.

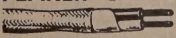
Nos. 972 to 978

Cat. No.	Spool	Conds.	Size AWG	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	Nom. O.D.
972	100′	2	20	10/30	1/64	65 Mmf	43 Mmf	.215"
973	100′	3	20	10/30	1/64	68 Mmf	55 Mmf	.220"
974	100′	4	20	10/30	1/64	69 Mmf	57 Mmf	.250"
975	100′	5	20	10/30	1/64	70 Mmf	58 Mmf	.280"
976	100′	6	20	10/30	1/64	71 Mmf	60 Mmf	.290"
977	100′	7	20	10/30	1/64	72 Mmf	62 Mmf	.315"
978	100′	8	20	10/30	1/64	74 Mmf	65 Mmf	.350"
1972	100′	2	20	10/30	1/64	65 Mmf	43 Mmf	.225"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green, 5—Brown, 6—Yellow, 7—Blue, 8—Orange

SHIELDED TWO WIRE SPEAKER CABLE

For master control sound systems, photo electric circuits; P.A. systems, etc.



TINNED COPPER SHIELD, PAPER WRAP OVERALL

No. 972A

Cat. No.	Spool	Strand	Insul.	Cap/Ft. Bet. Cond. & Shield	Cap/Ft. Bet. Conds.	O.D.
972A	500′	16/30	1/32	65	43	.250"
WAXED COTTON BRAID OVER SHIELD						
1972A	500′	16/30	1/32	65	43	.275"

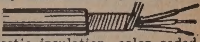
CONDUCTOR COLOR CODE: Black and Red

For longer lengths and alternate put-ups—Specify.

SPIRAL WRAPPED SHIELDED AUDIO and MULTI-CONDUCTOR CABLE

Plastic Jacketed—with Spiral wrapped copper shield

Designed for P. A. and sound systems, installations in schools, hospitals, and institutions, recording studios, transmitters, paging and call systems.



DESCRIPTION:

Each conductor copper tinned, 1/64 plastic insulation, color coded, twisted, spiral wrapped tinned copper shield, gray plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
941	500′	2	22	7/30	.017"	.020"	.171"
941/1	500′	1	22	7/30	.017"	.020"	.120"
941/3	500′	3	22	7/30	.017"	.020"	.190"
941/4	500′	4	22	7/30	.017"	.020"	.205"
950	500′	2	22	1	.017"	.020"	.169"
942	500′	2	20	10/30	.017"	.020"	.190"
942/1	500′	1	20	10/30	.017"	.020"	.129"
943	500′	3	20	10/30	.017"	.020"	.208"
944	500′	4	20	10/30	.017"	.020"	.222"
947	500′	2	18	16/30	.017"	.020"	.230"
947/3	500′	3	18	16/30	.017"	.020"	.228"
948	500′	2	16	26/30	.017"	.020"	.250"

CONDUCTOR COLOR CODE: 1—Black, 2—Red, 3—White, 4—Green

PLASTIC INTER-COM CABLE

4 CONDUCTORS (2 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a shielded twisted pair is indicated in order to eliminate cross talk.

DESCRIPTION:

No. 925 — 4 conductors #22 7/30 stranded tinned copper, vinyl plastic insulation color coded, tinned copper shield over one pair (2 cond.) One pair (2 cond.) unshielded. Tubed gray vinyl jacket overall.

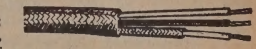
CONDUCTOR COLOR CODE: Black/white shielded, Black/red unshielded

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
925	500′	4	22	7/30	.016"	.020"	.310"

3 CONDUCTORS (1 Shielded — 2 Unshielded)

Widely used for wiring from station to station where a single shielded conductor is indicated in order to eliminate cross talk.

DESCRIPTION:



No. 924 — 3 conductors #22 7/30 stranded tinned copper, vinyl, plastic insulation color coded, tinned copper shield over one conductor, tubed gray vinyl jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	O.D.
924	500′	3	22	7/30	.016"	.020"	.205"

CONDUCTOR COLOR CODE: Black/red unshielded White shielded

SHIELDED BROADCAST AUDIO CABLE

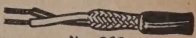
Designed to provide maximum performance on all equipment. Conductors twisted correctly assures quiet, clear operation which eliminates interference and cross talk. Used by Broadcast studios, for P. A. and sound systems, rack wiring, etc.

DESCRIPTION:

#938—#22 Solid Tinned Copper Conductor, enameled, heavy cellulose acetate yarn wrap, cotton braid waxed; cabled with #22 AWG solid tinned copper wire laid parallel to twisted pair under tinned copper braid shield; tubed-on Vinyl plastic jacket overall.

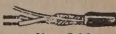
No. 938
CBS, ABC TYPE

#939—#22-7/30 Stranded Tinned Copper, plastic insulation, color coded, twisted, copper braid shield, tubed-on Vinyl plastic jacket overall.



No. 939

#940—2 Conductors #22 solid plastic insulation, color coded, twisted with #22 AWG solid tinned copper ground wire under tinned copper shield with vinyl plastic jacket overall.



No. 940

#940/1 same construction as #940 however with tinned copper spiral wrapped shield.

#822 and #824 have solid enameled copper wire, cotton wrap, cotton braid waxed twisted pair, bare copper braid overall.

Nos. 822 and 824

No. Cat.	Spool	Conds.	AWG Size No.	Strand	O.D. Nom.
938	500′	2	22	Solid	210"
939	500′	2	22	7/30	170"
940	500′	2	22	Solid	160"
940/1	500′	2	22	Solid	160"
822	500′	2	22	Solid	125"
824	500′	2	19	Solid	145"
927	500′	2	20	Solid	210"
928	500′	2	18	Solid	220"

CONDUCTOR COLOR CODE: Black and Red

For larger lengths and alternate put-ups—Specify.

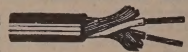
Birnbach

RUBBER JACKETED CABLE — JUKE BOX CABLE, SERVICE CORDS ANTENNA, COAXIAL, TV, DIATHERMY.

RUBBER JACKETED MULTI-CONDUCTOR CABLE (NOT SHIELDED)

Used for permanent or portable P.A. systems, sound recording, indoor or outdoor speakers, interconnecting cable for all electronic uses.

DESCRIPTION:



Each conductor, extra flexible stranded tinned copper, insulated with a .022″ wall special low capacity rubber, color coded. conductors twisted, jute filler, cotton wrap with tough weatherproof black rubber jacket overall.

CONDUCTOR COLOR CODE CHART

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange
9—Purple
10—Slate
11—White/Blk. (Braid)
12—White/Red (Braid)

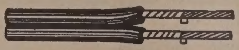
Cat. No.	Spool	Cond.	Size No. AWG	Strand	Cap. Bet. 1 Cond. & Others	Nom. O.D.
788	100′	2	20	26/34	40 Mmf	.275″
789	250′	2	20	26/34	40 Mmf	.275″
790	100′	3	20	26/34	50 Mmf	.285″
791	250′	3	20	26/34	50 Mmf	.285″
792	100′	4	20	26/34	53 Mmf	.305″
793	250′	4	20	26/34	53 Mmf	.305″
794	100′	5	20	26/34	56 Mmf	.335″
795	250′	5	20	26/34	56 Mmf	.335″
796	100′	6	20	26/34	58 Mmf	.355″
797	250′	6	20	26/34	58 Mmf	.355″
798	100′	7	20	26/34	60 Mmf	.370″
749	100′	8	20	26/34	63 Mmf	.395″
749/10	100′	10	20	26/34	65 Mmf	.435″
749/12	100′	12	20	26/34	67 Mmf	.540′

RIP-STRIP LAMP CORD

TYPE SP-1 (POSJ-64) — TYPE SPT-1 (POT) — UL APPROVED

All purpose approved cords SP-1 (rubber) SPT-1 (Plastic) for line cord on lamps, radios, clocks, small electronic instruments and appliances.

DESCRIPTION:



Two Conductors Parallel, #18—41/34 Extra Flexible Copper, rubber or plastic jacket slit for easy separation.

Cat. No.	Spool	Cond.	Size AWG	Strand	Insul. Type	UL Tpe	Nom. O.D.
570	100′	2	18	41/34	Rubber	SP-1 (POSJ)	.130″ x .235″
572	250′	2	18	41/34	Rubber	SP-1 (POSJ)	.130″ x .235″
573	500′	2	18	41/34	Rubber	SP-1 (POSJ)	.130″ x .235″
569	500′	2	18	41/34	Plastic	SPT-1 (POT)	.130″ x .235″

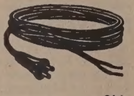
Colors: (Rubber) Brown, Black, White.
(Plastic) Brown, Black, Ivory, Gray, Pink, Light Blue, Yellow, Green.

HEAVY DUTY SERVICE CORD

CSA APPROVED — (HEAVY DUTY) — UL APPROVED

Used for heavy duty replacement on refrigerators, washing machines, machinery, tools and electronic devices.

DESCRIPTION:



Two and Three Conductors, Stranded Bare Copper, cotton serve, rubber insulation, jute filler, cotton wrap, tough rubber jacket overall, molded rubber plug one end, free end stripped and tinned for easy attachment—Hanked.

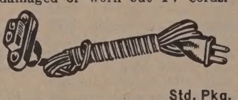
No. 346 and 347 Same as above with 3 prong plug.

Cat. No.	Length Ft.	Conds.	Size AWG	Type	Strand	O.D.	Std. Pkg.
348	8	2	16	S.J.	65/34	.325″	25
346	8	3	16	S.J.	65/34	.355″	25
347	8	3	18	S.J.	41/34	.330″	25
309	9	2	18	S.V.	41/34	.250″	25
312	12	2	18	S.V.	41/34	.250″	25
309/3	9	3	18	S.V.	41/34	.265″	25
312	12	2	18	S.V.	41/34	.250″	25

TV POWER SUPPLY CORD—UL APPROVED

Used extensively as replacement of damaged or worn out TV cords.

DESCRIPTION:



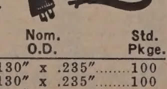
Six Foot Rip Strip TV U.L. Approved Safety Cord. 2-cond. No. 18 SP-1 (POSJ) brown rubber cord with molded male plug and TV molded-on connector on other end.

Cat. No.			Std. Pkg.
815	Television Power Supply Cord	6 Feet	100

SERVICE LINE CORDS—UL APPROVED

An all purpose approved power supply cord for radios, record players, lamps, and small appliances.

DESCRIPTION:



Two Conductors Rubber Parallel SP-1 (POSJ) with Molded-on Male Plug, double brass blades, conductor end stripped and tinned, hanked. Available in Black and Brown.

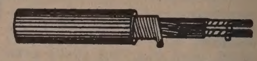
Cat. No.	Lgth. Ft.	Conds.	Size No. AWG	Strand	Nom. O.D.	Std. Pkge.
816	6	2	18	41/34	.130″ x .235″	100
817	7½	2	18	41/34	.130″ x .235″	100
819	10	2	18	41/34	.130″ x .235″	50

RUBBER & NEOPRENE SERVICE CORD

(HEAVY DUTY) — UL APPROVED

For power line requirement where rough usage is indicated as for amplifiers, sound systems, speakers, vacuum cleaners, washing machines, trouble lights, refrigerators, etc. Color coded. Underwriters approved. Neoprene construction recommended for equipment exposed to oil, acids, outdoor use, direct burial, etc.

DESCRIPTION:



Each conductor, copper conductor, paper separator, color coded, rubber insulation, filler, separator, tough rubber or neoprene jacket.

Cat. No.	U/L Type	Cat. No.	U/L Type	Std. Put-ups	Conds.	Size No. AWG.	Strand	Amp Rating	Volt Rating	Nom. O.D.
701	SV	690	SVO	250′	2	18	41/34	7	300	.250″
*701/3	SV	690/3	SVO	250′	3	18	41/34	7	300	.265″
574	SJ	691	SJO	250′	2	18	41/34	7	300	.300″
575	SJ	692	SJO	250′	3	18	41/34	7	300	.330″
575/4	SJ	692/4	SJO	250′	4	18	41/34	7	300	.360″
578	SJ	693	SJO	250′	2	16	65/34	10	300	.325″
578/3	SJ	693/3	SJO	250′	3	16	65/34	10	300	.365″
578/4	SJ	693/4	SJO	250′	4	16	65/34	10	300	.395″
702	S	694	SO	250′	2	18	16/30	7	600	.390″
702/3	S	694/3	SO	250′	3	18	16/30	7	600	.405″
702/4	S	694/4	SO	250′	4	18	16/30	7	600	.435″
703	S	695	SO	250′	2	16	26/30	10	600	.410″
703/3	S	695/3	SO	250′	3	16	26/30	10	600	.430″
703/4	S	695/4	SO	250′	4	16	26/30	10	600	.485″
704	S	696	SO	250′	2	14	41/30	15	600	.540″
704/3	S	696/3	SO	250′	3	14	41/30	15	600	.560″
704/4	S	696/4	SO	250′	4	14	41/30	15	600	.605″
705	S	697	SO	250′	2	12	65/30	20	600	.605″
705/3	S	697/3	SO	250′	3	12	65/30	20	600	.635″
705/4	S	697/4	SO	250′	4	12	65/30	20	600	.665″
706	S	698	SO	250′	2	10	103/30	25	600	.640″
706/3	S	698/3	SO	250′	3	10	103/30	25	600	.690″
706/4	S	698/4	SO	250′	4	10	103/30	25	600	.745″

Additional Conductors Available

* 701/3 has tinned copper wire

CONDUCTOR COLOR CODE: 1—White, 2—Black, 3—Green, 4—Red

SERVICE CORD PER MIL-C-3432B SPEC

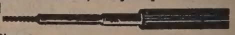
WITH CERTIFICATION — INSPECTION AVAILABLE

Cat. No.	MIL Type	Spec. Designation	Conds.	Awg. Size	Spec. No.	Nom. OD
M-218	CO-02	MGF	2	18	MIL-C-3432A	.300″
H-218	CO-02	HGF	2	18	MIL-C-3432A	.380″
L-218	CO-02	LGF	2	18	MIL-C-3432A	.250″
H-216	CO-02	HGF	2	16	MIL-C-3432A	.405″
M-216	CO-02	MGF	2	16	MIL-C-3432A	.338″
M-214	CO-02	MGF	2	14	MIL-C-3432A	.400″
H-214	CO-02	HGF	2	14	MIL-C-3432A	.535″
M-318	CO-03	MGF	3	18	MIL-C-3432A	.330″
M-316	CO-03	MGF	3	16	MIL-C-3432A	.375″
H-312	CO-03	HOE	3	12	MIL-C-3432A	.635″

ADDITIONAL NUMBERS AVAILABLE — YOUR INQUIRIES INVITED

RG/U COAXIAL TRANSMISSION CABLE

DESCRIPTION: One and Two Conductor, Polyethylene plastic insulation, copper braid shield, plastic jacket overall.

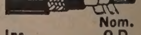


Cat. No.	Spool	Type	Nom. Imped.	Nom. Mmfd./Ft.	Size AWG	Strand	Nom. O.D.
901	500′	RG-8/U	52	29.5	13	7/21 Bare	.405″
902	500′	RG-9/U	51	30	13	7/21S	.420″
903	500′	RG-11/U	75	20.5	18	7/26 Tinned	.405″
904F	500′	RG-11/U	75	16.5	15	Solid	.405″
904DS	500′	RG-11/U	75	20.5	18	7/26 T.	.470″
904DSF	500′	RG-11/U	75	16.5	15	Solid	.470″
912	500′	RG-22/U	95.0	16.0	18	2 Cond. 7/.0152	.405″
907	1000′	RG-29/U	53.5	28.5	20	Solid	.174″
909	1000′	RG-54A/U	58	26.5	18	7/.0152″	.250″
905	1000′	RG-58A/U	50	29.0	20	19/.0068 Tinned	.195″
906	1000′	RG-58/U	53.5	28.5	20	Solid	.195″
910	1000′	RG-59/U	73	21.0	22	Solid Copperweld	.242″
914	1000′	RG-62/U	93	13.5	22	Solid	.242″
916	1000′	RG-108A/U	78	23.5	20	2 Cond. 7/28T.	.235″

Additional RG numbers available including double shields, non-contaminating jackets—all conforming to MIL-C-17B specifications. Also, "TEFLON" dielectrics available for hi. temp. miniaturization.

No. 904F is RG-11/U with Poly-cell foam; No. 904 DSF has double shield Poly-cell dielectric constant of 1.50 solid Polyethylene 2.25.

DIATHERMY CABLE



Cat. No.	Spool	Size AWG	Strand	Ins.	Nom. O.D.
756	100′	14	104/34	3/64″	.300″
757	1000′	14	104/34	3/64″	.300″

See Pages 1620-1625 for Birnbach Prices for Above Items

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Birnbach

SHIELDED — MULTI — TWO WIRE SPEAKER CABLE TWISTED PAIR CABLES

Multiple Pair Individually Shielded Intercom Cable

Useful where several mikes are operated from a single cable. This series is helpful in reducing the bulk of required cables.

DESCRIPTION: Multi-pairs #22 solid tinned copper, vinyl insulated .013″ cabled in pairs. Each pair and ground wire is under aluminum foil mylar shield overall grey vinyl jacket; Nom. Cap. between Conds. 40Mmft/ft; Nom. Cap. between 1 Cond. and others connected to shield—77Mmf/ft.

Additional Variations in construction available to order.

Cat. No.	Spool	Pairs	Cond.	Nom. Jkt.	Nom O.D.
4800/3	500′	3	6	.030	.298
4800/6	500′	6	12	.037	.394
4800/9	500′	9	18	.040	.425
4800/11	500′	11	22	.040	.485
4800/15	500′	15	30	.045	.510
4800/19	500′	19	38	.055	.678
4800/27	500′	27	54	.070	.860

4800/19 and 4800/27 is #22 strand 7/30 with .015 wall.

Multi-Conductor Industrial Cable

PLASTIC JACKET OVERALL

DESCRIPTION:
#18 solid tinned copper plastic insulation, color coded, twisted conductors. Gray vinyl jacket overall. Used for inter-com systems, speaker cable, alarm, signal, P. A. systems, thermostats, remote control circuits. Suitable for outdoor installations.

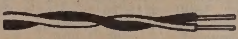
Cat. No.	Spool	Conds.	Size AWG	Insul.	Jacket	O.D.
4752	500′	2	18 solid	.017″	.020″	.185″
4753	500′	3	18 solid	.017″	.020″	.190″
4754	500′	4	18 solid	.017″	.020″	.235″
4755	500′	5	18 solid	.017″	.020″	.240″
4756	500′	6	18 solid	.017″	.020″	.275″

CONDUCTOR COLOR CODE:
1—Black, 2—Red, 3—White, 4—Green, 5—Orange, 6—Blue

Unshielded Audio Cable Stranded and Solid Cond. (2 & 3)

Widely used for connecting sound and inter-com systems, audio hookups, indoors—outdoors. Telephones, telemetering connections. For Baby Sitter Intercoms.

FOR INDOOR USE Without Outer Jacket

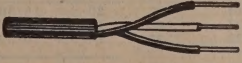


DESCRIPTION:
Stranded & Solid Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted.

Cat. No.	Spool	Conds.	Size AWG		Nom. Insul.	Nom. O.D.
931	1000′	2	22 Solid		.016″	.100″
933	1000′	3	22 Solid		.016″	.115″
981	1000′	2	20 Solid		.016″	.120″
983	1000′	3	20 Solid		.016″	.140″
985	1000′	2	18 Solid		.016″	.145″
987	1000′	3	18 Solid		.016″	.155″
989	1000′	2	16 Solid		.016″	.175″
989/3	1000′	3	16 Solid		.016″	.190″
990	1000′	2	22 Stranded	7/30	.016″	.125″
990/3	1000′	3	22 Stranded	7/30	.016″	.140″
991	1000′	2	20 Stranded	10/30	.016″	.145″
991/3	1000′	3	20 Stranded	10/30	.016″	.160″
992	1000′	2	18 Stranded	16/30	.016″	.165″
992/3	1000′	3	18 Stranded	16/30	.016″	.180″
993	1000′	2	16 Stranded	26/30	.016″	.190″
993/3	1000′	3	16 Stranded	26/30	.016″	.210″
994	1000′	2	14 Stranded	41/30	.016″	.220″
994/3	1000′	3	14 Stranded	41/30	.016″	.240″
995	1000′	2	12 Stranded	65/30	.016″	.250″
995/3	1000′	3	12 Stranded	65/30	.016″	.275″

COLOR CODE: 1—Brown 2—Tan 3—Gray

FOR OUTDOOR USE With Plastic Jacket Overall



DESCRIPTION:
Solid and Stranded Tinned Copper Conductors, vinyl plastic insulation, color coded, conductors twisted with weatherproof plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG		Insul.	Jacket	O.D.
932	1000′	2	22 solid		.010″	.020″	.125″
934	1000′	3	22 solid		.010″	.020″	.130″
982	1000′	2	20 solid		.016″	.020″	.170″
984	1000′	3	20 solid		.016″	.020″	.180″
986	1000′	2	18 solid		.016″	.020″	.185″
988	1000′	3	18 solid		.016″	.020″	.190″
921	1000′	2	22 Stranded	7/30	.010″	.020″	.130″
921/3	1000′	3	22 Stranded	7/30	.010″	.020″	.140″
922	1000′	2	20 Stranded	10/30	.016″	.020′	.175″
922/3	1000′	3	20 Stranded	10/30	.016″	.020″	.185″
923	1000′	2	18 Stranded	16/30	.016″	.020″	.195″
923/3	1000′	3	18 Stranded	16/30	.016″	.020″	.205″

For longer lengths and alternate put-ups—Specify.

COLOR CODE: 1-Black, 2-Red, 3-White

Multi-Conductor Flexible Cable

RUBBER INSULATED — Cotton Braid Overall

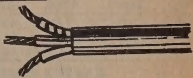
DESCRIPTION:
Each Conductor, #20 — 10/30 Tinned Copper Stranded, 1/64″ low capacity rubber, cotton braid color coded, conductors twisted, closely woven brown cotton braid overall.

Used for multiple circuit hookups, connecting speakers, remote control units, analyzers, etc.

Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
172	100′	2	20	10/30	1/64″	.205″
173	100′	3	20	10/30	1/64″	.245″
174	100′	4	20	10/30	1/64″	.265″
175	100′	5	20	10/30	1/64″	.290″
176	100′	6	20	10/30	1/64″	.310″
177	100′	7	20	10/30	1/64″	.325″
178	100′	8	20	10/30	1/64″	.360″
179	100′	9	20	10/30	1/64″	.395″
180	100′	10	20	10/30	1/64″	.425″
182	100′	12	20	10/30	1/64″	.440″

CONDUCTOR COLOR CODE:
1—Black
2—White
3—Red
4—Green
5—Orange
6—Blue
7—Brown
8—Yellow
9—White/Black Tracer
10—Red/Black Tracer
11—Green/Black Tracer
12—Orange/Black Tracer

MULTI-CONDUCTOR FLEXIBLE CABLE Plastic Jacket Overall



DESCRIPTION:
Each conductor #22 7/30 tinned copper stranded 1/64″ thermoplastic insulation, color coded, conductors twisted, gray vinyl plastic jacket overall. Used for signal, P.A. systems. Electronic computer cable, suitable for outdoor use.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
156	500′	2	22	7/30	.010″	.020″	.140″
157	500′	3	22	7/30	.010″	.020″	.145″
158	500′	4	22	7/30	.010″	.020″	.170″
159	500′	5	22	7/30	.010″	.020″	.175″
160	500′	6	22	7/30	.010″	.020″	.185″
161	500′	7	22	7/30	.010″	.020″	.190″
162	250′	8	22	7/30	.010″	.020″	.200″
163	250′	9	22	7/30	.010″	.020″	.225″
164	250′	10	22	7/30	.010″	.020″	.235″
165	250′	12	22	7/30	.010″	.020″	.255″
165/15	250′	15	22	7/30	.010″	.020″	.280″

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE:
1—Black 2—Red 3—White 4—Green 5—Orange 6—Blue 7—Brown 8—Yellow 9—Violet 10—Slate 11—Pink 12—Tan 13—Red/Green 14—Red/Yellow 15—Red/Black

THERMO-PLASTIC INSULATED — Cotton Braid Overall

Each Conductor #22 — 7/30 Tinned Copper Stranded, 1/64″ Thermoplastic insulation, color coded, conductors twisted, closely woven brown cotton braid overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Ins.	Nom. O.D.
263	100′	3	22	7/30	1/64″	.160″
264	100′	4	22	7/30	1/64″	.170″
265	100′	5	22	7/30	1/64″	.195″
266	100′	6	22	7/30	1/64″	.210″
267	100′	7	22	7/30	1/64″	.230″
268	100′	8	22	7/30	1/64″	.245″
269	100′	9	22	7/30	1/64″	.260″
270	100′	10	22	7/30	1/64″	.295″
272	100′	12	22	7/30	1/64″	.325″

For longer lengths and alternate put-ups—Specify.

CONDUCTOR COLOR CODE: 1—Black, 2—White, 3—Red, 4—Green, 5—Orange, 6—Blue, 7—Brown, 8—Yellow, 9—Purple, 10—Pink, 11—Gray, 12—Dk. Blue

Twisted Pair Transmission Cable

WEATHERPROOF BRAID

DESCRIPTION:
No. 952—Two Conductors, #22-7/30 Tinned Copper Stranded, special low loss rubber insulation, color coded, twisted conductors, cotton braid overall with rugged weatherproof finish.

No. 919, 920—Two Conductors, #18-16/30 Tinned Copper Stranded, same construction as above.

Used for low loss transmission coupling between antenna and receiver as doublet twisted lead-in wire for inter-com. setup.

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
952	500′	22	7/32	1/32″	.180″
919	500′	18	16/30	1/32″	.195″
920	1000′	18	16/30	1/32″	.195″

For longer lengths and alternate put-ups—Specify.

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See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach

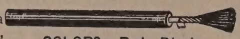
KINKLESS TEST LEAD WIRE — SHIELDED CABLE
PHONO PICKUP WIRE — SERVICE and POWER CORDS

BIRNBACH

KINKLESS TEST LEAD WIRE

Used with portable test equipment; as tested, leads in analyzers, oscillators, instruments; wherever extreme flexibility and limpness is required. Has excellent dielectric properties.

DESCRIPTION:



Nos. 61, 62—#20—41/36 extra flexible annealed tinned copper, stranded.

COLORS: Red, Black

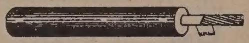
Nos. 66, 67—#18—65/36 extra flexible annealed tinned copper stranded; paper serve; 3/64″ special low capacity rubber, wax finish.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
61	100′	20	41/36	3/64″	20,000 Volts	.137″
62	500′	20	41/36	3/64″	20,000 Volts	.137″
66	100′	18	65/36	3/64″	22,000 Volts	.145″
67	500′	18	65/36	3/64″	22,000 Volts	.145″

Types WS-16/U Black, WS-17/U Red, per MIL-W-13169 Specification available same construction as Birnbach #67 except compound per specification.

HEAVY DUTY HI-VOLTAGE TYPE

DESCRIPTION:



Nos. 68, 69—#18—65/36 extra flexible annealed tinned copper; stranded; paper serve; 5/64″ special low capacity rubber, wax finish.

Used for oscillators, analyzers, TV, therapeutic instruments, etc.; wherever an extremely flexible high voltage lead is indicated.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture Voltage	Nom. O.D.
68	100′	18	65/36	5/64″	29,000 Volts	.210″
69	500′	18	65/36	5/64″	29,000 Volts	.210″

For longer lengths and alternate put-ups—Specify.

SHIELDED PHONO WIRE

Used where small diameter, limpness and extreme flexibility is necessary as for phono pickup arms and grid wire.

DESCRIPTION:

#1822—Single Conductor #22-7/30 Tinned Copper Strands, Vinyl plastic insulation, close tinned copper shield braided overall.

#1824—Single Conductor #24-16/36 Extremely Flexible Tinned Copper Strands, special plastic insulation, close tinned copper shield braided overall.

#1825—Same construction as #1824 except with fine cotton braid overall.

See Page 11 for miniature and subminiature shielded wires suitable for wiring phono arm from cartridge to amplifier.

TINNED COPPER SHIELD OVERALL

Cat. No.	Spool	Strand	Cond.	Size AWG	Insul.	Nom. O.D.
1824	500′	1	24	16/36	.010″	.080″
1824M	1000′	1	24	16/36	.010″	.080″
1822	100′	1	22	7/30	.010″	.080″
1822B	500′	1	22	7/30	.015″	.090″
1822C	1000′	1	22	7/30	.015″	.090″

COTTON BRAID OVER SHIELD

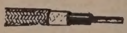
Cat. No.	Spool	Strand	Cond.	Size AWG	Insul.	Nom. O.D.
1825	500′	1	24	16/36	.010″	.095″
1825M	1000′	1	24	16/36	.010″	.095″

For longer lengths and alternate put-ups—Specify.

SHIELDED GRID LEAD WIRE

Used to reduce loss in grid lead use, also to reduce interference caused by motors, high tension wires, X-ray machines, etc.

DESCRIPTION:



#820—Single Conductor #20—10/30, #818—16/30 Stranded Tinned Copper, low loss rubber insulation, cotton braid lacquered, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins. Under Shield	Cap./Ft. Mmf.	Nom. O.D.
820	100′	20	10/30	.085″	70	.140″
818	100′	18	16/30	.085″	75	.150″

For longer lengths and alternate put-ups—Specify.

7MM HIGH TENSION CABLE

Used as hi voltage leads in electronic equipment and instruments, photo electric cell leads, automotive, etc.

DESCRIPTION:

No. 1600

#1600 — Unshielded One Conductor #16-19/29 stranded tinned copper wire, rubber insulation, cotton braid highly lacquered.

DESCRIPTION:

No. 781

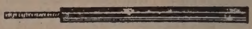
#781 — Shielded Same construction as #1600 plus a closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Insul.	Nom. O.D.
1600	100′	16	19/29	3/32″	.275″
781	100′	16	19/29	3/32″	.295″

Used for auto and aircraft ignition systems where grounding is required for elimination of interference.

For longer lengths and alternate put-ups—specify.

New Plastic Kinkless Test Lead Wire



New formulation vinyl compound insulation allows maximum flexibility; rough treatment; extreme variation in climatic conditions; excellent abrasion resistance; greater temperature stability from —80°C to +115°C; fungus resistant; self extinguishing-flame proof; smooth surface. Resists exposure to gasoline and oil.

DESCRIPTION: one conductor tinned copper stranded, special formulation vinyl insulation. **COLORS: Black, Red, Yellow, Green, White, Blue.**

Cat. No.	Size AWG	Strand.	Ins.	Nom. O.D.
1922	22	26/36	.032″	.100″
1920	20	26/34	.032″	.104″
1918	18	65/36	.032″	.112″
1916	16	65/34	.032″	.129″

Standard Package: 100′, 500′, 1000′ spools.

For portable test equipment; as test leads for instrumentation exceeds the requirements for Mil-I-3930A type JP(PVC). It is superior to synthetic rubber spec MIL-R-6855 Class II Grade 60.

HI VOLTAGE LACQUERED WIRE

Used as primary wiring as for automobiles, tail, dashboard, horn, etc. Instrument leads, high voltage and primary voltage requirements

DESCRIPTION:

One Conductor tinned copper annealed stranded, rubber insulation, highly lacquered braid, oil, heat, and moisture resistant.

Cat. No.	Spool	Size AWG	Strand	Ins.	Puncture V.	Nom. O.D.
2818	100′	18	16/30	.022″	9500	.117″
2816	100′	16	19/29	.022″	9500	.127″
2814	100′	14	19/27	.022″	9500	.148″
2812	100′	12	19/25	.027″	9500	.171″
2810	100′	10	19/23	.031″	9500	.202″

For longer lengths and alternate put-ups—Specify.

LACQUERED HOOK-UP WIRE

Used in transformers, amplifiers, hook-ups, leads, etc. Strips easily for soldering.

DESCRIPTION:

No. 3462—#20-10/30 Single Conductor stranded tinned copper, low loss free stripping rubber insulation, cotton braid highly lacquered.

No. 3600—#18-16/30 Single Conductor stranded tinned copper, 1/32″ low loss free stripping rubber insulation, rayon braid highly lacquered.

Cat. No.	Spool	Size AWG	Strand	Insul.	Punct. Volt.	DC Ins. Res./Ft. Meg.	Nom. O.D.
3461	100′	20	10/30	1/64″	7000	390	.090″
3462	500′	20	10/30	1/64″	7000	390	.090″
3460	100′	18	16/30	1/32″	9000	460	.125″
3600	500′	18	16/30	1/32″	9000	460	.125″

COLORS: Black, Red, Green, Yellow, Brown, Blue, White, Orange, Grey, Purple.

For longer lengths and alternate put-ups—Specify.

SHIELDED HOOK-UP & LEAD-IN WIRE

Used to prevent and reduce interference caused by motors, hi-tension cables, X-ray machines and various units radiating electrical impulses. Useful in grid circuits.

TINNED COPPER SHIELD OVER RUBBER INSULATION

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss rubber insulation, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand	Ins.	Cap./Ft. Mmf.	Nom. O.D.
810	500′	20	10/30	.015″	105	.095″
803	250′	18	16/30	.015″	125	.125″
802	250′	16	26/30	.031″	90	.145″

TINNED COPPER SHIELD OVER LACQUERED BRAID

DESCRIPTION:

Single Conductor, Tinned Copper Stranded, low loss Vinyl insulation, highly lacquered glass braid, closely woven tinned copper shield overall.

Cat. No.	Spool	Size AWG	Strand.	Wall Thickness	Nom. O.D.
831	1000′	22	7/30	.016″	.095″
832	1000′	20	10/30	.016″	.105″
833	1000′	18	16/30	.016″	.125″
834	1000′	16	26/30	.016″	.135″
835	1000′	14	41/30	.016″	.155″
835/12	1000′	12	65/30	.016″	.175″
835/10	1000′	10	105/30	.025″	.200″

For longer lengths and alternate put-ups—Specify.

See Pages 1620-1625 for Birnbach Prices for Above Items

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PUSHBACK — HEAVY FORMVAR — MAGNET WIRE
PLAIN ENAMEL — DCC — DNC — SOLID TINNED

Birnbach

ALL BIRNBACH MAGNET WIRES PER MIL-W-583A SPECIFICATIONS. MIL-W-19583 AVAILABLE.

HEAVY FORMVAR, PLAIN ENAMEL, DOUBLE COTTON, DOUBLE NYLON, SOLID TINNED MAGNET WIRE

HEAVY FORMVAR

Has new tough abrasion resisting film. Replaces enamel and fabric insulations for certain applications requiring exceptional abrasion resistance. Stable under heat. High dielectric strength. Infinite resistance to water and moisture. Does not fail after two hours at 105°C. Takes up less winding space. **Symbol HF Type T2**

ALL MAGNET WIRE AVAILABLE IN LARGER PUT-UPS

¼ lb. SPOOL		½ lb. SPOOL		1 lb. SPOOL	
Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	39	14	78
16	31	16	62	16	124
18	49	18	99	18	198
20	78	20	156	20	313
22	125	22	250	22	501
24	200	24	399	24	798
26	300	26	600	26	1200
28	500	28	1000	28	1999
30	800	30	1600	30	3200
32	1225	32	2450	32	4900
34	1988	34	3975	34	7950
36	3200	36	6400	36	12800
38	5050	38	10100	38	20200
40	7975	40	15850	40	31700
42	12375	42	24750	42	49500
44	14500	44	29000	44	58000

PLAIN ENAMEL

Symbol PE Type T1

¼ lb. SPOOL		½ lb. SPOOL		1 lb. SPOOL	
Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	40	14	80
16	32	16	63	16	126
18	50	18	100	18	201
20	80	20	160	20	320
22	127	22	254	22	508
24	201	24	403	24	806
26	320	26	640	26	1280
28	507	28	1015	28	2030
30	805	30	1610	30	3220
32	1282	32	2564	32	5128
34	2037	34	4075	34	8150
36	3221	36	6443	36	12887
38	5132	38	10246	38	20492
40	8143	40	16286	40	32573
42	12803	42	25605	42	51211
44	20455	44	40910	44	81819

DOUBLE NYLON

Symbol DN

¼ lb. SPOOL		½ lb. SPOOL		1 lb. SPOOL	
Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.
12	12	12	24	12	49
14	19	14	39	14	78
16	31	16	62	16	125
18	49	18	99	18	198
20	78	20	157	20	314
22	123	22	247	22	495
24	195	24	390	24	781
26	303	26	606	26	1212
28	478	28	956	28	1912
30	739	30	1479	30	2958
32	1136	32	2272	32	4545
34	1712	34	3424	34	6849
36	2551	36	5102	36	10204
38	3770	38	7541	38	15082
40	5040	40	10080	40	20161

DOUBLE COTTON

Symbol DC

¼ lb. SPOOL		½ lb. SPOOL		1 lb. SPOOL	
Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.
10	8	10	16	10	31
12	12	12	24	12	49
14	19	14	39	14	78
16	31	16	62	16	123
18	48	18	97	18	194
20	78	20	157	20	304
22	119	22	238	22	477
24	134	24	269	24	538
26	284	26	568	26	1136
28	435	28	871	28	1742
30	641	30	1284	30	2569
32	976	32	1953	32	3906
34	1365	34	2735	34	5470
36	1827	36	3654	36	7309
38	2738	38	5476	38	10952
40	3405	40	6811	40	13623

SOLID TINNED (Soft Drawn)

Symbol TC

¼ lb. SPOOL		½ lb. SPOOL		1 lb. SPOOL	
Size B&S	Ft.	Size B&S	Ft.	Size B&S	Ft.
10	8	10	16	10	32
12	12	12	25	12	50
14	20	14	40	14	80
16	32	16	63	16	126
18	50	18	100	18	201
20	80	20	160	20	320
22	127	22	254	22	508
24	201	24	403	24	806
26	320	26	640	26	1280
28	507	28	1015	28	2030
30	805	30	1610	30	3220
32	1282	32	2564	32	5128
34	2037	34	4075	34	8150
36	3221	36	6443	36	12887
38	5132	38	10246	38	20492
40	8143	40	16286	40	32573

ALL SOLID TINNED COPPER AVAILABLE IN 1000 FT. SPOOLS
BARE COPPER — SOFT DRAWN AVAILABLE FROM STOCK

BIRNBACH
RADIO WIRES AND CABLES

BIRNBACH DOUBLE BRAID SLIPBACK HOOK-UP WIRE

Has a double cotton braid over the conductor, brightly color coded, saturated with paraffin. This construction will not cause the cotton insulation to fray or bunch up when pushed back. Has high dielectric strength and will withstand all climatic changes without breakdown.

COLORS: Black, Red, Blue, Yellow, Green, White, Brown, Orange.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
380	100′ Spool	20	Solid	2000	.090″
382	100′ Spool	18	Solid	2100	.098″
384	100′ Coil	16	Solid	2100	.108″
386	100′ Spool	14	Solid	2100	.122″
388	100′ Spool	12	Solid	2200	.135″
580	1000′ Spool	20	Solid	2000	.090″
582	1000′ Spool	18	Solid	2100	.098″
584	1000′ Spool	16	Solid	2100	.108″
586	1000′ Spool	14	Solid	2100	.122″
588	1000′ Spool	12	Solid	2200	.135″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
381	100′ Spool	20	10/30	2100	.093″
383	100′ Spool	18	16/30	2200	.103″
385	100′ Spool	16	26/30	2200	.118″
387	100′ Spool	14	41/30	2200	.135″
389	100′ Spool	12	65/30	2300	.155″
581	1000′ Spool	20	10/30	2100	.093″
583	1000′ Spool	18	16/30	2200	.103″
585	1000′ Spool	16	26/30	2200	.118″
587	1000′ Spool	14	41/30	2200	.135″
589	1000′ Spool	12	65/30	2300	.155″

BIRNBACH BIRNTEX SLIPBACK WIRE

This wire is constructed of quality materials and carefully insulated with a cotton wrap over which a cotton braid is closely woven, and then saturated with paraffin. Pushes back easily.

SOLID

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
72	100′ Spool	22	Solid	1500	.060″
76	1000′ Spool	22	Solid	1500	060″
84	100′ Spool	20	Solid	1500	.065″
86	100′ Spool	18	Solid	1500	.075″
92	1000′ Spool	20	Solid	1500	.065″
94	1000′ Spool	18	Solid	1500	.075″

STRANDED

Cat. No.	Put-Up	Size	Strands	Puncture V. 60-cy. AC	O.D.
73	100′ Spool	22	7/30	1500	.065″
77	1000′ Spool	22	7/30	1500	.065″
85	100′ Spool	20	10/30	1500	.070″
87	100′ Spool	18	16/30	1500	.080″
93	1000′ Spool	20	10/30	1500	.070″
95	1000′ Spool	18	16/30	1500	.080″

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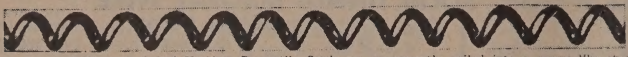
See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach RETRACTILE KINKLESS CORD SETS

BIRNBACH COILED RETRACTILE (KINKLESS) CORD AND CORD SETS



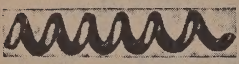
This series of Birnbach Coiled Kinkless Retractile Cords are permanently coiled into a spring-like shape without the use of metal springs or elastic bands. They have inherent "Recovery" properties. These Retractile cords extend approximately six times its retracted length, returning to its exact original shape and length when released. Always as long as you need them and no longer, they will not kink, tangle, trail, knot or dangle on the floor or bench and cause accidents.

RETRACTILE TEST LEAD WIRE

Stretch coiled kinkless test lead wire descripton. 12" coil—stretches to approx. 6 feet. One conductor #20 stranded copper rubber insulation .165 OD. Colors: Red, Black. Coil O.D. ¾".

Cat. No.		Std. Pkge.
64	12" Retracted—Approx. 6' Extended	6
65	24" Retracted—Approx. 12' Extended	6

RETRACTILE (KINKLESS) POWER CORD RUBBER, NEOPRENE AND PLASTIC



DESCRIPTION 2, 3, 4 conductor UL approved, retractile (kinkless) power cords supplied in 36" long mandrel lengths, which customer cuts to desired length.

Std. Pkg. 5

Additional conductors and sizes available.

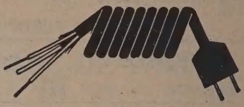
Cat. No.	Retracted Length	Approx. Len. Ext.	Conds.	Size AWG	UL Type	Strand	Amp. Rating	Volt Rating	Coil O.D.	Nom. O.D.
886	36"	18 FT.	2	18	SVO	41/34	7	300	1"	.250"
887	36"	18 FT.	2	18	SVT	41/34	7	300	1"	.250"
889	36"	18 FT.	2	18	SJO	41/34	7	300	1¼"	.310"
889/3	36"	18 FT.	3	18	SJO	41/34	7	300	1½"	.330"
889/4	36"	18 FT.	4	18	SJO	41/34	7	300	1½"	.360"
890	36"	18 FT.	2	18	SJT	41/34	7	300	1¼"	.310"
891	36"	18 FT.	2	16	SJO	65/34	10	300	1½"	.330"
891/3	36"	18 FT.	3	16	SJO	65/34	10	300	1½"	.365"
891/4	36"	18 FT.	4	16	SJO	65/34	10	300	1⅝"	.395"
893	36"	18 FT.	2	14	SO	41/30	15	600	2"	.535"
893/3	36"	18 FT.	3	14	SO	41/30	15	600	2⅛"	.560"
893/4	36"	18 FT.	4	14	SO	41/30	15	600	2¼"	.605"
894	36"	18 FT.	2	12	SO	65/30	20	600	2¼"	.605"
894/3	36"	18 FT.	3	12	SO	65/30	20	600	2⅜"	.635"
894/4	36"	18 FT.	4	12	SO	65/30	20	600	2½"	.665"

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green, 4-Red

RETRACTILE (KINKLESS) POWER CORD SETS

Excellent for portable use. All mobile equipment and office equipment wherever the device application is synonymous with repetitive movement. The "Answer" to most tough hazard problems.

2 and 3 conductors SVO and SJO Retractiie Kinkless Neoprene Service Cord Sets with Molded Male Plug one end, other end stripped and tinned ready for application.

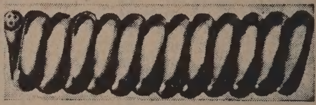


Standard Package—10

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	UL Type	Strand	O.D. Coil
880	18"	9 FT.	2	18	SVO	41/34	1"
881	18"	9 FT.	2	18	SJO	41/34	1¼"
881/3	18"	9 FT.	3	18	SJO	41/34	1½"
882	18"	9 FT.	2	16	SJO	65/34	1½"
882/3	18"	9 FT.	3	16	SJO	65/34	1½"

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Green

RETRACTILE COILED COMMUNICATION CORD



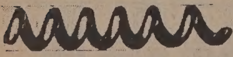
Multi-conductors stranded communication cord No. 23 AWG. Tinned copper wire neoprene jacketed. Long lengths can be cut to exact requirement. Nom. cond. resistance .022 ohms per linear foot. Maximum working voltage 120 volts. Current carrying capacity 1 ampere.

Standard package —10

Cat. No.	Retracted Length	Approx. Length Extended	Conds.	Size AWG	Strand	Coil O.D.	O.D.
875	36"	18 FT.	2	23	21/36	¾"	.200"
876	36"	18 FT.	3	23	21/36	¾"	.210"
877	36"	18 FT.	4	23	21/36	13/16"	.240"
878	36"	18 FT.	5	23	21/36	1"	.285"
878/6	36"	18 FT.	6	23	21/36	1⅛"	.305"
878/7	36"	18 FT.	7	23	21/36	1¼"	.320"
878/8	48"	25 FT.	8	23	21/36	1 3/32"	.360"
878/10	48"	25 FT.	10	23	21/36	1 5/32"	.380"
878/12	48"	25 FT.	12	23	21/36	1 7/32"	.410"
878/15	48"	25 FT.	15	23	21/36	1 9/32"	.470"

CONDUCTOR COLOR CODING: 1-Black, 2-White, 3-Red, 4-Green, 5-Blue, 6-Yellow, 7-Brown, 8-Orange, 9-White/Black Tracer, 10-White/Red Tracer, 11-White/Green Tracer, 12-White/Blue Tracer, 13-White/Yellow Tracer, 14-White/Brown Tracer, 15-White/Orange Tracer.

RETRACTILE (KINKLESS) COILED SHIELDED MICROPHONE CABLES



DESCRIPTION: Single and multi-conductor shielded microphone cable neoprene jacketed. This cable remains neat and compact with no danger of tripping or of the wire becoming entanngled in equipment. Also suitable for stereo and additional speaker extensions. Shield can be pigtailed for soldering. No. 24 AWG Str. is 41/40 tinned soft cad. copper; No. 23 has 21/36 tinned soft cad. copper. Each conductor individually shielded with cad. cop shield.

Cat. No.	Retracted Length	Approx. Length Extended	Cond.	Size AWG	Coil O.D.	Nom. O.D.	Std. Pkg.
895	48"	25	1	No. 24 Shielded	⅝"	.160"	10
895A	12"	6'	1	No. 24 Shielded	⅝"	.160"	10
895B	6"	3'	1	No. 24 Shielded	⅝"	.160"	10
896	48"	25'	2	1-No. 23 1-No. 24 Shielded	⅞"	.200"	10
896A	12"	6'	2	1-No. 23 1-No. 24 Shielded	⅞"	.200"	10
897	48"	25'	3	2-No. 23 1-No. 24 Shielded	⅞"	.240"	10
897A	12"	6'	3	2-No. 23 1-No. 24 Shielded	⅞"	.240"	10
899	48"	25'	2	2-No. 24 Shielded	⅞"	.210"	10
899A	12"	6'	2	2-No. 24 Shielded	⅞"	.210"	10
898	48"	25'	4	2-No. 23 2-No. 24 Shielded	1"	.270"	10
898A	12"	6'	4	2-No. 23 2-No. 24 Shielded	1"	.270"	10

Additional conductors and sizes available.

CONDUCTORS ARE COLOR CODED.

© U.C.P., Inc.

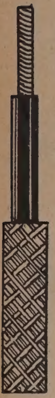
Birnbach

LACING CORD AND TAPES 1000°F HOOK-UP WIRE

BIRNBACH

BIRNBACH BB-1000 HOOK-UP WIRE

Continuous Service at 1000°F



This superior insulation is unharmed at temperatures which cause glass to melt and asbestos to pulverize. This combination of inorganic material offers good abrasion resistance; can be handled without special precautions; does not become carbonaceous, conducting or embrittled at elevated temperatures; offers continuous service at 1000°F, intermittent service up to 1800°F (depending on application), braid and fiberous insulation withstands 2000°F without decomposing or melting.

CABLE IS NOT ADVERSELY AFFECTED BY HIGH INTENSITY NUCLEAR RADIATION.

DESCRIPTION: Each conductor stranded stainless steel clad copper, wall of "Refrasil" fused quartz, color coded (solid colors) available.

Cat. No.	Put-Ups	Size Awg	Strand	Nom. O.D.
7710	1000′	10	105/30	.208″
7710	250′	10	105/30	.208″
7712	1000′	12	65/30	.172″
7712	250′	12	65/30	.172″
7714	1000′	14	41/30	.152″
7714	250′	14	41/30	.152″
7716	1000′	16	26/30	.128″
7716	250′	16	26/30	.128″
7718	1000′	18	19/30	.123″
7718	250′	18	19/30	.123″
7720	1000′	20	10/30	.105″
7720	250′	20	10/30	.105″
7722	1000′	22	7/30	.096″
7722	250′	22	7/30	.096″
7724	1000′	24	4/30	.088″
7724	250′	24	4/30	.088″

ADDITIONAL DATA— Weight: 17 lbs./1000 ft.
Dielectric Strength: 9000 Volts
After 5 hrs. at 1600°F.: 3500 Volts

FLAT BRAIDED LACING TAPE

NYLON

Flat braided Hi-Tenacity Nylon Fiber impregnated with (MW) microcrystalline fungicidal wax Engineered to stay flat. Distributes stress evenly over a wide area. Resistant to fungus, flame, abrasion, acids. Will not cut or damage insulation. Has strength, toughness and stability.

Put up on 500 yards per tube.

Cat. No.		Class	Width	Thickness	Test Lbs.	Yard/Lb
1035	Natural White	—	.200″	.014″	150	250
1035B	Black	—	.200″	.014″	150	250
1036	Natural White	1	.120″	.014″	80	550
1036B	Black	1	.120″	.014″	80	550
1037	Natural White	2*	.090″	.014″	50	750
1037B	Black	2*	.090″	.014″	50	750
1038	Natural White	3	.062″	.010″	30	1500
1088B	Black	3	.062″	.010″	30	1500
1039	Natural White	4	.046″	.010″	15	2400
1039B	Black	4	.046″	.010″	15	2400

DACRON

Flat Braided Hi-Tenacity Dacron Fiber impregnated with special non-slip fungicidal finish Will not cut or damage insulation. Engineered to stay flat—for strength, toughness, stability. Will not cut insulation. **Put up on 500 yards per tube.**

Cat. No.		Width	Thickness	Test Lbs.	Yard/Lb.
1041	Natural White	.120″	.014″	80	450
1041B	Black	.120″	.014″	80	450
1042	Natural White	.090″	.014″	48	600
1042B	Black	.090″	.014″	48	600
1043	Natural White	.060″	.010″	35	850
1043B	Black	.060″	.010″	35	850
1044	Natural White	.046″	.010″	25	1100
1044B	Black	.046″	.010″	25	1100

TEFLON-FIBERGLASS

Flat Braided Fiberglass, teflon coated and bonded for hi-temperature applications (550°F). Engineered to stay flat—for strength, toughness and stability. Teflon finish increases tensile strength and abrasion resistant surface. Will not cut or damage insulation. Color White. **Put up on 500 yards per spool.**

Cat. No.	Width	Thickness	Test Lbs.	Yard/Lb.	
1045	.170″	.025″	150	200	120^{00}
1046	.120″	.020″	90	200	90^{00}
1047	.080″	.020″	70	280	63^{10}

TEFLON*

Flat Braided Teflon for hi-temperature applications (550°F.) Engineered to stay flat. Will not cut or damage insulation. Color: Brown. **Put up on 500 yards per spool.**

Cat. No.	Width	Thickness	Test Lbs.		Yard/Lb.
1048	.100″	.016″	35	162^{00}	325
1049	.075″	.010″	15	90^{00}	700

ROUND NYLON LACING CORDS

This nylon lacing cord manufactured to meet Spec. MIL-T-713A Type P, Composition P, Classes 3, 2, 1. Wax finished—compounded with a fungicide to resist mildew.

Put up on 1 lb. Tubes.

	Cat. Nos. Color Natural	Cat. Nos. Color Black	Yds.	Diam.	Breaking Strength
Class 1	1070	1070B	600	.039″	70 Lbs.
Class 2	1071	1071B	800	.029″	48 Lbs.
Class 3	1072	1072B	1140	.025″	32 Lbs.
Class 4	1072/1	1072/1B	2400	.020″	20 Lbs.

ROUND LINEN LACING CORDS

This linen lacing cord is made from pure flax treated with microcrystalline wax compounded with fungicide to resist mildew. The twelve, eight and six ply cord meet Spec. MIL-T-713A Type N, Classes 1, 2 and 3 respectively. Color: Natural. Also available in Black in 1 lb. Tubes.

4 oz. Tube Cat. No.	4 oz. Tube Yds.	8 oz. Tube Cat. No.	8 oz. Tube Yds.	1 lb. Tubes. Cat. No. Natural	1 lb. Tubes. Cat. No. Black	1 lb. Tubes. Yds.	Class	Ply	Diam.	Lb. Test
1073	210	1074	425	1075	1075B	850	—	4	.036″	22
1076	150	1077	300	1078	1078B	600	3	6	.044″	33
1082	115	1083	235	1084	1084B	470	2	8	.051″	50
1079	100	1080	200	1081	1081B	400	—	9	.054″	56
1085	75	1086	150	1087	1087B	300	1	12	.063″	72

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See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach STEREO MONAURAL WIRE AND CABLE

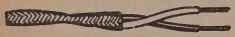
BIRNBACH

NEW STEREO MONAURAL WIRE AND CABLE

The following items were specifically developed for use in recording and playback equipment including all stereo cartrdges; ceramic, magnetic, crystal and tone arms. Designed for extremely low hum and noise pickup. Individual conductors are #32 AWG, 7 strands #40 AWG tinned copper, .010″ wall. Special formulation PVC +80° C to —40° C operation allowing ease of stripping and soldering. When shielded ..#40 AWG tinned copper, 30% coverage for maximum flexibility, minimum weight and diameter and for quick pushback.

TWISTED — UNSHIELDED

CAT NO.	SPOOL	COND.	SIZE AWG	STRAND	NOM. WALL	NOM. O. D.
7571	1000′	1	32	7/40	.010″	.028″
7571	500′	1	32	7/40	.010″	.028″
7572	1000′	2	32	7/40	.010″	.047″
7572	500′	2	32	7/40	.010″	.047″
7573	1000′	3	32	7/40	.010″	.053″
7573	500′	3	32	7/40	.010″	.053″
7574	1000′	4	32	7/40	.010″	.061″
7574	500′	4	32	7/40	.010″	.061″
7575	1000′	5	32	7/40	.010″	.069″
7575	500′	5	32	7/40	.010″	.069″



TWISTED — SHIELDED

CAT NO.	SPOOL	COND.	SIZE AWG	STRAND	NOM. WALL	NOM. O. D.
7581	1000′	1	32	7/40	.010″	.040″
7581	500′	1	32	7/40	.010″	.040″
7582	1000′	2	32	7/40	.010″	.067″
7582	500′	2	32	7/40	.010″	.067″
7583	1000′	3	32	7/40	.010″	.072″
7583	500′	3	32	7/40	.010″	.072″
7584	1000′	4	32	7/40	.010″	.080″
7584	500′	4	32	7/40	.010″	.080″
7585	1000′	5	32	7/40	.010″	.089″
7585	500′	5	32	7/40	.010″	.089″
7580	1000′	2	32 (Ind. Shielded)	7/40	.010″	.080″

CONDUCTOR COLOR CODE: 1-WHITE, 2-RED, 3-BLACK, 4-GREEN, 5-YELLOW.

NEW Sound Cable with "VI-CON" Shield

"VI-CON" Shield is the new Birnbach conductive vinyl plastic shield that provides:

● HI-FLEXIBILITY ● LONG FLEX LIFE ● EASY WORKING ● 100% SHIELDING COVERAGE

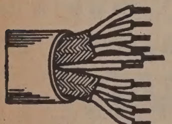
No. 24 Solid Tinned ground wire used for ground termination

Cat. No.	Spool	Conds.	AWG Size No.	Strand	Nom. O.D.
1812	500′	2	22	7/30	.160
1313	500′	2	20	7/28	.190
1814	500′	2	18	16/30	.220

STEREO VOLUME CONTROL CABLE

ESPECIALLY DESIGNED FOR STEREO COIN OPERATED MACHINES

Description: Ten conductors containing 2 quads individually shielded with tinned copper braid; 2 conductors not shielded; chrome vinyl jacket overall.



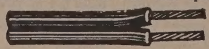
4 Shielded #24 (7 x 32)
4 Shielded #24 (7 x 32)
2 Unshielded #22 (7 x 30)

Cat. No.	Spool	Nom. Jacket	Nom. O.D.
4520	500′	.025″	.325″

CONDUCTOR COLOR CODE: GRAY, WHITE, BLUE, GREEN (SHIELDED), RED, BROWN, YELLOW, ORANGE (SHIELDED), WHITE, BLUE (UNSHIELDED)

JUKE BOX SPEAKER CABLE

Small, compact diamter. Useful. Practical. Ideal for rear auto speaker extension cable



DESCRIPTION:

Composed of 7 strand #32-1 Bare—copper conductor, 1 tinned copper conductor, 2 conductors parallel chrome vinyl plastic insulation.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. O.D.
4500	1000′	2	24	7/32	.015″	.058″ x .115″

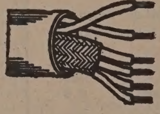
Additional colors available to order.

SHIELDED JUKE BOX CONTROL CABLE

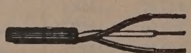
DESCRIPTION.

5 Conductor cable. Three cond. twisted color coded, black, green red with tinned copper shielded braid overall. Two conductor twisted color coded blue, yellow and chrome vinyl jacket overall.

6 Conductor Cable: 4 cond. twisted tinned copper shielded braid, conductor color code black, green, red, yellow; 2 cond. unshielded color code white, blue.



Cat. No.	Spool	Conds.	Size AWG #22	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4515	500′	5	3 (shielded) 2 (unshielded)	7/30	.015″	.020″	.200″x.300″
4516	500′	6	2 unshielded #22 (7 x 30) 4 shielded #24 (7 x 32)		.015″	.025″	.205″x.310″



JUKE BOX CONTROL CABLE

Used as replacement cable in Juke Boxes.

DESCRIPTION:

Two Conductors #16 stranded vinyl insulation tinned copper, color coded green-orange. One conductor #20 stranded tinned copper, vinyl insulation. Color coded Blue; 3 conductors cable with .020″ chrome vinyl plastic jacket overall.

Cat. No.	Spool	Conds.	Size AWG	Strand	Nom. Insul.	Nom. Jacket	Nom. O.D.
4510	500′	3	2—#16 1—#20	26/30 10/30	.020″ .020″	.020″	.240″

See Pages 1620-1625 for Birnbach Prices for Above Items

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Birnbach

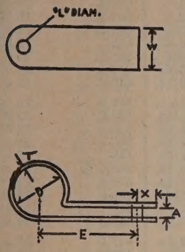
NYLON CABLE • TUBING CLAMPS • PLASTIC CABLE
ALUMINUM CABLE • PUSH BUTTON WIRE TIES
ANTENNA CONTROL ROTOR CABLE

BIRNBACH

NYLON CABLE AND TUBING CLAMPS

MEETS MIL-P-26093

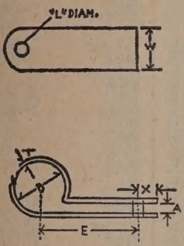
MADE OF DUPONT NYLON FORMULA FM 10001



Used as a clamp, strain relief, clip hanger, fastener, strap, these nylon cable clamps are light and tough. Have smooth, non-abrasive surfaces, rounded edges will not chafe conductors or cause shorts or grounds in cable. Insoluble in solvents, oils, gasoline, alcohol, hydraulic fluids, alkalies, acids. Temperature resistant from -60°F to +300°F. Do not support combustion. Moisture and heat resistant. Inside matte finish surfaces prevent slippage under vibration and are self aligning when tightened by screw. Snaps onto cable. Meets MIL-P-20693 specs. Fungus resistant.

CAT. NO.	PUT-UP	TO FIT SIZE	D	E	W	T	L	X	A
725	100	1/8"	.125	.316	3/8	.050	.177	.227	.062
726	100	3/16"	.187	.378	3/8	.050	.177	.277	.062
727	100	1/4"	.250	.409	3/8	.050	.177	.227	.062
728	100	5/16"	.312	.441	3/8	.050	.177	.277	.062
729	100	3/8"	.375	.471	3/8	.050	.177	.277	.062
730	100	7/16"	.437	.519	3/8	.050	.177	.277	.062
731	100	1/2"	.500	.550	3/8	.050	.177	.277	.062
731A	100	9/16"	.563	.625	1/2	.060	.177	.227	.062
732	100	5/8"	.625	.634	1/2	.060	.177	.227	.062
732A	100	11/16"	.687	.752	1/2	.060	.177	.227	.062
733	100	3/4"	.750	.718	1/2	.060	.177	.227	.062
734	100	7/8"	.875	.760	1/2	.060	.177	.227	.062
735	100	1"	1.000	.802	1/2	.060	.177	.227	.062
736	100	1 1/8"	1.125	.968	1/2	.062	.204	.250	.125
737	100	1 1/4"	1.250	1.156	1/2	.062	.204	.250	.125
738	100	1 1/2"	1.500	1.188	5/8	.070	.204	.250	.125

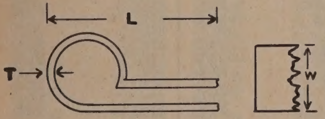
ETHYL CELLULOSE
PLASTIC CABLE AND TUBING CLAMPS



Recommended for general use. They withstand age, shock and vibration. Moisture and corrosion. This tough, lightweight and durable clamp withstands temperatures from —60° to +175° F. Approved 7-21-44 Army-Navy aeronautical AN-742. Approved for inside-outside, hi-tension, primary and secondary. Standard pkge. 100, 1000.

CAT. NO.	TO FIT SIZE	D	E	W	T	L	X	A
715	⅛"	.125	.325	½	.060	.204	7/32	.062
715A	3/16"	.188	.390	½	.060	.204	7/32	.062
715B	¼"	.250	.421	½	.060	.204	7/32	.062
715C	5/16"	.313	.457	½	.060	.204	7/32	.062
715D	⅜"	.375	.483	½	.060	.204	7/32	.062
715E	7/16"	.438	.531	½	.060	.204	7/32	.062
716	½"	.500	.562	½	.060	.204	7/32	.062
716A	9/16"	.563	.625	½	.060	.204	7/32	.062
716B	⅝"	.625	.610	½	.060	.204	7/32	.062
716C	11/16"	.688	.666	½	.060	.204	7/32	.062
716D	¾"	.750	.766	½	.060	.204	7/32	.062
716E	⅞"	.875	.813	½	.060	.204	7/32	.062
717	1"	1.000	.906	½	.060	.204	7/32	.062
717A	1⅛"	1.125	.969	½	.060	.204	7/32	.062
717B	1¼"	1.250	1.156	½	.060	.204	7/32	.062
717C	1½"	1.5	1.0625	⅝	.070	.204	7/32	.062
717D	2"	2.0	1.313	⅝	.070	.204	7/32	.062
717E	2½"	2.5	1.563	⅝	.070	.204	7/32	.062

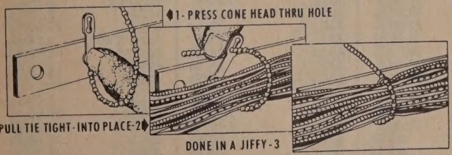
BIRNBACH ALUMINUM CABLE AND TUBING CLAMPS



These Tube Clamps are made of hard drawn aluminum and are found to be extremely desirable when mounting resonant lines, or elements of directive beam antennas. The ⅛'' thru ⅝'' clamps have a clearance for No. 10 Screw. The ¾'' to the 1¼'' clamps have a clearance for ¼'' bolts.

Cat. No.	To Fit Tube	Width "W"	Length "L"	Thickness "T"	Std. Pkg.
51A	⅛"	½"	13/16"	.050"	100
51	¼"	½"	⅞"	.050"	100
52	5/16"	½"	15/16"	.050"	100
53	⅜"	½"	1"	.050"	100
54	½"	½"	1⅛"	.050"	100
54A	⅝"	½"	1¼"	.050"	50
55	¾"	¾"	1 9/16"	.090"	50
57	⅞"	¾"	1⅝"	.090"	50
56	1"	¾"	1¾"	.090"	50
56A	1⅛"	¾"	1⅞"	.090"	50
56B	1¼"	¾"	2"	.090"	50

PUSH BUTTON WIRE TIES (PAT. PENDING)



Push Button Wire Ties useful for harnessing wires fast; saves labor; eliminates screws and usual time required for string tying. Measures 4½" in length and is adjustable to 30 different diameters. Insert the tie in the hole for anchoring; wires can be replaced or added by loosening the tie and pulling tight again. Constructed of tough Polyethylene; chemically inert, heat resistant; breaking point 45 to 95 lbs. Push button ties are designed to fit a .250"—.265" hole in a .031 to .140 thick panel.

Cat. No.	Color (Specify)	Std Pkge
PBT-4	Red, Blue, Yellow	100, 1000

MATERIAL CONFORMS TO SPEC. LP 590

ANTENNA CONTROL ROTOR CABLE

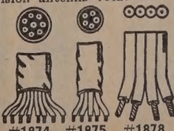
Developed for remote control of television antenna rotators.

DESCRIPTION:

#1874—4 Conductors flat parallel polyethylene plastic insulation — One outer conductor tinned, balance bare copper.

#1875 — 5 Conductors twisted, color coded. Vinyl plastic jacket overall.

#1878 — 8 Conductors twisted, colo coded. Vinyl plastic jacket overall.



Cat. No.	Spool	Cond.	Size AWG	Strand	Nom. O.D.
1874	1000'	4	20	7/28	.072" x .390"
1874A	500'	4	20	7/28	.072" x .390"
1875	1000'	5	20	7/28	.180"
1875A	500'	5	20	7/28	.180"
1878	1000'	8	22	7/30	.205".
1878A	500'	8	22	7/30	.205"

CONDUCTOR COLOR CODE CHART FOR #1875, #1878

1—Black
2—White
3—Red
4—Green
5—Yellow
6—Blue
7—Brown
8—Orange

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See Pages 1620-1625 for Birnbach Prices for Above Items

Birnbach PRICE LIST

Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price
00-C	$ 11.10/C	91-E	$11.61/Ea.	204	$ .39/Ea.	302	$ .27/Ea.	365-BC-C	$82.80/Ea.	443	$14.40/C
1-50	.40/Ea.	92-M	15.99/Ea.	204-A; 204-H	2.25/Ea.	302-V 10′	.93/Ea.	366	10.20/C	443-A	14.40/C
1-C	.79/Ea.	93-M	17.85/Ea.	205	.39 Ea.	302-VC-C	7.92/Ea.	367	13.20/C	444	12.60/C
1-M	6.44/M	94-M	19.47/Ea.	205-H	2.25 Ea.	303	.45/Ea.	368	1.50/C	444-A	15.00/C
2-50	.40/Ea.	95-M	21.78/Ea.	206	.39/Ea.	303-VC-C	15.00/Ea.	369	1.50/C	444-B	15.00/C
2-C	.79/Ea.	96-40	.40/Ea.	206-A	2.25/Ea.	304	.54/Ea.	370	3.00/C	444-C	18.00/C
2-M	6.44/M	96-C	.79/Ea.	206-H	2.25/Ea.	304-VC-C	18.00/Ea.	371	1.80/C	445	12.60/C
3-50	.40/Ea.	96-M	7.10/M	207	.39/Ea.	305-V 10′	1.05/Ea.	372	1.50/C	445-A	15.00/C
3-C	.79/Ea.	97-40	.40/Ea.	207-H	2.25/Ea.	305-VC-C	8.55/Ea.	373	3.90/C	445-B	18.00/C
3-M	6.44/M	97-C	.79/Ea.	208	.39/Ea.	306-V 10′	1.11/Ea.	377	.29/Ea.	445-C	18.00/C
3A-M	6.44/Ea.	97-M	7.10/M	208-H	2.25 Ea.	306-VC-C	10.95/Ea.	378	.38/Ea.	445-D	20.40/C
4-M	24.75/M	98-35	.40/Ea.	209	.39/Ea.	307	.18/Ea.	379	.41/Ea.	445-E	23.40/C
5-M	33.00/M	98-C	.99/Ea.	209-H	2.25/Ea.	307-V 20′	1.11/Ea.	380-C	2.08/Ea.	445-F	27.60/C
6-C	7.92/C	98-M	8.25/M	212-A	2.25/Ea.	307-VC-C	5.40/Ea.	381-C	2.31/Ea.	445-G	32.40/C
8	8.25/C	99-35	.40/Ea.	220	4.80/Ea.	308-B 25′	.45/Ea.	382-C	2.31/Ea.	446	15.60/C
10	8.25/C	99-C	.92/Ea.	220-A	4.05/Ea.	308-BC-C	1.65/Ea.	383-C	2.55/Ea.	446-A	14.25/C
11	11.55/C	99-M	8.25/M	221	1.08/Ea.	309	1.02/Ea.	384-C	2.85/Ea.	446-B	23.40/C
15	4.62/C	100-20	4.40/Ea.	221-A	.84/Ea.	310	10.80/C	385-C	3.15/Ea.	446-C	27.60/C
16	16.50/C	100-C	1.48/Ea.	226	2.40/Ea.	310-B	21.00/C	386-C	3 84/Ea.	447	14.25/C
17	36.00/C	100-M	13.20/M	231-MC	21.00/C	310-C	13.80/C	387-C	4.56/Ea.	447-B	38.40/C
18	60.00/C	102	.54/Ea.	232-FC	31.80/C	310-S	11.40/C	388-C	6.18/Ea.	447-D	47.40/C
19	.27/Ea.	103	.54/Ea.	233-C	22.80/C	311-B 25′	.45/Ea.	389-C	6.54/Ea.	447-E	53.40/C
20	.54/Ea.	104	.90/Ea.	234-CLC	36.00/C	311-BC-C	1.65/Ea.	391	15.00/C	448	20.01/C
20-A	.45/Ea.	105	.90/Ea.	239-FC2	3.72/Ea.	312	1.20/Ea.	392	46.20/C	449	33.00/C
21-35	.40/Ea.	106	.54/Ea.	245-MFC	3.72/Ea.	313	.10/Ea.	392-A	33.00/C	450	.35/Ea.
21-C	.99/C	107	.90/Ea.	246	24.00/C	313-B 25′	.45/Ea.	392-B	66.00/C	450-J	.43/Ea.
21-M	8.25/M	108	1.23/Ea.	248	4.80/C	313-BC-C	1.65/Ea.	393	42.00/C	451	.43/Ea.
22-15	.40/Ea.	109	1.65 Ea.	248-S	4.80/C	314	.10/Ea.	393-A	42.00/C	451-J	.46/Ea.
22-C	2.11/C	110	2.25/Ea.	249	6.60/C	314-B 25′	.45/Ea.	394	30.00/C	452	.46/Ea.
22-M	19.47/M	113	75.00/C	251	48.00/C	314-BC-C	1.65/Ea.	395	30.00/C	452-J	.60/Ea.
23	9.60/C	114	6.60/C	252	72.00/C	315	.11/Ea.	396	30.00/C	453	.82/Ea.
24	10.20/C	115	7.20/C	253	66.00/C	315-B 25′	.45/Ea.	396-B	54.00/C	453-J	.95/Ea.
26	10.20/C	116	7.80/C	257	30.00/C	315-BC-C	1.65/Ea.	397	33.00/C	454	1.08/Ea.
27	6.60/C	117	16.50/C	258	34.20/C	316 10′	.11/Ea.	397-B	57.00/C	454-J	1.28/Ea.
27-C	12.60/C	118	15.00/C	259	36.00/C	316-B 25′	.48/Ea.	398	30.00/C	455	18.00/C
27-R	11.70/C	119	13.20/C	260	45.00/C	316-BC-C	1.80/Ea.	398-B	51.00/C	455-BC	24.00/C
28	6.60/C	120	1.65/Ea.	263-C	5.40/Ea.	317	.11/Ea.	399	30.00/C	457	.45/Ea.
29	10.20/C	121	.36/Ea.	263-E	26.70/Ea.	317-B 25′	.48/Ea.	399-A	33.00/C	458	.19/Ea.
30	21.69/C	122	.54/Ea.	263-M	53.40/Ea.	317-BC-C	1.80/Ea.	400	15.00/C	462	.16/Ea.
31	9.00/C	123	.60/Ea.	264-C	6.96/Ea.	318 10′	.24/Ea.	400-A	15.00/C	463	.30/Ea.
31-C	12.60/C	124	.69/Ea.	264-E	34.50/Ea.	318-B 15′	.45/Ea.	400-B	24.00/C	464	.24/Ea.
31-MB	6.60/C	125	1.65/Ea.	264-M	69.00/Ea.	318-BC-C	2.82/Ea.	401	15.00/C	465	18.00/C
31-MC	9.00/C	126	1.38/Ea.	265-C	8.40/Ea.	319	.27/Ea.	401-B	24.00/C	465-B	30.00/C
31-MS	8.40/C	127	1.65/Ea.	265-E	41.70/Ea.	319-B 10′	.45/Ea.	402	2.64/C	466	18.00/C
31-R	6.60/C	128	2.01/Ea.	265-M	83.40/Ea.	319-BC-C	4.05/Ea.	402-A	3.30/C	466-A	24.00/C
31-S	9.60/C	130	.42/Ea.	266-C	9.78/Ea.	320	.30/Ea.	402-B	6.90/C	467	30.00/C
32	1.80/C	131	.51/Ea.	266-E	48.60/Ea-	320-B 10′	.45/Ea.	403	10.20/C	467-B	42.00/C
32-A	1.35/C	132	.24/Ea.	266-M	97.20/Ea.	320-BC-C	4.05/Ea.	404	21.00/C	468	.33/Ea.
33	8.40/C	133	.27/Ea.	267-C	11.10/Ea.	321	.36/Ea.	404-A	18.00/C	469	.36/Ea.
34	.84/Ea.	134	.36/Ea.	267-E	54.60/Ea	321-BC-C	5.10/Ea.	404-B	27.00/C	470	.60/Ea.
35	.84/Ea.	135	.27/Ea.	267-M	109.20/Ea	322	.39/Ea.	404-BC	36.00/C	471	.84/Ea.
36	.84/Ea.	136	.21/Ea.	268-C	12.30/Ea-	322-BC-C	8.40/Ea.	404-CB	30.00/C	472	.27/Ea.
37	.84/Ea.	149	4.05/Ea.	268-E	61.20/Ea.	323	.60/Ea.	404-S	18.00/C	473	.14/Ea.
38	.84/Ea.	151	.36/Ea.	268-M	122.40/Ea.	323-BC-C	13.50/Ea.	405	.099	474	.12/Ea.
39	.84/Ea.	155-H	27.00/Ea.	269-C	14.25/Ea.	324	.66/Ea.	406	13.20/C	475	.88/Ea.
40	.84/Ea.	156-E	10.80/Ea.	269-E	70.95/Ea.	324-BC-C	16.50/Ea.	407	13/20/C	476	.66/Ea.
41	.84/Ea.	157-E	15.00/Ea.	269-M	141.90/Ea.	325	.21/Ea.	408	1.89/Ea.	478	.27/Ea.
42	4.20/C	158-E	19.50/Ea.	270-C	15.75/Ea.	325-B 15′	.45/Ea.	409	15.00/C	478-J	.32/Ea.
43	4.80/C	159-E	24.75/Ea.	270-E	78.45/Ea.	325-BC-C	2.64/Ea.	410	.33/Ea.	479	.47/Ea.
44	6.00/C	160-E	30.00/Ea.	270-M	156.90/Ea.	326	.24/Ea.	411	.79/Ea.	479-J	.57/Ea.
45	.84/Ea.	161-E	33.00/Ea.	272-C	19.53/Ea.	326-B 15′	.45 Ea.	412	19.80/C	480-E	10.23/Ea.
46	8.40/C	162-D	18.00/Ea.	272-E	97.35 Ea.	326-BC-C	3.00/Ea.	413	1.05/Ea.	481-E	11.49/Ea.
47	.84/Ea.	163-D	21.00/Ea.	272-M	194.70/Ea.	327-BC-C	17.40/Ea.	414	15.00/C	482-E	11.49/Ea.
48	20.10/C	164-D	24.00/Ea.	274	36.00/C	328-BC-C	48.00/Ea.	415	15.00/C	483-E	12.72/Ea.
49	.84/Ea.	165-D	28.50/Ea.	275	42.00/C	329-BC-C	64.95/Ea.	416	13.20/C	484-E	14.19/Ea.
51	10.50/C	165/15	36.00/Ea.	276	42.00/C	330	15.00/C	417	.33/Ea.	485-E	15.60/Ea.
51-A	10.50/C	166	1.20/Ea.	278	24.00/C	330-A	13.20/C	418	.36/Ea.	486-E	17.43/Ea.
52	10.50/C	172-C	5.10/Ea.	279	18.00/C	331	15.00/C	419	24.00/C	487-E	18.15/Ea.
53	10.50/C	172-E	25.50/Ea.	280-25′	.48/Ea.	331-A	10.20/C	420	.87/Ea.	488-E	29.04/Ea.
54	10.50/C	172-M	51.00/Ea.	281-25′	.54/Ea.	332	10.80/C	420-A	13.20/C	489-E	32.01/Ea.
54-A	10.80/C	173-C	7.05/Ea.	282-25′	.54/Ea.	332-A	1.20/C	421	.87/Ea.	490-C	1.89/Ea.
55	12.00/C	173-E	35.25/Ea.	283-25′	.60/Ea.	333	16.20/C	422	.87/Ea.	490-M	18.90/Ea.
56	13.50/C	173-M	70.50/Ea.	287	.29/Ea.	334	33.00/C	423	.87/Ea.	490-A-C 50′	2.83/Ea.
56-A	18.00/C	174-C	9.60/Ea.	288	7.35/Ea.	335	39.00/C	426	16.20/C	490-B-CC	3.78/Ea.
56-B	19.50/C	174-E	48.00/Ea.	289-VC-C	3.60/Ea.	336	39.00/C	426-A	16.20/C	492-C	2.76/Ea.
57	13.50/C	174-M	96.00/Ea.	290-VC-C	3.60/Ea.	337	42.00/C	430	.22/Ea.	492-M	27.60/Ea.
58	.90/Ea.	175-C	11.25/Ea.	291	.13/Ea.	340	6.60/C	431	.26/Ea.	492-A-C 50′	4.14/Ea.
59	1.08/Ea.	175-E	56.25/Ea.	291-V 25′	1.14/Ea.	341	39.00/C	431-J	.38/Ea.	492-B-CC	5.52/Ea.
61-C	2.40/Ea.	175-M	112.50/Ea.	291-VC-C	3.96/Ea.	341-B	60.00/C	432	.48/Ea.	493-C	2.70/Ea.
62-E	10.50/Ea.	176-C	12.60/Ea.	293	.13/Ea.	342	285.00/C	432-J	.75/Ea.	493-M	27.00/Ea.
62-M	21.00/Ea.	176-E	63.00/Ea.	293-V 25′	1.17/Ea.	342-B	315.00/C	433	.94/Ea.	495-C	3.00/Ea.
64	.84/Ea.	176-M	126.00/Ea.	293-VC-C	4.23/Ea.	343	.36/Ea.	433-J	1.35/Ea.	495-M	30.00/Ea.
65	1.50/Ea.	177-C	13.90/Ea.	294	.13/Ea.	343-A	12.00/C	434	2.10/Ea.	497-C	4.74/Ea.
66-C	3.30/Ea.	178-C	19.50/Ea.	294-V 25′	1.20/Ea.	344	.33/Ea.	435	1.59/Ea.	497-M	47.40/Ea.
67-E	15.30/Ea.	179-C	22.50/Ea.	294-VC-C	4.50/Ea.	345	.36/Ea.	436	.36/Ea.	499-C	8.76/Ea.
67-M	30.60/Ea.	180-C	24.00/Ea.	295	.13/Ea.	345-A	15.00/C	437	.39 Ea.	499-M	83-40/Ea.
68-C	4.50/Ea.	182-C	28.80/Ea.	295-V 25′	1.23/Ea.	346	1.80/Ea.	438	.45/Ea.	501	2.52/Ea.
69-E	21.00/Ea.	184	16.20/C	295-VC-C	4.65/Ea.	347	2.16/Ea.	439	.24/Ea.	503	2.34/Ea.
69-M	42.00/Ea.	185	13.80/C	296	1.26/Ea.	348	1.20/Ea.	440	15.00/C	505	2.01/Ea.
72-C	1.56/Ea.	186	15.00/C	296-VC-C	36.00/Ea.	350	1.20/Ea.	440-A	17.40/C	506	.23/Ea.
73-C	1.83/Ea.	193	9.00/M	297	.29/Ea.	351	1.20/Ea.	440-B	20.40/C	507	.24/Ea.
76-M	14.19/Ea.	194; 195	9.00/MEa.	298	.33/Ea.	352	1.20 Ea.	440-C	23.40/C	508	.25/Ea.
77-M	16.02/Ea.	196; 197	10.80/MEa.	299	1.05/Ea.	353	1.20/Ea.	440-D	25.20/C	510	.24/Ea.
84-C	1.83/Ea.	200	6.00/M	299-VC-C	30.00/Ea.	354	6.00/Ea.	440-E	27.60/C	511	.24/Ea.
85-C	2.01/Ea.	201-35	.40/Ea.	300	.13/Ea.	359	1.20/Ea.	440-F	29.40/C	512	.24/Ea.
86-C	2.19/Ea.	201-100	.92/Ea.	300-V 25′	1.29/Ea.	360-BC-C	19.50/Ea.	441	10.35/C	514	.23/Ea.
87-C	2.40/Ea.	201-1000	8.25/M	300-VC-C	5.01/Ea.	361-BC-C	21.00/Ea.	441-A	10.35/C	515	.23/Ea.
88-E	9.09/Ea.	202	5.10/M	301	.24/Ea.	362-BC-C	13.50/Ea.	441-B	10.35/C	516	.25/Ea.
89-E	10.23/Ea.	203	.39/Ea.	301-V 15′	1.17/Ea.	363-BC 50′	18.00/Ea.	442	12.60/C	518	.24/Ea.
90-E	10.38/Ea.	203-A; 203-H	2.25/Ea.	301-VC-C	6.60/Ea.	364-BC-C	76.50/Ea.	442-A	13.20/C	519	.25/Ea.

Net

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Birnbach PRICE LIST

Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price
520	$ .29/Ea.	632	$15.00/C	716-C	$ 4.80/C	774-C	$12.60/Ea.	833-M	$52.50/Ea.	881/3	$ 5.49/Ea.
521	.30/Ea.	633	15.00/C	716-C	42.60/M	774-D	29.70/Ea.	834-C	6.60/Ea.	882	4.05/Ea.
522	.34/Ea.	634	15.00/C	716-D	5.10/C	774-E	58.50/Ea.	834-E	31.50/Ea.	882/3	6.06/Ea.
523	.45/Ea.	635	15.00/C	716-D	44.40/M	774-M	117.00 Ea.	834-M	63.00/Ea.	885	3.30/Ea.
524-C	6.00/Ea.	636	15.00/C	716-E	5.40/C	774/18-C	20.70/Ea.	835-C	8.40/Ea.	886	3.75/Ea.
524-M	56.10/Ea.	647	.84/Ea.	716-E	48.00/M	774/18-D	51.00/Ea.	835-E	39.60/Ea.	887; 888	4.35/Ea.
526-C	4.50/Ea.	650	.30/Ea.	717	5.70/C	774/18-E	102.00/Ea.	835-M	78.00/Ea.	889	5.40/Ea.
526-M	40.95/Ea.	653-8	.87/Ea.	717	51.60/M	774/18-M	202.80/Ea.	853-C	3.15/Ea.	889/3	6.90/Ea.
527-C	13.05/Ea.	653-12	.93/Ea.	717-A	6.00/C	775-C	15.60/Ea.	853-E	15.00/Ea.	889/4	8.16/Ea.
527-M	126.75/Ea.	653-24	.99/Ea.	717-A	54.60/M	775-D	36.00/Ea.	853-M	29.10/Ea.	890	5.70/Ea.
528-C	19.50/Ea.	653-36	1.05/Ea.	717-B	6.30/C	775-E	72.00/Ea.	854-C	3.15/Ea.	891	5.01/Ea.
528-M	191.40/Ea.	655-8	.90/Ea.	717-B	58.20/M	775-M	144.00/Ea.	854-E	15.00/Ea.	891/3	8.70/Ea.
529-C	30.96/Ea.	655-12	.90/Ea.	717-C	13.50/C	776-C	18.60/Ea.	854-M	29.10/Ea.	891/4	8.85/Ea.
529-M	293.40 Ea.	655-24	.96/Ea.	717-C	108.00/M	776-D	43.80/Ea.	855-50′	1.74/Ea.	893	15.00/Ea.
531	16.20/C	655-36	1.02/Ea.	717-D	14.70/C	776-E	87.00/Ea.	855-C	3.30/Ea.	893/3	16.20/Ea.
531-A	24.00/C	663	13.68/Ea.	717-D	120.00/M	776-M	174.00/Ea.	855-E	15.39/Ea.	893/4	18.60/Ea.
532; 533	16.20/C	664	11.70/Ea.	717-E	16.80/C	777-C	20.40/Ea.	855-M	30.00/Ea.	894	19.20/Ea.
534	16.20/C	666	11.10/C	717-E	144.00/M	777-D	48.00/Ea.	856 50′	15.00/Ea.	894/3	21.60/Ea.
535	16.20/C	667	27.00/Ea.	725-C	3.90/Ea.	777-E	95.70/Ea.	856-C	29.10/Ea.	894/4	24.60/Ea.
536	16.20/C	668	.21/Ea.	725-E	17.55/Ea.	777-M	191.40/Ea.	856-E	144.60/Ea.	895	7.65/Ea.
537	16.20/C	669	10.80/C	725-M	34.80/Ea.	778-C	24.00/Ea.	856-M	297.10/Ea.	895-A	2.10/Ea.
538	19.80/C	675	57.00/C	726-C	4.50/Ea.	778-D	58.50/Ea.	856/1 50′	16.80/Ea.	895-B	1.20/Ea.
538-A	18.00/C	676	63.00/C	726-E	20.25/Ea.	778-E	117.00/Ea.	856/1-C	32.40/Ea.	896	15.90/Ea.
539	19.80/C	677	72.00/C	726-M	40.20/Ea.	778-M	231.00/Ea.	856/1-E	159.00/Ea.	896-A	4.50/Ea.
540	.20/Ea.	678	81.00/C	727-C	5.70/Ea.	778/10-C	33.00/Ea.	856/1-M	315.00/Ea.	897	16.65/Ea.
541	.40/Ea.	681-C	.87/Ea.	727-E	22.95/Ea.	778/10-D	84.00/Ea.	856/2 50′	28.20/Ea.	897-A	4.65/Ea.
542	.30/Ea.	690-D	16.26/Ea.	727-M	45.60/Ea.	778/10-E	165.00/Ea.	856/2-C	54.30/Ea.	898	17.10/Ea.
543	.15/Ea.	690/3-D	25.20/Ea.	728-C	5.37/Ea.	778/10-M	327.00/Ea.	856/2-E	216.00/Ea.	898-A	5.22/Ea.
544	.30/Ea.	691-D	19.50/Ea.	728-E	24.15/Ea.	781-C	14.10/Ea.	856/2-M	426.00/Ea.	899	16.95/Ea.
545	.36/Ea.	692-D	27.00/Ea.	728-M	48.00/Ea.	786	18.00/Ea.	856/3 50′	42.30/Ea.	899-A	6.75/Ea.
546	24.00/Ea.	692/4-D	41.70/Ea.	729-C	5.61/Ea.	787	25.80/Ea.	856/3-C	84.15/Ea.	901-E	81.00/Ea.
546-A	.24/Ea.	693-D	25.05/Ea.	729-E	25.20/Ea.	788-C	7.50/Ea.	856/3-D	210.00/Ea.	902-E	120.00/Ea.
547	33.00/Ea.	693/3-D	31.50/Ea.	729-M	50.40/Ea.	788-D	18.30/Ea.	856/3-E	420.00/Ea.	903-E	75.00/Ea.
550	.15/Ea.	693/4-D	49.20/Ea.	730-C	5.94/Ea.	788-E	36.00/Ea.	856/3-M	840.00/Ea.	904-DS	120.00/Ea.
550-A	.15/Ea.	694-D	31.50/Ea.	730-E	27.00/Ea.	788-M	72.00/Ea.	856/4 50′	51.90/Ea.	904-DSF	126.00/Ea.
550-B	.18/Ea.	694/3-D	37.50/Ea.	730-M	54.00/Ea.	789-D	18.30/Ea.	856/4-C	103.65/Ea.	904-F-E	78.00/Ea.
550-C	.18/Ea.	694/4-D	57.00/Ea.	731-C	6.30/Ea.	790-C	8.55/Ea.	856/4-D	258.90/Ea.	905-M	58.35/Ea.
551	.33/Ea.	695-D	35.40/Ea.	731-E	28.50/Ea.	790-D	21.15/Ea.	856/4-E	517.20/Ea.	906-M	58.20/Ea.
552	.39/Ea.	695/3-D	45.54/Ea.	731-M	57.00/Ea.	790-E	41.40/Ea.	856/4-M	1034.10/Ea.	907-M	66.00/Ea.
553	.45/Ea.	695/4-D	68.40/Ea.	731A-C	7.80/Ea.	790-M	82.80/Ea.	856/6 50′	79.20/Ea.	909-M	100.50/Ea.
554	.60/Ea.	696-D	51.00/Ea.	732-C	8.40/Ea.	791-D	21.15/Ea.	856/6-C	156.00/Ea.	910-M	58.20/Ea.
555	1.50/Ea.	696/3-D	73.20/Ea.	732-E	37.80/Ea.	792-C	10.40/Ea.	856/7 50′	128.40/Ea.	912-E	126.00/Ea.
556	1.17/Ea.	696/4-D	104.10/Ea.	732-M	75.00/Ea.	792-D	25.50/Ea.	856/7-C	234.00/Ea.	914-M	90.00/Ea.
557	1.50/Ea.	697-D	73.50/Ea.	732A-C	9.00/Ea.	792-E	50.10/Ea.	857 50′	14.40/Ea.	916-M	120.00/Ea.
558	.57/Ea.	697/3-D	91.50/Ea.	733-C	9.00/Ea.	792-M	100.20/Ea.	857-C	28.20/Ea.	919-E	25.50/Ea.
559	.87/Ea.	697/4-D	132.00/Ea.	733-E	40.50/Ea.	793-D	25.50/Ea.	857-E	139.00/Ea.	920-M	51.00/Ea.
559-A	.48/Ea.	698-D	97.50/Ea.	733-M	81.00/Ea.	794-C	12.39/Ea.	857-M	277.80/Ea.	921-M	26.10/Ea.
560	1.50/Ea.	698/3-D	136.50/Ea.	734-C	9.60/Ea.	794-D	30.39/Ea.	858 50′	1.95/Ea.	921/3-M	40.20/Ea.
561	1.50/Ea.	698/4-D	167.40/Ea.	734-E	43.20/Ea.	794-E	60.00/Ea.	858-C	3.90/Ea.	922-M	35.70/Ea.
562	3.96/Ea.	700-C	.75/Ea.	734-M	86.40/Ea.	794-M	120.00/Ea.	858-E	18.30/Ea.	922/3-M	53.10/Ea.
564	2.91/Ea.	701-D	12.60/Ea.	735-C	10.50/Ea.	795-D	30.39/Ea.	858-M	36.60/Ea.	923-C	5.70/Ea.
569-E	12.60/Ea.	701/3-D	20.70/Ea.	735-E	47.25/Ea.	796-C	15.90/Ea.	859 50′	2.10/Ea.	923-E	27.00/Ea.
570-C	3.36/Ea.	702-D	26.40/Ea.	735-M	94.50/Ea.	796-D	37.20/Ea.	859-C	4.05/Ea.	923-M	46.50/Ea.
572-D	7.80/Ea.	702/3-D	37.20/Ea.	736-C	12.00/Ea.	796-E	75.00/Ea.	859-E	19.80/Ea.	923/3-M	72.00/Ea.
573-E	15.00/Ea.	702/4-D	51.00/Ea.	736-E	54.00/Ea.	796-M	149.10/Ea.	859-M	38.70/Ea.	923-Q	1.95/Ea.
574-D	15.15/Ea.	703-D	30.00/Ea.	736-M	108.00/Ea.	797-D	37.20/Ea.	860 50′	2.67/Ea.	924-C	5.10/Ea.
575-D	21.60/Ea.	703/3-D	45.00/Ea.	737-C	13.80/Ea.	798-C	19.50/Ea.	860-C	5.34/Ea.	924-E	24.00/Ea.
574/4-D	32.22/Ea.	703/4-D	60.00/Ea.	737-E	60.00/Ea.	798-D	47.64/Ea.	860-E	26.55/Ea.	924-M	47.40/Ea.
578-D	20.40/Ea.	704-D	47.70/Ea.	737-M	120.00/Ea.	798-E	93.75/Ea.	860-M	53.10/Ea.	924-Q	1.95/Ea.
578/3-D	27.90/Ea.	704/3-D	70.50/Ea.	738-C	28.80/Ea.	798-M	187.50/Ea.	863 50′	3.15/Ea.	925-C	6.75/Ea.
578/4-D	44.10/Ea.	704/4-D	102.00/Ea.	738-E	129.00/Ea.	799-C	12.00/Ea.	863-C	6.30/Ea.	925-E	31.80/Ea.
580-M	19.20/Ea.	705-D	67.50/Ea.	738-M	258.00/Ea.	800-C	16.50/Ea.	863-E	30.00/Ea.	925-M	63.00/Ea.
581-M	21.12/Ea.	705/3-D	96.00/Ea.	740-C	.66/Ea.	802-D	15.84/Ea.	863-M	60.00/Ea.	925-Q	2.19/Ea.
582-M	22.20/Ea.	705/4-D	120.00/Ea.	749-C	20.70/Ea.	803-D	13.20/Ea.	864 50′	4.95/Ea.	931-E	6.60/Ea.
583-M	23.76/Ea.	706-D	94.80/Ea.	749-E	99.00/Ea.	810-E	23.40/Ea.	864-C	9.90/Ea.	931-M	12.60/Ea.
584-M	25.41/Ea.	706/3-D	126.00/Ea.	749-M	198.00/Ea.	811	1.35/Ea.	864-E	48.00/Ea.	931-C	2.25 Ea.
585-M	32.01/Ea.	706/4-D	147.00/Ea.	749/10-C	33.00/Ea.	812	45.00/C	864-M	96.00/Ea.	932-E	10.50/Ea.
586-M	32.01/Ea.	710-C	7.80/Ea.	749/10-E	122.10/Ea.	813	10.05/C	865 50′	6.90/Ea.	932-M	21.00/Ea.
587-M	36.30/Ea.	710-D	19.20/Ea.	749/10-M	243.00/Ea.	814	9.00/C	865-C	13.80/Ea.	933-E	11.25/Ea.
588-M	57.60/Ea.	710-E	38.40/Ea.	756-C	13.50/Ea.	814T	.54/Ea.	865-E	66.00/Ea.	933-M	22.50/Ea.
589-M	63.90/Ea.	710-M	73.20/Ea.	756-E	60.00/Ea.	815	.50/C	865-M	132.00/Ea.	933-C	2.37/Ea.
590	18.00/C	710-F	180.00/Ea.	757-M	126.00/Ea.	816	.34/Ea.	865/1 50′	14.40/Ea.	934-E	14.10/Ea.
591	21.00/C	712-C	5.10/Ea.	762	12.00/C	817	.43/Ea.	865/1-C	26.10/Ea.	934-M	28.20/Ea.
592	18.00/C	712-D	12.00/Ea.	763-3	18.00/Ea.	818-C	8.76/Ea.	865/1-E	138.00/Ea.	935-E	9.00/Ea.
593	.90/C	712-E	24.00/Ea.	763-5	22.80/Ea.	818-E	43.80/Ea.	865/1-M	274.80/Ea.	935-M	18.00/Ea.
595	15.00/C	712-M	46.80/Ea.	763-7	51.00/Ea.	818-M	87.60/Ea.	866	.159/Ea.	936-E	9.00/Ea.
597	7.20/C	712-F	116.25/Ea.	764	.21/Ea.	819	.45/Ea.	866-J	.21/Ea.	936-M	18.00/Ea.
598	6.60/C	714-C	3.06/Ea.	765	.54/Ea.	820-C	7.59/Ea.	866-SJ	.49/Ea.	938-C	6.90/Ea.
600	13.20/C	714-D	7.50/Ea.	766	.35/Ea.	820-E	37.95/Ea.	867	.25/Ea.	938-E	29.28/Ea.
601	30.00/C	714-E	15.00/Ea.	766-J	.53/Ea.	820-M	75.90/Ea.	867-J	.32/Ea.	938-M	58.41/Ea.
603	24.00/C	714-M	29.10/Ea.	768	.42/Ea.	822-E	26.40/Ea.	868 50′	6.00/Ea.	938-Q	1.65/Ea.
604	18.00/C	714-F	71-10/Ea.	769	.84/Ea.	824-E	31.35/Ea.	868-C	11.85/Ea.	939-C	5.55/Ea.
605	24.00/C	715	2.34/C	770	1.50/Ea.	825-E	18.96/Ea.	868-E	57.60/Ea.	939-E	25.50/Ea.
606	18.00/C	715	19.20/M	771	10.05/Ea.	826-M	45.00/Ea.	868-M	115.20/Ea.	939-M	52.50/Ea.
607	54.00/C	715-A	2.40/C	772-C	8.85/Ea.	826/26-E	24.00/Ea.	870-C	6.60/Ea.	939-Q	1.77/Ea.
608	60.00/C	715-A	19.80/M	772-D	21.45/Ea.	826/28-E	25.50/Ea.	870-D	15.90/Ea.	940-C	26.70/Ea.
609	66.00/C	715-B	2.58/C	772-E	42.75/Ea.	826/30-E	26.40/Ea.	870-E	31.50/Ea.	940/1-E	21.00/Ea.
610	72.00/C	715-B	21.60/M	772-M	85.50/Ea.	827-E	30.00/Ea.	870-M	61.80/Ea.	941-E	21.00/Ea.
611	13.50/C	715-C	2.85/C	772/18-C	12.00/Ea.	828-E	44.40/Ea.	872-C	8.10/Ea.	941/1-E	17.70/Ea.
613	9.00/C	715-C	24.00/M	772/18-D	27.40/Ea.	829-E	54.60/Ea.	872-D	19.50/Ea.	942-E	21.90/Ea.
616	.84/Ea.	715-D	3.00/C	772/18-E	57.00/Ea.	830-E	96.00/Ea.	872-E	38.28/Ea.	943-E	30.90/Ea.
617	18.00/C	715-D	25.20/M	772/18-M	114.00/Ea.	830/10-E	87.00/Ea.	872-M	76.20/Ea.	944-E	46.20/Ea.
618	1.35/Ea.	715-E	3.30/C	773-C	10.20/Ea.	831-C	4.95/Ea.	875	2.70/Ea.	947-E	31.50/Ea.
619	.27/Ea.	715-E	27.60/M	773-D	25.50/Ea.	831-E	21.00/Ea.	876	3.30/Ea.	948-E	43.50/Ea.
621	.21/Ea.	716	3.60/C	773-E	50.10/Ea.	831-M	42.00/Ea.	877	4.05/Ea.	952-E	19.50/Ea.
625	13.80/C	716	30.00/M	773-M	100.20/Ea.	832-C	4.80/Ea.	878	4.80/Ea.	963	8.40/C
626	.34/Ea.	716-A	4.20/C	773/18-C	18.75/Ea.	832-E	23.10/Ea.	878/6	6.66/Ea.	964	11.70/C
628	.17/Ea.	716-A	34.20/M	773/18-D	45.90/Ea.	832-M	46.20/Ea.	878/7	8.70/Ea.	965	.12/Ea.
629	5.10/C	716-B	4.50/C	773/18-E	90.00/Ea.	833-C	5.40/Ea.	880	3.30/Ea.	966	.12/Ea.
631	15.00/C	716-B	39.60/M	773/18-M	180.00/Ea.	833-E	26.25/Ea.	881	3.75/Ea.	966-J	.16/Ea.

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Net

Birnbach PRICE LIST

Cat. No.	Sug. Resale Price
967	$27.00/C
972-C	9.30/Ea.
972-A-C	10.50/Ea.
972-A-E	45.60/Ea.
972-A-M	90.00/Ea.
972-B-C	9.15/Ea.
972-B-E	45.30/Ea
972-B-M	90.00/Ea.
972-S-C	7.50/Ea.
972-S-E	33.00/Ea.
972-S-M	66.00/Ea.
972-S-Q	1.95/Ea.
973-C	10.80/Ea.
973-S-C	8.40 Ea.
973-S-E	39.60/Ea.
973-S-M	79.20/Ea.
973-S-Q	2.94/Ea.
974-C	13.80/Ea.
975-C	18.90/Ea.
976-C	20.70/Ea.
977-C	24.60/Ea.
978-C	27.60/Ea.
981-M	19.68/Ea.
982-M	25.50/Ea.
983-M	29.70/Ea.
984-M	38.70/Ea.
985-M	25.50/Ea.
986-M	31.80/Ea
987-M	38.10/Ea
988-M	44.70/Ea.
989-M	40.50/Ea.
989/3-M	53.70/Ea.
990-M	16.50/Ea.
990/3-M	24.60/Ea.
991-M	21.90/Ea.
991/3-M	32.10/Ea.
992-M	29.40/Ea.
992/3-M	45.00/Ea.
993-M	43.50/Ea.
993/3-M	66.00/Ea.
994-M	65.40/Ea.
994/3-M	96.00/Ea.
995-M	93.00/Ea.
995/3-M	144.00/Ea.
1013	1.65/Ea.
1014	3.15/Ea.
1015-C	6.00/Ea.
1017	.40/Ea.
1017-C	2.54/Ea.
1017-M	23.10/M
1025	.81/Ea.
1035	33.00/Ea.
1035-B	36.00/Ea.
1036	15.00/Ea.
1036-B	18.00/Ea.
1037	10.50/Ea.
1037-B	13.50/Ea.
1038	10.50/Ea.
1038-B	13.50 Ea.
1039	10.50/Ea.
1039-B	13.50/Ea.
1041	19.50/Ea.
1041-B	22.50/Ea.
1042	13.89/Ea.
1042-B	16.89/Ea.
1043	13.89/Ea.
1043-B	16.89/Ea.
1044	13.89/Ea.
1044B	16.89/Ea.
1045	120.00/Ea.
1046	90.00/Ea.
1047	63.00/Ea.
1048	162.00/Ea.
1049	90.00/Ea.
1050	1.50/Ea.
1051-C	2.70/Ea.
1052-M	21.00/Ea.
1053	.45/Ea.
1054	.84/Ea.
1055-C	1.65/Ea.
1056-M	12.60/Ea.
1057	.87/Ea.
1058	1.74/Ea.
1059-C	3.00/Ea.
1060-M	24.00/Ea
1070 (2)	9.00/Ea.
1070-B	10.80/Lb.
1071 (2)	9.00/Ea.
1071-B	11.10/Lb.
1072 (2)	9.60/Ea.
1072/1B	11.85/Lb.
1072-B	11.40/Lb.
1073 (4)	1.77/Ea.
1074 (2)	3.09/Ea.
1075 (2)	5.85/Ea.
1075-B	6.00/Lb.
1076 (4)	1.65/Ea.
1077 (2)	2.85/Ea.
1078 (2)	5.40/Ea.
1078-B	6.00/Lb.
1079 (4)	$ 1.77/Ea.
1080 (2)	2.85/Ea.
1081 (2)	5.40/Ea.
1081-B	6.00/Lb.
1082 (4)	1.77/Ea.
1083 (2)	2.85/Ea.
1084 (2)	5.40/Ea.
1084-B.	6.00/Lb.
1085 (4)	1.77/Ea.
1086 (2)	2.85/Ea.
1087	5.40/Ea.
1087-B	6.00/Lb.
1101	3.00/Ea.
1111-D	22.50/Ea.
1112-E	45.00/Ea.
1113-M	87.00/Ea.
1120	3.30/C
1121	1.80/C
1122	3.60/C
1123; 1124	1.50/C
1125	3.30/C
1125T	3.90/C
1126	4.35/C
1126T	4.95/C
1127	5.28/C
1127T	6.00/C
1128	6.30/C
1128T; 1129	7.20/C
1129T	8.25/C
1130	3.30/C
1130T	3.90/C
1131	4.35/C
1131T	4.95/C
1132	5.28/C
1132T	6.00/C
1133	6.30/C
1133T; 1134	7.20/C
1134T	8.25/C
1135	5.28/C
1136	6.30/C
1137	7.20/C
1138	8.25/C
1139	9.30/C
1140	5.28/C
1141	6.30/C
1142	7.20/C
1143	8.25/C
1144	9.30/C
1145	3.90/C
1146	4.95/C
1147	6.00/C
1148	7.20/C
1149	3.90/C
1150	4.95/C
1151	6.00/C
1152	7.20/C
1153	.90/C
1154	1.08/C
1155	1.20/C
1156	1.35/C
1157	1.50/C
1160	.21/Ea.
1161	.24/Ea.
1162	.27/Ea.
1163	.30/Ea.
1164	.21/Ea.
1165	.24/Ea.
1166	.27/Ea.
1167	.30/Ea.
1168	.18/Ea.
1169	.15/Ea.
1170	.168/Ea.
1171	.168/Ea.
1172	.18/Ea.
1173	.21/Ea.
1174	.24/C
1175	.27/Ea.
1177	.252/Ea.
1179	36.00/C
1180	30.00/C
1182	36.00/C
1184	33.00/C
1190	39.00/C
1192	54.00/C
1194	42.00/C
1220	9.60/Ea.
1220-A	7.50/Ea.
1260; 1261	15.00/C
1262	15.00/C
1263	26.40/C
1264	30.00/C
1265	36.00/C
1266	41.40/C
1352	2.40/C
1352-A	2.70/C
1352B	3.30/C
1352-C	3.15/C
1353	3.30/C
1353-A	3.60/C
1354	3.90/C
1354-A	$ 4.14/C
1354-B	4.50/C
1355; 1355-A	5.25/C
1355-B	5.70/C
1356	6.00/C
1356-A	6.16/C
1356-B; 1357	6.60/C
1358	6.60/C
1359	7.80/C
1360	8.10/C
1372	7.80/C
1373	10.80/C
1374	13.20/C
1375	18.00/C
1376	21.00/C
1377	22.80/C
1378	25 20/C
1379	26.40/C
1380	28.80/C
1382	1.80/C
1382-A	1.95/C
1382-B	2.34/C
1382-C	3.33/C
1383; 1383-A	2.40/C
1384	3.30/C
1384-A	3.54/C
1384-B	3.66/C
1385	3.75/C
1385-A	3.90/C
1385-B	4.25/C
1386	4.95/C
1386-A	5.40/C
1386-B	6.45/C
1387	6.45/C
1388	5.85/C
1389	6.45/C
1390	6.57/C
1402-C	4.74/Ea.
1403-M	43.50/Ea.
1406-C	2.50/Ea.
1407	24.00/Ea.
1410-C	1.74/Ea.
1411-M	15.75/Ea.
1414-C	1.20/Ea.
1415-M	10.65/Ea.
1418-C	.93/Ea.
1419-M	7.95/Ea.
1422-C	.66/Ea.
1423-M	4.98/Ea.
1424-M	3.60/Ea.
1426-M	3.48/Ea.
1428-M	3.36/Ea.
1430-M	3.15/Ea.
1433-C	7.20/Ea.
1433-M	67.50/Ea.
1433/4-M	174.00/Ea.
1433/4-C	18.00/Ea.
1433/6-C	11.40/Ea.
1433/6-M	111.00/Ea.
1434-M	3.75/Ea.
1490-M	18.90/Ea.
1492-M	27.60/Ea.
1497-M	47.40/Ea.
1516	17.10/Ea.
1560-C	**8.91/Ea.**
1560-M	89.10 Ea.
1562-C	4.59/Ea.
1563-M	42.00/Ea.
1566-C	2.91/Ea.
1567-M	27.60/Ea.
1570-C	1.98/Ea.
1571-M	18.00/Ea.
1574-C	1.29/Ea.
1575-M	11.58/Ea:
1600-C	8.85/Ea.
1600-M	88.20/Ea.
1618-M	9.45/Ea.
1620-M	6.24/Ea.
1622-M	4.95/Ea.
1627-M	15.84/Ea.
1628-M	12.90/Ea.
1633-M	16.20/Ea.
1634-M	13.50/Ea.
1638-M	20.10/Ea.
1639-M	16.35/Ea.
1640	1.44/Ea.
1641	1.44/Ea.
1643	1.19/Ea.
1644	1.33/Ea.
1646	.97/Ea.
1647-M	10.29/Ea.
1648-M	9.15/Ea.
1670-C	1.80/Ea.
1671-C	2.16/Ea.
1673-C	1.41/Ea.
1674-C	1.65/Ea.
1680-C	1.14/Ea.
1682-C	1.62/Ea.
1683	1.26/Ea.
1696-C	1.44/Ea.
1697	$ 1.19/Ea.
1701-E	16.95/Ea.
1702-E	19.80 Ea.
1703-E	25.20/Ea.
1716	25.20/Ea.
1741-M	7.50/Ea.
1772-D	21.45/Ea.
1773-D	25.50/Ea.
1774-D	29.70/Ea.
1775-D	36.00/Ea.
1776-D	43.80/Ea.
1777-D	48.00/Ea.
1781-E	58.80/Ea.
1782-E	82.80/Ea.
1783-E	117.30/Ea.
1784-E	134.16/Ea.
1786-E	233.70/Ea.
1822-C	4.26/Ea.
1822-B-E	18.90/Ea.
1822-C-M	35.28/Ea.
1824-C	3.45/Ea.
1824-E	16.50/Ea.
1824-M-M	32.40/Ea.
1825-C	3.60/Ea.
1825-E	17.40/Ea.
1825-M-M	33.90/Ea.
1825-Q	.98/Ea.
1835-E	19.20/Ea.
1836-E	14.10/Ea.
1839-E	27.00/Ea.
1839-M	54.00/Ea.
1840-C	4.20/Ea.
1840-E	20.04/Ea.
1840-M	40.05/Ea.
1840-Q	1.17/Ea.
1841-C	5.55/Ea.
1841-E	26.40/Ea.
1841-M	52.80/Ea.
1841-Q	1.50/Ea.
1842-C	7.80/Ea.
1842-E	37.20/Ea.
1842-M	75.60/Ea.
1842-Q	2.10/Ea.
1843-C	10.50/Ea.
1843-E	49.50/Ea.
1843-M	99.00/Ea.
1844-C	10.20/Ea.
1844-E	50.40/Ea.
1844-M	100.20/Ea.
1845-E	66.00/Ea.
1845-M	129.00/Ea.
1846-E	90.00/Ea.
1846-M	180.00/Ea.
1851-C	6.30/Ea.
1870-D	15.90/Ea.
1872-D	19.50/Ea.
1874-M	41.40/Ea.
1874-A-E	21.66/Ea.
1875-M	51.66 Ea.
1875-A-E	27.00/Ea.
1878-M	66.00/Ea.
1878-A-E	35.01/Ea.
1916-C	5.55/Ea.
1916-E	25.35/Ea.
1916-M	49.50/Ea.
1918-C	3.60/Ea.
1918-E	16.65/Ea.
1918-M	32.10/Ea.
1920-C	3.15/Ea.
1920-E	14 85/Ea.
1920-M	28.50/Ea.
1922-C	2.55/Ea.
1922-E	11.85/Ea.
1922-M	22.50/Ea.
1963	3.60/C
1964	6.00 C
1965	6.00/C
1967	12.00/C
1968	6.00/C
1972-C	12.00/Ea.
1972-D	29.40/Ea.
1972-E	58 35/Ea.
1972-M	116.70/Ea.
1972-A-C	13.20/Ea.
1972-A-E	64.20/Ea.
1972-A-M	128.10/Ea.
1973-C	15.00 Ea.
1974-C	18.00/Ea.
1975-C	21.00/Ea.
1976-C	24.00/Ea.
2000-M	9.00/Ea.
2010	9.18 Ea.
2012	7.62/Ea.
2013	6.54/Ea.
2014	5.94/Ea.
2015	4.86/Ea.
2016	3.96/Ea.
2018	3.75 Ea.
2025	.81/Ea.
2050	1.50/Ea.
2051-C	$ 2.70/Ea.
2052-M	16.80/Ea.
2100	.99/Ea.
2125	.27/Ea.
2318-E	10.80/Ea.
2320-E	7.20/Ea.
2321-E	7.56/Ea.
2500-E	4.50/Ea.
2611	27.00/C
2617	36.00/C
2650	.34/Ea.
2810-C	9.41/Ea.
2810-E	46.95/Ea.
2812-C	6.30 Ea.
2812-E	31.20/Ea.
2814-C	4.38/Ea.
2814-E	21.60/Ea.
2816-C	3.63/Ea.
2816-E	18.00/Ea.
2818-C	3.00/Ea.
2818-E	14.70/Ea.
3000 to 3024	.93/Ea.
3025	.81/Ea.
3050	1.50/Ea.
3051	2 70/Ea.
3052	16.80/Ea.
3460-C	3.14/Ea.
3461-C	2.31/Ea.
3462-E	10.89/Ea.
3600-E	14.85/Ea.
3618	1.41/Ea.
3619	1.65/Ea.
4025	.51/Ea.
4050	.96/Ea.
4051	1.68/Ea.
4052	15.00/Ea.
4125	.30/Ea.
4125-J	.35/Ea.
4175	.69/Ea.
4175-J	.99/Ea.
4176	.44/Ea.
4176-J	.58/Ea.
4200-C	.204/Ea.
4200-M	.15/Ea.
4201-C	58/Ea.
4201-M	.438/Ea.
4202-C	.96/Ea.
4202-M	.715/Ea.
4203-C	3.24/Ea.
4204-C	.174/Ea.
4204-M	.132/Ea.
4205-C	.195/Ea.
4205-M	.15/Ea.
4206-C	.174/Ea.
4206-M	.132/Ea.
4207-C	.27/Ea.
4207-M	.203/Ea.
4208-C	.78/Ea.
4208-M	.575/Ea.
4209-C	2.76/Ea.
4215-M	.072/Ea.
4215-C	.055/Ea.
4233	.69/Ea.
4234	.75/Ea.
4235	1.77/Ea.
4236	1.95/Ea.
4237	2.07/Ea.
4238	2.70/Ea.
4275	.42/Ea.
4275-J	.70/Ea.
4276	.90/Ea.
4276-J	1.05/Ea.
4450	.83/Ea.
4450-J	1.08/Ea.
4451	.70/Ea.
4451-J	.93/Ea.
4452	1.29/Ea.
4452-J	1.50/Ea.
4500-M	12.60/Ea.
4510-E	30.00/Ea.
4515-E	33.60/Ea.
4516-E	37.50/Ea.
4520-E	129.00/Ea.
4701-C	2.40/Ea.
4701-E	10.50/Ea.
4701-M	19.50/Ea.
4701-Q	.78/Ea.
4702-C	3.60/Ea.
4702-E	15.00/Ea.
4702-M	30.00/Ea.
4702-Q	1.26/Ea.
4703-C	4.80/Ea.
4703-E	21.00/Ea.
4703-M	42.00/Ea.
4703-Q	1.86/Ea.
4706-C	8.40/Ea.
4706-C	42.00/Ea.
4706-M	82.50/Ea.
4709-C	13.50/Ea.
4709-E	60.00/Ea.
4709-M	$120.00/Ea.
4711-C	15.85/Ea.
4711-E	75.00/Ea.
4711-M	141.00/Ea.
4711/13-E	75.75/Ea.
4715-C	18.00/Ea.
4715-E	87.00/Ea.
4715-M	174.00/Ea.
4716-C	19.24/Ea.
4716-E	96.00/Ea.
4716-M	192.00/Ea.
4727-C	31.05/Ea.
4727-E	155.25/Ea.
4727-M	309.00/Ea.
4727/31-E	219.00/Ea.
4727/41-E	291.00/Ea.
4729-E	414.00/Ea.
4729/76-E	792.00/Ea.
4729/101-C	1005.00/Ea.
4731-C	3.00/Ea.
4731-E	10.65/Ea.
4731-M	21.15/Ea.
4732-C	4.86/Ea.
4732-E	22.50/Ea.
4732-M	45.00/Ea.
4733-C	6.36/Ea.
4733-E	30.00/Ea.
4733-M	60.00/Ea.
4734-C	8.10/Ea.
4734-E	37.50/Ea.
4734-M	75.00/Ea.
4735-C	9.60/Ea.
4735-E	45.75/Ea.
4735-M	91.50/Ea.
4736-C	12.00/Ea.
4736-E	54.00/Ea.
4736-M	108.00/Ea.
4739-C	15.60/Ea.
4739-E	75.60/Ea.
4739-M	151.50/Ea.
4745-C	21.60/Ea.
4745-E	105.00/Ea.
4745-M	210.00/Ea.
4747-C	43.50/Ea.
4747-E	210.00/Ea.
4747-M	420.00/Ea.
4752-C	3.75/Ea.
4752-E	16.50/Ea.
4752-M	33.00/Ea.
4753-C	4.80/Ea.
4753-E	23.10/Ea.
4753-M	46.20/Ea.
4754-C	6.45/Ea.
4754-E	30.60/Ea.
4754-M	60.00/Ea.
4755-C	8.10/Ea.
4755-E	39.00/Ea.
4755-M	78.00/Ea.
4756-C	9.60/Ea.
4756-E	45.60/Ea.
4756-M	91.20/Ea.
5000	.99/Ea.
5002	1.06/Ea.
5003	1.44/Ea.
5004	.45/Ea.
5005	.51/Ea.
5006	.90/Ea.
5007	.54/Ea.
5008	.75/Ea.
5009	.90/Ea.
5010	2.55/Ea.
5011	2.55/Ea.
5012	3.60/Ea.
5013	3.60/Ea.
5040	.14/Ea.
5041	.14/Ea.
5042	.14/Ea.
5043	.14/Ea.
5044	.14/Ea.
5045	.14/Ea.
5046	.14/Ea.
5047	.14/Ea.
5050	.21/Ea.
5051	.33/Ea.
5052	.36/Ea.
5053	.30/Ea.
5070	.30/Ea.
5071	.30/Ea.
5075	.18/Ea.
5076	.18/Ea.
5080	.30/Ea.
5081	.30/Ea.
5085	.30/Ea.
5086	.30/Ea.
5090	.33/Ea.
5091	.33/Ea.
5095	.22/Ea.
5096	.21/Ea.
5105	.27/Ea.
5106	.36/Ea.

Birnbach PRICE LIST

Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price	Cat. No.	Sug. Resale Price
5110	$ .36/Ea.	5392	$ 1.68/Ea.	6215	$ 1.74/Ea.	6324	$ 4.80/M	6476	$ 2.40/Gr.	6569	$31.20/M
5111	.36/Ea.	5393	1.68/Ea.	6216	1.62/Ea.	6325	5.19/M	6477	1.98/Gr.	6570	18.60/C
5130	.12/Ea.	5394	1.95/Ea.	6217	1.98/Ea.	6326	5.58/M	6478	1.98/Gr.	6570	177.00/M
5131	.12/Ea.	5395	1.95/Ea.	6220	.69/Ea.	6327	6.60/M	6479	2.88/M	6571	18.60/C
5132	.15/Ea.	5396	1.95/Ea.	6221	.87/Ea.	6328	6.90/M	6480	3.30/M	6571	177.00/M
5133	.15/Ea.	5400	3.87/Ea.	6221-A	.93/Ea.	6329	9.90/M	6480-A	2.88/M	6572	3.60/C
5134	.15/Ea.	5401	4.62/Ea.	6222	1.26/Ea.	6330	5.40/M	6481	3.60/M	6572	30.00/M
5140	.15/Ea.	5402	4.62/Ea.	6223	1.44/Ea.	6331	5.40/M	6482	5.46/M	6572-A	3.60/C
5141	.24/Ea.	5410	4.98/Ea.	6224	.96/Ea.	6332	5.16/M	6483	9.00/M	6572-A	30.00/M
5142	.15/Ea.	5411	4.44/Ea.	6225	1.32/Ea.	6333	5.28/M	6484	2.97/M	6572-B	3.60/C
5143	.36/Ea.	5412	6.69/Ea.	6225-A	1.32/Ea.	6334	5.82/M	6485	2.79/M	6572-B	30.00/M
5160	.14/Ea.	5413	6.24/Ea.	6225-B	1.32/Ea.	6335	6.90/M	6486	3.12/M	6573	24.60/C
5161	.15/Ea.	5414	5.67/Ea.	6225-C	1.32/Ea.	6336	12.00/M	6487	3.12/M	6573	222.00/M
5165	.18/Ea.	5415	6.24/Ea.	6226	1.98/Ea.	6337	16.50/M	6488	4.50/M	6573-A	24.60/C
5166	.18/Ea.	5416	5.67/Ea.	6227	4.89/Ea.	6337-A	12.00/M	6490	3.30/M	6573-A	222.00/M
5170	.30/Ea.	5417	7.47/Ea.	6228	7.53/Ea.	6338	21.00/M	6491	3.30/M	6574	13.50/C
5171	.18/Ea.	5418	7.47/Ea.	6229	10.05/Ea.	6339	30.00/M	6492	3.60/M	6574	117.90/M
5180	.33/Ea.	5420	4.95/Ea.	6230	1.53/Ea.	6350	6.00/M	6493	4.65/M	6575	16.20/C
5181	.33/Ea.	5421	4.56/Ea.	6231	1.86/Ea.	6350-A	6.00/M	6494	7.80/M	6575	147.00/M
5185	.18/Ea.	5422	6.18/Ea.	6231-A	1.86/Ea.	6351	6.00/M	6494/1	7.80/M	6576	16.20/C
5190	.10/Ea.	5423	5.61/Ea.	6231-B	2.07/Ea.	6351-A	6.00/M	6494/2	7.80/M	6576	147.00/M
5191	.10/Ea.	5424	6.18/Ea.	6232	.24/Ea.	6352	6.00/M	6500	1.20/Gr.	6577	16.35/C
5195	.33/Ea.	5425	5.61/Ea.	6233	.77/Ea.	6352-A	6.00/M	6501	1.50/Gr.	6577	143.40/M
5200	.33/Ea.	5426	6.69/Ea.	6234	.83/Ea.	6353	6.60/M	6502	1.65/Gr.	6578	21.00/C
5201	.33/Ea.	5427	6.33/Ea.	6235	1.07/Ea.	6353-A	6.60/M	6503	1.83/Gr.	6578	195.00/M
5300	.69/Ea.	5428	6.69/Ea.	6236	1.43/Ea.	6354	8.10/M	6504	2.01/Gr.	6579	21.00/C
5301	.81/Ea.	5429	6.33/Ea.	6238	1.98/Ea.	6354-A	8.10/M	6505	2.16/Gr.	6579	195.00/M
5302	.87/Ea.	5430	7.44/Ea.	6238-B	2.10/Ea.	6355	4.95/M	6506	2.34/Gr.	6585	7.50/C
5303	.93/Ea.	5431	6.90/Ea.	6238-C	2.10/Ea.	6356	4.62/M	6507	2.55/Gr.	6585	60.00/M
5304	1.26/Ea.	5432	7.44/Ea.	6238-D	1.98/Ea.	6357	4.62/M	6510	1.65/Gr.	6586	7.50/C
5305	1.38/Ea.	5433	6.90/Ea.	6239	6.00/C	6358	3.30/M	6511	1.68/Gr.	6586	60.00/M
5306	1.44/Ea.	5434	7.44/Ea.	6240	1.50/Ea.	6359	3.30/M	6512	1.92/Gr.	6587	7.50/C
5307	1.56/Ea.	5435	6.90/Ea.	6241	1.32/Ea.	6360	3.45/M	6513	1.92/Gr.	6587	60.00/M
5308	.84/Ea.	5460	9.45/Ea.	6242	2.07/Ea.	6361	3.60/M	6514	1.92/Gr.	6588	7.20/C
5309	.96/Ea.	5461	9.45/Ea.	6244	.78/Ea.	6362	4.65/M	6515	2.01/Gr.	6588	57.00/M
5310	1.11/Ea.	5462	9.45/Ea.	6244-A	.78/Ea.	6363	7.80/M	6516	2.10/Gr.	6589	7.50/C
5311	1.65/Ea.	5463	9.45/Ea.	6244-B	.99/Ea.	6400	6.00/M	6517	2.16/Gr.	6589	60.00/M
5312	1.89/Ea.	5464	9.45/Ea.	6244-C	.99/Ea.	6401	7.20/M	6518	1.92/Gr.	6590	7.65/C
5313	2.01/Ea.	5465	9.45/Ea.	6244-D	1.02/Ea.	6402	7.95/M	6519	2.34/Gr.	6590	63.00/M
5314	.69/Ea.	5466	9.45/Ea.	6244-E	1.02/Ea.	6403	9.60/M	6525; 6526	.93/Gr.	6592	1.80/C
5315	.81/Ea.	5470	12.90/Ea.	6245	.15/Ea.	6404	11.70/M	6527	.93/Gr.	6592	15.00/M
5316	1.05/Ea.	5471	12.90/Ea.	6245-S	24.00/C	6405	8.40/M	6528	.93/Gr.	6593	1.80/C
5317	1.23/Ea.	5472	12.90/Ea.	6246	.15/Ea.	6406	8.40/M	6529; 6530	.93/Gr.	6593	15.00/M
5318	2.19/Ea	5473	12.90/Ea.	6246-S	28.80/C	6407	9.00/M	6531	.93/Gr.	6594	1.86/C
5319	2.70/Ea.	5474	12.90/Ea.	6247	.22/Ea.	6408	9.90/M	6532; 6533	.93/Gr.	6594	15.60/M
5320	.81/Ea.	5475	12.90/Ea.	6248	.22/Ea.	6409	11.40/M	6534	2.01/Gr.	6595	2.04/C
5321	.96/Ea.	5476	12.90/Ea.	6249	1.47/Ea.	6410	15.84/M	6540	1.83/Gr.	6595	16.80/M
5322	1.26/Ea.	5480 K1	6.06/Ea.	6250	1.23/Ea.	6410-A	17.70/M	6541	1.59/Gr.	6596	2.22/C
5323	1.56/Ea.	5480 K2	6.84/Ea.	6251	1.40/Ea.	6411	18.00/M	6542	2.25/Gr.	6596	18.00/M
5324	2.55/Ea.	5480 K3	6.84/Ea	6251-C	1.62/Ea.	6412	20.10/M	6543	2.34/Gr.	6597	3.00/C
5325	3.24/Ea.	5480 K4	6.06/Ea.	6251-C	1.44/Ea.	6413	11.70/M	6549	21.00/M	6597	26.40/M
5326	.96/Ea.	5480 K5	6.06/Ea.	6252	1.77/Ea.	6414	12.90/M	6549-A	21.00/M	6600	3.60/M
5327	1.08/Ea.	5480 K6	6.84/Ea.	6252-M	2.13/Ea.	6415	15.00/M	6549-B	22.20/M	6601	4.20/M
5328	1.08/Ea.	5480 K7	6.06/Ea.	6253	1.92/Ea.	6416	17.10/M	6549-C	24.00/M	6602	4.80/M
5329	.81/Ea.	5481 K1	7.56/Ea.	6261	1.68/Ea.	6417	21.00/M	6549-D	27.00/M	6603	5.85/M
5330	1.26/Ea.	5481 K2	8.82/Ea.	6262	1.89/Ea.	6418	21.60/M	6550	3.78/C	6604	4.80/M
5331	2.70/Ea.	5481 K3	8.82/Ea.	6263	2.07/Ea.	6420	4.05/M	6550	33.90/M	6605	5.85/M
5332	.96/Ea.	5481 K4	7.56/Ea.	6270	1.26/Ea.	6421	4.38/M	6551	3.78/C	6606	6.15/M
5333	1.56/Ea.	5481 K5	7.56/Ea.	6271	1.47/Ea.	6422	4 65/M	6551	33.90/M	6607	7.35/M
5334	3.24/Ea.	5481 K6	8.82/Ea.	6272	1.50/Ea.	6423	4.95/M	6551-A	3.78/C	6608	5.85/M
5335	.84/Ea.	5481 K7	7.56/Ea.	6273	1.68/Ea.	6424	5.25/M	6551-A	33.90/M	6609	6.15/M
5336	.96/Ea.	6100	.39/Ea.	6274	1.68/Ea.	6425	6.00/M	6552	3.45/C	6610	7.20/M
5337	.48/Ea.	6102	.42/Ea.	6280	.93/Ea.	6426	5.01/M	6552	31.20/M	6611	7.20/M
5338	.54/Ea.	6103	.50/Ea.	6280-A	1.32/Ea.	6427	4.96/M	6552-A	3.45/C	6611-A	8.20/M
5339	.36/Ea.	6104	.53/Ea.	6281	1.11/Ea.	6428	5.76/M	6552-A	31.20/M	6612	6.60/M
5340	.39/Ea.	6105	1.86/Ea.	6281-A	1.50/Ea.	6429	6.00/M	6552-B	3.45/C	6613	6.60/M
5341	1.32/Ea.	6110	1.32/Ea.	6282	1.35/Ea.	6430	6.69/M	6552-B	31.20/M	6614	7.20/M
5342	1.32/Ea.	6111	1.50/Ea.	6282-A	1.89/Ea.	6431	7.59/M	6553	3.36/C	6640	3.60/C
5343	2.31/Ea.	6112	1.89/Ea.	6283	1.56/Ea.	6432	9.90/M	6553	30.60/M	6640	32.40/M
5344	2.31/Ea.	6113	2.07/Ea.	6283-A	2.07/Ea.	6433	5.76/M	6554	3.36/C	6640-A	3.60/C
5345	3.24/Ea.	6114	.21/Ea.	6284	1.14/Ea.	6434	6.00/M	6554	30.60/M	6640-A	32.40/M
5346	4.29/Ea.	6115	.21/Ea.	6300	3.75/M	6435	6.72/M	6555	3.36/C	6640-B	3.60/C
5347	5.16/Ea.	6180	1.53/Ea.	6301	4.05/M	6436	7.50/M	6555	30.60/M	6640-B	32.40/M
5360	1.68/Ea.	6184	1.35/Ea.	6302	4.20/M	6437	7.95/M	6556	3.36/C	6641	3.75/C
5361	1.86/Ea.	6184-A	1.35/Ea.	6303	4.86/M	6438	9.00/M	6556	30.60/M	6641	33.30/M
5362	1.86/Ea.	6185	1.56/Ea.	6304	4.20/M	6439	11.40/M	6557	3.45/C	6641-A	3.75/C
5363	2.04/Ea.	6185-A	1.56/Ea.	6305	4.50/M	6440	6.18/M	6557	31.20/M	6641-A	33.30/M
5364	2.04/Ea.	6186	1.86/Ea.	6306	5.10/M	6441	7.20/M	6558	3.45/C	6641-B	3.75/C
5365	2.19/Ea.	6190	1.11/Ea.	6307	4.44/M	6442	6.18/M	6558	31.20/M	6641-B	33.30/M
5366	2.19/Ea.	6191	1.11/Ea.	6308	4.44/M	6443	9.90/M	6559	3.45/C	6643	3.30/C
5367	2.19/Ea.	6192	1.29/Ea.	6309	5.04/M	6444	11.10/M	6559	31.20/M	6643	30.00/M
5370	1.26/Ea.	6193	1.68/Ea.	6310	19.20/M	6445	9.54/M	6560	3.45/C	6643-A	3.30/C
5371	1.38/Ea.	6194	1.68/Ea.	6311	39.00/M	6446	12.60/M	6560	31.20/M	6643-A	30.00/M
5372	1.38/Ea.	6195	1.86/Ea.	6312	6.30/M	6447	16.50/M	6561	19.20/C	6643-B	3.30/C
5373	1.47/Ea.	6200	.69/Ea.	6313	6.45/M	6448	5.25/M	6561	177.60/M	6643-B	30.00/M
5374	1.47/Ea.	6201	.84/Ea.	6314	6.90/M	6449	5.55/M	6562	3.45/C	6644	3.36/C
5375	1.62/Ea.	6202	.87/Ea.	6315	8.70/M	6450	5.70/M	6562	31.20/M	6644	30.60/M
5376	1.62/Ea.	6202-A	.93/Ea.	6316	15.60/M	6460	2.22/Gr.	6563	3.45/C	6644-A	3.36/C
5377	1.62/Ea.	6203	1.08/Ea.	6317	17.40/M	6461	2.38/Gr.	6563	31.20/M	6644-A	30.60/M
5380	2.25/Ea.	6204	1.26/Ea.	6318	19.20/M	6462	2.94/Gr.	6564	3.45/C	6644-B	3.36/C
5381	2.70/Ea.	6205	1.44/Ea.	6318-A	22.95/M	6463	3.30/Gr.	6564	31.20/M	6644-B	30.60/M
5382	2.70/Ea.	6206	1.44/Ea.	6319	23.10/M	6464	4.59/Gr.	6565	3.45/C	6646	3.36/C
5383	2.70/Ea.	6207	1.59/Ea.	6319-A	43.80/M	6465	5.13/Gr.	6565	31.20/M	6646	30.60/M
5384	2.70/Ea.	6208	.05/Ea.	6320	31.20/M	6466	5.64/Gr.	6566	3.45/C	6646-A	3.36/C
5385	2.94/Ea.	6208-A	.05/Ea.	6320-A	57.00/M	6470	1.38/Gr.	6566	31.20/M	6646-A	30.60/M
5386	2.94/Ea.	6210	.87/Ea.	6320-B	72.00/M	6471	1.50/Gr.	6567	3.45/C	6646-B	3.36/C
5387	2.94/Ea.	6211	1.17/Ea.	6320-C	81.60/M	6472	1.56/Gr.	6567	31.20/M	6646-B	30.60/M
5390	1.50/Ea.	6212	1.05/Ea.	6321	3.75/M	6473	1.32/Gr.	6568	3.45/C	6648	3.57/C
5391	1.68/Ea.	6213	1.38/Ea.	6322	4.05/M	6474	1.80/Gr.	6568	31.20/M	6648	31.80/M
5391-A	1.68/Ea.	6214	1.44/Ea.	6323	4.35/M	6475	2.22/Gr.	6569	3.45/C	6648-A	3.57/C

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Net

Birnbach PRICE LIST

Cat. No.	Sug. Resale Price
6648-A	$31.80/M
6648-B	3.57/C
6648-B	31.80/M
6650	3.36/C
6650	30.60/M
6650-A	3.36/C
6650-A	30.60/M
6650-B	3.36/C
6650-B	30.60/M
7000-M	6.36/Ea.
7000-1-C	.80/Ea.
7001-M	7.98/Ea.
7001-C	.96/Ea.
7001-S-M	9.09/Ea.
7001-1S-C	1.03/Ea.
7002-M	8.49/Ea.
7002-1-C	1.02/Ea.
7003-M	10.38/Ea.
7003-1-C	1.20/Ea.
7003-S-M	11.49/Ea.
7003-1S-C	1.27/Ea.
7004-M	12.00/Ea.
7004-C	1.38/Ea.
7005-M	14.64/Ea.
7005-1-C	1.63/Ea.
7005-S-M	15.75/Ea.
7005-1S-C	1.70/Ea.
7006-M	294.00/Ea.
7006-1-C	30.00/Ea.
7007-M	21.48/Ea.
7007-1-C	2.31/Ea.
7008-M	209.70/Ea.
7008-1-C	21.00/Ea.
7009-M	32.40/Ea.
7009-1-C	3.39/Ea.
7010-M	121.65/Ea.
7010-1-C	12.54/Ea.
7011-M	54.00/Ea.
7011-C	5.55/Ea.
7012-M	79.98/Ea.
7012-1-C	8.38/Ea.
7013-M	109.35/Ea.
7013-1-C	11.28/Ea.
7014-M	51.00/Ea.
7014-C	5.16/Ea.
7015-M	192.00/Ea.
7015-1-C	19.50/Ea.
7016-M	33.27/Ea.
7016-1-C	3.45/Ea.
7017-M	269.40/Ea.
7017-1-C	27.00/Ea.
7018-M	24.42/Ea.
7018-1-C	2.58/Ea.
7020-M	19.32/Ea.
7020-1-C	2.07/Ea.
7022-M	15.90/Ea.
7022-1-C	1.74/Ea.
7024-M	9.00/Ea.
7024-1-C	1.02/Ea.
7024-S-M	10.20/Ea.
7024-1S	1.20/Ea.
7028	1.80/Ea.
7029	3.00/Ea.
7030	27.00/Ea.
7032	.57/Ea.
7033	3.57/Ea.
7034	9.00/C
7036	6.00/C
7037	6.00/C
7038	5.40/C
7043-1	4.50/C
7043-1-1/2	4.65/C
7043-2	4.80/C
7043-3	6.00/C
7049	.51/Ea.
7049-A	.51/Ea.
7049-B	.51/Ea.
7050	.54/Ea.
7052-M	47.10/Ea.
7052-1-C	4.74/Ea.
7053-M	49.50/Ea.
7053-1-C	5.10/Ea.
7054-M	56.70/Ea.
7054-1-C	5.85/Ea.
7055-M	69.00/Ea.
7055-C	7.20/Ea.
7056-M	91.80/Ea.
7056-1-C	9.30/Ea.
7057-M	142.80/Ea.
7057-1-C	14.70/Ea.
7058-M	202.50/Ea.
7058-1-C	20.85/Ea.
7059-M	376.50/Ea.
7059-1-C	37.77/Ea.
7061	.93/Ea.
7062	1.80/Ea.
7063	8.40/Ea.
7064	15.00/Ea.
7065-M	99.00/Ea.
7065-1-C	10.50/Ea.
7066-M	$69.00/Ea.
7066-1-C	6.93/Ea.
7067-M	51.00/Ea.
7067-1-C	5.34/Ea.
7068-M	42.00/Ea.
7068-1-C	4.14/Ea.
7070-M	35.10/Ea.
7070-1-C	3.99/Ea.
7072-M	30.00.Ea.
7072-1-C	3.60/Ea.
7074-M	29.70/Ea.
7074-1-C	3.30/Ea.
7080	1.01/Ea.
7081	1.01/Ea.
7082	1.26/Ea.
7083	2.85/Ea.
7084	1.26/Ea.
7086	1.26/Ea.
7088	1.26/Ea.
7089	2.40/Ea.
7116-M	168.00/Ea.
7116-1-C	18.60/Ea.
7118-M	135.00/Ea.
7118-1-C	15.00/Ea.
7120-M	111.00/Ea.
7121-1-C	12.30/Ea.
7122-M	75.00/Ea.
7122-1-C	8.25/Ea.
7124-M	66.00/Ea.
7124-1-C	7.26/Ea.
7126-M	60.00/Ea.
7126-1-C	6.60/Ea.
7128-M	45.00/Ea.
7128-1-C	5.16/Ea.
7130-M	44.40/Ea.
7130-1-C	5.04/Ea.
7170-M	8.34/Ea.
7170-1-C	.96/Ea.
7170-N-M	11.88/Ea.
7171-M	9.60/Ea.
7171-1-C	1.11/Ea.
7171-N-M	13.50/Ea.
7172-M	12.00/Ea.
7172-1-C	1.38/Ea.
7172-N-M	16.74/Ea.
7173-M	16.65/Ea.
7173-1-C	1.80/Ea.
7173-N-M	21.18/Ea.
7174-M	20.10/Ea.
7174-1-C	2.19/Ea.
7174-N-M	27.00/Ea.
7175-M	31.65/Ea.
7175-1-C	3.33/Ea.
7175-N-M	40.74/Ea.
7180-M	12.00/Ea.
7180-1-C	1.44/Ea.
7181-M	14.70/Ea.
7181-C	1.62/Ea.
7182-M	17.70/Ea.
7182-1-C	1.92/Ea.
7183-M	21.00/Ea.
7183-1-C	2.40/Ea.
7184-M	25.50/Ea.
7184-1-C	2.70/Ea.
7185-M	38.40/Ea.
7185-1-C	4.14/Ea.
7186-M	58.65/Ea.
7187-M	75.00/Ea.
7188-M	150.00/Ea.
7189-M	204.00/Ea.
7190-M	9.00/Ea.
7190-1-C	1.05/Ea.
7190-N-M	12.30/Ea.
7191-M	8.10/Ea.
7191-1-C	.87/Ea.
7191-N-M	11.70/Ea.
7192-N-M	8.10/Ea.
7192-1-C	.87/Ea.
7192-N-M	10.95/Ea.
7193-M	7.80/Ea.
7193-1-C	.90/Ea.
7193-N-M	10.41/Ea.
7194-M	7.95/Ea.
7194-1-C	.96/Ea.
7194-N-M	9.72/Ea.
7195-M	8.70/Ea.
7195-1-C	1.02/Ea.
7195-N-M	10.80/Ea.
7196-M	11.40/Ea.
7196-1-C	1.29/Ea.
7196-N-M	12.00/Ea.
7197-M	15.00/Ea.
7197-1-C	1.65/Ea.
7197-N-M	13.95/Ea.
7198-M	19.50/Ea.
7198-1-C	2.10/Ea.
7198-N-M	17.46/Ea.
7201-M	15.90/Ea.
7201-1-C	1.86/Ea.
7202-M	14.25/Ea.
7202-1-C	$ 1.65/Ea.
7203-M	18.15/Ea.
7203-1-C	2.19/Ea.
7204-M	16.05/Ea.
7204-1-C	1.89/Ea.
7205-M	23.55/Ea.
7205-1-C	2.76/Ea.
7207-M	31.65/Ea.
7207-1-C	3.60/Ea.
7210-M	105.00/Ea.
7210-1-C	12.30/Ea.
7212-M	70.20/Ea.
7212-1-C	7.26/Ea.
7214-M	44.10/Ea.
7214-1-C	4.80/Ea.
7216-M	30.30/Ea.
7216-1-C	3.60/Ea.
7218-M	23.70/Ea.
7218-1-C	2.70/Ea.
7220-M	18.00/Ea.
7220-1-C	2.10/Ea.
7222-M	15.00/Ea.
7222-1-C	1.65/Ea.
7224-M	17.40/Ea.
7224-1-C	1.95/Ea.
7312-M	70.95/Ea.
7312-1-C	7.59/Ea.
7314-M	54.00/Ea.
7314-1-C	5.70/Ea.
7316-M	34.50/Ea.
7316-1-C	3.60/Ea.
7318-M	24.00/Ea.
7318-1-C	2.61/Ea.
7320-M	18.90/Ea.
7320-1-C	2.01/Ea.
7322-M	15.75/Ea.
7322-1-C	1.71/Ea.
7324-N-M	10.92/Ea.
7326-M	9.15/Ea.
7326-1-C	1.32/Ea.
7326-N-M	9.99/Ea.
7328-M	8.79/Ea.
7328-1-C	1.14/Ea.
7328-N-M	10.26/Ea.
7330-M	8.55/Ea.
7330-1-C	1.05/Ea.
7330-N-M	10.59/Ea.
7351-M	22.05/Ea.
7351-1-C	2.25/Ea.
7351-NB-M	18.30/Ea.
7353-M	24.00/Ea.
7353-1-C	2.49/Ea.
7353-NB-M	20.29/Ea.
7355-M	27.60/Ea.
7355-1-C	2.91/Ea.
7355-NB-M	25.44/Ea.
7357-M	39.00/Ea.
7357-1-C	4.13/Ea.
7357-NB-M	27.90/Ea.
7359-M	51.00/Ea.
7359-1-C	5.84/Ea.
7359-NB-M	40.50/Ea.
7361-M	67.50/Ea.
7361-1-C	6.90/Ea.
7361-1-M	96.00/Ea.
7361-NB-M	54.18/Ea.
7362-1-C	10.50/Ea.
7362-NB-M	102.30/Ea.
7363-M	156.00/Ea.
7363-1-C	17.10/Ea.
7364-M	240.00/Ea.
7365-M	375.00/Ea.
7365/00-M	1200.00/Ea.
7365/0-M	900.00/Ea.
7365/2-M	600.00/Ea.
7371-M	45.00/Ea.
7371-1-C	4.98/Ea.
7372-M	51.00/Ea.
7372-1-M	5.40/Ea.
7373-M	55.50/Ea.
7373-1-C	5.70/Ea.
7374-M	82.34/Ea.
7374-1-C	8.70/Ea.
7375-M	97.50/Ea.
7376-M	117.00/Ea.
7389	117.00/Ea.
7389A	151.50/Ea.
7390	915.00/Ea.
7390-D	87.00/Ea.
7398-1M	21.00/Ea.
7398-2M	105.00/Ea.
7398-3M	35.40/Ea.
7400	375.00/Ea.
7400-D	27.00/Ea.
7401	91.68/Ea.
7401-M	141.69/Ea.
7402-M	22.50/Ea.
7402-C	2.37/Ea.
7412-M	34.20/Ea.
7412-C	3.60/Ea.
7412-Q	$ 1.08/Ea.
7418-M	36.30/Ea.
7418-1-C	4.62/Ea.
7428-M	56.10/Ea.
7428-1-C	5.94/Ea.
7448-M	67.50/Ea.
7448-C	6.90/Ea.
7449-M	81.00/Ea.
7449-1-C	10.50/Ea.
7458-M	126.00/Ea.
7458-1-C	13.20/Ea.
7524-E	4.50/Ea.
7524-M	8.70/Ea.
7526-E	4.20/Ea.
7526-M	8.10/Ea.
7527-E	4.05/Ea.
7527-M	7.80/Ea.
7528-E	3.90/Ea.
7528-M	7.50/Ea.
7529-E	5.70/Ea.
7529-M	10.80/Ea.
7530-E	3.70/Ea.
7530-M	7.20/Ea.
7532-E	4.65/Ea.
7532-M	9.00/Ea.
7534-E	5.70/Ea.
7534-M	10.80/Ea.
7535-E	18.30/Ea.
7535-M	36.00/Ea.
7536-E	19.95/Ea.
7536-M	39.00/Ea.
7537-E	19.20/Ea.
7537-M	37.50/Ea.
7538-E	18.00/Ea.
7538-M	35.40/Ea.
7542-M	42.00/Ea.
7542/3-M	52.50/Ea.
7542/4-M	63.00/Ea.
7552-M	40.50/Ea.
7552/3-M	58.50/Ea.
7552/4-M	69.60/Ea.
7571-E	5.40/Ea.
7571-M	9.45/Ea.
7572-E	15.00/Ea.
7572-M	28.65/Ea.
7573-E	22.05/Ea.
7573-M	42.60/Ea.
7574-E	27.90/Ea.
7574-M	54.30/Ea.
7575-E	43.50/Ea.
7575-M	78.00/Ea.
7580-M	81.60/Ea.
7581-E	18.90/Ea.
7581-M	36.00/Ea.
7582-E	27.75/Ea.
7582-M	53.40/Ea.
7583-E	34.95/Ea.
7583-M	66.00/Ea.
7584-E	41.10/Ea.
7584-M	78.00/Ea.
7585-E	56.40/Ea.
7585-M	107.40/Ea.
7610-M	330.00/Ea.
7610-1-C	36.00/Ea.
7612-M	192.00/Ea.
7612-1-C	21.00/Ea.
7614-M	150.00/Ea.
7614-1-C	16.50/Ea.
7616-M	117.00/Ea.
7616-1-C	13.50/Ea.
7618-M	99.00/Ea.
7618-1-C	10.50/Ea.
7620-M	85.50/Ea.
7620-1-C	9.15/Ea.
7622-M	75.00/Ea.
7622-1-C	8.10/Ea.
7652-E	11.40/Ea.
7652-M	22.20/Ea.
7653-E	19.80/Ea.
7653-M	39.00/Ea.
7654-E	25.80/Ea.
7654-M	51.00/Ea.
7668-E	10.60/Ea.
7668-M	21.00/Ea.
7669-E	15.00/Ea.
7669-M	30.00/Ea.
7670-E	18.00/Ea.
7670-M	36.00/Ea.
7716-D	375.00/Ea.
7716-M	1350.00/Ea.
7718-D	330.00/Ea.
7718-M	1230.00/Ea.
7720-D	306.00/Ea.
7720-M	1095.00/Ea.
7722-D	285.00/Ea.
7722-M	1035.00/Ea.
7724-D	261.00/Ea.
7724-M	975.00/Ea.
8000-M	94.40/Ea.
8000-E	48.00/Ea.
8000-C	$ 9.60/Ea.
8000 50′	6.00/Ea.
8000 25′	3.60/Ea.
8001-M	102.80/Ea.
8001-E	55.80/Ea.
8001-C	12.00/Ea.
8001 50′	6.60/Ea.
8001 25′	3.90/Ea.
8002-M	159.00/Ea.
8002-E	81.90/Ea.
8002-C	17.10/Ea.
8002 50′	9.00/Ea.
8002 25′	4.80/Ea.
8003-M	195.00/Ea.
8003-E	99.00/Ea.
8003-C	21.45/Ea.
8003 50′	11.40/Ea.
8003 25′	6.00/Ea.
8004-M	219.00/Ea.
8004-E	115.00/Ea.
8004-C	24.00/Ea.
8004 50′	13.20/Ea.
8004 25′	7.80/Ea.
8005-M	244.50/Ea.
8005-E	125.00/Ea.
8005-C	28.80/Ea.
8005 50′	16.32/Ea.
8005 25′	9.30/Ea.
8006-M	285.00/Ea.
8006-E	145.00/Ea.
8006-C	34.20/Ea.
8006 50′	19.20/Ea.
8006 25′	10.80/Ea.
8007-M	375.00/Ea.
8007-E	190.50/Ea.
8007-C	39.60/Ea.
8007 50′	22.05/Ea.
8007 25′	12.30/Ea.
8008-M	627.00/Ea.
8008-E	316.50/Ea.
8008-C	63.60/Ea.
8008 50′	36.90/Ea.
8008 25′	19.50/Ea.
8009-M	744.00/Ea.
8009-E	375.00/Ea.
8009-C	75.00/Ea.
8009 50′	44.40/Ea.
8009 25′	24.00/Ea.
8010-M	894.00/Ea.
8010-E	450.00/Ea.
8010-C	90.00/Ea.
8010 50′	53.10/Ea.
8010 25′	27.90/Ea.
8011-M	1080.00/Ea.
8011-E	544.50/Ea.
8011-C	108.90/Ea.
8011 50′	60.90/Ea.
8011 25′	32.60/Ea.
8012-M	1350.00/Ea.
8012-E	678.00/Ea.
8012-C	135.00/Ea.
8012 50′	74.55/Ea.
8012 25′	39.00/Ea.
8013-M	93.30/Ea.
8013-E	48.33/Ea.
8013-C	10.20/Ea.
8014-M	93.30/Ea.
8014-E	48.33/Ea.
8014-C	10.20/Ea.
8015-M	98.34/Ea.
8015-E	51.00/Ea.
8015-C	10.80/Ea.
8016-M	100.50/Ea.
8016-E	52.50/Ea.
8016-C	11.10/Ea.
8020-M	1800.00/Ea.
8020-E	900.00/Ea.
8020-C	186.00/Ea.
8020 50′	99.00/Ea.
8021-M	2100.00/Ea.
8021	1050.00/Ea.
8021-C	216.00/Ea.
8021 50′	114.00/Ea.
8022-M	2850.00/Ea.
8022	1425.00/Ea.
8022-C	291.00/Ea.
8022 50′	151.50/Ea.
8022 25′	76.50/Ea.
8023-M	3300.00/Ea.
8023-E	1650.00/Ea.
8023-C	336.00/Ea.
8023 50′	174.00/Ea.
8023 25′	87.90/Ea.
8024-M	4080.00/Ea.
8024-E	2040.00/Ea.
8024-C	414.00/Ea.
8024 50′	213.00/Ea.
8024 25′	107.10/Ea.
8025-M	4860.00/Ea.
8025-E	2430.00/Ea.
8025-C	$492.00/Ea.
8025 50′	252.00/Ea.
8025 25′	126.90/Ea.
8026-M	5205.00/Ea.
8026-E	2602.50/Ea.
8026-C	526.00/Ea.
8026 50′	269.25/Ea.
8026 25′	135.30/Ea.
8027-M	6750.00/Ea.
8027-E	3375.00/Ea.
8027-C	681.30/Ea.
8027 50′	346.65/Ea.
8027 25′	174.00/Ea.
8028-M	6990.00/Ea.
8028-E	3495.00/Ea.
8028-C	705.00/Ea.
8028 50′	358.50/Ea.
8028 25′	180.00/Ea.
8029-M	7740.00/Ea.
8029-E	3870.00/Ea.
8029-C	780.00/Ea.
8029 50′	396.00/Ea.
8029 25′	198.90/Ea.
8514-M	255.00/Ea.
8514-1-C	30.60/Ea.
8516-M	209.10/Ea.
8516-1-C	25.05/Ea.
8518-M	159.60/Ea.
8518-1-C	19.14/Ea.
8520-M	132.60/Ea.
8520-C	15.90/Ea.
8522-M	103.50/Ea.
8522-C	12.36/Ea.
8524-M	88.95/Ea.
8524-1-C	10.05/Ea.
8526-M	79.95/Ea.
8526-1-C	9.60/Ea.
8528-M	78.00/Ea.
8528-1-C	9.30/Ea.
8530-M	75.00/Ea.
8530-1-C	9.00/Ea.
8532-M	76.20/Ea.
8532-1-C	9.15/Ea.
8534-M	360.00/Ea.
8534-1-C	39.00/Ea.
8536-M	300.00/Ea.
8536-1-C	33.00/Ea.
8538-M	225.00/Ea.
8538-1-C	24.00/Ea.
8540-M	192.00/Ea.
8540-1-C	21.00/Ea.
8542-M	156.00/Ea.
8542-1-C	17.10/Ea.
8544-M	135.00/Ea.
8544-1-C	14.40/Ea.
8546-M	105.00/Ea.
8546-1-C	12.30/Ea.
8548-M	93.00/Ea.
8548-1-C	10.80/Ea.
8550-M	87.00/Ea.
8550-1-C	10.50/Ea.
8552-M	87.00/Ea.
8552-1-C	10.50/Ea.
8604-M	163.50/Ea.
8704/2-M	345.00/Ea.
8704/3-M	495.00/Ea.
8704/4-M	642.00/Ea.
8704/5-M	834.00/Ea.
8705-M	198.00/Ea.
8705/2-M	360.00/Ea.
8705/3-M	543.00/Ea.
8705/4-M	708.00/Ea.
8705/5-M	894.00/Ea.
8706-M	263.70/Ea.
8706/2-M	427.50/Ea.
8706/3-M	657.00/Ea.
8706/4-M	756.00/Ea.
8706/5-M	930.00/Ea.
8707-M	180.00/Ea.
8707/2-M	378.00/Ea.
8707/3-M	526.50/Ea.
8707/4-M	724.80/Ea.
8707/5-M	916.50/Ea.
8708-M	213.00/Ea.
8708/2-M	396.00/Ea.
8708/3-M	591.00/Ea.
8708/4-M	792.00/Ea.
8708/5-M	993.00/Ea.
8709-M	279.00/Ea.
8709/2-M	478.80/Ea.
8709/3-M	723.00/Ea.
8709/4-M	906.00/Ea.
8709/5-M	1089.00/Ea.
8710-M	219.00/Ea.
8710/2-M	460.50/Ea.
8710/3-M	654.00/Ea.
8710/4-M	855.00/Ea.
8710/5-M	1071.00/Ea.
8711-M	282.80/Ea.
8711/2-M	492.00/Ea.

Net

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Birnbach PRICE LIST

Cat. No.	Sug. Resale Price
8711/3-M	$626.00/Ea.
8711/4-M	912.00/Ea.
8711/5-M	1119 00/Ea.
8712-M	330.00/Ea.
8712/2-M	543.00/Ea.
8712/3-M	840.00/Ea.
8712/4-M	1054.50/Ea.
8712/5-M	1272.00/Ea.
C-1001-1 (50)	.12
C-1001-2 (50)	.13
C-1001-3 (50)	.13
C-1001-4 (50)	.21
D-50	2.97
P-1315-AB (5)	.81
P-1315-CCE (5)	1.21
P-1315-CCT (5)	1.21
P-1315-FHE (5)	1.01
P-1315-FHT (5)	1.01
P-1315-SB (5)	1.21
P-1318-AB (5)	1.01
P-1318-CCE (5)	1.43
P-1318-CCT (5)	1.43
P-1318-FHE (5)	1.22
P-1318-FHT (5)	1.23
P-1318-SB (5)	1.57
P-1321-AB (5)	1.26
P-1321-CCE (5)	1.72
P-1321-CCT (5)	1.72
P-1321-FHE (5)	1.46
P-1321-FHT (5)	1.46
P-1321-SB (5)	1.77
P-1324-AB (5)	1.56
P-1324-CCE (5)	2.00
P-1324-CCT (5)	2.00
P-1324-FHE (5)	1.78
P-1324-FHT (5)	1.78
P-1324-SB (5)	2.11
P-1327-AB (5)	1.84
P-1327-CCE (5)	2.28
P-1327-CCT (5)	2.28
P-1327-FHE (5)	2.04
P-1327-FHT (5)	2.04
P-1327-SB (5)	2.34
P-1330-AB (5)	2.10
P-1330-CCE (5)	2.62
P-1330-CCT (5)	2.62
P-1330-FHE (5)	2.42
P-1330-FHT (5)	2.42
P-1330-SB (5)	2.70
P-1333-AB (5)	2.38
P-1333-CCE (5)	2.86
P-1333-CCT (5)	2.86
P-1333-FHE (5)	2.73
P-1333-FHT (5)	2.73
P-1338-SB (5)	2.96
R-100	3.36
S-1315-AB (5)	.94
S-1315-CCE (5)	1.34
S-1315-CCT (5)	1.34
S-1315-FHE (5)	1.14
S-1315-FHT (5)	1.14
S-1315-SB (5)	1.37
S-1318-AB (5)	1.13
S-1318-CCE (5)	1.56
S-1318-CCT (5)	1.56
S-1318-FHE (5)	1.35
S-1318-FHT (5)	1.35
S-1318-SB (5)	1.64
S-1321-AB (5)	1.40
S-1321-CCE (5)	1.79
S-1321-CCT (5)	1.79
S-1321-FHE (5)	1.58
S-1321-FHT (5)	1.58
S-1321-SB (5)	1.91
S-1324-AB (5)	1.67
S-1324-CCE (5)	2.12
S-1324-CCT (5)	2.12
S-1324-FHE (5)	1.90
S-1324-FHT (5)	1.90
S-1324-SB (5)	2.24
S-1327-AB (5)	1.95
S-1327-CCE (5)	2.39
S-1327-CCT (5)	2.39
S-1327-FHE (5)	2.23
S-1327-FHT (5)	2.23
S-1327-SB (5)	2.51
S-1330-AB (5)	2.26
S-1330-CCE (5)	$ 2.78
S-1330-CCT (5)	2.78
S-1330-FHE (5)	2.57
S-1330-FHT (5)	2.57
S-1330-SB (5)	2.85
S-1333-AB (5)	2.49
S-1333-CCE (5)	2.99
S-1333-CCT (5)	2.99
S-1333-FHE (5)	2.81
S-1333-FHT (5)	2.81
S-1333-SB (5)	3.12
T-6-C	12.00
T-7	.30
T-8	.24
T-10	4.80
T-14	.42
T-14A	.48
T-15	15.00
T-15A	24.00
T-15C	1.50
T-16	15.00
T-16A	15.00
T-17	14.40
T-18	14.40
T-19-¾″	5.70
T-19-1″	5.70
T-19-1-½″	8.10
T-20	.48
T-42	4.20
T-44	10.80
T-46	16.80
T-48	28.80
T-100	6.00
T-101	6.00
T-102	6.00
T-105-14	13.50
T-105-16	13.50
T-105-16R	13.50
T-105-17	13.50
T-105-19R	16.50
T-105-20	16.50
T-105-21	16.50
T-105-24	25.50
T-105-27	25.50
T-250	9.60
T-251	12.00
T-669	10.20
TK-1	49.50
TK-2	45.50

SPECIAL MAGNET WIRE

Spool $ .61

SPECIAL SOLID TINNED WIRE

Spool $ .61

HEAVY FORMVAR MAGNET WIRE

¼ Lb. Spools

Size	Ft.	Sug. Resale Price
10	8	$.53
12	12	.54
14	20	.54
16	31	.55
18	49	.57
20	78	.59
22	125	.60
24	200	.63
26	300	.66
28	500	.72
30	800	.75
32	1225	.90
34	1988	1.02
36	3200	1.17
38	5050	1.41
40	7975	1.83
42	12375	2.40
44	14500	4.17

½ Lb. Spools

Size	Ft.	Sug. Resale Price
10	16	$.87
12	25	.88
14	39	$.88
16	62	.90
18	99	1.01
20	156	1.07
22	250	1.08
24	399	1.14
26	600	1.26
28	1000	1.38
30	1600	1.44
32	2450	1.74
34	3975	1.95
36	6400	2.28
38	10100	2.84
40	15850	3.48
42	24750	4.62
44	29000	7.95

1 Lb. Spools

Size	Ft.	Sug. Resale Price
10	32	$1.61
12	50	1.61
14	78	1.62
16	124	1.65
18	198	1.80
20	313	1.89
22	501	2.04
24	798	2.16
26	1200	2.34
28	1999	2.55
30	3200	2.70
32	4900	3.30
34	7950	3.75
36	13800	4.35
38	20200	5.10
40	31700	6.75
42	49500	8.70
44	58000	15.15

PLAIN ENAMEL MAGNET WIRE

¼ Lb. Spools

Size	Ft.	Sug. Resale Price
10	8	$.41
12	12	.41
14	20	.42
16	32	.43
18	50	.43
20	80	.44
22	127	.48
24	201	.48
26	320	.49
28	507	.52
30	805	.53
32	1282	.57
34	2037	.60
36	3221	.66
38	5132	.78
40	8143	1.02
42	12803	2.40
44	20455	3.39

½ Lb. Spools

Size	Ft.	Sug. Resale Price
10	16	$.75
12	25	.76
14	40	.77
16	63	.77
18	100	.77
20	160	.78
22	254	.81
24	403	.84
26	640	.87
28	1015	.93
30	1610	.96
32	2564	1.02
34	4075	1.11
36	6443	1.23
38	10246	1.56
40	16286	2.04
42	25605	4.59
44	40910	6.54

1 Lb. Spools

Size	Ft.	Sug. Resale Price
10	32	$1.41
12	50	1.41
14	80	1.42
16	125	1.42
18	201	1.43
20	320	1.50
22	508	1.59
24	806	1.62
26	1280	$1.71
28	2030	1.80
30	3220	1.86
32	5128	1.98
34	8150	2.16
36	12887	2.46
38	20492	2.97
40	32573	4.05
42	51211	9.00
44	81819	13.50

SOLID TINNED WIRE

¼ Lb. Spools

Size	Ft.	Sug. Resale Price
10	8	$.41
12	12	.41
14	20	.42
16	32	.48
18	50	.43
20	80	.44
22	127	.48
24	201	.48
26	320	.49
28	507	.52
30	805	.53
32	1282	.57
34	2037	.60
36	3221	.66
38	5132	.78
40	8143	1.02
42	12803	2.40
44	20455	3.39

½ Lb. Spools

Size	Ft.	Sug. Resale Price
10	16	$.75
12	25	.76
14	40	.77
16	63	.77
18	100	.77
20	160	.78
22	254	.81
24	403	.84
26	640	.87
28	1015	.93
30	1610	.96
32	2564	1.02
34	4075	1.11
36	6443	1.23
38	10246	1.56
40	16286	2.04
42	25605	4.59
44	40910	6.54

1 Lb. Spools

Size	Ft.	Sug. Resale Price
10	32	$1.41
12	50	1.41
14	80	1.42
16	126	1.42
18	201	1.43
20	320	1.50
22	508	1.59
24	806	1.62
26	1280	1.71
28	2030	1.80
30	3220	1.86
32	5128	1.98
34	8150	2.16
36	12887	2.46
38	20492	2.97
40	32573	4.05
42	51211	9.00
44	81819	13.50

DOUBLE NYLON MAGNET WIRE

¼ Lb. Spools

Size	Ft.	Sug. Resale Price
12	12	$.79
14	19	.83
16	31	.94
18	49	1.01
20	78	1.15
22	123	1.33
24	195	1.44
26	303	1.73
28	478	1.87
30	739	2.23
32	1136	2.81
34	1712	3.89
36	2551	$6.48
38	3770	9.00
40	5040	15.98

½ Lb. Spools

Size	Ft.	Sug. Resale Price
12	24	$1.51
14	39	1.55
16	62	1.73
18	99	1.91
20	157	2.20
22	247	2.45
24	390	2.74
26	606	3.31
28	956	3.60
30	1479	4.25
32	2272	5.40
34	3424	7.63
36	5102	12.60
38	7541	17.46
40	10080	30.36

1 Lb. Spools

Size	Ft.	Sug. Resale Price
12	49	2.88
14	78	2.95
16	125	3.06
18	198	3.35
20	315	3.96
22	495	4.32
24	781	5.40
26	1212	6.66
28	1912	7.20
30	2958	8.28
32	4545	10.72
34	6849	14.98
36	10204	24.48
38	15082	33.48
40	20161	59.04

DOUBLE COTTON MAGNET WIRE

¼ Lb. Spools

Size	Ft.	Sug. Resale Price
10	8	$.61
12	12	.61
14	19	.62
16	31	.65
18	48	.71
20	78	$.80
22	110	.90
24	134	1.00
26	284	1.12
28	435	1.30
30	641	1.58
32	976	1.91
34	1365	2.81
36	1827	3.28
38	2738	5.76
40	3405	8.28

½ Lb. Spools

Size	Ft.	Sug. Resale Price
10	16	$.96
12	24	.96
14	39	.97
16	62	1.02
18	97	1.14
20	157	1.38
22	220	1.58
24	235	1.69
26	568	1.98
28	871	2.52
30	1284	3.02
32	1953	3.60
34	2735	5.22
36	3654	6.28
38	5476	9.43
40	6811	14.11

1 Lb. Spools

Size	Ft.	Sug. Resale Price
10	31	$1.68
12	49	1.68
14	78	1.80
16	123	1.95
18	194	2.16
20	304	2.50
22	477	2.99
24	538	3.31
26	1136	3.78
28	1742	4.68
30	2569	5.58
32	3906	6.84
34	5470	9.72
36	7309	11.79
38	10952	17.64
40	13623	26.21

HEAT SHRINKABLE TUBING

*25—4′ Lengths

**5—4′ Lengths

Cat. No.	Put-Up	Sugg. Resale Each
SK-275-24	100′*	$16.00
SK-275-22	100′*	16.70
SK-275-20	100′*	17.50
SK-275-18	100′*	19.15
SK-275-16	100′*	20.75
SK-275-14	100′*	22.70
SK-275-12	100′*	24.90
SK-275-10	100′*	27.25
SK-275-8	100′*	31.80
SK-275-6	100′*	34.30
SK-275-4	100′*	37.30
SK-275-2	100′*	40.95
SK-275-2	20′**	8.20
SK-275-5⁄16	100′*	44.55
SK-275-5⁄16	20′**	8.90
SK-275-3⁄8	100′*	55.50
SK-275-3⁄8	20′**	11.10
SK-275-7⁄16	100′*	70.40
SK-275-7⁄16	20′**	14.10
SK-275-½	100′*	81.45
SK-275-½	20′**	16.30
SK-275-5⁄8	100′*	97.00
SK-275-5⁄8	20′**	19.40
SK-275-¾	100′*	115.40
SK-275-¾	20′**	23.10
SK-275-7⁄8	100′*	136.50
SG-275-7⁄8	20′**	27.30
SK-275-1	100′*	161.00
SK-275-1	20′**	32.20

CONDUCTOR COLOR CODE CHART FOR PAIRED INTERCOMMUNICATING CABLES ON PAGE 1611

Pair No. Color

1—Black with Red
2—Black with White
3—Black with Green
4—Black with Blue
5—Black with Brown
6—Black with Yellow
7—Black with Orange
8—Red with Green
9—Red with White
10—Red with Blue
11—Red with Yellow
12—Red with Brown
13—Red with Orange
14—Green with Blue
15—Green with White
16—Green with Brown
17—Green with Orange
18—Green with Yellow
19—White with Blue
20—White with Brown
21—White with Orange
22—White with Yellow
23—Blue with Brown
24—Blue with Orange
25—Blue with Yellow
26—Brown with Orange
27—Brown with Yellow
28—Purple with Red
29—Purple with White
30—Purple with Green
31—Purple with Blue
32—Purple with Brown
33—Purple with Yellow
34—Purple with Orange
35—Purple with Slate
36—Purple with Black
37—Slate with Red
38—Slate with White
39—Slate with Green
40—Slate with Blue
41—Slate with Brown
42—Slate with Yellow
43—Slate with Orange
44—Slate with Black
45—White/Black with Red
46—White/Black with Green
47—White/Black with Blue
48—White/Black with Brown
49—White/Black with Yellow
50—White/Black with Orange
51—White/Black with Purple

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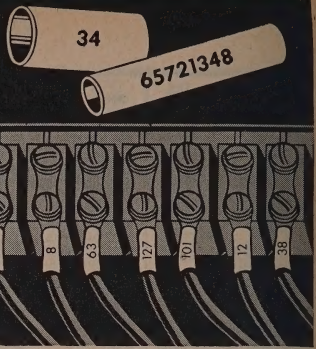
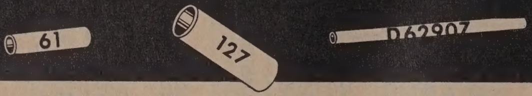
BRADY PERMA-CODE

wire and cable marking sleeves





STOCK PRINTED PERMA-CODE SLEEVES

Now you can order pre-cut sleeves for insulating and marking wires and cables FROM STOCK . . . Get fast delivery on a wide range of sizes and numerical legends on standard MIL-spec material.

Stock Perma-Code Sleeves are made from Brady Type R B-PVC-10 Polyvinyl Chloride tubing. (See chart below.) Conform to MIL-1-631C and industry specifications. Furnished white sleeve with black printing on sizes through size #2 . . . black sleeve with white printing on 5/16" and 3/8" sizes . Numbers printed on two sides of sleeve. Numerical legends 1 through 127 conform to new IPCEA-NEMA specifications as listed in Table 53, publication UC-30-1961 for identification of control cables. (Numbers provide direct reading from wire list on print . . . conversion to 2 or 3 color code is unnecessary.) Stocked in ten most-used sizes as listed in table at right.

FURNISHED 50 IDENTICAL SLEEVES TO STANDARD PACKAGE

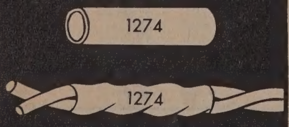
SLEEVE SIZE	INSIDE DIA.	LENGTH	PRINTING ON MARKERS	BRADY STOCK NOS.	LIST PRICE (See Discount Schedule Below)
#16	.053"	½"	1 thru 127	PMS-16-1 thru PMS-16-127	$0.90/pkg.
#14	.066"	½"	1 thru 127	PMS-14-1 thru PMS-14-127	.90/pkg.
#12	.085"	½"	1 thru 127	PMS-12-1 thru PMS-12-127	.90/pkg.
#10	.106"	½"	1 thru 127	PMS-10-1 thru PMS-10-127	.90/pkg.
#8	.133"	½"	1 thru 127	PMS-08-1 thru PMS-08-127	.95/pkg.
#6	.166"	½"	1 thru 127	PMS-06-1 thru PMS-06-127	.95/pkg.
#4	.208"	⅝"	1 thru 127	PMS-04-1 thru PMS-04-127	1.00/pkg.
#2	.263"	⅝"	1 thru 127	PMS-02-1 thru PMS-02-127	1.00/pkg.
5⁄16"	.312"	¾"	1 thru 127	PMS-31-1 thru PMS-31-127	1.10/pkg.
⅜"	.375"	¾"	1 thru 127	PMS-37-1 thru PMS-37-127	1.15/pkg.

1 to 4 Pkgs.	List Price	25 to 49 Pkgs.	30%
5 to 24 Pkgs.	20%	50 to 99 Pkgs.	35%
100 Pkgs. and Over	40%		

SPECIAL, MADE-TO-ORDER PERMA-SLEEVES—5 MATERIALS—MEET MIL SPECS

BRADY MATERIAL DESIGNATION	MATERIAL DESCRIPTION AND APPLICATIONS	TEMP. RANGE	DIELECTRIC STRENGTH	CONFORM TO SPECIFICATIONS	SIZE RANGE
B-PVC-10 (TYPE R)	Polyvinyl Chloride tubing for general use. Medium to high temperature rating. High resistance to heat, oil, chemicals, corrosion, fungi and abrasion. Low cost. Recommended for electronic, aircraft and electrical applications within temperature range.	+105°C. —30°C.	800 Volts per mil	MIL-1-631C ASTM-D876 ASTM-D922 U/L Approved	#24 thru 2½"
B-PVC-20 (TYPE R)	Polyvinyl Chloride tubing with highest quality non-migratory resinous type plasticizers. Outstanding flexibility and aging qualities. Non-corrosive. Recommended for extreme low temperature applications.	+70°C. —67°C.	550 Volts per mil	MIL-1-7444B MIL-1-631C ASTM-D876 ASTM-D922	#24 thru 2½"
B-PFG-30 (TYPE R)	Plastic-impregnated Fiberglass Sleeving remains stable in continuous operating temperatures to 130° C. . . . retains color after prolonged baking cycle. Excellent chemical and abrasion resistance. Highly flexible. Chemically inert. Extremely durable . . . use where high heat resistance is indicated.	+130°C. —30°C.	8000 Volts	MIL-1-3190B NEMA-VSI ASTM-D372	#24 thru 1"
B-RCF-40 (TYPE R)	Silicone Rubber Fiberglass tubing. Braided, fiberglass base. Treated to retard fraying. Abrasion resistant silicone rubber fused to braid. Shrink, fungus and chemical resistant. Extremely flexible. Will not craze or crack in wide temperature range. Recommended for extreme temperature applications.	+200°C. —90°C	7000 Volts	MIL-1-3190B NEMA ASTM	#24 thru ¾"
B-HST-50 (TYPE S/0)	Heat Shrinkable Sleeve Markers. (See description below.)	+150°C.	800 Volts per mil		#24 thru 1"

Write for free testing samples and full information on sizes and colors of Perma-Code Sleeves available.



BRADY TYPE S/O HEAT SHRINKABLE PERMA-CODE SLEEVES

Provide identification, insulation and tight mechanical bond on wires, cables, splices and connections in one piece . . . in one operation. Sleeves printed one or two sides with legend of your choice. Easy to use . . . simply slip over wire and apply heat. Sleeve shrinks to predetermined size within seconds . . . conforms perfectly to irregularly shaped objects.

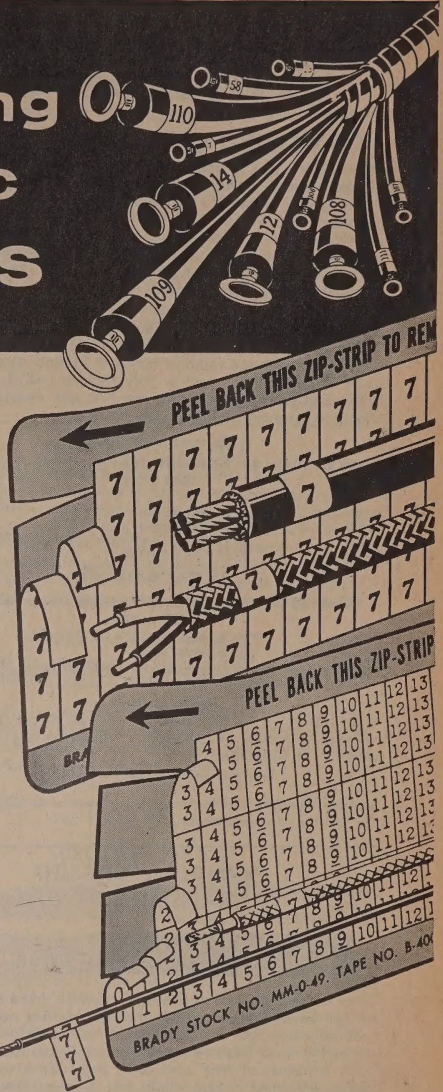
Made of irradiated Polyolefin. Furnished in expanded form. Shrinks to original size (approximately ⅓ smaller) in presence of 235° F. to 300° F. temperature. Once sleeve is shrunk, it remains stable in prolonged exposure to these temperatures.

Sleeves are highly resistant to oils, fuels, hydraulic oils and chemicals. Flame retardant. 800 v. per mil dielectric strength. Non-corrosive. Furnished in 20 sizes, #24 thru 1". *WRITE FOR BULLETIN NO. 746 FOR FULL INFORMATION AND FREE TESTING SAMPLES.*

W. H. BRADY CO.
Milwaukee

Manufacturers of: Quality Pressure-Sensitive Industrial Tape Products, Self-Bonding Nameplates, Automatic Machines for Dispensing Labels, Masks and Tape.
Est. 1914

BRADY Self-Sticking B-400 electronic wire markers


58
110
14
12
108
109
PEEL BACK THIS ZIP-STRIP TO REM
PEEL BACK THIS ZIP-STRIP
BRADY STOCK NO. MM-0-49. TAPE NO. B-400

Designed specifically for electronic wires, cables, harnesses and assemblies. Stick tight to any type wire insulation including teflon, and to insulation coated with oils, silicones or containing plasticizers. Markers are only 4½ mils thick for least bulk in electronic assemblies. Resist continuous heat to 150°C. (302°F.). Withstand oil, solvents, fungus and ultra-violet exposure. Markers have 6000 volt dielectric strength. Conform to MIL-E-5272A and other military specs.

Three sizes of B-400 Markers stocked: ½″ long miniature size for wires .150″ o.d. and smaller . . . ¾″ standard size for wires .150″ to .250″ . . . 1½″ large size for wires and cables over .250″. Furnished on handy Blue Streak® Dispenser Cards ready for fast application manually or by automatic machine.

STOCK LIST – 1/2″ Long Miniature Markers

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
SOLID NUMBERS			
(All markers on each card the same)			
MM-0	0	50	150
MM-1.	1	50	150
MM-2	2	50	150
and so on thru			
MM-99	99	50	150
MM-100	100	33	99
MM-101	101	33	99
and so on thru			
MM-497	497	33	99
MM-498	498	33	99
MM-499	499	33	99
MM-500	500	33	99
SOLID CAPITAL LETTERS			
(All markers on each card same)			
MM-A-CAP	A	50	150
MM-B-CAP	B	50	150
MM-C-CAP	C	50	150
and so on thru			
MM-Z-CAP	Z	50	150

Brady Stock No.	Printing on Markers	Markers Per Row	Markers Per Card
CONSECUTIVE NUMBERS			
(3 complete sets per card)			
MM-0-49	0 thru 49	50	150
MM-50-99	50 thru 99	50	150
MM-100-132	100 thru 132	33	99
MM-133-165	133 thru 165	33	99
MM-166-198	166 thru 198	33	99
MM-199-231	199 thru 231	33	99
MM-232-264	232 thru 264	33	99
MM-265-297	265 thru 297	33	99
MM-298-330	298 thru 330	33	99
MM-331-363	331 thru 363	33	99
MM-364-396	364 thru 396	33	99
MM-397-429	397 thru 429	33	99
MM-430-462	430 thru 462	33	99
MM-463-495	463 thru 495	33	99

COMBINATION CARD — STOCK NO. MM COMB. Special Combination of most commonly used numbers, letters and symbols — all on one card. Includes Numbers 0-15; Letters A-Z; and these Symbols:

FIL	B+	SEC
GRD	PRI	PLA

STOCK LIST – 3/4″ Long and 1-1/2″ Long Markers

SOLID NUMBER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾″	1½″
VP-0	0	72	36
VP-1	1	72	36
VP-2	2	72	36
VP-3	3	72	36
and so on thru			
VP-97	97	72	36
VP-98	98	72	36
VP-99	99	72	36
VP-100	100	50	25
and so on thru			
VP-300	300	50	25
✱VP-301	301	50	25
✱VP-302	302	50	25
and so on thru			
✱VP-499	499	50	25
✱VP-500	500	50	25

SOLID LETTER CARDS

Brady Stock No.	Printing on Each Marker	No. of Markers on Each Card ¾″	1½″
VP-A	A	72	36
VP-B	B	72	36
VP-C	C	72	36
and so on thru			
VP-Z	Z	72	36

NOTE: Items shown with ✱ in stock list are made to order. Shipping time is one week from receipt of order. Stock prices shown in price table apply to these items.

CONSECUTIVE NUMBER CARDS

Brady Stock No.	Printing on Markers	No. of Markers of Each No. on Each Card ¾″	1½″
VP-1-33	1-33	2	1
VP-34-66	34-66	2	1
VP-67-99	67-99	2	1
VP-100-124	100-124	2	1
VP-125-149	125-149	2	1
VP-150-174	150-174	2	1
VP-175-199	175-199	2	1
VP-200-224	200-224	2	1
VP-225-249	225-249	2	1
VP-250-274	250-274	2	1
VP-275-299	275-299	2	1
and so on thru			
VP-475-500	475-500	2	1
CONSECUTIVE D.C. MOTOR GENERATOR MARKERS			
✱VP-AFS	A1, A2, F1, F2, S1, S2,	12	6

Write for Brady Bulletin 130-H for complete list of stock items, prices and free testing samples.

PRICES PER 100 CARDS

Description	25 to 99 Cards	100 to 499 Cards	500 to 999 Cards	1000 to 2499 Cards	2500 to 4999 Cards	5000 to 9999 Cards
Discount	List	20%	30%	35%	37½%	40%
½″ long Miniature Markers	$27.00/C	$21.60/C	$18.90/C	$17.55/C	$16.88/C	$16.20/C
1½″ and ¾″ long Wire Markers	$22.50/C	$18.00/C	$15.75/C	$14.64/C	$14.06/C	$13.50/C

W. H. BRADY CO.

Milwaukee

Manufacturers of Quality Pressure-Sensitive Industrial Tape Products, Self-Bonding Nameplates, Automatic Machines for Dispensing Labels, Nameplates, Masks and Tape. Est. 1914

© U.C.P., Inc.

Columbia

PERMALINE TV TRANSMISSION LINES

COLUMBIA is first to offer a television transmission line with an insulation so good that it can be GUARANTEED IN WRITING to give a service life far beyond the normal life of brown Polyethylene television lines. PERMALINE is a high molecular weight Polyethylene containing carbon black for maximum resistance to sunlight, which has been proven the chief factor in deterioration of ordinary television lines. The insulation value of 50 Mils of PERMALINE is equal to over 150 Mils of conventional brown Polyethylene.

Electrical characteristics of PERMALINE are very similar to Brown Polyethylene television lines but as there is no deterioration. Attenuation remains constant instead of increasing as is the case with brown Polyethylene, which becomes brittle and cracks. This is truly the first new development in television transmission lines in ten years.

25 YEAR WARRANTY

80 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.080 x .395

CAT NO.		
5050M	1,000 Ft. Metal Spool	
5050D	500 Ft. Metal Spool	
5050C	100 Ft. Coil	12 coils come packed in FREE counter display
5050S	65 Ft. Coil	

15 YEAR WARRANTY

50 Mil 20 Ga. Str. PERMALINE Television Transmission Line
.050 x .385

5150M	1,000 Ft. Metal Spool	
5150D	500 Ft. Metal Spool	
5150C	100 Ft. Coil	12 coils come packed in FREE counter display
5150S	65 Ft. Coil	

Highly resistant to:

- SUNLIGHT
- MOISTURE
- FAR BELOW ZERO TEMP.
- CHEMICAL FUMES
- OIL REFINERY FUMES
- SALT AIR & SALT SPRAY
- ABRASION

Tensile Strength — 2300 lbs. per Sq. In.

Separate Warranty Certificate with every spool or package of Permaline Television Transmission Line.

PERMALINE VHF-UHF TV TRANSMISSION LINE

Since the introduction of this cable in May, 1956 it has been proven beyond any doubt that this cable has no equal for reliability over the entire range of VHF and UHF channels under the most adverse conditions, such as salt spray, sunlight, extremes of heat and cold, stress cracking, chemical fumes, whipping in high winds, etc. In many areas throughout the country where other cables have failed due to salt deposits on transmission lines, this cable has given satisfactory reception at all times. Foam polyethylene tubes provide excellent low loss dielectric and require no sealing. 22 gauge solid copperweld conductors mean high tensile strength so necessary where whipping of cable is a problem. Heavy duty jacket of high molecular weight BLACK PERMALINE POLYETHYLENE is a protection against all hazards. We believe this is the finest all-purpose television transmission line available today. Impedance is 270 ohms, nominal attenuation is 3.2 D/B at 500 M/C and 4.6 D/B at 900 M/C. Cable size is approximately .295 x .402.

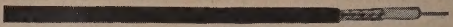
15 Year Written Guarantee Certificate

CAT. NO.	
5684C	100 Ft. Carton
5684D	500 Ft. Spool
5684M	1000 Ft. Spool

PERMAFOAM LOW LOSS COAXIAL CABLES

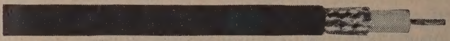
PERMAFOAM is a new type of coaxial cable for television systems, communication work, and all other co-ax applications. A foam polyethylene dielectric replaces the conventional solid polyethylene thus providing far lower capacity and attenuation. In fact, attenuation is approximately 25% lower than standard coaxial cables of same type. Overall jacket is our PERMALINE high molecular weight polyethylene. This non-contaminating jacket is unaffected by salt air, chemical fumes, damp rot, fungus, acids, alkalis, etc., and is remarkably resistant to all extreme weather conditions. Moisture resistance is so high that this insulation is now used on submarine cables. Will withstand severe temperature extremes and is immune to the deteriorating effects of sunlight and other ultra violet. Note: In addition to the PERMAFOAM cables listed below, any other RG U cable is available with a foam polyethylene dielectric on special order.

PERMAFOAM 72-75 OHM COAXIAL CABLE



R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 59 U	73	2.95 DB.	22 Cpwld.	.240	500 Ft. 1000 Ft.	5035D 5035M
RG 11 U	75	1.50 DB.	14 Solid	.405	500 Ft. 1000 Ft.	5025D 5025M
RG 17U	52	.712 DB.	5 Solid	.870	100 Ft. 500 Ft.	5090C 5090D

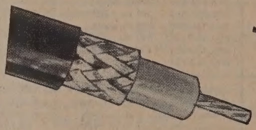
PERMAFOAM 52-53 OHM COAXIAL CABLE

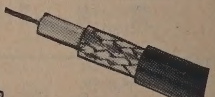


R.G. No.	Nom. Imp.	Attenuation 100 Ft. 100 MC	Wire Size	O.D.	Spool Size	Cat. No.
RG 58 U	53	3.10 DB.	20 Solid	.195	100 Ft. 500 Ft. 1000 Ft.	5045C 5045D 5045M
RG 8 U	52	1.50 DB.	7/21	.405	100 Ft. 500 Ft. 1000 Ft.	5015C 5015D 5015M
RG 17 U	52	.712 DB.	5 Solid	.870	100 Ft. 500 Ft. 1000 Ft.	5090C 5090D 5090M

COLUMBIA STANDARD COAXIAL CABLES

Premium quality standard coaxial cable. Meets all specifications. Black vinyl jacket.





R.G. No.	Nom. Imp.	Nom. Mmfd. Ft.	Wire Size	Overall Jacket	Spool Size	Cat. No.
RG 59 U	73.0	21.0	22 C Weld	Black Vinyl .240 O.D.	100 Ft. 500 Ft. 1000 Ft.	1104C 1104D 1104M
RG 8 U	52.0	29.5	7/21	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1154C 1154D 1154M
RG 11 U	75.0	20.5	7/26	Black Vinyl .405 O.D.	100 Ft. 500 Ft. 1000 Ft.	1160C 1160D 1160M
RG 58 U	53.5	28.5	20 Ga.	Black Vinyl .195 O.D.	100 Ft. 500 Ft. 1000 Ft.	1166C 1166D 1166M
RG 58 A/U	50.0	29.0	19/.0068	Black Vinyl .159 O.D.	100 Ft. 500 Ft. 1000 Ft.	1178C 1178D 1178M

Long Lengths of Any Co-ax Available Upon Request

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

© U.C.P., Inc.

Columbia

FLEXFOAM ULTRA LOW CAPACITANCE MICROPHONE CABLES — EXCLUSIVE WITH COLUMBIA

Another Columbia first is a complete line of microphone cables with capacity as much as 35% lower than the best regular microphone cables available today. This drastic lowering of capacity has been made possible by the use of foamed polyethylene as the inner dielectric instead of solid polyethylene as normally used. This low capacitance means that lengths of microphone cable can be increased as much as 50%. These cables are also ideal for Hi-Fi and high quality sound work because of the extremely low attenuation, particularly at the higher audio-frequencies. The use of a special flexible vinyl as an outer jacket provides flexibility practically as good as rubber yet has much greater abrasion resistance. Color—Grey.

Also available in high gloss gleaming white jackets.

FLEXFOAM MIKE CABLE WITH BRAIDED SHIELD

			250 Ft. Spool	500 Ft. Spool
Crystal Size	(.190″ O.D.)	16 MMF Per Ft.	No. 1399T	1399D
Lapel Size	(.140″ O.D.)	19 MMF Per Ft.	No. 1379T	1379D

FLEXFOAM MIKE CABLE WITH SPIRAL SHIELD

Crystal Size	(.190″ O.D.)	16 MMF Per Ft.	No. 1389T	1389D
Lapel Size	(.140″ O.D.)	19 MMF Per Ft.	No. 1369T	1369D
Miniature	(.085″ O.D.)	35 MMF Per Ft.	No. 1359T	1359D

TWO CONDUCTOR PLASTIC MICROPHONE CABLE — .230 O.D.

250 Ft. Spool	22 Ga.	16/34 Stranding	1322T
500 Ft. Spool	22 Ga.	16/34 Stranding	1322D

Nominal Capacitance 30 MMF Per Ft. Between 1 Cond. and Remaining Cond. Connected to Shield

ECONOMY SPIRAL SHIELDED MICROPHONE CABLES

Plastic insulated with wrapped concentric spiral shield for more effective shielding. Cables are more flexible and of smaller size.

CRYSTAL MICROPHONE CABLE .160 O.D.

25 Ga. 7 x 33 Str.

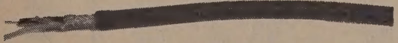
CAT. NO.		
1314T	250 Ft. Spool	Nominal Cap. 25 MMF Per Ft.
1314D	500 Ft. Spool	Nominal Cap. 25 MMF Per Ft.

LAPEL MICROPHONE CABLE .125 O.D.

25 Ga. 7 x 33 Str.

1366T	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.
1366M	250 Ft. Spool	Nominal Cap. 33 MMF Per Ft.

HEAVY DUTY MICROPHONE CABLE



Heavy duty studio type plastic insulated microphone cable that will withstand abrasion and rough usage.

18 Ga. Str. 41 x 34 Tinned Copper Conductors.
Jute Fillers T/C Shield
.295 O.D.

		CAT. NO.
100 Ft. Spool	Color—Black	3302C
500 Ft. Spool	Color—Black	3302D

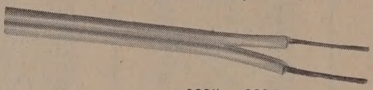
Nominal Capacitance 75 MMF. Per Ft.

H'VY GAUGE JUKE BOX-H.F. SPKR CABLE

FOR LONG RUNS—LESS LOSS

This cable is similar to the 24 ga. juke box speaker cable listed in our general catalog, except that the 21 ga. conductors in this cable reduce the line loss to exactly half. Ridge in insulation over one conductor plus one tinned and one bare conductor provide double indication of polarity.

COLORS: Clear, Grey, Brown, White



.180″ x .090″
2 COND. 21 GA. STR. 10/31

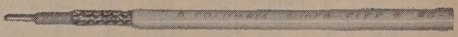
No. 1360C	100 Ft. Spool
No. 1360D	500 Ft. Spool
No. 1360M	1000 Ft. Spool

COLUMBIA SUPER-FLEX

ULTRA FLEXIBLE FOAM COAXIAL CABLE

All Super-Flex Coaxial Cables have extra flexible stranded center conductors and *Flexlife* extra flexible non contaminating jackets—the same jacket as used on Columbia *Flexfoam* microphone cable. The dielectric is foam polyethylene, the same as is used on Columbia *Permafoam* Coaxial Cable. The foam polyethylene in addition to increasing the flexibility of the cable, also reduces the attenuation approximately 25%.

SUPER-FLEX RG 58 A/U

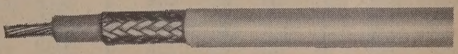


Extra flexibility is obtained by the 19/.0068 tinned copper conductor which combined with our *Flexlife* non contaminating jacket provides a remarkably limp cable. Inner dielectric is foam polyethylene for lower losses.

Impedance 50 OHMS .195 O.D.

No. 1188C—100′ Spool
No. 1188D—500′ Spool
No. 1188M—1000′ Spool

SUPER-FLEX RG 8/U



An outstanding development is our new Super-Flex RG 8/U cable with much greater flexibility than any other BG 8/U heretofore available. *Flexlife* insulation in addition to being non-contaminating will not become rigid in extreme cold as is the case with ordinary Vinyls. Center conductor is 19/24 copper. Inner dielectric is low loss foam polyethylene. For use with standard RG 8/U connectors. .52 OHM impedance .405 O.D.

No. 1198C—100′ Spool
No. 1198D—500′ Spool
No. 1198M—1000′ Spool

SUPER-FLEX RG 58 A/U and RG 8/U are ideal for use with citizens band equipment or any other 52 ohm application where super flexibility is desired.

SUPER-FLEX RG 59/U

Center conductor is 7 strands of 31 gauge soft copper. Regular RG 59/U has a solid copperweld conductor. Jacket is silver gray non-contaminating *Flexlife*. Dielectric is low loss foam polyethylene.

No. 1135C—100′ Spool
No. 1135D—500′ Spool
No. 1135M—1000′ Spool

Available with 22 gauge solid copper weld conductor.
Also available in high gloss gleaming black jackets.

WRITE TO YOUR LOCAL PARTS DISTRIBUTOR FOR COMPLETELY ILLUSTRATED COLUMBIA WIRE & SUPPLY CO. CATALOG

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CONSOLIDATED

CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

See Following Pages for Specifications

CHICAGO, ILLINOIS

PRICE LIST

No.	Unit Pkg. or Length	Net Price Each
637	100′	1.25
637	500′	5.60
637	1000′	10.00
642	100′	1.50
642	500′	6.35
642	1000′	11.00
647	100′	1.85
647	500′	8.50
647	1000′	15.75
667	100′	1.35
667	500′	6.35
667	1000′	12.00
672	100′	1.65
672	500′	7.80
672	1000′	13.75
677	100′	2.10
677	500′	9.35
677	1000′	16.75
707	100′	.70
707	500′	3.00
707	1000′	4.65
717	100′	.90
717	500′	4.15
717	1000′	7.65
727	100′	1.20
727	500′	5.70
727	1000′	10.25
737	100′	.80
737	500′	3.90
737	1000′	7.15
747	100′	1.05
747	500′	4.95
747	1000′	9.30
757	100′	1.45
757	500′	6.90
757	1000′	13.00
801	25′	.30
801	100′	.90
801	500′	4.15
801	1000′	7.85
811	25′	.35
811	100′	1.05
811	500′	4.85
811	1000′	9.00
821	25′	.35
821	100′	1.05
821	500′	4.85
821	1000′	9.00
831	25′	.43
831	100′	1.20
831	500′	6.00
831	1000′	11.75
841	25′	.46
841	100′	1.65
841	500′	7.50
841	1000′	14.00
846	25′	.51
846	100′	1.70
846	500′	7.85
846	1000′	15.00
851	25′	.42
851	100′	1.50
851	500′	6.60
851	1000′	12.35
856	25′	.50
856	100′	1.85
856	500′	7.65
856	1000′	14.50
861	25′	.60
861	100′	2.15
861	500′	9.90
861	1000′	19.00
866	25′	.55
866	100′	1.90
866	500′	7.65
866	1000′	14.50
871	25′	.61
871	100′	2.20
871	500′	8.70
871	1000′	16.85
876	25′	.70
876	100′	2.55
876	500′	10.55
876	1000′	20.50
881	100′	3.20
881	500′	15.00
881	1000′	29.75
901	25′	.33
901	100′	1.20
901	500′	5.65
901	1000′	10.55
911	25′	.38
911	100′	1.42
911	500′	6.60
911	1000′	12.50
921	25′	.38
921	100′	1.42
921	500′	7.00
921	1000′	13.85
931	25′	.51
931	100′	1.60
931	500′	7.85
931	1000′	15.45
1001	10′	.35
1001	100′	1.88
1001	250′	4.50
1001	500′	8.50
1001	1000′	16.50
1006	10′	.50
1006	100′	3.30
1006	250′	7.85
1006	500′	15.35
1006	1000′	30.35
1386	50′	1.35
1386	100′	2.63
1386	250′	5.40
1386	500′	10.50
1386	1000′	20.25
1387	50′	1.42
1387	100′	2.70
1387	250′	6.78
1387	500′	12.38
1387	1000′	24.00
1388	50′	1.50
1388	100′	2.85
1388	250′	6.75
1388	500′	13.13
1388	1000′	25.50
1389	50′	1.57
1389	100′	2.92
1389	250′	7.12
1389	500′	13.87
1389	1000′	27.37
1390	50′	1.62
1390	100′	3.07
1390	250′	7.27
1390	500′	14.25
1390	1000′	27.10
1391	50′	1.87
1391	100′	3.52
1391	250′	9.00
1391	500′	17.62
1391	1000′	34.50
1392	50′	2.48
1392	100′	4.80
1392	250′	12.00
1392	500′	23.60
1392	1000′	46.85
1393	50′	3.22
1393	100′	6.35
1393	250′	14.50
1393	500′	28.50
1393	1000′	56.25
1394	50′	4.85
1394	100′	9.35
1394	250′	24.00
1394	500′	47.25
1394	1000′	93.00
1395	50′	5.55
1395	100′	10.80
1395	250′	27.00
1395	500′	53.60
1395	1000′	106.50
1396	50′	12.35
1396	100′	24.30
1396	250′	60.00
1396	500′	119.25
1396	1000′	237.00
1397	50′	7.95
1397	100′	15.75
1397	250′	39.00
1397	500′	77.25
1397	1000′	153.75
1398	50′	12.25
1398	100′	26.25
1398	250′	65.25
1398	500′	127.50
1398	1000′	247.50
1399	50′	14.60
1399	100′	28.85
1399	250′	71.60
1399	500′	142.50
1399	1000′	281.25
1453	100′	15.00
1453	500′	126.00M′
1453	1000′	120.00M′
1454	100′	31.50
1454	500′	307.50M′
1454	1000′	300.00M′
1455	15′	2.70
1455	50′	8.25
1455	100′	16.50
1455	250′	40.50
1455	500′	162.00M′
1455	1000′	162.00M′
1456	15′	1.50
1456	25′	2.55
1456	50′	4.88
1456	100′	9.45
1456	250′	93.00M′
1456	500′	90.00M′
1456	1000′	90.00M′
1457	9′	.50
1457	10′	.60
1457	25′	1.08
1457	50′	2.10
1457	100′	3.82M′
1457	250′	36.50M′
1457	500′	35.25M′
1457	1000′	35.25M
1458	8′	.60
1458	15′	.98
1458	25′	1.50
1458	50′	2.85
1458	100′	5.15
1458	250′	51.75M′
1458	500′	50.25M′
1458	1000′	50.25M′
1459	25′	1.35
1459	50′	2.55
1459	100′	4.95
1459	250′	47.50M′
1459	500′	46.00M′
1459	1000′	46.00M′
1460	15′	1.20
1460	25′	1.88
1460	50′	3.52
1460	100′	6.60
1460	250′	63.75M′
1460	500′	61.75M′
1460	1000′	61.75M′
1461	10′	.43
1461	15′	.57
1461	25′	.90
1461	50′	1.50
1461	100′	2.85
1461	250′	27.75M′
1461	500′	25.50M′
1461	1000′	25.50M′
1462	15′	1.28
1462	25′	2.10
1462	50′	3.90
1462	100′	7.50
1462	250′	75.00M′
1462	500′	68.25M′
1462	1000′	68.25M′
1463	15′	1.50
1463	25′	2.40
1463	50′	3.65
1463	100′	8.70
1463	250′	21.00
1463	500′	84.00M′
1463	1000′	84.00M′
1464	15′	1.72
1464	25′	2.85
1464	50′	5.25
1464	100′	10.00
1464	250′	24.25
1464	500′	97.50M′
1464	1000′	97.50M′
1465	15′	2.03
1465	25′	3.38
1465	50′	6.30
1465	100′	12.30
1465	250′	30.00
1465	500′	120.00M′
1465	1000′	120.00M′
1466	15′	2.55
1466	25′	4.13
1466	50′	7.72
1466	100′	15.50
1466	250′	37.50
1466	500′	150.00M′
1466	1000′	150.00M′
1467	15′	2.78
1467	25′	4.58
1467	50′	8.48
1467	100′	16.50
1467	250′	40.00
1467	500′	160.50M′
1467	1000′	160.50M′
1471	100′	4.13
1471	250′	9.00
1471	500′	35.25
1471	1000′	33.75
1472	100′	4.13
1472	250′	9.75
1472	500′	37.50
1472	1000′	37.50
1473	100′	7.88
1473	250′	18.75
1473	500′	72.75
1473	1000′	70.75
1474	100′	9.75
1474	250′	23.63
1474	500′	89.25
1474	1000′	87.75
1475	100′	11.17
1475	250′	9.27
1475	500′	106.50
1475	1000′	105.00
1476	100′	15.75
1476	250′	37.50
1476	500′	144.00
1476	1000′	142.50
1477	100′	18.75
1477	250′	45.00
1477	500′	168.75
1477	1000′	168.75
1481	100′	3.00
1481	250′	27.00
1481	500′	25.50
1481	1000′	25.50
1482	100′	3.22
1482	250′	30.00
1482	500′	28.50
1482	1000′	28.50
1483	100′	4.50
1483	250′	42.00
1483	500′	40.50
1483	1000′	40.50
1484	100′	5.48
1484	250′	52.88
1484	500′	51.38
1484	1000′	51.38
1485	100′	6.75
1485	250′	65.63
1485	500′	64.78
1485	1000′	64.78
1486	100′	8.25
1486	250′	80.10
1486	500′	78.60
1486	1000′	78.60
1487	100′	9.98
1487	250′	96.75
1487	500′	95.25
1487	1000′	95.25
1488	100′	11.55
1488	250′	110.25
1488	500′	105.75
1488	1000′	105.75
1489	100′	12.91
1489	250′	125.55
1489	500′	124.05
1489	1000′	124.05
1490	100′	14.78
1490	250′	144.00
1490	500′	142.50
1490	1000′	142.50
1494	100′	16.88
1494	250′	165.00
1494	500′	163.50
1494	1000′	163.50
1495	100′	17.48
1495	250′	171.00
1495	500′	169.50
1495	1000′	169.50
1501	100′	21.00
1501	250′	190.50
1501	500′	189.00
1501	1000′	189.00
1502	100′	22.13
1502	250′	211.50
1502	500′	210.00
1502	1000′	210.00
2000 Series See Consolidated Page 5		
3815	100′	1.05
3815	1000′	9.00
3816	100′	.75
3816	1000′	6.75
3817	100′	.54
3817	1000′	4.13
3818	100′	.48
3818	1000′	3.38
3819	100′	.38
3819	1000′	2.63
3821	100′	1.47
3821	1000′	13.20
3831	100′	2.03
3831	1000′	20.25
3841	100′	4.20
3841	1000′	39.00
3845	100′	6.45
3845	1000′	60.00
3846	100′	.36
3846	1000′	2.48
3847	100′	.35
3847	1000′	2.33
3848	100′	.33
3848	1000′	2.18
4072	25:	.72
4072	50′	1.35
4072	100′	2.70
4072	250′	23.63M′
4072	500′	23.25M′
4072	1000′	23.25M′
4074	25′	1.65
4074	50′	3.15
4074	100′	5.75
4074	250′	55.00M′
4074	500′	54.00M′
4074	1000′	53.00M′
4077	25′	.60
4077	50′	1.20
4077	100′	2.32
4077	250′	18.00M′
4077	500′	17.90M′
4077	1000′	17.50M′
4079	25′	1.75
4079	50′	2.45
4079	100′	4.50
4079	250′	43.50M′
4079	500′	42.75M′
4079	1000′	42.00M′
4087	100′	6.65
4087	250′	64.25M′
4092	100′	5.75
4092	250′	54.35M′
4202	25′	1.20
4202	50′	2.25
4202	100′	4.45
4202	250′	40.25M′
4207	25′	1.50
4207	50′	2.55
4207	100′	4.90
4207	250′	44.50M′
4212	25′	2.15
4212	50′	3.45
4212	100′	7.70
4212	250′	72.50M′
4214	25′	3.75
4214	50′	7.00
4214	100′	13.50
4214	250′	127.50M′
4217	25′	1.80
4217	50′	3.30
4217	100′	6.30
4217	250′	58.50M′
4222	25′	2.70
4222	50′	4.50
4222	100′	9.65
4222	250′	92.25M′
4224	25′	4.20
4224	50′	8.25
4224	100′	16.20
4224	250′	150.00M′
4227	25′	2.45
4227	50′	4.45
4227	100′	8.35
4227	250′	79.25M′
4232	25′	3.20
4232	50′	6.00
4232	100′	11.50
4232	250′	110.50M′
4234	25′	4.72
4234	50′	9.00
4234	100′	16.95
4234	250′	165.00M′
4237	25′	3.00
4237	50′	5.40
4237	100′	10.30
4237	250′	98.55M′
4242	25′	3.97
4242	50′	7.50
4242	100′	14.00
4242	250′	135.95M′
4244	25′	5.75
4244	50′	10.80
4244	100′	20.70
4244	250′	202.50M′
4247	25′	3.90
4247	50′	7.45
4247	100′	13.95
4247	250′	135.00M′
4252	25′	5.85
4252	50′	11.30
4252	100′	21.60
4252	250′	211.90M′
4254	25′	7.15
4254	50′	15.75
4254	100′	30.45
4254	250′	300.00M′
4257	25′	6.20
4257	50′	12.00
4257	100′	22.50
4257	250′	225.00M′

For Single Spiral Stripe No. 637-876 Incl., add $1.50 per 1,000 ft.—Minimum quantity 1,000′ per Color.

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

See Following Pages for Specifications

CHICAGO, ILLINOIS

No.	Unit Pkg. or Length	Net Price Each
4262	25′	7.50
4262	50′	14.25
4262	100′	27.20
4262	250′	267.75M′
4264	25′	9.95
4264	50′	19.05
4264	100′	37.20
4264	250′	367.50M′
4267	25′	7.50
4267	50′	14.25
4267	100′	27.75
4267	250′	267.25M′
4272	25′	9.35
4272	50′	17.50
4272	100′	32.55
4272	250′	321.15
4274	25′	12.00
4274	50′	22.75
4274	100′	44.25
4274	250′	435.00M′
4307	25′	1.72
4307	50′	3.15
4307	100′	6.00
4307	250′	54.00M′
4312	25′	2.10
4312	50′	3.90
4312	100′	7.50
4312	250′	71.75M′
4314	25′	3.67
4314	50′	7.05
4314	100′	13.70
4314	250′	134.60M′
4317	25′	2.02
4317	50′	3.67
4317	100′	7.05
4317	250′	64.50M′
4322	25′	2.78
4322	50′	5.25
4322	100′	10.20
4322	250′	97.50M′
4324	25′	4.27
4324	50′	8.15
4324	100′	16.12
4324	250′	157.50M′
4327	25′	2.70
4327	50′	5.10
4327	100′	9.80
4327	250′	95.25M′
4332	25′	3.30
4332	50′	6.20
4332	100′	12.20
4332	250′	119.25M′
4334	25′	5.10
4334	50′	9.60
4334	100′	18.65
4334	250′	184.10M′
4337	25′	3.00
4337	50′	5.70
4337	100′	11.10
4337	250′	108.00M′
4342	25′	4.05
4342	50′	7.65
4342	100′	15.00
4342	250′	145.85M′
4344	25′	5.85
4344	50′	11.40
4344	100′	22.50
4344	250′	222.00M′
4347	25′	3.85
4347	50′	7.49
4347	100′	19.65
4347	250′	163.85M′
4352	25′	6.20
4352	50′	12.00
4352	100′	23.75
4352	250′	234.35M′
4354	25′	8.77
4354	50′	17.17
4354	100′	33.98
4354	250′	336.75M′
4357	25′	7.05
4357	50′	12.90
4357	100′	23.75
4357	250′	234.00M′
4362	25′	8.49
4362	50′	15.83
4362	100′	30.38
4362	250′	241.75M′
4364	25′	11.85
4364	50′	22.50
4364	100′	43.88
4364	250′	276.25M′
4367	25′	9.07
4367	50′	16.87
4367	100′	32.62
4367	250′	314.25M′
4372	25′	12.15
4372	50′	23.02
4372	100′	45.00
4372	250′	435.00M′
4374	25′	14.40
4374	50′	27.60
4374	100′	54.93
4374	250′	527.50M′
4401	100′	53.25M′
4401	500′	51.75M′
4401	1000′	48.75M′
4402	100′	57.75M′
4402	500′	54.00M′
4402	1000′	51.75M′
4405	100′	45.00M′
4405	500′	43.50M′
4405	1000′	41.25M′
4415	100′	117.75M′
4415	500′	116.25M′
4415	1000′	114.00M′
4419	100′	114.00M′
4419	500′	111.00M′
4419	1000′	108.00M′
4431	100′	120.00M′
4431	500′	117.75M′
4431	1000′	112.50M′
4432	100′	262.50M′
4432	500′	255.00M′
4432	1000′	247.50M′
4433	100′	183.00M′
4433	500′	179.25M′
4433	1000′	171.75M′
4434	100′	112.50M′
4434	500′	109.87M′
4434	1000′	105.00M′
4435	100′	135.00M′
4435	500′	133.50M′
4435	1000′	130.50M′
4436	100′	279.75M′
4436	500′	276.75M′
4436	1000′	264.75M′
4437	100′	342.00M′
4437	500′	336.00M′
4437	1000′	322.50M′
4438	100′	361.50M′
4438	500′	358.50M′
4438	1000′	342.00M′
4439	100′	234.00M′
4439	500′	229.50M′
4439	1000′	217.50M′
4440	100′	129.00M′
4440	500′	127.50M′
4440	1000′	124.50M′
4441	100′	225.00M′
4441	500′	222.00M′
4441	1000′	212.25M′
4442	100′	177.25M′
4442	500′	175.05M′
4442	1000′	168.00M′
4443	100′	195.00M′
4443	500′	192.00M′
4443	1000′	183.75M′
4444	100′	255.00M′
4444	500′	252.00M′
4444	1000′	241.50M′
4445	100′	300.00M′
4445	500′	297.00M′
4445	1000′	283.50M′
4446	100′	54.25M′
4446	500′	53.25M′
4446	1000′	51.00M′
4447	100′	87.75M′
4447	500′	86.25M′
4447	1000′	83.25M′
4448	100′	120.00M′
4448	500′	118.50M′
4448	1000′	115.50M′
4449	100′	51.00M′
4449	500′	49.50M′
4449	1000′	47.62M′
4450	100′	56.25M′
4450	500′	54.37M′
4450	1000′	53.62M′
4451	100′	62.25M′
4451	500′	60.75M′
4451	1000′	59.25M′
4452	100′	57.00M′
4452	500′	55.50M′
4452	1000′	52.50M′
4453	100′	63.75M′
4453	500′	63.00M′
4453	1000′	61.50M′
4454	100′	117.75M′
4454	500′	116.25M′
4454	1000′	113.25M′
4455	100′	150.00M′
4455	500′	147.25M′
4455	1000′	138.75M′
4456	100′	94.50M′
4456	500′	93.00M′
4456	1000′	90.00M′
4457	100′	52.50M′
4457	500′	51.00M′
4457	1000′	48.75M′
4459	100′	45.75M′
4459	500′	44.62M′
4459	1000′	42.37M′
4460	100′	103.50M′
4460	500′	102.00M′
4460	1000′	100.50M′
4461	100′	172.50M′
4461	500′	171.00M′
4461	1000′	168.00M′
4462	100′	243.00M′
4462	500′	240.00M′
4462	1000′	238.5M′
4463	100′	126.62M′
4463	500′	123.27M′
4463	1000′	118.87M′
4464	100′	72.75M′
4464	500′	71.25M′
4464	1000′	68.25M′
4465	100′	78.75M′
4465	500′	77.25M′
4465	1000′	74.62M′
4466	100′	101.75M′
4466	500′	99.75M′
4466	1000′	96.75M′
4467	100′	300.00M′
4467	1000′	262.50M′
4468	100′	300.00M′
4468	1000′	262.50M′
4469	100′	102.00M′
4469	500′	100.50M′
4469	1000′	90.00M′
4470	100′	62.25M′
4470	500′	60.75M′
4470	1000′	59.25M′
4471	100′	142.50M′
4471	500′	138.75M′
4471	1000′	135.00M′
4472	100′	64.50M′
4472	500′	63.75M′
4472	1000′	62.25M′
4473	100′	892.50M′
4473	500′	825.38M′
4473	1000′	825.00M′
4474	100′	56.25M′
4474	500′	52.50M′
4474	1000′	51.00M′
4475	100′	275.63M′
4475	500′	262.50M′
4475	1000′	256.50M′
4482	500′	577.50M′
4482	1000′	534.00M′
4483	500′	792.00M′
4483	1000′	729.00M′
4484	500′	91.13M′
4484	1000′	84.75M′
4485	500′	96.00M′
4485	1000′	90.00M′
4486	500′	496.50M′
4486	1000′	472.50M′
4487	500′	277.50M′
4487	1000′	264.00M′
4488	500′	243.75M′
4488	1000′	236.25M′
4489	500′	127.50M′
4489	1000′	126.00M′
4490	500′	337.50M′
4490	1000′	330.00M′
4491	500′	180.00M′
4491	1000′	177.00M′
4492	500′	292.50M′
4492	1000′	277.50M′
4493	500′	587.25M′
4493	1000′	548.25M′
4494	500′	795.00M′
4494	1000′	766.50M′
4495	500′	281.25M′
4495	1000′	273.75M′
4496	500′	134.00M′
4496	1000′	128.25M′
4497	500′	240.00M′
4497	1000′	232.50M′
4500	100′	1.28
4500	500′	9.98M′
4500	1000′	9.98M′
4503	100′	1.65
4503	500′	14.70M′
4503	1000′	14.70M′
4504	100′	1.73
4504	500′	14.15M′
4504	1000′	14.15M′
4506	100′	1.87
4506	500′	15.25M′
4506	1000′	15.25M′
4507	100′	3.00
4507	500′	28.85M′
4507	1000′	28.85M′
4508	100′	1.85
4508	500′	14.85M′
4508	1000′	14.85M′
4509	100′	2.70
4509	500′	24.30M′
4509	1000′	24.30M′
4510	100′	2.60
4510	500′	20.50M′
4510	1000′	20.50M′
4515	100′	2.62
4515	500′	23.50M′
4515	1000′	23.50M′
4521	100′	4.20
4521	500′	40.50M′
4521	1000′	39.75M′
4523	100′	5.62
4523	500″	52.50M′
4523	1000′	52.50M′
4527	100′	2.25
4527	500′	19.00M′
4527	1000′	19.00M′
5103	1000′	32.62M′
5123	500′	41.25M′
5123	1000′	40.50M′
5124	500′	54.00M′
5124	1000′	53.25M′
5135	500′	50.25M′
5135	1000′	50.25M′
5201	100′	1.65
5201	500′	6.60
5201	1000′	13.20M′
5205	100′	2.78
5205	500′	12.38
5205	1000′	24.75M′
5211	100′	3.82
5211	500′	17.25
5211	1000′	33.75M′
5221	100′	5.47
5221	500′	25.13
5221	1000′	50.25M′
5226	100′	5.55
5226	500′	26.25
5226	1000′	52.50M′
5231	100′	9.37
5231	500′	45.00
5231	1000′	90.00M′
5236	100′	9.75
5236	500′	47.25
5236	1000′	94.50M′
5241	100′	7.95
5241	500′	37.50
5241	1000′	75.00M′
5251	100′	10.95
5251	500′	54.75
5251	1000′	109.50M′
5271	100′	13.88
5271	500′	67.50
5271	1000′	135.00M′
5286	100′	25.50
5286	500″	127.50
5286	1000′	255.00M′
5400	10′	.30
5400	25′	.65
5400	100′	2.15
5400	500′	9.00
5400	1000′	18.00M′
5401	10′	.35
5401	25′	.75
5401	100′	2.33
5401	500′	9.75
5401	1000′	19.50M′
5406	25′	.90
5406	100′	2.85
5406	500′	12.75
5406	1000′	25.00
5411	25′	1.05
5411	100′	3.45
5411	500′	15.75
5411	1000′	31.50
5416	15′	.90
5416	100′	4.88
5416	500′	22.85
5416	1000′	45.75M′
5421	15′	.98
5421	100′	5.25
5421	500′	24.75
5421	1000′	49.50
5426	15′	1.05
5426	100′	5.62
5426	500′	26.25
5426	1000′	52.50M′
5431	15′	1.13
5431	100′	6.23
5431	500′	29.25
5431	1000′	58.50M′
5434	100′	8.25
5434	500′	37.50
5434	1000′	75.00M′
5501	100′	3.00
5501	500′	13.50
5501	1000′	25.62M′
5506	100′	4.50
5506	500′	20.25
5506	1000′	40.50M′
5511	100′	2.93
5511	500′	12.20
5511	1000′	24.45
5516	100′	4.50
5516	500′	21.45
5516	1000′	42.75
5521	100′	4.35
5521	500′	19.50
5521	1000′	39.00M′
5526	100′	3.38
5526	500′	16.50
5526	1000′	32.25
5531	100′	6.53
5531	500′	30.00
5531	1000′	60.00M′
5536	100′	4.50
5536	500′	21.00
5536	1000′	42.00M′
5538	100′	4.65
5538	500′	22.50
5538	1000′	45.00M′
5541	50′	3.08
5541	100′	5.63
5541	500′	27.00
5541	1000′	52.50M′
5543	100′	3.90
5543	500′	16.50
5543	1000′	33.00M′
5547	25′	.35
5547	50′	.68
5547	100′	1.28
5547	250′	3.20
5547	500′	8.55M′
5547	1000′	8.25M′
5551	10′	.45
5551	25′	.90
5551	50′	1.50
5551	100′	2.85
5551	500′	12.75
5551	1000′	25.50M′
5556	100′	1.50
5556	500′	6.53
5556	1000′	12.53M′
5561	100′	1.95
5561	500′	9.38
5561	1000′	18.00M′
5566	500′	15.60
5566	1000′	30.75M′
5568	100′	3.30
5568	250′	8.25
5568	500′	15.00
5568	1000′	30.00M′
5569	50′	2.25
5569	100′	4.25
5569	500′	19.10
5569	1000′	38.00M′
5601	100′	6.68
5601	250′	62.25M′
5606	100′	13.13
5606	250′	126.38M′
6006		204.25M′
6012		295.20M′
6018		382.50M′
6025		478.50M′
6050		897.75M′
6075		1264.50M′
6100		1608.38M′
6150		2310.00M′
6200		2988.75M′
6300		4992.38M′
6400		6277.13M′

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Net

CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

RG TYPE COAXIAL CABLES

Non-Contaminating Low Temp. Black Jacket		Vinyl & Poly. Jackets					Shields							
Number RG-/U	Cat. Number	No. RG/U	Cat. No.	Armor O.D.	Jacket O.D.	Vinyl Jacket	Outer	Inner	Dielectric O.D.	Center Conductor	V.P. %	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
		5	4431		.332	Black	C	C	185	16	65.9	28.5	3000	52.5
5B	4432				.332	Black	S	S	.185	.053S	65.9	29.5	3000	50
6A	4433				.332	Black	C	S	.185	21CW	65.9	20.	2700	75
		7	4434		.370	Black	—	C	.250**	19	84	12.5	1000	97
		8	4415		.405	Black	—	C	.285	7/21	65.9	29.5	4000	52
8A	4435				.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		9	4436		.420	Grey	C	S	.280	7/21S	65.9	30	4000	51
9A	4437				.420	Grey	S	S	.280	7/21S	65.9	30	4000	51
9B	4438				.425	Black	S	S	.285	7/.0296S	65.9	30.5	4000	50
10A	4439			.475	.405	Black	—	C	.285	7/.0296	65.9	30.5	4000	50
		11	4419		.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
11A	4440				.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
12A	4441			.475	.405	Black	—	C	.285	7/26T	65.9	20.5	4000	75
		13	4442		.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
13A	4443				.425	Black	C	C	.285	7/26T	65.9	20.5	4000	75
14A	4467				.545	Grey	C	C	.370	10	65.9	29.5	5500	52
14A	4468				.545	Black	C	C	.370	.106	65.9	30	5500	52
17A	4482				.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
18A	4483			.945	.870	Black	—	C	.680	.188C	65.9	29.5	11000	52
		21	4444		.322	Grey	S	S	.185	16N	65.9	29	2700	53
21A	4445				.332	Black	S	S	.185	.053N	65.9	30	2700	50
		22	4471		.405	Black	—	T	.285	Two 7/.0152	65.9	16	1000	95
22B	4475				.420	Black	T	T	.285	Two 7/.0152	65.9	16	1000	95
		29	4446		.184	Poly	—	T	.116	20	65.9	28.5	1900	53.5
		54A	4469		.250	Poly	—	T	.178	7/.0152	65.9	26.5	3000	58
		55	4447		.206	Poly	T	T	.116	20	65.9	28.5	1900	53.5
55A	4448				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50
55B	4484				.206	Black	T	T	.116	20S	65.9	28.5	1900	53.5
		58	4405		.195	Black	—	T	.116	20	65.9	28.5	1900	53.5
58A	4449				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58B	4474				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
58C	4450				.195	Black	—	T	.116	19/.0071T	65.9	29.5	1900	50
		59	4401		.242	Black	—	C	.146	22CW	65.9	21	2300	73
		59	4402		.242	Grey	—	C	.146	22CW	65.9	21	2300	73
59A	4451				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
59B	4470				.242	Black	—	C	.146	.023CW	65.9	20.5	2300	75
		62	4452		.242	Black	—	C	.146**	22CW	84	13.5	750	93
62A	4453				.242	Black	—	C	.146**	22CW	84	13.5	750	93
62B	4472				.242	Black	—	C	.146	22CW	84	13.5	750	93
		63	4454		.405	Black	—	C	.285**	22CW	84	10	1000	125
63B	4455				.405	Black	—	C	.285**	22CW	84	10	1000	125
65A	4473				.405	Black	—	C	.340	32F	65	44	3000	950
		71	4456		.250	Poly	T	T or C	.146**	22CW	84	13.5	750	93
71A	4466				.245	Black	T	T or C	.146**	22CW	84	13.5	750	93
71B	4485				.250	Black	T	C	.146	22CW	84	13.5	750	93
74A	4486			.615	.545	Black	C	C	.370	10C	65.9	29.5	7000	52
79B	4487			.475	.405	Black	—	C	.285	22CW	84	10	1000	125
		108	4464		.235	Black	—	T	.079 ea.	Two 7/28T	68	23.5	1000	78
108A	4465				.235	Black	—	T	.079 ea.	Two .7/28T	65.9	23.5	1000	78
122	4457				.160	Black	—	T	.096	27/36T	65.9	29.5	1900	50
212	4488				.332	Black	S	S	.185	.0556S	65.9	29.5	3000	50
213	4489				.405	Black	—	C	.285	7X.0296C	65.9	29.5	5000	50
214	4490				.425	Black	S	S	.285	7X.0296C	65.9	29.5	5000	50
215	4497				.475	Black	—	C	.285	7/.029C	65.9	29.5	4000	50
216	4491				.425	Black	C	C	.285	7X26TC	65.9	20.5	5000	75
217	4492				.545	Black	C	C	.370	.106C	65.9	29.5	7000	50
218	4493				.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
219	4494			.945	.870	Black	—	C	.680	.195C	65.9	29.5	11000	50
222	4495				.332	Black	S	S	.185	.0556N	65.9	29.0	2700	50
223	4496				.216	Black	S	S	.116	.035S	65.9	29.5	1900	50

**Semi-Solid Dielectric N—Nichrome C—Copper S—Silvered Copper CW—Copperweld T—Tinned Copper F—Formvar

CONSOLIDATED WIRE PAGE 3

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

CONSOLIDATED

MINIATURE COAXIAL CABLE

Non-Contaminating Low Temp. No. RG/U	Cat. No.	Jacket O.D.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O.D.	Center Conductor	V. P. %	Nom. Imp. Ohms
174	**4459**	.105	Black	—		.060**	7/.0063CW	30	50

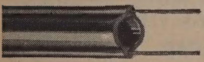
FOAM POLYETHYLENE COAXIAL CABLE

Non-Contaminating Low Temperature Black Jacket No. RG/U	Cat. No.	Jacket O. D.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O. D.	Center Conductor	V. P. %	Cap. Mmfd./Ft.	Max. Oper. Volts Rms.	Nom. Imp. Ohms
11	**4476**	.405	Poly	—	C	.285FP	14	80	16.5	3000	75
8	**4477**	.405	Black	—	C	.285FP	7/19	80	24.5	1500	50
59	**4478**	.195	Black	—	C	.107FP	22CW	80	17	500	72
62	**4479**	.242	Black	—	C	.146FP	.023CW	80	14.5	700	93
11TRI	**4480**	.460	Poly	C	C	.285FP	14	80	16.5	3000	75
59TRI	**4481**	.242	Poly	C	C	.107FP	22CW	80	17	500	72

TRIAXIAL CABLE DOUBLE SHIELD DOUBLE JACKET

Non-Contaminating Low Temp. No. RG/U	Non-Contaminating Low Temp. Cat. No.	Vinyl & Poly. Jackets No. RG/U	Vinyl & Poly. Jackets Cat. No.	Vinyl Jacket	Shields Outer	Shields Inner	Dielectric O.D.	Center Conductor	Cap. Mmfd. /Ft.	Max. Oper. Volts Rms.	Imp. Ohms
Triaxial 58A	**4463**	50	.285	Black	T	T	.116	19.007IT	65.9	28.5	1,900
Triaxial 59	**4460**	73	.325	Black	C	C	.146	22CW	65.9	21.0	2,300
Triaxial 11	**4461**	75	.460	Black	C	C	.285	7 26T	65.9	20.5	4,000
Triaxial 8	**4462**	52	.490	Black	C	C	.285	7 21C	65.9	29.5	4,000

TELEVISION CABLE



No.	Type	Size & Stranding	Specifications and General Applications	Nominal Diameter (in.)	Nominal Electrical Properties: Frequency (mc)	Attenuation Per 100 ft.	Impedance (ohms)	Velocity of Propagation (%)	Capacitance Per Ft. (mmf)
4500	2 condr.	22 7x30	USE: Receiying antenna at high frequencies.	.055 x .365	50 100 200 300 400 500	.72 1.1 1.7 2.2 2.7 3.1	300	85	4.6
4503	2 condr.	20 7x28	Same as 4500	.072 x .400	Same as 4500	Same as 4500	300	85	4.6
4504	2 condr.	20 7x28	Same as 4500	.080 x .400	Same as 4500	Same as 4500	300	85	4.6
4506	2 condr.	20 7x28	Same as 4500	.100 x .400	Same as 4500	Same as 4500	300	85	4.6
4527	2 condr. round	20 7x28	USE: For UHF and VHF.	.350			300	84	5.6
4507	3 condr.	20 7x28	USE: Same as 4503.	.072 x .365	Same as 4500	Same as 4500	300	85	4.6
4508	4 condr.	22 7x30	USE: Rotor Aerials.	.072 x .345	Same as 4500	Same as 4500	300	85	4.6
4509	4 condr.	20 7x28	Same as 4508 Except brown vinyl plastic.	.072 x .400	Same as 4500	Same as 4500	300	85	4.6
4510	4 condr.	20 7x28	Same as 4508	.072 x .400	Same as 4500	Same as 4508	300	85	4.6
4515	4 condr.	22 7x30	Color coded with gray jacket overall. USE: Rotor Aerials.	.160					
4521	8 condr.	22 7x30	Same as 4515	2.05					

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CONSOLIDATED

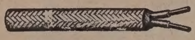
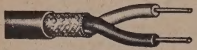
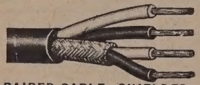
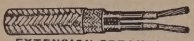
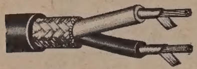
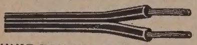
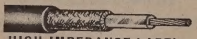
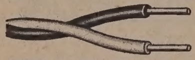
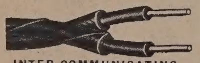
CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG

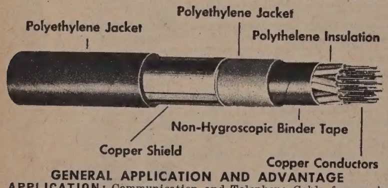
CHICAGO, ILLINOIS

INTERCOMMUNICATING AND SOUND SYSTEM CABLES

STANDARD SPOOL PUT-UP: 10 FT., 25 FT., 50 FT., 100 FT., 500 FT., 1000 FT.

	NO.	TYPE	Size & Stranding	INSULATION THICKNESS (INCHES)	SPECIFICATION AND GENERAL APPLICATION	NOMINAL DIAMETER (INCHES)
 **STATION-TO-STATION EXTENSION WIRING SHIELDED**	5501	2 Condr.	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together condr. red 1 condr. black—closely woven braided tinned copper shield.	.110
	5506	3 Condr.	22 Solid	.015	Same as 550+condr. red—1 condr. black—1 condr. blue.	.145
	5521	2 Condr.	20 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven braided tinned copper shield.	.155
 **EXTENSION WIRING SHIELDED—PLASTIC JACKET**	5511	2 Condr	22 Solid	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—and a spiral tinned copper shield with .020" tubed gray vinyl plastic jacket.	.170
 **PAIRED CABLE—SHIELDED PLASTIC JACKET**	5516	2 Pair 4 Condr	22 7x30	.015	Stranded tinned copper vinyl plastic insulation. 2 pair cabled (4 conductors—1 pair black & white with braided tinned copper shield—1 pair black & brown unshielded—both pair bunched and .020" gray vinyl plastic jacket overall.	.168x.276
 **EXTENSION-SPEAKERS SHIELDED FOR LONG RUNS**	5526	2 Condr.	20 10x30	.015	Tinned copper vinyl plastic insulation, wires twisted together—1 condr. red—1 condr. black—closely woven tinned copper shield.	.215
	5531	3 Condr.	20 10x30	.015	Same as 5526—1 condr. red—1 condr. black—1 condr. blue.	.230
	5536	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield.	.235
 **EXPANSION-SPEAKERS SHIELDED—PLASTIC JACKET**	5568	2 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation. 2 condrs.—cabled black and red—tinned copper spiral wrapped shield .023" chrome vinyl plastic jacket.	.166
	5569	3 Condr.	22 7x30	.015	Tinned copper vinyl plastic insulation, 3 condrs.—cabled black, red, whiet—tinned copper spiral shield —chrome vinyl plastic jacket.	.193
	5538	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red. 1 condr. white. Spiral tinned copper shield and .020" gray vinyl plastic jacket overall.	.225
	5543	2 Condr.	20 10x30	.015	Same as 5538 1 condr. Red. 1 condr. Black.	.185
	5541	2 Condr.	18 16x30	.015	Stranded tinned copper vinyl plastic insulation, wires twisted together. 1 condr. red—1 condr. white, closely woven braided tinned copper shield and .020" gray vinyl plastic jacket overall.	.260
 **JUKE BOX SPEAKER CABLE**	5547	2 Condr.	24 7x32	.015	Stranded 1 condr. bare copper—1 condr. tinned copper —2 condrs. parallel gray vinyl plastic insulation. Colors—brown, clear, gray, white.	.058x.115
 **HIGH IMPEDANCE LAPEL MICROPHONES**	5551	1 Condr.	24 16x34	.020	Stranded tinned copper polyethylene insulation closely woven braided tinned copper shield with .020" gray vinyl jacket.	.125
 **INTER COMMUNICATING SOUND SYSTEM**	5556	2 Condr.	19 Solid	.015	Bare copper vinyl plastic insulation, wires twisted together—1 condr. brown—1 condr. tan.	.115
	5561	3 Condr.	19 Solid	.015	Same as 5556—1 condr. brown—1 condr. tan—1 condr. gray.	.132
 **INTER COMMUNICATING WEATHER-PROOF**	5566	2 Condr.	22 Solid	.015	Bare copper .015 rubber insulation with a black cotton braid weatherproof finish. Conductors coded for easy identification. Ideal for exterior or interior communication installations.	.131x.203

TELEPHONE AND COMMUNICATION CABLE DIRECT BURIAL TYPE



GENERAL APPLICATION AND ADVANTAGE

APPLICATION: Communication and Telephone Cable for use in direct burial installations provides a high quality product similar to that used for aerial and duct systems, but with the addition of protective armoring. This minimizes the possibility of damage to the cable from rodents and insects and, correctly installed, reduces the dangers to the cable from sharp stones and other hazards of underground burial installations.

ADVANTAGE: The lightweight, but rugged construction of direct burial Communication and Telephone Cable permits fast and economical underground installation of communication systems with the assurance of dependable and enduring service. This is made possible through utilization of the same high quality polyethylene compounds that are used in its counterpart for aerial and duct type installations, with the added protection of copper armoring tapes and a durable, high-molecular weight, polyethylene jacket.

FULLY COLOR CODED

SPECIFICATIONS

Solid bare annealed copper 22 Awg. gauge conductors; thin wall, color coded, polyethylene insulation; conductors twisted to form pairs with symmetrically varying lays to minimize cross-talk; cabled (for 6 thru 50 pairs) by stranding pairs in concentric layers, or (for 75 thru 400 pairs) by stranding pairs into concentrically formed units, which are in turn cabled to form the complete assembly; non-hygroscopic binder tape furnishing high dielectric strength between shield and individual conductors; continuous copper shielding tape; high-molecular weight, polyethlene jacket.

NO.	NO. OF PAIRS	NO. OF COND.	COND. SIZE	NOMINAL JACKET THICKNESS, MILS		NOMINAL O. D. (Inches)
				INNER	OUTER	
6006	6	12	22 Solid	40	40	.430
6012	12	24	22 Solid	40	40	.500
6018	18	36	22 Solid	40	40	.560
6025	25	50	22 Solid	40	40	.630
6050	50	100	22 Solid	40	40	.820
6075	75	150	22 Solid	50	50	.990
6100	100	200	22 Solid	50	50	1.20
6150	150	300	22 Solid	50	50	1.30
6200	200	400	22 Solid	50	50	1.50
6300	300	600	22 Solid	50	60	1.80
6400	400	800	22 Solid	50	60	2.00

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

PAIRED PLASTIC CONDUCTORS

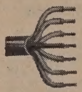
SPECIFICATIONS AND GENERAL APPLICATIONS Tinned copper conductor .010″ vinyl plastic insulation. Cabled .202″ gray vinyl plastic Jacket overall

NO.	TYPE	SIZE AND STRANDING	NOMINAL DIAMETER (Inches)
5201	1 Pr. 2 Condr.	22 Solid	.145
5205	2 Pr. 4 Condr.	22 Solid	.190
5211	3 Pr. 6 Condr.	22 Solid	.230
5221	5 Pr. 10 Condr.	22 Solid	.250
5226	6 Pr. 12 Condr.	22 Solid	.265
5231	7 Pr. 14 Condr.	22 Solid	.280
5236	8 Pr. 16 Condr.	22 Solid	.300
5241	9 Pr. 18 Condr.	22 Solid	.320
5251	11 Pr. 22 Condr.	22 Solid	.360
5271	15 Pr. 30 Condr.	22 Solid	.390
5286	27 Pr. 54 Condr.	22 Solid	.510

STANDARD SPOOL PUT-UP: 100 FT., 500 FT., 1000 FT.

MULTIPLE CONDUCTORS FULLY COLOR CODED

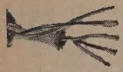
SIZE & STRANDING 22 - 7x30 SPECIFICATION AND GENERAL APPLICATION Tinned copper conductor .010″ vinyl plastic insulation. Cabled .020″ gray vinyl plastic Jacket overall

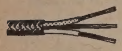


NO.	TYPE		NOMINAL DIAMETER (Inches)
5400	2 Condr.	22 7x30	.130
5401	3 Condr.	22 7x30	.140
5406	4 Condr.	22 7x30	.158
5411	5 Condr.	22 7x30	.170
5416	6 Condr.	22 7x30	.212
5421	7 Condr.	22 7x30	.230
5426	8 Condr.	22 7x30	.235
5431	9 Condr.	22	.245
5434	12 Condr.	22 7x30	.250

STANDARD SPOOL PUT-UP: 10 FT., 15 FT., 25 FT., 100 FT., 500 FT., 1000 FT.

PHONOGRAPH MULTIPLE CABLE STANDARD SPOOL PUT-UP: 500 FT., 1000 FT.





TYPE No.	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)
5103	3-22	Same as 5030	3 condrs. No. 22 with 1/64″ thermoplastic insulation, all individually color coded. All conductors grouped into cable form with a treated cotton braid overall lacquered.	7 x 30	.125
5123	2-16 1-18	Same as 5030	2 condrs. No. 16 1/64″ thermoplatic insulation. 1 condr. No. 18 1/32″ thermoplastic insulation, all individually color coded. All conductors grouped into cable form with gray vinyl plastic jacket.	2-26 x 30 1-16 x 30	.215
5135	22 5 condr.	Same as 5030	5 condr. No. 22 with 1/64″ thermoplastic insulation; 3 condr. twisted together with a braided tinned copper shield; 2 condr. twisted; all condr. grouped into cable form with a brown cotton braid overall.	5-7 x 30	.225
5124	4-18	Same as 5030	No. 18 solid 4 condr. color coded gray plastic jacket overall.	Solid	.225

CONSOLIDATED

MICROPHONE CABLE

CONDUCTOR COLOR CHART: 1—Black; 2—White; 3—Red; 4—Green; 5—Yellow; 6—Blue; 7—Brown.

STANDARD SPOOL PUT-UP: 9 FT., 10 FT., 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

SHIELDED; Weatherproof rubber jacket for all microphone or weatherproof extension work. (Longer continuous lengths if desired.)

No.	TYPE	SIZE	SPECIAL USE	SPECIFICATIONS	STRANDING	FINISHED O.D. (Inches)	NOMINAL CAPACITY per ft. (mmf)
1461	1 conductor	22	Lapel microphone	Tinned copper polyethylene insulation with a closely woven tinned copper shield. Grey vinyl plastic jacket.	16 x 34	.125	34.
1457	1 conductor	22	Crystal, Ribbon and other high Impedance microphones	Same as 1461 except heavier polyethylene insulation on conductor.	16 x 34	.200	25.
					26 x 34	.175	40.
1458	2 conductor	22	Low impedance microphones	Tinned copper conductors polyethylene insulation conductors; black and white. Cabled with fillers closely woven tinned copper shield. Gray vinyl plastic jacket.	16 x 34	.231	32.
1459	1 conductor	20	Lapel microphone	Tinned Copper Wire, with polyethylene to .087″ O.D. with a closely woven tinned copper shielded braid, and a heavy black plastic jacket overall.	26 x 34	.240	33.
1460	1 conductor	20	Crystal microphone	Tinned copper, yarn serve; wall of live rubber; tinned copper braid shield; rubber jacket overall.	26 x 34	.240	68.
1462	2 conductor	20	Carbon microphones	Same as 1460; color coded	00 x 00	.268	
1456	2 conductor	18	Heavy duty studio cable	Same as 1460; color coded	41 x 34	.295	80.
1463	3 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.277	85.
1464	4 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.295	95.
1465	5 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.323	
1466	6 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.350	
1467	7 conductor	20	Carbon microphones	Same as 1460; color coded	26 x 34	.360	
1455	8 conductor	20	Same as 1465	Same as 2460; color coded	26 x 34	.386	

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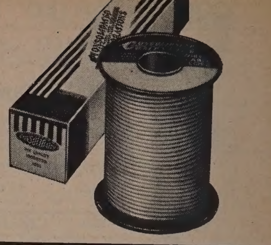
CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG CHICAGO, ILLINOIS

MAGNET WIRE



Popular, profitable specialty wire packaged for easy selling in radio-electrical, department, specialty and hardware stores. Wide variety of sizes and insulations. Keeps stock in perfect order, always saleable. Supplied on Spool as shown and in Heavier Weights for whatever weight desired. Here is a handy and convenient way to stock small quantities of wire. It prevents wire from matting or tangling.

No. 2000

VARIOUS OTHER INSULATIONS

Film	Technical Classification
ENAMEL	oleoresinous
FORMVAR	poly vinyl acetal
SODEREZE	polyurethane
THERMALEZE	epoxide polyester
NYFORM	formvar, nylon sheath
NYLON	______
BONDEZE	______
GRIPEZE	______
LECTRON	acrylic
ISONSEL	terephthalic polyester
ALKANVAR	terephthalic polyester
SYLKYD ENAMELED	
COTTON AND COMBINATIONS	
SILK AND COMBINATIONS	
CELANESE AND COMBINATIONS	
GLASS AND COMBINATIONS	
PAPER AND COMBINATIONS	

Larger Quantities At Same Per Pound List

SPECIAL MAGNET WIRES

In addition to the standard listing shown here, we maintain an extensive stock of all other sizes in round, rectangular and square magnet wire.

PLAIN ENAMEL MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.45	$0.75	$1.39
15	.45	.80	1.40
16	.50	.84	1.42
17	.50	.87	1.44
18	.50	.89	1.45
19	.55	.92	1.49
20	.55	.94	1.50
21	.55	.95	1.59
22	.55	.97	1.70
23	.58	.99	1.75
24	.60	1.00	1.87
25	.65	1.10	1.95
26	.65	1.10	2.03
27	.70	1.15	2.14
28	.73	1.20	2.25
29	.75	1.25	2.30
30	.80	1.30	2.35
31	.89	1.35	2.45
32	.90	1.40	2.50
33	.95	1.50	2.65
34	1.00	1.70	2.75
35	1.09	1.84	3.14
36	1.29	2.00	3.50
37	1.45	2.25	4.00
38	1.70	2.50	4.50
39	1.87	3.00	5.00
40	2.50	3.75	6.00
41	3.00	5.63	8.48
42	3.48	6.60	12.89
43	4.35	8.25	15.75
44	4.88	9.38	18.45

SINGLE FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.66	$1.12	$2.07
15	.66	1.20	2.10
16	.75	1.25	2.14
17	.75	1.30	2.15
18	.75	1.34	2.17
19	.83	1.39	2.23
20	.83	1.40	2.25
21	.83	1.42	2.37
22	.83	1.45	2.56
23	.89	1.49	2.62
24	.90	1.50	2.80
25	.97	1.65	2.92
26	.99	1.65	3.05
27	1.05	1.74	3.20
28	1.10	1.80	3.37
29	1.14	1.87	3.46
30	1.20	1.95	3.52
31	1.34	2.02	3.67
32	1.35	2.10	3.75
33	1.42	2.25	3.95
34	1.50	2.55	4.12
35	1.64	2.81	4.70
36	1.92	3.00	5.26
37	2.17	3.37	6.00
38	2.55	3.75	6.76
39	2.80	4.50	7.50
40	3.75	5.64	9.00
41	3.75	6.75	12.60
42	4.28	7.40	13.43
43	5.18	7.88	14.25
44	6.60	11.70	22.58

HEAVY FORMVAR MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.73	$1.24	$2.27
15	.73	1.34	2.33
16	.84	1.39	2.35
17	.84	1.44	2.37
18	.84	1.47	2.39
19	.92	1.52	2.45
20	.92	1.54	2.51
21	.92	1.55	2.61
22	.92	1.60	2.80
23	.97	1.64	2.87
24	1.00	1.65	3.07
25	1.15	1.97	3.50
26	1.19	1.98	3.64
27	1.25	2.07	3.84
28	1.34	2.15	4.04
29	1.37	2.24	4.14
30	1.44	2.34	4.22
31	1.67	2.52	4.58
32	1.69	2.63	4.67
33	1.77	2.81	4.94
34	1.87	3.19	5.16
35	2.04	3.46	5.88
36	2.39	3.75	6.58
37	2.72	4.20	7.50
38	3.17	4.69	8.45
39	3.50	5.64	9.38
40	4.69	7.04	11.27
41	5.18	7.59	13.65
42	5.78	8.15	14.72
43	6.00	8.63	15.08
44	7.43	11.40	23.33

DOUBLE COTTON COVERED MAGNET WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.55	$0.95	$1.87
15	.58	.98	1.90
16	.60	1.00	1.95
17	.60	1.05	2.00
18	.60	1.10	2.05
19	.65	1.15	2.28
20	.65	1.25	2.34
21	.77	1.34	2.50
22	.82	1.39	2.64
23	.88	1.50	2.75
24	.94	1.60	3.00
25	.95	1.65	3.14
26	1.00	1.75	3.39
27	1.15	1.89	3.64
28	1.20	2.14	4.00
29	1.30	2.39	4.50
30	1.32	2.50	4.75
31	1.50	2.75	5.00
32	1.75	3.00	5.64
33	1.89	3.37	6.25
34	2.14	3.89	7.00
35	2.39	4.25	7.50
36	2.75	4.89	8.65
37	2.25	6.25	11.40
38	4.75	8.65	16.50
39	6.00	11.50	20.00
40	8.00	15.00	28.15

BARE COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.53	$0.97	$1.54
15	.57	1.00	1.60
16	.60	1.10	1.83
17	.52	1.12	1.87
18	.63	1.14	1.90
19	.65	1.17	1.95
20	.67	1.20	2.00
21	.68	1.20	2.07
22	.70	1.24	2.14
23	.70	1.27	2.17
24	.70	1.30	2.20
25	.72	1.30	2.20
26	.73	1.34	2.27
27	.75	1.37	2.30
28	.77	1.40	2.40
29	.77	1.42	2.47
30	.77	1.42	2.47
31	.77	1.44	2.53
32	.77	1.44	2.60
33	.78	1.47	2.68
34	.80	1.50	2.77
35	.82	1.55	2.90
36	.84	1.60	3.04
37	.92	1.75	3.22
38	1.00	1.90	3.40
39	1.02	1.97	3.45
40	1.04	2.04	3.50

TINNED COPPER WIRE

Size	¼ lb.	½ lb.	1 lb.
14	$0.67	$1.13	$1.75
15	.73	1.27	1.92
16	.80	1.40	2.00
17	.84	1.44	2.03
18	.87	1.47	2.08
19	.90	1.50	2.12
20	.94	1.53	2.17
21	.95	1.53	2.24
22	.97	1.57	2.30
23	.98	1.58	2.34
24	1.00	1.60	2.37
25	1.00	1.60	2.37
26	1.00	1.60	2.37
27	1.05	1.67	2.64
28	1.10	1.75	2.90
29	1.13	1.84	2.94
30	1.17	1.92	2.97
31	1.20	2.00	3.04
32	1.24	2.09	3.10
33	1.27	2.17	3.19
34	1.30	2.25	3.27
35	1.32	2.30	3.40
36	1.34	2.34	3.54
37	1.36	2.42	3.72
38	1.38	2.50	3.90
39	1.39	2.50	3.95
40	1.40	2.67	4.00

BARE NICKEL CHROMIUM WIRE

No. 2000

Recommended for electrical heating appliances and other devices where the highest quality in performance is required, whose operating temperatures do not exceed 1850° F. Particularly suited for heavy duty rheostats and controls which require compact resistance.

ON PROTECTA-METAL SPOOLS

Size	1 Oz.	¼ Lb.	1 Lb.
14	....	$1.52	$5.56
15	....	1.56	5.65
16	....	1.58	5.73
17	....	1.63	5.80
18	....	1.67	5.87
19	....	1.71	6.02
20	$0.67	1.76	6.17
21	.71	1.85	6.49
22	.72	1.93	6.79
23	.74	2.08	7.44
24	.76	2.22	8.09
25	.82	2.37	8.74
26	.87	2.53	9.39
27	.89	2.57	9.96

Size	1 Oz.	¼ Lb.	1 Lb.
28	$0.92	$2.84	$10.53
29	1.00	2.98	11.18
30	1.09	3.11	11.83
31	1.14	3.28	12.28
32	1.18	3.43	12.73
33	1.31	3.79	14.73
34	1.44	4.16	16.73
35	1.58	4.55	17.71
36	1.71	4.94	18.69
37	2.22	6.50	23.86
38	2.74	8.05	29.03
39	2.86	8.39	31.62
40	2.98	8.95	34.20

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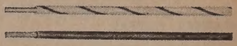
CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

SEND FOR COMPLETE CATALOG CHICAGO, ILLINOIS

THERMOPLASTIC INSULATED HOOK-UP WIRE
SPECIFICATION MIL-W-76A (SUPERSEDES JAN. C-76)



This specification has been approved by the Departments of the Army, Navy, and Air Force. Insulation possesses high dielectric strength. Impervious to oils, acids, alkalies, moisture and flame. The following types and colors are available for shipment from stock—
*See other sizes, types and covering over insulated wire.

SPECIFICATION MIL-W-76A

TYPE HW Single Conductor, Solid or Stranded Conductor as indicated. Tinned Copper. Thermoplastic Insulation. No further covering. (SUPERSEDING SRIR—SPECIFICATION JAN-C-76). Ins. Nom., .016"; Max. R.M S. Voltage, 1000; Stand. Spool, 1000 ft.

TYPE MW Single Conductor, Solid or Stranded Conductor as indicated. Tinned Copper. Thermoplastic Insulation. No further covering. (SUPERCEDING SRHV—SPECIFICATION JAN-C-76). Ins. Nom., .031"; Max. R.M.S. Voltage, 2500 Stand. Spool, 1000 ft.

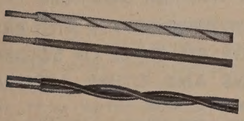
CAT. NO.	MIL-W-76A TYPE DESIGNATION	SIZE	STRANDING	O.D.	MAX. COLORS
707	MW-C 22(1) U	22	Solid	.062"	1 thru 13
717	MW-C 20(1) U	20	Solid	.069"	1 thru 13
727	MW-C 18(1) U	18	Solid	.077"	1 thru 13
737	MW-C 22(7) U	22	7/.010	.070"	1 thru 22
747	MW-C 20(7) U	20	7/.0216	.078"	1 thru 22
757	MW-C 18(16) U	18	19/.0092	.089"	1 thru 22
637	HW-C 22(1) U	22	Solid	.098"	1 thru 13
642	HW-C 20(1) U	20	Solid	.105"	1 thru 13
647	HW-C 18(1) U	18	Solid	.113"	1 thru 13
667	HW-C 22(7) U	22	7/.010	.106"	1 thru 22
672	HW-C 20(7) U	20	7/.0126	.114"	1 thru 22
677	HW-C 18(16) U	18	19/.0092	.125"	1 thru 22

AVAILABLE COLORS—(COLOR CODE)
***COVERING OVER INSULATED WIRE**

			Symbol	Type
1—Black (0)	12—Pink			
2—Brown (1)	13—Dark Blue		U	None
3—Red (2)	14—White/Black Tr.	(90)	J	Jacket (Nylon)
4—Orange (3)	15—White/Red	(92)	B	*Braid
5—Yellow (4)	16—White/Green	(95)	S	*Shield
6—Green (5)	17—White/Yellow	(94)	JS	Jacket and Shield (Nylon)
7—Blue (6)	18—White/Blue	(96)	BS	**Braid and Shield
8—Violet (Purple) (7)	19—White/Brown	(91)	SJ	Shield and Outer Jacket (Nylon)
9—Gray (Slate) (8)	20—White/Orange	(93)	JSJ	Jacket, Shield, Outer Jacket
10—White (9)	21—White/Gray	(98)	BSJ	**Braid, Shield, Outer Jacket
11—Tan				**Specify, Synthetic, or Glass Yarn

*Other color combinations and sizes on special production order. *Available on factory order: Spec. MIL-W-76A, Types LW & HF with above coverings. We are also prepared to furnish wires to Military Specifications MIL-W-1687A—Types B, C, D, E, EE, FF, N. Quoted on request. Write for the Rome Cable Corporation TR-5 catalogue, complete with Military Specifications for Electronic Instrumentation and Sub-Miniature Wires, Multi-Conductor and Co-Axial Cables. Underwriter's Laboratory Approved—Rome High Temp®—Rome Synthinol®—Registered®.

Rome Synthinol . . . . A ROME CABLE PRODUCT THERMOPLASTIC INSULATED HOOK-UP WIRE



Rome Synthinol is a polyvinyl chloride type of thermoplastic insulation impervious to oils, acids, alkalies, moisture and flame, and Approved by Underwriters' Laboratories where exposed to temperatures not exceeding 80° Centigrade.

U/L Voltage Rating — 300 Volts Max.
Single and Two-Conductor Twisted Cable:
Color Coded

Rome Synthinol is specially designed for the chassis and sub-chassis wiring of radio and television receivers and transmitters as well as all other types of electronic equipment. It has physical and electrical characteristics of unusual permanency.

Typical Test Results

Breakdown Voltage:
1/64" Synthinol ....over 10000 volts
1/32" Synthinol ....over 18000 volts
Insulation Resistance:
1/32" Synthinol ....over 5000 megohms feet

STANDARD SPOOL PUT-UP: 25 FT., 100 FT., 500 FT., 1000 FT. Colors: Black, Blue, Brown, Green, Orange, Pink, Purple, Red, Slate, White, Yellow.

CAT. NO.	SIZE AWG.	STRANDING	NOM. INS. THCKNS.	VOLTS	MAX. DIA. INCHES
801	22	Solid	1/64	300	.065
811	20	Solid	1/64	300	.071
841	18	Solid	1/64	300	.080
821	22	7 x No. 30	1/64	300	.069
831	20	10 x No. 30	1/64	300	.078
846	18	16 x No. 30	1/64	300	.085
851	22	Solid	1/32	600	.097
856	20	Solid	1/32	600	.104
861	18	Solid	1/32	600	.112
866	22	7 x No. 30	1/32	600	.102
871	20	0 x No. 30	1/32	600	.110
876	18	16 x No. 30	1/32	600	.119
881	20—2 condr.	10 x No. 30	.025	300	.170

Rome Hi-Temp . . . . A ROME CABLE PRODUCT RUBBER INSULATED HOOK-UP WIRE

ROME HI-TEMP
ROME CABLE
ROME N.Y.

Underwriters' approved and labeled* for 75°C.—300 volts

The result of extensive laboratory development and proved by a decade of service—Rome Hi-Temp is offered for radio and electronic circuits where resistance to moisture and heat is required.

SPECIFICATIONS

Conductors: Annealed tinned, solid or stranded copper conforming to A.S.T.M. Specification B 33 and/or Underwriters' Standards.
In order to provide maximum flexibility and prevent unraveling of the strands a short lay stranding is used as follows:
No. 22 Awg. .33 inch max.
No. 20 Awg. .50 inch. max.

Insulation: Rome Hi-Temp—a high quality, free-stripping heat-resistant rubber insulation approved by Underwriters' Laboratories.

Typical Test Results

Breakdown Voltage (1/32" Hi-Temp)..10500 volts
Insulation Resistance..Over 10000 megohms feet
*Only factory length reels are furnished with U/L's labels.

STANDARD SPOOL PUT-UP:
25 FT., 100 FT., 500 FT., 1000 FT.

CAT. NO.	SIZE	STRANDING	INSULATION THICKNESS	DIAMETER (INCHES)
901	No. 22	Solid	1/32"	.075
911	No. 20	Solid	1/32"	.086
921	No. 22	7 x No. 30	1/32"	.085
931	No. 20	10 x No. 30	1/32"	.090

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MULTIPLE CONDUCTOR COTTON BRAIDED CABLE

FOR SPEAKERS, TESTERS, BATTERY HOOK-UP, ETC.

CONSOLIDATED

SPECIFICATIONS: Tinned flexible copper; colored plastic insulation; bunched individual conductors; heavy brown cotton braid overall; color coded. Size 20; Stranding 10x30; Insulation Thickness 1/64″

TYPE NO.	TYPE	FINISHED O.D. (Inches)	TYPE NO.	TYPE	FINISHED O.D. (Inches)
1481	1 condr.	.150	1487	7 condr.	.275
1482	2 condr.	.175	1488	8 condr.	.300
1483	3 condr.	.200	1489	9 condr.	.310
1484	4 condr.	.275	1490	10 condr.	.325
1485	5 condr.	.250	1494	11 condr.	.335
1486	6 condr.	.260	1495	12 condr.	.350

MULTIPLE CONDUCTOR TINNED COPPER SHIELD CABLE

CONSOLIDATED

SPECIFICATIONS: Tinned flexible copper, 912E20, Stranding 10x30—1/64″ plastic Insulation, color coded, Braided tinned copper shield.

TYPE NO.	TYPE	FINISHED O.D. (Inches)
1471	1 conductor	.110
1472	2 conductors	.190
1473	3 conductors	.200
1474	4 conductors	.220
1475	5 conductors	.235
1476	6 conductors	.250
1477	7 conductors	.265

ANALYZER CABLE

SPECIFICATIONS: Extra flexible tinned copper; plastic insulation; color coded; Brown cotton braid overall.

	TYPE	SIZE	STRAND-ING	INSULATION THICKNESS (Inches)	FINISHED O.D. (Inches)
1501	8 condr.	2-14	41 x 30	1/64	.300
		6-18	16 x 30		
1502	9 cnodr.	2-14	41 x 30	1/64	.320
		7-18	16 x 30		

TEST PROD WIRE

CONSOLIDATED

A Specially Constructed High Grade Wire For Use On Laboratory Test Equipment, Bench Analyzers, Etc.

SPECIFICATIONS: Extra flexible tinned copper; cotton wrap; red or black; live rubber insulation.

1001	5,000 volts	20	41 x 36	.043	.140
1006	10,000 volts	18	65 x 36	.088	.230

SHIELDING AND BONDING CABLE

DESIGNED FOR SHIELDING INSULATED WIRES AND CABLES . . . BONDING AND MANY OTHER USES

STANDARD SPOOL PUT-UP:
50 FT., 100 FT., 250 FT., 1000 FT.

NO.	APPROX. I. D.	SIZE & NUMBER OF WIRES	APPROX. AWG.	CARRYING CAPACITY IN AMPERES
1386	1/32″	24 x 36	24	7
1387	3/64″	24 x 36	23	7
1388	3/32″	48 x 36	19	12
1389	7/64″	72 x 36	18	14
1390	1/8″	96 x 36	18	15
1391	3/16″	120 x 36	15	23
1392	1/4″	168 x 36	14	30
1393	3/8″	288 x 36	11	50
1394	1/2″	386 x 36	10	55
1395	5/8″	396 x 36	10	61
1396	3/4″	832 x 36	7	80
1397	25/32″	832 x 36	7	80
1398	1″	832 x 36	7	84
1399	1 3/8″	912 x 36	7	105

TINNED COPPER BUS BAR WIRE

SOLID SOFT DRAWN COPPER AND BRIGHTLY TINNED FOR ALL TYPES OF SOLDERING CONNECTIONS AND OTHER APPLICATIONS

STANDARD SPOOL PUT-UP: 100 FT., 1000 FT.

NO.	NOMINAL DIAMETER	SIZE SOLID	CIRCULAR MIL. AREA
3845	.129″	8	16510
3841	.102″	10	10380
3831	.082″	12	6530
3821	.064″	14	4110
3815	.051″	16	2583
3816	.040″	18	1624
3817	.032″	20	1022
3818	.025″	22	642
3819	.020″	24	404
3846	.016″	26	254.1
3847	.013″	28	159.8
3848	.010″	30	100.5

LEAD COVERED CABLE

CONSOLIDATED

FOR FREEDOM FROM INTERFERENCE, CORROSION AND DAMPNESS.

SPECIFICATIONS: Tinned copper wire; heavy rubber insulation and cotton braid; heavy lead shield.

1453	2 cond.	18	Solid	1/32	240 x .200
1454	3 cond.	18	Solid	1/32	.420

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CONSOLIDATED WIRE AND ASSOCIATED COMPANIES

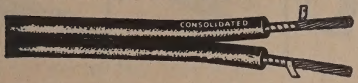
SEND FOR COMPLETE CATALOG

CHICAGO, ILLINOIS

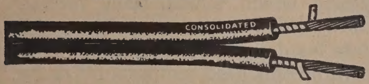
ELECTRICAL CORDAGES
UNDERWRITERS APPROVED

SUPPLIED ON ATTRACTIVE TRI-COLOR LITHOGRAPHED METAL SPOOLS

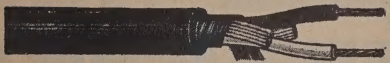
RUBBER HANDYCORD CENTERSTRIP



PLASTIC HANDYCORD CENTERSTRIP



RUBBER SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

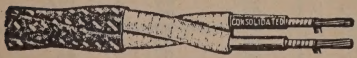


SPECIFICATIONS AND APPLICATION

Extra flexible bare copper cotton served. 1/32″ rubber insulation color coded conductors cabled with fillers, cotton wrap and black, tough rubber jacket.

For all electronic equipment, household appliances, garden and power tools.

NEOPRENE SHEATHED SERVICE CORD
UNDERWRITERS APPROVED

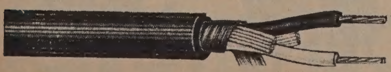


SPECIFICATIONS AND APPLICATION

Same specifications as 4200 Series except black Neoprene jacket.

For all types of equipment exposed to oils, acid and excessive moisture.

HEATER CORD



Colors: Black and White Marker.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000FF.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4072	2	18	SP(P.O.S.J.)	41 x 34	1/64″	.235 x .130
4074	2	16	SP(P.O.S.J.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD SPOOL PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT., 500 FT., 1000 FT.

4077	2	18	SPT(P.O.T.)	41 x 34	1/64″	.235 x .130
4079	2	16	SPT(P.O.T.)	65 x 34	1/32″	.300 x .160

Colors: Black, Brown, White, Gray.

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	CURRENT CARRYING CAPACITY	VOLTAGE RATING	NOM. O. D.
4202	2	18	SV	5 Amps.	300	.250″
4207	2	18	SJ	5 Amps.	300	.310″
4212	3	18	SJ	5 Amps.	300	.345″
4214	4	18	SJ	5 Amps.	300	.360″
4217	2	16	SJ	7 Amps.	300	.340″
4222	3	16	SJ	7 Amps.	300	.375″
4224	4	16	SJ	7 Amps.	600	.395″
4227	2	18	S	5 Amps.	600	.390″
4232	3	18	S	5 Amps.	600	.405″
4234	4	18	S	5 Amps.	600	.435″
4237	2	16	S	7 Amps.	600	.410″
4242	3	16	S	7 Amps.	600	.430″
4244	4	16	S	7 Amps.	600	.485″
4247	2	14	S	15 Amps.	600	.540″
4252	3	14	S	15 Amps.	600	.560″
4254	4	14	S	15 Amps.	600	.605″
4257	2	12	S			
4262	3	12	S	20 Amps.	600	.635″
4264	4	12	S	20 Amps.	600	.665″
4267	2	10	S	25 Amps.	600	.640″
4272	3	10	S	25 Amps.	600	.690″
4274	4	10		25 Amps.	600	.745″

STANDARD PUT-UP: 25 FT., 50 FT., 100 FT., 250 FT.

4307	2	18	SJO	5 Amps.	300	.310″
4312	3	18	SJO	5 Amps.	300	.345″
4314	4	18	SJO	5 Amps.	300	.360″
4317	2	16	SJO	7 Amps.	300	.340″
4322	3	16	SJO	7 Amps.	300	.375″
4324	4	16	SO	7 Amps.	600	.395″
4327	2	18	SO	5 Amps.	600	.390″
4332	3	18	SO	5 Amps.	600	.405″
4334	4	18	SO	5 Amps.	600	.435″
4337	2	16	SO	7 Amps.	600	.410″
4342	3	16	SO	7 Amps.	600	.430″
4344	4	16	SO	7 Amps.	600	.485″
4347	2	14	SO	15 Amps.	600	.540″
4352	3	14	SO	15 Amps.	600	.560″
4354	4	14	SO	15 Amps.	600	.605″
4357	2	12	SO	20 Amps.	600	.605″
4362	3	12	SO	20 Amps.	600	.635″
4364	4	12	SO	20 Amps.	600	.665″
4367	2	10	SO	25 Amps.	600	.640″
4372	3	10	SO	25 Amps.	600	.690″
4374	4	10	SO	25 Amps.	600	.745″

STANDARD SPOOL PUT-UP: 100 FT., 250 FT.

NO.	NO. OF COND.	SIZE AWG.	U. L. TYPE	STRAND-ING	NOM. INS. THICKNESS	NOM. O. D.
4087	2	16	HPD	65 x 34	1/32″	.275
4092	2	18	HPD	41 x 34	1/32″	.250

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ELECTROVERT INC.

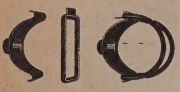
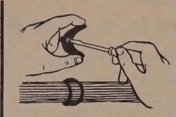
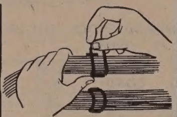
COMPONENTS AND EQUIPMENT DIVISION

New York, N. Y.

Insuloid cradleclip®

FOR SUPPORTED WIRING

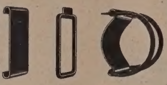
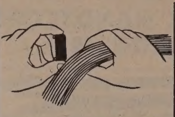
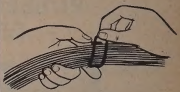
cradles and clips

Just screw cradle to panel, position cables in cradle and hook on clip of required size, as shown.

FOR UNSUPPORTED WIRING

binders and clips

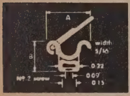
For use in

1. Electrical switchgear, switchboard, instrument and control panels.
2. Electronic equipment — ground, naval, airborne, aerospace (min. weight .012 oz.).
3. Chassis-mounted components and wiring.
4. Cable runs in building and vehicle telecommunications installations.
5. Fuel, lubricant, coolant and hydraulic fluid line installations.
6. Chemical tubing and piping installations.

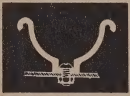
You can expect

- New high-speed, simplified wire, cable or component fixing which substantially reduces costs, saves time, work and money.
- Complete insulation and resistance to all environments within specified temperature range, including corrosive atmospheres.
- Permanent, yet flexible installations. Wiring changes can be made quickly and easily without any waste of material.
- Complete electrical and mechanical security.
- Neater, more compact installations and easier circuit tracing.

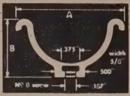
CRADLES



C0 N0
Miniature
with
captive clip

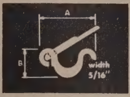


C1, C2, C3

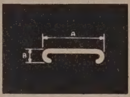


C1-M C2-M
C3 M
molded in
cadmium-plated,
chromate-
treated nut
to take 6/32
thread bolts

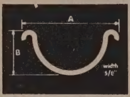
BINDERS



B0 N0
Miniature
with
captive
clip

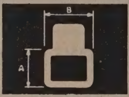


B1

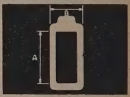


B2, B12

CLIPS



N0
miniature
(for
replacement)



N1. N3,
N5, N7

DIMENSIONS AND WEIGHTS

TYPE & SIZE	DIMENSIONS (″) A	DIMENSIONS (″) B	WT/M (1000 pcs) (approx.)
Cradles			
C0	.500	.335	8.2 oz
C1	.937	.562	3 lbs, 8 oz
C1-M	"	"	8 lbs
C2	1.375	.750	4 lbs, 5 oz
C2-M	"	"	9 lbs, 14 oz
C3	1.875	1.000	5 lbs, 14 oz
C3-M	"	"	10 lbs, 10 oz
Binders			
B0	.500	.250	7.2 oz
B1	.875	.187	1 lb, 9 oz
B12	.937	.400	2 lbs, 7 oz
B2	1.875	.812	4 lbs, 13 oz
Clips			
N0	.340	.500	3.8 oz
N1	.500	.937	2 lbs, 2 oz
N3	1.000	1.000	3 lbs, 13 oz
N5	1.750	1.000	5 lbs, 7 oz
N7	2.562	1.000	7 lbs, 7 oz

Standard pack: 500. Packed in polyethylene bags in cardboard cartons.

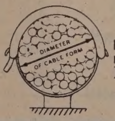
MATERIALS

Cradles and Binders are molded from special nylon (Zytel 105). Extensible Clips are available in Neoprene, Butyl, Viton and Silicone rubber. N0 available in Neoprene only.
Temperature range—76°F to +250°F.

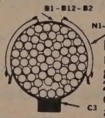
RECOMMENDED COMBINATIONS

DIAMETER OF CABLE FORM	SUPPORTED* WIRING Cradle	SUPPORTED* WIRING Clip	UNSUPPORTED* WIRING Binder	UNSUPPORTED* WIRING Clip
⅛″ - 5/16″	C0	N0	B0	N0
¼″ - ⅝″	C1	N1	B1	N1
½″ - 11/16″	C1	N3	B1	N5
11/16″ - 15/16″	C2	N3	B12	N3
15/16″ - 1 1/16″	C2	N5	B12	N5
1″ - 1¼″	C3	N3	B2	N3
1¼″ - 1½″	C3	N5	B2	N5
1½″ - 2″	C3	N7	B2	N7

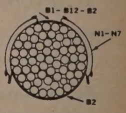
*for Neoprene, Butyl and Viton Clips. Ask for special recommendations for Silicone Clips.



For cable runs of ⅛″-2″ dia.

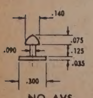


For cable runs of greater than 2″ dia., use combinations as shown

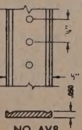


Insuloid® Strapping

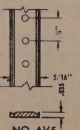
The lowest cost, quality wire and cable typing system available to the electrical and electronics field today!



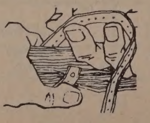
NO. AVS



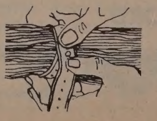
NO. AV8



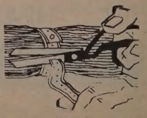
NO. AV5



STRAP!



SNAP!



SNIP!

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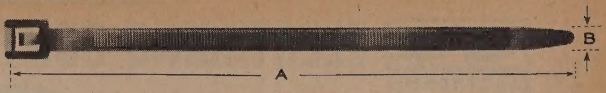
Insulok cable tie

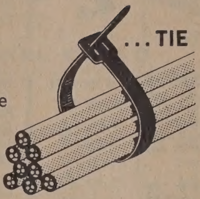


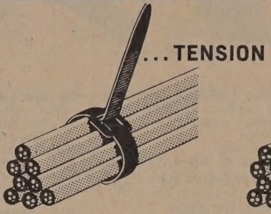
Ref.	A	B	Thickness	To accommodate Cable Runs	
				From	To
				Dia.	Dia.
LK1	3″	3/16″	3/64″	3/16″	9/16″
LK2	4 11/16″	3/16″	3/64″	3/16″	1 1/16″
LK3	9″	3/8″	1/16″	3/4″	2 1/4″

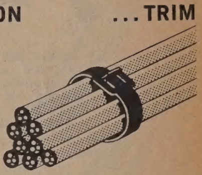
THE LATEST, SIMPLEST, MOST ECONOMICAL, YET MOST EFFECTIVE CABLE BINDING SYSTEM AVAILABLE

ADVANTAGES

- One component only
- Lighter and stronger than metal straps
- High speed self-locking action
- Made in Nylon to withstand a wide temperature range, —80°C. to +150°C — suitable for all climatic conditions
- Neater — more compact wiring
- Permanent — cannot loosen
- Substantial saving in wiring costs



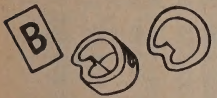


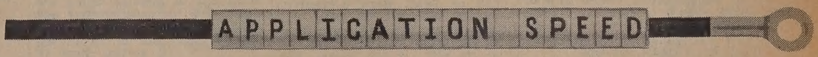


The Insulok system utilizes one component only — which being moulded from tough, flexible Nylon is immensely strong and virtually indestructible. Although taking only seconds to fix, the Insulok Tie features a clever non-return cam-action locking device which ensures that once fixed the tie will never come off or slacken.

Beta "Z" markers

PERMANENT • RELIABLE • DURABLE





SPECIFICATIONS

CAT.*	RECOMMENDED FOR WIRES/CABLES OF O.D.	LENGTH	THICKNESS
22	.045″-.065″	.140″	.055″
20	.066″-.085″	.140″	.050″
18	.086″-.115″	.140″	.040″
16	.110″-.135″	.140″	.030″
14	.130″-.160″	.160″	.040″
12	.150″-.175″	.160″	.045″
10	.170″-.195″	.160″	.045″
9	.190″-.215″	.160″	.050″
8	.210″-.250″	.190″	.055″
7	.245″-.295″	.190″	.055″
6	.290″-.360″	.224″	.060″
4-1	.355″-.460″	.224″	.060″

Colors: White with black markings (Standard color). Black with white markings, Blue, Green, Yellow, Red with black markings.

Material: PVC MIL-1-631C, Type F, Form U, Grade a & b, Class I, Category 1, finish: glossy. Specific gravity: 1.21. Hardness (shore A): 73 av. Tensile Strength: 2600 psi. av. Ultimate Elongation: 350% av. Dielectric Strength (20 mil specimen): 750 volts/mil. Cold Brittle Temp. (50% non-failure): —65° F.

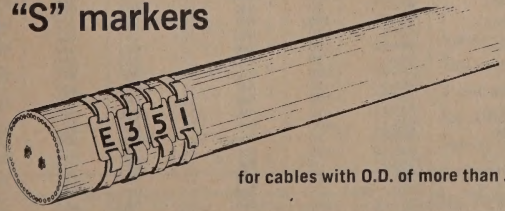
Markings: Single: numerals 0-9, letters A to Z, symbols +, —, ~, ±. Multiple: any 2, 3, 4 or 5 unit combinations of above.

Packing: Coil of 50 single markers, one size, color and character per polyethylene covered cards. Coil of 500, as above, on self-servicing reels. Coil of 500 multiple markers, one color, sizes 22, 20, 18, 16, 14, 12, 10, 9 or 8. Coil of 250 multiple markers, sizes 7, 6 or 4-1.

Min. Quantity: per size, and character: 50 single white, 500 multiple, 500 colored.

Min. Order: 500 markers.

Beta "S" markers



for cables with O.D. of more than .500″.

Strap-on-marker: Size: 3/8″ x 9/16″ x .040″, material P.V.C., colors and material same as BETA "Z". Markings: 0-9, A-Z, +, —, ~, ±.

Application Strip: PVC—covered aluminum, 4 mm wide 0.6 mm thick.

Packing: Markers, 50 per indicator card pouch; strips in 165′ coils.

Min. Quantity: Per size, color and character: 50 markers.

Min. Order: 500 Markers, 165′ coil of strip.

ELECTROVERT INC. **COMPONENTS AND EQUIPMENT DIVISION**
New York, N. Y.

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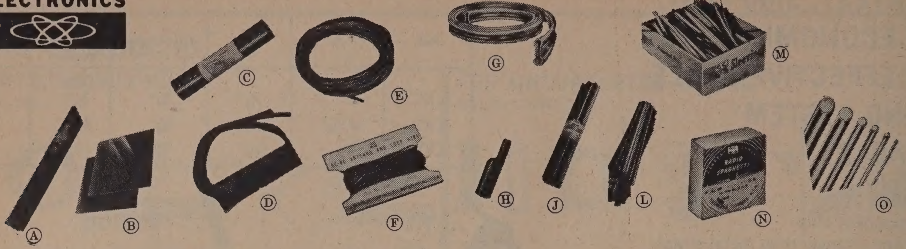
GC ELECTRONICS

ELECTRONIC COMPONENTS



(A) G-C INSULATING CAMBRIC—Dry yellow varnished cambric for field coils, transformers, chokes, resistors, motors, etc.
Cat. No. 549 .010"—Roll over 210 sq. in. Net $ .78

(B) G-C LAMINATED PHENOLIC PLASTIC PANELS—Black laminated panels. 1⁄16" thick stock. Black color.
Cat. No. 590 6"x6"x1⁄16" Net $ .42
591 6"x12"x1⁄16" .82
592 12"x12"x1⁄16" 1.58

(C) G-C FYBEROID FISH PAPER—Fish paper has many uses around the shops for repair jobs where electrical insulation is required.
Cat. No. 560 .010"-240 sq. in. roll Net $ .45

(D) G-C BATTERY CONNECTOR STRIP—Used for connecting 67½ volt "B" batteries, such as Eveready 455, 466; Burgess XX30, XX45.
Cat. No. 8115 Net $ .18

(E) G-C SHIELDED PHONO PICK-UP WIRE—Handy packages of shielded phono pick-up wire, very handy for new installations or replacements.
Cat. No. 1738-E Envelope Net $ .38

(F) G-C AC-DC INDOOR ANTENNA WIRE—Antenna lead wire for indoor type AC-DC sets. Flexible copper wire covered with brown plastic insulation.
Cat. No. 840 25 Ft. coil Net $ .37

(G) G-C 300-OHM LINE PROTECTIVE TUBING—Clear plastic tubing will fit over 300-ohm flat lines and will protect the line from grounding and rubbing on corners of buildings, eaves, etc. It actually protects and waterproofs the line.
Cat. No. 625 Box of 8 ft. Net $ .75
626 250 ft. coil 15.90
627 1000 ft. 59.33

(H) G-C ALLIGATOR-CLIP INSULATORS—High quality vinyl plastic insulators fit all alligator clips. Positive insulation against grounding and shock.
Cat. No. 9376 Red Net $ .07
9376-C 4.50
9377 Black .07
9377-C 4.50

(J) G-C GENFLEX PLASTIC TUBING—High grade extremely flexible plastic tubing for radio and electronic insulation work. Highly resistant to cold or heat. High dielectric strength, average 8,000 volts.
Colors: Black, Red, Green and Clear (Specify Color).
Cat. No. 603 18 B-S Gauge, .042 I.D., 20 ft. Package Net $ .82
605 16 B-S Gauge, .053 I.D., 20 ft. Package Net $ .82
607 14 B-S Gauge, .066 I.D. 20 ft. Package Net $ .82
609 12 B-S Gauge, .085 I.D., 20 ft. Package Net $ .82
611 10 B-S Gauge, .106 I.D., 15 ft. Package Net $ .82
613 8 B-S Gauge, .133 I.D., 15 ft. Package Net $ .82
616 6 B-S Gauge, .166 I.D., 10 ft. Package Net $ .82
617 4 B-S Gauge, .208 I.D., 10 ft. Package Net $ .82
620 2 B-S Gauge, .263 I.D., 10 ft. Package Net $ .82

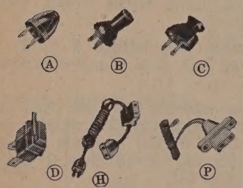
G-C PLASTIC TUBING KITS — Handy kits of assorted colors and sizes. Ideal for experimenters and servicemen.
Cat. No. 635 Kit of 25 ft. assorted. Sizes 18 to 10 Genflex Tubing. Net $ .82

(L) G-C ASSORTED SPAGHETTI KIT—An assortment of 7½" lengths of spaghetti sleeving. 26 lengths to the kit. Sizes include from No. 17 wire to ⅜" I.D.
Cat. No. 550 Kit of 26 Lengths. Net $ .40

(M) SPAGHETTI AND SLEEVING ASSORTMENT—A variety of sizes and colors are included of high grade varnish tubing. Put up in attractive box.
Cat. No. 551 Net $ .90

(N) G-C SPAGHETTI IN BOXES—Best grade varnished tubing put in convenient 20-ft. lengths. Will fit wire from No. 12 to No. 18. Colors: Black, Red, Yellow, Green and Blue.
Cat. No. 499 Net $1.23

(O) G-C RADIO SPAGHETTI—High grade spaghetti for radio-television work. Average dielectric strength 4000 volts. Very flexible. Smoothly coated with best grades of varnish. Material is approved by A. S. T. M. Colors: Black, Brown, Red, Green and Yellow (Specify Color). 30" Lengths.
Cat. No. 500 No. 20, fit 20 wire Net $ .13
503 No. 17, fit 18 wire .15
506 No. 14, fit 14 wire .17
508 No. 12, fit 12 wire .17
512 ⅛" I.D. .23
515 3⁄16" I.D. .23
518 ¼" I.D. .37
521 ⅜" I.D. (resist. size) .63
522 7⁄16" I.D. Red & Black .73
523 ½" I.D. Red & Black .97



(A) G-C STREAMLINE ATTACHMENT CAP—Made of rubber. Brass blades. Spring type. U.L. approved.
Cat. No. 865 Net $ .23

(B) G-C SPRING ACTION CAP—Heavy-duty type. Made of rubber. Brass blades. U.L. approved.
Cat. No. 861 Net $ .17

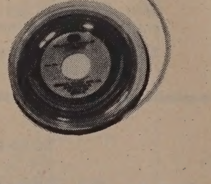
(C) G-C SPRING ACTION CAP—Flat plastic type. Brass blades. U.L. approved. Cat. No. 860 Net $ .17

(D) G-C ANGLE PLUG—Plastic angle plug that assembles in a jiffy. It has no screws and requires no soldering.
Cat. No. 8360-E Brown Net $ .30
8361-E Ivory .30

(E) SERVICEMAN'S CHEATER CORD—Special "cheater cord" for extending the standard interlock safety cord supplied with the TV set.
Cat. No. 8948 Net $ .87

(F) INTERLOCK CABLE CORD—Replacement cord for RCA, Philco, G-E, Admiral and others.
Cat. No. 8200 Reg. TV Cord Net $ .48
8201 Spec. Zenith Cord .70

NEW G-C INSULATING TUBING OF TEFLON*



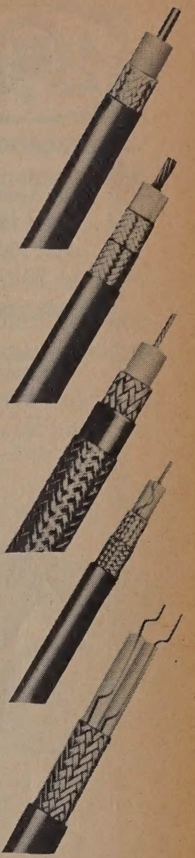
—Exceptionally tough and flexible. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. Wires can be inserted much more easily than in any other tubing.

*Registered trademark Du Pont Co.

Part No.	Feet Per Spool	Color	Gauge	I.D. (Inches)	Wall Thickness	Dlr. Net Per Spool
7980-7	10	Nat	24	.022	.010	$ 1.33
7980-7C	100	Nat	24	.022	.010	9.75
7980-1	10	Red	24	.022	.010	1.33
7980-1C	100	Red	24	.022	.010	9.75
7980-4	10	Blue	24	.022	.010	1.33
7980-4C	100	Blue	24	.022	.010	9.75
7981-7	10	Nat	22	.027	.012	1.47
7981-7C	100	Nat	22	.027	.012	12.43
7981-1	10	Red	22	.027	.012	1.47
7981-1C	100	Red	22	.027	.012	12.43
7981-4	10	Blue	22	.027	.012	1.47
7981-4C	100	Blue	22	.027	.012	12.43
7982-7	10	Nat	20	.034	.012	1.83
7982-7C	100	Nat	20	.034	.012	18.27
7982-1	10	Red	20	.034	.012	1.83
7982-1C	100	Blue	20	.034	.012	18.27
7982-4	10	Nat	18	.042	.012	1.83
7982-4C	100	Blue	20	.034	.012	18.27
7983-7	10	Red	20	.034	.012	2.23
7983-7C	100	Nat	18	.042	.012	20.88
7983-1	10	Red	18	.042	.012	2.23
7983-1C	100	Red	18	.042	.012	20.88
7983-4	10	Blue	18	.042	.012	2.23
7983-4C	100	Blue	18	.042	.012	20.88
7984-7	10	Nat	16	.053	.012	2.65
7984-7C	100	Nat	16	.053	.012	25.02
7984-1	10	Red	16	.053	.012	2.65
7984-1C	100	Red	16	.053	.012	25.02
7984-4	10	Blue	16	.053	.012	2.65
7984-4C	100	Blue	16	.053	.012	25.02
7985-7	10	Nat	14	.066	.012	2.92
7985-7C	100	Nat	14	.066	.012	28.38
7985-1	10	Red	14	.066	.012	2.92
7985-1C	100	Red	14	.066	.012	28.38
7985-4	10	Blue	14	.066	.012	2.92
7985-4C	100	Blue	14	.066	.012	28.38
7986-7	5	Nat	12	.085	.014	1.83
7986-7C	100	Nat	12	.085	.014	34.28
7986-1	5	Red	12	.085	.014	1.83
7986-1C	100	Red	12	.085	.014	34.28
7986-4	5	Blue	12	.085	.014	1.83
7986-4C	100	Blue	12	.085	.014	34.28
7987-7	5	Nat	10	.106	.014	2.17
7987-7C	100	Nat	10	.106	.014	39.53
7987-1	5	Red	10	.106	.014	2.17
7987-1C	100	Red	10	.106	.014	39.53
7987-4	5	Blue	10	.106	.014	2.17
7987-4C	100	Blue	10	.106	.014	39.53

ITT RG Coaxial Cables

ITT Polyethylene Dielectric RG Coaxial Cables are produced to meet rigid military specifications. The superiority and consistent uniformity of these cables' are the result of high engineering and quality control standards applied through each step of production—from micrometer gauging of the center conductors to the final outer jacket.

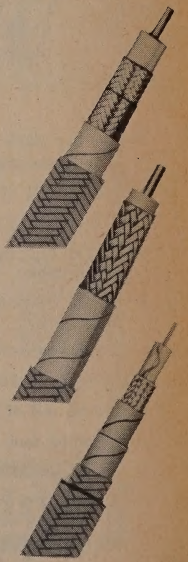


Type	Nom. O.D.	Nom. Imp. Ohms	RMS Test Volts (X 1000)	Center Cond.■	Type	Nom. O.D.	Nom. Imp. Ohms	RMS Test Volts (X 1000)	Center Cond.■
COAXIAL CABLE									
RG-6/U	.335	76	7	CW	RG-59/U	.242	73	7	CW
RG-8/U	.405	52	10	C	RG-59A/U	.242	75	7	CW
RG-8A/U	.405	50	10	C	RG-59B/U	.246	75	7	CW
RG-9A/U	.420	51	10	S	RG-62/U	.242	93	3	CW
RG-9B/U	.425	50	10	S	RG-62A/U	.242	93	3	CW
RG-10/U	.475	50	10	C	RG-62B/U	.242	93	3	CW
RG-10A/U	.475	50	10	C	RG-63/U	.405	125	3	CW
RG-11/U	.405	75	10	T	RG-63B/U	.405	125	3	CW
RG-11A/U	.405	75	10	T	RG-65A/U	.405	950	3	C
RG-12/U	.475	75	10	T	RG-71/U	.250	93	3	CW
RG-12A/U	.475	75	10	T	RG-71A/U	.250	93	3	CW
RG-13A/U	.425	75	10	T	RG-71B/U	.250	93	3	CW
RG-14A/U	.545	50	12	C	RG-74A/U	.615	50	12	C
RG-17/U	.870	52	22	C	RG-79B/U	.475	125	3	CW
RG-17A/U	.870	50	22	C	RG-108A/U	.235	78	2	T
RG-18A/U	.945	50	22	C	RG-122/U	.160	50	5	T
RG-22/U	.405	95	2	C	RG-174/U	.100	50	4.5	CW
RG-55/U	.201	53.5	5	S	RG-213/U	.412	50	10	C
RG-55A/U	.216	50	5	S	RG-214/U	.412	50	10	S
RG-55B/U	.206	53.5	5	S	RG-218/U	.870	50	22	C
RG-58/U	.195	53.5	5	C	RG-219/U	.945	50	22	C
RG-58A/U	.195	52	5	T	RG-223/U	.216	50	5	S
RG-58C/U	.195	50	5	T					

■—S—Silvered Copper; CW—Copperweld;
C—Copper; T—tinned copper;

ITT Teflon Coaxial Cables

Teflon dielectric cable exhibits high dielectric strength and low dielectric constant. Teflon's ability to withstand high temperature and exposure to gases and liquids accounts for its use where other cables prove inadequate. Fiberglas or Teflon jackets add to this cable's resistance to abrasion, moisture and temperature.



MIL Number	Nom. Imp. Ohms	Jacket Dia.	Type Jacket*	Shield		O.D. of Dielectric†	Center Conductor#	Cap. μμf/ft.	Max. Op. Volts RMS
				1st	2nd				
RG-87A/U	50	.440″	V(2)	S	S	.285″TF	7/20S	29.5	5000
RG-140/U	75	.241″	V	S		.146″TF	.025SCW	21.0	2300
RG-141/U	50	.195″	V	S		.116″TF	.0359SCW	28.5	1900
RG-141A/U	50	.195″	V	S		.116″TF	.039SCW	28.5	1900
RG-142/U	50	.206″	V	S	S	.116″TF	.0359SCW	28.5	1900
RG-142A/U	50	.206″	V	S	S	.116″TF	.039SCW	28.5	1900
RG-143/U	50	.325″	V(2)	S	S	.185″TF	.057SCW	28.5	3000
RG-187/U	75	.110″	VII	S		.063″TF	7/38SCW	19.5	1200
RG-188/U	50	.110″	VII	S		.060″TF	7/.0067SCW	29.0	1200
RG-195/U	95	.155″	VII	S		.102″TF	7/38SCW	15.0	1500
RG-196/U	50	.080″	VII	S		.034″TF	7/38SCW	29.0	1000
RG-211/U	50	.745″	V(2)	C		.620″TF	.190C	29.0	7000
RG-225/U	50	.435″	V(2)	S	S	.285″TT	7/.0312S	29.5	5000

Note: Operating Temperature Limits: Fiberglas, —55° C to +250° C; Teflon, —55° C to + 200° C; *V—Fiberglas Braid; VII—Teflon. †TT—Teflon Tape; TF-Teflon. #S—Silver-coated copper; C—Copper; CW—Copperweld; SCW—Silver-coated Copperweld.

ITT DISTRIBUTOR PRODUCTS DIVISION
INTERNATIONAL TELEPHONE & TELEGRAPH CORPORATION

We reserve the right to change specifications without notice.

In inventory at your local ITT Distributor at OEM prices.

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IRC POLYSTRIP LOW VOLTAGE WIRING

SPECIFICATIONS FOR POLYSTRIP CABLE

INSULATION—IRC Type SE self-extinguishing, serviceable to 85°C.

CONDUCTOR SIZE—.002″ x .062″ copper (equivalent to AWG 28).

OVERALL WIDTH—P1003—.330″
P1005—.630″

NOMINAL THICKNESS—.009″ - .010″

CURRENT CARRYING CAPACITY—2 amps maximum

VOLTAGE RATING—28 volts

RESISTANCE—.066 ohms/conductor foot

IRC
POLYSTRIP Installer's Kit

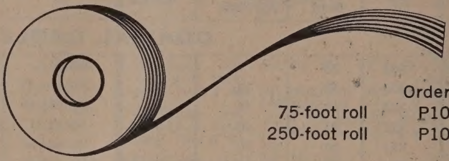
Dealer Kit #205 . . . everything needed for one or more profit-proving installations.

- 1—75-foot roll of 5 conductor POLYSTRIP cable
- 1—75-foot roll of 3-conductor POLYSTRIP cable
- 6—5PWR (splicing type) connectors for 5-conductor cable
- 2—5PWA (wirelead type) connectors for 5-conductor cable
- 6—3PWR connectors for 3-conductor cable
- 2—3PWA connectors for 3-conductor cable
- 1—50-foot roll of double-backed pressure tape
- 1—Stripping tool

POLYSTRIP CABLE AND ACCESSORIES

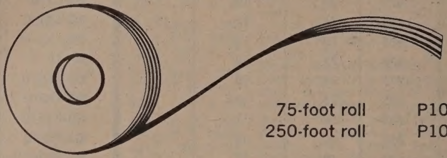
All items in the Dealer Kit can be ordered individually. Savings are possible through quantity orders.

5-CONDUCTOR POLYSTRIP CABLE



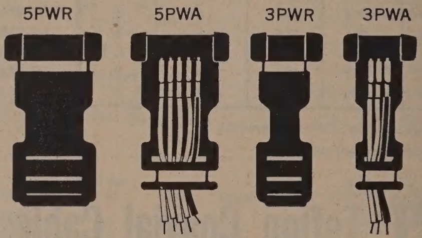
	Order Number
75-foot roll	P1005-75
250-foot roll	P1005-250

3-CONDUCTOR POLYSTRIP CABLE



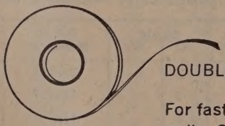
75-foot roll	P1003-75
250-foot roll	P1003-250

CONNECTORS



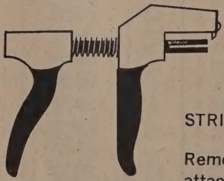
Specially designed and manufactured to speed installation of POLYSTRIP.

Supplied in packages of 10 and 100.



DOUBLE-BACKED TAPE

For fast neat installations without marring walls. Supplied in 50-foot rolls.



STRIPPING TOOL

Removes insulation quickly for connector attachment.

INSULATION REMOVAL

There are several methods of removing Polystrip insulation utilizing heat, cutting or abrasion techniques.

1. The stripping tool is a fast, convenient insulation cutter.
2. A de-soldering iron is an effective stripping tool which uses the heat technique.
3. A similar heat method requires a 240°F. hot plate.
4. Polystrip insulation may be cut with a sharp knife or razor blade.

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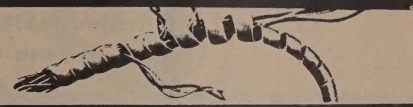
SPIRAL WRAP



Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

Spiral Wrap is spirally cut plastic tubing with many uses. It is ideal for bundling wires into compact and flexible cables. Spiral Wrap is also used to prevent abrasion, to insulate, and to hold wires, cables and tubing, etc. Spiral Wrap is available in 5 types of plastic—each with properties for specific applications. For general purpose applications Polyethylene Spiral Wrap (SWP) is recommended. It will withstand temperatures to 220°F. Nylon Spiral Wrap (SWN) is tough and has excellent abrasion characteristics along with excellent temperature characteristics to 300°F. Rulan Spiral Wrap (SWR) is intended for applications where a flame-retardant material is required. Both Irradiated Polyethylene (SWI) and Teflon Spiral Wrap (SWT) have extremely good temperature characteristics. SWT will stand temperatures to 500°F. Teflon Spiral Wrap also has chemical inertness and is non-burning.

					NET/FT	NET/100 FT	
NEW NO.	OLD NO.	OD	WALL	COLOR	1-99'	100-999'	1000-UP
POLYETHYLENE							
SWP-1/8	197-2	1/8	.031	1	.05	3.60	3.00
3/16	-3	3/16	.031	1	.07	5.30	4.95
-1/4	-4	1/4	.058	1,2,3,4	.08	6.00	5.55
-1/4XT	-4A	1/4	.032	1	.08	5.80	5.25
-3/8	-6	3/8	.058	1,2,3,4	.13	9.50	8.40
-1/2*	-8	1/2	.058	1	.16	14.50	13.00
NYLON							
SWN-1/8	193-2	1/8	.016	1	.09	7.50	6.90
-1/4	-4	1/4	.030	1	.16	15.50	14.60
-3/8	-6	3/8	.030	1	.38	36.40	35.10
-1/2*	-8	1/2	.030	1	.45	44.00	43.00
FLAME RETARDANT (RULAN)							
SWR-1/4	198-4	1/4	.058	1,2	.10	9.00	7.90
-3/8	-8	3/8	.058	1,2	.15	13.00	11.40
IRRADIATED POLYETHYLENE							
SWI-1/4	196-4	1/4	.058	2	.58	54.00	44.60
TEFLON**							
SWT-1/8	199-2	1/8	.030	1	1.35	117.00	
-1/4	-4	1/4	.030	1	1.50	139.00	
-3/8	-6	3/8	.030	1	2.95	261.00	
-1/2	-8	1/2	.030	1	4.20	380.00	

AGGREGATION: Sizes, colors and types may be aggregated.

COLOR: 1-Natural (white), 2-Black, 3-Red, 4-Blue.
Black polyethylene is excellent for outdoor use.
Additional colors and sizes available on request.

AVAILABLE IN
3' (10/Box)
25' (1/Box)
100' Spool
500' Spool

**Available in 3' and 25' lengths subject to plus or minus 10%
*1/2" o.d. available in 3', 25', 100' and 250' spool.

For specifications, contact us or consult your local distributor.

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sunnyvale, california

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VINYL SLEEVING

ILLUMITRONIC
VINYL
SLEEVING
SUNNYVALE CALIF.

Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

PROPERTIES

Temperature rating	105°C
Flexibility (low temp.)	—30°C
Dielectric Strength	800 V/Mil
Flammability	non-flammable
Tensile Strength	2500 PS1

STANDARD COLORS:

Clear, Black, Red, Yellow, Green, Blue, Brown, White, Orange, Violet.

SLV-105 conforms to spec. MIL-1-631C, grade C, ASTM-D876, ASTM-D9222 and is U/L approved.

Sizes #24 thru #1 available in all standard colors
Sizes 0 thru 2 1/2" available in clear and black.

QUANTITY PRICE
IF PURCHASED IN LENGTHS
SHOWN, SIZES MAY BE AGGREGATED

OLD# V105			SHORT LENGTHS NET PER LENGTH					NET PER 1000 FT		
CAT # SIZE	ID	WALL	25'	50'	100'	500'		LESS THAN 1000'	1000'-4999'	5000'- & over
SLV 105 - 24	.022	.012			1.96	8.80	1000	16.10	13.00	10.80
- 22	.027	.012			1.97	8.85	1000	16.20	13.10	10.90
- 20	.034	.016			2.01	8.98	1000	16.60	13.40	11.10
- 19	.038	.016			2.06	9.30	1000	17.10	13.50	11.30
- 18	.042	.016			2.08	9.40	1000	17.30	13.80	11.40
- 17	.047	.016			2.11	9.55	1000	17.60	14.00	11.50
- 16	.053	.016			2.20	9.85	1000	18.50	14.60	12.10
- 15	.059	.016			2.27	9.90	1000	19.20	14.90	12.30
- 14	.066	.016			2.34	9.95	500	19.90	15.40	12.80
- 13	.076	.016		1.37	2.39	10.20	500	20.40	16.00	13.10
- 12	.085	.016		1.42	2.49	10.70	500	21.40	16.60	13.80
- 11	.095	.016		1.46	2.56	11.05	500	22.10	17.20	14.50
- 10	.106	.016		1.51	2.66	11.55	500	23.10	18.50	15.50
- 9	.118	.020		1.92	3.49	15.70	500	31.40	24.60	20.80
- 1/8	.125	.020		2.00	3.65	16.85	500	33.85	26.55	22.25
- 8	.133	.020		2.05	3.74	16.95	500	33.90	26.60	22.30
- 7	.148	.020		2.16	3.97	18.10	500	36.20	28.30	23.50
- 6	.166	.020		2.31	4.26	19.55	500	39.10	30.20	25.10
- 5	.186	.020		2.47	4.58	21.15	200	42.30	32.30	26.80
- 4	.208	.020		2.64	4.93		200	45.80	34.70	28.40
- 3	.234	.020		2.80	5.25		200	49.00	36.90	30.40
- 1/4	.250	.020		2.95	5.55		200	53.35	39.95	33.15
- 2	.263	.020		3.02	5.69		200	53.40	40.00	33.20
- 1	.294	.020		3.24	6.12		200	57.70	43.10	35.60
- 5/16	.312	.025		4.07	7.79		200	62.30	46.40	38.90
- 0	.330	.020		3.47	6.58		200	74.40	55.40	46.40
- 3/8	.375	.025	2.40	4.65	8.59		100	85.90	64.10	54.90
- 7/16	.438	.025	2.66	5.18	9.65		100	96.50	72.50	62.00
- 1/2	.500	.025	2.91	5.67	10.64		100	106.40	80.70	68.70
- 9/16	.562	.030	3.79	7.44			50	141.70	107.70	90.70
- 5/8	.625	.030	4.08	8.00			50	153.00	117.30	98.30
- 3/4	.750	.035	5.53	10.91			50	211.20	160.90	134.40
- 7/8	.875	.035	6.19	12.22			50	237.40	183.80	153.10
- 1"	1.000	.035	6.88	13.62			50	265.30	205.20	170.00
- 1 1/8	1.125	.040	8.70				25	347.90	265.10	219.70
- 1 1/4	1.250	.040	9.20				25	367.80	285.80	238.90
- 1 3/8	1.375	.040	9.83				25	393.10	302.90	253.30
- 1 1/2	1.500	.045	11.92				25	476.70	367.80	311.10
- 1 3/4	1.750	.055	14.86				25	594.30	461.10	392.70
- 2"	2.000	.060	20.42				25	816.70	626.20	531.20
- 2 1/4	2.250	.065	24.28				25	971.00	738.80	628.20
- 2 1/2	2.500	.070	28.78				25	1,151.20	873.00	740.60

SLV 105-S1 25 Assorted 1' Lengths, Assorted colors (up to "0")......... ,99
SLV 105-S2 10 Assorted 1' Lengths, Assorted colors (1/4 to 1")............. 1.49

For specifications, contact us or consult your local distributor.

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TEFLON SLEEVING

ILLUMITRONIC
SLEEVING
SUNNYVALE CALIF.

Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

Illumitronic Teflon sleeving is used extensively where temperature extremes exist. This material will withstand temperatures of from minus 450° to 500°F. The material is chemically inert—is completely weatherproof—has excellent dielectric strength (480)—extremely low water absorption—is non-burning—and has a low coefficient of friction.

			SHORT LENGTHS			MIN. LGTH. TO AGGREGATE	STANDARD FULL LENGTHS	
			COST PER LENGTH				NET/100 FT	
NO.	ID	WALL*	10FT	50FT	100FT	⇩	200'-499'	500'- & Over
SLT-30	.012	.009	1.24	4.95	8.25	200	5.50	4.65
-28	.015	.009	1.31	5.22	8.70	200	5.80	5.05
-26	.018	.009	1.31	5.22	8.70	200	5.80	5.20
-24	.022	.012	1.31	5.22	8.70	200	5.80	5.20
-22	.027	.012	1.67	6.66	11.10	200	7.40	6.30
-20	.034	.012	2.45	9.81	16.35	200	10.90	9.25
-19	.038	.012	2.68	10.67	17.78	200	11.85	10.00
-18	.042	.012	3.01	12.02	20.03	200	13.35	11.40
-17	047	.012	3.25	13.01	21.68	200	14.45	12.40
-16	.053	.012	3.58	14.31	23.85	200	15.90	12.90
-15	.059	.012	3.66	14.63	24.38	200	16.25	13.55
-14	.066	.012	3.93	15.71	26.18	200	17.45	14.55
-13	076	.012	4.29	17.15	28.58	200	19.05	15.75
-12	.085	.012	4.61	18.45	30.75	200	20.50	16.95
-11	.095	.012	5.11	20.43	34.05	200	22.70	18.80
-10	.106	.012	5.32	21.29	35.48	200	23.65	19.40
- 9	.118	.015	6.41	25.65	42.75	200	28.50	26.10
- 8	.133	.015	7.08	28.31	47.18	200	31.45	28.85
- 7	.148	.015	7.70	30.78	51.30	200	34.20	31.60
- 6	.166	.015	8.33	33.30	55.50	200	37.00	33.95
- 5	.186	.015	9.15	36.59	60.98	100	40.65	37.35
- 4	.208	.015	10.01	40.05	66.75	100	44.50	40.80
- 3	.234	.015	10.93	43.70	72.83	100	48.55	44.80
- 2	.263	.015	12.41	49.64	82.73	100	55.15	50.65
- 1	.294	.015	13.86	55.44	92.40	100	61.60	56.50
- 0	.330	.015	15.35	61.38	102.30	100	68.20	62.50

Aggregation: Sizes may be aggregated if purchased in standard full lengths shown above.

*Tolerances:	#30-#22	.002"
	#20-#10	.003"
	# 9-# 0	.004"

For specifications, contact us or consult your local distributor.

**May not be continuous

Standard Color: Natural (White) - other colors on request.

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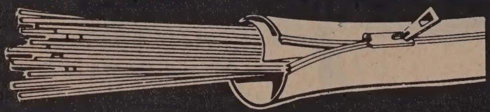
ZIPPER TUBING



- **MAKE YOUR OWN CUSTOM CABLES**
  As many conductors and types as you want—group them together—zip it up.
  No expensive minimums.
  You can make exactly what you want!
- **MAKE YOUR OWN SHIELDED CABLES**
  Provides a jacket and a shield for wires in one application.
  Gives 100% coverage and provides equal or better than any other type of shielding. Ideal for Hi-Fi shielding.
- **CUTS TIME**
  Applies in seconds.
  No pulling — tugging.

available from 3/8" through 4" diameter in the following types:

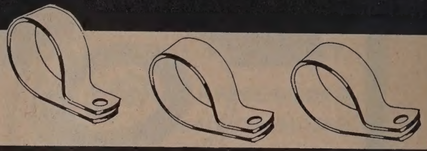
Type Z-63 meets MIL-I-631C available in both 020" wall and 040" wall

Type Z-74 meets MIL-I-7444 available in both 020" wall and 040" wall

Type ZVA—a Vinyl Aluminum Shielded Zipper Tubing

Type ZVG—a Vinylglass Zipper Tubing

PLASTIC CLAMPS



ETHYL CELLULOSE CLAMPS

The Ethylene Cellulose Clamps are tough and will withstand moisture, age and vibration and eliminate corrosion. They can be used within a temperature range of from −40°F to +185°F.

NEW # DIA.	OLD#	100 PAK NET/100	BULK PAK (NET/1000)*
ETHYL CELLULOSE			
CLE - 1/8	241E - 1/8	1.48	12.40
- 3/16	- 3/16	1.53	12.85
- 1/4	- 1/4	1.63	13.70
- 5/16	- 5/16	1.80	15.15
- 3/8	- 3/8	1.89	15.90
- 7/16	- 7/16	2.07	17.45
- 1/2	- 1/2	2.20	18.55
- 9/16	- 9/16	2.57	21.70
- 5/8	- 5/8	2.67	22.55
- 11/16	- 11/16	2.95	24.90
- 3/4	- 3/4	3.18	26.75
- 7/8	- 7/8	3.32	27.95
- 1	- 1	3.58	30.20
- 1 1/8	- 1 1/8	3.82	32.25
- 1 3/16	- 1 3/16	4.01	33.80
- 1 1/4	- 1 1/4	4.09	34.45
- 1 5/16	- 1 5/16	4.92	41.40
- 1 3/8	- 1 3/8	5.48	46.10
- 1 7/16	- 1 7/16	5.68	47.65
- 1 1/2	- 1 1/2	6.09	50.84
CLE - S1 (Assortment) 50 Pak		2.00/Pak	

NYLON CLAMPS

Molded of DuPont "Zytel" 101 Nylon Resin, the Nylon Clamps will withstand severe temperature and mechanical conditions. The wide temperature range is from −60°F to +300°F, along with strength and toughness and the fact that they do not support combustion, allow Illumitronic Nylon Clamps to meet the most rigid specifications.

NYLON			
CLN -1/8	241N- 1/8	2.24	18.75
- 3/16	- 3/16	2.38	19.93
- 1/4	- 1/4	2.58	21.75
- 5/16	- 5/16	2.85	23.90
- 3/8	- 3/8	3.00	25.22
- 7/16	- 7/16	3.16	26.66
- 1/2	- 1/2	3.36	28.36
- 9/16	- 9/16	4.18	35.25
- 5/8	- 5/8	4.90	41.25
- 11/16	- 11/16	5.26	44.30
- 3/4	- 3/4	5.56	46.80
- 7/8	- 7/8	6.16	51.80
- 1	- 1	6.35	53.50
CLN - S1 (Assortment) 50 Pak		2.50/Pak	

*MINIMUM TO AGGREGATE - 500 EA SIZE

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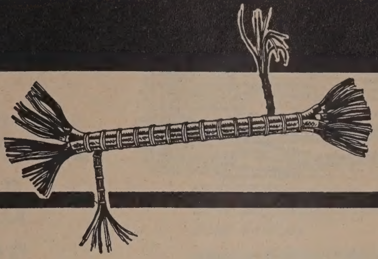
LACING CORD



Illumitronic has the most complete line of PLASTIC ROD, TUBING and SHEET.

Also HARNESSING and CABLING materials:

CAT. #	WIDTH	CLASS	TEST	YDS/SPOOL	COST PER THOUSAND YDS.
FLAT NYLON TAPE (500 YD. SPOOLS)					
* LTN-2 WHITE	3/32	2	48#	500 YDS.	10.86
* LTN-2 BLACK	3/32	2	48#	500 YDS.	11.86
	DIAM.	CLASS	TEST	YDS/PER #	COST PER ONE POUND SPOOLS
ROUND NYLON CORD (1# SPOOLS)					
* LCN-1 WHITE	.050	1	70#	550 YDS.	5.40
* LCN-1 BLACK	.050	1	70#	550 YDS.	6.40
* LCN-2 WHITE	.035	2	48#	750 YDS.	5.40
* LCN-2 BLACK	.035	2	48#	750 YDS.	6.40
* LCN-3 WHITE	.030	3	32#	1100 YDS.	5.40
* LCN-3 BLACK	.030	3	32#	1100 YDS.	6.40
ROUND LINEN CORD (1# SPOOLS)					
* LCL-2 WHITE	.035	2	48#	450 YDS.	3.75
* LCL-2 BLACK	.035	2	48#	450 YDS.	3.95
ROUND VINYL CORD (1# SPOOLS)					
** LCV BLACK	.060	-	-	600 FEET	3.95

* MEETS MIL-T-713A

** ARMY-NAVY APPROVAL UNDER CERT. #ANEESA-13004, SPEC. 1-1-57

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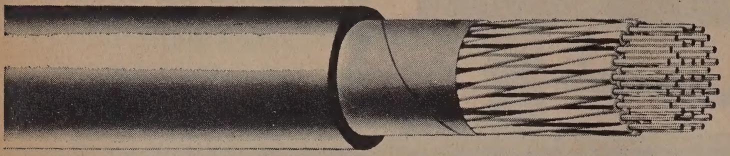
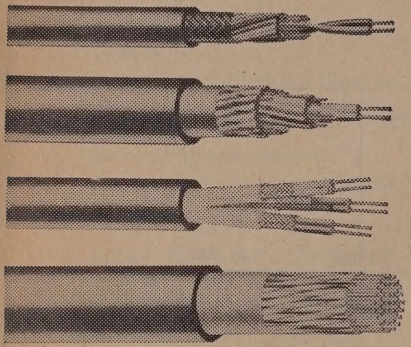
NATIONAL LOS ANGELES, CALIF.

WIRE & CABLE CORPORATION

See "File-O-Matic"
for
our complete line





Multiple Conductor Control Cables... UNLIMITED

TO MILITARY SPECIFICATIONS

UNSHIELDED

National Wire & Cable Corporation manufactures a complete line of multiple conductor control cables. Conductors are of tinned copper strand with primary insulation of 105°C Military Specification MIL-W-16878 Type C. Insulated for 1000 volts working voltage. Conductors are color coded using 10 standard basic colors plus spiral tracers on white. All conductors are planetary cabled and contra-helically laid with 50% overlapped Mylar wrap. The overall jacket is a 105°C black Thermoplastic or may be Neoprene to MIL-R-6855 Class 2 Grade 60 specification.

SHIELDED CABLES

National Multiple Conductor SHIELDED CABLES are to the same specifications as above with the addition of tinned copper braided shield over cable complex with 85-90% coverage to MIL-C-7078A. STANDARD PUT-UPS: 500 ft. and 1000 ft. No deposit reels.

MULTI-CONDUCTOR CABLES IN STOCK

Conductor sizes 22, 20, 18 and 16 gauge.
Other sizes to order

Part No.	No. of Conductors	Thermoplastic Jacket Thickness	Cable O.D.	Weight Per M-Ft.
MULTI-CONDUCTOR CABLES				
Conductor Size 22 Gauge (Stranding 7 Strands of 30 Gauge)				
NW-722 J	7	.040	.295	40 Lbs.
NW-1222J	12	.050	.390	70 Lbs.
NW-1922J	19	.060	.460	110 Lbs.
NW-2722J	27	.060	.530	160 Lbs.
NW-3722J	37	.060	.600	200 Lbs.
NW-4822J	48	.060	.670	245 Lbs.
NW-6022J	60	.060	.730	300 Lbs.
MULTI-CONDUCTOR CABLES				
Conductor Size 18 Gauge (Stranding 19 Strands of 30 Gauge)				
NW-718 J	7	.040	.350	75 Lbs.
NW-1218J	12	.050	.460	135 Lbs.
NW-1918J	19	.060	.560	225 Lbs.
NW-2718J	27	.060	.650	300 Lbs.
NW-3718J	37	.060	.730	390 Lbs.
NW-4818J	48	.060	.820	510 Lbs.
MULTI-CONDUCTOR CABLES				
Conductor Size 16 Gauge (Stranding 19 Strands of 29 Gauge)				
NW-716 J	7	.040	.370	95 Lbs.
NW-1216J	12	.050	.500	155 Lbs.
NW-1916J	19	.060	.600	230 Lbs.
NW-2716J	27	.060	.700	320 Lbs.
NW-3716J	37	.060	.785	430 Lbs.

Part No.	No. of Conductors	Tinned Copper Shield	PVC Jacket Thickness	Cable O.D.	Weight Per M-Ft.
SHIELDED MULTI-CONDUCTOR CABLES					
NW-722 SJ	7	No. 36	.040	.320	55 Lbs.
NW-1222SJ	12	No. 34	.050	.420	90 Lbs.
NW-1922SJ	19	No. 34	.060	.490	145 Lbs.
NW-2722SJ	27	No. 34	.060	.560	200 Lbs.
NW-3722SJ	37	No. 34	.060	.630	245 Lbs.
NW-4822SJ	48	No. 34	.060	.700	300 Lbs.
NW-6022SJ	60	No. 34	.060	.760	355 Lbs.
SHIELDED MULTI-CONDUCTOR CABLES					
NW-718 SJ	7	No. 34	.040	.380	95 Lbs.
NW-1218SJ	12	No. 34	.050	.490	170 Lbs.
NW-1918SJ	19	No. 34	.060	.590	265 Lbs.
NW-2718SJ	27	No. 34	.060	.680	350 Lbs.
NW-3718SJ	37	No. 34	.060	.760	445 Lbs.
NW-4818SJ	48	No. 34	.060	.850	575 Lbs.
SHIELDED MULTI-CONDUCTOR CABLES					
NW-716 SJ	7	No. 34	.040	.400	125 Lbs.
NW-1216SJ	12	No. 34	.050	.535	195 Lbs.
NW-1916SJ	19	No. 34	.060	.635	275 Lbs.
NW-2716SJ	27	No. 34	.060	.735	375 Lbs.
NW-3716SJ	37	No. 34	.060	.820	500 Lbs.

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WIRE & CABLE CORPORATION

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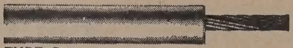
In the field of wire and cable, National sets a standard unparalleled to any other manufacturer of this type. National has the largest electronic and aircraft wire and cable inventory west of Chicago. This coupled with fast efficient service exemplifies the National trade mark of excellence.

Special color coded, shielded and jacketed combinations of hook-up wire and multi-conductor cables are made to your specifications. National is also an immediate source for "Mil & Jan Spec" wires, co-axial cables and vinyl sleeving.

Contact your National representative or phone, write or wire direct.

Immediate source for "MIL and Jan-Spec" wires!

MIL-W-16878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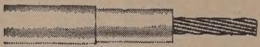
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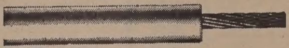
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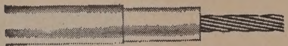
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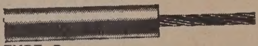
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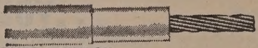
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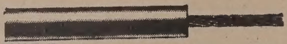
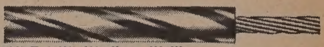
TEFLON


TYPE E
TYPE EE

MIL-W-7078 & 7078A Type I & II

MIL-W-5086 Type I, II, III

MIL-W-76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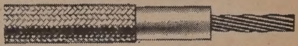
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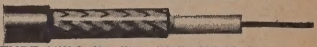
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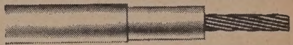
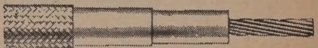
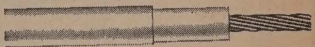

TYPE MW-J (Medium Wall—Nylon Jacket)


TYPE MW-JS (Medium Wall—Jacketed & Shielded)

TYPE HW (Heavy Wall)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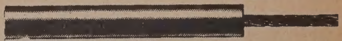
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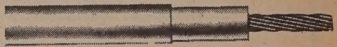
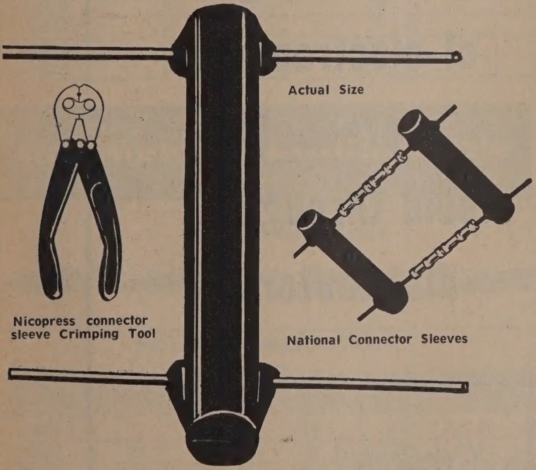
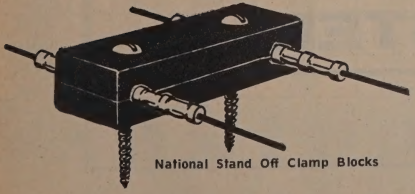

TYPE LW-J (Light Wall—Nylon Jacket)


Actual Size

Nicopress connector sleeve Crimping Tool

National Connector Sleeves


National Stand Off Clamp Blocks

NATIONAL OPENLINE

DESIGNED FOR COMMERCIAL TV DISTRIBUTION SYSTEMS AND RF POWER TRANSMISSION

Specifications: two inch spacing between conductors . . . 12 ga. copperweld . . . 470 ohm impedence . . . attenuation: 150 mc 0.25 DB PER 100 FEET, AT 30 mc 0.1 DB per 100 FEET. Velocity factor 0.975 . . . copperweld steel for maximum strength and electrical stability, and to insure permanent uniform performance . . . Spreaders are brown polystyrene, spaced at average five foot intervals, staggered slightly to avoid spurious resonances.

CATALOG #N-470-2.

CATALOG #N-470-300: TAPERED LINE impedence matching transformer for 2 inch OPENLINE. Matches 470 ohm line to 300 ohms. (Not Shown)

NATIONAL OPENLINE DOMESTIC TELEVISION LEAD-IN

SOLID COPPER, FORMVAR COATED

CATALOG #N-470-1

1 inch spacing between conductors . . . Spreaders at 6 inch intervals . . . Impedance 470 ohms . . . Standard put-up 250 feet reels, 12 reels per carton. Shipping weight 50 lbs.

CATALOG #N-300½

½ inch spacing between conductors . . . Spreaders at 6 inch intervals . . . Impedance 300 ohms (approx.) . . . Standard put-up 250 foot reels, 20 reels per carton. Shipping weight 75 lbs.

NATIONAL 1 inch and ½ inch OPENLINE is available on 100, 75, 60 and 50 foot reels and is also available in Copperweld.

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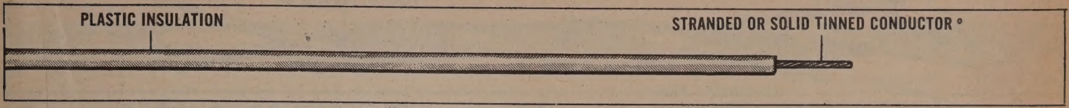
Hook-up Wire

PLASTIC TYPE


PLASTIC INSULATION
STRANDED OR SOLID TINNED CONDUCTOR °

SOLID CONDUCTOR

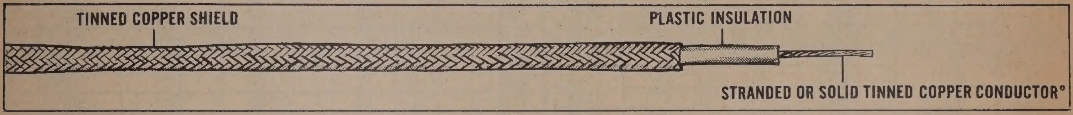
SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1AD22	22	Solid	.016″	.061″	$5.48
1AD20	20	Solid	.016″	.064″	6.90
1AD18	18	Solid	.016″	.072″	9.15

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1A24	24	7 x 32	.016″	.056″	$5.25
1A22	22	7 x 30	.016″	.062″	5.93
1A20	20	10 x 30	.016″	.067″	7.43
1A18	18	16 x 30	.016″	.077″	9.89
1A16	16	26 x 30	.016″	.092″	16.50
1A14	14	41 x 30	.016″	.106″	21.00

Shielded Hook-up Wire

PLASTIC TYPE

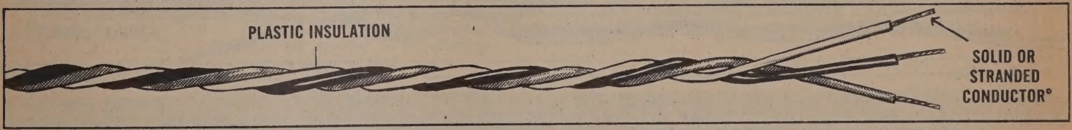

TINNED COPPER SHIELD
PLASTIC INSULATION
STRANDED OR SOLID TINNED COPPER CONDUCTOR°

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1AS22	22	7 x 30	.016″	.090″	$27.75
1AS20	20	10 x 30	.016″	.100″	30.00
1AS18	18	16 x 30	.016″	.120″	33.75
1AS16	16	26 x 30	.016″	.130″	39.00
1AS14	14	41 x 30	.016″	.150″	54.75
1AS12	12	65 x 30	.016″	.170″	87.75
1AS10	10	105 x 30	.025″	.195″	157.50

Unshielded Audio Cable

2 AND 3 CONDUCTOR
NO OUTER JACKET


PLASTIC INSULATION
SOLID OR
STRANDED
CONDUCTOR°

SOLID CONDUCTOR

SAXTON NUMBER	CONDUCTOR NO.	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2AD22	2	22	Solid	.016″	.100″	$11.25
3AD22	3	22	Solid	.016″	.115″	15.75
2AD20	2	20	Solid	.016″	.120″	17.78
3AD20	3	20	Solid	.016″	.135″	25.80
2AD18	2	18	Solid	.016″	.145″	21.38
3AD18	3	18	Solid	.016″	.160″	33.75
2AD16	2	16	Solid	.016″	.175″	35.25
3AD16	3	16	Solid	.016″	.190″	50.10

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR NO.	CONDUCTOR SIZE	CONDUCTOR STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2A22	2	22	7 x 30	.016″	.125″	$14.03
3A22	3	22	7 x 30	.016″	.140″	20.63
2A20	2	20	10 x 30	.016″	.145″	19.13
3A20	3	20	10 x 30	.016″	.160″	27.90
2A18	2	18	16 x 30	.016″	.165″	21.90
3A18	3	18	16 x 30	.016″	.180″	39.00
2A16	2	16	26 x 30	.016″	.190″	37.35
3A16	3	16	26 x 30	.016″	.210″	54.75

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wire and cable division
NEW YORK, N. Y.

°*Bare conductors available.*

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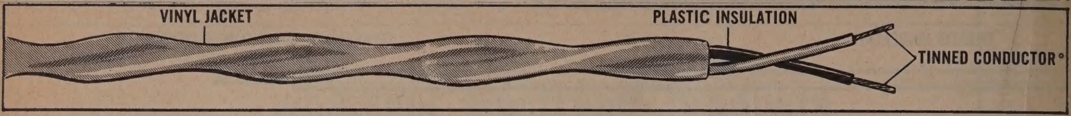
Multi-Conductor Jacketed Cable

PLASTIC JACKET
.020″ Wall Thickness



SOLID CONDUCTOR

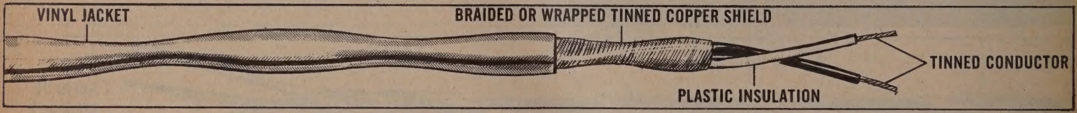
SAXTON NUMBER	CONDUCTOR NUMBER	AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	PRICE Per M'
2JD22	2	22	Solid	.015″	.140″	$16.13
3JD22	3	22	Solid	.015″	.150″	23.25
4JD22	4	22	Solid	.015″	.170″	27.00
5JD22	5	22	Solid	.015″	.185″	32.40
6JD22	6	22	Solid	.015″	.190″	45.75
7JD22	7	22	Solid	.015″	.200″	52.50
8JD22	8	22	Solid	.015″	.210″	58.13
9JD22	9	22	Solid	.015″	.240″	64.13
10JD22	10	22	Solid	.015″	.250″	79.13
12JD22	12	22	Solid	.015″	.270″	101.63
15JD22	15	22	Solid	.015″	.300″	127.13
2JD20	2	20	Solid	.015″	.155″	21.75
3JD20	3	20	Solid	.015″	.165″	38.25
4JD20	4	20	Solid	.015″	.195″	47.25
5JD20	5	20	Solid	.015″	.220″	56.25
6JD20	6	20	Solid	.015″	.230″	74.25
7JD20	7	20	Solid	.015″	.240″	92.25
8JD20	8	20	Solid	.015″	.285″	110.25
9JD20	9	20	Solid	.015″	.300″	124.25
10JD20	10	20	Solid	.015″	.315″	142.50
12JD20	20	20	Solid	.015″	.330″	165.00
15JD20	15	20	Solid	.015″	.345″	210.00
20JD20	20	20	Solid	.015″	.400″	280.88
2JD18	2	18	Solid	.015″	.188″	27.75
3JD18	3	18	Solid	.015″	.208″	42.00
4JD18	4	18	Solid	.015″	.223″	59.40
5JD18	5	18	Solid	.015″	.233″	76.28
6JD18	6	18	Solid	.015″	.263″	92.78

STRANDED CONDUCTOR

SAXTON NUMBER	CONDUCTOR NUMBER	AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	PRICE Per M'
2J22	2	22	7 x 30	.015″	.145″	$19.13
3J22	3	22	7 x 30	.015″	.160″	23.40
4J22	4	22	7 x 30	.015″	.185″	27.45
5J22	5	22	7 x 30	.015″	.190″	32.05
6J22	6	22	7 x 30	.015″	.195″	49.88
7J22	7	22	7 x 30	.015″	.215″	56.25
8J22	8	22	7 x 30	.015″	.225″	59.25
9J22	9	22	7 x 30	.015″	.245″	64.50
10J22	10	22	7 x 30	.015″	.260″	81.00
12J22	12	22	7 x 30	.015″	.285″	105.00
15J22	15	22	7 x 30	.015″	.340″	130.80
2J20	2	20	10 x 30	.015″	.175″	22.13
3J20	3	20	10 x 30	.015″	.185″	39.00
4J20	4	20	10 x 30	.015″	.205″	48.75
5J20	5	20	10 x 30	.015″	.230″	58.88
6J20	6	20	10 x 30	.015″	.250″	78.00
7J20	7	20	10 x 30	.015″	.260″	96.00
8J20	8	20	10 x 30	.015″	.305″	114.00
9J20	9	20	10 x 30	.015″	.320″	125.00
10J20	10	20	10 x 30	.015″	.325″	142.63
12J20	12	20	10 x 30	.015″	.345″	165.75
15J20	15	20	10 x 30	.015″	.365″	213.75
20J20	20	20	10 x 30	.015″	.420″	285.00
2J18	2	18	16 x 30	.015″	.210″	28.50
3J18	3	18	16 x 30	.015″	.230″	48.38
4J18	4	18	16 x 30	.015″	.245″	60.00
5J18	5	18	16 x 30	.015″	.260″	78.75
6J18	6	18	16 x 30	.015″	.275″	96.00

Multi-Conductor Shielded Cable*

PLASTIC JACKET
.020″ Wall Thickness



SAXTON NUMBER	TYPE SHIELD	CONDUCTORS NUMBER	AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1SSJ22	Wrap	1	22	7 x 30	.016″	.020″	.135″	$27.63
2SSJ22	Wrap	2	22	7 x 30	.016″	.020″	.175″	33.00
2SSJD22	Wrap	2	22	Solid	.016″	.020″	.170″	28.88
2SSJ20	Wrap	2	20	10 x 30	.016″	.020″	.195″	37.50
3SSJ20	Wrap	3	20	10 x 30	.016″	.020″	.210″	54.00
4SSJ20	Wrap	4	20	10 x 30	.016″	.020″	.225″	83.00
2SSJ18	Wrap	2	18	16 x 30	.016″	.020″	.230″	45.38
2SSJ16	Wrap	2	16	26 x 30	.016″	.020″	.250″	75.00
2SJ22	Braid	2	22	7 x 30	.016″	.020″	.183″	38.63
2SJ20	Braid	2	20	10 x 30	.016″	.020″	.195″	48.75
2SJ18	Braid	2	18	16 x 30	.016″	.020″	.235″	56.25

°Bare conductors available. For additional constructions see page 4.

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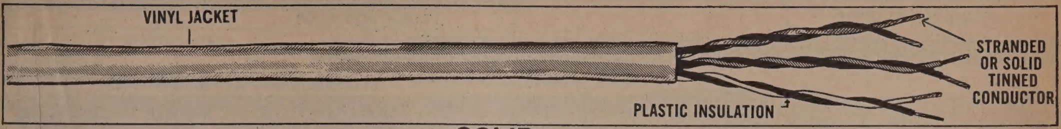
wire and cable division
NEW YORK, N. Y.

Intercom Cable

TWISTED PAIRS WITH PLASTIC JACKET



SOLID

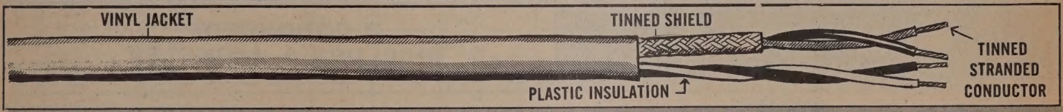
SAXTON NUMBER	NUMBER PAIRS	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M'
2PD22	1	2	22	Solid	.015″	.020″	.128″	$13.65
4PD22	2	4	22	Solid	.015″	.020″	.205″	25.13
6PD22	3	6	22	Solid	.015″	.020″	.230″	34.73
12PD22	6	12	22	Solid	.015″	.020″	.330″	56.25
14PD22	7	14	22	Solid	.015″	.020″	.345″	74.25
18PD22	9	18	22	Solid	.015″	.020″	.370″	77.70
22PD22	11	22	22	Solid	.015″	.020″	.385″	109.50
26PD22	13	26	22	Solid	.015″	.025″	.415″	108.75
30PD22	15	30	22	Solid	.015″	.025″	.450″	140.25
32PD22	16	32	22	Solid	.015″	.025″	.470″	175.50
54PD22	27	54	22	Solid	.015″	.035″	.605″	255.00
62PD22	31	62	22	Solid	.015″	.035″	.630″	423.00
82PD22	41	82	22	Solid	.015″	.035″	.710″	570.00
102PD22	51	102	22	Solid	.015″	.045″	.845″	897.00

STRANDED

SAXTON NUMBER	NUMBER PAIRS	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M'
2P22	1	2	22	7 x 30	.015″	.020″	.155″	$22.13
4P22	2	4	22	7 x 30	.015″	.020″	.220″	35.85
6P22	3	6	22	7 x 30	.015″	.020″	.245″	52.50
8P22	4	8	22	7 x 30	.015″	.020″	.275″	68.63
10P22	5	10	22	7 x 30	.015″	.020″	.320″	73.65
12P22	6	12	22	7 x 30	.015″	.020″	.340″	79.13
18P22	9	18	22	7 x 30	.015″	.020″	.375″	113.10
22P22	11	22	22	7 x 30	.015″	.020″	.415″	146.25
30P22	15	30	22	7 x 30	.015″	.025″	.485″	182.55
54P22	27	54	22	7 x 30	.015″	.035″	.645″	345.00

Audio Cable

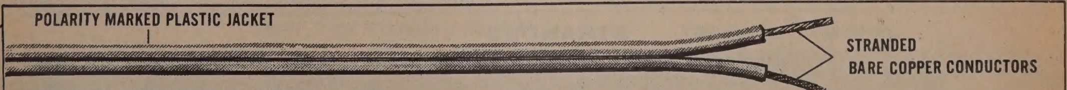
COMBINATION SHIELDED & JACKETED



SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	PRICE Per M'
4SJ22	4	22	7 x 30	.016″	.020″	.315″	$50.25
	(2 Conductors Shielded . . . 2 Unshielded)						
3SJ22	3	22	7 x 30	.016″	.020″	.200″	37.35
	(1 Conductor Shielded . . . 2 Unshielded)						

Unshielded Speaker Wire

PLASTIC TYPE


POLARITY MARKED PLASTIC JACKET
STRANDED BARE COPPER CONDUCTORS

POLARIZED CONDUCTORS Available on request

SAXTON NUMBER	CONDUCTORS NO.	CONDUCTORS AWG	STRANDING	WALL THICKNESS	NOMINAL O.D.	PRICE Per M'
2F24 *	2	24	7 x 32	.016″	.061″ x .137″	See Below
2F20 **	2	20	10 x 30	.016″	.105″ x .210″	See Below
2F18	2	18	41 x 34	.016″	.130″ x .215″	18.90
2F18A	2	18	16 x 30	.016″	.130″ x .215″	19.13
2F18B	2	18	41 x 34	.032″	.150″ x .285″	30.75
3F18	3	18	41 x 34	.032″	.120″ x .330″	36.40
2F16	2	16	65 x 34	.032″	.160″ x .300″	43.50

* 2F24—Clear—$10.35 Colors—$ 9.53
**2F20—Clear—$18.00 Colors—$14.63

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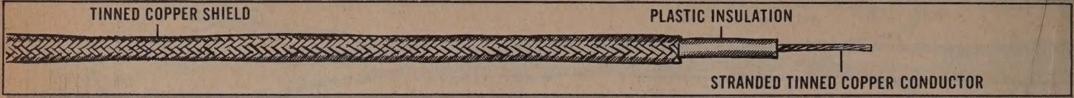
Net

Phono Wire

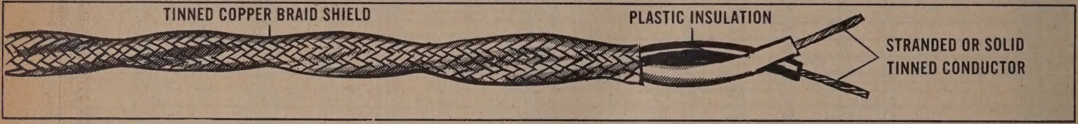
1 AND 2 CONDUCTOR SHIELDED - UNJACKETED


TINNED COPPER SHIELD
PLASTIC INSULATION
STRANDED TINNED COPPER CONDUCTOR

SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1S24	1	24	16 x 36	.016	.080	$27.00
2S24	2	24	16 x 36	.016	.125	32.63

Audio Cable

2 CONDUCTOR SHIELDED - UNJACKETED


TINNED COPPER BRAID SHIELD
PLASTIC INSULATION
STRANDED OR SOLID
TINNED CONDUCTOR

SOLID

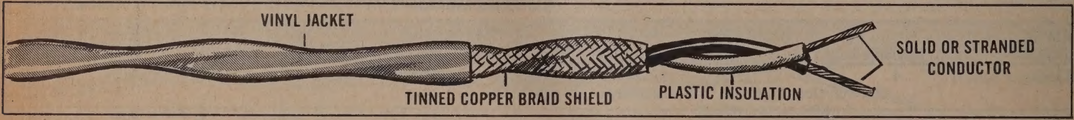
SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SD22	2	22	Solid	.016″	.132″	$28.88
2SD20	2	20	Solid	.016″	.148″	32.18
2SD18	2	18	Solid	.016″	.175″	43.13

STRANDED

SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2S24	2	24	16 x 36	.016″	.125″	$32.63
2S22	2	22	7 x 30	.016″	.140″	33.75
2S20	2	20	10 x 30	.016″	.155″	36.75
2S18	2	18	16 x 30	.016″	.170″	47.25
2S16	2	16	26 x 30	.020″	.210″	71.50
2S14	2	14	41 x 30	.020″	.225″	102.00
2S12	2	12	65 x 30	.025″	.295″	173.35

Audio Cable

2 CONDUCTOR SHIELDED & JACKETED


VINYL JACKET
SOLID OR STRANDED
CONDUCTOR
TINNED COPPER BRAID SHIELD
PLASTIC INSULATION

SOLID

SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SDJ22	2	22	Solid	.016″	.020″	.172″	$33.75
2SDJ20	2	20	Solid	.016″	.020″	.208″	36.00
2SDJ18	2	18	Solid	.016″	.020″	.218″	45.90

STRANDED

SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	CONDUCTORS STRANDING	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
2SJ22	2	22	7 x 30	.016″	.020″	.183″	$37.88
2SJ20	2	20	10 x 30	.016″	.020″	.195″	48.38
2SJ18	2	18	16 x 30	.016″	.020″	.235″	54.60

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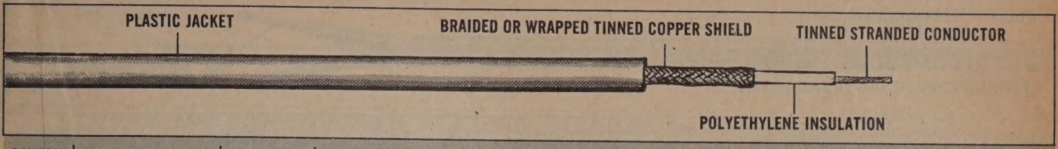
Audio Cable

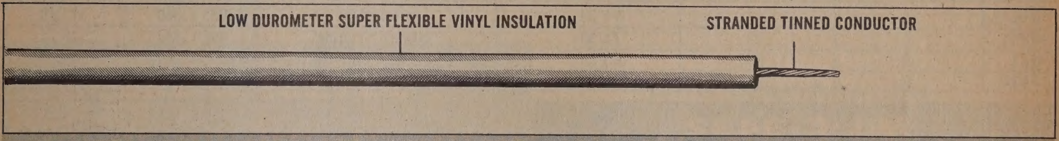
LOW LOSS - MICROPHONE AND INPUT CABLE


PLASTIC JACKET
BRAIDED OR WRAPPED TINNED COPPER SHIELD
TINNED STRANDED CONDUCTOR
POLYETHYLENE INSULATION

SAXTON NUMBER	NOMINAL CAPACITANCE/FT.	SHIELD TYPE	CONDUCTORS			INSULATION THICKNESS	JACKET THICKNESS	NOMINAL O.D.	NET PRICE Per M'
			NUMBER	AWG	STRANDING				
1SSJC26	38 mmf.	Wrap	1	26	7 x 34 Copperweld	.016″	.020″	.125″	$26.63
1SJC24	35 mmf.	Braid	1	24	10 x 34	.016″	.030″	.145″	27.08
1SJC24A	23 mmf.	Braid	1	24	10 x 34	.040″	.030″	.200″	35.85
1SJC20	36 mmf.	Braid	1	20	26 x 34	.030″	.030″	.175″	49.50
2SJC20	31 mmf.	Braid	2	22	16 x 34	.025″	.030″	.230″	51.90
3SJC20	34 mmf.	Braid	3	20	26 x 34	.025″	.035″	.290″	66.00
4SJC20	36 mmf.	Braid	4	20	26 x 34	.025″	.035″	.315″	84.00
5SJC20	45 mmf.	Braid	5	20	26 x 34	.025″	.035″	.340″	99.00
6SJC20	51 mmf.	Braid	6	20	26 x 34	.025″	.035″	.365″	156.00

Test Lead Wire

SUPER FLEXIBLE VINYL INSULATION *


LOW DUROMETER SUPER FLEXIBLE VINYL INSULATION
STRANDED TINNED CONDUCTOR

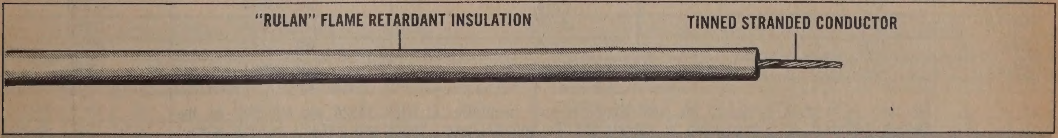
SAXTON NUMBER	TYPE	CONDUCTORS		WALL THICKNESS	BREAKDOWN VOLTAGE	NOMINAL O.D.	NET PRICE Per M'
		AWG	STRANDING				
1C20	Standard	20	41 x 36	.040	5,000 V.	.120	$14.33
1C20A	Standard	20	41 x 36	.044	8,500 V.	.130	14.70
1C20B	Standard	20	41 x 36	.047	10,000 V.	.135	16.50
1C18	Standard	18	41 x 34	.047	12,000 V.	.140	19.88
1C18A	Heavy Duty	18	41 x 34	.109	22,000 V.	.245	29.40
1C20R*	Standard	20	41 x 36	.040	5,000 V.	.120	16.88
1C18R*	Standard	18	41 x 34	.045	5,000 V.	.138	20.25

*In stock and available in rubber—red, black, or green—18 or 20 gauge—to mil spec.

Specify Color—Red or Black—Other Colors usually available

Hi Voltage Wire

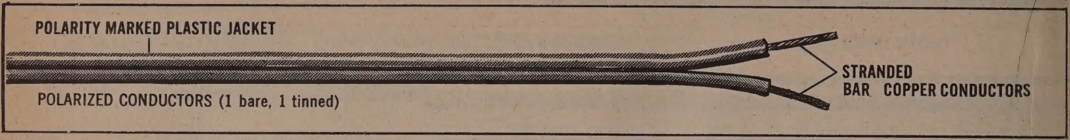
FLAME RETARDANT RULAN INSULATION


"RULAN" FLAME RETARDANT INSULATION
TINNED STRANDED CONDUCTOR

SAXTON NUMBER	TYPE	CONDUCTORS		WALL THICKNESS	BREAKDOWN VOLTAGE	NOMINAL O.D.	NET PRICE Per M'
		AWG	STRANDING				
1R20	Unshielded	20	10 x 30	.047	10,000 V.	.120	$19.13
1R20A	Unshielded	20	10 x 30	.063	20,000 V.	.170	29.63
1R18	Unshielded	18	16 x 30	.095	40,000 V.	.240	57.00
1RS18	Shielded	18	16 x 30	.075	20,000 V.	.243	93.75

E-Z Zip Cord

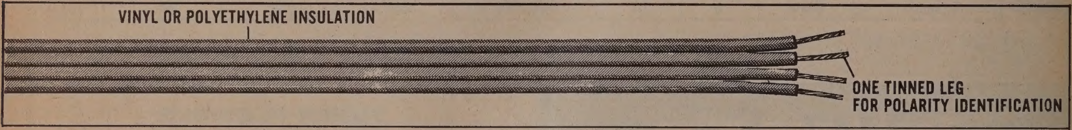
2 AND 3 CONDUCTOR


POLARITY MARKED PLASTIC JACKET
POLARIZED CONDUCTORS (1 bare, 1 tinned)
STRANDED
BAR COPPER CONDUCTORS

SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	WALL THICKNESS	U/L TYPE	NOMINAL O.D.	NET PRICE Per M'
2F24*	2	24	7 x 32	.016	—	.061 x .137	See Below
2F20**	2	20	10 x 30	.016	—	.105 x .210	See Below
2F18	2	18	41 x 34	.016	SPT-1	.130 x .215	18.90
2F18A	2	18	16 x30	.016		.130 x .215	19.13
2F18B	2	18	41 x 34	.032	SPT-2	.150 x .285	30.75
2F16	2	16	65 x 34	.032	SPT-2	.160 x .300	43.50

Rotor Cable

LOW LOSS FLAT TYPE
ROUND CONSTRUCTION ALSO AVAILABLE



SAXTON NUMBER	CONDUCTORS NUMBER	CONDUCTORS AWG	STRANDING	INSULATION MATERIAL	NOMINAL O.D.	NET PRICE Per M'
4FC2	4	22	7 x 30	Polyethylene	.085 x .360"	$17.48
4FC2A	4	22	7 x 30	Polyvinyl Chloride	.090 x .430"	18.75
4FC3	4	20	10 x 30	Polyethylene	.085 x .360"	20.18
4FC3A	4	20	10 x 30	Polyvinyl Chloride	.090 x .430"	22.28

MIL-C-3432 MIL-C-3884

WITH CERTIFICATION

SAXTON NUMBER	SPECIFICATION DESIGNATION		CONSTRUCTION	SPECIFICATION No.	NOMINAL O.D.
2M18 †	CO-02	MGF	2/18 SJO (Shielded)	MIL-C-3432A	0.375
2M18A †	CO-02	MGF	2/18	MIL-C-3432A	0.300
2M18B †	CO-02	HGF	2/18	MIL-C-3432A	0.380
2M18C †	CO-02	LGF	2/18	MIL-C-3432A	0.250
2M16 †	CO-02	HGF	2/16	MIL-C-3432A	0.405
2M16A †	CO-02	MGF	2/16	MIL-C-3432A	0.338
2M14 †	CO-02	MGF	2/14	MIL-C-3432A	0.400
2M14A †	CO-02	HGF	2/14	MIL-C-3432A	0.535
3M18 †	CO-03	MGF	3/18	MIL-C-3432A	0.330
3M16 †	CO-03	MGF	3/16 SJO (Shielded)	MIL-C-3432A	0.360
3M16A †	CO-03	MGF	3/16	MIL-C-3432A	0.375
3M12 †	CO-03	HOE	3/12	MIL-C-3432A	0.635
5M20 †	CO-05	MGF	5/20	MIL-C-3432A	0.400
2M18D †	COS		2/18	MIL-C-3884	0.290
3M18A †	COS		3/18	MIL-C-3884	0.290
2M20 †	COS		2/20	MIL-C-3884	0.280
3M20 †	COS		3/20	MIL-C-3884	0.280

† All Prices on Request. * 2F24 Clear—$10.35 Colors—$9.53. **2F20 Clear—$18.00 Colors—$14.63.

We carry — in stock — one of the most comprehensive inventories of MIL-C-3432A and MIL-3884 on the Eastern Seaboard. It is impossible to list all but the popular types. Your inquiries will receive prompt attention and service.

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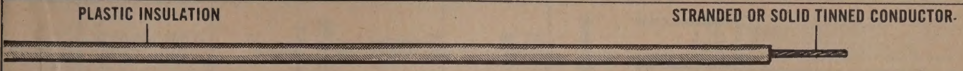
MIL-W-76B

WITH CERTIFICATION



TYPE MW - UNCOVERED PLASTIC - MEDIUM WALL - 1000V. RATING

SOLID

SAXTON NUMBER	SPECIFICATION DESIGNATION	AWG No.	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1MD22	MW-C 22(1)U	22	.016″	.061″	$5.63
1MD20	MW-C 20(1)U	20	.016″	.064″	7.95
1MD18	MW-C 18(1)U	18	.016″	.072″	10.80
1MD16	MW-C 16(1)U	16	.016″	.083″	15.75

STRANDED

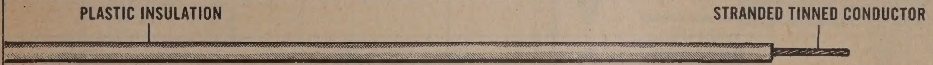
SAXTON NUMBER	SPECIFICATION DESIGNATION	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M24	MW-C 24(7)U	24	7 x 32	.016″	.056″	$6.15
1M22	MW-C 22(7)U	22	7 x 30	.016″	.062″	7.13
1M20	MW-C 20(10)U	20	10 x 30	.016″	.067″	9.53
1M18	MW-C 18(16)U	18	16 x 30	.016″	.077″	13.28
1M16	MW-C 16(26)U	16	26 x 30	.016″	.092″	19.65
1M14	MW-C 14(41)U	14	41 x 30	.016″	.106″	29.55
1M12	MW-C 12(65)U	12	65 x 30	.016″	.127″	49.50

TYPE HW - UNCOVERED PLASTIC - HEAVY WALL

SAXTON NUMBER	SPECIFICATION DESIGNATION	CONDUCTOR AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22A	HW-C 22(7)U	22	7 x 30	.032″	.094″	$14.63
1M20A	HW-C 20(10)U	20	10 x 30	.032″	.099″	18.00
1M18A	HW-C 18(16)U	18	16 x 30	.032″	.109″	24.00
1M16A	HW-C 16(26)U	16	26 x 30	.032″	.122″	34.88
1M14A	HW-C 14(41)U	14	41 x 30	.045″	.165″	56.25
1M12A	HW-C 12(65)U	12	65 x 30	.045″	.185″	76.50

MIL-W-16878C

WITH CERTIFICATION

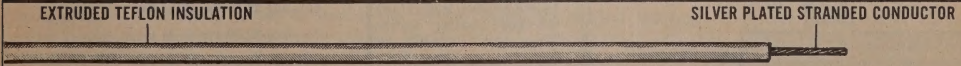


TYPE C UNCOVERED PLASTIC—1000 VOLT RATING

SAXTON NUMBER	SPEC DES	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22C	C-22	22	7 x 30	.016″	.065″	$9.75
1M20C	C-20	20	7 x 28	.016″	.073″	12.73
1M18C	C-18	18	7 x 26	.016″	.081″	16.80
1M16C	C-16	16	19 x 29	.016″	.092″	21.53
1M14C	C-14	14	19 x 27	.016″	.103″	33.98

TYPE D UNCOVERED PLASTIC—3000 VOLT RATING

SAXTON NUMBER	SPEC DES	CONDUCTOR AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M22D	D-22	22	7 x 30	.032″	.097″	$16.05
1M20D	D-20	20	7 x 28	.032″	.105″	19.50
1M18D	D-18	18	7 x 26	.032″	.113″	24.38
1M16D	D-16	16	19 x 29	.032″	.124″	28.88
1M14D	D-14	14	19 x 27	.032″	.135″	42.75



TYPE E EXTRUDED TEFLON—600 VOLT RATING

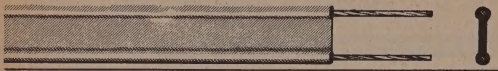
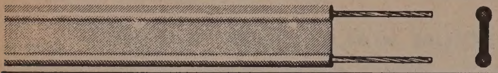
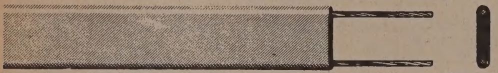
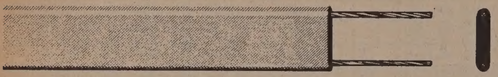
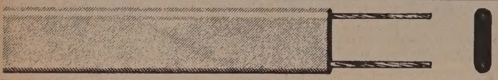
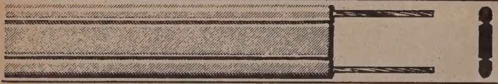
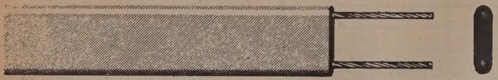
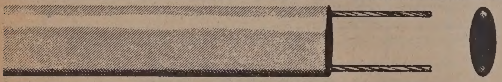
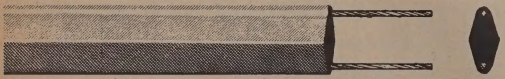
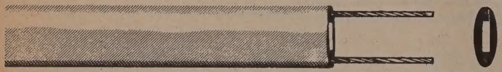
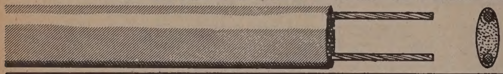
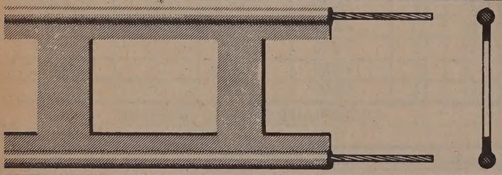
SAXTON NUMBER	SPEC DES	CONDUCTOR AWG	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M30E	E-30	30	7 x 38	.010″	.033″	$52.13
1M28E	E-28	28	7 x 36	.010″	.036″	50.25
1M26E	E-26	26	7 x 34	.010″	.041″	48.75
1M24E	E-24	24	19 x 36	.010″	.046″	52.88
1M22E	E-22	22	19 x 34	.010″	.052″	63.00
1M20E	E-20	20	19 x 32	.010″	.060″	75.75
1M18E	E-18	18	19 x 30	.010″	.072″	96.00
1M16E	E-16	16	19 x 29	.010″	.084″	135.00
1M14E	E-14	14	19 x 27	.010″	.098″	207.75

TYPE EE EXTRUDED TEFLON—1000 VOLT RATING

SAXTON NUMBER	SPEC DES	AWG No.	STRANDING	INSULATION THICKNESS	NOMINAL O.D.	NET PRICE Per M'
1M30EE	EE-30	30	7 x 38	.015″	.043″	$61.50
1M28EE	EE-28	28	7 x 36	.015″	.046″	66.00
1M26EE	EE-26	26	7 x 34	.015″	.050″	58.50
1M24EE	EE-24	24	19 x 36	.015″	.056″	68.25
1M22EE	EE-22	22	19 x 34	.015″	.062″	72.30
1M20EE	EE-20	20	19 x 32	.015″	.070″	93.75
1M18EE	EE-18	18	19 x 30	.015″	.081″	114.75
1M16EE	EE-16	16	19 x 29	.015″	.090″	163.88
1M14EE	EE-14	14	19 x 27	.015″	.104″	231.00

300 Ohm Twin Lead

VHF-UHF TRANSMISSION LINE**

	CATALOG NO.	NAME	STRANDING	NOMINAL SIZE WEB - WIDTH	NET PRICE PER M
	TL-40	Economy	7	0.040 x 0.0375	$8.18*
	TL-55	Signal Sender	7	0.055 x 0.385	8.93*
	TL-80	Trophy Line	10	0.080 x 0.385	10.43*
	TL-100	Crusader	10	0.093 x 0.355	10.43*
	TL-100DL	Top Notch	10	0.095 x 0.383	11.18*
	TL-100EZ	E-Z Strip	10	0.080 x 0.370	11.25*
	TL-100SDL	Double Ten	20	0.100 x 0.400	15.38*
	TL-125	Classic	41	0.125 x 0.415	23.63*
	TL-150	Hi-Fidelity	20	0.150 x 0.385	19.13*
	OTL	Oval Twin Lead	10	0.160 x 0.445	16.88*
	1016	Saxton Spongee	7x28	0.230 x 0.365	31.30*
	INS-500	Insulated Open Wire	41	0.075 x 0.975	39.75*

**For tubular wire (TTL), shielded twin lead (1118), or Sea Coaster Marine Type (1017), please see Saxton page 12 & 13.

* For clear Silver, or Gold, Add $1.67 Per M' to Net Price.

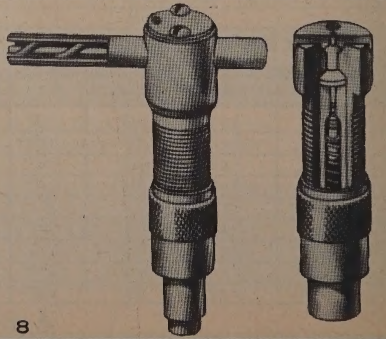
Hanks—banded with open spade lugs at one end only:

50'—Add $2.50 Per M' to Net.

75'—Add $2.09 Per M' to Net.

100'—Add $1.67 Per M' to Net.

Tee-Tap Co-Axial Cable Connector

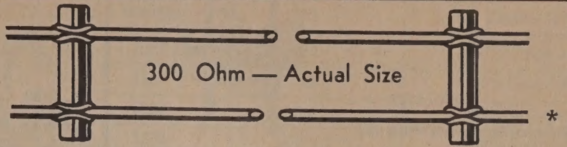


The Saxton Tee Tap allows quick, electrically perfect connections to coaxial cables without cutting the distribution lines and without necessity for re-insulation.

SAXTON NUMBER	DESCRIPTION	NET PRICES PER M'
59T59	From RG-59/U to RG-59/U	$3.53
11T59	From RG-11/U to RG-59/U	3.53

Open Wire Transmission Line

LOW LOSS AIR DIELECTRIC

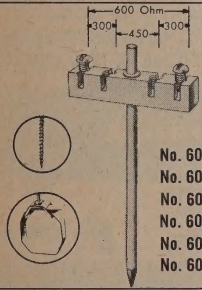


SAXTON NUMBER	CONDUCTOR	CONDUCTOR SPACING	IMPEDANCE	AWG No.	INSULATOR SPACING	NET PRICE PER M'
2500	40% Copper Weld	1″	450 Ohm	18	6″	$25.13*
2501	40% Copper Weld	1″	450 Ohm	18	12″	21.14*
2502	40% Copper Weld	7/16″	300 Ohm	18	6″	25.13*
2507	Solid Copper	1″	450 Ohm	18	6″	31.50*
2515	Solid Copper Formvar	1″	450 Ohm	18	6″	33.38*
2517	Solid Copper Formvar	7/16″	300 Ohm	18	6″	33.38*
2520	Solid Copper Formvar	1″	450 Ohm	16	6″	42.75*
2525	40% Copper Weld	Two Inch	475 Ohm	14	Random Spaced	60.98*
2526	40% Copper Weld	Two Inch	450 Ohm	12	Random Spaced	73.88*

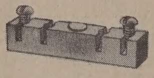
* 500′ spool used as standard in pricing — 100′ & 250′ slightly higher.

Open Line Accessories

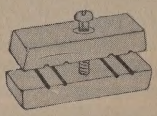
STANDOFFS & STRESS INSULATORS



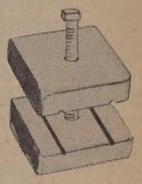
No. 6001
No. 6002
No. 6003
No. 6004
No. 6005
No. 6006



No. 6000



No. 6010



No. 6011

"TAPPEE" STANDOFF INSULATOR

A Standoff which is especially designed for use with open line transmission wire installations. To take up slack in line, tighten screws in slots after pulling taut. For use as ordinary spacer—partially tighten set screws (see illustrations). This will permit free movement of wire in the slots, thereby doing away with potential wire breaks due to backward and forward motion caused by wind. Ideal also for use as anchor point or spacer for "Fence Wire" installations. For use in 600 Ohm installations, use outside two slots. Particularly good for community installations, where random spacing of open line is desirable to avoid tuned circuits created by regular spacing. Permits inexpensive, time saving, trouble free installations. For use with gauges from No. 12 to No. 18. Block is high impact polystyrene; hardware is double dip galvanized steel.

	Net Price ea.
Saxton No. 6001 5½″ Nail Type	$ .12¾
Saxton No. 6003 5″ Wood Screw Type	.13½
Saxton No. 6004 7½″ Wood Screw Type	.15
Saxton No. 6005 5″ Pole Clamp Type	.16½
Saxton No. 6006 7½″ Pole Clamp Type	.18
Saxton No. 6007 INS-500 Type	.29

"TAPPEE"— Heads

	Net Price
Saxton No. 6000	.11½

Blocks only without drive in hardware. Complete with two Parker Kalon plated screws for use as spacer block in making your own Open Line installations.

HEAVY DUTY OPEN LINE STRESS INSULATORS

	Net Price
Saxton No. 6010	.60

Plastic blocks, slotted on either one or two inch centers complete with plated screw. For taking up slack and for use as anchor points in Open Line installations.

	Net Price
Saxton No. 6011	.87

Same as above—Heavy duty. 2″ spacing to accommodate #12 AWG wires.

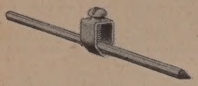
*** Note:—Insulated open wire on page 8.**

saxton
wire and cable division
NEW YORK, N. Y.

Antenna Accessories

SPECIAL HARDWARE

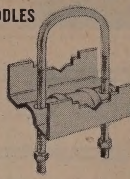
GROUND RODS



No. 1064

4 Foot Overall length Net Price .52½

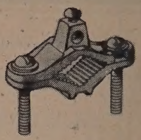
"U" BOLTS AND SADDLES



No. 1103

Net Price .23

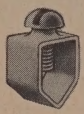
GROUND MAST CLAMP



No. 1100

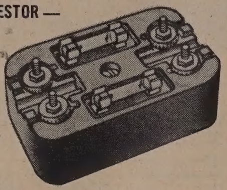
Net Price .42

GROUND ROD CLAMP



No. 1102 Net Price .18

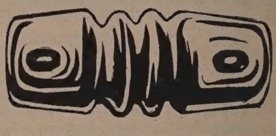
LIGHTNING ARRESTOR — EXTERNALLY FUSED



No. 1098

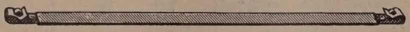
Net Price 1.73

ANTENNA STRAIN INSULATORS



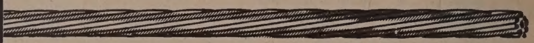
No. 1154 Net Price .085

ANTENNA WINDOW STRAP



No. 1126 Net Price .20

Uninsulated Tinned Copper



SOLID CONDUCTOR

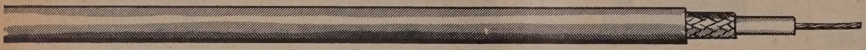
NO.	AWG NO.	M' PRICE	NO.	AWG NO.	M' PRICE	NO.	AWG NO.	M' PRICE
ADT38	38	$ 2.63	ADT26	26	$ 3.23	ADT14	14	$ 13.28
ADT36	36	2.75	ADT24	24	3.38	ADT12	12	19.65
ADT34	34	3.08	ADT22	22	3.75	ADT10	10	45.00
ADT32	32	3.12	ADT20	20	4.47	ADT8	8	67.50
ADT30	30	3.15	ADT18	18	6.23	ADT6	6	109.65
ADT28	28	3.20	ADT16	16	9.38			

STRANDED CONDUCTOR

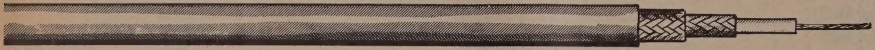
NO.	AWG. NO.	STRAND.	M' PRICE
AT24	24	7 x 32	$ 3.98
AT22	22	7 x 30	4.65
AT20	20	10 x 30	5.93
AT18	18	16 x 30	8.63
AT16	16	26 x 30	13.50
AT14	14	41 x 30	18.75
AT12	12	65 x 30	26.25

Co-Axial Cable

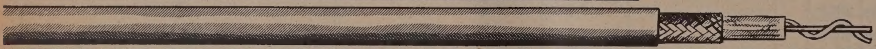
All below are "Commercial Types"— Quotations on cables to MIL-C-17B upon request. RG-8/U and RG-11/U with 15 AWG solid copperweld conductor upon request.



TYPE A



TYPE B

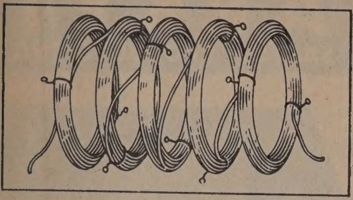


TYPE C

SAXTON NUMBER	TYPE DESIGNATION	ILLUSTRATION	INSULATION	NOM. IMP. OHMS	NOMINAL O.D.	JACKET	DESCRIPTION	NET PRICE
1X14	K-14	A	Regular	72	.870	Non Cont. PVC	Community TV Cable	$488.00
1X8	RG-8/U	A	Regular	52	.405	Black Polyeth	General Purpose	121.41
1X8A	RG-8/U	A	Foam	52	.405	Black PVC		124.13
1X8B	RG-8A/U	A	Regular	50	.405	Non Cont. Polyeth		135.75
1X11	RG-11/U	A	Regular	75	.405	Black PVC	Video & Communications	108.00
1X11A	RG-11/U	A	Foam	75	.405	Black PVC		108.75
1X11B	RG-11A/U	A	Regular	75	.405	Non Cont. Polyeth.		121.50
1X11C	RG-11/UDS	B	Regular	75	.465	Black PVC	Double Shielded	175.50
1X58	RG-58/U	A	Regular	53.5	.195	Black PVC	20 AWG Solid B.C.	47.03
1X58A	RG-58A/U	A	Regular	52	.195	Black PVC	19/.0071 TC	47.83
1X58B	RG-58C/U	A	Regular	50	.195	Non Cont. Blk Polyeth.	19/.0071 TC	54.00
1X59	RG-59/U	A	Regular	73	.242	Black PVC	Video Cable	46.50
1X59A	RG-59/UDS	B	Regular	73	.285	Black PVC	Double Shielded	84.75
1X59B	RG-59/U	A	Foam	73	.242	Black PVC	Video Cable	47.25
1X59C	RG-59/U	A	Regular	50	.170	Black PVC	Miniature "59/U"	38.25
1X59D	RG-59A/U	A	Regular	75	.242	Non Cont. Blk Polyeth.	.023 Copperweld	48.75
1X62	RG-62/U	C	Regular	93	.242	Black PVC	Small Size—Low Capacitance	54.75

Copperweld-Uninsulated

40% COPPERWELD



SAXTON NUMBER	AWG	CONDUCTOR	NOMINAL O.D.	NET PRICE 1M FT SPOOLS
5300	18 Solid	40% Copperweld	.0403	$4.80
5301	16 Solid	40% Copperweld	.0508	11.40
5302	14 Solid	40% Copperweld	.0641	18.23
5303	12 Solid	40% Copperweld	.0808	24.38
5304	10 Solid	40% Copperweld	.1019	29.25
5305	8 Solid	40% Copperweld	.1285	48.75
5306	6 Solid	40% Copperweld	.1620	80.63

Saxton Copperweld available on 1,000 ft. spools. **5300** to **5303** also in 50 ft. & 100 ft. interconnected coils of 1,000 ft. total.

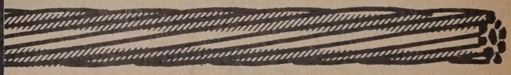
Guy Wire and Messenger Cables

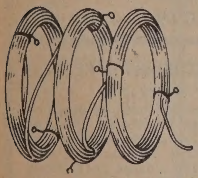
HEAVY GALVANIZED STEEL, ALUMINUM, AND COPPERWELD

SAXTON NUMBER	SPECIFICATION DESIGNATION	STRANDING	MATERIAL	STRENGTH TEST—p.s.i.	STRENGTH YIELD PER C FT.	NET PRICE 1M FT SPOOLS
5100	GW-4/20	4 x 20	Heavy Galvanized Steel	215	4%	$4.88
5101	GW-6/20	6 x 20	Heavy Galvanized Steel	335	3.6%	6.23
5102	GW-7/20	7 x 20	Heavy Galvanized Steel	418	2.8%	7.28
5103	GW-6/18	6 x 18	Heavy Galvanized Steel	515	3%	9.38
5104	GW-7/18	7 x 18	Heavy Galvanized Steel	585	3%	10.88
5105	AL-7/18	7 x 18	EC Quality Aluminum—Aircraft Temper	370	4.5%	20.25
5106	ASL-7/18	6 x 18 Aluminum 1 x 18 Steel	EC Quality Aluminum—Aircraft Temper	410	3.5%	20.03
5107*	CO-6/20	6 x 20	30% Copperweld	600	2.7%	26.63
5109*	CO-8/18	8 x 18	30% Copperweld	1450	1.8%	57.38
5110*	CO-3/18	3 x 18	30% Copperweld	550	2.5%	18.83
5111	GW-12/20	12 x 20	Heavy Galvanized Steel	655	—	18.53
5112	Tiller Cable	7 x 7 (49 Strands)	3/32″ Cable—Vinyl Jacket 3/16″ OD	2100	—	71.25

* Normally wound in 50′ or 100′ interconnected coils. Available in 500′ or 1000′ spools.

Antenna Wire





SAXTON NUMBER	STRANDING	MATERIAL	PACKING	NET PRICE PER M′
1275	Solid	No. 12 AWG Enameled Solid Copper	1000′ Interconnected coils of 100′ ea.	$25.50
1280	Solid	No. 14 AWG Enameled Solid Copper	1000′ Interconnected coils of 100′ ea.	17.25
1286	7 x 22	Bare Copper	1000′ Interconnected coils of 50′ ea.	15.10
1286	7 x 22	Bare Copper	1000′ Interconnected coils of 100′ ea.	14.50
1288	7 x 24	Bare Copper	1000′ Interconnected coils of 50′ ea.	12.40
1288	7 x 24	Bare Copper	1000′ Interconnected coils of 100′ ea.	11.20
1289	7 x 26	Bare Copper	1000′ Interconnected coils of 50′ ea.	11.40

ALUMINUM GROUND WIRE

				NET PRICE PER M′
No. 1240	No. 8 AWG	Solid Dead Soft Aluminum	1000 Ft. Spool	$13.28
No. 1240	No. 8 AWG	Solid Dead Soft Aluminum	1M′ Interconnected coils of 50′ ea.	14.60
No. 1240	No. 8 AWG	Solid Dead Soft Aluminum	1M′ Interconnected coils of 100′ ea.	14.00
No. 1255	No. 6 AWG	Solid Dead Soft Aluminum	1000 Ft. Spool	25.35
No. 1255	No. 6 AWG	Solid Dead Soft Aluminum	1M′ Interconnected coils of 50′ ea.	27.00
No. 1255	No. 6 AWG	Solid Dead Soft Aluminum	1M′ Interconnected coils of 100′ ea.	25.50

WE STOCK OR FABRICATE CABLES

under the following Mil Specs:

Mil C 3432 (CO-0 constructions)
Mil C 5756B
Mil C 3884
Mil S 2486
Mil C 10392

Mil B 10255
Mil W 13169
Mil W 7139A
Mil C 13077
Mil W 5086A

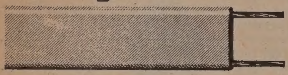
Mil W 16878C
Mil W 76B
Mil W 16878C Teflon
Open Wire Transmission Line †
—Plus many other types—

†Extra Low Loss

Special Service on Small or Large Orders

WIRE SUPERMARKET

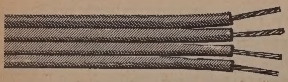
BY SAXTON PRODUCTS, INC.



LIFELINE TWIN LEAD

Heavy duty — full size — deluxe twin lead. Made of finest materials and chemically protected against deterioration. GUARANTEE PERFECT RECEPTION FOR THE LIFE OF YOUR ANTENNA.

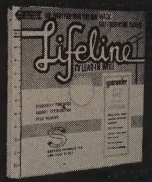
LTL 100 ft..$1.98



LIFELINE 100′ ROTOR CABLE

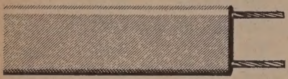
Extra heavy duty 4 Conductor "Lifeline" type rotor cable. SUPER DELUXE in every respect. 1 leg polarized for easy reference — sold in exclusive Magic Dispenser carton.

L4FC 100 feet....................................$2.49



Special Dispenser Package

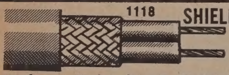
- Dustproof
- Tangle Free
- Economical



ECONOMY TWIN LEAD

TWIN LEAD of good quality at an excellent price. 55 mil with 7 strands (22 gauge) copper.

100′ coil — **TL-55** $1.15
1000′ spool — **TL-55** 8.93
100′ Dispenser Package 1.25



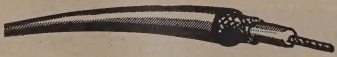
SHIELDED 300 OHM TWIN LEAD

Reduces Noise in FM Multiplex Reception!

300 ohm — noise resistant — shielded — twin lead wire. Each conductor 20 gauge — heavy — abrasion proof vinyl jacket. Delivers noise free signal on FM, TV, or FM Multiplex Reception.

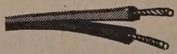
100′ coil ....$ 9.95
1 M′ spool 86.93

HEAVY DUTY SHIELDED IGNITION WIRE



Ham or CB installation **1S98**
Reduces noise, 15′ coil.......................$1.25

TW-199 TELEPHONE WIRE

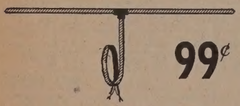


For indoor or outdoor use

Telephone Wire
100′ coil
2 conductor stranded.
$2.09

FM INDOOR ANTENNA

B-106

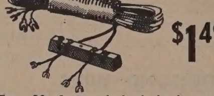


99¢

300 Ohm Folded Dipole with 42″ lugged lead in. Center tap protected in lasting, molded plastic. For use on your FM or TV receiver. Easily concealed.

STEREO HARNESS

B-107

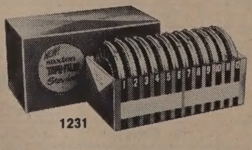


$1.49

Two 20 foot polarized leads—complete with adjustable mounting block and polarized lug attaching arrangement. Allows 40 feet of separation for efficient hook up of stereo speaker systems.

STORAGE CHEST FOR FILM & RECORDING TAPE

1230 Complete with Self-Loading Dust Proof Tape Storage Cans.



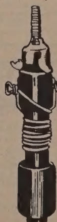
Individual cans available at $.49 ea.

Insures moisture and dust free storage of valuable tape and film reproductions in home or industrial libraries. Attractive indexed storage chest holds twelve high impact styrene containers. Cans have a swivel and twist lock arrangement. Accomodates all 5″ and 7″ recording tape as well as the popular 8 MM home movie film.........$4.98

PLASTIC "JERRY" CANS

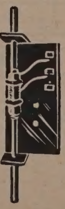
Ideal for lawn mower, boat, car, picnic — will not rust, corrode or break. Complete with handle and built in spout — free pouring air vent.

PJ-100 — 1 Gal. Shipping Wt. — 1½ Lbs...................**$1.59** ea.
PJ-300 — 3 Gal. Shipping Wt. — 2½ Lbs...................**$2.69** ea.



FERRITE ANTENNA LOOP No. 1122

Ferrite Antenna loop replaces flat loop or rod antenna. Efficient, tunable ferrite core plus progressive universal winding, provides wide range hi Q large signal pick-up. When external insulated hank is extended, additional omni-directional pick-up is obtained. Broadcast band only—535 to 1700 KC for use in all types of amplitude modulated radio receiving equipment. Complete with instructions and mounting bracket. Individually bagged, 36 on attractive display card............$.49



FERRITE ROD ANTENNA No. 1123

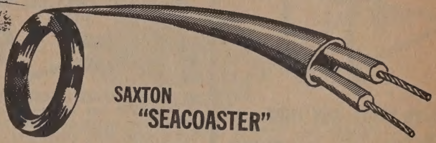
Ferrite Rod Antenna with adjustable inductive section. Extra large ferrite rod provides enormous pick-up. Particularly good for reception in bad signal areas. Easily mounted and connected. Individually bagged, 24 bags per attractive display card.............$.59

© U.C.P., Inc.

SPECIAL PURPOSE TRANSMISSION LINES

SAXTON-ENGINEERED TO MEET THE TOUGHEST OPERATING NEEDS

SOLVES CORROSIVE AND CHEMICAL PROBLEMS



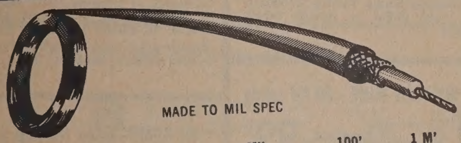
SAXTON "SEACOASTER"

#1017

300 Ohm–20 gauge (7/28) copper conductors encased in low loss foam polyethylene. Tough, brown, outer jacket designed to resist air-borne corrosives and chemical reactions.

100′ coil	$ 4.49
1 M′ spool	44.63

POPULAR COAXIAL CABLE TYPES



MADE TO MIL SPEC

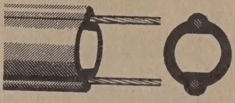
Saxton No.	Impedance	Mil Type	100′ coil	1 M′ spool
1X58	52 ohms	RG58U	$ 4.75	$ 47.03
1X58B		RG58AU	4.85	47.83
1X59	73 ohms	RG59U	4.65	46.50
1X59B		RG59AU	4.75	47.25
1X11	75 ohms	RG11U	10.95	108.00
1X11B		RG11AU	12.19	121.50
1X8	52 ohms	RG8U	12.95	121.41
1X8B		RG8AU	13.95	135.75

Low loss polyethylene foam dielectric—add 10%

FOR U.H.F. USE

SAXTON LOW-LOSS TUBULAR TWIN LEAD

TYPE TTL

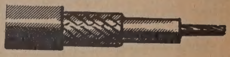


Heavy duty–brown polyethylene recommended for UHF applications.

100′ coil	$ 1.99
1 M′ spool	18.38

STRIP BRAID COAXIAL CABLE

FB-460



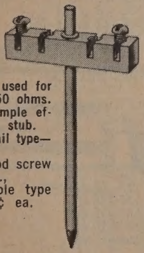
70 ohm — polyethylene foam dielectric, solid 12 gauge center conductor (.081).

Exceptional low loss and low radiation characteristics, along with improved attenuation.

Shipping weight per 1000 feet — approximately 90 lbs. Diameter .458.

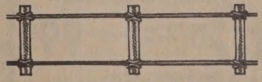
FB460/100	15c Ft.
FB460/1000	135.00 M′

OPEN WIRE STANDOFFS



Specifically designed for open wire.
Takes up slack, used for either 300 or 450 ohms. Use to make simple efficient matching stub.
#6000 — 5″ Nail type—11½¢ ea.,
#6003—5″ wood screw type—13½¢ ea.,
#6005 — 5″ pole type W/clamp—16½¢ ea.

OPEN WIRE TRANSMISSION LINE



LOWEST LOSS OF ALL LINES—air dielectric — styrene spacers — hilly areas—long runs.

#2500—Copperweld–450 Ohm

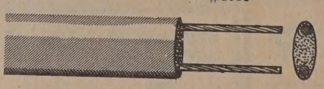
100′ spool	$2.55
250′ spool	6.38
500′ spool	12.56

#2502–Copperweld—300 Ohm

100′ spool	2.55
250′ spool	6.38
500′ spool	12.56

SAXTON "SPONGEE" LOW-LOSS TWIN LEAD

#1016



SPECIALLY DESIGNED FOR UHF TRANSMISSION

300 ohm 20 gauge stranded copper conductors encased in porous, low loss, polyethylene foam–stronger signals on VHF–excellent for UHF.

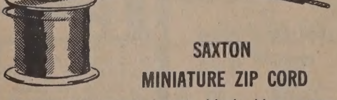
100′ coil	$ 3.29
1 M′ spool	31.50

SAXTON ZIP CORD—IDEAL FOR ELECTRICAL LEADS

ZIP CORD 100 PACKS

Convenient 100′ rolls of parallel cord. Speaker extension, lamp cord, etc. Colors–black, brown, white.

100′ 20 gauge designate color #1055HP	1.50
100′ 18 gauge designate color #1555HP	1.95
75′ 20 gauge CLEAR—Polarized—#1055HC	1.50
75′ 18 gauge CLEAR—Polarized—#155HC	1.95



SAXTON MINIATURE ZIP CORD

Polarized–7 colors–brown, black, blue, green, white, grey, clear. Super flexible–24 gauge. Low voltage application–SPEAKER CORD.

2F24—500′ roll clear	5.25
2F24—1000′ roll clear	10.35
2F24—designate color 500′	4.95
2F24—designate color 1M′	9.75
1159-HP—On convenient 80 ft. mini spools	1.29

NEW ADDITION TO OUR TAPE-FILM STORAGE CAN

TAPE REELS

WARP PROOF CLEAR POLYSTYRENE

TR-5	5″	39c ea.
TR-7	7″	49c ea.

Individually Boxed

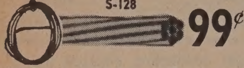
© U.C.P., Inc.

WIRE SUPERMARKET

BY SAXTON PRODUCTS, INC.

6/20 STEEL GUY WIRE

S-128



99¢

100 feet — 6 strands — 20 gauge — Bright galvanized.

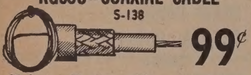
ALUMINUM GUY WIRE

S-127

40 feet—7 strand—each 18 gauge—flexible—rust free—long lasting.

RG58U-COAXIAL CABLE

S-138



99¢

20 feet— 52 ohm—citizens band, ham usage.

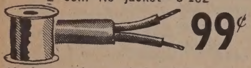
RG59U-COAXIAL CABLE

S-139

20 feet—72 ohm — ham — community system—apt. house antenna, etc.

INTERCOM WIRE

2 con. No jacket—S-102



99¢

60 feet—color coded—twisted—sturdy—pliable—easily stripped.

INTERCOM WIRE

2 cond. W. jacket—S-103

35 feet twisted pair—overall jacket—color coded.

INTERCOM WIRE

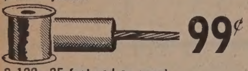
99¢

Twisted easily stripped—sturdy, pliable color coded.

S-104—3 conductor—no jacket	40 ft.
S-105—3 conductor—With jacket	28 ft.

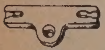
TEST PROD WIRE

Multi strand flexible cable with extra pliable jacket.



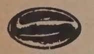
99¢

S-122—25 feet-red on spool
S-123—25 feet-black on spool



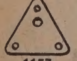
1155

Doublet type antenna insulator — white glaze. Large tensile strength — excellent electrical characteristics — 4½" x 2¾". Each $.32



1156

Airplane type "Egg" insulator. Low air resistance — large tensile strength — white glaze porcelain — 2". Each $.10

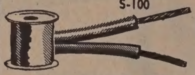


1157

Transposition block — porcelain glaze finish — for many types of doublet antenna. Each $.32

MINIATURE PARALLEL CABLE

S-100



99¢

53 feet — SPEAKER EXTENSIONS — hi fi leads—juke box wiring—low voltage applications. 24 gauge—7 colors—clear, black, white, blue, green, gray, brown. Polarized.

AERIAL WIRE

99¢

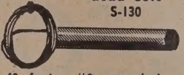
7 strand — closely twisted — prestretched copper.

7/22—50' coil	S-124
7/24—60' coil	S-125
7/26—70' coil	S-126

Heavy Duty Lead-in Wire 50 ft. #S-99

GROUND WIRE-Aluminum dead soft

S-130

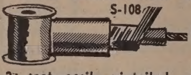


99¢

40 feet — #8 annealed — grounding systems of all kinds—excellent rust free laundry line.

AUDIO CABLE-WRAP SHIELD

S-108



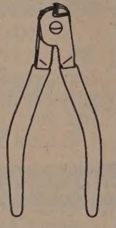
99¢

23 feet—easily pigtailed, extra pliable, vinyl jacket.

CABLEMASTER CARBALLOY CUTTING TOOL

CMT

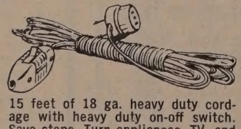
Cuts copperweld, steel wire, tiller cable, other difficult to cut wire constructions effortlessly. No frayed ends — a miraculous tool.



$4.98 ea.

"LAZYBONES" LB-15 REMOTE APPLIANCE CORD

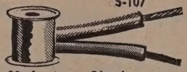
PLUG AND SWITCH



15 feet of 18 ga. heavy duty cordage with heavy duty on-off switch. Save steps. Turn appliances, TV, and other electrically operated devices on or off from a remote point. Quickly installed — easily operated. $1.09 ea.

ZIP CORD-VINYL-18 GA.

S-107

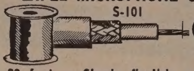


99¢

30 feet — Black-white-brown many applications.

LAPEL MICROPHONE CABLE

S-101



99¢

22 feet — Single flexible conductor — braid shield — smooth plastic jacket.

HI VOLTAGE WIRE - 20 KV rating

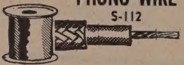
S-113

99¢

21 feet—flame retardant polyethylene insulated, cathode ray—power supply leads.

SHIELDED GRID OR PHONO WIRE

S-112

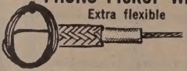


99¢

30 feet — Braid shield — flexible — tinned copper.

PHONO PICKUP WIRE

Extra flexible

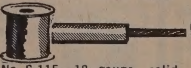


99¢

S-145—Single cond. shield—no jacket	20 ft.
S-146—Single cond. shield—jacket	22 ft.
S-147—Two cond. twisted—no jacket—no shield	25 ft.
S-148—Three cond. twisted—no shield	20 ft.
S-151—4 cond. twisted—no shield	15 ft.
S-149—3 cond. twisted—w. shield	18 ft.

HOOK UP WIRE

Plastic — P.V.C. — easily stripped — assorted colors—tinned copper

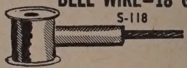


99¢

No. S-115—18 gauge, solid	60 ft.
No. S-115A—18 gauge, stranded	57 ft.
No. S-116—20 gauge, stranded	75 ft.
No. S-116A—20 gauge, solid	80 ft.
No. S-117—22 gauge, solid	100 ft.
No. S-117A—22 gauge, stranded	90 ft.
Heavy Duty	
No. S-92—12 gauge, solid TC	17 ft.
No. S-92A—12 gauge, stranded TC	15 ft.
No. S-93—14 gauge, solid TC	20 ft.
No. S-93A—14 gauge, stranded TC	17 ft.
No. S-94—16 gauge, solid TC	26 ft.
No. S-94A—16 gauge, stranded TC	23 ft.

BELL WIRE-18 GA.

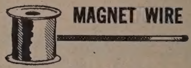
S-118



99¢

63 feet—solid—plastic insulated. Low voltage applications.

MAGNET WIRE

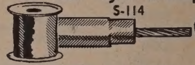


99¢

Copper wire enameled—enough for hundreds of projects. S-109, 22 gauge; S-109A, 24 gauge; S-109B, 26 gauge; S-109C, 28 gauge. Experimental work — coilwinding — school science projects, etc.

HI TEMP-nylon Hookup wire

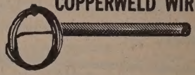
S-114



99¢

55 feet—will not deteriorate—used extensively by military.

COPPERWELD WIRE



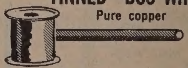
99¢

Hard drawn and shiny—hi conductivity copper over steel—unlimited application—will not stretch — electric fences, antennas, etc.

S-135—18 gauge	100 feet
S-136—12 gauge	40 feet
S-137—14 gauge	50 feet

TINNED "BUS WIRE"

Pure copper



99¢

S-152—22 ga.	150 ft.
S-153—20 ga.	120 ft.
S-154—18 ga.	90 ft.
S-155—16 ga.	60 ft.
S-158—12 ga.	30 ft.

IGNITION WIRE

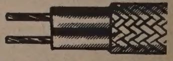
S-95

99¢

Ignition Wire for automobile & boat use. Unshielded 20'.

SHIELDED WIRE

S-96
S-97



2 Conductor—22 Gauge Tinned Copper 99¢

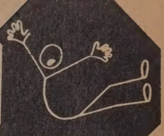
2 wire shielded—with jacket	16 ft.
2 wire shielded—no jacket	19 ft.

STOP ACCIDENTS IN THE DARK

IN THE HOME
ON THE FARM
AND IN INDUSTRY

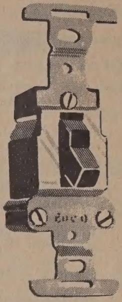
NO MORE TRIPPING OVER OBJECTS

NO MORE GROPING IN DARK



NO MORE FALLS

DELAYED ACTION SAFETY SWITCH — HOUSE TYPE



THE LIGHTS GO OUT — **60 seconds later.** Get where you're going SAFELY — before they go out. Replaces ANY wall switch in seconds. Use in house, barn, porch —ANYWHERE. U.L. approved — fully guaranteed.

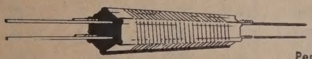
S560 IVORY	$2.98
S561 BROWN	2.98

DELAYED ACTION AUTO OR BOAT SWITCH

Install in minutes in car or boat. Complete with directions and hardware. Keeps lights on for safe departure AFTER switch has been turned off. Shuts lights off, 60 seconds later—AUTOMATICALLY. Full guaranteed. S563........... $2.98

TV ANTENNA MATCHING BALUN COILS

1121



Per pair **99¢**

Efficiently match 72 to 150 ohms—72 to 450 ohms—150 to 300 ohms—150 to 450 ohms—300 to 450 ohms—75 to 300 ohms—Eliminates standing waves—use as set coupler—impedance transformer, line matching, etc.

Directions included.

PATIO SPEAKER BAFFLE

B-1205

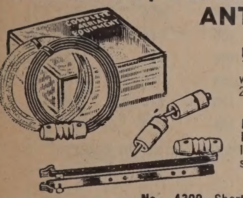
Made of unbreakable hi-impact styrene — mahogany — complete with hardware and mounting instructions. For use with 6 x 9 speaker. Ideal for paging and monitoring, patio and stereo extensions, or wherever an extension speaker can be used.

Less speaker **$2.98**

B-1206

$4.98 6 x 9 speaker, volume control and control knob—complete directions—complete kit, including cabinet.

STANDARD, DELUXE and SHORT WAVE ANTENNA KITS



No. 1128—Standard Kit includes 50' stranded 7/28 copper wire, 1 coil 25' insulated lead wire, 2 nail knobs, 1 lead strap, 2 insulators. **$1.23**

No. 1127—Deluxe Kit includes 75' 7/22 heavy antenna wire, 1 coil 50' heavy duty lead wire, 2 nail knobs, 1 lead strap, 2 insulators. **$2.78**

No. 4300—Short Wave Kit includes 66'—heavy duty antenna wire, 1 transposition block, 50' heavy duty twisted lead cable 2 insulators, 2 window straps, 2 nail knobs. **$4.43**

All kits include complete directions.

HEAVY DUTY SUPER GUY WIRE & MESSENGER CABLE

#5112

Super flexible — (49 strand wire rope) steel galvanized wire — super strength 2100 lbs. breaking strength — with overall clear vinyl jacket — Ideal tiller or rudder cable on boats.

100' coil **$7.25**

NON STRETCH, HARD DRAWN COPPERWELD

75' or 150' coils—12 and 14 gauge. Ham antennas, commercial installations, rhombics, electric fences.

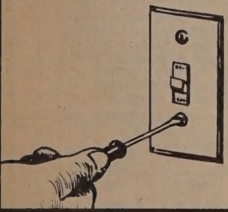
#5303

12 ga.—75'	$1.89
12 ga.—100'	2.50
12 ga.—1 M' spool	24.38

#5302

14 ga.—75'	$1.49
14 ga.—100'	1.89
14 ga.—1 M' spool	18.23

DIM-A-LIGHT, DIMMER SWITCH



(Incandescent lamps only) 300 watts — replaces existing wall switches. 3 position — bright — dim — off. Changes from brilliant white light to warm candle glow.

$2.98 ea.

HEAVY DUTY EXTENSION CORDS

For use with power tools — mowers, electrical devices of all kinds. 2 and 3 conductors, 16 gauge. 3 conductor cords have 3 prong plug.

No.	Description			Price
EX105	25'	2 Wire	1¼ Lb.	$1.69
EX106	50'	2 Wire	2 Lbs.	2.89
EX107	100'	2 Wire	3 Lbs.	4.79
EX108	25'	3 Wire	1¼ Lbs.	2.29
EX109	50'	3 Wire	2¼ Lbs.	3.69
EX110	100'	3 Wire	3½ Lbs.	6.69

FLOATING GUY RING

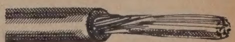
74¢

Cast aluminum — 2 piece Floating Guy Ring—fits masts up to 1½" in diameter. Individually packed, complete with hardware in individual plastic bags.

#1099

FIBRE GLASS GUY WIRE

#7000



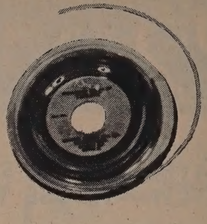
Non-radiating, non-absorptive, hi strength "wireless" guy wire. Vinyl jacket — 500 lb. breaking strength.

100' coil **$1.99**

Walsco ELECTRONICS

INSULATING TUBING

WALSCO INSULATING TUBING OF TEFLON



TEFLON "spaghetti" has unsurpassed electrical and mechanical qualities. Withstands temperatures from 450° below zero F. to 500° above zero F. Will not melt near solder joints. Outstanding dialectric properties—zero moisture absorption. Chemically inert. Completely weatherproof. A big feature is the low co-efficient of friction.

Part No.	Feet Per Spool*	Color	Gauge	I.D. (Inches)	Wall Thickness	Dlr. Net Per Spool
690-1	10	Nat	24	.022	.010	$ 1.33
690-1C	100	Nat	24	.022	.010	9.75
690-4	10	Red	24	.022	.010	1.33
690-4C	100	Red	24	.022	.010	9.75
690-5	10	Blue	24	.022	.010	1.33
690-5C	100	Blue	24	.022	.010	9.75
691-1	10	Nat	22	.027	0.12	1.47
691-1C	100	Nat	22	.027	.012	12.43
691-4	10	Red	22	.027	.012	1.47
691-4C	100	Red	22	.027	.012	12.43
691-5	10	Blue	22	.027	.012	1.47
691-5C	100	Blue	22	.027	.012	12.43
692-1	10	Nat	20	.034	.012	1.83
692-1C	100	Nat	20	.034	.012	18.27
692-4	10	Red	20	.034	.012	1.83
692-4C	100	Red	20	.034	.012	18.27
692-5	10	Blue	20	.034	.012	1.83
692-5C	10	Blue	20	.034	.012	18.27
693-1	10	Nat	18	.042	.012	2.23
693-1C	100	Blue	18	.042	.012	20.88
693-4	10	Red	18	.042	.012	2.23
693-4C	100	Red	18	.042	.012	20.88
693-5	10	Blue	18	.042	.012	2.23
693-5C	100	Blue	18	.042	.012	20.88
694-1	10	Nat	16	.053	.012	2.65
694-1C	100	Nat	16	.053	.012	25.02
694-4	10	Red	16	.053	.012	2.65
694-4C	100	Red	16	.053	.012	25.02
694-5	10	Blue	16	.053	.012	2.65
694-5C	100	Blue	16	.053	.012	25.02
695-1	10	Nat.	14	.066	.012	2.92
695-1C	100	Nat	14	.066	.012	28.38
695-4	10	Red	14	.066	.012	2.92
695-4C	100	Red	14	.066	.012	28.38
695-5	10	Blue	14	.066	.012	2.92
695-5C	100	Blue	14	.066	.012	28.38
696-1	5	Nat	12	.085	.014	1.83
696-1C	100	Nat	12	.085	.014	34.28
696-4	5	Red	12	.085	.014	1.83
696-4C	100	Red	12	.085	.014	34.28
696-5	5	Blue	12	.085	.014	1.83
696-5C	100	Blue	12	.085	.014	34.28
697-1	5	Nat	10	.106	.014	2.17
697-1C	100	Nat	10	.106	.014	39.53
697-4	5	Red	10	.106	.014	2.17
697-4C	100	Red	10	.106	.014	39.53
697-5	5	Blue	10	.106	.014	2.17
697-5C	100	Blue	10	.106	.014	39.53

Std. Pack 10' and 5' Spools: 12
Std. Pack 100' Spools: 1

* BULK PRICES QUOTED ON REQUEST

WALSCO RAYOFLEX

Walsco
RAYOFLEX

For the serviceman and industrial user of insulated tubing. Rayoflex combines the mechanical strength of fiberglas with the protective properties of synthetic lacquer to produce a tough, rugged insulating tubing. Rayoflex is more flexible and less affected by aging than conventional varnished tubing. Rayoflex is smooth inside and out making the insertion of wires, etc., very easy. Has a dielectric strength of 4,000 to 5,000 volts. Meets MIL-I-3190. Sizes up to #6 are packed on a handy spool.

Net per spool $ .82

Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	Approx. I.D. mm	Quantity Per Spool
630-(color)	18	.042	1	10 ft.
631-(color)	15	.059	1.5	8 ft.
632-(color)	12	.085	2	8 ft.
633-(color)	9	.118	3	5 ft.
634-(color)	6	.166	4	5 ft.

AVAILABLE IN BLACK, RED, BLUE and YELLOW COLORS. To specify COLOR add suffix to above catalog number as follows: -R3 for Black, -R4 for Red, -R5 for Blue, -R6 for Yellow. Example: — 630-R3 is 18 gauge, Black.

WALSCO FLEXITUBE

Walsco
FLEXITUBE

Walsco Flexitube is the ideal supplemental insulation for most electronic and electrical applications. Flexitube is impervious to water, oil, alcohol, most acids and alkalies. Has an outstanding dielectric strength of 15,000 volts (average) before breakdown. Is not affected by temperature extremes.

Net per spool $ .82

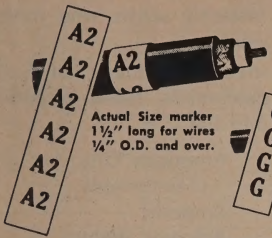
Cat. No.	Size B&S Gauge No.	Approx. I.D. Inches	Approx. I.D. mm	Quantity Per Spool
600-(color)	18	.042	1	20 ft.
601-(color)	16	.053	1.4	20 ft.
602-(color)	14	.066	1.6	18 ft.
603-(color)	12	.085	2	16 ft.
604-(color)	10	.106	2.7	14 ft.
605-(color)	8	.133	3.5	12 ft.
606-(color)	6	.166	4	10 ft.
607-(color)	4	.208	5	6 ft.
608-(color)	2	.263	6.5	6 ft.

AVAILABLE IN CLEAR, GREEN, BLACK and RED COLORS. To specify COLOR add suffix to above catalog number as follows: -01 for Clear, -02 for Green, -03 for Black and -04 for Red. Example: 600-01 for 18 gauge, Clear.

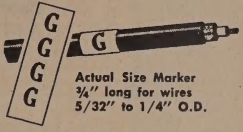
© U.C.P., Inc.

E-Z-CODE® self-adhering electronic WIRE MARKERS

IDENTIFY WIRE AND CABLES OF ANY SIZE



Actual Size marker 1½" long for wires ¼" O.D. and over.



Actual Size Marker ¾" long for wires 5/32" to 1/4" O.D.

Identification applied around-the-wire without ever touching adhesive side of marker . . . "with E-Z-Codes you grab the tab—not the adhesive" . . . Available in popular Vari-Temp cloth listed below, Aluminum-foil, Vinyl-plastic, Polyester-film. Ask for complete Westline stock list (form EZ8-1) of thousands of markers . . . specials available too.

VARI-TEMP CLOTH MARKERS (WBC)

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS ALL THE SAME		
0	72	36
1	72	36
2	72	36
and so on thru		
98	72	36
99	72	36
100	52	26
and so on thru		
598	52	26
599	52	26
600	52	26
CAPITAL LETTERS		
A	72	36
B	72	36
and so on thru		
Y	72	36
Z	72	36

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
NUMBERS IN SEQUENCE		
1-33	66	33
34-66	66	33
67-99	66	33
and so on thru		
225-249	50	25
250-274	50	25
275-299	50	25
and so on thru		
1975-1999	50	25
NUMBERS IN REPEATED SEQUENCE		
0-9	60	30
0-10	66	33
1-3	72	36
1-4	72	36
1-5	70	35
1-6	72	36

PRINTING ON MARKER	MARKERS PER CARD ¾"	MARKERS PER CARD 1½"
cont'd.		
1-8	64	32
1-9	72	36
1-10	66	33
1-12	64	32
1-18	72	36
19-36	72	36
LETTERS IN REPEATED SEQUENCE		
A-Z	72	36
plus A-J		
A-Z	72	36
plus 0-9		
A-E	70	35
F-J	70	35
K-O	70	35
P-T	70	35
U-Z	72	36

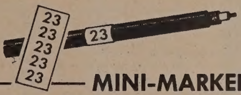
NET PRICES

QUANTITY	VARI-TEMP (WBC) CLOTH
30-99 cards	$20.00/c
100-499 cards	.16.00/c
500-999 cards	14.00/c
1000-2499 cards	13.00/c
2500-4999 cards	12.50/c
5000-9999 cards	12.00/c

over 10,000 write for quotation
Specify 1½" or ¾" marker length

Also available: Numbers repeated, Letters in Sequence, lower case letters, Color Codes, Colors with numbers, Symbol, phase & cycle markers, etc.

Actual Size Marker



½" long stock marker for miniature wires under 5/32" O.D.

Legend appears five times for maximum "around-the-wire" visibility.

MINI-MARKERS (Miniature) WBC

NUMBERS ALL THE SAME	
0	100 markers per card
1	100 markers per card
and so on thru	
99	100 markers per card
100	66 markers per card
and so on thru	
250	66 markers per card
LETTERS ALL THE SAME	
A	100 markers per card
B	100 markers per card
and so on thru	
Z	100 markers per card

NUMBERS IN SEQUENCE	
0-49	100 markers per card
50-99	100 markers per card
100-132	66 markers per card
133-165	66 markers per card
166-198	66 markers per card
199-231	66 markers per card
232-264	66 markers per card
265-297	66 markers per card

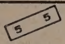
COMBINATION CARD

Two rows: Each row consisting of one marker A thru Z and 0 thru 15 and FIL, GRD, B+, PRI, SEC, PLA. (96 markers per card).

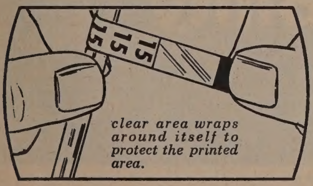
NET PRICES

QUANTITY	MINI-MARKERS (WBC)
30-99 cards	$18.00/c
100-499 cards	14.40/c
500-999 cards	12.60/c
1000-2499 cards	11.70/c
2500-4999 cards	11.25/c
5000-9999 cards	10.80/c

over 10,000 write for quote
½" long marker



Also available: Sub-Miniature Markers from stock—write for form #EZ8-1.

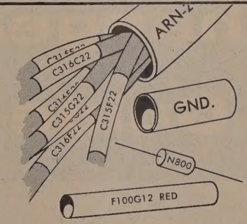


clear area wraps around itself to protect the printed area.

SELF-LAMINATING
Wire Markers

Designed to resist oils, grease, chemicals, fluids, foreign matter. Available in variety of printed and blank "write-on" type markers.

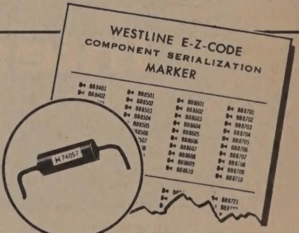
Free samples, literature write for Form #SL4-6



SHUR-CODE
Pre-printed Sleeving

Printed insulation sleeving that is slipped over wires, cables, harnesses for permanent identification. Standard and Special materials meet mil spec.

Free samples, literature write for Form #051258



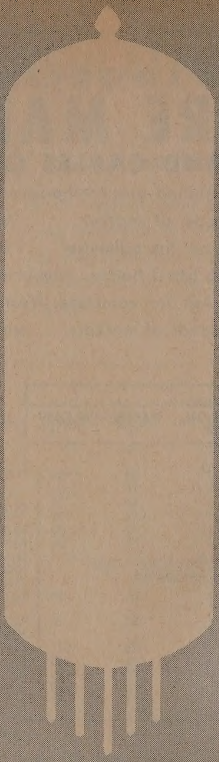
COMPONENT SERIALIZATION
Micro-miniature Markers

Designed to identify miniature components. Available in any combination of codes. Self-adhering markers are ready for application. Meets mil spec.

Free samples, literature write for Form #CS1060

WESTLINE E-Z CODE DIVISION, Los Angeles • NORTHERN INDUSTRIAL PRODUCTS, LTD., Toronto

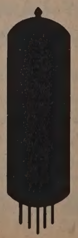
— Distributorships Available —



- Over 1300 foreign tube types listed numerically
- Cross-referenced to European/American and American types, where available
- Instantly shows who makes what type
- Includes virtually all European-made tubes imported into the U.S.

American Elite
(Telefunken)
Amperex
Amperex (Valvo)
British Industries
(Genalex)
Fisher
International Electronics
(Mullard)
Sonotone (A E I)
State Labs (Ericsson, Brown-Boveri)
Electronic Components
(Tungsram)

1963
Foreign Tube Interchangeability Guide



COMPOSITE FOREIGN TUBE LIST & INTERCHANGEABILITY GUIDE

MFRS'. NO. EUROPEAN TYPE	EUROPEAN AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
AB2				X	X					X		
ABC1				X	X					X		
ABL1				X	X					X		
AC044										X		
AC701			X									
AF3			X	X	X					X		
AF7			X	X	X					X		
AF22-10										X		
AF31-10										X		
AGR9950		5869		X								
AGR9951		5870		X								
AK2				X	X					X		
AL1				X	X							
AL4			X	X	X					X		
AL13-13										X		
AL13-36										X		
AL22-10		9RP33								X		
AL31-10										X		
AN1										X		
ATL2-1												#
ATL5-1		5667										#
ATL10-2												#
ATL10-3												#
ATL20-1												#
ATL35-1												#
AW13-36										X		
AW17-20										X		
AW21-80										X		
AW22-10										X		
AW36-20		14ABP4A								X		
AW36-21		14ABP4								X		
AW36-48										X		
AW36-80		14AHP4A								X		
AW43-80		17BTP4								X		
AW43-88		17CDP4								X		
AW53-80		21ATP4A; 21CBP4A; 21CLP4; 21DLP4; 21DVP4; 21ELP4								X		
AW53-88		21CEP4; 21DAP4; 21DWP4; 21EMP4								X		
AW56-21										X		
AX4-125A		6155		X						X		
AX4-250A		6156		X								
AX50				X	X							
AX9900		5866		X								
AX9901		5867		X								
AX9902		5868		X								
AX9903		5894		X								
AX9904		5923		X								
AX9904R		5924		X								
AX9906		6077		X								
AX9906R		6078		X								
AX9907		6075		X								
AX9907R		6076		X								
AX9908		6079		X								
AX9909		6083		X								
AX9910		6252		X								
AX9911		6268		X								
AX9912		6279		X								
AZ1			X	X	X					X		
AZ4				X	X					X		
AZ11			X	X	X							
AZ12			X	X	X					X		
AZ31				X	X					X		
AZ41			X	X	X					X		
AZ50				X	X							
B739		12AT7; ECC81; E81CC; 6060; 6201; 6679; B309				X						
B749		12AU7; ECC82; 5814; 6067; 6189; 6680		X		X				X	X	
B759		12AX7; ECC83; 5721; 5751; 6057; 6681; 7025				X				X		
BA3-30										X		
BA9-20		7635								X		
BA16-10		7636								X		
BPY10										X		
BTL1-1												#
BTL3-1												#
BTL6-1												#
BTL15-1												#
BTL25-1												#
BTL50-1												#
BTW6-1												#
BTW15-1												#
BTW25-1												#
BTW50-1												#
C3M			X									
C8				X	X							
C10				X	X							
C12				X	X							
CBL1				X	X					X		
CBL6				X	X							
CBL31										X		

MFRS'. NO. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
CCA	E88CC		X									
CCH35										X		
CF3				X	X							
CF7			X	X	X							
CF50				X	X							
CK1				X	X							
CL4			X	X	X					X		
CL33										X		
CT10-12										X		
CV2195										X		
CV2387										X		
CV2411										X		
CV2463										X		
CV2469										X		
CV4086										X		
CV4501		7432								X		
CV4502		7433								X		
CV4503		7434								X		
CV4504		7435								X		
CV4505		7436								X		
CV4507		7437								X		
CV4508		7438								X		
CV4516										X		
CV4904		7435								X		
CV5082										X		
CV5110										X		
CV6015										X		
CY2				X	X					X		
CY31										X		
D3A			X							X		
D717		6AL5; 5726; 6058; 6097; 6663; EAA91; EB91; D77	X	X		X				X	X	
DA90		1A3		X	X					X		
DAC21				X	X					X		
DAC32		1H5GT								X		
DAF40				X	X							
DAF41				X	X							
DAF70										X		
DAF91		1S5	X	X	X	X			X	X	X	
DAF92		1U5		X	X	X			X			
DAF96	1A45	1AH5	X	X	X				X	X	X	
DB3-91		1CP11								X		
DB4-1										X		
DB4-2										X		
DB7-5		3ALP11								X		
DB7-6										X		
DB7-10										X		
DB7-36		3WP11								X		
DB7-78		3BKP31								X		
DB7-91		3AFP11								X		
DB10-78										X		
DB10-94		4EP11								X		
DB13-2		5CP11A								X		
DB13-10		5CLP11								X		
DB13-34		5ADP11								X		
DB13-97		5BKP11								X		
DB16-22		7AHP11								X		
DBM9-11		3AZP11								X		
DBM10-93		4LP11								X		
DC70	6375	6375		X						X		
DC90			X	X	X					X	X	
DC96			X									
DCC90		3A5		X	X					X		
DCG1/250				X								
DCG4/1000ED				X								
DCG4/1000G				X								
DCG6/18		6693		X								
DCG6/6000		5869		X								
DCG7/100B		6786		X								
DCG12/30		5870		X								
DF-21				X	X					X		
DF-22				X	X					X		
DF33		1N5GT; 1N5								X		
DF-60		5678								X		
DF-61		6611								X		
DF-62		1AD4								X		
DF-63										X		
DF-64										X		
DF-66										X		
DF67				X								
DF-70										X		
DF-72										X		
DF-73										X		
DF-91		1T4	X	X	X				X	X	X	
DF-92		1L4	X	X	X				X	X	X	
DF-96	3C41	1AF4; 1AJ4	X	X	X				X	X	X	
DF-97		1AN5	X	X	X					X	X	
DF703		CK5886	X									
DF-904		1U4	X									
DG4-1		2AP1A								X		
DG4-2										X		
DG7-5		3ALP1		X	X					X		
DG7-6				X	X					X		
DG7-31										X		

COMPOSITE FOREIGN TUBE LIST & INTERCHANGEABILITY GUIDE

MFRS'. NO. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
DG7-31/01										x		
DG7-32		3AMP1		x	x					x		
DG7-32/01		3AMP1A								x		
DG7-36		3WP1								x		
DG13-2		5CP1A								x		
DG13-34		5ADP1; 5ABP1; 5ADP31								x		
DG13-78		5BHP1								x		
DG16-22		7AHP1								x		
DGA-1										x		
DGA-2										x		
DH3-91		1CP31								x		
DH7-10										x		
DH7-78										x		
DH7-91		3AFP31								x		
DH10-78										x		
DH10-94		4EP31								x		
DH13-10		5CLP31								x		
DH13-76		5CBP31								x		
DH13-78		5BHP31								x		
DH13-97		5BKP31								x		
DHM9-11		3AZP31								x		
DHM10-93		4LP31								x		
DK21				x	x					x		
DK32		1A7GT								x		
DK40			x	x	x					x		
DK91		1R5	x	x	x					x		
DK92	1AC6	1AC6; 1L4	x	x	x					x	x	
DK96	1AB6	1AB6	x	x	x				x	x	x	
DL-11			x									
DL-21				x	x					x		
DL-33		3Q5GT								x		
DL-35		1C5GT								x		
DL-36		1Q5GT								x		
DL-41			x	x	x					x		
DL-64										x		
DL-66										x		
DL-67				x								
DL-68										x		
DL-69										x		
DL-70		6373								x		
DL-71										x		
DL-72										x		
DL-73										x		
DL-75										x		
DL-91		1S4				x			x	x		
DL-92		3S4	x	x	x					x	x	
DL-93		3A4		x	x					x		
DL-94		3V4	x	x	x					x	x	
DL-95	3Q4	3Q4	x	x	x					x		
DL-96	3C4	3C4	x	x	x				x	x	x	
DL-98		3B4								x		
DL-620		5672								x		
DL-907			x									
DLL21				x	x					x		
DM-70		1M3	x	x	x		x			x	x	
DM-71		1N3	x	x	x		x					
DM160		6977								x		
DN7-78		3BKP2								x		
DP4-1										x		
DP4-2										x		
DP7-5		3ALP7								x		
DP7-6				x	x					x		
DP7-91		3AFP7								x		
DP10-78										x		
DP10-94		4EP7								x		
DP13-2		5CP7A								x		
DP13-34		5ADP7								x		
DP13-97		5BKP7								x		
DP16-22		7AHP7								x		
DPM9-11		3AZP7								x		
DPM10-93		4LP7								x		
DN7-78		3BK92								x		
DN13-76		5CBP2								x		
DN13-78		5BHP2								x		
DQ2		866A										#
DQ4		872A										#
DQ5												#
DQ6		869B; 6508										#
DQ7		857B										#
DW2										x		
DW4-350										x		
DW4-500										x		
DY70		5642								x		
DY-80		1X2A	x								x	
DY-86		1S2	x	x	x				x		x	
DY-87		1S2A	x	x	x				x			
E18L										x		
E55L										x		
E80CC		6085		x						x		
E80CF		7643		x								
E80F		6084		x						x		
E80L		6227		x						x		
E80T		6218		x								
E81CC		6201		x		x						
E81L		6686		x						x		
E83F		6689		x						x		
E88CC		6922	x	x						x		
E88CC/01										x		
E90CC		5920	x	x						x		
E90F		7693		x								
E91AA		5726		x		x						
E91H		6687		x						x		
E91N		5727		x								
E92CC			x	x						x		
E95F		5654		x								
E99F		7694		x								
E130L		7534		x								
E180CC		7062		x						x		
E180F		6688	x	x						x		
E280F			x									
E181CC		7118								x		
E182CC		7119; 7092		x						x		
E280F			x									
E182F		5847		x								
E810F		7788								x		
EAA-EB91-E280F		6AL5		x	x						x	
EA50		2B35			x				x	x		
EA52		6923		x						x		
EA53				x								
EA76	6489	5647; 6489								x		
EAA91		6AL5	x	x	x		x			x		
EAA901S			x									
EABC80	6AK8	6AK8; 6R8; 6T8	x	x	x		x		x	x	x	
EAC91										x		
EAF41										x		
EAF42		6CT7	x	x	x					x	x	
EAM86	6GX8		x									
EB-4				x	x					x		
EB34		6H6G		x	x				x	x		
EB41				x	x					x		
EB91		6AL5				x			x	x	x	
EBC-3				x	x					x		
EBC-11			x									
EBC33				x	x					x		
EBC41		6CV7	x	x	x				x	x	x	
EBC81	6BD7A	6BD7A	x	x	x		x		x	x		
EBC90		6AT6		x	x		x		x	x	x	
EBC91		6AV6	x	x	x		x		x	x	x	
EBF2				x	x					x		
EBF15			x									
EBF32				x	x					x		
EBF35				x	x							
EBF80	6N8	6N8	x	x	x		x			x	x	
EBF83		6DR8	x	x	x					x	x	
EBF89		6DC8	x	x	x		x			x	x	
EBL1				x	x					x		
EBL21				x	x					x		
EBL31										x		
EC31										x		
EC50				x	x					x		
EC52										x		
EC53										x		
EC54										x		
EC55/5861				x								
EC56										x		
EC57										x		
EC70		6778								x		
EC71										x		
EC80	6Q4	6Q4		x								
EC81	6R4	6R4		x	x					x		
EC86		6CM4	x	x								
EC88		6DL4	x							x		
EC90		6C4		x	x				x	x	x	
EC91	6AQ4	6AQ4		x	x				x	x	x	
EC92		6AB4	x	x	x		x			x	x	
EC95		6ER5		x						x	x	
EC97		6FY5								x	x	
EC98		6J4								x		
EC157		8108		x						x		
EC158										x		
EC806S			x									
EC903			x									
ECC31										x		#
ECC32										x		
ECC33				x	x					x	x	
ECC34										x		
ECC35		6SG7; 6SL7GT		x	x					x	x	
ECC40				x	x					x	x	
ECC70										x		
ECC81		12AT7	x	x	x	x	x	x	x	x	x	
ECC82		12AU7	x	x	x	x	x	x	x	x	x	
ECC83		12AX7	x	x	x	x	x	x	x	x	x	
ECC84		6CW7	x		x				x	x	x	
ECC85	6AQ4	6AQ8	x	x	x		x	x	x	x	x	
ECC86		6GM8	x	x						x	x	
ECC88		6DJ8	x	x			x	x	x	x	x	
ECC89		6FC7								x		
ECC91		6J6		x	x		x			x	x	
ECC189		6ES8	x	x						x	x	
ECC801S		6201; 6060	x									
ECC802S		6067; 6189	x									
ECF1				x	x							
ECF2										x		
ECF12			x									
ECF80		6BL8	x	x	x		x		x	x	x	
ECF82		6U8	x				x		x	x	x	
ECF83			x									
ECF86		6HG8							x	x	x	
ECH3				x	x					x		
ECH4				x	x							
ECH21				x	x					x		
ECH33				x	x					x		

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ECH35	6E8	6E8		X	X					X		
ECH41				X	X					X		
ECH42	6C9	6CU7;6C9	X	X	X					X		
ECH81	6AJ8	6AJ8	X	X	X		X	X	X	X	X	
ECH83-ECH84		6DS8	X	X	X		X			X		
ECL11			X	X	X							
ECL80	6AB8	6AB8	X	X	X				X	X	X	
ECL82	6BM8	6BM8	X	X	X		X		X	X	X	
ECL83										X		
ECL84		6DX8	X	X						X		
ECL86		6GW8	X	X			X		X		X	
ECL113			X									
ECR30										X		
ECR35										X		
ECR35P										X		
ECR57										X		
ECR60										X		
EDD11			X									
EF6(N)				X	X							
EF9				X	X					X		
EF12			X									
EF14			X									
EF15			X									
EF22		7G7		X	X					X		
EF36				X	X					X		
EF37										X		
EF37A				X	X					X		
EF39				X	X					X		
EF40				X	X					X	X	
EF41		6CJ5	X	X	X					X	X	
EF42				X	X					X		
EF43				X	X							
EF50				X	X					X		
EF54										X		
EF55				X	X					X		
EF70		6487								X		
EF71										X		
EF72										X		
EF73		6483								X		
EF74		6391								X		
EF80	6BX6	6BX6	X	X	X		X		X	X	X	
EF83			X	X	X							
EF85	6BY7	6BY7	X	X	X		X		X	X	X	
EF86	6267	6267;6CF8	X	X	X	X	X	X	X	X	X	
EF89	6DA6	6DA6	X	X	X		X			X	X	
EF91	6AM6	6AM6		X	X				X	X	X	
EF92	6CQ6	6CQ6		X	X				X	X		
EF93		6BA6	X	X	X		X		X	X	X	
EF94		6AU6	X	X	X		X		X	X	X	
EF95		6AK5		X	X		X			X	X	
EF97		6ES6	X	X	X					X		
EF98		6ET6	X	X	X					X	X	
EF183		6EH7	X	X			X		X	X	X	
EF184		6EJ7	X	X			X		X	X	X	
EF410			X									
EF730										X		
EF731		5899								X		
EF732		5840		X						X		
EF734										X		
EF800			X									
EF802			X									
EF804			X								X	
EF804S			X									
EF805S			X									
EF806S			X									
EFM1				X	X							
EFM3										X		
EFM11			X	X	X							
EFP60				X						X		
EFS5										X		
EH90		6CS6	X	X	X						X	
EH900S			X									
EIP-1										X		
EIP-2										X		
EIP-3										X		
EIP-4										X		
EIP-5										X		
EIP-6										X		
EIT		6370		X						X		
EK2				X	X					X		
EK32										X		
EK90		6BE6	X	X	X		X		X	X	X	
EL2				X	X					X		
EL3(N)				X	X							
EL5				X	X							
EL6				X	X							
EL11			X	X	X							
EL12			X	X	X					X		
EL12S			X									
EL13			X							X		
EL31										X		
EL32										X		
EL33	6AG6;6M6G	6AG6;6M6G		X	X					X		
EL34	6CA7	6CA7	X	X	X	X		X		X	X	
EL34MP		6CA7		X	X	X		X		X	X	
EL35						X				X		
EL36		6CM5	X	X	X	X				X		
EL37		6L6/6L6GB; 5881;1614;7027		X	X	X		X		X	X	
EL37MP				X	X	X		X		X	X	
EL38	6CN6	6CN6		X	X					X	X	
EL41		6CK5	X	X	X					X	X	
EL42				X	X					X		
EL50				X	X							
EL51				X	X							
EL60				X	X							
EL71				X						X		
EL81	6CJ6	6CJ6		X	X					X	X	
EL82		6DY5		X	X							
EL83		6CK6	X	X	X					X		
EL84		6BQ5	X	X	X	X	X	X	X	X	X	
EL84(MP)				X	X	X		X	X	X	X	
EL85	6BN5	6BN5		X	X					X	X	
EL86	6CW5	6CW5	X	X	X						X	
EL86(MP)		6CW5(MP)									X	
EL90		6AQ5	X	X	X		X		X	X	X	
EL91	6AM5	6AM5		X	X					X		
EL95		6DL5	X	X	X					X	X	
EL95(MP)		6DL5(MP)									X	
EL131										X		
EL131MP										X		
EL152			X									
EL153			X									
EL156			X									
EL360										X		
EL803			X									
EL803S			X									
EL804			X									
EL821		6CH6							X	X		
EL822										X		
EM1				X	X					X		
EM4				X	X					X		
EM11			X									
EM34	6CD7	6CD7		X	X					X	X	
EM35		6U5G	X								X	
EM71A			X								X	
EM80	6BR5	6BR5	X	X	X					X	X	
EM81		6DA5	X	X	X					X	X	
EM84		6FG6	X	X	X		X		X	X	X	
EM87		6HU6	X				X			X		
EMM801			X									
EN31										X		
EN32		6574;2050								X		
EN70		5643								X		
EN91		2D21								X		
EN92		5696;6084								X		
EN93		6D4								X		
EPP60										X		
EQ80	6BE7	6BE7		X	X					X		
ET51		6700								X		
EY51	6X2	6X2	X	X	X					X		
EY70		5641								X		
EY80	6U3	6U3		X	X					X		
EY81		6R3		X	X					X		
EY82		6N3		X	X					X		
EY83	EY83								X			
EY84	6374	6374								X		
EY86	6S2	6S2	X	X	X		X		X	X		
EY87		6S2A	X	X	X				X			
EY88		6AL3		X	X					X		
EY91				X	X					X		
EZ2				X	X					X		
EZ12			X								X	
EZ35		6X5GT;6X5G;6X5							X	X	X	
EZ40		6BT4		X	X					X		
EZ41				X	X					X		
EZ80	6V4	6V4	X	X	X		X	X	X	X	X	
EZ81		6CA4;6BW4	X	X		X	X	X	X	X	X	
EZ90		6X4		X	X	X	X		X	X	X	
EZ150			X									
FC2A										X		
FC4										X		
FC13										X		
FC13C										X		
FL152			X									
FTL3-1												#
FTL3-2												#
FTL8-1												#
FTW3-1												#
FTW8-1												#
FW4/500										X		
FW4/800										X		
FZ11GH			X									
FZ11GS			X									
FZ11VH			X									
FZ11VS			X									
FZ12GH			X									
FZ12GS			X									
FZ12VH			X									
FZ12VS			X									
FZ21GS			X									
FZ21VS			X									
FZ9011G			X									
FZ9011V			X									
FZ9012G			X									
FZ9012V			X									
GL-B739		12AT7;6060;6201; 6679				X						
GL-B749		12AU7;5814;6067; 6189;6680				X						
GL-B759		12AX7;5721;5751; 6057;6681;7025				X						
GL-B[illegible]17		6AL5;5726;6058; 6097;6663				X						

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GL-KT66		6CN5;6L6;6L6G;1614;1622;5932;5881;7027				X						
GL-KT77		6CA7;6L6GB;7581				X						
GL-KT88		6L6GC;6550;7027A				X						
GL-N709		6BQ5				X						
GL-U52		5T4;5U4G;5931				X						
GL-U77		5AR4;5V4;5Z4				X						
GL-U707		6BX4;6X4;5993;6063;6202;6203				X						
GL-U709		6CA4				X						
GL-Z729		6CF8;6267				X						
GZ30		5Z4GT;5Z4G;5Y3				X			X	X	X	
GZ32		5V4GA;5AQ4		X	X	X			X	X		
GZ33						X				X		
GZ34		5AR4;5U4G		X	X	X		X		X	X	
GZ37		5AR4								X		
HBC90		12AT6		X	X				X	X	X	
HBC91		12AV6		X	X				X	X	X	
HCC85		17EW8		X								
HF93		12BA6		X	X				X	X	X	
HF94		12AU6		X	X				X		X	
HF200				X								
HK90		12BE6		X	X				X	X	X	
HL13										X		
HL13C										X		
HL92		50C5		X	X				X	X	X	
HL94		30A5		X	X							
HVR2										X		
HVR2A										X		
HY90		35W4			X				X	X	X	
HZ90					X							
IM1			X									
IM5			X									
IOG-1										X		
IOG-2										X		
IOG-3										X		
IOG-4										X		
IOG-5										X		
IOG-6										X		
IOG-71										X		
IW4/350										X		
IW4/500										X		
JNT1-500W		5J26								X		
JN2-205A		7091								X		
JN2-2-5W		7292								X		
JP2-0-1										X		
JP2-0-2		7090								X		
JP2-5W										X		
JP5-04B										X		
JP5-04C										X		
JP8-02										X		
JP9-01										X		
JP9-02		7090								X		
JP9-2.5		7028								X		
JP9-2.5B										X		
JP9-2.5C										X		
JP9-5										X		
JP9-7		2J42;1J42								X		
JP9-7A										X		
JP9-7B										X		
JP9-7C										X		
JP9-7D										X		
JP9-7E										X		
JP9-7F										X		
JP9-7G										X		
JP9-15		2J42A;6027								X		
JP9-15B										X		
JP9-15C										X		
JP9-15D										X		
JP9-15E										X		
JP9-15F										X		
JP9-15G										X		
JP9-50		2J56								X		
JP9-50A										X		
JP9-50B		2J9								X		
JP9-50C		2J50								X		
JP9-50D										X		
JP9-75		6972								X		
JP9-80		4J52;4J52A								X		
JP9-80A		4J52A								X		
JP9-180										X		
JP9-250		4J50A								X		
JP9-250A		4J78								X		
JP9-250B										X		
JP9-250C										X		
JP9-250D										X		
JP9-250E										X		
JP9-250F										X		
JP16-10										X		
JP16-40										X		
JP35-3Q										X		
JP35-30		7093								X		
JP35-80		8153								X		
JPG-01B										X		
JPG5-1										X		
JPG6-1										X		
JPG8-01										X		
JPG9-02										X		
JPG9-1										X		
JPS-04										X		
JPT5-01										X		
JPT5-04										X		
JPT6-01										X		
JPT8-01										X		
JPT8-01B										X		
JPT8-01C										X		
JPT9-01										X		
JPT9-01B										X		
JPT9-01C										X		
JPT9-02										X		
JPT9-60		2J51A								X		
KB2										X		
KB9-2										X		
KB9-150W										X		
KBC1										X		
KBC32										X		
KC9-250W										X		
KCF30										X		
KF3										X		
KF35										X		
KK2										X		
KK32										X		
KL4										X		
KL35										X		
KLL32										X		
KS6-100F										X		
KS6-1000D										X		
KS6-1000E										X		
KS6-1000F										X		
KS6-1000G										X		
KS7-1C										X		
KS70-40										X		
KS7-85		2K26								X		
KS7-85A		5976								X		
KS7-1000A										X		
KS7-1000B										X		
KS7-1000C										X		
KS7-1000Z										X		
KS9-20		723A/B								X		
KS9-20A		2K25								X		
KS9-30		VA203B;6975								X		
KS9-40										X		
KS35-50										X		
KT9-2										X		
KT9-150W										X		
KT-61	6AG6	6AG6				X						
KT66		6L6;6L6G;5881;5932;1614;1622;7027;6CN5;EL35;EL36;EL37;EL39				X			X	X		
KT66MP		6L6;6L6G;5881;5932;1614;1622;7027;6CN5;EL35;EL36;EL37;EL39				X						
KT77		6L6GB;EL34;6CA7;7581				X						
KT77MP		6L6GB;EL34;6CA7;7581				X						
KT88		6L6GC;6550;7027A				X						
KT88MP		6L6GC;6550;7027A				X						
KU25		KU25								X		
LA4-2										X		
LA4-250		7637								X		
LA6-3										X		
LA6-200										X		
LA9-3		7638								X		
LA16-2C		7639							X			
LB3-250										X		
LB4-2										X		
LB4-8										X		
LB6-12										X		
LSD-2										X		
LSD-3										X		
LSD-4										X		
LSD-5										X		
LSD-7										X		
LSD-8										X		
LSD-10										X		
LSD-14										X		
LSD-15										X		
LSD-17										X		
LSD-18										X		
LSD-24										X		
M8079		6058								X		
M8080		6100;6C4WA								X		
M8081		6101;6J6WA								X	X	
M8082		6516								X		
M8083		6064								X		
M8091		6443								X		
M8096		6062								X		
M8097										X		
M8098										X		
M8099										X		
M8100		5654;6AK5W;6096								X		
M8132										X		
M8133										X		
M8136		6189;12AU7WA								X		
M8137		6057								X		
M8140										X		
M8141										X		

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MFRS'. NOS. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
M8142		6308								x		
M8144										x		
M8149										x		
M8157										x		
M8161		6065								x		
M8162		12AT7WA								x		
M8163										x		
M8167		7001								x		
M8178										x		
M8179										x		
M8180										x		
M8184										x		
M8190		5783WA								x		
M8195										x		
M8196		5725;6AS6W								x		
M8204		5727;2D21W								x		
M8206										x		
M8207										x		
M8208										x		
M8212		5726;6AL5W;6097								x		
M8214										x		
M8223		OA2WA								x		
M8224		OB2WA								x		
M8225										x		
M8232		6J4WA								x	x	
M8234										x		
M8237										x		
M8245		6005;6AQ5W								x		
M8248		6J4WA								x		
MB13-1		5FP11								x		
MB22-75										x		
MC6-16										x		
MC13-16										x		
ME1200										x		
ME1200AA										x		
ME1200AG										x		
ME1201										x		
ME1201AA										x		
ME1400				x	x					x		
ME1401		5802								x		
ME1402										x		
ME1403		5886								x		
ME1404										x		
MF13-1		5FP7A								x		
MF22-75										x		
MF31-22										x		
MF31-55										x		
MF31-95										x		
MF41-10		16AFP19								x		
MG8			x									
MG13-11										x		
MG13-38										x		
MG20			x									
MG2000			x									
MK13-16										x		
ML31-22										x		
MM13-10										x		
MP13-10										x		
MP31-35										x		
MP-31-55										x		
MP31-95										x		
MS1005										x		
MT5545		5545								x		
MU13-38										x		
MW6-2		3NP4		x	x					x		
MW13-35		5FP4A								x		
MW22-22										x		
MW31-74										x		
MW36-24		14KP4A								x		
MW36-37										x		
MW36-44										x		
MW36-67										x		
MW41-1										x		
MW43-64										x		
MW43-67		17CP4A								x		
MW43-69		17BQP4								x		
MW43-80										x		
MW53-20										x		
MW53-80		21CLP4;21AMP4A								x		
MW69-82		27RP4								x		
MX108										x		
MX112										x		
MX113										x		
MX115										x		
MX118										x		
MX119										x		
MX120										x		
MX122										x		
MX123										x		
MX124										x		
MX124/01										x		
MY3-275		212E								x		
MY13-38										x		
MZ1-75										x		
MZ1-100										x		
MZ2-200										x		
OA4G			x									
P120-1A		813										#
PABC80	9AK8	9AK8	x	x	x					x		
PB2/500				x								
PC86		4CM7	x									
PC88			x									

MFRS'. NOS. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
PC95	4ER5		x									
PC97		4FY5								x		
PCC84	7AN7	7AN7;7N7	x	x	x				x	x	x	
PCC85	9AQ8	9AQ8	x	x	x					x	x	
PCC88		7DJ8	x	x	x				x	x		
PCC89-PCC189		7FC7	x							x		
PCF80	9A8	8A8;9A8	x	x	x				x	x	x	
PCF82-PCF86		9U8A;9U8	x	x	x	x				x	x	
PCF86		8HG8								x		
PCL81			x									
PCL82	16A8	16A8	x	x	x				x	x	x	
PCL83										x		
PCL84-PCL85		15DQ8	x	x	x				x	x	x	
PCL85		18GV8								x		
PCL87										x		
PEN36C										x		
PEN4DD										x		
PEN4VA										x		
PEN36V										x		
PENA4										x		
PENB4										x		
PE06/40N				x								
PF86				x								
PL2D21		2D21		x	x							
PL33										x		
PL36		25E5	x	x	x		x		x	x		
PL38										x		
PL38M										x		
PL81	21A6	21A6	x	x	x				x	x		
PL82	16A5	16A5	x	x	x					x		
PL83	15A6	15A6	x	x	x					x		
PL84		15CW5	x		x		x		x	x	x	
PL500			x									
PL820										x		
PL6574				x								
PL6755				x								
PM2A										x		
PM2H1										x		
PM12M										x		
PM22A										x		
PM22D										x		
PM24A										x		
PM24M										x		
PM84			x									
PM202										x		
PV1-35										x		
PY2-125		5866								x		
PY6-5000A		5924								x		
PY6-5000W		5923								x		
PY31										x		
PY32										x		
PY80		19X3		x	x					x		
PY81	17Z3	17Z3		x	x					x		
PY82		19Y3;16A5		x	x				x	x		
PY83		17Z3	x						x			
PY88		30AE3	x	x	x					x		
PY800										x		
PZ30										x		
Q160-1		4D21/4-125A										#
Q400-1		4-400A										#
QE04/10				x								
QP22B										x		
QQV02-6		6939								x		
QQV03-10		6360								x		
QQV03-20A		6252								x		
QQV04-15		832A								x		
QQV04-16		7377								x		
QQV04-20		815								x		
QQV06-40										x		
QQV06-40A		5894								x		
QQV07-40		829B								x		
QQV07-50										x		
QQV5-P10		3E29								x		
QQZ03-10		6360								x		
QQZ03-20										x		
QQZ04-15		5895								x		
QQZ06-40										x		
QV1-150A		4X150A;7034								x		
QV1-150D		4X150D;7035								x		
QV1-150G		4X150G								x		
QV2-250B		4X2508								x		
QV10-P8										x		
QV12-P10										x		
QV20-P18		4PR60A								x		
QV20-P18B										x		
QV95-25		807								x		
QV03-12		5763								x		
QV04-7										x		
QV04-7R										x		
QV05-25		807								x		
QV05-10		2E26								x		
QV05-52		807								x		
QV06-20		6146								x		
QV06-20B		6883								x		
QV06-20C		6159								x		
QV08-100		7378								x		
QY2-100		813								x		
QY3-65		4-65A								x		
QY3-125		6155								x		
QY3-125B		4-125A								x		
QY3-1000A										x		
QY4-250		6156								x		

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COMPOSITE FOREIGN TUBE LIST & INTERCHANGEABILITY GUIDE

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QY4-250B		4-250A								x		
QY4-400		7527								x		
QY4-400B		4-400A								x		
QY4-500A		4X500A								x		
QY5-500		6079								x		
QY5-800										x		
QY5-3000A		6076								x		
QY5-3000W		6075								x		
QYS50-P40										x		
QZ06-20										x		
R120B				x								
R4410										x		
RFG-5			x									
RG1-240A										x		
RG1-250										x		
RG3-250										x		
RG3-250A		866A								x		
RG3-1250										x		
RG3-1250GC										x		
RG4-1000		8008								x		
RG4-1250										x		
RG4-3000		6693								x		
RG62D			x									
RG105			x									
RR3-250		3B28								x		
RR3-1250		4B32								x		
RR3-1250A										x		
RR3-1250B										x		
RY12-100		8020								x		
S2CG										x		
SP2										x		
SP4										x		
SP4B										x		
SP13										x		
SP13C										x		
STV70/6			x									
STV75/15			x									
STV85/10		OG3	x									
STV100/25ZII			x									
STV100/60ZII			x									
STV108/30		OB2	x									
STV150/15			x									
STV150/20			x									
STV150/30		OA2	x									
STV150/60			x									
STV150/60F			x									
STV500/0-1			x									
T50-1		T-40										#
T100-1		HF150										#
T110-1		845										#
T113			x									
T116			x									
T130-1												#
T150-1												#
T300-1												#
T350-1		5867										#
TA40			x									
TBL2/400				x								
TBL2/500				x								
TD1-100A		2C39A	x							x		
TD2-300A		7004								x		
TD2-400A										x		
TD2-500A										x		
TD3-12		2C42								x		
TD3.5-12		2C43								x		
TD4-5-10										x		
TDD2A										x		
TDD4										x		
TDD13C										x		
TD03-5										x		
TD03-8		6442								x		
TD03-10		5861								x		
TD03-10C										x		
TD03-10F										x		
TD04-20										x		
TD04-20C										x		
TD05-12		2C46								x		
TH4B										x		
TH21C										x		
TH30C										x		
TK6			x									
TK7			x									
TK8			x									
TL4			x									
TL6			x									
TQ1/2		3C33										#
TQ2		5557/FG17										#
TQ2/3		PL6755										#
TQ2/6		6858										#
TQ2/12												#
TQ2/25												#
TQ4		873										#
TQ5												#
TQ6												#
TQ7												#
TQ8												#
TT4A										x		
TX2/3		5544										#
TX2/6		5545										#
TX10-4000										x		
TX12-12W										x		
TY2-125		5866								x		

MFRS'. NOS. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
TY3-250		5867								x		
TY4-350		833A								x		
TY4-500		5868								x		
TY4-500B										x		
TY5-500										x		
TY6-12A										x		
TY6-12W										x		
TY6-800		7092								x		
TY6-1250A		7753								x		
TY6-5000A		5924								x		
TY6-5000W		5923								x		
TY7-6000A		6961								x		
TY7-6000W		6960								x		
TY8-15A		7804								x		
TY8-15W		7805								x		
TY12-12W										x		
TY12-15A										x		
TY12-20A		7806								x		
TY12-20W		7807								x		
TY12-25A		6618								x		
TY12-25W		6617								x		
TY12-50A		6078								x		
TY12-50W		6077								x		
TY12-50A		6078								x		
TYS2-250										x		
TYS4-500										x		
TYS5-1000										x		
TYS5-2000										x		
TYS5-3000										x		
U30				x	x					x		
U52		5U4G; 5T4				x					x	
U78						x						
U707	EZ90	6X4; 6BX4; G78				x						
UAA91			x									
UABC80		28AK8	x	x	x				x	x		
UAF41										x		
UAF42		12S7	x	x	x					x		
UB41				x	x					x		
UBC41	14L7	14L7	x	x	x				x	x		
UBC81			x	x	x					x		
UBF15			x									
UBF80		17C8; 17N8	x	x	x					x		
UBF89		19FL8	x	x	x					x		
UBL1				x	x					x		
UBL21				x	x					x		
UC92		9AB4	x	x	x					x		
UCC84										x		
UCC85		26AQ8	x	x	x				x	x		
UCF12			x									
UCF80			x	x	x					x		
UCH4				x	x							
UCH21				x	x					x		
UCH41				x	x							
UCH42	14K7	14K7	x	x	x					x		
UCH81		19D8; MAJ8	x	x	x				x	x		
UCL11			x	x	x							
UCL81			x									
UCL82		50BMB	x	x	x		x		x	x	x	
UCL82(MP)		50BM8(MP)									x	
UCL83										x		
UF9					x					x		
UF11			x									
UF14			x									
UF15			x									
UF21				x	x					x		
UF41		12AC5	x	x	x					x		
UF42				x	x					x		
UF43				x	x					x		
UF80			x	x	x					x		
UF85			x	x	x					x		
UF86										x		
UF89		12DA6	x	x	x					x		
UL41		45A5	x	x	x					x		
UL44				x	x					x		
UL46										x		
UL84		45B5	x	x	x				x	x	x	
UM4				x	x					x		
UM11			x									
UM34										x		
UM35			x									
UM80		19BR5	x	x	x					x		
UM81										x		
UM84										x		
UR1C										x		
UR3C										x		
UY1N				x	x					x		
UY11			x	x	x							
UY21										x		
UY41		31A3	x	x	x					x		
UY42		55N3		x	x							
UY82				x	x							
UY85		38A3	x	x	x				x	x		
UY89		31AV3								x		
UY92					x							
VF14			x									
VP2										x		
VMD-6K										x		
VMD-6P										x		
VMF-1C										x		
VMF-2C										x		
VMF-3C										x		

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VMF-4C										x		
VMF-5C										x		
VMF-1T										x		
VMF-2T										x		
VMF-3T										x		
VMF-4T										x		
VMF-5T										x		
VMS-1										x		
VMS-2										x		
VMS-3										x		
VMS-4										x		
VMS-5										x		
VMT-6K										x		
VMT-6P										x		
VMT-18F										x		
VMT-18K										x		
VMT-18P										x		
VP2B										x		
VP4										x		
VP4A										x		
VP4B										x		
VP13A										x		
VP13C										x		
VPP-2										x		
VPP-5										x		
VR75/30	VR75/30								x			
VR105/30	VR105/30								x			
VR150/30	VR150/30								x			
WPS-1										x		
WPS-2										x		
XC95		2ER5								x	x	
XC97		2FY5								x		
XCC189		4ES8		x						x		
XG1-2500		5559								x		
XG2-12										x		
XG2-25										x		
XG2-500										x		
XG2-6400										x		
XG5-10		6786								x		
XG5-500		5557								x		
XG15-10		6786								x		
XG15-12										x		
XG16-200		5C22								x		
XGQ2-6400		MT105; FG105; 105								x		
XH3-045		3C45								x		
XH8-100		4C35; 6268								x		
XH16-200		6279; 5C22								x		
XH25-500		5949; 1907								x		
XL84		8BQ5		x						x		
XP1010		13201AE		x								
XR1-12		5855								x		
XR1-1600		5796								x		
XR1-1600A		8063								x		
XR1-3200		5544								x		
XR1-3200A		7981								x		
XR1-6400		5545								x		
XR1-6400A		6807								x		
XY88		16AQ3		x								
YF183		4EH7		x								
YF184		4EJ7		x								
Z50T				x								
Z70U		7710		x								
Z70W				x								
Z71U				x								
Z300T		1267; 0A4G		x						x		
Z302C										x		
Z303C				x						x		
Z500E										x		
Z502S				x						x		
Z503M										x		
Z504S										x		
Z510M		6844								x		
Z550M				x								
Z700U		7710								x		
Z700W		7709								x		
Z701U		7711								x		
Z800U		6538								x		
Z801U		6539		x						x		
Z803U		6779		x						x		
Z804U		7713		x						x		
Z805U				x								
Z900T		5823		x						x		
Z729	EF86	6267						x				
	1C5G	1C5G								x		
	1S4	1S4							x			
	1U5	1U5	x						x	x		
2C51/396A												*
2C51L												*
2D4A										x		
	2D21W	2D21W								x		
	2E26	2E26								x		
	2J56	2J56								x		
2-0A79		1N542; 1N618		x						x		
2-0C72		2N282		x						x		
4-65A				x								
	4-125A	4-125A		x						x		
	4-250A	4-250A		x						x		

MFRS'. NOS. EUROPEAN TYPE	EUROPEAN AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A E I)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
4-400A		Q14-500A		x						x		
4C35		6268		x						x		
4MK13										x		
4MZ13										x		
	4X150D	4X150D		x						x		
	4X150G	4X150G								x		
	5ABP1	5ABP1								x		
5ADP1		DG13-34								x		
	5FP14	5FP14								x		
	5V4G	5V4G								x		
5X4G		5X4G								x		
	5Y3G	5Y3G								x		
	5Y3GT	5Y3GT								x	x	
	5Z4G	5Z4G								x		
	6A7	6A7							x	x		
	6A8G	6A8G							x	x		
	6A8GT	6A8GT								x		
	6AG6G	6AG6G							x			
	6AK6	6AK6							x			
	6AQ5A	6AQ5A								x		
6AQ5L		6928										*
	6AS6	6AS6								x		
6AU6		6AU6								x		
	6AU6A	6AU6A								x		
	6BH6	6BH6							x			
	6BJ6	6BJ6							x			
	6BQ5A	6BQ5A								x		
	6BQ7A	6BQ7A							x	x	x	
	6BR7	6BR7							x			
	6BR8	6BR8							x			
	6BS7	6BS7							x			
	6BW6	6BW6							x			
	6BW7	6BW7							x			
	6C5G	6C5G								x		
	6C5GT	6C5GT								x		
	6CB6	6CB6								x	x	
	6CH6	6CH6							x			
	6EU7	6EU7								x		
	6F6G	6F6G								x		
	6F6GT	6F6GT								x		
	6GK5	6GK5								x		
	6GK6	6GK6								x		
6H6		6H6								x		
6J5G		6J5G								x		
6J5GT		6J5GT								x		
6J6L		6927										*
6J7G		6J7G								x		
6J7GT		6J7GT								x		
	6K7G	6K7G								x		
	6K7GT	6K7GT								x		
6K8G		6K8G								x		
	6K8GT	6K8GT								x		
	6K8G	6K8G								x		
	6L6GA	6L6GA							x	x	x	
	6N7G	6N7G								x		
	6Q7G	6Q7G								x		
	6Q7GT	6Q7GT								x		
	6SA7GT	6SA7GT								x		
	6SJ7GT	6SJ7GT								x		
	6SK7GT	6SK7GT								x		
	6SN7GT	6SN7GT								x	x	
	6SQ7GT	6SQ7GT								x		
	6U8	6U8	x	x						x	x	
	6U8A	6U8A								x		
	6V6G	6V6G								x		
	6V6GT	6V6GT								x	x	
	6X5G	6X5G								x	x	
8MB6				x								
8MG6				x								
8MY6				x								
	12AC6	12AC6							x			
12BY7		12BY7								x		
	12J5GT	12J5GT								x		
12J7GT	12J7GT	12J7GT								x		
12K7GT		12K7GT								x		
12K8GT		12K8GT								x		
12SA7GT		12SA7GT								x		
12SJ7GT		12SJ7GT								x		
12SJFGT		12SJ7GT								x		
12SK7GT		12SK7GT								x		
12SN7GT		12SN7GT								x		
12SQ7GT		12SQ7GT								x		
18AK5												*
18AQ5												*
18C51												*
18J6												*
20CG										x		
20CV										x		
25A6G		25A6G								x		
25A6GT		25A6GT								x		
25L6GT		25L6GT								x		
25Z4G		25Z4G								x		
	25Z6GT	25Z6GT								x		
30CG										x		
	35L6GT	35L6GT							x	x		
	35Z4GT	35Z4GT								x		
50AVP				x						x		
	50L6GT	50L6GT								x		
51AVP										x		
51CG										x		
51UVP				x						x		

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COMPOSITE FOREIGN TUBE LIST & INTERCHANGEABILITY GUIDE

MFRS'. NOS. EUROPEAN TYPE	EUROPEAN/ AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
52AVP				x						x		
52CG										x		
53AVP				x						x		
53AVP-X				x								
53CG				x						x		
53CV										x		
53UVP				x						x		
54AVP				x						x		
55AVP				x						x		
55CG		927								x		
56AVP				x						x		
56CG										x		
56UVP				x								
57AVP				x						x		
57CV										x		
58AVP				x								
58CG				x						x		
58CV										x		
61RV										x		
61SV		7634								x		
63TV										x		
75B1										x		
75C1				x	x					x		
	80	80								x		
83A1		7980								x		
85A1		OE3;7980		x						x		
85A2/OG3		OG3;5651	x	x						x		
85A3		5783								x		
90AG				x	x					x		
90AV				x	x					x		
90C1				x	x					x		
90CG				x	x					x		
90CV				x	x					x		
91AG										x		
91CV										x		
92AG										x		
92AV										x		
95A1										x		
108C1		OB2	x	x						x		
150AVP		6199		x						x		
150B2		5354		x						x		
150B3										x		
150CVP				x								
150C2		OA2	x							x		
150C3		QD3								x		
150C4		OA2	x							x		
153AVP										x		
328										x		
329										x		
340										x		
354										x		
354V										x		
367										x		
396A		2C51										*
401A		5590										*
403B		5591										*
404A		5847		x								*
	407A	407A										*
408A		6028										*
416B		6280										*
417A		5842		x								*
436A												*
448A												*
451										x		
	574G	574G							x			
723A/B			x									
872A		872A		x						x		
1010										x		
1012										x		
1039										x		
1048										x		
1049										x		
1053										x		
1054										x		
1067K										x		
1110										x		
1119				x								
1120										x		
1130										x		
1131A										x		
1163										x		
1164										x		
1173										x		
1176										x		
1177										x		
1533										x		
1534										x		
1544										x		
1553										x		
1554										x		
1561				x								
1564										x		
1710										x		
1725A										x		
1729										x		
1738										x		

MFRS'. NOS. EUROPEAN TYPE	EUROPEAN AMERICAN TYPE	AMERICAN TYPE	AMERICAN ELITE (Telefunken)	AMPEREX	AMPEREX (Valvo)	BRITISH INDUSTRIES (Genalex)	ELECTRONIC COMPONENTS (Tungsram)	FISHER RADIO	I.E.H. MFG. CO. (Brimar)	INT'L ELECTRONICS (Mullard)	SONOTONE (A.E.I.)	STATE LABS (Ericsson-*) (Brown-Boveri-#)
1749										x		
1749A				x								
1768										x		
1788										x		
1838										x		
1849				x								
1859										x		
1875				x								
1904				x								
1905										x		
1908				x								
1908										x		
1909H										x		
1910										x		
1913										x		
1918										x		
1923										x		
1941A										x		
2052A		7585								x		
3543				x								
3546				x								
4152				x								
4349										x		
4369										x		
4370										x		
4371										x		
4378										x		
4379										x		
4390										x		
4397										x		
4654				x								
4687										x		
4687A										x		
4699				x								
5551A		5551A								x		
5552A		5552A								x		
5553B		5553B								x		
5555		5555								x		
5642		5642								x		
5820		5820								x		
5822A		5822A								x		
5590/401A												*
5591/403B												*
5636		5636								x	x	
	5644	5644								x		
	5651	5651		x						x		
5654			x	x								
5670		5670										*
5672			x									
5676			x									
5678			x									
	5718	5718								x	x	
5820										x		
5823			x	x								
5823A			x									
	5840	5840								x	x	
5842/417A				x								*
5847/404A				x								*
5847				x								*
5899		5899								x	x	
	5902	5902								x	x	
5965			x									
6005			x									
	6021	6021								x	x	
6028/408A		6028/408A										*
	6080	6080	x							x		
	6205	6205								x		
	6211	6211	x	x						x		
	6216	6761										*
6397			x									
6397S			x									
6463		6463	x	x						x		
6760												*
6761												*
6927/6J6L												*
6928/6AQ5L												*
	7025A	7025A								x		
	7150	7150										*
	7189	7189	x	x				x		x	x	
	7189A	7189A								x		
7189MP								x			x	
7247		12DW7	x							x	x	
7308		7308								x		
7475										x		
7737		7737								x		
8582		5651								x		
13201A										x		
13201AA										x		
13201AE				x								
18042				x								
18045				x								
55850F										x		
55850N										x		
55850S										x		
56032										x		

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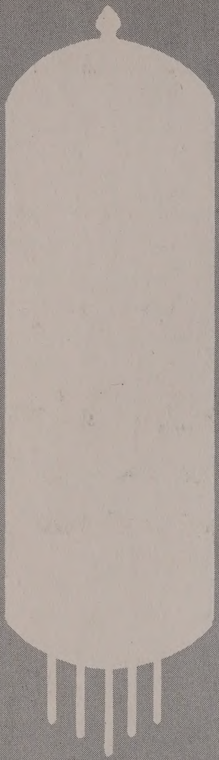

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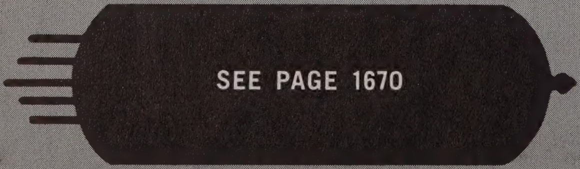
Amperex
Amperex (Valvo)
British Industries
 (Genalex)
Fisher
International Electronics
 (Mullard)
Sonotone (A E I)
State Labs (Ericsson,
 Brown-Boveri)
Electronic Components
 (Tungsram)

1963
Foreign Tube Interchangeability Guide



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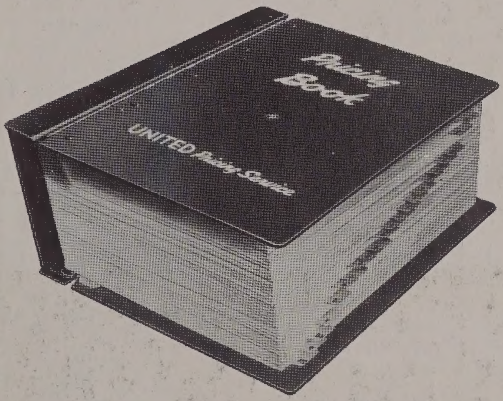

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